



The Internet: the enabling force of the 21st century

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Changing our world

From our economies to our social lives, there is not a single area of our civilization that has not been touched by the Internet. The pace at which it is transforming economies, businesses and human interactions in the professional and private context is breathtaking. The opportunities it offers are endless and the disruption it brings is fascinating and overwhelming at the same time.

Even though it is nowadays impossible to imagine a world without the Internet, it still remains a comparatively young phenomenon. A number of reports have tried to capture its value, but we are at the early stages of understanding its impact. A number of reports have tried to capture its value. Here we provide a snapshot of that value to society, to individuals and firms by bringing to life relevant, publicly available findings on the economic and social value of the Internet.

We also provide vivid examples of how Internet services and platforms drive economic growth, innovation and social change.

What we have included here is a snapshot of uses of the Internet that we find particularly interesting. We show how the Internet economy goes far beyond technology companies and enthusiasts and has a positive impact on small businesses and entrepreneurs, consumers, innovation, education, life-long learning and inclusion.

Our key conclusion is that economic growth and social change are not *primarily* driven by Internet companies, rather by every business and citizen using the services that run over the Internet.

Transformation

The Internet is now mainstream. What started with basic services such as email now forms the backbone of services from banking through to entertainment and industrial supply chains.

The supply of new online services and innovations shows no signs of slowing down. A company like Facebook with global brand recognition and more than one billion users from close to every country is not even 10 years old.

The size of the Internet economy

Despite these developments we are only at the beginning of measuring the size of the Internet economy and understanding its impact. The OECD's 2012 Internet Economy Outlook states "there is still no widely accepted methodology or single measure to capture the whole Internet economy".¹

In 'The Internet Economy in the G-20'² the Boston Consulting Group (BCG) analysed the economic impact of the Internet in the G-20 countries. Across these countries the Internet economy amounted to 4.1% of GDP, equal to \$2.3 trillion, in 2010. The BCG predicts that between 2010 and 2016 the Internet economy of the G-20 will nearly double to reach an aggregate value of \$4.2 trillion. In these developed markets, the Internet economy will grow at an annual rate of 8% making it one of the fastest growing sectors - if not the fastest growing.

With regard to the EU, the BCG report estimates the Internet economy to have accounted for 3.8% of GDP in 2010. This number is expected to rise to 5.7% by 2016 reflecting the increasingly central role of the Internet in modern economies. There are

significant differences between European countries with the United Kingdom leading in terms of the Internet economy's contribution to national GDP. In 2010 that contribution amounted to 8.3% and is expected to rise to 12.4% by 2016.

The power to transform

A major reason for the great economic potential of the Internet is its power to transform and modernize businesses in all sectors ranging from small companies to global firms. The steep growth numbers identified by the BCG do not primarily originate from Internet companies but from the Internet modernizing traditional activities. The McKinsey Global Institute found that "75% of the economic impact of the Internet arises from traditional companies that don't define themselves as pure Internet players".³ Capgemini Consulting showed in a study that companies which take advantage of digital technology generate, on average, 9 percent more revenues through their existing assets, outperform their peers by 26 percent in terms of profitability and achieve significantly higher market valuations.⁴

The Internet economy will grow at an annual rate of 8% making it one of the fastest growing sectors - if not the fastest

Positive spillover effects

The rapid development and growth of the Internet economy brings positive spillover effects such as job creation. The BCG predicts that the number of people employed in the Internet economy in G-20 countries will rise by 32 million between 2012 and 2016. In 2011 McKinsey & Company conducted a detailed analysis of the Internet's impact on the French economy. They found that while the Internet has destroyed 500,000 jobs over the past 15 years, it has created 1.2 million new ones and has at times accounted for 25% of net employment creation. Hence, there were 2.4 jobs created for

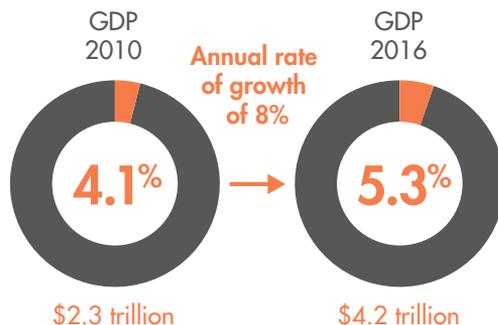
every job lost as the economy changes.⁵ Contrary to some accusations, the Internet comes with new jobs and rising living standards.

European integration 'online'

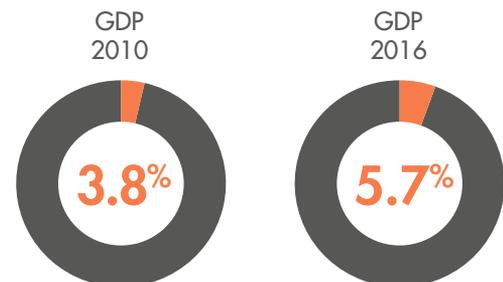
The Internet economy can play an important role for the EU's decades old aim of unifying the continent through strong economic ties. As the European Commission rightly puts it, online services are "by nature cross-border and can speed up European integration and the creation of the Single Market which has been sought for more than 50 years".⁶

Growth of the Internet economy

G-20 countries



EU countries



1. OECD. (2012). Internet Economy Outlook 2012 (Highlights), p. 8.
2. Boston Consulting Group. (2012). The Internet Economy in the G-20. The \$4.2 Trillion Growth Opportunity.
3. McKinsey Global Institute. (2011). Internet matters: The Net's sweeping impact on growth, jobs, and prosperity (Executive summary), p. 3.
4. Capgemini Consulting. (2012). The Digital Advantage: How digital leaders outperform their peers in every industry.
5. McKinsey & Company. (2011). Impact d'Internet sur l'économie française.
6. Commission Communication 'A coherent framework for building trust in the Digital Single Market for e-commerce and online services'. COM(2011) 942 final.

