



NEW BUSINESS MODELS

Money from the crowd

How innovations can be boosted by crowdfunding

Crowdfunding markets around the world have experienced significant growth rates in recent years. With almost 50 billion Euros invested worldwide between 2010 and 2017, particularly in the United States and the United Kingdom, crowdfunding has attracted increasing economic and political attention. The European Union (excluding the UK) has some catching up to do. Here, crowdfunding sums are still low and there is negligible cross-border activity. This is due to the lack of a consistent regulatory framework.

As a result, the EU is wasting significant innovative potential and losing its connection to non-governmental drivers of innovation. In a recent report [Bruegel](#) from Brussels, Belgium sets out the actions that should be taken.



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ENERGY INDUSTRY

The gas knot

Ten years after the gas crisis, Russian-Ukrainian relations are at a crossroads

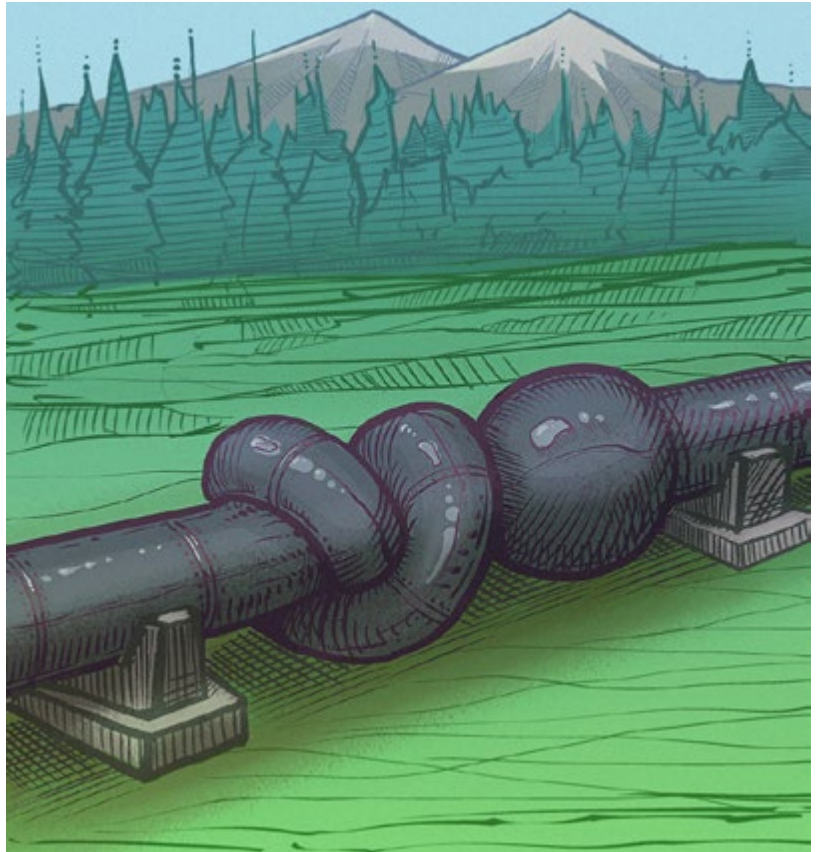
It is ten years since the major Russian-Ukrainian gas crisis. International mediation efforts led to new contracts being signed, but now they are due to expire on 31 December 2019. The European Commission began mediating talks between the parties in July 2018 in order to broker a new agreement. But the real negotiations are unlikely to start before November – at one second to midnight, so to speak. There are also uncertainties about the future of *Nord Stream 2* (NS2) and *TurkStream* (TS). This gas problem could once again return to haunt Europe this coming winter. A new report presented by the *Institut français des relations internationales* from Paris, France, explains the issue.



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ECONOMY

The “dark coin”

How North Korea raises funds and evades international sanctions

North Korea has been subject to international sanctions for many years, with the aim of isolating it from the international financial system and preventing it from acquiring foreign currency. However, North Korea has been evading these international sanctions by exploiting cryptocurrencies. So far, Bitcoin and other cryptocurrencies have only played a peripheral role in North Korea’s procurement of foreign currencies. However, the increasing sophistication of North Korea’s broader cyber-activities and the ongoing demand for cryptocurrencies could become a sustained security challenge. A new study from the *Royal United Service Institute* from London, Great Britain, examines how other countries should respond to this.



