

Exceptional

Entrepreneurship + Innovation = Growth
July–December 2015

Scaffolding to success

The remarkable story of the EY World Entrepreneur Of The Year™ 2015, Mohed Altrad – the Bedouin who became a billionaire in France

Eataly's Oscar Farinetti is on a mission to bring regional Italian food and drink to the world

How entrepreneurs are powering the electric vehicle industry

Dr. Ata Atmar of Bateel on selling dates with a difference

The EY logo consists of the letters 'EY' in a bold, white, sans-serif font. The 'E' and 'Y' are connected at the top. A yellow diagonal line is positioned above the 'Y'.

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■ ■ ■ ■ ■
The better the question. The better the answer.
The better the world works.


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Exceptional is an award-winning magazine for and about entrepreneurs and fast-growth companies.

“Not surprisingly, many of the most innovative start-ups today operate in the tech sphere.”



There's a new breed of entrepreneur emerging across the world. Thinkers, innovators and, most importantly, doers, these entrepreneurs are younger, tech-savvy and beginning new ventures by applying their energy and talent to build a better world.

Take Mate Rimac, the 27-year-old engineering genius whose company, based in a tiny village in northern Croatia, is developing a high-performance electric supercar to rival the likes of Ferrari and Lamborghini. In the process, he hopes to dispel the myth that electric vehicles deliver worse performance than those that use fossil fuels. His story is part of a special section on the electric vehicle sector that also features ubitricity, a Berlin-based start-up that is turning lampposts into charging stations for electric cars.

Then there's Ping Fu, founder of Geomagic, whose innovative 3D-printing software is used to make everything from heart valves to turbine machinery. Having built the company up, she sold it to 3D Systems, where she still works today, finding new uses for this cutting-edge technology.

Not surprisingly, many of the most innovative start-ups today operate in the tech sphere, and in our tech start-ups feature, we meet a number of them and find out how they're turning bright ideas into sustainable businesses. We also examine why the world of connected devices known as the Internet of Things is particularly suited to small, nimble companies.

In this issue, we celebrate the success of Mohed Altrad, EY World Entrepreneur Of The Year™ 2015 Award winner. He has risen above adversity on a remarkable journey that has taken him from the Syrian desert, where he was born into a Bedouin tribe, to France, then to Abu Dhabi and back to France. It was there, in 1985, that he bought a near-bankrupt scaffolding company and transformed it into a business with 170 subsidiaries around the world and annual revenues of more than US\$2b.

Elsewhere, we shine a spotlight on the influence of entrepreneurial passion on success. Oscar Farinetti, through his Eataly chain, is exporting the best regional Italian delicacies around the world, while Dr. Ata Atmar has built Bateel into a luxury brand from the unpromising starting point of a Middle Eastern staple food, the date. Bateel's and Eataly's stories are further proof that innovative ideas can come in many forms.

There are so many great features in this issue, all with their own inspiring stories and tips. I hope you enjoy reading *Exceptional*.

Demet Ozdemir

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Exceptional

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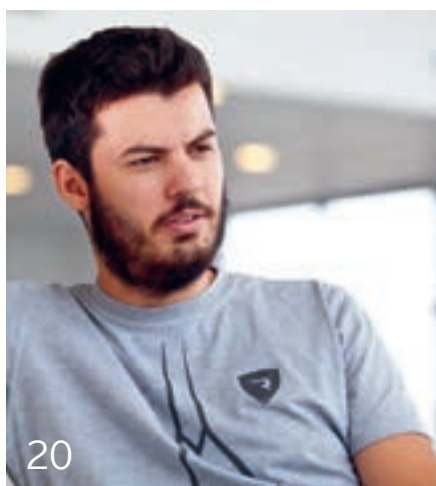
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Kate Robertson, cofounder of One Young World, believes they can.

50%

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“I’m proud to be competing with companies that have budgets thousands of times ours.”

Mate Rimac, CEO, Rimac Automobili (page 20)

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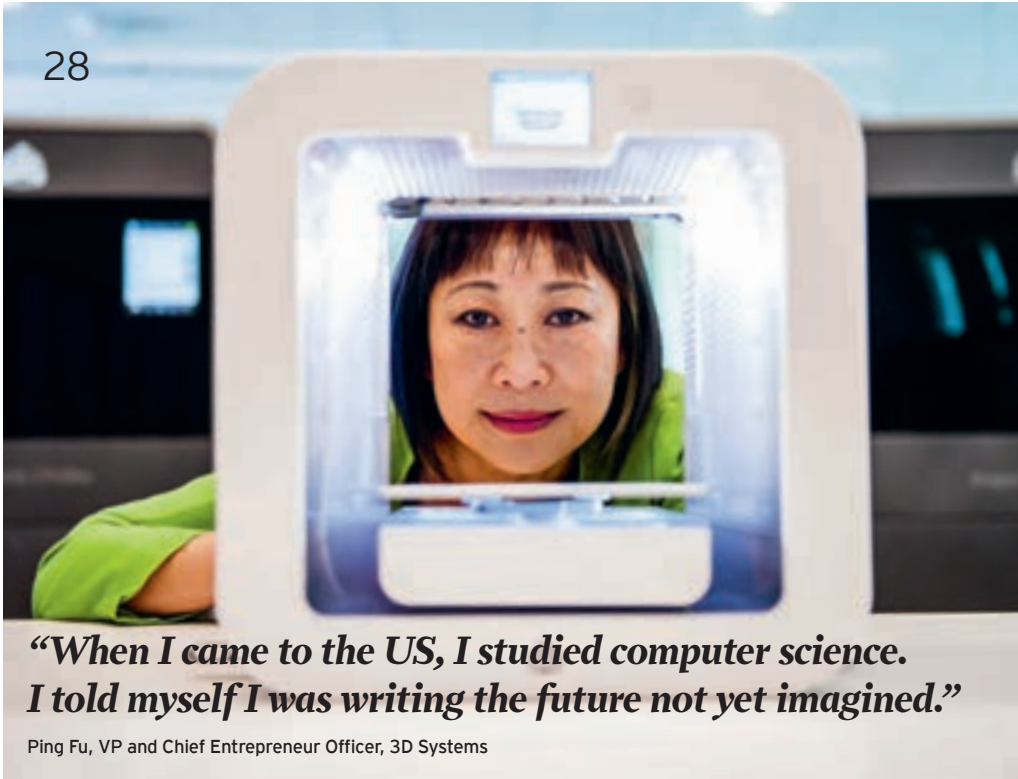
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Inspiration

Ideas, facts and figures from the world of business



Business pioneers: Ingvar Kamprad

The founder of IKEA was an entrepreneur from the age of 5.

Today, IKEA has more than 300 stores in 28 countries, and the firm's affordable but stylish, ready-to-assemble furniture adorns millions of homes around the world.

The origin of the company that commercialized Scandinavian style is a classic entrepreneur's tale. Ingvar Kamprad grew up on his family's farm in southern

Sweden and did his first deal aged 5, when he bulk-bought boxes of matches from an aunt in Stockholm and sold them individually at a modest markup.

He founded IKEA in 1943, aged 17; the name is made up of his initials plus the E from Elmtaryd (the farm) and the A from Agunnaryd (the local village). Initially he sold a range of goods by

mail order, adding furniture to his offering five years later. In 1952 he opened a showroom in the nearest town, Älmhult. As he said later: "At that moment, the basis of the modern IKEA concept was created: first and foremost, use a catalog to tempt people to come to an exhibition, which today is our store."

But the innovation for which IKEA is best known came in 1956. The story goes that one of the company's draftsmen was struggling to load a table into the back of his car and ended up removing the legs – and the multibillion-dollar flatpack furniture industry was born.

IKEA grew quickly: the first store outside Sweden opened in 1963, and in the 1970s it expanded around the world, becoming one of Sweden's most successful and best-known companies in the process.

Kamprad himself – now 89 and one of the richest people in the world – is legendary for his frugality; he is said to recycle teabags and to stockpile packets of salt and pepper taken from restaurants. This is echoed in IKEA's corporate philosophy, with its emphasis on low prices, sustainability and continuous product development. It has proved to be a winning formula.

DID YOU KNOW?

Every branch of IKEA has a children's play area called Småland – the name of the province where Kamprad grew up, and also Swedish for "small lands."

Lip service Steve Jobs



“Your work is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do.”

(Entrepreneur and inventor, 1955–2011)

Snapshot Doing well by doing good for youth

How entrepreneurs are helping to address the issue of youth unemployment.

34% of entrepreneurs are mentoring young people, rising to **58%** in Sub-Saharan Africa



41% are providing internships and apprenticeships for young people, peaking at **61%** in China



33% work with local schools to match the needs of their business, peaking at **50%** in China



26% are providing guidance and advice to young people on how to enter the workplace, rising to **44%** in Sub-Saharan Africa



22% are interviewing or recruiting a set percentage of unemployed young people

Source: EY global job creation and youth entrepreneurship survey 2015. ey.com/thecenter

How do you say ... in formal Japanese?

English	Japanese	Phonetic
Hello	今日は	Konnichiwa
How are you?	お元気ですか?	O genki desu ka
Thank you	どうもありがとう	Dōmo arigatō
I don't speak Japanese	日本語を話せません	Nihongo o hanasemasen
I'm fine, thanks. And you?	はい、元気です。あなたは?	Hai, genki desu. Anata wa?
Sorry, I didn't understand that	すみません。分かりませんでした	Sumimasen. Wakarimasen deshita

Source: omniglot.com

Book club



How to Fly a Horse: The Secret History of Creation, Invention and Discovery
Kevin Ashton (William Heinemann, 2015)

If you've been holding on to the idea of the "Eureka!" moment, Kevin Ashton wants you to think again. He's made it his mission to bust the myth of the creative genius.

Ashton believes creating isn't a magical, instantaneous occurrence: "Ideas are like seeds: they are abundant, and most of them never grow into anything." Instead, true creation is the result of hard work and unfettered collaboration. He cites the Wright brothers: they weren't the first people to conceive of a flying machine or even to build one. But through trial and error, they were the first to fly in one.

Ashton uses this and other modern and historical examples to illustrate his central thesis: that a "small, isolated, highly motivated group is the best kind of team for creation."

DID YOU KNOW?

There will be an estimated 5 billion connected devices by the end of 2015, and the Internet of Things market is worth an estimated US\$655b.

▶ See feature, page 26

The Bedouin who built a business empire

Mohed Altrad escaped a nomadic life in the Syrian desert to create a building equipment empire that is now worth billions. His incredible story demonstrates what can be achieved with a combination of tenacity and an instinct for business.

words Dominic Midgley_ portrait Laura Stevens



Few billionaires can claim to have experienced as radical a change in fortunes as Mohed Altrad. His entrepreneurial instincts helped him create a scaffolding and building equipment business with a turnover of €1.8b (a little over US\$2b) that employs 17,000 people in 170 countries.

Altrad's beginnings were unpromising, to say the least. Born into a Syrian tribe of Bedouin nomads, he was brought up in the margins of the community. After his mother died when he was 4, his position became even more desperate.

The grandmother who took him in believed shepherds had no need of books and refused to allow him to attend school. Eventually, though, the young Altrad realized that education was a vital passport to a better life – he would trudge for an hour through the desert to spy on what was going on in the classroom through a hole in the wall. A kindly teacher spotted him and allowed him to sit in on lessons, but he still had no money for pencils and books. It was only when his father gave him a bicycle that his luck changed.

"It's strange, because I hated my father and that was the only kind thing he ever did for me," Altrad recalls. "I was the poorest guy in the class, with a *djellabah* [traditional Arab robe] that was half destroyed and no shoes, but once I had that bicycle, I hired it out to my classmates and collected some pennies to buy pencils, books and so on. That was my first business."

A jar of sand

Today, Altrad lives in a grand mansion in the center of the southern French city of Montpellier. The red pin he wears proudly in his lapel symbolizes his membership in the Légion d'Honneur, France's highest honor, but he keeps a small jar of desert sand as a reminder of his roots. The circumstances of his birth mean he can't be sure in which year he was born – he has chosen 1948 – and his children



Mohed Altrad bought Montpellier's struggling rugby union club in 2011 in response to an appeal from the Mayor. He now attends every home game.

“Why did I buy the rugby club? Because I thought I had to give something back to a country that has been so good to me.”

picked a date out of a hat – 9 March – so he would have a birthday to celebrate.

What we do know for certain is that he arrived in France on a cold, wet day in November 1969 to study physics and math at the University of Montpellier. This was after earning a baccalaureate at the university in Raqqa, then Syria's sixth largest city, and winning a scholarship to study abroad. He could understand less than 10% of what the

A sense of purpose

Mohed Altrad fended off the challenge of 64 other finalists from 53 countries to take the title of EY World Entrepreneur Of The Year 2015 at a ceremony in Monaco on 6 June.

