

Roffla's Acknowledgments

May/June Edition 3R ViewPick 2013

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Dear Friends,

Two weeks ago I travelled to the Region of Grison in the southeast of Switzerland. It has been like closing the loop of many weeks spent for investment research purposes in Tunisia, Lapland Arctic Circle, and Canada's Ontario Province. The final station has been - shortly after canyoning the infamous trail Viamala - the Roffla Gorge, an extraordinary experience that I would like to briefly share with you. Roffla Gorge is situated underneath the Rhein's southeast Sources in an ancient, narrow, austere and highly dangerous landscape that leaves everybody breathless just by looking at it. Similarly impressive to Devil's Bridge in the Gotthard Massive, this region does not necessarily invite you to conviviality. In Roffla's case it is not the mightiness of heavy rocks and furious Rhein waterfall that deeply impress you, but the stern determination of a family to build their life, since 1639, on a very challenging and risky balance within this ancient and narrow section of Alp's wilderness. Nowadays it is a Quod Erat Demonstradum for local sustainable development. At the end of the 19th century, one generation of this old Swiss family decided to immigrate to the United States. The scarcity of resources deeply affected the living conditions in Switzerland at that time; family members had to separate and go looking for other places to live and try to build their fortune in order to survive. Grandparents remained in the Roffla to keep working at the small watermill and the ancient inn for travellers over the Bernina Pass. The young emigrants discovered very soon the vicissitudes of the New World across the ocean. After visiting the Niagara Falls over the Canadian border, they were surprised to see how similar they were to their Rhein's waterfall and the Roffla Canyon from home. The young Swiss family of US exiles worked very hard for a whole year, in order to buy the expensive tickets to go back to Switzerland. Based on their American experience, they started to make changes in their lifestyle at home, promoting innovations that leaned on their own roots and used the at-hand local resources. During a long, hard winter, the young father and his family carved the rocky wall of Roffla Gorge, transforming it into a splendid platform that became a traditional place for work, resting and reflection. Until today, it remains an illustration of the innovating destiny curve for many families and regions - really, a majestic stone portrait of the entire Swiss Confederation. Switzerland's large population diversity has always provided the favourable vantage ground where innovation blossoms, despite the scarcity of its natural resources. The major tuning key has been on one hand the matter-of-course receptiveness of the Swiss, and on the other hand, their genuine desire to share their knowledge with the world, in order to promote further innovations, for the benefits of all. By always going back to their roots, despite the meagreness of natural resources, they fostered innovation through education, the multitude of highly regarded vocational schools being until today a centrifugal catalyst. Relentlessly looking forward in the quest for knowledge, Switzerland embodies the eternal struggle of a nation on its way to achieve a fulfilling life for all its citizens, doing this in a difficult and often confounding world.

Responsible Resources & Roots plays an active role in spreading Swiss knowledge and innovation in business ethics, sustainable technologies, and best corporate and government practices within a large geographical compass, privileged markets continuing to be Switzerland, Finland, Canada and North Africa.

Best summer greetings,

Eleni Regli

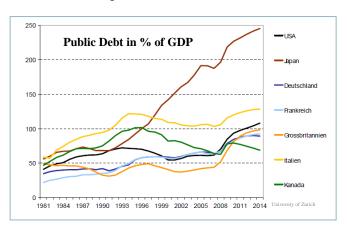
World Economy: Imperatively in the Innovation Duty

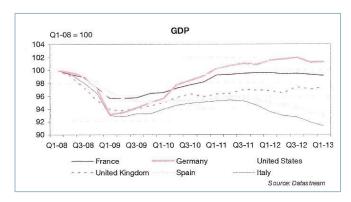
Economic and financial market trends have been in previous years and decades, rather in predictable situations, proudly evocated. The longer-term consequences of central banks actions are spreading uncertainty. Toolkits for innovation in the overall economic sector are dearly needed. It is becoming more and more difficult for investors to design a sound sustainable financial plan, composed by diversified asset allocations' strategies. Acting with a short-term scenario may bring good performances. But they are not sound sustainable pillars for long-term sustainable wealth. The economic impasse has still the same risk, as illustrated by insufficient growth performances in developed countries.

The reality is that much of the public and private deleveraging is yet to come. This will put pressure on the global economy for a long time. Similarly to 2012 stagnancy is still not excluded, by a slight enhancement in 2014. The high uncertainty on the timing and consequences of particular monetary policies, foremost in the USA and Japan, is expected adding to the risks.

The unprecedented size of monetary policies is the major source of the uncertainty. USA and Japan have brought a resurgence of volatility on the market in recent weeks. In the USA, improving business activity and a livelier labour market have begun to raise the question of when quantitative easing will be wound down. Risks are on watch: too late or to slow it could encourage bubbles and open large door for the next crisis; top fast or too early and it could cause a shock on bond yields and asset prices, ruining the fledgling recovery. In Japan, the prospects of massive increase in asset purchases by the central bank led to substantial fluctuation on forex, bond yields. The public debt situation (twice as big as GDP) could become very critical.

The real economy is struggling to balance the effects of recession. This year began on discouraging auspices after the 2012 recession. Several members of the Euro zone are still in embarrassing recession. In the USA the growth remains moderate. The BRIC starts to





weaken the economic verve. In China, hopes of a sustainable recovery at the end of 2012 are already vanishing to a slowdown. In Brazil, after a poor 2012, the resurge in early 2013 has been under expectations. The Russian economy could have even contracted. Better times are still to hope. Fundamentally, stagnation needs inputs to move on the economy.

The euro zone countries still have high public debts levels. Spain has reached a budget deficit of roughly10 percent of GDP in 2012 for the fourth consecutive year. In the last statements, the European Commission recognised that adjustments would take more time than previously thought, due to an economy that has proven more depressed that previously admitted.

Huge structural effort asked of these countries shows effects on social balance with the risk of poverty centrifuge and stoking up more debts. The excess debt does not just affect the public sector alone, but has an impact on the private sector as well. It is to expect a persistent weakness in the developed countries for the next year too.