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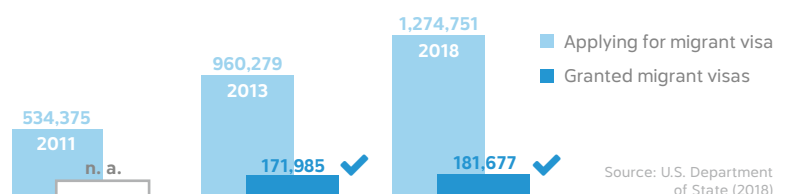
MIDDLE EAST

Exile on the Nile

The Egyptian brain drain

For decades, thousands of young Egyptians have expatriated for economic reasons in order to find work abroad, but since 2011 many have also been motivated by political factors. They include above-average numbers of Christians, intellectuals and liberal Egyptians. Most of them head for Western countries, but Islamists are also turning their backs on their country and migrating east, particularly to Gulf nations. This is changing the structure of Egypt’s population. The *Carnegie Middle East Center* in Beirut, Lebanon examines where this may lead over the coming years and what this will mean for Western nations.

Egyptians applying for migrant visas to the United States



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TRANSPORT

On track to prosperity

How high-speed rail is bringing momentous change to Asia

Many years ago, Germany was transformed by the stagecoach and then the autobahn. New trade routes were created, cities grew up and an economic network was established that still shapes our country today. Now, something similar is happening in Asia – but the trigger is the construction of new high-speed rail lines. In the last few years, and with ruthless efficiency, China has built a network of high-speed lines across the country, far outstripping that of Japan and the West. Now South Korea and India are following suit. However, the routes are still distinctly separate and do not cross national borders. This is where Asia is keen to learn from Europe. A new report from

High speed lines in 2019

	Country	Technology	Line in operation (km)	Line under construction (km)	Operating speed	Top speed
1.	China	CR400BF	31,043	7,207	350 km/h	420 km/h
2.	Japan	Shinkansen	3,041	402	320 km/h	400 km/h
3.	Spain	AVE	2,852	904	310 km/h	404 km/h
4.	France	TGV POS	2,734	0	320 km/h	575 km/h
5.	Germany	ICE	1,571	147	300 km/h	368 km/h
6.	South Korea	KTX	887	0	305 km/h	421 km/h

Source: Omio (2019)

the *Asian Development Bank* in Tokyo, Japan highlights how rail services could unlock Asia's potential.

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HOUSING POLICY

Growth can be limiting

How can we create liveable cities?

Cities are like magnets. They attract people, businesses, ideas, and problems and pack them all into a very restricted space. The management of megacities is one of the major challenges of the 21st century. Social and spatial inequalities are curtailing the expansion potential of many cities. Targeted political action needs to be taken to ensure that these cities do not fail because of their size. In a new study, the *Centre for Economic Policy Research* from London, Great Britain, examines how to find a middle way between total deregulation and maximum government intervention.

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URBAN LIFE

When cities influence global agendas

The influence exerted by the global network of cities is growing year on year

While the influence of international organisations is dwindling, cities have emerged as major players on the international scene. Yet their ambition to project themselves internationally and to influence global agendas is not a new phenomenon. Cities have operated through organised networks for decades and become more professional in their activities. Today, city networks play a key role in defining and implementing some of the main global agendas. But the parallel progression of globalisation and urbanisation has also highlighted the vulnerability of these new urban ecosystems. The *Barcelona Centre for International Affairs* in Spain examines the parameters for success and the limitations of this new global policy approach.

