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GERMANY: THE SCHLOSS ELMAU SUMMIT

JUNE 2015

AN AUTHORISED PUBLICATION OF THE 2015 G7 SUMMIT

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Angela Merkel

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the summit agenda

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for growth and development



G7 GERMANY
2015 | Schloss Elmau

BEYOND THE VIAL: A SOCIAL VALUE BUSINESS MODEL

Dengue is a serious and complex disease. The *Aedes aegypti* mosquito that transmits dengue feeds all year long and at all times of the day, indiscriminately passing on the disease to people of all ages and socio-economic levels. About half of the world's population is at risk of infection, and millions suffer its seemingly bone-breaking pain and severe fevers, each year. Its reach has grown 30-fold in the last 50 years, swelling with globalization, urbanization, and climate change. Regular epidemics flood health systems and divert critical resources, with global costs around \$6 billion, annually.

But in the years ahead, the tide of dengue could be controlled.

Twenty years ago Sanofi Pasteur identified the potential scale of the problem at its early stages, and began to put in place a set of innovative scientific and industrial solutions. In 2015, upon regulatory approvals, the first ever dengue vaccine could reach the market.

This is a story of hard-earned R&D – but you've heard that story before. This story goes beyond the vial: It's about a new, social value business model that Sanofi Pasteur has built in collaboration with dengue-endemic countries and global health institutions. In time, it can help stop dengue. But as importantly, it may chart a new course for the future of emerging market public health systems and economies.

FLIPPING THE MODEL

The traditional model works like this: A pharmaceutical company releases a novel medical intervention to high-GDP nations, first. These markets get first access in exchange for price points that reward innovation, thereby underwriting access in lower-income countries, which typically get the solution less expensively, but several years later. This model was essential to a company's return on high research investment, ensuring robust re-investment in the next innovation.

The incentives inherent to this model explain in part the scarcity of new solutions for many diseases endemic to low-income countries. Recognizing this, global public health institutions, US and EU governments, and the pharmaceutical industry itself have built much-needed charitable development and delivery systems. There are models of this kind for malaria, HIV, and tuberculosis, among others.

When Sanofi Pasteur identified a candidate dengue vaccine, we took the opportunity to ask the question: Would it be possible to develop and deliver a health solution designed for emerging nations that those nations could own and implement without seeking charitable support? In other words, could we design a vaccine solution with and for dengue-endemic nations? We believed it could work: a new business model, where an innovative vaccine is introduced first in middle- and low-income countries, ensuring rapid access to innovation for those markets while maintaining necessary R&D incentives for industry.



A UBIQUITOUS DISEASE, A SOLUTION AT SCALE

Our faith in the new model was inspired by the scale of the dengue problem. Vaccines are widely considered among the most effective healthcare interventions against infectious diseases. They confer protection against a disease that extends beyond the vaccinated to also the unvaccinated population. Given dengue's massive spread, a vaccine could help achieve WHO 2020 objectives for dengue reductions in mortality (50%) and morbidity (25%) if it is implemented in large-scale public health programs.

We anticipated this, and began building robust public health collaborations and industrial resources essential to success. The global clinical development program of the vaccine included 40,000 participants in 15 countries across Asia and Latin America. We invested in extensive skills training for healthcare personnel, upgraded healthcare facilities and increased prevention and education efforts. We captured new scientific insights into dengue epidemiology and transmission for sharing with host governments.

In parallel, Sanofi Pasteur built a dedicated dengue-vaccine production facility that will allow large and cost-effective supply to support optimal uptake of the vaccine upon approval.

MEASURABLE IMPACT, IMPROVED ECONOMIES

Successful implementation of dengue vaccination programs will empower governments in dengue-endemic countries to take control over the disease. Healthcare systems can improve, relieved of dengue outbreaks, focused on improving standards of care, and attracting further outside public health investment. It has the potential to be a catalyst for social and economic progress.

We hope G7 nations will enhance their support and continue to invest in the robust public-private partnerships that ensure the absolutely essentially broad reach for innovative health solutions like the dengue vaccine. It's critical to unlocking the social value model's fullest potential, and G7 nations hold the keys.



DEDICATED, STATE-OF-THE-ART PRODUCTION FACILITY
READY TO SUPPLY COST-EFFECTIVE VACCINE TO
ENDEMIC COUNTRIES

THE ANSWER IS BLOWING IN THE WIND

Security of supply. Air pollution. Energy poverty. Unemployment. Climate change. Volatile fossil fuel prices. The world is full of problems.

When shaping the society of tomorrow, we need to deal with all these problems at the same time.

The good news is that to all these problems, there's one solution.

Wind energy is clean. It's scalable. And most importantly, it's competitive.

Today, the cost of wind energy is lower than nuclear. Lower than gas. In some cases even lower than coal. And that's before we add the costs of pollution. In short, the answer to many of our most pressing questions is literally blowing in the wind.



Source: ECOfy/European Commission

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Responsible mining and environmental protection: a legacy for the communities of La Guajira, Colombia

Can open-pit mining be carried out while protecting the environment? At Cerrejón, a coal mine on the peninsula of La Guajira in Colombia that produces 34 million tonnes of coal every year and employs about 14,000 people, the answer is yes. It is not only possible, but it is one of the core values of our daily work.

There is no doubt that mining has an impact on the environment and society. We know that, in addition to responding to real human needs, such as the provision of affordable electricity, mining also meets less visible goals, such as providing decent jobs, improving the quality of life in neighbouring communities and providing important resources for national and local Colombian budgets. This is even more important when operating in an environment such as La Guajira. This northern region of South America has extreme climate conditions, scarce water and extremely high temperatures. To this must be added high levels of poverty, malnutrition, illiteracy, few opportunities for economic income and limited local and national state services.

At Cerrejón, we operate with a clear ethical conviction of doing things properly by following high global standards in the implementation of measures to avoid causing damage to the environment and to society. Through the appropriate use of water and our programme for the reclamation of land disturbed by mining, we contribute not only to protecting the environment, but also to the well-being of our neighbouring communities.



Efficient use of water and contributions to community well-being

Most of the water we use during operation (90 per cent) to control particulate matter emissions (road wetting, fog canons, etc) is rainfall or comes from coal seams: this water is not fit for human consumption or agricultural use. The remaining 10 per cent is high-quality water that is consumed by our employees and contractors. Over the past five years, we have reduced the use of potable water from 41 per cent to 10 per cent, and we recycle 23 per cent of this water

With the severe drought in La Guajira since 2014, Cerrejón has implemented a series of actions, including the distribution of more than 10 million litres of water for our neighbouring communities, repairing 51 windmill-driven and solar water pumps and drilling higher-capacity deep wells. We also work on identifying medium- and long-term solutions through a water partnership with the authorities.

Land reclamation

The Land Reclamation Program (1987) commits us to returning to communities land in excellent condition after activity has concluded. Since then, we have reclaimed nearly 3,500 ha of the total 13,000 ha disturbed, planting more than 1.5 million trees to recover topsoils and even improve on the land's previous condition. We work with our neighbouring communities to improve their farming and grazing practices, discouraging burning wood for fuel,

while respecting their indigenous traditions and customs.

Cerrejón is fully committed to being a trustworthy and responsible supplier, respecting the rights of communities and directly enhancing the quality of life of people in the region. This is the only way that mining and care for the environment can produce a positive outcome for the population. We shall continue along this path, always open to constructive dialogue with all our stakeholders, constantly willing to improve and eager to work hand-in-hand with those who are committed to improving the prospects for future generations in La Guajira.

Roberto Junguito

Chief Executive Officer, Cerrejón

Cerrejón

Joint venture between BHP Billiton, Anglo American and Glencore.

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Cerrejón
Responsible Mining



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GERMANY: THE SCHLOSS ELMAU SUMMIT
JUNE 2015

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Printed by Cambrian Printers, managed by TU ink

Published by

newsdeskmedia

www.newsdeskmedia.com

184-192 Drummond Street, London NW1 3HP, UK

Tel: +44 (0) 20 7650 1600

Fax: +44 (0) 20 7650 1609

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40 years of G7 meetings – commitment for growth and prosperity, peace and freedom

— **German Chancellor Angela Merkel** outlines
the central topics on this year's summit agenda

In November 1975, the heads of state and government of France, the Federal Republic of Germany, Italy, Japan, the United Kingdom and the United States convened for the first World Economic Summit. What began in Rambouillet near Paris is now a great tradition: a meeting of democratic industrialised nations with a common set of values. One year later, the Group of Six – G6 – was joined by Canada to become the Group of Seven – G7. Initially, the priority was to overcome the oil and financial crisis and to coordinate economic recovery measures. Soon, the fight against unemployment and promotion of global free trade began to play a key role in discussions.

Since then, central economic and fiscal policy issues have been an integral part of the meetings. They have been joined by foreign, security and development policy. The presidency of the informal

meetings rotates annually. The focus is always on tackling joint tasks. At Schloss Elmau, the two UN conferences on global climate change and on the post-2015 development agenda will therefore be central topics. In preparation for the UN conference on the post-2015 development agenda in New York in September, and the United Nations Climate Change Conference (COP 21) in Paris in November/December, the German presidency aims to provide the impetus for ambitious results.

Common foreign and security policy

The G7 states have a special responsibility for the future of our planet. In order to permanently improve living conditions for everyone in the world, we need universally accepted rules for global co-existence. To this end, the G7 is working as a

community of shared values with the aim of enabling everyone to enjoy **peace, security and a self-determined life**. Current crises, humanitarian disasters and the massive terrorist threat in many regions of the world require the G7 to join forces in the area of foreign and security policy.

Sustainable economic growth, decent work, women's rights

More dynamic and sustainable economic growth is essential for ensuring that people today and future generations around the world can lead a life worth living. This includes stable and reliable global economic conditions. **Investment** is a crucial key to growth and employment around the world. Sustainable growth depends on long-term investment. One way to achieve this, for example, would be to improve the basic conditions for investment.

These basic conditions include shaping the future **global trade architecture**. Trade is a key engine of growth, prosperity and development. Strengthening the WTO's [World Trade Organization] multilateral trading system and facilitating trade by means of bilateral and regional free-trade agreements (CETA/ TTIP/EU JPN) remain important goals of the G7.

However, a global trade architecture also requires global regulations in the areas of occupational safety, health and environmental protection. The G7 is therefore discussing the question of how to guarantee **decent work, environmentally sound production for sustainable growth and the goal of sustainable supply chains** throughout the world.

Thriving economies are inconceivable without ongoing innovation and entrepreneurial spirit. We therefore need to encourage people with good ideas and business acumen to start up their own companies. As well as boosting economic growth and increasing the capacity for innovation and competitiveness for everyone, **helping women who are starting their own businesses and self-employed women** fosters equal opportunities and gender equality in the world of work.

Regulating financial markets and safeguarding tax revenues

In the wake of the crisis on the financial markets we need to continue to work on reforming financial market regulation and supervision in an international context. This includes measures to eliminate tax evasion and tax avoidance as well as the promotion of fair international taxation. These measures help ensure reliable public finances and are therefore essential for maintaining the state's capability to act.

Resource efficiency and marine environmental protection go hand in hand

Using natural resources sustainably and efficiently is not a contradiction in terms. Rather, resource efficiency has become a key issue for competitive companies and for safeguarding jobs. Increasing resource efficiency with market economy solutions in production, improving closed-cycle management, encouraging resource-efficient consumption and substituting mineral raw materials by sustainably managed, renewable resources and new technologies should be promoted worldwide. The G7 intends to develop suitable strategies for moving closer to this goal.

The world's oceans are under threat from pollution from plastic debris. This is jeopardising maritime biodiversity. It can also pose a threat to human health via the food chain. The German G7 presidency wants to do what it can to help solve the problem of

the growing **pollution of the oceans with plastic debris**. It is also working to introduce regulations guaranteeing safe, sustainable and fair deep-sea mining.

Healthcare – worldwide

Healthcare is of great importance to the G7. The Ebola crisis showed that the international community was not prepared for this disease and was too late in starting to fight it. The lessons we need to learn from this include rapidly accessible financial resources and quickly deployable medical teams as well as clearly defined contingency plans.

The abuse of antibiotics must be curbed. **Antimicrobial resistance** is a global phenomenon and the spread of resistance, also across borders, is increasing due to the rise in trade and travel. What is needed are fewer, but more effective, antibiotics for humans and a different approach to animal farming.

Within the framework of Germany's G7 presidency, the issue of **neglected tropical diseases (NTDs)** and how the international community can cooperate more efficiently in future in this respect will also be raised. In January 2015, Germany successfully hosted the **replenishment conference of Gavi – the Vaccine Alliance** (vaccination initiative) for the 2016-20 period.

The G7 as a catalyst for development policy

The G7 is also a **catalyst for development policy**. It mobilises funds for development aid and draws key sectors and cross-cutting issues in development policy to the attention of the public. The German G7 presidency will therefore continue the **CONNEX Initiative on strengthening assistance for complex contract negotiations** adopted by the G7 in 2014. The initiative was launched to support developing countries rich in raw materials in negotiating the legal, geological, business management, technical and ecological aspects of complex raw material contracts.

Meetings of relevant ministers, outreach and dialogue with civil society

The meeting of the heads of state and government at Schloss Elmau has been well prepared. In the run-up to the summit, meetings of the **foreign ministers** have been held in Lübeck, the **energy ministers** in Hamburg and the **finance ministers and central bank governors** in Dresden. The science ministers will meet after the summit.

The G7 wants to support the African states in their reform efforts, thus strengthening the basis for peace and security, growth as well as sustainable development in Africa. Heads of state and government from **African states in particular as well as the chairs of international organisations** have been invited to the second day of the summit, so that a dialogue on Africa and international issues and concerns can be held with them.

The G7 has consulted civil society on many occasions in the past. In Germany, this has evolved into a comprehensive **dialogue with representatives of various groups**. I have spoken with **non-governmental organisations**, as well as **business representatives, union members, academics and young people**. A meeting with women from business, politics and society will be held in September. I find these meetings important in order to allow new momentum, ideas and proposals to flow into the G7 process.

G7 presidency attracts keen interest

Politicians and civil society in Germany take a keen interest in the G7 presidency. I am looking forward to the G7 Summit at Schloss Elmau and hope it will bear fruit. ■

40 Jahre G7-Treffen – Einsatz für Wachstum und Wohlstand, Frieden und Freiheit

— **Deutsch Bundeskanzlerin Angela Merkel** beschreibt die zentralen Themen auf der diesjährigen G7 Summit agenda

Im November 1975 trafen sich die Staats- und Regierungschefs Frankreichs, der Bundesrepublik Deutschland, Italiens, Japans und der Vereinigten Staaten erstmals zu einem Weltwirtschaftsgipfel. Was in Rambouillet bei Paris begann, ist heute gute Tradition: ein Treffen von demokratisch verfassten Industrienationen mit einem gemeinsamen Wertekanon. Aus der Gruppe der Sechs – G6 – wurde ein Jahr später mit Kanada die Gruppe der Sieben, G7. Anfangs standen die Bewältigung der Öl- und Finanzkrise sowie die Koordinierung von Maßnahmen zur wirtschaftlichen Erholung im Vordergrund. Der Kampf gegen die Arbeitslosigkeit und die Förderung des freien Welthandels spielten rasch eine wichtige Rolle in der Diskussion.

Seitdem sind zentrale wirtschafts- und finanzpolitische Fragen feste Bestandteile der Treffen. Außen-, Sicherheits- und Entwicklungspolitik sind dazugekommen. Die Präsidenschaft der informellen Treffen wechselt jährlich. Stets steht die Bewältigung gemeinsamer Aufgaben im Vordergrund. Auf Schloss Elmau werden deshalb auch die beiden UN-Konferenzen zum internationalen Klimaschutz und zur Post-2015-Agenda Schwerpunkte bilden.

Die deutsche Präsidenschaft will zur Vorbereitung der UN-Konferenz zur Post-2015-Agenda im September in New York und der Konferenz zum Internationalen Klimaschutzabkommens (COP21) im November/Dezember in Paris Impulse setzen, um zu ambitionierten Ergebnissen zu kommen.

Gemeinsame Außen- und Sicherheitspolitik

Die G7-Staaten haben eine besondere Verantwortung für die Zukunft unserer Erde. Damit sich die Lebensbedingungen aller Menschen auf der Welt nachhaltig verbessern, braucht es akzeptierte Regeln für das globale Zusammenleben. Die **G7 als Wertegemeinschaft** für **Frieden, Sicherheit** und ein **selbstbestimmtes Leben** der Menschen setzt sich dafür ein. Aktuelle Krisen, humanitäre Katastrophen und die massive terroristische Bedrohung in vielen Regionen der Welt erfordern ein gemeinsames außen- und sicherheitspolitisches Engagement der G7.

Nachhaltiges Wirtschaftswachstum, menschenwürdige Arbeit, Frauenrechte

Ein dynamisches und nachhaltiges Wirtschaftswachstum ist Voraussetzung dafür, dass heutige und kommende Generationen weltweit ein lebenswertes Dasein führen können. Tragfähige und verlässliche Bedingungen der Weltwirtschaft gehören

dazu. **Investitionen** sind ein wichtiger Schlüssel für Wachstum und Beschäftigung weltweit. Nachhaltiges Wachstum braucht langfristig orientierte Investitionen. z.B. durch die Verbesserung der Rahmenbedingungen für Investitionen.

Zu diesen Rahmenbedingungen gehört die Gestaltung der zukünftigen **globalen Handelsarchitektur**. Handel ist ein zentraler Treiber von Wachstum, Wohlstand und Entwicklung. Die Stärkung des multilateralen Handelssystems der WTO sowie die Erleichterung von Handel durch bilaterale und regionale Freihandelsabkommen (CETA I TTIP I EUJPN) bleiben wichtige Anliegen der G7.

Eine globale Handelsarchitektur braucht aber auch globale Regeln in den Bereichen Arbeits-, Gesundheits- und Umweltschutz. Die G7 diskutiert deshalb die Frage, wie weltweit **menschenwürdige Arbeit, umweltgerechte Produktion für nachhaltiges Wachstum und das Ziel nachhaltiger Lieferketten** zu erreichen sind.

Leistungsfähige Volkswirtschaften sind ohne ständige Innovationen und Gründergeist nicht vorstellbar. Deshalb müssen wir Menschen mit guten Ideen und Unternehmergeist ermutigen, Wege in die Selbstständigkeit zu gehen. Gerade die **Stärkung von Existenzgründerinnen und selbstständig tätigen Frauen** bringt mehr wirtschaftliches Wachstum, eine Steigerung der Innovations und Wettbewerbsfähigkeit für alle sowie mehr Chancengleichheit und Gleichstellung im Erwerbsleben.

Finanzmärkte regeln und Steuereinnahmen sichern

Nach der Finanzmarktkrise müssen wir im internationalen Rahmen weiter daran arbeiten, die Finanzmarktregulierung und -aufsicht zu reformieren. Maßnahmen gegen Steuerhinterziehung und Steuervermeidung gehören genauso dazu wie die Förderung internationaler Steuergerechtigkeit. Sie tragen zu verlässlichen Staatsfinanzen bei und sind damit für die Handlungsfähigkeit des Staates essenziell.

Ressourceneffizienz und Meeresumweltschutz gehören zusammen

Natürliche Ressourcen nachhaltig und effizient nutzen, das ist kein Gegensatz. Vielmehr ist Ressourceneffizienz heute zu einer Schlüsselfrage für wettbewerbsfähige Unternehmen und die Sicherung von Arbeitsplätzen geworden. Eine Steigerung der Ressourceneffizienz mit marktwirtschaftlichen Lösungen in



der Produktion, die Verbesserung der Kreislaufwirtschaft, ein ressourcenschonender Konsum und die Substitution mineralischer Rohstoffe durch nachhaltig bewirtschaftete nachwachsende Rohstoffe sowie neue Technologien sollten weltweit gefördert werden. Die G7 will geeignete Ansätze entwickeln, diesem Ziel näher zu kommen.

Die Weltmeere sind bedroht durch Verschmutzung mit Plastikmüll. Das gefährdet die maritime Artenvielfalt. Über die Nahrungskette kann es auch eine Gesundheitsgefährdung für den Menschen bedeuten. Die deutsche G7-Präsidentschaft will zur Lösung der zunehmenden **Verschmutzung der Meere mit Plastikmüll** einen Beitrag leisten. Daneben setzt sie sich für Regelungen ein, die einen sicheren, nachhaltigen und gerechten Tiefseebergbau sicherstellen.

Gesundheit – weltweit

Das Thema Gesundheit hat für die G7 große Bedeutung. Die Ebola-Krise hat gezeigt, dass die Weltgemeinschaft auf diese Erkrankung nicht vorbereitet war und zu spät begonnen hat, sie zu bekämpfen. Die Lektionen heißen unter anderem: schnell abrufbare finanzielle Mittel und schnell einsatzfähige medizinische Teams (sogenannte Weißhelme) sowie klare Notfallpläne.

Der Missbrauch von Antibiotika muss eingedämmt werden. **Antimikrobielle Resistenz** ist ein globales Phänomen, und die Ausbreitung von Resistenzen steigt durch den zunehmenden Handels- und Reiseverkehr auch über Grenzen hinweg. Nötig sind weniger, aber dafür wirksamere Antibiotika beim Menschen und eine andere Art der Tierhaltung.

Im Rahmen der deutschen G7-Präsidentschaft wird auch das Thema **vernachlässigte und armutsassoziierte Krankheiten** (Neglected Tropical Diseases, NTDs) und Möglichkeiten einer künftig effizienteren internationalen Zusammenarbeit angesprochen. Deutschland hat im Januar 2015 erfolgreich die **GAVI Wiederauffüllungskonferenz** (Impfinitiative) für den Zeitraum von 2016 bis 2020 ausgerichtet.

G7 als entwicklungspolitische Impulsgeber

Die G7 ist auch ein **entwicklungspolitischer Impulsgeber**. Sie mobilisiert Mittel für Entwicklungshilfe und rückt zentrale Sektoren und Querschnittsthemen der Entwicklungspolitik in den

Blick der Öffentlichkeit. Die deutsche G7-Präsidentschaft wird deshalb die **CONNEX-Initiative zur Unterstützung komplexer Vertragsverhandlungen** weiterführen, die die G7 2014 beschlossen hat. Sie wurde ins Leben gerufen, um rohstoffreiche Entwicklungsländer bei Verhandlungen von komplexen Rohstoffverträgen zu unterstützen – in juristischer, geologischer, betriebswirtschaftlicher, technischer und ökologischer Hinsicht.

Fachministertreffen, Outreach und der Dialog mit der Zivilgesellschaft

Die Zusammenkunft der Staats- und Regierungschefs in Schloss Elmau ist gut vorbereitet. Im Vorfeld haben sich die **Außenminister** in Lübeck, die **Energieminister** in Hamburg und die **Finanzminister und Notenbankgouverneure** in Dresden getroffen. Nach dem Gipfel werden die Wissenschaftsminister zusammentreffen.

Die G7 will die afrikanischen Staaten bei ihren Reformbestrebungen unterstützen und so die Grundlagen für Frieden und Sicherheit, Wachstum sowie nachhaltige Entwicklung in Afrika stärken. Am zweiten Gipfeltag sind deswegen Staats- und Regierungschefs vor allem aus **afrikanischen Staaten sowie die Vorsitzenden von Internationalen Organisationen** eingeladen, um gemeinsam einen Dialog über Afrika sowie weltpolitische Themen und Anliegen zu führen.

Schon in der Vergangenheit haben die G7 immer wieder die Zivilgesellschaft eingebunden. In Deutschland ist daraus ein umfassender **Dialog mit Vertretern unterschiedlicher Gruppen geworden**. Ich habe mit **Nichtregierungsorganisationen** gesprochen, aber auch mit **Wirtschaftsvertretern, Gewerkschaftern, Wissenschaftlern und Jugendlichen**. Ein Treffen mit Frauen aus Wirtschaft, Politik und Gesellschaft wird im September stattfinden. Mir sind diese Gespräche wichtig, um neue Impulse, Ideen und Anregungen in den G7-Prozess einfließen zu lassen.

G7-Präsidentschaft breit verankert

Politik und Zivilgesellschaft nehmen in Deutschland lebhaft Anteil an der G7-Präsidentschaft. Ich freue mich auf das G7-Treffen in Schloss Elmau und hoffe auf fruchtbare Ergebnisse. ■

Developing corporate and governing reporting practices for the 21st century



Christian Mouillon
EY Global Vice Chair, Risk Management

Just a few weeks ago, in early May, European governments were given a reminder of their obligations of financial rectitude with the announcement by the European Commission (EC) of its intention to fine Spain for fraudulent accounting. The regional government of Valencia had been found to have systematically under-reported healthcare spending for more than 20 years. By making Spain's national government deficit look smaller, this duplicity was perceived as undermining the integrity of European capital markets.

The sanction, proposed under new powers granted to the EC following Greece's budget debacle, still has to be confirmed by EU finance ministers, and Spain has indicated its intention to appeal against it. But the EC's announcement was a shot across the bows of European governments, putting them on notice to raise their standards of financial reporting.

As world leaders struggle to shore up growth and boost employment, the need for improved financial transparency and regulation is greater than ever before. The twin tasks of tackling global warming and achieving sustainable development demand healthy and well-functioning capital markets. Investors, whether they are dealing with corporations or sovereign borrowers, need confidence in the figures on which they base their risk assessments. Only if they have access to clear and transparent financial

data will they feel comfortable risking their money on the ventures needed to create jobs. Arguably, at the moment, it is the public sector, rather than the private sector, that is slowing the world economy by its lack of transparency.

With the Greek financial crisis still rumbling, G7 leaders meeting at Schloss Elmau would do well to focus on this challenge. As the Greek debacle has shown, countries, even small ones, can pose systemic risks in the same way as corporate borrowers. While the financial crisis underscored the importance of comprehensive, reliable and timely financial reporting by governments, it has also revealed significant shortcomings in public-sector reporting practices. In the absence of clear accounting rules, there is no guarantee that some sovereigns will not be tempted to conceal liabilities.

▄▄ The need for improved financial transparency is greater than ever before ▄▄

For the moment, continental European economies are living on life support under the European Central Bank's (ECB) quantitative easing (QE) programme. But an environment of low or even negative real interest rates cannot last forever and its long-term consequences cannot be assessed, and while QE can help to sustain economic activity in the short term, its long-term success will rely heavily on reform, regulation and compliance. At the level of governments, this means embarking on long-overdue labour-market reforms to provide more flexibility for hiring. It also calls for stronger efforts in many countries to reduce debt to a sustainable level and reorient public spending to areas that create value.

Above all, however, action must be taken to develop Europe's capital markets as a source of funding for the economy. While the United States emerged relatively rapidly from the downturn, Europe is still lagging behind.

One obvious handicap is the weakness of European capital markets and the heavy dependence of companies on financing from banks. Another is taxation policies in countries such as France that discourage investment in equity, the creation of long-term shareholders and the financing of the pension system.

Some progress in restoring health to Europe's banking sector has been achieved by putting the ECB in charge of banking supervision in the euro area. But restoring the vitality of European capital markets needs more than this. Tax policies need to be retuned to make them more favorable to investment in risk assets, rather than less-productive government-sponsored vehicles. And effective regulation and enforcement is needed to ensure investment decisions can be made with confidence in the reliability of data.

At present, despite the efforts of bodies such as the International Public Sector Accounting Standards Board, operating under the auspices of the International Federation of Accountants (IFAC), public-sector agencies are far from model performers. Accounting practices vary widely. Figures are frequently restated and standards are opaque. In many cases, it is hard to get a clear overall picture of the financial condition of sovereign borrowers.

Regulatory management challenges

At the corporate level, meanwhile, the world continues to live with two major differing accounting standards. Despite efforts to bring the two referentials closer together, firms in more than 120 jurisdictions, including most G20 countries, base their accounting on the International Financial Reporting Standards (IFRS) developed by the International Accounting Standards Board (IASB), while companies in



the US follow a different set of rules, the Generally Accepted Accounting Principles, or GAAP, overseen by the US Financial Accounting Standards Board (FASB). The differing requirements of these two systems, combined with further local variations from one jurisdiction to another, add to the costs of doing business and cause confusion for investors. Comparability is a driver of transparency; analysts and rating agencies use benchmark analysis and peer performance to support credit. This applies to the public sector as well.

Although corporate governance is far more advanced and innovative than public-sector governance, a glance around the globe continues to reveal inconsistencies reflecting national thinking and regional cultural approaches. In Japan, long one of the few developed countries without a code of corporate governance, there are hopes that new legislation will help to achieve a necessary improvement in standards. In an environment long characterised by cronyism and covert practices, Japan's new corporate governance code will require listed companies to appoint at least two independent external directors to their boards as part of a drive to increase accountability. (Until now, even many large Japanese companies were notable for having no external directors on their boards.) But compliance still remains voluntary, raising doubts among some analysts about the impact that the new code is likely to have.

In today's rapidly changing technological and financial environment, the world needs innovative companies that can offer new solutions to the challenges posed by climate change

and underdevelopment. But for such companies to obtain funding, future valuation approaches will need to be radically different from classical methods based on cash-flow reporting. As more and more companies and investors look for new ways of valuing corporate assets, new frontiers are opening up, posing new challenges for regulatory management.

Building investor confidence

One of the leading players in this field, the International Valuation Standards Council (IVSC), is developing more robust technical and ethical standards on which to base corporate valuations and reduce uncertainty on fair market values. Based in London and headed by former IASB chairman Sir David Tweedie, it currently has 74 member bodies from 54 countries. While real estate is one of the areas where valuation techniques and standards are most advanced, the IVSC is working with valuation professionals, regulators, users and academic bodies to develop standards for the valuation of intangible assets such as patents, brands and organisational methods and practices, as well as for business valuation. Some Asian countries are looking to establish trading platforms for intellectual property rights or using such rights as loan collateral.

Elsewhere, the International Integrated Reporting Council (IIRC) led by Mervyn King, a former judge who chaired South Africa's King Committee on Corporate Governance, is leading an intellectual revolution with what it calls Integrated Reporting, or <IR>. In a world in which activities such as the exploitation of natural assets for financial gain – for example the production of

shale gas using fracking technology – can materially alter the prospects, not only of companies but of communities and entire countries, <IR> seeks to take account not only of the value of internally generated innovations, but also of the cost of externalities imposed by corporate activities on the environment and social welfare. By assessing both the positives and the negatives of all aspects of a company's activities, from strategy and governance to performance and prospects, it aims to help investors make informed choices about the allocation of capital.

Since the onset of the financial and economic crisis, the Western model of capitalism has been under attack for its dependence on short-term financial incentives. Resilient capitalism requires both financial stability and sustainability in order to succeed. At Schloss Elmau, G7 leaders will be seeking to lay the foundations for future sustainable economic growth. Corporate and government reporting practices that are adapted to the needs of the 21st century and respond to its environmental and social challenges are essential first steps to making better economic choices.



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Reality denied will come back to haunt

— The member states of the European Union are thinking ahead and acting together to deal with the problems of today, and those that lurk on the horizon, says **Jean-Claude Juncker, President, European Commission**

Over the past years, Europe suffered the worst financial and economic crisis since the Second World War. Unprecedented measures had to be taken to stabilise economies and safeguard our historic bond. The crisis dealt us a heavy blow. More than six million people lost their jobs and youth unemployment soared. The measures taken, while necessary, can be compared to repairing a burning plane while flying. Thankfully, this has taught us a valuable lesson: to look problems in the eye and to devise solutions together.

This year's G7 motto, 'think ahead, act together', echoes what we are working to achieve in the European Union: a forward-looking political and economic union acting in the best interests of its citizens. It also neatly encapsulates why like-minded countries must continue to meet in such forums. We have a lot to achieve to meet today's global challenges, some that appear visible on the horizon and others that may catch us by surprise.

The G7 has proven an indispensable platform for us to both think and act to set the global policy agenda. Just take development aid. The European Union and its member states are the world's most important donors. The proportion of poor people globally has been reduced by more than half. Nine out of 10 children in developing countries start school – and this in equal number for both boys and girls. And we will not relent in our efforts: the European Commission will call on members to collectively renew their support and commitment to the world's poorest under the auspices of the new post-2015 framework to eradicate poverty.

The G7 forum is not just about showing our collective purpose, our shared values and our belief in democracy; it is also about defining our red lines. Never has that been more necessary than last June, when Russia's illegal annexation of Crimea and Sevastopol and the subsequent destabilisation of eastern Ukraine demanded a coherent international response. Ukraine's statehood has been severely challenged. Its citizens' rights to live without fear, to get basic amenities, access to healthcare, to education, all of these rights

we enjoy, are at risk. There is a terrible humanitarian crisis. Both the European Union and the G7 have had to step up, to help Ukraine cope.

The EU support to Ukraine is unprecedented. To date, we are providing support measures of up to €11 billion to encourage Ukraine's economic and political reforms. On 8 January 2015, the European Commission proposed new macrofinancial assistance (MFA) to Ukraine of up to €1.8 billion in medium-term loans. This new MFA programme is intended to assist Ukraine economically and financially with the critical challenges the country is facing, such as the fiscal situation. And so we think, we look and we act. In time our investment in the country's future, our trust in Ukraine's reform-minded leadership, will bear fruit.

Planning for the future

Recent geopolitical instability has peeled our eyes open to another serious problem that has been lurking for many years: energy security. The European Commission has been taking action on how to assure citizens that they will have sustainable sources of energy in the future. Energy should not be used as a political football. Europe can stand tall on its own feet, pooling its resources, connecting infrastructures and uniting its negotiating power. The EU is building the Energy Union with a forward-looking climate policy. That is why in February, just months after the start of our tenure, the European Commission put forward its proposal for a resilient Energy Union, echoing discussions that took place at the last G7 in Brussels, in June 2014.

And the proposal is gaining traction. The European Union heads of state and government have agreed unanimously to accelerate infrastructure projects, including interconnections in particular to peripheral regions, for electricity and gas to ensure energy security, and an effective internal energy market.

The aftermath of the financial crisis has left a burden of lagging investment

The EU's members are thinking ahead and acting together. And this we are trying to do from all angles. We must not only join up our brainpower, but also our policies to ensure they deliver the self-sustaining growth that is needed. That brings me to investment. We need fiscal structural reforms and responsible fiscal consolidation, supported by sustainable investments. Going back to the metaphor of putting out fires, when the crisis hit and sovereign debt yields soared we had to act fast to stabilise the banking sector, members' economies, consolidate public finances and prevent the dismantling of decades of European integration. We put in place the Banking Union, weakening the link between sovereign states in the eurozone and their banks – the link that proved so detrimental to the



EUROPEAN UNION, 2015

European economy during the crisis. The aftermath of the crisis has left a burden of lagging investment and high unemployment, especially among the young. Investment levels in the EU are down to €370 billion below historical, sustainable pre-crisis norms. We are painfully aware of that. For that reason, we made sure that our very first action last year focused on investments, creating the right incentives and a regulatory environment conducive to investments. European institutional investors do not lack cash or the willingness to invest. What they do ask of policymakers is greater predictability and regulatory certainty in order to allow supply to meet demand and put the high level of cash available in Europe to productive use, getting people back to work and boosting Europe's lagging strategic infrastructure – from education, training and research to energy, broadband, transport and innovation.

The Capital Markets Union

While we cannot claim to have all the answers to everything, our investment plan proposal has tried to anticipate all potential angles to give a comprehensive solution to our investment gap. As an integral part of the Investment Plan for Europe, we have launched work to ensure that capital flows freely across the borders in the European Union and that sources of

finance are diversified and extended. This is what we call the Capital Markets Union.

Seamless capital markets will not appear overnight. But let me illustrate our new approach for Europe with two very concrete elements by way of example: we are creating a new European Fund for Strategic Investments, guaranteed with public money from the EU budget and the European Investment Bank (EIB). The fund will be able to mobilise €315 billion of strategic investments in the European economy over the next three years. Every euro of public seed money should yield a total of €15 in investment for jobs and growth.

We are also setting up a credible project pipeline backed by extended technical assistance to link investments to mature, growth-generating projects of European significance. It will not be the job of politicians to choose projects. It will be done by professionals who have the experience and know-how to do so. This is how we are thinking ahead and now, as the EU legislators – the European Parliament and the EU's members – come together to fine-tune the Investment Plan as a priority, we are acting together.

The crisis and its social toll are still fresh in our minds, but history shows that the European Union has always come out stronger faced with a crisis. As the science fiction writer Philip K Dick once sagely said: reality denied will come back to haunt. ■

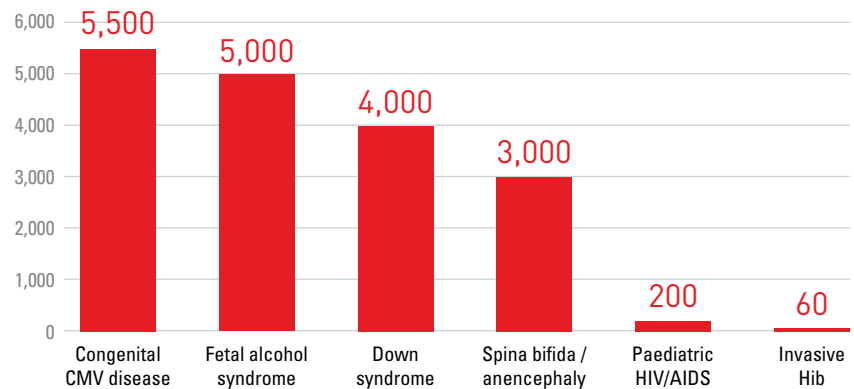
The silent global burden of congenital CMV infection

Cytomegalovirus, or CMV, is a common virus that infects one in every two people in many developed countries. Most CMV infections are “silent,” meaning most people who are infected with CMV exhibit no signs or symptoms. However, CMV can cause serious disease in newborns when a mother is infected during pregnancy – this is known as congenital CMV infection.

The public health impact of congenital CMV infection is substantial and underappreciated. In the U.S. alone, approximately 5,000 infants will develop permanent problems due to CMV, some of them severe, including deafness, blindness, and intellectual disability. Congenital CMV causes more disability than Down syndrome and fetal alcohol syndrome, but awareness of the condition remains low – a 2012 study examining child to mother transmission of CMV revealed that only 7% of men and 13% of U.S. women surveyed had heard of congenital CMV.

CMV is transmitted through direct contact with bodily fluids, typically saliva or urine. Young children, even those that appear healthy, may shed CMV at high rates. By practicing good hygiene, pregnant women and women considering pregnancy can lower their CMV transmission risk. Educating expecting mothers and

Children born with or developing long-term medical conditions each year in the U.S.



CANNON, M. J., AND K. F. DAVIS. 2005. WASHING OUR HANDS OF THE CONGENITAL CYTOMEGALOVIRUS DISEASE EPIDEMIC. *BMC HEALTH 5:70*

FOR ADDITIONAL INFORMATION AND REFERENCES VISIT: WWW.VBIVACCINES.COM/G7G20

their healthcare providers is one of the few prevention strategies now available and, following the diligent efforts of non-profit organizations, legislation supporting CMV education is now being considered in several U.S. states, including Texas, Illinois, and Tennessee.

Laws can be enacted that will help raise awareness of the condition, however we believe that developing an effective CMV vaccine has the best chance of reducing the spread and impact of the disease. Several prominent institutions, including

The Institute of Medicine (IOM) of the National Academy of Sciences, have designated CMV as a “highest priority” category for vaccine development, citing the years of life and disability that could be saved as well as the substantial economic impact, estimated to be between \$1 billion and \$2 billion annually in the U.S.

In response to this significant unmet medical need, we are developing a CMV vaccine candidate that utilizes our enveloped (“e”) Virus-Like Particle (“VLP”) vaccine platform technology. eVLPs are capable of generating a strong immune response because of their similarity to viruses found in nature. In addition to CMV, we believe our eVLP Platform is suitable for a wide array of vaccine candidates including CMV, HCV, RSV, and West Nile.

To learn more about CMV and CMV awareness efforts and about how you can help, visit VBI Vaccines online at WWW.VBIVACCINES.COM

Jeff Baxter
President and CEO
VBI Vaccines Inc.



Working towards common goals

— When German Chancellor Angela Merkel visited the White House earlier this year, **US President Barack Obama** spoke of the unity and partnership of the United States and Germany

Germany is one of our strongest allies, so whenever we meet it's an opportunity to coordinate closely on a whole range of issues critical to our shared security and prosperity. As Angela and our German friends prepare to host the G7 this spring, it's also important for us to be able to coordinate on a set of shared goals...

We'll focus on what we can do to keep the economy growing and creating jobs. As strong supporters of the Transatlantic Trade and Investment Partnership, we agree that there needs to be meaningful progress this year toward an agreement that boosts our economies with strong protections for consumers and workers and the environment.

I look forward to hearing Angela's assessment of how Europe and the IMF [International Monetary Fund] can work with the new Greek Government to find a way that returns Greece to sustainable growth within the eurozone, where growth is critical to both the United

If Russia continues on its current course, its isolation will only worsen, both politically and economically

States and the global economy. And we'll be discussing our work to get all major economies to take ambitious action on climate change, including our initiative to limit public financing for coal-fired power plants overseas and our global efforts to phase down some of the most dangerous greenhouse gases...

We reaffirmed our commitment to training Afghan security forces and supporting a sovereign, secure and united Afghanistan. We agree that the international community has to continue enforcing existing sanctions as part of our diplomatic effort to prevent Iran from obtaining a nuclear weapon, even as the P5+1 works closely together to do everything we can to try to achieve a good, verifiable deal...



PAT BENIC/LANDOV/PRESS ASSOCIATION IMAGES

With regard to Russia and the separatists it supports in Ukraine, it's clear that they've violated just about every commitment they made in the Minsk agreement. Instead of withdrawing from eastern Ukraine, Russian forces continue to operate there, training separatists and helping to coordinate attacks. Instead of withdrawing its arms, Russia has sent in more tanks and armoured personnel carriers and heavy artillery. With Russian support, the separatists have seized more territory and shelled civilian areas, destroyed villages and driven more Ukrainians from their homes. These are the facts.

But Russian aggression has only reinforced the unity of the United States and Germany and our allies and partners around the world... We continue to encourage a diplomatic resolution to this issue... we are in absolute agreement that the 21st century cannot stand idle – have us stand idle and simply allow the borders of Europe to be redrawn at the barrel of a gun...

Along with our NATO allies, we'll keep bolstering our presence in central and Eastern Europe – part of our unwavering Article 5 obligation to our collective defence. We will continue to work with the IMF and other partners to provide Ukraine with critical financial support as it pursues economic and anti-corruption reforms. We discussed the issue of how best to assist Ukraine as it defends itself, and we agreed that sanctions on Russia need to remain fully in force until Russia complies fully with its obligations.

Even as we continue to work for a diplomatic solution, we are making it clear... that if Russia continues on its current course – which is ruining the Russian economy and hurting the Russian people, as well as having such a terrible effect on Ukraine – Russia's isolation will only worsen, both politically and economically.

With regard to ISIL [Islamic State of Iraq and the Levant], Germany and the United States remain



PABLO MARTINEZ MONSIVAIS/AP/PRESS ASSOCIATION IMAGES

At the joint press conference, Chancellor Merkel and President Obama talked of their agreement on issues such as the conflict in Ukraine

united in our determination to destroy this barbaric organisation... In a significant milestone in its foreign policy, Germany has taken the important step of equipping Kurdish forces in Iraq, and Germany is preparing to lead the training mission of local forces in Erbil. Germany is a close partner in combating the threat of foreign terrorist fighters, which was the focus of a special session of the UN Security Council that I chaired last fall. And under Angela's leadership, Germany is moving ahead with new legislation to prevent fighters from travelling to and from Syria and Iraq.

Germany's story reminds us that when free people stand united, our interests and our values will ultimately prevail

At the same time, both Angela and I recognise that young people in both our countries, especially in Muslim communities, are being threatened and targeted for recruitment by terrorists like al-Qaeda and ISIL. And protecting our young people from this hateful ideology, so that they're not vulnerable to such recruitment, is, first and foremost, a task for local communities, families, neighbours, faith leaders, who know their

communities best. But we can help these communities, starting with the tone and the example that we set in our own countries.

So I want to commend Angela for her leadership, speaking out forcefully against xenophobia and prejudice and on behalf of pluralism and diversity. She's made it clear that all religious communities have a place in Germany, just as they do here in the United States...

And let me end on an historic note. This year marks the 70th anniversary of the end of the Second World War. It marks the 25th anniversary of the reunification of Germany. So, in a time when conflicts around the world sometimes seem intractable, when progress sometimes seems beyond grasp, Germany's story gives us hope. We can end wars. Countries can rebuild. Adversaries can become allies. Walls can come down. Divisions can be healed. Germany's story – and the story of Angela's life – remind us that when free people stand united, our interests and our values will ultimately prevail.

And as we look to the future, as I prepare to visit Bavaria in June, I'm grateful for my partnership with Angela, as Americans are grateful for their partnership with the people of Germany. ■

Edited remarks made during President Barack Obama's joint press conference with Chancellor Angela Merkel at the White House on 9 February 2015

Seizing opportunities to increase growth

— During German Chancellor Angela Merkel's pre-summit visit to London, **UK Prime Minister David Cameron** spoke of their shared aims and his desire for European Union reform

As leaders of Europe's fastest-growing major economies, we're determined to ensure that we come out of the financial crisis stronger than we were at the start. We've both taken steps to pay down our debts, to encourage investment and innovation, and we both agree it's vital that we stick to our long-term economic plans.

It's vital to seize the opportunities to increase economic growth, and that means making the most of the EU [European Union] single market, and it means dismantling barriers to trade. We're both very strong supporters of the EU-US trade deal this year. We launched that at the G8 at Lough Erne and we're determined to make progress towards an ambitious and comprehensive deal by the time we gather for the G7 in Bavaria in June.

In terms of the G7 priorities, Germany takes the chair this year... we welcome the priorities building on some of the things we pioneered when we were chairing

We've shown, I think, over the last five years what we can achieve together over the [EU] budget, over the single market, over making Europe more competitive

the G8. Particularly, cracking down on tax avoidance – aggressive tax avoidance and tax evasion – making sure there's greater transparency. I think this is really vital to make sure that companies do pay the tax that they should and we will continue that.

We've also been discussing how we can learn the lessons of the Ebola crisis, and how we can have a better rapid response to global health emergencies. How we can deal with the problem of drug-resistant infections, all issues that are going to be pioneered by Germany in the G7 and we look forward to working together on that...



JOHN STILLWELL/PA WIRE/PRESS ASSOCIATION IMAGES

This is going to be the second G7 summit without Russia. We both want to find a solution to this crisis. It's almost a year since President Putin invaded Ukraine, and Russia is rightly feeling the cost of its illegal actions, with the rouble down more than 20 per cent since Christmas. And I'm sure we'll be discussing how we try and keep up the pressure; but all the time recognising there is a solution, there is a way forward; there's still time for Vladimir Putin to change course and we look forward to further discussions between him and President Poroshenko next week. Meanwhile, we'll continue to stand by Ukraine. We agree that the IMF [International Monetary Fund], EU and other partners should provide financial assistance to address Ukraine's urgent financial needs and this must be accompanied by reforms in Kiev...

We've shown, I think, over the last five years what we can achieve together over the [EU] budget, over the single market, over making Europe more competitive. And, as I set out at Bloomberg two years ago, I profoundly believe the EU badly needs reform so it can adapt to a changing world and generate the jobs and the growth that our people need.

I want to fix the problems in Britain's relationship with the EU, which the British people can find very frustrating... I'm convinced this can be done. It's about securing what is in the best long-term interests of Britain and... I believe, the long-term interests of Europe, too. ■

Edited remarks made during Prime Minister David Cameron's joint press conference with Chancellor Angela Merkel in London on 7 January 2015

Time to act on climate change

— As the host of this year's United Nations climate conference, France will do its utmost to ensure that a fair agreement is reached, says **President François Hollande**

This year we, France, will be accepting special responsibility by hosting the climate conference in Paris. This meeting is a rendezvous between the world and its destiny.

The facts are now both clear and established. Extreme weather events are ever more common the world over. They affect first and foremost the poorest and most vulnerable and are causing population displacements that may result in numerous conflicts.

Here again, we know what conditions must be met for success: to arrive at a global agreement committing 193 countries to ensure that global temperature increases are limited to below 2°C. And to ensure that each of those countries, and this is the most crucial point, announces its commitments before the summer...

Capitalisation of the Green Climate Fund has now begun, with \$10 billion pledged for the period 2015-2018. We are very far, still very far, from the target, which is to raise \$100 billion beginning in 2020. We must therefore step up all our efforts and endeavour

The commitments we shall be giving represent an opportunity for growth, for technology, for innovation

to obtain every possible commitment to ensure that innovative financing can also be added to the contributions made by national governments...

Once again, to wait would be to run a considerable risk for the planet. We are starting out from the Lima Conference held in December and which led to the establishment of a working basis for the Paris Conference...

On the basis of that work, France will act in accordance with three principles. The first is to listen to others. I know that among the countries you represent many are wondering what responsibility they each should accept. France will listen to all of your concerns in order



ALAIN JOCARD/AFP/GETTY IMAGES

to take them into consideration and enable the second principle to be adhered to, and that is fairness. The agreement that must be reached in Paris will need to be differentiated to reflect the situation of each country and its level of development. And the most vulnerable countries, the most fragile, emerging countries also, must be supported – hence the role of the Green Climate Fund.

The third principle relates to political will, because no agreement is possible in the absence of political will. There will always be a good excuse for not signing when the day comes to sign. We also know that if it is not signed it will be many years before there is a climate agreement. And it will no longer be a matter of avoiding an increase in the planet's temperature of 2°C, but of preventing a warming of three or even four degrees. That is what the experts are saying and I think, unfortunately, that they are right...

Wherever it is possible to place the climate issue on the international agenda, France will devote the whole force of its diplomacy to that, notably where the G7 and the G20 are concerned. I shall conduct every discussion that may be necessary at the highest level...

The climate question also involves not only an ecological issue – something well understood by all – but also an issue of economics. We need to understand that the commitments we shall be giving represent an opportunity for growth, an opportunity for technology, for innovation, and even a criterion of competitiveness not based simply on product price or quality, but on product content in terms of ecology and the environment. The countries that make most progress on the energy transition will be the most competitive tomorrow. ■

Extracts from a speech given by President François Hollande at the Élysée Palace on 16 January 2015

Creating a more prosperous world

— Despite affronts to international order and human dignity, we have the potential to create a better world for more people, believes **Canadian Prime Minister Stephen Harper**

Where human misery abounds, where grinding poverty is the rule, where justice is systematically denied, there is no real peace, only the seeds of future conflict.

Then we understand how the worst of human nature, perverse ideologies, religious extremism, the lust for power and plunder can rob people in so many places of property, hope and life itself.

That is why Canada has always been ready and willing to join with other civilised peoples and to challenge affronts to international order, affronts to human dignity itself, such as are today present in Eastern Europe, the Middle East and many parts of Africa. But while these extreme situations, on which Canada's positions are well known, are being confronted, other problems, such as the problems of underdevelopment, remain.

Canadians, therefore, seek a world where freedom, democracy, human rights and the rule of law are respected. We hold these things to be intrinsically right and good. And we also believe that they are the

Saving the lives of the world's most vulnerable mothers, infants and children must remain a top global priority

necessary foundation for a better world for more people, necessary for prosperity, and with prosperity comes hope, and with hope, the greater inclination of free peoples everywhere to find peaceful solutions to the things that divide them.

Indeed, we believe freedom, prosperity and peace form a virtuous circle. For this reason, the growth of trade between nations, and the delivery of effective development assistance to ordinary people – simple, practical aid – these are the things that have become the signatures of our government's outreach in the world...

Yet, no matter how freely we trade, millions of people will, for some time to come, need a helping hand.



JEWEL SAMAD/AFP/GETTY IMAGES

Easily the most important example and the one closest to my heart, is the worldwide struggle upon which so many of you have been engaged — the Maternal, Newborn and Child Health Initiative.

Saving the lives of the world's most vulnerable mothers, infants and children must remain a top global priority. That is, the world must honour the commitments made [at the United Nations] to mothers and children in the year 2000.

And there has been remarkable progress. I think especially of the 2010 meeting of world leaders at Muskoka that raised about seven and a half billion dollars, two billion of it from private donors...

We are preventing, and can prevent more, deaths, deaths of thousands of children every day from easily preventable causes. We can stop thousands of mothers dying in childbirth who, with relatively little intervention, would survive.

We also know who we need to be working with: new partnerships, partnerships that bring together governments, agencies of the UN the World Health Organization, the World Food Programme and UNICEF with the private sector. Partnerships that are producing real results and taking us to new heights of excellence...

Saving the lives of children and mothers is a fight we can win. To get it done, two things are needed now: the political focus and renewed financial commitment...

It is easy to look at the many problems of the world today and become despondent. Yet, for all our failings there has been, for most of humanity, tremendous progress in my lifetime. Therefore, I am enough of an optimist to think that, because we can create a more prosperous, fairer and hopeful world, not only should we, but, indeed, I believe we will. ■

Extracts from Prime Minister Stephen Harper's speech to the United Nations General Assembly on 25 September 2014

The future is today

— Europe should focus on growth, rather than austerity, says **Matteo Renzi, Prime Minister of Italy**

Italy needs an incredible season of reforms... We started with a change of the labour market, with the fiscal system, tax reforms, civil justice... I am not here to present a future of tomorrow. For my country, the future is today, not tomorrow... If I think about the future of my country for my children, I don't imagine describing Italy as a museum... I prefer the image of my country as an innovation lab. And for that we need a different idea of Europe... We must also say very clearly, [the] European direction is not the correct direction. I participated in the Brisbane Summit of the G20 last November. Every continent, every country, spoke about the necessity to invest in growth... [the] eurozone spoke only about austerity...



MICHELEULER/AP/PRESS ASSOCIATION IMAGES

Europe is not simply the euro. Europe is not simply a currency. Europe is, first of all, an idea that ensured 70 years of peace. Seventy years of prosperity... Europe could be the place in which we can give a message of innovation in economics, in culture, in values and in ideals... The European direction must stress the importance of growth and public and private investment, not only austerity...

The most important structural reform for Italy is credibility. ■

Selected quotes from Italian Prime Minister Matteo Renzi's speech at the World Economic Forum in Davos, 21 January 2015

An alliance of shared values

— The Trans-Pacific Partnership is key to Asia's future, says **Shinzō Abe, Prime Minister of Japan**

We must all the more contribute in every respect to the development of Asia. We must spare no effort in working for the peace and prosperity of the region... Involving countries in Asia-Pacific whose backgrounds vary, the US and Japan must take the lead. We must take the lead to build a market that is fair, dynamic, sustainable, and is also free from the arbitrary intentions of any nation. In the Pacific market, we cannot overlook sweat shops or burdens on the environment. Nor can we simply allow free riders on intellectual property. Instead, we can spread our shared values around



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the world and have them take root: the rule of law, democracy, and freedom.