The main impediments for a consistent growth are just three to name: public sector deficit reduction which will require sharper austerity measures that will curb the growth. Secondly, private sector deleveraging and difficult financing conditions, which will not be in favour for private demand and more specifically investment, and thirdly the general climate of instability, would make consumers and business players cautious.

The recovery of emerging market economies depends on the foreign demand but also on softer national investment and consumption. Russia is expected to slow in 2013 as oil prices wobble. The recovery in Brazil and India will be the surprise. Social and political landscape will certainly draw new expectations. Even that bastion of austerity - the IMF - now believes that fiscal prudence might be overdone. RLU

Resources and Investments

Since, we continue to live in challenging times; the financial markets have been stirring and hesitating but still willing to find value creating investments. Many reports suggest that the main problem constraining business investment is neither the supply nor the cost of funds, but rather an unwillingness to increase or up-rate capacity until there is more security, and that demand will be there for an increased or improved supply of products. Even if overall situation thanks to solutions' finders does slowly improve, we still lack the required platform for balanced and steadily sustainable investments growth. Reaching that base requires a pick-up in business investment, and innovation, by making the best use of available skills. To make a future vision come true while engaging with various stakeholders, three skills are needed: systems thinking to identify leverage points of problems amid complexity, reflective dialogue skills to seek out co-creative and constructive discourse among stakeholders who have different perspectives, and visioning skills to facilitate the creation of shared visions for the future.

Responsible Resources & Roots Engagement is continuing to examine very various issues of possible Sustainable Mining with a special focus on Waste Technologies Management and the brand newest innovation of supplier sector for the extractive industries. Innovative companies form the cornerstone of stimulating market growth. They are on our research compass and debate timetable. Only through a targeted focus on innovation focusing on multiple

economic, social and environmental profits are we able to ensure competent research and networking for sustainable investments. Increasing corporate investment requires a combination of demand - corporate wanting to invest to expand and/or improve their capital stock - and the supply of credit on the right terms in the right place to permit such investment to take place. The evidence supplied the fact that innovation emerges in difficult times. That's usually the best time to be searching for wealth creation opportunities; Investment in innovations supposes patience and confidence. For many companies means reinventing innovation: Turning Innovation into a Sustainable Development which addresses the idea and focuses on making innovation a part of a company's culture, finding the ways to consider configuring the company so that innovation is the core and is a sustainable capability to provide continuous advantages over the long haul. This is illustrated by numerous studies that small and mid caps usually are from investors overlooked. They are more interested in large caps in the long run. Nevertheless one should admit that smaller companies are more flexible and adaptable in tough times and usually grow faster than large companies. They do reignite innovation and create structures for sustainable improvement based on the specific business situation and challenges.

RLU

Sustainability as Steward

Equator Principles revisited - A new version of Equator Principles (EQP3) in June 2013

Risk Management in Banking

It has been 10 years since the EQP were launched and adopted by the first 10 major banks. Global awareness of sustainability topics, e.g. sustainable finance, has increased during this time. Sustainability is now much more of a mainstream issue in the business world.

Today nearly 80 banks and financial institutions, including banks in the BRIC nations, and other regions worldwide are committed to Equators Principles. Some banks in emerging markets are even overtaking others in mature markets in terms of the quality of their environmental and



social risk management. Brazil's banks are an excellent example. The new version of Principles calls foremost for the potential biodiversity impacts of infrastructure projects to be considered in much explicit manner, and for local communities eventually affected by planned projects to be consulted and in better case intensively involved. This revision has been necessary to reflect the 2012 version of the International Finance Corporation (IFC) Sustainability Framework, on which EQP is based.

The Equator Principles (EQP) is a set of environmental and social risk management guidelines used in the financing of a large diversity of infrastructures projects. At the very beginning they have been designed for projects in developing markets. These Markets were in lack of solid regulatory regimes. There was an impediment for financial institutions that wished to ensure that the projects they financed will be meeting high standards and satisfy the expectations of stakeholders. In order to avoid unfriendly competition from market players that only required clients for major projects to comply with minimal local standards instead of high and sustainable risk management standards. The establishment and implementation of EQP offer all major banks the guaranty to operate according to a common set of environmental and social risk management principles. The "entente" of the banks to agree on common standards has been determinative not to say pivotal in reducing the risk of institutions with high environmental and social standards.

Temmentec AG - "Swiss made" for Innovation Grid

Swiss quality has become increasingly popular over the past several years, and not only in Switzerland. The successful label Temmentec AG, a company which manufactures cosmetic products in the Emmental region, is not a unique example. The company exports Swiss quality beyond Switzerland's borders – not under its own name, but as an outsourcing partner. Temmentec manufactures and packages several personal care products in Sumiswald. As a contract manufacturer, or outsourcing partner, that produces goods for other companies; its name is not prominently displayed on the products. Temmentec AG currently employs 130 full-time workers. The company, located in a village of 5,000 residents, employs chemists, druggists, and business economists, as well as production and packaging specialists.

Temmentec has not always been a contract manufacturer and specialist in personal care products. The company's history dates back to 1914, when druggist Peter Müller began to produce and sell cosmetic products in Sumiswald. It has changed owners four times, and in 1991 it was



renamed Temmentec AG. The company joined Induchem Group in 2004, and that was when it began to focus on the production of premium personal care products. Temmentech wanted to maintain the site in the village Sumiswald. Since the foreign competitors are able to produce mass-market cosmetics at lower cost, the company had to find out another interesting successful spot in the cosmetics market. Recognising that high-quality service is one of Temmenec pros the company decided to specialize in high-end cosmetics. Adrian Meyer, COO of Induchem declares that an important step for the company and the establishing itself in the market was to win a major contract. That contract came from an existing customer, a company for which Temmenec had been delivering bulk products. Now it had chosen the Swiss to package those products as well. (Photo: Temmentech)

World Forum for Ethics in Business

1 July 2013, Geneva

The International Association for Human Values in partnership with the World Forum for Ethics in Business invite those interested to attend their International Leadership Symposium on Ethics in Business on 1 July 2013 at the United Nations Office at Geneva/Switzerland. The conference addresses the theme of "Good governance and transparency through shared values". The dialogue will challenge existing belief systems and identify shared values as a roadmap for a sustainable future. Inspirational, international examples will be showcased providing ideas that can be scaled up for global impact.

