

ZEW



ZEW

ANNUAL REPORT

2019

**EU  
ROPE  
IN FOCUS**



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ROPE  
IN FOCUS**



ZEW

ANNUAL REPORT

2019



# EUROPE IN FOCUS



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**ZEW ANNUAL REPORT 2019**



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**LETTER**

**FROM THE EXECUTIVE DIRECTORS**



**PROF. ACHIM**

**WAMBACH, PhD**

President



**THOMAS KOHL**

Managing Director



## DEAR READERS,

EU parliamentary elections, a new EU Commission helmed by a German president, Brexit, the Green Deal, a new head of the ECB – 2019 was a year of major changes in European politics. ZEW was part of the process. Professor Isabel Schnabel, a member of our scientific advisory board, was appointed to the executive board of the ECB. ZEW has carefully examined the challenges for the European community, which is now additionally facing the coronavirus crisis, and publicly proposed a set of concrete policy recommendations. Detailed descriptions of the recommendations can be found in our focus report on Europe.

ZEW has also conducted research and policy advising on related issues at the federal level. For example, Professor Irene Bertschek, head of the ZEW Research Department “Digital Economy”, has joined the six-member Commission of Experts for Research and Innovation (EFI), which advises the federal government on education, research and innovation.

An important component of ZEW’s work is the facilitation of intensive intellectual exchange between experts. We are pleased to report the strengthening of our partnership with the University of Mannheim in 2019, including our cooperation within the framework of the Center for Doctoral Studies in Economics (CDSE). Moreover, we continued our funding of the joint Leibniz ScienceCampus Mannheim Taxation, making Mannheim a major hub for tax research.

ZEW has also strategically expanded its programme focus to include market and institutional design. To this end, we founded two new junior research groups: one devoted to digital market design; the other, to public procurement.

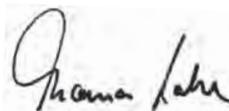
In 2019, ZEW once again demonstrated its prominence as a place for the open exchange of ideas, hosting over 50 scientific and economic policy events. For its lecture series First-Hand Information on Economic Policy, ZEW welcomed such luminaries as the ECJ Advocate General Professor Juliane Kokott and the former Vice President of the Federal Constitutional Court Professor Ferdinand Kirchhof. The series also featured Peter Altmaier, Germany’s federal minister of economics, who discussed the challenges facing Germany in the areas of climate policy and the transition to clean energy.

Our annual report contains information about all these topics and many more.

We hope you find it an enjoyable and stimulating read.



Prof. Achim Wambach, PhD  
President



Thomas Kohl  
Managing Director



# EUROPE

## IN FOCUS

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**PROF. DR.**

**FRIEDRICH HEINEMANN**



Head of the ZEW Research Department

“Corporate Taxation and

Public Finance“ and

an expert on Europe at ZEW



# EUROPE

↑ CHALLENGES AND OPPORTUNITIES

INTERVIEW WITH PROF. DR. FRIEDRICH HEINEMANN

## CHALLENGES AND OPPORTUNITIES IN 2020

Since the founding of ZEW, 'Europe' has been a central theme of its research work. What are the most important European topics at ZEW?

When the Maastricht Treaty was signed in February 1992, ZEW was just celebrating its first birthday. In the following years, ZEW researchers analytically followed Europe's path to a common European currency. First studies in the early 1990s warned that the European Monetary Union's fiscal rules might not be adequate to prevent suprana-

tional debt and confidence crises. In addition to addressing fiscal policy questions, ZEW has been continuously engaged with other key topics in European integration, such as financial market integration and European environmental, climate and innovation policy.

Given Brexit and resistance to further expansion, is Europe on the threshold of disintegration?

No, there is still widespread consensus among most of

the 27 EU Member States that, on balance, membership in the Union comes with great advantages. However, this basic consensus has begun to show signs of erosion. The EU must take Brexit as an occasion for self-examination and look at those areas in which it has been less successful. Why are such excessive sums still wasted from the EU budget for untargeted direct payments to farmers, while a range of truly European tasks from migration to development assistance remain underfinanced? Why isn't Europe rapidly improving its legislation, given the needlessly inflated bureaucratic costs resulting from the General Data Protection Regulation? In these areas, a great deal of work still needs to be done.

**Has the euro been good for Germany or would we have been better off keeping the Deutsche Mark?**

The introduction of the euro as a replacement for the Deutschmark was the right thing to do in 1999 and good for Germany. In retrospect, however, the expansion of the eurozone did happen too quickly. Countries such as Greece and Italy would have presumably developed better with their own adjustable currency. However, this is ultimately a purely academic debate about the mistakes of the past, since we do not want to and, indeed, cannot roll back the monetary union. Today's task is to adapt eurozone institutions so the common currency can function better with very heterogeneous Member States.



**Will the European Commission's 'Green Deal' lead to more climate protection or is it mere window dressing?**

I believe it makes sense to have an overarching guiding principle for European politics, one that visibly reflects Europe's vanguard role in tackling the great challenges of our times. Climate policy is one area in which a collective European approach is potentially far superior to independent national efforts, and can thus generate a genuine European added value. A European price mechanism for carbon emissions, which is no longer limited to industrial emissions, but also covers transport, buildings, and agriculture, would thus be desirable. Yet the road to this goal will be arduous, and caution is indicated. Coining new melodious labels for senseless monetary transfers to farmers or wealthy regions won't do. We must truly change the substance of our political stance.

**PROF. DR. FRIEDRICH HEINEMANN**

is head of ZEW's Research Department "Corporate Taxation and Public Finance" as well as professor of economics at Heidelberg University. His research interest concentrates on empirical public finance and political economy with a thematic focus on European integration, taxation, and the reform of fiscal institutions in the EU and the euro area.

**Against the backdrop of reform discussions, how crisis resistant is the eurozone?**

As a result of the coronavirus pandemic, Europe is being confronted by a new, serious economic crisis sooner than anticipated. Despite significant reforms, major issues of crisis management remain unresolved to this day. In the future, how will we deal with Member States that accrue excessive government debt? How do we effectively cushion macroeconomic shocks when the European Central Bank lacks additional leeway in interest rate policy? For these open questions, we need a reform package that takes into account the concerns of both Northern and Southern Europe. In our research at ZEW, we have advocated for developing an insolvency system for euro states in combination with mechanisms to protect against exogenous shocks. These considerations are timelier now than ever.

**How important is international cooperation for research about Europe?**

Individuals are invariably shaped by their personal cultural and ideological histories. Our research has shown that economists' national backgrounds are correlated with their positions in the eurozone reform debate. International teams of authors are thus an important corrective step in order to counter excessively narrow perspectives. Given this backdrop, it is a good thing that with regard to the national origin of its researchers, ZEW has become progressively more pan-European in recent years.



# CHALLENGES

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Climate change, Brexit, the restructuring of the EU budget, competition in innovation with China and the US, digitalisation – these are major challenges the European Union will have to find answers for, and will shape the EU for years to come. The ‘European added value’ must be made visible if we are to succeed in containing populist sentiments.

# EU REFORM

## THE EUROPEAN PARLIAMENT MUST SET PRIORITIES

ZEW Position Paper by Prof. Dr. Friedrich Heinemann

**T**he restructuring of the EU budget towards creating ‘European added value’, changes in agricultural and cohesion policy, the implementation of viable euro area institutions for highly indebted eurozone countries – these are some of the central tasks of the newly elected EU Parliament. In light of the European parliamentary election, ZEW identified the tasks that the Members of the European Parliament will have to tackle in the coming five years.

The ZEW analysis was motivated by the fact that the EU and the eurozone have failed to fulfil many of their promises. Economically speaking, Europe has been rather unsuccessful, which is why the integration process has lost much of its support. In order to steer the EU back on track, the Brussels budget must be restructured in a way that gives utmost priority to policy areas that produce ‘European added value’. To this end, the expensive direct payments to European farmers, and Europe’s cohesion policy, which is costly and has proved often ineffective in achieving its ends, should be examined very carefully. The paper rejects proposals to give the EU its own right of taxation and to abandon the unanimity requirement in European tax policy. The current financing system of the EU budget is fair, transparent and reliable in its performance. On the other hand, majority decisions in tax policy could jeopardise political cohesion in the EU and fuel separatist tendencies like Brexit. ZEW economists argue, therefore, that there is still a substantial need for reform in the euro area. Firstly, the eurozone institutions in their current form are unable to cope with a new financial and debt crisis. Furthermore, the eurozone has become vulnerable to blackmail from uncooperative populist governments, since their countries are considered ‘too big to fail’.

To better meet these challenges in the future, the new EU parliament should develop a clearly defined limit to which banks can purchase government bonds from their own EU countries and support the implementation of a functioning insolvency system for heavily indebted euro states.

### LINK

ZEW position paper:  
[www.zew.de/PM6559-1](http://www.zew.de/PM6559-1)

### EUROPEAN EVENING

Climate protection, digitalisation, migration, EU-sceptic parties and Brexit: Europe is facing major challenges. Which path should Europe take? After a kick-off lecture by Professor Friedrich Heinemann from ZEW and a keynote speech by Guido Wolf, Baden-Württemberg Minister of Justice and European Affairs, this question was discussed controversially at the first “European Evening” at ZEW.

More information at [www.zew.de/AM6814-1](http://www.zew.de/AM6814-1)

# EU CLIMATE POLICY

## USING MARKET FORCES TO PROTECT THE ENVIRONMENT

Opinion Piece by Prof. Achim Wambach, PhD

**E**uropean emissions trading has effectively linked economics and climate protection for some time now. Economic incentives can be put in place by pricing CO<sub>2</sub> in order to reduce climate-damaging emissions to ambitious ecological limits. It would therefore be advisable to expand the European Emissions Trading Scheme (EU ETS) to include the transport and heating sectors.

Economists typically create incentives using prices. Similarly, economists have long called for the introduction of a CO<sub>2</sub> price to reduce harmful emissions. But environmentalists prefer targets and limits to prices. They believe that these measures are a more reliable strategy for ensuring goals are actually met. Limits provide, however, little insight into how these goals can be achieved.

A possible instrument to reach emission thresholds is the EU ETS, which covers approximately 11,000 plants in the power and industrial sector. It provides a way to meet the demands of these two groups – economists and environmentalists. Every company participating in the EU ETS must obtain CO<sub>2</sub> licences for its emissions. If it has too few, then it has to buy more. So a facility pays a price for every tonne of CO<sub>2</sub>

it emits. Since the number of certificates is limited, the price is determined by market forces. The total amount of licenses is capped, and, by extension, total CO<sub>2</sub> emissions are limited. If one company emits more CO<sub>2</sub>, then another has to emit less, and vice versa. In this way, the EU ETS combines prices and limits.

In order to achieve the ambitious climate objectives for Germany and Europe as a whole, the transport and heating sectors, which are currently not a part of the EU ETS, should be included in this scheme. But that would require the agreement of the European Council, which is unlikely at least in the short term. As a first step, Germany should therefore include these sectors in a national emissions trading scheme. The consumption of petrol and diesel as well as heating powered by oil or gas would then be included in emissions trading. A ZEW study on new price models in the energy industry showed that prices for petrol, diesel, oil and natural gas would then probably rise, while those for electricity would fall.

### NOTE

A longer version of this piece was published on 10 September 2019 in the “Rheinische Post”.

### VIDEO

ZEW President Achim Wambach on CO<sub>2</sub> allowances (in German with English subtitles)

[www.youtube.com/watch?v=alhhErsOEDI](https://www.youtube.com/watch?v=alhhErsOEDI)

# RATCHETING

## DOES NOT PREVENT FREE-RIDING INCENTIVES

ZEW Policy Brief by Dr. Carlo Gallier, Prof. Dr. Martin Kesternich, and Prof. Dr. Bodo Sturm

**T**he hope of the 2015 Paris Agreement is to keep global warming below 2 degrees Celsius. If this hope is to become a reality, the international community must set and achieve ambitious climate targets. A cornerstone of the agreement is the so-called ratchet mechanism. It requires that signatory nations present their contributions to the reduction of greenhouse gases in regular intervals while gradually increasing their ambitions over time.

efficiency losses instead of efficiency gains. Because the experiment simulates the essential conditions of decision-making in international climate policy, albeit in very simplified form, policymakers should be sceptical about the positive effects of ratcheting on efforts to reduce greenhouse gas emissions. No empirical evidence exists indicating that ratcheting mitigates or eliminates the free-rider problem. In contrast to the Paris Agreement, which simply assumes that climate contributions will automatically increase under ratcheting, climate policy experts must work to eliminate incentives to free ride. Cooperative measures that aim at reciprocity are particularly effective. A promising strategy involves increasing the price of CO<sub>2</sub> under the condition that other states do as well. States that do not behave cooperatively would be subject to sanctions from cooperative states. Such sanctions could include levying a CO<sub>2</sub> duty on imports or charging a lump-sum fee.

But very little is known about how this mechanism affects policymaking at the national level, or whether it is even a viable approach for reaching the 2-degree goal.

Researchers designed a laboratory experiment to test how the Paris Agreement's ratchet mechanism affects climate protection efforts. Using a public goods game, a standard approach in experimental economics, they found that the ratchet mechanism leads to significant reductions in the climate protection efforts of participants. Otherwise cooperative participants are caused to scale back ambitious targets to avoid increased obligations in the future and prevent exploitation by free riders, i.e. those who do little or nothing for the climate but hope to benefit from the efforts of others. What lessons for international climate policy can be learned from the experiment? In the public goods game with real monetary incentives, ratcheting led to

### LINK

ZEW policy brief  
(in German)  
[www.zew.de/](http://www.zew.de/)  
PU81219-1

# INNOVATION POLICY

## NEW PERSPECTIVES FOR EU POLICY

ZEW Policy Brief by Bastian Krieger, Dr. Georg Licht, and Dr. Maikel Pellens

**E**urope is losing ground to its main Asian competitors when it comes to research and development (R&D) investment, and is barely keeping pace with the United States. Despite the efforts of recent years to increase R&D investment in the EU, it remains the case that innovations, especially the disruptive kind, have been developed mostly outside of the EU.

Many voices have therefore been calling for new approaches to European innovation policy that put more weight on the development of disruptive innovation and on the diffusion of new technologies throughout the market. Both goals can be achieved by channelling resources into specific directions that are expected to achieve disruptive and impactful innovation and that are critical for European growth and well-being. Traditional supply-side measures can be combined with strategic actions in these key areas to create new markets and generate demand.

Firms must be encouraged to undertake risky innovation projects with potentially high rewards, while policies need to be put in place that ensure the adoption of new technologies throughout the entire European economy. Diffusion could also be fostered through the implementation of specific support programmes and the strengthening of the European market for financing for innovative firms. In addition, mission-driven government institutions play a decisive role in the creation of key technologies. The EU has now significantly increased its commitment to mission-oriented policy and innovation diffusion. The ninth EU Framework

Programme, Horizon Europe, will introduce research and innovation missions to foster disruptive innovation. Designed in coordination with citizens and industrial technology users to establish a closer link between innovation and society, they aim to foster collaborations across sectors and disciplines resulting in more effective actions.

### FIRST EUROPEAN-CHINESE BUSINESS & INNOVATION FORUM

The first European-Chinese Business & Innovation Forum at ZEW provided insights into the trends and perspectives regarding cooperation and competition between the economies of Europe and China. Over the course of the event, international experts from the realms of politics, research and economics discussed the future development of European-Chinese economic relations.

More information at [www.zew.de/AM6609-1](http://www.zew.de/AM6609-1)

#### LINK

ZEW policy brief  
[www.zew.de/](http://www.zew.de/)  
PU80284-1



## IN SYSTEMIC COMPETITION WITH CHINA

“CRIPPLING EUROPE’S MARKET AND INNOVATION DYNAMICS

AT THE EXPENSE OF COMPETITION BY CREATING CHAMPIONS

WOULD BE THE WRONG RESPONSE TO CHINA FROM A

MACROECONOMIC PERSPECTIVE.”

Prof. Achim Wambach, PhD

INTERVIEW WITH ZEW INNOVATION ECONOMIST DR. CHRISTIAN RAMMER

# INDUSTRIAL POLICY

## Should Europe’s economy be afraid of China?

China has become an incredibly important market for European economy. China’s investment in cutting-edge technology and its focus on crucial, groundbreaking innovations offer new opportunities for cooperation. Modern industrial production requires specialisation and a narrow division of labour. As Chinese companies produce more high-tech goods, they need more high-tech input, and producers in Europe can benefit from cheap and high-quality intermediary products made in China. Ultimately, this intra-industrial trade will lead to rising prosperity for everyone involved.

## What should the EU do to strengthen its competitiveness?

The strength of Europe’s industrial economy ultimately comes down to innovation. This involves not only developing new technologies and new products, but also improving services, creating more efficient and better organised processes and exhausting the possibilities of digitalisation. When it comes to innovation, user needs and market opportunities must also be kept in mind. Nation- and EU-based programmes to promote innovation often focus on new technologies. But it is also important to offer a comprehensive package of innovation-friendly policies that take into account education,

infrastructure, bureaucratic regulations and open markets as well.

## China’s state-owned companies have ballooned into seemingly all-powerful economic giants. Is this the model Europe needs to remain competitive?

Industrial consolidation in China has to be seen against the backdrop of the country’s enormous size. The dominance of large companies in many sectors is not nearly as strong as it is in Europe or the USA. In automobiles, chemicals, pharmaceuticals, food and many other industries, Europe already has very large corporations, with some of the world’s leading companies among them. More mergers in these industries may be detrimental to competition in Europe. At the same time, it is by no means certain that so-called European champions will be better suited to compete with Chinese companies. With size also comes inertia. The EU would be better off improving growth opportunities and market access for small and medium-sized companies.

# DIGITAL TAX

## A THREAT TO COMPETITIVENESS

Study by Christopher Ludwig and Prof. Dr. Christoph Spengel

In 2018, the EU Commission proposed Europe-wide directives for the taxation of digital companies. Capital markets reacted vigorously, causing the market value of many digital companies to plummet in the short term to the tune of billions. A study carried out jointly by ZEW and the University of Mannheim shows, however, that the proposed digital taxation directives could harm the profitability and competitiveness of digital enterprises in the long term.

The EU Commission published its draft directives on 21 March 2018, causing the market value of the digital enterprises that would be affected by the directive to drop significantly on that day and the day after. Due to the proposed measures, the value of digital companies fell by at least 52 billion euros beyond the normal market movement during these two days. 40 per cent of the companies affected are based in the USA.

Most affected by the market reaction were EU-based companies with higher profits. Capital markets also reacted more strongly to companies actively engaging in tax avoidance, as well as companies with higher potential for profit shifting. It seems that some digital companies are currently still able to largely avoid taxation in the EU. According to investors, this would probably be much more difficult in the future once the proposed digital taxation comes into force.

The reaction of the capital markets also provides information on the potential long-term consequences for companies. Investors assume that the proposed digital tax measures

are very likely to be implemented and are therefore expecting negative effects on the future profitability and competitiveness of digital companies. This may also translate into less willingness to invest in digital businesses, which in the future could mean fewer growth opportunities.

### COUNTRY-BY-COUNTRY REPORTING IS EFFECTIVE

CbCR curbs aggressive tax avoidance of multinationals and leads to a significant withdrawal from tax havens. However, the European low-tax countries, which do not include Germany, are the main beneficiaries of this development. These are the findings of analyses by ZEW, the University of Mannheim and Stanford University.

Read more about this study on page 99.

### LINK

ZEW study:  
[www.zew.de/  
PU81189-1](http://www.zew.de/PU81189-1)

# NO-DEAL BREXIT

## WOULD FUEL TAX COMPETITION IN EUROPE

Economic Policy Analysis by Leonie Fischer and Prof. Dr. Christoph Spengel

**If the United Kingdom were to leave the EU without a Brexit deal, companies in Europe would face an unclear legal situation, potentially leading to an intensification of international tax competition. As a high-tax location for businesses, Germany could find itself compelled to introduce some tax reforms.**

In the case of a no-deal Brexit, Great Britain would be exempt from case law of the European Court of Justice and from the ban on restrictions in light of the fundamental freedoms in the EU internal market. On the one hand, this would create a legal vacuum, i.e. new uncertainties for companies. On the other hand, this would give British legislators the opportunity to enact stricter defence laws against foreign companies while promoting national industries and companies in a more targeted manner. The United Kingdom would no longer be bound by minimum standards in the fight against tax evasion and would thus

be able to react more flexibly to changing competitive conditions. Taken together, all of these factors could lead to a significant improvement in the UK's tax investment conditions. The tax rate for companies in the United Kingdom, at 19 per cent, is already lower than in Germany, where the combined income tax rate is around 32 per cent.

In the case of investments by German companies in the United Kingdom, the German controlled foreign corporation taxation could again be applied after a no-deal Brexit, which would lead to additional tax burdens. If assets are to be transferred from the German headquarters of a company to the British branch, immediate taxation will apply post-Brexit, resulting in interest and liquidity disadvantages. The tax attractiveness of the UK for all investment projects by German companies may therefore suffer enormously, even though the British government is planning further tax reductions. Brexit might result in Germany, currently a high-tax location, implementing an active tax policy of its own, which would reach beyond internationally coordinated harmonisation measures already in place. One way of increasing the attractiveness of Germany as a business location was, for instance, implemented in July 2019, when Germany introduced tax incentives for research and development. However, the measures proposed were significantly less impactful than, for example, the United Kingdom's, where immediate write-offs and tax credits for R&D funding became available, among other benefits.

