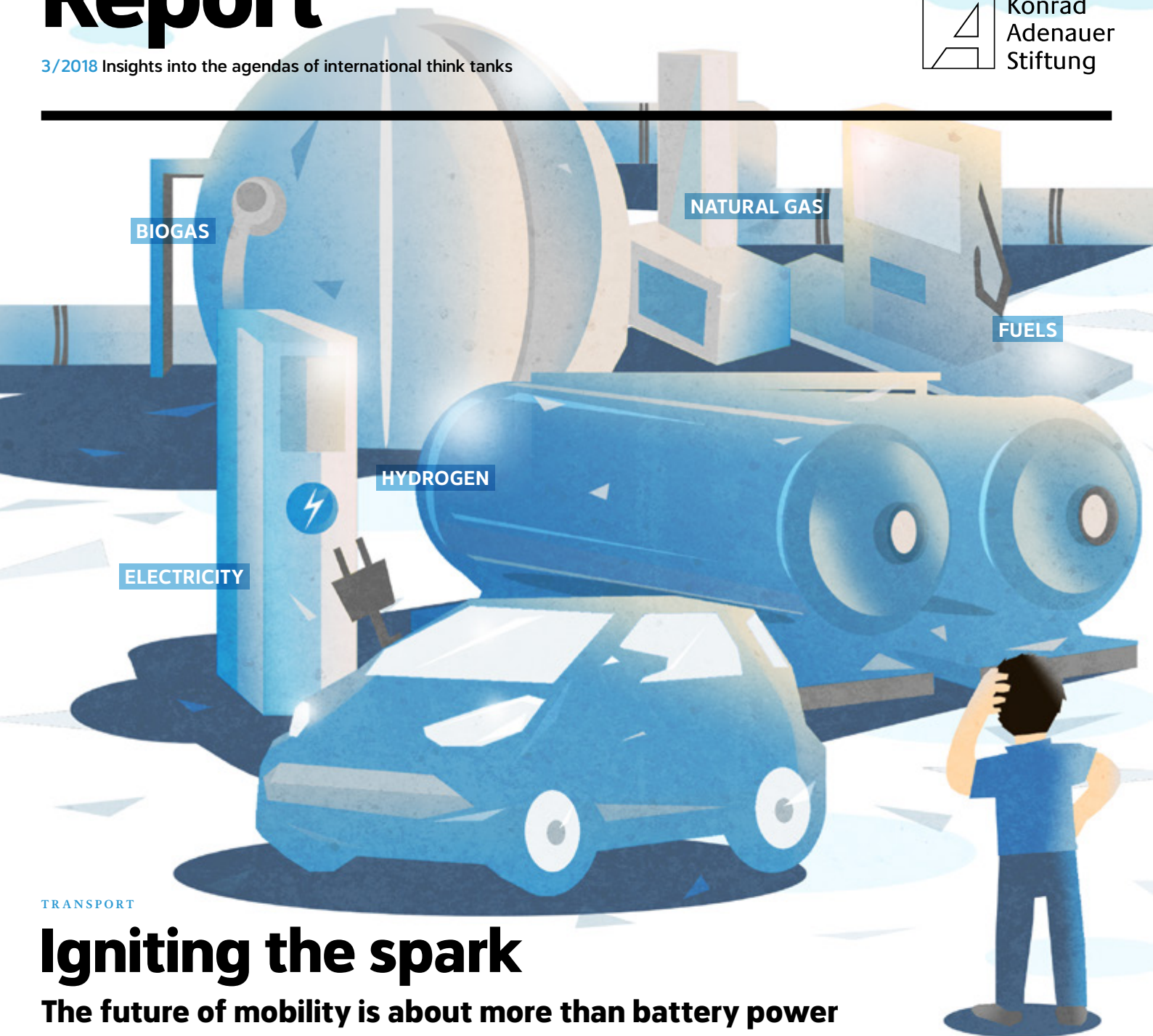


# Think Tank Report

3/2018 Insights into the agendas of international think tanks



Konrad Adenauer Stiftung



TRANSPORT

## Igniting the spark

The future of mobility is about more than battery power

Will the hype surrounding electromobility soon be a thing of the past – and perhaps with good reason? *The Oxford Institute for Energy Studies* is swimming against the current tide of general euphoria surrounding battery-powered vehicles. It believes that some disruptive changes in the development process are still required before electromobility is capable of really changing our lives. These include the scaling up of battery capacities, a new value creation