The Conference will consider the following questions:

- What are the qualities of good governance?
- The importance of transparency
- Business and Ethics Complementary or Contradictory values Leadership in the 21st Century Time for a Paradigm Shift
- In the wake of the economic crisis, is globalisation still beneficial to society at large?
- In this next phase of globalisation, who are the winners and who are the losers?
- How can globalisation serve as a means to distribute wealth in a more equitable way? What is the role of the global organisation in addressing poverty, improving education and health systems, and dealing with unemployment and environmental degradation?
- What practices contribute to the highest executive and organisational performance?
- How can organisations implement an ethics-based approach to transforming society and contributing to a better sense of community at the global level, while being profitable and achieving long-term success?
- Leaders share their secrets to sustainability and success

FINNWAVES

Finland stable position on AAA

Finland has maintained its best **AAA** credit rating. The rating agency Fitch Ratings has affirmed the rating, and given the country's economy a stable outlook in a longer term. According to the agency, the strength of public finances is a key support to the rating, and Finland's public finances remain robust compared to peers. According to the Reuters news agency, "this provides Finland with some scope to absorb unexpected shocks".

The government debt in 2012 was 53 per cent of GDP in 2012, well under the European Union threshold of 60 percent of GDP, and Fitch is expecting the debt remain below the threshold during the remainder of the parliamentary term of current administration. According to the agency, the banking sector in Finland is sound, well capitalised and has limited exposures to troubled Euro zone economies limiting the risks arising of financial crisis. The agency states that the impact of an aging population on Finland's public finances will accelerate from 2020 onwards, and the government "will need to implement further reforms of pensions to restore long run sustainability."



The number of foreign direct investments made in Finland continued to grow in 2012 for the third consecutive year. The Helsinki region attracted the most investments, with an increase of 13 percent in comparison with the previous year. Investments in Finland were made especially from the United States, Sweden, Denmark and Estonia. International companies are interested in the availability of a highly-skilled and knowledge-driven workforce. This is an area in which the Helsinki region has been able to meet the needs of foreign companies and investors

Additionally, internationally recognised Finnish companies like Rovio and Nokia add to the investment attractiveness of Helsinki and Finland. The figures on direct investments are based on the Ernst & Young European Investor Monitor Report compiled by the Oxford Intelligence research organisation. Last year, the Helsinki region received a number of major investments such as IT giant Huawei's R&D centre and Microsoft's, Nokia's and Aalto University's shared AppCampus.

The common denominator attracting both these investments was the expertise inherent in the region, and the employment effect generated by the investments will be much broader than just the directly created jobs, says Micah Gland, CEO of Greater Helsinki Promotion, the invest-in organisation of the Helsinki region. These are precisely the kind of knowledge-driven companies that we wish to attract to the region. When foreign capital investments, and corporate acquisitions included, the entire volume of investments in Helsinki increased by seven per cent. In Sweden's capital Stockholm, however, the corresponding foreign investment figure fell by 12 percent compared with 2011. RLU (Photo: RER) www.reuters.com

Finland remains one of Europe's success stories

According to Ernst & Young's European attractiveness survey, 75 investment projects were directed at Finland in 2012, which is 21 per cent more than in the previous year. Investments were made especially from the United States, Sweden, Denmark and Estonia.

According to the survey, Finland is Europe's twelfth most attractive investment target. The UK and Germany took the top spots. All in all, the number of foreign investments made in Europe declined slightly. On the up side for the Nordics was the increasing share of investments directed at the region, equalling nine per cent of all foreign investments made in Europe.

Metso ready for plant rebuild to Sweden

Metso, the global technology and service company, will supply Swedish BillerudKorsnäs with a cooking plant rebuild, a brown stock washing plant and a screening plant for its mill in Gruvön in Sweden. The value of the order was not disclosed by the Finnish company.

The rebuild will efficiently utilise the wood raw material and lower the chemical consumption in the pulping process. In addition it will substantially reduce the energy consumption within the process as presented by Alf Sondell, Production Manager at BillerudKorsnäs, Gruvön mill.

BillerudKorsnäs was formed in 2012 and it has eight production facilities and sales offices in ten countries with about 4,400 employees. The Gruvön mill in Sweden has a production capacity of 685,000 tons per year and it produces kraft paper, sack paper, container board liquid carton board, cupstock and market pulp. Billerud-Korsnäs is a leading provider of renewable packaging material. www.metso.com



Finnish biotech company MetGen receives funding from Switzerland

The biotech company MetGen develops enzyme solutions which help for example pulp and paper industries to transform biomass into renewable chemicals and fuels. The company has received first time funding from Emerald Technology Ventures, based in Switzerland. MetGen develops industrial enzyme solutions for the pulp & paper industry and non-food biomass transformation into renewable chemicals and fuels. The biotech company has received funding also from Sofinnova Partners, Finnish Industry Investment, HST Partners, Finnvera and Cleantech Invest.



Emerald's deep domain expertise and global industrial network will be an important pillar in supporting our growth. The technology developed by MetGen enables efficiency improvements in the pulp and paper and bio fuel industries, and it helps to remove toxic micro pollutants from waste water. According to the company, the process saves energy at the refining step in the pulp and paper industry. Emerald Technology Ventures is a globally recognized venture capital firm in the areas of energy, water and materials. It was founded in 2000, and has invested in fifty companies to date. It has offices in Zurich in Switzerland and Toronto in Canada, and the company has managed three venture capital funds and two venture capital portfolios mandates totalling over 340 million EUR. RLU www.emerald-ventures.com; www.metgen.com

Pöyry is successful in Brazil too

Pöyry, the international engineering and consulting company, has been awarded a contract by Brazilian **Lwarcel Celluose**. Pöyry is supplying engineering and logistics studies for the expansion of its public mill at Lençóis Paulista, São Paulo. The value of the order is not disclosed. As part of the expansion, Lwarcel intends to build a new production line at the same location of the current mill.