Small businesses on the march

Empowering a generation of small businesses

The widespread and low-cost availability of digital technologies has enabled companies and consumers, buyers and sellers, to engage in transactions at much lower cost than was previously the case.

These developments have dramatically increased the take-up, and impact, of the online economy. We also know that *small businesses using the Internet grow more quickly than those that remain offline*¹.

The European Commission has long stressed that small businesses “play a key role in shaping Europe’s economy, accounting for 99% of enterprises, of which 92% are micro-enterprises. They provide more than two thirds of private sector employment and play a key role in economic growth.”² Between 2002 and 2010, 85 percent of net new jobs were created by small businesses in the EU.³

A number of developments have shaped the ability of small companies to engage, but with one that stands out: the emergence of online platforms that have simplified doing business and engaging with digital consumers. Here are some examples.

Better financial management

75% of small businesses use pen and paper to track business performance and manage finances. In a majority of cases financial administration is undertaken solely by the owner with no specialist assistance, research by software company Intuit⁴ shows. Figures suggest businesses are five times more likely to feel confident about their finances if they are using software to keep track of their business as opposed to spread sheets or pen and paper.⁵

Cash flow can become a major problem, and the main reason why small businesses fail. Almost half of small businesses polled said they had either run out of cash or come very close to it and with 14% having been fined and subject to extra scrutiny.⁶

Banks are unlikely to lend to companies who do not have a good hold on their finances and 27% of small businesses rated the extra burden of administration as the main reason why they would not take on an employee⁷.

A simple solution to relieving the burden of small business accounting lies in online cloud-based applications. Online software, like Intuit’s Quickbooks Online, allows small business owners to professionalise their accounting practices without the need for any specialist understanding.



Case study: **Kaffekvaernen**

Tradeshift - A Social network for businesses

Tradeshift is a social network for businesses; a platform for all business interactions starting with invoicing. Tradeshift is currently used by over 170.000 businesses in 190 countries, including the NHS, DHL and MITIE. Once a business is connected to Tradeshift it is connected to every other business on Tradeshift.

Kaffekvaernen, a Copenhagen-based mobile coffee company employing 20-30 people provides a good example of how 'small', literally speaking, companies benefit from free Tradeshift accounts. Selling coffee from small, three-wheel mopeds outside the offices of large companies and at all kinds of events, its founders are committed to using 100 percent ecological and fair-trade coffee.

Kaffekvaernen uses Tradeshift E-invoicing, one of the free apps available on the platform, sending and receiving updates on invoices.

The user-friendly online system helps them save time and concentrate on the core of their operations. And because it's a free, open platform, they can continue to benefit from new Tradeshift Apps like Paypal, Intuit and more.

The first 'Tradeshift industry'

But the advantages of such a system also accrue to big companies creating unprecedented network effects. Take the example of the logistics sector: global giants DHL, Kuehne+Nagel and DSV have decided to use Tradeshift making logistics the first 'Tradeshift industry'. By using the Tradeshift platform these logistics companies can create new, electronic connections that save time and money. In logistics, composed of markets with a lot of supplier relationships, the benefits scale up as they no longer need to connect to each supplier individually.

27% of small businesses rated the extra burden of administration as the main reason why they would not take on an employee

Marketing made easier

Establishing a 'shop window' through the use of Internet tools has come down in price dramatically. Online marketing has blossomed through the use of social features and discovery. The development of social platforms has provided a new, low-cost, way for small business to promote products, and for the consumer to discover them. Despite the fact that 70% of companies are using social technologies, they are only just getting started in comparison to consumers⁸ (of whom there are 1.5bn users globally).

New advertising tools – new markets

In supporting businesses to take advantage of online opportunities, Google ran a global "Getting Business Online Campaign (GxBO)" that helped over 250.000 businesses to get online and expand their business to new markets across the globe.¹⁰ Addressing these markets has become much easier and cheaper for small businesses connected to the Internet, particularly with advertising platforms such as Google's 'Adwords' allowing better targeting of new customers.

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1. McKinsey Global Institute. (2011). The great transformer: The impact of the Internet on economic growth and prosperity.
2. Report from the European Commission to the Council and the European Parliament. Minimising regulatory burden for SMEs. Adapting EU regulation to the needs of micro-enterprises, Brussels 23 November 2011.
3. European Commission. (2012). SME performance review.
4. 'Three year Glitch' Report, Intuit
5. 'Growing Your Business' Report, Lord Young, 2013
6. 'Three year Glitch' Report, Intuit
7. One Giant Leap Report, Intuit
8. "The Social Economy:Unlocking Value and Productivity Through Social Technologies", McKinsey Global Institute, July 2012
9. <https://www.facebook.com/AngermaierTrachten>
10. See 'Small Business Success Stories'
11. Varian, H. (2011). Micromultinationals Will Run the World. [Emphasis added].

