

Global Agenda

# World Economic Forum Annual Meeting 2012 The Great Transformation: Shaping New Models

Davos-Klosters, Switzerland 25-29 January



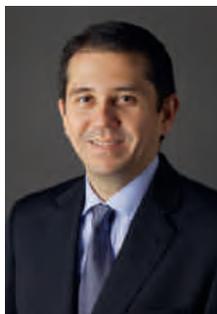
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# Preface



Klaus Schwab  
Founder and  
Executive Chairman



W. Lee Howell  
Managing Director  
Head of Centre for  
Global Events  
and Risk Response  
Network

A record 2,600 business, government and civil society leaders – including nearly 40 heads of state or government – participated in the 42nd World Economic Forum Annual Meeting, which took place under the theme *The Great Transformation: Shaping New Models*. The record participation indicated the international community's level of concern for the world today, as one crisis after another emerges. It also underscored the commitment of the Forum's Members, Partners and communities to improving the state of the world.

We recognize that solving global problems using outdated or crumbling models only means digging a deeper hole. As we live through this great transformation and move into a future defined neither by capital nor military assets but by the power of human talent and the depth of stakeholder collaboration, we urgently need new models of leadership, governance and partnership.

The great transformation is generating tremendous opportunities for humankind to live in a more prosperous, more peaceful world that is greener and socially more inclusive. Inclusion is critical at a time when the number one risk to the world is rising inequality. To shape the new collaborative models we require to address global challenges, we need to re-establish trust among ourselves and look to the future, confident in the strength of our shared values and vision.

During the Annual Meeting, we were especially inspired to witness how our newest stakeholder group, the community of Global Shapers – leaders in their twenties who are already changing the world – are carrying on that spirit of positive thinking, innovation and collegiality. Throughout the programme, they took an active role, frequently arguing for social values and inclusion to be embedded in all new business and governance models. Even in times of seemingly overwhelming adversity, we can only move forward with the kind of hope and courage that these young people display. They embody the new models of leadership and entrepreneurship in the global public interest.

This report is a summary of the wide-ranging discussions and debates of the Annual Meeting 2012. It captures the special Spirit of Davos that permeated the many sessions and events that took place over the five days.

Our collaborators at the World Economic Forum are grateful and encouraged by the engagement of our Partners, Members and communities at the Annual Meeting and throughout the year. We look forward to welcoming you to our regional meetings in 2012 and to our Annual Meeting next year.

## Co-Chairs

Yasuchika Hasegawa  
President and Chief Executive Officer  
Takeda Pharmaceutical  
Japan

Vikram Pandit  
Chief Executive Officer  
Citi  
USA

Paul Polman  
Chief Executive Officer  
Unilever  
United Kingdom

Alejandro Ramírez  
Chief Executive Officer  
Cinopolis  
Mexico

Sheryl Sandberg  
Chief Operating Officer  
Facebook  
USA

Peter Voser  
Chief Executive Officer  
Royal Dutch Shell  
Netherlands

“  
**We believe that government should set up industry and other sectors for success. Education and investment in infrastructure are critical.**

”

Sheryl Sandberg Chief Operating Officer, Facebook, USA; Co-Chair of the World Economic Forum Annual Meeting 2012; Young Global Leader

01: William H. Gates III, Co-Chair, Bill & Melinda Gates Foundation, USA; and Felipe Calderon, President of Mexico

## Introduction

The impact of the global recession is still being felt around the world. While there are signs of recovery in the United States and other developed economies and indications that the global financial crisis has been contained, the Eurozone debt crisis remains a major concern for the international community. The Annual Meeting offered European and world leaders the opportunity to have frank discussions on the unfolding situation and the measures needed to ensure the continent's viability and future prosperity. Aside from the immediate problems of stabilizing the debt-distressed economies and averting a full-blown banking crisis, European countries will have to implement structural reforms to address their respective competitiveness shortcomings.

Annual Meeting participants understood that no economy is immune to contagion from Europe. While Europe has to get its own house in order and no one country can come to its rescue, the collapse of the euro or the destabilization of the EU would inevitably sap confidence in the global economy and undermine growth everywhere. Major downturns in Europe and the United States could lead to slowdowns in emerging markets, including China, triggering another global economic decline and more turmoil in already volatile markets.

Still, the long-range perspective is positive. The robust growth of the large developing economies, notably the BRICS (Brazil, Russia, India, China and South Africa), is an encouraging long-term story. In addition, innovations in science and technology – particularly social media, robotics, artificial intelligence, medicine and biotechnology – will drive new growth and productivity and generate jobs.

While the debt crisis in Europe is fuelling pessimism, many participants stressed the importance of taking a long view, remaining positive and not becoming distracted or depressed by the immediate crises, however difficult they may be to resolve. Indeed, the three successive addresses to participants by Felipe Calderón, President of Mexico; Aung San Suu Kyi, General Secretary of the National League for Democracy (NLD) of Myanmar; and Stephen Harper, Prime Minister of Canada, powerfully underscored how hard work, steady implementation of meaningful reforms and patience can yield significant benefits.

Canada focused years ago on drawing down its public debt and restructuring its economy and banking system. It was among the G7 economies that best weathered the global crisis and its banks are widely regarded as among the soundest in the world. Mexico, meanwhile, survived a liquidity crisis in 1995, rebounded strongly and now has achieved universal basic education and near-universal healthcare coverage. Calderón, as the leader of the current chair of the G20,



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**We need to find new ways of actually working together. We need to move from debate to action.**

”

Peter Voser Chief Executive Officer, Royal Dutch Shell, Netherlands; Co-Chair of the World Economic Forum Annual Meeting 2012



brought to Davos the wisdom of a thriving emerging economy that has withstood debt crises and governance problems to regain the confidence of investors and the market.

The dramatic growth story of emerging markets in Asia, Latin America and Africa was widely appreciated by participants in Davos. Developing economies are already a rich source for new models to address persistent problems. Countries such as China and India that have to focus sharply on energy and food security are deepening commitments to sustainability and responsible and efficient resources management. China, in particular, could become a global game-changer in the development of low-carbon solutions and clean energy. India could be a model for food security solutions and for generating resourceful low-cost innovations that are easily adaptable in other developing economies.

These innovations are inspiring leaders around the world to re-examine existing ways of approaching problems and think about how to develop more inclusive, fair and sustainable models. “We have to make capitalism and the free market much more responsive to social needs,” concluded Klaus Schwab, Founder and Executive Chairman of the World Economic Forum. “If business is not serving society, then business is not sustainable.”

“

**We should not just be talking; we should be implementing. We are committed to improving the state of the world. We are going to do it.**

”

Yasuchika Hasegawa President and Chief Executive Officer, Takeda Pharmaceutical, Japan; Co-Chair of the World Economic Forum Annual Meeting 2012



**01:** Peter Voser, Chief Executive Officer, Royal Dutch Shell, Netherlands; Co-Chair of the World Economic Forum Annual Meeting 2012

**02:** Stephen Harper, Prime Minister of Canada

**03:** Yasuchika Hasegawa, President and Chief Executive Officer, Takeda Pharmaceutical, Japan; Co-Chair of the World Economic Forum Annual Meeting 2012

**04:** Photographer Platon shows a photograph of Aung San Suu Kyi, General Secretary of the National League for Democracy, Myanmar, in the session “Other Faces of Leadership”

**05:** Sheryl Sandberg, Chief Operating Officer, Facebook, USA; Co-Chair of the World Economic Forum Annual Meeting 2012; Young Global Leader

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It is unacceptable that 200 million people cannot enter the workplace.

”

Paul Polman Chief Executive Officer, Unilever, United Kingdom; Co-Chair of the World Economic Forum Annual Meeting 2012



## The Great Transformation: Shaping new Models

The Annual Meeting offered leaders from around the world the opportunity to have open discussions on the state of the world and the measures needed to pave the way towards future prosperity. While most conversations drifted to the latest news on the Eurozone debate, others turned to pressing issues that deserve equal attention.

The top priority is to bring into the workforce the 200 million unemployed, particularly youth. This will require collaborative approaches in every economy to implement structural reforms to promote growth and inclusion and address fiscal imbalances.

Hyperconnectivity enables the public to react almost as a single organism to new developments with extraordinary numbers, power and speed. The accelerated speed of communications creates immediate expectations and means that leaders often have insufficient time to respond to changing situations.

Persistent stresses on natural resources, climate extremes, natural disasters, poverty, unemployment and political unrest have pushed the world to a tipping point. But the pessimism of 2011 is being offset by the emergence of new ways of thinking and innovations, resulting in models that could be scaled up – providing there is political will and “people power” embedded in public-private partnerships. Many sustainable growth technologies and models are originating from emerging markets, where economic pressures are the inspiration for innovation.

Skilfully managing risks in the water-food-energy nexus is critical; chronic mismanagement has thwarted economic growth and social stability. Subsidies must be abolished, particularly for fossil fuels. In some developing countries, government spends more on fuel subsidies than it does on education and healthcare. Global food systems are clearly broken after decades of mismanagement and distorted production and distribution patterns. A huge challenge is taming price spikes and excessive food price volatility. Nonetheless, participants were confident a food crisis can be averted, pointing to technological innovations, access to information and new models of cooperation between governments and businesses.

Environmental issues were also at the top of leaders’ minds in Davos. Oceans, one of the primary sources of food on the planet, are increasingly under threat and abuse. A “networked system of good governance” that draws in all stakeholders is required to save the oceans, rather than laws, regulations and market-based mechanisms. The Forum’s *Global Risks Report 2012* warns that failure to curb rising carbon emissions poses the most significant global environmental risk over the next decade.

**01:** General view of the Congress Hall during the session “World Economic Brainstorming: Business, Governance and Leadership – New Pressures and Realities”

**02:** “Global Risks 2012: The Dark Side of Connectivity”





## Global Risks 2012

Leaders arriving in Davos were in no doubt about the big concerns they were meeting to tackle. Setting the agenda just a couple of weeks before the Annual Meeting 2012 was the World Economic Forum's seventh *Global Risks* report, which warns that economic imbalances and social inequality risk reversing the gains of globalization. The findings were the result of a survey of 469 experts and industry leaders, indicating a shift of concern from environmental risks to socioeconomic risks compared to a year ago.