structure for the automotive industry and a new power grid management structure. That's why the *Oxford Institute for Energy Studies* is convinced that other alternative technologies should not be neglected until these issues have been fully resolved, especially in emerging markets, because electromobility will clearly only become a significant factor in these countries long after it has become established in the leading industrialised nations. A new study

sets out what the right mix for the future might look like and which government strategy fits with which particular stage of development. *The Oxford Institute for Energy Studies*, Oxford, UK


INDUSTRY 4.0

# Insatiable hunger for data

## What is Canada's new national big data strategy?

Data is not acquired through transactions. Data leaves barely a trace in the state's account books. So, in principle, data is nowhere to be found in traditional national economic accounts and international trade statistics. However, its value and influence grows with every passing day. Canada's new national data strategy aims to change all this and take greater account of the value of data for national economic accounts. A new decentralized system is currently being developed to

capture and bundle what is expected to be a huge amount of data. This new network of sensors will be found everywhere: from agricultural fields to factories, from city crossings to power grids and hospitals to smartphones – in rural and remote communities as well as in large cities. This will provide Canada with an initial overview of its data volumes and allow it to take their earnings into account from an economic perspective. *Centre for International Governance Innovation*, Waterloo, Canada

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CIVIL SOCIETY

# Anti-corruption fighters of the world unite

## Are we seeing the start of a new global protest movement?

The past five years has seen a proliferation of anti-corruption protest movements all over the world. Although they have emerged independently, the sheer number of these groups and the similarity of their objectives raises the question as to whether this is the beginning of a new global movement. And does this phenomenon also contain lessons for people in other countries that are blighted by systemic political corruption? A look at countries as diverse as Brazil, Burkina Faso, Guatemala, Lebanon, Romania, South Africa and South Korea lends support to these arguments. *The Carnegie Endowment for International Peace* examines exactly what this means and how these movements might develop. *Carnegie Endowment for International Peace*, Washington D.C., USA

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GLOBAL ECONOMY

# Everything is done for a reason

## US fiscal policy may provide new ideas for EU budgetary procedures

The EU needs more money: to secure its external borders, for joint military projects, for integrating asylum-seekers, and for rising security expenditure. At the same time, an important net contributor, the UK, is leaving the Union. As a result, EU leaders are being forced to use their own budgets more effectively. The *Peterson Institute for International Economics* believes

that the United States could serve as a model, as its budgetary procedure of earmarking public revenues for specific public spending priorities could serve as a template for European decision-makers. An increase in the earmarking of public revenues could also serve to create greater transparency and reduce the mistrust of taxpayers. A new study from Washington

shows how this could be implemented in practice. *Peterson Institute for International Economics*, Washington D.C., USA

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MIDDLE EAST

# No way back

## Russia's military engagement in Syria is unlikely to come to an end in the medium term

Russia's military engagement in Syria has been going on since September 2015 and there seems to be no end in sight. At the same time, relations between the US and Russia have reached a new low since the end of the Cold War, and the short-term perspective gives little cause for optimism. One of the reasons for this is the diametrically opposed positions of the two nations in the Syrian civil war. The *Carnegie Moscow Center* has looked at potential exit strategies for ending Russia's involvement in Syria and concludes that Russia will con-

tinue to maintain a military presence in the Middle East for the foreseeable future. There is unlikely to be a way back from this situation unless they abandon their own doctrines. This new study from *Moscow* explains where a future without an exit strategy might lead. *Carnegie Moscow Center*, Moscow, Russia

