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SWISSQUOTE

ePRIVATE BANKING MAGAZINE



SHALE OIL AND GAS

THE NEW GOLD RUSH

THE AMERICAN RECOVERY
FRACKING: RISKS AND REWARDS
7 WINNING COMPANIES

ISSN 2296-3278



Oil entrepreneur Steve Erickson
is profiting from the boom

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Oil & gas: rekindling a passion

When *Swissquote Magazine* launched three years ago, there seemed little chance that fossil fuels would one day make a resounding comeback. What's more, we focused our first edition on the cleantech sector, the acme of environment-friendly innovation that seemed set for a long career.

Three years later, life is tough for renewable energies. A combination of the economic crisis and a boom in shale-based hydrocarbons, which deliver low-cost energy, has radically altered the world's energy landscape. Hydraulic fracturing technology, all the rage in North Dakota (p. 38), can be used to extract huge quantities of oil and gas cheaply. So much so that the US could reach energy independence over the next decade.

One advantage of this revolution: It's boosting the US economy because natural gas prices are ridiculously low. Plenty of companies are profiting from the situation (p. 50), as are consumers. But is it really a good thing? True, technological progress in exploiting fossil energies should keep environmental risk at bay in the near future (p. 46). But what about the long-term effects? Now that oil and gas reserves are assured for several generations and Asian demand is flourishing, the fight against global warming will be much harder to organize.

In our opinion, it is more vital than ever to pursue the path of renewable energies, a field where Switzerland has a key advantage. While fracking has revolutionized gas and oil extraction in a few short years, technological innovation could likewise produce giant leaps in wind and solar energy. All that's needed is the means to do so.

On a separate issue, the horsemeat for beef scandal has recently fueled uncertainties about the relationship between industry and the environment, spurring *Swissquote Magazine* to profile Bell, the leader in the Swiss meat industry (p. 22). Founded in Basel and now sold in several European countries, Bell is relying above all on the Swiss reputation for quality to anchor its brand in a market increasingly concerned about product sourcing.

Allow us, for once, to end on a self-congratulatory note. A year ago we devoted a special issue to the boom in South Korea. In an article on the country's prowess in cultural marketing, we wrote about a promising but then-unknown K-pop artist. A few months later, the video for "Gangnam Style" had racked up more than 1.5 billion clicks on YouTube, and Psy had shot to global fame. Proof that our editorial team has excellent intuition—and not just about investments.



Marc Bürki,
CEO of Swissquote

Welcome to our English-speaking readers

From this issue on, *Swissquote Magazine* will be available in English in a special edition intended for an international readership. Bolstered by its success in Switzerland, our magazine continues to expand internationally – which makes us very proud.

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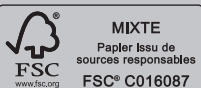
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BELL

WORLD WATCH

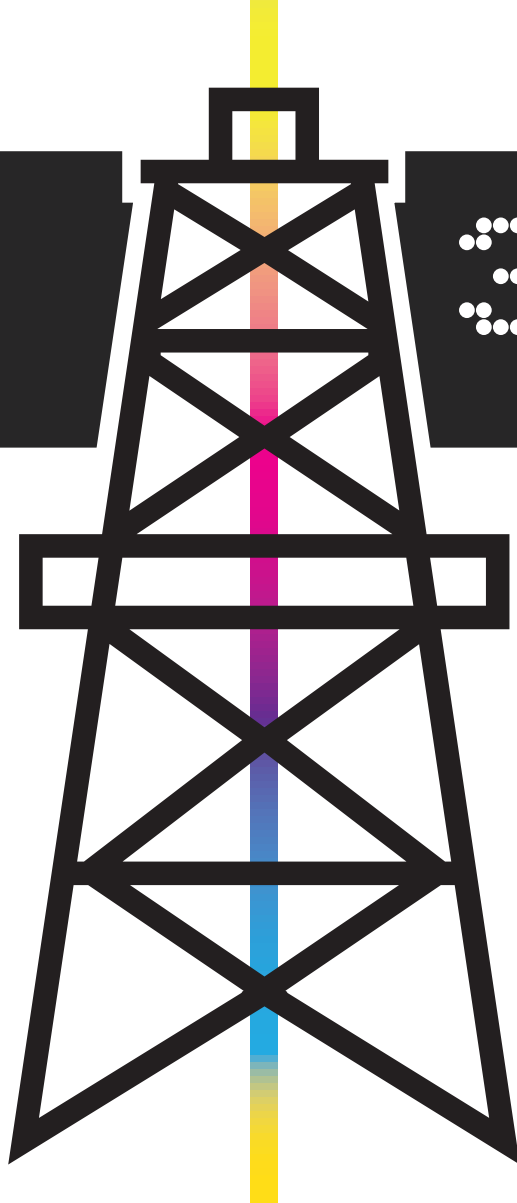


OIL BOOM

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QR CODE



You will see this QR code (short for "Quick Response") in the margins of some articles in the magazine. Simply take a picture of the symbol with your mobile to display a web page with extra information on the subject at hand. Swissquote users get information on the share price of the company in question and can even buy and sell shares. Download the compatible app for your phone at: www.swissquote.ch/magazine/code/f/

I N T E L L I G E N C E

AG AI AR BE BL BS FR GE GL GR JU LU NE NW OW SG SH SO SZ TG TI UR VD VS ZG ZH

NOVARTIS TREATS THE DISEASE OF KINGS

Gout, a form of inflammatory arthritis, was once known as the "disease of kings" because it afflicted those with an overly rich diet. After having almost entirely disappeared, gout is making a comeback as obesity rates rise and lifespans lengthen. The result?

A promising new market. Novartis was recently given the greenlight by European authorities to market Ilaris, a drug that treats the illness, which currently affects 1% to 4% of adults in Europe.

✎ NOVN

RECORD YEAR FOR JUNGFRAU TRAIN

The Jungfraubahn transport group, which manages the train that climbs to the peak of the Jungfrau in the Bernese Oberland, enjoyed a record year in 2012 for its centenary. Europe's highest train station welcomed 833,000 visitors and increased revenues by 4.4% to 115.1 million Swiss francs (\$120.86 million). The performance was driven by an increase in passengers from Asia, in particular India and China. However, the drop in European tourists and the warm winter season had a negative impact on the area's winter-sport and ski-lift businesses.

✎ JFN

NESTLÉ BUSINESS BOOM IN PAKISTAN

Nestlé reported solid rather than spectacular results in 2012. Net profit was up 11.5% to 10.6 billion Swiss francs (\$11.13 billion), while sales totaled 92 million Swiss francs, up 10.2%. But the Vevey-based group's subsidiaries put in some particularly impressive results, among them Nestlé Pakistan. Revenues for the subsidiary rose 22% to \$800 million in 2012, while margins increased to 27%. Growth in Pakistan is fueled by the emerging middle class, newly equipped with the refrigerators necessary for stocking many Nestlé products.

✎ NSN

QUICK CHARGE STATIONS FOR ELECTRIC CARS

ABB has launched a quick charge system for electric cars. It takes just 15 to 30 minutes to charge up at the Swiss-Swedish group's stations, compared with eight hours using a regular socket. ABB has installed 165 quick charge stations in Estonia in towns with more than 5,000 inhabitants and along the country's main roads, making it the largest network in Europe. The distance between two stations is never more than 60 km and each charge costs €2.5 to €5 (\$3.2 to 6.5). Motorists can also take out an unlimited-use subscription for €30 per month.

✎ ABBN

DIAMONDS FOR SWATCH

Swatch is following through on its luxury jewelry ambitions with the acquisition of US jeweler Harry Winston for an estimated \$1 billion. The Bienne-based watch company made a first stab at the luxury segment by partnering with Tiffany & Co to produce watches. But Swatch ended the agreement in late 2012, disappointed by the poor presentation of its timepieces in Tiffany stores.

✎ UHRN

SWISS RE'S BRUSH WITH SANDY

Hurricane Sandy, which pulverized the East coast of the US last autumn, cost Swiss Re about \$900 million in claims. The insurance industry as a whole paid out about \$25 billion. Despite that outlay, the Swiss reinsurer posted record profits in 2012 owing to lower natural disaster costs. It will soon pay out \$2.8 billion to shareholders in a special dividend of \$4 per share.

✎ SREN

LESS TOBACCO, MORE RECONSTRUCTION



The Japanese government is selling part of its share in Japan Tobacco International, which operates the Camel and Winston brands. The Japanese finance ministry, which owns 50.1% of the Geneva-based company, is to sell 333,3 million shares for a gain of \$10 billion. The money will be used to finance reconstruction efforts in northeast Japan following the earthquake and tsunami in March 2011.

✉ 2914

ALCON AND CIBA VISION INVEST IN US

Eye-care product company Alcon, a Novartis subsidiary, has joined forces with Ciba Vision in the US to develop what they're calling a "revolutionary" new contact lens. Alcon is to invest \$250 million in a shared campus at Johns Creek in Georgia. About 300 jobs will be created at the new 79,000 m² site; the existing plant will be enlarged by 6,500 m². The project is scheduled to last three to five years. Alcon currently employs about 1,500 people at Johns Creek.

✉ NOV

BARRY CALLEBAUT'S HANDS TIED BY CÔTE D'IVOIRE



Côte d'Ivoire began eliminating tax incentives for cocoa grinders in 2012 and will continue in 2013. Companies will no longer be able to deduct production investments from their taxes, while exports of semi-finished products will also be taxed at 14%. The changes will significantly reduce the profits of Swiss giant Barry Callebaut. But because world cocoa demand outstrips supply, the company will not be able to leave the country and has no choice but to pay up. Côte d'Ivoire, the world's number-one cocoa producer, calls the shots.

✉ BARN

TRAFIGURA BARRED FROM MALTESE CONTRACTS



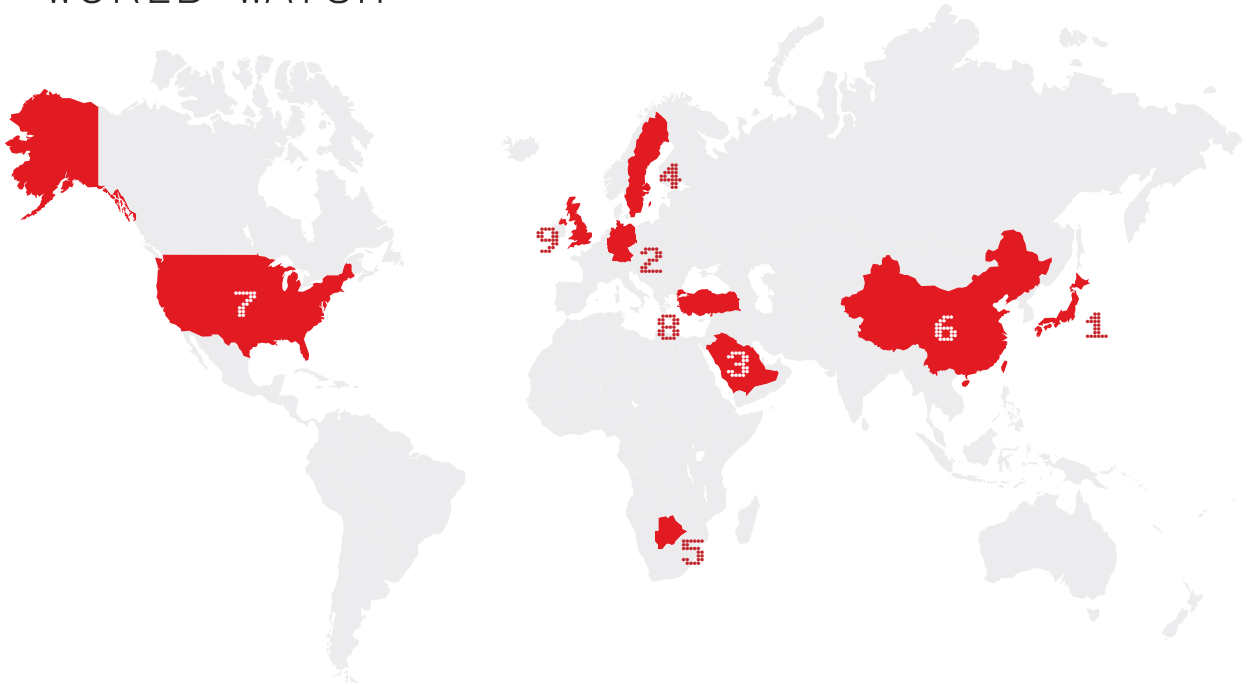
The Lucerne-headquartered oil trader Trafigura is in trouble in Malta. One of its traders and former local representative, George Farrugia, has delivered information to the Maltese judiciary on illegal commissions paid in 2004 and 2005 by the firm. As a result, Enemalta, the country's public energy company, has barred Trafigura from future public contracts. The former chairman of Trafigura and one of his advisors have been charged with corruption and money laundering.

CHARLES VÖGELE PULLS OUT OF EASTERN EUROPE

Despite featuring actress Penelope Cruz on its posters, launching a lingerie line and moving into e-tailing in the past few years, Charles Vögele's revenues fell 4,4% in 2012 to 972 million Swiss francs (\$1.02 billion), for an operating loss of 17 million. The Schwyz-based fashion retailer is to begin closing down the numerous points of sale opened in Eastern Europe (in Poland, the Czech Republic and Hungary).

✉ VCH

WORLD WATCH



1

FAX-HAPPY JAPAN

In most countries, the fax has joined the long list of now-obsolete electronic products, including the Discman, cassette player and mini-disc. But not in Japan. Some 1.7 million fax machines were sold in the country in 2012, while almost 100% of companies and a full 45% of households own one—a boon for the handful of companies that still make the machines, most of them Japanese, including Panasonic and Ricoh.

2

**THYSSENKRUPP
REFOCUSES**

Steel giant ThyssenKrupp is moving away from its traditional stock-in-trade. It has sold parts of its steel production capacity following a series of disappointing investments in Brazil and the US and has also sold 70% of its stainless steel-producing subsidiary Inoxum. The German group intends to broaden its horizons, as Siemens has done, by entering new segments such as automotive components, ships and submarines, and lifts. Long-term, steel will account for just 30% of the company's total sales.

TKA

3

**SAUDIS INVEST
IN CHINESE E-TAILING**

The e-tailing market is growing fast in China. Analysts are forecasting a 15-fold rise in online purchases in the next two years, for a total \$100 billion. The opportunities that represents have not escaped Saudi prince Alwaleed bin Talal, who has taken a \$125 million share in the Chinese firm 360Buy through his investment outfit Kingdom Holding. Alwaleed bin Talal also owns shares in Twitter, Citigroup, Apple and Time Warner.

4 H&M GOES UPSCALE



Inexpensive fashion giant H&M is launching a new, luxury brand called “& Other Stories,” with the first shops to open in Berlin, Paris and London in April. The Swedish group, which already owns the brands Cos, Monki, Cheap Monday and Weekday, has poached designers from Lanvin, Sonia Rykiel and Cerruti to develop four high-end collections inspired by Berlin, New York, Paris and Stockholm. The new fashion range will be accompanied by a line of fragrances, shoes, accessories and make-up.

✓HM^B

5 BOTSWANA'S GLITTERING FUTURE

Botswana's capital city Gaborone is readying to become a world diamond capital. De Beers is transferring its London-based international sorting and sales activities to the city in September. The move will attract an annual \$6.5 billion to the small African country, which boasts the world's biggest diamond reserves and a plethora of service providers. Diamond sales already account for 30% to 40% of the country's GDP and four-fifths of exports.

6 “WORLD FACTORY” RUNS OUT OF STEAM

China's manufacturing sector is losing ground to those in other countries such as Thailand, Indonesia and Vietnam, where salaries are lower. In 2012 direct foreign investment in China fell 3.7% to \$111.7 billion while rising 63% in Thailand and 27% in Indonesia. Even more surprising is Lenovo's decision to open a plant in North Carolina to produce Android tablets. Apple has also moved jobs from China to the US.

7 HOTEL LOBBIES FOR HIRE



Hotel lobbies have long been places to meet and network for business travelers. But the phenomenon has gathered momentum as workplaces have become increasingly paperless. Some hotel chains are taking advantage of this informal use by renting their lobbies out by the hour. Marriott now proposes work and conference spaces on demand at 30 hotels in the San Francisco and Washington areas, while Westin is doing much the same in Boston, Arlington and Munich.

8 TURKISH PLANES FLY THE NIGER SKIES



Turkish Airlines has partnered with the Niger government to create the Niger Airways airline company. Niger, a small landlocked country in the Sahel region of Africa, has been without an airline since the former national company, crushed by debt, closed down in 1985. The government will own a majority stake of 51%. Business is booming for Turkish Airlines, which grew traffic 23% in early 2013 and handled a record 39 million passengers in 2012. The company will introduce 18 new routes in 2013.

9 VIRTUAL CASINOS ON THE RISE IN THE UK

The online gambling market, now worth \$32 billion per year, is expected to top \$100 billion by 2017, powered by the development of smartphone apps. For now, UK consumers are the most exposed to virtual casinos. Facebook launched the Jackpotjoy game in the country last summer, while the Big Fish Casino iPhone app made its debut in the autumn. Zynga is set to launch a gambling series, as is MySpace co-founder Chris DeWolfe.

SECTORS

MOBILE TELEPHONY

BlackBerry not out of the woods yet

Canadian group BlackBerry launched the new Z10 smartphone early this year in an effort to end the non-stop erosion of its market share over the last few years. The new handset competes against Apple and Samsung products, particularly among professional customers. But initial sales feedback is far from encouraging, and some operators, including Vodafone and 3 in the UK, have even started to cut Z10 prices. In addition, BlackBerry will have to fend off competition from two new smartphones set for launch in 2013, Apple's iPhone 5S and Samsung's Galaxy S IV. Nokia is also readying to release several new products, including a Lumia handset with a 41 megapixel sensor.

BB

Chinese surprise

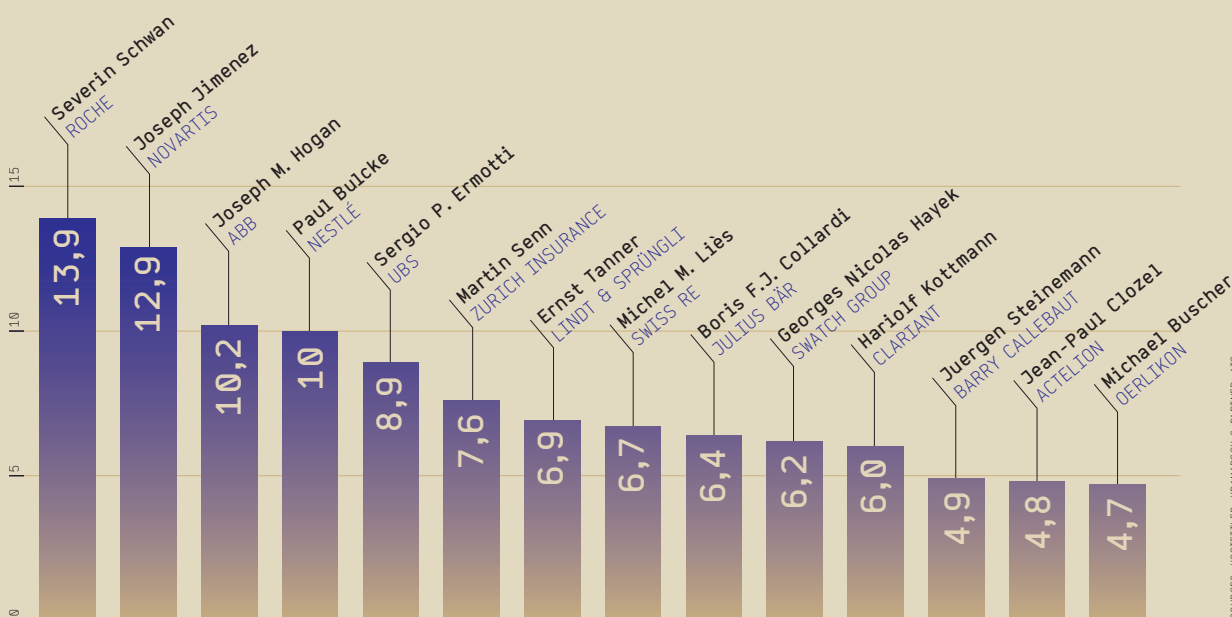
The ultra-discreet Chinese firm Huawei sold more smartphones in the last three months of 2012 than Nokia, HTC and BlackBerry combined, to the surprise of analysts worldwide. Banned in the US and accused by Europe of receiving subventions from the Chinese government, Huawei grew revenues 8% last year to \$35 billion. Suspensions hanging over the conglomerate did not stop Swisscom from recently signing an eight-year contract with Huawei worth 300 million Swiss francs (\$315 million) and aimed at boosting Swisscom's telephony network, notably with optical fiber.