The line will bring an additional production capacity of up to 750,000 tons a year. In addition to the new production line, the project also predicts the in-



crease of the company's planting area, going from 38,000 acres to 90,000 acres of planted eucalyptus forests. According to Pöyry, the expansion will generate economic and social development, as well as contributing to the preservation of native and spring areas. Pöyry is an international consulting and engineering company focusing on are power generation, transmission & distribution, forest industry, chemicals & biorefining, mining & metals, transportation, water and real estate sectors. The company has 6,500 experts in its network and is committed to sustainability principles. RLU www.poyry.com

Nordic Environmental Action Plan

Research into climate change and environmental pollution in the Arctic has attracted considerable international attention and provides the basis for several important agreements. One of them almost achieved is the global mercury agreement initiative, followed by the Gothenburg Protocol on air pollution and development of the Nordic eco-label.



The close cooperation between Nordic experts has been illustrated by the Barents Mining Conference in this spring in Rovaniemi. The conference has emphasised the inclusive green-sustainable development as top priority for Nordic countries, the need to build on specific knowledge of effective deployment of resources, sustainable production and consumption. The natural resources of the Barents Region are of strategic importance for Europe. One intensively developing sector is mining, which will bring new opportunities to the region, but which will also cause changes in the environment. This Conference provided an excellent opportunity to discuss the environmental issues connected to the mining industry and to promote best environmental practices for mines in the Bar-

ents Region. The conference brought together operators and authorities from Russia, Norway, Sweden, and Finland. Working together to get an overall understanding of the present and future development of the metal mining sector, to increase awareness of the challenges of the mining sector for the environment in the Barents Region, to present and to share the best environmental practices in this sector in Barents countries, and to promote the exchange of information on assessing and managing environmental concerns in the mining sector.

Over the past forty years, the Nordic countries have achieved significant results by working together on the environment, combining economic growth and welfare development with an ambitious environmental policy, and proactively contributing to environmental improvements in the Nordic Region and beyond. Priorities for the Nordic Environmental Action Plan are: inclusive green development, climate change and air pollution, biodiversity, ecosystems and ocean acidification, health and environmentally hazardous chemicals.

Finding solutions to environmental issues in neighbour countries and regions is a high priority of Nordic cooperation. NEFCO is the environmental financing institution to support environmental projects in North-West Russia, Ukraine and Belarus.

The Nordic Region contributes to funding as well major environmental projects and the export of Nordic environmental technology. It has been stated an proactively cooperation on the Arctic Council and the Barents Euro-Arctic Council, in the Baltic Sea Region, and via the regional marine convention HELCOM and OSPAR, work on eco-label is being developed and improved. Of importance are the particularly features of cooperation in the Nordic societies: working together on resource management, exchange of experience between small communities and sharing openly the best environmental and social practices. RLU

(Photo: Rovaniemi Airport 2013/RER)

Good to know!

Mining has long traditions in Finland. The first iron mines began operating in the southern part of the country as far back as the 1560s. Since that time, over one thousand mines have been opened that have extracted metal ores and industrial minerals (Puustinen 2003). Today, mining is an expanding sector that produces essential raw materials for the metal, chemical and paper industries, for agriculture and for many other sectors of the economy. At present, there are some forty mines operating in Finland, of which ten or so produce precious or base metals (e.g. gold, chrome, nickel, copper and zinc), with the other facilities extracting industrial minerals (e.g. apatite, talc and limestone). These mines stand to be complemented by a number of metal ore and industrial mineral mines currently being planned in southern, eastern and northern Finland. These facilities include new gold mines in various locations throughout the country, as well as an apatite mine in eastern Lapland. In addition to an increasing global need for base metals, there is a growing dependence on a supply of what are known as high-tech metals (including rare earth metals), a trend which has sparked intensified prospecting for and exploration of high-tech metals in Finland (MEE 2010). In European perspective, the mineral wealth in Finland is significant, as the country's reserves will improve Europe's self-sufficiency in mineral and metal production. In fact, Finland is the continent's largest producer of industrial minerals. (Finnish Environment, 2011, Best Environmental Practices in Metal Ore Mining, Päivi Kauppila, Marja Liisa Räsaäinen and Sari Myllyoja) RLU

A Matter of Trust in Excellence in Geology for Sustainable Business Culture

Good News

The Arctic is undergoing a rapid change from being a remote and marginal region to becoming a central stage in research, economics and politics. Scandinavian Region and Finland seem to have had hidden for many years their mining treasures although they have mined for over five centuries their resources. Today it is a fact that they developed a high performance mining technology and particularly the fine tuning for a sustainable economically, socially and environmentally mining. Good news for companies was that Finland won first place in the Fraser Institute's 2012-2013 survey of mining companies, as the world's most investment-friendly mining jurisdiction. Broad resources base, excellent infrastructure, and clear policies convinced the best among 50 or so companies operating in this country. The authorities are in a permanent dialogue struggling to accommodate the stakeholder's participants at the mineral development. The pivoting hot point of the debate is the miner's social licence to operate and its social and environmental price.



