





GLOBAL LEADERS IN SUSTAINABLE INNOVATION

s national leaders and the global economy's most prominent businesspeople arrive in Davos for the World from one of the most turbulent years in recent political history.

Never before has a meeting of this magnitude. On the one hand resurgence in populism and protectionism is threatening to undo many of the economic gains of the last two decades, while at the same time technological advances seem set to irreversibly disrupt the very fabric of modern society.

Leadership in these complex times requires nothing less than a wholesale shift of our mental models."

Professor Klaus Schwab, Founder and Executive Chairman, WEF

If ever there was a time for coordinated global leadership it is now. The theme for this year's meeting, Responsive and been more critical.

not globalization," said Professor Klaus Schwab, WEF founder and executive chairman, in November. "The problem is a lack of global governance, a lack of means to address global issues.

"A significant part of the global elite lost a sense of solidarity when it was needed more than ever before. We're living in a Economic Forum, they are reeling world of transparency, and such a world cannot tolerate too much

The events of 2016 have served the WEF had to face a challenge of as a wake-up call to senior executives meeting at Davos. Corporate the operator of around 36 gigawatts leaders recognize that they cannot shy away from addressing the longterm social and economic consetheir innovations.

> "Companies can no longer take the easy way out," says Francesco Starace, CEO and general manager of giant Italian electricity supplier Enel. "They need to understand the consequences of their actions. They need to broaden their scope and develop new, more sustainable models for creating value."

Corporate leaders have a particular responsibility to position their companies ahead of the curve, Starace believes. With an eye on the long-term future, he made the strategic decision to bring innovation and sustainability together in Responsible Leadership, has never one single department at Enel. "In a large organization there can be re-"The problem that we have is sistance to change and innovation," Starace says, "but we have been very pleasantly surprised by how well innovation and sustainability thrive off each other."

Starace, who is co-chair of the

Utilities and Energy Technologies company's new strategic plan. As Community, points out that utilities will have to reinvent every aspect of their business to prosper in the low-carbon, all-digital future.

In its generation business, Enel is gradually shutting down and plants around the world. Already back to a digitized grid. of renewable energy capacity globally, according to a strategic plan disclosed in November the quences of their investments and company will add new power plants and 6.7 GW in the next three years.

Enel is also investing heavily in CEO and General Manager, digitizing all parts of its electricity networks; the company plans to install a total of 18 million new smart meters by 2019. "Everything has to become digital," Starace says. "Enel is in the middle of a huge digital transformation that is changing all companies in all sectors."

are the two main points of the their business models.

the digital revolution accelerates, Enel will be able to offer customers innovative services for electric vehicles and interconnected homes. The company has already developed technology that allows consumers phasing out all its carbon-emitting to send electricity from electric cars

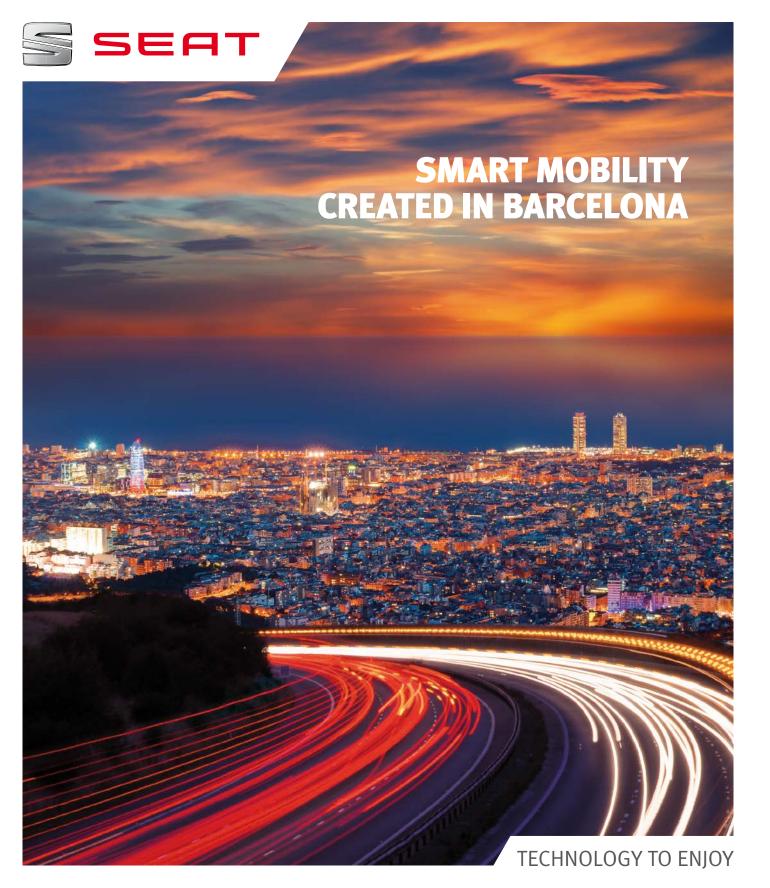
> A massive digital transformation is affecting all of us in our work and in our private lives."