002502

TOP MANAGEMENT

Salaries of top managers in 2012

Total annual pay of Swiss CEOs, in millions of Swiss francs



SOURCES: HOSTETTLER, KRAMARSH & PARTNER; AFS

BEER

When Bud met Corona

Anti-trust authorities in the US have blocked the takeover of Modelo, the Mexican company that produces Corona beer, by the Belgian-Brazilian company Anheuser-Busch InBev, maker of Budweiser and US market leader. The transaction, totaling \$20.1 billion, would lead to a quasi-monopoly of the US beer market. To get around the ban, Anheuser Busch InBev has proposed selling the rights of some Modelo brands to Constellation Brands, another alcoholic beverage manufacturer, for \$2.9 billion. In a further concession, it would be prepared to let go of a brewery located near the Mexican border.

■ BUD

Dutch tiger

Heineken has its eye on Asia. The Dutch beer maker has acquired Asia Pacific Breweries, which produces the highly popular Tiger beer and manages 30 breweries in 14 countries for a total €3.56 billion. Heineken wants to make Tiger the spearhead of its market offensive in Asia, where beer-drinking is firmly established and increasing with the emergence of the middle classes. The Heineken group increased its sales in Asia by 6.2% in 2012 and now controls 64% of the beer sold in emerging countries.

■ HEIA

UPS

Cisco



After a rough patch, Cisco is reinventing itself, with sales rising 44% in the

past few months. The US computer group is refocusing on cloud computing and the "Internet of Things," an approach based on interconnected "smart" objects. Cisco has also decided to target professional customers, including large businesses and governments.

■ CSCQ,U

Samsung



Samsung is forecasting a 30% to 40% rise in sales of high-end TV sets

in 2013. To offset the fall in flat-screen margins, the South Korean group is concentrating on smart TVs featuring web apps and interactive interfaces.

■ SMSN

AIG



The AIG insurance company is on the comeback trail, several years

after its \$182-million bail-out by the US government at the height of the subprime crisis. The firm has regained its private status (with the US Treasury selling back its last shares in late 2012), cut its workforce from 116,000 to 62,000, and is focusing on its long-standing business of household, automotive and life insurance.

■ AIG,U

DOOWNS

Johnson & Johnson



Johnson & Johnson had to recall 93,000 faulty hip implants in 2012 and

spend hundreds of millions of dollars on legal fees—but the bad news doesn't end there. The US Department of Justice is investigating the marketing methods used to promote the implants. The group also has to deal with some 10,750 related lawsuits from customers.

■ JNJ,U

Danone



In its first layoffs since 2001, Danone has axed 900 jobs. The French group

is insufficiently diversified and too exposed to European markets, where it makes 40% of its sales. Revenues were down 10% in Europe in 2012. The Group has failed to capitalize on business in emerging countries, especially China.

■ BN

Novo Nordisk



Danish pharma group Novo Nordisk has been dealt a double blow in the

US. The US Food and Drug Administration has refused to authorize two new insulin-based diabetes drugs, Tresiba and Ryzodeg, saying it needs more information on the cardiovascular effects of the new products.

■ NVO,U



“Our message is very clear. We want immigration that will benefit Britain.”

British Prime Minister David Cameron in an interview with *The Daily Express*.



“I made two avoidable mistakes. The first was to even negotiate this contract, and the second was to believe that giving up this individual payment to charities would be considered as something positive by society.”

Daniel Vasella, outgoing chairman of the board of directors of Novartis, on his golden handshake worth 72 million Swiss francs.



“No matter how successful the company, salary increases cannot be unlimited.”

Martin Winterkorn, CEO of Volkswagen, after his decision to take a pay cut, in an interview with *Der Spiegel* on February 13.



“Central banks must focus on price stability, must remain independent, and must not become too closely intertwined with fiscal policy.”

Jens Weidmann, president of the German Central Bank, in a speech on February 25.



“It is our ability to innovate that will make the difference in the short, medium and long term. We showed this once again with the A320 Neo launch. We are 18 months ahead of our competitor.”

Fabrice Brégier, CEO of Airbus, in an interview with *Les Echos* on February 3.

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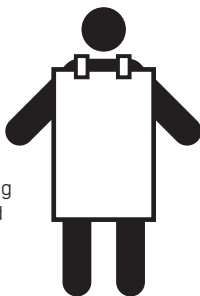
Mercedes-Benz

Fuel consumption urban/extra-urban/combined: 15.8/10.3/12.3 l/100 km; CO₂ emissions combined: 288 g/km.
Efficiency class: E.

Figures do not relate to any individual vehicle, do not form part of any offer and are intended solely to aid comparison between different types of vehicle.
The vehicle shown features optional equipment.

11,000,000,000

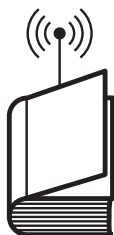
Amount (in dollars) spent by Samsung Electronics on advertising last year, according to the *Korea Times*. The company has multiplied its marketing spend by 6.8 since 2005.



Polar bears killed every year for international trade. The global population of polar bears is estimated at less than 25,000.

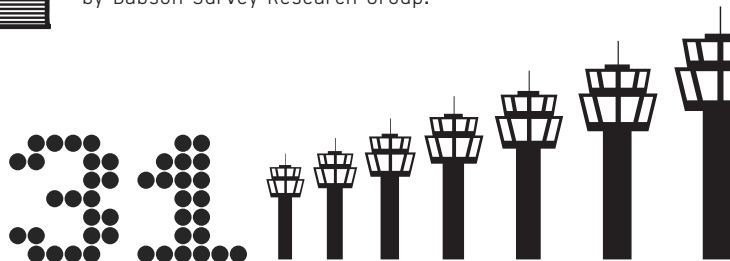
0.3%

Rise in music industry sales in 2012, to a total of \$16.5 million, according to the International Federation of the Phonographic Industry (IFPI). The result puts an end to 12 years of decline.



6,700,000

Students worldwide taking online education courses, according to a survey by Babson Survey Research Group.



Airports built in China in the last five years.

UP

Skype

Skype telephony activity rose sharply in 2012. The company took a third of all international calls, up 44%, notably owing to the roll-out of the 4G network for mobile phones. But Skype now has to take on new rivals, including Orange's new Joyn service.

Luxury goods

The Asia-Pacific region has for the first time overtaken Europe to become the number-one luxury goods market, boosting sales across the sector. Yves Saint Laurent's sales rose 59% in 2012 and Bottega Veneta's 47%, while LVMH reported profits of \$7.7 billion).

DOWN

Japanese automotive equipment

The Japanese automotive component suppliers Denso, Yazaki, Tokai Rika, Sumitomo Electric and Furukawa Electric have been accused of setting up a cartel covering three continents. The US has presented the companies involved with a \$750 million fine and handed prison sentences to 10 employees. The European Union has started to investigate the case.

Mining

The fall in the price of some commodities, including steel, is having a negative impact on a number of mining companies that have recently made considerable investments in production capacity. BHP Billiton has seen a 58% drop in profits in the last six months and Anglo America has lost \$239 million.



WORLDCLASS TRAVELERS

David Beckham. A global icon who insists on perfection. Precision and style. A legend forged by accomplishments. On his wrist is the Breitling Transocean Chronograph Unitime, the ultimate traveler's watch. Manufacture Breitling Caliber B05, officially chronometer-certified by the COSC, endorsed by a 5-year Breitling warranty. High-performance selfwinding chronograph. Universal time function enabling permanent readings of the time in all 24 timezones thanks to a patented mechanism and an ultra-user-friendly crown-operated correction system. Comfort and elegance for first-class travelers. Signed Breitling.



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SCANS

WINNING CITIES



PricewaterhouseCoopers recently carried out a “Cities of Opportunity” study reviewing the characteristics of 27 economic capitals to assess the factors behind their success. The study found that London, Sydney, Singapore, Paris and Berlin are the best equipped for the future, notably in terms of job creation between now and 2025. Stockholm ranked first for innovation, Beijing for its economic clout, Singapore for its business-friendly climate and Berlin for its low cost of living.

CLIMATE CHANGE HAS A COST

A recent report from the Carbon Disclosure Project looks at the effects of climate change on the business of 52 companies and their 2,363 suppliers. The most costly events are torrential rains, followed by drought, hurricanes and typhoons, and the rise in sea levels. For example, L'Oréal has a number of production units located on the coast or on river banks. If these were flooded, the company would have to suspend production. In other examples, floods in 2011 absorbed 13% of Thailand's GDP, while drought in the US in 2012 sent up the price of soy and corn.

Samsung Galaxy S4 VS

HTC One



OVERVIEW

The standout feature of the Galaxy S4 is the size of its full HD screen. Available in black or white plastic, the handset has the same lines as its predecessor but features innovative functions such as eye-sensitive Smart Scroll, which allows the user to move pages up and down simply by looking at them.

With HTC One, the Taiwanese manufacturer continues to move upmarket. The new phone features a full HD screen flanked by dual frontal stereo speakers. Available in black, silver grey and red, the HTC One is highly robust and uses Beats by Dre technology to deliver stunning sound quality.

KEY SPECS AND FEATURES

Screen: 4.99 inches, Full HD 1080 x 1920 pixels
RAM: 2 GB
Rear shooter: 13 megapixels, Full HD video 1080p
Front-facing camera: 2.1 megapixels, Full HD video 1080p
Weight: 130g
GPU: PowerVR SGX 544MP

Screen: 4.7 inches, LCD Full HD 1080 x 1920 pixels
RAM: 2 GB
Camera: 4 megapixels, 1080p HD video
Weight: 143g
GPU: Adreno 320

VERDICT

The Galaxy S4 has a slew of attractive innovations, but they're packed into an extra-large format. The Smart Pause function puts a video on hold if the user looks away from the screen, S Translator translates speech-to-text or text-to-speech, and S Voice Drive allows full voice control of the phone's navigation system when driving. In addition, the screen functions can be operated even if the user is wearing gloves.

The HTC One is the company's technology showcase. Like the iPhone, it has opted for a unibody in aluminium rather than plastic for an added touch of class. Among the highlights is a highly simplified set-up process that allows the phone to be configured in less than ten minutes.

PRICE

About \$700

About \$600

FIGURES

SAMSUNG 	HTC 
FOUNDED	FOUNDED
1938	1997
CEO	CEO
LEE KUN-HEE	PETER CHOU
SALES (2012)	SALES (2011)
\$247.5 BILLION	\$3.447 BILLION
MARKET CAPITALIZATION	MARKET CAPITALIZATION
\$161.96 BILLION	\$7 BILLION
EMPLOYEES	EMPLOYEES
369,000	16,746

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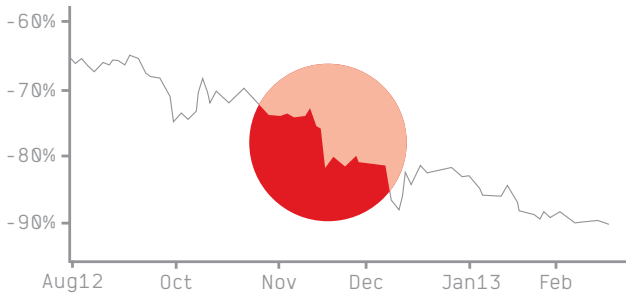
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VARIATIONS

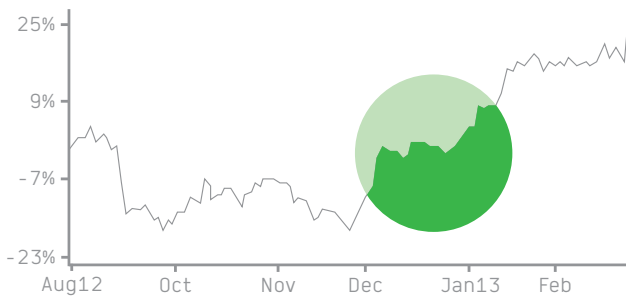
BANKIA BKIA, Spain



The Spanish banking conglomerate Bankia lost €7.05 billion (\$9.05 billion) in the first nine months of 2012, following a provision of €11.49 billion to cover toxic assets. The stock was suspended on November 28, 2012 by the Spanish regulator ahead of the presentation of a new strategic plan. According to that plan, the bank

will cut 6,000 jobs, close 1,000 branches, refocus on retail activities and wind down its property loan business. Bankia is also set to benefit from part of the €40 billion EU bailout for Spanish banks. On February 28, Bankia published a net loss of €19.06 billion in 2012, the biggest loss ever reported by a Spanish company.

EUROPEAN AERONAUTIC DEFENCE EAD, France



The European aircraft manufacturer Airbus exceeded its objectives in 2012 with record deliveries of 588 aircraft (up from 534 in 2011) and the sale of 833 planes, outperforming its forecast for 650. Meanwhile, all of Boeing's Dreamliner planes are to be grounded worldwide on a

recommendation from the US authorities following a series of technical incidents. On February 27, EADS announced a 19% increase in net profit for 2012. It expects a further rise in operating income this year, to €3.5 billion (\$4.49 billion) compared with €3 billion in 2012.

TELECOM ITALIA TIT



The heavily indebted Telecom Italia group rejected a proposal from Egyptian billionaire Naguib Sawiris in December to inject fresh cash into the business. It also turned down two takeover offers for its TI Media subsidiary. On February 8, the group announced gross operating income of €11.66 billion (\$14.97 billion)

for 2012, slightly lower than forecast. Despite an increase in revenues in Brazil and Argentina, the recession in its domestic market kept Telecom Italia from reducing its debt as quickly as planned. The operator is expecting stable revenues in 2013 and a slight fall in gross operating surplus.

MONTBLANC NICOLAS RIEUSSEC CHRONOGRAPH OPEN HOME TIME



Paying homage to the man who invented the chronograph, this new timepiece is as precious as the home time it keeps. The characteristic Rieussec chronograph measures the time with its two turning discs, complemented by a third turning disc that indicates the home time using the dial as an integral part of the movement. *Monopusher chronograph, MB R210 self-winding manufacture movement, 60 sec and 30 min rotating disc counters, home time disc with day and night display, 18K red-gold case. Crafted in the Montblanc Manufacture in Le Locle, Switzerland.*

**MONT
BLANC** 

Riding the Korean wave



Swissquote Magazine traveled to South Korea in early 2012 to get a closer look at a country in full economic boom. Since then, South Korean culture has swept the planet.

By Serge Maillard

Today's teenagers know all about the exuberant lifestyle of the upscale Gangnam district in Seoul, having spent hours watching the ubiquitous video by Korean singer Psy on their Samsung smartphones and LG flat screens. Their parents may be less impressed by Gangnam style but are well aware of the advantages of driving a Hyundai or Kia fitted with Hankook tires. Undeniably, South Korean products have become household names around the world.

One year after publishing a special feature on South Korea, *Swissquote Magazine* decided to take a look at the trends that have influenced the "Land of the Morning Calm" and its economy since then. Apart from K-pop taking the world by storm, the other big cultural change for the traditionally patriarchal country was the election in December of the first female president, Park Geun-Hye, conservative party member and daughter of former iron-handed ruler Park Chung-Hee. In a perfect tie-in, the investiture ceremony of



Geun-Hye featured a headlining performance from none other than Psy himself.

"The new government has said it wants to foster innovation and creativity in the IT and communication sectors," says Sang Won, portfolio manager at Allianz Global Investors. "That's where the strongest potential lies, since heavy industry is already well developed."

- 1 The K-pop phenomenon is playing a part in South Korea's move into new markets. South Korea is all over the news thanks to Psy, a global star spotted by *Swissquote Magazine* before the release of «Gangnam style».
- 2 The domestic market serves as a test for web-sector Korean companies such as Daum, which is now looking to export its mobile services.
- 3 Giant sea transport operators with tiny digital tablets. Samsung, which set a new record on marketing spend last year, remains the country's largest conglomerate.

After increases of 3.6% in 2011 and 6.5% in 2012, South Korean GDP grew by just 2% in 2012, owing to the lackluster international economy and a strong won that impacted exports. "But we did see the first signs of a recovery in exports to the United States and China half way through the year. And low inflation is boosting domestic consumption," says Won. The consensus points to GDP growth of around 3% in 2013.

BOOM IN ELECTRONICS

Samsung, the country's largest conglomerate, posted an outstanding year in 2012 with a positive market performance for the period. It invested an enormous \$42 billion, hired 26,000 employees and reported revenues of \$188 billion, taking it closer to its \$200-billion objective for 2015. The company grew its share of the world smartphone market by more than 10% year over year.

But no further increases in investments are expected this year, owing to the downturn in the memory card and processor markets, a possible slowdown in smartphone demand and the threat of a won revaluation.

Credit Suisse expects Samsung to focus this year on high-end smartphones, an as yet unsaturated market. The bank's analysts are not ruling out "surprise" margins, despite the slowdown forecast for the smartphone market.

LG, South Korea's number-two electronics company, also put in a positive market performance. Operating profit multi-

plied by nearly 2.5 to top the \$1 billion mark. Despite record flat-screen sales, the group suffered a setback in Europe, where it was fined handsomely for its participation in a price-fixing cartel in the early 2000s.

CHANGES IN THE WEB AND VIDEO GAME SECTORS

The mobile gold rush is on! The smartphone and tablet games market is exploding in South Korea and around the world. South Korean designers including NC Soft and Neowiz Games are looking to adapt to the new situation, according to Sang Won, and the transition and uncertainty have made market investors suspicious, leading to a fall in the share price of the games publishers.

Credit Suisse expects Samsung to focus this year on high-end smartphones

Internet service providers such as Daum and NHN are posting more positive market performances. "They are also trying to win market share in mobile platforms, for example with messaging services and by monetizing online traffic," says Won. "These firms are also expanding internationally because the domestic market is fully covered and offers fewer growth opportunities." He also thinks that the international K-pop craze will work to the advan-

tage of South Korea's IT companies, helping them to popularize their services.

AUTOMOTIVE RECOVERY EXPECTED

The South Korean auto industry in 2012 was very much at the mercy of exchange rate fluctuations, which weighed on the profits of key players Hyundai and Kia and chipped away at their share prices. The main currency event was the depreciation of the yen, which lost 20% in the last few months. "Because South Korean and Japanese carmakers are neck and neck in the global markets, investors see Hyundai and Kia revenues as under threat from the renewed competitiveness of Japanese manufacturers," says Sanjeev Rana, a Deutsche Bank analyst based in Seoul. "The won revaluation against the dollar hasn't helped the country's carmakers, either."

Also unwelcome were the third-quarter strikes, which lasted longer than expected, "the result being a roughly 15% cut in production hours at Korean car plants," says Rana. "Investors are worrying about the impact those hours will have on the growth and profitability of the two biggest carmakers."