Finland is a suitable destination for market sectors avoiding risk. Best skilled English speaking experts and vocational workers provide beside low mining taxes and no sovereign risk a high quality of business culture. Technological performance of best equipped suppliers like Metso, Outotec, Sandvik and Atlas-Copco and excellence in geological services by *The Geological Survey of Finland* who provides high precision maps and data put Finland on top investment standards. Moreover the country treasures a rich geology that can be very well compared to Canada and Australia. Professor Krister Sundblad from Turku University considers that the Proterozoic greenstone of Lapland contains abundant gold and nickel deposits. On this greenstone mines Agnico-Eagle's *Kittila* mine the largest gold deposit in Europe. The Fennoscandian Shield in Finland hosts a large variety of minerals, including iron, nickel, copper, chromium, uranium, and platinum groups metals. Due to

earlier "milder" mining practices, the ore is easier to extract, then in many projects the deposits have been found at surface. Back to 1990 only a few state-own companies had the mining licence. New challenges driven by rising metal prices and socio-economic particularly labour policy -considerations moved on the government to rethink the mining legislation. For many political leaders the mining boom brings new jobs opportunities for regional development all over the country and reconversion's activities for a very high skilled young population. Therefore the response to the new economic challenges of the sector has been proactively by means and actions. The Ministry of Employment and the Economy introduced a public consultation mandate and exercised a carefully preventive attitude in front of permit applications for mining operations. The amended mining law rules since 2011 and encompass many safeguards for communities, labour force, and the impact on environment. Exploration permitting decision's functions have been spitted off from the Ministry of Employment and the Economy, and reassigned to the Finish Safety and Chemical Agency. Even if this permitting process brings meanwhile a backlog of exploration permit applications the involvement of communities and other affected stakeholders benefits the dialog and therefore sustainable decisions.

From why towards how

Risk, dignity and fragility are essential stewards for a faire balance in Finland economy. The extractive sector makes no exception. Corporate social responsibility and environmental deliberations are not new topics. New is the fact that they have got a considerable awareness' voice. The smallest harm on environment is taken for concern of further environmental regulations and stresses mining companies are to improve on exploitation technologies and minimise impact on environment. The consequence is a relatively long permitting delay. The new "green mining program" in collaboration with the government strives to cut down the wait to six months by mid 2014. However the entire dialogue between stakeholders exposed to a project in the mining industry is focussed even sharper on communicating the intrinsic importance of the sector for the economy and society. The importance is shifted from why towards how looks the mining industry in a sustainable development strategy. Debates all over the country forge a national task force that acts pragmatically in the name of general interest, evaluating exactly what can move on the sustainable mining business forward, and what threatens to slow down. RLU

(Photo: Rovaniemi Airport 2013/RER)

RECYCLING FOR THE FUTURE

TOMRA for MINING WASTE MANAGEMENT





TOMRA is a leading global developer and provider of sensor-based solution for optimal resource productivity by helping customers increase their financial results and reduce the environmental impact. The group is active in more than 80 markets worldwide, has a over 2,200 employees and is headquartered in Asker, Norway. The company had total revenue of 4.1 billion NOK (ca.719 million USD/548 million EUR) in 2012 and is publicly listed on the Oslo Stock Exchange. The company was founded in 1972 and started out with design, manufacturing and sale vending machines (RVMs) for automated collection of used beverage containers. The TOMRA Group from today continues to innovate and provide cutting-edge solutions for optimal resource production within two main business fields: Collection Solutions (reverse vending, material recovery and compaction) and Sorting Solutions (recycling, mining, and food and specialty products). TOMRA Sorting Solutions is a leading provider of sensor-based sorting systems. The experience gained from more than 10,000 installed systems in the recycling, food processing and the mining industry added experience from 15 test facilities around the world have led to significant advances in computing power, sensor technology and detection systems. It provides a complete product portfolio that facilitates extremely efficient material separation in various minerals and ore applications. Benefits of a larger group with specialisation in sensor-based sorting are highly appreciated.

TOMRA Sorting Solutions | Mining, which was Commodas Ultrasort before, is the leading provider of sensor-based sorting systems for the mining industry. Since 2006 part of Norway-based TOMRA Sorting AS, the mining business can now emphasize with its new name this connection and enables to showcase the significant capabilities and strengths for environment issues under TOMRA Sorting Solutions even more clearly. Tomra technology is

ecologically friendly: remaining waste is contamination free, Reduces dump volume, Concentrates the high grade material at an early stage saves resources like energy, water or chemical. RLU

CANWAVES

Mining, Ethics and Sustainability

World Mining Congress in Canada

Montreal, 12-14 August 2013

The 2013 World Mining Congress is being hosted by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in Montreal. The theme for WMC 2013 is Mapping the Future: Advances in Mining Engineering, and an extensive technical program of leading-edge, peer-reviewed papers will provide the opportunity for high level knowledge sharing with peers. Over 1,500 people are expected to attend, enabling outstanding networking and the development of new business relationships. What's more, the Mining Expo will showcase the very best suppliers and

service providers supporting the global minerals industry, creating an unparalleled opportunity to hunt down the solutions to drive your business forward. CIM has invited the Canadian Business Ethics Research Network (CBERN), to broaden the traditional focus of mining conferences on the technical, engineering and financial dimensions of mining to include the social, environmental and ethical issues and challenges that are now central to mining operations worldwide. CBERN, a cross-spectral network with a strong focus on the ethics of resource extraction, welcomed

the opportunity and assumed responsibility for organising a programme stream on "Mining, Ethics and Sustainability".



23rd World Mining Congress

The programme from 12 to 14 August 2013 will feature two distinguished keynote speakers:

Professor Saleem Ali, Director of the Centre for Social Responsibility in Mining at The University of Queensland, will speak on 12 August on the theme of "Mining and Sustainability", and Dr Ted Moses, former Grand Chief of the Grand Council of the Crees (Eeyou Istchee) and Officer of the National Order of Québec, will launch a discussion on "Mining, Economic Development and Aboriginal Rights" on 13 August. Responsible Resources & Roots will have an intervention on "Impact Investments in Mining Companies".



Highlights of the programme will include: 14 sessions between the "Mining, Ethics and Sustainability" concerns and "People and Communities" interests, dedicated to discussing critical topics such as Social License to Operate, Voluntary versus Legislated Codes and Standards, and Mining and Health.

For the past 15 years, the Mining Association of Canada (MAC) has worked to improve the management of tailings' facilities by its member companies and the broader mining industry. This effort began out of a fact that tailings present a major business risk to the mining industry, that the risk needed to be better managed, and that a series of major tailings failures around the world in the 1990s, while individually related to specific technical issues, were fundamentally indicative of the need for improved care and management practices by tailings facility owners and operators. The main focus of this workshop will be on MAC's **three-volume set of guides** developed to improve tailings management: "A Guide to the Management of Tailings Facilities" initially published in 1998, updated edition in 2009; with many challenges associated with mining's environmental and social impacts, cost-efficiency and finding new opportunities, the industry could just be on threshold of a renais-



sance. "Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities," published in 2003, and "A Guide to Audit and Assessment of Tailings Facility Management," published in 2009 will be on debate too.