The findings of the survey fed into an analysis of three major risk cases:

1. **Seeds of Dystopia:** Bulging populations of young people with few prospects, growing numbers of retirees depending on debt-saddled states and the expanding gap between rich and poor are fuelling resentment worldwide.
2. **Unsafe Safeguards:** Policies, norms and institutions from the 20th century may no longer protect us in a more complex and interdependent world. The weakness of existing safeguards is exposed by risks related to emerging technologies, financial interdependence, resource depletion and climate change, leaving society vulnerable.
3. **The Dark Side of Connectivity:** Our daily lives are almost entirely dependent on connected online systems, making us susceptible to malicious individuals, institutions and nations that increasingly have the ability to unleash devastating cyberattacks remotely and anonymously.

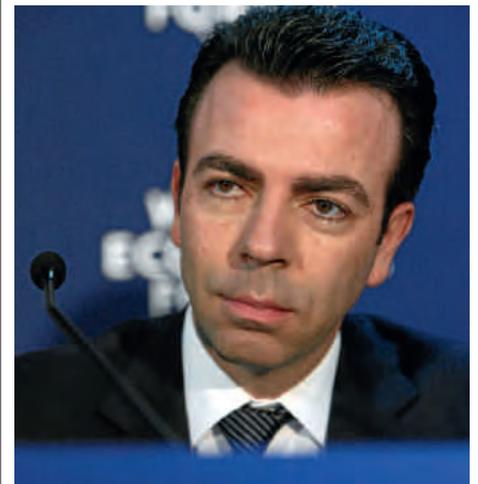
The report analyses the top 10 risks in five categories – economic, environmental, geopolitical, societal and technological – and highlights wild card threats that warrant more research, including a volcanic winter, cyber neoliberalism and epigenetics, the risk that the way we live could have harmful, inheritable effects on our genes. Key crisis management lessons from Japan's earthquake, tsunami and nuclear disasters are highlighted in a special chapter. Read the report: <http://wef.ch/globalrisks2012>

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We need to reduce the income inequality we are seeing everywhere in the world that is increasing the backlash.

”

Alejandro Ramírez Chief Executive Officer, Cinopolis, Mexico; Co-Chair of the World Economic Forum Annual Meeting 2012



## New Models

The Great Transformation is an age of creative destruction brought on by the onslaught of new technologies, from the Internet and mobile telephony to robotics and artificial intelligence. While this deluge of applications cannot be stopped, it can be used to create opportunities, not kill them.

A series of new models for dealing with the new paradigm emerged over the five days of discussion. The following new models summarize some of the ideas put forth by participants in Davos.

### New Models for Economic Growth

The starting point should be a collaborative and multistakeholder approach to resolving the Eurozone crisis. Participants concurred that the International Monetary Fund (IMF) should get more money to backstop the financial firewall that Eurozone leaders are erecting in the form of the European Financial Stability Facility and the European Stability Mechanism. With a large enough buffer, markets and businesses would gain

confidence in the Eurozone's ability to shield Spain, Italy and France from contagion if Greece were to default on its sovereign obligations.

Each country's goal should be to create jobs and minimize income disparities, while promoting environmental sustainability. Economic policies should be tailored to each market's circumstances. Those countries with severe fiscal imbalances should continue tightening. Others that have already made cuts should let automatic stabilizers bring the economy closer to balance.

Free trade should continue to be pursued, but so should fair trade. Practices that distort open trade should be eliminated. These include effective government subsidies to state-owned companies, exports and capital, as well as intervention in exchange rates to keep currencies artificially cheap.

Governments should act as facilitators in creating the ecosystems that allow enterprises to operate at optimal efficiency. Special attention should be paid to small and medium-sized enterprises (SMEs) because they are the engines of job creation.

**New Models for Manufacturing**

Manufacturing, involving global supply chains can boost employment – one job in manufacturing can create eight other positions. In general, the most promising sectors include green technologies, infrastructure and healthcare.

**New Models for Employment**

Employment models in Germany and the Nordic countries can be adapted elsewhere. The elements include an apprenticeship system, gender- and age-blind employment, close consultation with labour unions in policy-making and representation of labour on company boards. Companies should promote wellness in the workplace – the cost in terms of lost output of employees due to illness can be enormous. Other measures include more flexible labour markets, portable pension and medical plans recognized across borders, nuanced immigration policies to promote global talent mobility, and a higher retirement age to allow older workers to continue leading productive lives (and relieve pressure on pension systems).

Schools should redesign their curricula in partnership with business to better respond to the needs of commerce for the right talent and encourage entrepreneurship at a young age – self-employment is yet another route to full employment. Continuous and relevant education is key, particularly in math and science.

Some Forum participants propose to develop a Human Capital Index to monitor and benchmark countries' performance in areas important for growth and employment, including infant mortality, access to primary, secondary and tertiary education, training and retraining opportunities and enablers such as incentives for entrepreneurship. The index will

highlight the gaps between industry needs and what skills may be available.

Like the G20 platform to discuss global affairs, there should also be a B20 for businesses and an L20 for labour. The three should convene periodically to craft new models for growth and employment.

**New Models for Leadership**

The new model for leadership requires streamlining operations while developing and emphasizing internal and external communications. As such, leaders need to maintain a global perspective while paying close attention to things on the home front. It means establishing a clear set of priorities and values that will set a direction for the organization, especially in times of crisis. The Internet and social media could provide valuable tools for leaders to make rapid decisions while ensuring a collaborative approach that buttresses their legitimacy. Ultimately, the most critical element is accurate information.

Connectivity is emerging as one of the most important elements of the new leadership model. Leaders need to be aware of all of the options available, but also need to know what their customers and employees are really thinking.

Compensation has recently been the source of criticisms that may impact on a leader's ability to lead. What is important in the



**01:** Lars H. Thunell, Executive Vice-President and Chief Executive Officer, International Finance Corporation (IFC), Washington DC, during the session "Overcoming the Youth Employment Challenge"

compensation debate is the signal that an exceptionally generous pay package sends to employees and the public at large. The effect is to put the leader or CEO in a class that is separate from the employees at the very moment when solidarity within the organization is particularly important and more productivity is being demanded of employees. The result is a weakened organization and farther-reaching corrosive effects on human capital.

An increasingly troubling issue, especially in the wake of ongoing economic uncertainty, is growing economic disparity. Enlightened self-interest dictates that corporate governance and social and environmental responsibilities are taken seriously.

**New Models of Consumerism**

Given the limited and diminishing resources available, a new model of consumerism should be based on value, not volume. Tough decisions are required to balance economic, social and environmental sustainability with the aspirations of young people, particularly the poor in developing countries. Radical measures have been proposed to “green” consumers and shift them towards a more sustainable way of consuming. One of these is a plan to devote 5% of all advertising budgets to a global campaign to promote sustainability. Another is to change living and consuming patterns by reducing the working week, thus reducing energy consumption –

globally and in a coordinated fashion. Social media will play a vital role in these efforts.

**New Models for Sustainable Energy Growth**

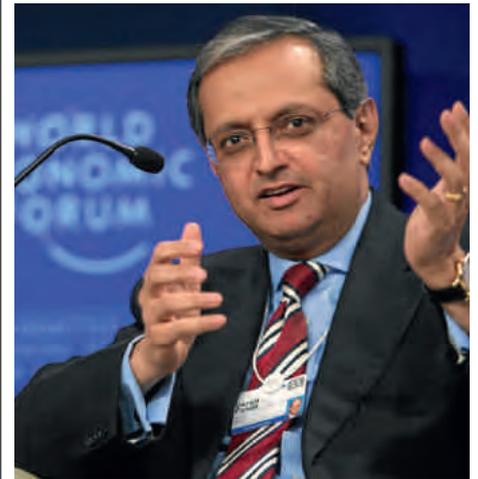
The United Nations has called on private sector investment in infrastructure and implored governments to make sustainable energy a priority by implementing policies to provide clean, affordable and reliable energy. A mix of private and public funds is needed. Official development assistance (ODA) could be used as leverage to provide risk premiums and attract private sector investment.

Energy as a human right will be pushed at the Rio+20 Conference in June, where many leaders are hoping to create the Sustainable Development Goals. Also on the agenda is a Green Gross Domestic Product taking into account environmental and sustainability factors and establishing sustainability criteria for development financing.

Citizen involvement in energy policy-making is crucial. Engaging stakeholders in the debate through a transparent process needs to occur long before the outset of a project. This collaboration could take the form of a new “social contract” based on mutual trust. This is particularly important in developing countries, the source of almost all energy growth in the next 20-30 years.

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Jobs should be our number one priority. Ultimately it is about growth. Nothing creates jobs better than growth.”

Vikram Pandit Chief Executive Officer, Citi, USA; Co-Chair of the World Economic Forum Annual Meeting 2012



**01:** David Cameron, Prime Minister of the United Kingdom

**02:** Angela Merkel, Federal Chancellor of Germany



**03:** Klaus Schwab, Founder and Executive Chairman, World Economic Forum, and Archbishop Desmond M. Tutu, Chair, The Elders, South Africa, during the presentation of Global Shapers



**01:** Timothy F. Geithner, US Secretary of the Treasury; and Fareed Zakaria, Anchor, Fareed Zakaria - GPS, CNN, USA

**02:** Christine Lagarde, Managing Director, International Monetary Fund (IMF), Washington DC; Foundation Board Member, discusses with Ngozi Okonjo-Iweala, Coordinating Minister for the Economy and Minister of Finance of Nigeria

**03:** Global Shapers WorkShop

**04:** Global Shapers WorkShop

**05:** Hina Rabbani Khar, Minister of Foreign Affairs of Pakistan

**06:** Min Zhu, Deputy Managing Director, International Monetary Fund (IMF), Washington DC

**07:** Kevin J. Jenkins, President and Chief Executive Officer, World Vision International Executive Office, United Kingdom; and Marvin F. Romanow, President, Nexen, Canada

**08:** Henry Markram, Professor, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland, in the session "The Mind and the Machine"

**09:** Global Shapers WorkShop

In Africa, the challenge is to leapfrog and find ways to adopt the latest technologies to promote clean energy and resource efficiency. Africans have the potential to lead sustainability over the next decades. In China, leaders recognize that low carbon must be part of the equation. Key to the energy solution is determining how much growth is feasible and the quality and quantity of energy to power it. This systematic approach could be a model for developing countries. New Sustainability Champions are embedding sustainability by moving from non-renewable to renewable materials and applying clean production and delivery methods. Sustainable job creation results from these practices.