### NOTE

A longer version of this article appeared in the trade journal "Der Betrieb" on 9 September 2019.



## THE STAGES OF BREXIT

16 JANUARY 2019

UK PARLIAMENT REJECTS THERESA MAY'S BREXIT DEAL

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### » BRSSELS WILL NOW HAVE TO KEEP DAMAGES TO A MINIMUM FOR THE EU-27.

for the remaining 27 EU Member States. Small and medium-sized enterprises in particular are in need of comprehensive advice given the great number of yet unknown legal and technical implications for their business. While large companies have been preparing for a no-deal scenario for a long time, many SMEs who have supply contracts in the UK depend on external expertise. It is now up to the EU and its Member States as well as the various chambers of commerce and business associations to take remedial action.”

“The Brexit drama demonstrates how much economic harm can be done when emotions run high in a national vote. The British voters, whose decision back in June 2016 was largely driven by emotions and the wish to teach the EU a lesson, will now have to suffer a substantial loss in wealth. After yesterday’s vote in the House of Commons at the very latest, Brussels will have to start preparing itself for a no-deal Brexit so as to limit the damages

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*By Prof. Dr. Friedrich Heinemann*

30 JANUARY 2020

BRITAIN'S WITHDRAWAL FROM THE EU IS IMMINENT

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### » NOW IS THE TIME TO REACH A GOOD TRADE AGREEMENT.

celebrate – neither for the British, nor for the EU. Brexit taking effect, however, is only half of the job. Now is the time to reach a good trade agreement that meets the interests of both sides. The trade agreement will be far less controversial in the British Parliament than the upcoming withdrawal was. So this time it will be less down to the British if the deal is delayed and the transition period needs to be extended.”

“Britain’s imminent withdrawal from the EU will mark a historic date for Europe. On this date, a Brexit transition period kicks in, which will last until the end of the year, allowing the UK and the rest of the EU to negotiate their future relations. After the withdrawal date has been extended three times, Brexit now becomes reality. It is not a day to

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*By Prof. Achim Wambach, PhD*


**11 APRIL 2019**
**AGREEMENT TO MOVE BREXIT DATE TO 31 OCTOBER 2019**


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**» SIX MONTHS IS LONG ENOUGH TO ALLOW FOR NEW ELECTIONS.**

“The voters now have a much better idea of what Brexit really means and realised that many of the Brexiters’ promises are unviable. The significantly extended reflection period of the UK has slightly increased the likelihood of a ‘remain’ scenario. However, the UK is buying time at a high economic cost: As long as Brexit is still looming, new investments in the UK are not an option for most companies. Whether the UK ultimately withdraws from the EU or not, the country pays a high price due to missing investments and a decreasing production potential.”

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*By Prof. Achim Wambach, PhD and Prof. Dr. Friedrich Heinemann*

**23 JULY 2019**
**BORIS JOHNSON WINS TORY LEADERSHIP VOTE**


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**» THE EU COMMISSION SHOULD CONTINUE TO COLLABORATE WITH GREAT BRITAIN.**

“With Boris Johnson, a campaigner for the Leave movement becomes the next Prime Minister of Great Britain. This could advance the Brexit process, as Boris Johnson, unlike Theresa May, does not have to fight the opposition from the Brexiteer camp. This may make it easier for him to get a withdrawal agreement through Parliament.

The European Commission should seize this opportunity and continue to collaborate with Britain. The room for manoeuvre in the political declaration on the withdrawal agreement should, for example, be used to explore technical solutions for the Irish border more thoroughly, and to establish more clarity for a future agreement with Great Britain that will enable the British to pursue an independent trade policy. If the time until the end of October, the UK’s scheduled departure date, is not sufficient to reach agreement on these points, the EU Commission should offer to extend the deadline once again.”

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*By Prof. Achim Wambach, PhD*

# FISCAL POLICY

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The financial crisis of 2008/09 first hit Europe's financial and banking market before escalating into a sovereign debt crisis in 2010. The coronavirus crisis in 2020 brought to light how incomplete the institutions of the eurozone are. The reforms will have to satisfy both economic and political conditions.

# EURO REFORM

## PREFERENCES OF EASTERN EUROPEAN ECONOMISTS

Study by Annika Havlik and Prof. Dr. Friedrich Heinemann

**F**rom the perspective of Central and Eastern European (CEE) EU Member States, the attractiveness of the euro has declined significantly in recent years. If the eurozone were to move towards greater fiscal centralisation and solidarity, this would probably increase the scepticism of these countries about joining the single currency. Only a well-balanced reform package that credibly prevents the collectivisation of government debt could pave the way for an eastward expansion of the eurozone. These are the findings of a study conducted by ZEW with support of the Brigitte Strube Stiftung.

As part of the study, the team of ZEW researchers conducted a survey in which more than 1,800 economists in CEE Member States as well as in Germany, France and Italy were asked about their reform preferences. With regard to the policy areas of defence, immigration and taxation, CEE respondents are more reluctant to grant the EU new competencies than those from Western Europe.

With regard to euro reform ideas, in some areas there is more agreement with the German respondents than with those in Italy and France. Both German and CEE respondents support the implementation of an insolvency procedure for eurozone countries with a debt overhang. Stabilisation tools like a European unemployment insurance scheme for protecting the euro area against strong economic fluctuations found favour in CEE states. From the perspective of CEE countries, the disadvantages of introducing the euro could outweigh the advantages. Given the much higher level of government debt in Western and Southern Europe, there seems to be great concern that joining the eurozone would entail incalculable financial risks. At least the wealthier CEE states will not join a union of joint liabilities and

transfers. This makes well-balanced euro reforms that provide credible ways of dealing with heavily indebted Member States all the more important. This necessarily includes an insolvency system for euro countries.

The perspective of CEE countries on the euro and the reform of the eurozone formed the basis of a **ZEW Lunch Debate** in the Baden-Württemberg State Representation to the EU in Brussels on 5 June 2019.

Video and photo gallery of the event:  
[www.zew.de/PM6614-1](http://www.zew.de/PM6614-1).

### LINK

ZEW study:  
[www.zew.de/PM6606-1](http://www.zew.de/PM6606-1)

# INSOLVENCY SYSTEM

## REMEDY FOR HEAVILY INDEBTED EURO COUNTRIES

ZEW/EconPol Study by Dr. Frederik Eidam and Prof. Dr. Friedrich Heinemann

**E**urope urgently needs an insolvency system for heavily indebted euro countries. When it comes to mapping out the details of such a system, however, particular care shall be taken. It is essential to take precautions to ensure that banks are no longer allowed to lend without limits to single euro states. These are the central findings of a joint study of ZEW and the international research network EconPol Europe.

The starting point for the analysis of a Franco-German team of authors is the observation that politics tends to delay debt restructuring if levels of government debt become unsustainable. In the future, a statutory insolvency system should provide remedy for euro countries. This should, however, be approached with caution, since a flawed system could provoke the risk of triggering a new chain reaction of state and bank failures. In the ZEW/EconPol study, the researchers show how such risks can be minimised. According to the findings, banks should finally be forced to hold fewer domestic bonds in their balance sheets by means of credit limits and specific capital requirements. The activation of an insolvency system should not be triggered by rigid rules. Instead – according to the authors – it would be advisable for an independent institution like the European Fiscal Board to decide on this matter.

However, if the EU Commission was granted too many rights, this could again lead to politically motivated procrastination in the procedure. Imposing new collective action clauses could additionally facilitate a smooth debt-restructuring process. Without a credible solution in the case of excessive government debt that imposes losses on private creditors, other euro states would ultimately be forced to bail out such Member States. There

are also risks associated with the introduction of an insolvency procedure that should be kept in mind. While it is not possible to account for these risks in the event of an acute crisis, Europe can already take the first steps in the right direction.

The question of how to introduce an international insolvency procedure was discussed by experts in a **ZEW Lunch Debate** at the Representation of the State of Baden-Württemberg to the European Union on 28 March 2019. The event was jointly organised by ZEW and the international research network EconPol Europe.

Photo gallery for the event:  
[www.zew.de/PM6513-1](http://www.zew.de/PM6513-1)

ZEW is one of the nine partner institutions in the “European Network for Economic and Fiscal Policy Research” (EconPol Europe). More information: [www.zew.de/PJ2943-1](http://www.zew.de/PJ2943-1)

### LINK

ZEW study:  
[www.zew.de/PM6509-1](http://www.zew.de/PM6509-1)

# EU ADDED VALUE

## NET OPERATING BALANCES UNFIT AS INDICATOR

ZEW Briefings by Prof. Dr. Friedrich Heinemann and Justus Nover

**A**t the centre of the debate about the possible expansion and restructuring of the EU budget lies the distinction between net contributors and recipients among EU Member States. Even though the concept of net operating balances is by no means suitable for reflecting the added value for the EU as a whole or for its Member States, these annual indicators still receive much political attention. ZEW, on behalf of the European Parliament and together with the European Policy Centre, discusses the main points of criticism regarding this concept.

The net operating balance for individual EU Member States is defined as the difference between what a Member State pays into the EU budget and what it receives through one of the EU funding instruments. It is therefore essentially an accounting figure. The net operating balance perspective implicitly assumes that national advantages and disadvantages of the EU budget balance each other out like a zero-sum game. Yet this approach strongly contradicts the idea of an EU budget that creates EU added value.

Three aspects of the net operating balances concept are problematic. For one, some EU budget expenditure cannot objectively be attributed to individual Member States such that it is not included in the budget calculation – and yet, Member States profit from this spending. Examples here are payments to third countries which lead to more trade and lower migration pressure. Secondly, positive effects of EU projects are not limited to their recipient countries. Infrastructure projects, for example, are partly carried out with the help of workers from other European countries, leading to an increased volume of trade between these EU states via ‘second-order’ effects. Thirdly, the EU generates benefits for its Member States independently of the EU’s core budget – benefits which are not reflected in the net operating balances. Examples include the single market, a single currency, and hedging and support instruments such as the European Stability Mechanism (ESM).

Three briefings provide an overview of the most important points of criticism regarding the net operating balance perspective. The first briefing focuses on the net operating balance concept itself, explaining what it can achieve; the second briefing looks in more detail at the factors which are not covered by the net operating balances (despite their EU added value); and the third briefing presents current alternatives for designing the net operating balance concept.

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LINK

ZEW briefings:  
[www.zew.de/AM7076-1](http://www.zew.de/AM7076-1)

# RISK SHARING

## THROUGH THE SECURITISATION OF BANK LOANS

EconPol Policy Brief by Dr. Karolin Kirschenmann and Dr. Jesper Riedler

**R**isk sharing is an essential part of a functioning economic and monetary union like the eurozone. The lack of cross-border risk sharing in the banking sector is a major barrier to a further integration of European financial markets. One way to strengthen Europe's financial integration is a functioning and dynamic market for securitisations.

capital and liquidity requirements of the newly established European framework for simple, transparent and standardised (STS) securitisation. Furthermore, standardised information on the individual loans is needed to create a single market for securitised loans with a European investor base.

The question remains, however, whether removing the obstacles to securitisation and facilitating access to standardised credit information will suffice to achieve substantial increase in cross-border risk sharing, as banks seem to have a strong preference to invest in domestic assets. One way to set the right incentives would be to combine diversification and capital requirements. With the countercyclical capital buffer (CCyB), there is already an existing suitable tool to set these incentives and increase diversification throughout Europe, which would also make banks less susceptible to economic trends.

Additional incentives could be put in place through subsidies for STS securitisations. Finally, current and future EU programmes intended to facilitate financing for firms and households should be designed in a way that encourages the cross-border sharing of credit risks through securitisation.

This can be achieved through the securitisation of bank loans, which has, however, rarely been discussed. This way, banks can achieve a greater geographical diversification of their portfolios without having to establish branches abroad. In order to effectively increase risk sharing in Europe through the securitisation of bank loans, ZEW researchers propose a two-state strategy.

Firstly, the regulatory framework that is currently in place should be improved to eliminate existing obstacles. Moreover, explicit incentives for risk sharing and securitisation should be integrated into the EU legislation and EU programmes. Particular emphasis should also be placed on reviewing the cap-

### LINK

EconPol policy brief:  
[www.zew.de/](http://www.zew.de/)  
 PU80657-1



## MONETARY POLICY DECISIONS OF THE EUROPEAN CENTRAL BANK

25 JULY 2019

### ZERO AND NEGATIVE INTEREST RATES FOR YEARS TO COME

#### » TAKING A PERIOD OF REFLECTION

A further reduction in interest rates on the deposit facility will further harm the banking system, making considerations to mitigate the burden of negative interest rates all the more important. At the same time, the Council's statement today clearly signals that interest rate policy alone will not be sufficient to raise the inflation rate to the desired level. The purchase of new bonds is explicitly taken into consideration as a possible additional instrument. So even though the ECB has not engaged in any dangerously impulsive behaviour today, the message remains unambiguous: The ECB will continue to pursue its policy of zero and negative interest rates for years to come, probably in combination with new bond purchases."

"It is to be welcomed that the Governing Council of the ECB has not yet lowered key interest rates further, and is first taking a period of reflection. This gives the impression of confidence and composure. Due to its signal function, an interest rate cut might even have fuelled concerns about Europe's economy. Also, a

*Prof. Dr. Friedrich Heinemann*

19 MARCH 2020

### ECB BUYS THE EUROZONE TIME FOR CORONAVIRUS CONTAINMENT

#### » A RESPONS- IBLE STEP

Just as in the euro debt crisis of 2012, Europe's central bank is again proving to be capable of acting responsibly in view of a looming major systemic crisis and European politics still being in a state of shock."

"The coronavirus crisis threatens to set off a major financial and debt crisis. The ECB is trying by all means to back up the coronavirus containment policy and buy time. By abandoning the ECB capital key as a central control parameter, this programme can also be used to ensure liquidity in countries such as Italy or Spain. Nevertheless, the measure is in the interest of all eurozone countries and constitutes a far-reaching but responsible step by the ECB.

*Prof. Dr. Friedrich Heinemann*

# INSTITUTIONS

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Efficient European policy only works if responsibilities are sensibly divided between the EU and Member States. In this regard, expanding EU competences in development aid would be advisable. Although national special interests might present obstacles to this kind of path, they can also be incorporated at European level.

# EURO REFORMS

## TOO LITTLE AGREEMENT IN NATIONAL PARLIAMENTS

ZEW Policy Brief by Sebastian Blesse and Prof. Dr. Friedrich Heinemann

**P**arliamentarians in the three largest countries of the eurozone – Germany, France and Italy – are divided on how European reforms should take shape. However, there is still overall consensus for higher public investment, more rights for the European Parliament, and increasing the EU’s responsibilities for immigration and defence.

Populist groups in the North and South are deeply divided. While members of the German AfD are highly sceptical about new EU competences and instruments for the eurozone, the Lega and the Five Star Movement in Italy are strong supporters of increased eurozone solidarity and a weakening of the Stability and Growth Pact. These are the central results of a survey among members of the national parliaments in Germany, France, and Italy which ZEW designed together with the University of Mannheim, the École Polytechnique in Paris, and the Catholic University of Milan. Preferences in the following three areas were surveyed: division of competences between the EU and Member States, European Monetary Union

(EMU) reforms, and decision-making processes in the EU. Particularly pronounced differences between France and Italy on the one hand and Germany on the other are evident in reform ideas for the eurozone.

French and Italian MPs are generally more willing to transfer competences to Europe than their German colleagues, which applies to energy, and wage and labour market policy. The clearest agreement between Berlin, Rome, and Paris on the division of competences is that Europe should become more competent in immigration and defence policy.

The French and Italian MPs are very open to a eurozone budget, an EU finance minister, Eurobonds and also support the European Central Bank (ECB) in its bond purchases, while German MPs remain sceptical towards these issues.

All parliaments agreed on higher investments. There is also agreement on giving the European Parliament the right to table European legislative proposals. So far, only the European Commission has this right of initiative.

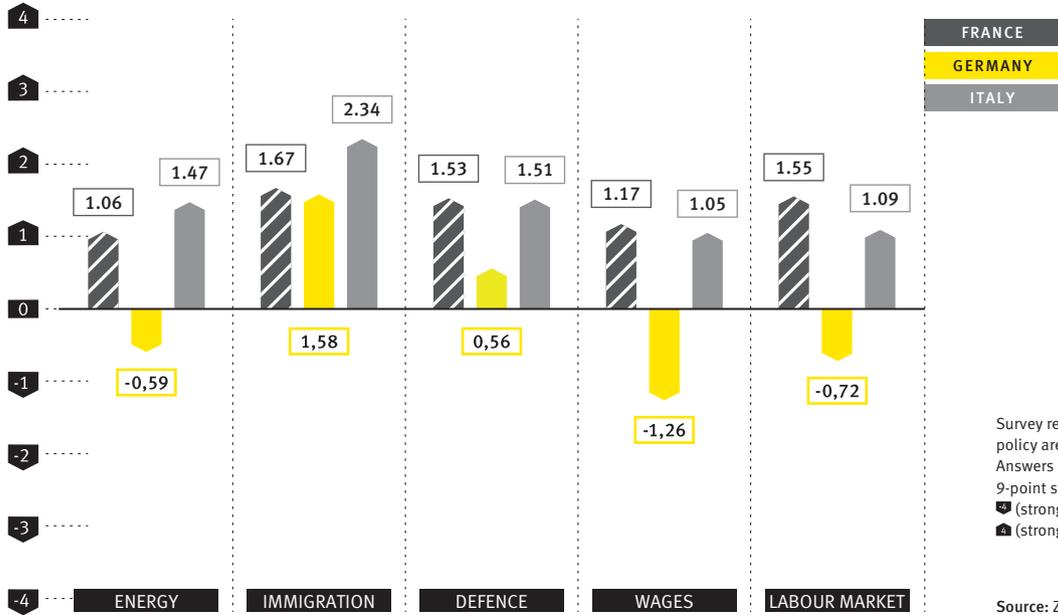
Comparing populist parties in Northern and Southern Europe reveals that the German AfD and the Italian Lega similarly reject new EU policy competences. There is strong dissent on all euro reform issues, though, between AfD on the one hand, and Lega and the Five Star Movement on the other.

### LINK

ZEW policy brief:  
[www.zew.de/PU80698-1](http://www.zew.de/PU80698-1)

## SURVEY AMONG EUROPEAN NATIONAL PARLIAMENTS ON EU COMPETENCIES

AVERAGE SUPPORT FOR SHIFTING RESPONSIBILITY TO THE EU LEVEL FOR DIFFERENT POLICY AREAS BY COUNTRY



Survey results for different policy areas by country. Answers based on a 9-point scale from -4 (strong disapproval) to 4 (strong approval).

Source: ZEW



# LOBBYING

## CRITICAL POSITION OF THE GERMAN POPULATION

ZEW Expert Brief by Dr. Wolfgang Habla and Prof. Ulrich Wagner, PhD

**T**he majority of German citizens do not only believe that lobbying groups have an enormous influence on German and European politics; they also take a very negative view towards their political influence. In addition, the German population is similarly critical of the influence of lobby groups on the EU's climate policy. Lobbying refers to the attempt by interest groups such as businesses and associations to exert an influence on members of parliament or other political decision-makers.

The survey results show that 78 per cent of the participants believe that lobbyists have a strong or a very strong influence at the EU level. Merely 1.5 per cent of the respondents assume that lobbying has no influence at all on European politics. Moreover, almost 78 per cent of the survey participants who believe that lobbyists have an influence at the EU level consider this influence to be negative or rather negative. Only 3.4 per cent consider the effect of lobbying in Europe to be positive or rather positive. What is remarkable about the survey results is the difference in the perception of lobbying among supporters of the parties represented in the Bundestag. While supporters of the Greens, the Left Party and the AfD tend to oppose lobbyism, voters of the more traditional parties CDU/CSU, SPD and FDP are not quite as sceptical. And while, on average, supporters of all parties assume that lobbying results in less climate protection at the EU level, supporters of the SPD, Greens and Left Party view this matter in a far more negative light than CDU/CSU, FDP and AfD voters. Moreover, almost 75 per cent of the respondents reported to be dissatisfied with the

amount of information available on lobbying, meaning that they see a lack of transparency when it comes to dealing with this topic. The researchers who participated in this expert brief therefore recommend an expansion of the European Transparency Register as well as the introduction of such a register in Germany. In this context, the US Lobby Registry could serve as a role model, which entails more stringent registration requirements than its European counterpart.

### LENDING PRACTICE OF THE EU BANK

Senior managers' personal histories play a key role in the European Investment Bank (EIB) lending process, with loans for financing large infrastructure projects being more likely to flow into a region where one or more members of the EIB's Board of Directors come from.

Read more about this study on page 100.

### LINK

ZEW expert brief:  
[www.zew.de/PM6714-1](http://www.zew.de/PM6714-1)

# EU BUDGET

## POOLING DEVELOPMENT FUNDS

Study by Annika Havlik and Prof. Dr. Friedrich Heinemann

**In the post-2020 EU Multiannual Financial Framework, Member States of the European Union should pool their development resources in the EU budget. A study on EU development aid policy, conducted by ZEW with the Bertelsmann Stiftung, would help to overcome the current fragmentation of European development aid.**

European development aid is currently highly fragmented. The EU and its 28 Member States all act as individual donors, which often results in harmful competition and creates unnecessarily high costs due to a lack of coordination. This state of fragmentation often prevents EU Member States from having as much an influence as other major donors such as the US or China. What is more, the current system leads some Member States to follow a free rider strategy. Although the whole EU-28 benefits from a more stable situation than in, say, African states, contributions to development funding vary widely between individual EU Member States – even between those with a similar level of income.