Accepting the award in the Salle des Étoiles at Sporting Monte-Carlo, Altrad said: "I'm so honored to receive this prestigious award, especially as there was strong competition from such outstanding entrepreneurs around the world. I want to dedicate this award to everyone, as the objective of life is to help humanity. My story should tell anyone that you can change your destiny."

Rebecca MacDonald, founder and Executive Chair of Just Energy Group and Chair of the judging panel, described the decision to award the title to Altrad as "tough, but ultimately unanimous."

She added: "Mohed has built a hugely successful, fast-growing international business, having overcome a humble and very challenging upbringing. The judges were impressed by his ability to build and sustain growth over 30 years, and by his humility and character."

Maria Pinelli, EY's Global Vice Chair - Strategic Growth Markets, also paid tribute to the winner, saying: "Mohed is an inspirational entrepreneur who demonstrates that determination and perseverance can overcome adversity. He has grown his businesses consistently over a long period of time and is now a beacon for other entrepreneurs in France and beyond to follow."

Citing Altrad's "tenacity and sense of purpose," Mark Weinberger, Global Chairman and CEO of EY, concluded: "Entrepreneurs are a crucial engine of economic recovery and job growth. Mohed is a truly inspiring World Entrepreneur Of The Year winner."

"I want to dedicate this award to everyone, as the objective of life is to help humanity. My story should tell anyone that you can change your destiny."



Altrad and his wife in Monaco, where he received the EY World Entrepreneur Of The Year 2015 Award in June.

lecturers said, but his French improved enough for him to go on to study for a PhD in computer science in Paris. In the meantime, he had met and married a French fellow student.

He combined his studies with work for first Alcatel and then Thomson (now Thales), but Altrad was never really cut out for life as a company man. "To be honest, I didn't like being an employee," he says. "Bedouins are free. They move whenever they like. They just fold up their carpet and their tent, put it on the back of a camel and move to find another place where there is grass for the animals to eat." ►

A novel sideline



There are not many captains of industry who combine entrepreneurial flair with literary talent, but Mohamed Altrad is one. He has written three highly regarded books, the best known of which is his first, called

simply *Badawi* ("Bedouin" in English). Published in 1994 and revised in 2002, it is largely autobiographical. *Badawi* is much more than a straightforward celebration of rags-to-riches success, though. It also explores the pain of being caught between two very different worlds.

The novel was well-received by critics and was awarded a literary prize in 2003. Three years ago, it was endorsed by the Academy of Montpellier, which recommended that *Badawi* be put on the curriculum in regional schools.

"It's a true piece of literature," says Françoise Nyssen, Director of Altrad's publisher, Actes Sud. "He's smart enough to realize that life is about something deeper than just making money and modest enough to know that literary success can't be bought."

Altrad says he does most of his writing in the early hours, when he can't sleep. "Sometimes life is difficult," he says. "Some people do sports, make love or drink. I need to write." He is currently working on his fourth novel.

1 franc

Symbolic amount paid by Mohamed Altrad and his business partner to acquire loss-making scaffolding company Mefran – the foundation on which Altrad Group was built

€1.8b

Annual turnover of Altrad Group

170

Total number of subsidiaries of Altrad Group worldwide

► He enjoyed a four-year stint back in the Middle East working for the Abu Dhabi National Oil Company, but when his first son was old enough to go to school, his wife wanted them to return to France. It was while they were staying at their holiday home in the village of Florensac near Montpellier that he had the encounter that was to change the course of his life.

"A neighbor asked if I was interested in buying a bankrupt scaffolding company," Altrad recalls. By this time he was modestly wealthy, having made a quick return on a portable computer business he had launched with a friend on his return to France. "This was the first time I'd heard the word scaffolding – *échafaudage* in French – and I was curious. So I went to see this company and fairly quickly had a good feeling about it. Scaffolding is used in such a wide range of businesses that I thought, 'This is a huge thing,' so I went for it."

The company, Mefran, had 200 employees and was losing the equivalent of hundreds of thousands of euros a year, so Altrad and his then-partner paid a symbolic one franc for its factory and assumed a range of





Altrad at his mansion
in Montpellier

Portrait Laura Stevens/Forbes Collection/Corbis Outline

liabilities amounting to around €700,000 (a little under US\$800,000). A rigorous cost-cutting campaign and the extension of incentive-based pay schemes soon paid off.

"The company was profitable at the end of the first year," he says, "and that profit was invested in an affiliate in Italy. With the money generated by the French and Italian companies we bought another company, and then another, and so on. In March this year, we bought our main competitor in Europe, Hertel, a Dutch company with 70 affiliates, so we now have 170."

Company charter

Integrating two large international groups is never easy, but Altrad is better equipped than most, thanks to his revolutionary company charter. When he first got involved in the scaffolding business, he swiftly realized that in a market involving such a basic core product, the way to gain a competitive advantage was by motivating the workforce.

"If your employees are happy, they are more efficient," he says. "I started writing down my ideas about this 30 years back. Then they were just short notes. These were

used as material for a discussion and then it became a small book. Now it's a proper charter running to hundreds of pages."

Having almost doubled Altrad Group's revenues through the acquisition of Hertel, the CEO now has his sights set on North and South America. Since the group's US operation

"To be honest, I didn't like being an employee. Bedouins are free. They move whenever they like."

turns over just US\$10m and its presence in South America is "marginal," he believes the potential for expansion in the region is huge.

Meanwhile, one of Altrad's more unusual diversifications has been his acquisition of the ailing local rugby union club, Montpellier Hérault Rugby. "Why did I do it?" he says. "Because I thought I had to give back something to a country that has been so good to me." ■

Entrepreneurship rising



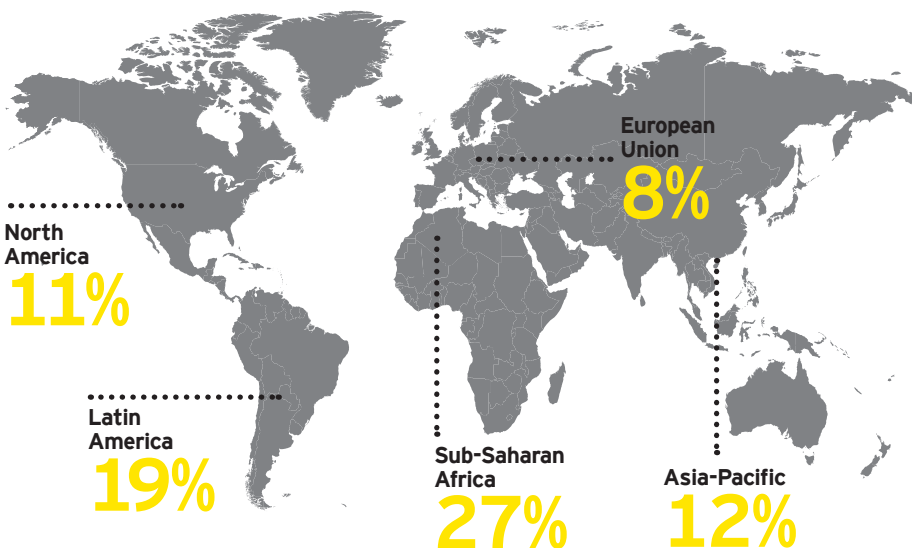
High-impact entrepreneurship has become an essential driver of economic expansion in rapid-growth markets, even as the nature of entrepreneurs themselves, and the enterprises they start, is changing. We look at the latest trends in entrepreneurship around the world.

words Uschi Schreiber, Global Vice Chair – Markets, and Chair – Global Accounts Committee, EY

Where are they and why?

Distribution: from necessity to opportunity

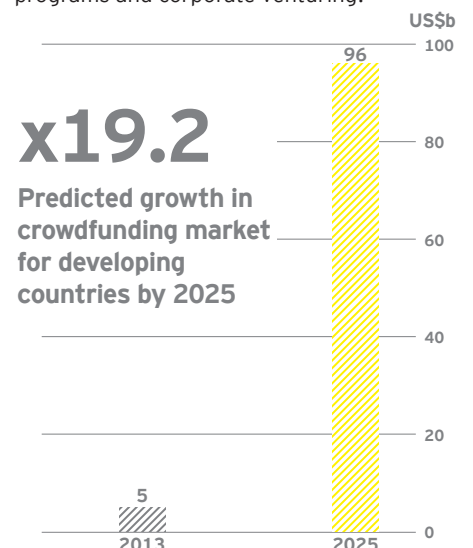
Expect to see more innovative start-ups in rapid-growth markets (RGMs) driven by opportunity rather than necessity.¹



Average total early-stage entrepreneurial activity rate in 2013

Funding: alternatives abound

New funding options available include crowdfunding and microfinance, credit guarantee schemes, government start-up programs and corporate venturing.²



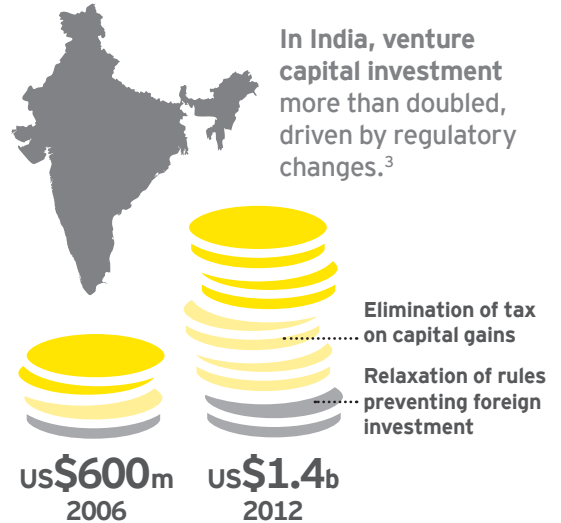
Support: entrepreneurial culture needed

Five pillars in the ideal entrepreneurial environment



Developed →
Emerging →

The developed economies are ahead of emerging markets in these areas, but RGMs are beginning to address this.



What do they look like?

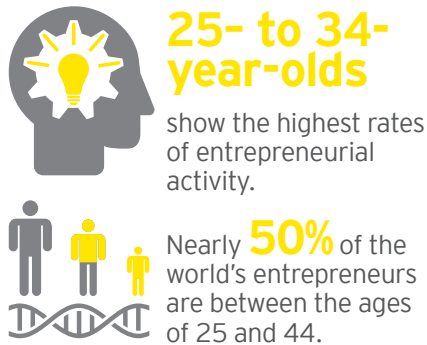
Gender balance: the female factor

Women's entrepreneurial ventures are an increasingly important source of new jobs.⁴



Age: bright sparks

The number of young entrepreneurs is growing.⁵



Causes?

- ▶ Continuing high rates of youth unemployment
- ▶ Decaying social contract between employers and employees
- ▶ Changing work and lifestyle preferences
- ▶ The boom in entrepreneurial education

How are they doing?

Disruptive influences: making an impact

In mature markets, numerous start-ups are scaling and taking off, disrupting industries or creating new ones – think Google, Facebook, Virgin Airlines and GoPro.



EY World Entrepreneur Of The Year 2015 contenders employ **more than 334,000** people around the world.

42% Combined revenue growth over a three-year period (2011-14)

48% Increased number of workforce between 2011 and 2014

12% Average annual revenue growth rate delivered



RGMs are now starting to see high-impact entrepreneurs due to growing consumer power and opportunities for innovation.

More information

To read more about entrepreneurship rising and the five other megatrends for 2015 that EY has identified, go to ey.com/megatrends.

Dates with a difference

How do you turn the humble date into a global gourmet brand? Dr. Ata Atmar explains the secret of Bateel's phenomenal growth.

words Peter Shaw-Smith_ portrait Siddharth Siva

Jumeirah Beach Road is one of Dubai's most elegant avenues. Among its swish villas, malls and boutiques, Town Centre is one of the more understated shopping addresses. Upstairs, Café Bateel is bustling with mid-morning activity as a waitress brings coffee and the company's Managing Director, Dr. Ata Atmar, settles down to tell the story of how he created a luxury brand.

A life-size replica camel and a luxury car adorn the entrance to a neighboring restaurant. The elegant chairs and tables in the company's signature green and brown colors set the tone of Café Bateel's overall ambience, which also extends into the surrounding outdoor seating area. The shelves carry an abundance of freshly baked cakes, chocolates, croissants and, most importantly, Bateel's dates.

These are no ordinary dates, though. In addition to plain dates in a variety of shapes and sizes, there are dates filled with roasted or caramelized nuts, or, for more exotic flavor fusions, with candied ginger, lemon or orange peel. There are dates coated in Belgian chocolate, not to mention date cookies, date jams and even date mustard. Everything is beautifully packaged, making the products ideal gifts for feasts and holidays.