Mega cities worldwide 2018 and 2030



Source: Visual Capitalist (2018)

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FINANCIAL MARKETS

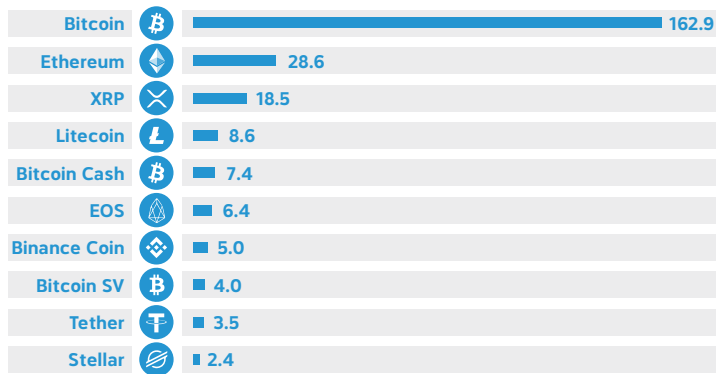
The new gold

Cryptocurrencies set to become a mainstream payment method

From gold to paper to air? In theory, any commodity can be used as money if the public has sufficient faith in it. Just as paper money replaced gold coins, in future cryptocurrencies could dominate our lives. Why cryptocurrencies have what it takes to be the 21st century's gold, and why other commodities have not achieved this shows a new study by the [F.A. Hayek Foundation](#) from Bratislava, Slovakia explains

Top ten of cryptocurrencies

Total of coins in circulation (in billion US dollars)



Source: Statista (2019)

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MIGRATION POLICY

A high-tech seismograph for migration journeys

How new technology seeks to predict migration policy

Europe and the European Union are still feeling the impact of the migration and refugee crisis of 2015. The latest information and communication technologies are already being used in the refugee aid systems, and their importance is set to increase. Blockchain technology, for example, has significant potential for building an efficient and transparent administration of humanitarian aid. At the Dadaab refugee camp in Kenya, the platform *BanQu* was developed on the basis of this technology, in order to simplify the identity verification of refugees. *BanQu* creates a permanent and verifiable digital identity for every Somali refugee based on selfie photos, as well as biometric data and information about family members, and stores it on a secure server. However, the use of new technologies also raises questions of accountability and transparency as well as protection of personal data. In its report the [Centre for International Governance Innovation](#) from Waterloo, Canada highlights the challenges, but also the opportunities, presented by new technologies in the area of refugee aid.

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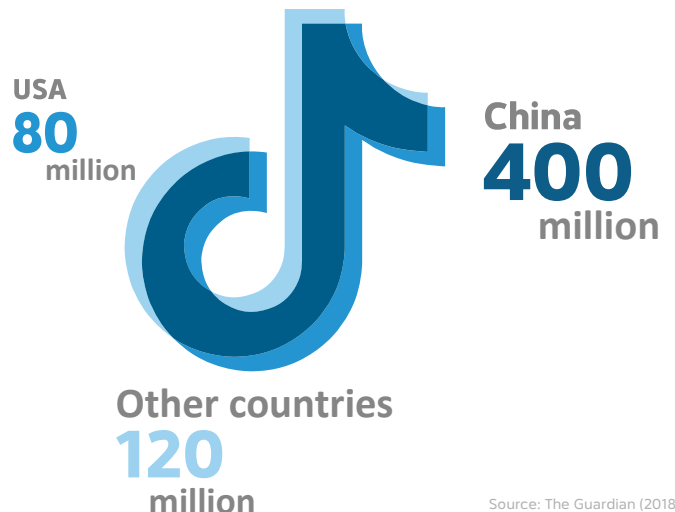
SOCIAL MEDIA

Facebook is dead, long live TikTok!

Chinese social media is growing, mainly outside China

“Facebook is basically dead” – many experts have pronounced the last rites on the US tech giant, but it may be a little premature. However, it is true that Chinese technology companies have been deliberately developing a variety of social media outlets over the last few years in a bid to attract foreign users and compete with Facebook. Until recently, these attempts remained largely unsuccessful and the overseas penetration of Chinese social media was marginal. But now a new study shows that the tide is turning as the number of Western users of Chinese social media is growing exponentially. The number of Western users of Chinese social media is growing exponentially. This has sounded alarm bells in the US military. The [Peterson Institute for International Economics](#) in Washington, D.C., USA, highlights the potential risks and what lies behind Beijing's new strategy.