An alternative would be for EU development aid to be financed through the European budget's own resource system, where the burden is proportional to economic strength. This means that EU countries with the same level of income would bear the same financial burden relative to their size. This model would allow the advantages of a joint financing approach to come to fruition while avoiding the disadvantages of excessive centralisation.

At the same time, however, EU Member States should continue to be able to contribute their specific expertise when it comes to cooperating with certain target countries. To this end, EU development aid would be steered by leading states. Such leading Member States should thus be tasked with designing and implementing EU development programmes in partner states they have a special relation with, such as via a common history and/or language.

Development policy is a good example of a field where the EU can create tremendous added value for all Member States. With the same amount of money, a joint EU budget would cause European development aid to be more influential and effective than the current fragmented system. In addition, pooling resources in the EU budget would create a lot more fairness. The currently popular strategy of free-riding on the development efforts of other states would thus no longer work.

LINK

ZEW study:  
[www.zew.de/PM6379-1](http://www.zew.de/PM6379-1)



# WIPPO

ZEW EVENTS  
FIRST-HAND INFORMATION  
ON ECONOMIC POLICY

PROF. DR. FERDINAND KIRCHHOF

## THE LEGISLATION OF INSTITUTIONAL COMMITTEES IS HIGHLY PREDICTABLE

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Power and decision-making authorities concerning the European tax system are distributed among various institutions. In their own way, they influence the design of a common European tax system and are equally faced with the challenge of taking national tax policies into account. In view of the current anti-European and protectionist tendencies, the EU is now, after its 70-year-long history of success, facing an increasing dichotomy between integration and separation. In a lecture organised as part of the First-Hand Information on Economic Policy series at ZEW Mannheim, Professor Ferdinand Kirchhof, Vice-President of the Federal Constitutional Court until November 2018, addressed this complex relationship between the different actors of tax policy in a talk on 14 February 2019.

More information at [www.zew.de/AM6438-1](http://www.zew.de/AM6438-1)

ECJ ADVOCATE GENERAL PROF. DR. JULIANE KOKOTT

## THE RULE OF LAW IN EUROPE HOLDS POTENTIAL FOR CONFLICT

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The European Court of Justice (ECJ) strives to safeguard the rule of law within the European Union, all while harmonising its own jurisdiction with that of the EU Member States – a complex task that is not without obstacles, as Professor Juliane Kokott, Advocate General at the ECJ, described during the lecture series First-Hand Information on Economic Policy, which took place at ZEW Mannheim on 17 October 2019. Some 130 guests from the realms of science, business and civil society came to hear Professor Kokott speak in her capacity as Advocate General within the EU judiciary on current cases that reflect the conflict-prone state of Europe's rule of law caught between the European and national levels.

More information at [www.zew.de/AM6828-1](http://www.zew.de/AM6828-1)

# EUROPE INTERVIEW

**KATHRINE VON GRAEVENITZ, PHD\***

“I miss being close to the sea, but the Rhine-Neckar region has also grown dear to me. After Freiburg, Mannheim is the sunniest city in Germany, and coming from rainy Denmark, I appreciate that very much.”

**\* AARHUS, DENMARK**



“I am from Aarhus, the second largest city in Denmark. My interest in economic research brought me to ZEW in 2014, following positions at Arizona State University and the University of Copenhagen.

I am now the deputy head of ZEW’s environmental research department. ZEW has numerous strengths as a place for research, including the camaraderie between staff, unique databases, and high-quality seminars and conferences – not to mention cutting-edge research methods. At the moment, I am investigating a number of intriguing issues, including the connection between residential real-estate prices and the availability of green heating technology, as well as the effectiveness of policy measures to reduce carbon emissions.”

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# ABOUT US

## THE RESEARCH INSTITUTE AT A GLANCE

- 41 ● ZEW in Brief
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- 48 ● Policy Advising
- 50 ● Personnel and Finances

ZEW conducts evidence-based economic policy research on a range of high-visibility topics, including digitalisation, demographic change, European integration, and the energy transition. As an independent research institute that is home to a broad spectrum of expertise, ZEW advises key political decision-makers while actively contributing to important public debates.

## MISSION

ZEW pursues two central goals in its work:

- politically relevant research
- evidence-based policy advice



## **ZEW IN BRIEF**

The Mannheim-based ZEW – Leibniz Centre for European Economic Research is a leading German economic policy institute and a member of the Leibniz Association. Its applied research aims to study and help design well-performing markets and institutions in Europe. In particular, it seeks to understand how to create a market framework that will enable the sustainable and efficient development of European economies.

ZEW also offers evidence-based policy advising. The size of ZEW and the broad spectrum of topics studied by our research units enable us to take on major commissioned projects in economic policy.

Under the leadership of Professor Achim Wambach, the president of the institute, and Thomas Kohl, the institute's managing director, ZEW currently employs some 190 people spread out across eight research units, four junior research groups, and three service departments.

## **ZEW IN THE WORLD**

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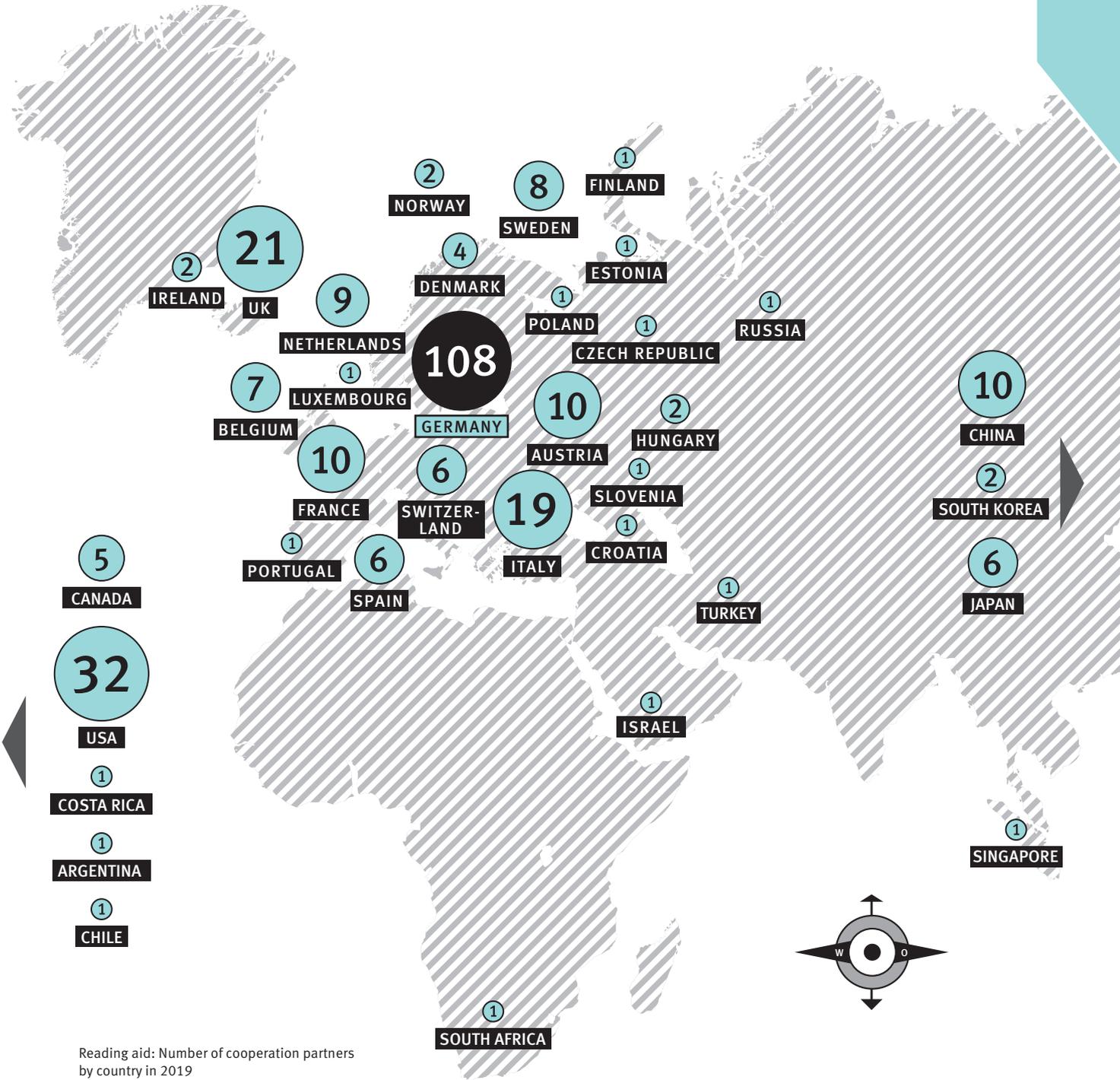
Excellent research and policy advice thrive on a lively professional exchange, which is why it is imperative for ZEW to maintain and continuously expand its global network. This effort also increases the institute's visibility abroad, enhancing its international reputation.

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ZEW boasts a dense and growing network of partners from Germany and abroad. In 2019 alone, the institute worked together with more than 460 cooperation partners on a host of projects and publications. In the immediate region, ZEW cooperates closely with the universities of Mannheim and Heidelberg in numerous areas, from joint faculty appointments to joint seminars and various forms of resource sharing. At the same time, ZEW has forged important partnerships with institutions in Europe, North America, and Asia. These include work with the Fudan University in Shanghai on the China Economic Panel (CEP) and the co-founding of EconPol Europe together with organisations from 12 countries. ZEW also cooperates with some 100 Research Associates who contribute to the work of ZEW's research units. The Visiting Researchers Programme promotes scientific exchange and attracts international researchers to the institute.

Many of ZEW's researchers have secured professorships at major universities, which is a testament to the quality of its staff: In 2019, ZEW researchers were appointed to the universities of Mannheim and Cologne, as well as abroad, to Maastricht University, Utrecht University, Queen's University Belfast, and several universities of applied sciences in other parts of Germany.

# ZEW'S GLOBAL NETWORK



Reading aid: Number of cooperation partners by country in 2019



# **RESEARCH**

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Research excellence has many dimensions at ZEW. In addition to the publication of research results in scientific journals and continuous scientific exchange via conferences, workshops, and visiting researchers, ZEW hosts a collection of unique databases.

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## **PUBLICATIONS IN TOP JOURNALS**

In 2019, ZEW researchers continued their outstanding publication record, with numerous articles accepted to prominent peer-reviewed journals, including the Journal of Financial Economics, the Journal of Economic Geography and Management Science.

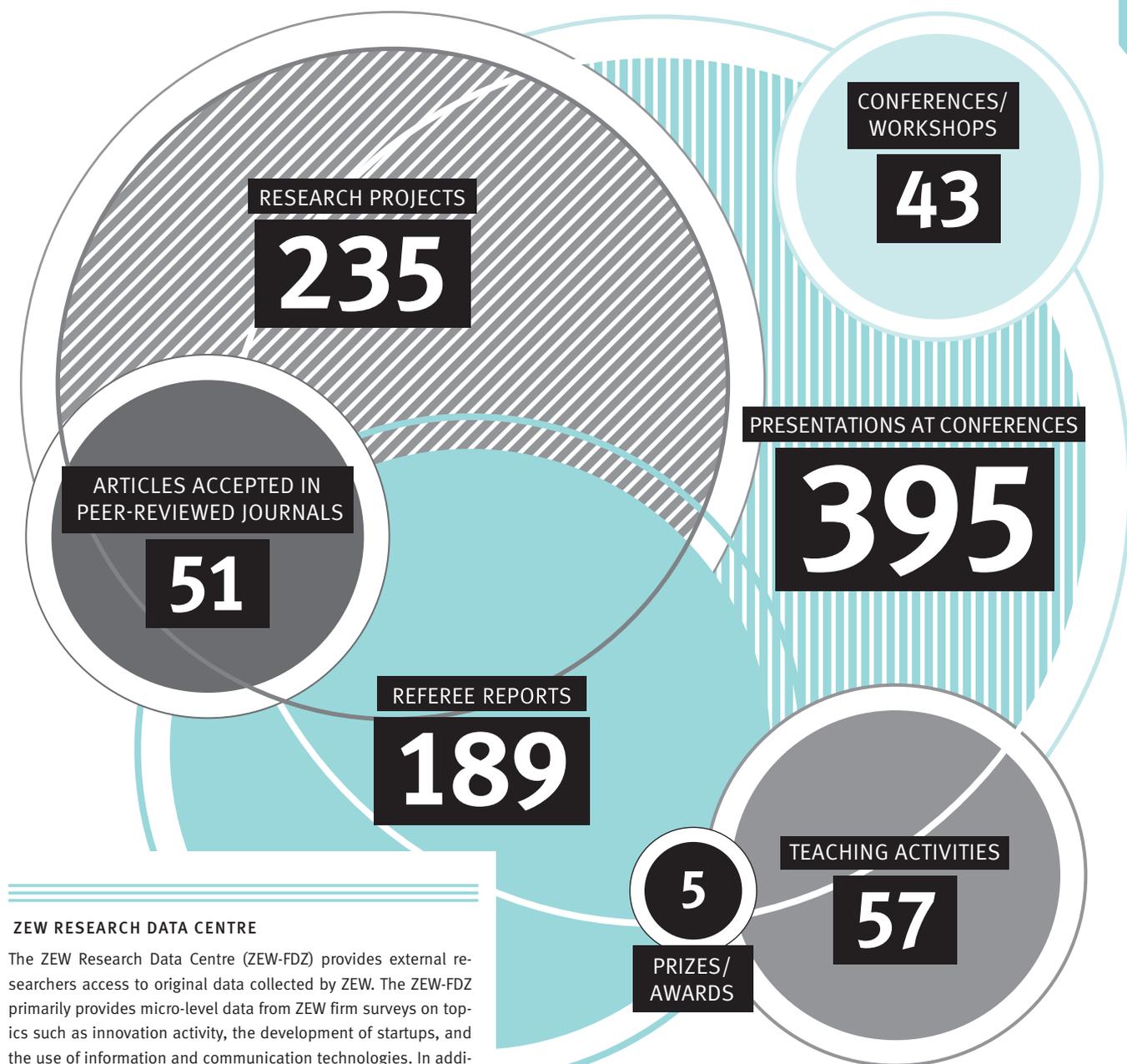
## **FRUITFUL EXCHANGES AT EVENTS**

In order to ensure that the institute's research is communicated effectively to target audiences, ZEW organises numerous conferences on a variety of topics. In 2019, ZEW organised more than 40 research conferences and workshops, including the eighth ZEW/MaCCI conference on the economics of innovation and patent research, where guests from all over the world witnessed expert discussions on current research questions about innovation and patent rights.

## **PRIZES AND AWARDS**

As in previous years, ZEW researchers received prizes and awards for their work in 2019. Dr. Laura Pohlan from ZEW's Research Department "Labour Markets and Human Resources" received the prize for best dissertation from the Volksbank Weinheim Foundation. In her work entitled "Essays on Unemployment, Job Search Behavior and Policy Interventions", she examined the multiple causal effects of unemployment in the context of social exclusion.

## ZEW SCIENTIFIC OUTPUT 2019 IN NUMBERS



### ZEW RESEARCH DATA CENTRE

The ZEW Research Data Centre (ZEW-FDZ) provides external researchers access to original data collected by ZEW. The ZEW-FDZ primarily provides micro-level data from ZEW firm surveys on topics such as innovation activity, the development of startups, and the use of information and communication technologies. In addition, the ZEW-FDZ offers data from expert surveys (such as the ZEW Financial Market Survey) and from personal interviews.

## THE SEEK PROGRAMME

Looking back over its ten-year history, we can say that the SEEK programme has been a resounding success. It has produced many well-respected studies and has made ZEW more internationally networked than ever.

SEEK stands for “Strengthening Efficiency and Competitiveness in the European Knowledge Economies”. The state-funded programme was launched in 2010 by Baden-Württemberg and ZEW. Its objective is to provide decision-makers in politics, government administration and business with independent, evidence-based recommendations for policy action. Focusing on factors critical to competitiveness, the programme aims to deepen our understanding of Europe’s economic development.

SEEK has created quite a stir in the scientific community. More than 120 institutes and universities from 25 countries have worked together with SEEK-affiliated projects, leading to long-term partnerships with renowned researchers. The findings of the projects have been published in respected journals and presented at numerous scientific conferences.

Since the start of the programme, researchers have completed almost 60 projects, each in collaboration with international partners. The findings have often shaped political decision-making and fertilized public debate regarding crucial questions such as how best to regulate online platforms. Moreover, high-profile events have strengthened the visibility of ZEW among its target audiences. The most prominent among them are the SEEK conferences, which have featured leading thinkers such as the French economist and bestselling author Thomas Piketty, the then-EU Research Commissioner Máire Geoghegan-Quinn and politicians such as Mario Monti, Klaus Töpfer and Hans Eichel. 2014 saw the start of the ZEW Lunch Debates in Brussels, a series of discussions that creates a space for face-to-face exchanges between ZEW researchers and EU decision-makers.

**59**  
SEEK PROJECTS  
IN TOTAL

**121**  
PARTNER  
INSTITUTIONS

**25**  
COUNTRIES



## WHAT HAS SEEK ACHIEVED?

### MEDIA RESONANCE

#### DIGITAL MARKETS AND PLATFORMS

What are the consequences of digital business platforms on competition and consumer protection? A SEEK project showed that in the search results of online booking platforms hotels are ranked lower if they offer better prices on other websites. Platforms routinely make rankings dependent on factors that maximize profits instead of catering to customer interests – with negative effects on competitors and users alike. The project findings received much attention by the media and appeared in a prestigious economic journal, influencing EU legislation on the regulation and transparency of digital platforms.

### HIGH-QUALITY STUDIES AND INCREASED VISIBILITY IN PUBLIC DEBATES

#### EUROPEAN NETWORK ON BETTER INSTITUTIONS – ZEW ENBI

How can EU institutions be improved? Project researchers from a tightly woven network of European research institutes developed evidence-based proposals for institutional reform in Europe. The project's contributions on topics such as the European Fiscal Board, the implementation of an EU finance minister and debt restructuring increased ZEW's visibility in the European debate.

### PRACTICAL APPLICATIONS AND RENOWNED PARTNERS

#### CLIMATE FRIENDLY COURIER SERVICES – CO2URIERS

As online trade has grown exponentially, so too has the courier business – with a significant impact on the environment. The sector is in sore need of greater sustainability. Together with German and Polish companies, researchers developed environmentally friendly solutions that can generate momentum for low-emission products. Professor Michael Price, an internationally recognized expert in the field of experimental economics at the University of Alabama, was one of the project's partners.

# **POLICY ADVISING**

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Providing insightful policy advising based on good research and data is integral to ZEW. Addressees are policymakers and public authorities at the regional, national, and European levels, as well as associations and international organisations.

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To perform economic research that has a political impact – this is the goal pursued by ZEW researchers on a daily basis. In 2019, ZEW further augmented its strong reputation as an actor in the area of policy advising: For example, head of the ZEW Research Department “Digital Economy”, Professor Irene Bertschek, was appointed a new member of the Commission of Experts for Research and Innovation (EFI), where she advises the German government on digital innovation, digitalisation, and artificial intelligence.

The Ministry of Economic Affairs, Labour and Housing Construction of Baden-Württemberg has also once again entrusted the “Digital Economy” Research Department with the task of analysing the status and development of the cultural and creative industries in Baden-Württemberg. ZEW, together with the Institute for Applied Social Sciences (infas) and the Fraunhofer Institute for Systems and Innovation Research (ISI), has been conducting an annual survey on the innovation behaviour of the German economy on behalf of the Federal Ministry of Education and Research since 1993.