But according to Sang Won, these lackluster market performances do not indicate a deep-seated problem. "It's more about adjusting the growth outlook. Carmakers don't want to sacrifice quality and innovation to quantity. They are trying to get through a poor macroeconomic situation with their heads held high." ▀

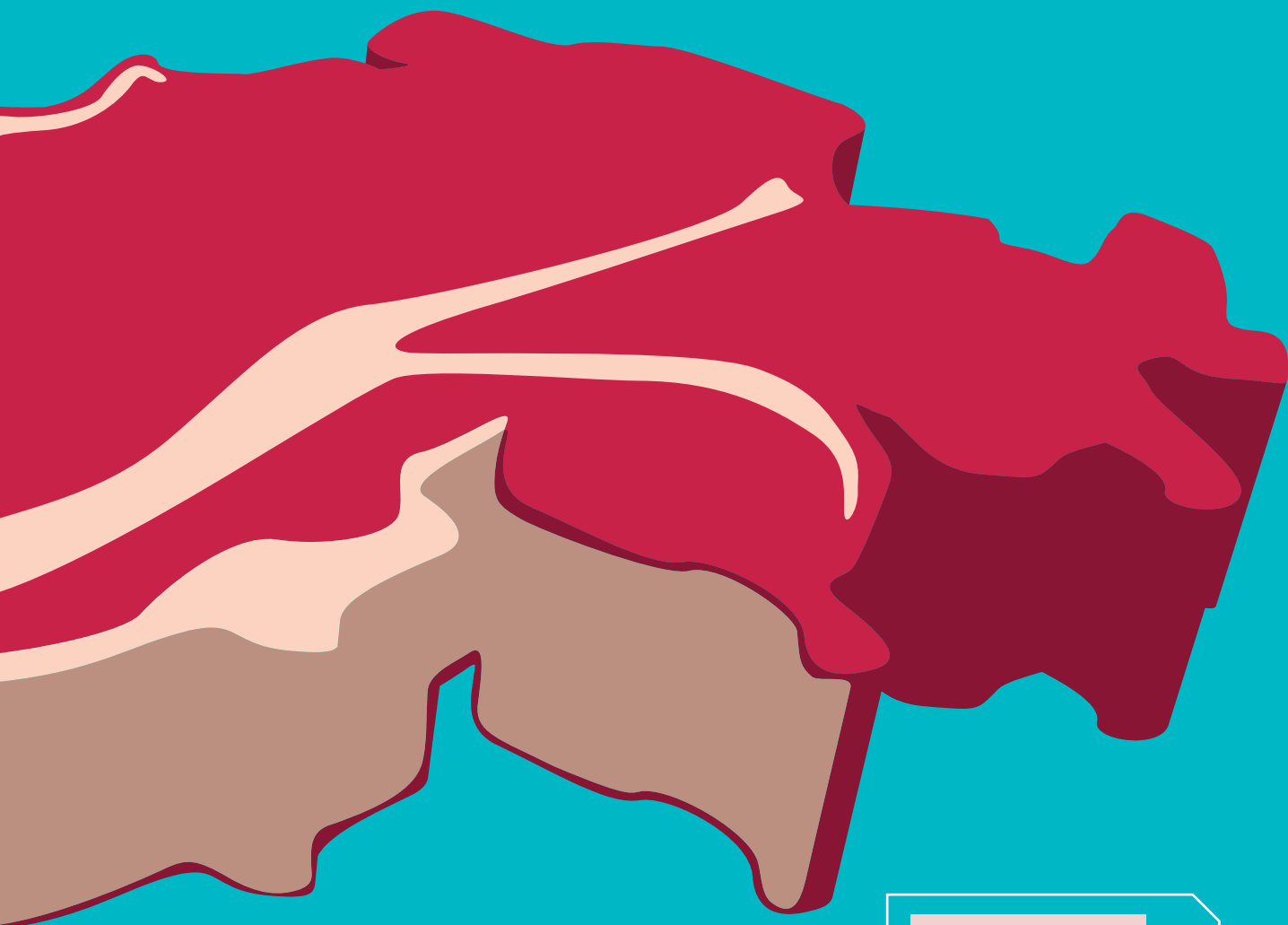
BELL PUTTING “WURST” FIRST

The horsemeat scandal may have damaged the industry's image, but Bell AG believes it will help refocus consumer attention on quality Swiss products.

By Varinia Bernau

Europe is feeling a little queasy, ever since the news broke that for several months, substantial quantities of meat—labeled as beef but actually from horses—have been criss-crossing the continent, ending up in everything from supermarket-brand lasagnes to Ikea meatballs. As more and more sordid details come to light, consumers are starting to lose their taste for meat, period.





Surprisingly, the management of Bell AG, Switzerland's largest supplier of meat products, believes that something good may yet come out of the unappetizing saga. "This scandal will focus our customers' attention on Swiss meat," says Lorenz Wyss, head of a company that employs 6,500 people and generates annual sales of 2.53 billion Swiss francs (\$2.66 billion).

His confidence is based on experience: first in the '90s with the fear of mad-cow disease (fueled by disturbing images of BSE-infected cattle, their limbs jerking uncontrollably), followed by the bird flu scare. No one at Bell has forgotten the widespread public unease at the time. The company suffered losses then, too—albeit on a much smaller scale than the meat industry as a whole.

BY THE NUMBERS

2.53

Sales, in billions of Swiss francs (\$2.66 billion)

6,500

Employees, of which 3,500 are in Switzerland

122,500

In tonnes, sales volume in Switzerland. Germany: 66 million kg; France: 12.6 million kg; Eastern Europe/Benelux (charcuterie only): 20.6 million kg

During every scandal, consumers pay more attention to what they buy, as industry observers confirm. And price is no longer the sole factor that determines what ends up on the dinner table.

Swiss meat enjoys a good reputation, and with good reason: Animal welfare rules are much stricter than in other European countries, as are standards throughout the production chain. A scenario whereby Romanian horsemeat bought by a rogue trader in the Netherlands could be sold to French companies before ending up on sale to the public would be impossible in Switzerland. A small country can be policed more effectively than an entire continent.

Bell is capitalizing on that fact. The group's net profit last year was 75.8 million Swiss francs, up almost 6% on the previous year. Within Switzerland, the company has built up a high level of trust among its customers. It all began in 1869, when Samuel Bell-Roth opened a small butcher's shop, known as the Ochsenmetzg, at No. 13 Streitgasse in Basel. Today, nine out of 10 Swiss people know the company and its familiar red and green logo. It has long since developed into a general food retailer, selling not only meat and sausages but also fish, salads, sandwiches and even muesli. In purely statistical terms, 50 Bell products are sold in Switzerland every second—with a helping hand from the listed company's main shareholder, Coop. The group owns a 66% stake in

Bell and ensures that Bell products are given pride of place on its own shelves. About three-quarters of Bell's Swiss business is done via Coop, while in Germany the company benefits from Coop's close partnership with German retail group Rewe.

50 Bell products are sold in Switzerland every second

Bell is also benefiting from Switzerland's general prosperity. The crisis that has hit so many other European countries is barely detectable in Switzerland. People have enough money in their pockets and are ready to pay a little bit more for food. But with just 8 million inhabitants, the country is too small to sustain any further growth.

Consequently, the group is looking abroad to expand its customer base. Back in 2008, Bell went on a shopping spree. It started in France, where it acquired Groupe Polette, then moved on to Germany, where in the space of a few weeks it gobbled up meat and sausage manufacturer Zimbo and ham specialist Abraham. Zimbo, a long-established firm based in Bochum, specialized in packaged meat and sausage products and operated a number of butcher's shops in the Czech Republic and Hungary.

Abraham, Germany's largest supplier of smoked and dry cured ham, also had production facilities in Spain and Belgium. The Swiss are now exploiting this network. Of Bell AG's 27 production facilities, just 10 are now in Switzerland. But with the shopping spree over, analysts warn that the company must set about streamlining its structures. Last year, Bell closed down the largely administrative Bochum site, resulting in a loss of 9 million Swiss francs.

Outside Switzerland, Bell's primary focus to date has been on high-quality charcuterie, the aim being to offset periods of consumer caution in the home market. In any case, the Swiss appetite for meat is limited, partly due to its relatively high cost. The average Swiss person consumes 54 kg of meat per year; among European nations, only the Finns eat less. That's the flipside of Switzerland's robust protection from the European agricultural market: Animal feed and veterinary medicines are significantly more expensive than in the EU, and imports of beef, for example, are subject to auctioned quotas. This drives up costs for the meat industry. Aside from a few specialties, Swiss produce is barely able to compete abroad.

At Bell, they have no doubts that the Swiss market will open up sooner or later. It remains to be seen when a free-trade agreement for agricultural goods, negotiated with the EU, will come into force. But when it does, Bell intends to be ready.



Bell salamis during the drying stage. The company now has 27 production sites, including 10 in Switzerland.

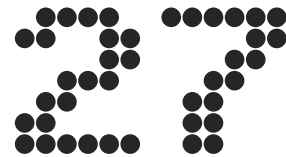
“If you want growth, you have to go to Asia. But Bell is too small for such a move.”

This is the right path in the long term, according to analyst Daniel Bürki of the Zürcher Kantonalbank. But in the short term it will be costly. “So far, Bell’s expansion outside Switzerland has mainly generated costs,” he says. The management may be confident that its foreign operations will be turning a profit this year, but Bürki remains skeptical. “The German market in particular is extremely competitive. The discounters Aldi and Lidl have their own suppliers and

are very powerful. On top of that, German consumers are unwilling to pay a lot for their meat.” Moreover, according to Patrick Hasenböhler of Bank Sarasin, around half of the revenue generated abroad will be lost on the balance sheet, purely due to high raw material prices at home. (Bell does two-thirds of its business in Switzerland.)

Nonetheless, Hasenböhler agrees that the decision to venture outside Switzerland is a sensible one and believes it would have been no easier elsewhere in Europe. Sales in Eastern Europe and the Benelux countries declined last year; in Germany they rose only slightly, and in France a little more. “If you want growth, you have to go to Asia. But Bell is too small for such a move and it lacks the necessary know-how. It would be far

BELL SA



Production facilities, of which 10 are in Switzerland. Key brands: Abraham, Zimbo, Maison de Savoie, M^ossieur Polette



Profit, in millions of Swiss francs [\$79.6 million]

too risky.” Hasenböhler sees more potential in the convenience business, i.e. snacks, salads and sandwiches, as well as in fish and seafood. In volume terms, sales of seafood rose by 15.2% last year, more than any other Bell segment. In 2011, the group transferred its convenience arm to the Liechtenstein-based specialist Hilcon, acquiring a 49% stake in the company in return. It plans to acquire a further 2% of the shares in 2015. This cooperation will speed up its expansion. “In the first year of the collaboration, the devaluation of the euro against the Swiss franc impacted profitability. But in the medium term, the tie-up is a smart move,” says Hasenböhler.

For Bell, therefore, a more relevant factor than the nausea currently gripping Europe in the wake of the horsemeat scandal will be the future development of the continent’s economy. The group needs a boost from abroad. What it does not need are crisis-hit consumers unwilling to part with their cash. ▀

 BELL



ANALYSIS

ADVICE FOR INVESTORS

Platinum's time to shine

Investors may want to keep their eye on platinum—a metal highly sensitive to cyclical variations—to take advantage of the next economic upturn. Stephan Müller, head of Precious Metals funds at Swiss & Global Asset Management, explains.

SWISSQUOTE MAGAZINE ►

What makes platinum an attractive bet?

STEPHAN MÜLLER ► Platinum is a rare metal that is extremely sensitive to cyclical variations. It has strong potential for gains in times of economic recovery. This makes it a particularly attractive holding for investors seeking to position themselves for the future. Uncertainties continue to overhang the global economy, but we can see that metals are starting to react. We believe this is a good time to buy, particularly as the price, at \$1,600 per ounce, remains attractive.

What makes platinum different from other precious metals?

Worldwide production stands at 240 tonnes per year, compared with 3,000 tonnes for gold and 25,000 tonnes for silver. Platinum is the most expensive

precious metal after rhodium. Although it is used in jewellery and is currently very popular among Asian clients, it is primarily an industrial metal. In certain applications, it has no substitute. More than half of worldwide production is used to make catalytic converters for diesel engines, and the metal is also found in laboratory equipment. Being highly sensitive to swings in the economy, platinum is the opposite of gold, the ultimate safe haven.

What factors affect the market?

Supply and demand in the automotive industry in Europe are a decisive factor. Evolving regulations on vehicle emissions also play a positive role. On the supply side, South African mining companies hold the cards as they account for close to 80% of global production. Other

producer countries include Russia, Canada, the US and Zimbabwe. Faced with an ailing European car market and rising production costs, the South African mining companies decided to cut supply, which led to higher prices. But in reality they are manipulating the market.





SIPHOWE SIBEKO, REUTERS

Miners on strike at the Impala Platinum mine in Johannesburg on February 28, 2012. Violent conflict there last year drove platinum prices up.

What are the current price trends?

The unprecedented strikes at the South African mines last autumn pushed up prices by 17% in just a few weeks. Anglo American Platinum, the largest platinum extraction company in the country, has since announced that it is

halting operations at two of its mines and will sell a third one, eliminating 14,000 jobs in the process. Worldwide supply is therefore down 10%. With margin pressure still high, we expect additional mine closures. Prices have risen by about 8% per year to date. Platinum

will likely trade in a range of \$1,500–1,900 per ounce in 2013. ▲



Stephan Müller
Head of Precious Metals funds
Swiss & Global Asset
Management

“High prices, low returns but cheap loans”

UBS real estate expert Thomas Veraguth decodes the Swiss real estate market.

SWISSQUOTE MAGAZINE ►

Swiss real estate remains a popular investment. Would you still choose to invest now?

THOMAS VERAGUTH ► It's important to point out that prices in the country are high and net returns are low. Depending on the type of real estate acquired, returns are typically in the region of 4.5%, but can be as low as 2% in top locations. Moreover, if you aren't able to rent out your property, a net return is out of the equation. One major advantage of Switzerland is that loans are available very cheaply. So if the financing costs are less than the net return, it's worth buying with a conservative proportion of borrowed funds.

Should people be buying shares or investing in a fund?

Now is not a particularly good time to be investing in funds and shares. Both are being traded at high premiums. With shares, for example, premiums are currently 20% of the net value of the real estate. That is very high compared with the long-term average of 6%. In other words, shares are expensive.

“You will earn more with Swiss shares at the moment than with real estate shares.”

With funds, the issuing premiums or ‘agios’ are 27% of the net values. If the interest rates change, the premiums and agios can become risks—prices will fluctuate widely. A successful investment also depends on whether the investor has an investment horizon of one year—in which case funds and shares are not very advantageous—or several years. You should also be aware that you will earn more with Swiss shares at the moment than with real estate shares.

According to the current UBS Swiss Real Estate Bubble Index, the conditions could already be in place for a bubble on the Swiss real estate market in late 2014. What does that mean for investors?

The index is a risk calcula-

tion. In other words, we don't know yet whether a bubble will actually occur. If it does, it will either burst or we will see a prolonged period with no price increases and a loss of value. In that case, the investment will not have paid off.

When do bubbles occur?

A bubble occurs when many different market factors converge, to some extent accidentally, to bring about sustained price rises. Real estate prices rise steadily over a number of years when the population is growing, interest rates are low and the economy is strong.

There are countless studies analyzing the Swiss real estate market. Which should investors trust?

Besides UBS, serious studies of commercial real estate are conducted by Wüest & Partner, Credit Suisse, Iazi and Colliers International. ▲



Thomas Veraguth
Economist Wealth
Management Research
UBS

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SHALE OIL AND GAS

THE PARADIGM SHIFT



P.32 TEN YEARS THAT CHANGED THE ENERGY WORLD

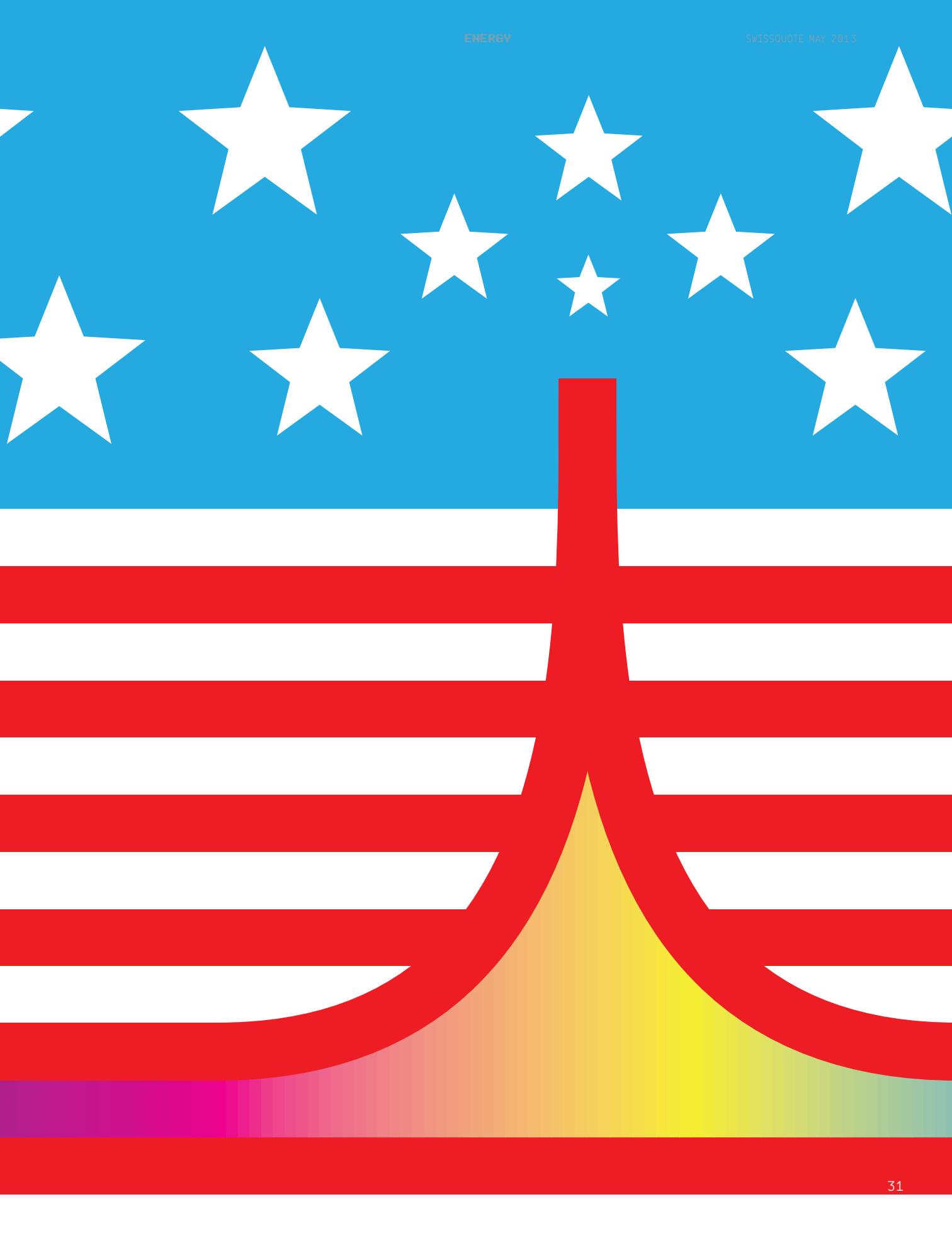
P.38 OIL BOOM ON THE PRAIRIE

P.46 FRACKING TAKES FLAK

P.48 INTERVIEW: LEONARDO MAUGERI, HARVARD FELLOW

P.50 OIL BOOM WINNERS





Ten years that changed the energy world

The boom in shale oil and gas has transformed the global energy landscape. The US is expected to become the world's biggest producer before the decade's end.

By Ludovic Chappex

The 21st century was supposed to belong to renewable energies. Ten years ago, oil and gas were seen as energy resources from a bygone era, emphatically on their way out. The peak oil theory dominated (see infographic below) and nobody seriously saw fossil fuels making a comeback. But in the space of a few years, that worldview has been turned on its head.

"We know today that global oil and gas resources are phenom-

enal," says Philippe Michel, senior petroleum engineer at BNP Paribas. "Supply is assured for several generations."

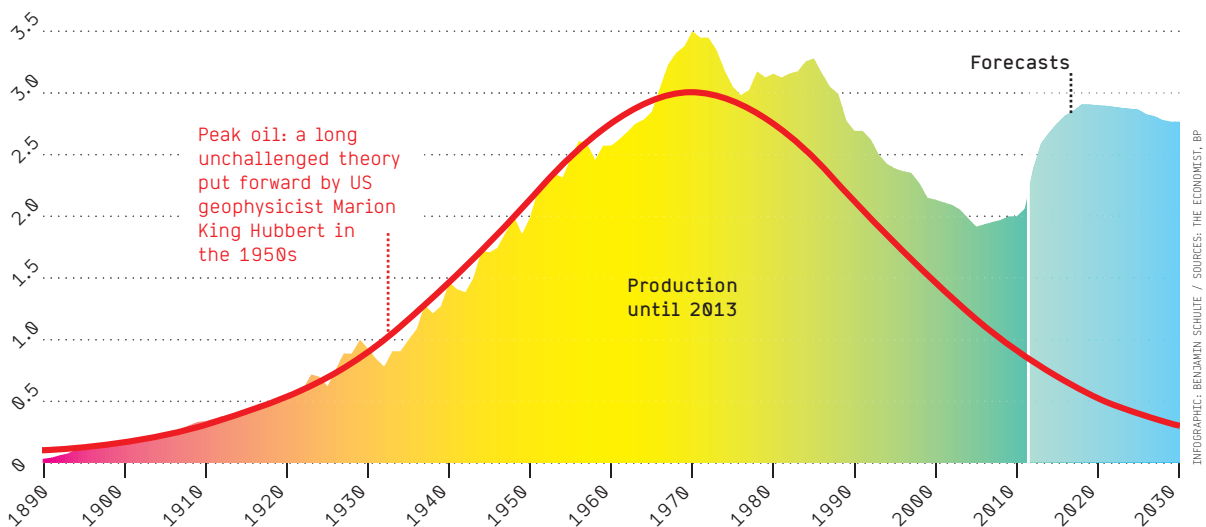
The new energy paradigm—destabilizing from certain points of view—was created by the explosion in production of unconventional hydrocarbons, namely shale oil and gas as well as tight light oil trapped in sedimentary rock, as found in the Bakken formation in North Dakota (see infographic, p. 36).