A close-up photograph of a traditional Bavarian Dirndl. The garment is made of brown suede and features intricate white embroidery of a floral or leaf pattern. A large, round wooden button is visible on the right side. In the upper left corner, a portion of a blue and white checkered fabric is visible.

Case study: **Trachten Angermaier**

An example of a business that has successfully harnessed the power of recommendation and engagement through social media is Trachten Angermaier.

Trachten Angermaier has been designing and selling traditional Bavarian clothing, Dirndls, in Munich for 63 years. They have 15,000 fans on Facebook, allowing them quickly and cheaply to announce new collections and drive sales.⁹

Access to new markets and easier export

The age of the micromultinational

Internet platforms such as Allegro and eBay allow small businesses to engage in international commerce much more easily than would previously have been the case. As we rebalance our economies towards exports such platforms will be key to driving rapid, low cost internationalisation.

Hal Varian, Google's chief economist, puts it this way: "If the late 20th century was the age of the multinational company, the early 21st will be the age of the micromultinational: small companies that operate globally".¹¹

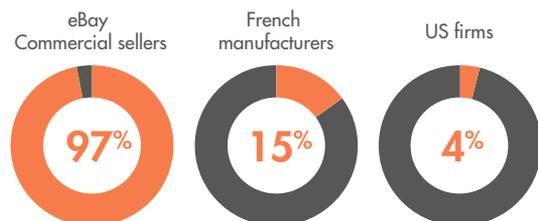
Enabling Traders to Enter and Grow on the Global Stage", eBay, Sidley Austin LLP, Professor Marcelo Olarreaga

- **94%** of the smallest 10% of 'commercial sellers' on eBay engage in exports
- only **5%** of these are single country exporters
- **81%** are selling to 5 countries or more
- **97%** of 'commercial sellers' on eBay export
- of the 5.5m companies in the USA only **4%** export
- **15%** of French manufacturers export
- **3%** of the smallest 10% of French firms export vs 65% of the largest 10%

If the late 20th century was the age of the multinational company, the early 21st will be the age of the micromultinational: small companies that operate globally

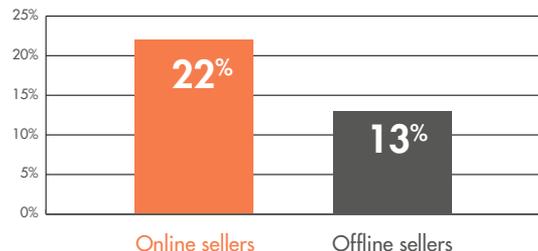
Percentage of exports

(to 5 countries or more)



Figures relate to users of eBay North American platform

Percentage of market share after 5 years





Case study: **Nasze Antyki**

One example of traditional companies using new online advertising tools is the Polish antiques seller Nasze Antyki run by two families. In 2008, the owners decided to start selling furniture online – mostly through the ecommerce platform Allegro – as well as in their shop in Świętochłowice. Despite being lovers of old antique furniture, the company has embraced modern advertising methods, and says “95% of our customers found out about us through AdWords.”

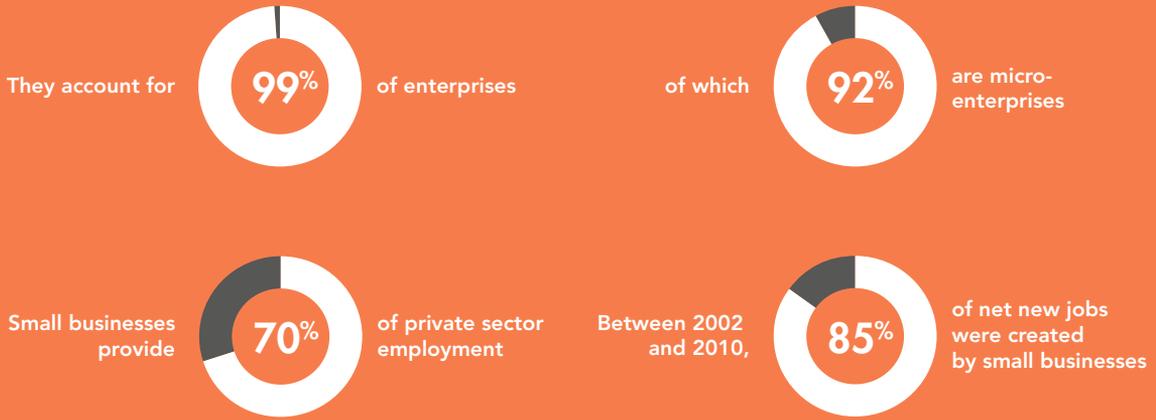
Currently, the majority of the company’s marketing budget is spent on online advertising, because it is more effective than advertising in the local or trade press.

Use of online advertising means they get customers from all over Poland who are prepared to travel hundreds of miles to buy furniture from them.

How important is small business?