That is exactly what the TPP [Trans-Pacific Partnership] is all about... Furthermore, the TPP goes far beyond just economic benefits. It is also about our security. Long-term, its strategic value is awesome. We should never forget that.

The TPP covers an area that accounts for 40 per cent of the world economy, and one third of global trade. We must turn the area into a region for lasting peace and prosperity...

We must make sure human security will be preserved in addition to national security. That's our belief, firm and solid.

We must do our best so that every individual gets education, medical support, and an opportunity to rise to be self-reliant.

Armed conflicts have always made women suffer the most. In our age, we must realise the kind of world where finally women are free from human rights abuses.

Our servicemen and women have made substantial accomplishments. So have our aid workers who have worked so steadily.

Their combined sum has given us a new self-identity. That's why we now hold up high a new banner that is "proactive contribution to peace based on the principle of international cooperation"...

Problems we face include terrorism, infectious diseases, natural disasters and climate change.

The time has come for the US-Japan alliance to face up to and jointly tackle those challenges that are new.

After all, our alliance has lasted more than a quarter of the entire history of the United States.

It is an alliance that is sturdy, bound in trust and friendship, deep between us.

No new concept should ever be necessary for the alliance that connects us, the biggest and the second biggest democratic powers in the free world, in working together.

Always, it is an alliance that cherishes our shared values of the rule of law, respect for human rights and freedom. ■

Extracts from an address by Shinzō Abe, Prime Minister of Japan, at a joint meeting of the US Congress in Washington DC, 29 April 2015

Towards a stronger Union

— European Union members must stand together, says **Donald Tusk, President of the European Council**

We do not have the privilege to live in boring times. These are tough, political times. This is the time, when the Europe our children will inherit is being decided on, day by day.

That is why, first, we must be clear about our fundamental values: solidarity, freedom, human dignity, including the right to live free from fear. That also means fighting the enemies of these values – whoever and wherever they are.

Second, we need strong determination to end the economic crisis, especially to reduce unemployment. It is also our responsibility to create a genuine Economic and Monetary Union. I take this task very seriously. Our common currency, the euro, is our advantage. The decision of Lithuania to become the 19th member of the eurozone is a sign of confidence in the currency.

Third, the European Union must be strong internationally. We will support those in the neighbourhood who share our values. The European Union will not close its eyes when borders on our continent are changed by force. We have stood united on this issue and will continue to do so. Only unity can bring us results.



Lastly, the relations between Europe and the United States are a cornerstone of our prosperity and freedom. In this context I believe one of the most important challenges is to make progress in the negotiations on the Transatlantic Trade and Investment Partnership. Leaders were clear in December. The EU and the US should make all efforts to conclude negotiations on a comprehensive, ambitious and mutually beneficial agreement by the end of 2015.

For all of these things, all European institutions must work together for the common good, while respecting the role each is here to play.

We will conquer the challenges facing us with energy and optimism, or not at all. Certainly, no European nation, no single state, can conquer them alone. For my part, I will use all the skills I have to keep the work of the European Council results-oriented and focused on what really matters. ■

Extracts from a speech by Donald Tusk, President of the European Council, to the European Parliament, Strasbourg, 13 January 2015

Africa and Europe: partners for growth and energy security



Claudio Descalzi
Chief Executive Officer, ENI

Africa will be a protagonist of this century. The continent's fast-growing economies, demographic boom, plentiful hydrocarbon resources and enormous renewables potential represent a huge opportunity and a stunning challenge for Africa and the rest of the world, in particular for Europe. A strengthened south-north connection between Africa and Europe could consolidate reciprocal development, security of supply and environmental protection.

Eni's integrated business model, based on partnerships with local communities for sustainable development, could be considered an example of virtuous cooperation with Africa. Since the start of its presence on the continent in 1954, this business model has allowed the company to become the leader in promoting access to energy and the number one international oil company in Africa.

According to the United Nations, by the end of this century about 40 per cent of all humans, and nearly half of all children, will be African: one of the fastest and most radical demographic changes in history.

Africa, however, also suffers one of the world's highest rates of energy poverty. Despite many efforts carried out by African governments to implement and expand electrification programmes, more than 600 million people, almost two-thirds of the total African population,

have no access to electricity. In many parts of sub-Saharan Africa, more than 90 per cent of the rural population relies on wood and charcoal for basic energy needs, such as cooking and heating.

Nevertheless, international focus on Africa is on the rise: in 2013, the United States launched the Power Africa initiative, aimed at increasing access to power. South American countries' relationships with the continent are also intensifying, China is investing in Africa more than anywhere else and the European Union is framing an overall approach.

Italy, for cultural and geopolitical reasons, is a natural candidate to promote a broader relationship between the EU and Africa, as confirmed by the Italian Government's growing commitment to this path. The Italian

five per cent of the world's energy. Europe must encourage a stronger south-north connection to the African continent, to create synergies through which Europe brings technologies and provides significant investment, while receiving safe supply flows at competitive prices. In turn, Africa could help Europe reach its energy security, competitiveness and environmental protection goals.

The south-north connection could also lay the foundation for a sustainable future, in which Africa is able to develop its huge renewables potential while increasing its earnings from the export of more oil and gas. This would also contribute to achieving – in an efficient manner – the main global greenhouse gas emissions reduction targets that are currently under discussion in the run-up

Today, Eni operates in 14 African countries with 11,500 people, has a 58 per cent share of goods procured locally and produces more than seven per cent of Africa's total hydrocarbon production

Ministry of Foreign Affairs has recently launched the Italy-Africa Initiative, which aims to enhance access to sustainable energy through the expansion of the network of Italian companies involved on the continent.

At an economic level, we believe Europe and Africa should strengthen their relationship in order to sustain each other's growth and development.

While Africa has great endowments in terms of both fossil fuels and renewables potential – solar, wind and hydro, in particular – its energy consumption is marginal. For its part, Europe has limited energy production but high consumption. Europe has seven per cent of the world's population, but accounts for 13 per cent of global energy consumption, while Africa, with 15 per cent of the world's population, consumes approximately

to the next Conference of Parties in Paris, France, at the end of the year.

Cooperation between the two continents would ensure a virtuous circle, only possible through a sustainable approach such as that historically adopted by Eni, in which local development plays a central role in forging long-term, mutually beneficial partnerships. We firmly believe this approach allows for the equitable distribution of resources and wealth.

Today, Eni operates in 14 African countries with 11,500 people, has a 58 per cent share of goods procured locally and produces more than seven per cent of Africa's total hydrocarbon production. This strong presence will continue well into the future thanks to our recent discoveries, local activities and investment, particularly

Green River Project, Eni flagship agricultural initiative, Nigeria



in Angola, Congo, Gabon, Ghana and Mozambique, where Eni has made its biggest ever natural gas discovery.

Thanks to our integrated model, Eni has successfully improved access to energy for millions of people and greatly reduced gas flaring, in which associated gas produced by oil wells is wasted by being burnt off into the atmosphere. Indeed, Eni was first in Africa to invest in power generation using associated gas and is today the leading contributor to

electricity production among international oil companies. We have implemented major electricity generation projects that account for 20 per cent of Nigerian power generation and 60 per cent of Congo's. In total, in the sub-Saharan African region Eni has installed a nominal capacity of around 1 GW, with further potential growth in other countries, such as Mozambique. Eni is gradually becoming one of the largest electricity producers in Africa.

We always operate in close partnership with authorities, through projects that are tailor-made to the needs of local communities, with a strong focus on stakeholder engagement. In this way, we manage to spread the benefits of resources to Africans in a very practical and direct way, with local projects in agriculture, technology upgrade, industry, health, education and climate protection.

To sum up, Africa will be a protagonist of this century and Europe should strengthen its relationship with the continent, starting from a south-north strategic energy corridor, while also intensifying its relationship in all areas in order to promote mutual understanding, which is the basis for successful long-term cooperation.



Eni's Djeno Power Plant, Congo

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2015: a year of opportunity

— Against a backdrop of crises and emerging transformative trends, this year offers world leaders a chance to take major steps in combating poverty and acting on climate change, writes **Ban Ki-moon, Secretary-General, United Nations**

This year's meeting of the G7 comes at a pivotal moment. The world faces multiple crises that have generated 50 million refugees and displaced persons – more than at any time since the Second World War. The United Nations has appealed for \$16 billion to cover humanitarian relief for this year – almost five times what was needed a decade ago. Millions of people face hatred and persecution; billions suffer from hunger and exploitation. Billions of dollars continue to be squandered on nuclear weapons and other arsenals.

Beyond these numbers, we see several transformative trends. New economic powers have emerged. More people are migrating than ever before. More people live in cities than ever before. Extremism and crime have taken on more virulent forms. Extreme weather events are becoming the new normal. States alone cannot solve most of the problems they face.

We are the first generation that can end poverty, and the last that can take steps to avert the worst impacts of climate change

Our shared challenge is to strengthen multilateralism and collective problem-solving.

The year 2015 is a time for global action for people and the planet Earth – perhaps the most important year for development since the founding of the United Nations 70 years ago. G7 leaders and nations have a central role to play in seizing this opportunity to advance our common progress and security. The year ahead offers three powerful opportunities.

First is the Third International Conference on Financing for Development, which will take place in Addis Ababa, Ethiopia, from 13 to 16 July. The conference provides the opportunity to agree to a

new sustainable-development financing framework that taps into all sources of development finance. With real interest rates low and rates of return in sustainable development high, this is a good time to intensify these efforts.

Domestic resource mobilisation will be critical, as will action against tax evasion, tax avoidance and illicit financial flows. Official development assistance will remain crucial, but will not be enough to meet financing needs. We must also join together with partners in the private sector and create incentives and regulatory frameworks to encourage long-term sustainable growth and development. An international enabling environment is also critical. That means addressing issues of global economic governance and ensuring mutually supportive economic, financial, social and environmental policies.

A successful outcome in Addis Ababa can pave the way for success at the year's other two milestones.

In September, world leaders will gather for the United Nations special summit to adopt a new, universal, ambitious and integrated post-2015 development agenda – including a set of Sustainable Development Goals, or SDGs. The SDGs will guide development efforts over the next generation. They will aim at not just reducing poverty, but ending it. Beyond a focus on shared prosperity and harmony with the planet, the new agenda will emphasise the crucial role of justice, institutions and fundamental freedoms. And, for the first time, the goals will apply to all countries; even the richest are witnessing rising inequality, and no country has ended violence and discrimination against women.

This new agenda is not a plan developed by technocrats. It is the result of the most far-reaching consultative process in United Nations history – a truly global conversation, and as such reflects the hopes and concerns of people from all walks of life, from across the world. At a time of crisis and unease, the emerging consensus on 17 Sustainable Development Goals offers a hopeful sign.

The Paris climate conference

In December, at the climate negotiations in Paris, governments will gather to adopt what we hope will be a universal and meaningful climate change agreement. Climate science is deep, sound and not in doubt. The economic case for climate action is equally clear. Phenomenal shifts are under way, as investments in renewable energy grow rapidly. The costs of solar and wind energy are plummeting, and are often less expensive than fossil fuel alternatives. Climate action pays, and the markets of the future will reward sustainable solutions.

Over the next 15 years, the world will make massive investments in energy and other infrastructure. We can do this sustainably, or we can lock ourselves into a carbon-intensive path that raises the global thermostat higher still. The choice should be clear to all. Scientists say we may be at a tipping point. We have no time to waste in arguing about climate change.

The Paris climate conference can become a watershed in mobilising green investment, boosting



UN PHOTO

low-carbon growth and creating more sustainable economies. Four elements are essential for success at Paris. First, developed countries should provide a clear trajectory for mobilising the necessary climate financing and investment. Second, we must ensure that the Green Climate Fund is operational. Third, I am calling for the implementation of the private-sector commitments made at the Climate Summit I convened last September. Fourth, we need strong policy incentives, including pricing carbon. A cross-cutting concern is to develop a strong finance package to support least-developed and small-island developing states.

The global landscape is scarred by conflicts and suffering in many places. As we strive to resolve those calamities, we must not let the smoke from the fires obscure the longer-term opportunities of this pivotal year. We are the first generation that can end poverty, and the last that can take steps to avert the worst impacts of climate change. This year's 70th anniversary of the United Nations falls at a time when we face major decisions that will shape lives

for generations to come. This is a time of test, but far more one of tremendous opportunity.

I will count on the leadership of the G7 leaders in helping the world to meet this test. With wisdom and economic might, G7 members can go beyond their role as donors and make an immense difference in generating the transformation we need. As the distinctions between the national and the international continue to fall away, I urge the G7 to embrace the universality of this effort and help chart a course that leaves no one behind and builds a safer and more sustainable future for all. ■

Ban Ki-moon has been the Secretary-General of the United Nations since 2007. At the time of his election as Secretary-General, he was Minister of Foreign Affairs and Trade for the Republic of Korea. His 37 years of service with the ministry included postings in New Delhi, Washington DC and Vienna, and responsibility for a variety of portfolios, including Foreign Policy Adviser to the President, Chief National Security Adviser to the President, Deputy Minister for Policy Planning, and Director General of American Affairs.

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Technology: the problem and the answer to the world's complex issues

If we master complexity, we can simplify business and our lives

Dr Andreas Tegge

Head, Global Government Relations, SAP SE

Technology has long enriched human life. Today, mobile devices, social networks, the cloud and big data analysis continue to transform how we all live, work and play.

Yet, even as technology allows us to reimagine anything and everything, it also has spawned an entirely new and daunting problem: unprecedented, crippling complexity – perhaps the most intractable challenge in history.

The human and economic cost of complexity is enormous

Complexity affects every aspect of our lives, work, prosperity and even our health, consuming incredible amounts of human and financial capital that could and should be put to a higher purpose of solving persistent global problems. Consider:

- One-third of working professionals experience health issues from the stress of information overload.
- The world's 200 largest companies are losing more than \$237 billion to complexity – 10 per cent of their annual profit.
- Sixty-three per cent of executives cite complexity as a primary issue in escalating costs and as an impediment to growth.

Given such an enormous cost, the crucial question of the moment is: how do we pull ourselves out of this expanding quagmire of complexity?

The answer is simple

Technology is both the problem and the solution. At SAP, we believe sophisticated technology need not be complicated technology. When we use our expertise and technology to master complexity

for our customers, we simplify their businesses – and their customer's lives.

In a world besieged by complexity, "simple" wins. Simplicity brings clarity instead of confusion, action over paralysis. It allows organisations to reimagine themselves by converting massive amounts of real-time data instantly into value. It enables seamless interaction with customers and employees and helps optimise the use of scarce resources and assets across the value chain. It also brings the convenience and reach of social networks to commerce and removes obstructions from the way businesses interact and work in partnership for the benefit of all.

“A world that runs simple is about much more than making business more efficient”

Run simple is an idea with a higher purpose

A world that runs simple is about much more than making business more efficient. It is about creating a world that runs better for the people who live in it. Because when SAP can remove the burden of complexity from the shoulders of our business customers, we free up the human and financial capital they need to address vital issues that touch billions of people everywhere.

That is SAP's true purpose, our enduring cause, at the core of everything we do. And it is changing the world.

By mastering the complexities of modern, data-based medicine, care providers, researchers and practitioners can use our technology to simplify their tasks with insights

that help diagnose, treat, cure and, ultimately, prevent diseases.

When we master today's complexities in teaching and learning with technology, we can help prepare more students for meaningful jobs, economic opportunity and empower the next generation of innovators and entrepreneurs.

Mastering perhaps the most complex issue of all, sustainability, SAP solutions help simplify operations across every aspect of a business – starting with our own – so businesses can be more transparent, more energy efficient, protect workers from accidents and address risks in the supply chain. And, when companies across all sectors of industry can simplify to run sustainably, the entire world runs better, greener and safer (see sap.com/purpose).

When we simplify everything, we can do anything

SAP's commitment to simplicity is creating technology that will generate new opportunities for innovation and growth and create unique advantages for small and medium-sized businesses.

By transforming the world of business and making every business run simple, SAP's technology will have far-reaching implications for every industry, their customers and employees and for the planet and its people. Make business run simple and you make the world run simple (visit sap.com/runsimple).

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Run Simple

A summit of success: prospects for Schloss Elmau

— This year's G7 summit will allow world leaders to address a diverse set of global challenges, from maritime security to climate change and humanitarian emergencies, explains
John Kirton, Director, G7 Research Group



John Kirton is Director of the G7 Research Group and Co-Director of the G20 Research Group, the BRICS Research Group and the Global Health Diplomacy Program, all based at Trinity College and the Munk School of Global Affairs, University of Toronto, where he is a Professor of Political Science. He is also a Non-Resident Senior Fellow at the Chongyang Institute for Financial Studies at Renmin University of China and co-author, with Ella Kokotsis, of *The Global Governance of Climate Change: G7, G20 and UN Leadership*.

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The 41st annual G7 summit, taking place at Schloss Elmau in Bavaria, Germany, on 7-8 June 2015, promises to be a particularly significant event. It will be the third time the G7 leaders meet without Russia since they suspended it in 2014. It will be the second G7 summit with a comprehensive agenda, embracing security, social and economic affairs. It will be the first recent G7 summit prepared a full year in advance. It will be the first to invite as guests, alongside select African leaders, the heads of the core multilateral organisations. It will be the second summit hosted by German Chancellor Angela Merkel, following her first at Heiligendamm in 2007. She will do so in the 25th anniversary year of German unity, which arrived on 3 October 1990.

That anniversary will be an inspiration as this year's G7 leaders confront their central challenge: restraining and reversing Russia's recent military expansion in Europe, restoring Russia's post-Cold War path of democratic reform and ultimately having Russia return Crimea to Ukraine so that Russia can return to the G8. The G7 leaders will thus strongly support the current fragile ceasefire in eastern Ukraine and the sanctions imposed on Russia. They will help to mobilise more of the major

financial support that a struggling Ukraine needs as it confronts the military threat in its east and implements its first serious economic and political reform. They will support Ukraine's campaign to reduce its still pervasive corruption and to create the competitive market economy that its own citizens and the world can trust. G7 leaders will strengthen energy security by reinforcing

the work that their energy ministers launched last year to reduce the grip that Gazprom has on Ukraine and the European Union. They could also discuss the impact of directly providing military training, equipment and other assistance to Ukraine, where the United States and Canada have led.

A closely connected set of security challenges comes from terrorist attacks in Syria, Iraq, the broader Middle East and Africa, and prospective nuclear proliferation in Iran. To tackle terrorism, G7 leaders will strengthen their forceful response to the brutal behaviour and ideological inspiration of the so-called Islamic State and its soulmates that still control substantial parts of Syria and Iraq. They will also devise ways to reverse its deadly spread into Yemen, Libya, Mali, Kenya, Nigeria, France and a previously safe Canada during the past year.

On non-proliferation, G7 leaders will offer cautious support and continued vigilance for the tentative deal recently struck with Iran to control its nuclear programme, and push for that deal's conversion into a detailed, ratified regime soon after the summit ends. They will be alert to the ever-present danger of nuclear proliferation, deadly attacks or other provocations from North Korea.

They will also address the threats to maritime security in the critical energy supply routes in the Persian Gulf and the East and South China Seas. As the 30th anniversary of the Chernobyl nuclear explosion approaches in 2016, they will keep raising the money needed to make the reactors there fully safe.

Landmark conferences

On sustainable development, their tasks are equally large. They will support the successful completion of the Millennium Development Goals due to be met by the end of 2015, and discretely shape and spur a new generation for the next 15 years. The United Nations on its 70th anniversary needs and deserves this injection of G7 leadership in order to have the UN's looming summits on development finance and on the post-2015 development agenda succeed. On the critical challenge of climate change that the UN conference in Paris in December will confront, the G7 – led by France – will seek to pioneer a new approach, in which all the world's major carbon-polluting powers agree to control their own greenhouse gas emissions, while all individual G7 members lead in the most effective way, including through providing ample public and private climate finance.

In terms of health, G7 leaders will help to end the current Ebola epidemics in Africa, act on the lessons learnt, strengthen the healthcare systems that will prevent and control similar outbreaks and neglected diseases of the poor, support ongoing G7 and UN priorities such as maternal, newborn and child health and vaccination, and contribute to new priorities such as fighting antimicrobial resistance and treating dementia. They will address humanitarian emergencies in Syria and probably across the Mediterranean beyond.

They will also further the German host's long-standing priority of enhancing Africa's economic growth, development, security, good governance and



INNA VARENTSIA/AP/PRESS ASSOCIATION IMAGES

democracy, embracing Africa as a growing global partner taking full responsibility for its future path.

On the economy and finance, G7 leaders will control the clear and present dangers from a fragile global economy and reinforce the larger G20's work halfway between its last summit in Brisbane, Australia, in November 2014 and its next one in Antalya, Turkey, in November 2015, looking forward to Hangzhou, China, in the autumn of 2016. The G7 will try to ensure that an indebted Greece, Russia or fragile Chinese financial system does not spark another global financial crisis. It will promise to carefully manage its members'

The Russian border near Hoptivka in eastern Ukraine. G7 leaders will affirm support for the ceasefire in eastern Ukraine, and help to mobilise funds to assist with the country's reforms

world. It will foster freer trade by endorsing the rapid conclusion of the US-Europe Transatlantic Trade and Investment Partnership and the 12-member Trans-Pacific Partnership embracing the US, Japan and Canada.

It will unite on the governance principles needed at the new Asian Infrastructure Investment Bank, an issue that raises the broader question of how each G7 member sees the trade-off between a country's commercial interests and its social responsibilities including respect for human rights. Beyond lie the shared G7-G20 priorities of generating global growth through sound fiscal policy, job creation, structural change, reform of the international financial institutions, financial regulation and supervision for stability and inclusion, fair international taxation, and infrastructure investment and finance.

In addressing these challenges, G7 leaders are likely to make Schloss Elmau a summit of substantial success, led by Angela Merkel as the host. She will be the most experienced G7 leader at Schloss Elmau, having produced a strong performance at her Heiligendamm Summit in 2007. Since then, both her country and she herself have led the world in effectively coping with the Schloss Elmau Summit's core challenges of sound economic management, healthy development, climate change control and, above all, patiently encouraging Russian President Vladimir Putin to return to the responsible path that his fellow Russians need and the outside world wants. ■

This will be the second G7 summit with a comprehensive agenda embracing security, social and economic affairs

unprecedentedly expansive monetary policies amid the prospective rise in US interest rates later this year. As a personal priority of G7 host Angela Merkel, it will seek to spur the still struggling economic recovery into the sustained take-off stage in the US, Canada and the United Kingdom, and ignite it in Europe and Japan. It will enhance women's empowerment, both in G7 members' workforces and in vocational training in the developing

The changing dynamic of German-African relations

— Dialogue with Africa is a key component of the Schloss Elmau Summit. **Andreas Freytag, Professor of Economics, Friedrich Schiller University Jena**, asks how the G7 countries, and Germany in particular, can best engage with the continent



Andreas Freytag is Professor of Economics at the Friedrich Schiller University Jena and Honorary Professor at the University of Stellenbosch. He is also Director of Tutwa Germany, a Senior Research Fellow at the European Centre for International Political Economy, Brussels, and a Senior Research Associate at the South African Institute of International Affairs. He has been a consultant for the European Commission, the Organisation for Economic Co-operation and Development and the International Monetary Fund.

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For more than a decade, African economies have been growing at unprecedented speed. During this time, growth rates in some countries have reached double-digit levels. Even after the last resource boom ended, most African economies – in contrast to what happened in earlier periods – kept growing. There is no denying that Africa is a rising continent. Indeed, there are lively economic and social dynamics, cosmopolitan cities and growing middle classes in many African states.

This reality does not match the perception of Africa in Germany. The public discussion is still dominated by epidemics, poverty in rural communities and violence. Although there is no question that Ebola must be contained, as the G7 foreign ministers made clear in Lübeck on 15 April 2015, this is but one aspect of Africa. And this aspect is moving increasingly into the back of the picture.

Neglecting the continent's dynamic development might well lead to an unfortunate underestimation of Africa – as a market and a source of new ideas and innovative products. Therefore, it should be the goal of African and German political leaders as well as the business community to change this perception.

Fortunately, the German Government has identified the myopia and consequently decided to make Africa's future one of the pillars of the agenda at this year's G7 summit at Schloss Elmau on 7-8 June. The key topics for the summit include a range of issues that touch on German-African relations; indeed, antibiotic/antimicrobial resistance, as well as neglected and poverty-related diseases, are key in both Germany's

and Africa's development agendas. This is a short-term as well as a long-term issue of sustainability. The recent outbreak of Ebola – the worst ever – has heavily damaged West Africa. It is not only costing lives, but also having negative economic and social effects on the affected countries, due to their being isolated from other countries. Major challenges in the fight against the virus include transport, coordination, equipment and the availability of trained staff. The outbreak required an urgent coordinated international response, especially in humanitarian assistance.

However, even more important is a longer-term plan to develop the infrastructure and capacity of healthcare and environmental protection in African countries that will help them protect themselves from similar threats from epidemic and environmental issues in the future. This is more than a development project for do-gooders. Natural scientists, healthcare economists, the pharmaceutical industry and policymakers in the field must cooperate to clear a path to the sustainable development of healthcare systems.

The German Government has also identified value-chain standards, education and women's empowerment as key topics. These are, in fact, topics where the German business community can make a difference. As German companies are well integrated into the world economy, they have the knowledge to cope with challenges abroad. They are also accustomed to high standards and, most importantly, able to provide excellent education.

What is needed is support from the German Government, more with regard to risk-sharing and investment protection than in financial terms. In addition, the role of entrepreneurship and the private sector in the economy, and the formation of small and medium-sized enterprises in Africa, are key. German experience in this field can be very helpful; however, the temptation to impose structures that are successful in Germany, but not necessarily elsewhere, must be contained.

Promoting global trade

An additional topic of Germany's G7 presidency is to promote international trade. Not only is this in the genuine interests of Germany's business community, but it is also vital for Africa. In this respect, knowledge of the formal and informal institutional settings of legal systems, the cultural backgrounds, and business environments in the different countries, if not regions, on the continent is of utmost importance. Here, intergovernmental cooperation should be fostered.

In addition, the lack of infrastructure in Africa has become apparent; if the members of the Organisation of Economic Co-operation and Development want to spend aid money, infrastructure is a good choice. On the macro level, models of regional integration, as well as the ongoing negotiations of mega trade deals such as the Transatlantic Trade and Investment Partnership and the Trans-Pacific Partnership, and their effects on Africa's trade developments, are to be considered.

Given that access to electricity is still low throughout Africa, energy security is a major issue



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for the continent, and is also a key topic for the summit. The German Government, in cooperation with the innovative German business community, should make more use of its experience with renewable energy as well as conventional energy sources to help African producers to move up the value chain. Instead of selling commodities, African enterprises are producing more finished goods – and German companies can help with this process and benefit from it. Against this background, the importance of innovation systems is absolutely crucial. One of the aims is to pave the way for the African research and development community to

Instead of selling commodities, African enterprises are producing more finished goods - and German companies can help with this process and benefit from it

follow the global innovation path, by enhancing not only traditional north-south, but also south-south linkages for technology transfer and cooperation.

The past 10 years have seen Africa's major transformation in economic development, raising hopes and expectations for the continent brought by higher growth rates. China has contributed significantly to this process, in addition to the G7's continuous efforts in the region. Sustainable development for Africa's current

Dr Nkosazana Dlamini Zuma, chairperson of the African Union Commission, with German Chancellor Angela Merkel. Germany's G7 presidency has many priorities that correspond with African needs

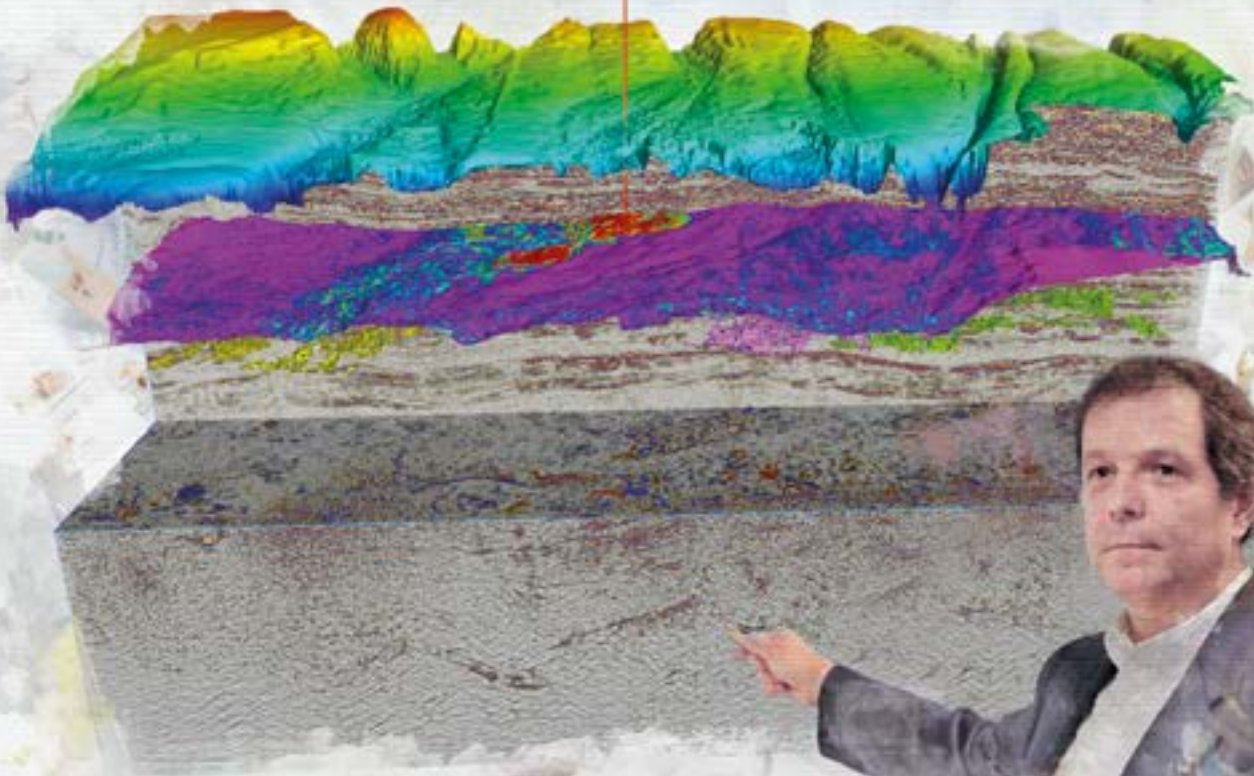
and future generations is the aim of policymakers in Germany, the G7 and African countries. The G7 leaders at Schloss Elmau should thus discuss the role of the industrialised countries under the guidance of the G7 in the future of Africa's growth process, considering the interplay between governments, development agencies and business – especially as business has not been in the German focus so far.

Barriers to progress

Nonetheless, there are limits to the G7's potential help for Africa. These are rooted in governance problems in Africa itself. There are broad and diverse reasons behind poor governance in African countries. On the one hand, some states lack strong, concentrated political centres, and could be described as tribal societies without central governments.

On the other hand, in some states dictatorships are triumphing over the political and economic freedom of their citizens. In addition, corruption is a huge problem. Together, these difficulties hinder the economic and social development of African regions and countries in different ways.

Against a background of past relations, the questions of how the G7, with its fundamental and universal institutions of democracy, human rights and sustainable development, can support political stability in Africa will be crucial for the future. Germany's agenda for the G7 summit at Schloss Elmau is a step in the right direction. Africa needs joint efforts across borders, and ones that include strong business interests. Such a process bears the potential of mutual benefits. ■



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1.7 billion barrels of oil equivalent discovered in 2014

9.5 billion barrels of oil equivalent discovered between 2008 and 2013

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eni and the discovery of new resources: we take our energy all over the world

in Mozambique, Congo, Gabon, Venezuela, Norway, Ecuador and many more countries throughout the world we discovered 2.5 times more resources than we produced between 2008 and 2013. A total of 9.5 billion barrels of oil equivalent, to which we may add another 1.7 billion discovered in 2014. These outstanding results help bring value to our country and make eni a leader in exploration thanks to highly qualified skills, top-notch proprietary technologies and on-going scientific research.

taking care of energy means creating new energy, together



Welcome to Bavaria

— Providing an inspiring and beautiful setting for this year's G7 summit, Bavaria looks forward to 'playing host to the world', explains Minister-President Horst Seehofer



ZONAR GMBH/ALAMY



THOMAS PLETTENBERG

We look forward to welcoming you here in Bavaria. Hospitality is a long-honoured tradition where we

come from. Our home – the Free State of Bavaria – is known around the world for its mountains, lakes and thousand years of culture. Schloss Elmau is an inspiring location nestled in a spectacular natural landscape, where you can experience for yourself why I like to say: “It is a good fortune to live in Bavaria.”

Bavaria is Germany's economic powerhouse. One in every three German patents comes from our

Bavaria is home to small and medium-sized enterprises as well as major global players who are successful worldwide. We feel Bavarian and think global

state. We generate over one-quarter of our value added in the manufacturing sector. The 'Made in Bavaria' label is a sign of top quality. Bavarian manufacturers export well over 50 per cent of the products they make. Bavaria is home to small and medium-sized enterprises as well as major global players who are successful worldwide. We feel Bavarian and think global.

Bavaria is connected to the world. We believe firmly that working together with our international partners is the key to a good future. That is the spirit of the G7 summit – and our Bavarian philosophy.

It is the reason why our state has more than two dozen representative offices around the world, from Chile to Japan, from Warsaw to Vietnam. We maintain particularly close ties with nine partner regions in China, India, South Africa, Brazil, Canada, Austria and the US. Today's power regions know that we can only remain competitive through innovation. This is the foundation for tomorrow's social stability and quality of life.

Only courageous and curious people create innovation and premium quality. Our world-class universities attract bright minds from all over the world. There is a good reason why Munich is Europe's IT capital.

Germany's decision to transition into a new energy era poses major challenges. Here in Bavaria, we are already meeting one-third of our gross electricity needs through renewable energy today.

Bavaria offers opportunities for all. That is why people from Germany and the entire world are moving to our state. In the past 25 years, the population of Bavaria has grown by more than 1.6 million people to 12.6 million.

Bavaria is nature and culture, technology and hospitality. I am proud that we are playing host to the world. Come and experience our state's diversity. The people of Bavaria look forward to welcoming you. ■

Population and gross domestic product (current prices), 2014



Canada

Population	35,492,000*
GDP (\$)	1,788,717,000,000



France

Population	63,920,000
GDP (\$)	2,846,889,000,000



Germany

Population	81,100,000*
GDP (\$)	3,859,547,000,000*



Italy

Population	59,960,000
GDP (\$)	2,147,952,000,000

*Estimates



Japan

Population	127,061,000
GDP (\$)	4,616,335,000,000



United Kingdom

Population	64,511,000
GDP (\$)	2,945,146,000,000



United States

Population	319,047,000
GDP (\$)	17,418,925,000,000



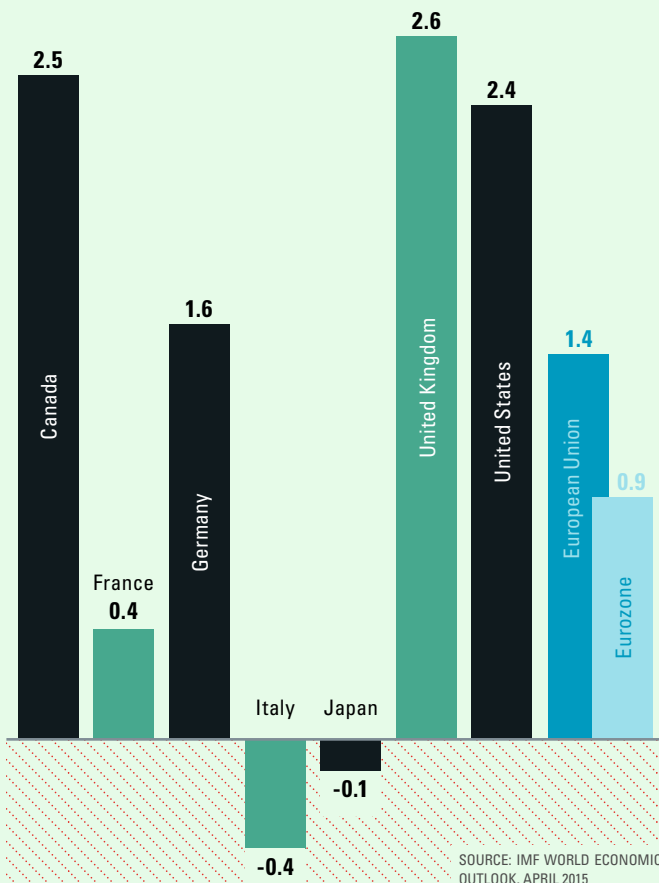
European Union

Population	504,811,000*
GDP (\$)	18,495,349,000,000

Eurozone Population: 332,211,000* GDP: 13,390,525,000,000

SOURCE: IMF WORLD ECONOMIC OUTLOOK DATABASE, APRIL 2015

GDP growth, 2014 (% change)



General government deficit, 2014 (total, % of GDP)

Canada	-1.64
France	-3.96
Germany	0.67
Italy	-3.04
Japan	-8.46*
United Kingdom	-5.69
United States	-5.57*

*2013 figures were the most recent available at time of press

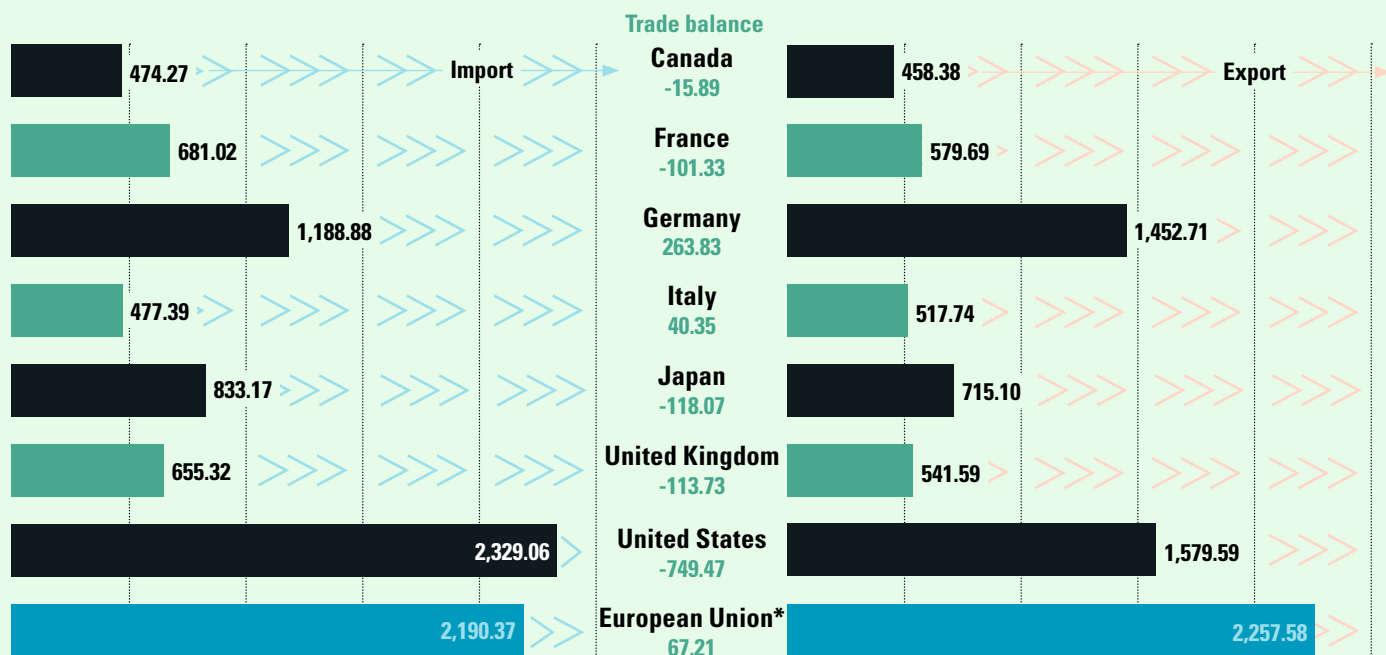
SOURCE: BASED ON DATA FROM OECD, GENERAL GOVERNMENT DEFICIT DATASET, OECD DATABASE, [HTTPS://DATA.OECD.ORG/GGA/GENERAL-GOVERNMENT-DEFICIT.HTM](https://data.oecd.org/gga/general-government-deficit.htm), 18 MAY 2015

Official development assistance, net, 2014 (total, % of gross national income)

Canada	0.24
France	0.36
Germany	0.41
Italy	0.16
Japan	0.19
United Kingdom	0.71
United States	0.19

SOURCE: BASED ON DATA FROM OECD, OFFICIAL DEVELOPMENT ASSISTANCE DATASET, OECD DATABASE, [HTTPS://DATA.OECD.ORG/ODA/NET-ODA.HTM](https://data.oecd.org/oda/net-oda.htm), 18 MAY 2015

International merchandise trade, 2013 (\$ billions)



*Extra-EU trade only. Values converted from euro to US dollars at 2013 exchange rate (approximately \$1.30 per euro)

SOURCE: UNCTAD; EUROPEAN COMMISSION

Top five trading partners, 2013 (in descending order)

Canada	France	Germany	Italy	Japan	United Kingdom	United States	European Union*
1. US	1. Germany	1. France	1. Germany	1. US	1. Switzerland	1. Canada	1. US
2. China	2. Belgium	2. US	2. France	2. China	2. US	2. Mexico	2. China
3. UK	3. Italy	3. UK	3. US	3. South Korea	3. Germany	3. China	3. Russia
4. Japan	4. UK	4. Netherlands	4. Switzerland	4. Taiwan	4. Netherlands	4. Japan	4. Switzerland
5. Mexico	5. Spain	5. China	5. UK	5. Hong Kong	5. France	5. UK	5. Norway

*2014 data

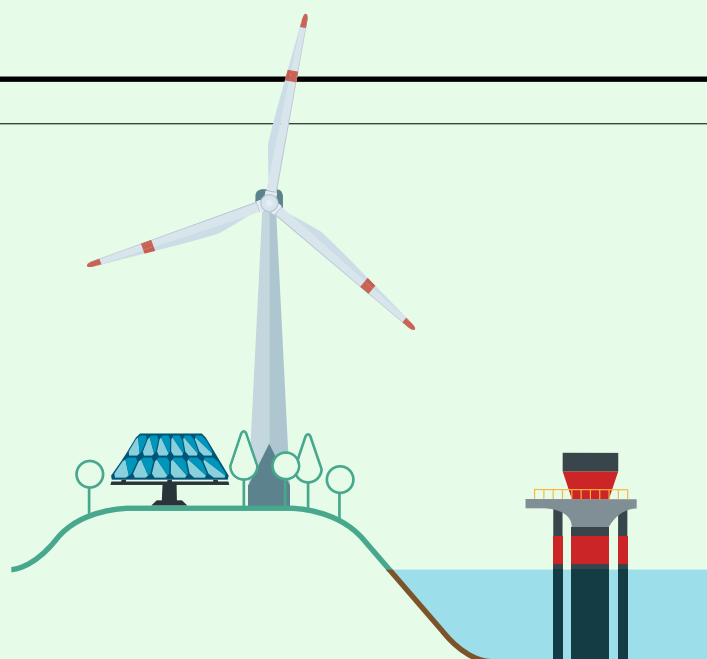
■ G7 member countries ■ G20 member countries ■ Other

SOURCE: UNCTAD; EUROPEAN COMMISSION

Clean energy investment and capacity, 2013

	Total clean energy investment (\$ billions)	Total renewable energy capacity (GW)
Canada	6.5	13.5
France	2.9	14.7
Germany	10.1	77.4
Italy	3.6	33.8
Japan	28.6	34
United Kingdom	12.4	18.7
United States	36.7	138.2
Rest of EU	11.5	38.1

SOURCE: THE PEW CHARITABLE TRUSTS





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Towards a more inclusive global economy

— Seven years since the beginning of the financial crisis, the global economic recovery is gathering pace, but G7 leaders must ensure that future growth is inclusive, equitable and sustainable, writes **Angel Gurría, Secretary General, Organisation for Economic Co-operation and Development**



Angel Gurría has been Secretary General of the Organisation for Economic Co-operation and Development since 2006, having been reappointed in 2010. He served as Mexico's Minister of Foreign Affairs from 1994-98 and Minister of Finance and Public Credit from 1998-2000. Gurría has participated in various international organisations, including the Population Council and the Center for Global Development. He chaired the International Task Force on Financing Water for All and is a member of the United Nations Secretary General's Advisory Board on Water and Sanitation.

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The global economic outlook has brightened somewhat in recent months, supported by the fall in oil prices and monetary easing by major central banks. The Organisation for Economic Co-operation and Development (OECD) has upgraded its growth forecasts for the gross domestic product (GDP) of most countries, but the underlying pace of the global economy remains moderate.

Real investment remains sluggish, and unemployment, which is far too high in many OECD economies, weighs on the recovery. Moreover, strong downside risks and difficult policy challenges persist. Abnormally low – and even negative – inflation and interest rates contribute to risks of financial instability, and signal a mispricing of risk. This also increases the probability of turmoil in emerging

market economies during the necessary normalisation of monetary policy in the United States, if it is then transmitted to other economies via higher bond yields and a reversal of capital flows. Last, but not least, the

risk of a persistent period of economic stagnation with low growth, low inflation and low interest rates is a constant threat on the horizon.

Such growing risks of financial instability, together with the failure of monetary easing alone to spur strong growth in fixed investment, underline the need not to rely exclusively on monetary policy and for a more balanced approach to policy. All policies should work together, and monetary policy action needs to be supported by fiscal, macroprudential and, especially, growth- and jobs-enhancing structural reforms.

As stressed in the OECD's flagship publication *Going for Growth*, structural policies are needed to strengthen economic performance by removing impediments to productivity growth, enhancing labour utilisation, promoting investment, developing skills and unleashing new sources of growth. Structural reforms implemented since the early 2000s have contributed to raising the level of potential GDP per capita by an average of five per cent across OECD countries. Further reforms towards current best practice could raise the long-term level of GDP per capita by up to 10 per cent on average across these countries. This is equivalent to a gain of around \$3,000 per person. ▶



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The pursuit of productivity is crucial to addressing the current challenges; however, it alone will neither maximise potential economic gains nor ensure shared prosperity. Already, in past decades, advances in technology, despite driving economic growth, have widened income disparities by increasing salaries and opportunities for the highly skilled, while leaving those with intermediate or low skills behind.

The focus should hence be on policies that can also make growth more inclusive. This is the case, in particular, for policies that step up job-search support, activation programmes for the unemployed, and investment in skills and education.

While the G20 leaders' commitment to ambitious national growth strategies was an important step towards reaching their goal of two per cent additional

growth, it is also important to look for reform measures that can contribute to more equal growth. Here, there are several specific areas in which the G7 leaders at their Schloss Elmau Summit could help lay the foundation for inclusive, equitable and sustainable growth.

Fostering female entrepreneurship

Closing the gender gap is essential, for both growth and inclusiveness. Great progress has been made in education, but much remains to be done to reap the full benefits of women's potential through higher participation in the economy. Reducing the gender gap in labour market participation would boost long-term growth, not only by increasing the size of the workforce, but also by making the most of women's improved educational attainment, thus raising the productivity

Translating the gains women have made from education into the workplace can help to raise economic growth, thanks to higher productivity and participation in the economy

of all economies. OECD projections show that full convergence in the labour force participation rates between men and women in OECD countries could raise the annual GDP per capita growth rate by 0.6 percentage points. But bringing more women into the workforce is not enough: they should have equal access to productive, well-paid, good-quality jobs and entrepreneurship opportunities. For instance, far fewer women than men run their own businesses, and women-owned enterprises are more likely to close quickly, are smaller and grow less rapidly than those owned by men.

The G7's explicit goal to promote employment and entrepreneurship of women is most welcome. The G7 should focus on removing cultural and economic barriers to female entrepreneurship. This will require improving the business environment, including for small and medium-sized enterprises, as well as setting up effective measures to help reconcile work and family commitments. The G7 could launch an action plan to promote women's entrepreneurship with specific initiatives to establish and nurture new businesses, building on the principles laid out in the OECD Gender Recommendation. It would thereby take the lead in reducing gender gaps in entrepreneurship and moving forward on implementation, as well as contributing to the creation and dissemination of international role models for gender equality and more equal leadership in public policy and business.

Promoting responsible business conduct

Although investment is a critical component of growth, governments and companies must underpin it through sustainable and inclusive development. As a result of the global financial crisis, the general public remains generally mistrustful of institutions at large,

for stakeholder rights, and improves local conditions, capacity and human capital development.

The OECD Guidelines for Multinational Enterprises are the most comprehensive set of recommendations for what constitutes responsible business conduct, addressed by governments to multinational enterprises operating in or from adhering countries. Their unique grievance mechanism for dealing with non-observance strengthens accountability, as well as improving access to remedy. In addition, these guidelines are the first international instrument to incorporate the expectation that businesses are responsible for conducting risk-based due diligence across their supply chains and across all major areas of business ethics. To assist businesses in meeting these expectations, the OECD is developing industry-specific supply chain guidance for due diligence, for example, within the extractive, textile and agricultural industries.

G7 members have shown leadership in promoting responsible business conduct among enterprises operating in their jurisdictions and abroad. The leaders could continue to promote the uptake of these practices globally, especially with regard to business accountability and transparency, ensuring that responsible business conduct is applied throughout supply chains, strengthening the links between it and development, and promoting it in outreach efforts.

Investing in people's skills to cope with new realities, and improving the access of a larger share of the population to a wide range of mainstream financial services, would contribute to financial and economic growth by offering more people, including the most vulnerable, the opportunity to plan their future. But access is not enough. For financial inclusion to fully benefit individuals and the economy, it should go hand in hand with measures to improve financial consumer protection, and strengthen individuals' ability to use financial products and to make savvy financial decisions. Over recent years, the OECD has provided the global community and the G7/8 with high-level policy instruments and methodologies. These have enabled the development and analysis of evidence on financial literacy and inclusion, as well as research and practical guidance to improve the delivery of financial education for vulnerable groups, such as youth, women and migrants, as well as small- and medium-sized enterprises.

The German G7 presidency's interest in promoting financial inclusion, to support inclusive growth and entrepreneurship, notably in the Middle East and North Africa, is welcome. The OECD stands ready to support this initiative with evidence, policy and practical guidance focusing on effective financial education.

In conclusion, the toxic legacies inherited from the financial crisis are multifaceted: they are cyclical, structural and social. But they also have to do with perceptions – in particular, the lack of trust and confidence in the system. The comprehensive agenda of Germany's G7 presidency precisely encapsulates the kind of priorities the world needs for better policies for better lives, the leitmotif of the OECD. ■

Broader uptake of responsible business practices globally would help level the playing field for business, creating a more open investment climate

including markets and businesses. This lack of trust and confidence still constitutes a drag on the recovery. This is why responsible business conduct – which aims to enhance the private sector's contribution to sustainable and inclusive development – is so important. Indeed, it is just as important as tax fairness and transparency. Broader uptake of responsible business practices globally would contribute directly to levelling the playing field for business, creating a more open investment climate, and improving conditions in global value chains. Emerging and developing economies could particularly benefit, because a business environment that is based on good business practices also improves access to international markets for domestic industries, increases financing for development, ensures respect

The new era of tax transparency in financial services



Mariano Giralt
Managing Director, Head of Tax Services, EMEA



Lorraine White, Managing Director, Head of EMEA Securities Tax and US Tax Services

The result is that we are now seeing structural changes in tax models that will inevitably reshape the way the world operates in the field of taxation. As described by OECD Secretary General Angel Gurría at the G20 summit in Australia in 2014, these changes bring a once-in-a-lifetime opportunity: “This is certainly the most prominent step towards modernisation of the international tax system in 100 years.”

The next couple of years will see two major new tax regulations become more of a reality, which will have a direct impact on the modus operandi of the financial services industry.

We are in the midst of a fundamental change to tax systems, worldwide. As governments respond to fiscal pressures with the pursuit of individual and corporate taxation, never has the demand for increased transparency been greater. With governments taking collective and coordinated action to eradicate tax evasion, the legislative steps to close loopholes and raise revenue appear to be heading in one direction – increased tax reporting burdens.

This is a new era for both financial services and governments, who will need to join forces to harmonise and streamline the information flows to ensure that systems that are eventually introduced are effective.

The tax transparency topic is not entirely new. The Organisation for Economic Co-operation and Development (OECD), established more than 50 years ago, has and continues to provide a forum for governments to work together and find solutions to common problems. As far back as 2002, the OECD started to develop a Model Agreement on Exchange of Tax Information on Tax Matters. This opened a new avenue for countries to exchange tax information and, since then, we have faced a never ending spike of demands on tax transparency. In this regard, the European Union has implemented the following two directives:

1. The European Union Savings Directive (EUSD), introduced in 2005, requires financial institutions in EU member states to report information about individuals receiving savings income outside their country of residence for onward information exchange between EU member state governments.
2. In 2011, the EU passed its Directive on Administrative Cooperation in the Field of Taxation. As direct taxation is not harmonised across the EU, the directive allows tax authorities within the EU member states to cooperate more closely on administrative enquiries.

We have also seen the increasing use of the “limitation on benefits (LOBs)” articles in double tax treaties. These vary widely from treaty to treaty, but they effectively deny the benefits of the tax treaty to residents that do not meet certain additional tests.

These measures, however, were not addressing a perceived global problem and it was clear further collaboration to unify solutions and avoid, at all costs, governments taking unilateral action was necessary.

The EU Commission and G7/G8 and G20 governments have mandated the OECD to come up with an action plan to address these problems and propose solutions. The newly empowered OECD has subsequently proposed a number of multi-year developments and actions to create greater tax transparency.

Developing the Common Reporting Standards

Both the EUSD and the EU Directive on Administrative Cooperation in the Field of Taxation provided bilateral information upon request, but more was needed. Back in September 2013, the OECD proposed a global model for automatic exchange of information (AEOI) to the G20 Leaders, in order to fight tax evasion and ensure tax compliance. The G20 endorsed the initiative and, with the OECD’s leadership, a new single standard for automatic exchange of information was established – the Common Reporting Standard.

The standard requires countries to obtain financial account information from their local financial institutions and automatically exchange that information with other countries on an annual basis.

Unlike previous stand-alone developments, the Common Reporting Standard is unique, in that it incorporates the work of the OECD in the area of automatic exchange of information as well as the EU initiatives and the intergovernmental implementation of the Foreign Account Tax Compliance Act (FATCA).

This new standard for AEOI involves the systematic and periodic transmission of bulk taxpayer information by the source country of income to the taxpayer’s country of residence. In theory, this enables the resident country to check its tax records and verify that its taxpayers have accurately reported their foreign-



sourced income. This essentially aids governments to focus their enquiries on specific taxpayers that may present issues and address any concerns about potential untaxed capital.