"These resources were long seen as too costly and difficult to extract," says Charles-Henry Monchau, Head of investment Europe at EFG Asset Management. The upshot was that oil majors turned away from unconvensionals, leaving the playing field clear for more innovative and daring independent firms to start exploring the reserves in the early 2000s.

And things happened fast. Continental Resources opened

US oil production

Billion bbl/year





JASON REED, REUTERS

President Barack Obama speaking in New Mexico on America's energy independence (March 21, 2012).

the first profitable well in the Bakken formation in 2004 by experimenting with fracking, a technique in which rock is fractured by injecting water at high pressure. Less than a decade later, more than 700,000 barrels are being produced every year in the Bakken formation, with close to fracking operations a month.

The oil and gas being extracted in the Bakken fields is not really shale, a term commonly used for simplicity's sake (as in this article). More accurately, shale refers to clayey rock, while

“These resources were long seen as too costly and difficult to extract.”

Bakken rock is dolomitic. But the same hydraulic fracking technology is used for both. North Dakota has become the new oil Eldorado in a very short time because oil can be extracted there at very low cost. Also, Bakken crude is fluid and easy to process compared with that found in other fields. As Philippe

Michel of BNP Paribas explains: “Other major world reserves, including the oil sands in Canada, the heavy oil in Venezuela and the oil drilled by offshore platforms, are much more expensive to extract. Boring a well into the sea bed costs a hefty 60 million Swiss francs or so, with no guarantee of

striking oil, while a functioning well in the Bakken fields can be built for around 8 million Swiss francs. In the first hour of drilling, the yield of these wells can reach a rate of 3,000 barrels a day, which is enormous. Production in the first month is around 300 to 400 barrels a day. To give you an idea of how impressive that is, an oil well is considered profitable at 50 barrels a day."

END OF AN ERA FOR RUSSIA

Among today's conventional oil fields, only those in the

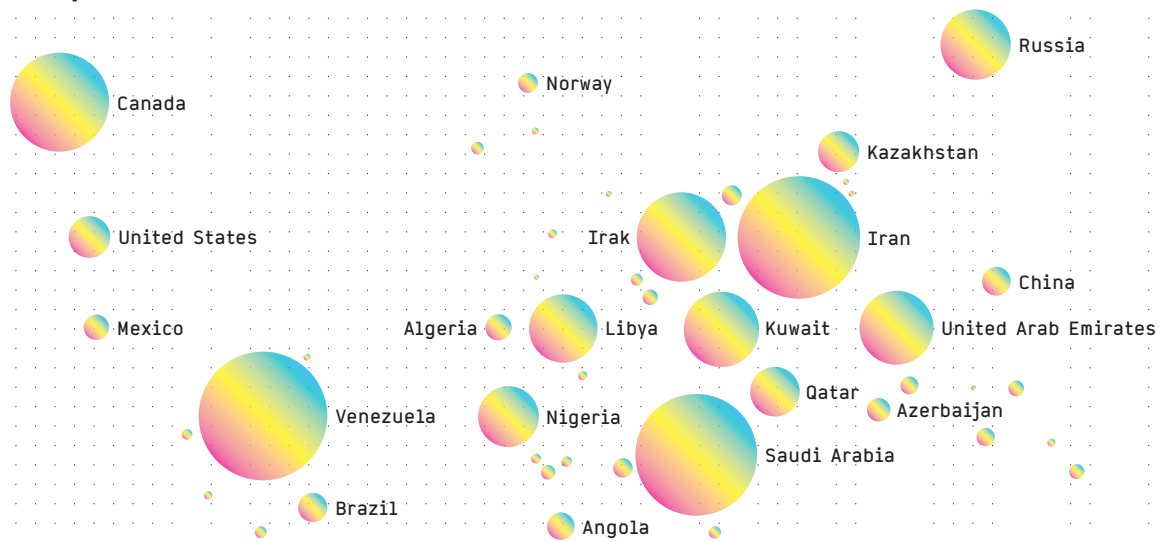
For the time being, the OPEC countries lack the means to significantly increase production

Middle East provide major resources at attractive operating costs. But for the time being, the OPEC countries lack the means to significantly increase production, say experts. Russia is also coming to the end of an era with its conventional fields

and is now looking to develop prospection in the Arctic Circle, which is raising serious environmental concerns. "In a cold sea such as the Arctic Ocean, an incident like the recent one in the Gulf of Mexico would have catastrophic consequences," says Philippe Michel. "The pollution would remain for centuries because these waters lack the bacteriological processes of warm seas that can transform the oil."

That being the case, unconventional hydrocarbons are a

Top 20 Oil Reserves



Proven reserves,* billion bbl

1. Venezuela	296.5	8. Russia	88.2	15. China	14.7
2. Saudi Arabia	265.4	9. Libya	47.1	16. Angola	13.5
3. Canada	175.2	10. Nigeria	37.2	17. Algeria	12.2
4. Iran	151.2	11. United States	30.9	18. Mexico	11.4
5. Irak	143.1	12. Kazakhstan	30.0	19. Azerbaijan	7.0
6. Kuwait	101.5	13. Qatar	24.7	20. Norway	6.9
7. United Arab Emirates	97.8	14. Brazil	15.1		

* Recoverable using existing techniques, at current prices and in accordance with present commercial and political agreements.

far more promising prospect. According to the International Energy Agency (IEA), the US could become the world's biggest oil producer, ahead of Saudi Arabia.* The country currently imports 20% of its energy needs but could become self-sufficient and even an exporter in the next 20 years.

But the IEA also expects the Middle East countries to gradually ramp up production, especially Iraq, which is currently held back by political instability and a lack of transport and infrastructure. The IEA expects Iraq to overtake Russia and become the world's second-largest oil exporter.

On the natural gas front, the US also has an unprecedented overabundance. But for the companies that exploit this resource, the situation is far less upbeat owing to the extraordinarily low sale price. Gas reserves in the US began to rise considerably in 2008 following the hydraulic fracking boom in Texas. Since gas prices were traditionally correlated to oil prices, extracting shale gas was immensely profitable for companies, who moved into the fields in droves. But with production soaring, the economic crisis hit, leading to a sharp drop in consumption. The supply surplus drove down gas prices, which disconnected from oil prices. And that remains the case today.

As a result, companies in the Bakken fields are simply flaring the gas and focusing instead on extracting and

The International Energy Agency (IEA) expects Iraq to overtake Russia and become the world's second-largest oil exporter.

selling the oil (see p. 46). In Texas, however, some of the companies exploiting the shale gas reserves have their hands tied by long-term operation contracts and have no other choice but to sell their gas at a loss.

RECORD FALL IN THE PRICE OF GAS

But the situation does have a positive impact on the country's economy as a whole. The ultra-low price of gas is stimulating economic activity, revitalizing manufacturing and boosting growth. In the US, the price of gas for consumers is four or five times cheaper than in Europe and up to eight times cheaper than in Asia. The record fall in the gas price is thought to have boosted the US economy by some \$100 billion per year.

And the US does not intend to stop there. The country is already preparing to export natural gas in the near future, with shale gas production expected to grow 20% per year through 2020, according to a recent report by Crédit Suisse.

Apart from the US, China also looms as a future shale

gas giant. Analysts expect the country's production to double, rising to 100 billion cubic meters per year through 2020.

These quantities will be an easy sell, too. The IEA predicts world energy demand to grow by more than one-third between now and 2035, with China, India and the Middle East accounting for nearly three-quarters of the increase. "Chinese consumption is expected to rise by a factor of 2.5 by 2030," says Charles-Henry Monchau from EFG Asset Management.

As for the much-anticipated worldwide transition to renewable energies, it will have to wait, despite the efforts made in Europe to cut oil and gas consumption. The IEA sums up the situation in its 2012 World Energy Outlook: "Growth in oil consumption in emerging economies, particularly for transport in China, India and the Middle East, more than outweighs reduced demand in the OECD, pushing oil use steadily higher."▲

* World Energy Outlook 2012

THE RACE FOR MORE WELLS

1 DRILLING THE WELL

The drilling rig first digs vertically then makes a 90-degree bend underground to horizontally penetrate the Bakken layer.

184

DRILLING RIGS

Number of rigs permanently drilling in the Bakken oilfield. About 50 people work on each rig.

1

WELL/MONTH

Production speed of a drilling rig. Once construction is complete, the rig is moved a few meters to drill a fresh well.

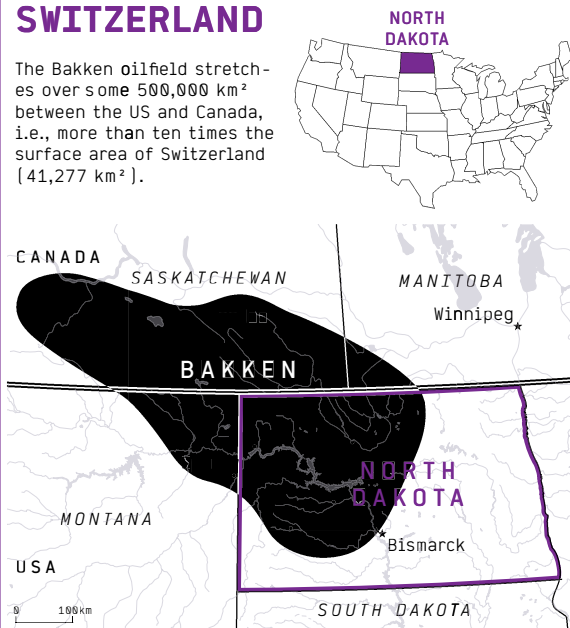
\$9

MILLION

Construction cost of a new oil well, which will bring in \$50 million over 30 years (500,000 barrels at \$100).

AN OILFIELD TEN TIMES THE SIZE OF SWITZERLAND

The Bakken oilfield stretches over some 500,000 km² between the US and Canada, i.e., more than ten times the surface area of Switzerland (41,277 km²).



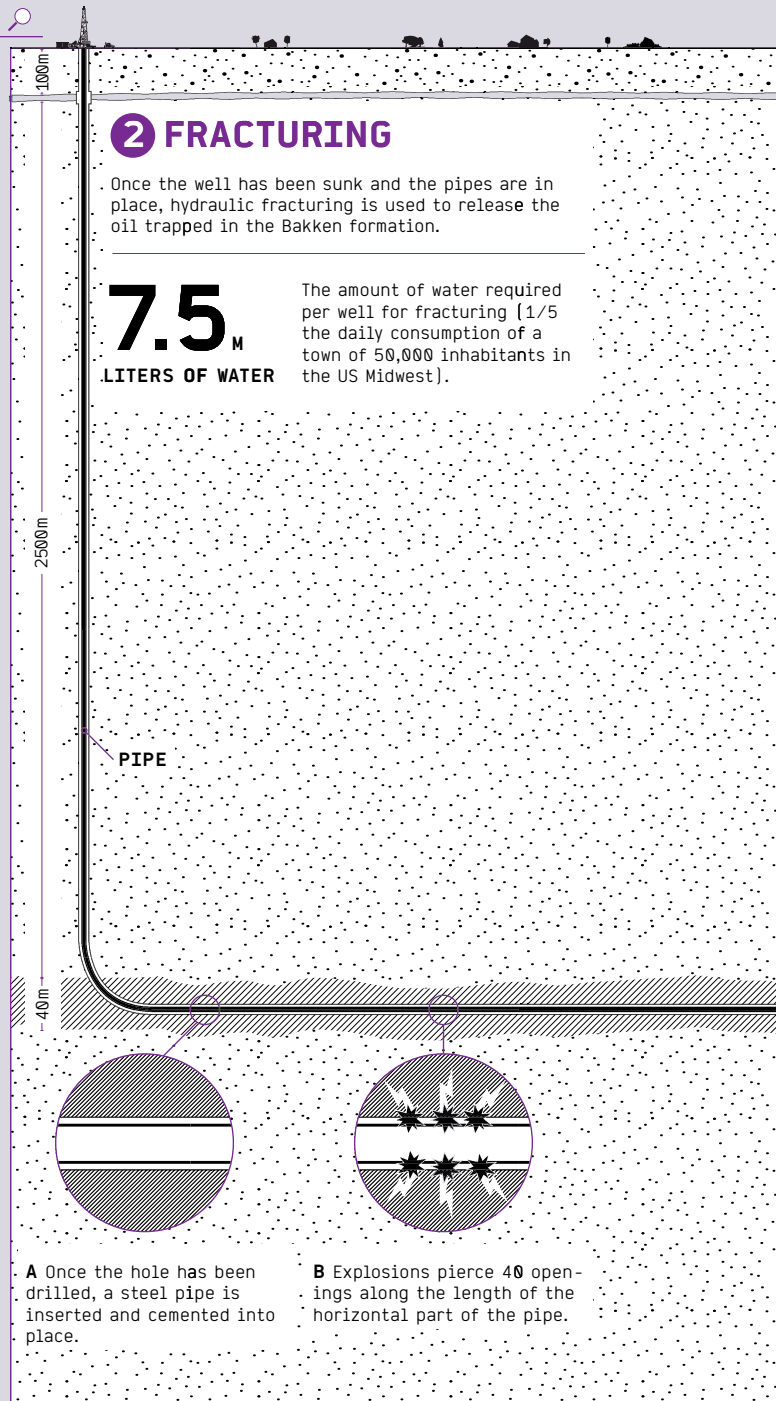
2 FRACTURING

Once the well has been sunk and the pipes are in place, hydraulic fracturing is used to release the oil trapped in the Bakken formation.

7.5_M

LITERS OF WATER

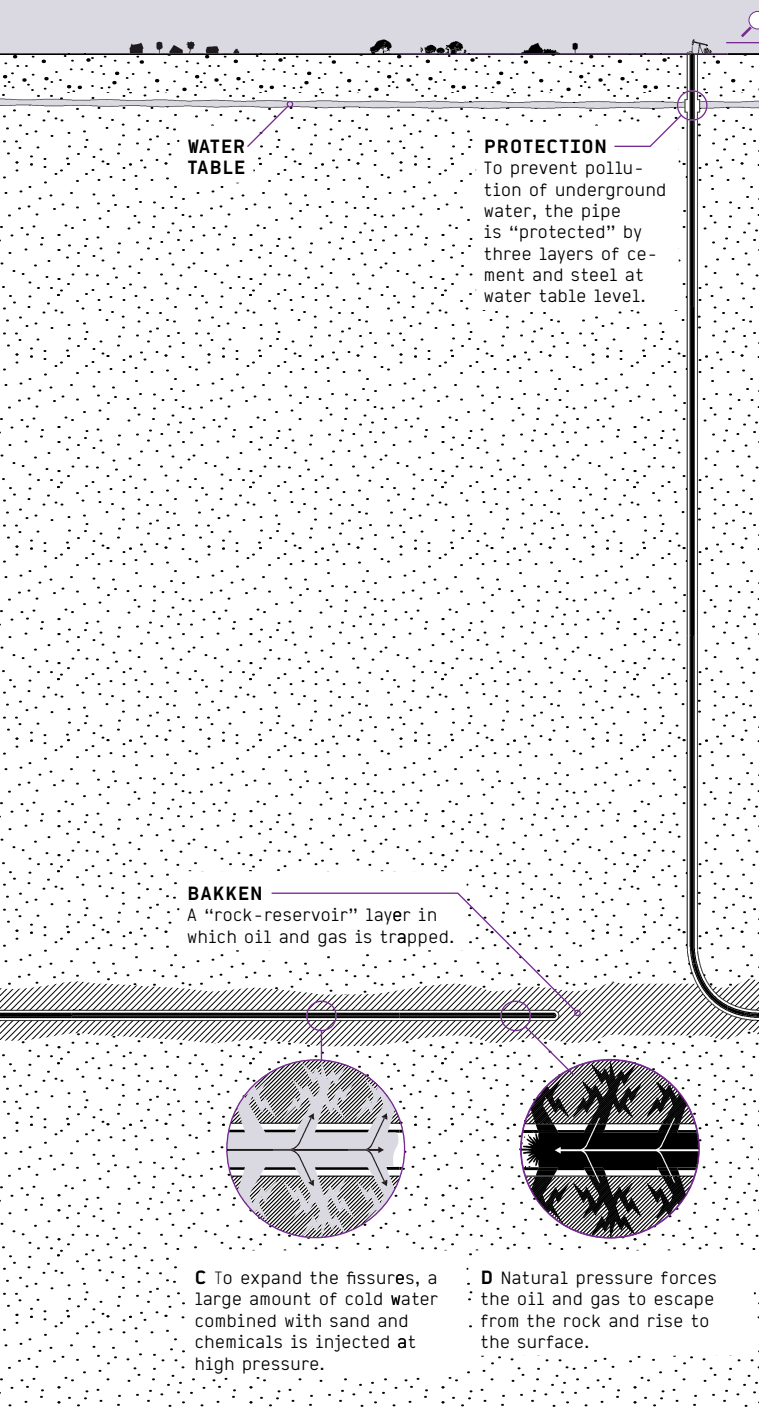
The amount of water required per well for fracturing (1/5 the daily consumption of a town of 50,000 inhabitants in the US Midwest).



A Once the hole has been drilled, a steel pipe is inserted and cemented into place.

B Explosions pierce 40 openings along the length of the horizontal part of the pipe.

How is oil extracted
in North Dakota?
We give you the lowdown.



3 OPERATION OF THE WELL

Once drilling has been completed, a "pumpjack" is installed to bring the oil to the surface.

5,161
OIL WELLS

Wells in operation in the Bakken oilfield as of January 2013, compared with 193 wells in January 2003.

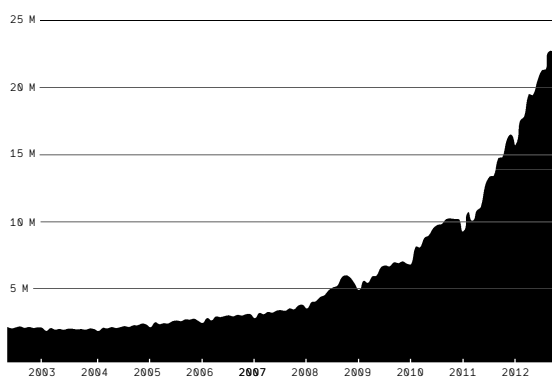
50
BARRELS/DAY PER WELL
Breakeven point of a well. During the first days of operation, the flow rate reaches 3,000 barrels per day.

130
BARRELS/DAY PER WELL
Amount of oil produced in January 2013 on average in the Bakken oilfield.

PRODUCTION BOOM

Oil production in North Dakota exploded from 2008 onwards owing to the success of horizontal drilling and hydraulic fracturing techniques.

BARRELS PER MONTH



24 BILLION
BARRELS
Potential reserves in the Bakken oilfield, according to Continental Resources, i.e., approximately 3.5 years' US consumption.

738,022
BARRELS PER DAY
Oil production in North Dakota in January 2013. By comparison, US oil consumption in 2011 climbed to 19 million barrels per day.





Oil boom on the prairie

An energy renaissance fueled by shale oil is sweeping the US. At the heart of the action is the small town of Williston in North Dakota. *Swissquote Magazine* traveled there to find out more about the new gold rush.

By Julie Zaugg and Clément Bürge Photos: Clément Bürge

An enormous orange flame lights up the night. Shooting out of the ground it crackles, rises, then falls, fed by invisible fuel. By its side a pump plunges relentlessly into the earth like a giant praying mantis. The silence is broken only by the gentle creak of a pulley.

The scene is a common one in North Dakota, sandwiched between Montana and the Canadian border. Some 5,161 oil wells are scattered over the 520,000 km² of the state, which sits on top of one of the world's biggest hydrocarbon reservoirs, the Bakken formation. The ground



THE BAR OWNER

"The boom has totally changed our lives," says Williston resident Steve Erickson, 48, as he shops in the gigantic Wal-Mart, opened in 2006 and now one of the chain's most profitable. "I own a bar and a restaurant that were at death's door a few years ago. Now I can't hire enough staff."

is so loaded with oil here that it no longer makes economic sense to exploit the accompanying gas. Instead the gas is "flared" off, dotting the prairie with innumerable flames (see article on p. 46).