"Small businesses play a key role in shaping Europe's economy"

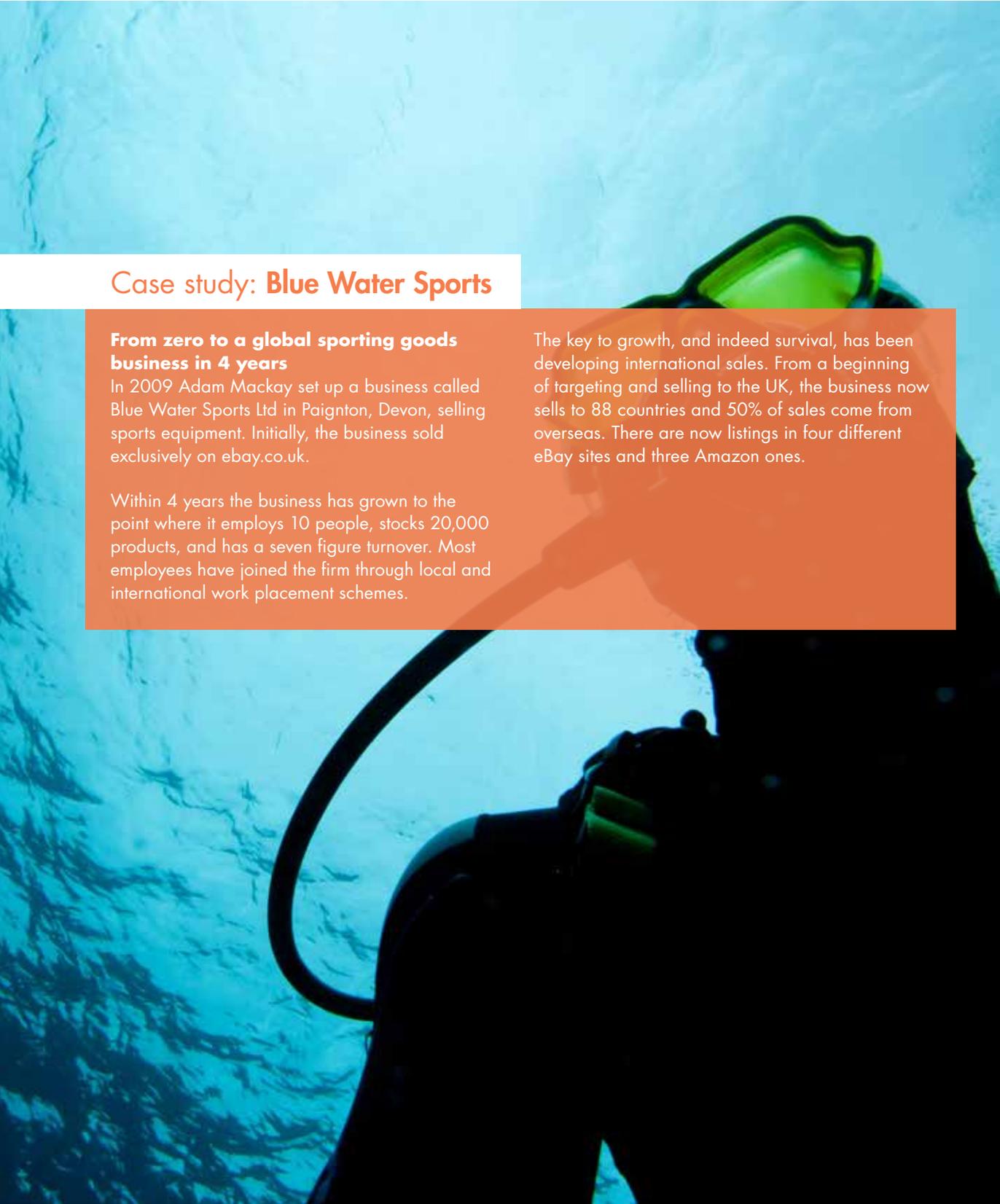
The European Commission



The number of people employed in the Internet economy in G20 countries will rise by 32 million between 2012 and 2016.

How important is the Internet to the micromultinational?



The background of the entire page is an underwater scene. It features a diver's silhouette in the foreground, with a scuba mask and regulator visible. The water is a clear, vibrant blue, and light rays are visible filtering through from above. The diver's gear, including a tank and hoses, is partially visible against the blue background.

Case study: **Blue Water Sports**

From zero to a global sporting goods business in 4 years

In 2009 Adam Mackay set up a business called Blue Water Sports Ltd in Paignton, Devon, selling sports equipment. Initially, the business sold exclusively on ebay.co.uk.

Within 4 years the business has grown to the point where it employs 10 people, stocks 20,000 products, and has a seven figure turnover. Most employees have joined the firm through local and international work placement schemes.

The key to growth, and indeed survival, has been developing international sales. From a beginning of targeting and selling to the UK, the business now sells to 88 countries and 50% of sales come from overseas. There are now listings in four different eBay sites and three Amazon ones.

The value of information

'Big data' has recently become the new buzzword in the Internet-enabled economy. But what exactly is meant with 'big data'? In a nutshell, it is about finding meaning where apparently there is none.

First, the amount and variety of information generated is increasing. This information can be combined and moved around the world at high speed and low cost. Tangible goods increasingly become 'smart', i.e. Internet-connected and equipped with sensors capable of generating vast amounts of data: the 'Internet of things'. By 2015 one trillion devices will be connected to the Internet.¹

Second, data-driven innovation happens through making sense of all this information. Data analytics play a key role here and have "become the new engine of economic and social value creation."² That value creation and innovation comes in particular from linking previously disparate pieces of information in order to derive new insights and knowledge.