As of 1 March 2015, more than 50 countries, including all EU member states, have committed to adopt the Common Reporting Standard by 1 January 2016.

The Base Erosion and Profit Shifting (BEPS) Project

The BEPS Project outlines 15 actions to ensure corporations are allocating their profits in locations where economic activity takes place, thereby ensuring appropriate corporate tax is being paid. The OECD's BEPS Action Plan has an ambitious timeline, expecting the 15 actions, with proposals culminating in a model multilateral agreement, to be finalised in three phases and completed by September 2014, October 2015 and December 2015. These actions will cover complex areas, such as preventing treaty abuse, hybrid-mismatches, transfer pricing and country by country reporting.

The Action Plan should give countries the tools they need to ensure that profits are taxed where economic activities generating the profits are performed, while at the same time giving businesses

greater certainty and transparency in the application of international tax rules.

Of the reports delivered to date, the need for coordinated action cannot be emphasised more. Without this cooperation, countries may take unilateral approaches that may simply relocate the problems and increase uncertainties for business.

Are We Ready?

These new legal instruments and requirements will exponentially increase the amount of data financial institutions, financial intermediaries and tax authorities will need to capture, store, assess, validate, report and utilise for tax purposes.

The looming question is: are we prepared for this? Are the financial service institutions ready to assume all the additional data requirements? Have future tax processes been considered and implemented efficiently? Are financial institutions thinking strategically? Are financial institutions and financial intermediaries prepared to collect data on behalf of tax authorities, and do they have a choice? Most importantly, are tax authorities equipped with resources and systems able to cope with the new avalanche of tax data and use it appropriately?

There is no doubt that greater transparency provides greater value to our businesses and societies. It does, however, require increased accountability, better information on asset ownership and fair allocation of profits. In the 21st century, cross-border investment flows are a staple practice and more important than ever in a shrinking economy – a fact that needs to be recognised and considered for the future.

This will of course come at a price; the compliance costs will be borne by all. Worldwide, it would seem that millions of dollars will need to be invested in new technology and systems, new processes and resources to do the job.

Now more than ever, it is critical that all the impacted parties (governments, tax authorities, supranational bodies, advisors, financial institutions, financial intermediaries, etc) are truly connected. From BNY Mellon's perspective, as a key financial institution, we embrace with responsibility the new era of tax transparency. We continue to invest in people and technology to ensure our organisation is compliant with the new legislation as well as, where possible, assist our clients to be compliant. We also work with various governments, working groups and committees to bring our expertise and experience in financial services and assist in the practical implementation of the new tax rules. We all want to make it work, let's make it happen.

The views expressed herein are those of the author only and may not reflect the views of BNY Mellon. This does not constitute investment advice, or any other business, tax or legal advice, and should not be relied upon as such.

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Disappointing outlook underlines need for reform

— With structural rigidities hindering the potential for growth, far-reaching labour and product market reforms must be implemented in order to realise full productivity potential, says Robert Fauver, former United States G7/G8 Sherpa



Robert Fauver directly served presidents and cabinet secretaries in a succession of senior international financial and economic affairs positions in the United States. He was Special Assistant to President Bill Clinton for National Security Affairs and Economic Policy, and served as the G7 Sherpa. Under President George H Bush from 1991-93, Fauver was Acting Undersecretary of State for Economic Affairs as well as Deputy Undersecretary. He led the US Government's creation and management of the Asia-Pacific Economic Cooperation (APEC).

The G7 leaders will arrive at Schloss Elmau this June facing an unsettled global economic outlook, one that is now weaker than it appeared to be at the end of 2014. The encouraging performance of the fourth quarter of 2014 seems to have been yet another year-end temporary growth spurt.

In broad terms, during the course of 2015 the world economy should strengthen marginally, at best, from its outcome in 2014. The United States could experience less than 0.5 per cent faster growth this year, reaching something of the order of 2.5 to three per cent compared with the 2.4 per cent recorded in 2014. The mid-March forecast produced by the US Federal Reserve, however, predicts only 2.5 per cent. Strong fourth-quarter growth in 2014 is now thought to have been temporary.

Europe could experience something around one per cent real growth, compared with slightly less than that during 2014. Japan, too, could see slightly faster real growth, coming close to one per cent this year after a disappointing 0.2 per cent in 2014. Emerging markets could continue to experience a real growth rate in the region of 4.5 per cent this year.

Indeed, real growth in the world economy will, most probably, closely resemble that of 2014. It is a disappointing outlook.

According to the *Wall Street Journal* survey of some 60 economists, the US can expect a slight growth increase, with the annual rate reaching 2.9 per cent, compared with the rate of 2.4 per cent reached in 2014. This growth rate should lead to a continued, very modest

decline in the unemployment rate, ending the year near five per cent. Inflation will remain very low, reaching slightly above an annual rate of one per cent by the end of the year. The dark spot on the horizon is a rising trade deficit, which largely reflects the strengthened dollar and, hence, the lower cost of imported goods.

Europe continues to experience sluggish domestic demand, but could witness a surge in export demand during 2015. Continued very low interest rates are not having the desired effect on investment demand. Furthermore, as is the case in Japan and the US, an exit strategy for the historically large central bank bond purchases has yet to be explained.

Impact of falling oil prices

In macroeconomic terms, two key factors should strengthen the near-term outlook. The price of crude oil has plummeted on world markets over the past year. Brent crude oil prices have declined from \$108.30 last March to \$56.41 on 27 March 2015. This represents a major decline in the cost of oil to the world economy. And it should ease price pressures in several major industries as well as providing a significant boost to consumer disposable income.

Second, the US dollar has risen dramatically over the past year. The dollar rose as the cost of the euro fell from \$1.40 in March 2014 to \$1.05 in March 2015, and the cost of the yen fell from \$0.01 to \$0.008. These movements will provide significant strengthening of the cost-competitiveness of European and Japanese exports to the US and other markets. The outlook for European and Japanese exports should strengthen significantly during 2015.

The value of these improved macroeconomic conditions, however, rests heavily on microeconomic influences, not only in Europe and Japan, but also in the emerging-market economies. Structural rigidities in domestic economics can blunt the effectiveness of these cost advantages, and highlight the need for Europe and Japan to focus policy changes on freeing up their domestic economies.

The Organisation for Economic Co-operation and Development (OECD) began its focus on structural rigidities in its members in the mid 1980s, when it held its first ministerial meeting on structural issues. It has continued its path-breaking work to this day.

Unfortunately, despite this outstanding work, there is a continued need for structural reforms in the industrial economies, as well as the emerging-market economies. In February 2015, the OECD prepared a report on structural issues for the meeting of G20 finance ministers and central bank governors in Istanbul. "It is important that the structural reform agenda put more attention on those measures that in addition to boosting productivity and job creation in the medium term can best support demand in the near term," wrote Catherine Mann, Chief Economist of the OECD. Clearly, the OECD believes rigidities are preventing the efficient response-to-market signals in G20 economies and thus preventing potential domestic growth from taking place.



ISTOCK IMAGES

According to the OECD's findings, the pace of structural reforms in 2013-14 was fastest in Japan, Mexico and the south of the eurozone, while the Nordic countries and those in the centre of the eurozone made little progress in this area.

With the opportunities presented by significantly lower oil prices and the potential for export growth resulting from increased price competitiveness, rigidities are preventing the full benefits from being realised.

With significantly lower oil prices and the potential for export growth, rigidities are preventing the full benefits from being realised

Encouraging labour market participation

There are four key priorities for structural reform: getting people into work, increasing competition, unlocking business potential and supporting an innovative environment. First of all, well-functioning labour markets are needed. Necessary labour supply-side measures include the reform of tax and benefit systems to increase incentives to work. Measures aimed at reconciling family with professional life, such as

the provision of childcare, can also raise participation rates. Furthermore, the use of flexible forms of work, such as part-time and temporary work, can also provide further working incentives. Promoting wage flexibility and addressing labour market rigidities also stimulate labour demand. Another prerequisite for higher growth in the euro area is the unlocking of business potential by creating an entrepreneur-friendly economic environment and lowering administrative costs imposed by the public sector. The immense importance of this issue is increasingly appreciated, and several initiatives at the national level or even at the level of the European Union aim at 'better regulation'.

Finally, in order to fully exploit productivity potential, labour and product market reforms need to be complemented by policies that help to diffuse innovation, including measures to support higher investment in research and development. To be most effective, these measures need to be accompanied by efforts to improve the labour force's level of education and expertise in such a way that human capital is continuously adjusted to labour market needs.

Perhaps it is time for the OECD to sponsor another ministerial meeting to draw attention to the potential benefits of focusing on policies to reduce structural rigidities in domestic economies.

G7 leaders should include a call for such a meeting in their communiqué and should commit themselves to new policies needed to remove structural problems in their own economies. ■

The industrial port of Miami at night. Increased price competitiveness as a result of the stronger dollar is fuelling import demand in the United States

Defending Germany's trade surplus



Dr Andreas Rees

Chief German Economist

Many observers are concerned about Germany's high trade surplus. In 2014, it hit about 7.5 per cent of GDP, or nearly €220 billion. Currently, at a time when higher growth is needed more than ever, German exports are regarded as a deflationary threat, especially for the eurozone. In the following, I will argue that such concerns are exaggerated. Germany should indeed raise public investment, but for its own sake and not in order to 'save the world', which it cannot do.

Rebalancing in the eurozone

Germany's trade surplus with the eurozone has declined strongly in the past few years, while it has risen markedly outside the Economic and Monetary Union (EMU). Last year, Germany's trade surplus with the eurozone was a comparatively low 2.2 per cent of GDP, after having been nearly five per cent in 2007. Importantly, of the €53 billion decrease in Germany's trade surplus, €43 billion stemmed from rising German imports (and not from declining German exports). This represents a cumulative growth effect of 0.6 per cent for the rest of the eurozone, which is not really so bad. In other words, the rebalancing process in the eurozone has already made substantial progress, thanks to stronger domestic demand in Germany.

Germany's trade surplus is no longer particularly a eurozone issue. But what is it then? Some observers create the impression that it equates to a global imbalance – i.e. trade surpluses to many countries. It is true that the German trade surplus to non-eurozone countries has risen strongly in recent years. In 2014, it was 5.2 per cent of GDP, a record high since the mid 1970s.

However, of the roughly five per cent, three percentage points alone stemmed from the United States and the United Kingdom, with approximately equal shares. Instead of being a widespread global phenomenon, Germany's excess exports outside the eurozone were largely to just two countries. This simply reflects preferences for specific goods, such as cars and high-tech goods, rather than a worrisome development. Furthermore, both the US and the UK performed well in terms of growth. Obviously, the German trade surplus was not much of an obstacle.

To reduce trade imbalances, some observers have suggested a couple of measures that German policymakers should consider. Among them are higher investment activity in public infrastructure, raising wages and increasing private domestic investment spending through tax cuts. These policies may in fact be beneficial for the German economy itself, however, they are not a panacea for reducing (eurozone) trade imbalances.

Higher public investment activity

Germany should do more to increase public investment. In the past 10 years or so, the German public capital stock has shrunk in net terms. Funding costs are at record lows and, in some cases, even negative. However, this should be done for Germany's sake. Those arguing that public investment should be expanded for the sake of other countries to reduce trade imbalances are misguided.

Higher public investment does not automatically lead to significantly higher GDP growth in the rest of the eurozone and shrinking trade imbalances. This is suggested by historical evidence. One classic example of an expansionary (and asymmetric) fiscal stimulus by German policymakers is the reunification period

(1991-1994). Public investment in the enlarged Germany almost doubled compared to volumes in West Germany in the second half of the 1980s. But the positive impact on the rest of the eurozone was limited at best, and short-lived. France and Italy only managed to grow by roughly one per cent on average in 1991/92. One year later, they were in recession, as was Germany. The Bundesbank hiked interest rates to fight accelerating inflation and central banks in other European countries were also forced to tighten their monetary policies in order to keep their currencies in the European Monetary System. At about one per cent of GDP, Germany's trade surplus to the eurozone also did not change much between 1991 and 1994.

Germany will increasingly act as a growth locomotive for the eurozone and trigger further rebalancing

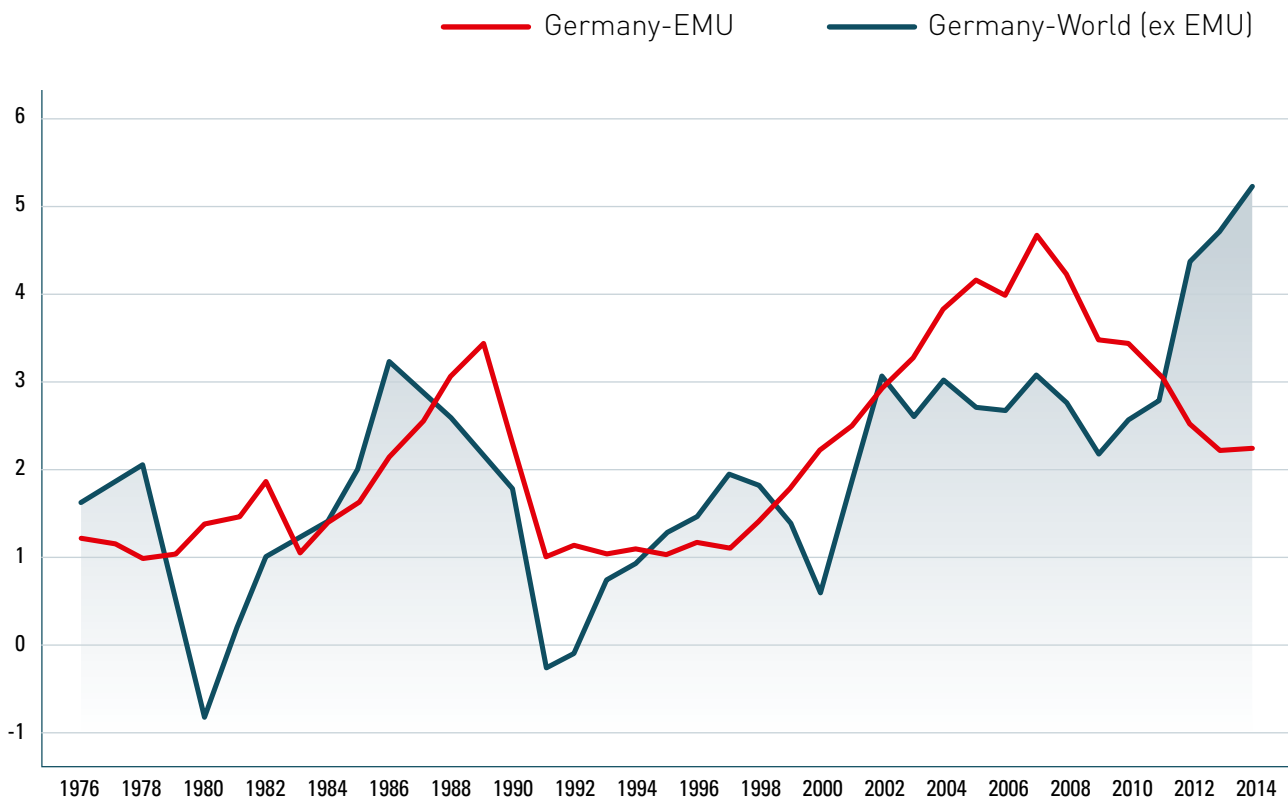
Of course, this time, it is different. The European Central Bank has been implementing quantitative easing, causing the euro exchange rate to decline. However, this historical episode says a lot about the relative power of policy tools. While German public investment activity was not dominant in impacting other eurozone countries, monetary policy and exchange rates actually were.

Raising German wages

Higher wages in Germany would have a positive impact on rebalancing in the eurozone. Moreover, German companies are becoming less competitive, while their peers abroad are catching up. However, these two factors are not powerful enough to trigger a massive turnaround in trade balances.

If you take into account the latest collective bargaining rounds in Germany,

German trade balance, in % of GDP



one ends up with a nationwide wage rise of 2.5 to three per cent this year. The introduction of the minimum wage of €8.50 per hour may add nearly one percentage point on top of that. Thanks to lower oil prices, consumer prices will be more or less flat this year. Hence, real effective wages are probably increasing by three per cent to four per cent per annum. Only immediately after the reunification boom did wages rise more quickly, at nearly five per cent. Given that wages are continuing to outpace productivity gains, unit labour costs will rise further, by at least 1.5 per cent this year. From 2010 to 2014, German unit labour costs were already up 8.5 per cent. This compares to increases of seven per cent in Italy and five per cent in France, and a six per cent decline in Spain.

While this may sound great for rebalancing, two counterarguments should be borne in mind. First, trade between Germany and other EMU countries does not consist primarily of consumer goods, but of intermediate

and capital goods. Typically, about 70 per cent or more of all German imports from the eurozone belong to these two latter categories. It is true that the share of imported consumer goods may rise over the next year or two, thanks to higher consumer expenditures in Germany. However, the international division of labour in the eurozone is different to what many – implicitly – assume. A massive rebalancing will only occur if the appetite of German companies for intermediate and capital goods rises.

Second, the (moderate) loss in competitiveness of German companies may help in rebalancing the eurozone, but it is by no means a foregone conclusion. It is also possible that the slack will not be picked up by other EMU countries, but by competitors in the US or Asia. Finally, the rebalancing equation consists of more than just labour costs. Other variables, such as product quality and innovation, also play an important role.

According to our estimates, there is pent-up demand of about €100 billion (or more than three per cent of GDP)

in German capex spending. Tax cuts may lead to an unloading of this pent-up demand and an increase in companies' appetites for intermediate and capital goods from abroad. However, there is no guarantee. In the end, companies will decide, not policymakers. We think that there is a good chance that capex spending will accelerate in the next two years, even without tax cuts. One major reason is our expectation that German companies have become used to geopolitical uncertainties, in contrast to 2014.

As a result, Germany will increasingly act as a growth locomotive for the eurozone and trigger further rebalancing.

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Decent work: essential for growth

— Increasing inequality and weak employment prospects are holding back economic development. We can tackle this by improving wages and social protection, writes **Guy Ryder**, Director General, International Labour Organization



Guy Ryder has been Director General of the International Labour Organization (ILO) since 2012, having held various senior positions in the ILO from 1999-2002 and again since 2010. Ryder leads the organisation's action to promote job-rich growth and to make decent work for all a keystone of strategies for sustainable development. He has a background in the trade union movement and is the former General Secretary of the International Trade Union Confederation.

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Among the many topics demanding the attention of the G7 leaders meeting at Schloss Elmau this year, the prospect of ever more young women and men not being able to find a decent job looms large. Risks to economic, social and political stability are rising as a result of persistent sub-par growth in employment. Setting a course for a path of sustainable growth and development that uses their capabilities and shields them from the risk of unemployment and poverty is a top priority worldwide.

There were more than 61 million fewer jobs worldwide in 2014 than would have been expected from pre-crisis trends. This shortfall in jobs reflects both increased unemployment and lower labour force participation rates, as many people have dropped out of the labour market. Global employment grew at an average annual rate of 1.7 per cent between 1991 and 2007, but slowed to 1.2 per cent per year between 2007 and 2014. On current trends, the global jobs gap will continue to widen to around 80 million jobs in 2019.

Despite signs of improved performance in some G7 economies, weakness in major emerging economies will, most likely, make global growth disappointing in 2015. Prospects for 2016 do not look much better. Financial instability, with large swings in exchange rates, continues to create major uncertainties. Despite record low interest rates and widely available liquidity, private investment in the real economy is not responding to the easy financing conditions and the large cash reserves of the biggest companies. Governments in many countries appear to remain cautious about expanding public investment despite pressing infrastructure needs.

Since 2010, successive forecasts of recovery issued by the International Monetary Fund (IMF) have proved

over-optimistic. The expected results of the prevailing policy stance have failed to materialise. The effects of the near crash of the global financial system in 2008 have not yet been overcome, and important underlying imbalances that contributed to boom and near bust remain. Income inequality remains high and the labour share of national income has declined in many countries. Households are reluctant to spend after years of stagnant real wages, worries about job security and, in some countries, burdensome debts. An exception is the very highest income groups, which have taken a disproportionate share of the gains from the weak recovery. Luxury goods are one of the few sectors of buoyant demand.

Weakness in labour markets is inhibiting overall growth, which in turn further slows employment and wage growth. On average, the crisis brought down the growth rate of average real wages to about one to two per cent. That modest growth was attributable almost entirely to emerging economies, particularly China, while wage growth in advanced economies has been fluctuating around zero since 2008 and has been negative in some countries. In addition, in many countries productivity has outpaced wage growth for a prolonged period, leading to a marked shift in the balance between labour and capital shares in national income. This significant structural change in many leading economies feeds into an increasingly unequal distribution of incomes.

Inequality and weak growth connected

Inequality in wage incomes has increased in many countries, driven by rises at the very top and stagnation across a broad range of middle- to low-income groups. Capital incomes are more unequally distributed and have been rising as a share of total incomes. Evidence is piling up from many sources, including research by the IMF and the Organisation for Economic Co-operation and Development, as well as the International Labour Organization, that increased inequality, a reduced labour share, and slower and more volatile growth are interconnected.

Breaking out of a slide into a global slow-growth trap requires the mobilisation of the full range of policies with a focus on urgent concerted action to fill the global demand deficit. The major component of demand is household consumption, so wages as well as taxes and social benefits should take centre stage. This will, in turn, create investment opportunities and reactivate the channels that should link the financial sector to the real economy. A revival of more evenly spread and faster global growth will also create fiscal space by lifting tax revenues and reducing debt-to-income ratios.

Overreliance on export market share to boost domestic growth could lead to a descent into the 'beggary-neighbour' policies that the post-1945 architecture of international institutions was designed to avoid. A faster pace of creating employment and narrowing income inequalities, coupled with a renewed drive to eradicate extreme poverty, is a political priority everywhere.



JOERG BOETHLING/ALAMY

The multilateral system is devoting considerable effort to the design and launch of a post-2015 agenda for sustainable development with a horizon of 2030. The consequences of not realising the emerging Sustainable Development Goals would be grave for the peoples of the United Nations and their planet.

The global labour force is currently growing by around 40 million a year, mainly in the developing world, and with the largest numbers in South Asia and sub-Saharan Africa. The annual rate of growth will slowly decline over the next 15 years. Most of the young women and men joining the labour force are only able to find work in the informal economy, where they are unlikely to receive any social benefits or labour law protections.

Although most youth now spend more years at school than their parents did, they may not have the skills needed to find the jobs that hold the prospect of escaping from the threat of poverty. Those youth risk joining the 780 million women and men working hard and long but unable to lift themselves and their families out of \$2-a-day poverty, or – even more troubling – the increasingly desperate migrants risking death in the hope of a better life.

Increased female participation in employment and an end to discrimination at work are essential foundations for achieving gender equality by 2030. Reducing the global gap in female participation in employment by 25 per cent by 2030 would require more than 200 million new jobs.

Together with closing the global jobs gap caused by the financial crisis, these trends point to the need to ensure that, by 2030, some 800 million new decent jobs are created and a further 780 million existing poverty-level jobs are transformed into productive employment that yields an income at least above the levels needed for family subsistence. The bulk of the decent jobs needed are in developing countries, especially Africa and South Asia.

A fair trade clothing factory in Tiruppur, India. Increased female participation in the workforce is essential to achieving gender equality

Income inequality remains high and the labour share of national income has declined in many countries

Time for concerted action

Breaking out of the dangerous trajectory of enfeebled growth and development requires concerted action in 2015 by a significant number of countries, especially the largest economies. The G7 can lead the way by acting in concert to improve wages and social protection, thus boosting global aggregate demand. This, in turn, would strengthen sustainable enterprises and reactivate investment, reduce precautionary saving, reinforce still fragile recoveries, ease fiscal pressures and reduce risks of deflation. The G7, acting together with its partners in the G20, and through the United Nations, can lead the way. ■

What can the G7 fix?

— The G7 and G20 groups must become less reliant on the United States and should collaborate more closely to tackle the growing threat of antimicrobial resistance, writes **Jim O’Neill, Chair of the Review on Antimicrobial Resistance and former Chief Economist, Goldman Sachs**



Jim O’Neill is Chair of the Review on Antimicrobial Resistance, and was recently made Commercial Secretary to the Treasury of the United Kingdom. Until October 2014, he chaired the UK’s Cities Growth Commission. He is Honorary Chair of Economics at Manchester University, a Visiting Research Fellow at Bruegel and a member of the economic advisory board to the International Finance Corporation. From 1995-2013, O’Neill worked for Goldman Sachs, spending most of his time there as Chief Economist.

www.amr-review.org

This June’s G7 summit in Schloss Elmau is, in some ways, a bit more intriguing than usual, partly because of the slight oddness

of this group’s persistence in meeting, but also because of the current challenges facing the world, not many of which the G7 members can tackle themselves.

Indeed, one of the most pressing issues relates to the Ukraine crisis and the stand-off between G7 members and the former eighth member, Russia. Where things will stand between the West and Russia by the time of the G7 summit might turn out to be the highlight issue for the meeting. But there are other critical issues, such as the continued problems of the Middle East and the terror surrounding Islamic State.

On the economic front, there are many challenges, including, perhaps, the continued risks of deflation spreading and deepening among many G7 members, the weakness of European growth and the risks of too much growth being dependent on the United States. Indeed, to foster an environment of more balanced growth, it is difficult to have such a discussion without the presence of some non-G7 members, such as China and India, as well as other large emerging economies that are similarly challenged, such as Brazil and Russia. But the seemingly never-ending issue of relatively weak growth in Europe and Japan, compared with the US, can at least be discussed within the confines of the G7, even if it can really do little to change it.

I shall discuss the economic issues and leave the political and security issues for others more expert – although I reiterate that those issues are likely to be the areas that receive much justifiable attention.

One area that I suspect the G7 will focus on relates closely to something I am currently working on: the

topic of antimicrobial resistance (AMR). I am leading an official review into AMR that reports to UK Prime Minister David Cameron. He has discussed the issue with other national leaders – in particular, Germany’s Angela Merkel. It is certainly a topic that requires international coordination to solve. In the initial paper published by the Review on Antimicrobial Resistance last December, we showed that, if it is left unattended with no solution, by 2050 there could be – based on rather conservative assumptions – a loss of \$100 trillion of global output and up to 10 million people dying a year. It would not be difficult to justify numbers considerably in excess of these.

I am pursuing my own paths to try to ensure that AMR and the solutions to it get onto the G20 agenda for 2016, when China will hold the presidency. It would be a logical topic for China to bring to the table for two reasons. First, China will suffer more than many from the growing resistance to antimicrobials. Second, AMRs pose a challenge that does not distinguish between political order (or colour or race): we are all at risk.

This is an issue that could clearly be worked on with combined purpose. But, if being raised to a priority for the G7 is a path towards giving the topic a truly global focus and serves as a prelude to the G20, then I am all in favour of that.

Dependence on the US

So, too, the economics. Superficially, the economic environment within the G7 members seems rather ‘deja vu’. As seen repeatedly since the days the G7 finance process was expanded out of the G5 finance ministers’ meetings in the 1980s, the group’s collective economic growth is dominated by the US. Given many of the

The reality today is that there are no solutions without China and other large emerging economies

challenges facing continental Europe and Japan, their growth fortunes appear heavily dependent on the US, relying on their weaker currencies and a stronger dollar, to deliver better fortunes for them.

The reality today, as with so many other areas including the challenge of AMR, is that there are no solutions without China and many other large emerging economies. These days, the long-term solution for Europe, Japan and the United States depends partly on exporting to the emerging world. Certainly, given both the tremendous challenges that the US faced that led to the 1985 Plaza Accord and the 1987 Louvre Accord, and the dramatic imbalances that led to the global credit crisis in 2008, it seems rather bizarre that the world might create an environment in which the whole process is repeated once again.



THOMAS IMO/PHOTOTHEK VIA GETTY IMAGES

Since 2008, I have been more optimistic than most about the recovery of the world economy, partly because of the importance of some key emerging economies such as China, but also because both the US and China have shown notable signs of structural change since then. In particular, each has made considerable progress in reducing the imbalance of its own current account balance of payments. China entered the 2008 mess with a current account surplus close to 10 per cent of gross domestic product (GDP); today, it is close to two per cent, having been lower for a while.

Meanwhile, the US has seen its current account deficit shrink to less than three per cent from more than 6.5 per cent before 2008. For much of the past 30 years, it was widely believed that the United States would find it impossible to sustain a current account deficit less than three per cent of GDP unless it was in a

US Secretary of State John Kerry, German Foreign Minister Frank-Walter Steinmeier and French Foreign Minister Laurent Fabius at a working session of a meeting of G7 foreign ministers, April 2015. The G7's collective economic growth is dominated by the United States

recession or, at best, experiencing very weak domestic demand growth. In recent years, this long-held view has been refuted by the evidence, thanks in part to a slow improvement of US exports relative to overall imports, as well as the dramatic improvement in the US energy industry's domestic production, encouraged by the advent of shale. Not only is the energy sector at some risk with a persistent drop of crude oil prices, but the ongoing rise of the dollar and the weakness of domestic demand in continental Europe and Japan threaten to reverse much of this progress.

The US Treasury has started to warn about this risk more and more, and, although many financial market participants seem not to focus on this challenge, I think it is important that the G7 ensure that the excessive dependence on the US seen in the 1980s and 2000s does not reoccur. ■

Education for 21st-century skills

— Major gains have been made in improving access to education, but many young people are lacking relevant skills. Learning outcome must be improved at all stages so that each person can reach their potential, writes **Claudia Costin**, Senior Director for Education, World Bank Group



Claudia Costin is Senior Director of the education global practice at the World Bank. Before joining the World Bank in July 2014, she was Secretary of Education for the city of Rio de Janeiro, Brazil. She has been Vice President of the Victor Civita Foundation, and helped to create the civil society movement Todos pela Educação. Former positions in Brazil include Secretary of Culture, São Paulo State, and Federal Minister, Public Administration and State Reform.

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often get asked: “What are the right skills we should teach our children to succeed in today’s knowledge economy? And what should schools do to ensure that students obtain these skills?”

These are very important questions, but let me start with some general facts. There is an indisputable link between learning outcomes and economic growth. Education matters for human development and future employment at every level of the education system, from pre-school all the way to university or technical and vocational programmes. The international community has reduced the number of out-of-school children by half over the period of a decade, which is a remarkable achievement.

Despite this good news, the world is in the midst of a learning crisis. An estimated 250 million children cannot read or write after more than three years of schooling. More than one-tenth of 15-24 year olds worldwide are functionally illiterate. This has very serious implications at two levels: first, for these young people who are entering the workforce without the skills required to be productive and who may remain unemployed or underemployed; and second, for economies that are striving to diversify and become more competitive.

Some 75 million young people in the developing world are unemployed, and youth unemployment rates are two to four times as high as those of adults in most countries. In some regions, demographic factors add to the challenge, as the share of youth grows. Addressing learning shortfalls is an extremely important element in the broad efforts to alleviate the jobs crisis – across education, to improve the investment climate, and to increase access to finance, land and credit, for example.



The workplace is evolving swiftly because of technological advances and globalisation, and the world’s young people must be able to respond to these changes. Consequently, schools must be able to teach foundational skills that allow people to think critically, adapt quickly, and continue learning in what is a rapidly changing global marketplace. Students need to acquire not only basic literacy and numeracy, but also what economist and Nobel laureate James Heckman calls ‘character’ skills, such as persistence, self-confidence, teamwork and problem-solving.

Challenges to be addressed

In order to help young people acquire the skills needed to be successful in the 21st century, the whole spectrum of education should be considered: starting from early childhood development, which lays the foundation for acquiring learning skills, through to strong primary, secondary and tertiary education. To achieve this,



MARIA FLEISCHMANN/WORLD BANK GROUP

three overarching challenges facing education around the globe today must be addressed.

The first is access to education, especially for the poorest and most marginalised communities. Since the turn of the millennium, almost 50 million children around the world have gained access to basic education – and most are reaching completion. The World Bank has been a leading partner with developing countries in this achievement, and it will not stop until every child who is out of school can go to school and learn.

While the world has made great gains in getting children into primary school, the 58 million who remain out of school today are among the hardest to reach: girls; children who live in extreme poverty, in slums and remote areas, in fragile and conflict-affected environments; children from ethnic minorities and lower castes; and those who have disabilities. These are the very children for whom education could bring the most fundamental gain – a way out of poverty and

deprivation. We must all redouble our efforts to reach these remaining children and give them greater access to opportunities that may otherwise be denied to them.

The second is the quality of education that children receive. Many of those who do complete school have not acquired the basic skills to lead productive, healthy lives. This is why the World Bank's work in education is focused on 'learning for all' – helping all children go to school and learn.

By teachers, for teachers

To support the learning process, countries are experimenting with innovative teaching tools. My home country, Brazil, for example, has developed a platform of digital classes, called Educopédia, to help teachers prepare good teaching plans and have materials for each class. And, best of all, the digital content was prepared by the teachers themselves. This has had an important impact on attendance, learning outcomes and self-

A classroom in Villa Nueva, Guatemala. Access to education remains a major issue, with an estimated 58 million children still out of school

The privatisation of schooling



Professor Bob Lingard

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THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

The end of the Cold War flooded the economy with free trade globalisation, which has brought about major changes to politics, policies and state structures in nations across the globe, with real impact on public schooling systems. We have witnessed both the privatisation of schooling and the opening of public schooling to private, for-profit 'edu-businesses' and not-for-profit philanthropic agencies. Additionally, schooling itself is being privatised, with the introduction of school choice policies, quasi-markets and competition between schools as a way of supposedly driving up standards and improving students' learning. And we know all too well that greater choice does not mean greater quality.

Unfortunately, an Anglo-American model of school reform has influenced schooling systems around the globe. This model consists of top-down, test-based educational accountability, standardised testing, standardised teaching and learning, focus on literacy and numeracy, prescribed curricula, and the introduction of market-oriented reform ideas into the public school system. New public management has restructured and downsized state

education bureaucracies with effects on the social protection and social cohesion work of schools, while performance data now link the policy producing system with the practices of schools for accountability purposes. As schooling policy has become a central element of national economic policy in terms of human capital framing, policy production has moved from the hands of educators to those of economists.

Edu-business involvement

High-stakes testing has been central to the restructuring of schooling systems. The downsized state outsources a lot of test construction, management and data analysis to edu-businesses. The test-based mode of accountability includes student tests of various kinds and tests that focus on teacher evaluation. National testing and school system testing within nations are complemented by international testing, for example, the Organisation for Economic Co-operation and Development's (OECD) Programme for International Student Assessment (PISA). PISA has also opened up spaces for edu-businesses and constituted global league tables of national school system performance to complement league tables within nations. Edu-businesses strategically seek to frame global and national policy agendas and expend large amounts of money lobbying governments to influence policy.

The research evidence would suggest that this set of reforms – in effect, the privatisation of the education policy community and of schooling – has many negative impacts. These reforms challenge the assumptions that underpinned the creation of mass elementary schooling systems in the

latter part of the 19th century through to the creation of universal secondary schooling in the latter part of the 20th century. These assumptions include opportunity and social justice, both central to the creation of a meritocratic society, along with the production of democratic citizens and the constitution of the imagined national community.

With growing inequality in the wake of the global financial crisis, these reforms entrench educational inequalities, undermine teacher professionalism and working conditions, and deny parental

“ We know all too well that greater choice does not mean greater quality. ”

and teacher professional involvement in policy production. Furthermore, edu-businesses have an enhanced role in the policy process, from agenda setting through policy production and implementation to evaluation. There is no democratic constituency for these businesses, who are responsible to their shareholders for profit-making, not to the citizenry for the equity and quality of schooling. Some rich nations, through their aid programmes, have also supported edu-business involvement with the creation of low-fee, for-profit schools in developing nations. These developments challenge the importance of the necessity of free, high-quality and equitable public schooling for an open and democratic society committed to social justice.



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Education International (EI)
The global union federation of teachers and education workers, representing 30 million education professionals from all education levels, from early childhood to university.



GERHARD JÖREN/WORLD BANK GROUP

esteem among students. The task here is clear: improve basic learning outcomes across the world, especially among children from poor families.

The third big challenge is relevance to the job market. Education institutions simply must do better at linking their higher-education programmes to the jobs market. More than 50 per cent of employers surveyed

Education can be a powerful force for ending extreme poverty and boosting prosperity for all

globally claim that they cannot find the right skills, while 80 per cent of jobseekers fail to find a job.

This gap between supply and demand must be closed, by making the critical link with the private sector and factoring in investment trends, new technologies and structural shifts in economies as they develop. However, it is not sufficient for economies

just to generate jobs. Countries must also ensure that the higher-education system is aligned with the current and foreseeable needs of society, so that there is a steady supply of skills.

In Africa, the World Bank is supporting the Africa Centers of Excellence (ACE) project with a focus on the disciplines related to science, technology, engineering and mathematics. The project is helping to build regional expertise and education in areas of growth in the economy, such as the extractive industries, energy, water and infrastructure, as well as in health and telecommunications.

In short, we do have a good idea of which skills will serve people best in the future: analytical thinking, technical skills, problem identification and solving, time management, adaptability, and the capacity for collaboration and effective communication.

Education, in its truest meaning, can be a powerful force for ending extreme poverty and boosting prosperity for all. However, to actually do so, every child must have access to quality basic education and relevant higher education, so that each one can reach her or his full potential, and take advantage of the many economic opportunities that are likely to come along in an increasingly connected world. ■

Students and teachers from Thammasat University, Thailand. Higher-education institutions can help to bridge jobs and skills gaps by linking their education programmes to the jobs market

Wealth from women in the workforce

— Expanding economic opportunities for women has been made a priority for this year's summit. The G7 has a chance to set a benchmark for the world to follow, writes **Julia Kulik**, Senior Researcher, G7 Research Group



Julia Kulik is a Senior Researcher for the G7 Research Group, the G20 Research Group, the BRICS Research Group and the Global Health Diplomacy Program, based at the Munk School of Global Affairs at the University of Toronto, Canada. She has researched and written on G7/8, G20 and BRICS performance, particularly on the issues of regional security and gender equality. Kulik leads the groups' work on gender, women's health, regional security and summit performance.

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In November 2014, German Chancellor Angela Merkel announced that, when the G7 leaders meet in Bavaria for their annual summit, one of their priorities will be expanding economic opportunities for women, as a way to promote gender equality, women's rights and economic growth. This announcement came about the same time as when the G20, at its summit in Brisbane, promised to reduce the gap in labour force participation rates between men and women by 25 per cent by 2025. Together, these two plurilateral summit institutions have an opportunity to make significant strides forward for gender equality, especially alongside the United Nations' proposed Sustainable Development Goal (SDG) on gender equality. They will seize this opportunity if they work together on a sustained basis in this common, central, growth-generating cause.

When women participate fully in the labour market, there are significant macroeconomic gains. According to the International Monetary Fund, increasing the rates of female labour force participation in line with their equivalents for men would raise gross domestic product (GDP) in the United States by five per cent and in Japan by nine per cent. Furthermore,

in countries with ageing populations, such as Japan, higher female labour force participation can mitigate the impact of a shrinking workforce. Additional benefits come from reducing the significant gender gaps in wages, as, in many G7 countries, women's pay is still less than 80 per cent of what men earn. According to UN Women, if this gender wage gap is eliminated, GDP in the US will increase by nine per cent, in the eurozone by 13 per cent and in Japan by 16 per cent.

Despite this compelling evidence, economic gender disparities still exist worldwide and across all

G7 members. A major contributing factor is unpaid care work, including child and elder care and domestic labour. Women disproportionately shoulder this burden of unpaid work, putting in on average two to five more hours each day than men. And, although this work is essential for society and the global economy, the unequal distribution exacerbates gender inequalities and increases the likelihood of women becoming stuck in precarious, informal and part-time work.

In prioritising women's rights through economic empowerment this year, the G7 should build on its previous efforts to address gender issues, even though its progress has been sporadic. It has attempted to reduce gender disparities through commitments on education, food security and, most recently, sexual violence. However, there is very little continuity from year to year. At their summit in Lough Erne in 2013, G8 leaders introduced an initiative to prevent sexual violence, but the following year at the Brussels Summit the issue received very little attention. It has, however, recently been revived at a level lower than the leaders themselves, receiving substantial attention from the G7 foreign ministers' meeting at Lübeck on 15 April 2015.

In the economic realm, the G7/8 has made very few specific commitments to empower women. A few were made at the Sea Island Summit in 2004 to enhance support for business, entrepreneurship and vocational

If the gender wage gap is eliminated, gross domestic product in the eurozone will increase by 13 per cent

training for women, but there has been nothing since. Thus, there is no certitude that any initiatives announced at the summit at Schloss Elmau will lead to sustained, strengthening attention and advances in the years ahead.

Germany leads the way

Still, there is some hope for a strong start. Several G7 countries have independently included economic opportunities for women in their budgets and economic action plans for 2015. This year's G7 host, Germany, stated in its 2015 Annual Economic Report that it will support start-ups, particularly those by women, to promote a 'new age of entrepreneurship'. The German Government also claims to promote the equality of women and men in the public and private sectors through the expansion of high-quality childcare and financial support for employees released from work in order to provide long-term care. Starting in 2015, publicly listed companies will also be required by law to set targets for increasing the share of women on supervisory and executive boards and at the two



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highest managerial levels. In addition, the German Government will create more transparent pay structures in order to promote the principle of equal pay for equal and equivalent work. Germany thus looks set to lead the G7 on gender equality this year.

Canada seems to be a supporter. In Canada's Economic Action Plan released in 2015, the government announced the Action Plan for Women Entrepreneurs, which includes making \$700 million available over three years to finance female-owned businesses. It also proposes to modernise Canada's federal corporate governance framework to increase women's participation in corporate leadership and promote gender equality in public companies.

The United Kingdom's 2015 budget announced £1.1 million in support for female entrepreneurs to take their businesses online. It should be noted that Germany, Canada and the UK have some of the lowest

Several G7 countries are introducing measures designed to improve opportunities for women in what Germany describes as 'a new age of entrepreneurship'

gender gaps in labour force participation among G7 countries. How can these three leaders use the Schloss Elmau Summit to encourage their colleagues to act?

G7 leaders can and should do three specific things to raise their own performance and show the leadership the world needs. First, explicitly support the G20 commitment on labour force participation and identify the fast-start implementing actions that G7 members have taken and will take. Second, tie these actions and the G20 Brisbane's commitment directly to the SDG to provide impetus for advancing this cause at the UN's summit for the adoption of the post-2015 development agenda on 25-27 September 2015. And third, give the G7, G20 and UN summits the credibility and accountability they need by identifying the specific data sources they will use to track their progress so that they and those who depend on them can see and strengthen the progress they make. ■

Smallholders: a big opportunity

— Under the right conditions, small farms can be more efficient than their large counterparts. However, this can only happen when agricultural research responds to their needs, says Kanayo F Nwanze, President, International Fund for Agricultural Development



Kanayo F Nwanze was appointed President of the International Fund for Agricultural Development (IFAD) in 2013 for a second four-year term. He had previously served as Vice President for two years. Before joining IFAD, Nwanze was Director General of the Africa Rice Center. In addition, he has held senior positions at research centres affiliated with the Consultative Group on International Agricultural Research (CGIAR) in Africa and Asia. He was also Chair of the World Economic Forum's Global Agenda Council on Food Security.

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Feeding the world in 2050 has been described as the greatest challenge in human history. By then, there will be an estimated 2.3 billion more mouths to feed. How will the world manage to ensure that all of the 9.6 billion people on the planet have reliable access to safe and nutritious food when, today, more than 800 million are chronically undernourished? The decisions that governments take today on how to meet that challenge have profound implications for the shape of human societies and economies for decades to come, as well as for the health of the Earth's ecosystems.

Meeting the challenge of feeding the future is not simply a matter of growing more food. It is often forgotten that today's production levels are actually more than adequate to feed every woman, child and man on the planet. The causes of chronic hunger are complex, and usually closely tied to poverty, isolation, weak governance, disenfranchisement and deprivation.

Given that more than three-quarters of the world's poorest people and most of the hungriest live in the rural areas of developing countries, efforts to end hunger must start in these areas and must tackle poverty as well as hunger. No country has ever achieved lasting social or economic

progress without harnessing the power of science in dominant sectors. Agricultural research has a crucial role to play by making it easier for small-scale farmers in developing countries to feed their families and communities, and to benefit from the growing demand for food from the world's rapidly growing cities.

For developing countries, agriculture is a critical driver of economic and social development. In sub-Saharan Africa, for example, growth in gross domestic

product (GDP) through agriculture is 11 times more effective in reducing poverty than growth from other sectors, and overall GDP growth through agriculture is estimated to have at least three times the impact on poverty reduction as growth in other areas. There is also evidence that growth derived from staple crops has more impact on poverty reduction than growth from export crops such as coffee, tea and tobacco.

Small-scale farming and entrepreneurship

Today, there are around 500 million small farms in the developing world, generating around four-fifths of agricultural production and supporting around 2.5 billion people. Rural areas are also home to pastoralists, forest dwellers, fishers and herders, who all depend on small-scale agricultural activities for their lives and livelihoods. These small-scale producers are expected to remain the main producers of food in developing countries for decades to come.

Yet, too often, smallholders in developing countries do not get the attention or credit they deserve. Often, they are cut off from markets and resources. Those farmers who are net buyers go hungry when they cannot sell their produce for a reasonable profit. Although commonly portrayed as poor subsistence farmers, many smallholders are actually dynamic entrepreneurs. In fact, smallholders collectively are the single biggest on-farm investors in developing-country agriculture. And, when given access to technology and the right agro-ecological conditions, small farms are often more productive than their larger counterparts. Food

Although commonly portrayed as poor subsistence farmers, many smallholders are dynamic entrepreneurs

is, quite literally, a growth industry. Not only is the global population growing, but so is the level of wealth, spurring a spike in demand for a greater volume and variety of foods. Inclusive agricultural development can provide smallholders with the tools to help meet this demand, and in so doing transform the landscape so that rural areas contribute to food security, economic growth and a stronger social fabric. But in order for agriculture to have this transformative impact, research must respond to the needs of small-scale farmers.

There is good evidence that smallholders, particularly when working together in cooperatives, can successfully meet demand and generate a good income for themselves. One example is India's Amul Model dairy system, which for more than 50 years has worked with smallholders – some with only one cow – who are organised into cooperatives to supply milk to the Indian market. Today, they produce around 23 million kilograms of milk per day and generate revenues of

around \$2 billion a year. These small-scale dairy farmers are thriving, and young people now have employment opportunities and are under less pressure to migrate to urban areas in search of employment.

Responding to the needs of farmers

For agricultural research to drive development, it must respond to the needs of small-scale farmers, not the desire of researchers to develop exciting new products. In Timor-Leste, where the 'hungry season' lasts seven months of the year, low crop productivity has long been a problem. Yet local farmers surprised scientists by hesitating to adopt higher-yielding maize seeds. Greater productivity meant little to farmers who were losing 30 per cent of their stored maize every year to rodents and weevils. When farmers were provided with better storage facilities, they became more interested in adopting improved, higher-yielding seeds because the storage allowed them to sell their surplus for greater profit in the off season. This combination of better yields

But why give a poor farmer in Africa a new seed that increases yield when that farmer has never irrigated or fertilised her or his land? In Africa, for example, only about six per cent of the total cultivated land is irrigated, compared with 37 per cent in Asia. It is estimated that irrigation alone could increase output by 50 per cent in Africa. Similarly, small increases in fertiliser use in sub-Saharan Africa could produce dramatic improvements in yields without risk to the environment.

In some contexts, science can best serve development by optimising conventional approaches. A fertiliser micro-dosing technique developed by ICRISAT and its partners is helping farmers to grow more food without exploiting the soil by using a bottle cap to measure out small, affordable amounts of fertiliser, and placing that fertiliser precisely, with or nearby the seed.

Even modest innovations can generate impressive returns, not only for smallholder families, but also for economies and the environment. In Bangladesh, rice farmers are pioneering a technique of placing mini-



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and lower post-harvest losses is expected to increase food availability by as much as 70 per cent.

Agricultural research cuts a wide swathe. New vaccines are helping farmers manage a range of evolving problems that can wipe out poultry stock overnight, including, in Asia, Marek's disease and Newcastle disease. Science has also controlled the cassava mealy bug and the green spider mite that caused havoc in Africa. Promising agroforestry techniques, such as 'evergreen agriculture' – where so-called fertiliser trees are interspersed with crops for better soil management – are improving soil quality while also leading to higher and more sustainable yields.

Emerging biotechnologies are helping scientists meet the economic, social and environmental needs of farmers. Tools such as marker-assisted selection and breeding, tissue culture and embryo rescue, for example, are improving the tolerance of seeds and plants to drought, temperature and pests, as well as enhancing the efficiency of nutrients.

briquettes of urea fertiliser near the roots of rice plants rather than spreading urea over the soil. This allows for the steady release of nitrogen to fertilise the plants throughout the growing season, at the same time as reducing run-off and greenhouse gas emissions. Using this strategy, farmers have increased rice yields by between 23 per cent and 70 per cent.

A post-2015 world

The proposed Sustainable Development Goals, which will succeed the Millennium Development Goals at the end of this year, recognise that rural people – including smallholder family farmers, women and indigenous people – are crucial to achieving these collective goals. Agricultural research and innovation, in turn, have a critical role to play in reducing poverty, building community resilience and promoting inclusive, participatory development in rural areas. We hope that G7 leaders, at their summit this year at Schloss Elmau in Germany, will take note of this. ■

In order to drive development, agricultural research must address the needs of small-scale farmers – the main producers of food in developing countries

Joining forces for sustainable development

The SDG Fund paves the way towards a post-2015 agenda



Paloma Duran,
Director, SDG Fund

The United Nations summit for the adoption of the post-2015 development agenda is fast approaching and the world eagerly anticipates the outcome that will determine the global course of action for the next 15 years. The future Sustainable Development Goals (SDGs) will function quite differently to the current Millennium Development Goals (MDGs), as they bring together two frontiers – development and climate – and address issues pertaining to global public goods and national obstacles. Moreover, the successor goals apply universally to both poor and rich countries, making this new development agenda far more complex to administer and monitor. One should therefore not underestimate the scale of the challenge in agreeing and implementing 17 SDGs, as it will have implications for most universal processes, from economic to energy governance, peace-building to climate change and trade to biodiversity. The big question that springs to mind is: how shall we set the measure for all the subsequent work?

In the Millennium Declaration of 2000, world leaders recognised that we have a collective responsibility to uphold the principles of human dignity, equality and equity and they promised to promote the right to development. This year, we are presented with a new

opportunity to reaffirm our commitment to joining forces behind a transformative agenda for sustainable development. In the UN Secretary General's post-2015 synthesis report titled *The Road to Dignity by 2030*, Ban Ki-moon offers an integrated set of six essential elements to facilitate member states' deliberations on the SDGs: dignity, people, prosperity, planet, justice and partnership. Indeed, partnership lies at the very heart of the post-2015 agenda and it is a recognised principle that sustainable development cannot be achieved by governments alone – it requires the full participation of all people. Multi-stakeholder partnerships between businesses, non-governmental organisations, governments, the UN and other actors will play a pivotal role in the implementation of the new agenda.

It is in this vein that the Sustainable Development Goals Fund (SDG Fund) was established in March 2014, with the intention of bringing together a range of UN entities, national governments, academia, civil society and businesses to support sustainable development activities through a variety of joint programmes. Acting as an international

development cooperation mechanism, the SDG Fund was created by the UN Development Programme (UNDP) with an initial contribution from the Spanish Government to address the needs and vulnerabilities of each country involved. We are currently operating in 18 countries in Latin America, the Caribbean, Asia, the Arab states and Africa, and all of our programmes are addressing challenges pertaining to inclusive economic growth for poverty eradication, food security and nutrition, as well as water and sanitation. Gender equality, women's empowerment, public-private partnerships and sustainability are the main cross-cutting priorities in our work. The rationale behind our joint programme initiative is to enhance the development impact of technical assistance by combining inputs from a variety of UN agencies, each contributing according to their specific expertise and bringing their respective national partners on board.

The SDG Fund is based on three key pillars: achieving the above-mentioned policy goals; the efficiency and multi-sectorial approach of each agency involved in implementing the joint

SDG-F sectoral policy goals

Sector	Policy objectives
Inclusive economic growth for poverty eradication	<ul style="list-style-type: none"> • Create opportunities for decent jobs and secure livelihoods. • Create better government policies and fair and accountable public institutions. • Promote inclusive and sustainable business practices.
Food security and nutrition	<ul style="list-style-type: none"> • Promote integrated approaches for alleviating child hunger and under-nutrition. • Promote sustainable and resilient livelihoods for vulnerable households, especially in the context of adaptation to climate change. • Strengthen capacities to generate information through assessment, monitoring and evaluation.
Water and sanitation	<ul style="list-style-type: none"> • Promote democratic and transparent water and sanitation governance systems. • Improve access to water and sanitation services for the poor and marginalised. • Ensure healthy lives through sanitation and hygiene education. • Promote integrated water governance and climate change adaptation.



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programmes; and national ownership, which is achieved through matching funds and the participation of national counterparts. In this regard, national and international partners, including the private sector, provide approximately 56 per cent of our resources by matching funds, thus generating a strong sense of national ownership and long-term sustainability. For example, in Honduras we are working alongside the private sector to reduce the poverty levels of vulnerable rural populations, including youth and women, through the development of sustainable cultural tourism initiatives. Of the total number of beneficiaries, at least 60 per cent are women. The programme aims to promote inclusive local economic development. It takes on a participatory approach incorporating indigenous groups, the private sector, and establishing alliances with social services to prevent gender-based violence and alcoholism.

In the lead-up to the post-2015 era, the SDG Fund is keen to foster collaboration with the private sector as we recognise the integral role that businesses are playing in achieving sustainable development on the ground. Each company – large and small – is making incredible contributions towards shared economic, social and environmental progress. This is being achieved through core business operations and value chains, social investments and advocacy efforts.

The SDGs all focus on improving the business environment and enabling contributions for inclusive economic growth, particularly by incorporating the leadership of the private sector to create roles and advance economic stability. Consequently, the SDG Fund decided to establish a Private Sector Advisory Group consisting of 14 major companies from various industries worldwide (namely: oil, food, media, consultancy, microfinance,

infrastructure, energy and clothing) with the aim of collaborating and discussing practical solutions pertaining to the common challenges of contemporary sustainable development. The Advisory Group is committed to working towards identifying areas of common interest and deciphering the best methods of UN-private sector engagement, as well as suggestions for how to work more effectively with one another at a country level. We hope to partner with more businesses that share the same values, including internationally recognised principles concerning human rights, labour, the environment and anti-corruption.

To conclude, the year 2015 presents a historic and unprecedented opportunity to bring the countries and citizens of the world together to embark on new endeavours to improve the lives of people everywhere. It is clear that achieving the SDGs will require assets and action from a variety of actors across the private, public and non-profit sectors.