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FAMILY

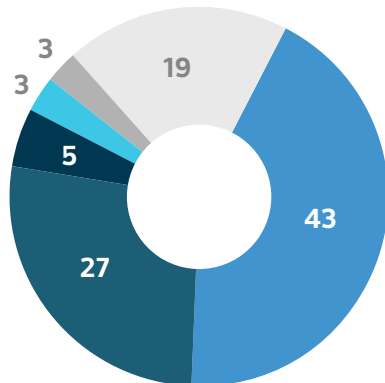
# Young children, young parents, major challenges

## How can the state protect young families against poverty?

Currently, about 3.6 million young parents (18 to 24-year-olds) live with their children in the USA; many of them live in somewhat precarious circumstances, below or near the poverty line. The most important question for these young families is how child-rearing can be combined with education or work. While this may sound logical, we still know far too little about the daily problems and challenges facing young families, says the *Urban Institute*. A range of data sets from different sources have been brought together as part of a large-scale study in order to provide a representative picture. An initial conclusion drawn from the study is that completing their vocational training is at the top of the priority list for young fathers and mothers, along with a clear desire for more political support in this area. *Urban Institute*, Washington D.C., USA

Educational Attainment of Young Parents (in %)

- High school graduate
- College (no degree)
- Highschool (no diploma)
- Associate's degree
- Bachelor's degree
- 8<sup>th</sup> grade education or less



Source: Urban Institute, based on SIPP, 2014

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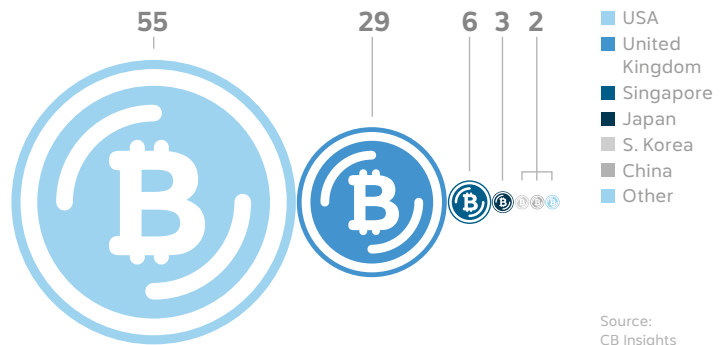
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CRYPTOCURRENCIES

# Cryptic but not corrupt

## What blockchain technology can do for fragile states

Bitcoin & Blockchain Global Deal Share (in %)



Source: CB Insights

Proponents of blockchain technology, the technology behind cryptocurrencies such as bitcoin, argue that it can reduce transaction costs and increase trust in a currency. Since fragile states are often affected by both high transaction costs and low levels of trust, many organisations are looking at various blockchain applications as effective ways of solving problems within these particular contexts. The *Clingendael Institute of International Relations* looks at how development agencies and fragile states should deal with blockchain technology using three application areas as examples: remittances and banking, supply chain transparency and land registration. The main focus here is on the technical and political challenges and the potential risks involved in broader adoption. *Clingendael, Netherlands Institute of International Relations*, The Hague, Netherlands

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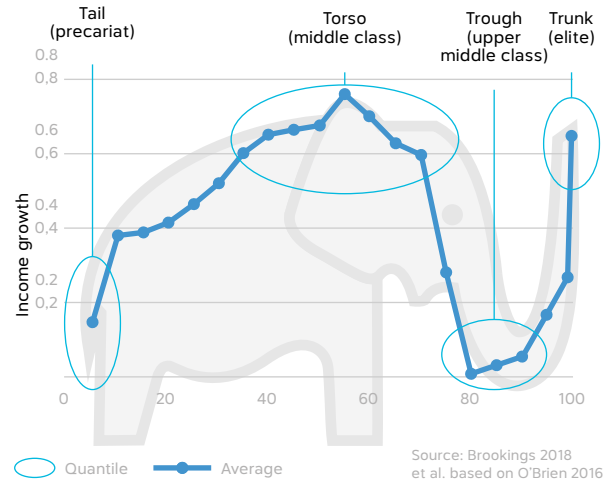
## GLOBAL ECONOMY