Francesco Starace,

"The sustainable business model we have built is now bearing fruit with increasing momentum," Starace concludes, urging companies in all sectors to follow Enel's example by putting sustainability Digitization and customer focus and innovation at the very heart of



World Economic Forum's Energy Francesco Starace, CEO and General Manager, Enel



DRIVING INNOVATION FORWARD

At SEAT we want to move from being a product provider to being your service provider too. With our automotive expertise we are creating leading-edge Smart Mobility services in our inspirational native city of Barcelona. A city considered to be the 4th most creative in the world and Europe's 4th Smart City. Very soon, driving a SEAT will not only mean moving from one place to another but also being connected to everyone and everything around us while keeping on the move.





TECHNOLOGY REVOLUTION CHANGES FACE OF HEALTH CARE

n few areas of life is there the impairments are connected to a potential for innovation to have such a positive impact as in health care. New technologies shift in how patients are and new business models are not diagnosed and how they only helping improve people's are treated." lives and tackle the enormous Frans van Houten. health challenges of today, but CEO, Royal Philips they also have the potential to put an end to the spiraling rise in health care costs. Earlier and more effective diagnosis and treatment, a closer relationship between analyzed. Other personal health care providers and patients, and innovations that use HealthSuite developments such as tele-health payments based on value rather than volume are all beginning to transform the world of health care.

"We want to move toward a world of personalized medicine that gets it right the first time and avoids unnecessary stress," says Frans van Houten, CEO of Royal Philips. "At the same time, care needs to be delivered more costeffectively and sustainably because otherwise it is unaffordable.'

In the first part of this equation —personalized medicine and Frans van Houten, CEO, Royal Philips continuous care for each patient— Philips is a recognized world leader. The company, which invests 9.5% of its revenue in innovation, is at the cutting edge of technologies such as artificial intelligence (AI) and machine application that uses AI to support clinicians in interpreting vast amounts of data from patients. Doctors are able to bring together historical and current radiology, pathology and genomics data, as well as information from lab tests, to choose the best possible and patient-centric view. Each the first time." patient's response is monitored so that the correct treatment protocol forward

New technologies also have a In the future, if patients give their major part to play in treating less consent, different providers may life-threatening conditions, such as sleep apnea. In total, some in one single cloud-based location, 4 million patients with sleep

We need a paradigm

secure digital platform in the cloud, Philips HealthSuite, where data about their sleep is uploaded and

be able to access a patient record rather than the data being stored in the separate enterprise systems of each provider. "We have to tear down the walls between care providers," Van Houten declares.

Because digital technologies can connect doctors and patients much more closely than in the past, the focus of health care delivery is moving away from acute and expensive care in hospitals, where it may be too late for the patient, and toward ambulatory clinics and outpatient facilities. "We can use



include a medical-grade parenting platform that captures data from connected devices such as baby monitors, provides personalized feedback for parents and connects to family doctors and pediatricians.

"In some ways HealthSuite has learning to increase effectiveness. the same concept as a Facebook Philips recently demonstrated an page, but for your personal health and obviously in a secure setting providing validated information," Van Houten explains. "We bring together data from various connected the information, discover any patterns and make predictions about the patient. It can help people get

and health insurance companies. emergency room."

and leverage the cloud and AI to make sure that not everyone has to go to hospital," Van Houten effuses. "It is a very exciting area and it is all innovation-driven."

Health care companies will also need to rethink their business models to respond to the growing impact of cloud computing and AI. Increasingly, reimbursements to care providers will be based on patient outcomes rather than just on patient volumes. "It is inevitasources and apply AI to interpret ble that health care will move to more outcome- or value-based care," Van Houten says. "The feefor-volume model is unsustainable treatment through a complete diagnosed quickly and accurately and provides the wrong incentive. We need to reward preventative Van Houten says that cloud care and supporting people with computing is all set to transform chronic diseases at home, instead for them is reached while moving the businesses of care providers of waiting for them to go to the



FROM POWER GRIDS TO **EMPOWERED NETWORKS**

The power of networking has been amply illustrated by the U.S. elections. Rather than push his message at people via the usual channels, Donald Trump engaged with them on social media to get communication flowing both ways. It not only saved millions of dollars; it also reflects the reality of how we exchange information today.