Multi-stakeholder partnerships will therefore represent an essential element of the post-2015 development agenda, especially regarding its means of implementation. The SDG Fund serves as a platform for multi-stakeholders to deliver on common goals by pooling knowledge, expertise, technologies and financial resources. We would like to encourage more donors to partner

with us as we embark on this new journey and we believe stakeholders can benefit from engaging with us through our deep understanding of development issues; our convening power that brings together government and other stakeholders; our facilitation role in developing value chains; and our expertise and mandate in building capacities of governments, the private sector and civil society.

As we look ahead to the future development goals, we must sustain the investments already made and ensure a smooth and effective transition to the post-2015 era. The hard work has only just begun, but together we can build on our core strengths and focus on creating a breakthrough in development. In the words of the Secretary General: "The post-2015 development framework is likely to have the best development impact if it emerges from an inclusive, open and transparent process with multi-stakeholder participation."

The SDG Fund, together with its partners, intends to bridge the gap between the MDGs and the SDGs by setting an example as to how to meet the needs of the present without compromising the ability of future generations to meet their own needs. It may be an ambitious agenda, but it's one that is definitely worth pursuing.

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Resilient nations.*

Ensuring food for all

— Senior figures from Bayer CropScience, the World Food Programme and the World Bank share their views on the prospects for agriculture and food security in developing countries and the steps that the international community needs to take to build a sustainable agriculture sector



Amir Abdulla became the Deputy Executive Director of the World Food Programme in March 2009. He oversees the WFP offices in New York, Addis Ababa and Geneva, and is responsible for coordinating WFP's activities and relationships within the United Nations system, including summits and events. Prior to becoming the Deputy Executive Director, he was WFP's Chief Financial Officer from January 2008.

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Juergen Voegele is Senior Director, Agriculture Global Practice, World Bank. Prior to his appointment to this role in July 2014, he was Director of the World Bank's Agriculture and Environmental Services Department, providing leadership on the Bank's activities across sustainable landscapes and oceanscapes, agriculture and environmental economic policy, and risk management and markets.

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Liam Condon is Chief Executive Officer of Bayer CropScience and Chairman of the Board of Management of Bayer CropScience AG. Born in Dublin, Ireland, he studied International Business at Dublin City University and, as a scholarship holder of the German Academic Exchange Service (DAAD), at the Technical University of Berlin. He is a Member of the board of directors of CropLife International.

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It has been forecast that as many as nine billion people will need to be fed worldwide by 2050. What action is needed to ensure food security for the global population and, in particular, developing countries?

Amir Abdulla: With the global population set to increase by another two billion by 2050, global food production will need to increase by 70 per cent to meet the predicted future population. In fact, more food will need to be produced in the coming decades than has been produced in the past 10,000 years combined.

A holistic approach is required, however, to end hunger and to ensure global food security for nine billion people in 2050. Reducing hunger, especially in the context of increasing world population, is not solely achieved by increasing food production. The principal problem is that many people in the world do not have access to nutritious food or do not have sufficient income to purchase (or land to grow) enough food.

It is essential to ensure access to food through, for example, social protection and safety net measures,

for the hundreds of millions of people who do not possess adequate means for meeting their daily dietary needs. Ensuring access to food is not enough however, the food needs to be adequate, and this includes quality, quantity and safety. The quality component, in the form of safe, sufficient, affordable and nutritious food, is key in this regard; a special focus should be applied to children in their first 1,000 days to reduce alarming rates of stunting (currently 161 million children under five are stunted).

Juergen Voegele: To feed the projected world population by 2050, broad-based, inclusive agricultural development is needed. Sustainable agriculture is one of the most powerful tools to tackle extreme poverty, boost shared prosperity and feed the world's growing population. Growth originating in the agriculture sector is proven to be two to four times more effective at reducing poverty compared to growth in other sectors.

To permanently end poverty and hunger by 2030, the world needs a food system that can feed every person, every day, everywhere with a nutritious and affordable diet, delivered in a sustainable way.



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Liam Condon: We at Bayer CropScience are committed to enhancing global food security and to promoting agricultural practices that are both highly productive and sustainable. While supporting farmers in their efforts to increase yields and continuously enhance the quality of their produce, our key priorities are to promote sustainability, drive innovation and extend partnerships. A special focus of our activities lies on staple crops, such as wheat, which is consumed by about 2.5 billion people in roughly 90 countries. The global demand for wheat is rising steadily and outpacing productivity. To further increase agricultural productivity without compromising the environment, more innovation is required to ensure a sustainable intensification of wheat production. Therefore we are investing globally more than €1.5 billion from 2010 to 2020 in new solutions in wheat.

Another example is our effort to address the issue of worsening soil salinity in some rice-growing areas in South Asia. We are currently working on a new rice variety that is twice as tolerant to salinity as currently available varieties. To achieve this we combine qualities of three wild rice varieties with modern breeding techniques. The new seed is expected to be available for farmers in India as of 2016, with Bangladesh and Vietnam following the year after.

How does food and agricultural security play a key role as part of the post-2015 sustainability goals? What support will be needed from the international community?

JV: Among the Sustainable Development Goals to be finalised later this year are goals to end poverty and hunger by 2030. A strong push that can raise real

incomes of the poorest people, provide safe food and adequate nutrition and better steward the world's natural resources is needed.

The international community – public and private sectors and civil society – will need to come together, act in concert, in mutually supporting ways geared towards the common good. We will need to build on lessons learnt in the agriculture and food sectors, recognise the need for broad partnerships and multi-sectoral approaches and marshal key partners, coalitions and alliances to come together to help shape the evolution of the global food system to end poverty and hunger by 2030.

AA: Achieving food security and adequate nutrition for all is an essential component of sustainable development with poverty eradication at its core. Inclusive, efficient and sustainable food systems, underpinned by productive and sustainable agriculture, are critical both for food security and nutrition and for eradicating poverty. They are also central for meeting other post-2015 aspirations related to inclusive growth, gender equality, health, education, reducing inequalities, resilience, and decent employment.

In addition, food and nutrition security interventions are among the most cost-effective of development interventions, with potential to support economic growth and long-term poverty reduction. The Third International Conference on Financing for Sustainable Development, which takes place this July in Addis Ababa, Ethiopia, provides an opportunity for the international community to ensure that the ambitious goals of the Post-2015 Sustainable Development Agenda are accompanied by a financial framework that is capable of delivering the resources required to transform the lives of the 805 million undernourished people and 161 million stunted children in the world today.

A woman tends to crops in Kenya, where some estimates indicate that women make up 80 per cent of all farmers

Currently, what are the biggest challenges to building a sustainable agriculture sector in developing countries?

LC: From my perspective, the challenges are very diverse and range from local infrastructure and storage issues, access to high-value seeds, fertilizers and innovative agriculture technologies, missing land property rights to the lack of education and training on modern farming. And, especially in developing countries, the farming profession lies in the hand of smallholder farmers. The vast majority of these smallholders fight a constant battle with poverty.

Our goal is to support farmers and increase agricultural productivity as well as the quality of their harvested produce, because agriculture not only secures our food, but also the livelihood of a significant share of the world's population. Modern technologies, proven methods and improved market access help farmers increase their yields and enhance quality in a sustainable way and safeguard returns, thereby fighting hunger and poverty. That is why supporting small-scale farmers and helping them become 'agripreneurs' is a key priority for our company.

AA: Smallholder farmers have a crucial role to play in meeting the increasing global demand for quality nutritious food. Despite low yields, smallholders produce over 80 per cent of the food consumed in a large part of the developing world, and their potential for increased production is immense.

Despite this, smallholder farmers also constitute the majority of people living in absolute poverty. They often face substantial and deeply rooted difficulties in producing significant levels of surplus. They face particular challenges reaching formal markets, leaving them unable to earn fair prices for their crops. In this context, investing in smallholder farmers and linking them to remunerative markets is a crucial element of laying the foundation for a world with zero hunger.

JV: We need to accelerate investment in and implementation of climate-smart agriculture (CSA) approaches, which are aimed at higher productivity, greater climate resilience and lower greenhouse gas emissions. To reinforce the overall effort, the World Bank is a founding member of the Global Alliance for Climate-Smart Agriculture.

We also need to enable sufficient quantities and diversity of food, ensure food moves to where it is needed most, and create income gains for poor producers so that they can access the food they need. More food will be consumed in cities as the world urbanises and food consumption is projected to shift from diets dominated by grains and cereals to include more meat, vegetables and processed products. We need policies that help, rather than hinder, poor producers supplying these changing markets, and job creation in food processing.

Improving gender equality is needed across all three areas. Women make up the largest share of farmers in developing countries, but they have fewer assets and less

access to inputs and services than men. Evidence shows that if women farmers had the same access to resources as men, they could increase yields on their farms by up to 30 per cent, and potentially reduce the number of hungry people by about 15 per cent.

How important is the role of biotechnology to bridge the yield gap, and what steps are being taken to address concerns about food safety and environmental sustainability?

LC: We need to employ all available tools to address the challenge of global food security, including biotechnology. It's just another tool in the toolbox. In the near future farmers will be more and more impacted by the additional challenges of a changing climate. The effects are right on their doorstep: flooding, heatwaves, drought and soil salinization can shatter life on the farm.

Biotechnology supplements conventional breeding and can help adjust plants to these difficult conditions and increase yields significantly while using fewer resources. Thus, it offers higher income opportunities for farmers, especially for small-scale producers in less-developed parts of the world.

Yet prejudices about genetically modified crops and food containing GM ingredients persist among the general public. To successfully address concerns about new technologies such as plant biotechnology, we increase our efforts to explain the benefits of a modern agriculture. Especially in Western societies, we need to invest in societal acceptance for modern farming practices and new technologies. Often based on a lack of knowledge about agriculture at all, farmers do not receive societal appreciation as they should do. Here transparency and education on what benefits new solutions bring for society is key to success.

JV: The World Bank will continue to respond to requested client demand when activities related to new or less-common technologies, ranging from organic farming to biotechnology, including transgenics, have a potential to contribute to poverty reduction, economic growth and environmental sustainability. The World Bank will continue to support actions to develop country capacity for assessing the potential risks and benefits of biotechnology; contribute to reverse the neglect of pro-poor traits and orphan crops, through focusing more research on crop and cropping systems of most relevance to poor farmers and poor countries; and develop cost-effective and transparent regulations and production programmes, together with the expertise and competence to manage their adoption and use.

How does access to education, research and training boost agriculture at the local level?

AA: Linking smallholders to markets is just the start of the story. Ongoing capacity development for smallholder farmers is needed, particularly in improving and

sustaining productivity levels, developing financial and business skills, leveraging credit, quality enhancement and assurance, compliance with grades and standards and contract terms, and expanding into regional and other markets.

Involving young women and men in farmers' organisations and activities is critical in attracting unemployed youth to the opportunities in farming and agribusiness, and helps prepare a new generation of business-oriented, smallholder farmers ready to supply modern markets and growing demand. Targeting youth also promotes gender equality by facilitating women's inclusion in groups from a younger age.

Capacity development of local microfinance institutions and other stakeholders along the value chain can also benefit smallholders by providing access to reliable markets, as well as loans and other inputs.

JV: The historical evolution of the global food system has fed more people than at any time in human history. As we stand at a critical moment, we must help shape the evolution of the global food system to permanently end poverty and hunger by 2030. Knowledge can be a force multiplier in the overall effort to secure broad-based, inclusive agricultural development. Strengthening human-resource development is a key element to raise agricultural labour productivity. The agenda is broad, ranging from improving agricultural education in schools and universities; strengthening capacity development of policymakers, agricultural and food researchers, extension workers, and farmers, particularly in the poorest countries. We must also tap into skilled, tech-savvy youth to facilitate a more knowledge-intensive agriculture.

With over 800 million people going to bed hungry every night, we cannot afford to be complacent. We must increase our support to end poverty and hunger in our lifetime. The G7 has a major role to play in this endeavour.

LC: No matter where in the world, farmers face a wide range of risks: from the imponderabilities of the weather, increased resistances, unpredictable pest infestations or plant diseases and shifting markets. At Bayer, we are convinced that these challenges are best addressed in close cooperation. That is why we invite different stakeholders worldwide – ranging from industry partners, scientists, governmental and non-governmental organizations to players along the value chain - to learn and benefit from each other. By providing farmers with access to modern tools and technologies and training in good agricultural practices we help improve livelihoods and lift rural communities out of poverty. Supporting a sustainable agricultural development in poor regions is often a more effective way to fight hunger and poverty than any other form of support. Higher incomes in turn enable farmers in countries such as India to improve their standard of living and to invest more in their children's education and their own businesses.

In addition, to help secure the future of food, we want to engage the leaders of the future. That is why



ISTOCK IMAGES

we want to inspire young people to learn about food and farming with our Agricultural Education Programme, which consists of several projects, including visiting programs to our facilities to gain first-hand impressions on what modern sustainable agriculture looks like in practice. We also offer scholarship opportunities designed to support students with pioneering ideas in agriculture and we organize international exchange formats for young leaders interested in sharing ideas and having an open dialogue about agriculture.

Biotechnology has an important role to play in improving crop resistance to disease, pest infestations and climate change, assisting small-scale farmers in challenging environments to boost their income

How can a body such as the G7 better contribute to food and agricultural security?

LC: Access to food is a basic human need and a human right. We are still unable today to supply all people on this planet with fresh and healthy food. Given the interconnections and complexities of our food systems, it is no longer sufficient to patch the most urgent problems or get into dogmatic discussions about, for example, whether organic or conventional farming is the solution. There is no silver bullet. A food-secure world can only be reached with modern sustainable agricultural practices and innovation.

All options need to be considered here, organic, conventional, large-scale farmers and smallholders. And we need solutions for local or regional problems, those that reflect the growing conditions and challenges in a given area. Cross-sectoral partnerships to encourage innovation, but also in the areas of training, infrastructure and financing, can sustainably advance the agricultural sector in developing countries. In this respect, we also ask for consistency in policy and regulation to protect public and private investments in innovation. Farmers need choices – modern seeds, modern crop-protection products – those need to be protected by science-based and pragmatic regulatory frameworks. ■

Investing in agriculture is the key to food security

— Without food security, there can be no sustainable development. Yet, despite the clear benefits of productive agricultural investment, there are shortfalls where it is needed most, explains José Graziano da Silva, Director General, Food and Agriculture Organization



José Graziano da Silva took office as the Director General of the Food and Agriculture Organization (FAO) of the United Nations in 2012, having served as head of the Regional Office for Latin America and the Caribbean since 2006.

An agronomist and academic, in 2001 he led the team that designed Brazil's Zero Hunger (*Fome Zero*) programme. In 2003, he was put in charge of its implementation by President Luiz Inácio Lula da Silva, who named him Special Minister of Food Security and the Fight against Hunger.

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This year's G7 summit occurs at a time when many countries are experiencing uncertainty that discourages needed investments.

The year 2015 is an important one for global leaders and policymakers. After the G7 summit at Schloss Elmau, there will be several critically important events. These include the Third International Conference on Financing for Development, in Addis Ababa, Ethiopia; the Climate Change Conference in Paris, France; and the United Nations summit for the adoption of the post-2015 development agenda and new Sustainable Development Goals to replace the Millennium Development Goals (MDGs). These high-level meetings focus on areas where the need for investments is both urgent and opportune.

Many countries that managed to increase their agricultural investments also reached their MDG of halving the proportion of hungry people in their population. Everyone should take that striking correlation to heart, especially as more investments are needed to meet the Zero Hunger Challenge set by UN Secretary-General Ban Ki-moon.

The stagnation, or even decline, of agricultural investment in many countries where hunger remains most prevalent must be reversed. That is particularly true in Africa, where success in achieving the MDGs has generally been slower, albeit with some important exceptions. Developing countries have many investment needs, and, because of domestic and international constraints, they cannot always be met alone. Thus dialogue and cooperation are important. I welcome the decision to set aside a special day for dialogue with African leaders during the G7 summit in Schloss Elmau.



Catalysing economic growth is the G7's core aim. It is important to highlight that not only does inclusive growth improve food security, but also, in turn, food security is a key contributor to growth.

Indeed, there is no hyperbole in stating that without food and nutrition security, there is no security in any sense of the word – and there is no sustainable development.

Agriculture as an investment opportunity

Investors today note the difficulty in finding positive yields, as very low or even negative real interest rates on government bonds represent uncertain times. Yet investment in agriculture offers stellar yields, and economic growth in the farming sector has been much more effective in reducing poverty than growth in any other sector. Productive investment in agriculture is eminently desirable, and clearly possible so long as the poor benefit.

It requires efforts to tap the energies of smallholders who make up the bulk of the farming sector everywhere. They must be seen as a key part of the solution, rather than as the problem. Drawing on those energies entails an integrated approach to boost rural employment opportunities and produce global public goods, such as biodiversity and the sustainable use of natural resources, as well as carefully designed inclusive policies able to provide and ensure clear rights for women, marginalised groups and youth.



FAO/CHRISTENA DOWSBETT

Such investment – coming from multiple sources and primarily from smallholder family farms themselves – is necessary if the world is to meet the increased demand for affordable and nutritious food required by a world population expected to pass nine billion people in 2050. The Food and Agriculture Organization (FAO) estimates that the global food supply will need to have increased by approximately 60 per cent between 2005-07 and 2050. Using today's practices, that would require 50 per cent more energy and 40 per cent more water. The time to wonder whether that might be sustainable is over.

The world has crossed the business-as-usual Rubicon, and leaders must devote their policymaking efforts to enabling the kind of planning that tenaciously demands sustainable production and consumption systems, which will be feasible only if they are intrinsically endowed with greater economic, social, environmental and political balance.

There is no silver bullet.

What the G7 leaders can do

At last year's summit in Brussels, G7 leaders declared that they would work towards an "ambitious and universal post-2015 agenda, anchored in a single set of clear and measurable goals... It should be centred on people and focused both on the eradication of extreme poverty, promoting development and on balancing the environmental, economic and social dimensions of sustainable development, including climate change."



FAO

Left: Harvest in Lubumbashi, the Democratic Republic of Congo. Smallholder farms will be crucial in efforts to meet rising global food demand

Far left: A school lunch makes use of local produce cultivated by the Kenya Agriculture Research Institute in conjunction with FAO

FAO strongly supports that resolve, and wishes the G7 success in its promise to "promote inclusive and resilient growth in Africa", with a strong eye on the role of agricultural smallholder family farms.

FAO, for its part, has sharpened its focus on five strategic objectives that will directly contribute to reaching a sustainable world with food security and nutrition for all: ending hunger, promoting the sustainable use and management of natural resources, reducing rural poverty, enabling inclusive and efficient food and agricultural systems, and building resilience in rural communities. The sharpened focus means that FAO is putting all its knowledge at the service of its members, acting as one organisation to support them.

One of FAO's strategic assets – which is a global public good, as it can be used by all without being depleted – is a wealth of experience in comparing development trends and efforts around the world.

One common trait that frequently shows up in countries that have achieved their MDG food-security goals early has been innovative social protection schemes linked to family farming.

These are especially critical when pursuing broadly shared goals that often impose burdens on the weaker parts of society. Cash-for-work programmes are an example of how to offer social protection geared towards collective productive support. They provide immediate support to poor families, stimulate family farming to respond to additional demand created by greater cash flow in communities, and spur local development.

Social protection schemes should be tailored to local circumstances. In Brazil, for example, school-feeding programmes have improved attendance and performance, as well as increasing the nutrition levels of school-going children and raising farmers' incomes.

These are the kind of multiple-win solutions everyone can find and should aim for, especially as they enable poor rural communities to be the protagonists of actions leading to greater food security and nutrition and local development. Policymakers play a key role in helping make this happen.

To paraphrase Pope Francis when he addressed the Second International Conference on Nutrition at the FAO headquarters in Rome last November, this is about dignity, not charity. ■

A framework for zero hunger

— The international community is expected to commit to ending hunger by 2030 as part of the post-2015 development agenda, but financing mechanisms will need to be strengthened if this goal is to be realised, explains Ertharin Cousin, Executive Director, World Food Programme



Ertharin Cousin began her tenure as the Executive Director of the United Nations World Food Programme in 2012, and has more than 25 years' international non-profit, government and corporate leadership experience focused on hunger, food and resilience strategies. In 2009, having been nominated by US President Barack Obama, she became the United States Ambassador to the UN Agencies for Food and Agriculture, and Head of the US Mission to the UN Agencies in Rome.

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United Nations Secretary-General Ban Ki-moon has proclaimed 2015 as “a chance to change the course of history”. This is the year when the global community builds on the achievements of the Millennium Development Goals and begins a new journey by adopting and implementing Sustainable Development Goals (SDGs). While UN member states have yet to approve a final document, from the drafts and discussions it appears that these goals, when adopted, will ambitiously set a 15-year target for making hunger and extreme poverty relics of the past.

Achieving zero hunger will require determined political leadership at the national level, supported by sustained engagement and investment from the affected countries themselves, as well as the entire international community. The *Report of the Intergovernmental Committee of Experts on Sustainable Development Financing* indicates that achieving zero hunger by 2025 – a precondition for the overarching goal of eliminating extreme poverty by 2030 – will require annual investments of an estimated \$50 billion.

This is a sum far in excess of the amount currently allocated to food aid from official development assistance (ODA). Given the competing demands for ODA, a significant increase in the share for hunger eradication seems elusive.

Recognising the limited scope to expand ODA means that achieving zero hunger will require broadening the donor group and creating a more comprehensive financial tool kit, including additional financial mechanisms: harnessing private-sector revenue to generate innovative financing tools; increasing support from traditional and non-traditional

government donors; and developing local capacity for revenue-raising strategies. Establishing these new mechanisms for multilateral, multi-year resources will require collective global high-level commitment and consensus, including G7 leadership and support.

The Third International Conference on Financing for Development will take place this July in Addis Ababa, Ethiopia, in advance of the SDG summit in the autumn. This global high-level leadership summit must produce an outcome document that includes these and other required comprehensive financial tools, beyond ODA. Collective global credibility requires a feasible financing strategy for delivering the ambitious proposed zero hunger indicators.

Realising the proposed zero hunger outcomes will also require investments unimpeded by the historical development-humanitarian divide. The G7 platform offers an opportunity for leading the dialogue that could drive a conference outcome at Addis Ababa for the post-2015 financial framework that could fundamentally change the global and state financing classifications, which govern the international humanitarian and development system.

The conference will convene against a backdrop of unprecedented humanitarian need. The needs of 805 million food-insecure people and 160 million chronically malnourished children are now overshadowed by the emergency food and nutrition needs of conflict-displaced victims; more frequent and intense natural disasters; and public health emergencies that do not recognise national boundaries. The unprecedented level of acute need is highlighted by the fact that, for the first time since the Second World War, the number of refugees and displaced persons now exceeds 52 million people. As a result, the post-2015 financial framework supporting zero hunger must address the challenges of the requisite funding and programmatic continuum through response, recovery and development without regard to institution.

Beyond short-term responses

Specifically, the financial framework should ensure appropriate international and national actions where possible, and meet crisis-affected populations' immediate food-assistance needs, while simultaneously building their resistance to future hunger- and nutrition-impacting shocks. Currently, the majority of humanitarian food-assistance funding is dedicated to meeting the immediate hunger and nutrition needs of people affected by quick-onset emergencies, including conflicts, natural disasters, protracted crises and displacement. Because of limited resources, humanitarian financing mechanisms largely focus on delivering short-term responses. The scope and duration of humanitarian funding provide limited opportunities for transforming the drivers of vulnerability and risk. Adequate levels of development funding often fail to materialise during emergency response and recovery or in fragile or conflict settings. Changing the paradigm to simultaneously meet the immediate and long-term food-assistance needs of affected populations will



WFP/VANESSA VICK

require blending the mechanisms for funding emergency response, supporting recovery and strengthening the resilience of vulnerable populations.

The World Food Programme's (WFP) post-2011 drought response and recovery programme in Niger provides an excellent example. During the crisis, families received the food commodities necessary to meet their nutrition and dietary requirements. After the first distributions, the government – working with local

and international non-governmental organisations, the Food and Agricultural Organization, the International Fund for Agricultural Development, as well as WFP – developed and led the implementation of a response and recovery plan, which included building community water-catchment basins and water-retention facilities, as well as implementing and, where appropriate, scaling up drought-tolerant crop-planting methodologies. Admittedly, the success of this initiative is as yet

A maize farmer in Uganda, one of the World Food Programme's biggest suppliers of locally purchased food

A world without hunger is no utopia



Rev. Cornelia Füllkrug-Weitzel
President of Bread for the World
– Protestant Development Service



KARIN DESMAROWITZ

Smallholder women farmers are key-players in food security and nutrition.

For more than 50 years, Bread for the World has dedicated itself to the fight against hunger. Together with ACT Alliance – the global network of 147 Christian agencies and churches – we are committed to the realisation of the human right to food. Our work focuses on Africa, but we undertake work through partner organisations in 70 countries worldwide.

We are constantly experiencing the importance and indispensability of working together and empowering those who are ensuring world food security: the smallholder farmers, both female and male, pastoralists and fisher folk. In Africa, they provide 70 per cent of the food, although the majority of them suffer from malnutrition and hunger.

The smallholder and family farms could contribute more to food security in their countries if they received more and better support. But most of the governments in Africa and bilateral development cooperation have neglected the agricultural sector for far too long.

We therefore welcome the fact that G7 governments are willing and committed to increase the attention given to the eradication of hunger. But not all strategies and activities fit the aim of human rights-based sustainable development or seem appropriate to benefit smallholders and improve their livelihoods. The opposite is true: agricultural strategies, as promoted by many industrialised countries,

increasingly focus on the extension of the industrial agricultural model to the detriment of smallholder food producers and with unintended negative impacts on biodiversity and ecosystems.

Change in direction to beat hunger

In our view, programmes and initiatives, such as the New Alliance for Food Security and Nutrition in Africa, Scaling Up Nutrition and Climate Smart Agriculture, are mainly following the narrow path of new technologies in agriculture and nutrition. The dominance of transnational agribusiness corporations in these initiatives leads to solutions that do not fit the needs of smallholders. We have seen peasants become heavily indebted by the new dependency on credit for external inputs, such as chemical inputs and improved seeds. We fear that they will further lose their access to land, water and seeds.

We urge the G7 states to reflect upon adequate strategies, critically analyse previous activities to overcome hunger and malnutrition as well as their shortcomings and be prepared for major adjustments.

I wish the G7 summit in Elmau much success with the following clear message: yes, together, we can overcome hunger by following:

- a rights-based approach: the Voluntary Guidelines on the Right to Food provide a framework for governments to put in practice;
- adequate and truly sustainable agricultural methods that secure soil fertility and biological diversity; and

- a broad approach that meets the needs of the poor and vulnerable groups in society and includes them at national, regional and global levels in a full and meaningful manner.

I very much hope that the G7 states will have the commitment and the courage to set ambitious goals against hunger and coordinate their engagement within the Committee for World Food Security (CFS) with countries affected by hunger and poverty, the private sector and civil society. The CFS has the mandate of the international community to bring together all actors and coordinate the global fight against hunger.

Together with many of our international partner organisations, we are ready to share our experiences and engage in a constructive policy dialogue. Together, we can achieve this big aim: to totally eliminate hunger from this planet by 2030 and, at the same time, secure God's Creation for future generations.

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**Brot
für die Welt**

untested by another drought. However, the immediate increases in small-farmer income, child-nutrition indicators and overall food security of the participating population substantiate the programme's value.

Yet funding shortages threaten both the scaling up of the programme and the continuation of ongoing activities. After the drought, while acknowledging success, humanitarian funders with limited budgets significantly reduced or discontinued their support. Development donors, who recognise the value of WFP's work and the need for ongoing resources to ensure the programme's success, provide little – if any – investment support. This is largely because WFP is perceived by many as only a humanitarian actor.

An integrated approach

The post-2015 financial framework must provide a coherent link between development, humanitarian and climate finance, regardless of institution. The framework must recognise the food security and nutrition threads between the various elements of the post-2015 development agenda, including the Sendai Framework for Disaster Risk Reduction; the proposed goals to be agreed at the sustainable development summit; the climate change framework agreement that will come from the 2015 Paris Conference of the Parties to the United Nations Framework Convention on Climate Change; and the 2016 World Humanitarian Summit.

Even if the financial framework adequately identifies the necessary investment tools and resources to achieve the goal of zero hunger, failure to overcome the juxtaposition of funding now delineated by humanitarian versus development activities and actors will preclude the global community from knitting together the post-2015 agenda threads.

G7 donor policy frameworks could take this opportunity to align with the emerging post-2015 agenda threads. Policy frameworks providing funds



Ertharin Cousin at the Zaatari camp, Jordan, for refugees from Syria. The needs of the chronically malnourished are now overshadowed by those of conflict-displaced victims

The post-2015 financial framework must provide a coherent link between development, humanitarian and climate finance, regardless of institution

for programmes delivering immediate response, as well as simultaneous sustainable and durable outcomes regardless of the 'humanitarian or development' label or actor, will both meet immediate needs and reduce the vulnerability of populations over the long term.

Investments from G7 donors, based on this new, integrated policy framework, can also serve as a catalyst for innovative approaches integrating private capital markets into outcome-driven investment instruments. In addition to investing their own resources, G7 donors would perform a vital role by identifying and testing scalable market-based financing solutions that would

attract these otherwise risk-averse actors. These investments will potentially help to shape the future of humanitarian and development financing.

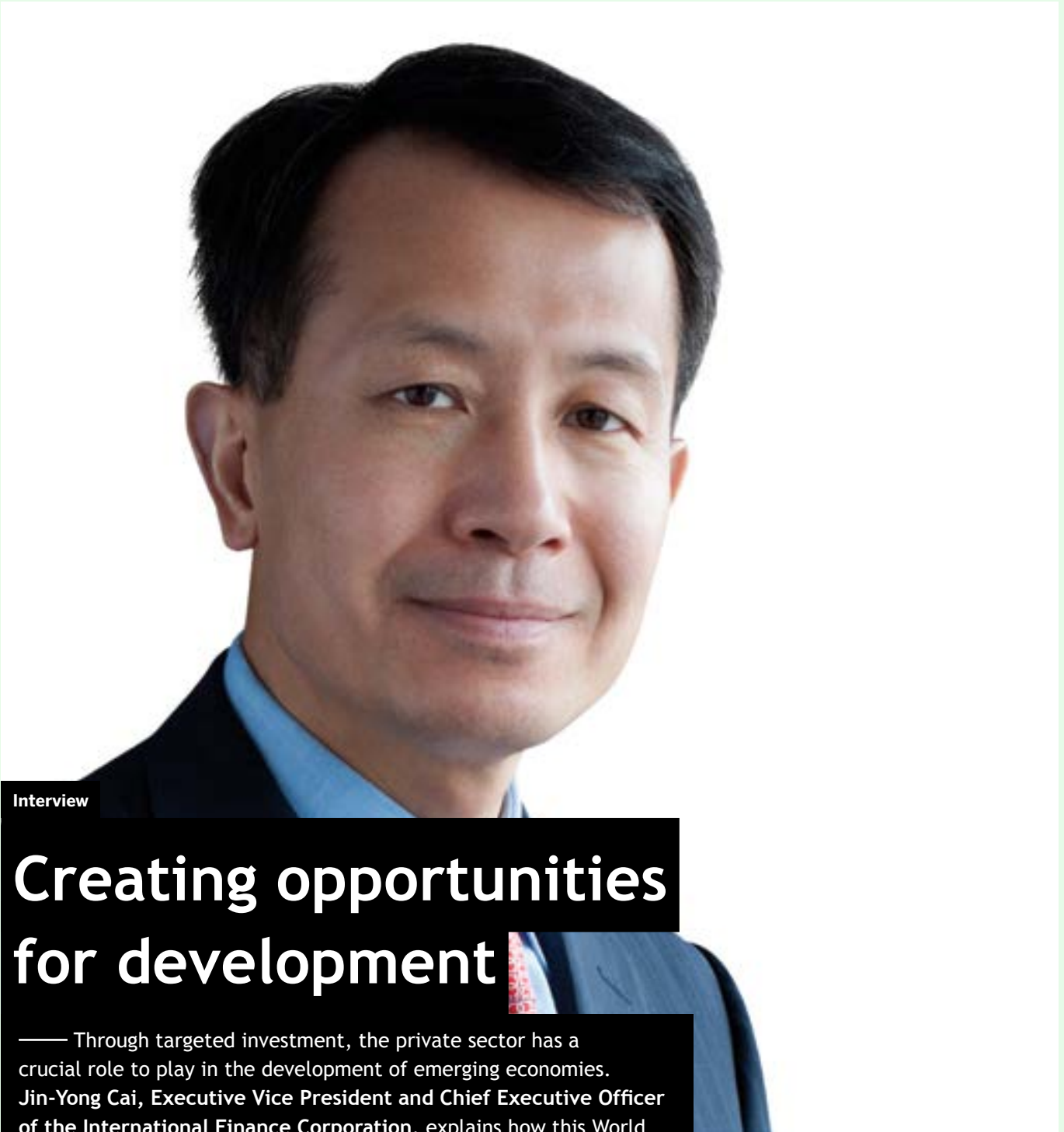
WFP's Food Security Climate Resilience Facility (FoodSECuRE) represents one such example of a mechanism that seeks to bridge humanitarian and development financing, while providing a viable opportunity for a mix of public- and private-sector funding. FoodSECuRE is a multilateral fund dedicated to supporting community-based food assistance and nutrition programmes that build climate resilience.

FoodSECuRE has the capacity to release funds based on climate forecasts to help reinforce community resilience before a shock occurs. It will also improve the capacity of WFP and partnering governments to anticipate climate disasters and begin planning for longer-term recovery from the onset of a crisis. FoodSECuRE would provide multi-year financing to support the effective response and recovery from natural disasters, ensuring affected populations can quickly get back on the path to achieving zero hunger.

Need for leadership

Eradicating hunger is an achievable goal. Accomplishing this objective requires a global community agreement on a financial framework that includes diverse adequate funding sources and tools, as well as a successful policy aggregation of development and humanitarian financing.

Leadership from the G7 could help move us all towards realising this outcome, through its agreement and support at the Third International Conference on Financing for Sustainable Development. The time has come to make hunger history. The road to success leads through Addis Ababa. ■



Interview

Creating opportunities for development

— Through targeted investment, the private sector has a crucial role to play in the development of emerging economies. **Jin-Yong Cai, Executive Vice President and Chief Executive Officer of the International Finance Corporation**, explains how this World Bank Group member helps companies get involved

Q What are the goals of the International Finance Corporation (IFC) in encouraging private-sector involvement in developing countries?

A IFC's overriding goal is to create opportunity for people to escape poverty and improve their lives – by catalysing the means for inclusive and sustainable growth. We do this by mobilising finance for private-sector development, promoting open and competitive markets in developing countries, and

helping private-sector partners to generate productive jobs and deliver essential services.

Our work seeks to eliminate constraints for infrastructure, improve health, education and the food supply chain, and develop local financial markets and access to finance. We particularly emphasise job creation, since employment is the best path out of poverty for the majority of the poor. Ensuring environmental and social sustainability is embedded in everything we do, and essential to having a strong development impact.

“ **One of our strategic goals is to support the sectors with the greatest development impact... We are also actively building financial markets in developing countries to improve access to finance** ”

Q In what ways does IFC provide assistance to private-sector companies?

A Private companies operating in developing countries frequently face critical constraints in areas such as finance, infrastructure, employee skills and the regulatory environment. Clients see IFC as a provider and mobiliser of scarce capital and knowledge, as well as long-term partnerships that can help address these issues.

IFC’s approach to clients is based on its unique position in the world of development and finance. We are the largest development finance institution focused on the private sector, and we have a presence in over 100 countries, which allows us to leverage lessons learned and experience across regions and sectors, while diversifying risk. Last year, we invested \$17.2 billion for our own account in about 600 projects, and mobilised more than \$5 billion from banks and partner institutions to support the private sector in developing countries.

The services we provide are investment, advice and asset management, while we also mobilise third-party resources for projects through syndications and parallel loans, credit enhancement and local currency finance.

IFC operates in the most challenging environments – places beyond the risk tolerance of most banks. In addition, our environmental, social and corporate governance standards help our clients improve their relationships with key stakeholders and establish robust risk-management practices.

Q What would you consider the most important industrial sectors in promoting economic growth in developing countries?

A One of our strategic goals is to support the sectors with the greatest development impact, such as infrastructure, agriculture, health and education. We are also actively building financial markets in developing countries to improve access to finance.

Physical infrastructure is essential for sustained poverty reduction and job creation. Reliable access to electricity, in particular, is crucial for the development of a well-functioning, sustainable economy. Other infrastructure investments also provide a range of direct benefits to the poor. For example, investments in roads and ports help create markets and promote regional integration. And mobile telephony has had benefits far beyond communications, enhancing financial, health and educational services, and improving productivity and transparency.

Agriculture is also a sector with tremendous development impact. Focusing on the food supply chain can not only feed rapidly growing populations, but also help integrate poor farmers and small suppliers into the formal and global economy. Health and education – including skills development – provide another opportunity for people to escape from poverty.

Finally, improved access to finance helps companies thrive and create jobs. This is particularly critical for small and medium-

sized enterprises, which may account for up to four-fifths of job creation and two-thirds of employment in developing countries.

Q Are there particular challenges to be faced in developing countries in the near future?

A Persistent poverty and rising inequality are the biggest challenges. Even as aggregate global poverty has been reduced, almost half of the population of sub-Saharan Africa and about a third of the population of South Asia are still living on less than \$1.25 a day. More than 70 per cent of people living in extreme poverty reside in middle-income countries.

In addition, at least 200 million people globally are currently unemployed, and nearly one billion go hungry. Food production will need to be increased by up to 70 per cent to feed an estimated nine billion people by 2050, while climate change exacerbates challenges from food production to water and health, and is at the root of an increasing number of political conflicts. All of these problems disproportionately affect the poor.

Q What can G7 leaders do to help in meeting development needs through the involvement of the private sector?

A 2015 is a crucial year for development policy, and G7 leaders can play a very constructive role. In July, the international community will meet in Addis Ababa for a conference on financing for development. This is followed in September by a summit that will decide on Sustainable Development Goals to follow the Millennium Development Goals ending in 2015. And, towards the end of the year, leaders will prepare for negotiations for a new international climate agreement in Paris. Engaging the leaders of the world’s most important economies in these initiatives is essential for their success.

All of these areas have a strong private-sector component, which the G7 should actively promote. In addition, leaders of the world’s developed countries should contribute to easing trade barriers and facilitating foreign direct investment. Developing countries are poised to integrate further into our fast globalising world economy – for everyone’s benefit. The G7 can help ease their way. ■

Jin-Yong Cai is Executive Vice President and Chief Executive Officer of the International Finance Corporation (IFC), a member of the World Bank Group. Cai, who joined IFC in 2012, has extensive experience in private-sector development in emerging markets across the globe. Before joining IFC, Cai worked in the financial services industry for 20 years. That included 12 years with Goldman Sachs Group, where he was part of Goldman Sachs’ global leadership team and its top executive in China. Cai began his professional career with the World Bank Group in 1990.

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Africa rising: prospects for growth

— Africa's share of global trade and investment is set to expand, as domestic demand increases and governments continue to implement far-reaching macroeconomic and structural reforms, writes **Donald Kaberuka, President, African Development Bank Group**



Donald Kaberuka is finishing his second five-year term as President of the African Development Bank Group (AfDB). He was Rwanda's Minister of Finance between 1997 and 2005, overseeing the country's economic reconstruction after the civil war and implementing systems for structural, monetary and fiscal governance. At the AfDB, Kaberuka has presided over a major redirection in its strategy for development and poverty reduction in Africa.

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Africa has sustained economic growth of about five per cent in the past 15 years, which is significantly higher than at any time since the 1970s. This performance is even more phenomenal when the effects of the global financial crisis, the Arab Spring and the recent outbreak of the Ebola epidemic are factored in. Much of this growth is credited to the commodity price boom, driven by demand from emerging economies, particularly China. But the resource windfall occurred in a significantly improved policy environment, thanks to years of prudent macroeconomic management and structural reforms. Across a range of African countries, the reforms have removed distortions that had previously impeded foreign direct investment (FDI) and constrained consumer demand, creating incentives for the African renaissance. It is more due to the continent's refocused policy stance, now referred to as 'Africa rising', and receiving similar accolades.

Attractive returns

Today, Africa boasts attractive investment returns, incomparable to any other region, even after adjusting for political and other

risks. Successive investment surveys have revealed that the profitability of firms is higher in Africa than anywhere else. Over the next five years, investment flows to Africa are expected to outstrip those in Asia. Thanks to relatively lower unit labour costs and attractive business environments, companies are relocating their factories from high-cost countries to

Africa. For example, for the median firm in low- and lower-middle-income countries in sub-Saharan Africa, unit labour costs are one and half times lower than in comparable countries in East Asia. However, labour productivity is also lower in Africa compared with other developing regions, especially in Asia.

Firms operating in Africa could leverage their cost advantage to remain competitive. For example, a Chinese company has set up three production lines to manufacture shoes for leading global brands. The apparel sector in Lesotho and Swaziland was largely inspired by the African Growth and Opportunity Act in the United States, but lower labour costs and proximity to South Africa were key determinants in firm location.

So FDI in Africa continues to grow. In 2015 alone, total foreign investment is projected to grow by 11.7 per cent annually to \$55.2 billion from a year earlier, mainly targeting retail markets in large urban centres, but also in extractive industries. In 2011, most FDI to sub-Saharan Africa from the US and China was directed to extractive industries, comprising close to 58 per cent and 30.6 per cent of total FDI to the region. Portfolio investment, which reflects increased risk appetite for Africa's assets, is set to grow by nearly 40 per cent to \$18.4 billion in 2015 and will accelerate in the medium term. The boom in consumer demand reflects the expansion of Africa's middle class, itself an outcome of sustained growth and a surge in remittances from Africa's diaspora, which have increased sixfold since 2000. Remittances will reach \$64.6 billion by the end of 2015 – mostly from Africans living in Africa.

The sources of Africa's growth have become more diversified too, with agriculture, services, construction, and light manufacturing playing a bigger role than previously. The growing contribution of structural change to output growth has been positive. Equally, Africa has steadily increased its non-resource exports, particularly to developing countries, from around 30 per cent in 2000 to 51 per cent in 2013. Africa's exports to developing countries are more diversified than its exports to developed countries.

The concerted effort of multilateral and bilateral lenders to cancel Africa's external debt in the mid 2000s has been crucial to improving the continent's credit profile. Coupled with macroeconomic prudence, African economies have proved more resilient than in the last three decades. This capability was especially demonstrated during the recent global financial crisis. In addition, the rapid increase in sovereign borrowing is an endorsement of Africa's current economic conditions and future prospects by investors, driven not just by commodities, but also by stronger economic fundamentals and more diversified growth patterns.

Enhanced policy consensus

The era of policy uncertainty is paving the way to shared principles of accountability and transparency. Consensus is building on the importance of policy uniformity across the continent. However, persistent deficiencies in infrastructure and skills present the most pressing constraints to improving the business



2015 AFRICAN DEVELOPMENT BANK GROUP

environment and spurring productivity. Africa currently invests only four per cent of its gross domestic product (GDP) in infrastructure – a quarter of the level in Asia. Bridging the infrastructure gap could raise GDP growth by around two per cent each year.

To this end, African governments are positioning themselves and taking bold steps in order to tackle structural bottlenecks, and revamping infrastructure, with bond issuances and other forms of sovereign borrowing increasingly becoming alternative sources of financing beyond domestic revenues and aid. African countries raised in excess of \$8 billion in 2013 alone from international capital markets. This is a significantly higher amount than the \$1.2 billion raised a decade ago. Several countries have higher credit ratings than some debt-ridden European economies. The challenge is to stay the course with policy reforms and avoid profligacy in the deployment of borrowed resources, to prevent relapsing into renewed debt distress.

Africa's challenges remain numerous, but not insurmountable. High unemployment, widespread poverty and inequality, gender disparities and the flaring up of new conflicts are among the most pressing issues. Africa is a microcosm of countries, many at diverse stages of development and economic sophistication, but all are galvanised by a common goal. African leaders are increasingly averse to the eruption of new conflicts and rising insurgency. Conflict engenders state fragility, undermines development and

propagates insecurity, both nationally and regionally. Leaders recognise the cost of such conflicts and are more resolved to addressing them before they intensify to preserve the public good of regional peace.

A multilateral approach

For five decades since it was established, the African Development Bank (AfDB) has supported the continent's progression, and devoted substantial financial and technical resources to unlocking its growth potential. The AfDB's infrastructure financing of both national and regional projects is the largest portfolio and a core pillar of its 10-year strategy. In 2014 alone, it committed the equivalent of \$3.7 billion to infrastructure, half going to transport and energy development – some of Africa's most needed infrastructure. The Africa50 Infrastructure Fund was launched in 2013 to mobilise innovative financial resources for regional infrastructure projects in energy, transport, information technology and communication, and water. It epitomises the urgency of scaling up available resources and upgrading local knowledge, demonstrating the AfDB's commitment to tackling infrastructure bottlenecks.

Enterprise surveys repeatedly reveal that a main constraint is the shortage of skills. This is a paradox, given Africa's excess labour supply and high levels of unemployment among its educated population, particularly at the secondary and tertiary levels. Reforming the educational sector across the board

A clothing factory in Lesotho. The country's apparel industry, along with that of Swaziland, has taken off thanks in large part to the United States' African Growth and Opportunity Act

is crucial for promoting inclusive growth. The AfDB's human-capital development strategy places a high premium on skills and human capital as a path to inclusive growth. Therefore, its financing interventions help African countries move up the economic value chain by supporting higher education, technology and vocational training, including support to the African Virtual University.

The world has changed significantly in geopolitical, economic and political terms. These changes have shifted global power structures, reconfigured relationships, loosened old hegemonies, as well as establishing new ones, and required a serious rethinking of development paradigms. Yet Europe and North America remain attractive to Africa, whose main resource is its people. High unemployment and rising inequality push many of Africa's most dissatisfied youth to risk their lives to cross the Mediterranean and elsewhere, seeking better opportunities abroad. Migration from Africa to Europe has been exacerbated by instability in North Africa and the Sahel, and Libya's incapacity to control its borders. Current international responses have mainly taken the form of bilateral arrangements between an African country and a European counterpart, with

unparalleled leadership to gain confidence and legitimacy as a genuine development partner. Africa's young entrepreneurs are forging partnerships regionally and globally to be the game changers they seek to be in a challenging environment. They are scooping up opportunities offered by the technology revolution and creating innovative solutions in all spheres of economic and social life. G7 members can only be part of Africa's rising narrative and renaissance, and enter into partnerships to help reshape the continent – based on mutual respect, recognition of Africa's recent progress, and the realisation that tacit patronage will only widen the gap in trust.

While these changes provide a unique opportunity for Africa to emerge as a global economic power, they pose serious obstacles as well. Taking advantage of the opportunity and managing the challenges requires effective leadership, vision and a long-term strategy. It requires Africa to define and own its development agenda, especially in light of the post-2015 goals.

Aid has become less important in financing Africa's development. Instead, diaspora remittances, higher than the \$54.9 billion in official development assistance, and close to \$73.5 billion in FDI have assumed a new trajectory in Africa's growth. So has the pattern of trade, with emerging partners playing an increasing role, even as Europe and the United States have remained leading trading partners. A fresher approach to Africa's relationship with its G7 partners is needed, defined by a new aid architecture that provides additional, predictable and significant amounts of aid-for-trade, as well as a push for deeper regional integration to defragment Africa and foster spatial inclusion.

The AfDB is already leading the way by emphasising regional infrastructure projects to build economic hubs and development corridors. Strong partnerships are essential for improving governance and effective bureaucratic institutions, including protecting private property rights to stimulate innovation. African governments and their partners need to continue with policies and support to create incentives for the private sector to thrive. Economic transformation in Africa will be driven by the private sector, especially small and medium-sized enterprises. But this is conditional on closing the infrastructure gap and sustaining structural reforms to foster an environment necessary for competitive dynamism. Resource windfalls can be a useful tool in unleashing the dynamism required to create sustainable jobs and reduce income inequalities.

G7 members and their citizens should engage more than ever. Otherwise, they will miss the opportunities Africa offers. Indeed, Africa is poised to be a global engine of growth in the coming decades, possibly even sooner. Africa has built a relatively strong buffer, through sound policies, to withstand economic shocks, and its fundamentals remain strong. Building on this foundation would give impetus and scope for timely and appropriate readjustments in the face of uncertainty. Africa's economic tide could not be any more favourable, and the continent is hungry for sustainable and mutually beneficial investments. ■

Africa's economic tide could not be any more favourable, and the continent is hungry for sustainable and mutually beneficial investments

promises to curb illegal migration in exchange for aid and development. The enormity of the problem calls for a holistic, multilateral approach. Europe and North America must have an equal interest in Africa's efforts to address the root causes of migration, notably by facilitating job creation to tackle widespread poverty. This offers G7 members an important entry point to re-engage with African counterparts by focusing on rekindling North-South cooperation and demystifying the stigma attached to African migrants.

Youth unemployment and outward migration are caused by Africa's distorted labour market, which is characterised by dualism on the demand side where informality thrives. Job opportunities for highly specialised skills outside capital-intensive extractive sectors are few, while low wages in the informal sector have driven people into vulnerability and hopelessness. Investment in human capital to upgrade the volume of skilled labour and its composition becomes imperative.

An engine of global growth

Africans abhor poverty. They desire prosperity and a dignified life just as any other human does. They have shown ingenuity in moving the continent forward. Today's Africa is averse to paternalism and values enduring partnerships. The AfDB has demonstrated

Bringing power to Africa through partnerships

— Working with private-sector partners, governments and institutions, Power Africa is taking electricity to the most remote corners of the continent, writes **Andrew M Herscowitz**, Coordinator, Power Africa and Trade Africa



Andrew M Herscowitz is the Coordinator for US President Barack Obama's Power Africa and Trade Africa initiatives. He previously served as the United States Agency for International Development's (USAID) Mission Director in Ecuador in 2011-13, and Deputy Mission Director in Peru in 2009-11. After joining USAID in 2001, Herscowitz was the lawyer for USAID's Office of Development Credit, which has leveraged hundreds of millions of dollars in private-sector funds through its Development Credit Authority loan guarantee programme.

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“It was September last year that I heard that electricity is coming to my *boma*. We got very excited. We knew all the benefits that we will be getting from it, especially the light. Now, you can do everything you want at any time, during the day or during the night.” – Elizabeth, a young Maasai woman in rural Tanzania.

Partnerships represent the very essence of Power Africa. In part, without the strong relationships that we have developed since the President of the United States, Barack Obama, launched Power Africa two years ago, young people such as Elizabeth, who lives in a small village hundreds of kilometres away from Tanzania's national grid, would still lack access to electricity. Power Africa works with partners, large and small, government and private sector, to help ensure that power projects start delivering electricity to people across the continent. We can only accomplish this goal through partnerships because the cost of electrifying sub-Saharan Africa far outstrips what any government, donor or company can do alone.

Since June 2013, more than 100 of Power Africa's private-sector partners have committed more than \$20 billion for new power-generation projects in sub-Saharan Africa. Our partnerships are now

more important than ever, with President Obama's announcement in August 2014 to triple Power Africa's goals after its first year, making it clear that we will work together to double access to electricity across all of sub-Saharan Africa. Power Africa will help to bring online

30,000 megawatts (MW) of new, cleaner electricity-generation capacity and will increase access with 60 million new home and business connections. The President also pledged a new level of \$300 million in assistance per year to support this expansion.

In the case of Elizabeth's *boma*, through a unique collaboration with the US National Academy of Sciences, Power Africa partnered with the International Collaborative for Science, Education and Environment, a non-profit organisation working to install solar panels throughout Tanzanian villages to provide electricity services to people for the very first time.

As the post-2015 development agenda emerges, innovative and dynamic partnerships will be crucial for achieving what the World Bank has called the “unfinished business” of the Millennium Development Goals. Sub-Saharan Africa has made remarkable progress in health, food security, education and poverty indicators – but electricity access remains far too low. By partnering to leverage the resources and technical skills of the private sector, government and international donors, Power Africa is unlocking this key driver of development.

Power Africa accelerates power project development and energy access efforts. In July 2013, President Obama noted: “If we are going to electrify Africa, we've got to do it with more speed.” Power Africa is attempting just that, in part by providing early-stage grants to the US-Africa Clean Energy Finance Initiative (ACEF) that catalyse and accelerate the development of renewable energy projects. Our partner Gigawatt Global used an ACEF grant to bring East Africa's first utility-scale, grid-connected solar field online in record time; just 12 months after the signing of a power purchase agreement, electricity began to flow to upwards of 15,000 homes in Rwanda.

We work to accelerate energy development by partnering with major private-sector players – many of whom have long been interested in scaling up their activities in sub-Saharan Africa, but have lacked the tools and confidence to do so. Take, for example, Vestas, which recently became one of Power Africa's partners. The Danish multinational wind turbine manufacturer is no stranger to work in Africa, with several of its wind farms already operating across the continent. Vestas also made a previous commitment to provide turbines for the 310MW Lake Turkana wind project in Kenya, supported by Power Africa, which could be the largest wind power plant project in sub-Saharan Africa upon its completion. But now, as a full private-sector partner, Vestas will utilise Power Africa's wide array of resources to expand its portfolio, and aims to reach one gigawatt of installed capacity in Africa by 2016.

Beyond the Grid

Large energy projects alone will not be sufficient to achieve near universal electricity access in sub-Saharan Africa. Off-grid and small-scale energy systems must also be part of the solution. With the establishment of our Beyond the Grid sub-initiative, Power Africa is unlocking power-sector investment and growth in rural and peri-urban areas where there is currently little or no electricity access.



OFF-GRID: ELECTRIC

Large projects alone will not be sufficient to achieve near universal electricity access. Off-grid and small-scale systems must also be part of the solution

Power Africa partner Off Grid: Electric is part of the Beyond the Grid initiative, which focuses on unlocking investment and growth in areas that currently have little or no electricity access

But partnerships with a growing number of private-sector partners will not alone suffice to meet President Obama's expanded Power Africa goals. We are also working with host country governments and coordinating with other key governments and multilateral institutions to engage in critical policy, regulatory and governance reform efforts. For example, the African Union Commission's New Partnership for Africa's Development (NEPAD) and Power Africa have signed a memorandum of understanding outlining a joint commitment to accelerate the implementation of the 'Africa Power Vision' – an African-led effort to prioritise and focus on the development of a few, transformative projects across sub-Saharan Africa to demonstrate that we can work together to move beyond making lists of priorities and instead take these priorities across the finish line.

We also are working with our partners to advance the work of the East, West and Southern African power pools, which will facilitate the critical power trading necessary to bring electricity prices down, while creating regional interdependence and stability.