**New Models for Smart Growth through Technology**

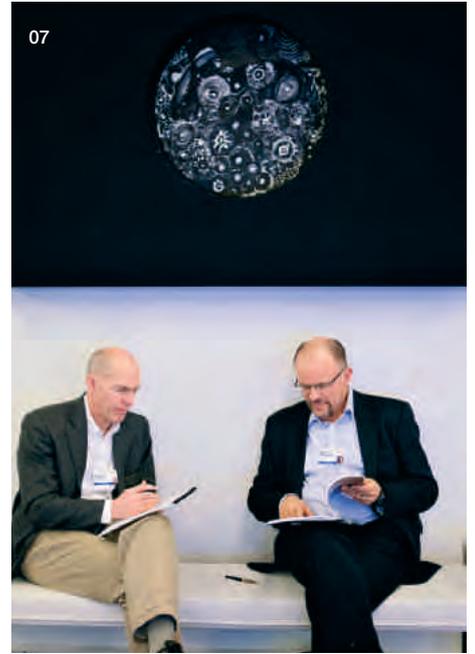
Technology can drive practical and affordable solutions to development challenges. Good innovations use technology to spawn new business models that promote inclusiveness, stimulate growth and employment, enhance sustainability and environmental responsibility, and are cost effective. However, certain innovations can have negative consequences when not properly used, adequately assessed and monitored. New economic and business models have to be predicated on smart growth – how to do more with less. "Smart city" projects are bringing together technology companies and cities and towns in public-

private partnerships to promote sustainability, conserve energy, reduce costs and meet the needs of citizens who are demanding a reasonable price.

**New Models for Global Challenges through Technology**

Applications on mobile devices or services – such as disaster monitoring on social media platforms – are allowing ordinary people to change the world. People are creating their own technology to make their lives better; e.g. "gamification", the use of online game design techniques and dynamics to engage communities and solve real-world problems.

The international community should take inspiration from the sciences and create new ways of collaborating that harness the different skills and knowledge bases of relevant experts. Technology is changing the way leaders make choices. The Internet and social media, for example, can help ensure that they are still able to consult the appropriate constituents and take a course of action quickly in response to a fast-moving situation. The rich data and information generated by global social networks is yielding knowledge and insights that will allow companies to better meet the demands of their customers, and governments to better serve the needs of the public.



## This Year's Sub-themes

Growth and Employment Models **A**

Leadership and Innovation Models **B**

Sustainability and Resource Models **C**

Social and Technological Models **D**



### Innovation for Interaction and Insight

The Programme of the Annual Meeting 2012 featured a number of new sessions formats, innovative ways of generating and capturing knowledge and bringing the world into the debates going on inside the Congress Hall.

**The World Economic Brainstorming** gathered Davos participants for a global discussion and debate on a priority issue, integrating the voice of society through social media platforms. The **Davos Debates** featured contrasting perspectives in favour of, and against, a resolution on the most important transformations businesses, economies and societies are facing today.

**An Insight, An Idea** was a series of 30 minutes conversations with inspiring individuals who share their views on the single most important transformation that will occur in our lifetime and the impact on society. These discussions will be edited and distributed through global media outlets throughout 2012.

The **Risks Series** of sessions explored new ways of monitoring, responding to and mitigating global and systemic risks, as highlighted in the *Global Risks 2012* report.

Global Agenda Council Members and select experts engaged in the four thematic **Davos Debrief** sessions on Sunday morning to summarize and synthesize the key insights related to one of the four pillars of the Annual Meeting 201, while the views of the general public were incorporated into a range of prominent sessions through a variety of social media, including Facebook, Twitter, Sina Weibo, and Google+.

## News from Davos



### Shaping the World

The first worldwide meeting of the Forum's Global Shapers community saw 70 young people from 44 hubs in 36 countries come to Davos for the Annual Meeting 2012. What was most striking was their focus on inclusion, ethics, happiness and values. At least 40% of the group consider themselves to be social entrepreneurs.

This vibrant group shared their passions and ambitions to improve the state of the world with other Forum communities. As this group gains traction, we hope to engage them in "cross-mentoring" opportunities. The Forum is proud to have these young and dynamic individuals as part of its activities. <http://www.weforum.org/community/global-shapers>



### In the Fab Lab

Between sessions, participants had the opportunity to stop by the Fab Lab – a small-scale digital workshop equipped with the latest technologies, including laser cutters, routing machines, 3D scanners and programming tools. In the Fab Lab, participants could make almost anything, from arts and crafts to engineering and architecture projects, such as solar and wind-powered turbines and custom-made furniture.

The Fab Lab provides access to advanced tools that can help people make products to address local needs. It began as an outreach programme at MIT and spread across the world – currently, there are 100 labs with more on the way. The Fab Lab on display at the Annual Meeting has been donated to a facility for the children of migrant salt pan workers in India.



## The Open Forum

Celebrating its 10th anniversary, the general public was invited to the Open Forum Davos to join the conversation with leaders from government, business and civil society. Running in parallel with the Annual Meeting, the Open Forum aims to share the spirit of collaboration and constructive debate with the broadest possible audience.

Discussions ranged from the role of leadership and remodelling capitalism to water scarcity and multiculturalism. High-level participants included H.R.H. Crown Prince Haakon of Norway; Gordon Brown, Prime Minister of the United Kingdom (2007-2010); Ehud Barak, Deputy Prime Minister and Minister of Defence of Israel; and Peter Brabeck-Letmathe, Chairman of the Board, Nestlé.

<http://www.openforumdavos.ch/home/home.html&lang=3>



## Innovative Funding to Fight Disease

On the opening day of the Annual Meeting 2012, the Bill & Melinda Gates Foundation renewed its commitment to the Global Fund to Fight AIDS, Tuberculosis and Malaria. The foundation is giving US\$ 750 million through a promissory note – a new and innovative funding mechanism. Providing funding through a promissory note gives the Global Fund the flexibility and authority to distribute funds based on immediate needs, leading to greater impact. Global Fund financing helps developing countries fight AIDS, tuberculosis and malaria. The public-private partnership creates economic opportunity and makes those living in poverty less dependent on aid. The new commitment is in addition to the US\$ 650 million the Gates Foundation has already contributed since the Global Fund was launched 10 years ago at the World Economic Forum Annual Meeting in Davos.



## Coming of Age

Older people are the world's fastest-growing population group, and how we address global ageing will dramatically alter the way societies and economies work. If leaders fail to plan adequately for the changes ahead, healthcare and pension systems will be strained more than they already are. The good news is that, if we act now, we have a chance of realizing the benefits of this important demographic resource. Launched in Davos by World Health Organization Director-General Margaret Chan, the Global Agenda Council on Ageing Society's book – *Global Population Ageing: Peril or Promise?* – brings together perspectives from multiple stakeholders on the interplay between population ageing and many facets of the modern world such as urbanization, international migration and social protection programmes. [http://www3.weforum.org/docs/WEF\\_GAC\\_GlobalPopulationAgeing\\_Report\\_2012.pdf](http://www3.weforum.org/docs/WEF_GAC_GlobalPopulationAgeing_Report_2012.pdf)

# Job Number One: Job Creation

While the immediate attention of the international community should be fixed on resolving the Eurozone crisis, the top priority is to bring into the workforce the 200 million unemployed, particularly youth. This will require collaborative approaches in every economy to implement structural reforms to promote growth and inclusion and address fiscal imbalances.

Essential too is more free and fair global trade. While efforts to move forward the trade agenda are being made at the bilateral or plurilateral levels, the focus should continue to be at the multilateral level, even though the prospects for concluding the Doha Round are bleak.

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We are not going back to the world that we knew. We have to go for transformation. We have to talk about job creation, not job security.

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Ben J. Verwaayen Chief Executive Officer,  
Alcatel-Lucent, France; World Economic  
Forum Foundation Board Member

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For the talented, the world is your oyster.

”

Lee Hsien-Loong Prime Minister of Singapore



**01:** Ben J. Verwaayen, Chief Executive Officer, Alcatel-Lucent, France

**02:** Lee Hsien-Loong, Prime Minister of Singapore

**03:** Aria Finger, Chief Operating Officer, DoSomething.org, USA; Global Shaper; Maurice, Levy, Chairman and Chief Executive Officer, Publicis Groupe, France; Foundation Board Member; Awn Shawkat Al Khasawneh, Prime Minister and Minister of Defence of the Hashemite Kingdom of Jordan; Juan Somavia, Director-General, International Labour Organization (ILO), Geneva; Mohammed H. Al Mady, Vice-Chairman and Chief Executive Officer Saudi Basic Industries Corporation (SABIC), Saudi Arabia; Peter Diamond, Institute Professor and Professor of Economics Emeritus, Department of Economics, Massachusetts Institute of Technology (MIT), USA; and Ross Westgate, Anchor and Presenter, CNBC, United Kingdom

**04:** Overview of the session "The Davos Debrief: Growth and Employment Models"



Imagine a country inhabited by the citizens of Germany, Thailand, Colombia and Sierra Leone. That combined population of 200 million people is equivalent to the total number of unemployed around the world today, according to the International Labour Organization (ILO).

In Spain, which has been hit hard by the Eurozone crisis, 23% of the labour force is unemployed. More unsettling, 33% of adult Spaniards aged 30 or younger are out of work. Youth unemployment is at an historic high. The ILO estimates that 75 million young people aged 15 to 24 – the combined population of France and Belgium – are neither in school nor in the workplace.

Over the next decade, 600 million new jobs will need to be created for today's jobless and 400 million new entrants to the workforce. Even then, the ILO estimates, some 900 million workers will be living with their families below the poverty line.

The frustrations of youth robbed of hope and dreams could easily spiral out of control. In 2010, 26-year old Tunisian vendor Mohamed Bouazizi immolated himself after municipal authorities confiscated his wares. His death set off massive protests that eventually felled the Tunisian government in 2011 – and inspired Arab Spring revolutions in Egypt, Libya and elsewhere in the Middle East, where the youth unemployment rate exceeds 26%.