The same logic applies to the power distribution business. In the past, energy flowed out in one direction and revenues came back in the other. Now thanks to distributed microgeneration solutions that harness renewable technologies, anyone can produce and store energy, redefining what it means to be a power provider.

This forces utilities to rethink their role in the value chain. The traditional business model is moving from pipeline to platform, as customers are empowered and expectations change.

"Free" sources of energy, such as solar and wind, can be easily stored using car, domestic and industrial batteries. Platforms will be better able to balance supply and demand, sell power back to the grid and generate income for ordinary people, leveraging the utilities' infrastructures.

Right now, I have no idea how far the platform model will take us, but I do know that power will no longer be controlled by the few.

Distributors must transform into aggregators, digitizing networks to open up one-way streets to two-way traffic. The future of distribution will be to build, manage and maintain the means to connect people in the energy space.

Platforms let power flow where and when it is needed, meaning everybody benefits from the connections we make. This is our energy future.

Ernesto Ciorra, Head of Innovation and Sustainability. Enel

THE FUTURE OF **URBAN MOBILITY**

hen it comes to speed. Plus, the technology home to leading business schools out of on certain routes in cities, preparing for the premium over cars with internal IESE and ESADE, and each year biggest revolution in combustion engines will have it hosts two of the best-attended the 130-year history of the car to fall below 10%: "When those events on the world's technology industry, SEAT president Luca de three conditions are met, people calendar: the Mobile World ving in the trucking industry, Meo has no doubt about the best will recognize that the change place to be: in the driving seat. So fascinated is de Meo by the of engineering work that needs **sole focus, carmakers,**

own SEAT prototype electric car to stay." for everyday use. "I always look point of view," he explains.

as battery costs come down and comply with tough emissions targets. However, if EVs are to become mainstream, the techno-

is worth it. There is still a lot changes that are transforming his to be done before we can get not technology comindustry that he drives his very that far. But electric cars are here panies, will have the

electric vehicles (EVs) to increase Barcelona-based SEAT. he has dynamic "new economy" hubs in is the best city for Europe, a place where startups, researching logy still needs to develop developers and researchers from mobility solutions significantly, he adds; in particular, all over the continent and beyond in the context of there need to be improvements in are working on new solutions smart cities because vehicle range and in recharging to today's challenges. The city is of its size, industrial

advantage in shaping It is not only as the personal **the future of urban** at things from the customer's owner of an early EV that de Meo **mobility."** is in pole position to anticipate Luca de Meo. De Meo expects investment in future trends. As the head of President, SEAT a privileged viewpoint into the Congress and the Smart carmakers in Europe seek to development of connected car City Expo World services. Barcelona is one the most Congress. "Barcelona

network and the presence of startups that foster innovation." de Meo says.

Because it is our

As well as forecasting rapid growth in EV development and connected car services, de Meo is also confident that autonomous

driving will gradually become paying for a city parking space. a commonplace feature of the vehicles on city roads. The technology has one compelling benefit that should ensure its widespread finder and other Easy Mobility adoption: safety. "Safety is un-technologies to reduce emissions, doubtedly the biggest incentive noise and traffic congestion in for autonomous driving," he says. cities. "Every year 1.2 million people still die around the world in traffic accidents. Everybody wants to trendy brand, connectivity is one get that number down to zero."

De Meo expects the first appli- Meo says. "We want to be a key cations of autonomous driving player in developing smart, new, to be in relatively specialized domains, for example "robo-taxis" that people can jump in and in connectivity."

much like rides in an amusement park. There is also an immediate opportunity for autonomous driwhere logistics companies are keen to use the technology to enable their trucks to drive in platoons, lowering fuel consumption and increasing safety.

It is, however, in the connected car space, where cars meet the Internet of Things and

> the digital economy, that SEAT has the ambition of playing a frontrunner

> > role. Tapping into Barcelona's rich ecosystem of innovative startups and urban planners, SEAT is developing a whole suite of services that explore the potential for digital communications to transform urban driving.