Online cloud-based applications targeting specific challenges faced by small businesses do not only help in running a business, but increasingly become a source of innovation. A good example is Intuit's QuickBooks Online tool that manages enterprises' accounting obligations in an easy and cost efficient way.

Data analytics play a key role here and have become the new engine of economic and social value creation

The 'industrial Internet'

On a much larger scale data-driven innovation is a key ingredient for a phenomenon that is described as the 'Industrial Internet'. Similar to the 'Internet of things', the Industrial Internet refers to a transformative force in which "the physical world of machines, facilities, fleets and networks can more deeply merge with the connectivity, big data and analytics of the digital world."⁷ It is about making traditional industries 'smarter' by turning each machine into an information system that enables intelligent decision-making based on data. It is estimated that the innovations of the Industrial Internet could find direct application in sectors accounting for more than \$32.3 trillion in economic activity. These sectors include aviation, power, healthcare, rail, and oil and gas. General Electric estimates that only a one percent saving and efficiency gain across those industries would amount to a value in the multiple billions across a timespan of 15 years.⁸

1. World Economic Forum. (2012). Rethinking Personal Data: Strengthening Trust.
2. World Economic Forum. (2013). Unlocking the Value of Personal Data: From Collection to Usage, p. 7.
3. Denzel, N. (2012). How Intuit Uses Big Data for the Little Guy, Forbes, 26 April, 2012.
4. See Intuit's QuickBooks Financing
5. Horvitz, E. et al. (2013). Web-Scale Pharmacovigilance: Listening to Signals from the Crowd.
6. Ibid., p. 12.
7. Evans, P.C. & Annunziata. (2012). Industrial Internet: Pushing the Boundaries of Minds and Machines, p. 9.
8. Ibid., p. 4.



Case study: QuickBooks

Cloud-based Innovation for the 'Little Guy'

Small businesses having data about their business in the cloud triggers a whole ecosystem of new applications helping them to use that data to their advantage. QuickBooks users are able to compare their performance against their peers and use their collective buying power to get discounts from suppliers. That's how big data can be used for the 'little guy'.³ A number of improvements

will empower small businesses further like a financing platform enabling businesses to enter their financing needs, which can be matched with different lenders who meet their requirements. This reverses current practice: lenders approach the business in need of finance, not the other, far more burdensome, way around of businesses approaching lenders individually to see if they will lend money.⁴

Case study: Pharmacovigilance

Pharmacovigilance, or drug safety, through online search queries

The value of data analysis can also come from far more incidental data generation. Eric Horvitz, co-director of the Microsoft Research Lab, and his colleagues were able to discover a previously unknown interaction between two commonly prescribed drugs by going through 100 million anonymized search queries on Bing, Google and Yahoo!.⁵ The project studied web search log data gathered during 2010 paying particular attention to the drug pairing of paroxetine and pravastatin, an antidepressant and a cholesterol-lowering drug, whose interaction became known to be associated with hyperglycemia, i.e. a rise in blood sugar, after the time period of the online logs analyzed.

The researchers were able to deduce from the search log data that people who searched for both paroxetine and pravastatin were more likely to perform searches on terms associated with hyperglycemia than those who searched for only one of the drugs. In the words of the researchers, “patient search behavior directly captures aspects of patients’ concerns about sensed symptomatology and can complement more traditional sources of data for pharmacovigilance.”⁶ This precisely is the power of data analytics: gaining new, valuable insights from unstructured data like people’s random online search queries.

Consumers – winning online

Consumers gain considerably from the Internet and the many online services that it brings. Benefits include lower prices as well as a greater choice of goods and services when purchasing online.

The European Commission estimates that consumers who shop online in their own country have twice as much choice as those who do not shop online at all and if consumers shopped throughout the EU, they would have 16 times more choice.¹

A study commissioned by eBay found that consumers transacting on eBay instead of via offline channels² have on average 42 percent more spending power.

Consumer value and online services – in numbers

In an attempt to measure consumer welfare generated by online services, McKinsey conducted research by asking consumers in six major European countries³ and the US how much they would pay for popular web services like email, instant messaging, social networks and search that are currently free to the user and funded by ads. Based on the results the study values the consumer surplus of Internet services, separate from e-commerce, at EUR 100 billion for 2010 in the European union and the US combined.⁴ This is a surplus of almost EUR 40 a month per household. The study expects consumer surplus generated by these online services to grow to about EUR 190 billion by 2015.

'Long tail' dynamic in e-commerce

The Internet entails other, more indirect benefits for consumers that are more difficult to measure - one could call them positive spillover effects. One of these effects is the so-called 'long tail' dynamic in e-commerce.⁵ This dynamic describes how online marketplaces, in contrast to offline channels, create and increase demand for products of lesser known brands. This expands existing markets and creates new ones for the benefit of consumers (and new businesses!) who have a greater choice of products. The long tail effect also allows consumers to support their local economies through targeted purchases of locally produced goods.