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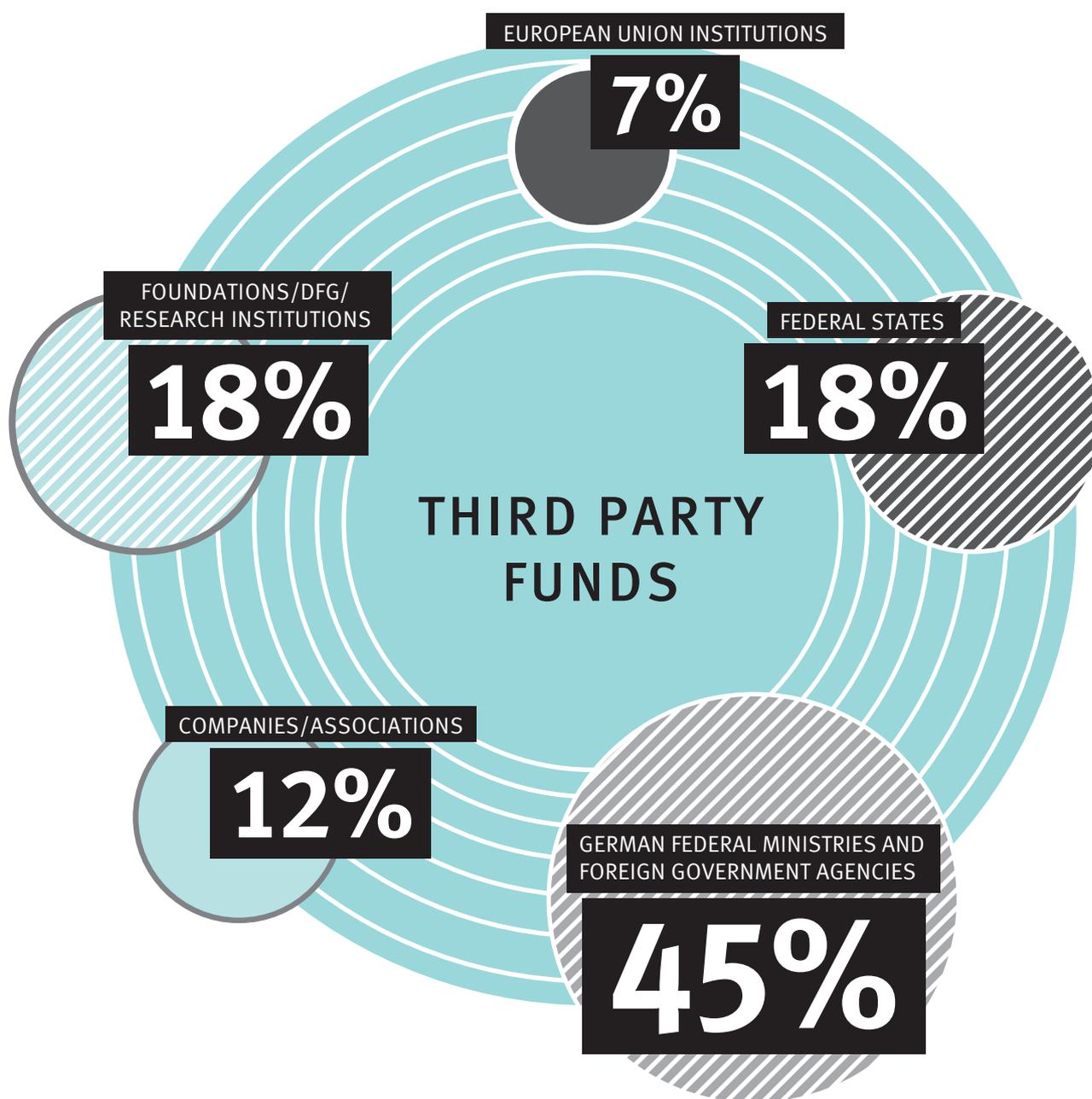
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## **ZEW'S POLICY ADVISING COMES IN MANY FORMS:**

- ⦿ studies and reports carried out on behalf of public bodies,
- ⦿ participation of ZEW researchers in parliamentary discussions, formal advisory talks with parliaments, ministries, and the EU Commission, and membership in policy advising committees,
- ⦿ consultations with representatives of the European Commission and government agencies and ministries, with members of parliament, and with administrative decision-makers, and
- ⦿ participation in public debates on economic policy via media and events.

## SOURCES OF THIRD-PARTY FUNDING IN 2019

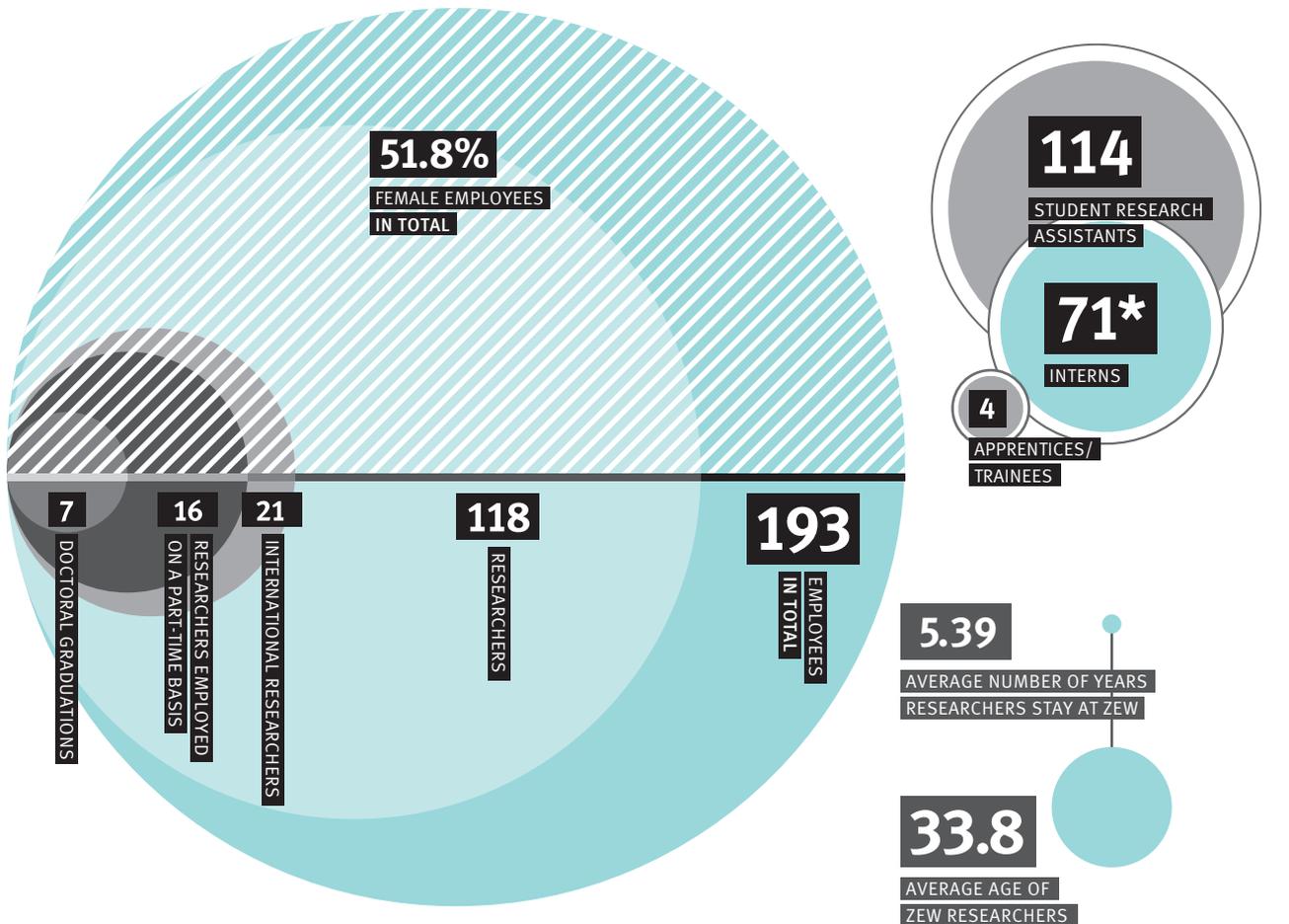
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# PERSONNEL AND FINANCES

The stats don't lie: ZEW boasts an international research environment, offers flexible working hours, and benefits from fresh input from young researchers. Here are the important figures from 2019, from personnel to finances.

STAFF REPORT (AS OF DECEMBER 2019)



\* cumulative for 2019

## FINANCIAL REPORT (AS OF DECEMBER 2019)

## ZEW PROFIT AND LOSS STATEMENT

|  | 2018          | 2019*         |
|--|---------------|---------------|
| Institutional funds  | 9,475         | 11,688        |
| Joint Initiative for Research and Innovation Funding                           | 287           | 287           |
| Third-party funds (turnover, inventory changes, subsidies)                     | 7,945         | 7,028         |
| Other business revenues  | 394           | 338           |
| Income from the reversal of the special item for contributions to fixed assets | 550           | 549           |
| <b>Total revenues</b>  | <b>18,651</b> | <b>19,890</b> |
| Staff expenditures   | 11,876        | 13,038        |
| Third-party services   | 1,019         | 1,095         |
| Other operating expenditures   | 4,246         | 5,097         |
| Asset write-offs   | 527           | 530           |
| Allocation to special items for contributions to fixed assets                  | 388           | 392           |
| Financial result   | -38           | -36           |
| Other taxes  | -27           | 3             |
| <b>Total expenses</b>  | <b>18,067</b> | <b>20,191</b> |
| <b>Profit/loss for the financial year</b>                                      | <b>584</b>    | <b>-301</b>   |
| Withdrawals from appropriated reserves   | 542           | 659           |
| <b>Net income</b>  | <b>1,126</b>  | <b>358</b>    |

## ZEW BALANCE SHEET AS OF 31 DECEMBER 2019\*

|   | 2018          | 2019          |                               | 2018          | 2019          |
|---|---------------|---------------|-------------------------------|---------------|---------------|
| <b>ASSETS</b>                           |               |               | <b>LIABILITIES AND EQUITY</b> |               |               |
| Intangible assets                       | 55            | 92            | Share capital                 | 26            | 26            |
| Downpayments made                       | 18            | -             | Appropriated reserves         | 3,913         | 4,380         |
| Real estate and construction in process | 8,379         | 8,177         | Other reserves                | 2,169         | 2,169         |
| Equipment                               | 691           | 733           | Net income                    | 1,126         | 358           |
| <b>Fixed assets</b>                     | <b>9,143</b>  | <b>9,002</b>  | Shareholder's equity          | 7,234         | 6,933         |
| Stocks                                  | 2,453         | 3,062         | Untaxed reserves              | 2,317         | 2,810         |
| Receivables/<br>other assets            | 700           | 960           | Reserves                      | 2,334         | 2,227         |
| Cash at banks                           | 8,686         | 8,348         | Advances received             | 2,137         | 2,666         |
| <b>Current assets</b>                   | <b>11,839</b> | <b>12,370</b> | Liabilities to banks          | 4,660         | 4,027         |
| Prepaid expenses                        | 275           | 186           | Other liabilities             | 2,575         | 2,895         |
| <b>Total</b>                            | <b>21,257</b> | <b>21,558</b> | Outside capital               | 11,706        | 11,815        |
|   |               |               | <b>Total</b>                  | <b>21,257</b> | <b>21,558</b> |

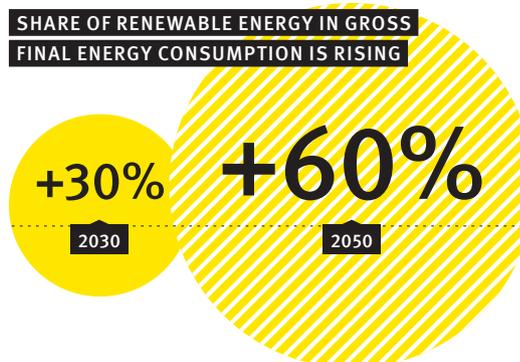
\* preliminary figures in K euros

# CLIMATE CHANGE AND ENERGY TRANSITION

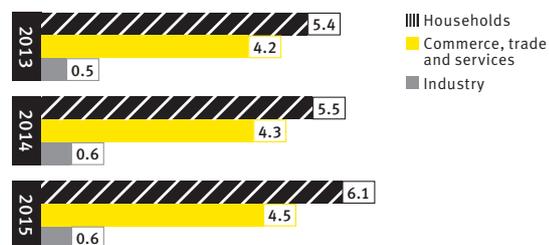
**TODAY'S SYSTEM OF GRID FEES, TAXES, DUTIES AND SURCHARGES ON ELECTRICITY, PETROL, DIESEL, NATURAL GAS AND HEATING OIL STANDS IN THE WAY OF A SUCCESSFUL TRANSITION TO CLEAN ENERGY.**

## PROPOSED ENERGY PRICE REFORMS

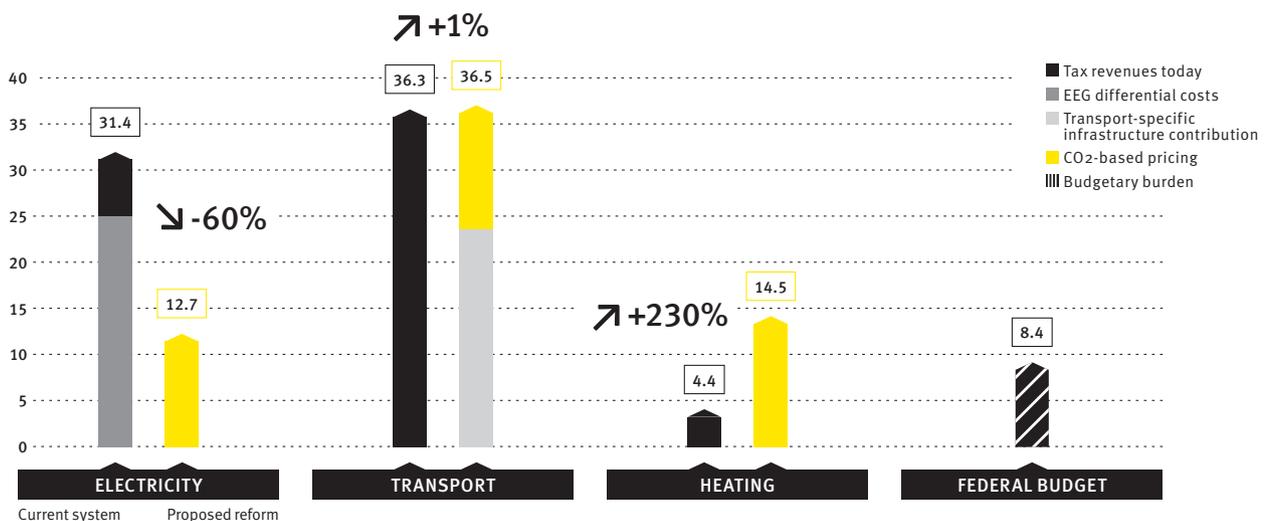
Grid fees, quantity taxes and surcharges curb and distort demand and counteract efforts to make demand more flexible and efficient. Households and small businesses pay a disproportionately large share of surcharges and taxes. ZEW proposes the introduction of carbon pricing for all energy sources and the inclusion of all energy sources in the financing of the EEG surcharge or their transfer to the federal budget.



**AVERAGE ENERGY CHARGE FOR NETWORK FEES IN CENTS PER kW/h**



**THE COSTS OF CO<sub>2</sub>-BASED PRICING\* FOR POWER SECTORS IN € BILLIONS**



## A FAIR AND JUST TRANSITION TO A SUSTAINABLE HEATING SECTOR

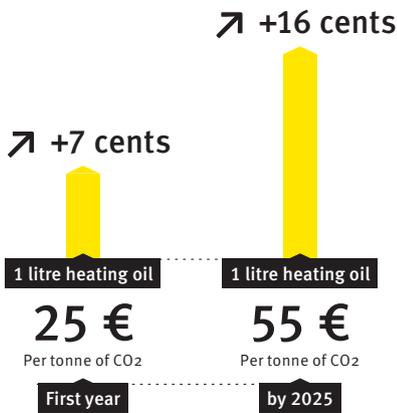
More than 80 per cent of final energy consumption in German households goes to heating and warm water. Since most installed heating systems run on fossil fuels, the buildings sector contributes substantially to national greenhouse gas emissions.

### CO<sub>2</sub> EQUIVALENTS IN THE BUILDINGS SECTOR IN MILLION OF TONNES



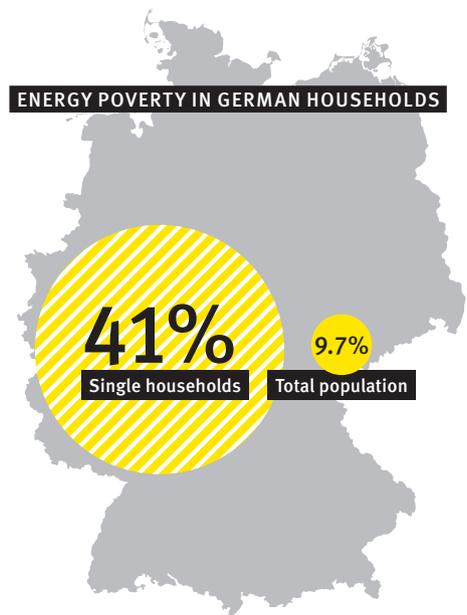
Federal climate targets for sustainable heating in the buildings sector

### GOVERNMENT MEASURES AND THE INTRODUCTION OF EXPLICIT CARBON PRICING



The pricing for the initial phase is clearly too low in light of the targets. A price of 50 euros per tonne would be needed to reflect the damage already caused by CO<sub>2</sub> emissions today. In the future, much higher prices would be required. Higher prices would allow the full tax effect to unfold and climate friendly heating would pay off.

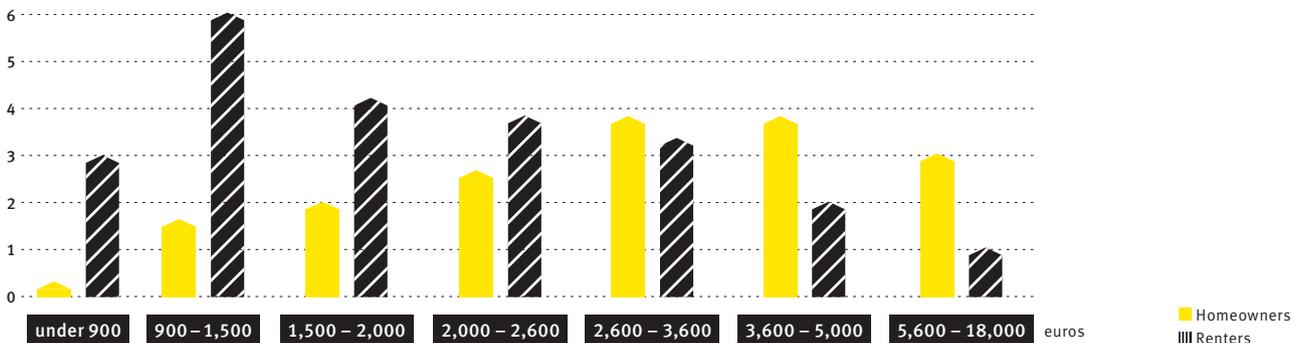
### ENERGY POVERTY IN GERMAN HOUSEHOLDS



## SOCIAL INEQUALITY

### NUMBER OF RENTERS AND HOMEOWNERS IN MILLIONS ACCORDING TO MONTHLY NET INCOME

Tax incentives for investment are reserved for property owners. This means that a large share of the population does not benefit – the renters. In the lower income classes, the number of renters is significantly higher than the number of homeowners.



Sources:

1. Neue Preismodelle für die Energiewirtschaft im Rahmen einer Studie im Auftrag von Agora Energiewende: <http://ftp.zew.de/pub/zew-docs/zn/zn0719.pdf>
2. ZEW policy brief "Wärmewende im Gebäudesektor: Lasst den CO<sub>2</sub>-Preis wirken": <http://ftp.zew.de/pub/zew-docs/policybrief/de/pb07-19.pdf>

# EUROPE

“I grew up in the coastal town of Chiavari in northwestern Italy.

I completed my trilingual bachelor’s degree in economics at the Free University of Bozen-Bolzano in South Tyrol. Following a stint at a small research institute in Italy, I knew I wanted to go into academia.

After completing my master’s degree in economics at the University of Mannheim and working as a visiting researcher at the University of Washington and the Université Catholique de Louvain in Belgium,

I decided to join ZEW. I have been a member of the ‘Public Procurement’ Junior Research Group since 2019.

Communication at ZEW is conducted consistently in German and English, which is a real boon for international diversity at ZEW, not least because it makes it easier to attract and integrate foreign talent.”





**MATILDE CAPPELLETTI\***

“ZEW has offered me excellent opportunities to gain valuable project experience during my doctoral studies. This type of hands-on experience wouldn’t have been possible at a university.”

**\* CHIAVARI, ITALY**

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# RESEARCH- UNITS

- 58 ● Labour Markets and Human Resources
- 64 ● Digital Economy
- 70 ● Economics of Innovation and Industrial Dynamics
- 76 ● International Finance and Financial Management
- 84 ● Social Policy and Redistribution
- 90 ● Environmental and Resource Economics,  
Environmental Management
- 96 ● Corporate Taxation and Public Finance
- 102 ● Market Design



**ACTING HEAD**

PD Dr. Friedhelm Pfeiffer

**Deputy head**

Prof. Dr. Melanie Arntz



# LABOUR MARKETS AND HUMAN RESOURCES

## RESEARCH AREAS

- **Education and Labour Market Outcomes**  
PD Dr. Friedhelm Pfeiffer
- **Digitalisation and International Labour Division**  
Prof. Dr. Melanie Arntz  
(Leibniz Programme for Female Professors)
- **Integration Into Labour Markets**  
Dr. Sarra Ben Yahmed
- **Junior Research Group  
Integration of Migrants**  
Dr. Katrin Sommerfeld



## MISSION STATEMENT

The Research Department “Labour Markets and Human Resources” analyses the determinants of individual and national labour market outcomes in knowledge-based economies. It focuses on the impacts on employment, wages and labour market participation, especially exerted by ever-progressing digitalisation. The Research Department also examines the effects and efficiency of labour market and education policy measures. Theory-based microeconomic methods are used to analyse cause-and-effect relationships. The Research Department uses both administrative and publicly available microdata sets as well as self-conducted survey data. The aim is to develop evidence-based recommendations for the design of labour market and education policy.