TikTok user worldwide (estimate)



Source: The Guardian (2018)

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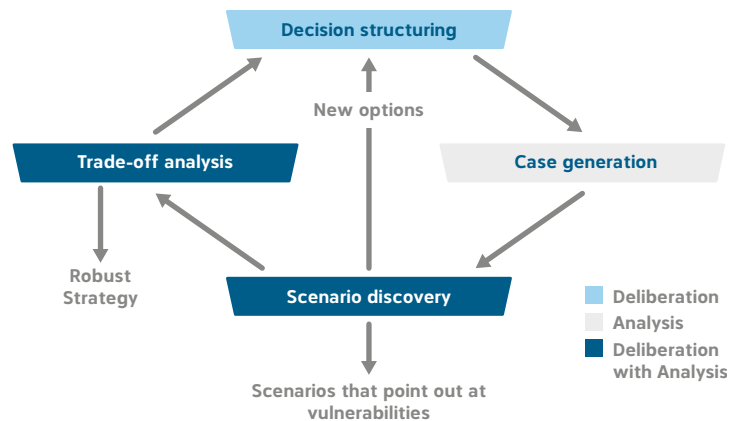
RESOURCE MANAGEMENT

Keeping the water flowing

The need for a new resource management strategy

In Germany, the year 2019 will be remembered as a “hot one”. The fields turned to dust and the Rhine was almost empty. The US is no stranger to water shortages. We need new qualitative and quantitative methods for long-term resource management. In this time of deep uncertainty, the RAND Corporation has launched its new Robust Decision Making (RDM) system. It is extremely adaptive in that it can identify near-term decisions and provide guidance on how these resource management responses should be changed or augmented as the future unfolds. [RAND Corporation](#), Washington, D.C., USA

Iterative and participative parts of a RDM analysis



Source: RAND Corporation (2013)

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FOREIGN POLICY

Gazing into the crystal ball

Relations between Russia, Europe, and the US in turbulent times

It is June 2028. Fourteen years after Russia annexed Crimea, Ukraine is again embroiled in conflict, and the world is on the brink of war. The tensions escalate as Ukrainian troops shoot more than one hundred pro-Russian protesters ... No one can predict the future, but it is possible to build future scenarios based on current trends and derive recommendations for action

for political stakeholders and decision-makers. The *Center for Transatlantic Relations* at the *School of Advanced International Studies* at *Johns Hopkins University* and the *Robert Bosch Center* at the *German Council on Foreign Relations (DGAP)* have joined forces with the *Robert Bosch Stiftung* to explore the dynamics of relations between Russia, Europe, and the US in turbulent times. The result is a set of fascinating future scenarios that describe how the various stakeholders could interact. [German Council on Foreign Relations](#), Berlin, Germany

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DEFENCE POLICY

The spy from the island

How Brexit could spell the end of Britain's leading role in intelligence

From John le Carré's novels to the insatiable popular interest in James Bond, Britain has long enjoyed, and cultivated, an image of producing superior spies. Yet this reputation is based on more than myth and fiction. For decades during and following World War II, the painstaking real-world work of British intelligence officers was one of the United Kingdom's primary sources of power. This power, and its underlying foundations, are now in jeopardy thanks to Brexit. By leaving the European Union, Britain will no longer have access to central sources of information, contacts and intelligence services. This will have an impact on the country's national security. But it will also bring disadvantages for the EU, as mainland Europe has always been happy to use the large quantity of quality intelligence that has been gathered in the UK. The

The five largest British intelligence services

Agency	Operations	Personnel
Security Service (MI5)	Counter terrorism and counter espionage intelligence gathering and analysis	4.053
National Crime Agency (NCA)	Organised crime intelligence gathering and analysis	4.516
Secret Intelligence Service (SIS/MI6)	Foreign intelligence gathering	2.594
Defence Intelligence (DI)	Military intelligence gathering and analysis	3.655
Government Communications Headquarters (GCHQ)	Signals intelligence gathering and analysis	5.806

■ Domestic intelligence ■ Foreign intelligence ■ Signals intelligence

new paper from the [Belfer Center for Science and International Affairs](#) from Cambridge, USA looks at how both sides could find a solution.

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KOREA CONFLICT

Focus on the 38th parallel

A new portal aims to bring greater transparency and understanding to issues associated with the Korean conflict

Beyond Parallel is a new vehicle for providing information on the Korean conflict. It aims to deliver maximum transparency by providing a 360-degree view of unification and creating a central source of unbiased information on different scenarios. It uses cutting-edge analysis and data tools to provide information about developments on the Korean peninsula. *Beyond Parallel* states that all contributors have complete intellectual independence in their commentary, do not have ties to a particular region or institution, and are simply sharing their personal perspectives. *Beyond Parallel* does not seek to promote a particular point of view, but to serve as a clearinghouse for divergent views based on the same facts.