Bateel's owner, Ziad Al Sudairi, spent the 1980s building up property, automotive and other businesses under the umbrella of his investment vehicle, Badrahn Enterprise. Atmar had arrived in Saudi Arabia in 1983 to work as a consultant to the finance ministry and the private sector, and in 1989, Al Sudairi asked him to help build Bateel ▶





“When you have a premium brand, you have to be premium in all aspects.”



Café Bateel at DIFC in Dubai



What's in a name?

The company's name reflects its aspiration to be an international brand from the outset. "Once we decided we wanted to create a market for dates, we thought about a name for the business," Atmar explains. "The company producing the dates was called Al Fakhra, but we realized that someone in India or China or Japan would not be able to pronounce that."

Fortunately, Arabic is a rich language that "has so many names for everything," as Atmar points out. Every year, shoots that can be cut and used to grow new date trees come out in bloom, and Ziad Al Sudairi learned that the Arabic name for these young tree branches is "bateel."

"It is simple to pronounce for people from all over the world," Atmar says. "From the very beginning, we didn't think we would be limited to the Middle East."

Atmar realized Bateel's potential about 10 years ago. "It was a homegrown brand with international standing that everybody could relate to," he says, "so I slowly gave up my other jobs. Now, I am fully devoted to this one."

As the business grew, Bateel decided to branch out. "Once you have a luxury shop, you cannot survive on dates alone," Atmar says. Today, dates make up a quarter of the business, but Bateel is also moving into other gourmet products like chocolate, cakes and fine dining. It sources pasta from Italy, all the ingredients for its bread and croissants come from France, and it selects products from seven coffee companies. The policy is to supply boutique stores, which operate on a franchise model, with in-house

and devise a strategy to market dates – a standard commodity in supermarkets – as a premium product.

Atmar, who is now 65, was born in Afghanistan but left at the age of 16. He spent the next 20 years of his life in the US, initially studying economics and gaining a PhD from Clark University in Massachusetts. He became a Professor of Economics at Stonehill College near Boston and married an Irish-Italian woman from that city. "I am an economist," he says. "I became a businessman in the course of developing the Bateel brand. Economics is a profession where you can apply the basic principles to any business."

Branching out

Dates grown in Saudi Arabia are of very high quality. Although there are more than 400 established date varieties in the kingdom, Bateel grows only 20 of the finest at its farm in Al Ghat, 250km north of Riyadh.

Bateel established its first "gourmet boutique" in the Saudi capital. As it grew, the company opened outlets in 15 countries around the world, from Jakarta to London. In 2007, it opened its first café in Dubai, followed by several more in the UAE and one in Saudi Arabia. Today, Bateel has 70 retail outlets that include gourmet boutiques, cafés and duty-free shops. These are located mainly in the Middle East, but the company also has a presence in Europe and Asia, and one location in Africa.

products, while retaining control over the café brand.

"We like to own the cafés ourselves, as they require a lot of attention," Atmar explains. "If they go out on franchise, it will kill the brand."

Bateel also had a marketing problem. "We produced dates, but the problem was the production process. Product differentiation was needed to make the Bateel brand [stand out]. We needed to find a marketing platform."

Opportunities for growth

Bateel had used its own funds to grow until five years ago, when it started drawing on bank finance. Then, in January 2015, the solution to the marketing problem emerged: L Capital, the private equity arm of luxury brand LVMH, bought a stake in Bateel. As well as providing finance, L Capital has an advisory role, with a seat on the board.

Atmar drove a hard bargain. "It took a lot of negotiations," he says. "We wanted to make sure we got the finance and all the benefits that come from such a fantastic company and iconic brand. It took a year and a half. If we find that, in three years' time, we need more money to grow, we would be happy for LVMH to increase their stake."

Atmar has big plans to expand the business. "We have only penetrated 20% of the market in the Gulf. Some 80% is still there for us, and our plan is to conquer the entire Gulf market. In the next two to three years, we will go to Kuwait,

Qatar and Oman. There is a tremendous growth opportunity in a market where the brand awareness is already there.”

He cites impressive figures of 27% growth in Q1 2015 compared with a year earlier and annual growth of about 25% in 2014. “We need to grow fast,” he explains. “We have invested a lot in infrastructure, with a 70,000m² production factory and a 10,000m² manufacturing plant. All these are assets that need to be leveraged. We have plenty of growth potential without building another big factory.

“We want to triple the revenue in the next five years; 100% growth within three years is achievable.”

Affordable luxury

Conquering the Chinese and US markets is a longer-term task. “In both those markets, we need to go in with a lot of finance to establish a market presence that is large enough to enable us to compete,” Atmar says. “China is a market we are looking at very seriously. We want to build the management bandwidth that allows us to do that.”

He was surprised to find awareness of the brand in India, where he recently attended an L Capital conference, and to learn that Bateel figures prominently in Japanese guidebooks. “I sometimes get 10 Bateel gift boxes in Ramadan from people who don’t know I am associated with the company!” he adds.

“The concept we have produced did not exist before. Vertical integration of farming, processing and manufacturing has given us total control over the supply chain. We have created a new category of premium casual dining – five-star food quality at four-star prices. We are affordable luxury.

“When you have a premium brand, you have to be premium in all aspects: higher wages, better training and proper monitoring of quality and execution,” he concludes. “Once you define your brand, you want to be the best. Whether it’s raw materials, the people you employ or your products, there is no magic wand. It’s about authenticity, quality and innovation.” ■



Viewpoint

How can vertically integrated companies manage rapid growth?

Michael Hasbani, New Markets Leader, MENA Advisory Services, EY



Vertically integrated companies like Bateel have an advantage in their ability to extract both growth and margins at each stage of the value chain. They also have total control over quality at all stages, which makes them more resilient.

However, such companies are also more complex to manage and require a broader range of capabilities to succeed. It is not enough just to be a good manufacturer; they must be a good retailer and supplier, too. This complexity can make scaling at speed difficult, so it is especially critical that vertically integrated consumer goods companies avoid four common mistakes that we see fast-growth businesses make:

- 1) **Forgetting cash flow** – many fast-growing companies fail because they run out of cash, not because they make a loss. Managers must realistically forecast cash needs and focus on the end-to-end cash cycle.
- 2) **Poor customer service** – fast growth puts pressure on the supply chain. As it begins to creak at the edges, this puts pressure on customer service. Getting it wrong, with the ensuing reputational damage early in a business’s life, can set that business back years.
- 3) **Growth at any cost** – fixing points one and two can lead to excess cost eroding profitability, whether through invoice factoring or high interest payments to cover short-term cash flow issues, or through excessive freight costs. An example of this would be expediting costs incurred trying to maintain customer service or trying to reach all customers, regardless of size or location, in the quest for growth.
- 4) **Extending too far, too soon** – in the pursuit of growth and scale, many companies are tempted to use their brand to grow into new categories, formats and geographies. However, leaders must carefully distinguish between the opportunities that genuinely fit within the company’s purpose and level of capability and those that could take up significant management time and resources for marginal gains.

Entrepreneurial, vertically integrated companies that can avoid these pitfalls and deliver a product that meets consumer needs and aspirations have a substantial opportunity to deliver profitable growth.

More information

Visit ey.com/consumerproducts for further insights.





Pitch perfect

words Tim Turner_ photography Charlie Surbey

If you watch sports at any level, chances are you've seen an SIS Pitches pitch. The company supplies natural and artificial surfaces for a range of sports at every level, from national stadiums to local clubs and schools. Clients include famous soccer teams such as Barcelona, Ajax Amsterdam and Spartak Moscow.

Today, SIS Pitches has 276 employees and offices on three continents, but in 2001, when George Mullan became involved, it had a staff of three. "I was working as a turnaround specialist for [multinational pharmaceutical company] Wyeth in Amsterdam," he recalls, "and my PA's husband was involved in the business. It had got itself into difficulties, so I decided to buy it."

Mullan, now the CEO, describes it as "a classic turnaround situation. They had good technology, but no idea how to grow a business." So he quickly identified SIS's most promising product and focused on marketing it.

"We had the technology to take a pitch out of a stadium within a day and replace it with a new one that you could play on the following day," he explains. "That allowed stadiums to generate much more income – the Amsterdam Arena staged 35 or 40 events a year in 2001, whereas it now puts on more than 100. That particular product allowed us to establish ourselves in a really innovative way."

His second decisive move was to buy a synthetic grass factory in Cumbria in the north of England. "That opened up a whole new segment of the sports industry to us," he says. "We are now unique in the market, in that half our sales are in natural grass and half are in synthetic."

Thanks to this strategy, SIS's turnover grew from €200,000 in 2001 to €38.2m in 2014. A key factor in this growth is a strong focus on customer service. "We're a one-stop shop; we design, manufacture, construct and maintain pitches. So the customer can be confident they're dealing with one person, and if there's a problem, we simply fix it."

This straightforward approach is evident in everything Mullan says, and he is typically forthright when talking about the qualities that define a successful entrepreneur. "You need an ability to take risks," he says, "and you have to be able to make the tough decisions, but also have fun. If it isn't fun, don't do it." ■

Charging ahead

The technology to make cars that are powered by electricity has been around for a long time, but it's only in the past 10 years that they have begun to be seen as a serious alternative to vehicles powered by fossil fuels. This shift in perception is due to a combination of advances in batteries and energy management, concerns (until recently, at least) about oil prices, and the need to reduce greenhouse gas emissions.

As the market for electric vehicles begins to grow more quickly, it offers exciting opportunities for entrepreneurial companies with the vision and technological capabilities to grasp them. In this Sector focus, we find out how, in a village in northern Croatia, Mate Rimac is building an electric supercar to compete with the likes of Lamborghini (page 21), and we meet Dr. Frank Pawlitschek, the Berlin-based entrepreneur who plans to turn ordinary lampposts into charging stations for electric vehicles (page 24).

A new concept in motoring

In a small village near Zagreb, Mate Rimac and his team are building the world's most advanced electric supercar. The story of Rimac Automobili is a remarkable example of how technical genius, vision and ambition can overcome the most unpromising of circumstances.

words Andrew MacDowall



The Rimac Concept_One, an electric-powered supercar, can accelerate from 0kph to 100kph in 2.8 seconds.

The lush green hills of northern Croatia are dotted with bucolic villages of stout, low buildings and churches with bulbous spires. The region is a Central European arcadia, with the Balkans on one side and the

Alps on the other.

It's an incongruous setting for the development of one of the world's most cutting-edge supercars, a unique project being pioneered by a company housed in a collection of almost apologetically modest buildings on the edge of a village called Sveta Nedelja (the name means "Holy Sunday"). The company is all the more

unusual in that it is headed by a 27-year-old, Mate Rimac, whose fascination with both electronics

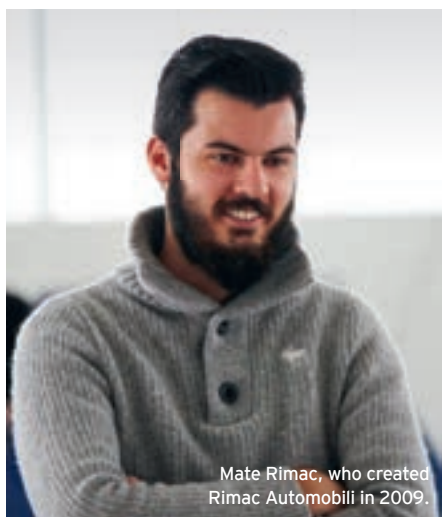
and motoring led him to design the world's highest-performance electric car.

Rimac Automobili's sleek Concept_One hits the open market later this year, selling for around US\$1m, though only eight will be made. It has a top speed of 325kph – it could go up to 400kph, but its speed is limited for safety reasons – and boasts acceleration of 0kph to 100kph in just 2.8 seconds. Its unique driving system, delivering power individually to each wheel, makes it a competitor to world-famous brands such as Ferrari and Lamborghini.

But the perfectionist Rimac is already leading the design of the Concept_One's successor, with the aim of making not just the world's best electric car, but the world's best supercar. This will be the latest stage in a journey that has already seen Rimac break five world records in a BMW E30 he converted himself to an electric powertrain. Rimac's

rise from his birthplace in Livno, in the bare limestone mountains of western Bosnia-Herzegovina, may have been meteoric, but he's not one to rest on his laurels.

"We definitely want to conquer the sports car market, and not with the electric version of an existing sports car," he tells *Exceptional* in the boardroom above the



Mate Rimac, who created Rimac Automobili in 2009.





Mate Rimac (center) and his team with the Concept_One

and mouse functions, and the other for a technology to eliminate the blind spot in cars.

After these breakthrough innovations, and before he'd even started college, came Rimac's first foray into electric-powered vehicles. A keen racer, he blew the engine of his BMW and set about replacing it – with an electric motor. It was in this car, redeveloped several times, that he broke records including the fastest eighth and quarter of a mile in an electric vehicle.