# From trunk to tail

## How globalisation is changing income distribution

In 2013 Christoph Lakner and Branko Milanovic published a chart that was quickly dubbed the "elephant chart". It depicts changes in the income distribution of the world's population between 1988 and 2008 and is used to illustrate growing levels of inequality resulting from globalisation. Now, ten years after its first publication, Brookings examines how this particular model holds up against new data and methods. The results are astonishing: the lower income groups of poorer countries have grown the fastest in the last 20 years, closely followed by the richest percentile of the world's population. This results in changes to both the "trunk" and the "tail" on the "elephant chart". This new report explains exactly what this means. *The Brookings Institutions*, Washington D.C., USA

Global income growth (elephant chart)



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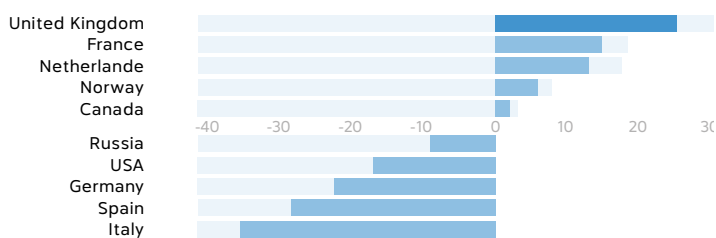
## FINANCIAL ARCHITECTURE

## Productivity = Investment = a state-owned bank

### UK considers creating its own national investment bank

The British government predicts a lack of investment opportunities for the country's businesses in the future – and not just on account of Brexit. In order to reduce the potentially negative effects of this situation, it has ordered a "review of what actions could be most effective" to help safeguard the productivity and growth of highly innovative SMEs. As part of its current Capital Review, the UK Treasury is calling for more government financing programmes and for much more state-supported capital to flow into the market. The *Institute for the Study of Civil Society* in London takes a look at the successful KfW model in Germany as a way of resolving this issue. It asks what conclusions might be drawn and how the KfW could become even more of an export model. *Institute for the Study of Civil Society*, London, UK

### Percentage change in number of new firms created in 2007 and 2015



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## ARTIFICIAL INTELLIGENCE (AI)

## When artificial intelligence becomes the new weapons standard

### India and China battle for AI supremacy

In July 2017, the Chinese government presented its latest AI development plan. The goal is for China to become the global centre for AI innovation and the world's leading provider of AI technology and applications by 2030. That's going too far as far as neighbouring India is concerned. In February 2018, the Indian Ministry of Defence adopted the development and use of AI for military applications and technology-driven economic growth as a fundamental principle. A new committee is to be set up comprising representatives of the National Cyber Security Centre, the armed forces, the Indian Space Agency, the Atomic Energy Commission and the Ministry of Defence. The battle for AI supremacy has triggered an economic and technological arms race between the two countries. If it does not take action now, India runs the risk of missing out on developing the 21<sup>st</sup> century's key technology and possibly becoming dependent on China at some point in the future. The potential effects of such an arms race are explained by the *Institute for Defence Studies and Analyses* based in New Delhi. *Institute for Defence Studies and Analyses (IDSA)*, New Delhi, India

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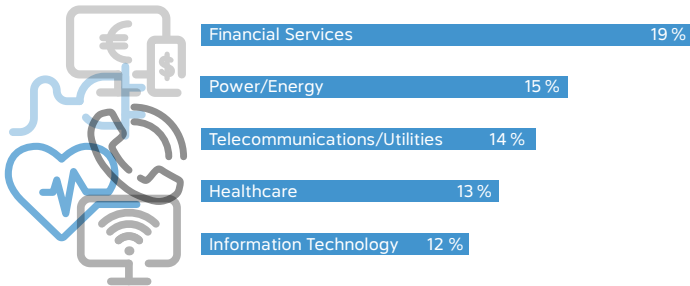
CYBERSECURITY