The unprecedented spike in unemployment is partly due to the global financial crisis. Some 27 million people have joined the ranks of the jobless since the onset of the economic troubles in 2008. But there are also structural reasons. In many sessions of the World Economic Forum Annual Meeting 2012, business leaders complained of the difficulty in finding the right talent – even in the United States, where 13.1 million people are unemployed.

Globalization, technology and other trends are rapidly changing the requirements of many jobs, but the skills that people bring to the table are not being upgraded at the same pace. The mismatch in supply and business demand applies as well to fresh graduates – the skills and knowledge taught in schools often have little relevance to the workplace and the real world.

The nature of employment itself is changing. Technology is destroying old jobs while creating new ones. Tasks that used to be done in one place can now be outsourced across oceans as global supply chains become more extensive. Job descriptions can change almost overnight, so workers have to study and train continuously to keep up; and few organizations today can promise a "nine-to-five job for life".

Plainly put, the world requires new models for growth and employment. "We are not

going back to the world that we knew," Ben J. Verwaayen, Chief Executive Officer, Alcatel-Lucent, France, and a World Economic Forum Foundation Board Member, said. "We have to go for transformation. We have to talk about job creation, not job security."

In the search for new models, the starting point should be the Eurozone crisis, as it threatens to destabilize the global economy. Participants broadly concurred that the International Monetary Fund (IMF) should get more money to backstop the financial firewall that Eurozone leaders are erecting in the form of the European Financial Stability Facility, which currently only has some 250 billion euros in unspent funds, and the European Stability Mechanism.

With a large enough buffer, the reasoning goes, markets and businesses would gain confidence in the Eurozone's ability to shield Spain, Italy and France from contagion if Greece were to default on its sovereign obligations. With confidence restored, those billions would not even be spent. However, participants stressed that Eurozone countries must take bold steps to put their financial house in order, because no financial firewall can protect them if they are profligate and insolvent. Containment is not resolution.

Participants urged a collaborative and multistakeholder approach to resolving the Eurozone crisis. Citizens must especially be involved in, or at least fully informed of, policy-making, not necessarily through formal referenda or voting, but through the use of social media and other means of communication. Only when governments, multilateral agencies, businesses and individuals work together can the world return to robust economic expansion.

Each country's goal should be to create jobs and minimize income disparities, even as economic growth is underpinned by environmental sustainability. The old-model growth that generated wealth for less than 1% of the world's population and condemned the rest to poverty is untenable in an interconnected world where discontents and frustrations can be broadcast – and acted upon – via the Internet and mobile devices.

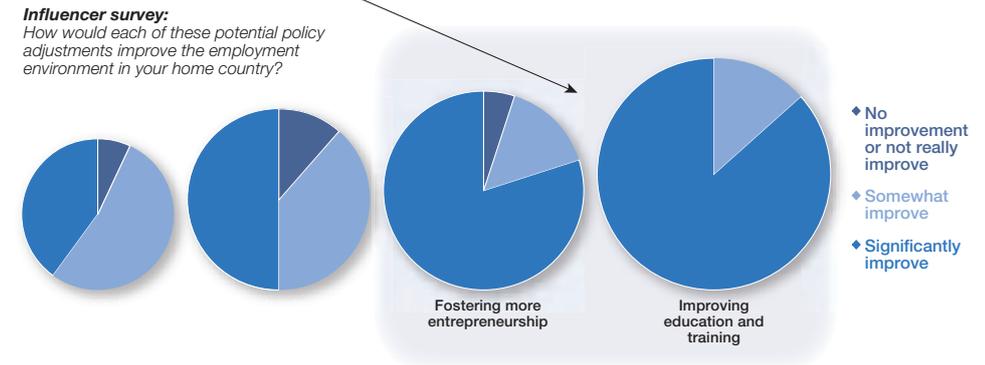
Free trade should continue to be pursued, but so should fair trade. Individual countries have shown remarkable restraint in deploying overt protectionism, which testifies to the effectiveness of the World Trade Organization (WTO) processes and monitoring by the G20 countries. But other practices that distort open trade should be eliminated. These include effective government subsidies to state-owned companies, exports and capital, as well as intervention in exchange rates to keep currencies artificially cheap.

The Doha Round of trade talks has stalled even as bilateral and regional negotiations are intensifying. This is understandable as governments seek quicker ways to generate jobs and jump-start economic growth. But the multilateral process should not be forgotten.

## Education and entrepreneurship are keys to improving the employment environment

Source: PwC and the World Economic Forum (2011)

### Policies to improve Arab world employment

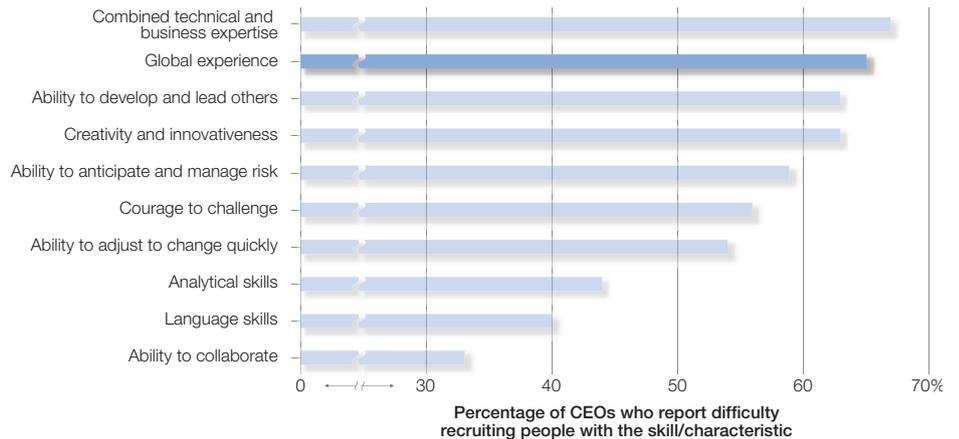


Note: Size of circle represents percentage of respondents who believe the policy adjustment would improve the employment environment. Only areas of policy adjustment selected by more than half of respondents are included. Sample consists of 25 influencers from corporate, government or civil society stakeholders in the Arab world.

## Finding global experience is among the most difficult recruitment challenges

Source: PricewaterhouseCoopers 11th Annual Global CEO Survey (2008)

### The most difficult skills to recruit



Trade ministers at the Annual Meeting were in agreement that the WTO is needed to ensure fair treatment in trade, especially for poor countries.

Austerity is currently the buzzword, just as fiscal stimulus equivalent to 2% of GDP was the key prescription during the 2008 financial crisis. But if every economy cuts back at the same time, global growth would be slower than the current IMF forecast of 3.3% in 2012 – or even stall.

Economic policies should be customized to fit each market's specific circumstances. Those countries with severe fiscal imbalances, such as Greece, should continue tightening. Others that have already made cuts, such as the United Kingdom, should let automatic stabilizers bring the economy closer to balance. The few economies that are in surplus should temper fiscal consolidation efforts and focus on targeted spending, particularly on measures to stimulate domestic consumption.

Governments should refrain from picking winners and losers among companies and, instead, act as facilitators in creating the ecosystems that allow enterprises to operate at optimal efficiency. They should also strive to strike the right balance in regulations and taxation. Special attention should be paid to small and medium-sized enterprises (SMEs) because they are the engines of job creation.

Governments can pick winners in terms of industries, but the choice of which sectors to back should be made on the basis of each country's comparative advantages. In general, the most promising sectors include green technologies, infrastructure and healthcare. The new model of manufacturing, which involves global supply chains rather than limited local geographies, should be on everyone's agenda because it can boost employment – one job in manufacturing can create eight other positions.

“

**It's not just a Eurozone crisis. It's a crisis that could have collateral effects, spillover effects around the world. Everybody has an interest in making sure that this crisis is resolved adequately.**

”

Christine Lagarde Managing Director,  
International Monetary Fund, Washington DC;  
World Economic Forum Foundation Board  
Member

Businesses have an important role in the new models of growth. The optics of executives earning millions while employees are sacked can only inflame. Enlightened self-interest also dictates that corporate governance and social and environmental responsibilities are taken seriously. In the age of social media, faked or insincere pronouncements are easily exposed and disseminated. Companies should also promote wellness in the workplace – the cost of employees contracting cancer and other non-communicable illnesses can be enormous in terms of lost output.

Corporations have always taken the lead in training and retraining, but government and other partners such as schools and civil society should be more involved. The mismatch in supply and demand of workplace skills and knowledge can be set right only with the collaboration of all stakeholders. Continuous and relevant education is key, particularly in math and science, without forgetting the liberal arts.

One size does not fit all, but employment models in Germany and the Nordic countries can be adapted in individual countries. The elements include an apprenticeship system in which young people are trained as apprentices during or after leaving school, gender- and age-blind employment, close

consultation with labour unions in policy-making and representation of labour on company boards.

Other measures offered by participants include more flexible labour markets, portable pension and medical plans recognized across borders, nuanced immigration policies to promote global talent mobility, and a higher retirement age to allow older workers to continue leading productive lives (and relieve pressure on pension systems). Schools should redesign their curricula in partnership with business to better respond to the needs of commerce for the right talent and encourage entrepreneurship at a young age – self-employment is yet another route to full employment.

Some Forum participants propose to develop a Human Capital Index to monitor and

benchmark how a country is performing in areas important for growth and employment, including infant mortality, access to primary, secondary and tertiary education, training and retraining opportunities and enablers such as incentives for entrepreneurship. The index will highlight the gaps between industry needs and what skills are or may be available. Government, industry, educational institutions and labour will thus be able to take proactive measures to act on the mismatch.

If there is a G20 platform for developed and developing countries to discuss global affairs, said one participant, there should also be a B20 for small and large businesses and an L20 for labour. The three sectors should come together periodically to craft new models for growth and employment. In solving common problems, there is nothing more effective than working together towards the same goals.