Rimac was by now set on building a business to develop and sell his dream car. "I went to college just to keep my parents happy," he says. "I knew I was going to be an entrepreneur, so I went to business school rather than engineering school so I'd have time to build the company."

His confidence was not matched by those whose support he solicited, though, as he recalls. "I went to the Faculty of Mechanical Engineering in Zagreb and said, 'What can you do to help me?' They said, 'Please stop! The sooner you stop, the fewer people will go under with you. It's impossible to do something like this in Croatia.' They thought I was crazy."

This skepticism was arguably justified – to this day, Rimac Automobili has few employees with a background in the automotive industry – but Rimac decided to push on with the project with a team of trusted associates. In 2011, with the acclaimed unveiling of a concept car at the Frankfurt Auto Show, heads started to turn toward the start-up from Croatia. But still Rimac found the going tough, both technically and financially.

"There was a lot of trial and error," he says. "Everybody here was doing this for the first time, and we made a lot of mistakes. With the first car, we engineered everything three times. We're a small and inexperienced team, and there's a lot of complexity. In designing the suspension, there are 74 trillion different permutations of how it can be calibrated!"

► workshop where the Concept_One is being put together by his team of around 70. "We think our technology can make a better car in every regard compared to traditional sports cars."

Prodigious talent

Rimac's goal would be a striking ambition for anyone, let alone a young man with little formal training in the automotive sector, especially in a country that has little tradition of building vehicles. Rimac traces his fascination with cars back to his early childhood. In 1991, on the eve of the bloody wars that tore Yugoslavia apart, his family moved to Frankfurt, Germany. "Suddenly there were millions of cars around me, and my parents told me how excited I was about that, even though I was only 3," he says.

The family moved to Croatia in 2002, when Rimac was 14. At first there was little sign of his prodigious talent. He struggled with the Croatian language, despite it being his parents' native tongue, and did not excel at school. It was while he was studying mechatronics (which combines mechanics and electronics) at high school that something clicked. By the time he was 18, he had two patents to his name: one for a computerized glove combining keyboard



Working on new components in the factory in Sveta Nedelja





The Concept_One is built around a unique powertrain and battery pack that the Rimac team developed from scratch.



“What drives me is to make a better product. I want to look at a car and say: this is perfect.”

“It was a constant struggle to survive,” he continues. “We never had enough money for the following month’s salaries and rent, but somehow we managed.” He was helped by the frugality learned from his parents and their rural background, where families had little to their name other than a few cows and chickens.

With most tech investors focused on software development, finding financing for the capital-intensive (and rather left-field) project of building an electric supercar proved difficult; cash from the Croatian government development bank and what Rimac calls “the three Fs – friends, family and fools” helped the company get by – just.

More recently, the development of the Concept_One has also been financed by sales of Rimac-developed components to major manufacturers, as well as a growing, diversified range of other products, including hybrid bicycles that combine an electric motor with pedal function.

The search for the perfect car

But it’s the cars that excite Rimac most. His belief that the Concept_One offers the best possible supercar driving experience is partly based on its four completely separate motors, one driving each wheel. The cars are designed and modified according to purchasers’ specifications – the more tweaks, the higher the price. The technology is all developed in-house and is partnered with a hugely detailed “infotainment” system that displays 57 different performance indicators in graph form, syncs with

household computers and can be upgraded remotely.

Upstairs, designers are working on the next model, in a room covered in sketches indicating how it might take shape. “We’re now building what I think is the most advanced sports car in the world,” Rimac says. “I’m proud to be competing with companies that have budgets thousands of times ours, and that have been around for over a century in some cases.”

While proud of his own speed records, Rimac insists that his focus is on the future. “What drives me is to make a better product,” he says. “I want to look at a car and say: this is what I’ve always wanted to build; this is perfect.”

Rimac Automobili’s future is now more secure; the Concept_One is rolling off the production line, and a funding round late last year raised €10m (approx. US\$11.25m) from three major investors. The company is planning a second round by the end of 2015, but Rimac acknowledges that his youth and the company’s location still act against it: “People say, ‘There’s this kid in Croatia making cars!’”

That kid is convinced he can break the mold of automaking and adopt new trends before the less fleet-of-foot major manufacturers. But, he concedes with disarming honesty, he’s unlikely to save the world with Rimac’s tiny sales volumes. His aim is not to substitute electricity for fossil fuels for the sake of the environment, but because he genuinely believes that it can deliver better performance. Zero CO₂ emissions is “a nice side effect.” He’s a car enthusiast and racer first and foremost, not an eco-warrior.

Nonetheless, he is sure the electric vehicle is an idea whose time has come, and one the big manufacturers ignore at their peril. He’s aware this claim may be greeted with skepticism, but he points out that the same was once said of the car itself, as well as the mobile phone and digital photography.

“When there’s disruption, the experts and the general public aren’t impressed and think the new development is just a toy,” he says. “That’s why you have visionaries.” ▶

Energy everywhere

When is a lamppost not a lamppost? When it's a charging station for electric vehicles, of course. Dr. Frank Pawlitschek, co-founder and COO of Berlin-based ubitricity, explains how its innovative refueling solution can help the spread of electric cars.

words Dr. Stephan Pietrowicz and Ursula Schneider



He's been a software developer and a lawyer, but Dr. Frank Pawlitschek's passion is electric vehicles (EVs), the big hope for the future of sustainable transportation.

However, EVs aren't really catching on, partly because of a lack of the infrastructure needed to refuel them. To tackle this problem, Pawlitschek co-founded ubitricity in Berlin in 2008 with his friend and colleague Knut Hechtfisher.

What's the idea behind ubitricity?

In order to bring e-mobility to the roads, you need to supply the necessary energy, and then the relevant technology to charge and pay for that energy. There are two ways in which this can be done. Either high-tech recharging posts are installed at great cost, prompting the question of whether the immense investment will ever pay off, or, for much less money, existing electricity sources such as lampposts can be modified. In this case, the technology that drivers need for refueling and paying for this fuel is integrated into the charging cable. Recharging points will be reduced to simple and cost-effective plug sockets. That is our solution.

Would this mean that every lamppost would become an e-socket?

That is a little far-fetched, but it is possible – provided that the lampposts are in the right location and are connected to

the normal network, and not to a special network that only delivers 50–70 watts. That wouldn't be sufficient and would make charging times far too long. But streetlamps are only one of many possibilities. Our concept is based on installing charging points where they will be used by the consumer as part of their daily routine, particularly at home and at their place of work. These are the places where the car is stationary for the longest and where there is enough time for it to recharge. Our aim is to offer compatible charging points for less than €100 [approximately US\$113] in large-scale serial production, in contrast to conventional charging stations that cost several thousand euros.

E-mobility isn't really catching on, though. It can't just be a case of not enough lampposts.

That's true. Many car manufacturers argue that they have made their contribution by manufacturing the EV. However, they overlook the fact that their vehicle can't be driven without electricity, and they leave this task to someone else. The electricity providers, on the other hand, are – rightly – asking themselves whether the huge investment in charging points will be worthwhile in the long term. And the drivers grumble about whether they can make long journeys with their EVs because they can't refuel along the way. But that doesn't have to be the case: if there were affordable charging points everywhere the cars are parked for longer periods of time, and if the cars were equipped with ubitricity's technology, then we would be much further advanced.


What advantages does your technology offer for car manufacturers, for energy providers and for cities?

If manufacturers integrate intelligent charging cables into their EVs, they immediately become more attractive. The buyer can be sure of being able to recharge almost anywhere, which is a real selling point. The energy providers save themselves the expensive construction of the charging posts, which, in my opinion, are a little like telephone boxes in the world of smartphones: outdated. They also benefit from our smart metering technology, which ensures that the car is only charged using green energy, for example, or when the network has sufficient energy or an oversupply. And cities could increase their quality of life at relatively little cost. EVs are simply quieter and more environmentally friendly.

Do you believe that corporate e-carsharing can help to bring e-mobility to the roads?

Absolutely! Companies would need to be rigorous about integrating EVs into the fleets they provide for their employees, though. They would also need to provide charging points, of course – and they would be setting a great example if they provided these for the use of other e-drivers, too. If the companies then implemented our technology, there would be no issues with charging for this use. With this venture, the companies would not only get e-mobility moving but could also reduce their own fleet costs through tax advantages. Beyond that, they could make a great contribution to their own environmental image. It's a classic win-win situation.

Let's have a quick look into the future: what does mobility look like in a big city like Berlin in 2050?

I hope that public transportation in Berlin will still work as well as it does today, or even better, so that private vehicle traffic can be reduced. In order to do this, however, the network needs to be extended. The private vehicles that are still being driven in 2050 will have no emissions and will be fueled by electricity from renewable energy sources. There are, after all, enough of these. The electricity just needs to be intelligently distributed and supplied. That's where ubitricity comes in. 



Viewpoint

No business as usual for the energy sector

Ben Warren, Global Power & Utilities Corporate Finance Leader, EY



On page 23, Mate Rimac makes the point that zero CO₂ emissions is a “nice side effect” of his electric supercar, with better performance the main factor prompting a shift from fossil fuels. This is not only honest, but reflective of a much broader trend across the global energy sector.

Far from being a response to the so-called “green” agenda, the transition to domestic

renewables is based on more fundamental factors such as surging energy demand, the ability to save money and achieve security of supply through reduced energy imports, greater flexibility for off-grid power, foreign direct investment and job creation.

Energy storage – a theme explored in our latest *Renewable Energy Country Attractiveness Index (RECAI)* – is also a critical part of this global energy transformation, enabling a greater penetration of renewable energy by decoupling supply and demand and creating more flexible energy systems. This is partly being galvanized by the deployment of electric vehicles driving down battery costs. Energy storage can also generate cost savings through price arbitrage and peak-shaving, as well as provide ancillary services and defer expensive grid upgrades or make them redundant.

Dr. Frank Pawlitschek's interview (opposite) highlights another key energy trend: the rise of smart cities, also explored in our latest *RECAI* report. Lighting alone can represent around half of a city's energy bill, yet energy-efficient LED bulbs can generate huge energy and cost savings, which increase even further where powered by solar photovoltaic systems. The co-benefits of smart street lighting are also significant. They include hosting electric vehicle charging points, cameras, mobile phone boosters and Wi-Fi, sensors to aid congestion management and so on.

It is important, however, not to dismiss the disruptive nature of enablers such as energy storage or smart lighting as niche, or assume they are something that will arrive tomorrow. With many technologies already proven and costs falling fast, these technologies arrived yesterday.

What is needed today? More innovative ways of deploying these assets and, in particular, monetizing the long-term predictable income streams or cost savings. The goal is for energy storage and energy efficiency assets to be considered by investors as just another energy asset class.

If we've learned anything from the transformative impact of renewable energy deployment on the global energy landscape, it's that the game has already changed; new technologies and new ways of buying and selling power are transforming everything. Business as usual is no longer an option.

More information

To find out more, you can download the latest *RECAI* report at ey.com/recal.



Robochop was an interactive robotic installation for CODE_n.

Everything's connected

The Internet of Things has the potential to change the way we live – and this global network of billions of connected devices is being powered by partnerships between entrepreneurial tech companies and bigger investors.

words Adam Oxford

You may not have heard of the Chinese semiconductor manufacturer Rockchip, but it could be instrumental in making your next business a success. It's just unveiled a new Wi-Fi transceiver that it claims uses so little power to communicate that it could work for 35 years on a single AAA battery.

Assuming you could find a battery that lasted for 35 years without leaking, you might still be puzzled as to why this is important. The reason is that Rockchip's transceiver is a breakthrough for the technologies that will enable the next stage of the Internet of Things (IoT).

The IoT is a term used to describe the plethora of connected devices that monitor and talk to each other. From air-quality sensors to blood oxygen meters mounted in smart watches, the IoT is everywhere and growing every day.

According to Gartner's latest estimates, there will be almost 5 billion connected devices by the end of 2015 and 25 billion by the end of the decade. IDC pegs the IoT's market value at US\$655b, rising to US\$1.7t by 2020. Innovations like Rockchip's will fuel this growth by reducing costs and improving the efficiency of IoT devices.

The good news is that you don't have to be a large Chinese chip designer or a

multinational smartphone giant to be an IoT innovator. Gartner also says that at least half of all IoT solutions will come from small firms and entrepreneurs, who are ideally positioned to take advantage of the opportunities the IoT presents.

"Small firms don't have the burden of large organizations," says Paul van Kessel, EY's Global Risk Leader, Digital Practice. "Big firms have to deliver an end-to-end solution. They need the whole ecosystem to be in place before they can go to market."