The current oil boom is not North Dakota's first. "We had one back in the '60s. Then another in the '80s," says Ward Koeser, the mayor of Williston, a small town located in the heart of Bakken country. "We've known about

the oil here since 1951 but never had the technology to extract it on a viable economic basis."

That all changed in 2004, when Continental Resources, a small Oklahoma-based firm, came up with the idea of combining horizontal drilling with a new kind of extraction called fracking. The process consists of injecting high-pressure water mixed with sand and chemicals into the ground to fracture subterranean rock and release the oil within.

Fracking was first used in the Bakken area in 2006 by the Texan group EOG Resources. Another company, Brigham (now owned by Statoil), improved the technique in 2009 by dividing a single horizontal well into 25 arms, thereby increasing the drilling surface. This development led to an explosion in oil production.

North Dakota has become the second largest oil-producing state behind Texas, overtaking California in January 2012 and Alaska in March 2012.



Daily production totalled 769,000 barrels in December 2012, up from 172,000 in 2008. A full 10% of US oil now comes from this wild and sparsely populated state.

According to the most optimistic forecasts, the boom could continue for up to 100 years. The outward signs of the petrol bonanza are nowhere more visible than in the formerly sleepy town of Williston, where the population grew from 16,800 in 2012 to 38,300 in 2012 and where unemployment stands at barely 1% compared to the 8% national average. The town's once deserted roads are jammed with trucks, semi-trailers and 18-wheel monsters transporting equipment to the wells.

Signs posted along the main street spell out the opportunities. "Join our team," shout those of Halliburton. "Hiring receptionists and chambermaids," announce those of the Super 8 motel chain. The local McDonald's pays its employees \$17 an hour, compared with the \$8.25 national average. Some employees have even received hiring bonuses.

Brian Nestor is one of the many recent arrivals out to

get a piece of the petroleum pie. The tall 27-year-old New Yorker moved to Williston in October with his brother. "We started thinking about it last summer after we heard about it on the news," he says. "Last autumn we got in our car and drove three days to Williston."

A month later he got a job in a casting company that supplies the oil industry. "I make \$26 an hour and work an average 100 hours a week," he says. "That makes over \$100,000 a year." The sum is akin to a fortune in

"I miss the ocean, the winters are long and the food stinks, but I'm going to stay here as long as possible."

a country struggling to come out of a recession. "I miss the ocean, the winters are long and the food stinks, but I'm going to stay here as long as possible," he adds.

Brian Nestor is far from an isolated case. North of Williston several new towns

have sprouted from the earth to house recently arrived workers. Fields are lined with mobile homes separated by mere wooden planks, while residential neighborhoods sprout identical corrugated huts planted in the mud. House prices have skyrocketed. A one-bedroom apartment renting at \$500 a month a few years ago now goes for \$2,500. Many workers have no choice but to live in their cars, sometimes for months.

The shortage has led to the emergence of "man camps"—giant stretches of pre-fab cabins on the outskirts of town. "Everything's temporary here. Once the need for housing has been sorted out we'll take down the buildings and give the land back to

the farmers," says Nicholas Nelsen, manager of the Bear Paw Lodge unit and its 686 beds. Williams County, to which Williston belongs, has a total 9,700 beds of this kind.

Alcohol, drugs, firearms and visitors—even family—are forbidden in these sterile

camps, where women account for just 6% to 8% of the residents. Workers get their own rooms, three meals a day and access to a fitness room. They are bussed daily to the oil well. "Everything is worked out so that they never need to leave the camp except for work," says Nelsen.

"All you have to do to make money here is fill a niche that hasn't been filled yet."

But oil is not the only passion in Williston, a town where men outnumber women 50 to 1. The influx of male workers with bulging wallets has not gone unnoticed, and business is booming at Heartbreakers and Whispers, the two local strip clubs. Trinity, a petite woman with curly blond hair, left her native Montana seven months ago to work at Heartbreakers. "It's been, like, forever," the 22-year-old says with a laugh, in between conversations with customers. "Most of the girls do two or three weeks here, make as much money as they can, and then take off." On a good night Trinity makes \$2,000.

Newcomers aren't the only ones to take advantage of the oil boom. "A few years ago Williston was an aging farming community," says Mayor Koeser. "Young people were leaving town to go to college and not coming back, because there was no work." The exo-

dus was such that the government was considering clearing the territory of its last inhabitants and turning it into a nature reserve for bison.

But that trend was reversed by the oil boom. The number of households earning \$100,000 a year in North Dakota has increased from 6% to 21% in a single decade. Average income here is \$77,000, compared with \$43,000 nationwide.

It's hard to find someone in Williston who hasn't cashed in on the oil boom, even among the retired community. Senior turnout is high this Saturday night in the hall of the Lutheran church for the annual lutefisk festival. The highlight of the event, celebrating the Norwegian roots of many locals, is a traditional salt-cod dish topped with melted butter. "Most of our ancestors arrived in North Dakota at the end of the 19th century," says Jerry Olsen, 78, serving a smoking bowl of fish. "The government gave them land in exchange for the promise to cultivate it."

"NOUVEAUX RICHES"

That gift turned into a full-on blessing with the discovery of oil in 1951. "In North Dakota, the person who owns the surface of the land doesn't necessarily have to own what's underneath," says Olsen. Unsurprisingly, scores of farmers have sold their subsurface rights to oil companies for a hefty sum.

Luanna Fisketjon has received just a quarter of the profits made by her parents on their farm, but it's enough to allow her to retire at the end of the year at 51. She and her husband have bought a house in Florida. "My parents got an initial payment of \$90,000, then \$16,000 a month for the operation of the well located on their land," she says. "They don't know what to do with all the money. They're used to living on \$1,000 a month."

These "nouveaux riches" are a boon for the local banks. McKenzie County Bank in Watford City, a small town south of Williston where oil wells share the horizon with grain silos and elevators, has grown its funds under management from \$29 million in 2002 to \$114 million in 2012. "There's an incredible concentration of wealth in the region," says director Dale Patten, surrounded by the stuffed bison heads and bearskins that adorn the walls of his bank.

But the Bakken has one major handicap. It's land-locked in the prairies, thousands of miles away from the refineries on the coasts. Added to that is a shortage of transport capacity. Roughly 40% of the oil extracted in North Dakota is sent to Minneapolis and Chicago by pipeline, 5% leaves the region by road and 55% by rail. "Rail is the best option because you get a better price. A barrel produced in the Bakken for \$45 to \$65 sells for \$110 on the coast compared with \$90 here," says Mike Morey, an analyst at Viking Mutual Funds, based in Minot, east of Williston.



THE PIPE DEALER

Jacob Aisenbrey has also come out a winner. In 2009 at age 23 he bought a building in downtown Williston for \$100,000. He sold it a year later for \$320,000. At the same time he created a company, High Gear Hot Shots. "I make deliveries to oil companies. Mainly pipes. Sometimes a bolt. Even pizzas," says the petroleum engineering graduate at the wheel of his pickup, while fending off his excited dog, Rocky. He bought Rocky in Alabama a few months ago for \$2,500. "He's a Thai Ridgeback, one of just ten in the country," says Jacob, now 26. He plans to launch another business next year, putting up fences for the oil industry. "All you have to do to make money here is fill a niche that hasn't been filled yet." Jacob makes more than \$100,000 a year.



Tom Rolfstad, director of economic development in Williston, has cause to celebrate. The number of households earning more than \$100,000 per year has risen from 6% to 21% in a single decade.

Rich Vestal, a Williston businessman specializing in road oil transport, intends to take full advantage of the oil rush. His workforce has risen from 12 to 155 since the boom began. "Now I'm looking to switch from trucks to trains," he says, inspecting the tracks laid recently alongside the rail terminal he's building on the outskirts of Williston. "A truck can carry 220 barrels, a train 700," he adds.

This isn't Vestal's first time playing the oil game. "I experienced the boom here in the late '70s and lost every-

thing when the bubble burst in the mid '80s. I had to lay off a good part of my staff and file for bankruptcy." The end of the boom, resulting from the sudden drop in prices in the wake of the 1973 and 1979 oil crises, was a traumatic time for Williston. "It broke a lot of people," Vestal says. "But this time it'll be different. Technology has come a long way and there's much more oil to be extracted."

Such blind confidence is widespread in Williston, which recently spent \$70 million to build a sports center and

\$150 million on a new airport. The town has also constructed new roads, schools and hospitals, all financed by oil. The State of North Dakota collects 11.5 cents out of every dollar made by the oil companies, which adds up to \$2 billion in extra revenues a year.

ENVIRONMENTAL CONCERNS

Isn't Williston afraid that history will repeat itself? The question is a touchy one. When the last boom went bust the town was left with \$28 million in debt and a mass of useless infrastructure. "The oil boom is here

Williston recently spent \$70 million to build a sports center and \$150 million on a new airport.



to stay, and in the end it's more of a blessing than a curse," says Mayor Koeser, with a hint of irritation. "Each new well leads to the creation of two permanent jobs. That's 40,000 jobs in 10 years." Koeser, a former math teacher, came to Williston in 1978 to found a company that rented radios to oil companies. He believes that part of the new population will settle here for good.

The other sensitive subject in Williston is the environment. Unlike in Pennsylvania and Texas, in North Dakota there are practically no regulations on fracking chemicals and gas flaring, which releases carbon dioxide into the atmosphere. "That doesn't keep me from sleeping at night," says Koeser. "Drilling in North Dakota happens 3,000 meters below the surface, well beneath the water table. And

the fears have failed to catch on. The farmers around here aren't ecologists."

The number of households earning \$100,000 a year in North Dakota has increased from 6% to 21% in a single decade.

One thing does worry him, though. "A full 40% of the population works in the oil industry today. That's too much." But ideas for diversifying the local economy are scarce. Responsibility for that task falls on Tom Rolfstad, head of economic development for Williston.

"After the boom, we'll have rail terminals, abundant gas and plenty of water at our disposal," he says. "We could attract companies that produce plastics, fertilizers and chemicals."

A pile of scratched shovels in a corner of Rolfstad's office embodies the frenzy that has taken over Williston in

the last few months. "We use them for ground-breaking ceremonies at the new sites," he says, throwing a quick glance at the oil-well maps plastering the walls. "There's no going back now. Williston will never again be the little town without a future that it was before." ▲

Fracking takes flak

Hydraulic fracturing, or fracking, is under fire because of its destructive environmental impact. BNP Paribas specialist Philippe Michel answers the critics.

By Ludovic Chappex

The battle lines have been drawn: Supporters and opponents of fracking are at war. The critics have a list of accusations that would unnerve even the most thick-skinned oil industry lobbyists. The indictments range from wasting water to polluting the water table and heightening the risk of earthquake. Some of the numbers are definitely worrying, such as the 7.5 million liters of water and 350 barrels of chemicals used during the lifetime of a single well—of which the Bakken alone has already close to 6,000.

Individual environmentalists and several countries, including France, have adopted a cautious stance towards a technology with still-uncertain consequences. They see the risks of fracking as yet another reason to promote alternative energies such as solar and wind as replacements for fossil fuels. Meanwhile, lobbyists and the oil industry are seeking to rebut these criticisms, using scientific arguments where possible, in order to rally public opinion to their cause.

One of the main bones of contention is the possibility that methane or chemicals could migrate to drinking-water aquifers and contaminate them. That argument was put forward in *Gasland*, a 2010 US documentary that stirred a major controversy. “Many of the issues raised by environmentalists are genuine, but it’s important to see the whole picture,” says Philippe Michel, senior petroleum engineer at BNP Paribas in Geneva. “On the subject of aquifer contamination, many of the wells in question are antiquated. Some are over 100 years old, as is the case in Pennsyl-

vania, and the casing and cementing techniques in use at the time are not nearly as advanced as those applied today. If there’s a flow of gas between a wellbore and an aquifer, it’s not fracking that’s to blame but standard cementing. With current drilling techniques, the drinking water that accumulates in aquifers is protected by at least three steel casing pipes, with a layer of cement to make each one watertight. If the engineering companies do their job properly, I don’t see how gas could permeate the rock face.”

Most of the environmental issues can be handled with existing knowledge and tools.

Scientists have dismissed the argument that fracking might cause methane to leak into an aquifer. “Most drinking water aquifers are less than a hundred meters below the surface, whereas the rocks we drill into are located at a depth of 2,500 m. It’s physically impossible for fracked oil to rise 2,400 m,” says Michel.

NEED FOR REGULATION

Environmental organizations stress that scientists lack the hindsight needed to judge the risks of these technologies, and furthermore condemn an approach they see as outdated and environmentally unsound. But they actually agree with their opponents on one subject—namely, the overwhelming need for stricter regulation.

Most of the environmental issues can be handled with existing knowledge and tools, believe those in favor of fracking. True, the past behavior of oil companies triggered a string of scandals in the US, but these were also due to overindulgent legislation. In

particular, under the Bush administration and Dick Cheney's vice-presidency, oilers were exempt from the Clean Water Act and the polluter-pays principle. As a result, some companies simply dumped the water that rose through the wellbores into service mains, swamping the system with potentially toxic products. "Companies now have the technical resources to do a clean job," says BNP Paribas' Michel. "Water simply has to be treated at surface level. This eats slightly into profitability but has a positive impact on the environment, job creation and public acceptance." But major efforts are still needed. By current estimations, only 40% of the fluids used at the Bakken shale oil field are recycled, leaving the rest deep underground.

In addition, independent experts have noted a sharp increase in seismic activity in regions where fracking takes place, since water injected at high pressure could trigger mini-earthquakes. Nevertheless, according to a recent UK study, the order of magnitude is less than three, and there is no major impact on inhabitants or infrastructures.

GAS FLARING

The criticisms of the oil industry are not confined to an adverse geological impact.

Above ground, the careless burning of drilled gas is also creating controversy. "When oil reaches the surface it always contains gas, which has to be dealt with separately," explains Philippe Michel. Oil is easy to store; it can simply be placed in a tank until it's shipped by truck. In contrast, gas cannot be sold immediately because it contains too many rich compounds, such as butane and propane, which have to be processed in special facilities. In the US, however, gas has become so cheap that it's not profitable enough for oil companies to produce and sell, so it is systematically burned, or flared, off. Unregulated in the US, gas flaring is the latest environmental scourge at the Bakken field. "Flaring has an extremely negative impact on the greenhouse effect. It reflects a very short-term vision and creates a huge mess in terms of the environment, safety and the economy," says Michel. "Admittedly, the situation is better than it was two or three years ago, but there is still a lack of oversight and regulation. Shale wells are demonstrably profitable, so there is no need to sacrifice a portion of the gas. I would be in favor of zero tolerance. Likewise for water treatment and fracking, which we know how to manage technologically but for which a strong regulatory framework is needed."



A pipeline crosses an empty lot in Williston. Natural gas, too expensive to produce, is flamed.

SHANNON STARPLETON / REUTERS

“No one can replicate America’s success”

Through fracking, the US is turning itself into an energy giant, but Iraq, Brazil and Canada also have a chance to become major players. Leonardo Maugeri, former vice president of Eni and now a senior fellow at Harvard, gives his analysis of this heavyweight battle.

By Clément Bürge

It's never been seen before. For Leonardo Maugeri, vice president of Italian oil company Eni until 2011 and now a senior fellow at the John F. Kennedy School of Government at Harvard University, the current energy revolution is a historical first. With the peak oil theory consigned to obscurity, he's fascinated by the way the cards are now stacked in the game of world energy geopolitics. Iraq is on the comeback trail, the Americans are producing more oil than ever, the Canadians are fighting to export their crude oil and the Brazilians are trying, and struggling, to control their production. Will we see oil prices slashed? Will OPEC lose its influence? Could BP, Shell and Exxon become relics of a former age? The Italian expert talks about the impact of these major shifts.

have substantial resources too—Russia and China, for example—but most observers forget that only the US also has the technological wherewithal to extract raw materials of this kind quickly. Extracting shale oil and gas requires particularly high-intensity drilling. If another country wanted to embark upon the same sort of operation, it would take it years to get to the same level. That explains why the US is leading this revolution. No one can replicate its success at present.

Canada and the US is so important. To succeed, Canada must find new outlets for its oil—in India or China, for example. In reality, Canada is a victim of the US's success. Which other country will dominate the new energy scene? Iraq has the greatest potential. No modern extraction techniques were used on its oil fields under Saddam Hussein's regime or during the war that followed. Simply by developing its conventional oil resources, Iraq could increase production to 11.6 million barrels a day by 2020, 9.6 million more than today. It can produce even more than the US.

Will Canada also benefit from the US's development?

Between now and 2020, the western hemisphere will be more present than ever on the world energy scene. Canada, with its oil sands, is said to be one of the new leading players, but it has a problem. A full 95% of its oil exports go to the US, but it's already struggling to transport its oil there, due in particular to the boom in North Dakota, which is resulting in overuse of the existing American pipelines. This is why the planned construction of the Keystone XL pipeline between

Isn't there a risk that Iraq's instability could hamper its oil industry?

Not really. Oil companies are used to working in dangerous and unstable regions. Today, the Iraqi oil fields are guarded by the army and by private military contractors employed by the oil firms. The real problem lies in transport capacity, which is virtually nonexistent in Iraq. The government must acknowledge this problem and pay much more attention to managing

SWISSQUOTE MAGAZINE ▶

The US is at the heart of the present energy revolution. Why?

Leonardo Maugeri ▶ First of all, the US has enormous reserves of shale oil and gas, but that's not the only reason. Other countries

“Major Western companies like BP, Exxon and Shell have completely missed the boat when it comes to developing shale oil and gas.”

its oil reserves. More roads and pipelines are required. Without them, production will not be able to take off.

Does Brazil also have the potential to play a major role?

Brazil is in fourth place among countries that will benefit most from the energy revolution. Through exploitation of offshore oil reserves, its production could reach 6 million barrels a day by 2020.

At present, however, the government is pursuing a destructive policy. The Brazilian government has decided that Petrobras, a semi-public company, should handle the extraction of oil from the seabed, but the process is expensive and technologically complicated. Petrobras cannot do it alone. Also, the company is already showing signs of financial weakness. Brazil must open up its oil fields to more foreign companies.

What effect will this sharp rise in production have on

OPEC member countries?

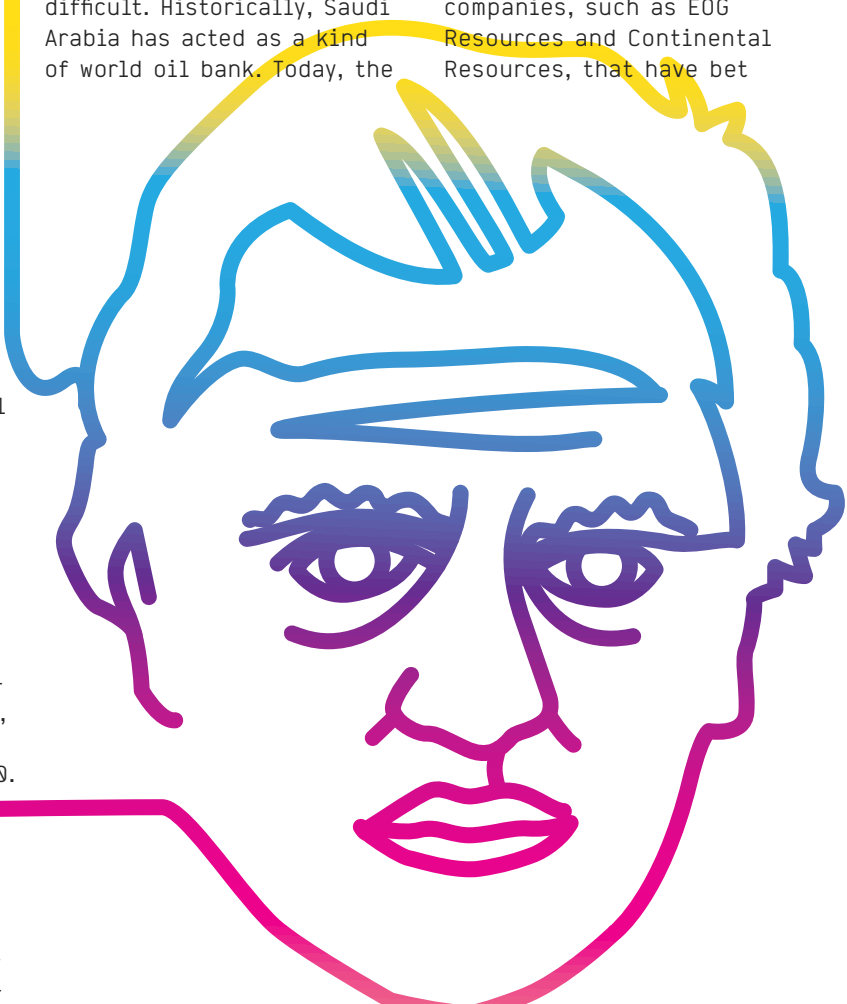
Today's big producers are going to suffer. Following the increase in production, OPEC is going to ask its members to reduce their production in order to keep the price per barrel high. That's going to be difficult. Historically, Saudi Arabia has acted as a kind of world oil bank. Today, the

Which companies are leading this revolution?