Within the past year, Power Africa has enhanced its already strong relations with multilateral organisations

and host country governments that share in our mission to attract and sustain private investment over the long term. Strong partnerships with organisations such as the World Bank Group and the African Development Bank have led to \$5 billion and \$3 billion financial commitments respectively to enhance coordinated planning and programming that will ensure that we build on each other's efforts.

In the past year, our partnerships have grown to European governments, including the Government of Sweden, which has committed \$1 billion to catalyse energy investments through grants for distribution and transmission projects, and loans and loan guarantees for small-scale and off-grid renewable projects.

Many of Power Africa's core objectives dovetail with those of the United Nations' Sustainable Energy for All (SE4All) initiative. SE4All and Power Africa have also signed a cooperation understanding aide memoire that is designed to address energy poverty issues in sub-Saharan Africa. As part of the nascent partnership, Power Africa and SE4All are focusing in part on providing increased energy access in off-grid communities, and Power Africa is working to support SE4All in implementing its financing plan so that more projects can come online and help increase access to electricity.

Under President Obama's leadership, and thanks to the hard work and commitment of all of our partners, Power Africa has progressed from a US Government initiative into a unified effort and collective mission, leveraging resources and technical skills from around the world in order to increase electricity access throughout all of sub-Saharan Africa. ■

Clean and reliable water for all

— With almost half of the world's population facing water shortages, stakeholders and decision-makers across all sectors must assume shared responsibility to work towards water security, says **Benedito Braga, President, World Water Council**



Benedito Braga is Secretary of State for Sanitation and Water Resources for the state of São Paulo, Brazil, and President of the World Water Council. He is also a professor of Civil and Environmental Engineering at Escola Politécnica of the University of São Paulo. The World Water Council brings together more than 300 member organisations from more than 50 countries to build political commitment and trigger action on critical water issues to facilitate the efficient conservation, protection, development, planning, management and use of water.

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www.worldwatercouncil.org

Governments all over the world are facing water challenges, such as droughts, floods and growing competition for water between sectors and countries. However, access to safe, clean and reliable water is perhaps one of the most pressing and stubborn of the challenges affecting all aspects of our life: health, food, nature, peace, industry, economy and development.

Given that almost half of the world's population faces chronic scarcity of water, it is no surprise that it is now rated as the number one risk to global society. It is also commonplace that people without access to clean water are the most impoverished and the least resilient in society; they face the greatest challenges of living in urban slums, being trapped in conflict zones or being displaced from their lands.

Despite significant investment and action over many years, the lack of access to safe, clean and reliable water demands continued attention. To lift the most vulnerable in society out of poverty, economic and sustainable growth must go hand in hand with the health and well-being of communities. It is equally clear that water, as a conduit that connects economy, society and the environment, can play a central role. Therefore, it is imperative that the

global community accepts the proposed Sustainable Development Goal on water to ensure its availability and sustainable management for all.

The world's quest for greater water security for all is occurring in the face of increasing hydrologic uncertainty, intensified by climate change and growing demand for water. We need to seek synergies between water security and energy, transport, food,

land use and the environment. We must also take into account the upstream and the downstream economic, social and environmental impacts. One way to seek these synergies is through the design of multipurpose infrastructure to bring together the different water users and their demands. However, a key challenge in delivering water security through such resilient multipurpose water infrastructure is investment. There is simply not enough being invested on a global scale to bridge the gap between demand and supply. More needs to be done.

Financing models and approaches

In this regard, the focus of some of the largest economies in the world on infrastructure is welcome. However, it is not simply a question of finance. Recent work undertaken by the World Water Council as well as the Organisation for Economic Co-operation and Development highlights the fact that current financing models and approaches do not encourage the kind of multipurpose water infrastructure that will be needed in the future. The sums involved are typically large, some components are not financially profitable under strict market conditions, many different stakeholders are affected, there are competing users, and conflicts over priorities often arise between them. To cap all this, many large projects are transboundary, involving two or more countries. Yet, given the recent history of many developed countries, multipurpose infrastructure projects have clearly played a major role in reducing poverty and increasing social welfare.

Different social, economic and environmental perspectives are emerging between high-income and low-income countries on the issues of water and adaptation to climate change. High-income, mature

Water, a conduit that connects the environment, economy and society, can play a central role in lifting people out of poverty

economies are more likely to think in terms of global environmental values and security, while low-income countries are more concerned with the human implications of local and regional problems. There is an enormous opportunity to restructure this climate and water dialogue – as both perspectives are vital. Water is the catalyst to shift the debate towards achieving the social ends of reducing poverty, as well as managing climate uncertainties to deliver resilience and security. In this regard, the World Water Council commends recent climate agreements that explicitly acknowledge the connection between water and climate change.



ISTOCK IMAGES

At the same time, the world faces a challenge to achieve true, shared responsibility for our precious water resources. Engaging decision-makers at the national, regional and basin levels, including representatives of water users, technical practitioners and experts, the business community, non-governmental organisations and academia, is essential in order to build shared responsibility for effective water management. Yet shared responsibility must be built across sectors as well. Experience shows that management of sustainable water resources cannot be achieved without engaging actors across sectors, whether they are from the energy sector, food production or sanitation services. It is for this reason that the World Water Council has built up

enduring relationships with organisations across a range of different sectors.

The World Water Council has been advocating the global recognition of water security as a necessary component in the upcoming Sustainable Development Goals and global climate agreements. Water is the lens through which growth must be viewed and planned if we are to eradicate poverty, build resilient communities and prepare for long-term sustainability. Providing communities with clean and reliable water requires political will, sound policies and increased investments to serve all water users and activities. Governments must make strong commitments. I believe that the G7 members are well positioned to provide global leadership. ■

A family in Benin use a well that provides clean water for their entire village. Political will is required in order to provide communities with a reliable source of clean water

**40 Years
of Summits:**
addressing
global challenges



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40

The image features the number '40' in a white, bold, sans-serif font against a solid blue background. The digit '4' is on the left, and the digit '0' is on the right. The '0' is stylized to resemble a gear or a mechanical ring, with several rectangular notches or teeth along its outer circumference. The overall design is clean and modern.

Introduction

Across four decades, the leaders of the major industrial democracies to have gathered each year to deal with the important economic and political issues facing both their domestic societies and the international community as a whole — making commitments, setting policy and influencing the international response to pressing global problems.

This publication looks back over an eventful 40 years — from the first G6 meeting in France, the subsequent expansion to seven and then eight participants at the end of the Cold War, to the current return to G7 summits. This informative chronicle of the summits considers the background to the annual discussions, with a timeline that highlights many of the key moments and recalls the personalities involved.

As the current G7 leaders gather at Schloss Elmau for their latest meeting, with the ongoing issues of generating sustainable global growth and development at the heart of their agenda, the summit process continues to provide the opportunity for heads of state and government to address these challenges collectively and to bring about global change.

Sir Nicholas Bayne KCMG



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Four decades of debate and decision-making

— An initial meeting of six world leaders to tackle the mid-1970s economic crisis soon became established as an annual forum that continues to exert significant influence on global affairs

The annual summits were born out of economic crisis. In the early 1970s, the international monetary system faltered as the United States refused to defend the dollar. The countries exporting oil imposed a fourfold increase in the price. For industrial countries dependent on oil imports, this stifled growth and drove up inflation.

Economic institutions, such as the International Monetary Fund (IMF) and the General Agreement on Tariffs and Trade (GATT), seemed powerless to act. Valéry Giscard d'Estaing and Helmut Schmidt, finance ministers of France and West Germany respectively, were at an IMF session when their American colleague, George Schultz, invited them to meet privately in the library of the White House; Anthony Barber was there, too, for the United Kingdom. Giscard and Schmidt much preferred the lively exchanges in this compact 'Library Group' to the formal IMF talks. The group added Japan and went on meeting secretly as the G5.

Giscard was soon elected President of France, and Schmidt became Chancellor of West Germany. Both believed that heads of state and government could resolve problems where bureaucrats failed, and proposed a summit meeting in the spirit of the Library Group to address the worsening crisis. US President Gerald Ford hesitated to back this European initiative, but then agreed so long as foreign and finance ministers were also in attendance. Giscard invited the G5 leaders – plus Italy, a late addition – to meet at Rambouillet, near Paris, in November 1975.

Immediate impact

This initial summit was a success. It agreed a new regime for the IMF that legitimised floating exchange rates and which has endured to this day. It endorsed measures to stimulate growth already adopted by the members, giving them collective impact. It pledged to resist protectionism and set a deadline to complete GATT negotiations to remove trade barriers.

KEYSTONE-FRANCE/GAMMA-KEYSTONE VIA GETTY IMAGES



1975 Rambouillet

France, West Germany, Italy, Japan, the United Kingdom and the United States formed the G6 in response to global financial troubles. Pictured (left to right): UK Prime Minister Harold Wilson, US President Gerald Ford and French President Valéry Giscard D'Estaing

1977

G7 – United Kingdom:
London

1975

G6 – France:
Rambouillet

1976

G7 – United States:
Dorado, Puerto Rico

The leaders decided to meet annually, adding Canada and the European Community (EC) to make up the G7. They entrusted preparations to their personal representatives, called 'sherpas', and chaired each summit in turn. The aims were to exert political leadership and provide collective management of the world economy. Through their joint authority, this compact group of heads of government could launch new initiatives, resolve problems blocked at lower levels, ensure decisions took effect domestically and replace the American hegemony in force hitherto.

From economics to politics

Early summits naturally focused on economic issues, as most leaders were former finance ministers. After the boost to growth, the 1976 Puerto Rico Summit sought to restrain inflation. This did not satisfy President Jimmy Carter, in office by the 1977 London Summit. He had already stimulated the US economy and wanted other strong economies, such as Germany and Japan, to do the same to help weaker members, such as the UK and Italy.

Schmidt contested this strategy at first, but as the 1978 Bonn Summit approached he changed his mind. Germany and Japan agreed to fiscal stimulus, on condition that the US restrained oil imports that were driving up world prices. The leaders completed this Bonn package with agreement to conclude the GATT trade negotiations (see box, right).

However, early in 1979, a second oil crisis broke out and prices soared again. Instead of countering the negative impact on growth, this time the G7 resolved to hold down inflation, at the cost of a deep recession. The summits focused on energy policy: Tokyo in 1979 agreed annual limits on oil imports; Venice in 1980 endorsed measures to reduce the need for oil. Both summits produced a coherent response to the crisis, though with growth so weak the import targets were never tested.

When US President Ronald Reagan arrived, his economic strategy caused problems for other G7 members; but he ignored their complaints at the 1981 Ottawa Summit. The following year, he pressed the Europeans to tighten their regime for East-West trade.

1978 Bonn



Japan's Prime Minister Takeo and German Chancellor Helmut Schmidt

Helmut Schmidt, joint founder of the summits, chaired one of the most innovative meetings of the entire 40-year cycle. The leaders agreed a cross-issue economic bargain, as well as the first G7 political statement, on aircraft hijacking.

Germany had at first resisted Carter's 'locomotive strategy', whereby strong economies acted to pull up weaker ones. Schmidt now agreed to fiscal stimulus (as did Japan), but only if the US reduced its oil imports by decontrolling internal prices; this helped him to overcome domestic resistance.

A third element in the package was a commitment by all (especially France and the UK) to conclude the GATT trade negotiations successfully. All the G7 members faithfully implemented these measures. The GATT round was completed a year later, with major advances in trade liberalisation, while fiscal stimulus delivered stronger growth. However, after the second oil crisis, the summits never again attempted such an ambitious programme to coordinate economic policies.

The issue of hijacking was raised by Schmidt over a G7 lunch, without warning. The leaders reacted enthusiastically and produced a policy statement on the spot. But it proved difficult to implement, as it went against existing obligations, and future political declarations were prepared in advance.

1978

G7 – West Germany:
Bonn

1979 Tokyo

The first of 12 summits attended by UK Prime Minister Margaret Thatcher, Tokyo is noted for its response to the second oil crisis by agreeing strict limits on oil imports and rigorous anti-inflation policies. It also envisaged an ambitious regime of climate governance

1979

G7 – Japan:
Tokyo

1986 Tokyo



Japanese Prime Minister Yasuhiro Nakasone talks to US President Ronald Reagan at the opening session

President Ronald Reagan was resistant to economic discussions. While he was in office the summit often gave priority to politics. Economics reverted to finance ministers, especially after James Baker became US Treasury Secretary.

At the Tokyo Summit, the most productive in Reagan's time, the main item was terrorism. Reagan believed terrorist attacks on Americans in Europe were being sponsored by Libya. He ordered US planes based in the UK to bomb Libyan targets, provoking strong resistance from the rest of the G7. UK Prime Minister Margaret Thatcher agreed only with great reluctance, while French President François Mitterrand forbade the planes to overfly his country.

The aggressive American stance stimulated the Europeans to formulate an alternative strategy, based on political measures against terrorists and their sponsors. Reagan was brought to accept this, after Thatcher's vigorous advocacy was backed by others.

Meanwhile, Baker had mobilised action to bring down the dollar through the G5 finance ministers, who had met at the Plaza Hotel in New York. Italy and Canada demanded to take part in such discussions, by virtue of their summit membership. Accordingly, the summit created a new G7 finance ministers group, to meet more openly. As a result, the secretive G5 soon lapsed.

French President François Mitterrand advocated a new system for stabilising exchange rates. The 1982 Versailles Summit agreed a fragile trade-off between the two subjects, but this broke down within hours.

Reagan wanted the summit to do more on foreign policy issues, which leaders were already discussing on the side. The 1983 Williamsburg Summit, which he chaired, successfully resolved tensions within the G7 over deploying short-range missiles in Europe.

Tackling terrorism

The main theme for the second Tokyo Summit in 1986 was, again, political. The US bombing of Libya, in retaliation for its sponsorship of terrorist attacks, deeply disturbed the Europeans. The summit worked out a new strategy based on political measures (see box, left).

In economics, the 1984 London Summit had addressed – but did not solve – the debt crisis affecting Latin American countries unable to service their debts to commercial banks. Meanwhile, the dollar was so strong as to revive protectionism in the US. This could be eased by a new GATT round to open markets, but the Bonn summit of 1985 could not agree on a starting date. US Treasury Secretary James Baker then proposed joint action to the G5 finance ministers. Their Plaza agreement successfully brought down the dollar, but breached G5 secrecy.

When Italy and Canada complained at their exclusion, the 1986 Tokyo Summit brought them into a new G7 finance ministers group. Baker then persuaded the finance ministers, as G5 and G7, to agree a common strategy for growth. This was endorsed at the second Venice Summit of 1987, but was abandoned after it unsettled financial markets.

1983

G7 – United States:
Williamsburg

1984

G7 – United Kingdom:
London

1985

G7 – West Germany:
Bonn



AP/AP/PA IMAGES

1981 Ottawa

The first summit meeting for right-wing US President Ronald Reagan and socialist French President François Mitterrand, both of whom were newly elected. G7 leaders convinced a reluctant Reagan to attend a North-South summit in Cancun

1980

G7 – Italy:
Venice

1981

G7 – Canada:
Ottawa

1982

G7 – France:
Versailles

The collapse of communism in Europe gave the G7 a new lease of life. The 1989 Paris Summit took on leadership of the Western response

The 1988 Toronto Summit returned to debt problems, this time those affecting poor countries in Africa that could not repay loans from governments. A joint initiative by Canada, France and the UK secured relief on one-third of their debt. But the 'Toronto terms' were insufficient and the summit would often return to this subject, responding to pressure from civil society.

Ending of the Cold War

The collapse of communism in Europe gave the G7 a new lease of life. The 1989 Paris Summit took on leadership of the Western response, acting to coordinate assistance offered to East European countries to rebuild working democracies and market economies (see box, right).

The G7 also launched the new European Bank for Reconstruction and Development (EBRD), which is still at work. The 1990 Houston Summit began encouraging the transformation of the Soviet Union. This proved to be more difficult, because of the poor state of the Soviet economy and due to uncertainty over whether it could hold together.

Soon, East European countries needed help again, because the Soviet market had collapsed. The second London Summit in 1991 offered them new trade access in the EC. The leaders invited Soviet President Mikhail Gorbachev as their first guest, but offered only limited pledges of help. The G7 doubted Gorbachev's ability to deliver economic reform, but gave emergency assistance as the Soviet economy seized up and split apart.

Only in 1992 at Munich and in 1993 at Tokyo again could the summit mobilise major capital sums for Russia. Yet the results were less than hoped, as President Boris Yeltsin often resisted outside advice.

1989 Paris

In spring 1989, there were signs of the break-up of the communist empire in Eastern Europe, led by Poland and Hungary. The Paris Summit seized the opportunity to take the lead in the Western response.

Individual G7 members were already launching programmes to help East European countries make the transition to democracy and open economies. The summit set up machinery to coordinate this assistance, chaired by the European Commission.

Later in the year, the G7 launched the new European Bank for Reconstruction and Development, dedicated to building up the private sector in ex-communist countries. By that time, East Germany, Czechoslovakia, Bulgaria and Romania had also broken free and the Berlin Wall had been torn down. This response to the end of the Cold War in Eastern Europe, and later in the Soviet Union itself, gave a new sense of purpose to the G7.

The Paris Summit had other achievements, too. It took the G7's first major decisions on the environment, and acted to end the debt crisis that had produced a 'lost decade' in Latin America. Among measures to curb drug trafficking, it launched the Financial Action Task Force against money laundering, which is still in operation.



UK Prime Minister Margaret Thatcher and French President François Mitterrand

RICK BOWMER/AP IMAGES

1986
G7 – Japan:
Tokyo

1987
G7 – Italy:
Venice

1988
G7 – Canada:
Toronto

1989
G7 – France:
Paris

Addressing global challenges: healthy food for all

Helping to feed what will be more than nine billion people on this planet in 2050 is one of the biggest challenges facing the world in the 21st century. Bayer CropScience is committed to enhancing global food security and to promoting agricultural practices that are both highly productive and sustainable. While supporting its customers in their efforts to increase yields and continuously enhancing the quality of its produce, the company's key priorities are to promote sustainability, drive innovation and extend partnerships.

Increasing productivity in a sustainable way

Around the world, farmers are the backbone of our food supply. Today's consumers, especially in developed countries, are used to finding their food on supermarket shelves. But flour is still made from grain, oranges still grow on trees and cheese is still made from milk. In our digital age, we tend to underestimate the role of farming.

More than ever before, agriculture today is a delicate balancing act between consumer needs and demands, economic necessities and the diverse challenges of climate protection and care for our planet. Demand for food is increasing rapidly as the world's population grows, life expectancy increases and eating habits change. Arable land is limited with no perspective for extension. Fresh water is a precious commodity. We need to preserve soil as a natural resource. All these objectives can be met by cultivating farmland sustainably and efficiently.

Empowering agriculture worldwide with an integrated offer

Helping farmers produce sufficient high-quality, safe and healthy food for everybody around the world, and thereby contributing to a better life for all, is the mission of Bayer CropScience. The company's approach to farmers reaches far beyond a portfolio of products. It starts

with customers' needs, includes top-quality seeds, as well as highly specific chemical and biological crop protection agents, and extends all the way to a wide array of services and expertise.

On the next-highest level, Bayer CropScience focuses on product stewardship and safe use, meaning the safety of ingredients and technologies, the health of users and consumers and, of course, the integrity of the environment. Above and beyond products, services and good practices, the company promotes integrated solutions to contribute to food security and food safety.

Driving innovation

Farmers constantly experience new challenges – threats to food security. As an innovation leader in its industry, Bayer CropScience is investing roughly €1 billion annually to find new solutions to the pressing issues facing farmers and society.

A very recent challenge is the devastating Citrus Greening disease, or

Huanglongbing, in citrus plantations in the United States and Brazil, which dramatically reduces citrus-fruit supplies. Introduced by the Asian citrus psyllid, a small insect that feeds on citrus trees, the bacteria spreads quickly, ravages citrus groves and has no cure. All growers can do is intensify phytosanitary measures, such as the removal of infected trees and replanting of disease-free saplings, or control its insect vector, the Asian Citrus Psyllid.

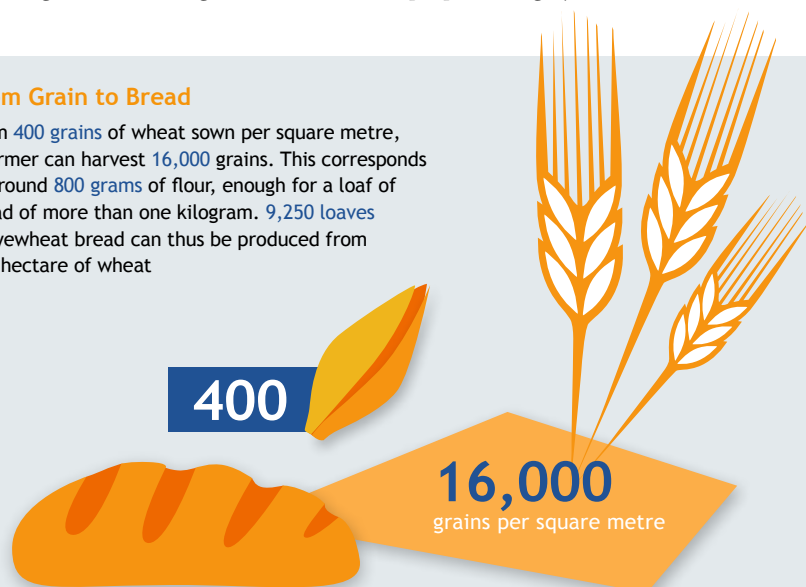
For example, in Florida, the world's second largest orange-juice producer, roughly 80 percent of all orange trees are infected. Local orange production fell by half between 2003 and 2013.

Bayer CropScience encourages integrated pest-management principles that respect the environment and support the reasonable use of resources. The company offers an integrated, year-round spray programme building on chemical and biological solutions to control the insect vector. In addition, it is looking for strong partners and new tools to develop sustainable solutions for this challenge, involving citrus growers, researchers and processors. Bayer CropScience is also investing in the development of new modes of action to control the Asian citrus psyllid and is conducting research to find a solution that combats the bacteria itself.

Another focus is the research and development of improved wheat varieties. Wheat is consumed by about 2.5 billion people in roughly 90 countries. Global

From Grain to Bread

From 400 grains of wheat sown per square metre, a farmer can harvest 16,000 grains. This corresponds to around 800 grams of flour, enough for a loaf of bread of more than one kilogram. 9,250 loaves of ryewheat bread can thus be produced from one hectare of wheat



Meeting the Demand

Wheat productivity is rising by less than 1 per cent each year, while worldwide demand is growing twice as much. By 2050, around 250 million additional tonnes of wheat will be needed to meet the rising demand according to Food and Agriculture Organization (FAO) forecasts



Innovating for new solutions: Bayer CropScience researcher Dr Varghese Thomas checks the roots of tomato plants that have been treated with a new biological crop-protection product

demand for wheat is rising steadily and outpacing productivity. To further increase agricultural productivity without compromising the environment, more innovation is required to ensure a sustainable intensification of wheat production.

Bayer CropScience has set up a long-term innovation program to enhance global wheat productivity. The company is a market leader in crop-protection products for the world's most important crop, and started to build up a wheat-seeds business in 2010 by engaging in collaborations with leading wheat-research institutions and selected acquisitions. Bayer CropScience is aiming to advance global wheat cultivation with an investment of €1.5 billion in the development of new solutions for wheat through 2020, encompassing both high-yielding seeds and new crop-protection solutions.

Tackling challenges together

No matter where in the world, farmers face a wide range of risks: the imponderabilities of the weather, increased resistances, unpredictable pest infestations or plant diseases and shifting markets. Bayer CropScience is convinced that these challenges are best addressed in close cooperation. That is why the company invites the different stakeholders worldwide – ranging from industry partners, scientists and governmental and non-governmental organizations to players along the agricultural value chain – to learn and benefit from each other.

Enabling smallholders to become agripreneurs

Large agricultural businesses account for a significant share of industrialized food production. On a global scale, however, half of all agricultural production lies in the hands of 450 million small-scale or family-run farms – working on small plots under difficult conditions. The vast majority of these smallholders fights a constant battle against poverty. Bayer CropScience's goal is to support farmers and increase agricultural productivity, as well as improve the quality of their harvested produce, because agriculture not only secures our food, but also the livelihood of a significant share of the world's population.

As one of the world's leading crop-science enterprises, Bayer CropScience is rich with experience, expertise and innovative approaches. Modern technologies, proven methods and improved market access help farmers increase their yields, enhance quality in a sustainable way and safeguard returns, thereby fighting hunger and poverty. That is why supporting small-scale farmers and helping them to become agripreneurs is a key priority for the company.

Food Chain Partnerships – working together for sustainable agriculture

The Bayer CropScience Food Chain Partnership concept is an innovative business model that aims for practicable and effective solutions that are developed

locally in cooperation with partners along the food value chain. Bayer CropScience acts as a facilitator to bring together growers, traders, processors and retailers, as the company believes that, together with its partners, it can build trustful relationships that benefit everyone. These benefits differ according to the key interests of the involved partners and range from enhancing product quality and increasing agricultural yields, up to expanding marketing opportunities and improving traceability. However, the overall and common goal is the sustainable production of abundant and nutritious food.

The Food Chain Partnership initiative started 10 years ago with initial projects in Spain and Turkey, and has since grown extremely successfully. Bayer CropScience is currently running a large number of projects worldwide, with around 70 Food Chain Managers that are working together with partners in 30 countries focusing on 40 different crops, mainly specialty produce as fruits and vegetables, but also including agricultural commodities such as wheat or rice. ■



Bayer CropScience

If you are interested in finding out more, visit www.farmingfuture.bayer.com

These summits tackled other economic issues: trade, debt and the environment. The current GATT round, begun in 1986, was due for completion. At Houston, the G7 undertook to make that happen, but failed to do so, because of divisions between the US and Europe. At London, and again at Munich, the G7 likewise promised to complete the round, but still failed.

In 1993, the leaders summoned their trade ministers to meet in Tokyo shortly before their summit. Under this pressure, outstanding problems were settled

The G7 leaders realised that the end of the Cold War had transformed the economic system, making it truly universal. The 1994 Naples Summit launched a review of international institutions, to test their capacity to handle globalisation. The leaders again extended debt relief for poor countries, to two-thirds of their debt to governments. They also promoted Yeltsin from being just a guest to taking a full part in political discussions.

The IMF was the first institution to be reviewed, at the 1995 Halifax Summit. Mexico had recently required a costly financial rescue, and the aim was to deter such events in future. Halifax agreed measures to improve economic data, expand IMF resources and reform financial regulation. But the G7 applied these too slowly and a new crisis struck before they took effect.

The 1996 Lyon Summit focused the review on development institutions, the heads of which attended the meeting. The main advance was in debt relief. Poor countries owed money not just to governments, but to



DAVID GILES/PA ARCHIVE/PA IMAGES

1991 London

The G7 leaders were joined at their meeting at Lancaster House by Soviet President Mikhail Gorbachev, who had been invited by the host, UK Prime Minister John Major

1990

G7 – United States:
Houston

1991

G7 – United Kingdom:
London

1992

G7 – Germany:
Munich

1993

G7 – Japan:
Tokyo

1994

G7 – Italy:
Naples

1997 Denver

Host President Bill Clinton shares a joke with German Chancellor Helmut Kohl on his arrival at a summit that prepared the way for the addition of Russia

and the Round finally concluded. The delay had enriched the outcome. It embraced all trade in goods and services and created a new World Trade Organization (WTO), which had first been proposed at Houston.

The Paris Summit endorsed a US proposal on the debt crisis that was still crippling Latin America. Under this creditor banks must accept 'debt reduction' – in other words, incomplete repayment. The banks acquiesced and the crisis was over.

Debt relief for poor countries returned to the London summit, which offered relief of half their government debts. The environment also featured, thanks to pressure from German Chancellor Helmut Kohl. Paris took decisions on the environment and domestic policy; Houston addressed international problems, such as forests; and London prepared for the UN Conference on Environment and Development, which successfully concluded treaties on climate change and biodiversity.



J. SCOTT APPLEWHITE/PA IMAGES

institutions such as the World Bank, which offered no relief. The G7's proposals for institutional debt were adopted by the IMF and World Bank as the Heavily Indebted Poor Countries (HIPC) initiative.

However, at the 1997 Denver Summit there was less progress with the review, which focused on the United Nations. President Bill Clinton wanted the summit to match new American measures to help Africa,

but these fell short of what the Europeans had already offered. Climate change also divided the US and Europe, even though the Kyoto Protocol was adopted later that year. Summit performance was suffering because its agenda was overloaded. The leaders found it hard to exercise their personal authority effectively.

From G7 to G8

British Prime Minister Tony Blair set about streamlining the summit process. At Birmingham in 1998, leaders met without supporting ministers for the first time, to discuss a limited agenda. Russia became a full member, making up the G8, though on political, not economic grounds. In substance, Birmingham made less headway, as Germany and Japan resisted more generous debt relief.

'New international financial architecture', designed in response to the financial crisis in East Asia, was overtaken by events, as Russia defaulted and Brazil needed massive IMF support. The 1999 Cologne Summit, however, completed both subjects. Chancellor Gerhard Schroeder eased German policy on debt relief and the HIPC regime was overhauled. Poor countries received up to 100 per cent relief on government loans and a better regime for IMF and World Bank debt. Stronger financial architecture was assembled, with emerging powers involved. The summit also resolved tension between the G7 and Russia over the conflict in Kosovo (see box, right).

In 2000, the United Nations adopted new Millennium Development Goals and the summit gave priority to development. In Okinawa, the G8 created a task force to overcome the 'digital divide' between rich and poor. The European Union, US and Canada undertook to improve trade access for least-developed countries.

The 2001 Genoa Summit launched the Global Fund to fight AIDS, Tuberculosis and Malaria, which has since made a powerful impact. It also called for

1999 Cologne



Russian President Boris Yeltsin is greeted by host German Chancellor Gerhard Schroeder

AKDUMAN HAKKI/ABACA/PA IMAGES

The Cologne Summit realised the full potential of the reformed G8 process, in making major advances in finance and debt. Russia enjoyed full membership and the leaders met on their own. They endorsed a new international financial architecture prepared by their finance ministers, to prevent a recurrence of the Asian crisis and its aftermath. This included the G20 finance ministers' grouping of "systemically important countries", which involved emerging powers for the first time. The architecture had been strengthened since the 1998 Birmingham Summit and was accepted by the full membership of the IMF and World Bank.

The new government of Gerhard Schroeder, who chaired the summit, relaxed the German position on debt relief. Far-reaching measures were therefore agreed at Cologne and welcomed by civil society. They ensured poor countries could get faster and deeper relief on debts to both governments and institutions such as the IMF and World Bank, with summit members subsidising the new regime.

Russia's full participation also proved its worth. The G7 promised more economic help to the country, after its default the year before, provided that it introduced reforms. The G8 acted to resolve the conflict between Serbia and Kosovo, where Russia's agreement required the personal endorsement of President Boris Yeltsin.

1995

G7 – Canada:
Halifax

1996

G7 – France:
Lyon

1997

G8 – United States:
Denver

1998

G8 – United Kingdom:
Birmingham

1999

G8 – Germany:
Cologne

1998 Birmingham

With Russia now a full member, this summit was also the first at which leaders met alone, without their ministers, fulfilling the aspiration of summit founders Giscard and Schmidt

2002 Kananaskis



Russian President Vladimir Putin and US President George W Bush

ANDRE FORGET/DAFNI/GETTY IMAGES

Canadian Prime Minister Jean Chrétien held the first summit after the terrorist attacks of 9/11 in the mountain resort of Kananaskis. The key decision was to launch the Africa Action Plan. This fulfilled the G8's promise to underwrite the New Partnership for Africa's Development (NEPAD), provided the Africans met the standards they had set themselves.

The leaders offered help with peace and security, political governance and selected economic issues, while pledging separately to support primary education. They increased their aid to Africa by \$6 billion per year over five years. NEPAD's African founders attended and welcomed the outcome.

Kananaskis also agreed a deal to unblock the US share of a \$1 billion replenishment of World Bank funds for debt relief. US Congress authorised this when the European G7 members matched the US commitment of \$10 billion to clean up nuclear and chemical weapons in the former Soviet Union. The Europeans had hesitated because of meeting obstacles in Russia, which President Vladimir Putin agreed to remove during a bilateral meeting with President George W Bush. This was the first of several summit measures to counter the threat from weapons of mass destruction.

ambitious new trade negotiations in the WTO, launched later as the Doha Development Agenda.

Genoa was the first summit to attract huge anti-globalisation rallies. Although mostly peaceful, they concealed gangs of aggressive rioters, resulting in the police killing a demonstrator in self-defence. Such events threatened the security of future summits, while the leaders needed greater protection from terrorist threats after the 9/11 attack on the US in 2001. The G8 would now often meet at isolated locations, with everyone under one roof and demonstrators kept at a distance.

A new approach for Africa

African presidents – from South Africa, Nigeria and Algeria – were at a dinner with G8 leaders just before Okinawa. Over the next year, they launched the New Partnership for Africa's Development (NEPAD), which recognised that Africans must take responsibility for their own revival. A group from Africa was invited to Genoa and sought backing for the aims of NEPAD.

The leaders saw that, as with Eastern Europe, the G8 was well equipped for this task, which combined economics and politics. They welcomed the African initiative, promised their help and called for detailed proposals to be ready by the next summit. The G8 Africa Action Plan was adopted at the 2002 Kananaskis Summit, with the African leaders present. It promised help with security, political governance and economic development, backed by \$6 billion in extra aid annually. Kananaskis also agreed to clean up nuclear and chemical weapons in the former Soviet Union (see box, left).

The G8 members were split down the middle over the Iraq war as the 2003 Evian Summit approached, but the UN Security Council restored unity and the summit reinforced this. The African leaders were present for a review of progress under the Africa Action Plan and joined a wider outreach meeting with the G8 and Brazil, China, India, Malaysia, Mexico and Saudi Arabia.

French President Jacques Chirac wanted emerging powers to be routinely present at G8 summits, but US President George W Bush had other plans for the 2004 Sea Island Summit. His main initiative was a programme to promote democracy and economic reform in the Middle East and North Africa. Regional leaders were invited to the summit, though many declined. The programme started well, also combining economics and politics, but did not generate enough commitment within the region.

2000

G8 – Japan:
Nago

2001

G8 – Italy:
Genoa

2002

G8 – Canada:
Kananaskis

2003

G8 – France:
Evian-les-Bains

2004

G8 – United States:
Sea Island

2001 Genoa

The 27th summit brought the launch of the Global Fund against AIDS, Tuberculosis and Malaria, but was overshadowed by riots that took place in Italy, following a police crackdown targeting anti-globalisation groups and the death of a protestor

The 2005 Gleneagles Summit was the most productive G8 summit so far. Brazil, China, India, Mexico and South Africa joined the climate exchanges and endorsed the outcome

The 2005 Gleneagles Summit, which concentrated on climate change and Africa, was the most productive G8 summit so far. Blair brought Bush, hitherto a climate sceptic, to accept the science behind global warming and join a dialogue that would bring the US back into the UN negotiating process. Emerging powers – Brazil, China, India, Mexico and South Africa (the ‘Outreach Five’) – joined the climate exchanges and endorsed the outcome.

Blair had earlier set up the Commission for Africa. He drew on its findings to promote measures in security, education, health and infrastructure, expanding earlier commitments. The summit endorsed the final stage in debt relief, with 100 per cent relief on debt to institutions; pledged to double aid to Africa by 2010, to \$25 billion; and undertook to conclude the WTO trade round later that year. These results were hailed by the African leaders, who took part in the discussion, and by civil society groups.

Though the trade round was not concluded (and still is not) and some aid pledges fell short, the economic impact of the G8’s focus on Africa has been beneficial. Average growth has risen to five per cent and kept around this level for a decade. African countries now attract six times more foreign investment than in 2000 and depend less on oil and commodity earnings. This is attributed to better political governance, improved economic policymaking and stronger aid flows.

Decline and recovery

Thereafter, the G8 summit lost ground. The 2006 summit in St Petersburg was Russia’s first as host. It was well organised and focused on energy policy, yet

did more for President Vladimir Putin than for the G8 collectively. Emerging countries could only join in the discussions after the G8 had met.

At Heiligendamm in 2007, the G8 did better in launching substantive consultations with the Outreach Five. Chancellor Angela Merkel’s economic agenda rightly identified the fragile state of the financial system, but by singling out hedge funds it distracted attention from the real causes of impending disaster.

Japan concentrated the 2008 Toyako Summit on climate change, combining it with a wider leaders’ meeting, but giving the Outreach Five no part in the summit itself. As the G8 could not agree on the terms of outreach, the emerging powers were losing interest.

Toyako also ignored the growing turmoil in financial markets. When the system collapsed, the new G20 summit led the response, leaving the G8 sidelined.

By the 2009 G8 summit at L’Aquila, the G20 summit had met twice, with emerging powers taking part on equal terms. It had responded effectively to the financial crisis, though had not seriously tackled climate change.

2005 Gleneagles

Backed by the assembled G8 leaders and fellow African attendees, Nigerian President Olusegun Obasanjo addresses the media during a summit that focused on global climate change and African development



MICHEL EULER/AP/PA IMAGES

2005

G8 – United Kingdom:
Gleneagles

2006

G8 – Russia:
St Petersburg

2007

G8 – Germany:
Heiligendamm

2008

G8 – Japan:
Toyako

2009

G8 – Italy:
L’Aquila

2013 Lough Erne



UK Prime Minister David Cameron welcomes US President Barack Obama

Once the G20 summit had declared itself “the premier forum for our international economic cooperation”, the G8 summit risked conflict with the G20 if it addressed mainstream economic issues with domestic impact. UK Prime Minister David Cameron overcame this danger at the summit he chaired at Lough Erne, in Northern Ireland, by choosing an economic agenda in which the G8 would, as he said, “put its own house in order”.

First, the summit promoted regional trade agreements between G8 members. Negotiations for a Transatlantic Trade and Investment Partnership (TTIP) between the US and EU were formally launched at Lough Erne.

Second, the leaders agreed action against tax evasion and avoidance. This was already on the G20 agenda, but the main offenders were multinational firms originating in Western countries. The G8’s commitment to stronger discipline on these firms and tax havens that sheltered them was taken up in the conclusions of the G20 summit later in the year.

Finally, the leaders undertook to promote greater transparency in business operations, especially by oil and mining companies working in developing countries. The results showed the G8 could take economic decisions that complemented the work of the G20, without conflicting with it.

Italian Prime Minister Silvio Berlusconi decided to lead on this at L’Aquila, linking the G8 summit with two wider leaders’ meetings. The result was an inconclusive muddle. US President Barack Obama, at the G8 for the first time, wondered whether it was really needed. A few weeks later, the G20 leaders’ meeting at Pittsburgh with Obama in the chair, declared itself “the premier forum for our international economic cooperation”.

Focus on development

What was left for the G8 to do? Canada chaired a low-key G8 summit at Muskoka in 2010, just before the G20 met in Toronto. This returned the G8 to the Millennium Development Goals and launched the Muskoka Initiative on Maternal, Newborn and Child Health. However, the G20 also discussed development in Seoul later that year.

The most useful decisions at the 2011 Deauville Summit were on the response to the ‘Arab Spring’. This combined economics and politics in a way familiar to the G8, but more difficult for the G20. It convinced President Obama to hold the 2012 Camp David Summit, focusing on Afghanistan and food security.

So far, the G8 had kept away from mainstream economic issues, fearing negative reactions from the G20. UK Prime Minister David Cameron confronted this at the 2013 Lough Erne Summit with a concise economic agenda covering regional trade agreements, tax evasion and transparency. This aimed to complement the work of the G20 without conflicting with it (see box, left).

The results were well received and the G20 drew on them at its subsequent St Petersburg summit. We shall never know whether Putin would have continued this approach at the 2014 G8 summit. After Russia’s illegal annexation of Crimea, the other leaders refused to join him in Sochi and instead held a G7 summit in Brussels. This took decisions on energy, relevant to the crisis in Ukraine, and set implicit conditions for Russia’s return.

2010
G8 – Canada:
Muskoka

2011
G8 – France:
Deauville

2012
G8 – United States:
Camp David

2013

G8 – United Kingdom:
Lough Erne

2014

G7:
Brussels, Belgium

Only difficult problems come up to the summit, being insoluble lower down. Over four decades, the leaders have remained true to their original aims. They do not always get the answer right first time, yet by a process of iteration they keep striving for better results. Many of their initiatives have been adopted by wider institutions and are still at work.

Unlike others, this summit is not the pinnacle of an existing organisation. With no base, no staff and no written rules, it adapts rapidly to meet new demands. Its meetings are compact enough for unscripted debate across the table and close personal interaction. The summit has endured some low periods, but it has always re-invented itself. It is now poised to exert new leadership as G7, enriching, but not challenging, the G20. ●

2015

G7 – Germany:
Schloss Elmau

2016

Japan

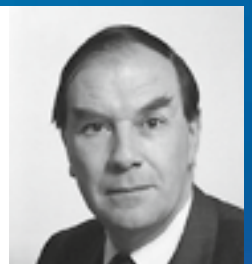
2017

Italy

Sir Nicholas Bayne KCMG was a British diplomat for 35 years, serving as Economic Director General at the Foreign and Commonwealth Office and High Commissioner to Canada.

He now teaches a graduate course on 'Economic Diplomacy' in the International Relations Department of the London School of Economics and Political Science. This forms the basis for his book *The New Economic Diplomacy*, published with Stephen Woolcock.

He has written three books on the G7/G8 summits (*Hanging Together*, with Robert Putnam, 1987; *Hanging in There*, 2000; and *Staying Together*, 2005) and contributed chapters to books on summitry edited by Professor John Kirton and others. He also published his memoirs, *Economic Diplomat*, in 2010.



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TORONTO

Ebola and future health crises: the role of the G7

— The Ebola outbreak has underlined the importance of working to improve global preparedness for health crises, write **Michael Edelstein, David L Heymann and Philip K Angelides, Centre on Global Health Security at Chatham House**



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By 2 April 2015, the Ebola outbreak that started in Guinea and affected nine countries, including G7 members, had killed more than 10,000 people. There are signs of improvement: in Sierra Leone, Guinea and Liberia, weekly cases decreased to 132 on average in February 2015, from almost 1,000 in October 2014. On 20 March, however, Liberia notified its first confirmed case in 20 days, reminding all that the outbreak will not be over until the last chain of transmission is broken. Beyond the outbreak, this tragic crisis is an opportunity to strengthen health systems globally and reduce the probability of the next global epidemic.

Between 1976 and 2013, 24 Ebola outbreaks were controlled using the same strategy: first, rapid identification and isolation of Ebola cases in health facilities with rigorous infection control; second, tracing and 21-day temperature-monitoring of all contacts, isolating those who developed symptoms; and third, social mobilisation in affected communities to reduce person-to-person spread, including hygiene measures, social distancing and safe burial practices. The current outbreak will be controlled if the same approach is applied systematically and rigorously down to the last case.

The 'endgame' – breaking the last chains of transmission – presents additional challenges: first, identifying these last cases requires continued efforts for an exhausted healthcare workforce that may feel less supported as international attention wanes. Second, other health priorities compete for healthcare workers' time as the Ebola burden decreases. Third, the remaining

Ebola clusters may present particular challenges, such as population density and movement in urban areas, or secret societies resisting intervention in rural locations.

The Ebola outbreak in West Africa is a consequence of weak healthcare and public health systems. In the early phases of the outbreak, inadequate surveillance allowed transmission chains to accumulate and spread over a wide geographic region. Weak laboratory capacity enabled the virus to spread from Guinea to Liberia and Sierra Leone before it could be confirmed. Preventing future outbreaks entails building health systems with more robust primary care and disease surveillance, within the framework of the International Health Regulations, which require countries to strengthen their public health infrastructure and build core capacities.

This outbreak also highlighted the risks of concentrating clinical expertise in one organisation: by June 2014, Médecins Sans Frontières (MSF), which concentrated on Ebola-management expertise, reached capacity and could no longer deploy teams to new outbreak areas. MSF had to train other medical non-governmental organisations before they could operate, delaying the response by several weeks. This lesson needs to be taken on board when preparing for future health crises. Although vaccines, which have been trialled during the current outbreak, may come too late to control this outbreak, they may play a role in future ones by protecting entire populations in areas at risk or individuals at highest risk as crises emerge.

The UN response

While the United Nations, and the World Health Organization (WHO) in particular, acknowledged shortcomings in its response, it continues to work towards ending the outbreak. On 8 August 2014, WHO declared the outbreak a public health emergency of international concern. The Global Outbreak Alert and Response Network (GOARN), a WHO-coordinated emergency response network, deployed more than 530 experts between March 2014 and February 2015.

In addition, following the UN Security Council's first emergency meeting on a public health crisis, the UN Mission for Ebola Emergency Response (UNMEER) – the first-ever UN emergency health mission – was set up on 19 September 2014, bringing the full range of UN actors and expertise under the leadership of a special representative of the Secretary General. Furthermore, in September 2014, WHO called for accelerated clinical trials of experimental therapeutics during the outbreak. WHO also proposed the creation of a contingency fund and an emergency workforce. Beyond the crisis,



G7 Research Group

In the rapidly globalizing world of the 21st century, the Group of Seven major market democracies serves as an effective centre of comprehensive global governance. G7 members – the United States, Japan, Germany, the United Kingdom, France, Italy, Canada and the European Union – contain many of the world's critical capabilities and are committed to democratic values. At its annual summit and through a web of G7-centred institutions at the ministerial, official and multi-stakeholder levels, the G7 does much to meet global challenges, especially in the fields of security, development and economics.

The G7 and G8 Research Group is a global network of scholars, students and professionals in the academic, research, media, business, non-governmental, governmental and intergovernmental communities who follow the work of the G7, the G8 and related institutions. The group's mission is to serve as the world's leading independent source of information, analysis and research on the G7/8. Founded in 1987, it is managed from Trinity College and the Munk School of Global Affairs at the University of Toronto. Professional Advisory Council members, Special Advisors and participating researchers span the world. Through the G7 and G8 Research Group, Trinity's John W. Graham Library has become the global repository of G7/8 documents, transcripts, audiotapes, media coverage, interviews, studies, essays, memorabilia and artifacts.

The G8 Information Centre at www.g8.utoronto.ca

The online G8 Information Centre (www.g8.utoronto.ca) contains the world's most comprehensive and authoritative collection of information and analysis on the G7 and G8. The G7 and G8 Research Group assembles, verifies and posts documents from the meetings leading up to and at each summit, the available official documentation of all past summits and ministerial meetings (in several G8 languages), scholarly writings and policy analyses, research studies, scholarship information, links to related sites and the "briefing books" for each summit published by Newsdesk Media. The website contains the annual reports on G7/8 members' compliance with their summit commitments, produced by the G7 and G8 Research Group and its partner at the International Organisations Research Institute at the National Research University Higher School of Economics in Moscow.

Books on the G7, G8 and Related Issues from Ashgate Publishing

The Global Governance of Climate Change

John Kirton and Ella Kokotsis

G20 Governance for a Globalized World

John Kirton

The European Union in the G8

Marina Larionova, ed.

Securing the Global Economy

Andreas Freytag, John Kirton, Razeen Sally & Paolo Savona, eds.

Global Financial Crisis

Paolo Savona, John Kirton & Chiara Oldani, eds.

Global Energy Governance in a Multipolar World

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G8 against Transnational Organized Crime

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The New Economic Diplomacy

Nicholas Bayne and Stephen Woolcock

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G7 members could build on the momentum and solidify relationships between defence and health

it advocated the need for individual countries to build their healthcare systems, with a focus on surveillance, laboratory and response capacity, within the framework of the International Health Regulations.

The UN is not the only actor with a responsibility to avert future health crises. The role of the private sector needs to be better understood, particularly in contexts where one sector employs a large proportion of the population, such as the extractive industry in Sierra Leone or Guinea. Armed forces are another emerging actor in public health crises. They have contributed to the West Africa Ebola response with capacity-building, training, and the establishment of treatment centres and laboratories. After an unexpected call by MSF for military intervention as part of the outbreak response, there appeared to be a high level of cooperation between health actors and the military. Their adaptability, discipline, ability to operate in challenging environments, and logistical capabilities are particularly valuable during large-scale public health crises.

Healthcare workers at an Ebola virus clinic operated by the International Medical Corps in Sierra Leone. The current crisis presents an opportunity to strengthen health systems globally

The momentum generated by the Ebola outbreak provides an opportunity for G7 leaders to strengthen national public health capacity in developing countries by providing development assistance through the framework of the International Health Regulations. Currently, only 20 per cent of countries fulfil their core surveillance capacity requirement. The G7 can also support the global health emergency workforce being conceptualised by WHO and its international partners, and the development of safe and effective vaccines for neglected diseases such as Ebola.

Finally, G7 members could consider the opportunity to build on the momentum and solidify relationships between defence and health, and integrate the response to civilian health crises into the core function of their armed forces.

The West Africa Ebola outbreak, which started in rural Guinea and evolved into a global health crisis, demonstrated the risk that a weak healthcare system in one country can pose to global health security. While this crisis started in West Africa, no one knows where tomorrow's outbreak will occur. G7 members have the opportunity to decrease the occurrence of such events by supporting global health-systems strengthening via the International Health Regulations, fostering medical innovation and vaccines in particular, and providing technical, clinical and logistical support during public health crises via their public health, healthcare and military workforces. ■

Global leaders must support Africa in drawing up its health agenda

While Africa has made considerable progress towards improving the health of its people and communities in the era of the Millennium Development Goals (MDGs), progress has been woefully inadequate with regard to achieving the MDG targets for health.

The continent continues to experience serious challenges in relation to the health of women and children, as well as communicable and infectious diseases that have long been eliminated or controlled in other parts of the world and endemic neglected tropical diseases that affect a huge segment of the continent's poorest people.

In addition, Africa faces an increasing health burden from non-communicable diseases, which, in the last three decades, have become a significant cause of ill health and premature mortality. Injuries have become a leading cause of death in the region.

Then there is malnutrition, which accounts for almost half of all child deaths. More than one-third of African children are stunted due to chronic malnutrition, severely decreasing their future economic productivity. In fact, malnutrition is a root cause of Africa's under-development, as it reduces national GDP by up to three per cent.

A huge portion – 40 per cent – of expenditure for healthcare is borne, through out-of-pocket payments, by populations already reeling under the weight of poverty and illness. The majority of African countries have not honoured their commitment to allocate 15 per cent of their recurrent budget to health, as agreed in the Abuja Declaration of 2001. So far, only six countries have reached the target – Rwanda, Botswana, Niger, Zambia, Malawi and Burkina Faso.

As a result, foreign aid has, in most cases, displaced national investment in Africa's health sector, leading to unsustainable interventions with little local ownership. Unfortunately, for every dollar committed to health, only 20 per cent goes to real health interventions, while 60 per cent goes to buying equipment and services that do not actually meet the health needs of the people.

Due to decades of underinvestment, weak leadership and poor management that have not adequately responded to the health needs of the people, Africa's health systems remain weak and fragmented, characterised by poor infrastructure, insecure supplies of equipment and commodities and inadequate human resources. Focus on tackling diseases at the expense of strengthening health systems in Africa

has resulted in frail structures that are unable to cope with the ever-increasing burden of disease or emergencies, such as the Ebola outbreak in West Africa.

Community health systems

Evidence necessary to bring about lasting health change in Africa through proven interventions exists, but it has not been adequately applied to address the unacceptably high levels of inequity pertaining to the continent. Nor are health policies based on translation of local knowledge, despite the obvious benefits. Amref Health Africa uses innovative approaches for strengthening health systems, drawing on evidence generated from its 58 years of research and experience working with communities across the continent. For example, the organisation has been using eLearning and mLearning to train health workers, increasing the rate at which they can be upgraded and upskilled and providing them with reliable sources of reference information to support them in their work. The organisation's focus on strengthening of community health systems, including training and support of community health workers and establishment of community health information management systems, has resulted in robust healthcare for the target populations.



About Amref Health Africa

Amref Health Africa is an international African organisation founded and headquartered in Kenya. Amref Health Africa began in 1957 as the Flying Doctors of East Africa to provide critical medical assistance to remote communities in East Africa. Today, Amref Health Africa works with the most vulnerable African communities through its country programmes in Ethiopia, Kenya, South Sudan, Tanzania and Uganda, and its Southern and West African regional hubs based in South Africa and Senegal, respectively. Through its laboratory, clinical outreach and training programmes, Amref Health Africa reaches an additional 30 or more countries in Africa. With over half a century of experience in delivering healthcare and building health systems in Africa, Amref Health Africa supports those at the heart of communities, particularly women and children, to bring about lasting health change.

If the continent is to accelerate progress in improving health and healthcare, it can no longer be business as usual for stakeholders of health in Africa. As the MDG era ends and the world begins to move towards the Sustainable Development Goals, global leaders, including the G7, must support African governments and their partners by prioritising strategies that will effectively address the health systems gaps on the continent.

Indeed, Africa needs its own SDGs. Greater focus is required on strengthening health systems that respond to the persistent challenges in maternal health, child health, major communicable and infectious diseases, and non-communicable diseases. Nutrition is such a serious multi-sectoral issue that it requires its own SDG in the post-2015 era, while another SDG should address the neglected health problems of young and ageing African populations. Global leaders can ensure that this

vision is supported as discussions and negotiations are held to set the global health agenda.

For these strategies to succeed, and for sustainable results, community participation and ownership ought to be the foundation of the health systems strengthening building blocks. This includes ensuring that community health workers are part of the formal health workforce in Africa – with institutionalised training, remuneration and supervision support – rather than being seen as a stop-gap solution.

It is also imperative that African governments, the private sector and civil society establish more partnerships and work together to invest in the health sector and particularly in production of health workers, including taking maximum advantage of technology to lower the cost of training and improve community healthcare.

To galvanise other stakeholders to contribute towards sustainable

universal healthcare coverage, African governments must put in place enabling policies for relevant partnerships to thrive and show political will to address the root causes of ill health. Accountability, efficiency, value for money and transparent tracking of health expenditure must become standard principles in use of resources by both state and non-state stakeholders in health.

Evidence-based policymaking and practice must become the basis of decisions in health development on the continent, to ensure efficient use of the limited resources available and concrete results. It is, therefore, imperative that African governments urgently create the policy framework, legislation and investment to rapidly improve health research output on the continent. Such policies must facilitate networking of African researchers to generate the necessary evidence for practice and policy change. And, as partners in health development, non-governmental organisations such as Amref Health Africa must continuously focus their attention on translation of evidence to investment decisions for sustainable health systems in Africa.

Global leaders, including the G7, play a fundamental role in setting and driving the international health agenda. Africa wants to play a more active role in setting that agenda using evidence of what works and it must be supported to do so by the international community.

This article is based on a communiqué from the first Amref Health Africa International Conference (www.ahaic.org), organised in collaboration with the World Health Organization, which brought together stakeholders of health in Africa to discuss priorities in addressing Africa's health agenda post-2015; share cutting-edge research on health and health systems in Africa; and reflect on home-grown solutions to health system challenges.