## EMPLOYMENT PROGRAMME IMPROVES SOCIAL PARTICIPATION OF LONG-TERM UNEMPLOYED

- Government-subsidised employment improves social participation
- The impact of the programme weakened over time

Social Participation in the Labour Market was a pilot project of the Federal Ministry of Labour and Social Affairs (BMAS) that ran from 2015 to 2018. It offered 20,000 long-term unemployed individuals subsidised employment for a period of up to three years. Using various indicators, the Research Department found that the programme significantly improved the social participation of the participants. According to these indicators, the positive effects were most evident in terms of general life satisfaction and social inclusion. The effects on health and social status were also positive, although not quite as strong.

As the duration of employment increased, the effects weakened. This was not, according to subsequent analysis, because participants benefited less from the programme over time; rather, after a given period of time, more participants would have found employment anyway without the programme.

### STUDY

“Do Job Creation Schemes Improve the Social Integration and Well-Being of the Long-Term Unemployed?”

[www.zew.de/PU81157-1](http://www.zew.de/PU81157-1)

### AVERAGE IMPACT OVER THE PROGRAMME PERIOD



Source: ZEW



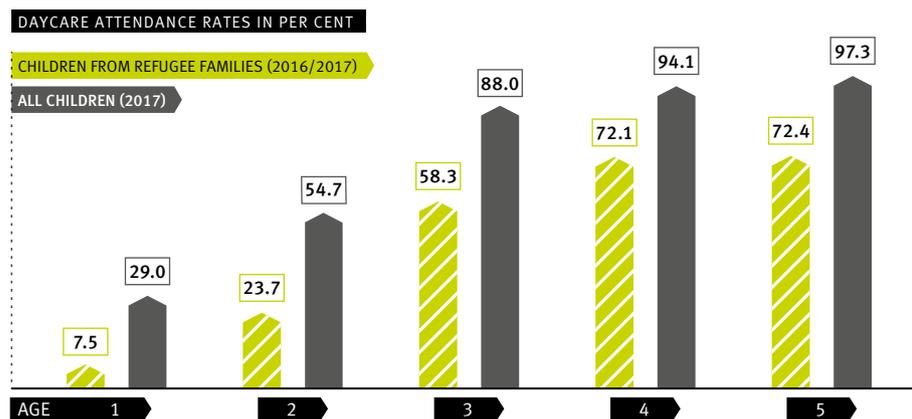
## DAYCARE CENTRES CONTRIBUTE TO THE INTEGRATION OF REFUGEE MOTHERS

- When a child attends a daycare centre, the mother is better integrated into society
- The potential of daycare centres to promote integration has not been fully tapped

According to a study conducted in cooperation with the German Institute for Economic Research (DIW), if a child from a refugee family in Germany attends daycare, the mother tends to be much better integrated into society. Among other things, she speaks and understands German better, is more likely to find work and misses her home country less. This effect becomes stronger the longer the child attends daycare. The findings are based on a national dataset of German refugees from 2016 and 2017.

Far fewer refugee children than other children attend daycare, however. While some 90 per cent of all three-year-old children in Germany were in daycare in 2017, the corresponding figure for three-year-olds from refugee families is just 60 per cent. The potential of daycare centres to improve the integration of refugee families can be expanded if additional capacity is created. One possibility would be to create daycare centres that take into account the needs of children, parents and families as a whole.

### REFUGEE CHILDREN ATTEND DAYCARE LESS FREQUENTLY



Sources: IAB-BAMF-SOEP Survey of Refugees in Germany; Education in Germany 2018.



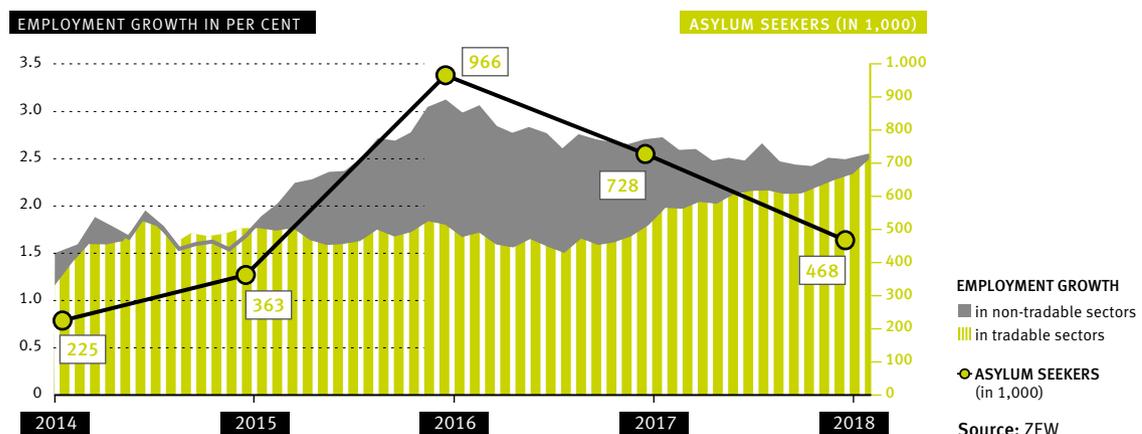
## SPENDING ON REFUGEES CREATES JOBS

- Public expenditures on refugees have positive employment effects
- Non-tradable sectors benefit the most in the short term

In recent years, the federal government, states and local authorities have spent significant sums on the accommodation, care and integration of refugees in Germany. These public expenditures have led to an unforeseen increase in the demand for goods and services needed to supply refugees. Certain sectors and regions have particularly benefited from this increase.

A project funded by the Fritz Thyssen Foundation on the short-term social and economic effects of refugee immigration has found that refugees increase employment, particularly in non-tradable sector (such as services and construction). Strong increases in employment have been most pronounced in sectors directly concerned with housing and integrating refugees (including the social sector, public administration and the construction industry). The results suggest that employment gains have been higher in districts with higher unemployment than in districts with very low unemployment. Furthermore, Germans have benefitted almost exclusively from this employment growth, as no positive employment effects have been observed for former immigrant groups.

### ANNUAL GROWTH RATES OF EMPLOYMENT IN TRADABLE AND NON-TRADABLE SECTORS AND NUMBERS OF ASYLUM SEEKERS





**HEAD**

Prof. Dr. Irene Bertschek

# DIGITAL ECONOMY

## RESEARCH AREAS

- **Diffusion of Digital Technologies**  
Dr. Thomas Niebel
- **Digitalisation and Corporate Strategies**  
Prof. Dr. Irene Bertschek
- **Digital Platforms**  
Prof. Dr. Irene Bertschek
- **Junior Research Group  
Digital Market Design**  
Dr. Dominik Rehse



## MISSION STATEMENT

The Research Department “Digital Economy” is renowned for its expertise in measuring digitalisation and analysing its economic impact. It develops policy design options for the optimal exploitation of the potential offered by digitalisation. The department’s researchers examine the effects of digitalisation on production, innovation and the world of work; investigate how digital markets and platforms function; and study the significance of underlying digital infrastructures. Methodologically, the Research Department follows an empirical-quantitative approach. Data from in-house company surveys, Internet platforms and macroeconomic databases are evaluated using statistical and econometric methods.



## INVESTMENT PROGRAMMES IN THE AGE OF CLOUD COMPUTING

- Traditional investment programmes create incentives for companies to making investments in IT hardware, rather than using cloud computing

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Researchers in the ZEW-SEEK project “Digitalisation and Heterogeneity” cooperated with the OECD to investigate the effect of traditional investment programmes in the era of cloud computing. Over the past decade, the way companies procure digital technologies has changed. While businesses have traditionally made extensive investment in software and physical IT infrastructure, digital technologies are now increasingly sourced as internet-based services. Many of these services, such as online data storage or web-based software solutions, fall under the term “cloud computing”. Cloud computing enables the use of digital technologies “on demand”. This means that companies incur variable costs based on usage, rather than on fixed capital expenditures. Cloud computing thus promises to ease access to the latest technologies, especially for small- and medium-sized companies. As a result, demand-oriented expenditures are increasingly replacing investments in traditional IT hardware and services. This trend calls into question current government programmes for encouraging investment. Are they still appropriately designed, given the current technological environment?

The study uses company data to examine how access to investment programmes affects the use of cloud computing. Since investment incentives reduce the marginal cost of investment in digital technologies, they could also reduce the incentive to use cloud computing. The results indicate that such support programmes do indeed have a negative impact on the use of cloud computing. Companies with access to such support programmes more often make traditional investments in hardware. The study shows that companies regard traditional IT technologies and cloud computing as substitutes. The specific design of investment programmes is therefore a decisive factor influencing the type of technology used by a company. Given the growing importance of cloud computing and IT services, traditional investment programmes should, depending on their objective, be reconsidered and revised.

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**SEEK PROJECT**  
 “Digitalisation and  
 Heterogeneity”  
[www.zew.de/PJ3143-1](http://www.zew.de/PJ3143-1)



## PROJECT CLOSING EVENT “UNTAPPED POTENTIAL FOR DIGITALISATION IN THE CONSTRUCTION INDUSTRY”

- To date, the construction industry has invested little in digitalisation
- Yet, the industry has recognised its potential

Research shows that the German construction industry employs digital technologies less frequently and more hesitantly than other sectors. Nevertheless, the industry recognises the potential of digitalisation to encourage innovation and enhance competitiveness. For example, 49 per cent of construction companies in Germany believe that digitalisation is already having a positive effect on competitiveness today, while 58 per cent anticipate positive effects within the next three years. These are central findings of the recent ZEW study “The Contribution of Digitalisation to Productivity in the Construction Industry”. The study was presented in Berlin at a joint event organised by ZEW, the Mittelstand 4.0-Competence Centre for Planning and Construction, and the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), which contracted the study.

Held at the Berlin Fraunhofer Forum and attracting some 120 attendees, the event served not only to present the study’s findings, but also to showcase individual case studies from small and medium-sized enterprises. The status of digitalisation in the construction industry was debated during a subsequent panel discussion with representatives from various industry associations.

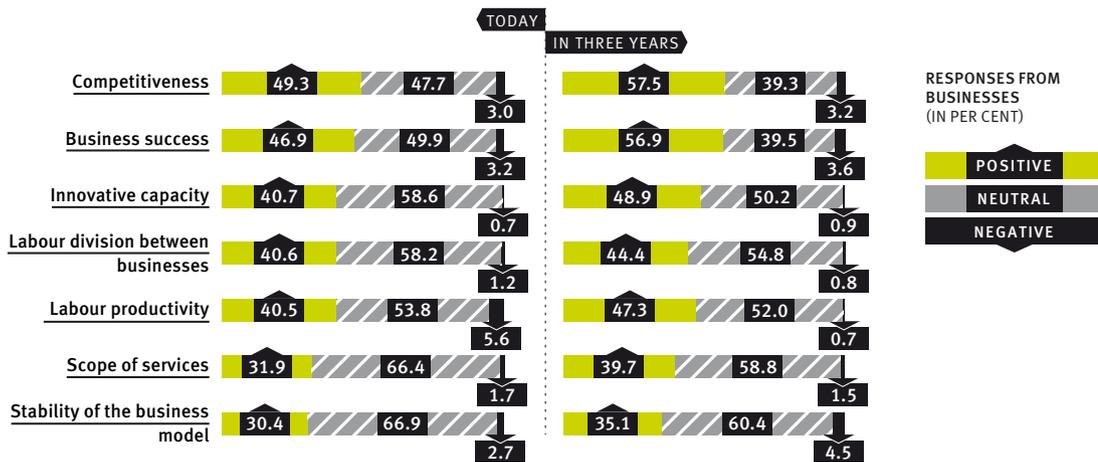


### STUDY

“The Contribution of Digitalisation to Productivity in the Construction Industry” (in German only)  
[www.zew.de/PU81248-1](http://www.zew.de/PU81248-1)

### IMPACT OF DIGITALISATION ON THE CONSTRUCTION INDUSTRY INCL. PLANNING

“How do you assess the impact of digitalisation on your business regarding ...?”



Source: “ZEW-Unternehmensbefragung Bau”, 2018.



## PRIVATE INCENTIVES TO PROVIDING DIGITAL PUBLIC GOODS?

- Crisis-induced unemployment had a previously unnoticed impact on the creation of Wikipedia content

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Wikipedia is often cited as a prime example of a digital public good. Available free of charge in countless languages, the online encyclopaedia is the product of mass collaboration from volunteers around the globe.

In a SEEK project titled “The Side Effects of Economic Crises in Europe on the Provision of Online Public Goods”, ZEW researchers explored the dynamics underlying the provision of a digital public good – namely, Wikipedia content. Specifically, they investigated the extent to which the crisis-related increase in unemployment in 2008–2010 impacted voluntary participation in the creation of Wikipedia content.

Evaluations based on German unemployment statistics at the district level and European unemployment data at the state level within each EU country point to a hitherto unnoticed side effect of the crisis-related rise in unemployment in 2008–2010. It was discovered that the increased production of online content mainly occurred in districts that experienced higher increases in unemployment. At the country level, this correlation was even more evident. This positive side-effect of crisis-related unemployment has so far garnered little attention, neither from researchers nor policymakers.

A study based on the project, titled “Unemployment and Online Volunteering”, was accepted for publication in the peer-reviewed journal *Information Systems Research* in 2019.

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### STUDY

“Unemployment and Online Volunteering”

[www.zew.de/PU80900-1](http://www.zew.de/PU80900-1)

**HEAD**

Dr. Georg Licht

**Deputy head**

Jürgen Egel

Prof. Dr. Bettina Peters

Dr. Christian Rammer





# ECONOMICS OF INNOVATION AND INDUSTRIAL DYNAMICS

## RESEARCH AREAS

- **Innovation Processes in Firms**  
Prof. Dr. Bettina Peters, Dr. Christian Rammer
- **Firm Foundations, Firm Closures and the Growth of Start-Ups**  
Dr. Johannes Bersch, Jürgen Egel
- **Public Research and Technology Transfer**  
Florence Blandinières, PhD, Josefine Diekhof, PhD
- **Junior Research Group Competition and Innovation**  
Prof. Dr. Bernhard Ganglmair
- **ZEW Research Data Centre**  
Dr. Sandra Gottschalk



## MISSION STATEMENT

The Research Department “Economics of Innovation and Industrial Dynamics” investigates the behaviour of firms under dynamic market conditions. Researchers conduct empirical studies on the innovation behaviour of firms; on the division of labour between actors in the innovation system; on the exchange of research findings between firms and academia; on market entries and exits; on company growth and decline; and on competition and innovation in product markets. Researchers identify the challenges facing companies and economic policymakers, and evaluate associated business decisions and economic policy measures. Inadequately developed goods and factor markets often represent the starting point for research into specific economic policy interventions.

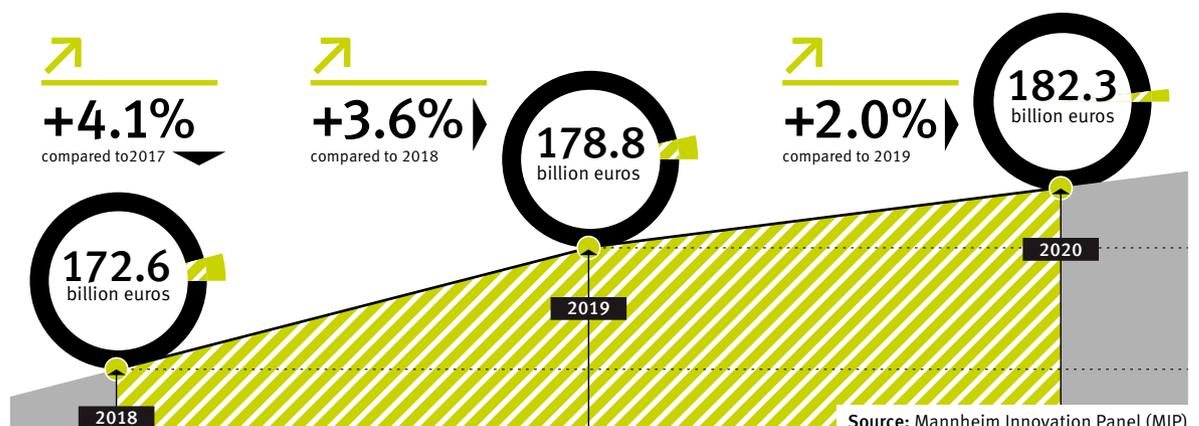


## EIGHTH ZEW CONFERENCE ON THE ECONOMICS OF INNOVATION AND PATENTING

- The conference focused on artificial intelligence and patent law
- Dietmar Harhoff and Timothy Simcoe attended as keynote speakers

The Economics of Innovation and Patenting Conference – organised in cooperation with the Mannheim Centre for Competition and Innovation (MaCCI) – enjoys an excellent reputation. More than one-hundred researchers from around the world attended the eighth annual conference to discuss current issues related to innovation and patent rights. The keynote presentations given by Professor Dietmar Harhoff of the Max Planck Institute for Innovation and Competition and by Professor Timothy Simcoe of Boston University were two highlights of the conference. Harhoff explained the challenges faced in measuring artificial intelligence and presented his findings concerning the ability of Germany to attract AI researchers. Scandinavian countries and Switzerland in particular find it easier than Germany to recruit researchers. In his talk, Simcoe talked about the effects of a change in the US patent system where by companies can no longer automatically obtain an injunction if a patent is infringed upon. This change has not led to a decline in innovation activities, in contrast to expectations. Other topics discussed at the conference included the role of machine learning and big data in innovation research; the potential of public procurement as an instrument for promoting innovation; technology transfer and the dissemination of knowledge; and the merits of specific patent systems and innovation policy instruments.

### DEVELOPMENT OF INNOVATION EXPENDITURE IN THE GERMAN ECONOMY





## FINANCING OPTIONS ARE ESSENTIAL FOR CORPORATE DEVELOPMENT

- Shocks in the banking system spillover to the real economy
- “House banks” absorb shocks better than “transaction banks”

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Bank bailouts aim to ensure the stability of financial system. While capital infusions can protect banks in distress from bankruptcy, such assistance is often linked to restructuring and risk reduction requirements. Yet the effect that bailouts will have on bank customers is unclear. In a paper published in the *Journal of Corporate Finance* together with employees of the German Bundesbank, we examined how the bailout of ailing banks affects corporate default risk, available commercial credit and revenue levels. In this way, we examined how shocks in the banking system are transmitted to the real economy. We also sought to determine if “house banks” absorb shocks better than their “transaction bank” counterparts. In specific terms, we compared the real-economy effects generated by ailing banks with similar characteristics that did and did not receive capital infusions. In regard to data, the study drew on detailed bank and company data, including ratings granted by independent credit rating agencies. Our findings indicate that rescuing distressed banks causes a significant increase in the default risk of their corporate customers, with defaults rising by about ten per cent. Furthermore, bailouts generate multiplier effects at the expense of other sources of financing: The recommended commercial credit limit for companies served by rescued banks fell by about 11 per cent relative to similar companies whose primary bank had not received government assistance. This effect is particularly noticeable in times of crisis. Furthermore, house banks tend to absorb such shocks, while transaction banks pass the shocks directly on to their corporate customers.

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### STUDY

“The Real Effects of Bank Distress: Evidence from bank bailouts in Germany”

<https://www.sciencedirect.com/science/article/pii/S0929119918308149>

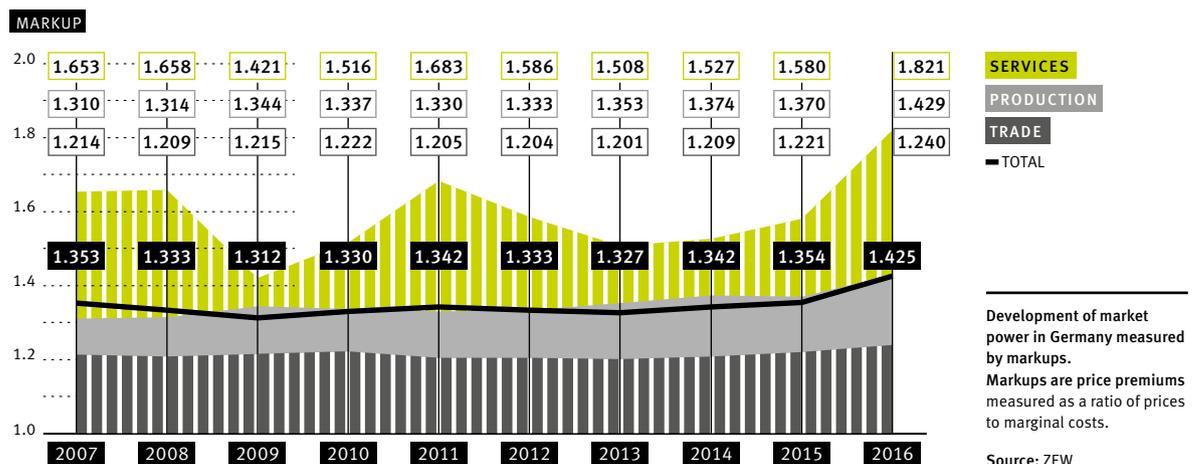


## COMPETITION AND PRODUCTIVITY DEVELOPMENTS

- Productivity growth has been declining, while productivity differentials have widened
- Germany has experienced a slight increase in market power in recent years

Over the last decade, many industrialised countries have experienced declining productivity growth and widening productivity differentials. For economic policy to respond adequately, the possible causes must be analysed in detail. Explanations include declining investment in R&D; structural changes toward a service economy; and a changed competitive environment. At the same time, an increasing concentration of companies can be observed in many countries, coinciding with a decline in competition. A project commissioned by the Bertelsmann Foundation investigated the connection between corporate concentration and innovation as the possible cause of weak productivity growth. Results for the period from 2007 to 2016 show that an increasing trend toward corporate concentration can also be observed in Germany. In industry, this trend leads to lower productivity through two channels: As a result of weaker competition, the pressure on companies to introduce more efficient production processes is decreasing. However, higher market power also leads to lower investment in innovation and thus to further productivity losses.