## Insight and Impact from Davos

- **Infrastructure Readiness Index**  
The initiative contributed to and capitalized on the work of the G20 infrastructure development task force, including a call for multilateral development banks' action, adoption of whole life cycle project evaluation standards and design of an infrastructure readiness index.
- **Scenario for the Russian Federation**  
The Scenario for the Russian Federation process was launched in Davos. As Russia is at a crucial turning point, the Forum provides a neutral platform for engaging the public and private sector leadership of the Russian economy in a forward-looking strategic dialogue on the future “business idea” for Russia's economy. It seeks to explore possible scenarios for Russia's future economic prosperity and the underlying social, economic, political and institutional drivers.
- **Euro, Dollar, Yuan Uncertainties – Scenarios on the Future of the International Monetary System**  
Stabilization in Europe appears to have been achieved, at least in the short term. The challenge will be to maintain growth and avoid an “East Germanification” of Europe's periphery. Tensions will continue to arise from the dollar's key role as a safe asset in times of global uncertainty and the imperatives for the US to grow out of its current crisis. Efforts to increase the resilience of the international monetary system are more likely to occur on a regional than on a global level. The Forum's Scenarios project will produce a report on the insights from the past year of research and discussions that will be launched at the Forum's meeting in Istanbul in June.

**01:** Breakout discussion during the session “Overcoming the Youth Employment Challenge”

**02:** Robert Z. Lawrence, Albert L. Williams Professor of Trade and Investment, Harvard Kennedy School, Harvard University, USA; Global Agenda Council on the Global Trade System; Gita Wirjawan, Minister of Trade of Indonesia; Frederico Fleury Curado, President and Chief Executive Officer, EMBRAER, Brazil; Ron Kirk, US Trade Representative; Karel De Gucht, Commissioner for Trade, European Commission, Brussels; Pascal Lamy, Director-General, World Trade Organization (WTO), Geneva; Anand Sharma, Minister of Commerce and Industry, Textiles of India; and Craid Emerson, Minister of Trade of Australia



# Leading in a Hyperconnected World

In a hyperconnected world, the public's expectations of leaders are heightened – people want to be heard and want results quickly. To deal with these pressures and make good choices, a leader must maintain close contact with all levels of his or her organization and its customers.

The new model for leadership requires streamlined operations and clear lines of communication. Leaders have to stay abreast of the latest social developments and trends. They also need to be clear about their values since these will guide their decision-making process in a crisis.

“

Being emotionally secure is absolutely important. If you are insecure, get out. Don't try to avoid tough decisions because they will come back to you later.

”

Carlos Ghosn Chairman and Chief Executive Officer, Renault-Nissan Alliance (France and Japan), France; Foundation Board Member

“

You need to know that people will follow you. That means establishing credibility, which comes from integrity, honesty and openness.

”

Brian Duperreault President and Chief Executive Officer, Marsh & McLennan Companies (MMCo), USA

Events such as Occupy Wall Street demonstrations, the Arab Spring and a number of recent natural and man-made disasters present leaders with a rapidly evolving set of challenges. Globalization and the disruptive effects of accelerated technological change are driving factors, but growing disparity of income between the poorest and richest segments of society also needs to be taken into account. While social media continues to be seen as a major factor in organizing political movements, from a leader's perspective, hyperconnectivity and the speed of communications along with the expectations they create may be even more important.

Hyperconnectivity enables the public to react almost as a single organism to new developments with extraordinary numbers, power and speed. The accelerated speed of communications creates immediate expectations and means that leaders often have insufficient time to respond to changing situations.

The new model for leadership requires streamlining operations while developing and emphasizing internal and external communications. More than ever, leaders need to maintain a global perspective while

paying close attention to things on the home front. While the effects of an event may be local, the implications are global. The new model especially requires maintaining close contact with all the operational levels of an organization and with its constituency or customers. It means establishing a clear set of priorities and values that will set a direction for the organization when events seem to go haywire.

Trying to lead when events surpass the capacity of contemporary structures is an ongoing problem. One participant noted that Europe is not short of leaders; the real difficulties in coping with the Eurozone crisis are inherent in the organizational structure of the European Union.

The difficulties of operating within outdated organizational structures are compounded by the requirements to make decisions quickly. During the meltdown of the Fukushima nuclear plant in Japan in March 2011, Japanese officials felt pressured to respond to the public within three hours of the disaster, but did not have enough accurate information to be able to decide on an effective course of action.

“

**We think of innovation as involving technology. We need to shift gears and reboot to look at innovation as not limited to physical technology, but involving social technology as well.**

”

Johanna Mair Professor, Stanford University, USA; Global Agenda Council on Social Innovation



01



02

**01:** Alpha Conde, President of Guinea

**02:** Ngozi Okonjo-Iweala, Coordinating Minister for the Economy and Minister of Finance of Nigeria; Meles Zenawi, Prime Minister of Ethiopia; and Jacob Zuma, President of South Africa

**03:** Amre Moussa, Presidential Candidate, Egypt; Secretary-General of the League of Arab States, Cairo (2001-2011); Abdelilah Benkirane, Chief of Government of Morocco; Hammadi Jebali, Prime Minister of Tunisia; Abdel Moneim Aboul Fotouh, Presidential Candidate, Egypt; Secretary-General, Arab Medical Union, Egypt; and Nadine Hani, Senior Presenter Al Arabiya, United Arab Emirates



03

They wanted to warn people of the short- and long-term dangers of radiation but did not want to spread panic. In addition, the officials themselves were unsure of the true safety limits under the circumstances. An added difficulty was that different government organizations came to contradictory conclusions, while there was a need to speak with one voice. The solution was to hold joint press conferences, but even this encountered criticism.

The nuclear disaster not only affected Japan, but also created a virtual tsunami of its own by disrupting global supply chains. The lack of electricity from Fukushima shut factories across Japan, which halted production lines around the world dependent on Japanese parts. That brought home to CEOs everywhere that, in this globalized world, an event anywhere can have an immediate impact on business.

With demands on leaders increasing daily, the most obvious incentive is compensation – a major topic at the Annual Meeting. While compensation is the most common approach to attracting top talent, it is also increasingly open to criticisms that may impact on a leader's ability to lead, especially when multi-million dollar bonuses are not visibly matched by leadership performance. An increasingly troubling issue, especially in the wake of ongoing economic uncertainty, is growing economic disparity.

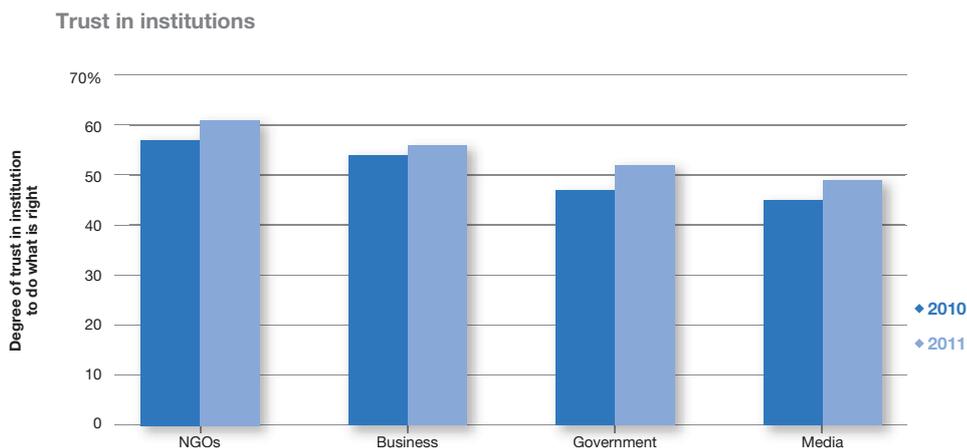
Realistically, a multi-million dollar bonus may not be that important to a large corporation's bottom line. However, what is important is the signal that an exceptionally generous pay package sends to the company's employees and the public at large. The effect is to put the leader or CEO in a class that is separate from the employees at the very moment when solidarity within the organization is particularly important and more productivity is being demanded of employees. The result is a weakened organization. As Enda Kenny, the Taoiseach of Ireland, put it during a session on rebuilding Europe: "People are prepared to sacrifice, but they won't accept being sacrificed."

Excessive compensation tends to create the illusion that the leader is somehow excluded from the difficulties that ordinary people are experiencing – something of a "Masters of the Universe" syndrome. There is a farther-reaching corrosive effect on human capital. In the United States, for example, 30% of the best and brightest graduates from Ivy League colleges and universities go into finance. From a national perspective, that imbalance is not likely to be the most efficient mix to keep the country competitive, especially in terms of manufacturing.

A primary issue surrounding compensation is credibility. It is increasingly important to reduce suspicions of profiteering by ensuring that compensation committees are completely independent of the CEO. Even better, the new

## Public trust in institutions rose modestly in 2011

Source: Edelman Trust Barometer (2011)



## Insight and Impact from Davos

### – Scenarios for Sustainable Health Systems

The financing of health systems has increasingly burdened developed economies, which has been exacerbated by the fiscal crisis. Participants agreed on the drivers of the expenditure growth and, since many of these factors are unlikely to recede (e.g. ageing, lifestyles, public expectations), there is a clear need to develop a more sustainable way of managing health systems. The magnitude of health financing challenges suggests that incremental solutions may not be enough; however, a shared vision of new models for health systems does not yet exist. Therefore, over the coming year, the Forum will engage stakeholders in creating a vision and recommendations on how societies can keep people healthy in an economically sustainable way.

### – Disaster Resource Partnership (DRP)

No calamity is similar: key variables include the cause of the disaster, its geographical location, the number of people killed or injured, and the efforts required to rebuild communities. Associations need to continually maintain relations with national governments as effective collaboration is only possible when solid foundations have been built before emergencies.

### – Future of Urban Development

This cross-industry initiative was launched. Mayors and participants committed to host a series of roundtable discussions in their cities. The first roundtable is confirmed for Tianjin in late spring/early summer.