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Closing the gaps to end AIDS, tuberculosis and malaria

— G7 countries must lead the way in closing the funding and governance gaps that are hindering the progress of disease elimination globally, says **Michel Sidibé, Executive Director, UNAIDS, and Undersecretary General, United Nations**



Michel Sidibé was appointed Executive Director of UNAIDS and Undersecretary General of the United Nations in 2009, having joined UNAIDS in 2001. In 1987, he joined UNICEF in the Democratic Republic of Congo after working to improve the health and welfare of the Tuareg people, and serving as Country Director for the Terre des Hommes International Federation. He was with UNICEF for 14 years, overseeing programmes in 10 African countries and acting as a country representative in several.

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In 2015, the world is seizing hope from the progress we have all made towards ending AIDS, tuberculosis and malaria. Since 2000, together we have driven down the global malaria mortality rate by 47 per cent, saved the lives of more than 37 million people with tuberculosis and brought new HIV infections down by almost 40 per cent. This year, we will reach the Millennium Development Goal (MDG) of ensuring that 15 million people have access to antiretroviral therapy for HIV. Much of this progress can be credited to the leadership of the G7, from the establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria to its commitment to universal access to HIV treatment, which is the key to ending the AIDS epidemic.

Yet a long journey still lies ahead. Today, the world faces the greatest challenge yet to ending the epidemics of AIDS, tuberculosis and malaria by 2030. This challenge is to close several yawning gaps that remain.

First and foremost, no one must be left behind. Too often, aggregate numbers showing progress mask the inequity beneath the surface. Unless efforts shift towards responding to the pockets of risk and disease burden in

specific communities – geographic and social – all efforts may stall, and progress may disintegrate. This is not just a matter of public health, but one of social justice. It is a human rights imperative. As Eleanor

Roosevelt, when drafting the Universal Declaration of Human Rights, reminded us all so eloquently: “Where, after all, do universal human rights begin? In small places, close to home – so close and so small that they cannot be seen on any maps of the world. Yet they are the world of the individual person; the neighbourhood he lives in; the school or college he attends; the factory, farm or office where he works. Such are the places where every man, woman and child seeks equal justice, equal opportunity, equal dignity without discrimination. Unless these rights have meaning there, they have little meaning anywhere.”

The way to reach the targets for AIDS, tuberculosis and malaria is to go deep and far, to reach into the back streets of cities where sex is being sold, or where people are hiding because they are afraid of being deported, or sleeping rough because they are homeless. We need to reach into prisons, refugee camps and slums. Unless we do so, we will fail. We must act immediately, not only for this generation but also for future ones, or else AIDS, tuberculosis and malaria will remain risks to all of us. Inequalities will be further exacerbated, generating societies that are fragile and divided.

Changing this requires starting with the very basics. Shockingly, approximately one-third of births are not registered each year across the globe. But birth registration is the first step towards having an identity. It opens the door to the enjoyment of a wide range of human rights: to access healthcare, go to school, inherit money or property, and to vote or stand for elected office. We need to ensure that everyone is counted by investing in structures, systems and technologies for civil registration and vital statistics record-keeping.

People are left behind because law, policies and practices exclude them – because they are poor

Moreover, people must be free to be who they are and not have an identity imposed upon them. In the HIV response, for example, safeguarding the right to gender identity is a pressing priority. Today, most transgender people lack legal recognition of their affirmed gender, which excludes them from education and employment. They often face discrimination, violence and lack of access to appropriate healthcare. Consequently, the chance of acquiring HIV today is 49 times higher for transgender women than for all adults of reproductive age.

Women and girls must be front and centre of all efforts. It is unacceptable that AIDS remains the largest killer of women of reproductive age. Adolescents are another population group that needs to be prioritised. AIDS is the second leading cause of death



GODONG/ALAMY

An African schoolboy studying an AIDS-prevention book. New HIV infections have dropped by almost 40 per cent since 2000

among adolescents aged 10-19 years globally, and the leading cause of death among adolescents in Africa.

And the list goes on.

The G7 can lead the way in ensuring that the Sustainable Development Goals (SDGs) take us all towards inclusive and people-centred development. Making sure that everyone is counted is a prerequisite.

Closing the healthcare gap

For far too long, healthcare delivery has been organised around diseases and biomedical approaches. Let us embrace universal health coverage as an important stepping stone towards a human rights-based approach to health that pays attention to the cultural, economic, social and political determinants of health – how people live and work and how they access political power, protection and resources. Connecting all of this – weaving a net to capture everyone in need – is a long-standing value of the AIDS response.

Across the three diseases of HIV, tuberculosis and malaria, we must all be prepared to address the inequalities, discriminatory practices and unjust power relations that are often at the heart of ill health. The capacities of people to take control over their own

lives must be reinforced. The G7 members, as leaders among the international community, need to be bold in supporting efforts to hold governments to account for addressing discrimination and embracing health as a fundamental human right.

Closing the investment gap

Macroeconomic policies are key to addressing inequalities. But it is not just a matter of more money – investments must be diversified to make funding sustainable and tackle the ‘beyond aid’ issue. This will require strategic collaboration with all major funders, and the leveraging of G7 investments more effectively. It will also require mobilising new, innovative sources of finance, including taxes, remittances and trust funds, and maximising the roles and contributions of civil society, including through increased investment in this vital resource.

The G7 must not ignore the marginalised in middle-income countries, where people continue to struggle under high disease burdens while external funding is being withdrawn. Although development partners must and will continue to provide the tools, knowledge and advocacy that enable countries to shed the shackles of dependence, they must not turn away from their responsibilities to countries that need time and continued support to become more self-sufficient.

Another concern is the tension between trade rules and human rights in the context of access to medicines. Solutions can be found rapidly, keeping affected communities as the priority.

Closing the governance gap

These last 30 years of AIDS have shown how closely social inequities are linked to inappropriate or inadequate systems, bad laws, discrimination and other tools of exclusion. These factors drive the spread of preventable diseases. People are left behind because laws, policies and practices exclude them – because they are poor. Because they are gay. Because they have a disability. Because they are not a citizen or do not speak the language. Because they are addicted to drugs. Or, simply, because they are young or female in a society that does not value them.

In 2015, it is clear that the global health architecture and the global health frameworks that began the MDG journey are antiquated. I urge the G7 to lead the way to a new development paradigm that promotes effective, accountable and transparent institutions, supported by inclusive decision-making that engages affected communities.

People are increasingly aware that they are ‘rights holders’, not objects of charity. They are demanding access to quality health systems as an entitlement, and are raising expectations on governments to exercise leadership and ensure governance systems that are inclusive and tackle inequalities.

To close the gaps in global systems, and between people moving forward and those who are being left behind, UNAIDS is looking to the G7 for commitment, collaboration and support. ■

Immunisation: not just a lifesaver

— Gavi has saved an estimated seven million lives. However, vaccination is also key to economic development, educational attainment and healthier lives, explains **Dr Seth Berkley, Chief Executive Officer, Gavi, the Vaccine Alliance**



Dr Seth Berkley is Chief Executive Officer of Gavi, the Vaccine Alliance, which works to improve access to vaccines in developing countries. Dr Berkley joined Gavi in 2011. Now, with more than half a billion children immunised, he is leading Gavi's efforts to reach a further 300 million children by 2020 and build sustainability into immunisation programmes. Previously, Dr Berkley, an epidemiologist, spearheaded the development of HIV vaccines as founder and CEO of the International AIDS Vaccine Initiative (IAVI).

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What could be more important than saving the life of a child? Saving not just one child, but hundreds of millions of the poorest and most vulnerable children in the world. In January, German Chancellor Angela Merkel invited global leaders to Berlin, where they rose to this challenge, making a record-breaking financial commitment of more than \$7.5 billion in additional funds to protect millions of children in developing countries with vaccines.

Gavi's replenishment, held as part of Germany's G7 presidency, saw pledges made by world leaders that will now help improve access to immunisation worldwide. Their generous support, combined with the leadership of implementing countries, the private sector and all of our partners, will enable Gavi, the Vaccine Alliance, to help developing countries immunise an additional 300 million children between 2016 and 2020, thereby preventing between five and six million deaths. In addition to saving lives, this investment is expected to lead to economic benefits of between \$80-100 billion, through productivity gains and savings in treatment and transportation. This is just one reason why immunisation is such a crucial building

block for prosperity and eradicating extreme poverty.

Chancellor Merkel was joined at this historic event by President Jakaya Kikwete of the United Republic of Tanzania, President Ibrahim Boubacar Keita of the Republic of Mali, and Prime Minister Erna Solberg of Norway, as well as Donald Kaberuka, President of the African Development Bank, and Bill Gates, Co-Chair of the Bill & Melinda Gates Foundation. They were also joined by ministers from more than 20 implementing and donor countries; chief executive officers of civil

society organisations and vaccine manufacturing companies; the World Health Organization (WHO); Unicef; and others who came together to secure the multi-year financial commitments.

Gavi's case for supporting its replenishment was clear-cut. With the deadline for the Millennium Development Goals now in sight, it is clear that reducing childhood mortality will remain a priority for us all beyond 2015. One of the most efficient and cost-effective ways of achieving this is through increasing coverage of childhood immunisation. Gavi has already demonstrated the huge impact that vaccines can have on reducing infant mortality and morbidity, and on restoring global equity by making new vaccines available to the world's poorest countries.

Since 2000, Gavi has used its public-private partnership model to help immunise 500 million additional children, preventing an estimated seven million deaths in the process. And now Gavi is looking to build upon this progress and scale up its activities in a bid to reach every child. The challenge in doing so is to provide countries with the support they need, not only to introduce vaccines, but also to strengthen health systems in order to increase their national coverage levels, making them available to all children, no matter where they live.

Wider impacts of immunisation

But equity is just one motivation. There are strong economic grounds for investing in vaccines, too. There is a growing body of evidence to suggest that the true value of vaccines extends beyond saving individual lives and reaches well into a child's life, through adulthood and into the wider economy. Children who are healthier do not require medical treatment or care, both of which cost time and money. So, by avoiding illness, infants have a greater chance of growing into healthier children who are able to attend school and become more productive members of society. Meanwhile, instead of caring for a sick child, parents can go out to work, thereby increasing their ability to earn. So, rather than spending money on medical bills, they are boosting their income and spending capacity, both of which can help the economy grow.

All of this is more than just common sense; there is a growing body of scientific evidence to back it up. It has been shown, for example, that vaccinated children do not just do better at school; through the prevention of damage that can be caused by infectious diseases, they also benefit in terms of cognitive development. Similarly, vaccination has also been shown to lead to wage gains across populations, while improvements in child survival lead to people having fewer children. And, in terms of the wider gains, one study found that a five-year improvement in life expectancy can translate into a 0.5 percentage point increase in annual growth of income per capita.

What's more, this investment is about sustainability. Through its business model, Gavi's financing needs should decrease after 2020 as countries pay an increasing share towards the cost of their



GAVI/11/RICCARDO GANGALE

vaccines until eventually they transition out of Gavi support and cover the full cost. Through the Vaccine Alliance's co-financing policy, between 2016 and 2020 implementing countries are forecast to allocate a combined total of around \$1.2 billion towards their Gavi-supported programmes. This is over and above the billions raised from donor countries.

Country co-financing encourages national ownership of new vaccine investments and is one key to assuring long-term sustainability. The other key in the Gavi model is our focus on market-shaping. Gavi diligently uses the force of its purchasing power and its partnership with industry to transform the global vaccine marketplace, securing lower prices and assured supply of more appropriate products. This ensures that children in developing countries will ever continue to have access to the benefits of vaccine science.

World leaders and global health champions recognise all this, which is why in Berlin we saw unprecedented engagement from donors, with many deciding to double or even triple their commitments to support Gavi, thus ensuring that its replenishment is fully funded. The new commitments came from a mix of pledges from 22 sovereign donors, and, for the first time, almost all donors have made pledges for the full five-year funding period. China, Oman, Qatar and Saudi Arabia also made pledges to Gavi for the first time. China's pledge means that all BRICS countries have now committed to contributing towards childhood immunisation through Gavi.

Additionally, in Berlin Gavi announced that the Gavi Matching Fund, a fund that doubles private-sector contributions and impact, will be renewed for the 2016-20 period with the support of the Bill & Melinda Gates Foundation, the Netherlands and other sponsors.

With the support of Gavi, the Kenyan Government has provided hundreds of infants with their first shots against pneumococcal diseases

With all 73 of Gavi-supported countries now offering the five-in-one pentavalent vaccine – which combines diphtheria-tetanus-pertussis (DTP) vaccines with those that protect against hepatitis B and *Haemophilus influenzae* type B (Hib) – the focus will be on the increase of overall coverage of this life-saving vaccine to 80 per cent of newborns and at a record low price. In addition to this, we are looking to increase coverage of other vital vaccines, such as pneumococcal conjugate vaccine (PCV) and rotavirus, which protect against pneumonia and diarrhoea, the two biggest childhood killers among infectious diseases.

The Ebola epidemic in West Africa has demonstrated the central role that immunisation plays in the health of a nation. Indeed, today, no other health invention reaches so many lives, with 30 vaccine doses administered every second across the globe. Yet, with one in five of the world's children still not receiving a full course of even the most basic vaccines, and with developing countries not yet fully accessing new vaccines, we need to do more. With the assistance of donors, Gavi is now helping to change that, increasing the number of children receiving all 11 WHO-recommended vaccines from less than five per cent to more than 50 per cent by 2020. By working together, we can reach every child.

This year, the G7 has shown global leadership in securing Gavi's funding. We look forward to the continuing commitment of the world's richest countries to ensuring that one of the greatest benefits of modern science, vaccines, are accessible to all children, including in the world's poorest countries. As the first chair of the Gavi Board, Nelson Mandela, once said: "History will judge us by the difference we make in the everyday lives of children." ■

The all-of-society approach to fighting preventable diseases

— Dr C James Hospedales, Executive Director, Caribbean Public Health Agency, explains why it is important to think beyond just health indicators when planning a framework to prevent and control non-communicable diseases



Dr C James Hospedales was appointed the inaugural Executive Director of the Caribbean Public Health Agency in 2013. He was previously the Coordinator of the Prevention and Control of Chronic Diseases at the Pan American Health Organization. From 1998-2006, he was Director of the Caribbean Epidemiology Centre. Dr Hospedales was a member of the Caribbean Commission on Health and Development, which made policy recommendations to the heads of government and named chronic diseases as a super-priority for the region.

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Non-communicable diseases (NCDs), such as cancer, cardiovascular disease, diabetes and associated overweight and obesity, and chronic obstructive lung disease are symptoms of the failure of our development paradigms. Globally, they significantly undermine sustainable development. NCDs are driven by the demographic shift to an ageing population, and largely avoidable risk factors, such as tobacco, harmful use of alcohol, poor diet and physical inactivity. Preventing NCDs is integral to ensuring progress across the three pillars of sustainable development: economic growth, social equity and environmental quality.

The determinants of NCDs lie largely outside the health sector, in agri-food systems, education, transport, urban planning, trade and economic policy. NCDs are both a cause and an effect of poverty. Yet there exist many solutions and 'best buys' in and out of the health sector that can significantly reduce the human and economic burden of NCDs. These require all-of-government and all-of-society engagement to be implemented.

The harm caused to human health by NCDs is huge, with more than six out of 10 deaths globally and tremendous avoidable suffering caused by NCDs. Across the world, with the exception of Africa, the number of people dying from NCDs has exceeded those dying from infectious diseases and nutritional conditions. For men in Europe, deaths from NCDs were 13 times higher than those from other causes. The demographic shift in most countries of the world is a huge driver of NCDs. Yet it also underlines the imperative of healthy ageing to avoid

a sickly population of retirement age, where health costs outstrip pension costs. No economy was set up for this.

NCDs have a major impact on economic growth. Forgone national income from NCDs is expected to be \$30 trillion over the next 20 years, or about four per cent of gross domestic product (GDP). It will be \$47 trillion if mental ill health is also factored in. These numbers are so large as to seem meaningless. The Caribbean estimate of the negative impact of diabetes and hypertension alone is \$1.3 billion in one year, between three and eight per cent of GDP.

Lost productivity is another key issue: NCDs often strike people in low- and middle-income countries (LMICs) during their prime – at a younger age than in high-income countries. The indirect costs typically exceed the direct health costs by a factor of two to three. This is understandable: the person with NCDs must take time off work, and family members often miss or leave work entirely to care for family members with complications such as heart disease, stroke, amputation and renal failure. Household poverty is often worsened or triggered by out-of-pocket payments for treatment and care, and can trap poor households in cycles of catastrophic expenditure and impoverishment, particularly in LMICs without universal health coverage.

Social determinants including education, income, gender and access to services influence vulnerability. Risk factor surveys increasingly show that obesity and alcoholism are more common in those with less education and lower socio-economic status. The costs associated with NCDs increase the risk of children missing school and becoming at risk of poverty for life. Household money spent on tobacco and alcohol addiction is money unavailable for education and health or investing in other ways.

More than six out of 10 deaths globally are caused by non-communicable diseases

NCD risks link to unsustainable environmental systems and practices, such as those related to agriculture and urbanisation. Industrialised agriculture and food systems contribute to unhealthy diets that are low in fruit, vegetables, pulses, nuts and whole grains. Commercialised food systems lead to greater availability of cheap ultra-processed foods high in fats, sugar and salt – often at the expense of local food production. Agricultural systems, including food production and land conversion, produce up to a third of greenhouse gas emissions. Rising demand for meat increases the risk of cardiovascular disease (CVD) and environmental impacts such as land degradation and water pollution. Intensive agriculture focuses on a few crops, leading to adverse effects on food security, nutrition and biodiversity. Unplanned urbanisation leads to poor air quality, increasing the risk of cancer, CVD and chronic

respiratory diseases. Poorly planned transport systems reduce levels of physical activity, which increase the risk for developing CVD, diabetes and some cancers. Indoor air pollution and smoke from inefficient wood or coal stoves can lead to respiratory disease, CVD and cancer, especially among women and children who spend more time at home.

Status of the global response

Led by the Caribbean countries, in 2011 the United Nations High Level Meeting on NCDs was held in New York, only the second time in history that the General Assembly has focused on a health issue, the first being HIV/AIDS in 2001. The outcome document was a landmark in recognising NCDs as a priority on the development agenda, and called for comprehensive action to prevent and control NCDs, with an all-of-government and an all-of-society approach. The World Health Organization was given a leading role in coordinating global action, including developing a

surveys and health information systems, and the weak regulatory and legislative capacity in many LMICs. Strengthened regulatory and legislative measures are definitely needed to address NCDs in the post-2015 development agenda.

In 2014, the General Assembly reviewed progress on implementing the commitments of the 2011 High Level Meeting. It concluded that progress had been patchy, with little movement from the private sector in reformulating processed foods to reduce sugar, fat and salt levels. However, it was agreed that NCDs would be included in the post-2015 development goals, currently being shaped. This holds out significant hope that NCDs will gain more attention. The UN has set up an inter-agency task force on NCDs to coordinate the implementation of the Global NCD Action Plan.

G7 leaders at their Schloss Elmau Summit can best help by recognising that the huge problem presented by NCDs significantly undermines the fundamental values of the G7, which include prosperity and sustainable



comprehensive global monitoring framework to prevent and control NCDs through 25 indicators and nine voluntary global targets.

While commendable, the indicators and targets are mostly health indicators, such as preventable mortality, and levels of hypertension, diabetes and obesity. Missing are indicators related to policies in other sectors that are the underlying determinants: transport, finance, agriculture and trade. Consequently, it is harder for senior policymakers to understand what to do. In that sense, the Caribbean heads of government, with their Declaration of Port of Spain, are ahead, as their 26 commitments relate mostly to policy and environmental changes. Annual monitoring has produced mixed results, with some areas such as surveillance moving and others related to the food, environment and diet stuck.

Two further major issues to be addressed are the weak capacity to measure indicators, which depend on functioning vital registration systems, national

development. The leaders should prioritise and focus political and economic resources on preventing NCDs, perhaps by increasing development aid to address NCDs by implementing the 'best buys', which are currently barely visible in development aid. G7 leaders should promote and support actions with co-benefits for other development challenges, such as alternative modes of transport including cycling and walking as well as rapid mass transport, with a triple bottom-line return of improved population health through increased physical activity, reduced greenhouse gas emissions and improved energy security. Trade negotiations should consider preventing NCDs and reducing obesogenic environments. And trade can also include consideration of the transfer of healthy food-production technologies.

G7 leaders should also recognise the implications of the demographic shift for health and economic growth and development, and consider launching an initiative on healthy ageing. ■

Transport systems that encourage cycling have the co-benefits of reducing carbon emissions and helping to improve population health

Eliminating neglected tropical diseases in the post-Millennium Development Goals era



Dr Jean-Baptiste Roungou
APOC Director

The neglected tropical diseases (NTDs) are a group of 17 infections that affect almost a billion people. The poorest members of society are particularly vulnerable to NTDs, and thereby trapped in the cycle of poverty and misery.

Although wide in their distribution, some NTDs – river blindness, sleeping sickness, trachoma – are almost entirely endemic in Africa. Aside from improving health outcomes, control or elimination of NTDs creates opportunities for achieving many of the Millennium Development Goals (MDGs). For example, the control of river blindness liberates fertile arable land for cultivation, thus contributing to “eradicate[ing] extreme poverty and hunger”. Furthermore, treatment of bilharzia and soil-transmitted helminthes improves education outcomes.

Until the economic importance of combating these diseases was advocated, resources allocated to their control and research was negligible. A few, however, were funded due to the fact that they were seen as major obstacles to socio-economic development in the 1970s. The control of river blindness (onchocerciasis) was one of these, due to its capacity to blind, particularly in West Africa.

The Onchocerciasis Control Programme (OCP) in West Africa was established in 1974 as a partnership between donor countries, United Nations agencies – the UN Development Programme (UNDP), the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) – endemic countries and the World Bank. WHO was chosen to implement the OCP from its offices in Ouagadougou, Burkina Faso, with the World Bank acting as a fiscal agent. In the absence of a safe drug, control of the vector blackfly (*Simulium damnosum* s.l.) was implemented through the OCP and \$556 million was invested over 28 years. The economic benefit of the OCP was enormous – a 20 per cent rate of return, ranked among the best investment outcomes in health. It freed arable land – abandoned due to the scourge

blindness in the mid 1980s, and, in 1987, the pharmaceutical company Merck & Co, Inc made a phenomenal and historic pledge to provide the medicine free of charge to endemic countries for as long as necessary to eliminate the disease. This pledge galvanised the international community, particularly those in the OCP partnership, to form a public-private partnership in 1995, made up of Merck & Co, Inc, donor countries, non-governmental organisations (NGOs) and endemic countries. This partnership was named the African Programme for the Control of Onchocerciasis (APOC) and its structure mirrors that of the successful OCP: WHO is the executing agency, the World Bank is acting as a fiscal agent and the APOC secretariat is based in Ouagadougou, Burkina Faso.

This partnership is unique because, this time, endemic communities are

Control or elimination of NTDs creates opportunities for achieving many of the Millennium Development Goals

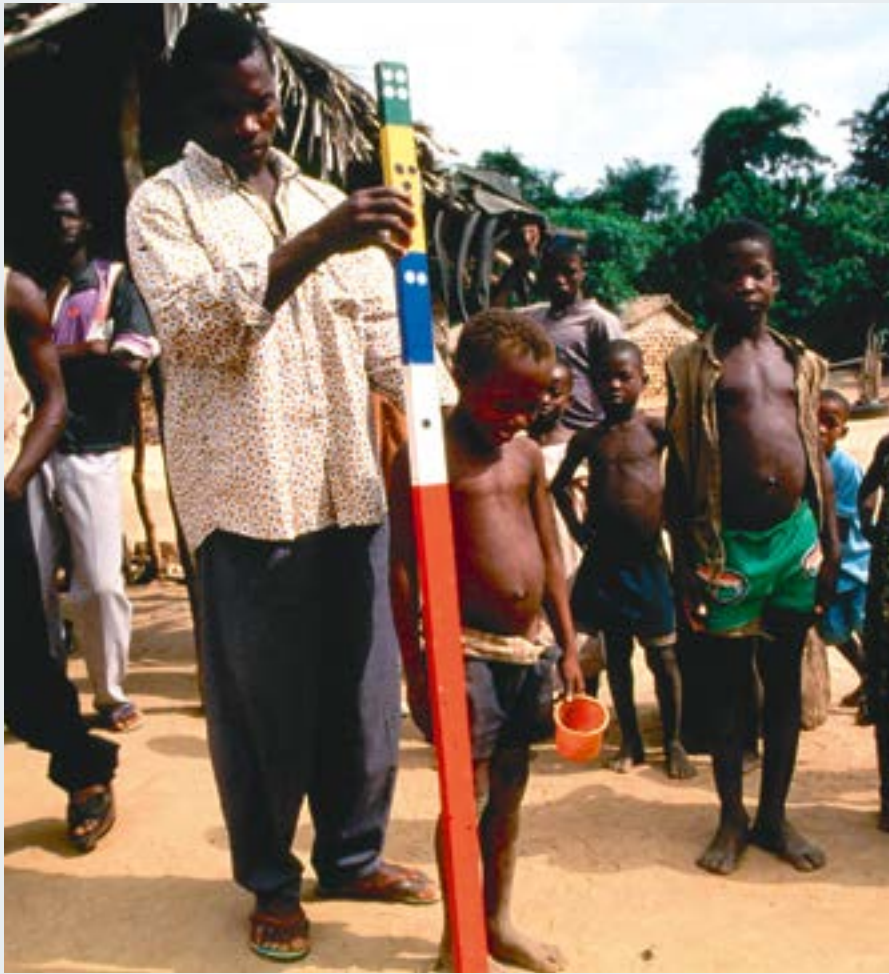
of river blindness – for various agricultural projects, improved the quality of life of endemic communities and prevented blindness caused by onchocerciasis for future generations in the West African region.

River blindness also causes pruritus, intense itching and thickening of the skin, depigmentation of the skin, some elephantiasis and hanging groin, and social stigmatisation. These other manifestations were also found to have serious economic costs to endemic countries. Nevertheless, the logistics to undertake vector control were found to be too challenging and costly for implementation in all endemic countries.

Ivermectin was found to be a safe and effective medicine to fight river

active members, fully empowered to play a role and involved in the distribution of medicines using a mass treatment strategy developed by the APOC partnership, termed community-directed treatment with ivermectin (CDTI).

Through the secretariat, the APOC partnership quickly mapped out all affected areas within endemic countries and, using the CDTI strategy, rapidly scaled up the distribution of ivermectin to endemic communities. The control of river blindness in the 19 endemic countries has been very successful, with prevalence of infection in many endemic countries (Malawi, Burundi, Niger, Chad, Senegal and Mali) already close to zero and transmission eliminated on Bioko Island, Equatorial Guinea. More than



development partners; (c) the sponsoring agencies; (d) members of the Non-Governmental Development Organization Coordination Group; (e) Merck & Co, Inc, representing the private sector as donor of ivermectin; and (g) other invited entities). Second, a strong and transparent semi-autonomous programme management, directly implemented by the WHO Regional Office for Africa. Third, sustainable partnership that includes the poor in programmatic decision-making. Fourth, engaging communities to empower them to plan, lead and manage interventions affecting their own health, thereby strengthening endemic country health systems at the very basic level. Fifth, engaging governments and other stakeholders within countries through the establishment of national onchocerciasis task forces, each a microcosm of the APOC partnership and the OCP. Sixth, the Mectizan Donation Programme (MDP), which, formed by Merck & Co, Inc, insures that ivermectin is available for treatment. Seventh, strong NGO groups, whose actions are well coordinated to provide support to endemic countries.

Other aspects of this model are dependence on the scientific community to provide evidence that is quickly incorporated to improve implementation, a scientific committee to provide technical oversight and evaluation of the programme, and detailed financial planning and funding. To date, a total of \$263.8 million has been invested.

The global NTD community is gearing itself to eliminate the five NTDs, all of which are amenable to preventive chemotherapy in the post-MGD era, and there has never been such an exciting time. In this context, in Africa, the APOC model is best suited to serve as a coordination model to eliminate NTDs.

9.5 million cases of severe itching have been prevented, some 400,000 persons are now protected from low vision and 200,000 persons have avoided blindness. The economic benefit of the APOC has been estimated at 8.9 million disability-adjusted life years (DALYs) prevented from 2005-10 and 10.1 million from 2011-15. It has also had an impact on diseases such as ascariasis, trichuriasis, hookworm, lymphatic filariasis, strongyloidiasis, and epidermal parasitic skin diseases, which are amenable to ivermectin treatment.

Although the MDG goals have not been fully achieved, countries within which control of river blindness and other NTDs, such as elephantiasis, bilharzia and intestinal worms, has been implemented have made some progress. The contribution of these control efforts cannot be ignored. In the post-MDG era, achieving the goals set up in the MDGs is still relevant and, therefore, control or elimination of NTDs must continue in a bid to support other efforts to achieve those goals, including those enumerated in the Sustainable Development Goals.

The OCP ended in 2002, having successfully controlled river blindness in West Africa, and the APOC will operate through 2015, as stipulated in its memorandum of understanding. The work, however, is far from complete; in its road map, which is echoed by the London Declaration and the Paris Declaration, WHO has targeted the control or elimination of five NTDs – river blindness, trachoma, elephantiasis, bilharzia and intestinal worm infections – by 2020. It is expected that the map of river blindness endemicity will shrink to only 10 per cent of affected countries by 2025 and, in their 2015 annual letter, Bill and Melinda Gates betted on a world free of river blindness, elephantiasis and trachoma by 2030. Controlling or eliminating these diseases will, however, require concerted effort and supportive regional structures built on the APOC partnership model, especially in Africa.

The APOC model is based on the following: first, participatory governance and coordination structures (consisting of representatives of (a) the endemic countries; (b) the contributing

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Global health security: a cosmopolitan moment?

—As the world becomes increasingly vulnerable to health risks, the G7 must enter a new phase of global health governance, argues Ilona Kickbusch, Director, Graduate Institute of International and Development Studies



Ilona Kickbusch is the Director of the Global Health Programme at the Graduate Institute of International and Development Studies in Geneva, Switzerland. She currently serves on a panel of independent experts to assess the World Health Organization's response in the Ebola outbreak. She previously had a distinguished career with WHO and Yale University, and has published widely on global health governance and global health diplomacy. Most recently, Kickbusch has argued in *The Lancet* for the United Nations to include a Sustainable Development Goal on global health security.

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Cosmopolitan moments are short points in time at which the global community comes together and creates new institutions and mechanisms that it has not otherwise been willing to introduce. Now is perhaps such a unique moment. It could generate a political drive for change in global health governance in the face of increasing interdependence and structural global vulnerability.

The increasing interest of heads of state and government has moved global health issues into the arena of 'high politics'. US President Barack Obama and other heads of state are personally involved in the Ebola response. Ebola is discussed by the United Nations Security Council, the International Monetary Fund, the World Bank, the African Union, and the European Union's foreign policy council. German Chancellor Angela Merkel has put health as a priority on the G7 agenda and agreed to address the World Health Assembly of the World Health Organization (WHO) in May 2015. These leaders must now act forcefully on matters of global health governance. There is no time to lose.

Increase of systemic risks

Today, health security is a systemic challenge to the whole global community and to every part of the world. Africa is beset with outbreaks of zoonotic diseases: North Africa with Middle East respiratory syndrome (MERS), Brazil with

dengue, Asia with influenza; the whole world is alarmed by the increasing threat of antimicrobial resistance – and the list goes on. Also – as with Ebola and in Syria – there is a growing interface between health and humanitarian crises, as outbreaks hit fragile states, war-torn countries and poor communities.

Let us be clear about three issues:

- the situation is going to get worse and the world is not prepared for the next health crisis, which could well be an airborne disease;
- each and every health crisis is also the expression of a systemic crisis, deeply linked to processes of globalisation, ecological imbalances and structural inequalities; and
- every major health crisis affects the whole of society: communities break apart, trust in the government diminishes, food systems deteriorate, and the economy suffers.

David Nabarro, the UN Secretary General's Special Envoy on Ebola, has warned that outbreaks of deadly animal-to-human viruses such as Ebola are becoming more likely in Africa due to climate change, deforestation, extractive industries and population movements. Yet the proposed post-2015 Sustainable Development Goals (SDGs) do not see global health security as central to sustainable development. There has since been a suggestion to introduce an SDG 18, which reads: "Take appropriate action to reduce the vulnerability of people around the world to new, acute, or rapidly spreading risks to health, particularly those threatening to cross international borders."

There is also a need to consider global health security when revising the zero draft for the third International Conference on Financing for Development, which will take place in Addis Ababa, Ethiopia, in July.

The way forward

Despite increasing local and global health risks, the international agency set up to address them is caught in political gridlock and suffers from wholly inadequate funding. For many, WHO is no longer fit for purpose and is attacked for having responded too late to the Ebola outbreak. As always, there are proposals to create new agencies and new funds.

It is simple: in order for an institution to be effective, the states that have created it and sit in its governing bodies have to want it to be effective, and to design and fund it accordingly. But, while increased collective action and investment are required, governments hold on to the purse strings and shy away from both international cooperation and national implementation. WHO is supposed to work miracles on a budget equal to that of the university hospital in Geneva. It has taken a philanthropist to push the boundaries of global health action and debate, and contribute significantly to WHO's funding. Will the G7 be willing to take the lead for a new multilateralism in health and commit to reforming and strengthening WHO?

In a global risk society, WHO's constitutional role "to act as the directing and coordinating authority on



DAVID GOLDMAN/AP/PRESS ASSOCIATION IMAGES

international health work” means being at the centre of a global warning and response system for global health crises. WHO can only lead if it has the political support, funding, staff and instruments to act at its disposal: strong, revised International Health Regulations and the Emergency Response Framework. Such leadership reaches far beyond individual ministries of health – in the Ebola crisis, WHO Director General Margaret Chan was in constant contact with government leaders, the

Steve Monroe of the National Center for Emerging and Zoonotic Infectious Diseases. Africa is becoming more prone to deadly zoonotic diseases

Assembly. This would position WHO in a global political landscape where many decisions on health are taken by government leaders and leaders in other sectors. It would also define the profile of the next WHO Director General, whom WHO members will have to appoint in two years’ time.

Yes, there will be many issues and details that need to be resolved on how to strengthen the global warning and response system, build a well-trained global and local health reserve workforce, and establish a fund that is ready to disburse in times of crisis and a significant research effort. But these matters will fall into place once the key element is set: in order to ensure global health security, states must work together and they must work with others in the context of a strong multilateral organisation.

The G7 must send a clear political and financial signal to other Gs and regional groups, as well as the BRICS group of Brazil, Russia, India, China and South Africa, that it is fully committed to joint action on global health security. In doing so, it can also respond to the critical voices that fear that a focus on health security will express the self-centred interest of only the developed world. The G7 can help set in motion a new phase of global health governance. This is a political choice. ■

The World Health Organization can only lead if it has the political support, funding staff and instruments to act at its disposal

UN Secretary General and members of the UN Security Council, as well as the leaders of other agencies.

The High-Level Panel on the Global Response to Health Crises appointed by the UN Secretary General can provide an overall political and strategic plan to solidify relations such as the 21st-century approach to global health governance, and have the plan adopted by heads of state and government at the UN General

Dealing with challenges of dementia

Striving for improved treatment and a better life for people living with dementia



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Dementia is a serious condition that is disabling for patients, and devastating for caregivers and families. In our aging population, increasing numbers of people are being affected by dementia, and almost everyone knows somebody who suffers from the disease or whose life it has shaken. The number of people living with dementia worldwide is currently estimated at 44.4 million.¹ This number will double by 2030 and more than triple by 2050.^{1,2} In 2010, the total estimated worldwide costs of dementia were more than \$600 billion, which corresponds to 1.0% of the aggregated worldwide gross domestic product (GDP).^{1,2}

Alzheimer's disease, a progressive neurodegenerative condition, is the most common cause of dementia in the elderly population. The medications that are currently approved to treat Alzheimer's disease do not offer a cure or a modification of disease progression – rather they help to relieve symptoms, lessening their impact from day-to-day. These treatments work by targeting the distorted neurotransmitter systems in the brain, either by addressing deficits in the levels of the acetylcholine neurotransmitter, or by modulating dysfunctional excitatory neurotransmission. In addition, clinical studies are ongoing to evaluate the effect of drugs on other neurotransmitter systems implicated in Alzheimer's disease, in order to treat specific symptoms. For example, drugs that antagonise the serotonin 5-HT₆ receptor are being investigated for the treatment of cognitive, functional and behavioural symptoms.

Decades of research have led to a better understanding of the risk factors and pathological mechanisms underlying the neurodegenerative aspects of Alzheimer's disease. Intense drug discovery efforts from academia and

pharmaceutical companies have recently resulted in the identification of several small molecules and antibody therapies with the potential to slow the neurodegenerative process.

Drugs that reduce levels of the amyloid peptide, A β , in the brains of patients with Alzheimer's disease, are the most advanced in clinical trials, although antibody-based treatments against misfolded tau protein – the other pathological hallmark of Alzheimer's disease – have also been initiated recently. In preliminary investigations, A β -reducing antibody therapies have shown trends towards an effect in patients in the early stages of disease. This is consistent with biomarker data demonstrating that A β accumulates in the brain more than 10–15 years prior to clinical diagnosis; and these deposits are hallmarks for diagnosis. Consequently, to prevent neurodegeneration and modify the course of disease, it is likely to be necessary to treat patients in the early stages of the condition – possibly even before clinical symptoms appear. However, the concept of treating very mildly affected or, indeed, asymptomatic, individuals, may raise ethical questions in terms of who should be treated, as well as diagnostic uncertainties regarding the identification of individuals at this early stage. Consequently, this also creates complexities with regard to the current regulatory pathways for the approval of new drugs.

Private–public partnerships

For a drug to be proven and accepted as a valid treatment for individuals in the very early or pre-symptomatic stages of Alzheimer's disease, advanced diagnostic methods (potentially including biomarkers) and sensitive clinical scales to assess and confirm clinical benefits, will be required.

Advances in this field have, to a great extent, been driven by public–private partnerships where industry, academic institutions and public agencies have collaborated to establish a pre-competitive environment to support epidemiological and interventional trials. That is, these different organisations work together in the early stages of research, to benefit all. Continuation of, and commitment to, funding of public–private partnerships is pivotal for continued research into the selection of diagnostic and treatment-sensitive biomarkers, clinical assessment scales, and standardisation of procedures across clinical study sites.

These different organisations work together in the early stages of research, to benefit all

To reliably demonstrate a clinical benefit in early or pre-symptomatic individuals, requires large and costly clinical trials – a risk that individual organisations may be reluctant to take based on

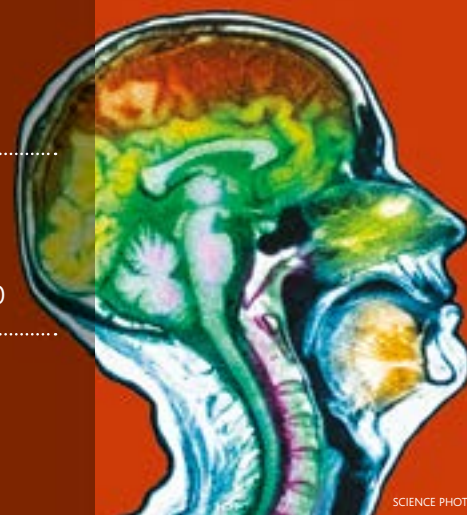
Extract from
G8 Dementia Summit Declaration:

"...we commit ourselves to the ambition to identify a cure or a disease-modifying therapy for dementia by 2025 and to increase collectively and significantly the amount of funding for dementia research to reach that goal."

44.4 million
worldwide have dementia

Number will
double by 2030,
more than **triple** by 2050

Over **\$600 billion**
global cost of dementia





preclinical evidence alone. Collaboration between companies, academia, and public institutions is essential for risk-sharing and, perhaps more importantly, for jointly investigating how to optimise clinical study designs and methodology to detect treatment effects in patients or asymptomatic subjects. Similar risk-sharing initiatives may be needed with governments and Health Technology Assessment (HTA) bodies to ensure patient access to innovative medicines, once developed.

The public resolve to address Alzheimer's disease and its costs to global healthcare systems has been accompanied by an explicit invitation to the private sector from many national and international public bodies to join in public-private initiatives. For instance, the Global CEO Initiative on Alzheimer's disease (CEOi) is a public-private partnership initiated by leading global corporations, but which also involves non-profit and governmental organisations. It aims to identify and advance high-priority activities that are necessary to prevent

and treat Alzheimer's disease. In a similar vein, the European Prevention of Alzheimer's Dementia (EPAD) consortium was recently launched with the aim of creating a novel trans-national standardised environment for testing interventions for the secondary prevention of Alzheimer's disease – that is, before the onset of symptoms.

Having realised the growing health and economic impact of dementia – Alzheimer's disease, in particular – governments are also now increasingly committing funding to the area, and initiating programmes to stimulate research. At the G8 Dementia Summit hosted by the UK in December 2013, leading nations set the year 2025 as the official international goal for improved treatment, and committed more money to research and coordinated global research efforts.

Amidst this drive for improvement, it should be recognised that progress towards disease modification and, ideally, disease prevention, is likely to be incremental. It is important that such step-wise advancement is acknowledged by the

public and payers alike, in a similar way to that observed with cancer drug development.

Further priorities

While preventing or finding a cure for Alzheimer's disease is the ultimate treatment goal, providing effective relief for cognitive and behavioural symptoms, here and now, continues to be of considerable importance to patients, caregivers and society.

Effective symptomatic relief will remain a key unmet need, even if slowing the course of disease becomes possible. In this context also, collaborative efforts could be beneficial in an attempt to develop new compounds which, alone or in combination, would constitute the best possible treatment for the individual patient. As has been recently demonstrated, pharmaceutical companies are both willing and able to enter into collaborative efforts to fight Alzheimer's disease.

Finally, independent of specific progress in drug development, it is paramount that adequate healthcare infrastructure is in place to be able to manage and care for increasing numbers of patients with Alzheimer's disease around the globe.

Recognition of the challenge of Alzheimer's disease by world leaders, increased efforts and funding, plus dedicated partnerships, generates considerable potential for treatment advancement. Lundbeck is dedicated to research and drug development for Alzheimer's disease, and will continue to commit to this disease area, aiming to transform future perspectives for patients and those at immediate risk of Alzheimer's disease (both as patients and caregivers), in the years to come.

1. Alzheimer's Disease International. <http://www.alz.co.uk/research/statistics>. Last accessed, May 2015.

2. World Health Organization (WHO). Dementia: a public health priority. © WHO, 2012.

About Lundbeck

Committed to improving the lives of people with Alzheimer's disease

Lundbeck is a global pharmaceutical company specialised in brain diseases. For more than 70 years, we have been at the forefront of research within neuroscience. Our key areas of focus are alcohol dependence, Alzheimer's disease, bipolar disorder, depression/anxiety, epilepsy, Huntington's disease, Parkinson's disease, schizophrenia and symptomatic neurogenic orthostatic hypotension (NOH).

An estimated 700 million people worldwide are living with brain disease and far too many suffer due to inadequate treatment, discrimination, a reduced number of working days, early retirement, and other unnecessary consequences. Every day, we strive for improved treatment and a better life for people living with brain disease – we call this Progress in Mind. Read more at www.lundbeck.com/global/about-us/progress-in-mind.

Specifically in the area of Alzheimer's disease, Lundbeck, in collaboration with Merz, has marketed memantine – the most recently approved drug in the field. In collaboration with our development partner, Otsuka, Phase III studies are underway with idalopirdine, a selective serotonin 5-HT₆ receptor antagonist, to treat cognitive and behavioural symptoms; and with brexpiprazole, a partial agonist at serotonin 5-HT_{1A} and dopamine D₂ receptors and an antagonist at 5-HT_{2A} receptors, to treat agitation, in patients with Alzheimer's disease. Additional early activities at preclinical and Phase I stages, are ongoing.

In 2015, Lundbeck celebrates its 100th anniversary. During the past century, millions of people have been treated with our therapies. It is complex and challenging to develop improved treatments for brain disease, but we keep our focus: There is still so much we need to achieve in the next 100 years to ensure a better life for people living with brain disease.

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Dementia: a new perspective

— As dementia rises in prevalence, new approaches must be adopted in the treatment of the condition and efforts to prevent it, writes **Vladimir Hachinski, Founding and Past Chair, World Brain Alliance**



Vladimir Hachinski is a Distinguished University Professor at Canada's University of Western Ontario. With John W Norris, he founded the world's first successful acute stroke unit. With David Cechetto, he discovered the role of the brain's insula in sudden death, and, joined by Shawn Whitehead, they established a treatable link between Alzheimer's disease and stroke. He has authored, co-authored or co-edited 17 books and more than 600 widely cited publications. He was President of the World Federation of Neurology in 2010-13 and the Founding and Past Chair of the World Brain Alliance.

www.uwo.ca

Dementia means the loss of brain capacity severe enough to result in the loss of self-sufficiency.

Dementia is rising globally, largely driven by the ageing population. Although dementia increases with age, it is not inevitable with age. Dementia represents the end stage of several processes, some of them treatable and preventable.

Brain blood vessels (vascular) and Alzheimer's disease represent the two most common pathologies leading to dementia. The changes of Alzheimer's disease are characterised by the deposition of amyloid protein plaques and of tau protein aggregation forming tangles in neurons. The changes that lead to Alzheimer's disease begin about 20 years before any symptoms appear. Many elderly individuals die with plaques and tangles without having had any trouble in life as a result. Similarly, most vascular disease is insidious. For each stroke that affects the body, five affect the mind, usually with the person being unaware of them.

While Alzheimer's and cerebrovascular pathology occur commonly with age, mostly without symptoms, the combination doubles the chances that the dormant pathologies will result in dementia.

Although cerebrovascular disease is treatable and preventable, scant attention

has been paid to this component, present in 80 per cent of Alzheimer's patients. Instead, the declared intention is to find a cure or disease-modifying drug by 2025. The idea of giving one drug to an amalgam of pathologies broadly defined as 'Alzheimer's disease' may prove as disappointing as the long litany of failed trials that took place in the late 1990s and early 2000s, aimed at stopping the damage that follows a stroke with a single drug. Since dementia has multiple causes, one must try multiple

therapies, including addressing the one component that can be treated and prevented: the vascular one.

Dementia is not a threshold but a continuum. The process begins decades before any symptoms appear, a phase termed the 'brain-at-risk stage'. The earlier the risk factors are recognised and treated, the better the chance of success.

Knowledge accrues in pieces, but is understood in patterns. Specialisation fosters fragmentation and fiefdoms. It turns out that all major brain diseases result from different combinations of half a dozen mechanisms. By integrating this knowledge, researchers may discover that drugs developed for one purpose in one field may have application in another. If we only knew what we already know.

The need for multiple therapies

The diagnosis of Alzheimer's disease is notoriously imprecise, mainly because most patients harbour multiple pathologies. Even if a drug were 100 per cent effective in blocking amyloid deposition (a contributor to dementia), its effect might be obscured or overwhelmed by concomitant pathologies, for example brain vascular disease and their interactions, such as inflammation, if they are not treated at the same time. This calls for multiple therapies and new methodologies such as platform trials that can evaluate multiple therapies simultaneously. The lack of precision of diagnostic categories can be overcome by identifying specific contributing mechanisms leading to dementia and treating them. It is now possible to image vascular disease, amyloid and tau protein deposition, and

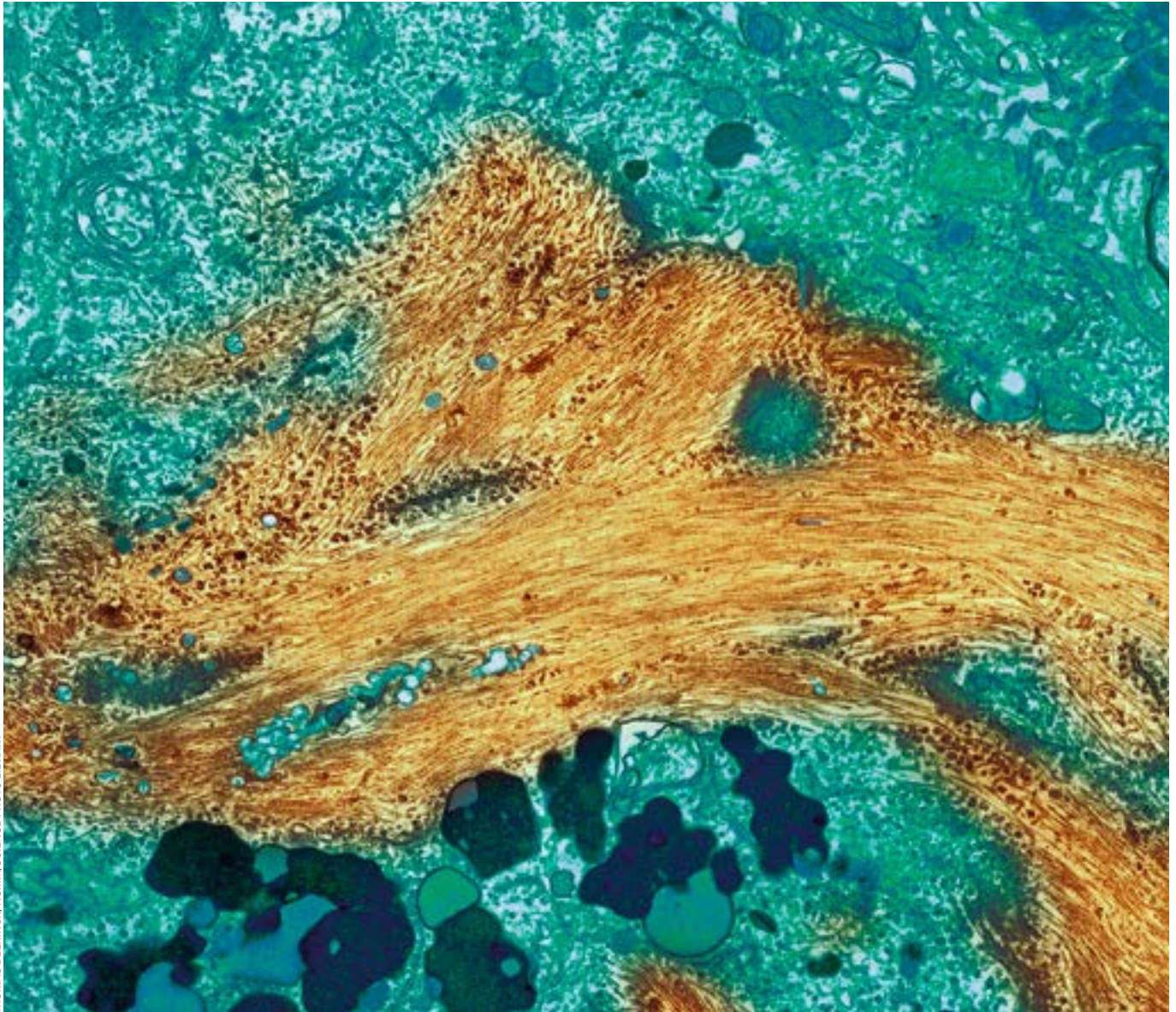
Dementia represents the end stage of several processes, some of them preventable

inflammation in the brain. Each of these mechanisms can be treated individually or in combination.

The evaluation of drugs can be accelerated by developing protocols in close reciprocal interaction with experimental work in a few advanced centres. These would continue with extensive protocols and thorough evaluation of the patients. Once experience has been gained, the protocol can be simplified so that large numbers of patients can be enrolled. At predetermined intervals, statistically valid samples of patients following the simplified protocol would be studied by those following the extensive study protocol to make sure that they were similar.

In the era of big data and electronic records, it may be possible to do more sophisticated post-marketing surveillance and gain real-world knowledge of the effectiveness of different treatments.

Unhealthy diets, physical inactivity, and tobacco and alcohol addiction represent identifiable risks for stroke and dementia and other non-communicable



THOMAS DEERING, NCMI/SCIENCE PHOTO LIBRARY

diseases targeted by the United Nations resolution of September 2011. In order to succeed, a three-step approach is required:

1. information;
2. motivation; and
3. enablement.

Good information is essential, but by itself is no more effective than New Year's resolutions. Motivation matters but is seldom addressed. Healthy lifestyles require a healthy environment and policymakers have a particular role in creating it. They also have a leadership role in introducing legislation to curb tobacco and alcohol use and limit the consumption of unhealthy foods. They also have a major role in ensuring that our air is breathable. Air pollution can harm the lungs, damage the heart and afflict the brain. What happens in Beijing matters at Schloss Elmau: we share the same biosphere. Policymakers can follow the lead of Finland in considering health in all policies. Public health

could be enhanced considerably through the leadership of non-governmental organisations. Additionally, policymakers can get help from international brain organisations that can provide expertise and patient support groups, and can help to mobilise the public towards healthier lifestyles and risk-factor control, which may prevent or postpone the major chronic diseases, including dementia.

Conclusions

Dementia results most often from a combination of Alzheimer's and cerebrovascular pathologies and their interaction. Cerebrovascular disease is both treatable and preventable.

The diagnosis of dementia is imprecise, but it is now possible to identify and target the different mechanisms leading to brain deterioration. This will require multiple interventions and new clinical trial methodologies.

Dealing with the challenges of dementia will require not only new resources, but new thinking and different approaches as well. ■

A 'tangle' in a nerve cell from the brain of a patient with Alzheimer's disease. The changes in the brain that lead to Alzheimer's begin about 20 years before symptoms show

Action against money laundering and terrorist finance

— With the emergence of new technological challenges, the global community must intensify and coordinate its response to abuse of the international financial system to fund terrorism, urges **Roger Wilkins AO**, President, Financial Action Task Force



Roger Wilkins AO is President of the Financial Action Task Force, as well as Secretary of the Attorney General's Department of the Australian Government. Prior to this, he was Head of Citigroup Australia and New Zealand, and Director General of the Cabinet Office in New South Wales. A member of the Board of the Forum of Federations and of the governing council of UNIDROIT, Wilkins was appointed an Officer of the Order of Australia in 2007 for service to public administration.

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Criminals, including terrorists, need access to the financial system in order to launder the proceeds of crime or finance terrorist activities.

The recommendations made by the Financial Action Task Force (FATF) are the global standards for preventing abuse of the international financial system to launder money and finance terrorism and the proliferation of weapons of mass destruction. When the FATF standards were first published in 1990, few countries had any legal or regulatory provisions to detect and punish such activity. Today, the FATF has grown from the original 16 members to a global network of eight FATF-style regional bodies and more than 190 members globally – all of which have committed to implementing the FATF Recommendations.