The primary objective will be to outline the MAC tailings management framework, and to provide guidance for its implementation and application as gained from member company experiences. The workshop will also link the tailings management framework and the guides with the tailings management performance indicators under MAC's Towards Sustainable Mining (TSM) initiative. The workshop will be presented by the MAC Tailings Working Group, which was established in 1996, and continues to work within the industry to promote safe and environmentally responsible tailings management practices.

An innovative and challenging workshop on "New Directions in Mining Management Education" led by Richard Ross, Executive in Residence, former Inmet CEO and Director of the new School of Business program in Responsible Mining Management.

A plenary on the Canadian International Institute for Extractive Industry Development (CIIEID), where civil society leaders will engage leaders of CIIEID in a lively conversation about the new institute's form and function.

There is a still work to do. The Conference in May in Toronto opened the stage for further debates on education and ethics in business. Richard Ross, program director for MBA Global Mining Management at the Schulich School of Business, listed off the names of CEOs who had lost their jobs in the last year, along with many recent multi-billion dollar write-downs. He pointed out that three key systemic forces are behind the problems facing the industry today: the increased influence that grassroots organisations have; the *tyranny of short-term thinking* from institutional investors; and *management teams ill-prepared* to deal with the growing complexity associated with developing projects. "In my view, I think these three factors have reached a tipping point," he said in May. "Unless we acknowledge and understand what's going on in society, we're not really going to be able to equip the next genera-

tion of leaders with the right skills to take on these challenges, because they're not going away." Brainstorming sessions are going to be required. Responsible Resources & Roots Engagement is at the advisory panel. RLU



Photo RER (www.wmc-expo2013.org)

Soon Planetary Resources?

"The courage to not just look outside the box, but to look outside the planet" will help solve many of the mining industry and the world's new challenges. "All human exploration on this planet, going back hundreds of years, has been driven by resources" stipulates Chris Lewicki, president at **Planetary Resources** whom we met at CIM 2013. His company is interested in mining near-earth asteroids.

Planetary Resources is establishing a new paradigm for resource discovery and utilization that will bring the solar system into humanity's sphere of influence. "Asteroid mining will ultimately lead to an environmentally and economically sustainable development of space resources."



Planetary Resources' mission is clear defined: apply commercial, innovative techniques to explore space. The company is on the way to develop low-cost robotic spacecraft to explore the thousands of resource-rich asteroids within human reach;. By learning everything technically possible about them, and then developing the most efficient capabilities to deliver these resources directly to both space-based and terrestrial customers. Asteroid mining may sound like fiction, but it's just science serving future demands. Today Planetary Resources is creating robotic explorers that cost an order of magnitude less than current systems. Teams of robotic spacecraft will soon explore the best asteroid candidates, then access and process their resources during subsequent campaigns.

Chris Lewicki, president and chief engineer of Planetary Resources, is forging the way for mining outside of Earth's atmosphere. The company has ambitious plans to mine near-Earth asteroids in outer space. Lewicki has ample experience in space exploration, having been flight director for NASA's two Mars missions, which landed the Spirit and Opportunity rovers on the red planet. Lewicki, who has an asteroid named after him now, leads the day to day operations at Planetary Resources. (Photo: Planetary Resources) RLU

AFRIWAVES

Investments on rising

Africa for lucky exception

Contrary to the global trend for 2012, foreign direct investment (FDI) rose by 5 percent in Africa, according to the annual report of the UNCTAD released on June 26. Africa stands out in a gloomy global economic landscape. While foreign direct investment (FDI) fell by 18 percent in global financial flows to African countries grew by 5 percent and reached USD 50 billion in 2012. Advanced by UNCTAD figures, the UN agency for trade and development in its annual report on investment trends report published on June 26th.

For the first time in 2012, developing countries have received more FDI than developed countries, affected by a dramatic drop of 32 percent in international investments. However, the global slowdown does not spare the East Asia and South-East and Latin America, respectively, with a drop of 5 percent and 2 percent of inward FDI. Africa is the only region of the world (as defined by UNCTAD) to which financial flows have increased, with a shift of 47 billion in 2011 to USD 50 billion in 2012. Compared to USD 1.35 trillion of global FDI, the continent, however, remains a global secondary actor, since only 3.7 percent of global FDI was for him last year. Moreover, FDI outflows from African countries nearly tripled in 2012, reaching a record USD 14 billion, increasing in all parts of the continent.

Top 10 recipients of FDI in Africa 2012 (in billions of USD, source: UNCTAD)

1. Nigeria -	7
2. Mozambique -	5.2
3 South Africa	4.6
4. DR Congo -	3.3
5. Ghana -	3
6. Morocco -	2.8
7. Egypt -	2.8
8. Congo -	2.7
9. Sudan -	2.4
10. Tunisia -	1.9

North and East Africa is on track

Recent discovery of new gas fields in Tanzania and new oil fields in Uganda have attracted additional investments in East Africa. FDI flows in the region increased from USD 4.6 billion in 2011 to USD 6.3 billion in 2012. However, in Southern Africa, FDI inflows fell by USD 8.7 billion in 2011 to USD 5.4 billion in 2012, despite substantial differences across countries. For example, investments in Mozambique doubled to USD 5.2 billion, attracted by the huge gas deposits in the sea, while in Angola, they fell for the third consecutive year (-6.9 billion). FDI flows to South, fluctuating in recent years Africa has fallen from 24 percent in 2012 to 4.6 billion. In revenge, outward FDI rebounded sharply to 4.4 billion, and the country has returned to the first source of FDI in Africa. Indeed, in 2012, South African companies have acquired many interests in the mining sector as well as in the sectors of wholesale trade and health care. (UNCTAD)



5th Tokyo International Conference on African Development (TICAD V)

1 to 3 June, 2013 Yokohama, Japan.