# Blackout

## How to prevent a cyber attack on our power supply?

The digitalisation of the energy sector brings many advantages. At the same time, there is also a growing risk of successful cyber attacks on the power grids, as can be seen in the most recent examples in Ukraine, whose effects were also felt in the European Union due to the interconnectedness of the various networks. In recent years, both the United States and the European Union have attempted to better protect themselves against these potential attacks. There are, however, significant differences in their basic approaches, with the USA preferring a much narrower security concept that involves fewer, but much more robust, barriers against a cyber attack. For its part, the EU is going for many more barriers, but ones that are probably easier to overcome. In its new study, the *Institut Français des Relations Internationales* concludes that transatlantic mutual learning in this area could lead to an optimal security structure. The study examines what this structure might look like. *Institut français des relations internationales*, Paris, France

### Industries Most Likely to Face a Systemic Attack



Source: Business Wire 2017 based on AIG Systemic Cyber Risk Study 2017

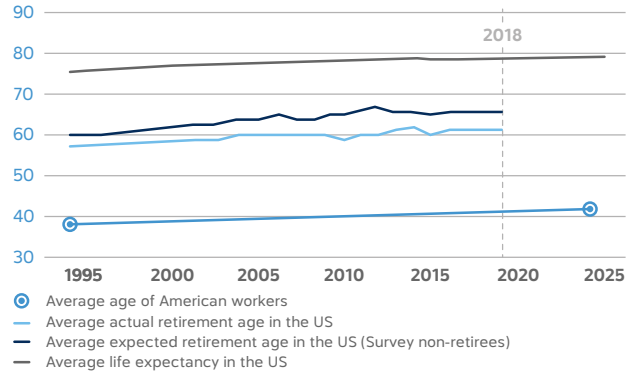
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THE WORLD OF WORK

# Stay a while

## Why working longer pays off on so many levels



Sources: RAND 2018, Actualitix 2016, Statista 2018, UN World Population Prospects 2002, Gallup 2005/2014/2018

The baby boomer generation are gradually retiring. The subsequent X and Y generations have given birth to fewer children and the gap in the labour market is continuing to grow. But the picture in the USA is starting to change. The number of workers over the age of 55 is currently growing faster than in any other age group. One in five employees in the USA is now 55 or older and by 2024 it will be one in four. And the *RAND Corporation* has discovered that the reason people are choosing to work longer is not solely down to monetary constraints but because it gives their lives meaning, they want to contribute to society or simply feel they are still needed. This means that society has to have a rethink. It has to redefine when people should retire and set new goals that will motivate people to contribute to society for longer. *RAND Corporation*, Santa Monica, USA