Many large organizations have developed strategies relying on nimble start-ups that they can partner with, invest in or acquire to address a particular niche.

"The big advantage for entrepreneurs in working with these organizations is access to markets and the client bases these big companies have," van Kessel says. "Most start-ups are struggling [to get] a sound idea into the hands of customers. How does a company of four people, for example, market to the world?"

Ben Mann, Product Manager at IBM, agrees. He works with IoT start-ups across Africa from his office in Kenya. IBM is always looking for small companies to invest in and nurture, he says, because they are closer to the problems they are trying to solve and are therefore more innovative.

"Entrepreneurs solve problems that they see as individuals," Mann says. "You need an IBM to build a smarter planet, but you need an entrepreneur to build a smarter room."

Van Kessel believes every area of life is ripe for innovation and disruption through IoT technologies.

"Home health care is especially interesting," he says. "For older people who are alone at home, for example, there are lots of devices to monitor their heartbeat or measure whether or not they're moving and sound remote alarms [if not]."

While most IoT businesses revolve around new forms of data collection or



"You need an IBM to build a smarter planet, but you need an entrepreneur to build a smarter room."

Ben Mann, Product Manager, IBM

big data analysis, the opportunities in IoT aren't just service-based. For example, Relayr, a German start-up, won the IoT-themed CODE_n award, sponsored by EY, at the CeBIT trade show in 2015 with its WunderBar platform. WunderBar is a hardware prototyping kit designed to make

IoT development simpler and more cost-effective. A WunderBar kit features six Bluetooth-enabled sensors that monitor light, color, proximity, temperature and humidity. It communicates directly with Relayr's cloud and analytics platforms to manage and interpret the data it creates.

"The potential of the IoT is vast, and we are just starting to see some of the first applications," explains Will Andrews, Content Manager at Relayr. "Our role is to provide those entrepreneurs with the easy tools they need to discover these revolutionary new applications."

It's this kind of partnership that van Kessel says will rapidly expand the IoT: small, innovative businesses feeding off each other to create ever more interesting and disruptive applications.

"IoT is not a thing on its own – it's part of a digital revolution along with mobile, social, cloud and big data," he says. "It's impossible for a start-up to have its hands on all those components, so my advice is, don't develop in isolation. Make sure you have a huge ecosystem and network with companies in other areas."

And with that kind of ecosystem, maybe a battery that lasts 35 years isn't such an improbable thing after all. [E](#)

How secure is the IoT?

While connected devices offer huge opportunities, they also pose huge security risks. Take smart meters, which will change the way we consume and store power by adding intelligence to the grid and allow us to monitor and control power consumption at a household level for maximum efficiency.

Smart meters are considered essential if large populations are to wean themselves off traditional fuel types and adopt renewables at a city or national level.

However, a recently discovered flaw in the industry-standard encryption techniques developed for electricity smart meters, the Open Smart Grid

70%
of the most commonly
used IoT devices
contain vulnerabilities.

HP study reveals 70% of Internet of Things devices vulnerable to attack. (n.d.) Retrieved from <http://h30499.www3.hp.com/t5/Fortify-Application-Security/HP-Study-Reveals-70-Percent-of-Internet-of-Things-Devices/ba-p/6556284#VHMpw4uUfVc>

Protocol, threatens the deployment of smart meters everywhere. Not only does it leave customer data unprotected – if a criminal can hack into a smart meter, he or she can work out when you're away

from home – it also severely damages the technology's reputation and may make it harder to roll out in the future.

EY's Paul van Kessel explains that security is another area where entrepreneurs can benefit from partnering with larger organizations.

"A lot of start-ups forget security when they develop IoT applications," he says. "If you have a solution without security, you're missing the point."

More information

Go to ey.com/cybersecurity to download our report *Cybersecurity and the Internet of Things*.



From communism to the cutting edge

Born under Chairman Mao's regime, Ping Fu used her intelligence and perseverance to build a new life in the US as a successful entrepreneur at the vanguard of the 3D printing sector.

words Christa Gala_ photography Bryan Regan

When Ping Fu first saw Chuck Hull, the inventor of 3D printing and founder of 3D Systems, demonstrating his invention, inspiration struck hard.

"That was the moment I found my calling," says Fu, who was then working at the National Center for Supercomputing Applications (NCSA) in the US. "I never thought I was going to be an entrepreneur, but when I saw Chuck demonstrating a 3D printer I was amazed, and also knew there was a lot of opportunity to improve the software to generate prints from a 3D model. I thought, 'That's it. That's what I'm going to do.'"

In 1997, Fu co-founded Geomagic to bring to life her innovative 3D imaging and 3D printing software, which is now used to design state-of-the-art prosthetics, heart valves, hearing aids, turbine machinery and more. And in 2013, she sold Geomagic to 3D Systems, headquartered in Rock Hill, South Carolina. Today she serves as Chief Entrepreneur Officer, cultivating new innovations for the future of 3D printing.

"One of the reasons I sold Geomagic to 3D Systems was because I feel like it was Chuck Hull who inspired me in the first place to start my business," Fu says.

Education and re-education

At first glance, this could be the archetypal entrepreneurial story: inspiration, innovation, hard work and a successful exit. But there's more to it than that – and the story starts 56 years ago in communist China. Fu was born in Nanjing but grew up in Shanghai after her parents asked her aunt and uncle to raise her. It was a happy and stable childhood. But in 1966, when she was 8, her cousins and uncle were sent away for "re-education" by the Communist Party.

The Red Guard next stated that Fu belonged in Nanjing. She was sent there by herself and made it just in time to see

her parents apprehended and sent off for re-education, too. The only family member left in Nanjing was her 4-year-old sister, Hong, whom her parents had raised themselves. Fu barely knew her.

For a decade, Fu and her sister lived alone in a college dormitory, with Fu, starting at age 10, working in a factory as part of her education by workers. It later sparked her interest in the "mass customization" that 3D printing provides: the ability to make large quantities of personalized products.

After Chairman Mao died, Fu went to Suzhou University to study literature, but her research about China's one-child policy proved controversial. She was given a choice: leave or face possible imprisonment or hard labor. Her family,

"Instead of writing essays, I was writing the future not yet imagined."

released after Mao's death, found a place for her at the University of New Mexico.

"When I came to the United States, I didn't speak much English," says Fu. "I couldn't continue my literature, so I went to study computer science. At the time, I told myself that instead of writing essays, I was writing the future not yet imagined."

It was the beginning of her American dream.

She ended up earning two degrees in computer science and was hired by the NCSA, where she was part of the team that wrote and released the first multimedia web browser, Mosaic. In 1994, the Mosaic team left the University of Illinois at Urbana-Champaign to start a company called Netscape that went public in 1995, earning a market value of US\$2.9b at the end of its first day. ►

What came before 3D printing?

A brief history of printing

- ▶ **Pre-3000 BC:** The ancient Mesopotamians use round seals to roll impressions into clay tablets.



- ▶ **Early 2nd century AD:** The oldest surviving example of block printing, used to print words and images on textiles, is from China in 220.
- ▶ **1430s:** German silversmith Johannes Gutenberg creates the first European press to use moveable type.



- ▶ **1796:** Lithography is invented by Bavarian author Aloys Senefelder. This chemical-based method is still used today.



- ▶ **1875:** Robert Barclay invents offset printing on tin in England.
- ▶ **1901:** Independently, Ira Washington Rubel invents offset printing on paper in the United States.



- ▶ **1993:** Benny Landa invents the first digital printing press, the E-Print 1000.

▶ Observing her success, people kept asking Fu if she planned to start her own company. The answer was always no. Then came her eureka moment, and everything changed.

She founded Geomagic with her then-husband, Herbert Edelsbrunner, and the two set to work on Geomagic's flagship product: 3D imaging software that would enable customized 3D printing.

Although a computer scientist at heart, Fu took on the role of CEO in Geomagic's early days. But she didn't conform to the stereotypical image of a business leader – and not just because she is a Chinese-American woman in a sector dominated by white men.

For one thing, she is happy to admit she doesn't know everything. That candor saved Geomagic in 2001 after the CEO she'd hired as her successor two years earlier lost US\$4m and left her with just three months' worth of operating capital. "I was a learning CEO at that point, so I needed collective wisdom," she says.

She called a staff meeting and said, "I may have strong opinions, but I'm going to try to be clear, rather than right,

“I was able to come to this company and not only contribute but learn a whole lot of new things.”

and I need you all to help me. Because with your help, we will make more right decisions than wrong ones, and we will survive." Every single person agreed to stay with Fu and Geomagic, even though the company's future was far from certain.

High value, high volume

From 2001 to 2003, sales tripled under her leadership. "The strategy was to look for high-value and high-volume industries where people will pay thousands of dollars for one product, not a few hundred," says Fu. "There were not very many. Dental and medical was one. Turbine machinery was one. We zoomed into those markets, and it worked. I didn't need a very large sales team to sell [our products], and I didn't have to sell many to make enough money to support the company."

Geomagic's success caught the eye of 3D Systems, which was co-founded by Chuck Hull, the man who inspired Fu all those years ago. There began a decade of



Ping Fu says 3D printing can be used for applications from health care to food products.



collaboration, culminating in Geomagic's sale in 2013. For Fu, it was the right time to sell and join 3D Systems.

"I was able to come to this company and not only contribute but learn a whole lot of new things I did not know before," she says. "I didn't know hardware, I didn't know material, I didn't know services, I didn't know a lot of things. That's something I really love: to continue learning."

"Climbing is the metaphor of success, but I think it's the journey, not the peak, that's interesting," she adds. "In business, people often ask where you want to be in five years: 'What's your exit strategy?' But it's not about where I want to be – it's about how I travel."

It's an attitude particularly suited to science generally and to the 3D printing industry specifically, which started 30 years ago, and continues to expand exponentially with new technologies, materials and applications.

Today, 3D Systems has seven core print technologies and more than 120 materials, ranging from plastics and metals to ceramics and even sugar. The applications for 3D printing are endless – from engine prototypes to flight-ready aerospace parts, from a surgical trial run to medical implants, from a designer dress to intricate confections.

Transformational power

The transformational power of 3D printing and the impact on lives is perhaps most evident in health care. 3D Systems is shaping the industry with an end-to-end digital thread, from surgical simulation and training to virtual surgical planning and 3D printing of anatomical models, surgical instruments, implants and medical devices.

Fu describes one example of using 3D printing and scanning to make devices like scoliosis braces more comfortable and attractive. The technology in prosthetics

development and production is evolving, too; advanced scanning is improving the final printed product.


"The patient's good leg is scanned and then a mirror-image is created, so the prosthetic can be printed in the individual's own shape and symmetry," Fu explains. "Custom designs can also be created, providing a prosthetic with functionality, symmetry and beauty."

Another frontier is food: printing a customizable bar of chocolate or an intricate cake topper printed in sugar. 3D Systems is working with the Hershey Company and The Culinary Institute of America to do just that.

Fu's experience with 3D scanning and design tools continues to advance 3D Systems' portfolio beyond 3D printers to full design to fabrication solutions. She spearheaded the development of several scanning technologies for 3D Systems, including a handheld consumer scanner and the iSense scanner device for the iPhone and iPad, which bring new image capture tools to the consumer. She also led 3D Systems' partnership with Intel to bring its 3DMe application to the Intel RealSense 3D camera.

For Fu herself, it's been a remarkable journey so far. "In some ways, 3D printing can take your idea and make it real," she says. "And I feel like I'm kind of that object – that the American dream is a concept and my story makes it real."

"I think some people who grew up here don't really realize how lucky we are in this country – the freedom we have, the opportunity, the diversity," she adds. "I don't think any country in the world has the kind of soil that we have here."

"How many times do people have the opportunity to work for a leading company in a fast-growing market and also be in a space where you truly believe this technology will change everyone's life?" she concludes. "It's a once-in-a-lifetime opportunity." 

In this new series, we ask a range of entrepreneurs to answer a simple question. And the first question is...

What legacy would you like to leave as an entrepreneur?

#LegacyBuilders
#BetterQuestions



Bill Ford
Executive Chairman,
Ford Motor Company

i Founded by Henry Ford in Detroit, Michigan, in 1903, the Ford Motor Company is one of the most iconic businesses in the world, as well as one of the greatest family businesses. It is currently the second-largest US auto manufacturing company and the fifth largest in the world.

“The reason for companies to exist should be to make people’s lives better,

not just to make a profit. And while we are inspired by our past, we don’t want to live in it. We have to keep looking ahead and pushing ourselves to find innovative new ways of doing things. I believe I am working for my grandchildren and their children. When you take this approach, then you care about what the future holds.”



Rainer Gläß
CEO, GK Software

i GK Software is an East German company that began as a two-person start-up just after the fall of the Berlin Wall in 1989 and now employs more than 600 people. With more than 202,000 installations in 38 countries, it is one of the most important players in the international market for software solutions for retail stores.