The major Western companies like BP, Exxon and Shell have completely missed the boat when it comes to developing shale oil and gas. It's the small independent companies, such as EOG Resources and Continental Resources, that have bet

Saudis are already limiting their production to 9 million barrels a day, 3 million fewer than they are capable of producing. With the resurgence in Iranian and Iraqi production, Saudi Arabia would have to drop its production by another 5 or 6 million barrels a day to keep prices high. That's impossible. OPEC will struggle to find a compromise among its members.

everything on these new energies and hit the jackpot. Today, the majors are struggling to renew their production fields. Some firms, such as Statoil and Exxon, have begun to buy up smaller independent companies specializing in fracking. This revolution is going to cost them dearly. They're going to lose a lot of influence. That's inevitable.▲



OIL BOOM

Profits at US oil companies are exploding. But other players are also cashing in on the energy revolution. We take a look at the biggest success stories.

By Clément Bürge, Ludovic Chappex and Julie Zaugg

The new energy paradigm in the US is marked by abundant oil and ultra-cheap natural gas. This prosperous state of affairs, unimaginable 10 years ago, has radically transformed the country's economy, previously highly dependent on energy imports. At the root of the transformation are a handful of small, independent oil companies that made a bold wager on an innovative extraction technique, fracking. "At the time nobody thought fracking was profitable, and the shale oil deposits were considered impossible to develop," says Lance Langford, vice-president of Statoil, a Norwegian company that only recently began operating in the Bakken fields.

Oil companies are not necessarily the main beneficiaries of the boom. Often, it's the service companies such as Halliburton that profit most from the bonanza, together with a range of other players indirectly linked to the oil industry, including refiners, steel companies, rail operators and petrochemical firms. What follows is a sector-by-sector review of the most promising players.

#1. REFINERIES

The US refinery industry, previously in decline, is taking full advantage of the energy renewal. The extraction of shale deposits has brought down the price of the US barrel (WTI), and because these companies refine local crude before exporting it, they can charge a much higher price for their product than on US soil.

Refiners are also cashing in on the abundance of natural gas, used in the production of diesel and gasoline. "Groups such as **Valero**, Hollyfronter, Tesoro and PBF Energy are posting obscene margins, up from \$3 to \$6 per barrel to more than \$20 per barrel," says Pascal Menges, an analyst at Lombard Odier.

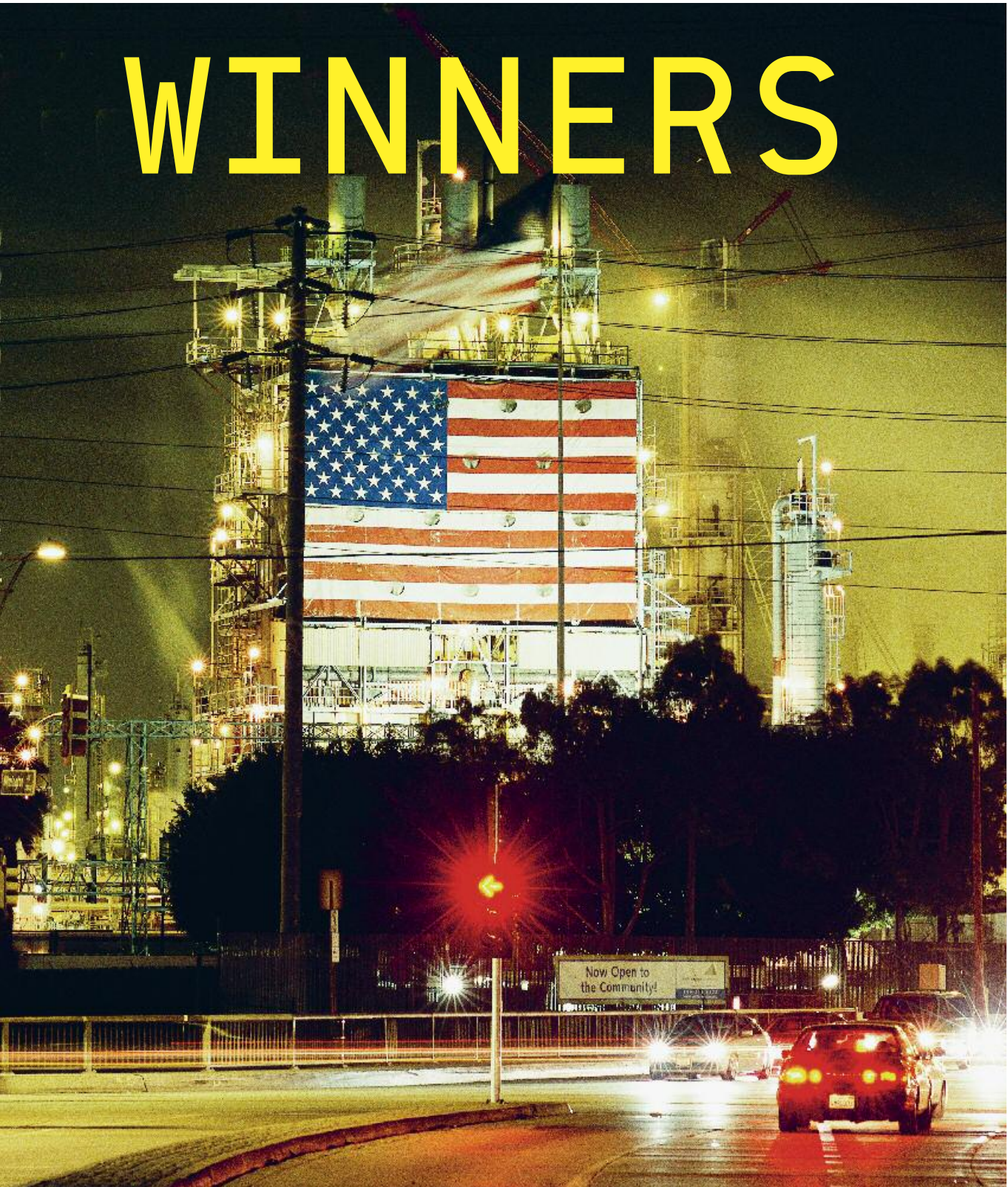
And US refiners are giving their European counterparts a very hard time. "Refined US products are an average 20% cheaper than European products," says Michael Hulme, also an analyst at Lombard Odier. The upshot is that for the first time since 1949 refined products were the top US export in 2012.

But there are doubts as to how long the competitive advantage will last. "US and international barrel prices will meet sooner or later," says Mike Morey, an analyst at North Dakota-based Viking Funds. "But no one knows just when that will happen."



HEADQUARTERS
SAN ANTONIO, TEXAS
FOUNDED
1980
CEO
WILLIAM R. KLESSE
EMPLOYEES
22,000
REVENUE
\$139,250 MIAS
NET INCOME
\$2,080 MIAS
VLO,U

WINNERS



SARAH LEEN, NATIONAL GEOGRAPHIC

The Carson refinery proudly flies the star-spangled banner. Some refineries have increased margins from \$3 to \$20 a barrel.

#2.

TRANSPORT

US transport companies were not expecting such a sudden increase in oil production. But with each new well calling for 4,000 to 5,000 truck journeys, either bringing water to the well or taking the oil away, swarms of trucks have infested the once deserted roads of North Dakota.

But the biggest winner in the energy revolution is rail, which accounts for 55% of the oil coming out of North Dakota compared with 5% for trucks. The number of barrels transported from the Bakken formation increased from 1.3 million in 2008 to nearly 90 million in 2012. The Burlington Northern Santa Fe railway company is out in front, handling nearly 70% of the oil cargo total. The company was bought out by Berkshire Hathaway in 2010.

Other rail companies, including **Union Pacific**, are also making hay. Even the Canadian operator Enbridge, a pipeline specialist, has decided to develop its rail transport capacity. But a dark cloud looms on the horizon, says Viking Fund analyst Like Money. "The construction of the Keystone XL pipeline linking Canada and the US could drastically reduce the demand for trains." But apart from the Keystone XL project, no other new oil pipelines are on the cards. "These projects take a lot of time and require a long-term commitment from companies, which few are ready to make," he says.



HEADQUARTERS
OMAHA, NEBRASKA
FOUNDED
1862
CEO
JOHN J. KORALESKI
EMPLOYEES
44,800
REVENUE
\$20.926 BILLION
NET INCOME
\$3.943 BILLION
UNP,U



#3.

RELATED COMMODITIES

The new energy boom has also fueled the recovery of steel suppliers. Drilling and extracting oil and gas require vast quantities of steel, to the tune of 3.2 km for the creation of a single well. The new demand has enabled companies such as US Steel and The Timken Company to post record performances. Inspired by a new and unshakeable confidence, US Steel and



DALE JOELL/STOCK CONNECTION/WORLDWIDE NEWS.COM

An oil tanker truck. Each new well requires 4,000 to 5,000 truck journeys to transport the water required for fracking and the oil extracted.

the French company Vallourec & Mannesman have announced the opening of new plants at a cost of \$650 million for the first and \$450 million for the second.

Another commodity back in the limelight is silica sand. "This commodity is essential to the fracking process and oil companies, and oil companies can't get their hands on enough

of it," says Mark Perry, an energy specialist at the University of Michigan. "The situation has created real 'sand millionaires,' mainly based in Wisconsin."

US Silica has taken particular advantage of the niche: It's the first silica producer to be listed on the stock market, launching a \$200 million IPO in February 2012.



HEADQUARTERS
DELAWARE
FOUNDED
1900
CEO
BRYAN SHINN
EMPLOYEES
685
REVENUE
\$441.9 MILLION
NET INCOME
\$21.8 MILLION
SLCA,U

#4.

PETROCHEMICALS

"The price of gas [from fracking] has fallen so much that it has given rise to an industrial renaissance in the fields of fertilizers, chemicals and plastics, the production of which requires considerable energy," says Pascal Menges. The extent of the phenomenon has led some companies to start opening plants on US territory and bring home part of the work that had been previously offshored.

Natural gas is also used in the production of ethane, one of the main components in chemical products. The **Dow Chemical Company**, the world's second-largest chemicals manufacturer, is one of the players benefitting the most from the price fall. Paint producers, including Sherwin Williams, also use this component and are benefitting just as much from the trend. Other companies enjoying the boom are fertilizer manufacturers, such as CF Industries and Agrium Inc., which use ammonia and nitrogen—types of gas also produced from natural gas—in their production processes.

HEADQUARTERS
MIDLAND, MICHIGAN
FOUNDED
1897
CEO
ANDREW N. LIVERIS
EMPLOYEES
54,353
REVENUE (2011)
\$59.985 BILLION
NET INCOME
\$2.784 BILLION

 DOW, U



#5.

GAS INFRASTRUCTURE

"Greater use will be made of natural gas in the future. Public transport and transport companies such as FedEx will increasingly fit their vehicles with gas-powered engines," says Mike Morey. "This will be an interesting outlet for companies like Shell and Clean Energy, which will market gas pumps and engines running on gas."

US exports of natural gas are expected to bolster the entire industry. The country is currently building gas terminals to transform natural gas into liquefied gas for export. These facilities should be up and running by 2015. The US Department of Energy estimates that exports of liquefied natural gas could generate revenues as high as \$30 billion a year. Sempra Energy and Northwest Natural Gas are poised to profit the most from the new opportunity.

Matthias Müller, from the Global Equity Research arm of Credit Suisse, is touting the natural gas company Cheniere Energy. **BG Group** also rates high with the analysts. "It's one of our favorite stocks," says Charles-Henry Monchau, Head of investments Europe at EFG Asset Management. "BG Group is a top-quality operator with a strong positioning in the liquefied natural gas segment and stands to benefit from the dislocation of gas prices at the international level. And it has shares in huge Brazilian oil fields that are set to go online."



HEADQUARTERS
READING, GRANDE-BRETAGNE
FOUNDED
1997
CEO
FRANK CHAPMAN
EMPLOYEES
6,625
REVENUE
\$18.933 BILLION
NET INCOME
\$7.605 BILLION

 BG., GB



2009 DEVON ENERGY CORPORATION

#6. EXPLORERS AND PRODUCERS

BP, Shell and Exxon showed little enthusiasm for the shale gas and oil revolution at the start. Instead it was small, independent companies that invested in the new deposits and unconventional methods. As a result, some of these tiny firms have grown into giants. "Pioneers in the sector such as Oasis, Kodiak Oil & Gas, Continental Resources and Whiting Petroleum, whose activities are concentrated in North Dakota, made it big straightaway. [Kodiak Oil & Gas increased its revenues from \$6.8 million in 2008 to \$409 million in 2012.] And they continue to lead the dance today," says Mike Morey from Viking Fund.

"These companies have now managed to reduce their production costs," says Shawn Driscoll, an an-

alyst at T. Rowe Price. But not all of them have the same qualities. "The profitability threshold varies considerably from one company to the next, and only a limited number of the companies would remain profitable if the barrel price were to fall," he warns, before pointing out the strong performance of EOG Resources, whose profitability threshold is set at \$50 per barrel. **EOG Resources** exploits shale deposits in the Bakken fields in North Dakota and in the Eagle Ford formation in Texas.

Matthias Müller from Credit Suisse recommends Anadarko, which operates a number of platforms in strategic, shale oil-rich regions. He also thinks highly of Devon Energy, the largest independent oil and gas producer in the US.

Above:
Devon Energy, the largest independent oil and gas producer in the US, drills for natural gas in the Horn River Basin in the far north of British Columbia.

HEADQUARTERS
HOUSTON, TEXAS

FOUNDED
1999

CEO

MARK G. PAPA

EMPLOYEES
2,550

REVENUE
\$10.126 BILLION

NET INCOME
\$1.091 BILLION

EOG, U





The Ekofisk complex in the North Sea, one of the largest oil and natural gas reserves in Norway, exploited by ConocoPhillips. Operations could continue here until 2050.

#7.

OIL SERVICES

The oil services market is dominated by the four-some of **Schlumberger**, **Halliburton**, **Baker Hughes** and **Weatherford International**. These groups provide oil companies with expertise as well as drilling and extraction equipment. "When the oil boom happened, there was a glaring absence of infrastructure in the US, particularly in North Dakota. And so these companies were able to impose their prices," says Viking Fund's Mike Morey. Schlumberger's market capitalization has quadrupled in the last 10 years, from around \$22 billion to \$91 billion, higher than that of ENI (\$82 billion) and ConocoPhillips (\$71 billion).

But the situation has changed. "When natural gas prices plummeted, companies specializing in gas services switched to oil. So the competition intensified and margins fell, and will continue to fall," says Morey. In addition, oil companies are paying service companies less. "They went through a learning phase and are now looking to cut their costs," says Shawn Driscoll from T. Rowe Price. "You can dig a well for \$8 million now, compared with \$12 million at the start of the boom. This advance mainly benefits exploration and production companies." For Driscoll, the only oil service providers able to maintain a strong growth outlook will be those not based uniquely in the US, such as Schlumberger.

Outside the US, the UK-listed company Petrofac is a favourite with Charles-Henry Monchau at EFG Asset Management. "Petrofac has a very high profitability level and has already shown its ability to redistribute capital to its shareholders. It works in engineering, supply and construction, mainly in the Middle East. It has succeeded in taking market share from rivals that are well established in these sectors and boasts growth rates higher than the industry average."

HEADQUARTERS
HOUSTON, TEXAS
FOUNDED
1926
CEO
PAAL KIBSGAARD

EMPLOYEES
118,000+
REVENUE
\$42.149 BILLION
NET INCOME
\$5.439 BILLION

SLB,U



“The shale gas revolution surprised everybody by its speed and scale”

Christophe Frei, secretary general of the World Energy Council, talks about the environmental issues stemming from the gas and oil boom.

By Ludovic Chappex



As secretary general of the World Energy Council (WEC), Swiss national Christophe Frei has a global view of energy issues. Representing both consumers and businesses, the WEC, based in London, publishes analysis and regularly organizes events for decision makers. Christophe Frei joined the WEC in 2009 after 8 years on the executive board of the World Economic Forum. He has a PhD from Swiss Federal

Technology Institute in Lausanne (EPFL) on the relationship between CO₂ emissions and economic prosperity. He is also a professor of energy policy at EPFL and advisor to the chairman, Patrick Aebischer.

SWISSQUOTE MAGAZINE ▶ Won't the shale oil and gas boom postpone the transition to renewable energies, which was in the cards as recently as five years ago?

Christophe Frei ▶ Don't forget that the revolution underway in the US is not yet happening in other countries to the same degree. Also, we're seeing a major and irreversible improvement in costs in other sectors, including solar power. The price per kilowatt hour has fallen from \$4.70 in 2007 to \$0.59 today.

But the peak oil theory no longer holds. And a number of studies forecast an explosion in Chinese and Indian demand for fossil fuels in the coming decades. How do we adapt to the new paradigm?

As recently as 2007, nobody was talking about shale oil or gas and the peak oil theory firmly held sway (see chart, p. 36). The shale gas revolution surprised everybody by its speed and scale. Obviously the new context has a major impact on the environment. Global warming is once again one of our main priorities—ahead of, say, supply security. The center

of gravity has shifted. Even though gas has a lighter eco-footprint overall than coal, it generates a lot of CO₂ emissions. And fracking requires enormous quantities of water, which also raises a number of questions.

So do climate objectives have to be revised downwards?

Quite honestly, there's been less pressure since the start of the economic crisis. And the situation is changing quickly at the global level. Europe is responsible for 12% of world CO₂ emissions today. This share will fall to 4% by 2030 and 2% by 2050, which means that other major players need to join in the collective effort, and fast. Besides political impetus, we think innovation can play a key role in the promotion of new energies. For example, a great deal of progress can still be made in electricity storage, to make it cheaper. In another field, a number of promising projects exist in producing plastic from CO₂, some of which could be marketed in a few years. Imagine in the future using CO₂ to make construction materials. This kind of innovation could lead to a paradigm shift. We shouldn't be afraid of visionary ideas, but they do require adapted policies, backed by major efforts in research.

To what extent do you succeed in influencing the behavior of states and businesses?

WEC is the largest energy-focused network in the world, so we have privileged access to ministries and companies.

We also work with nearly 3,000 organizations. But the energy situation is highly complex, spanning geopolitics, economics, the environment and social issues. We try to set priorities, then we publish analysis and organize events with decision makers aimed at fostering best practices.

"All technologies involve risk. The question we need to ask is to what extent that risk can be controlled."

A lot of people are objecting to gas flaring in the US [see p. 46]. Does oil and gas extraction need more regulation?

Gas flaring is absurd. With today's environmental problems and global warming, we have to do everything we can to stop this practice. But gas prices in the US are so low that flaring is a tempting option for companies. As an organization that works at the grassroots level, we're particularly concerned about this problem. Compared to the issue of water, which is a very local topic and where each context is different, gas flaring can be effectively regulated at a global level, by agreeing on the need to forbid the practice.

There is also a substantial amount of debate about the

enormous quantities of water used in fracking. Where does the WEC stand on this issue?

The link between energy and water is obviously a crucial issue for our organization. But fracking should not be our unique concern. Water is used in a considerable number of production processes, especially in electronics, cooling, biofuels and mining. We should also avoid taking an overly emotional approach to the subject.

Do you consider fracking technology safe?

The industry has built up enormous expertise, and is also aware that poor management of environmental issues can have disastrous consequences on its image and business, as seen recently with BP. So companies take the utmost precaution. But given the thousands of oil wells in activity today, it would be surprising to never encounter a problem. All technologies involve risk. The question we need to ask is to what extent that risk can be controlled.