Under the concept of Easy Mobility, SEAT has introduced a digital sharing app that enables car sharing between users. as well as a Parkfinder app that simplifies the process of finding and

The company's concept car for urban mobility, the Ateca Smart City Car, integrates Park-

"I believe that for SEAT, with our young clientele and our of the biggest opportunities," de urban mobility concepts. Our goal is to become a frontrunner

WOMEN DRIVE CHANGE IN GLOBAL **CAR INDUSTRY**

hile new inventions such as robotics and artificial intelligence grab all the headlines, a social revolution that is giving limited to electric vehicles (EVs), women increased economic power is also transforming many global industries. Carmakers are responding proactively to these trends, promoting women to senior positions and putting them at the heart of their marketing efforts, as well as increasing investments in technological innovations.

"Women make 80% of the purchase decisions for cars, so we need to be closer to them, to understand what they need and what they are looking for, asserts Mayra González, president and managing director of Nissan Mexico. González is the first female executive at Nissan ever to be appointed president of a country and the youngest person reveals.

There is a clear business rationale behind encouraging diversity in the Alliance. It's not just about checking boxes." Mayra González,

President and Managing Director, Nissan Mexico

Carlos Ghosn, the chairman and CEO of the Renault-Nissan Alliance, has made it India, thanks to innovative and a strategic priority for both member companies to increase the local environment such as the diversity of their workforce. "Having such a strong tone from the top has helped us build our the market leader for seven Women@Renault network, which consecutive years and enjoys a is increasing the self-confidence share of 25%. González, who

senior roles," says Clotilde Delbos, and inclusion is a competitive 355,000 sold in 2015. advantage," González adds.

connected cars and autonomous 50 years. In 2017, with the start of driving but extends across the operations at a new \$1 billion plant 375,000 electric vehicles.



Left: Mayra González, President and Managing Director, Nissan Mexico. Right: Clotilde Delbos, Executive VP and formula for success," CFO, Renault; Chair of the Board, RCI Banque

corporation. As chair of the board of RCI Banque, the company's car finance unit, Delbos is tasked with developing innovative financial services that strengthen the loyalty of Renault customers. "There to assume the position. "We are are not many industries that are now more conscious about the going to be disrupted as much importance of women in the auto as the automotive and banking industry, not only as a customer sectors," Delbos declares. "I have but also inside the industry," she the luxury of looking at both of them, developing digital financial services and also mobility services such as car sharing."

> Delbos and González have assumed leadership positions at a time of major market growth for both brands, as Ghosn's strategy delivers on its targets. Renault has reported market share gains across Europe with popular new product designs. At the same time, it has achieved rapid growth in emerging markets like affordable vehicles designed for the KWID.

In Mexico, Nissan has been of our women, developing their in her previous role as vice

spearheaded this growth, is aiming Executive VP and CFO at Groupe for a record level of sales in this

At Renault, innovation is not production in Mexico, where it has been present for more than

> in a joint venture with Daimler, Nissan will produce over 1 million cars in the country. "Our manufacturing footprint, our products, our finance company and our dealership network give us the González savs.

For both partners in the Renault-Nissan Alliance, electric vehicles are some of the fastest-selling products autonomous driving, connectivity in their range. The Nissan Leaf is and mobility as a service. Our job the world's most popular EV, with is to be prepared for that future."

skills and giving them access to president of sales and marketing more than 230,000 units sold since its launch in 2010. Meanwhile, Renault reached the milestone of Renault. "We believe that diversity fiscal year: 400,000 cars, up from its 100,000th EV sale in 2016; the company has a strong line-up of Nissan is also ramping up its EVs, including the Renault Zoe, the top-selling electric car in Europe. Between them, the Alliance partners have now sold more than

> We have decided that we need to increase R&D expenses in order to prepare for future disruption."

Clotilde Delbos. Executive VP and CFO, Renault

"We are investing in the future and increasing our spending on R&D," Renault's Delbos says. "There are a lot of challenges facing the industry, such as the arrival of

SAY GOODBYE TO THE STEERING WHEEL

or Karl-Thomas Neumann, CEO of the Opel Group, there is no room for doubt: vehicles are more than just buzzwords or passing fads. They its history." represent a future that is arriving faster than many in the industry realize.

"I am sure that the autonomous vehicle will come and it will

he says. "We are not all that far casts, in 15 years the penetration of autonomous vehicles will be at 15% to 20%.

"In 2030, we could see cars that don't even have steering wheels anymore. The automotive autonomous driving and electric industry is in the midst of the biggest transformation in

> In 2016, Opel's parent company, General

> > Motors, established a separate business auton-

omous vehicle development and

faster than some people think," acquired Cruise Automation, a software company that speaway from autonomous driving cializes in self-driving vehicle in everyday life. According to technology. Opel also launched even the most conservative fore- the Ampera-e electric car, which with a range of over 400 kilometers promises to eradicate range anxiety once and for all.