### – The New Vision for Agriculture Initiative

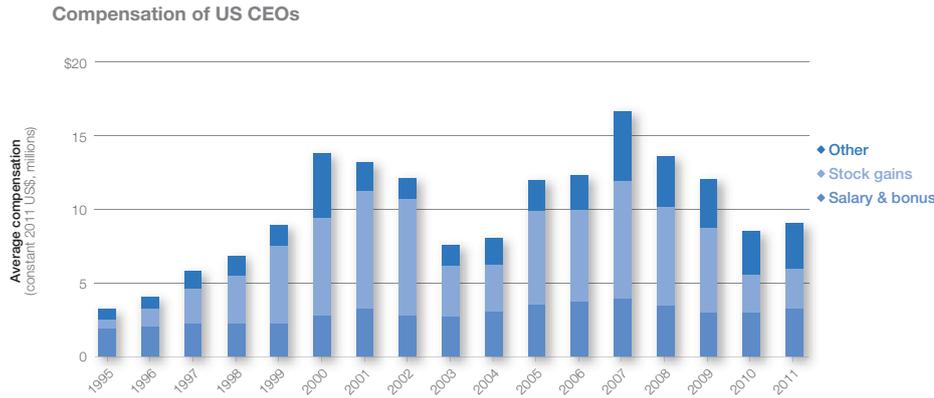
Global leaders from business, government, civil society and other sectors have rallied around the New Vision for Agriculture, a strategy to ensure food security, environmental sustainability and economic growth through agriculture. Led by 27 global Partner companies of the Forum, the initiative has established public-private partnerships in 11 countries in Asia, Africa and Latin America. Each engages a group of 15-40 companies in partnership with government and other stakeholders to accelerate progress on shared priorities – such as specific crops or geographic regions. In Davos, leaders of both the G8 and G20 pledged support for the New Vision as an innovative and potentially transformative model for achieving global food security.

**01:** Lionel Barber, Editor, Financial Times, United Kingdom; Enda Kenny, Taoiseach of Ireland; Helle Thorning-Schmidt, Prime Minister of Denmark; Bronislaw Komorowski, President of Poland; and Jyrki Tapani Katainen, Prime Minister of Finland

**02:** Hiroko Kuniya, Anchor and Presenter, Today's Close-Up, NHK (Japan Broadcasting Corporation), Japan; Kittiratt Na-Ranong, Deputy Prime Minister and Minister of Finance of Thailand; Carlos Ghosn, Chairman and Chief Executive Officer, Renault-Nissan Alliance (France and Japan), France; Foundation Board Member; and Brian Duperreault, President and Chief Executive Officer, Marsh & McLennan Companies (MMC), USA

## CEO compensation peaked in 2007

Source: Forbes Annual Executive Compensation Reports; US Bureau of Labor Statistics



Note: For years through 1999, sample is the 800 largest US companies; for years since 2000 sample is the 500 largest companies in the US.



model is likely to be more effective if it is made clear that ultimate responsibility really does lie with an independent board of directors.

Connectivity both within and outside the organization is emerging as one of the most important elements of the new leadership model. It used to be that a CEO's primary duty was to increase share value for stockholders and to keep the board of directors happy. Leadership today requires staying abreast of a wide range of social developments. The CEO of a major food company pointed out that, a decade ago, his major concern was producing a tasty meal at an affordable price. Today, customers want to know about the packaging used, labour conditions and a wide range of other issues. Future leaders need to be aware of all of the options available, but also need to know what their customers and employees are really thinking.

Many of the qualities of the new leadership model are enhancements of the qualities that have always been part of leadership. Carlos Ghosn, Chairman and Chief Executive Officer, Renault-Nissan Alliance (France and Japan), France, and a World Economic Forum Foundation Board Member, noted in a session on making tough choices in times of crisis that a key factor is maintaining clear priorities. Ghosn recommends having only a single one.

Leaders need to be clear about their values since these will guide their decision-making process in a crisis. Most importantly, they have to ensure that others will follow their lead. That means establishing close connections and building personal loyalty before a crisis hits. The Internet and social media could provide valuable tools for leaders to make rapid decisions while ensuring a collaborative, multistakeholder approach that buttresses their legitimacy.

Kittiratt Na-Ranong, the Deputy Prime Minister and Minister of Finance of Thailand, noted that, in any crisis, the leader is expected to respond to stakeholder expectations. In some cases, these can be contradictory or less than clear. "The hardest thing is to go against the stakeholder's expectations when you know that those expectations are wrong and that you are right," Kittiratt acknowledged. Another difficulty in crises is sifting through contradictory advice, added Ghosn. "If all the advice points in the same direction, you know that people are telling you what you want to hear." The answer is to learn how to read people and to know which advice to trust.

Ultimately, the most critical element is accurate information. To get it, a leader needs to set up the lines of communication before trouble hits and to make it clear to everyone in the organization that they should provide only real information. After that, the final decision rests on the leader's decision-making capacity and accumulated experience. In that respect, the new model is no different from what it has always been.

# Time to Redefine Sustainable Growth

Climate change and increasing stresses on natural resources are forcing a redefinition of the concept of sustainable growth. New governance and business models are integrating resource scarcity, the ecological footprint of activities and realistic pricing of inputs.

The good news is that the growing determination of India, China and African countries to lead the world in sustainability is creating a race to be green that is inspiring other countries to follow. This collaborative spirit can generate game-changing innovations to boost clean energy that are low in cost and easily replicable and scalable.

“

We have to be extremely creative to create the right enabling environment, legislation and policies to be sure we can work with the private sector in a different way. We are looking at completely new models, particularly for those of us who are hydrocarbon rich.

”

Diezani K. Alison-Madueke Minister of Petroleum Resources of Nigeria

Persistent acute stresses on natural resources, severe climate extremes, natural disasters, poverty, unemployment and political unrest have pushed the world to a tipping point. Many reflect upon 2011 as a year of chaos, doom and gloom, and irreparable broken models. But this pessimism was offset during the Annual Meeting by the emergence of new ways of thinking and pockets of innovation resulting in models that could be scaled up – providing there is political will and “people power” embedded in public-private partnerships.

Many of these new sustainable growth technologies and models are originating from emerging markets where escalating economic pressures are inspiring innovation. For example, in 2010, in the middle of the financial crisis, over half of global renewable energy investments were in emerging markets. As one participant observed, “They are learning from our mistakes – we can learn from their innovation.”

With the world’s natural resources under threat, skilfully managing risks in the water-food-energy nexus is critical; chronic mismanagement has thwarted economic growth and social stability. Subsidies that distort this nexus must be abolished, particularly for fossil fuels. In some developing countries, government spends more on fuel subsidies than it does on education and healthcare.

However, the world’s poor must be protected and placed at the centre of any strategy that addresses proper market prices to reflect social costs. With an estimated 925 million hungry people, the world’s food systems are clearly broken after decades of mismanagement and distorted production and distribution patterns. Feeding the world in 2050 could require a 70% increase in food production. A huge challenge is taming price spikes and excessive food price volatility.

Nonetheless, participants expressed confidence that a food crisis can be averted, pointing to technological innovations in crop science, access to information for farmers and new models of cooperation between governments and businesses. For example, Africa can feed itself but, instead of focusing solely on production, the entire value chain must be reshaped to include research, storage and logistics. Malawi is a model; it has recently turned from a net importer to net exporter of food to its neighbours.

The oceans provide the natural capital that drives all economies and humanity and moves 90% of global trade. Yet, the world’s largest ecosystem is abused and neglected. A “networked system of good governance” that draws in all stakeholders is required to save the oceans, rather than laws, regulations and market-based mechanisms. Today, 1.5 billion people depend on oceans for protein. To feed 9 billion people, sustainable aquaculture must be developed, which could treble the amount of protein available.

The World Economic Forum’s *Global Risks Report 2012* warns that failure to curb rising carbon emissions poses the most significant global environmental risk over the next decade. However, socioeconomic development for billions of people living in poverty depends on growth, which is powered by energy. But what kind of growth, and can it be sustainable? Is it possible to reverse resource-intensive consumption patterns?

Perhaps the very notion of “sustainable growth” should be redefined. Is it an oxymoron? Is it achievable in today’s societies, driven by consumption-led growth, which depends on promoting relentless consumption through underpricing of resources? New governance and business models that integrate resource constraints, the ecological footprint of activities and a realistic pricing of inputs are needed. This will require draconian rules and regulations. A new model of consumerism should be based on value, not volume. An example is goods that can be transformed at the end of their life cycles rather than discarded. However, tough decisions are required to balance economic, social and environmental sustainability with the aspirations of young people, particularly the poor in developing countries.

Many companies complain that they cannot reach their sustainability goals because they face consumer resistance. Radical measures have been proposed to “green” consumers and shift them towards a more sustainable



**01:** Antonio de Aguiar Patriota, Minister of External Relations of Brazil

**02:** Diezani K. Alison-Madueke, Minister of Petroleum Resources of Nigeria

**03:** Ban Ki-moon, Secretary-General, United Nations, New York





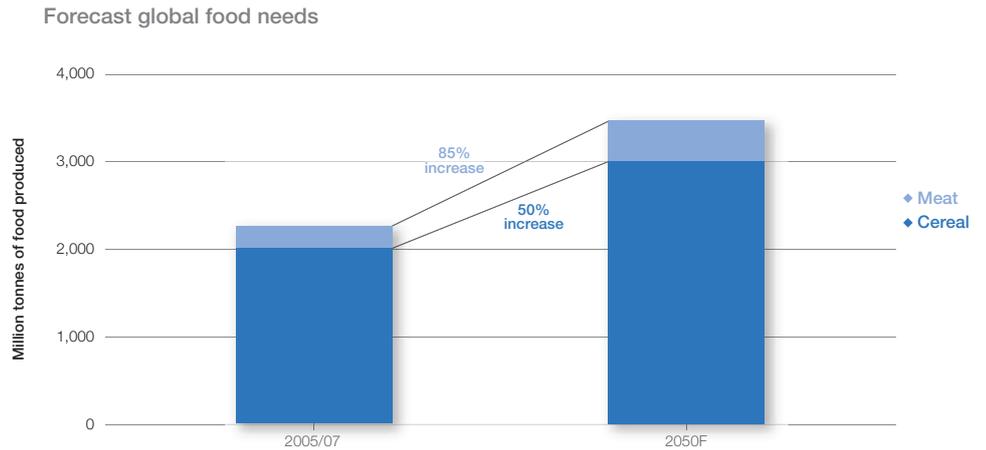
By providing sustainable energy for all, we can revitalize economic growth, protect this planet Earth and the environment, and spread the benefits of development more equitably; but we cannot build a green economy on the backs of the poorest and most vulnerable people.