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POLITICAL PARTICIPATION

# Elections – Free, fair and secure?

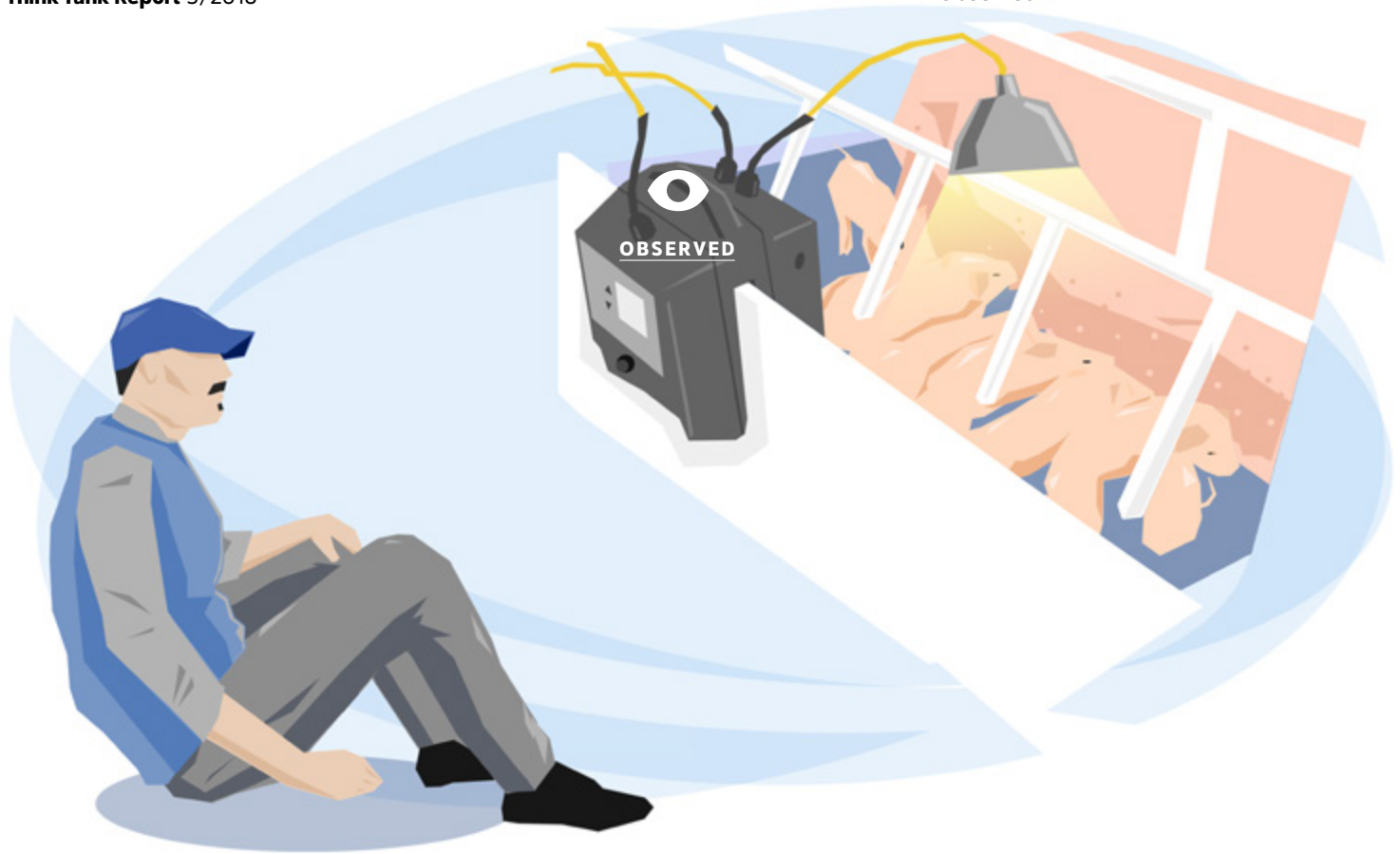
## The next US elections – once again with foreign interference?

It is still unclear how much targeted foreign interference took place in the last US presidential election. Almost two years on, we are no closer to knowing the truth. But no problems are solved by inactivity, so in light of the upcoming US midterm elections, the *German Marshall Fund of the United States* (GMF) believes that the US Congress and government should take clear steps to strengthen the country's defences against the threat of foreign interference. Although many Americans are still not prepared to acknowledge this vulnerability, major steps must now be taken to protect democratic

institutions against foreign opponents. A new GMF study presents a ten-point plan that includes disclosure requirements for online political advertisements, the creation of a fund to promote media literacy and a reform of the Foreign Agents Registration Act. The study also sets out how these steps could be implemented in the short term. *The German Marshall Fund of the United States*, Washington D.C., USA

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## AGRICULTURE

## Protecting piglets

A start-up company in Iowa is trying to revolutionise pig breeding

After piglets are born, there is a significant risk that mother sows will unintentionally crush their young offspring.