7 A MOBILITY

IS THE FUTURE **HYDROGEN?**

s the world evolves toward a low-carbon economy, major corporations across a range of industries are planning to join forces to foster the use of hydrogen as the missing link in the energy transition.

Fuel cell and storage technologies are getting ready to first time global leaders from key emissions, including fuel cell electric consumers are beginning to take enable completely carbon-free energy-related sectors are coming vehicles (FCEVs). At the same time, production of the gas, adding together to launch an initiative the state is developing the hydrogen close to 3,000 hydrogen-powered to its environmental appeal as a to foster global use of hydrogen. infrastructure required to support cars on the roads, up from just a source of heat and electricity and Indeed, if the world is to meet the rapid growth of the market. as a fuel. Electric vehicles powered the commitments of the Paris by hydrogen fuel cells produce Agreement and transition to a low-public-private joint venture, H2 only water as a byproduct, carbon economy, members of the Mobility, is planning to deploy with no carbon emissions from initiative believe there will have to a nationwide network of 400 their exhaust pipes. Furthermore, be a major role for hydrogen. hydrogen vehicles are not constrained by range anxiety or need to change consumer habits, giving them a significant of other alternatives.

AngloAmerican



A platinum-hydrogen fuel cell electric vehicle

technologies, the state of California all made it clear that hydrogen is taking the global lead in will have a major part to play in unified voice they are determined supporting alternative-fuel vehicles. their transition to low-carbon to send a message to leaders at the sets quotas for manufacturers to Olympics could be a fortuitous hydrogen as the fuel for the future. ■

game-changer for the future of hydrogen energy. A holistic vision for a cleaner and quieter Tokyo includes extending hydrogen as a major source of power across the city in the next four years. With zero emission innovation

from the industry on the one hand, and the public sector supporting the rollout of hydrogen In Davos this week, for the make cars that do not produce infrastructure on the other, to the technology. There are now couple hundred in 2015, and the Meanwhile, in Germany, a hydrogen energy market is set for exponential growth.

The initiative to be unveiled this week gathers companies from the oil and gas, energy, automotive, Always a front-runner in new Japan, South Korea and China have industrial gas, equipment and primary industry sectors. As a

MOBILITY GOES FURTHER

hydrogen stations by 2023. In Asia,

with different needs and different transportation challenges," says are perfect for this application, Mark Fields, president and CEO it's a great example of how our of Ford. "Instead of taking a 'one core business is supporting size fits all' approach, we are new, emerging opportunities in working with cities directly to mobility services," Fields says. help develop solutions that are tailored to each location."

One of the company's most promising offerings is Chariot, an appbased, crowdsourced shuttle service that complements mass

very active area for innova- transit for city residents. Ford tion in today's car industry estimates that urban congestion is the development of mobility could be reduced by up to 25 services for long-suffering city vehicles for every shuttle that is placed into service during peak Ford has created a new business times. The service has already unit, Ford City Solutions, focused launched in San Francisco and entirely on helping people move Austin, Texas, with plans to work more easily through cities. "We with at least four more cities over know that every city is unique, the course of the coming months.

"Because Ford Transit vans



BRIGHT FUTURE FOR NEW-LOOK LIGHTING

ne of the greatest challenges holders are more ambitious." discussed by delegates at Davos in recent times has been how to decouple economic since an initial public offering in growth from increased energy May 2016, is leading the charge consumption. After the two hottest to transform global lighting. years on record, the environmental and economic imperative is now the company is working with greater than ever before.



Eric Rondolat, CEO, Philips Lighting

to play in the quest for smarter energy use than lighting. "No industry can save as much energy as lighting," states Eric Rondolat, the CEO of Philips Lighting. "The name of the game now is not to

To develop the planet, we consume more. We have to make sure that we consume better."

Eric Rondolat, CEO, Philips Lighting

create more capacity to generate energy but to save energy. We in the lighting business can make a reduce energy consumption and that equation."

savings of up to 80% of the electricity consumption of lighting, the potential to support a host of dustry innovations, it is already cellular coverage for smartphones possible to go twice as far as the to situational information for energy efficiency targets of the autonomous vehicles. COP21 agreement of December 2015. "If we do not double the scratch the surface of the potenrate at which we improve our tial of connected lights," Rondolat energy efficiency, we will still be reveals. "Of the 300 million street

Few sectors have such a role sector and technology companies lighting innovation, Philips Lighting to deliver the economic, social and environmental benefits of lighting

> Some of the most pioneering work is being carried out in cities, where Philips Lighting is installing energy-efficient and sustainable connected LED lighting. In Jakarta, the company is currently upgrading nearly 90,000 street luminaires at a record rate of 430 light points per day, each with the capability for remote monitoring and management.