"I'm still ambitious to develop the best retail software. Together with our customers, we are designing the digitization of the retail industry. This historic change is, for us, a privilege and a responsibility at the same time. Our software is technology for people."

We want to create a better working world for those people."



Periklis Venieris
Founder and CEO,
Green Cola Company
S.A.

i Green Cola, a Greece-based beverage company, has achieved double-digit annual growth over the past three years, ranking it second in the cola segment. Encouraged by its success, Green Cola – which already exports to more than 10 countries – is now exploring new markets.

"To be the best products in the world,

the healthiest and the most natural, and an organization with ethics, integrity and respect for all consumers, customers, suppliers and the society in which it operates."



Mircea Tudor
President, MB Telecom

i MB Telecom, which Mircea Tudor founded in Romania in 1994, is the only company in the world to have twice won the Grand Prix at the International Exhibition of Inventions in Geneva. It specializes in innovative scanning technologies designed to safeguard civil and military aviation.

"The 'possible' is always hidden behind the 'impossible' wall;

if your objectives are high enough, you just need to push the wall, to break it, or to jump it."

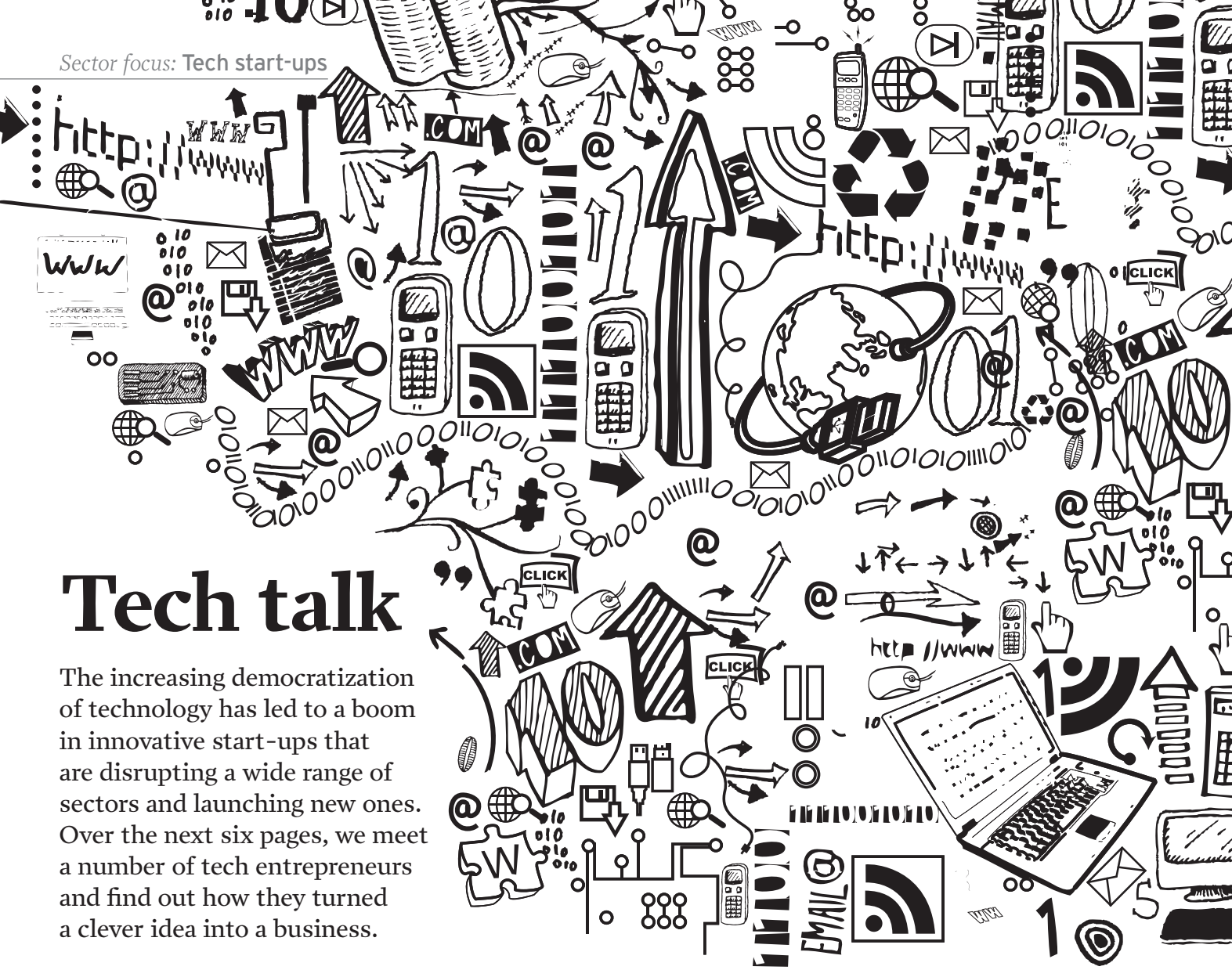


Kate Robertson
Cofounder,
One Young World

i One Young World, founded in 2009, stages an annual summit where talented young people are joined by world leaders and other public figures to discuss solutions to pressing global problems. (For more on One Young World, see page 44.)

"The true success of One Young World will be something we never see."

I would like to think that one day, somebody somewhere [who has been to a One Young World Summit] is in a position of power, and they will stand up and say: 'We aren't going to do it like that, it's wrong.' And maybe we won't know – but that would be a legacy, wouldn't it?"



Tech talk

The increasing democratization of technology has led to a boom in innovative start-ups that are disrupting a wide range of sectors and launching new ones. Over the next six pages, we meet a number of tech entrepreneurs and find out how they turned a clever idea into a business.

At the EY Strategic Growth Forum™ in Rome in April, seven companies took part in an Accelerating Tech Entrepreneur challenge. The winner was Stéphanie Delestre of French job-matching website Qapa, and we interview her on page 38. *Exceptional* also took the opportunity to ask some of the other participants about their companies and their thoughts on the future of technology.

Luca Rossettini, D-Orbit

What's your big idea?

Since I was a kid, I have wanted to become an astronaut. I got to the latter stages of the European Astronaut Contest but wasn't selected, so I needed to find another way into space. My concern at that time was the increasing concentration of junk in space, so I invented an independent decommissioning device that can be installed on satellites and dispose of them quickly and safely at the end of their life.

What are the main challenges you face?

Space is a very conservative sector; satellites cost hundreds of millions and adopting new technologies is not straightforward. Being a small company in a world dominated by giants doesn't help,

either. However, D-Orbit has demonstrated that it has a safe technology for decommissioning satellites and the internal capacity to do business with the most important space companies worldwide.

What will be the next big thing in tech?

Space is still a young market. In the next few years, we will see a dramatic and





significant change in the way business is done. Smaller satellites, shorter lifetimes and better-performing technologies will decrease the cost barrier to entry and permit faster market development. D-Orbit is already building small satellites in-house so that we can be among the first in this exciting new market.

Carlos Tapiador, Exaccta

What's your big idea?

With Exaccta, you simply take a picture of your bills and receipts with your smartphone or tablet, and your accounting, tax and expense reports are generated automatically and in real time. Everything happens in the device and without further human intervention after the user takes the picture. We have

created two apps, Exaccta Tax and Exaccta Xpens.

Exaccta Tax is the first app with these characteristics to be certified and approved by the Spanish Tax Agency, so users no longer need to save the original paper documents: the pictures have the same validity as the originals.

What are the main challenges you face?

We have the resources to expand quickly and lead the international market in mobility solutions for accounting and the management of expense reports. However, this relies on finding a network of third-party distributors, integrators and strategic partners for virtual means of payment.

We also want to adapt and launch our apps in other countries, and we are now entering a round of funding to raise €1m [about US\$1.1m] for this international expansion.

What will be the next big thing in tech?

One of the main speakers at the Strategic Growth Forum was talking about the future of business, and one of the things he mentioned was mobility – the possibility of having all the information about your business in the palm of your hand and using your mobile device for everything.

That will be the next big thing – and we are already there. In future versions of the apps, we will include features that will make Exaccta even more potent, making it possible for the user to run their business from a mobile device.

Davide d'Atri, Soundreef

What's your big idea?

Soundreef makes music royalty transactions quick and easy. National collecting societies and performing rights organizations have innovated very little in the €7b [about US\$7.9b] music royalties market, and accounting and payments



Carlos Tapiador

are very slow and error-prone. We are addressing and fixing a market in which no music start-ups have ever operated.

What are the main challenges you face?

We need to grow quickly in order to harness first-mover advantage and create barriers for new entrants.

What will be the next big thing in tech?

Analytics for the real world, from retail to advertising analytics. We have very little data on what people touch and observe and how they interact in the real world. We should expect a plethora of new start-ups addressing those issues. ►



Davide d'Atri



Maggie Sanchez

Maggie Sanchez, myCircle

What's your big idea?

myCircle is reinventing point-of-sale (POS) for both retailers and consumers. Every shop in the world needs a POS, yet most dislike their systems. myCircle provides retailers with a socially engaging POS software hub that comes with a private-label consumer app. This is personalized for them to connect with consumers on their smartphones, providing flexible ways to shop, pay, manage their loyalty, redeem personalized offers, and share experiences and deals with their trusted "circle of friends."

What are the main challenges you face?

Our primary challenges are access to capital, meeting the demands of large corporate strategic partners with limited working capital, and speed to market.

What will be the next big thing in tech?

The Internet of Things and easy integration. This old idea has been gaining traction recently because it's a good one – connecting not just computers, phones and tablets, but all of our devices, through the cloud. Consumer products such as fridges, remote-locking mechanisms, coffeemakers and so on can be internet-enabled for less than US\$20. What is holding things back is that the management infrastructure is not in place yet. We need to create a platform to work across different devices, suppliers and applications; the cloud is a step in the right direction.

Impeccable credentials

Rob Leslie, winner of EY's inaugural Startup Challenge, explains the big idea behind his company, Sedicii.

words Christian Doherty

As we do more and more activities online – from shopping and banking to communicating with friends and planning our social lives – the importance of identity security grows. With the average person in the UK now having 19 active passwords, according to one study, the potential for confusion and fraud is obvious.

For Rob Leslie, founder and CEO of Ireland-based online identity start-up Sedicii (the name is based on the words security, digital and credential), the trend represents an opportunity.

"I don't think the problem is the password itself. It's how we manage passwords," he says. "You've got a gazillion of them and they're all handled separately, whereas if you could just have one that only you knew, and that nobody else even saw, the problem would disappear."

With that in mind, Leslie and his business partner, Richard Coady, started to develop Sedicii commercially in 2013. The idea is devastatingly simple, as Leslie explains. "An example would be this: when you ring



up a call center to talk about your bill, they walk you through a series of questions like, 'What's your date of birth? Who was your favorite teacher?'

"These are meant to be secret questions whose answers are only known to you, but they're generic. So we applied the piece of technology we developed to eliminating that process. Instead, you get a notification on your phone, you're asked to put in your password, you authenticate without exposing your password to anyone, and you're done."

While that may merely represent a brief respite for consumers tired of constantly having to confirm their identity, the benefit for B2C companies is immense,





Rob Leslie wants to solve the problem of managing online passwords.

“If you could just have one password that only you knew, and that no one else even saw, the problem would disappear.”

“What I really thought was great was all the mentoring we had from the partners,” he says. “They gave up their time to guide us through a lot of stuff – understanding what we did, how we did it, what was good, what was bad and what we needed to fix. Then EY introduced us to some of their clients, and we had conversations with them about issues they were facing that we could potentially solve. That was enormously valuable – and some of those conversations are ongoing and may ultimately turn into

commercial engagements.”

With the win under his belt, the future looks bright. There are now two big challenges to meet: securing funding and finding the next big customer. As for future technology trends, Leslie believes offering customers more control over their data and identity will be central to everything.

“I think individuals will wake up to the fact that, under the new EU Privacy Directive, their data is theirs and they should have the right to control and manage it,” he says. “It doesn't belong to Google, it doesn't belong to Facebook, it doesn't belong to Twitter, and just because you use those services doesn't entitle them to turn you into a commodity, which is what's happened.

“There has to be a bit of respect in that relationship. If you're making millions out of me, I'd like a piece of that, thanks – because I am critical to your success. It has to be a two-way street.” ►

Leslie says. “If they're using the service, it means we've managed to solve your frustration and their problem of having to pay an agent to talk to you for 40 seconds.”

Since the inception of this new concept, Leslie and his team have been working on applying it to a range of scenarios.

“Anybody who's got some kind of authentication or identity verification challenge is someone we want to talk to,” he says. Despite the company's youth, Leslie has already secured interest from a number of potential customers in financial services and other sectors.