### DEVELOPMENT OF MARKUPS IN GERMANY, 2007–2016



**HEAD**

Prof. Dr. Tabea Bucher-Koenen

**Deputy head**

Dr. Karolin Kirschenmann





# INTERNATIONAL FINANCE AND FINANCIAL MANAGEMENT

## RESEARCH AREAS

- **Household Finance**  
Prof. Dr. Tabea Bucher-Koenen
- **Financial Intermediation**  
Dr. Karolin Kirschenmann



## MISSION STATEMENT

Private investors and financial institutions are facing major challenges. Demographic change and digitalisation have far-reaching effects on pension funds, savings behaviour, interest rates, financing conditions and the competitive environment in financial markets. The Research Department “International Finance and Financial Management” analyses the challenges posed by these global trends to pension systems and the financial sector. The department has two focal areas: household finance and financial intermediation. Researchers conduct simulation studies and microeconomic analyses using government statistics and survey data. In view of long-term trends, they generate evidence-based policy recommendations for sustainable pension systems and a financial architecture adapted to current macroeconomic conditions in Europe.



## NUMERACY OF LOAN OFFICERS INFLUENCES THEIR CREDIT RISK ASSESSMENT

- Loan officers with higher numeracy assess credit risk more accurately
- The effect is strongest during the credit boom before the financial crisis

How does employee numeracy affect the quality of their work? This question was investigated in a research project conducted jointly with the University of St. Gallen using data from Romanian loan officers. One of the most important tasks of this professional group is to assess the credit risk of potential borrowers. In doing so, loan officers collect, analyse and interpret both hard quantitative and soft qualitative information. Higher numeracy leads to a better interpretation of hard information while also allowing more precise soft information to be obtained. The results of the study show that loan officers with higher numeracy are much more likely to classify loans as risky that ultimately default (see chart).

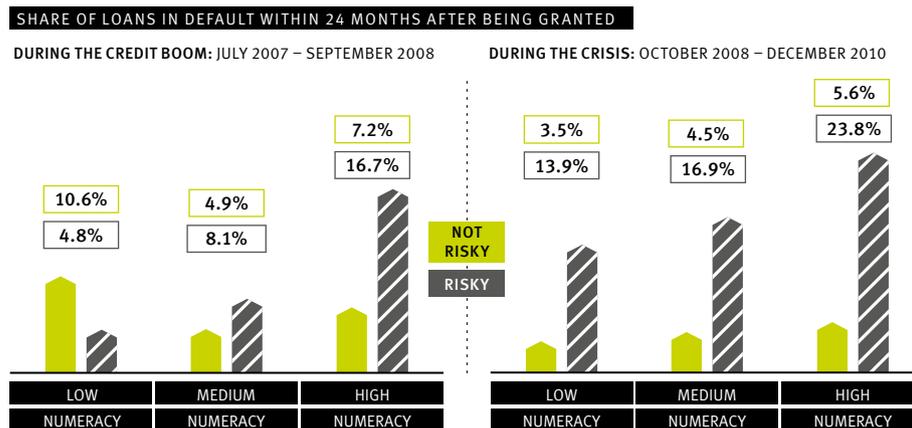
In a credit boom, when information asymmetries are most pronounced, the difference between loan officers with high and low numeracy is greatest. The more accurate risk assessment of loan officers with higher levels of numeracy is mainly due to the fact that they are better able to assess soft information.

### STUDY

“Numeracy and the Quality of On-the-Job Decisions: Evidence from Loan Officers”

<https://onlinelibrary.wiley.com/doi/full/10.1111/ecin.12873>

### ACCURACY OF THE CREDIT RISK ASSESSMENT FOR DIFFERENT LEVELS OF NUMERACY



More accurate credit risk assessment means that loans assessed as risky are more likely to default than loans assessed as not risky. The chart shows that a higher level of numeracy results in a more accurate credit risk assessment.

Source: ZEW



## HIGHER BANK RISKS AS POLITICIANS IN CHINA ARE INCENTIVISED TO SEEK PROMOTION

- Promotional incentives increase credit volume and credit default risk
- Better supervision and alternative sources of financing are recommended

The Chinese government regularly decides on the promotion of senior politicians at the municipal and regional (provinces, counties) level. The economic success of local politicians plays an important role in this process.

The study shows that politicians use local banks to carry out credit-financed infrastructure investments, which in turn can have a positive impact on local economic growth. Bank loans are mainly granted to financing platforms that serve to finance infrastructure projects.

The study concludes that poorer economic performance compared to neighbouring regions increases the use of bank loans to boost the local economy. Since poorer economic performance reduces one's chances of promotion, such a lag increases the pressure on politicians to improve economic performance.

Bank loans are mainly used when local politicians have some influence on banks. In the case of nationally active banks, this effect was not observed. Politically motivated lending is particularly strong if the politicians also have an executive function in the bank. In contrast, stronger external supervision – for example, through the involvement of the China Development Bank – reduces political influence on lending.

In terms of bank performance, the political influence manifests itself in reduced bank liquidity, a relatively higher credit volume and a higher default risk for the loan portfolio. However, the study did not show an influence on the profit level of banks.

In the risk supervision of banks in China, political influence on lending should be taken into account and limited as far as possible. Expanded financing possibilities at the local level – for example, by issuing bonds that are currently not permitted – could reduce the influence on bank lending and steer it into legal channels.

### STUDY

“Politicians’ Promotion Incentives and Bank Risk Exposure in China”

[www.zew.de/PU80437-1](http://www.zew.de/PU80437-1)



## INVESTMENT STRATEGIES OF A STATE-ORGANISED PENSION FUND

- Capital-market investments with lifecycle-based asset reallocation are a viable standard product

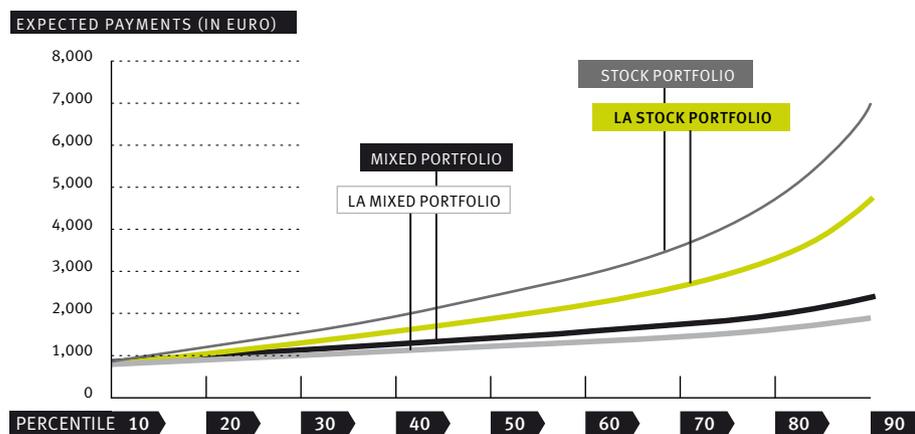
An expert assessment commissioned by the Federation of German Consumer Organisations recently examined possible investment methods for a state-run pension fund in Germany. To this end, the researchers simulated the performance of four different portfolios containing different shares of equities and fixed-interest securities: a pure stock portfolio; a mixed portfolio with 50 per cent stocks and 50 per cent bonds; and lifecycle variants of both portfolios. In the lifecycle portfolios, a shift from equities to bonds takes place starting at the age of 52. In the basic model, employees with an average gross salary of 3,880 euros and three per cent annual nominal salary growth pay four per cent of their gross salary into the portfolio each month. In today's purchasing power, a savings phase of 45 years would result in median monthly pension payments of between 2,400 euros for the pure stock portfolio and 1,220 euros for the mixed portfolio with lifecycle adjustment. The assessment shows that an investment strategy based on equities is a viable default option for a state-organised pension fund. However, financial crises can lead to significant losses, especially if they occur very close to the time of retirement. The assessment therefore recommends a portfolio with lifecycle-based asset reallocation as the standard product for funded old-age provision.

### REPORT

“Kapitalanlage eines staatlich organisierten Altersvorsorgefonds”

[https://www.zew.de/fileadmin/FTP/gutachten/ZEW\\_VZBV\\_Altersvorsorgefonds\\_2019.pdf](https://www.zew.de/fileadmin/FTP/gutachten/ZEW_VZBV_Altersvorsorgefonds_2019.pdf)

### MONTHLY PENSION PAYMENTS FOR FOUR INVESTMENT STRATEGIES



# EUROPE AT ZEW

**PROF. DR. FRANÇOIS LAISNEY\***

“ZEW’s close ties to various universities are invaluable for all stakeholders.”

**\* STRASBOURG,  
FRANCE**



“As a Research Associate I have been involved in ZEW’s activities for a long time. In addition to offering courses in econometrics, I actively participate in ZEW projects.

I am happy to share my knowledge with young researchers and provide them with feedback on their work.

ZEW maintains a dense network of nearly 100 Research Associates, which facilitates numerous opportunities for collaboration with top universities.

As a French native, I am particularly pleased that ZEW cooperates closely with French universities, including the University of Strasbourg, where I formerly taught econometrics.”

**HEAD**

Prof. Dr. Sebastian Siegloch

**Deputy head**

Dr. Holger Stichnoth



# SOCIAL POLICY AND REDISTRIBUTION

## RESEARCH AREAS

- **Social Policy and Inequality Over the Lifecycle**  
Dr. Holger Stichnoth
- **Efficiency and Distributive Effects of Tax Policy**  
Prof. Dr. Sebastian Siegloch
- **Spatial Disparities and Regional Policy**  
Dr. Michaela Slotwinski



## MISSION STATEMENT

Issues related to income and wealth distribution and the economic impact of redistribution through tax and transfer systems often generate controversy in the public sphere. The Research Department “Social Policy and Redistribution” works to place this discussion on sound empirical footing with evidence-based assessments at the national and international levels. A major focus of research is on redistribution through tax and transfer systems and their associated economic effects. The Research Department’s empirical studies aim to provide a reliable basis for tax and social policy recommendations. To this end, ZEW researchers analyze microeconomic data in order to describe the redistributive and efficiency effects of the tax and transfer system. They also use various econometric techniques to identify the causal effects of reforms.



## SPECIAL INTEREST GROUPS INFLUENCE CONGRESSIONAL VOTING BEHAVIOUR ON CONTROVERSIAL LAWS

- Study on election campaign financing in the United States
- A focus was placed on laws that pass with a narrow margin

Special interest groups regularly make campaign donations to members of the US House of Representatives in order to push through particularly controversial laws with a narrow majority. Congressional representatives who are ambivalent to the proposed legislation are a particularly attractive recipient group. The activities of special interest groups increase significantly around voting dates for bills, particularly in election years. This is the key finding of a recent study conducted by ZEW in cooperation with the University of Basel, the University of St. Gallen and the Free University of Bozen-Bolzano.

The study examined how campaign financing donations are related to legislative decisions and whether donations actually influence the legislative voting behavior of members of the US House of Representatives. The study focused on bills that were passed or rejected with a narrow margin of votes, i.e. votes with a “Yea” vote of almost 50 per cent. The study is based on data from roll-call votes and campaign contributions to the US House of Representatives in 1990–2014.

As expected, the study found a link between timed donations from special interest groups and the adoption of controversial legislation. Congressmen in the US House of Representatives tended to narrowly approve rather than oppose bills. The researchers looked at the total daily campaign contributions to members of Congress over a period of four weeks before and after the day of a vote. Donations to representatives during this period were on average higher for bills that were passed by a narrow majority than for bills that were rejected with the same narrow margin. On average, daily contributions increase by approximately \$190,000 in the four weeks before and after the vote. This shows that the surplus of yea votes seems to be systematically linked to the interests of campaign contributors.

### STUDY

“Vote Buying in the US Congress”

[www.zew.de/PU81199-1](http://www.zew.de/PU81199-1)



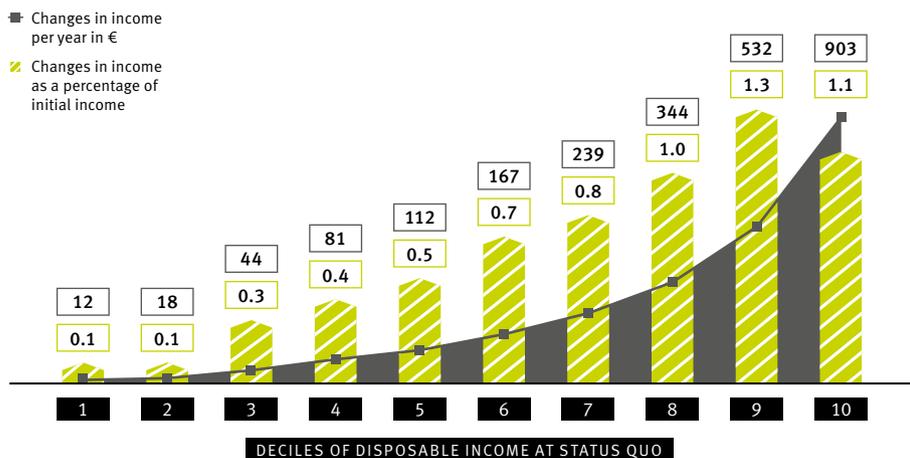
## SIMULATING THE ABOLITION OF THE SOLIDARITY SURCHARGE IN THREE STEPS

- Researchers simulated the abolition of the tax using the ZEW microsimulation model
- Households with the highest incomes would benefit the most from reform

In 2019, Germany's reigning coalition agreed on a roadmap for the partial abolition of the "solidarity surcharge", a special tax that was introduced in 1991 to help finance the integration of East Germany. Various proposals were discussed in the run-up to the agreement. To aid the deliberative process, ZEW researchers carried out calculations on the potential fiscal, behavioural and distributional effects of a (gradual) abolition of the solidarity surcharge using the ZEW microsimulation model. The study was conducted on behalf of the Federal Ministry of Economics and Energy (BMWi).

Even during the first stage of the reform, when households with the highest incomes do not yet benefit from full tax relief, the 16,988 euro income exemption examined in the scenario leads to relief that increases over most of the income distribution. The redistributive effects associated with the abolition of the solidarity surcharge are even stronger in the second and third reform stages, when the additional income improvements are concentrated predominantly amongst households in the top tenth of the income distribution. Nevertheless, the macroeconomic redistributive effects of a gradual abolition of the solidarity surcharge are likely to be weak, because the financial volume of the tax relief is relatively small in relation to total national income.

### CHANGES IN INCOME BY INCOME POSITION OF HOUSEHOLDS



### REPORT

"Aufkommens-, Verteilungs- und Arbeitsangebotswirkungen einer stufenweisen Abschaffung des Solidaritätszuschlags"

[www.zew.de/PU81045-1](http://www.zew.de/PU81045-1)

Classification of households on the basis of income position by deciles of equivalence-weighted disposable income at 2019 legal status.

Source:  
Own calculations with the ZEW microsimulation model based on the SOEP 2017.



## MANNHEIM TAXATION RECEIVES RENEWED FUNDING APPROVAL

- 1.7 million euro grant for tax research at ZEW and the University of Mannheim
- The 2019 MannheimTaxation annual conference featured Alan Auerbach (UC Berkeley) and Jake Thornock (Brigham Young)

The Leibniz-ScienceCampus MannheimTaxation, a joint scientific undertaking of ZEW and the University of Mannheim that has been in existence since 2014, will receive further funding from the Leibniz Association totalling about 1.1 million euros over a period of four years. The funds were approved by the Leibniz Association's Senate in early April 2019. In addition, the state of Baden-Württemberg supports the campus with 0.6 million euros each year. During the coming grant period, the University of Mannheim and ZEW will invest another 2.4 million euros in tax research coordinated by MannheimTaxation.

The Leibniz-ScienceCampus is investigating how a sustainable tax system must be designed to meet new economic and social challenges. In the new funding phase, research at the ScienceCampus will focus on the topics of (1) taxation, innovation, digitalisation and growth, (2) tax avoidance and evasion, (3) tax incidence and (re)distribution, and (4) European fiscal policy.

In September 2019, the sixth annual MannheimTaxation conference on tax research took place, featuring some 80 participants from around the world. Keynote speakers were Professor Alan Auerbach of the University of California at Berkeley and Professor Jake Thornock of Brigham Young University in Provo/Utah.

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**INFORMATION  
ON MANNHEIM-  
TAXATION**  
[www.mannheim-  
taxation.eu](http://www.mannheim-taxation.eu)

**ACTING HEAD**

Prof. Achim Wambach, PhD

**Deputy head**

Kathrine von Graevenitz, PhD

Prof. Dr. Martin Kesternich



# ENVIRONMENTAL AND RESOURCE ECONOMICS, ENVIRONMENTAL MANAGEMENT

## RESEARCH AREAS

- **Energy Economics and Mobility**  
Energy Economics: Dr. Oliver Woll  
Mobility: Dr. Wolfgang Habla
- **International Environmental Resource Policies**  
Prof. Dr. Martin Kesternich
- **Innovation and Sustainable Development**  
Prof. Achim Wambach, PhD
- **Macroeconomic Analysis of Environmentally  
Relevant Policies**  
Kathrine von Graevenitz, PhD



## MISSION STATEMENT

The Research Department “Environmental and Resource Economics, Environmental Management” investigates the optimal function of markets and institutions with regard to environmental issues and resource scarcity. The key focus is European energy and climate policy. Economists conduct economic assessments of instruments and policies that impact the environment. They also identify tradeoffs between economic and environmental goals. Given the universal shortage of resources, cost efficiency and the equitable distribution of costs in society are key concerns in the Research Department’s research.



## POLICY INTERVENTIONS AND THEIR EFFECTS ON BEHAVIOUR-RELATED SPILLOVERS

- Policy interventions influence environmental behaviour beyond the targeted behavioural change
- Efforts are reduced if the environmental contributions have already been made

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In a project titled “Direct, Indirect, Psychological and Macroeconomic Rebound Effects” and funded by the German Federal Ministry of Education and Research, ZEW economists investigated whether various policy interventions designed to augment environmentally friendly behaviour influenced not only the targeted behavioural change but also other, independent behaviours of relevance to the environment. According to the project’s findings, test subjects reduce their conservation efforts if they have previously contributed to the well-being of the environment. This effect is referred to as “moral licence”, because participants feel that their previous moral behaviour entitles them to behave less morally in a given situation.

The study also revealed that the magnitude of moral licence varied according to the type of policy intervention. The results suggest that monetary incentives for environmentally friendly behaviour induce a larger reduction in subsequent conservation efforts than incentives based on social norms, as the latter form of intervention tends to weaken moral licence. The displacement effect of environmentally friendly behaviour in tasks that stem from monetary incentives is particularly pronounced in younger and less educated subjects with low environmental awareness.

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### PROJECT

“Direct, Indirect, Psychological, and Macroeconomic Rebound Effects (LICENSE)”

[www.zew.de/PJ3011-1](http://www.zew.de/PJ3011-1)



## ENVIRONMENTAL ECONOMISTS DISCUSS ECONOMIC SOLUTIONS FOR SUSTAINABLE MOBILITY IN BEIJING

- ZEW session at the Beijing Humboldt Forum with experts from China, Germany and the USA

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In collaboration with the University of International Business and Economics (UIBE) in Beijing and the Alexander von Humboldt Foundation, ZEW organised the 7th Beijing Humboldt Forum in the Chinese capital in September of 2019. In the session on “Climate Change Mitigation, Air Pollution Control and the Mobility Sector”, which was coordinated by the ZEW Research Department “Environmental and Resource Economics, Environmental Management”, international researchers presented projects on the economic impacts of transport emissions at the local, regional and international levels.

In his introductory presentation, Professor Ou Xunmin of Tsinghua University in Beijing presented his forecasts for the Chinese automobile market in the coming decades. China is expected to have a fleet of 500 million cars by 2050, 80 per cent of which will be electric. In his talk, Professor Qin Ping of Renmin University in Beijing emphasized the importance of the transport sector for air quality in the Chinese capital, as transport is responsible for nearly 60 per cent of air pollution. In his presentation, Professor Antonio Bento of the USC Center for Sustainability Solutions pointed out the undesirable side effects of clean air programmes in China. Specifically, short-term production bans induced companies to relocate production, leading to an increase in total emissions. Professor Zhang Bing of Nanjing University highlighted the value of app-based information systems regarding local pollution levels. Professor Martin Kesternich, deputy head of the ZEW Research Department “Environmental and Resource Economics, Environmental Management”, discussed consumer anxieties concerning the range of electric vehicles. In her talk, ZEW environmental economist Carina Fugger presented the results of a field experiment concerning a voluntary carbon offsetting programme for business customers who use courier services.