The new platform is coordinated by the *Center for Strategic and International Studies* in Washington, D.C., USA.

MEDIA AND FAKE NEWS

Trolls in your feed

Young people live on the Net, but have little understanding of how it works

If you were born after 1985, it's hard to imagine life before the Internet. After all, it dominates just about every area of our daily lives. But despite this, many young people take a remarkably uncritical approach to information gleaned from the Internet. For most of this generation, Internet trolls are abstract entities rather than real threats. The *Danish Institute for International Studies* (DIIS) sees this as a latent danger for democracy because disinformation and fake news have become a daily reality. That is why a practical guide with twelve tips to help internet users to become fact checkers themselves was published now by *DIIS* from Copenhagen, Denmark.

BLOCKCHAIN TECHNOLOGY

Sustainable supply chains

How blockchain technology can combat child labour and environmental devastation

Minespider is a company that uses blockchain technology to monitor supply chains of natural resources, especially minerals and ores. The goal is a sustainable, humane and environmentally friendly supply chain that upholds regulations on occupational safety, environmental protection and supports human rights. In reality, there are repeated violations of regulations and catastrophic accidents with serious consequences for people and nature. To prevent this, *Minespider* has developed a public blockchain protocol that accurately records the conditions under which minerals are mined. This makes it easier to detect and punish violations. According to its founder, Nathan Williams, companies that undergo voluntary control through blockchain technology could be rewarded through a kind of social credit system and economic benefits. *Minespider GmbH*, Zug, Switzerland



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HEALTH AND E-HEALTH

Lifetimes

Cecilia Corral still remembers waiting with her mother at the *Medicaid* and *Food Stamp* offices when she was a kid. Waiting for medical treatment, waiting for food, waiting for news, so that life could somehow go on.

After graduating from Stanford, Cecilia decided that life should be better for other families. Her startup, *CareMessage*, supports families who have to manage chronic diseases. *CareMessage* sends text messages to remind them of medical treatments and automatically confirms or cancels appointments. It allows interactive educational programmes to be designed for individual patients, along with screening and vaccination schedules. Cecilia Corral hopes that her company will reduce patient waiting times and increase their participation in society. The *Pershing Square Foundation*, Google and others have already invested more than 19 million US dollars in *CareMessage*.

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MEDICINE

Lifesavers

Teresa Cauvel and Sona Shah met during a master's degree in biodesign at Columbia University, and the pair travelled to Uganda as part of their studies. They visited a number of hospitals, where they found that many of the wards were struggling with a lack of functioning medical equipment. On their return to the US, the two women decided to set up *Neopenda* to engineer medical devices for where they are needed most. They have been working closely with 150 Ugandan nurses and clinicians, using their feedback, experience and knowledge to design products that are truly user-centric. *Neopenda's* first medical device, a neonatal vital signs monitor, has been designed to help overwhelmed healthcare professionals give newborn infants the care they need when they need it. The device is currently in development and expected to launch commercially in late 2019. Cauvel and Shah anticipate that their product will improve the care of 45 million newborn babies in emerging markets worldwide.

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ARTIFICIAL INTELLIGENCE

Explaining the 'why'

On its own, artificial intelligence (AI) changes nothing. The key question for the future is how the almost infinite power of AI can be used meaningfully and profitably because AI must be able to offer solutions to real problems. Nasrin Mostafazadeh's startup, *Elemental Cognition*, is seeking to drive the future of AI by changing the way machines learn so that they are able to explain the 'why' behind their answers. *Elemental Cognition* uses automated speech recognition as a training tool. Through direct language understanding, artificial intelligence can become a thought partner between humans and machines and influence people's actions in real-time. For Nasrin Mostafazadeh, the challenge is not only recognising language through storytelling, but also understanding the structure and reasoning that underpins it. If AI can start to understand the context, background, and intention of a conversation, it will be able to make personalised decisions in real-time.

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