Smart lighting systems can do more than just enhance public safety, major contribution to changing improve the urban landscape. In the future, a city's lighting infrastructure New technologies can deliver and sensors will form an integral part of a giant data network, with Rondolat declares. Thanks to in- smart city services, from improved

"We are only just beginning to

consuming more energy than we lights on the planet, just 12% are save," Rondolat says. "The main LED and only 2% are connected. It issue is to make sure that all stake- is a fantastic opportunity."

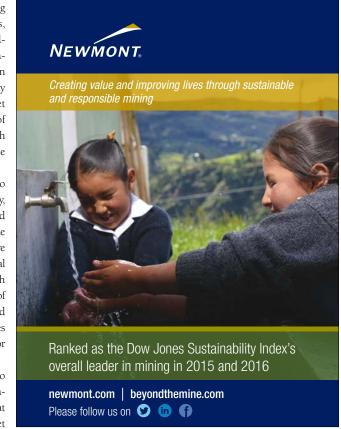
In the retail sector, supermarket Philips Lighting, which has operator Carrefour has been one been an independent company of the first companies to feel the business potential of new lighting to urgently rise to the technologies. The retailer is using connected LED supermarket In markets around the world, lighting from Philips Lighting to deliver location-based services Lise Kingo. businesses, consumers, the public to shoppers' smartphones. The Executive Director, connected lights act like an UN Global Compact indoor GPS, transmitting location better with shoppers.

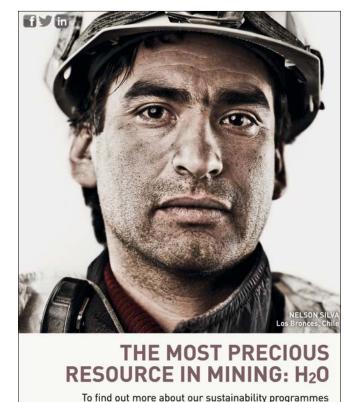
development partnerships with a the planet," Rondolat affirms.

series of startups, universities and technology giants such as Cisco, SAP and Vodafone and integrates

We will need companies everywhere challenge if we are to achieve our climate goals."

information to a smartphone app with smart home platforms from that then leads customers to Amazon, Apple, Google and items and promotions in the Samsung. By 2020, it expects its store. Not only does the new revenues from sustainable lighting lighting system reduce energy to represent 80% of the total, consumption by 50%, but it also up from 72% in 2015. Also in enables Carrefour to enhance the 2020, the company will be using customer experience and engage 100% renewable electricity and its operations will be entirely carbon To maximize the potential of neutral. "For us, sustainability is a double win: a driver for economic has developed close research and growth and a means of advancing





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FINANCIAL SECTOR BRACES FOR STRONG HEADWINDS

enior bank executives and regulators gathering in Davos this week are still grappling with the fallout of the global financial crisis, almost a decade after the collapse of Lehman Brothers.

In October 2016, the International Monetary Fund said that medium-term risks to financial sector stability are rising as the global economy enters a new era, characterized by chronic weak growth, prolonged low interest rates and banking system is at risk. growing political uncertainty.



new era. Economic growth by itself will not be enough to resolve the problem of weak banks,

care into recovery. A completely restructured financial system, led by a recapitalized Bank of must be to emerge Cyprus, is now once again making from this prolonged a significant contribution to the **environment of low** country's economic growth.

especially in Europe, where the innovation will have a major part Christine Lagarde. IMF says that one-third of the to play in putting today's banks Managing Director, IMF back on the path to growth. "My Policymakers in search of possi- hope is that banks will be less busy Jaime Caruana, general manager Financial stability now depends ble solutions could do worse with new regulatory issues, and of the Bank for International on how well banks adapt to this than look at the Mediterranean more dedicated to their clients, Settlements. ■

island of Cyprus, where it took more focused on their core authorities just three years to move activities and more busy exploiting the banking sector from intensive new financial technologies," says

Our priority growth, low inflation As well as regulation, financial and low interest rates."

LEADING THE WAY TO FINANCIAL RECOVERY

Why have you proposed listing bank shares in London?

We always wanted to be listed on a large, index-driven exchange, while of course maintaining a listing in Cyprus. It is another important step in the journey to normalizing the bank.