## GERMAN HOUSEHOLDS ARE MORE INTERESTED IN GREEN ELECTRICITY AFTER A FLOOD EVENT

- The 2013 floods induced more online search requests for green electricity
- The effect was only measurable in moderately affected regions

June 2013 saw intense flooding throughout parts of Germany. The damages, which were particularly pronounced in Bavaria, Saxony and Saxony-Anhalt, totalled in the billions. According to climate researchers, there is likely a connection between such extreme weather events and climate change. This connection is not lost on German households, as a recent study by ZEW shows. The frequency of online search requests for green electricity increased significantly in the areas affected by flooding. In this way, it would appear that extreme weather events viscerally demonstrate the reality of climate change, thus encouraging climate-friendly action.

However, this effect was only observed in moderately affected areas. In regions severely damaged by flooding there was no measurable effect on interest in green electricity. The reasons for this are unclear. Severely impacted households might have fewer financial resources available for climate-friendly behaviour. Alternatively, such households may be resigned to the inevitability of climate change.

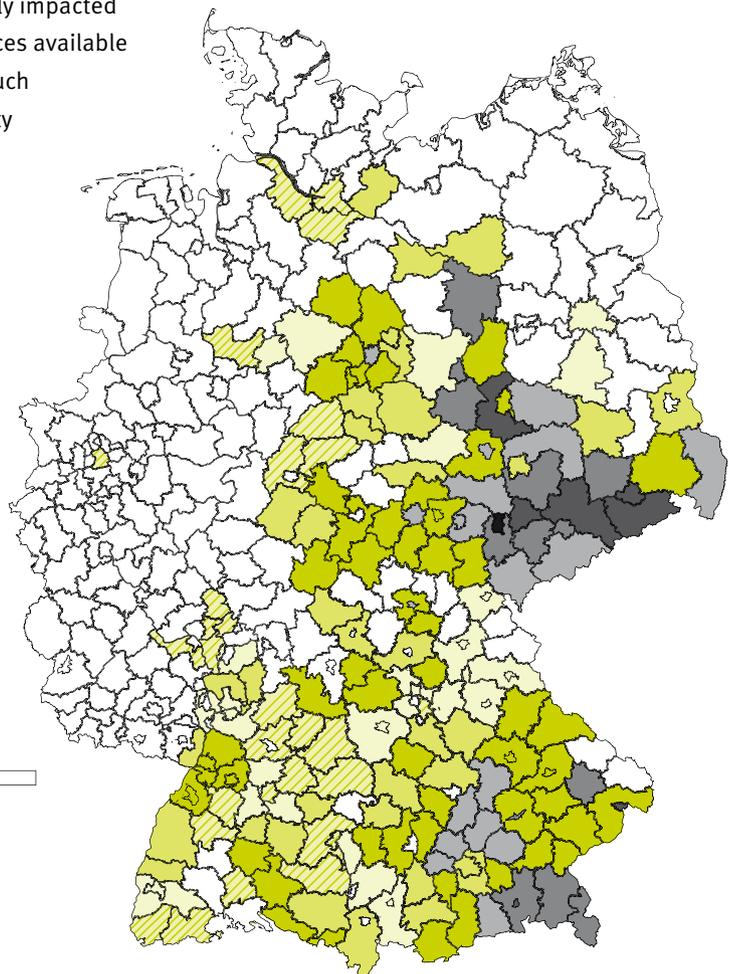
### STUDY

“The Causal Effect of Flood Experience on Climate Engagement: Evidence From Search Requests for Green Electricity”

<https://link.springer.com/article/10.1007/s10584-019-02468-9>

### FINANCIAL DAMAGE CAUSED BY THE FLOODS IN JUNE 2013

The figure illustrates the proportion of insurance contracts with claims in rural and urban areas using a colour scale, where grey describes a high proportion (10% – 15%), while white stands for a low proportion (0.04% – 0%).



Source: Naturgefahrenreport 2019, GDV



## HEAD

Prof. Dr. Friedrich Heinemann

## Deputy head

Dr. Zareh Asatryan

Prof. Dr. Katharina Nicolay



# CORPORATE TAXATION AND PUBLIC FINANCE

## RESEARCH AREAS

- **Corporate Taxation and Tax Location Analysis**  
Daniela Steinbrenner
- **Empirical Effects of Corporate Taxation**  
Prof. Dr. Katharina Nicolay
- **Decision-Making in Tax and Financial Policy**  
Prof. Dr. Friedrich Heinemann
- **Fiscal Policy, Fiscal Federalism and  
Economic Performance**  
Dr. Zareh Asatryan
- **Junior Research Group  
Public Procurement**  
Leonardo Maria Giuffrida, PhD



## MISSION STATEMENT

The Research Department “Corporate Taxation and Public Finance” addresses questions related to corporate taxation and empirical public economics within the context of European integration. The overarching research topics are the design of optimal tax systems as well as the scope and structure of the public sector. The Research Department is a European leader in the international comparison of tax burdens, due to its numerous tax analysis models. Researchers devote special attention to European integration processes by analysing corporate tax harmonisation, the federal division of responsibilities and fiscal governance. The department’s research programme generates concrete tax and fiscal policy recommendations, thus supporting ZEW’s guiding aim of studying and designing well-performing markets and institutions in Europe.



## INSIGHTS FROM COUNTRY-BY-COUNTRY REPORTING

- A recent study compared CbCR reports and the Orbis database
- CbCR reveals a large share of previously invisible profits in tax havens

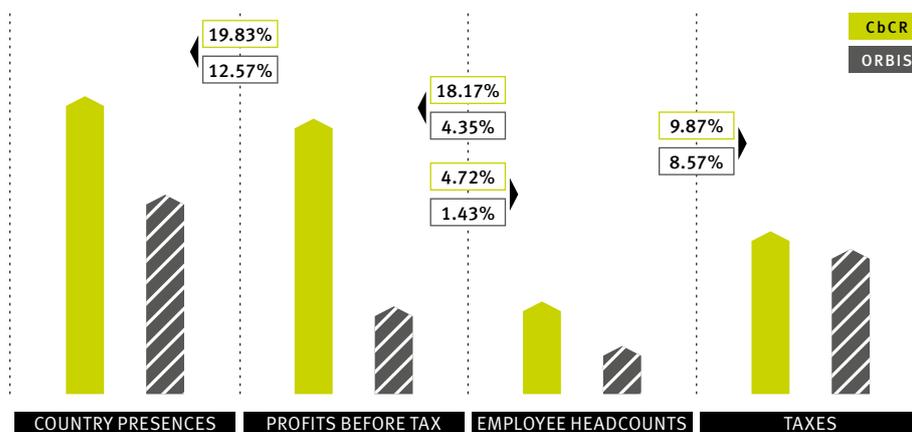
The aim of Country-by-Country Reporting (CbCR) is to increase tax transparency by requiring multinational companies to disclose certain tax-relevant information by country. This information intends to help tax administrations to detect tax avoidance and to exert public pressure on companies to pay their fair share of taxes in the countries where they operate. In a descriptive analysis, the Research Department compared the information content of banks' published CbCR reports with previously available information contained in the Orbis database. For both sources, the researchers examined tax havens as a share of global country presences, profits before tax, employee headcounts and bank taxes. To calculate the relative shares, the figures from the reported tax havens were aggregated and compared with the aggregated values of the other countries. The researchers concluded that the CbCR reveals a large share of profits in tax havens, i.e. profits that could not be identified in the Orbis database. Furthermore, a clear discrepancy was found between the share of employees in tax havens and the profits posted there.

### STUDY

"Can European Banks' Country-by-Country Reports Reveal Profit Shifting? An Analysis of the Information Content of EU Banks' Disclosures"

[www.zew.de/PU81097-1](http://www.zew.de/PU81097-1)

### WHAT ADDITIONAL RELEVANT INSIGHTS ON TAX HAVENS DO THE COUNTRY-BY-COUNTRY REPORTS CONTAIN?



The CbCR shows that tax havens account for 19.83% of global country presences. For comparison, the ORBIS database shows a share of only 12.57%. The information gain over the ORBIS database is thus 7.26 percentage points.

Source: ZEW



## LENDING PRACTICES OF THE EUROPEAN INVESTMENT BANK (EIB)

- EIB senior executives prefer to lend money to their own region of origin

The home regions of executives at the European Investment Bank (EIB) are more likely to receive loans for large infrastructure projects. This is the result of a ZEW study that examined the regional distribution of lending since the founding of the EIB in 1958. The EIB is the largest multilateral credit institution in the world. As “the bank of the EU”, it finances projects that serve Europe’s integration and economic policy objectives. The ZEW study showed that the probability of a region receiving a loan increased by 17 percentage points if at least one person from the region sat on the Board of Directors. This home bias lending can be due to favouritism leading to resource misallocation. However, a competing hypothesis is that intimate knowledge of local conditions in home regions leads to both more and better quality lending.

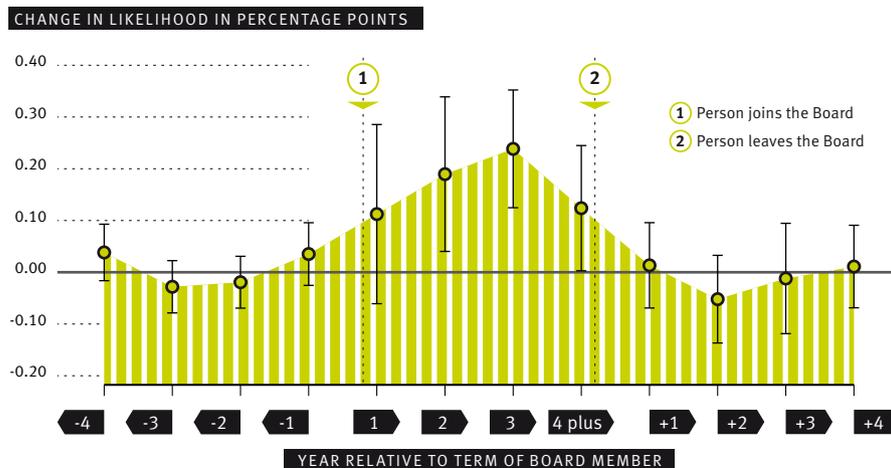


### STUDY

“The Political Economy of Multilateral Lending to European Regions”

[www.zew.de/PU81151-1](http://www.zew.de/PU81151-1)

### LIKELIHOOD OF A REGION RECEIVING A LOAN IF IT IS REPRESENTED ON THE BOARD OF DIRECTORS



The likelihood of a region receiving an EIB loan increases significantly during the period in which the region is represented by a Board member. There is no evidence of a region’s benefit immediately before and after the term of office.

Source: ZEW



## ZEW PUBLIC FINANCE CONFERENCE ON THE “DISINTEGRATION PARADOX”

- Keynote lectures by Sascha O. Becker (University of Warwick) and Andrew Moravcsik (Princeton)
- 

Why is opposition to European integration spreading throughout the continent, despite the fact that European integration has been important for many positive economic and social developments? Indeed, support has been on the rise not only for anti-European disintegration projects like Brexit, but also for domestic secession movements (e.g. Flanders in Belgium, or Catalonia in Spain). At the beginning of May, some 100 researchers met at ZEW for a two-day conference to discuss this “disintegration paradox”.

The high level of refugee migration in recent years has been one of the driving forces behind support for disintegration. In his keynote speech, Professor Sascha O. Becker of the University of Warwick discussed the various effects of forced migration, such as that caused by wars, expulsion or natural disasters. He also discussed motivations for voluntary migration, which is often based on cost–benefit considerations. He then presented the findings of his study, which examined how forced migration impacts investment in human capital, while highlighting the opportunities presented by education.

The second keynote speaker, Professor Andrew Moravcsik of Princeton University, sought to counter negative assessments of the EU’s achievements. He highlighted Europe’s great global influence, numerous alliances, strong role in international development cooperation and its successes in security policy. In Moravcsik’s view, Europe’s response to the 2015 refugee crisis has also been successful in many areas.



**HEAD**

Prof. Dr. Vitali Gretschno

**Deputy head**

Jun.-Prof. Dr. Susanne Steffes



# MARKET DESIGN

## RESEARCH AREAS

- **Auction Market Design**  
Prof. Dr. Vitali Gretschko
- **Design of Matching Markets**  
Prof. Dr. Thilo Klein



## MISSION STATEMENT

The “Market Design” Research Group is dedicated to the analysis and optimization of markets. Its goal is to improve the performance of existing markets by identifying ways to improve the rules of the market. Researchers investigate the characteristics of markets and identify prevailing mechanisms that best achieve relevant objectives, using theoretical, experimental and empirical methods.

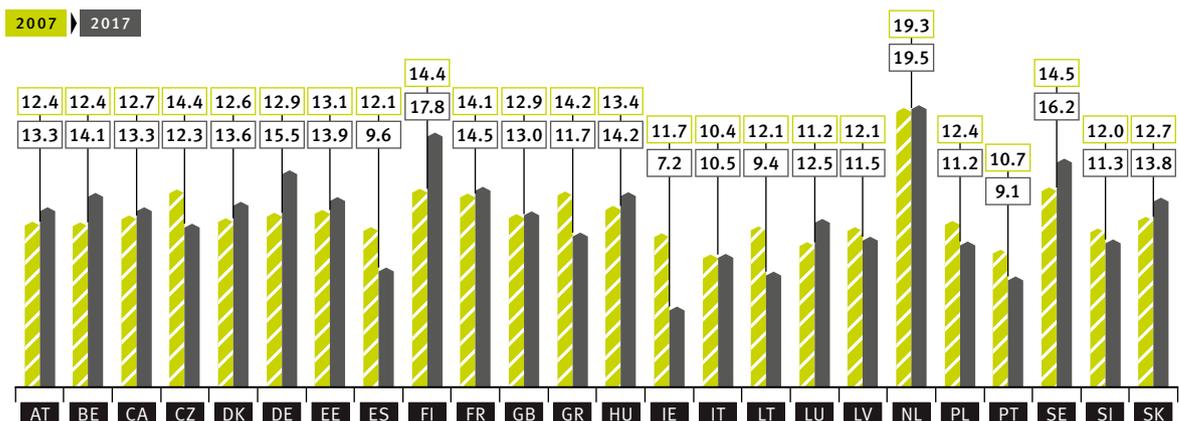


## SUPPLEMENTARY RULES COULD EFFECTIVELY PREVENT DISCRIMINATION IN PROCUREMENT

- Existing rules cannot prevent discrimination in procurement
- A simple change can guarantee non-discriminatory practices

In the EU, more than 250,000 public bodies engage in procurement activities. It is therefore impossible to centrally implement or monitor all procurement projects. In order to prevent discrimination, the WTO requires that the principles of “non-discrimination” and “equality of treatment and transparency of processes” be observed in all public procurement projects of its member countries. However, ZEW research shows that equal treatment based on existing rules makes almost no contribution to the actual prevention of discrimination. Accordingly, how can the rules be modified to guarantee non-discriminatory outcomes? The researchers have a simple solution: imitation perfection. It ensures that in every equilibrium, bidders with the same valuation distribution and the same valuation earn the same expected utility. This rule meets all the requirements for optimal market design: its compliance is easily verifiable without requiring detailed knowledge of the project; discrimination is effectively restricted; and the latitude of persons in charge of implementation is not unnecessarily reduced. Imitation perfection is therefore a sensible addition to existing rules governing EU-wide public procurement.

### GENERAL GOVERNMENT SPENDING OF EUROPEAN OECD COUNTRIES AS % OF GDP



Source: OECD

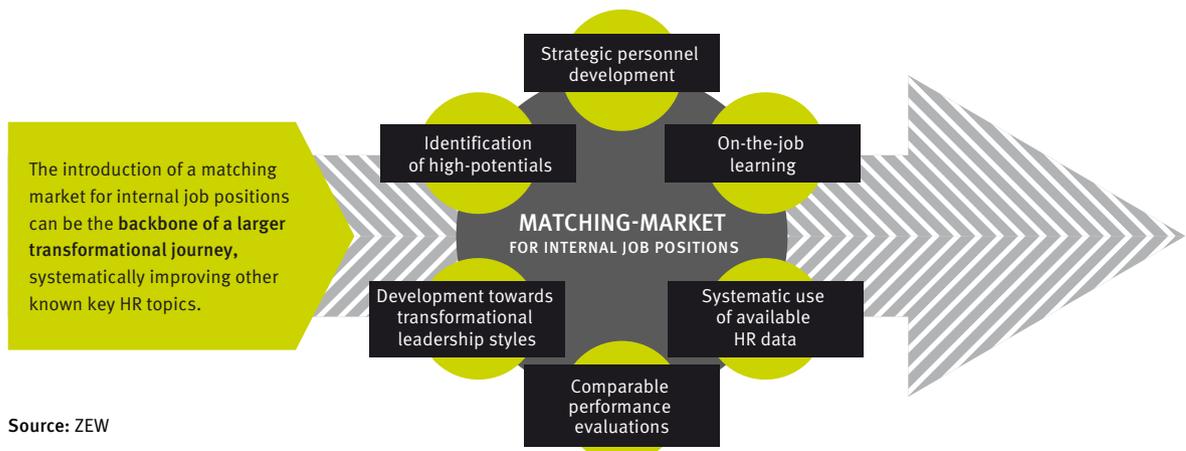


## SHAPING STRATEGIC HUMAN RESOURCES PLANNING WITH AN INTERNAL JOB MARKET

- Well-designed internal labour markets contribute to employee retention
- ZEW researchers have been participating in the active design of such programmes

Fair treatment by superiors and the prospect of advancement are decisive factors for employee retention, as a recent DFG research project by the group shows. Internal labour markets help to ensure that career opportunities are both transparent and fair and that suitable teams come together. Often, however, new positions and projects are only advertised internally on an ad hoc basis. ZEW researchers in market design and human resource economics actively designed the rules for an internal labour market. The idea is simple: new positions and projects are to be advertised and filled on a centralized basis at fixed times. In this way, all interested employees can obtain an overview of career opportunities. Employees and project managers/supervisors evaluate each other, thus creating a ranking. A systematic comparison of existing skills and goals with respective requirements also facilitates decision-making on both sides. Good results are achieved by applying an algorithm to calculate the best match based on the recorded rankings.

### INTERNAL MATCHING MARKET AS AN ELEMENT OF STRATEGIC HR DEVELOPMENT



Source: ZEW



## PARIS II / ZEW WORKSHOP ON MARKET DESIGN

- Facilitating exchange between theory and practice in the domain of market design
  - Focusing on prosocial behaviour in markets
- 

In October 2019 ZEW hosted a workshop on market design that was jointly organised by the “Market Design” Research Group, University of Paris II, and the Karlsruhe Institute of Technology. The event featured numerous lectures by leading academics, and presentations with a strong practical orientation.

This year the workshop focused on how market design can influence “prosocial behaviour”, a term that refers to human decisions and actions that benefit other people, but without direct compensation. Among other things, the workshop considered the effects of discrimination, including the use of diversity quotas. It also examined monetary incentives for prosocial behaviour.

One of the projects demonstrated that individuals have a strong tendency to orient themselves to social norms. When the respondents acted in a market where information about the prevailing norm was revealed, the outcome was more socially equitable.

The 2019 workshop featured a keynote presentation from one of the leading academics in behavioural economics: Professor Uri Gneezy of UC San Diego. In his presentation, he demonstrated how the success of a measure designed to encourage lasting behavioural change hinges crucially on the details of its implementation. At the end of the workshop, a practical project was presented in which market design methods were used to combat a disease effectively and cost-efficiently.

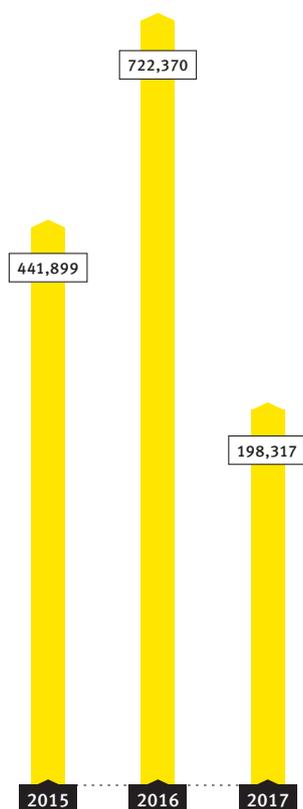
# DEMOGRAPHIC CHANGE

THE LARGE INFLUX OF REFUGEES POSES A MAJOR CHALLENGE TO GERMAN SOCIETY.