Together with other preventable accidents and illnesses affecting young piglets, this results in an annual loss to the pig farming industry of some four billion US dollars. The start-up company *SwineTech* is using state-of-the-art sensor technology to help prevent the death of piglets. Its founder, Matthew Rooda, grew up on a pig farm in Iowa. By better monitoring piglets and evaluating data on potentially dangerous situations, farmers should be able to achieve higher productivity while significantly improving animal welfare. *SwineTech*, New Sharon, USA

## NUTRITION

## If you don't ask...

How decision-makers can consult directly with their stakeholders

There are several ways of involving target groups in the decision-making process.

But how best to organise the answers when it's not just about answering simple yes-no questions? Evaluating responses to open questions can be very time-consuming. But now *Insights* has an intelligent solution. The online platform collects qualitative answers to open questions, filters core statements from each response and sorts them into topic clusters. In this way, it gleans a set of insights from all the answers to use as a basis for decision-making. The swarm intelligence of the users plays a greater role than algorithms. The result is a transparent decision that is clear to everyone involved. A number of municipalities and authorities have already had good results with this tool. *Insights*, Berlin/Washington D.C./Tel Aviv

## URBAN DEVELOPMENT

## Just surviving?

How two young New Yorkers want to make the city affordable for all

New York City is undergoing an unprecedented level of development. There are more and more people, ever higher rents and yet the quality of affordable housing continues to decline. The process of gentrification is causing people to be displaced, while the obvious lack of affordable living space is creating additional pressure on residents. According to an official report, around 1.2 million New Yorkers now live in "inadequate" apartments that no longer meet the state's quality and health requirements. Daniel Kass and Georges Clement founded *JustFix.nyc* in order to change this situation and give tenants a voice again. They try to help New York tenants to initiate legal proceedings to combat evictions and to report quality violations. They have already helped around 2,500 people to secure significant improvements to the quality of their housing. *JustFix.nyc* won the Hague Institute for Legal Innovation's Justice Innovation of the Year award. *JustFixNYC*, New York, USA



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FACES



HEALTH

## No smoking

How can smokers be deterred from having that next cigarette before they even reach for their lighter? Akshaya Shanmugam has come up with a solution to this problem. With her start-up company *Lumme-Labs*, she has developed an innovative, smart device that supports people in their efforts to overcome their addiction. Machine learning, behavioural psychology and portable advanced technology are all combined in a small watch. Using stored data, the device is able to generate a precise prediction of when the wearer is next likely to want a cigarette based on both medical and technical data and the wearer's actual physical movements. The device then warns the potential smoker of the associated effects of smoking around 6 minutes before they are likely to light their next cigarette and advises them to simply keep their fingers away from the lighter.


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RENEWABLE ENERGY

## It pays for itself

The calculation is actually quite simple. If energy-saving systems are installed in existing buildings, the initial investment costs will be paid off after a few years. The problem for many homeowners is that the initial investment cost is often far too high. Lauren Salz and her company *Sealed* have set about tackling this problem by covering the initial cost of installing energy efficiency measures themselves. Using an actuarial approach to calculate potential energy savings over time, and with the support of Munich Re, *Sealed* has now concluded contracts with 20-year cash flows that are financed entirely through the energy costs saved. This not only gives homeowners a free upgrade but also helps to significantly reduce their carbon footprint.


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AUTONOMOUS DRIVING

## Eyes open

The development of the first truly self-driving car has become something of an international competition. At the centre of this race is 22-year-old Austin Russell, founder and CEO of *Luminar Technologies*. Russell and his company have developed a LIDAR sensor system, which functions in a similar way to a conventional radar, but which is based on laser waves instead of radio waves. This means that autonomous vehicles can see and interpret the world around them more clearly and accurately than using conventional radio waves. The first 10,000 units for a number of customers are due to roll off the production line shortly, helping to bring the self-driving car that bit closer to market readiness.


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