Urgent concerns

The risks and methods of money laundering and terrorist financing continue to evolve, as must the global response to combat such abuse of the international financial system. A number of issues in particular require urgent attention and are at the top of the FATF agenda: the rise of the terrorist organisation Islamic State in Iraq and the Levant (ISIL), de-risking, transparency and beneficial ownership, and virtual currencies.

Recent developments and the sudden rise of ISIL have made the fight against terrorism and terrorist financing a global priority. However, many countries have not yet implemented effective measures to criminalise terrorist financing and freeze terrorist assets, without delay, using targeted financial sanctions.

As a priority, the FATF will immediately review whether all countries in the global network have implemented adequate measures to criminalise terrorist financing and cut off terrorism-related financial flows by using targeted financial sanctions, as required by the FATF Recommendations. The FATF will put pressure on countries that have failed to do so and will report to the G20 in October 2015 on the outcomes of this review, as well as offering additional proposals to strengthen anti-money laundering and countering the financing of terrorism (AML/CFT) tools.

G7 members can help by ensuring, as a matter of priority, that they have fully criminalised terrorist financing and implemented targeted financial sanctions, in line with the FATF Recommendations and relevant United Nations instruments.

The FATF Recommendations require financial institutions to terminate or restrict a client relationship when money-laundering and terrorist-financing risks cannot be mitigated. Such a decision should be made case by case, using a risk-based approach. What is not in line with the FATF Recommendations is the wholesale termination or restriction of business relationships with clients or categories of clients in order to avoid risk, rather than manage it (so-called 'de-risking'). This potentially forces financial flows into less regulated or unregulated channels that impede the effective implementation of measures against money laundering and terrorist finance, and can negatively affect other important policy objectives, such as financial inclusion and legitimate charitable activity.

The FATF recently issued a document entitled *Risk-Based Approach Guidance for the Banking Sector*. It is developing further guidance to assist countries in the proper implementation of the risk-based approach, which should be the cornerstone of an effective AML/CFT system and is essential to properly managing risks. Special attention is being given to this issue in the context of supervision and enforcement, and customer relationships with non-profit organisations and money- or value-transfer service providers. The FATF is also gathering information on de-risking in order to gain a better understanding of the causes and scale of this phenomenon. By working with their financial regulators and the private sector, G7 members can ensure proper implementation of the risk-based approach and encourage other countries to take similar action.

Transparency and beneficial ownership

Organised crime groups often launder the proceeds of their crimes and move illicit funds through the financial system using complex networks of corporate vehicles such as companies and trusts. Lack of transparency in the financial system enables them to do so undetected and facilitates the commission of corruption and tax crimes. Even though this issue has been high on the agenda of both G7 and G20 leaders in recent years, many countries have still not implemented effective measures to ensure that accurate information on the beneficial ownership of corporate vehicles is available to the competent authorities on a timely basis.



IGOR STEVANDVIC/ALAMY

Technological advances pose unique challenges to anti-money laundering operations

The FATF recently issued *Guidance on Transparency and Beneficial Ownership*, which will help countries to identify, design and implement risk-based measures to prevent the misuse of corporate vehicles. The FATF continues to actively engage with other international bodies, including the G20 and the Organisation for Economic Co-operation and Development (OECD), to raise awareness of these issues and promote a common definition of beneficial ownership.

Lack of transparency in the financial system facilitates the commission of corruption and tax crimes

Completing full implementation of the national action plans adopted by the G8 members after their 2013 Lough Erne Summit will enhance transparency and access to beneficial ownership information.

The threat of virtual currencies

Finally, swift technological advances and developments in providing financial services are posing unique challenges, particularly in relation to virtual currencies.

Existing legal frameworks do not always cover virtual currencies adequately or in the same way. This impedes risk mitigation and creates regulatory arbitrage. The FATF recently issued a report titled *Virtual Currencies: Key Definitions and Potential AML/CFT Risks*, which gives examples demonstrating how virtual currencies have already been abused for money-laundering purposes. The FATF is now working on a guidance paper to help countries manage and mitigate these risks.

G7 members should set an example in taking action to mitigate the risks of virtual currencies, in line with the FATF Recommendations and guidance on this issue.

The FATF assesses how well different countries are implementing the FATF standards, including the specific measures indicated above.

Meeting the technical requirements of the FATF Recommendations is not enough. The FATF's main focus is how effectively a country's system is working to combat money laundering and terrorist financing. The FATF has mechanisms for applying political pressure to countries that have not effectively implemented the FATF standards.

A sound international financial system relies on the global implementation of AML/CFT standards and, in particular, global progress on the priority issues described above. G7 members play an important role, by setting an example and taking the necessary action, and encouraging G20 members to do the same. ■

An insurance policy against protectionism

— The G7 must spearhead the multilateral trading agenda developed at the last ministerial meeting in order to boost global trade and competitiveness, says **Yonov Frederick Agah**, Deputy Director General, World Trade Organization



Yonov Frederick Agah has been Deputy Director General of the World Trade Organization since 2013. He was appointed Nigeria's Ambassador to the WTO in 2005 and served as Alternate Chief Negotiator for the Doha Round and Head of Nigeria's Trade Office to the WTO in the Permanent Mission of Nigeria to the United Nations Office in Geneva. Dr Agah has chaired several bodies and meetings at the WTO including the General Council in 2011, the Dispute Settlement Body in 2010 and, most recently, the special session of the TRIPS Council in 2013.

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With the onset of the global economic and financial crisis in 2008, fears of a return to the protectionist, beggar-thy-neighbour policies of the early 1930s quickly gained traction. Economic historians were quick to remind the world of the dangers of economic isolationism – politically attractive in the short term, but globally harmful in the long term. In the 1930s, governments responded to the prevailing crisis by throwing up trade barriers, such as the Smoot-Hawley Tariff Act in the United States, which pushed the world into an uncontrolled spiral of protectionism and allowed a recession to turn into the Great Depression. Between 1929 and 1933, retaliatory trade restrictions wiped out two-thirds of world trade.

Today, there is widespread agreement that protectionism is counterproductive. Faced with an economic downturn, the probability of governments resorting to protectionist policies that favour domestic producers always tends to increase. Politicians, under domestic pressure from trade unions and industry lobbies, may opt for policies that may appear to provide short-term benefits for their constituencies, but in reality end up hurting domestic consumers and damaging competitiveness.

If one looks back to the outbreak of the 2008 crisis, it is clear that many of the dangers of the tit-for-tat protectionist policies of the 1930s were present and real. However, although the value of world trade did fall, the decline was only a fraction of that seen in the pre-war years – and it rebounded immediately. In other words,

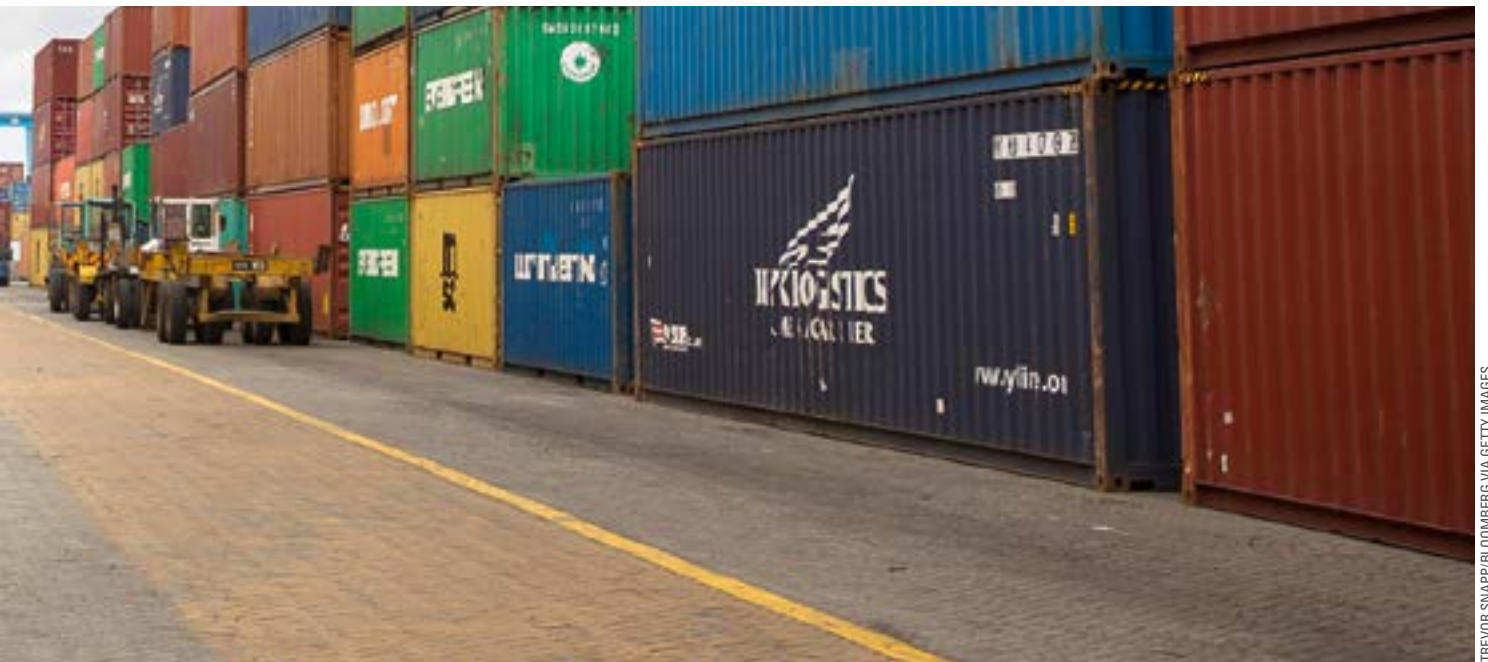
instead of a protectionist panic, the response was one of restraint and caution. So what explains this different response to the crisis?

One key reason was the institutional setting that governs trade relations among countries, which has been consolidated with the establishment of the World Trade Organization (WTO). The WTO's common and enforceable rules have provided governments with a framework of certainty and accountability, as well as the knowledge that any improper multilateral trade action could have significant legal and economic consequences. In other words, the WTO has served and continues to serve successfully as an insurance policy against protectionism.

Transparency and accountability

The role of the WTO today is much broader and includes negotiating and agreeing to global trade rules, monitoring adherence to those rules and helping to resolve disputes between countries when they arise. It is a system that seeks to promote transparency, predictability and accountability for governments and for businesses. The reduction of tariffs and other barriers to trade, and the elimination of discriminatory treatment in international trade relations through several rounds of multilateral negotiations have been and remain at the core of its functions. And here as well, the value of the multilateral trading system is clear. For example, exports have grown 35-fold since the Second World War, thanks largely to a reduction in average tariffs from around 40 per cent to four per cent under the auspices of the multilateral trading system, now embodied in the WTO.

In the aftermath of the 2008 economic and financial crisis, the WTO was requested to enhance its trade monitoring and surveillance function, so as to provide members with all the information needed to collectively prevent the risk of backsliding into



TREVOR SNAPP/BLOOMBERG VIA GETTY IMAGES

protectionism. To this end, the WTO now produces monitoring reports twice a year that identify trends and developments in global trade policymaking. These monitoring reports are the latest addition to the surveillance toolbox that is overseen by the Trade Policy Review Mechanism (TPRM). Although the reports have confirmed that the overall trade policy response to the 2008 crisis has been significantly more muted than expected based on previous crises, they have also drawn attention to a number of worrying trends. For example, while WTO members are showing restraint with respect to the introduction of trade-restrictive measures, the accumulative stock of these continues to rise. Of the trade-restrictive measures introduced since 2008, fewer than 25 per cent have been eliminated. Similarly, a large number of behind-the-border measures are creating barriers to trade and are hurting businesses, in particular small and medium-sized enterprises.

The World Trade Organization's common rules have provided governments with a framework of certainty

This year, 2015, is an important one for the WTO. Over the past 18 months, members have sought to build on the new momentum generated by the last ministerial conference in 2013. After many years without multilaterally agreed outcomes, the success of Bali created a new determination to advance negotiations. At the centre of this was the Trade Facilitation Agreement. Once implemented, this agreement will help to cut red tape and streamline

border procedures in all WTO member economies, and reduce the time and cost of trade operations worldwide. In fact, it is estimated that the agreement could cut the costs of trading in developed countries by up to 10 per cent. The overall benefits of the agreement have been estimated at up to \$1 trillion a year. This could create 21 million additional jobs worldwide, the vast majority of which would be in developing countries. In an important and genuine reflection of today's globalised and interconnected world, there was no developing-versus-developed world divide during the efforts to seal this agreement: everybody was involved in the negotiations and everybody wanted to deliver a successful outcome.

WTO members must now use this success as a springboard for the 10th ministerial conference in Nairobi, Kenya, this December. This is the first time that a WTO ministerial meeting will be held in Africa, and expectations are high that the WTO can finally end the impasse that has so long plagued its negotiating agenda. And look forward we must. The international trade agenda has changed considerably over the last 20 years, but the fact remains that few of the big challenges facing world trade today can be solved outside the global system. They are, in other words, global problems demanding global solutions and global rules.

So we need to be ambitious and bold. The world is looking to all WTO members to show resolve and deliver outcomes that have real economic importance. Moving the Doha Development Agenda forward is still going to be incredibly challenging and the political support of G7 leaders will be central to this task. It is, therefore, highly important that the G7 demonstrate the requisite leadership and commitment towards the successful conclusion of Doha and taking the multilateral trading system into the 21st century. This outcome is fundamental to solidifying a system that has proved its value as an insurance policy against protectionism. ■

Shipping containers at Mombasa port, Kenya. The World Trade Organization's next ministerial meeting will be in the Kenyan capital, Nairobi, this December – the first such event to take place in Africa

Making trade facilitation work

— The Trade Facilitation Agreement is paving the way for fast, straightforward and efficient trading. The G7 must act as a catalyst for its implementation, writes **Kunio Mikuriya**, Secretary General, World Customs Organization



Kunio Mikuriya has been Secretary General of the World Customs Organization (WCO) since 2009. Previously, he worked for Japan's Ministry of Finance for 25 years. There, he served as Director of Enforcement, as well as Director of Research and International Affairs, paving the way for the conclusion of the first regional trade agreement for Japan. In addition, he spent time as a counsellor at Japan's mission to the World Trade Organization, and took part in the Uruguay Round trade negotiations of the General Agreement on Tariffs and Trade.

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Trade facilitation is a concept that entails reducing inefficiencies in border procedures so that legitimate trade can clear borders faster and thus reduce trade transaction costs. The classic World Trade Organization (WTO) definition is the “simplification and harmonisation of international trade procedures”, where trade procedures include “the activities, practices and formalities involved in collecting, presenting, communicating and processing data and other information required for the movement of goods in international trade”.

Trade facilitation has been on the agenda of the Brussels-based World Customs Organization (WCO) for many years.

It is, in particular, embodied in the WCO's International Convention on the Simplification and Harmonization of Customs procedures,

which is better known as the Revised Kyoto Convention. The core governing principles of the convention are the transparency and predictability of customs actions, the standardisation and simplification of goods declarations and supporting documents, simplified procedures for authorised persons, maximum use of information technology, minimum customs control necessary to ensure compliance with regulations, the use of risk management and audit-based controls, coordinated interventions with other border agencies, and partnership with the trade community.

Based on these principles, the WTO, following many years of negotiation, adopted the Trade Facilitation Agreement (TFA) in 2013

to great acclaim. Its potential is significant. In accordance with analysis, its measures will boost prosperity by reducing administrative burdens and transaction costs. They are expected to save developing countries around \$325 billion a year and accelerate their integration into global value chains. According to the Organisation for Economic Co-operation and Development (OECD), developed countries also stand to gain, with an estimated 10 per cent cut in their trade costs and easier trade flows for their businesses. The potential new gains from trade facilitation are considerable, especially for countries that have yet to apply its principles.

The process of ratification has now begun. Two-thirds (approximately 108 WTO members) need to ratify the TFA Protocol of Amendment before it can enter into force. I call on the G7 countries not only to ratify it, but also to act as a catalyst for ratification worldwide.

In addition to its long-standing support for trade facilitation through its instruments, tools and technical assistance, the WCO has ratcheted up its efforts by actively pursuing several mechanisms for supporting TFA implementation going forward. The WCO Working Group on the WTO TFA meets regularly to plan and support consistent implementation based on international standards. The WCO has dedicated a section of its website to information on the TFA.

The Mercator Programme

The WCO's Mercator Programme is designed specifically to assist countries in implementing the TFA while promoting interconnectivity. It focuses on building the capacity of customs in the area of trade facilitation, providing tailor-made technical assistance, creating a worldwide network of customs experts, determining global standards for customs modernisation, and

The Trade Facilitation Agreement measures are expected to save developing countries around \$325 billion a year

encouraging effective modernisation among all stakeholders. Under the Mercator Programme, the WCO is helping to lead the charge on TFA implementation, and has already delivered substantial technical assistance to countries.

A partnership approach is essential for successful TFA implementation. At the WCO, we call this ‘coordinated border management’. Customs administrations need to work together with other border agencies and the private sector. Article 8 of the TFA, entitled ‘Border Agency Cooperation’, states that “a Member shall ensure that its authorities and agencies responsible for border controls and procedures dealing with the importation, exportation and transit of goods cooperate with one another and coordinate their activities in order to facilitate trade”.



TIM SCRIVEN/ALAMY

The 'single window' concept is also a core partnership element of the TFA. It has antecedents in the WCO's Revised Kyoto Convention. Although it sounds complicated, the single window is actually a very simple idea: through the use of modern technology, traders need only submit regulatory information to the government once, rather than to each individual border agency. The TFA states that "members shall endeavour to establish or maintain a single window, enabling traders to submit documentation and/or data requirements for importation, exportation or transit of goods through a single entry point to the participating authorities or agencies."

After the examination by the participating authorities or agencies of the documentation and data, the results shall be notified to the applicants through the single window in a timely manner." In addition, the TFA says: "In cases where documentation and/or data requirements have already been received through the single window, the same documentation and/or data requirements shall not be requested by participating authorities or agencies except in urgent circumstances and other limited exceptions which

Containers in Felixstowe, United Kingdom, are inspected. Border agency cooperation, including coordinated interventions, is a key plank of the Trade Facilitation Agreement

are made public." I call on the G7 to heavily promote the single window, as it is key to unlocking the many benefits of trade facilitation.

The WCO has been a leader on the single window concept for many years. The WCO Single Window Compendium provides guidance on the policy, legal and technology elements of such systems. In addition, Version 3.0 of the WCO data model covers the data requirements for a single window environment not only for customs, but also for other government agencies. Fifteen years ago, a WTO agreement on trade facilitation was merely a dream. That dream has now become a reality. I am very pleased with the progress that has been made, but there is still much to achieve.

First, WTO members must ratify the TFA Protocol of Amendment so that it enters into force. This will show that the world has the political will to move forward. Second, countries must provide financial and technical assistance to countries that need implementation support. Third, all WTO members must take their commitments seriously and implement the TFA provisions as expeditiously as possible. Only then will the blessings of trade facilitation be truly upon us all. ■

Collaboration will strengthen global financial stability

— In the wake of the financial crisis, progress has been made in implementing reforms, but divergence on key areas threatens recovery, writes **Fayezul Choudhury, Chief Executive Officer, International Federation of Accountants**



Fayezul Choudhury became Chief Executive Officer of the International Federation of Accountants (IFAC) in 2013. He was previously with the World Bank, where his last two positions were Vice President of Corporate Finance and Risk Management, and Controller and Vice President of Strategic Planning and Resource Management. Choudhury was a member of the Public Interest Oversight Board from 2005-10, and chaired the Global Steering Committee of the International Forum for Accountancy Development.

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Over the past 10 years, considerable progress has been made in strengthening global financial stability through stronger, more internationally harmonised regulation and supervision. In the early 2000s, the International Federation of Accountants (IFAC), a key group of regulators, and other public authorities created a 'shared public-private sector' standard-setting model for international audit and assurance, ethics and accounting education. This group recognised that high-quality international standards are the foundation of top-calibre, transparent and credible financial reporting. Such standards are essential for promoting investor confidence in financial markets, facilitating the comparison of financial information globally, attracting investment, fostering cross-border activity, and supporting economic growth and stability.

An improved model

The basis of the model's effectiveness is that it balances technical inputs from the accountancy profession with an extensive due process that gathers inputs from a broad range of stakeholders. The overall process of developing standards is undertaken with independent public interest oversight.

The model is transparent and protects the standard-setting process from undue influence by any party that may have vested interests.

The parties have continued to work together over the past decade to evolve and improve the model in order to enhance the public interest focus, further



improve the credibility of the standards and the public's confidence in them, and ensure that the highest-quality standards are developed and then adopted and implemented around the world.

The results have been extremely positive: more than 100 jurisdictions are using or in the process of adopting the clarified International Standards on Auditing, or using them as a basis for preparing national standards; more than 120 jurisdictions are using or in the process of adopting the Code of Ethics for Professional Accountants, or basing their national ethics standards on the code; and IFAC is helping to ensure that International Education Standards are used to train future generations of professional accountants.

In the aftermath of the recent financial crisis, steps were taken to create more effective and consistent global regulation. There was optimism – and an expectation – that new regulatory frameworks would mitigate the risks of future global financial crises.

However, as governments moved to take swift, decisive action in their own jurisdictions, optimism that an effective global regulatory framework would



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emerge quickly dissipated. Many governments acted under pressure of domestic politics and the ‘national interest’, and what is left now is a patchwork of diverging – and in many cases incompatible or inconsistent – sets of regulations.

Lack of consensus

For example, there is already rampant divergence on key reforms of capital, liquidity, derivatives and banking structures, despite those reforms being instigated globally by the G20 and the Basel Committee on Banking Supervision. Fundamental differences go as deep as how to define capital.

In another example, due to the lack of consensus among the members of the European Union, extensive ‘options’ have been built into the final package of audit reforms, creating fragmentation within the EU. Two of these options – relating to how long a company can retain an audit firm and the services an audit firm can provide – could create significant inefficiencies and force companies to reconcile multiple competing requirements in different countries. This, in turn, could

negatively affect both the cost and quality of audits, make group audits more difficult to coordinate and lead to unnecessary additional audit procedures.

Meanwhile, many countries on other continents have considered and dropped mandatory firm rotation, concluding that it has not demonstrated the expected benefits – including the United States, which has sought to legislate against it.

Good regulation should be proportionate, based on evidence, formulated with wide consultation, and assessed for efficacy

These moves threaten fragmentation across the Atlantic, within the European Union itself, and between these regions and the rest of the world. And, despite the huge amount of legislation already passed, it is not over yet. In a recent speech, EU Commissioner for

Bank Recovery and Resolution Directive – real-life resolution in Portugal



Paula Gomes Freire,
Partner, Vieira de Almeida & Associados

Two contrary-sign events shaped the economy and banking activity in Portugal in 2014: the ‘clean exit’ from the three-year EU-IMF financial assistance programme and the collapse of Grupo Espírito Santo, leading to the resolution of Banco Espírito Santo.

It was good news to witness Portugal exit the programme the ‘Irish way’ and watch the markets regain confidence in the country. It has been widely acknowledged that the Troika-supported financial assistance programme, which expired at the end of June 2014, succeeded in stabilising Portugal’s economy and restoring access to sovereign debt markets.

However, making the economy more dynamic, flexible and resilient remains an ongoing challenge and “*safeguarding financial sector stability in a low profitability and low growth environment*” is key for the desired orderly reshaping of the banking sector in the aftermath of the resolution of Banco Espírito Santo (BES).

Just over one month after the successful expiry of the financial assistance programme, Portugal was confronted with the application of an unprecedented measure under an untested European resolution regime to one of its major banks.

There was widespread concern that such an event would completely undermine the recently regained

feeble market confidence, but it seems to constitute a fair statement to say that the shock waves were duly contained and that ‘business as usual’ is what best describes the aftermath of the resolution.

The application of BRRD

The 2008 financial crisis prompted deep international reflection on the lack of efficient rules, mechanisms and intervention powers of supervisors to adequately tackle failing credit institutions and to avoid systemic contagion. The work of the European Commission, the Financial Stability Board and the G20 on this matter led to the preparation of the EU Directive establishing the framework for banking recovery and resolution (Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014, BRRD).

While there is no doubt financial stability has been preserved, repayment of this loan may constitute a potential further constraint for the Portuguese banking sector

Given the then existing preparatory works for the BRRD and the financial assistance environment in Portugal in 2012, the Portuguese Banking Law was then amended (through Decree-Law no. 31-A/2012, of 10 February 2012), precisely to immediately accommodate a new legal discipline for intervention in credit institutions, which was, in 2012, already very much in line with the technical details of the (then) future BRRD, published in May 2014.

It was under this framework – a recently published, and not fully transposed, BRRD and a 2012 (with some 2014 amendments) national resolution regime) – that the Bank of Portugal applied a resolution measure to BES in August 2014.

This was done through the incorporation of a bridge bank – Novo Banco, SA – to whom certain assets,

rights and liabilities of the intervened credit institution were transferred. While Novo Banco, SA is now in the process of being sold, the assets and liabilities, which were not transferred, stayed on the balance sheet of the failed bank, which is expected to be wound up.

Novo Banco, SA was incorporated by the Resolution Fund (a fund participated by the various banking and financial sector players) who paid up the full capitalisation of the bridge bank in the amount of €4.9 million, on a loan from the Portuguese Republic, and using the revenues that resulted from the banking sector ordinary and extraordinary contributions.

Repaying the Novo Banco loan

The Resolution Fund will need to repay this amount out of the proceeds of sale of Novo Banco. If the proceeds fall short

of this amount, the banking sector as a whole will need to continue supporting the Resolution Fund until repayment in full is made.

While there is no doubt that financial stability has been preserved, repayment of this loan may constitute a potential further constraint for the Portuguese banking sector.

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The European Union's new regulatory framework on statutory audit contains several options for member states

Financial Stability Jonathan Hill acknowledged that where the US has “acted under great pressure in a short period of time” – referring to the 40-odd large pieces of legislation enacted since the crisis – there may just be a need to revisit some of them. Meanwhile, the G20 has acknowledged that, with so many new rules, the challenge now is to implement them.

This is hardly the remedy, as markets stretch for growth after a crisis recognised as global and in large part arising from a failure of collaboration and clear sight of cross-border risks. Surely a fundamental lesson from 2008 is that, in today's highly integrated markets, good regulation must be compatible within and across jurisdictions. The basic principles underpinning good regulation, including clear objectives and a focus on the public interest, are often left behind by a fragmented political discourse.

And knee-jerk reactions – however well intentioned – often neglect the fact that good regulation should be proportionate, based on evidence, formulated with wide consultation (including among those who will implement the reforms, to ensure that they are actually achievable), and assessed for efficacy and impact. These principles

and approaches have been espoused by the International Organization of Securities Commissions, the United Kingdom's Financial Reporting Council, and others.

Of course, regulation should be tailored to the jurisdiction, and a range of approaches is very often appropriate. But, sometimes, a set of options just will not do and differences need to be thrashed out in order to reach meaningful outcomes.

These inefficiencies not only slow down businesses striving for a sustained recovery, but the complexity they present could actually obscure the sight line to the issues and risks that could be involved in the next crisis. Let us not wait until that next crisis arrives to discover once again the benefits of speaking the same language, and begin to undo the tangled web of regulation ensnaring global growth and stability.

The success of the standard-setting model for international standards for the accountancy profession is a good example of how such global initiatives can be implemented. It is a model – with buy-in from both public and private sectors, strong governance and a public interest focus – that should be expanded and emulated. ■

Resource efficiency: an imperative for a sustainable world

— Improving resource efficiency is not only a fundamental part of building a sustainable future, it can also be an engine of economic prosperity and job creation, says **Achim Steiner, United Nations Undersecretary General and Executive Director of the UN Environment Programme**



Achim Steiner was elected Executive Director of the United Nations Environment Programme (UNEP) and Undersecretary General of the United Nations in 2006, with his term extended until 2016. A German and Brazilian national, he was also Director General of the United Nations Office at Nairobi from 2009-11. Before joining UNEP, he served as Director General of the International Union for Conservation of Nature (IUCN) from 2001-06, and prior to that as Secretary General of the World Commission on Dams.

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Over the past decade, awareness has grown regarding the threats posed by environmental change to social, political and economic security. It is also broadly recognised that long-term economic prosperity depends on environmental sustainability.

Humanity's socioeconomic progress – coupled with population growth, rapid urbanisation and, with it, lifestyle changes – has come at a price.

Already, more than 20 per cent of cultivated land, 30 per cent of forests and 10 per cent of grasslands are being degraded. Up to 25 per cent of the world's food production may be lost by 2050 due to climate change, land degradation, water scarcity and other processes – yet one-third of the food produced for human consumption is wasted each year.

As the World Economic Forum's *Global Risks 2015* report highlights, three of the top 10 risks in terms of impact over the next 10 years are environmental: water crises, failure of climate-change adaptation, and biodiversity loss and ecosystem collapse. Acknowledgement of the inextricable nature of these collective challenges is evident. That Germany, during its presidency of the G7, has made resource efficiency a priority is testament to that.

In 2015, the world has arrived at a critical decision-making juncture that will dictate the viability of current and future generations. The countries of the world will convene in Paris to negotiate the next global climate agreement. They will also pick up where the Millennium

Development Goals leave off and adopt an ambitious set of universal goals, the Sustainable Development Goals (SDGs), which embrace the notion that everyone's social, political and environmental destinies are intertwined.

However, to achieve goal number one of the proposed SDGs – end poverty in all its forms everywhere – or any one of the other 16 goals on issues ranging from ending hunger to ensuring affordable access to modern energy for all, from making cities safe, resilient and sustainable to reducing inequality within and among countries, everyone is going to need to find new, innovative ways of doing business. And I am optimistic that we can.

Efficiency and the economy

Becoming more efficient is a key factor in ensuring that the additional three billion people who are expected to enjoy middle-class income levels in the next 20 years can do so without breaching planetary boundaries or compromising the prosperity and equity of those who will join them. Helping to build an inclusive green economy – a circular economy in harmony with the natural environment – is also part of the answer. The smart economy will minimise the production of waste and reuse the waste that is produced, not only as an environmental rationale in a resource-constrained world, but also as a way of increasing competitiveness.

The proposed SDGs include a clear goal to “ensure sustainable consumption and production patterns”, and 13 of the 17 goals refer to the need to manage natural resources sustainably.

The question is: how can resource efficiency be an engine of development and job creation, a driver of innovation and economic prosperity, and a key tool in fighting climate change?

According to the United Nations Environment Programme's (UNEP) International Resource Panel (IRP), and based on research by the McKinsey Global Institute, harnessing existing technologies and appropriate policies to increase resource productivity could save up to \$3.7 trillion globally each year.

Many countries are already increasing resource productivity, investing in renewable energy systems and promoting a circular economy. The best aspects of those existing and emerging resource-efficiency solutions can be scaled. For example, Japan has taken a survival-of-the-fittest approach to setting product efficiency standards. The Top Runner Programme tests a wide range of products – from electric rice cookers to vehicles – to determine the most efficient model, and this becomes the new standard. This drives companies to make more efficient models to compete to develop the best available products.

In a bid to reduce energy consumption, the province of Ontario in Canada has instituted the Green Button programme, which lets consumers securely access their electricity consumption data, allowing them to understand their electricity consumption and identify opportunities to save energy within the household.

As the demand for energy has shifted, with 90 per cent of net energy-demand growth until 2035



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expected to come from emerging economies, the carbon intensity of energy itself has increased. In the developing world, energy intensity, the energy needed to produce one unit of gross domestic product, is three times as great as it is in the developed world.

Investment, incentives and financing

Encouragingly, there is an upswing in global renewable energy investment – \$270 billion in 2014, up 17 per cent on the previous year, according to UNEP’s *Global Trends in Renewable Energy Investment 2015* report from the Frankfurt School UNEP Centre and Bloomberg New Energy Finance. In developing countries, investment rose by 36 per cent to \$131 billion, on track to surpass investment in developed countries.

This deployment of clean-energy technologies in the last decade is a progression that has surpassed predictions, and the proportion of world electricity generated from this cumulative installed renewable

power capacity rose from 8.5 per cent in 2013 to 9.1 per cent in 2014.

Much of the surge in developing economies over recent years has been thanks to investment in China. This spiked up from just \$3 billion in 2004 to \$83.3 billion in 2014, helped by supportive government policies aimed at boosting power generation in the country, at providing demand for domestic wind and solar manufacturing industries, and – especially recently – at offering an alternative to pollution-inducing fossil fuel generation. In 2014, other BRICS countries were also among the top 10 countries investing in renewable energy: Brazil (\$7.6 billion), India (\$7.4 billion) and South Africa (\$5.5 billion).

Yet the growth of renewables faces a mixture of old and new barriers, sometimes because of the very success of renewables. Coping with 25 per cent or more variable generation is more difficult for grids and utilities than managing a five per cent proportion.

A smart economy minimises waste production, thereby increasing competitiveness as well as creating a greener environment

To frack or not to frack?

There are many reasons why investment in shale gas development is at best unwise, and at worst disastrous. Here are just a few:

- X Shale gas is not expected to represent more than 3% of European gas needs by 2040**
International Energy Agency – *World Energy Outlook 2014*
- X The 25 most active oil and gas companies in the US lost a cumulative \$67 billion between 2010 and 2014**
Arthur Berman – *The Brief Candle of the US Shale Gas Revolution*
- X Shale gas has given no competitive advantage to US manufacturing over rivals in Europe**
KfW Bankengruppe – *Shale Gas: you snooze, you lose?*
- X Since 2008, electricity prices for US citizens increased by 20%**
Deutsche Bank Markets Research – *Crossing the Chasm*
- X Worldwide development of shale gas would put CO₂ emissions on a trajectory consistent with a probable temperature rise of over 3.5°C by 2050**
International Energy Agency – *Golden Rules for a Golden Age of Gas*
- X Limiting global warming to 2°C requires leaving two-thirds of known fossil fuel reserves underground. Shale gas reserves are not even part of these "known reserves"**
International Energy Agency – *World Energy Outlook 2012*
- X Only 9% of Europeans think that unconventional fossil fuel production should be prioritised**
European Commission Eurobarometer – *Attitudes of Europeans Towards Air Quality*

Developing clean energy, facilitating community-owned renewables and investing in energy efficiency is the right path to a safe, responsible and sustainable future. Shale gas and other unconventional fossil fuels aren't stepping stones, they are dangerous diversions.



DPA PICTURE ALLIANCE/ALAMY

If the positive investment trends in renewables are to continue, it is important that major market reforms in the electricity sector are implemented – of the sort that Germany is now attempting with its *Energiewende* transition to renewable sources.

Overcoming barriers to decoupling

No single change or improvement is likely to be sufficient, and none of these options is simple. Each one has its own challenges: cost, technological limits, slow turnover of existing capital stock, the ability to implement policy globally, and inertia in behavioural change. The drivers of change to support resource efficiency across multiple sectors will include macroeconomic policies that promote efficiency. The levers will be ambitious standards and norms, legislation, and fiscal remedies that provide incentives to businesses and consumers to promote sustainable lifestyles.

Existing barriers to decoupling need to be tackled, notably subsidies for energy and water use, outdated regulatory frameworks and technological biases. A meaningful global carbon price would also provide the right incentives for the most cost-effective decisions and investments to be made.

Green growth will largely be propelled by private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. These investments need to be catalysed and supported by targeted public expenditure, policy reforms and regulatory changes across all sectors.

There is an increasing recognition among central banks, finance ministries and major investment funds, for example, that new ‘rules of the game’ are necessary. Still, more needs to be done and guidance is required as more markets step into this new world. This is why UNEP has initiated the Inquiry into Design Options for a Sustainable Financial System – to explore exactly how the financial and capital markets can be better aligned with sustainable development.

In a year such as 2015, when securing financing for sustainability – both broadly and for climate-related

The wings of a wind turbine are mounted in Visselhövede, Germany. Investment in renewables has seen impressive growth worldwide

The deployment of clean-energy technologies in the last decade is a progression that has surpassed predictions

actions – is such a critical theme and ambition, the opportunity exists to go beyond identifying additional resources for sustainable development to shaping the contours of a new international financial system, one that is fit for the needs of an inclusive, sustainable, 21st-century economy.

There is no silver bullet for changing the carbon emissions path. Action is needed on many fronts. The time is now to invest in disruptive technologies and institute transformational policies that set humanity on a path to a prosperous and more sustainable future for generations to come. ■

The G7's global climate leadership

— A comparison of the efficacy of the G7 and United Nations regimes indicates that the G7 has the power to succeed in global climate-change governance where the UN has failed, says Ella Kokotsis, Director of Accountability, G7 Research Group



Ella Kokotsis is the Director of Accountability for the G7 and G20 Research Groups. She has consulted with the Canadian and Russian governments, and is co-author of the forthcoming book *The Global Governance of Climate Change: G7, G20 and UN Leadership*.

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At times, apocalyptic claims about the threat of a changing climate have put the academic and scientific communities under attack, but mounting evidence now points to a real and potentially catastrophic risk. *Scientific American* officially declared 2014 to be the hottest year on record, with all 10 of the hottest years having occurred since 1998. This upward trend in the world's average temperature is what *Scientific American* calls a "trademark of human-influenced global warming". Climate change is happening at a much faster rate than was previously predicted, and human-induced carbon emissions clearly have something to do with this trend.

The extent to which the United Nations can effectively govern global climate change raises some key questions. Its attempts to lead this global challenge have repeatedly failed, as the UN has consistently proved to be an ineffective forum for delivering a

legally binding climate agreement with the necessary buy-in and commitment from its member states.

Whether this type of agreement is even possible given the UN's 193-member composition is highly debatable.

Cause for optimism

However, recent research on the G7/8 and G20's governance of global climate issues has yielded some important trends and offered a source of hope. Given the G7's leadership on climate change since its inception in 1975, it has often produced more conclusive and definitive contributions than the UN has – primarily through the summit's visionary leadership, allowing it to take ambitious, preventive steps to control climate change before its harmful and irreversible consequences move beyond human control. At the conclusion of the first summit in 1975 at Rambouillet, France, the leaders declared: "Our common interests require that

we continue to cooperate in order to reduce our dependence on imported energy through conservation and the development of alternative sources." In 1976, now with Canada present at the table, the G7 noted the need for the rational use of energy resources. In 1977, with the European Community added, the leaders affirmed the principle of "more efficient energy use". At the Bonn summit in 1978, the G7 stated: "In energy development, the environment and human safety of the population must be safeguarded with greatest care." And then, in Tokyo in 1979, it took up the issue of carbon emissions directly, calling for "alternative sources of energy" that would "help prevent further pollution" caused by carbon and sulphur emissions.

The summit leaders thus acknowledged, through this voluntary consensus, the need to halt immediately, at 1979 levels, the concentration of toxic atmospheric emissions. By 1979, they were clearly demonstrating both their willingness and ability to move forward with the implicit carbon-controlling environmental principles that were embedded in the very first gathering in 1975.

Since then, the summit's role in governing global climate change has passed through three distinct phases. During the first phase, from 1979-88, the G7 created the global governance of climate change by introducing the first, environmentally oriented climate regime, setting an immediate timetable to establish zero increases in carbon concentrations. It included all consequential carbon-polluting powers in its actions and institutions to meet this goal.

The G7 created the global governance of climate change by introducing the first, environmentally oriented climate regime

In the second phase, from 1988-2004, the G8, now with Russia added, shifted to shape and support the emerging UN regime centred in the UN's Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol, placing issues of economic development rather than the environment at the apex of its political agenda.

The third phase, from 2005 to the present, has seen the G8 – and the new G20 summit – respond to the failure of this UN approach by returning to global leadership with an expanded regime that has placed the environment first and broadened its membership to include all major carbon-producing powers, led by China and the United States. This regime has been increasingly effective, both in reducing G7/8 members' emissions and in slowly influencing the UN to shape its post-Kyoto regime in a similar way.

The central role of the G7, the G8 and, more recently, the G20 in global climate governance stands



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in sharp contrast to the historic absence of any powerful global intergovernmental organisation dedicated to the control of climate change. The UN charter is noticeably silent about the existence, let alone the value, of the natural environment. Furthermore, the UN system lacks any dedicated functional organisation to deal with either energy or the environment. The global community was thus institutionally defenceless when the oil shocks of 1973 and 1979 assaulted the global economy, and as trees started dying from acid rain in North America and Europe, highlighting how the effects of increased coal consumption and other hydrocarbons polluted the atmosphere and killed species. Only the G7 responded to the call as a new plurilateral international institution to meet these ecological challenges.

The UN adopted a different approach, establishing a weak United Nations Environment Programme in 1972 and separate secretariats in 1992, and periodically hosting summits on sustainable development. At its comprehensive, development-oriented Millennium Summit in New York in 2000, the UN finally recognised the existence and value of the natural environment, but still failed to take any major steps to put its new principle into effect through the Millennium Development Goals (MDGs) it launched there. Nor did it do so with the required ambition at its Rio+20 summit in 2012.

With these phases, the G7/8 created, retreated and returned with the new G20 to lead climate-change

The People's Climate March in Brisbane, Australia, last year. In December 2015, governments will seek a legally binding climate change agreement with concrete pledges

governance by inventing and, later, reinvigorating an effective, inclusive and equal climate-control regime that placed the environment at the top of the agenda. That regime was different from the failing, divided, inequitable UN regime that consistently placed issues of global development first on its list of international priorities.

The Paris negotiations

This December, the UNFCCC will convene in Paris, France, for its 21st Conference of the Parties (COP 21), with governments seeking a legally binding agreement with concrete pledges and essential finance contributions. Describing climate change as "this century's major challenge", French President François Hollande has embraced the role and responsibility France has in chairing this landmark meeting.

Prior to COP 21, the G7 summit at Schloss Elmau will once again place climate-change governance on the G7's political agenda, with host German Chancellor Angela Merkel recently declaring that, "along with our G7 partners, we aim to prepare initiatives that demonstrate that the G7 states are willing to take on a leading role in fostering low-carbon development" through increased mitigation efforts and a sustainable energy supply. G7 leaders at Schloss Elmau are thus expected to once again be pioneers and set the stage for what will undoubtedly be highly contentious and extremely complex UN negotiations in Paris later this year. ■

Masdar: investing in future energy solutions and clean technology



Dr Ahmad Belhoul
Chief Executive Office, Masdar

Can you please tell us a little about Masdar and its history?

Masdar is Abu Dhabi's renewable energy company. The Abu Dhabi government launched Masdar in 2006 as a strategic investment to diversify its economy, expand its energy mix and maintain its leadership in the energy sector.

When we launched Masdar to develop and commercialise renewable energy and clean technology, it was a bold move. At that time, no renewable sector existed in the Middle East, so we built it based on a holistic model, from the ground up.

Today, the Masdar model comprises a whole ecosystem that integrates renewable energy generation and technology, research and development, investments in technology companies and the development of a sustainable city.

At Masdar City, we are building the world's most sustainable city – a commercially viable living laboratory for integrating renewable energy, sustainable design and technology.

What are some of the projects in Masdar's portfolio?

As an early mover in the renewable sector, Masdar's international experience has positioned the company well for the surging market we are now witnessing. Today, Masdar has nearly 1.5 GW of renewable energy projects in operation or under development.

Masdar's renewable energy portfolio spans some of the most pioneering utility-scale renewable energy projects, including the Shams 1 concentrated solar power plant in the UAE, which, when it was first operated, was the largest of its kind, and the 630MW London Array offshore wind farm, also one of the biggest.

We are also delivering renewable energy and clean-technology solutions to remote communities around the world. In North Africa, Masdar delivered a 15MW solar photovoltaic (PV) plant in Mauritania, which delivers 10 per cent of the country's energy capacity. In March, we announced a partnership to deliver solar home systems to more than 900 villages in Morocco, which are under development.

At Masdar City, we are developing a blueprint for sustainable urban development and are moving forward with new projects. In less than

▀▀ We are building the world's most sustainable city – a commercially viable living laboratory for integrating renewable energy, sustainable design and technology ▀▀

two years, the Masdar Institute for Science and Technology campus has doubled in size, the LEED Platinum Siemens Building has opened, and the International Renewable Energy Agency headquarters has been completed.

Are lower oil prices affecting the outlook for renewables in the Middle East?

The energy economy has evolved beyond a point where low oil prices would jeopardise renewable energy deployment, even in the Middle East, which is our primary focus.

Unlike oil and gas prices, which rise and fall in unpredictable cycles, renewable energy costs are predictable and provide a hedge against this volatility. In addition, the rapidly falling costs of

renewables mean they are competitive with other sources, driving demand for new projects.

Masdar has been a pioneer of renewable energy in the Middle East and North Africa region. Today, we see strong growth in the region and are leading the way with a number of projects under development, such as Tafila, the first wind farm (117MW) in Jordan, and in Oman, where we are building the largest wind farm (50MW) in the Gulf region.

What are you seeing today regarding the future of renewable energy?

Renewable energy has transitioned from expensive alternative to a commercially viable, competitive technology of choice. The cost of electricity from solar power has declined by 75 per cent over the past seven years, making it competitive with sources such as gas.

Despite low prices for oil and gas, renewable energy growth remains strong

worldwide: this year, solar PV capacity alone is expected to grow by 25 per cent. But, the declining costs are not all about solar PV and onshore wind projects; we are also seeing the costs of building concentrated solar plants and offshore wind farms declining.

In the end, we see great potential globally as renewables are the fastest-growing energy sector and are expected to increase by half by 2020, according to the International Energy Agency.

www.masdar.ae

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Energy security in the 21st century

— Concerns about energy supplies could be relegated to history as a result of stable and sustainable low-carbon energy sources, but only if governments create the necessary policy framework, writes **Maria van der Hoeven**, Executive Director, International Energy Agency



Maria van der Hoeven took over as Executive Director of the International Energy Agency in September 2011. She has served on the advisory board to the United Nations Sustainable Energy for All initiative, and participated actively with other major international organisations, including the Clean Energy Ministerial, the Association of Southeast Asian Nations, the European Union and the G20. She previously served in the Government of the Netherlands as Minister of Economic Affairs from 2007-10 and Minister of Education, Culture and Science from 2002-07.

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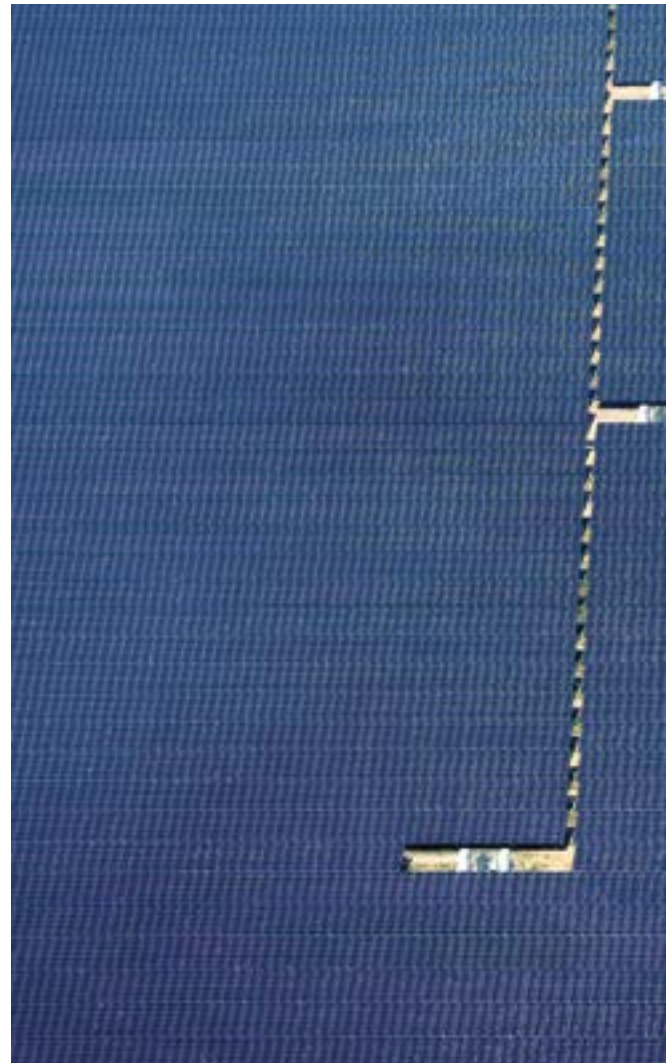
www.iea.org

Energy security is a relatively modern concept. While states have long competed for resources, the history of energy prior to the 20th century was largely one of ready availability and abundance. Fuel in the form first of wood and then of coal was seemingly inexhaustible. Energy security as a practical concern only really arose in response to the world wars, as vast armies and navies, now mechanised and reliant on oil, faced vulnerabilities surrounding the production, refining and transportation of fuel.

Just as the end of the Second World War sparked the economic growth that gave rise to wealth and high standards of living in countries across the G7 and beyond, so did it make oil the fuel of that growth. Countries that had oil were poised to reap great benefits, and countries that needed oil were compelled to focus on ensuring that their supply was secure from disruptions and resilient to them. The International Energy Agency (IEA) was formed in response to such a disruption, when the oil crisis of 1973-74 threatened the energy security of its newly assembled members.

Meeting future demand

More than 40 years later, energy security remains a primary concern of countries around the globe, not only IEA states, including G7 members, but also newly emerging economies such as China and India. Although energy security as a concept has expanded beyond its initial narrow scope, oil remains critically important and the number one energy source on a global level. This is especially true in today's global economy, where trade, and therefore transportation, is vital to economic stability and growth.



At the same time, the threats to supply remain. While the market is currently well supplied, as indicated by last year's drop in oil prices to a five-year low, political insecurity could potentially disrupt projected supply. For example, according to IEA's *Medium Term Oil Market Report*, nearly 90 per cent of capacity growth in the Organization of the Petroleum Exporting Countries (OPEC) over the coming five years will come from Iraq, a country that faces numerous political and security challenges. While Iraq's production has been impressive given the conditions the country is operating under, significant risk remains. Beyond OPEC, according to IEA's *World Energy Outlook*, there are only a few parts of the world that show significant growth in supply: the United States, Canada and Brazil. Ensuring adequate investment, especially given the current market conditions, will be crucial for meeting demand in the coming decades.

A prudent strategy for enhancing energy security is diversification. The G7 members are all significant consumers of natural gas, mainly for power, but increasingly for transport. Yet natural gas comes with its own challenges, as the world has seen all too clearly in the past few years. Europe's complex relationship with Russia and the crisis in Ukraine have reignited the



RALF HIRSCHBERGER/DPA/PRESS ASSOCIATION IMAGES

discussion over regional gas security. Welcome steps are being taken by the European Union towards a free and competitive internal gas market. On the other side of the world in Japan, the disastrous 2011 Tohoku earthquake and tsunami forced the country to re-examine its reliance on nuclear power, resulting in a dramatic rise in gas imports.

Exploring alternatives

In both of these cases, one response to crisis has been to develop plans to increase energy security domestically, de-emphasising reliance on imported fuel. One of the most obvious means of accomplishing this is simply to use less energy. An increase in energy efficiency not only strengthens energy security by reducing demand, but also carries with it multiple positive benefits for economies and societies in general, including greater industrial productivity, improvements in health and well-being, and additional disposable income. Efficiency is the most direct path to increasing energy security while promoting economic growth and social well-being.

Another means of increasing energy security domestically is using alternative sources, including renewables, nuclear and other low-carbon energy sources. Simply speaking, from addressing climate

These solar panels in Gross Dölln, Germany, will provide 36,000 houses with electricity. Using renewable forms of energy helps to reduce reliance on imported fuel

concerns to geopolitical risk, in addition to improved efficiency, the best way to build a secure and reliable future is through a shift to a sustainable low-carbon energy system.

For the time being, oil does not compete with most renewables, as it is used mainly for transportation. Gas, on the other hand, is largely used for power, and here renewables can compete. In the absence of market distortions caused by inefficient fossil fuel consumption subsidies, combined with the right supportive policies, renewables are already able to compete. For example, the long-term contract awarded for solar photovoltaics in Dubai recently was just below \$60 per megawatt hour. This is on a par with gas prices in many parts of the world.

The best way to build a secure and reliable future is through a shift to a sustainable low-carbon energy system

Opportunity for discussion

Yet the most important factor for low-carbon energy is not price, but rather the stability and predictability of policy and market frameworks needed to encourage the generation of necessary capital. Countries of the world today deal with economic volatility in the face of oil price fluctuations, or supply uncertainty due to political instability. But a future is possible where stable and sustainable low-carbon energy, including nuclear where appropriate, makes supply security concerns a thing of the past.

Indeed, a stable and sustainable energy system is, by definition, secure. As the countries of the world gather in Paris for the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change later this year, there is an opportunity to have a discussion not limited only to emissions reductions, but rather expanded to cover the wider implications of climate on the energy system, from supply disruptions due to extreme weather events, to the innovation unleashed from smart, targeted investment in sustainable and efficient technologies. All of these discussions will have implications for energy security.

Just as concerns over climate are here to stay for the foreseeable future, concerns over energy security will remain. All countries, whether they be G7 members or newly emerging economies, must constantly examine, question and act to smartly increase the security of their energy supply, whether by reducing fossil fuel subsidies, increasing fuel efficiency standards or encouraging investment into low-carbon forms of energy. In the short term, the results may be small. In the long term, the strength and health of everyone's economies and societies will be its own reward. ■

Security of energy supplies inextricably linked with demand

— With significant investment required to sustain energy supplies, a clear projection of demand is fundamental if producers are to meet future consumer needs, explains Abdalla Salem El-Badri, Secretary General, OPEC



Abdalla Salem El-Badri has been Secretary General of the Organization of the Petroleum Exporting Countries (OPEC) since 2007. In 1977, he joined the board of Libya's Umm Al-Jawaby Oil Company, and in 1980 was appointed Chair of the Waha Oil Company. He became Chair of the Libyan National Oil Company (NOC) in 1983 and Libya's Minister of Petroleum in 1990. He subsequently served as Libya's Minister of Energy, Oil and Electricity, and Deputy Prime Minister, before returning to NOC until 2006.

www.opec.org

The world was a very different place when representatives of a small group of developing countries sat down together in Baghdad, Iraq, to form the Organization of the Petroleum Exporting Countries (OPEC) back in 1960. The world had not yet witnessed the first human spaceflight, air travel was still in its infancy, the Beatles had only just formed, and the use of personal computers and mobile phones was still decades away.

The intervening years have seen much change. This is certainly true for the character and dynamics of the energy sector, with new technologies pushing the frontiers of the industry, more choice and availability of energies, an expansion in global travel and trade, the increased financialisation of energy markets, and an evermore interdependent energy world.

However, one basic issue has remained central to the industry, and to producers and consumers alike: the importance of energy security.

Discussing the topic of energy security might elicit a variety of responses, but in general several key characteristics remain constant. Although this is not an exhaustive list, the basic tenets of energy security have been, and remain, as follows:

- It is reciprocal. Security of demand is as important to producers as security of supply is to consumers.
- It should cover all foreseeable time horizons. Security tomorrow is as important as security today.
- It should be universal, applying to rich and poor countries alike, with the focus on the three pillars of sustainable development and, in particular, the eradication of energy poverty and the provision of modern energy services.