I am confident that the City of London will continue to be a powerhouse in global finance regardless of how the separation from Europe occurs." John Hourican,

CEO, Bank of Cyprus

blockchain that are extremely need to be careful.



John Hourican, CEO, Bank of Cyprus

careful that we don't allow a large **European financial sector** fastest-growing economy in portion of the regulated banking has recovered? industry to disappear into the The biggest issue for Europe is economies in the continent shadow unregulated space.

Why do you think there is a that are not larger than the crisis, lates to the banking sector, **rise in populism and anti-EU** and therefore it tends to contin- where we are seeing significant sentiment in Europe?

What influence do you Europe. With the Brexit vote and see a greater degree of honesty in think fintech will have on the Italian referendum, we can national balance sheets, and then What progress have you the global financial sector? see that people want something a greater degree of socialization of made in reducing non-When you have technology that different for their lives. They the problem. is cheaper, faster and disruptive don't think that the European to existing paradigms, we need experiment is working quite as Why do you think Cyprus has very well and we reduced deto embrace it or challenge it. well as the people who run it think **been able to avoid the populism** linquencies over the course of I'm not afraid of it; there are it is. It is a dangerous moment for **we have seen in other countries?** 2016. There is still a big stock technologies out there such as Europe, and the euro, and we all You have to be deeply honest that we will work on in 2017

interesting. But we have to be How well do you think the Cyprus is now the second-

that each of the individual crises where the government is in has been solved with solutions surplus. That confidence transue. Greece is a great example of lending opportunities in the There is a fatigue in people's that. The Italian banking crisis is hotel industry and the medical post-crisis psychology across an example. I think we need to industry.

with your population and you and 2018.

have to explain the need to act swiftly. In Cyprus, authorities took decisive, bold and fast action—and clearly explained to the population what was being done. Policymakers and business also need to be in lockstep. That has not been the case elsewhere.

How is the Cypriot economy performing? And how is the bank contributing?

Europe and one of the only

performing loans?

The business is performing



MINING LEADERS REAP REWARDS OF LONG-TERM VISION

in innovation, sustainability the apparent end of the commodity a product-per-person basis, we using drones to increase the safety certainly caught our interest, it supercycle, 2016 was a year of vindication. Buoyed by the support of national governments and local stakeholders, the world's leading miners were able to successfully restructure many of their operations and deploy new technologies to deliver ever higher levels of productivity.

At the beginning of 2017, after an unexpected rebound in metals prices over the last few months, it is the world's most innovative and most sustainable miners who now stand to benefit the most.

The risk for us today is that we take our foot off the pedal. You cannot be complacent."

Mark Cutifani, CEO, Anglo American

"Our optimism was not misplaced," says Mark Cutifani, CEO of mining giant Anglo American, whose share price rose by around 300% over the course of 2016. "There will always be more to do, but it is clear that people's confidence in the underlying quality of the business is improving."

Investment in innovation has been at the heart of the company's turnaround. Although Anglo American has sold over have a part to play in improving creating that future."

or those mining companies one-third of its mining assets, it safety, precision and productivity surprising other miners by the that continued to invest has been able to increase its overall at mines. At ArcelorMittal Mining, speed at which it moved to acquire production volumes, partly thanks scientists in laboratories in France the asset. and community relations despite to technological innovations. "On and Spain are researching ways of

"While the project economics



From left: Simon Wandke, CEO, ArcelorMittal Mining; Elaine Dorward-King, Executive VP, Sustainability and External Relations, Newmont Mining Corporation; Brent Bergeron, Executive VP Corporate Affairs and Sustainability, Goldcorp; Mark Cutifani, ČEO, Anglo American

Cutifani says. "To replicate that

vironmental benefits. One of the main priorities at Anglo American also very sensitive to the possible is to develop a so-called waterless impact of automation on local mine, a mine that only uses recy- employment. "You have to think cled water, drawing no freshwater three-dimensionally in any of at all. From taking relatively simple these issues and take into account In Argentina, where the company's steps such as minimizing evapora- the social impact as part of the tion at company dams, to testing solution," Cutifani says. "If you new processing technologies for do not have a partnership with separating mineral ore from rock, local communities, then you can company researchers are working probably add 10-15% to your cost with partners to develop innova- base. Community engagement tive processes that conserve and is imperative. We always ask the even eliminate the use of freshly community what they would like

transport by rail and ship. "Our that forward, that really solidified productivity is also delivering en- enormous amount of value for us."