The continent's development hopes heighten as the fifth edition of TICAD process was billed for Japan from June 01 to 03. Keeping Africa's current economic growth on a stable path and extending the benefits to all strata of development. This is the key challenge that has guided the

discussions at the fifth edition of the Tokyo International Conference on African Development (TICAD V) billed for Japan's Yokohama from June this year. The conference has marked as well 20 years of the TICAD process and incidentally 50 years of the Organisation of African Unity, the predecessor of the African Union.At TICAD V, representatives from Japan, African countries, international organisations, donor countries, the private sector and civil society developed an action plan based on three main interrelated themes; "Robust and Sustainable Economy", Inclusive and Resilient Society", and "Peace and Stability." In concrete terms, conference participants prioritised infrastructure and human resources development as well as private sector investment as

important prerequisite for Africa's economic growth. In the same vein and more importantly, they discussed ways to support initiatives of African countries to ensure peace and stability particularly in the area of conflict management, cross border security, terrorism and piracy and good governance. As underscored by Tsutomu Arai, Ambassador of Japan to Cameroon, the challenges remain substantial for the continent.

Japan has promised Africa 10.7 billion EUR (14 billion USD) over the next five years as government and private-sector aid. Japan's Asian rival China has already invested heavily in Africa. Japan intends to "revolutionise" its investment in Africa by focusing on private-sector investment in infrastructure. Roughly half the sum would be offered for projects in Africa such as transportation, education, farming, energy projects and water sanitation. Japan will invite 1,000 students to study at universities and gain experience as interns at Japanese companies.

Japan will also strive to develop jobs for 30,000 people in Africa. Japan will also construct hubs for human resource development at 10 locations in the field in Africa, including in Ethiopia and Senegal. Complementarily it will send experts in vocational training to these hubs.

EcoBois Tunisia



EcoBois was elected for his pioneering work in the ticket price 2013 of granting "INNOVATION AND CREATIVE INDUSTRY" at "G8 Deauville Partnership Conference on women's role in Arab economies "The Deauville Partnership with Arab Countries in Transition is an international effort launched by the G8 to support countries in the Arab world engaged in transitions toward "free, democratic and tolerant societies." The Partnership includes Canada, Egypt, France, Germany, Italy, Japan, Jordan, Libya, Kuwait, Morocco, Qatar, Russia, Saudi Arabia, Tunisia, Turkey, the United Arab Emirates, the United Kingdom, the United States and the European Union. It also includes international financial institutions and organizations

committed to supporting reform in Egypt, Jordan, Libya, Morocco and Tunisia. The African Development Bank is the rotating chairman of the IFI platform that includes: the African Development Bank, the Arab Fund for Economic and Social Development, the Arab Monetary Fund, the European Investment Bank, the European Bank for Reconstruction and Development, the International Finance Corporation, the International Monetary Fund, the Islamic Development Bank, the OPEC Fund for International Development, and the World Bank. There are several other organizations that have been supportive of the Deauville Partnership, including, the Arab League, the Organisation for Economic Cooperation and Development and the United Nations Organisation.

NIPPONWAVES

J-SUMIT 2013, 16-17 May, Tokyo

Japan Sustainable Mining, Investment and Technology Business Forum is Japan's First International Business Forum for the Resources Sector. It was Held in Tokyo and led by the Initiative of Japan. J-SUMIT is the first attempt for Japan. The forum came prior to the Tokyo International Conference on African Development, known as TICAD, which was held in June in Yokohama with the attendance of African leaders. A number of 80 speeches and presentations were in Tokyo made by participants including ministers of Africa's resource ministries, major and junior mining companies, Japanese companies, and financial institutes. Exhibition displays, such as those concerning Japan's observation satellites, water infrastructures, vehicles, and mining technologies were presented as well. About 2,000 people participated in the forum. The international event aimed to share the latest information on African countries from two perspectives: the potential of resources-related business in overseas countries, focusing on Africa, the final frontier; and the promotion of the resource business through involving Japan's technology, as well as to promote specific business negotiations by holding business networking events. The Japan-Africa Ministerial Meeting for Resources Development was held on May 18, 2013, the day after the forum, which was also the first initiative. The lion continent, particularly sub-Saharan Africa, has maintained high economic growth recently, attracting the interest of Japanese firms. Two objectives have been clearly pointed out: Japan is determined to contribute to African development and is doing so in many ways and sustainability in mining sector ought to be promoted.

Africa has 30 percent of global mineral reserves. Economic rents



average is 21 percent of GDP in resource rich countries, among to roughly USD 30 billion. Mining generates over 20 percent of governmental revenues in Africa. Africa's resources potential and investment flows indicate the role of minerals will be greater in the future. Copared to its reserves, African output has still to catch up. Mining characterised by shifting centres of production—from the old world to emerging markets, including Africa, and remote regions within those—as deposits are depleted, ore grades are deteriorating. Exploration in Africa up USD million in early 2000 to USD 1.4 billion in 2010. World Bank estimates USD 87 billion projected investments by 2017 in main mining countries.

Tokyo to Reform Power Supply System towards 2020

The Tokyo Metropolitan Government (TMG) highlighted reformation of the power supply system as one of eight pillars of Action Program 2013 drawn up in December 2012 for "Tokyo Vision 2020." The TMG aims to break from its previous dependence on



nuclear power generation and create a society with a highly efficient, independent and distributed energy system.

Planned in the Action Program are: to construct a 1 million kilowatt-class natural gas thermal power plant; to renovate aging thermal power plants; to create an infrastructure fund to invest in projects for 100,000 to 300,000 kilowatt-class power generation and renewable energy as joint initiatives between the public and private sectors; and to create power independent islands using geothermal power in Hachijo Island, solar power in Miyake Island and hydro power in Mikura Island. In addition, the TMG will promote private power generation at homes and in office buildings, install photovoltaic power generation systems in its facilities, and prepare for the creation of a smart city. The TMG will budget 123 billion yen (about USD1.31 billion) for energy and the environment in three years starting 2013, aiming to reduce its carbon dioxide emissions by 20 percent from 2000 levels by 2020. RLU

Organic Cafe in Tokyo from Organic Farmers of Fukushima



In this spring, two years after the Great East Japan Earthquake, "The Community & Organic Cafe Fukushima Organ-Do Shimo-Kitazawa" has been opened in Setagaya, Tokyo, and offers local dishes prepared using vegetables and rice grown in Fukushima Prefecture.