Ban Ki-moon Secretary-General, United Nations, New York

### Feeding the world in 2050 could require a 70% increase in total food production

Source: FAO; United Nations Population Division



Note: Based on UN Population Division's Medium Variant forecast for 2050 population

**01:** Bruno Le Maire, Minister of Agriculture, Food, Fishing, Rural Affairs and Spatial Planning of France; and José Graziano da Silva, Director-General, Food and Agriculture Organization of the United Nations (FAO), Rome

**02:** Lynda Gratton, Professor of Management Practice, London Business School, United Kingdom; Global Agenda Council on New Models of Leadership

**03:** Bob Diamond, Chief Executive, Barclays, United Kingdom



way of consuming. One of these is a plan to devote 5% of all advertising budgets to a global campaign to promote sustainability. Another is to change living and consuming patterns by reducing the working week, thus reducing energy consumption – globally and in a coordinated fashion. Social media will play a vital role in these efforts.

There can be no development without access to energy. But billions remain mired in energy poverty condemned to darkness and missed opportunities for education and prosperity. Energy poverty cuts across and undermines all aspects of development. The United Nations has declared 2012 the International Year of Sustainable Energy for All and laid out ambitious targets. By 2030, access to energy should be universal, the rate of energy efficiency should double and renewables in the global energy mix should be at least 30% compared to 16-17% today.

The United Nations has called on businesses to invest in projects and infrastructure and implored governments to make sustainable energy a priority by implementing policies to provide clean, affordable and reliable energy. A mix of private and public funds is needed.

One suggestion is to use official development assistance (ODA) as leverage to provide risk premiums, which could encourage the private sector to invest.

Energy as a human right will be pushed at Rio+20, the UN Conference on Sustainable Development in June, where many leaders are hoping to create the Sustainable Development Goals. Also on the agenda is a Green Gross Domestic Product taking into account environmental and sustainability factors and establishing sustainability criteria for development financing.

Citizen involvement in energy policy-making is crucial. Deliberate, proactive work is needed to engage all stakeholders in the debate in a transparent process long before the outset of a project. This collaboration could take the form of a new “social contract” based on mutual trust. This is particularly important in developing countries, the source of almost all energy growth in the next 20 to 30 years.

The growing determination of India, China and countries in Africa to become global leaders in sustainability is creating a race to be green that can inspire other countries to follow and



We have to deal with this planet Earth that we have. As members of the human race we have a responsibility to future generations. We cannot borrow space on planet Mars.



Raila Amolo Odinga Prime Minister of Kenya

generate game-changing innovations to boost clean energy that are low in cost and easily replicable and scalable.

The stage is set for innovation and sustainable models in Africa, which is being priced out of fossil fuels and seriously jeopardized by climate change. With 70% of the population relying on agriculture for their livelihoods, the continent has no choice but to pursue green, climate-resilient growth. Africa is enjoying greater peace and stability and younger leaders are stepping up. The challenge is not to develop the traditional practices that have destroyed resources around the world, but to leapfrog and find ways to adopt the latest technologies to promote clean energy and resource efficiency. Africans have the potential to lead sustainability over the next two decades.

Wind energy is powering socioeconomic development in India under a government policy that facilitates locating manufacturing and other businesses on privately run wind farms. This is a “triple win” – it generates cheap electricity, creates jobs and boosts the skill levels of rural people, who tend not to migrate to cities if they can earn income at home.

Brazil’s Light for All programme is replicable, but success depends on many factors, including a national grid and a mix of public and private funding. The economic spin-offs of this initiative, launched in 2003, were astronomical. As 2.8 million families switched on, they started buying millions of household goods.

China’s energy plan considers the “macro energy balance equation” and is focusing on engaging local authorities in energy conservation. China recognizes that low carbon must be part of the equation. Key to the energy solution is determining how much growth is feasible and the quality and quantity of energy to power it. This systematic approach could be a model for developing countries.

The 16 companies that have been identified by the Forum as New Sustainability Champions are from emerging markets and can provide models. They are embedding sustainability across their value chains by moving from non-renewable to renewable materials and applying clean production and delivery methods. Sustainable job creation results from these practices.

Shaping sustainable models requires a holistic approach to all natural resources and a collaborative effort from all stakeholders, particularly local communities. Solutions cannot be imposed on a global level – new models must take into account local conditions and priorities. Instead of public-private partnerships, it is time to move to people-public-private partnerships.

## Insight and Impact from Davos

### – Green Investment

Mexican President Felipe Calderón asked the Forum to develop new public-private finance mechanisms for green infrastructure to be released at the G20; the prime minister of Kenya, finance ministers of Chile and Guinea and CEOs of development finance banks responded with ideas and concrete proposals (UK Foreign Secretary Andrew Mitchell announced a new climate public-private partnership fund with £130 million of funding to catalyse private sector investment). Barclays CEO Bob Diamond noted that green finance can be the path out of the financial crisis and pledged to partner with government to make these investments a reality.

### – Economic and Political Implications of Resource Scarcity

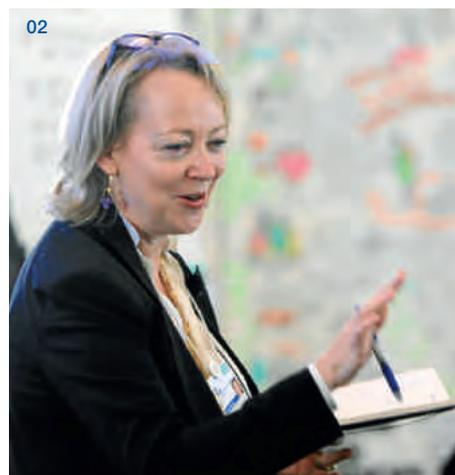
The politics of the resource agenda is as important as economic analysis to manage resource constraints, and differing stakeholder perspectives and interpretations of scarcity and abundance are a key barrier to coordinated action. To create a scalable shift to sustainable resource use, issues of resource efficiency, clean growth, social justice and inequality must be fused together into economic decision-making. A key area for further research was identified: the models used by governments to create and implement integrated policies across different resources, stakeholder interests and levels of government. The Forum’s Resource Scarcity project will detail the quantitative and qualitative insights from the past year of research and discussions as input to the Rio+20 meeting in June.

### – Water Resources Group (WRG)

This “new model” of public-private-civil society collaboration for the water sector was launched in Davos and will be hosted at the International Finance Corporation on behalf of the World Bank Group. Muhtar A. Kent, Chairman of the Board and Chief Executive Officer, The Coca-Cola Company, USA, pledged US\$ 2 million for the ongoing support of WRG. The Minister of Finance of Guinea invited WRG to start a country partnership, and a Memorandum of Understanding was signed with the Inter-American Development Bank to become a Regional Champion. These practical outcomes are a snapshot of how WRG is helping to change the “political economy” for water reform and a positive disruptor in the global water agenda.

### – The Responsible Mineral Development Initiative

Created to help countries develop their mineral resources in a socially and economically responsible manner, the initiative released its report highlighting six key actions to address the challenges commonly associated with mineral development.



# The Power of Technology

The name of the game is smart growth – making more with less. Smart-growth solutions should neither increase income inequalities nor damage the environment.

Scientific methods can be applied to addressing complex issues. To shape new models will require the participation of experts from a wide range of disciplines. Social media platforms can drive such far-reaching collaboration and spur game-changing approaches to leadership and global challenges.

“

There is no question that people who are not as educated, not as disciplined and not exposed to the markets as much are affected negatively by technology. This is no different from the loom when it was invented, and the impact that it had. And I don't think that any of us would want to go out and somehow to delete the loom.

”

Eric Schmidt Executive Chairman, Google, USA



**01:** Participants captured during the session “New Models of Healthcare with the National University of Singapore”

**02:** Detailed view of Beta Zone screen in the session “The Mind and the Machine”

**03:** Rolf-Dieter Heuer, Director-General, European Organization for Nuclear Research (CERN), Switzerland

To appreciate how technological innovations are creating opportunities for inclusive growth, consider the rural school with a solar panel on the roof. Children come in the morning carrying batteries the size of a lunchbox. While they do their lessons and play in the yard, the packs are plugged in and charged. At the end of the day, the kids trundle home with their power supplies. If students skip school, their families do not have electricity that night. Set-up costs for this scheme are low; households gain access to inexpensive power from a clean source; and children have a compelling incentive to get an education. In addition, parents can make money by selling extra electricity on to others.

Launched by a social enterprise in India’s Karnataka state, this programme is a model of how technology can drive practical and affordable solutions to development challenges, including the lack of infrastructure, the difficulty of keeping children in school and the need for clean energy. It neatly combines technological innovation with social enterprise, promoting growth and creating jobs and opportunities. It borrows from microfinance practices and conditional social assistance programmes that have been so successful in Brazil and Mexico. It is a collaborative approach that can only succeed if all the stakeholders cooperate.

There are good innovations like this – and there are bad ones. Financial engineering

produced derivative products that evolved beyond the limits of sensible risk management and social safety and contributed to the recent banking crises in the United States and Europe. They may have been good innovations when it came to bank profits but turned out to be bad innovations when they were not properly used and adequately assessed and monitored.

Technology and innovation are disrupting economies, destroying jobs and creating them at the same time. The Great Transformation is an age of creative destruction brought on by the onslaught of new technologies, from the Internet and mobile telephony to robotics and artificial intelligence. While this deluge of applications cannot be stopped, it can be used to create opportunities, not kill them. Indeed, technology should be the great equalizer and not the great divider. Good innovations use technology to spawn new business models that promote inclusiveness, stimulate growth and employment, enhance sustainability and environmental responsibility, and are cost effective.

In a hyperconnected world of stressed resources, rising population and rampant consumption, new economic and business models have to be predicated on smart growth – how to do more with less. Businesses, governments, organizations and individuals are employing technology to do things differently, increasing productivity and,

in many cases, environmental responsibility. Smart grids, automation, sensor technology, mobile phones and ICT are allowing for more efficiency and sustainable use of energy. “Smart city” pilot projects are proliferating around the world, bringing together technology companies and cities and towns in public-private partnerships to promote sustainability, conserve energy, reduce costs and meet the needs of citizens who are demanding a reasonable price.

Science and technology are creating products and services that can be customized for an individual or even by the user. Applications on mobile devices or services – such as disaster monitoring on social media platforms – are allowing ordinary people to change and improve the world. People are now creating their own technology to make their lives better; take the growing practice of “gamification”, the use of computer and online game design techniques and dynamics to engage communities and solve real-world problems.