A good introduction

Sedicii's success so far has been partly fueled by EY. As the inaugural winners of the EY Startup Challenge in December 2014, Leslie and his team were given the opportunity to work with EY partners and experts as well as other start-ups.

The EY Startup Challenge

The mission of the EY Startup Challenge (EYSC) is to bring clients and high-growth start-ups together to address a particular business problem. In this collaboration, the clients are keen to explore solutions to the problem, small businesses and start-ups potentially hold the technology solutions, and EY provides subject specialist support and facilitation.

Each iteration focuses on a different business problem. The first program (which Sedicii won) looked at data privacy, while the second will explore two topics: supply chain visibility and intelligent customer experience.

The EYSC is also an intensive business development and proofing environment. Growth businesses are mentored by senior EY professionals who have extensive subject specialism/experience, and they receive continuous business development and technology validation from the clients, who provide the customer's perspective. The program also includes a series of workshops delivered by EY professionals, investors and other external professionals.

To find out more, go to ey.com/startupchallenge.



Stéphanie Delestre has created a new way to match jobseekers with vacancies.

Just the job

French job-matching website Qapa is a perfect example of a start-up that has disrupted an established industry. Founder Stéphanie Delestre explains how they did it and where Qapa goes from here.

words Christian Doherty

When Stéphanie Delestre decided, after four years in Hamburg as COO of German company Qype, to leave and move back to her native France, her first phone calls were to recruitment agents in the hope of finding a new job.

"The time and effort that it took to do that – to sign up and get all the paperwork in place – convinced me that there must be an easier way to do this," she says. And so the idea for Qapa was born.

Now on its way to becoming Europe's leading job-matching marketplace, Qapa

has taken France by storm in the last three years. Each month, 4 million jobseekers and recruiters visit qapa.com, 200,000 new members sign up to find a job among the 300,000 posted, and 15,000 people are successfully matched with a new job.

As with most successful disruptive companies, Qapa identified inefficiencies in the prevailing model and aimed to fix them. One such factor was the requirement to have a CV – which, for many people, is pointless, especially if they're just entering the job market. The tendency of job sites to simply select a job for a candidate based on experience, rather than aspiration, was also in need of reform.

So, while the top 10% of jobseekers are well served by specialist agencies and sites such as LinkedIn, Delestre and the Qapa team have focused on helping the remainder find jobs simply, easily and quickly.

"The majority of jobs that need to be filled are

blue-collar, or part-time or interim contracts," Delestre says. "Charging employers to post ads like that – and expecting candidates to spend a long time crafting a CV and a cover letter to apply – really isn't efficient.

"I felt that there were far too many barriers that hindered good people from finding the right jobs," she continues. "There is a real disconnect between the number of unfilled vacancies and those looking for a job. What we want to do with Qapa is bridge that gap."

The figures in France back this up; a 12% unemployment rate contrasts with 10% of jobs unfilled. It's in this gap that Qapa now operates, opening up job vacancies on a huge scale to those seeking work.

But what makes the site different? The key to Qapa's success is its use of a real-time matching algorithm that can search a candidate's information, including social media profiles, and instantly find the right jobs based on various criteria. This, says Delestre, is the first use of big data in the recruitment space, and as such represents a groundbreaking innovation.

Then there is the payment structure. Whereas most job sites charge employers to post ads, Qapa charges nothing up front. Employers only pay when they have successfully found someone to fill the job.

So far, the formula has proved irresistible. Qapa made its first profit in 2014, and that progress was recognized by Delestre's victory in the Accelerating Tech Entrepreneur challenge at the EY Strategic Growth Forum in Rome in April. The panel of judges, all of whom had extensive business experience, chose Delestre's pitch as the most impressive, combining three years of





solid progress, a clear direction for growth and the very real passion of the CEO and her three co-founders.

Delestre admits the victory was pleasing, but she craves something more than plaudits. "We want to help people get the jobs they want, not just the jobs they're qualified to do," she says. "The best thing about being an entrepreneur and starting a business like this, and the reason I keep going even when times get tough, is the satisfaction of hearing from people who have benefited from the site and found a job. When they tell me their lives are better, that's very satisfying."

And what of the future? The plan all along was to expand into other countries, Delestre explains. "When we started Qapa, we designed the software so that it could be easily adapted for a new market. We always envisaged the site as a European one because we believe the same issues that affect the job market in France are also present in other countries."

Delestre is also ready to broaden Qapa's offering to help smaller businesses in particular. "This summer we will, for the first time, go into the agency business, where we can find a candidate and sort out all the compliance and payroll issues around hiring them," she says. "Smaller businesses often find that process difficult and expensive, so we're aiming to make it easier and allow them to hire new people in just three clicks. It's a very exciting new development for us." **E**

"When people tell me their lives are better, that's very satisfying."

Viewpoint

Trends in technology M&A

Pat Hyek, Global Technology Sector Leader, EY



According to our studies, in Q1 2015, about half of global technology M&A activity was cross-border, which is higher than you might typically see.

Looking at the reasons behind these acquisitions reveals a spectrum. At one end, you have the disruptive technologies, often in the areas of security, the Internet of Things, cloud, mobile and SaaS.

At the same time, you have other deals occurring that we might call consolidation plays, centering mainly on the semiconductor sector. Recent examples include NXP purchasing Freescale, Avago snapping up Broadcom and Intel buying Altera.

Of course, a big issue in M&A is that of valuation, and again we see two different trends here, particularly in the types of valuation models acquirers are using.

If you take an established semiconductor company, then the valuation approach is broadly similar to a non-tech deal: it uses EBITDA, revenue multiples and so on.

But as you move up the technology stack and look at internet, e-commerce or perhaps social media companies, then you see different models at play that focus on other metrics such as daily or monthly active users, engagement indicators and average revenue per user (ARPU).

So you have to understand the target and its subsector and decide where the target company sits on it in order to determine which model (or models) to use. There's certainly no "one size fits all" approach.

Many of these deals are designed to supplement and strengthen the acquirer's organic R&D activity. Typically, these R&D-driven deals may be a "tuck in" – buying companies that have a little piece of key IP to use in a product, or perhaps 10 really talented people who can strengthen a team quickly. That's a great way to underpin and supplement your R&D efforts.

Alternatively, in the consolidation space, it's different again. There, you're talking about acquiring businesses with revenue streams, and the questions you're asking are about how you grow scale, or take out duplicative cost, and so on. In those cases, it's a little different.

Ultimately, you have to understand the purpose of the deal.

Looking ahead, in terms of headwinds for M&A, if the public equity markets suddenly take a dip, then there's a good chance that we'll see activity begin to slow. We track M&A over time, and as a general rule, it tends to follow the stock market. When the markets are on the up, M&A activity follows alongside.

In addition, a rapid movement in interest rates – making debt more expensive – could be another factor that curtails activity.

More information

Go to ey.com/technology to find out more about the latest trends and hot topics in technology M&A.



From Italy with love

Oscar Farinetti, the founder of upscale Italian food market Eataly, is crisscrossing the globe on a mission to make Italy's culinary delights available at accessible prices, while simultaneously celebrating local produce and culture. It has proven to be a winning formula.

words Heather O'Brian_photography Virginia Rollison



The cheese and cold meat counter at Eataly New York displays hundreds of Italian regional specialties.



Oscar Farinetti, founder of Eataly

To help explain why Italy is blessed with such agricultural biodiversity and why its food is so popular around the world, Oscar Farinetti sketches a drawing of the Italian peninsula with arrows pointing every which way. They represent the winds that strike

this Mediterranean country from all directions, creating microclimates that have encouraged the development of local specialties and allowed small producers to thrive.

The Eataly retail chain, which Farinetti founded in 2005, sells the wares of thousands of these producers, from pasta and olive oil to bread, meat, fish and fresh produce. As you might imagine, building relationships with this many suppliers took some time. Indeed, the first Eataly store, in a former Carpano vermouth factory in Turin, didn't open until January 2007. But with much of the legwork done, other Eataly outlets have followed in ever more rapid succession.

Today, Eataly has 16 retail outlets in Italy and is a favorite destination for Italian food and wine lovers in a growing number of cities around the world. It has eight stores in Japan – which, like Italy, boasts a refined and storied food culture – and is present in Istanbul, Dubai, Chicago and New York, where *The New York Times* has described it as a “megastore” that “combines elements of a bustling European open market, a Whole-Foods-style supermarket, a high-end food court and a New Age learning center.”

“Italy is the country in the world that is most appreciated for food and wine,” explains Farinetti, who is preparing to head off to São Paulo, Brazil, where the latest Eataly store opened in spring 2015.

Stores with soul

The seemingly tireless Farinetti will be traveling a lot in the near future. Eataly is coming to Seoul, Moscow and Munich this year, followed by London, Paris, Madrid and a second location in New York in 2016. This will be at 4 World Trade Center, part of the redevelopment that has sprung up on the site formerly known as Ground Zero, and will be dedicated to peace. ▀



Eataly is more than just a retail outlet; every store includes restaurants as well.



“I want people to say, ‘This is a great place where I can satisfy all my desires.’”

different sort of place that also wants to educate.”

Even when he’s in Italy, Farinetti is always on the move. The success of Eataly and his direct, approachable manner have made him

► All Eataly stores are dedicated to different themes – such as peace, harmony, beauty, courage and music – and each is unique in other ways as well. Many stores, like the Carpano factory location in Turin or the one in Milan’s Smeraldo Theater, are industrial or cultural landmarks in their own right. They are also huge: the original in Turin is 30,000sq ft and the Chicago branch is 63,000sq ft.

The product mix changes from store to store. In Italy, producers from the respective surrounding regions are more heavily represented, while Eataly sites abroad also use a fair share of local – but rigorously high-quality – raw materials. That said, there is no substitute for San Marzano tomatoes, San Daniele prosciutto or Italy’s famed extra virgin olive oil. “I’m opposed to a free-for-all approach, but I’m also against a radical kilometer-zero philosophy,” Farinetti says.

As he brings Italy’s culinary magic to new destinations, Farinetti is frequently accompanied on his travels by Carlo Petrini, the founder of Italy’s Slow Food movement and a longtime friend. Slow Food promotes sustainability and biodiversity and has served as Eataly’s strategic consultant from the start, participating in the painstaking task of identifying potential suppliers and helping develop classes and other educational activities, which are a fundamental part of the Eataly experience.

“When they come to Eataly, I want people to say, ‘This is a great place where I can satisfy all my desires,’” Farinetti explains. “But I also want people to see that this is a

a popular speaker at corporate strategy events. And Expo 2015, the World’s Fair that opened in Milan on 1 May and continues until 31 October, features 20 Eataly restaurants, one for each of Italy’s regions and their varied culinary traditions. Aside from bringing the best of Italian food to Expo, Farinetti is also happy that Eataly’s pavilion is hosting the “Treasures of Italy” exhibition, featuring hundreds of artworks produced by Italian masters over the centuries and an example of what he calls the country’s “artistic biodiversity.”

Deep family roots

Meanwhile, Eataly is warming up for a listing on the Milan stock market, which Farinetti sees as a natural development for Italy’s only global food retailer. Tamburi Investment Partners, which acquired a 20% stake in Eataly for €120m (about US\$135m) in 2014, will oversee the group’s initial

Eataly at Milan Expo 2015

145 nations taking part in the Universal Exposition, sharing ideas on the theme “Feeding the Planet, Energy for Life”

23m people expected to visit the Expo over its six-month life

86,000 sq ft space that houses the Eataly pavilion, called “The Answer is Blowing in the Wind”

2 permanent restaurants in the pavilion

20 revolving restaurants, with the restaurateur changing each month

6 cafés and numerous food counters

100+ regional varieties of Italian wine on offer

public offering, in which a 33% stake is expected to be sold. Even after going public, however, the Farinetti family will maintain control of Eataly.

Family-owned businesses remain a feature of Italy's business environment, and while this has helped provide stability to many firms, Farinetti argues that longevity isn't always a good thing. "You can't stay on until you're 105 years old, breathing down your son's neck," he says, arguing that the second and third generations may have more to bring to a company. "My children speak several languages and have a much more modern concept of the world than I do."

Indeed, while Farinetti remains the public face of Eataly, the family's stake is now in the hands of his children; his two oldest sons, Francesco and Nicola, have taken over senior management roles in the company.

This is not Farinetti's first experience working in a family business: his father, Paolo, founded UniEuro in Alba in 1967. When Farinetti joined in the late 1970s, UniEuro was a supermarket chain that bore little resemblance to the electronics retailing powerhouse it would become.

"There was a small non-food department, and my father told me to sell household appliances," Farinetti recalls. "The first color televisions and frost-free refrigerators had just come onto the market. So I decided I would dispense quality of life and lighten the workload of women, and I started to sell appliances."