- It should benefit from enhanced dialogue and cooperation among stakeholders.

OPEC recognises the importance of security of supply to consumers, and this can be viewed in its actions over the years. The organisation has kept the market well supplied, and continues to do so. It holds sufficient spare capacity that can be used to bring balance to the market if there is a supply shortfall due to issues such as geopolitical or weather-related events. Alongside oil stocks, spare capacity gives vital flexibility to the market during unforeseen events.

Maintaining a secure future

However, it is also essential to underscore the issue of security of demand for oil producers. It is vital to have the clearest possible picture in relation to future oil demand, particularly in an industry subject to long lead times and payback periods.

At OPEC, we appreciate the importance of energy-efficiency measures and every country has the right to initiate its own environmental and energy policies. Nevertheless, it is crucial to appreciate that some policies offer uncertainties over their impact on future oil-consumption levels and overall energy demand.



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To sum this up simply, producers do not want to waste precious financial resources on infrastructure that might not be needed. At the same time, however, if timely and adequate investments are not made, future consumer needs might not be met.

The importance of this is further underscored when it comes to assessing oil-related investments. Indeed, OPEC's 2014 *World Oil Outlook* estimates that oil-related investment requirements will approach \$10 trillion (in 2013 dollars) from 2014-40.

Oil rigs in Lagos, Nigeria. As well as meeting market demand for oil, OPEC members hold spare capacity in case of energy shortfalls

The world may have changed a great deal since OPEC was formed in 1960, but the goal to achieve energy security remains

It all underlines the fact that security of supply and security of demand cannot be decoupled, and that a comprehensive look at energy security is needed over the short-, medium- and long-term time frames.

OPEC recognises the importance of understanding that energy security means different things to different

people, particularly the 1.3 billion people without access to electricity and the 2.7 billion people relying on biomass for their basic needs. It is extremely positive that the proposed seventh goal of the United Nations' Sustainable Development Goals (SDGs) will call for countries to "ensure access to affordable, reliable, sustainable and modern energy for all".

The SDGs are a high priority for OPEC members. Sustainable development is the main aim of the financial and technical assistance they provide to other developing countries, whether this is directly through their own aid institutions or instead through participation in the OPEC Fund for International Development (OFID). OFID also supports the UN's Sustainable Energy for All (SE4All) initiative, as well as many projects that are aimed at alleviating energy poverty, addressing it holistically alongside food and water security.

There are several other uncertainties and challenges that feed into the issue of future energy security. These include the ongoing UN climate change negotiations and the importance of reaching an agreement that is comprehensive, balanced, fair and equitable for all, and also the role and impact of financial market speculation on the oil market, human resource requirements and potential staffing shortages, as well as the need to continually improve data transparency.

To help meet these and other challenges, OPEC believes it is important to constantly explore ways to develop and expand its dialogue and cooperation with other stakeholders.

International cooperation

A prime example of this is OPEC's participation in the International Energy Forum (IEF), which plays an important role in strengthening energy cooperation and dialogue between producers and consumers. OPEC's involvement includes being a partner organisation in the Joint Organisations Data Initiative (JODI), which focuses on enhancing the quality, timeliness, transparency, and flows of oil and gas market data.

In addition, OPEC regularly participates in other dialogue processes, such as those with the IEF and the International Energy Agency. OPEC has been closely involved in several of the G20's energy-related work streams, and plays an active role in the European Union-OPEC Energy Dialogue and the Russia-OPEC Energy Dialogue.

Such dialogue and cooperation are essential elements in the ongoing efforts to maintain stability and confidence in the industry and help everyone meet their energy security needs. The world may have changed a great deal since OPEC was formed back in 1960, but the goal of everyone to achieve energy security remains, whether an individual, business, country or region.

OPEC members continue to play a positive role in this regard, as they have done since the organisation was formed back in 1960: through holding regular and stable supplies of oil, maintaining an adequate level of spare capacity, supporting efforts to alleviate energy poverty, and engaging and cooperating with other industry stakeholders. ■

Financing the transition to a green global economy

— Investment in clean energy has risen substantially over recent years, but we are still not safe from the 2°C threshold for climate change. The world needs greater access to climate finance, explains Christiana Figueres, Executive Secretary, United Nations Framework Convention on Climate Change



Christiana Figueres was appointed Executive Secretary of the United Nations Framework Convention on Climate Change in 2010 and reappointed in 2013. Initially a member of the Costa Rican negotiating team, she was also on the Executive Board of the Clean Development Mechanism, and Vice-President of the Bureau of the Conference of the Parties in 2008-09. In 1995, she founded the Centre for Sustainable Development of the Americas. Figueres began her life of public service in 1982, and held several positions in the Government of Costa Rica.

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Financing a transition to a low-carbon world – one that can keep a global temperature rise under 2°C this century – requires the determined and timely deployment of smart public policies able to unlock ever greener investment flows.

The G7 summit hosted by Germany this year has two significant roles to play as countries prepare for the United Nations climate conference in Paris, France, and a new universal agreement.

The first is helping to orchestrate the build-up to the \$100 billion a year that the international community has agreed to provide developing countries as support towards their climate-friendly development ambitions.

The second is to contribute to the global framework that will green capital at levels high enough to transform the economy, estimated by many at an annual \$1 trillion over the next 10 to 15 years.

Fortunately, this does not require starting from ground zero: the Standing Committee on Finance, linked to the United Nations Framework Convention on Climate Change (UNFCCC), published its first assessment during the last UN climate change conference in Lima, Peru. The assessment puts the lower range of global total climate finance flows at

\$340 billion a year for the period 2011-12, with the upper end at \$650 billion, and possibly higher.

Of that, perhaps \$35 billion to \$50 billion was flowing north to south. Neither the support

to developing countries nor the total climate flows are high enough yet to achieve the necessary transformation, but the trends are going in the right direction.

In recent years, the level of funding flowing into a greener global economy has been rising: this is nowhere more evident than in the renewable energy sector. Bloomberg New Energy Finance, in collaboration with the UN Environment Programme and the Frankfurt School of Finance and Management, showed that new investment in clean energy jumped by 17 per cent in 2014 to \$270 billion.

The increase happened during a time of low oil prices, underlining that renewable energy has come of age as a result of lower costs. Perhaps investors are equally convinced that coal, oil, gas and other high-carbon investments are now becoming more speculative than solar, wind and other renewables.

Green investments

The geographical spread is also cause for celebration. In 2014, renewables rapidly expanded into new markets in developing countries, where investments jumped by 36 per cent to \$131.3 billion. China with \$83.3 billion, Brazil (\$7.6 billion), India (\$7.4 billion) and South Africa (\$5.5 billion) were all in the top 10 investing countries. More than \$1 billion each was invested in Indonesia, Chile, Mexico, Kenya and Turkey.

Investments are also increasing in other areas of green infrastructure, ranging from energy efficiency and sustainable transport to information and communications technologies needed, for example, for smart grids.

Since 2008, around \$7 billion in Climate Investment Funds, coordinated by the multilateral development banks and other partners, has been supporting developing and middle-income countries in areas ranging from clean energy to forestry.

Under the UNFCCC, an array of funds and mechanisms such as the Clean Development Mechanism and the Adaptation Fund have been established to kick-start the transformation. Finance is also flowing from the Global Environment Facility and via bilateral aid, including support between developing countries engaged in south-south cooperation.

In 2015, the Green Climate Fund was operationalised and capitalised initially to the tune of just over \$10 billion. The early investment of some of these funds can assist in de-risking private-sector investments while building confidence in the Paris agreement and its future pathways.

Other promising signs include new instruments variously called Green or Climate Bonds – the market here has grown from around \$800 million in 2007 to more than \$35 billion in 2014. The market is estimated to hit \$100 billion in 2015.

Under the Lima-Paris Action Agenda, which grew out of the UN Secretary-General's Climate Summit in September 2014, many new and inspiring finance initiatives have been launched by and with the private sector, including:



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- a coalition of institutional investors committed to decarbonising \$100 billion by December 2015 and to measuring and disclosing the carbon footprint of at least \$500 billion in investments; and
- the insurance industry committed to doubling its green investments to \$84 billion by the end of 2015, and announced its intention to increase its investment in climate-smart development to 10 times the current amount by 2020.

Meanwhile, an increasing number of cities are investing in a low-carbon future. Earlier this year, 17 mayors including those from Berlin, London, New York and Yokohama launched the Carbon Neutral Cities Alliance and pledged to reduce emissions by at least 80 per cent by 2050.

So there are reasons to be optimistic – there are many funds, initiatives, mechanisms and policy switches happening and momentum is building.

Towards climate neutrality

But there are uncertainties and there are gaps, including whether those most in need, such as the least-developed countries, are being supported.

There is also unevenness in regions, with South Asia, sub-Saharan Africa and the Middle East and North Africa still far behind in terms of domestic and international investments, according to the Climate Policy Initiative.

The toughest challenge to address is the fact that, to date, financial flows for increasing adaptation and boosting resilience to climate impacts are minute in comparison with the need. *The New Climate Economy Report* points out that some \$90 trillion will be invested in infrastructure alone over the next 15 years – a huge opportunity, but also a potential risk. Unless infrastructure is both resilient and green, the world

may lock itself into a highly vulnerable, high-carbon pathway that will seriously undermine the collective ability to avoid dangerous climate change and meet the post-2015 development agenda and the Sustainable Development Goals.

The Paris climate agreement of December 2015 needs to be more than a short-term business plan. It needs to put in place the policies, pathways and structures required to make sure that global greenhouse gas emissions peak in around 10 years, that trigger a deep decarbonisation of the worldwide economy, and that achieve climate neutrality in the second half of this century.

This is the supercharger to a successful future for seven to nine billion people and the trajectory needed to stay under a 2°C rise in line with the scientific consensus.

Sustainable transport is among the areas of green infrastructure to have seen a rise in investment

New investment in clean energy jumped by 17 per cent in 2014 to \$270 billion

Finance or, more importantly, how public policy domestically and internationally liberates transformative investment into a low- – indeed, a zero- – carbon future for many sectors will be key.

Equally important, at least in the short term, will be the subsidies and support that governments give to the fossil fuels market, which are estimated at well over \$500 billion a year.

The G7 and the G20 summits have the potential to send clear and unequivocal signals to global markets on the kind of investment future they wish to see.

In doing so, these political forums can assist in delivering a milestone climate agreement at Paris that will produce the paradigm shift required and make the world proud now and for the century to come. ■

The danger of feeling safe

— We must pay close attention to the shifting geopolitical landscape in East Asia as tensions rise and countries expand their military capacities, write **Benoit Hardy-Chartrand, Centre for International Governance Innovation, and David A Welch, Balsillie School of International Affairs**



Benoit Hardy-Chartrand joined the Centre for International Governance Innovation (CIGI) as a Research Associate for the Global Security and Politics Programme in April 2014. Previously, he was an Associate Researcher at the Raoul-Dandurand Chair of Strategic and Diplomatic Studies.

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As leaders of the G7 members gathered in Brussels last year, Vietnam released a video that appeared to show a Chinese ship chasing, ramming and sinking a Vietnamese fishing boat in disputed waters off the Paracel Islands where the state-owned China National Offshore Oil Corporation had deployed its state-of-the-art oil drilling platform, the Haiyang Shiyou 981. The video triggered widespread anti-Chinese riots in Vietnamese cities.

It was not the first time that Chinese ships had chased and rammed Vietnamese vessels in a high-stakes game of cat-and-mouse on the high seas. At the time, it looked as though the two countries might be on the verge of open conflict. Other headlines during the summit read: “G7 ‘deeply concerned’ at tensions in East, South China Seas”; “US: China military capability grows amid tensions”; “On Tiananmen anniversary, China’s military touts its strength”; and “China again dismisses Philippine court case in sea dispute”. Small wonder the impression at the time was that Asia-Pacific security was in a downward spiral.

Crisis fatigue?

Since then, there have been many hopeful developments. Hanoi and Beijing managed to avoid a major rupture. China quietly withdrew its provocative oil rig in July, a month ahead of schedule (and has not since repeated the provocation). On 10 November 2014, Chinese President Xi Jinping and Japanese Prime Minister Shinzo Abe finally met on the sidelines of the Asia-Pacific Economic Cooperation summit,

awkwardly but importantly signalling a mutual desire to re-engage after more than two full years of virtual cold war following Japan’s nationalisation of the disputed Senkaku/Diaoyu Islands in 2012. In March 2015, the two countries finally agreed to resume bilateral security talks after a four-year hiatus. And Xi Jinping, newly conscious of the importance of not alienating neighbours and driving them into the arms of the United States, began to stress the “peaceful resolution of differences” and proclaim his opposition to “the wilful use or threat of force”.

With a lull in overt tensions and the absence of grandstanding gestures, the East Asian geopolitical landscape seems to have entered a period of relative calm. All signs point to crisis fatigue. It is certainly good that several important channels of communication that had gone quiet in recent years are now open once again.

But, while the overall temperature in the region may have gone down, the underlying sources of tension remain. There has been no discernible progress towards resolving any of the tangible disputes that have served as flashpoints in recent years and could easily do so again. Misperceptions, misunderstandings and mistrust remain. Worrisome trends and patterns persist.

The single most dangerous flashpoint in the region is the Korean peninsula, for the simple reason that North Korea persists in its nuclear ambitions.

The general improvement in Asia-Pacific security has not been matched by equivalent improvement in management of conflicts and disputes

Denuclearising North Korea is a rare example of an interest shared by other major players in the region, and yet they have been utterly unable to coordinate a joint response of any kind. At some point, unless checked, North Korea will succeed in miniaturising nuclear weapons and mastering ballistic missile technology. When it does, it will be in a position to credibly threaten to destroy Tokyo, San Francisco or even Beijing, and the world can look forward to increasingly assertive North Korean demands. There is no happy ending to this particular story as it is currently being written. The US, China, Japan, South Korea and even Russia simply must find a way to present a united front and formulate a joint action plan.

Meanwhile, in the South China Sea, China has accelerated its reclamation work on disputed reefs, with an eye towards building airstrips and other military infrastructure that will enhance its power projection capability in the region. Despite speaking more softly, China is preparing to carry a bigger stick. At the same time, it is stonewalling the efforts of the Association of Southeast Asian Nations (ASEAN) to



KCNA/KCNA/REUTERS

move forward with a code of conduct in the South China Sea. China is actively and passively resisting the Philippines' efforts to clarify the status of disputed features under the United Nations Convention on the Law of the Sea. In short, there is no observable deviation in China's activity in the South China Sea, with potentially ominous implications for the rule of law and the peaceful adjudication of disputes.

Signs of caution

In the East China Sea, the story is mixed. The region has managed to take China's November 2013 declaration of an air defence identification zone (ADIZ) in its stride, notwithstanding its potentially dangerous overlaps with South Korea's and Japan's. At the time, China announced that its East China Sea ADIZ was merely the first of more to come; but, as of the time of writing, the second shoe has yet to drop, which is a hopeful sign of caution. Chinese maritime incursions into disputed waters in the East China Sea have also declined significantly since 2013, with fewer encounters. Perhaps most importantly,

Military personnel march at an event marking the 61st anniversary of the end of the Korean War. Ongoing tension with North Korea is a major threat to stability in the region

China, Japan and the US have demonstrated a genuine desire to reduce the danger of these encounters by improving ship-to-ship communications and implementing various provisions of the International Regulations for Preventing Collisions. In addition, the US and China have agreed to reduce the incidence and dangers of Chinese aerial interceptions of US maritime reconnaissance missions. However, at the same time China has dramatically stepped up aerial activity in the vicinity of the Senkaku/Diaoyu Islands, prompting Japan to scramble interceptors at a rate that now exceeds Cold War highs.

The general improvement in Asia-Pacific security atmospherics, in short, has not been matched by an equivalent improvement in the management of specific conflicts and disputes. This is cause for concern because, in a context of reduced tension, it is easy to lower one's guard against the dangers of unintended or accidental conflict or escalation. Overconfidence of this kind can actually increase these dangers; when one is attentive to them, one takes particular pains to avoid them. ■

Accountability: a powerful deterrent

— The rule of international humanitarian law must be strengthened, writes **Valerie Amos, Undersecretary General and Emergency Relief Coordinator, United Nations Office for the Coordination of Humanitarian Affairs**



Valerie Amos is the Undersecretary General for Humanitarian Affairs and Emergency Relief Coordinator at the United Nations Office for the Coordination of Humanitarian Affairs. She was most recently the United Kingdom's High Commissioner to Australia. Amos is a former Secretary of State for International Development in the UK Government and was also Leader of the House of Lords. Born in Guyana, she was awarded the Order of the Volta by the Government of Ghana and has also been honoured by the Government of Benin.

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In armed conflicts all around the world, the fundamental rules of international humanitarian law are being undermined at every turn. Parties to conflict deliberately or recklessly kill hundreds of civilians every day, often with impunity. Explosive weapons are regularly used in densely populated areas, in the full knowledge that they will kill, injure or displace large numbers of civilians, and destroy homes and vital infrastructure such as water and electricity systems.

Direct attacks on schools and hospitals were once taboo, but have become an accepted part of modern warfare. Sexual and gender-based violence is widespread, with women and children bearing the brunt of brutal rape and mutilation. When fighting broke out in South Sudan in December 2013, women were among the first to be targeted. All sides in Syria repeatedly obstruct or deny humanitarian access to people in need. Attacks against humanitarian and healthcare workers and facilities have reached record levels. In Afghanistan in 2013, the most recent year for which figures are available, 32 attacks targeted healthcare facilities and personnel.

Respect for the United Nations and the Red Cross, which were once almost sacrosanct, has virtually disappeared. Far from being 'collateral damage', the deliberate killing and harming of civilians is often the clear aim of those engaged in conflict. The world has seen the use of sieges with the deliberate denial of food, water and healthcare. These are the tactics of modern asymmetric warfare.

All of this has arisen despite a significant and important framework of international humanitarian law. Challenges to this framework and to the protection of civilians are not new. There was outrage over Rwanda and Srebrenica 20 years ago, but today there is silence



and inertia. Each time, we say 'never again' and 'not in our name'. And yet we have watched a tragedy unfold in Syria with horrendous consequences for ordinary people caught in the midst of a savagery they are unable to withstand. The efforts to find a political solution to the horror of conflict in South Sudan have so far yielded nothing. The people of Central African Republic are caught between warring, armed, non-state groups. Despite the framework of international humanitarian law, the international system seems paralysed. The result: millions of people killed, injured or forcibly displaced.

Justice for victims

It is in the clear interests of all governments to uphold and strengthen the rule of international humanitarian law. There are concrete steps that could and should be taken to increase the pressure, not only on parties to conflict, but also on national governments, to protect civilians. We each need to speak up and act early, and hold all parties to conflict accountable for their crimes.



OCHA/GEMMA CORTES

World leaders must speak out against violations of international humanitarian law and push strongly for greater accountability. UN peacekeeping and political missions and country teams must have a stronger remit to monitor and report human rights abuses and violations of international humanitarian law, including recording casualties where this is feasible. This can be a powerful deterrent. The information gathered can be used to engage with parties to conflict in order to improve the protection of civilians. When, for example, the UN Mission in Afghanistan started reporting on casualties, it pushed some of the parties to the conflict to review the way in which they conducted hostilities. The number of civilian casualties fell significantly.

UN member states must also hold each other responsible for the international laws and conventions they have signed and should call on each other to uphold international law. And the individuals, armed groups and governments that block or undermine action mandated by the Security Council, such as embargoes



OCHA/GEMMA CORTES

and sanctions, must face the consequences. Those who do not actively enforce the law contribute to its erosion.

Accountability is a deterrent to perpetrators as well as providing justice for victims. States have the primary responsibility to prosecute people who violate international humanitarian law. Strengthening and supporting national accountability is therefore essential. A greater commitment is needed from individual states and from the Security Council to use every possible means to improve compliance and promote accountability at the international level. This includes commissions of inquiry, special courts and international tribunals.

A focused approach

In addition to these measures, there could be significant progress on specific issues if everyone adopted a single-minded focus and exerted pressure on the parties to achieve clearly defined goals. Improving access to people in need, ensuring the safety and security of healthcare workers and facilities, and discouraging the use of

Parties to conflict, for example in Central African Republic (left and above), must be held accountable when international humanitarian law is violated, and civilians are killed, injured or displaced

World leaders must speak out against violations of international humanitarian law and push for greater accountability

explosive weapons in populated areas are all key issues that could be addressed in this way. This single-issue approach was successfully applied in the initiative to remove chemical weapons in Syria.

Improving compliance with international humanitarian law and ensuring accountability for those who violate it require courage and leadership. The cost of doing nothing is incalculable, for those whose lives are at risk, and for the credibility of the international system. ■

Delivering on the Brussels Summit commitments

— The G7 must continue its commitment to compliance in order to maintain legitimacy, particularly on issues such as health, development and climate change, writes **Caroline Bracht, Senior Researcher, G7 Research Group**



Caroline Bracht is a Senior Researcher for the G7 Research Group, the G20 Research Group, the BRICS Research Group and the Global Health Diplomacy Program, based at the Munk School of Global Affairs at the University of Toronto, Canada. She has researched and written on G7/8, G20 and BRICS compliance, specifically on development, climate change and energy commitments. Bracht leads the groups' work on education, social policy, health and compliance.

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Of all the global governance forums, specifically plurilateral summits of leaders, which ones matter the most? Which have the most impact and are the most legitimate?

Legitimacy can be secured in several ways, including through an inclusive membership, a timely and responsive meeting agenda, and a high rate of implementation. While the G7 consists of democratic, developed countries, the group has been criticised for its lack of representation, detracting from its legitimacy. Nonetheless, although core issues remain on the agenda from one summit to the next, urgent international crises are included, often at the discretion of the host. Moreover, legitimacy can be improved through action. The G7 and G8 summits have produced mutually agreed declarations that include politically binding statements of intent, support and commitments for future action. Understanding and improving how much and how well the G7 implements these collectively agreed commitments is central to its legitimacy as an international decision-making body in pursuit of its core values of open democracy, individual liberty and social advance.

Rates of compliance

To pursue such an understanding, the G7 Research Group has produced annual compliance reports since 1996. Based at the University of Toronto, Canada, it frequently collaborates on these reports with other universities and organisations, most notably

the National Research University Higher School of Economics in Moscow, Russia. They measure the extent to which G7/8 members have implemented the priority commitments made at each summit across a range of issue areas. The reports rely on publicly available information, and are distributed in advance to a broad stakeholder community for feedback to ensure comprehensive and accurate data collection and assessment.

Through these annual exercises and special studies, the G7 Research Group and its global network of partners have monitored a total of 425 commitments. Overall, across all issue areas and all countries between 1985 and 2013, implementation averaged 75 per cent. Within this dataset, several trends arise. In the beginning, from 1985-96, compliance was quite low (67 per cent), based on data from only the seven original members, excluding Russia and the European Union. From 1997-2013, now including data on all eight countries and the European Union, it increased by 10 per cent to 77 per cent. In the earlier period, two peaks in compliance interrupted the slow start, one in 1992 and the other in 1994. These two years each had an overall average of 86 per cent, the highest implementation scores, with the exception of 2000 at 87 per cent. Since 2003, the compliance average has stayed at a moderate-to-high level of between 71 per cent and 83 per cent, with almost no variation since 2011.

Areas of high implementation

The issues with the highest compliance are macroeconomic policy (85 per cent), energy and transparency (84 per cent each), democracy and non-proliferation (both at 83 per cent), regional security (82 per cent) and terrorism (80 per cent). Many of the areas with high implementation align with the original G7 mandate to promote democracy, individual liberty and social advance. However, the issue of energy – the fourth area of high implementation – stands out. Why do G7 leaders implement their energy commitments? One of the events that led to the creation of the G7 was the OPEC-imposed Arab oil embargo in 1973, which resulted in steep increases in oil prices. Another such oil shock came in 1979. This line of thinking suggests that G7 leaders implement commitments in the face of successive shocks, when they iteratively stay with the resulting problem until it is solved.

Commitments with implementation at a moderate level in the 70 per cent range are mostly on development, food and agriculture, social policy, health, climate change and the environment more generally. The lowest compliance scores come on commitments on financial crises and conflict prevention (69 per cent), trade (65 per cent), labour and employment (63 per cent), and reform of the United Nations (58 per cent).

The country with the highest implementation is the United Kingdom (83 per cent), followed by Canada and the EU (82 per cent), the United States (80 per cent) and Germany (78 per cent). Four countries and the EU had averages above the overall 75 per cent. Of the four



EUROPEAN UNION, 2015

The leaders at the Brussels Summit made 148 commitments. Researchers are monitoring the implementation of 18 of them

below-average countries, Italy (63 per cent) and Russia (62 per cent) had the lowest scores.

The suspension of Russia from the G8 in 2014 prompted the rest of the members to change the summit location from Sochi, Russia, to Brussels, Belgium. It also caused the priority agenda that had been established by the G8's Russian host to be redirected and redefined by the G7. For the compliance period between the 2014 Brussels Summit and the 2015 summit at Schloss Elmau, the G7 Research Group is monitoring 18 priority

regional security commitments, particularly to support the sovereignty of Ukraine, and the stability of Libya and Afghanistan. As a result of the shift in location and changes to the priority agenda, the six commitments on Ukraine will be key, although they might not have been formally discussed in the same way, or at all, if Russia had been at the table, as was demonstrated by the G20 summit in Brisbane in November 2014.

The hosting effect

The effects of Russia's suspension from the G8 on the implementation of commitments and on the group's legitimacy remain an open question. Since 2011, the annual overall average of compliance has remained at 76 per cent. It could be that Russia's absence increases the overall compliance average, as it was the lowest-performing member. However, hosting a summit can lead to increased performance – often referred to as 'the hosting effect', where the host becomes invested in realising the full implementation of the commitments made at its summit. Russia's compliance score might have gone up considerably if it had hosted the 2014 summit.

It remains to be seen whether legitimacy in the international community is enhanced or decreased by a smaller but more like-minded membership at the summit table, and whether the legitimacy of the G7 depends on its ability to deliver on its commitments or on its membership. ■

Many of the areas with the highest implementation align with the original G7 mandate to promote democracy, individual liberty and social advance

commitments contained in the Brussels communiqué. The final report will address many of the traditional issue areas such as trade liberalisation, including the swift implementation of the decisions made at the World Trade Organization's ministerial meeting at Bali in 2013; climate change and energy commitments to build more low-carbon energy systems and economies; and

Bringing accountability back to sport



Shaun McCarthy Ph.D.
Executive Director, ICSS Enterprise



Jane Holl Lute
Member of the Advisory Board, ICSS

Sport is a global phenomenon, wielding considerable commercial and political clout. It fuels the economy, helps develop resilience, transcends boundaries of place, culture, religion and nationality. Sport connects communities worldwide and appeals to the highest aspirations and dreams of humanity; it engages populations at all levels, trains and educates youth and instils the values of honesty, meritocracy and fairness in young adults. In these and many other ways, sport empowers communities. The fundamental values associated with sport are vital to every society that seeks to preserve them and pass them on to future generations.

Hardly a person exists on the planet whose life has not been touched by sport. Children around the world are exposed to sport at an early age and the vast majority of us continue to engage with some athletic activity as a competitor, supporter, spectator or casual enthusiast throughout our lifetime. A few gifted athletes rise to the very top of their sport as world champions or Olympic medallists. In addition to offering the opportunity for individuals to aspire to and reach the pinnacle of human endeavour, sport also holds moral, formative and significant economic value to society.

Professional sport is big business everywhere. The industry of sport has grown massively over the past

half century, financially and in every other way, fuelled in part by the rising number of professional teams, the maturation of sporting leagues and federations that have nurtured organised participation for young and old of every ability, and the widespread availability of radio, television and internet broadcast of sporting events and social media. Supported by smart, effective media strategies that promote the athlete, the game, the excitement, and the experience that impacts millions, sport is generating considerable economic benefits.

The power of sport in society

Indeed, the impact of sport, financial and otherwise, now extends well beyond the handshake between athlete, coach or team and spectators; many opportunities now exist for experts in a wide range of professions – business, finance, media, law, medicine, academia and politics – to ‘play the game’ at the very top. Therefore, in addition to major sports figures, team executives, league officials and even notable boosters are counted among the most influential leaders of many communities and societies. Moreover, while a scant 20 years ago, roughly 16 million people had access to the internet (the majority of whom were English-speaking North Americans), today, some three billion of the world’s people are online and this technology has fuelled the commercial value and growth of sport.

Yet, the extremely powerful financial and organisational forces behind sport are largely unaccountable to any authoritative body. Across the world, government regulation of sport is inconsistent, social norms, while important, do not have the power, in themselves, to curb excesses, and market mechanisms alone lack the power to exercise effective authority and accountability to protect the vulnerable, expose wrongdoing and maintain the ethics that underpin sport. While sporting federations and leagues serve as principal governing bodies for their sports, government regulation of sport practices is highly uneven across the globe, leaving major sporting enterprises, in some cases, wholly unaccountable or in a vacuum, where no clear individual or entity is responsible for taking action to prevent or investigate incidents where the integrity and value of sport is at risk.

As the power of sport has grown globally, so too has a dark side emerged: athlete use of performance-enhancing drugs, billions of dollars changing hands in unregulated gambling that call into question the integrity of the game, highly irregular multimillion-dollar business dealings and even human trafficking in young talent. Moreover, mega sporting events, such as the FIFA World Cup and the Olympics, have become attractive targets for wide-scale political protests against what are seen as massive misspent resources sorely needed elsewhere. And some malefactors bent on violence specifically seek out the most prominent events for their destructive terrorist strikes. Indeed, watchdog organisations are taking a closer look at sport from every angle, including at the industries of clothing and equipment manufacturing and building construction on which sport relies so heavily.

Changing expectations and the growing threat to sport require groundbreaking and innovative solutions by committed, courageous and influential leaders across industry, government and civil society. The challenge is that no political or even moral authority exists to hold sports federations, organisations, industry leaders and others accountable



for keeping illegal and other questionable practices out of sport. Few countries have clear, coherent and effective policies to protect the integrity of sport, athletes and spectators. Indeed, commercial sponsors of sport have few mechanisms to protect their reputations in the face of illegal or socially unacceptable behaviour by sponsored events, athletes or teams. With billions of dollars at stake across the global sports industry, there is no authoritative and collective voice representing commercial sponsors' integrity, reputation or interests.

The Council for Securing Sport

No one can tackle these issues alone. The International Centre for Sport Security (ICSS) is an international not-for-profit organisation with offices in London, Geneva, Lisbon and Doha. It is comprised of a wide range of experienced and dedicated experts in the fields of law enforcement, sport, government and economic development, as well as sport safety, security, integrity and the role of sport in socio-economic development. During the past four years, together with a number of strategic partners that include the Paris-Sorbonne University, UNESCO, United Nations Office on Drugs and Crime (UNODC), UNICEF, INTERPOL, FIFA and UEFA, and through an ongoing sponsored research programme with the Centre for International Development (CID) at the Harvard University Kennedy School of Government, the ICSS has worked hard to raise awareness and take action to secure sport.

Cognizant of the reality that the challenges and risks to the integrity and the future of sport are wide ranging and far reaching, the ICSS is in consultation with a number of influential and courageous leaders who all share a stake in sport, to form a global organisation to provide a service to the most senior policy and decision makers across the spectrum of sport. This envisaged organisation will have a strong ICSS DNA, include other founding partners and be known as the Council for Securing Sport (CSS).

The Council will engage a distinguished and dedicated membership drawn from leading practitioners and researchers from around the world to provide a platform for expert and authoritative policy recommendations and analysis that will focus on sport safety, security and integrity. The Council will carry out a range of programmatic activities to inform and energise its members to drive constructive and meaningful change. Its aim is to bring accountability back to sport and to promote clean, safe sport at all levels for future generations. It will identify, research and elevate key challenges, both present and future, to the attention of policy and decision makers so as to ensure the safety of athletes, the security of all participants, and preserve the integrity of the experience for all. Among its areas of activity, the Council will:

- challenge entrenched, self-serving actors who have undermined safe and clean sport;
- highlight best practice in sports ethics, transparency and good governance;

- promote economic and social development through sport;
- champion the rights of women, minorities and the physically and intellectually disabled to play; and
- promote a youth charter to safeguard children and vulnerable individuals who participate in sport.

The CSS is envisaged as a powerful and global force on a mission to change the institutional landscape of sport – to protect its integrity and secure its future.

With its headquarters in New York, but with representatives in London, Geneva, Paris, Lisbon, Doha and Singapore, the CSS will reach out to the global community to work with any dedicated and courageous leaders and organisations who are committed to join this significant and worthy mission to secure sport. The CSS initiative is being led by the Executive Director of the ICSS Enterprise, Dr Shaun McCarthy.

For further information and should you have a passion for sport and would like to learn more or become a member of the CSS, please direct your inquiries to shaun.mccarthy@icss-enterprise.org



ICSS

INTERNATIONAL CENTRE
FOR SPORT SECURITY

The global agenda from an interfaith perspective

— Faith communities around the world play an important role in engaging with local populations and addressing key global issues ranging from environmental protection to poverty reduction, says **Rev Dr Karen Hamilton, General Secretary, Canadian Council of Churches**



The Rev Dr Karen Hamilton is General Secretary of the Canadian Council of Churches (CCC) and past chair of Canadian Interfaith Conversation. Since 1944, the CCC has been bringing together 25 Christian denominations representing more than 85 per cent of the Christians in Canada, and also engaging with all faith traditions on issues of social justice, climate change, and peace and security. In 2010, Dr Hamilton hosted the international Interfaith Leaders Summit to challenge the G8 and G20. She is the recipient of a number of interfaith awards.

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“**A**nd God said, ‘Let the waters bring forth swarms of living creatures, and let birds fly above the earth across the dome of the sky.’ So God created the great sea monsters and every living creature that moves, of every kind, with which the waters swarm, and every winged bird of every kind. And God saw that is was good.” – Genesis 1: 20-1

Along with the global economy, foreign, security and development policy, four United Nations conferences to be held in the course of 2015, and the post-2015 Sustainable Development Goals (SDGs), key topics for the 2015 G7 summit at Schloss Elmau include protection of the marine environment, marine governance and resource efficiency – all topics that can be said to be of concern to God and the faith communities, as well as the ubiquitous ‘sea monsters’.

As articulated by the G7 itself, its members are a community of shared values with a special responsibility when it comes to shaping the future of the planet. As such, the G7 must work towards establishing peace and security, and ensuring that people can live a self-determined life. Freedom and human rights, democracy and the rule of law, peace and security, prosperity, and sustainable

development are core principles agreed to by the G7.

As articulated by the faith communities of the G7 and G20 members, whose senior leaders have been gathering, speaking and acting together in the

context of the G7/8 and G20 summits since 2005, the faith communities of the globe are also very much a community of shared values with a special responsibility for the proclamation and living of justice and peace for the good of all people and all creation. Since 2005, this responsibility has included a persistent and consistent emphasis on the need to fulfil the Millennium Development Goals (MDGs). It has included a calling for the kind of respect for creation that not only recognises the self-preserving need to combat climate change, but also values the inherent good in creation itself. It has included specific imperatives to substantially lower the extremely detrimental and life-destroying effects of nuclear weapons and the trafficking in small arms.

Global challenges

The meeting of the 2015 G7 summit occurs in a context of particular challenge for global security. The plight of displaced peoples and refugees is dire in many places. The outbreak of Ebola has destroyed lives and has required a concentration of resources in states that were already fragile. Complexity continues to engulf the most effective joint action to minimise the destructive reality of Islamic State.

Aware of their own failures, the world’s faith communities continue to speak and act for the common good of all. The roots of the failures to achieve a great reduction of extreme poverty, a robust protection of the globe’s climate and a minimising of the use of weapons are spiritual and moral.

The long-term history and commitment of faith traditions to justice and peace in local and concrete ways will make a difference to the world’s people

The MDGs are coming to a kind of completion in 2015, with success achieved on some specific goals and failure on others. The transition to the post-2015 SDGs marks an opportunity both to develop strategies, goals and objectives, and to deepen commitment to actions that will make a substantive difference in the lives of vulnerable peoples.

The SDGs’ focus on creating peaceful and inclusive societies may be even more difficult to measure than the goals and objectives of the MDGs. Regardless, and in the context of the many detailed goals and objectives of the SDGs, the imperatives continue, such as educating all girls at least to high-school level, committing 0.7 per cent of the gross national income of all developed countries to global poverty reduction, and containing global warming so that it does not exceed a 2°C increase



SAKCHALALIT/AP/PA IMAGES

from pre-industrial levels. The most significant failures of the MDGs occurred in states of conflict – a fact that has been considered in the construction of the SDGs, but nonetheless needs continued discussion and action. With the spread of conflict in multiple states, the impact of these failures on SDG strategies must be addressed.

The expanding crisis of refugees requires sustained attention by the G7. The lives of children, women and men are at stake in enormous numbers. Yet a compassionate response by G7 governments has been slow. In Canada, many faith communities have the structures and resources in place to sponsor and nurture refugees, but only a small number, to date, have been granted entry into the country.

Supporting efforts to reform

While the globe's faith communities continue to engage with both the G7 and the G20, they also note the extreme importance of all the member countries of the United Nations. The UN conferences in 2015 on reducing the risk of disasters, raising more resources for the purposes of development, approving the SDGs and attempting to produce a global treaty on climate change

A Christian Pakistani asylum seeker in Bangkok, Thailand, waiting to be resettled in a third country. Faith communities in G7 countries can help governments deal with the refugee crisis

all merit attention. Both concrete and structural change is needed on local, regional and international levels.

Global faith leaders affirm and encourage the dialogue with civil society implemented through the meeting with African countries at the summit at Schloss Elmau in June. The intention to support the African leaders in their efforts to reform and lay foundations for peace, security and sustainable development throughout the continent is important.

It is also important for the G7 to remember, however, that it is the representatives of the faith communities in Africa and in most countries around the world who are often the most engaged at local levels with the people of those countries. In 2015 and beyond, the long-term history and commitment of faith traditions to justice and peace in concrete and local ways will make a difference in the lives of the world's peoples. The joint actions on the part of the world's faith traditions on behalf of vulnerable peoples will make a difference. The continued dialogue with the G7, and the continued monitoring of its members' actions, on the part of faith communities with a clear vision of a truly just and sustainable planet for all will make a difference.

It is a time for inspired leadership and action. ■

The civil society contribution

— With wealth accumulating in the hands of the few, global inequality is reaching unsustainable levels, threatening to curb growth and reverse the fight against poverty. The needs of ordinary people should be at the fore of policymaking, says **Winnie Byanyima, Executive Director, Oxfam International**



Winnie Byanyima is Executive Director of Oxfam International. She spent 11 years in the Ugandan Parliament, and has served at the African Union Commission and as Director of Gender and Development at the United Nations Development Programme. She co-founded the 60-member Global Gender and Climate Alliance and chaired a UN task force on gender aspects of the Millennium Development Goals, and on climate change.

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At this gathering of G7 leaders at Schloss Elmau, there are proposals to end malnourishment for 500 million people by 2030, efforts to strengthen health systems, and a plan for a global response mechanism to fight infectious diseases. All of these are good, and, if implemented, would help to save hundreds and thousands of lives.

But it is still the case that too much of the G7's response to the world's most deep-seated problems remains piecemeal. The thinking behind it is trapped by an ideology that should have been buried with the financial crisis of 2008. The world has moved on. It is now time those at Schloss Elmau listen to their people and catch up.

A more human economy

Leaders must recast the purpose of these gatherings and stop putting markets and money before lives. They should be used to create a world where people are the bottom line, to shape an economy that is more human, more able to meet the needs of everyone, and does not just benefit a tiny minority at the top.

It is staggering that the inequality crisis the world faces is not at the very top of the G7 agenda. From Detroit to Dresden to Dakar, the scourge of accelerating capital accumulation that French economist Thomas Piketty compellingly exposes is being ignored. Oxfam has calculated that now 80 people own the same wealth as the bottom 3.5 billion people. Soon, 'the one per cent' will own more wealth than the rest of humanity combined. The inequality crisis threatens to reverse decades of progress in the fight against poverty, and economists at the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and

Development (OECD) have outlined how it threatens the sustainability and durability of growth itself.

Inequality also corrupts the foundations of all societies and the delicate balance of many political systems. Oxfam research shows how pharmaceutical and financial lobbyists spend hundreds of millions of dollars to secure lax regulation, generous subsidies, tax breaks and more. The first thing this money buys them is more money: in the United States in 2013, the finance sector spent \$400 million on lobbying, while finance billionaires increased their wealth by \$94 billion. In the European Union, \$150 million was spent on lobbying by financial sector lobbyists towards EU institutions, and finance billionaires increased their wealth by \$34 billion. But money no longer just buys a nice car, better education or healthcare. Increasingly, it buys power, and even buys ideas, as the world witnesses the march to privatise educational institutions. Without strong democratic accountability, money buys impunity from justice, an election, pliant media or favourable laws.

To tackle inequality, ordinary people should be at the fore of leaders' minds in every policy area at the G7 summit. Leaders should aim to create a more human economy that would work for people and the planet.

Seen through this lens, the discussion around "dynamic and sustainable growth" on the agenda might consider not just how to nudge up gross domestic product a few percentage points, but also how that growth is shared.

If ordinary people were put first, G7 leaders' discussions would ensure that there were not one rule for the many and another for the few: they would

Without strong democratic accountability, money buys impunity from justice, an election, pliant media or favourable laws

make tax evasion and avoidance morally indefensible. More than this, they would agree that efforts to reform global tax rules must include the voices of all countries, including developing countries, which are estimated to lose \$100 billion every year through tax-dodging by multinational corporations. The G7 leaders should commit to personally turning up to the Third International Conference on Financing for Development in Addis Ababa in July to discuss tax cooperation with the countries that have the most at stake, rather than just with their OECD counterparts.

If we are to make an economy work for humanity, then it needs to work for the planet on which we all rely. A strong commitment by the G7 members to reduce their carbon emissions to near zero by the middle of the century is essential.



KIERAN DOHERTY/OXFAM

Coal power stations are the biggest driver of catastrophic climate change, which is already forcing poor people into hunger. Rich industrialised countries – those that have built their wealth by burning fossil fuels – must take the lead. Oxfam challenges the G7 to commit to urgently transitioning away from coal, closing the dirtiest power stations and stopping the construction of new ones.

But even the most ambitious emissions cuts will not be enough. The G7 must deliver the promised climate finance to allow developing countries to follow a green growth pathway and to allow the most vulnerable people to deal with the unavoidable impacts of climate change. The group's climate commitments are flatlining and a question mark looms over how the \$100 billion-a-year commitment to climate finance in developing countries – made over five years ago in Copenhagen – will be met.

When the interests of humans are at the centre of the conversation, obstacles to change become

surmountable details, technical points to be ironed out in the face of the overwhelming case for action. How, for instance, can the world be in a position where some rich countries around the table are allowed to default on their life-saving overseas aid commitments? This is a world in which unimaginable human suffering still takes place, from the tragedy of Ebola to the devastating earthquakes in Nepal, and wars in Syria, Yemen, South Sudan and elsewhere. All G7 members that have not done so must recommit to meeting their commitment to spend 0.7 per cent of gross national income on life-saving aid to help the world's poorest.

As the world emerges from the intellectual debris of the 2008 financial crisis, G7 leaders must find a new purpose for their work and bring it together with the common objective of shaping a world that works in the interests of everyone who lives in it, and reject once and for all a failed way of thinking that works only for the fortunate few. ■

A camp for internally displaced persons in Bor, South Sudan. The suffering caused by conflicts across the world demonstrates the need for the G7's overseas aid commitments

The value of shared beliefs

— The G7 is based on common values, while the G20 focuses on economic issues, but the two are not mutually exclusive, explain Katharina Gnath, Bertelsmann Foundation, and Claudia Schmucker, German Council on Foreign Relations



Katharina Gnath is a Senior Project Manager at the Europe's Future Program of the Bertelsmann Foundation. She specialises in European and international economic governance. Before joining the think tank, she worked as a researcher at the German Council on Foreign Relations.

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Claudia Schmucker has been head of the Globalization and World Economy Program at the German Council on Foreign Relations since 2002. Before joining the research institute, she was Project Manager at the Centre for International Cooperation in Bonn.

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Forty years ago, France and Germany created an informal 'fireside chat' of six industrialised countries to discuss important economic and financial issues at the highest political level. Over the years, the group, which became the G7, has broadened its agenda to include issues such as human rights, development aid, arms controls and global environmental challenges. The G20's history is considerably shorter: the technical forum of central bankers and finance ministers was created in 1999 and upgraded to the leaders' level in 2008, when the forum assumed a prominent role in coordinating concerted policy responses to the global financial crisis.

Many non-members are highly critical of the G7. Large emerging economies in particular have seen the G7 and G20 as mutually exclusive and argue that, with the G20 taking on a steering function in global and financial matters, there is no further role for the G7. Many commentators hence assumed that the upgraded G20 would eventually replace the G7. However, the two bodies have coexisted alongside each other for the past seven years and there is no sign of either one dissolving.

How can the work of the G7 be organised so that the group does not unnecessarily compete or conflict with the G20, and at the same time does not cause redundancies in global informal governance or, worse, create stumbling blocks for further international compromise?

A platform for discussion

The G7 members are an alliance of like-minded countries that pursue common goals and values. In their first summit declaration in 1975, they highlighted

their shared beliefs and responsibility to maintain "an open, democratic society, dedicated to individual liberty and social advancement". Russia's acceptance into the G8 in 1998 represented a departure from the principle of shared aims. Its admittance followed geostrategic considerations, with the goal of supporting Russia's economic transition and integrating the new country into the international community after the collapse of the Soviet Union.

The G20 members, in contrast, justify the larger group's existence with its economic weight and broad regional membership that includes industrialised and emerging countries. In contrast with the G7, questions of common values have not played a central role in the G20's membership and work. Systemic relevance has stood in the foreground of its self-perception.

The Russian 'test case' clearly showed the difference between the two informal forums in 2014. With the exclusion of Russia from the G8 based explicitly on Russia's violation of the group's common beliefs after the annexation of Crimea, the G7's role as a values-based forum was strengthened. In contrast, Russia as a systematically important country is still a full member of the G20 and remains integrated in all the summit preparations and regular working groups.

The G20 is without doubt the more appropriate forum when bridging policy differences between industrialised and emerging countries is necessary. Yet, instead of taking a defensive position on account of its exclusiveness, the G7 should proactively promote its advantage of being a small and intimate group of like-minded countries, which allows for open and frank discussions. As such, the G7 can serve as a dialogue forum for informal consensus based on shared values and principles. A good case is the agreement in 2014 to coordinate sanctions against Russia and support for Ukraine. Another way for the financially strong G7 members to act meaningfully on their shared principles and responsibility is to voluntarily pledge money. A recent case is the reaffirmed promise made at the Brussels Summit in 2014 to mobilise \$100 billion each year for climate financing by 2020. African debt relief also falls into this category.

A frontrunner for international compromise

In the wake of the G20's upgrade, France, together with other G8 members, suggested establishing a 'new' G8 that would focus on geopolitical, foreign and security issues. However, the idea to separate economic coordination (G20) and foreign affairs (G7/8) has not survived the practical test. As the G7 countries still dominate global financial markets, the small group remains an important platform for its members to exchange their views and identify commonalities in economic and financial affairs.

As long as G7 countries informally exchange views and commit to financing initiatives, coordination with other forums is not necessary. However, on initiatives that de facto set rules for the global economy, the G7 should always systematically assess whether those rules facilitate or hinder compromise at another level,



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and get the support of other (non-G7) countries from a very early stage. This makes indispensable a closer cooperation between the G7 and G20 sherpa processes that prepare the way for the summits.

One case of a successful cooperation in economic affairs is the base erosion and profit shifting (BEPS) programme. Initiated by the British G8 presidency in 2013, the issue was subsequently advanced by the G20 at its summit in St Petersburg, where the leaders endorsed the BEPS action plan that is now jointly managed by the G20 and the Organisation for Economic Co-operation and Development (OECD).

The G7 summit at 40

The first advantage – and justification – for the G7 is its role as an informal forum for members who share a common set of values and beliefs and who are able to commit financially to international initiatives. Among Germany's priorities for this year's G7 presidency, standards in supply chains are a positive case where G7 members share a common goal (sustainable business) and want to develop minimum environmental and social standards for all products by committing themselves to a sustainable business charter. In addition, the G7 plans to launch a 'Vision Zero Fund', where G7 governments and businesses contribute to accident insurance funds in developing countries. Another noteworthy case for G7 self-commitment is the action plan backed by financial contributions to fight antibiotic microbial resistance.

The second main value of the G7 is its role as a facilitator of broader international compromises. The 2015 agenda rightly features initiatives that are meant to support international processes. For example, the German presidency works towards identifying common G7 positions with regard to the United Nations conference on Sustainable Development Goals in September in New York and the climate conference in December in Paris.

The G7 leaders at the Brussels Summit in 2014. The climate finance pledge made in Brussels demonstrates the benefits of a grouping based on shared principles

The G7 should promote its advantage of being a small and intimate group of like-minded countries

In sum, the G7 should focus on issues where its members share both common values and principles, and can make a valuable contribution to international coordination processes. Yet the summit at Schloss Elmau will only be successful if the G7 members agree on concrete steps on how to fulfil their voluntary commitments, and proceed with great care to avoid creating stumbling blocks for the more inclusive international decisions that are due later this year. ■

Canada | **Stephen Harper**

Stephen Harper was elected Prime Minister of Canada in January 2006. He was re-elected in October 2008 and again in May 2011. Harper was first elected as a Member of Parliament in 1993. He served as leader of the opposition for several years before becoming Prime Minister. Born in Toronto, Ontario, on 30 April 1959, he studied at the University of Toronto and the University of Calgary, earning a master's degree in economics in 1991. He and his wife, Laureen, have two children. Harper has attended every G7 and G8 summit since 2006 and hosted the 2010 Muskoka Summit.

Sherpa: Peter Boehm

France | **François Hollande**

François Hollande was elected President of France on 6 May 2012. He served as First Secretary of the Socialist Party from 1997 to 2008. He was the Deputy of the National Assembly of France for Corrèze from 1988-93 and from 1997-2012. Hollande also served as the Mayor of Tulle from 2001-08. He joined the Socialist Party in 1979, and was an Economic Adviser for François Mitterrand. Born in Rouen on 12 August 1954, Hollande holds degrees from the École nationale d'administration (ENA) and the Institut d'Études Politiques de Paris (Sciences Po). He has four children with his previous partner, Ségolène Royal. Hollande has attended every G7 and G8 summit since 2012.

Sherpa: Jacques Audibert

Germany | **Angela Merkel**

Angela Merkel became Chancellor of Germany in November 2005 and was re-elected in September 2013. Merkel was first elected to the Bundestag in 1990 and has held the cabinet portfolios for women and youth, environment, nature conservation and nuclear safety. Before she entered politics, Merkel worked as a researcher and physicist. Merkel was born in Hamburg on 17 July 1954 and received her doctorate in physics from the University of Leipzig in 1978. She is married to Joachim Sauer and has no children. Merkel has been at every G7 and G8 summit since 2006 and hosted the Heiligendamm Summit in 2007.

Sherpa: Lars-Hendrik Röller

Italy | **Matteo Renzi**

Matteo Renzi became Prime Minister of Italy on 22 February 2014 after the resignation of Enrico Letta. He became Secretary of the Democratic Party on 15 December 2013. In 2004 he was elected President of the Province of Florence, and in 2009, having joined the Democratic Party, he won the election for mayor of Florence, a position he held until March 2014. Before entering politics, Renzi worked in his family business and was very active in the Boy Scouts. Born on 11 January 1975 in Florence, he graduated from the University of Florence in 1999 with a degree in law. He and his wife, Agnese Landini, have three children. Schloss Elmau will be his second G7 summit.

Sherpa: Armando Varricchio

Japan | Shinzō Abe

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Shinzō Abe was elected Prime Minister of Japan on 16 December 2012 and re-elected in December 2014, having previously served from September 2006 to September 2007. He has been President of the Liberal Democratic Party since 2006. Abe was elected to the fourth district of Yamaguchi Prefecture in 1993. In 1999, he became the Social Affairs Division Director and served in the cabinets of Yoshiro Mori and Junichiro Koizumi, before becoming LDP Secretary General. In 2005, Abe was nominated Chief Cabinet Secretary in Koizumi's cabinet. Born on 21 September 1954 in Nagato, Abe studied political science at Seikei University and public policy at the University of Southern California. He is married to Akie Abe. Abe attended the 2007 Heiligendamm Summit and has been at every G7 and G8 summit since 2013.

Sherpa: Yasumasa Nagamine

United Kingdom | David Cameron



David Cameron became prime minister of the United Kingdom of Great Britain and Northern Ireland in May 2010 and was re-elected on 7 May 2015. He was first elected to parliament in 2001 as the representative for Witney, and has served as party leader since 2005. Before becoming a politician, Cameron worked for the Conservative Research Department and served as a political strategist and adviser to the Conservative Party. Born in London, England, on 9 October 1966, he received a bachelor's degree in philosophy, politics and economics at the University of Oxford. He is married to Samantha and has three children; a fourth child died in 2009. This will be the fifth G7/G8 summit for Cameron, who hosted the Lough Erne Summit in 2013.

Sherpa: Tom Scholar

United States | Barack Obama



Barack Obama was re-elected President of the United States in November 2012, having been elected for his first term in November 2008. In 2005, Obama was elected to the Senate, after working as a community organiser, a civil rights lawyer and a state legislator for Illinois. He was born on 4 August 1961 in Honolulu, Hawaii, to a Kenyan father and an American mother. He received his bachelor's degree from Columbia University in 1983 and a law degree from Harvard University in 1991. He is married to Michelle and they have two children. Obama has been to every G7 and G8 summit since the 2009 L'Aquila Summit and hosted 2012's Camp David Summit.

Sherpa: Caroline Atkinson

European Union | Donald Tusk



Donald Tusk became President of the European Council on 1 December 2014. He was active in Poland's Solidarity movement and, following the collapse of communism, became leader of the Liberal Democratic Congress. Tusk was elected to Parliament in the 1990s. In 2001, he was a founding member of the Civic Platform and became its leader in 2003. In 2007 he was elected Prime Minister and remained in office for seven years, making him the longest-serving prime minister in democratic Poland, and the first to be re-elected.

European Union | Jean-Claude Juncker



Jean-Claude Juncker has been President of the European Commission since November 2014, having been nominated in June 2014. He served as Prime Minister of Luxembourg from 1995-2013, having become Minister of Labour in 1984 and held various positions including Minister of Finance and Minister for the Treasury. In January 2005, he became the first permanent President of the Eurogroup – of eurozone finance ministers – and served a second term ending in January 2013.

Sherpa: Didier Seeuws

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