At the same time, miners are the future to be for their children Goldcorp Automation and robotics also and how we could play a role in

can be a major source of advantage in today's mining industry. When Sustainable Mining standard of the Canadian gold producer Goldcorp Mining Association of Canada in first began looking at the Coffee Argentina's own mining industry. Gold project in Yukon, it was the "This shows how the experience excellent relationships that the that we have here in Canadaowners had developed with local whether it's working with First authorities and First Nation gov- Nations, the environment or any ernments that caught their eye. other part of the sustainability Goldcorp paid approximately equation—is transferrable to other \$390 million for the mine in 2016, countries," Bergeron says.

are producing about 38% more of core mining processes such as was the strong foundation in suseach year, compared with 2012," stockpile management and ore tainability, and an ability to drive improvement in the next five R&D facilities are very strong," our commitment in this project," years, technology will be the key." CEO Simon Wandke says. "We have says Brent Bergeron, executive vice The focus on technology and not cut funding, and they create an president of corporate affairs and sustainability.

> Goldcorp is now building on its experience of working closely with indigenous peoples and local communities in Canada to help its expansion in international markets.

> Robotics allow mines to operate more efficiently 24 hours a day and create safer work environments."

Brent Bergeron, Executive VP Corporate Affairs and Sustainability,

Cerro Negro mine is in its second Positive community relations year of production, Goldcorp is working to embed the Towards



Executive VP, Sustainability and External Relations, **Newmont Mining Corporation**

What does transparency mean for Newmont?

Transparency is not just about providing information to people. It is very much about us as individual leaders and employees being accessible to stakeholders. being able to be present and engage and talk credibly about are doing it.

Transparency is about allowing people to know who we are so that they can trust us and the data we disclose."



Newmont's carbon offset project plants mallee trees in Australia

transparency and sustainability

Dow Jones Sustainability World

Why has Newmont assumed a flow of money and potential resourc**leadership role in pushing the** es back to the local communities.

What are you doing to improve activities near our Akvem mine. For the second year in a row, water management at your what we are doing and why we Newmont has been ranked by the mines and reduce greenhouse gas emissions?

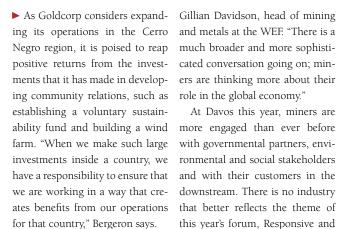
Index as the mining industry's over- We have put in place global all leader. We are leaders because we strategies for water and energy that strongly believe that transparency translate into specific targets which ing and enhancing the biodiversity is hugely important to the industry. focus minds on what is important of the Sagebrush ecosystem through We support the Extractive Industries and help others observe how we a conservation agreement and bank-Transparency Initiative, which helps are meeting our commitments. As a ing system. This is historic in terms miners be clear about what the pay- result of targets that we set back in of its landscape ecosystem-level ments are that they are making to 2013, we have been able to reduce scale—over 1.5 million acres governments. It helps encourage the our total energy use since 2011 by and its multi-species approach. ■

17% and our greenhouse gas emissions by 10%.

How are you working with stakeholders to protect the environment?

We recognize that, if we are going to have the biggest impact and take care of the environment, we must work with partners. In Ghana, we are working with the Ghana Forestry Commission on a reforestation plan to offset the impact of mining

In Nevada, in partnership with the State of Nevada, the U.S. Department of the Interior and other stakeholders, we will make a significant contribution to conserv-

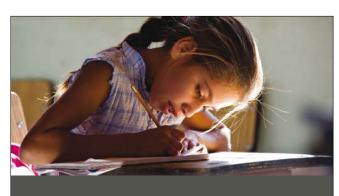


partnerships in the sector," says today's global economy.

At Davos this year, miners are this year's forum, Responsive and The world's leading miners are Responsible Leadership, and no increasingly sharing their best better example to WEF delegates practices in innovation and sus- of how investments in innovation tainability at bodies such as the and sustainability can help deliver WEF. "We have seen an expan- the inclusive and equitable growth sion of relationships and new that is so critical to the future of



PROJECT DIRECTION: SIAN GODDARD INTERVIEWS: SIAN GODDARD WRITING: MARK BERESFORD FDITING: CARMEN MOURA ILLUSTRATIONS: SERGI DELGADO DESIGN: ANTONIO CAPARRÓS



WE DO MORE THAN MINE GOLD

Our mines create social and economic benefits in the communities where we live and work. Job creation, local purchasing and programs that help create healthy, vibrant and engaged communities - these are just a few of the ways we're working together to create sustainable value for generations to come.

TSX:G NYSE:GG goldcorp.com





Goldcorp supports diversity and equal opportunities