The Fukushima Organic Agriculture Network (FOAN), a non-profit organisation chooses as vocation to promote *organic farming in Fukushima*. FOAN is in charge of the cafe management. Organic

farmers in Fukushima were hard hit after the earthquake crop destruction, but they struggling on proving that radioactive contamination of the produces in their farms is extremely low, as a confident result of their efforts of soil improvement and sustained serious testing for radioactivity. All food offered in the cafe is measured for radioactivity, and the results are displayed for customers' peace of mind.

Mr Noboru Saito the executive director of the network (on photo together with Ms Naomi Abe, the store manager), emphasised that they have been putting much effort into selling farm produce from Fukushima via the internet or at charity events in the Tokyo metropolitan area since just after the earthquake, and these efforts developed into a proactive network to open this cafe. As evacuating families were separated in the aftermath of the earthquake in Fukushima, he hopes that the cafe will help reconnect many of those separated. Fukushima Organ-Do also sells seasonal farm produce and processed products. They are hoping to disseminate farm culture from the cafe, connecting those who evacuated from Fukushima, as well as people in Fukushima and Tokyo. RLU

Japanese Company's Ethical Jewelry Line Making a Difference in Developing Countries

Ms Natsuko Shirak president of HASUNA is born in 1981 at Kagoshima, and raised in Aichi, Japan. She studied International Development at King's College London. After graduation, started internship at United Nations Population Fund Vietnam-Hanoi office and Asia Development Back Institute. After working with an investment fund company Natsuko Shirak established on April, 2009 HASUNA Co., and Ltd. She is currently deploying business mainly on Ethical Jewellery brand.

HASUNA Co., focused on building its ethical jewellery brand using fairly traded and recycled materials, opened a shop at an accessories corner of a department store in the trendy Tokyo shopping district of Shinjuku, on March 6, 2013. The company was established in 2009 by Ms Natsuko Shiraki, the president, with a desire to help with solving problems of poverty, not through financial aid but by conducting business between developing countries and Japan on an equal footing.

Mining in developing countries often comes with environmental damage, conflicts, and even child labour in the process of mining, production, and distribution of precious metals and gems. For instance, according to a 2012 report by the U.S. Department of Labour, child and forced labour has been reported at diamond mines in seven countries.

HASUNA defines "ethical" as "being concerned with various problems regarding people, society, and the environment," and tries as much as possible to purchase the materials for its jewellery



directly from small-scale miners or artisans to ensure material source traceability.

Their jewellery line is aimed at being friendly for people and the Earth, by buying diamonds from Botswana and gold from Columbia, for instance, from sources that are unrelated to conflict or child labour and mined in an environmentally friendly manner, as well as seashells from Belize in Central America. The company already has three retail stores in Tokyo and Nagoya, and is planning to expand into western Japan and overseas.

RLU, http://www.hasuna.com, Photo: HASUNA

Japanese game maker GungHo Entertainment

Finnish Supercell, publisher of the Clas of Clans game is teaming up with Japanese game maker GungHo Entertainment which is known of its Puzzle & Dragon mobile game. According to *Inside Mobile Apps*, the Finnish startup generates 1 million dollars in gross revenue a day from Clash of Clans and Hay Day games. *The Arctic Startup* website reports that Japanese company generates over 2.5 million dollars a day, and is valued at 4.5 billion dollars. The duo is joining forces and plan to introduce exclusive in-game features for their leading games, as well cross-promote them. According to the *Wall Street Journal*, Supercell is planning to open an office in Japan this summer, and teaming up with GungHo gives it an access to the 14 million people who play "Puzzle & Dragons" in Japan. Supercell and GungHo share the same approach to game

development so it seemed only natural to collaborate together, said Kazuki Morishita, President/CEO and Executive Producer of GungHo Online Entertainment in a press statement. They are deeply committed to helping each other expand into new markets and equally committed to having an incredible amount of fun working together, commented Ilkka Paananen, CEO of Supercell. According to the press statement, Supercell's Clash of Clans has ranked as the number one grossing app overall on iPad in 135 countries, and Hay Day has ranked as the number one grossing app overall on iPad in 90 countries. GungHo's Puzzle & Dragons is App Store's number one free mobile game, and it is also Japan's top grossing app of all time, to date.

RLU, www.gunghoonline.com

Narisawa Tokyo, Japan, Sustainable Restaurant

In 2013, The World's 50 Best Restaurants recognises a new individual award category: The Sustainable Restaurant Award sponsored by Zacapa. The winner of this year is Narisawa, Tokyo, Japan. The Sustainable Restaurant Award is presented to the restaurant which demonstrates the highest environmental and social responsibility rating. This rating is determined with reference to the Sustainable Restaurant Association's Global Rating System. The Global Rating System covers three main pillars: Sourcing, Environment and Society: Sourcing recognises restaurants using local, seasonal and high welfare and ethically sourced produce. Society recognises restaurants for treating people fairly, promoting healthy

eating, community engagement and responsible marketing. *Environment* focuses on the restaurant's supply chain, waste management, workplace resources, energy efficiency and water saving initiatives.

The Sustainable Restaurant Association (SRA) is the UK's premier sustainability focussed industry body and The World's 50 Best Restaurants are working to partner with the SRA in determination of this new award. In order to be eligible for The Sustainable Restaurant Award each contending restaurant must complete a short Global Rating Survey. Only restaurants in the Top 50 who complete the Survey will be considered for this award. Photo, RLU/JT



Building lasting relationships through honesty, transparency and co-operation

R. Phy 4

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