Spillover effects into retail

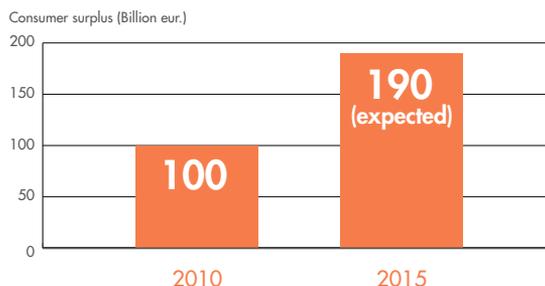
The retail sector also benefits from positive spillover effects. The Boston Consulting Group found that consumers in the G-20 countries researched online and then purchased offline - so-called ROPO - more than \$1.3 trillion in goods in 2010.⁶ This figure corresponds to 7.8 percent of consumer spending equivalent to more than \$900 per connected consumer. In fact, the study found that ROPO spending is higher than online retail in all the countries that were studied which reveals a rather complementary relationship between consumers' online and offline shopping behaviour.

The study expects consumer surplus generated by online services to grow to about EUR 190 billion by 2015

'Hidden' consumer benefits

Consumers profit from efficiency and time-savings when using online services. Yan Chen, a professor of information at the University of Michigan's School of Information, recently compared the time and quality differences between outcomes of Google online searches and information searches using an academic library. Maybe unsurprisingly, by using an online search engine users save 15 minutes of time on average for most of their information needs. More importantly, however, the researcher has not found any significant difference in quality between web and non-web sources.⁷ Google's chief economist Hal Varian attempted to convert this time to dollar savings using the average wage in the US and came up with about \$500 per adult worker per year.

This kind of research is only in its infancy but examples like these help to highlight the more hidden consumer benefits derived from the Internet economy that are usually not accounted for in reports measuring an economy's development and growth.



In G-20 countries consumers researched online and then purchased offline – so-called ROPO – more than \$1.3 trillion goods in 2010. This corresponds to 7.8% of all consumer spending

1. Commission Communication 'A coherent framework for building trust in the Digital Single Market for e-commerce and online services'. COM(2011) 942 final, p. 3.
2. Olarreaga, M. & Sidley Austin LLP. (2012). Enabling traders to enter and grow on the global stage. Report commissioned for eBay Inc.
3. The countries were France, Germany, Italy, Russia, Spain and the UK.
4. McKinsey for IAB Europe. (2010). Consumers driving the digital uptake.
5. eBay Inc. (2012). Towards Commerce 3.0.
6. Boston Consulting Group. (2012). The Internet Economy in the G-20. The \$4.2 Trillion Growth Opportunity.
7. Chen, Y., YoungJoo Jean, G. & Kim, Y.-M. (2013). A Day without a Search Engine: An Experimental Study of Online and Offline Searches.



Case study: **Cadbury**

The Internet has also become an effective tool for consumer empowerment through crowdsourcing on social networks. The chocolate maker Cadbury began making the 'Wispa' bar in 1981. In 2003 they were discontinued. In 2007 Facebook groups started forming to call for the Wispa to be reintroduced; there were soon some 90 'bring back Wispa' groups with 14,000 members.

This feedback, and the ability to interact with 'fans' led Cadbury to reintroduce the Wispa in 2007. Cadbury continues to interact with fans, including in designing advertising campaigns, through Facebook. This new model of engagement allows for a more immediate, and lower cost, engagement with consumers thus revolutionising the product development process.

New business through the Internet

Entrepreneurship is key to every economy and the Internet has 'democratized' business creation, enabling new, socially inclusive forms of entrepreneurship.

The Internet allows anyone to run a business from her or his home at lower cost than previously was the case. This has given rise to new forms of economic activity.

Mompreneurs leading the way

A good example is the rise of 'mompreneurs'. The term denotes female business owners who sell products and services from their home via the Internet instead of brick-and-mortar premises in trying to balance the roles of mum and entrepreneur.

One of these mompreneurs is Kimber Christensen who started a small shop on Etsy¹ in 2008 selling home-made, environmentally friendly, wooden toys. Today Kimber and her husband operate their company *Little Sapling Toys*² full-time and have sold close to 25.000 items via Etsy. Within only a couple of years their shop has become the top selling toyshop on Etsy.

Home-made entrepreneurship gone global

Etsy is also the preferred online selling platform for Verónica de Arriba from Granada in Spain and her business called 'Depeapa' - which translates from Spanish as 'from start to finish'. Verónica makes a whole range of products from accessories to clothes based on her own design and illustrations in a start-to-finish handmade process. She joined Etsy in mid-2011 and has already sold close to 2000 items. Apart from that she has close to 14.000 'admirers', the Etsy equivalent of Facebook 'likes'.

Etsy reports that for May 2013 alone goods worth \$102.9 million were sold over the platform representing almost 4.4 million sold items. Moreover, close to one million new members joined Etsy in this month only.³

New forms of economic activity

Opportunities for entrepreneurship create new forms of economic activity. One of the most popular developments is the so-called 'sharing economy', also referred to as the 'peer-economy' or 'collaborative consumption'. This is based on the fact that in some instances people value access to certain goods more than ownership of these goods. That is particularly true for goods that are expensive. Just as Allegro or eBay bring together buyers and sellers of goods, online companies like Airbnb⁴ and RelayRides⁵ bring together potential lenders and renters of apartments and cars respectively to strike a mutually beneficial deal. These platforms reduce transaction costs to a minimum and enable owners of underused assets to make money and renters to save money. More of this sort of disruptive innovation is expected as service provision increasingly becomes part of the 'peer-economy' like e.g. peer-to-peer taxi services.