Do you think France is right to apply the precautionary principle and forbid shale gas extraction?

The WEC's position can be summed up as follows: There is no bad technology, only bad management. Rather than closing the door on a new technology, we think it's preferable to carry out a comprehensive investigation, possibly starting with pilot projects to build up experience. This approach is not incompatible with the precautionary principle. ▲

Switzerland: shy of shale

With no diamonds or fossil energies to its name, Switzerland is not typically thought of as mineral-wealthy. But new exploration methods may be overturning that traditional view. The country may actually have undreamed-of resources waiting to be tapped into.

By Jean-Christophe Piot

It's official: The likelihood of finding oil in Switzerland is minimal. But the same may not be true of methane, substantial deposits of which may lie deep beneath the surface. That's hardly surprising. Eighteen attempts to mine the gas have been made since the '60s, largely unsuccessfully, and although some methane was indeed extracted between 1985 and 1994 at Finsterwald in the Lucerne canton, the venture was a financial failure. Everything seemed to

suggest that the deposits were too small to be commercially viable.

But new opportunities have arisen that contradict that conventional wisdom. "We already know that there are gas deposits in Switzerland. The question is whether they are large enough to consider industrial production," says Patrick Cahusen, a former Zurich-based banker and currently vice president of Société Anonyme pour le Gaz Suisse (SEAG), who has struggled for 30 years to fund research and convince

the cantons to issue the necessary permits. This involves extracting shale gas, a much talked-about but, in this case, misleading name for deposits of conventional methane trapped in claystone 5,000 to 6,000 meters beneath the surface.

New exploration techniques will be crucial. Instead of drilling vertically, which is only moderately successful, gas companies have developed a technique that allows them to explore horizontally once a certain depth has been reached. Several US firms are starting to invest in Europe, drawing on expertise acquired back home. They include eCorp, a Texas-based firm that recently announced plans to set up its European headquarters in Switzerland. In partnership with SEAG, eCorp plans to drill some thirty exploration wells between Lake Geneva and Lake Constance.

TREAD CAUTIOUSLY

Companies can now complete explorations in 10-15 days, compared with 40-60 in the past, by building lighter

derricks, using narrower drill pipes and analyzing samples on-site. All that remains to be done is “fracture” the rock and free the methane. Hydraulic fracturing, decried by environmentalists, has been replaced with new techniques with an apparently lesser impact.

Many cantons are very reluctant to issue the necessary permits, particularly since they have been investing in solar, wind and hydraulic energies in recent years.

The authorities, too, are treading cautiously. Although they have no intention of banning research outright,

most cantons are heeding environmental arguments. Already upset by the media coverage given to certain accidents, they fear industrial and health risks just as much as the risk of water table pollution. “Apparently, some seismic action may also be due to shale gas extraction,” says Corinne Rebetez, head of communication at the Planning, Environment and Construction division in Fribourg. Like Fribourg and Vaud, many cantons are very reluctant to issue the necessary permits, particularly since they have been investing in solar, wind and hydraulic energies in recent years.

That cautious approach is in stark contrast to US enthusiasm. A new regulatory tool known as forced pooling, introduced by 39 of the 50 states, denies landowners the possibility to refuse drilling on their land. In consequence, the Massachusetts Institute of Technology estimates that methane will eventually meet 40% of US energy needs, compared with 20% today.

Will Switzerland’s hesitation, described by Patrick Cahusen as a “largely mental block,” prevent exploration of these opportunities? Possibly not, hopes Cahusen. “Not only has the US found the wherewithal for an economic recovery, which Europe is still waiting for, but energy independence

will reshuffle the geopolitical order in the Middle East. The world may no longer need to depend on OPEC, the Suez Canal and Russian gas,” he says. “Depriving ourselves of a way to examine our own subsoil would be surreal.” In addition, the energy bill could be slashed. But, as Corinne Rebetez points out, “Economics is not the only argument. We need to weigh up all the interests at stake”.

Is now the time to invest in Swiss methane? The fact is, there’s no need to rush, since the exploratory phase will take at least five or six years. If the deposits turn out to be profitable, it will be time for companies such as eCorp to go to the markets and finance the installation of extraction derricks, a venture that will cost between 12 and 15 million Swiss francs (about \$12.5 to \$16 million) per site.▲

Greasing the portfolio wheels

Swissquote clients have been able to trade crude oil for the past year. That offering, one of the bank's most popular lines, is set to expand. Here's why.

West Texas Intermediate (WTI) has been available to Swissquote clients for trading since April 2012. Spurred by the product's success, the company will be rolling out new offerings in the energy sector this year—namely Brent, the other benchmark crude, and natural gas. Ryan Nettles, Head of FX and a member of Swissquote's senior management, discusses the ins and outs of these products.

SWISSQUOTE MAGAZINE ▶ Why did you launch a crude oil product last year?

Ryan Nettles ▶ Since the beginning of the financial crisis in 2008, many traders started looking for alternatives to the equity markets, particularly commodities including energy. These days, many commodity funds are involved in energy. We wanted to give clients access to these opportunities for diversifying their portfolios. Crude has become a very popular, almost mainstream, trading product. The results achieved over the past year speak for themselves: Of the 68 products on our eForex platform, oil ranks in the top 20 by trading volume.

What energy products are currently available on Swissquote?

We launched our first tradeable energy product on our

eForex platforms West Texas Intermediate crude oil. WTI has long been a benchmark. Like Brent, traded in London, it's a high-grade, low sulphur and low density crude—hence the name “light sweet”. It's the favorite with end users. WTI can now be traded on all our eForex platforms: FX Book, Meta Trader 4 and Advanced Trader. What makes our offering different is that we offer a cash derivative of the WTI crude oil futures market.

“Our crude oil product is designed not only for beginners who want to try, but also for seasoned traders.”

What are these advantages?

First, leverage is higher than for standard futures, around 30:1. As a result the entry ticket is very low, and clients can purchase as little as one barrel for an outlay of three dollars. As contracts sizes are not standardized like futures, clients can trade with greater flexibility. Also, the futures contracts have an expiration clause at the end of each month. Our crude oil does not expire so clients can hold positions as long as they require. Our crude oil product is designed not only

for beginners who want to try, but also for seasoned traders.

What are the advantages over the equity market?

There are three key advantages. First, crude oil is an alternative market to trade versus the equities market. Second, trading hours for crude oil are much longer than for equities. Second, clients can go long or short crude oil to take advantage of both the upside and the downside market movements. On the stock exchange, you typically can only be long shares.

What risks should be taken into account before trading?

High leverage can cut both ways. The risks and rewards increase the greater the leverage a client trades. They can also opt for less leverage. What's important for us is to give clients the choice on how much leverage they would like. Another feature of this market is high volatility, a source of risks but also opportunities. This means the product can be traded at any time.

What are the reasons for volatility?

There are plenty of uncertainties about a commodity that is in such heavy demand but may be limited in quantity. They include supply and



THIERRY PAREL

Ryan Nettles, Head of FX and a member of Swissquote's senior management.

demand, storage capacity, and geopolitical factors such as tensions and war. At the same time, crude oil is one of the products that currently attracts the most exploration resources. Many market participants analyze these parameters and supply high quality information on a permanent basis. Since data is easy to come by on the internet, crude oil is one of the sectors where a person can easily be his own analyst. All this information helps them reach an opinion on where the oil price is headed. We also provide our clients daily fundamental and technical reports on crude oil which are available on our eForex platforms, website and by email.

What about recent trends on the oil market?

The US is counting heavily on

“Trading hours for crude oil are much longer than for equities.”

discovering new offshore oil deposits and on shale gas. Unlike North Sea Brent, US oil production is growing. The problem lies in distribution bottlenecks, which impact price volatility. At the same time, fuelled by China, global demand continues to rise, offsetting the fall in US demand. As long as the world's population continues to grow and petroleum-based products continue to be used in the market, consumption will trend upwards. For the time being, demand is outstripping supply, which is why prices are tending to rise.

Do you plan to broaden your energy offering?

This year we want to add two products to the range: Brent and natural gas. It's important for us to be able to offer both WTI and Brent—the two world benchmarks—on our platforms. For geographical reasons, Europeans prefer to trade Brent because it's the oil product they are most familiar with, the one they use themselves and that's more readily accessible in Europe than Texas oil. By contrast, if the dollar weakens, Europeans may find WTI more appealing than Brent. Offering both products will allow also clients to perform spread trades in order to speculate on the price differences of the two crude oils.▲

“We are convinced of the business potential in the Emirates”

Swissquote introduces a new product aimed at Western expatriates in the United Arab Emirates. We talked to Mario Camara, CEO of Swissquote Bank MEA Ltd.

New Swissquote entity in the Middle East

The company is strengthening its presence in Dubai.

Swissquote is pursuing growth in the United Arab Emirates and, hence, throughout the Middle East. The company, present in Dubai since 2010 and the acquisition of ACM Advanced Currency Markets SA, is strengthening its positions by setting up Swissquote MEA Ltd. The new entity joins the Swissquote Bank SA (DMCC branch) representation agency, which took over the business of ACM ME DMCC and ranks as an FX pioneer in Dubai. Having obtained a license from the Dubai Financial Services Authority in 2012, Swissquote MEA Ltd, based in the prestigious Dubai International Financial Center, will provide the entire range of Swissquote services to clients in the region. The workforce in Dubai will be increased from 19 to 25 in the next few months.

SWISSQUOTE MAGAZINE ▶

How is Dubai doing today, following the tough times during the financial crisis?

MARIO CAMARA ▶ Dubai, like all of the Emirates, is doing well and has come through the financial crisis with brio. The property market is growing again after a few tough years. A number of international groups have returned to Dubai, resulting in an economic boom and a sharp rise in the expat population in the region.

What does Swissquote Bank do in Dubai?

Swissquote Bank owns two offices in Dubai. The first is a representation agency—Swissquote Bank SA (DMCC Branch)—focused on the promising forex, precious metals and commodities markets with an offer targeting private and institutional clients across the Middle East. The second, opened after obtaining the required

authorization in 2012, is a branch with a license from the Dubai Financial Services Authority and located in the prestigious Dubai International Financial Center.

What are the plans for the branch and what kind of clients does it target?

We are mainly targeting wealth managers. We bring them a range of services developed by Swissquote in Switzerland and adapted for local clients—including the EFG Hermes fund that is much sought after by local investors.

We have also developed an “Expat Account” addressing the 500,000 Western expatriates in the United Arab Emirates, offering them unrivaled product and service quality in the region. A trading and multi-currency account (including CHF, EUR, USD and GBP—Ed.), it gives them access to the immense breadth of Swissquote Bank’s



Mario Camara, CEO of Swissquote Bank MEA Ltd.

financial products (over 1.5 million—Ed.) at very attractive prices. Account holders also get attractive rates on cash positions. The offer will be rounded out with a credit card.

Will the account be deposited in Dubai?

No. The cash and securities will be deposited in Switzerland with Swissquote Bank. Our job here in Dubai is to simplify the opening of accounts (contracts, client identification, KYC) and play a front-line support role for all account inquiries.

What kind of market share are you targeting?

We are very excited about the product and convinced of its business potential in the region. If we attract just 1% of the expat community, that makes 5,000 clients. But we are sure that the potential is much bigger than that.▲



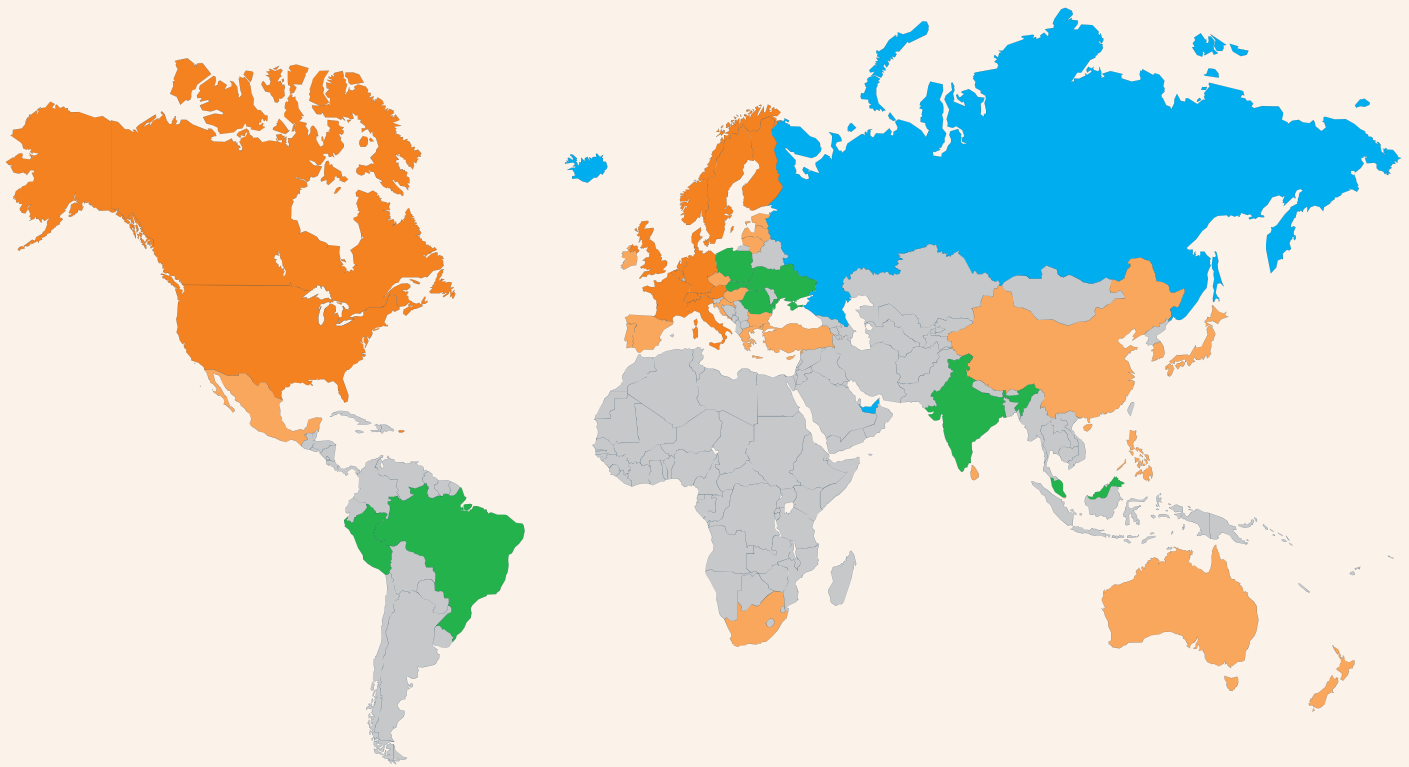
A new range of services has been developed specially for Emirates customers.



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- ONLINE REAL-TIME EXECUTION
- ONLINE DEFERRED EXECUTION
- BY TELEPHONE
- RESTRICTED TRADING

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- swissquote.ch – a free, real-time information portal for bank customers
- Innovative tools to manage private wealth (e-Private) and/or to analyze securities
- A real-time, multi-currency bank account, a custody account, an online payments service and securities trading at discounted prices
- Real-time share dealing on the world's largest stock exchanges (see map)
- Direct access trading for options and futures on the largest futures and options exchanges (Eurex, CME - Chicago Mercantile Exchange - and ISE - International Securities Exchange)
- Real-time trading of warrants and other derivative or structured products (Scoach and Euwax)
- Fundshop: the largest Swiss trading platform for investment funds (more than 5,500 products online)
- Bond trading (more than 9,000 products)
- eForex (foreign exchange and precious metals): more than 60 currency pairs available thanks to our innovative FXBook technology (spreads from 1.8 pips and a leverage ratio of 100:1)
- An innovative savings account
- An online mortgage
- Foreign exchange: currency spot trades, futures, swaps and options
- Lombard loans
- Term deposits and fiduciary investments
- Credit cards (Visa and MasterCard)
- Multilingual call center open Monday to Friday from 8 AM to 10 PM
Tel: +41 825 88 88

.....TO READ.....

**WHAT CHINESE WANT:
WHY MOST PREDICTIONS FAIL
BUT SOME DON'T**

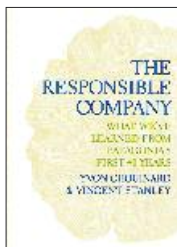
By Tom Doctoroff (Palgrave Macmillan, 2012)



Doctoroff, China CEO of JWT (formerly J. Walter Thompson) for the past 20 years, sets out to explain the expectations and behavior of China's consumers in the context of the country's history and culture. He explores the cultural, political and economic aspects of 21st-century China and the implications for business people, advertisers and company managers.

**THE RESPONSIBLE
COMPANY:
WHAT WE'VE LEARNED FROM
PATAGONIA'S FIRST 40 YEARS**

By Yvon Chouinard and Vincent Stanley (Patagonia Books, 2012)



Yvon Chouinard may be more of an explorer than a businessman, but the company he founded is one of the most successful suppliers of equipment and clothing for climbing and mountain sports. In this book, he outlines a step-by-step approach for turning a company into an environmentally responsible business, reducing its carbon footprint and treating employees, customers and communities with the respect they deserve.

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Take a peek at Haze. The daily forecast includes weather conditions through the night until sunrise the next day. You'll also find out the likelihood of rain via a nifty umbrella icon, plus information on humidity, temperature and atmospheric pressure. Pluses include the app's original design and soothing sound effects.

Haze
\$0.99**VIDEO
CONFERENCES
MADE EASY**

(iPhone, iPad, Android)



Think you need a computer to organize

a videoconference? Not anymore. With Zoom, you can connect in HD with colleagues or partners using your smartphone. Unlike Skype, Zoom can be used to invite up to 15 people at the same time. Zoom's stability is also a plus: Fans report that connections are rarely interrupted.

Zoom.us
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(iPhone, iPad)



The "lite" version of Wikipedia for iPhone,

rebaptized Wikipanon, is good news for those hooked on the free encyclopedia. Article content hasn't changed but the formatting has been customized for the smartphone's screen and interface. The app has a direct connection to the Wikipedia servers, making it extremely fast and practical.

Wikipanon
Free**BUMP UP
DATA SHARING**

(iPhone, iPad, Android)



This app isn't new but you won't want to miss

its cool new functions. With Bump you can now transfer data such as files, Word documents, photos and videos not just from phone to phone but also from smartphone to computer—just bump the space bar with the phone (subject to acceptance of the location request). The data are sent to Bump's servers and easily retrieved via download.

Bump
Free

MOTORBIKES

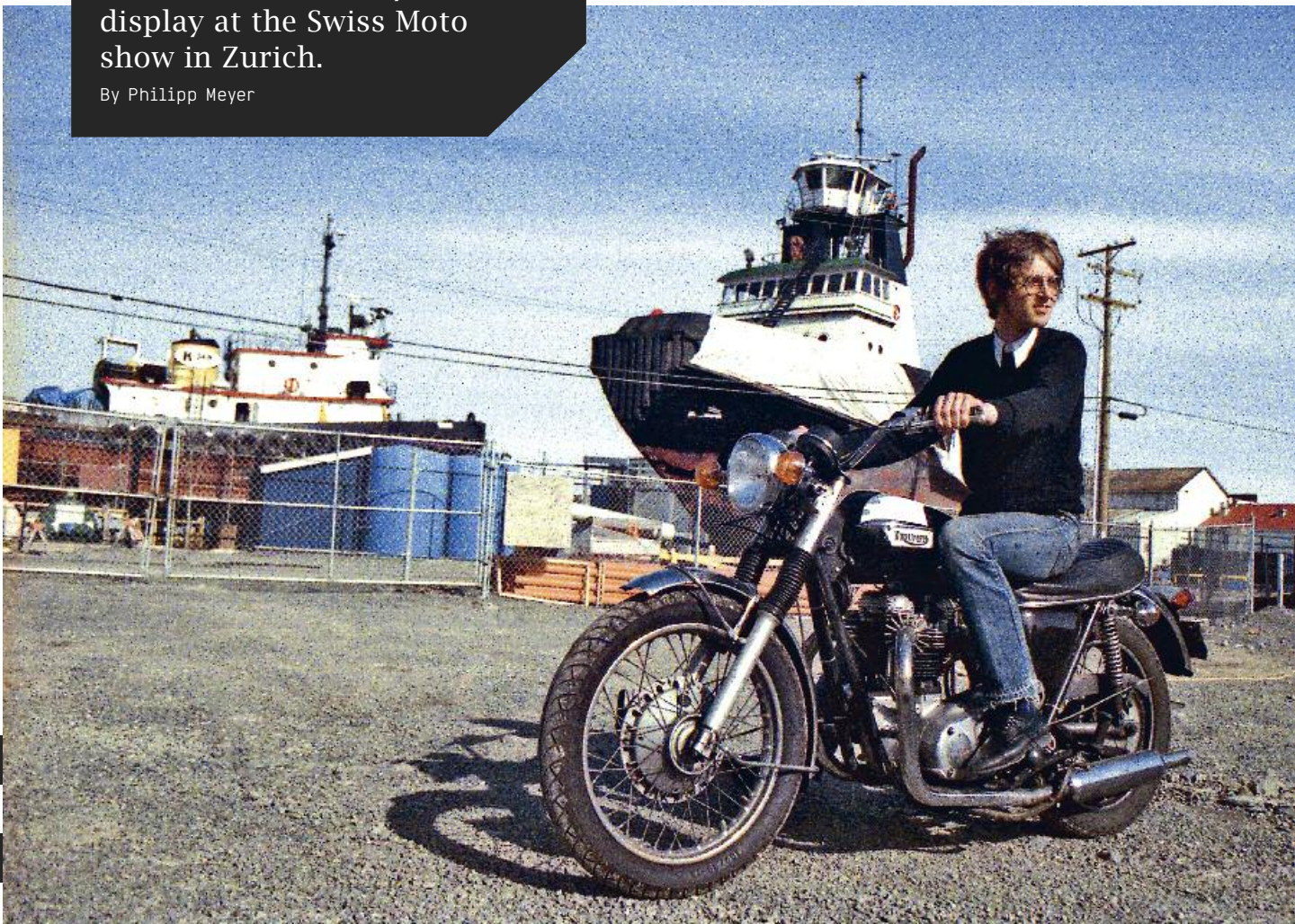
Bikers won over by the vintage look

The new-retro style, which blends modern technology with vintage design, is all the rage among biking enthusiasts. A host of new models were recently on display at the Swiss Moto show in Zurich.