By 1989, UniEuro had become Italy's largest electronics retailer. Farinetti,

now CEO, sold it to UK electronics retailing giant Dixons in 2002, a disposal that yielded €500m (about US\$560m) and provided the initial capital for Eataly.

While Eataly has done well, Farinetti doesn't expect this to be his last entrepreneurial adventure. He's already hard at work on a new project called Green Pea, a retailer of sustainable vehicles, clothing and furnishings. The first environmentally friendly store is scheduled to open in Turin in 2017. "I want to transform a sense of respect and duty into something that is seen as pleasing and cool," he says.

In the meantime, the potential for Eataly – and for promoting high-quality Italian food, both domestically and abroad – remains strong. Farinetti says that, while Italy only has about 34.6m acres of cultivated land, it has the potential to increase this by 20%-25%. There's even more room for expanding agricultural production dedicated to high-quality products, which today accounts for only about 20% of the total output.

"Italy needs to concentrate even more on quality," he insists, adding with a smile: "Eataly has a 10-year head start." ■



Viewpoint

Do IPOs fit the DNA of family business?

Dr. Martin Steinbach, EMEA IPO Leader, EY



Sufficient funds are a prerequisite for every growing business. It takes a considerable amount of money to develop new products, tap into new markets and sectors, and expand resources. That is why family businesses must think about their strategic options for accessing funding.

For such businesses, an IPO is one of the five main options for raising capital, along with M&A, private equity, management buy-in (or buy-out) and self-financing through the family or the business. When seeking access to increased capital, family businesses must carefully consider each of these options to see how they match up with the goals of the family and business. Although specific conditions at each family-owned business differ widely, IPOs have a number of benefits to seriously consider.

An IPO can "improve" a family business's DNA by helping it to improve its management of the areas that are crucial to success. IPOs achieve this by helping family businesses carry out a number of vital tasks:

- ▶ Recruiting senior executives as part of management succession planning
- ▶ Formalizing relationships between the management board, supervisory board and (family) shareholders
- ▶ Professionalizing structures
- ▶ Acquiring and retaining talent via employee share and option programs
- ▶ Diversifying the family's assets
- ▶ Preserving the corporate culture
- ▶ Tapping into new, long-term sources of finance
- ▶ Gaining greater entrepreneurial freedom through a diversified shareholder structure

If the family decides to carry out an IPO, new structures and processes will need to be developed to comply with regulatory requirements. Managers with experience in capital markets may need to be appointed from outside the family. And a family charter should be drawn up for family members, to sit alongside the corporate governance codes.

To make the transition from private to listed company in the public spotlight, family businesses will need to undergo a serious transformation process. The scope of the required change is usually best assessed in collaboration with trusted advisors in an IPO and strategic options readiness assessment.

By working with experts and following best practices, family businesses can give themselves every chance of conducting a successful IPO. However, whether this funding route is the right choice for a specific family business will depend on its own DNA and will need to be assessed carefully.

More information

Visit ey.com/ipo-leaders-insights to find out more.

Can young people save the world?

We hear from cofounder Kate Robertson about the annual One Young World summit, where young people and visionary leaders discuss solutions to the world's most pressing problems.

words Tim Turner_ photography Martyn Hicks



South Africa-born Kate Robertson is the former Co-Global President and UK Group Chairman of advertising agency Havas Worldwide and cofounder (with her then-boss, David Jones) of One Young World. The UK-based nonprofit organization puts bright young people aged 18-30 together with world leaders and thinkers to devise solutions to issues in areas such as health, education, the environment and sustainable development. Past speakers have included Kofi Annan, Bill Clinton, Mary Robinson, Archbishop Desmond Tutu and Bob Geldof. The first One Young World Summit took place in London in 2010, and the 2015 event happens in Bangkok in November.

This young generation is the most connected and educated in human history. If the people running companies and governments would do as that constituency would, everything would be fixed in about two weeks! There is a gulf between the ruling generation and youngsters, but I don't think businesses and governments can afford that any more, because there is social media and the kids are watching. For example, you won't find anybody under 30, anywhere in the world, with even half a brain who doesn't think that everybody should get on with addressing the impact of climate change. But what is being done about it? Nothing.

The origins of One Young World go back to an argument I was having with someone at Havas about setting up a conference business. I didn't want to do it, and I said, "Anyway, if we ran a conference business, it would have to be true to our brand; we're the youngest network, with the youngest CEO, so it would all be about young people." And afterwards, I thought that would be a really good idea.

In my head, coming from marketing and advertising, organizing a conference was going to be easy. You'd get a couple of sponsors and off you'd go. But the younger age group doesn't accept that. Smart young people say, "No, I won't stand on a stage with your logo behind my head." They don't want to be told what they can and cannot say.

Before we started, we didn't know how fantastic it is to work with youngsters.

There's so much energy and enthusiasm and self-belief and hope – you don't have to bring any of that, the kids drive it themselves. What I did know, though – because I'm an Olympics freak – was that when people from around the world come together, the magic comes into the room. The people become a human family, and that's an incredible thing.

It is hard persuading famous people to take part in the summit. The first time, it was a nightmare: it took 11 months to get Desmond Tutu and 13 to get Bob Geldof. But



“You see some kids and think, I didn't realize there were such smart people in the world.”

what they eventually buy into is that young people can be more ethical, and they are driven to a higher ethical standard because they have got time to meet that standard.

We ask our corporate partners to look for the youngsters they believe could run the company, but also for people who are socially aware. They send their crème de la crème to the summit. You see some kids and think, I didn't realize there were such smart people in the world.

There have been so many success stories in the first five years of One Young World. Often, delegates realize that the power lies in their employer, and they can achieve a

lot more if they engage with the corporate body. A boy who worked for Siemens came to the summit in Pittsburgh in 2012, and his big passion was the rainforest. His dream was to build a health clinic in the forest – and Siemens did it in under a year. It currently serves 45,000 people. That's the caliber of the kids we attract.

We want to expand the annual summit, which will have 1,500 delegates this year.

We will also build at least three regional summits a year because there is such a demand for other events, and there is work that needs to be done. Also, from the beginning of next year, together with [internet-based market research firm] YouGov, we will set up a standing global panel of young leaders and make it available for commercial use, so that the delegates can be paid for their opinions.

We have struggled financially. Just about everything we've done, we have hand-stitched. We're OK now, cash flow isn't bad, but it isn't positive. So we need to get more investment, and we need to work out how that investment will pay back because we would prefer not to be a charity. We have got our charity registration, and the organization is run transparently, but I want it to work like a fully scaled, sharp business.

It was tricky to juggle One Young World and the day job. Last year I was flying to Dublin [where the 2014 summit took place] every Friday, working through the weekend and then coming back to London and running seven companies during the week. I got really sick, and eventually it turned out that I had glandular fever.


My ambition is that by the time it gets to its 10th anniversary, One Young World will be as important as the World Economic Forum. It will become the place where you go to find the brightest, the fastest, the smartest – the next bunch of inspirational leaders. They will be there. 📍

More information

To find out more about One Young World, go to oneyoungworld.com.


Intelligence

In the know



EY global job creation and youth entrepreneurship survey 2015
Boosting employment, inspiring youth

EY global job creation and youth entrepreneurship survey 2015
With global youth unemployment at a near-crisis point, we wanted to know what younger people were thinking and feeling about the future. In this survey, we present findings from more than 2,800 young people about their career aspirations and find out how entrepreneurship fits into their plans.
ey.com/thecenter



Eurozone rebalancing toward broad-based recovery
The Eurozone had a positive start in 2015 as consumers are responding to lower energy prices and spending their energy windfall. The recovery will become more broad-based in the future: investment spending should become a key growth driver from 2016, and government spending will make an increasing contribution.
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Global Capital Confidence Barometer
Our 12th *Global Capital Confidence Barometer* finds the M&A market around the world maintaining the positive momentum that developed during 2014. For the first time in five years, more than half our respondents are planning acquisitions in the next 12 months, as deal pipelines continue to expand.
ey.com/ccb



EY Global IPO Trends – 2015 Q2
In the first half of this year, IPOs are being driven by increased activity from Greater China. Learn more about soaring M&A activity and private financings which have impacted the flow of IPOs this year, and read an IPO market outlook for the second half of 2015.
ey.com/ipo



Global Family Business Survey
To secure their legacy, family businesses must focus on seven key issues. EY collaborated with the Kennesaw State University Cox Family Enterprise Center in the US to survey the largest family businesses in each of the top 21 global markets and find out how they manage those seven issues.
ey.com/familybusiness

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*“If it isn’t fun,
don’t do it.”*

George Mullan, CEO of
SIS Pitches (page 18)

86,000

The size of the Eataly pavilion at Milan
Expo 2015, in square feet (page 40)

On the shelf

Performance



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grow your best customers, make collaborative innovation work better and improve profitability.

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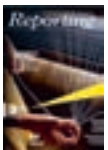


The latest edition explores the tax environment of developing markets

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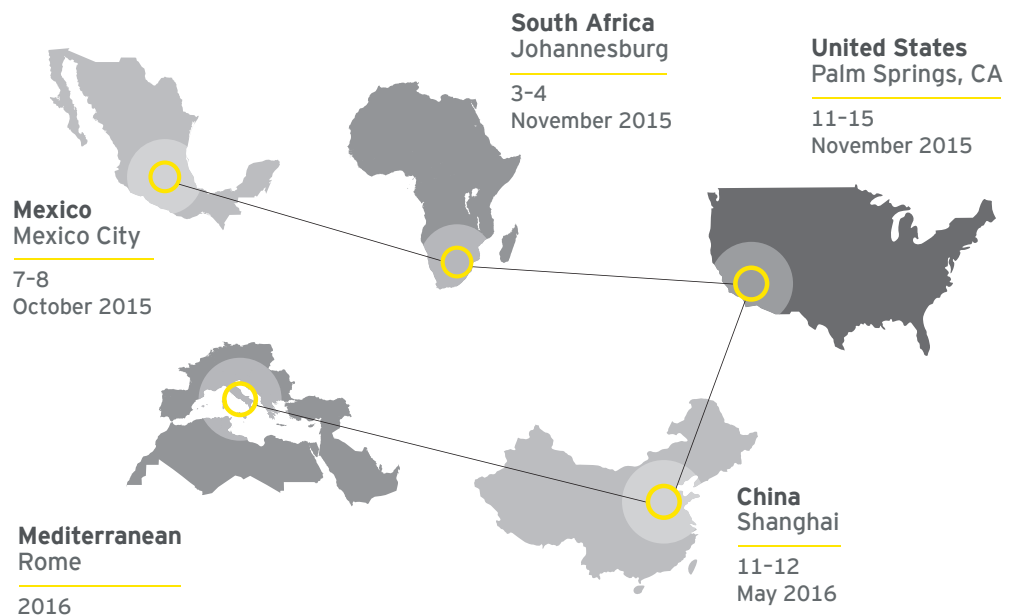
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Wise words

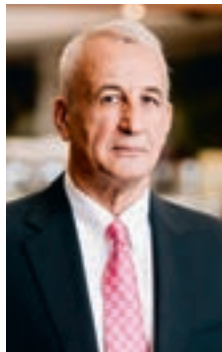
Our entrepreneurs provide some insight into the business advice and lessons learned that inspired their success.

“Tell your customers the truth. Too often we spend our time trying to make excuses or blame others.



Life's too short for that.”

George Mullan, CEO, SIS Pitches (page 18)



“Don't give consumers what they want; give them something they don't know they want.”

Dr. Ata Atmar, Managing Director, Bateel (page 14)



“Don't be afraid that someone will steal your idea, make a million bucks and move to Hawaii. Nobody cares about your idea – everybody is too busy with their own.”

Mate Rimac, CEO, Rimac Automobili (page 20)

“It's better to be curious than pretend you know everything, because you generally don't.”

Ping Fu, VP and Chief Entrepreneur Officer, 3D Systems (page 28)



“An entrepreneur needs to combine mathematics with poetry.”

Oscar Farinetti, Founder and President, Eataly (page 40)



“A company is a group of people. It is made by people, and it must be run for people.”

Mohed Altrad, President, Altrad Group (page 6)

“If you are going to mentor someone, you need to be a successful person with something to give them.”

Kate Robertson, Cofounder, One Young World (page 44)



**As Freud proved,
thoughts are
wonderful things.
But aren't actions
even better?**

#LegacyBuilders #BetterQuestions

Sigmund Freud
Austrian neurologist and
the father of psychoanalysis

This image is only an artistic impression and is not a true historical representation.

■ ■ ■
The better the question. The better the answer.
The better the world works.

EY
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working world

Accelerated growth?
Sustainable growth?

The EY 7 Drivers of Growth can help you do both, better. Unique insights to help you grow from challenger to leader.

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