Case study: **Djump**

Djump⁶ is a Belgian, Brussels-based start-up that helps people looking for a taxi to find one using an app that people can download to their smartphones. The startup based its idea on a social ridesharing experience made up of a community of Djump drivers who can be requested by customers via the app. The truly innovative bit: there is no fixed payment system - drivers are compensated through donations.



One of the most popular developments is the so-called 'sharing economy', also referred to as the 'peer-economy' or 'collaborative consumption'

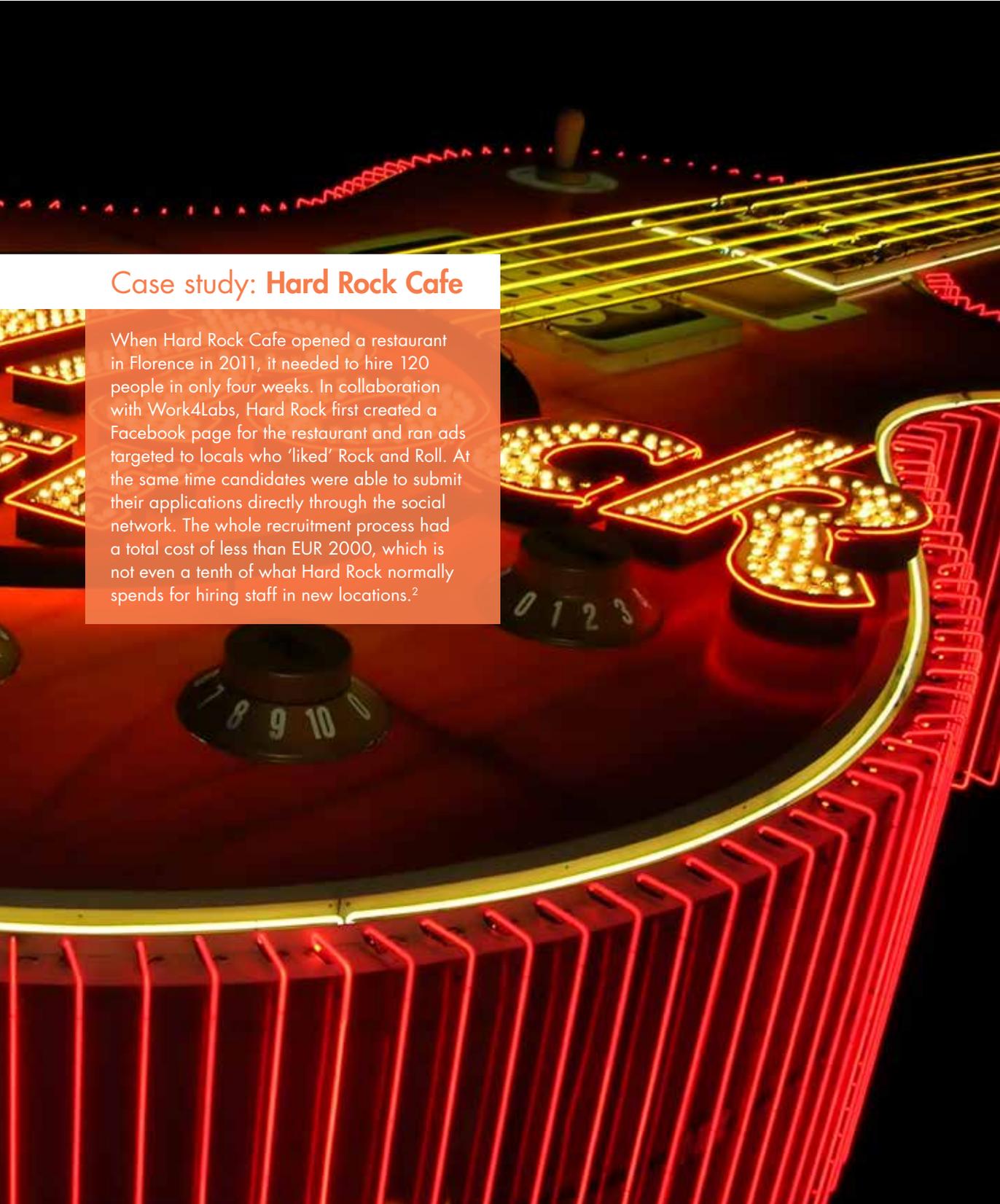
The app economy

Online platforms have also helped in the creation of whole new industries. This is particularly evident as regards the so-called 'App Economy' which refers to ecosystems of new economic activity centered around a company that maintains a platform.

Facebook is an important platform that has given rise to successful app companies. One example is Playfish, a social game company founded in 2007 predominantly using Facebook as a platform. After the launch of their successful 'Who Has the Biggest Brain' app, Playfish was awarded a place in the Daily Telegraph's 100 Best UK start-ups and purchased by Electronic Arts in 2009. Close to 70 percent of Playfish users are on Facebook and the company employs 150 people in the UK with other offices now open outside the EU.⁷

In aggregate the value added created by the app economy in the EU was estimated to amount to almost EUR 2 billion in 2012. This translates into the support of close to 30.000 jobs.⁸ It took the app economy only a couple of years to reach these numbers and the speed of Internet-enabled growth and innovation is shown by a different report with 2013 figures claiming that 529,000 people in full-time employment are directly linked to the app economy across Europe, including 330,000 app developers.⁹

1. Etsy is an e-commerce selling platform focussing on craftsmanship products.
2. Visit Little Sapling Toys at: <http://www.etsy.com/shop/littlesaplingtoys>
3. Etsy Statistics. (2013). May 2013 Weather Report.
4. Visit Airbnb at: <https://www.airbnb.com/>
5. Visit RelayRides at: <https://relayrides.com/>
6. Visit Djump at: <http://djump.in/>
7. Deloitte. (2012). Measuring Facebook's economic impact in Europe.
8. Ibid., p. 22.
9. VisionMobile & Plum Consulting. The European App Economy: Creating Jobs and Driving Growth, 2013.