By Philipp Meyer

The Harley-Davidson Forty-Eight is uncomfortable, impractical and incapable of hitting high speeds. But it looks like no other motorcycle around, evokes a sweet sense of nostalgia and is available for the reasonable sum of 14,200 Swiss francs. As a result, the 48 was the top-selling bike in Switzerland last year, with 561 registrations. The success story symbolizes the new-retro wave that is sweeping through the motorcycle world.

At the recent Swiss Moto show in Zurich, a number of brands presented at least one model paying tribute to one of their old creations. On the Honda stand, for instance, it was impossible not to be reminded of the 1960 CB 750 Four when admiring the new CB 1100's chrome mudguards, clean lines and fake engine-cooling fins.



The concept puts a smile on the face of Pascal Meyerhans, the man responsible for the Swiss market at the stand next door: "At Triumph, vintage is our stock-in-trade. The various versions of the Bonneville account for 20% of our sales." Affectionately nicknamed the "Bonnie," the Bonneville was the English brand's flagship model from 1959 to 1988. Reintroduced with a modern facelift in 2000, it immediately found a place in bikers' hearts again. That success has inspired BMW. Next autumn, to celebrate its 90th anniversary, the German brand will unveil the Nine-T, a new-retro bike fitted with its famous two-cylinder Boxer engine.

"These models offer customers in the 50-60 age bracket the chance to rediscover the bikes of their youth," says Roland Fuchs, Media Manager at Motosuisse, the Swiss association for manufacturers, wholesalers and importers of motorcycles and scooters. "But these bikes are also reasonably priced and easy to ride. So they appeal to women and young riders, too, even if they are not familiar with the original models. Throw in the growing fear of speed cameras, which is encouraging people to ride more slowly, and I am convinced that bikes like this are a trend in the making."

New-retro motorcycles are proving a success for three reasons: Bikers are reducing their speed, they want to treat themselves, and they want to be seen. "Buying a bike like this is the antithesis of low-cost," says Pascal Meyerhans from Triumph. "For the buyers, these bikes are like works of art, embodying their cool attitude." Of course, these bikers also seek to express that attitude through the gear they wear. Some brands have made accessories their raison d'être, Ruby helmets and Helston leathers being prime examples. "Accessories were unquestionably the most frequently tested items on our

stand at the Zurich show," notes Thierry Guizzardi, founder of ZZ Racing. This is a cause for celebration for the importer, which recently took over distribution for the brand's products in Switzerland. "With their affordable prices, quality leather and unique style, these accessories are a great addition to our range for customers with custom bikes or vintage or new-retro models."

Bikers are reducing their speed, they want to treat themselves, and they want to be seen.

In Montagny-près-Yverdon, Jean-François Mermoud has been selling Ruby helmets for a few months now. Operating under the name GNV Classic Motors, he has specialized in Harley-Davidsons and vintage English models for the last thirty years. Despite the success of the new-retro trend, he has not seen a resurgence in interest in genuinely old bikes. "They are still very much the preserve of specialists and collectors. The youngsters are scared of the kick."

After all, the concept "new-retro" does contain the word "new". While buyers of these bikes appreciate the nod they make to the past, they have no desire to struggle with a kick or come home from a ride with their boots full of oil. Consequently, manufacturers are working miracles to conceal modern technology under an old-style exterior. The Honda CB 1100, for instance, is equipped with ABS brakes, while the carburetors on the Triumphs are fake and actually conceal fuel injectors. So today's buyers can enjoy the best of both worlds. ▲

The Triumph Bonneville SE, descendent of the "Bonnie" launched in 1959. About \$11,000



The Honda CB 1100, heir to the 1969 CB 750 Four. About \$13,000





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TRAVEL

Ahhh, wilderness!

Want a holiday that combines the ruggedness of the great outdoors with the comforts of a chic hotel? We look at five out-of-the-ordinary and charming locations that fit the bill perfectly.

By Salomé Kiner

Outdoor holidays have become the hot upscale getaway, with well-off tourists increasingly seeking to escape the urban grind and burnish their eco-chic bona fides at the same time. But old-school camping won't cut it for this new class of

traveler, for whom tents are mostly a turn-off and indoor plumbing simply nonnegotiable.

Luckily, it's now possible to enjoy the wonders of nature without having to put up with gas stoves and mosqui-

toes. The solution is glamping, an update on camping that emphasizes style and quality. If you dream of playing Robinson Crusoe, but with creature comforts thrown in, then one of these holiday locations could be for you. ▀

Attrap'Rêves

SLEEP BENEATH
THE MILKY WAY

With its “bubble cocoons” dotted among the pines, Attrap'Rêves reinvents the concept of a night beneath the stars. This French family-run business has designed stylish transparent bubbles, four meters wide by three meters high, to offer an unobstructed view of the night sky. Located on private estates in the Var and Verdon nature reserves, the bubbles are made entirely from recycled materials and come in five decors: Chic & Stylish, Zen, 1001 Nights, Glamour and Nature. Each bubble is accessible only to its occupants and has private bathroom facilities. The only thing likely to disturb your peace is a passing rabbit or squirrel.

Astronomy buffs can indulge their passion using the professional telescope and star chart provided.

“Most of our guests are couples, but spare beds are provided for children,” say the owners. To add to the heavenly atmosphere, Attrap'Rêves also offers an all-inclusive romantic package for couples, featuring a massage service and champagne. Book a week in advance.

Address:

Allauch Region, France

Website: www.attrap-reves.com

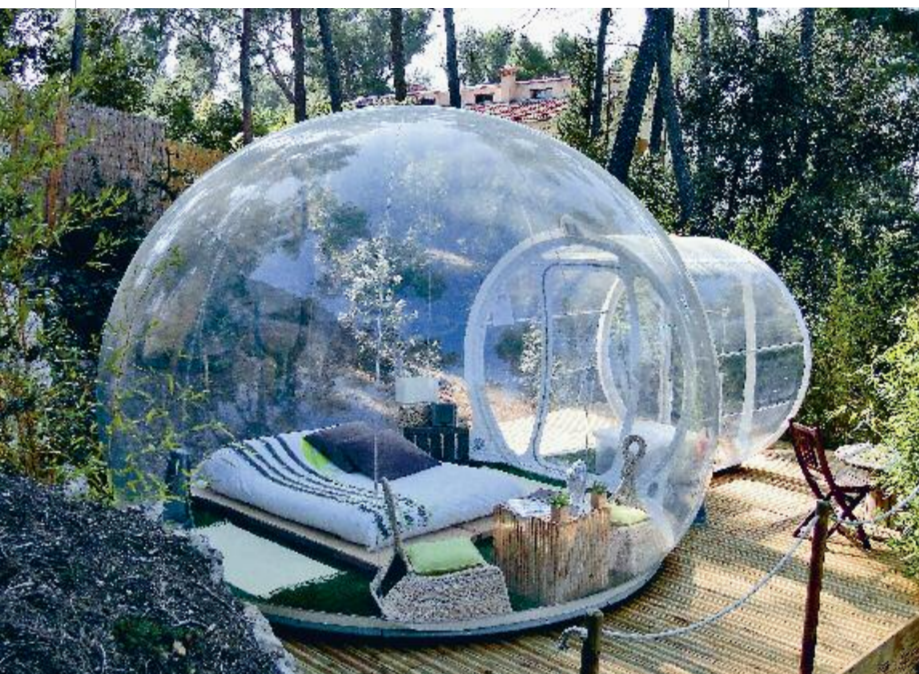
Tel: +33 4 91 72 10 89

Rates: about \$130 to \$650 per night for 2

Open: February to November



FREDERIX BRONKH, HUMAN SPECTRA



ATTRAP'RÊVES

Going glamping

The term glamping—glamour plus camping—was coined in the UK. Glamping is the outdoor tourism industry's response to demand from an environmentally aware clientele looking to combine luxury and nature, comfort and authenticity. There is something for everyone, be it transparent bubbles, huts, yurts, lodges or vintage trailers.

Find more glamping ideas and locations at www.goglamping.net and <http://www.glampinggirl.com>

Treehotel

CONTEMPORARY
CABINS

A world leader in stylish design and green credentials, Sweden wins hands-down for seamlessly integrating contemporary aesthetics into a wild and unspoiled natural environment. At the northern tip of the country, 100 km or so from Lulea airport, Treehotel boasts five separate lodgings, each perched in a tree five meters above ground and able to house up to 17 people. These contemporary cabins, one of which has a sauna, were created by top Scandinavian designers. They are remarkably inventive and combine refinement with architectural prowess. In summer, the site is bathed in the magical glow of the Northern Lights. Visitors come to fish and enjoy the absolute silence, usher in the spring with a mountain-biking holiday, ride the rapids in a kayak or venture deep into the forest on horseback.

Address:
Harads, Sweden
Website:
www.treehotel.se
Tel:
+469 281 04 03
Rates:
about \$650
per night for 2,
breakfast included
Open:
All year



PETER LUNDSTRÖM



GRENVILLE TURNER

Wilson Island Resort

ROMANTIC ISLAND GETAWAY

Located on an atoll in the middle of the Great Barrier Reef, cut off from the world and the tourist hordes, Wilson Island Resort offers an idyllic glamping experience. Six stylish tents with a safari feel, equipped with hammocks and patios, house a total of only 12 tourists for a romantic stay on this coral island, a must-see destination for divers. With

sunshine all year round, turquoise waters, white sand and sea turtles, the island is a dream beach destination.

Address:

Wilson Island, Australia

Website: www.wilsonisland.com

Tel: +613 9426 7550

Rates: about \$1,100 for 2 (including meals and transfer to the island)

Open: all year except February

Whitepod Resort

LUXURIOUS "IGLOO HOTELS" IN THE MOUNTAINS

Address: Les Giettes, Switzerland

Website: www.whitepod.com

Tel: +41 24 471 38 38

Rates: In summer, about \$290 to \$350 per pod (up to 4 people), breakfast included

Open: June through March

This year, for the first time, the Whitepod Resort is open in summer. Perched at 1,700 m, beneath the Dents-du-Midi mountain range, this village of igloo-like tents lets guests get away from it all in style, far from the commotion of nearby ski resorts. With a wood-burning stove, vintage furniture, private bathroom, WiFi and beautiful bedding in each igloo, Whitepod is both luxurious and environmentally friendly.



CASCADA EXPEDICIONES

Address: Torres del Paine national park, Chile

Website: www.ecocamp.travel

Tel: +56 2 2923 5950

Rates: excursion and accommodation from \$1,300 per person (excluding flights)

Open: September to June, reservations accepted all year



EcoCamp Patagonia

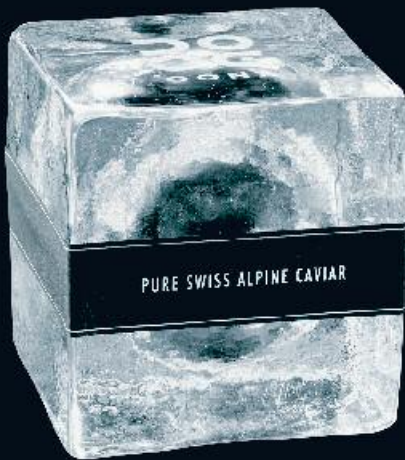
GLAMPING FOR JOCKS

Well-known in the small world of glamping excursions and very popular with trekkers and adventurers, EcoCamp is located in Chile's Torres del Paine national park, which has won numerous awards for its environmental policy. The camp attracts an average of 1,500 visitors a year to its 25 domes inspired by the huts of the native Kawesqar Indians. Gemma

Dunn, public relations manager at Cascada Expediciones, emphasizes the site's proximity to the granite peaks for which Torres del Paine is renowned: "The nearest hotels are a twenty-minute walk away, and EcoCamp is the accommodation closest to the natural sights. Its isolated location allows guests to enjoy the full benefits of the park's tranquil, unspoiled environment."

Six excursions are available to campers, some including nights spent in a bivouac away from the site. Trekkers who return to the EcoCamp every night can choose from three levels of comfort, though all the domes have heating, a private bathroom and a waste recycling system. Conscientious adventurers will appreciate EcoCamp's green credentials. Dismantled each winter, it leaves no environmental footprint.

SHOP



Switzerland's black gold

Believe it or not, caviar is a Swiss specialty. Since 2005, Oona has been breeding Siberian sturgeon deep beneath the pure mountain waters of Frutigen in the Bernese Alps. The precious eggs are packaged in elegant, semi-transparent cases shaped like ice cubes.

www.oona-suisse.ch

About \$150



On the (cutting) edge of your seat

With a metal frame upholstered in red leather and retractable trays in the armrests, the Swiss Army Knife chair was directly inspired by the legendary tool. Designed by French artist Fabrice Hyber, the chair is available at Domeau & Perès, but hurry—only 8 models exist.

www.domeauperes.com

About \$36,900

Cigars from space

Bruno Fectay and Carine Bidaut, two meteorite hunters from the Jura region of France, have designed a cigar made with dust from outer-space rocks. Bound with a platinum-covered ring, the bundle of 77 extraterrestrial cigars is presented in watertight, numbered and certified boxes.

www.eranova.pro

About \$1,000



In pole position

In 2013, luxury watchmaker IWC is celebrating its partnership with the Mercedes AMG Petronas Formula One Team by revisiting its flagship model, the Ingenieur Automatic Carbon Performance timepiece. Instantly recognizable by its sporty lines and black carbon case trimmed in yellow or red, the watch's design and mechanism reflect the world of Formula One racing.

www.iwc.com

About \$25,500



Back to the future

Baume & Mercier unveiled a new collection featuring a stylish retro look at Geneva's International Fine Watchmaking Exhibition. With a typically 1950s design that references the company's landmark models, the Clifton line will find fans among sophisticated watch lovers.

www.baume-et-mercier.com

About \$2,500



The haka and the crocodile

In readiness for the next Six Nations Rugby Tournament, fans are invading the pitch and scrumming down to grab the ball. There's no question of letting this ultra-chic trophy, with its wide yellow, white and silver stripes and Lacoste Live logo, fall into the opponent's hands.

www.lacoste.com

About \$80



Stark contrast

Parrot has teamed up with Philippe Starck to design Zik, a wireless headphone set that can be used not only to listen to music but also to make phone calls from a built-in microphone. With its stylish looks and ultra-intuitive touch controls, Zik

completely insulates the user from outside noise.

www.parrot.com

About \$430



Ready, aim...

Fire up dull desk work with Bang!, the new lamp designed by Taiwan company Bitplay that's operated by a gun-shaped remote control. Pull the trigger to turn off the light and the lampshade tips over as if felled by a bullet. Shoot again and the light goes on while the shade rises slowly back up.

www.bitplayinc.com

About \$330

SHOP

WRITING WITH STYLE



Your lucky day

To mark the Year of the Snake, Caran d'Ache has created a luxurious writing instrument in black Chinese lacquer decorated with a gold-plated serpent. Meticulously carved and enhanced with gold plating, the model exists in a limited edition of 888 (the number eight signifies luck in Chinese culture).

www.carandache.com

About \$2,500



A gem of a writing tool

The elegant Intuition Platino from German brand Faber-Castell delivers maximum pleasure with a minimalist design. The ebony barrel is delicately encrusted with oxalic acid crystals; the nib is two-toned 18-carat gold with an iridium tip and the metal cap is platinum-plated.

www.faber-castell.com

About \$840

Holy pen, Batman!

Produced by the Venetian firm Monegrappa in aluminium with a black anodized finish, the Batman pen is the essential accessory for your Caped Crusader outfit. Engraved with flying bats, this collector's piece features an 18-carat gold nib. The Joker will be so jealous.

www.monegrappa.com

About \$2,850



Body beautiful

The Laserflex P'3115 writing instrument by Porsche Design features a precision laser-cut stainless steel body with sleek lines. Not only that, it boasts an extraordinary mechanism that makes the barrel completely flexible, with laser-cut slots that retract and release. It's hardly surprising that the Laserflex P'3115 was named "Product of the Year" at the Paperworld 2013 international trade fair.

www.porsche-design.com

About \$480





Crown

Royal headgear or watch winder?

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Crown | The winding crown is a knurled or fluted button of various shapes, held between the thumb and forefinger and used to wind the watch. Some crowns incorporate a mobile pushbutton for operating a chronograph mechanism or to release the cover of a hunter case.

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In each issue of Swissquote Magazine, an artist describes his or her creative process. This month, we feature performance artist San Keller.

“Every fellow citizen is my assistant”

By Sylvain Menétrey

How can you tell if one of your ideas is good?

I don't have any good ideas. I make decisions.

For example?

The decision to turn my parents' apartment into the San Keller Museum, drawing on 38 years of educational and relationship building activities. Roles were exchanged and my parents became the collectors Marianne and Fritz Keller. The apartment building, which dates from the early '70s, can ultimately be compared to the architecture of the Paul Klee Center. Children's drawings become unique and precious works...it's well worth a visit!

In what context are your creative ideas conceived?

For me art is all about communication, so my works evolve through interaction with other people.

With what kind of people do you like to interact?

Well, I am currently looking for someone capable of convincing me of some ideology, for example, liberalism as it was spread in the mid-19th century.

Do you have any assistants?

Every fellow citizen is my assistant, and I am theirs.

What are your sources of inspiration?

A Bernese meat platter and a bottle of Beaujolais.

How do you hold onto your ideas?

Forgetting is much more important to me than holding on. If you prefer, you can also replace the word “forgetting” with “transience.”



NELS KLINGER

Bernese artist San Keller has become internationally successful through his performative and participatory actions, blurring the boundaries between art and life with humor and poetry. In the 1990s, the German public glimpsed him sleeping on the floor of the set of their daily news program. In 2010 he invited spectators at Germany's Fridericianum museum to be present at all the preparatory stages of his exhibition, starting from his very first contact with the curator.

You don't use a notebook then? Nothing is recorded?

Well, the 5,895 photographs on my mobile phone, taken between 16/06/2008 and 16/06/2010, are for sale. The buyer is free to make a selection!

Are you a reflective or a spontaneous person?

There should be a productive interrelation between reflection and spontaneity.

What is constantly repeated in your work and what is regenerated?

The driving force behind my work is the assumption that the fundamental questions we have been asking about human existence may have been wrong. So I look for answers in everyday actions and in our cultural behavior.

You mean metaphysical questions?

If I give an incorrect answer to an incorrect question, then... ▲

PANERAI.COM



Mediterranean Sea.
"Gamma" men in training.
The diver emerging from the water
is wearing a Panerai compass on his wrist.

HISTORY AND **HEROES.**

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