Scientific methods are also inspiring new approaches to global challenges. Because of their complexity, problems such as climate change require multistakeholder participation to address. It follows too that shaping solutions to problems that have economic, social, political, cultural and scientific dimensions needs a coordinated, multidisciplinary approach. As Nobel

Laureate Murray Gell-Mann, Distinguished Fellow, Santa Fe Institute, USA, pointed out, the international community should take inspiration from the sciences and create new ways of collaborating that harness the different skills and knowledge bases of all relevant experts.

Technology is changing the way leaders make choices. The Internet and social media, for example, can help ensure that they are still able to consult the appropriate constituents and take a course of action quickly in response to a fast-moving situation.

The innovations spun by social media are only just beginning. The rich data and information generated by interactions in expanding global social networks is yielding knowledge and insights that will allow companies to better meet the demands of their customers, and governments to better serve the needs of the public. Artificial intelligence analytics are raising data mining to a much higher level of sophistication, allowing leaders to be in close touch with their organizations and constituents and to communicate and interact with them more effectively.

“The days of the one-way conversation are over,” said Thomas L. Friedman, Columnist, Foreign Affairs, The New York Times, USA. “We are all in a two-way conversation. The challenge for political and corporate leaders is to understand the power of what can be generated from below. The sweet spot for innovation is moving down. The sweet spot in policy and politics is moving down.”

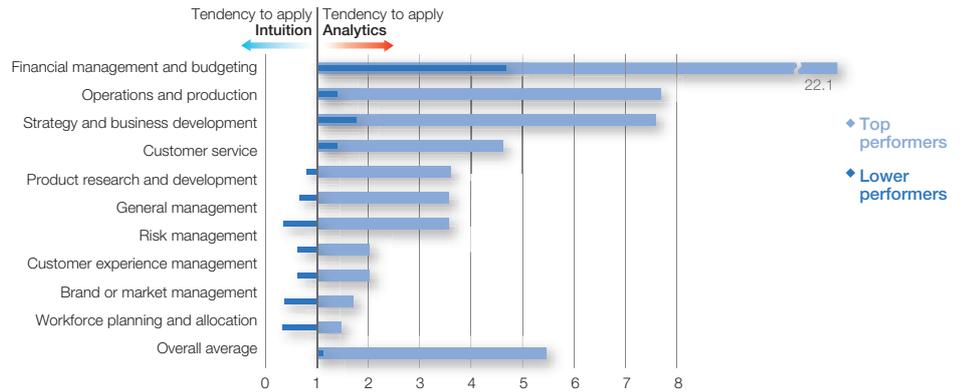
“  
**With the structure of employment changing so rapidly, people with BA degrees might be disappointed with their expectations. The only solution is that universities themselves should mould the expectations of students so that they are more flexible.**  
 ”

Christopher Pissarides Professor, London School of Economics and Political Science, United Kingdom

### High-performing companies tend to apply more analytics to decision-making

Source: Steve LaValle et al., "Analytics: The New Path to Value", MIT Sloan Management Review (2011)

#### Analytics and intuition in decision-making



Note: A likelihood of 1.0 indicates an equal likelihood that the organization will use either analytics or intuition. Top performers were survey respondents who reported they “substantially outperform industry peers”



04



# Insight and Impact from Davos

## Open Borders

Leaders from the supply chain and travel industries agreed to enhance the Forum's Open Borders programme by explicitly valuing the growth opportunities from abolishing barriers to trade and travel.



## Supply Chain & Transport Risk

The supply chain, transport and aviation communities agreed five recommendations for managing risk. Trends such as globalization, lean processes, mass travel and outsourcing have made supply chain and transport networks more efficient, but have changed risk profiles, yet visibility and understanding of this are not keeping pace. A new model of explicit and holistic risk management needs to be adopted by business and government to preserve the robustness and efficiency of supply chain and transport networks.

## Sustainable Transportation Ecosystem

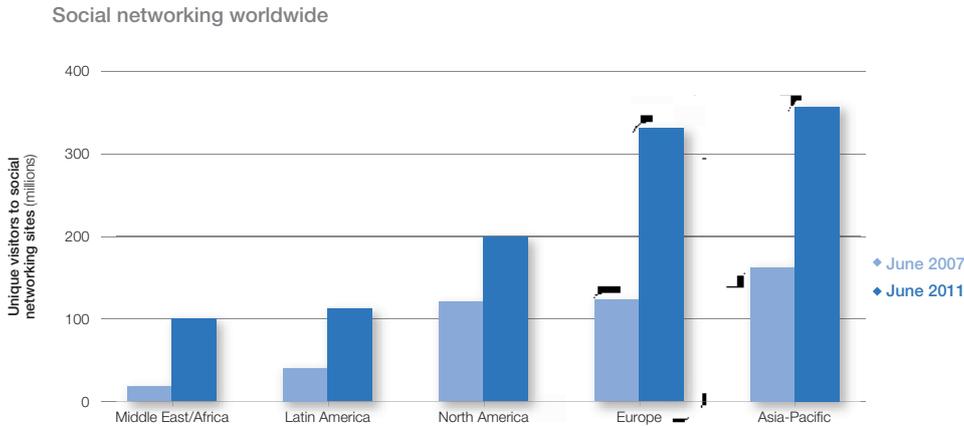
Participants endorsed the project's draft report, which recommends an integrated approach to achieving sustainable transportation. Participants agreed to focus on public-private partnerships to scale up aviation biofuels, among other steps.

05



### Asia continues to lead in number of social networkers

Source: comScore



**01:** Christopher Pissarides, Professor, London School of Economics and Political Science, United Kingdom

**02:** Nouriel Roubini, Professor of Economics and International Business, Leonard N. Stern School of Business, New York University, USA; Global Agenda Council on Fiscal Crises

**03:** Tan Chorh-Chuan, President, National University of Singapore, Singapore, captured during the session "New Models of Healthcare with the National University of Singapore"

**04:** Magid Abraham (C), President, Chief Executive Officer and Co-Founder, comScore, USA

**05:** "The Secrets of the Universe"

**01:** Participants captured during the IdeasLab “Creative Job Creation with the Wharton School, University of Pennsylvania”

**02:** Susan Elizabeth Jukes during breakout discussion in session “Overcoming the Youth Employment Challenge”

**03:** Global Shapers

**04:** Participant in session “Exploring the Political and Economic Implications of Resource Scarcity”

**05:** Muhammad Yunus, Chairman, Yunus Centre, Bangladesh



# Acknowledgements

*The World Economic Forum would like to thank its Strategic Partners for their valuable support of the World Economic Forum Annual Meeting 2012.*

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01



01: Global Shapers

02: Drue Kataoka, Artist, USA

03: Franky Oesman Widjaja, Chairman and Chief Executive Officer, Sinar Mas Agribusiness & Food, Indonesia; and Gita Wirjawan, Minister of Trade of Indonesia

04: Francisco Javier Mayorga Castañeda, Secretary of Agriculture, Livestock, Rural Development, Fisheries and Food of Mexico, "A New Vision for Agriculture"

05: "The Mind and the Machine"

02



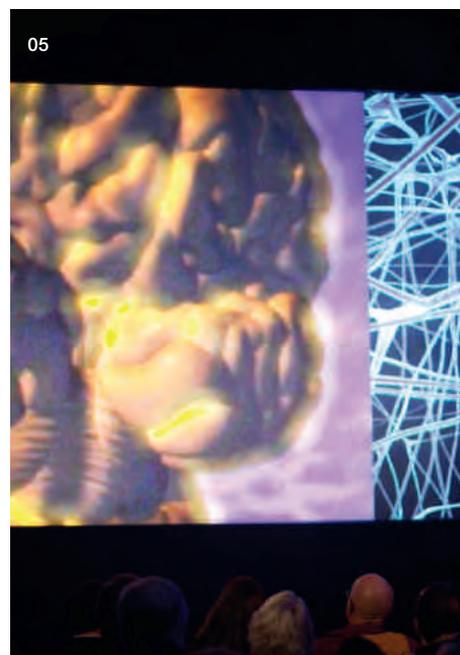
03



04



05



01: Yvonne Chaka Chaka, Singer and President, Princess of Africa Foundation, South Africa

02: Detailed view of IdeasLab

03: Klaus Schwab, Founder and Executive Chairman, World Economic Forum, in session "The World Economic Forum's Vision and Mission"

04: Hilde Schwab, Chairperson and Co-Founder, Schwab Foundation for Social Entrepreneurship, Switzerland, hands over the crystal award to Luc Besson, Filmmaker, Screenwriter and Producer; Founder, EuropaCorp, France

05: Jakaya M. Kikwete, President of Tanzania



## Further Information



The event page of the Annual Meeting 2012 provides access to a richer level of content from the Meeting, including videos, photographs, session summaries, transcripts and webcasts of selected sessions.

[www.weforum.org/annualmeeting2012](http://www.weforum.org/annualmeeting2012)



This report is also available to download as a pdf from the following address:

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More information on the Annual Meeting 2012, Davos-Klosters, Switzerland can be found at the following links:



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## Contributors

Klaus Schwab, Founder and Executive Chairman  
W. Lee Howell, Managing Director, Head of Centre for Global Events and Risk Response Network  
Emma Loades, Director, Programme Development Team

**The Programme Development Team**  
Jaclyn Asuncion, Mireille Bertolini Cabezas, Sebastian Backup, Nathalie Chalmers, Jessica Dyllick, Bérangère Fournier, Natalie Hendro, Rebecca Ivey, Begoña Martínez Gorziz, Camille Mattioli, Akshay Mohan, Stéphanie Nassenstein-Zacchi, Fanny Ollivier, Nicolas Ruble, Richa Sahay and Eva Trujillo-Herrera

**Event Coordination**  
Nadine Bonard, Associate Director, Events

**The report was written by**  
Alejandro Reyes, Cesar Bacani, William Dowell and Dianna Rienstra. The Forum would also like to thank the summary writers for their work at the World Economic Forum Annual Meeting 2012.

**Editing and Production**  
Michael Hanley, Editorial Director  
Janet Hill, Senior Editing Manager  
Kamal Kimaoui, Director, Head of Production and Design

**Photographers**  
swiss-image.ch  
Enrique Pardo

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World Economic Forum  
91–93 route de la Capite  
CH-1223 Cologny/Geneva  
Switzerland

Tel.: +41 (0) 22 869 1212  
Fax: +41 (0) 22 786 2744

[contact@weforum.org](mailto:contact@weforum.org)  
[www.weforum.org](http://www.weforum.org)