Case study: **Hard Rock Cafe**

When Hard Rock Cafe opened a restaurant in Florence in 2011, it needed to hire 120 people in only four weeks. In collaboration with Work4Labs, Hard Rock first created a Facebook page for the restaurant and ran ads targeted to locals who 'liked' Rock and Roll. At the same time candidates were able to submit their applications directly through the social network. The whole recruitment process had a total cost of less than EUR 2000, which is not even a tenth of what Hard Rock normally spends for hiring staff in new locations.²

Supporting social inclusion

The previous chapters have highlighted an important fact: the Internet is a great, if not the greatest, enabling force of our times.

It enables businesses large and small to run more efficiently and compete in global markets. It enables greater consumer choice and it enables innovation in business models that helps companies generate revenues from non-traditional sources like e-commerce platforms or even user-generated content. The emergence of the 'momprenneur' shows how its impact goes much further as it increasingly enables new models of employment and inclusion helping societies to cope with some of today's major challenges.

High unemployment is a major challenge. It is interesting to see how social networks have started to play a role as an employment bulletin board helping employers and prospective employees to find each other faster, more easily and cheaper.

Employment through social networks

In Spain the 'Job and Talent' page on Facebook has become a popular way to connect people for the purpose of employment opportunities as well as for the exchange of all work related experiences and information.¹ There are also dedicated recruitment applications that allow employers to reach a wider pool of potential recruits and job seekers to stay informed about new openings. The most popular recruitment app is 'Work for Us' developed by a company called Work4Labs based in France that has a monthly user base in excess of 100.000. This new, more dynamic form of finding job opportunities through a social network is particularly appealing to young people who in many countries suffer the most from high unemployment.

So-called MOOCs, provide new opportunities for everyone around the globe to access to high-quality education

1. See 'jobandtalent' at: <https://www.facebook.com/jobandtalent>
2. Colao, J.J. (2012). With Facebook, Your Recruitment Pool is One Billion People, in Forbes 12. September 2012.
3. Visit edX at: <https://www.edx.org/>
4. Visit Coursera at: <https://www.coursera.org/>
5. Visit UniMOOC at: <http://iei.ua.es/mooc-emprendimiento/>
6. Observatorio MOOC. (2012). UniMOOC: Premio especial "los mejores de Ariadna 2012".

Case study: MOOCs

The Internet is also transforming and enabling innovation in education. Universities, schools and other education establishments increasingly offer courses online and massive open online courses, so-called MOOCs, provide new opportunities for everyone around the globe to access high-quality education. Thousands of students have enrolled in courses taught by prestigious lecturers on online platforms like edX³ and Coursera⁴.

In Spain Google partnered with numerous organizations and universities to create UniMOOC⁵, an online course dedicated to educating Spanish-speaking people about entrepreneurship. To date more than 20.000 students have registered for the course and in 2012 the newspaper El Mundo awarded it as the 'Most innovative project' of the year.⁶



Conclusion

The Internet economy will continue to grow for years to come. It is one of the most dynamic sectors of the economy and an instrument that renders other sectors more dynamic.

Our case studies illustrate one central point: the Internet is the enabling force of the 21st century. It allows small businesses to reach global markets and be more efficient, it creates new niche markets and entrepreneurs, it empowers consumers and enables more inclusive access to education. Data-driven innovation will not only make our economy smarter but will also lead to new scientific breakthroughs. The social, economic and political benefits we will derive through Internet-enabled societies are only just becoming apparent.

Europe has gained significantly from the Internet era. Our businesses are trading globally using the Internet as their platform. As more and more businesses absorb online tools and services into their daily operations their competitiveness increases. More efficient online bookkeeping, online advertising and further cloud-based solutions are just some examples.

European Internet start-up hubs like the ones we see in London or Berlin continue to grow, to spread and to achieve critical mass. Europe's creative hubs provide a fertile environment for the digitally enabled businesses and digital innovators of tomorrow, something we hope policymakers will seek to support and exploit.

- Between 2010 and 2016 the Internet economy of the G-20 will nearly double to reach a value of **\$4.2 trillion**
- In these markets the Internet economy will grow at an annual rate of **8%** – one of the fastest growing sectors
- The Internet economy will account for **5.7%** of EU GDP by 2016
- **97%** of commercial sellers using online trade platforms export
- G-20 consumers researched online and then purchased offline more than **\$1.3 trillion** in goods in 2010 – that is 7.8% of all consumer spending
- In 2013 **529,000 people** in full-time employment are directly linked to the app economy across Europe, including **330,000 app developers**

AN INITIATIVE OF THE
COMPUTER & COMMUNICATIONS
INDUSTRY ASSOCIATION

BRUSSELS

Regus Business Centre
Rond Point Schuman 6
1040 Brussels Belgium
+32 2 234 78 69