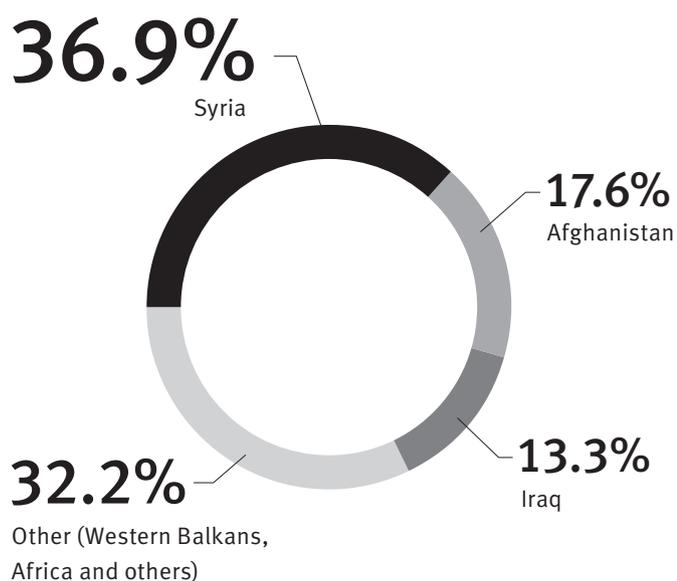
## ASYLUM AND IMMIGRATION TO GERMANY IN NUMBERS

In 2015 and 2016, around 1.2 million first-time applications for asylum were filed in Germany. Asylum seekers constitute a very heterogenous group. Refugees from Iraq and Syria have a high chance of staying in Germany. The prospects for asylum seekers from Western Balkans and African countries are not as good.

FIRST-TIME APPLICATIONS FOR ASYLUM IN GERMANY

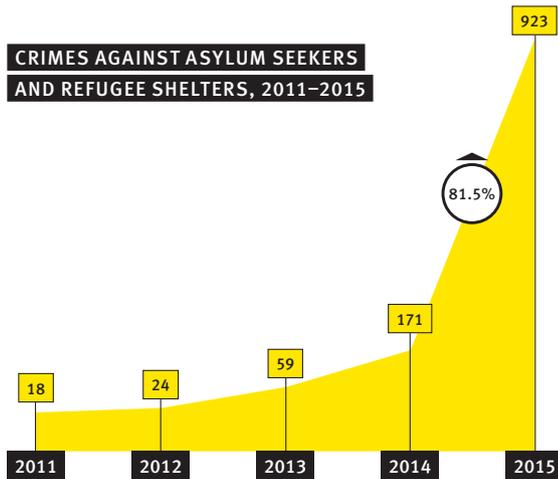


FIRST-TIME APPLICATIONS FOR ASYLUM FILED IN GERMANY BY COUNTRY IN 2016



## HATE CRIMES AGAINST IMMIGRANTS

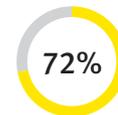
Hate crimes against asylum seekers and refugee shelters in Germany have increased in the years since the large influx of refugees began. In some regions, the increase of hate crimes is significantly greater than in others. Districts that previously had a low number of foreigners and that later took in many refugees saw the greatest increase in hate crimes.



**ATTACKS ON ASYLUM SEEKERS AND REFUGEE SHELTERS MOTIVATED BY RIGHT-WING EXTREMISM, 2013–2015**

1,155

violent attacks



72% of all German districts were affected

Of the 118 counties that reported no attacks, only four were in former East German states. 18.88 percent of all German counties are in the new Länder.

## INTEGRATING FAMILIES

Early childhood education and care have a positive effect on the social integration of refugee mothers with young children. They have more German acquaintances, improve their language skills and perceive better job chances. Moreover, parents learn about German culture from their children. Childcare provides relief for mothers so that they have more time for integration and for finding work.

**THE NUMBERS BELOW SHOW THAT REFUGEE PARENTS IN GERMANY ARE BETTER INTEGRATED WHEN THEIR CHILD IS IN DAYCARE:**

↗ +42% Mothers

↗ +11% Fathers

Measured on a constructed social integration index.

**REFUGEE CHILDREN UNDER THE AGE OF 7**

144,000

2014 by 2018

**THREE-YEAR-OLD CHILDREN IN GERMANY WHO VISITED DAYCARE (2017)**



■ All three-year-old children  
 ▨ Children from refugee families

Sources:

1. ZEW Discussion Paper "Refugees Welcome? Understanding the Regional Heterogeneity of Anti-Foreigner Hate Crimes in Germany": [www.zew.de/PU80696](http://www.zew.de/PU80696)
2. Study "The Effect of Early Childhood Education and Care Services on the Social Integration of Refugee Families": [www.zew.de/PU81144](http://www.zew.de/PU81144)
3. Immigration reports for 2015 and 2016/2017 from the Federal Office for Migration and Refugees: <https://www.bamf.de/EN/Themen/Forschung/Veroeffentlichungen/Migrationsberichte/migrationsberichte-node.html>

# EUROPE AT ZEW

**PROF. DR. BERNHARD GANGLMAIR\***

“My decision to join ZEW was  
based primarily on the attractive  
work environment.”

**\* RAAB, AUSTRIA**



“I have travelled extensively as an academic.

After earning a master’s degree at the University of Linz and a PhD from the University of Zurich, I spent eight years in the US, first at the University of Texas in Dallas, and later at Boston University and Northeastern. I ultimately decided to return to Europe, despite the prevailing trend for researchers to head in the other direction. At ZEW, I assumed leadership of the newly formed ‘Competition and Innovation’ Junior Research Group. I was drawn to the position in part due to the compelling research agenda, which differed from university research by virtue of its stronger focus on economic policy. This practical dimension is not only important but also eminently logical.

Another major draw of the position was the chance to relocate to the Rhine-Neckar metropolitan region, which presented great career opportunities for my wife as well.”

4



# ZEW

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**ZEW**

## **IN THE MEDIA**

Whether it's about Europe, digitalisation, market power, competition, start-ups, artificial intelligence or large-scale shifts in the workplace, ZEW researchers are thought leaders highly sought after by journalists.

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**PROF. DR. IRENE BERTSCHEK IN THE**  
**STERN**

“Many activities will change. People need additional training and to acquire digital skills. Some jobs will be lost, but new ones will appear elsewhere.”

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*on the threats to jobs posed by digitalisation  
(6 June 2019).*

**PROF. ACHIM WAMBACH, PHD IN THE**  
**HANDELSBLATT**

“It is good that American antitrust authorities are now investigating possible market abuses by tech companies.”

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*on the US Department of Justice's anti-trust  
investigations of major American tech companies  
(25 July 2019).*

**ANNIKA HAVLIK AND DR. ZAREH ASATRYAN**  
**IN THE**  
**FINANCIAL TIMES**

“Annika Havlik and Zareh Asatryan of ZEW, a German economic research institute, found vice-presidents were 14–19 per cent more likely to approve project proposals for their home region.”

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*on the lending process of the European  
Investment Bank (16 July 2019).*

**DR. REINHOLD KESLER IN THE**  
**STUTTGARTER ZEITUNG**

“It would be desirable for online travel agents to better inform consumers about how they calculate their rankings labelled as ‘Recommended’ or ‘Our top picks’.”

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*on a study investigating the rankings of  
hotel booking portals (30 January 2019).*

**DR. SANDRA GOTTSCHALK IN THE  
FRANKFURTER  
ALLGEMEINE ZEITUNG**

“Even today, many companies in East Germany still have West German owners. But the number is much less than it was in the years immediately after the fall of the Berlin Wall, when the Treuhand privatised thousands of companies in the GDR.”

*on findings by a study examining family-owned businesses in East and West Germany (13 September 2019).*

**PROF. DR. FRIEDRICH HEINEMANN IN  
LES ECHOS**

“Germany is becoming less appealing to family-owned businesses.”

*on Germany's drop in the country index rankings for family businesses (7 January 2019).*

**DR. MICHAELA SLOTWINSKI ON  
SPIEGEL ONLINE**

“There is a causal relationship between donations and voting decisions.”

*on the findings by a study of ZEW in cooperation with the universities of Bozen-Bolzano, St. Gallen and Basel about vote buying in the US Congress (28 November 2019).*

**DR. GEORG LICHT IN THE  
SÜDDEUTSCHE  
ZEITUNG**

“[In Silicon Valley], venture capitalists make decisions as if they are placing bets, while in Germany, investors want start-ups to have something to show for themselves.”

*on start-up culture in Silicon Valley and whether it should serve as a role model for Germany (5 December 2019).*

**PROF. DR. SEBASTIAN SIEGLOCH IN THE  
WIRTSCHAFTSWOCHE**

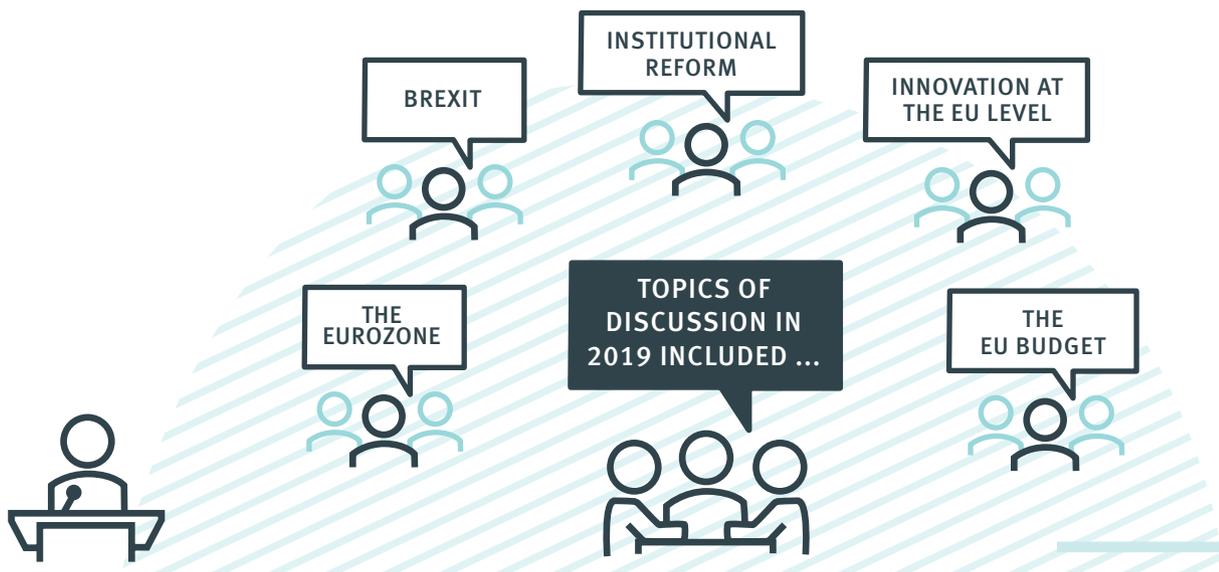
“Espionage undermines trust in others, which is an important aspect of economic activity.”

*on a ZEW study examining the long-term social and economic consequences of Stasi spying (8 November 2019).*



## ...IN BRUSSELS

The ZEW Lunch Debates are lively, controversial and to the point. The discussion series facilitates the exchange of ideas among important EU decision-makers and makes sure that ZEW research findings reach stakeholders in the European capital.



Since 2014, ZEW's Lunch Debates have been provoking discussions on central European questions. The series takes place four times a year on the premises of the Representation of the State of Baden-Württemberg to the EU, located in the heart of Brussels' European quarter. It combines presentations by ZEW researchers with responses from high-profile panellists and discussions with representatives from academia, the EU Commission, the



EU Parliament, the private sector and European organisations, providing a broad spectrum of opinions across different EU Member States. The Lunch Debates have been very well received and have given the ZEW opportunities to bring its policy recommendations to bear on EU decision-making. The following video offers highlights from a June 2019 Lunch Debate:

[https://youtu.be/\\_VUpdOIH-fQ](https://youtu.be/_VUpdOIH-fQ)



## PARTICIPATION IS FREE

AND BY INVITATION\*

\* If you are interested in attending, please write us at [event@zew.de](mailto:event@zew.de)

## CONTACT

Dr. Daniela Heimberger  
Phone +49 (0)621 1235-109  
[daniela.heimberger@zew.de](mailto:daniela.heimberger@zew.de)

## THE ZEW LUNCH DEBATES

Since its founding, the ZEW Lunch Debates series has become a highlight of the policy events calendar in Brussels. Held on the premises of the EU Representation of the State of Baden-Württemberg, it encourages open exchanges of ideas among researchers and policymakers. ZEW has already held over 25 events in the series.

2014  
18 MARCH

An auspicious start: the first Lunch Debate was devoted to European energy and climate protection targets and featured the then-EU Energy Commissioner **GÜNTHER H. OETTINGER**.

2016  
28 SEPTEMBER

What should the future of the EU look like after Brexit? Shortly after the UK's referendum, ZEW economist Professor Friedrich Heinemann, ZEW President Professor Achim Wambach, MEP **SYLVIE GOULARD** and others analysed tensions within Europe and identified future courses of action.

2018  
17 OCTOBER

How should we assess the regulatory framework for EU research funding? And how is the dissemination of innovative discoveries and inventions promoted? ZEW economist Dr. Georg Licht discussed these questions with the Director of the EU Commission's Directorate General for Research and Innovation, **KURT VANDENBERGHE**, and others.

2015  
18 NOVEMBER

In the run-up to the World Climate Conference, ZEW scientists discussed Europe's expectations from the Paris Agreement with the EU Commission's Director-General for Climate Action, **JOS DELBEKE, PHD.**

2018  
2 MAY

Featuring a talk by **PAULINA DEJMECK-HACK**, then economic adviser to Jean-Claude Juncker, the Lunch Debate examined the EU Commission's reform proposals for the eurozone and assessed them based on the findings of a recent ZEW study.

2019  
5 JUNE

Is entry to the eurozone an appealing option for Eastern European Member States? Together with the former Polish finance minister, **Dr. Mateusz Szczurek**, ZEW's Annika Havlik and Professor Friedrich Heinemann took a closer look at perspectives in Eastern Europe towards the eurozone.

# ➤ ... ENCOURAGES SCIENTIFIC EXCHANGE

At ZEW, the exchange of ideas is writ large. In 2019, ZEW welcomed a great many guests to more than 50 public talks and conferences, in Germany and abroad.

## ➤ ECONOMIC EVENTS

### PROMOTING PROFESSIONAL EXCHANGE AMONG ECONOMISTS AROUND THE WORLD

ZEW's economic events actively contribute to strengthening the research community network.

**6-7 MAY**  
**SIXTH ANNUAL MANNHEIM TAXATION CONFERENCE**

Dedication to international taxation research: the conference presented the newest economic findings on tax avoidance and the measurement of income inequality, among many other topics.

**17 OCTOBER**  
**THE ECJ: GUARDIAN OF THE RULE OF LAW**

Increasingly, the European Court of Justice (ECJ) has been adjudicating politically sensitive issues. How can the rule of law in the EU be assured while harmonising jurisdictions between Member States? Professor Juliane Kokott, Advocate General at the ECJ, explored the question in a talk at ZEW.

**9 OCTOBER**  
**EUROPEAN EVENING**

Where is the EU now and where it is going in the future? ZEW's Professor Friedrich Heinemann and Annika Havlik discussed this question with Guido Wolf (Minister of Justice and European Affairs, Baden-Württemberg), Joachim Menze (EU Commission) and Professor Thomas König (University of Mannheim).

**14 MAY****MOBILITY OF THE FUTURE**

What must politicians, the private sector and society do to create a system of sustainable mobility? The event held in Stuttgart on the mobility of the future generated stimulating discussions between the speakers, which included Baden-Württemberg's transport minister Winfried Hermann, Professor Cordula Kropp (University of Stuttgart), Manfred Fuhg (Siemens Mobility Germany) and Professor Achim Wambach (ZEW).

**27-28 JUNE****17<sup>TH</sup> ICT CONFERENCE**

ZEW's Information and Communication Technologies Conference is one of the most important international conferences on the digital economy. The 17th edition featured some 90 experts, including Professor Catherine Tucker from MIT Sloan, who spoke about the algorithms used by digital platforms.

**21-23 SEPTEMBER****BEIJING HUMBOLDT FORUM 2019**

The BHF 2019, held in the Chinese capital, was devoted to the green economy, cultural heritage and artificial intelligence. ZEW organised a session on the role of the environment, energy and innovation policy for lower emissions in China's and Europe's transport sector.

## FIRST-HAND INFORMATION ON ECONOMIC POLICY

### DECISION-MAKERS DISCUSS, CURRENT TOPICS UP CLOSE

The lecture series brings together leading thinkers from the private-sector, academia and politics to explore issues in economic policy. Events take place in Mannheim, Stuttgart and Berlin.

**CONTACT:**

Dr. Daniela Heimberger  
Phone: +49 (0)621 1235-109  
daniela.heimberger@zew.de

# ➤ ...BEHIND THE SCENES:

## KEEPING THINGS RUNNING

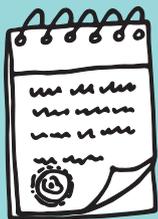
ZEW is known for its first-rate publications, expert policy advising and scientific experts. But ZEW wouldn't be ZEW without those who edit the publications, manage the bills, review the contracts, develop human resources and communicate its successes to the public.

### CONTRACTURAL FRAMEWORK PURCHASE

---

The purchase team is responsible for ensuring that contracts are in order and that procurement processes run properly.

In 2019, the team processed



# 444

ORDERS

### DIGITAL COOPERATION IT

---

Virtual machines enable different operating systems to run on the same hardware, optimising resources and saving costs. For their economic analysis, ZEW researchers currently use



# 160

VIRTUAL  
MACHINES

### RELIABLE BUDGET MANAGEMENT FINANCES AND ACCOUNTING

---



The financial resources from our contractors require careful stewardship. In 2019, the department oversaw more than



# 21

MILLION EUROS

➔ **DATA AND FACTS FROM  
BEHIND THE SCENES**



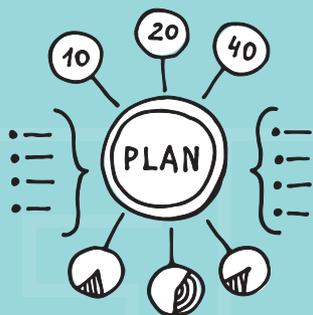
**OUR  
SERVICE UNITS**

**CREATING A  
WORK-LIFE BALANCE  
HUMAN RESOURCES**

In 2019 alone, the team developed and implemented

**18**

UNIQUE  
WORK-TIME  
MODELS



**OPEN COMMUNICATION  
PRESS AND  
PUBLIC RELATIONS**



The press team makes sure that news of ZEW's research reaches the general public. In 2019, they prepared more than

**130**

PRESS RELEASES

**FEELING WELCOME AT ZEW  
EVENT MANAGEMENT**

The >50 events that took place at ZEW in 2019 required careful organising. Our event management team booked more than



**1.500**

OVERNIGHT HOTEL STAYS

**VISUALLY APPEALING  
MEDIA DESIGN**

In illustrating ZEW research findings, the design team created some

**364**

GRAPHS &  
DIAGRAMS





... TRUSTS IN

# TRAINING AND DEVELOPMENT

At ZEW, the dissemination of knowledge is paramount and takes place at multiple levels. Being the only German economic research institute with its own department for professional training, ZEW provides researchers and practitioners around the world with a wide array of seminars bringing together the best of theory and practice.

“The BMWi manager training programme **Fit for Partnership with Germany** has been a major success. Co-organized with ZEW, the programme is always interesting as I discover the different perspectives of the participants and supervise the management partnerships. For example, in 2019 we had a Chinese and Mexican group. We at ZEW are happy to contribute to the creation of new trade relations with German companies.”



**Manuel Lauer**

Project Director,  
ZEW International  
Qualification  
Programmes



## INHOUSE SEMINARS

... are specially designed for companies and institutions. In close cooperation with clients, the ZEW training team develops custom-tailored courses in German and English. Topics range from basic and advanced economics to soft skills.

## INTERNATIONAL

### QUALIFICATION PROGRAMME

... offers English-language courses for a variety of groups, be they international managers or university students. The programme includes workshops, training sessions, summer schools and courses especially tailored to participants from Germany and abroad. Some highlights are the manager training programme **Fit for Partnership with Germany** and the annual ZEW Summer School for Chinese students.



## CONTACT

Barbara Hey  
Phone: +49 (0)621 1235-244  
barbara.hey@zew.de



## MORE INFORMATION

For more information on upcoming seminars, see  
<https://www.zew.de/en/veranstaltungen-und-weiterbildung/seminare-und-trainings/>

 **CONTACT**

Dr. Daniela Heimberger  
 Phone: +49 (0)621 1235-109  
 daniela.heimberger@zew.de



# ...SHARES KNOWLEDGE

## WITH SCHOOL STUDENTS

Developing solutions, putting ideas into practice, taking responsibility – these are the core elements of YES! – Young Economic Summit, Germany’s largest school competition on the future economic and social challenges facing the world.

Since 2017, ZEW has supervised student teams at the German-wide school competition YES! – with great success. In 2019, for the third time running, the ZEW team took first prize in Hamburg. The winning team – a group of students from the Werner Heisenberg Gymnasium in Weinheim and supervised by Carina Fugger from the ZEW Research Department “Environmental and Resource Economics, Environmental Management” – convinced the jury with a simple, yet very innovative project. The team proposed the creation of a bonus system called GreenPay that encourages sustainable consumer behaviour. Consumers who purchase regional products, avoid products with excess packaging, take public transport or recycle used items receive bonus points that can be redeemed at participating businesses.

**YES!** is sponsored by the Federal Ministry for Economic Affairs and Energy and is co-directed by the Leibniz Information Centre for Economics (ZBW) and the Joachim Herz Foundation. Participating student groups develop solutions to future economic and social challenges during a six-month mentoring programme under the supervision of experts from leading research institutes.

**YES!** YOUNG  
 ECONOMIC  
 SUMMIT





... HAS ENGAGED SUPPORT:

# THE ZEW SPONSORS' ASSOCIATION

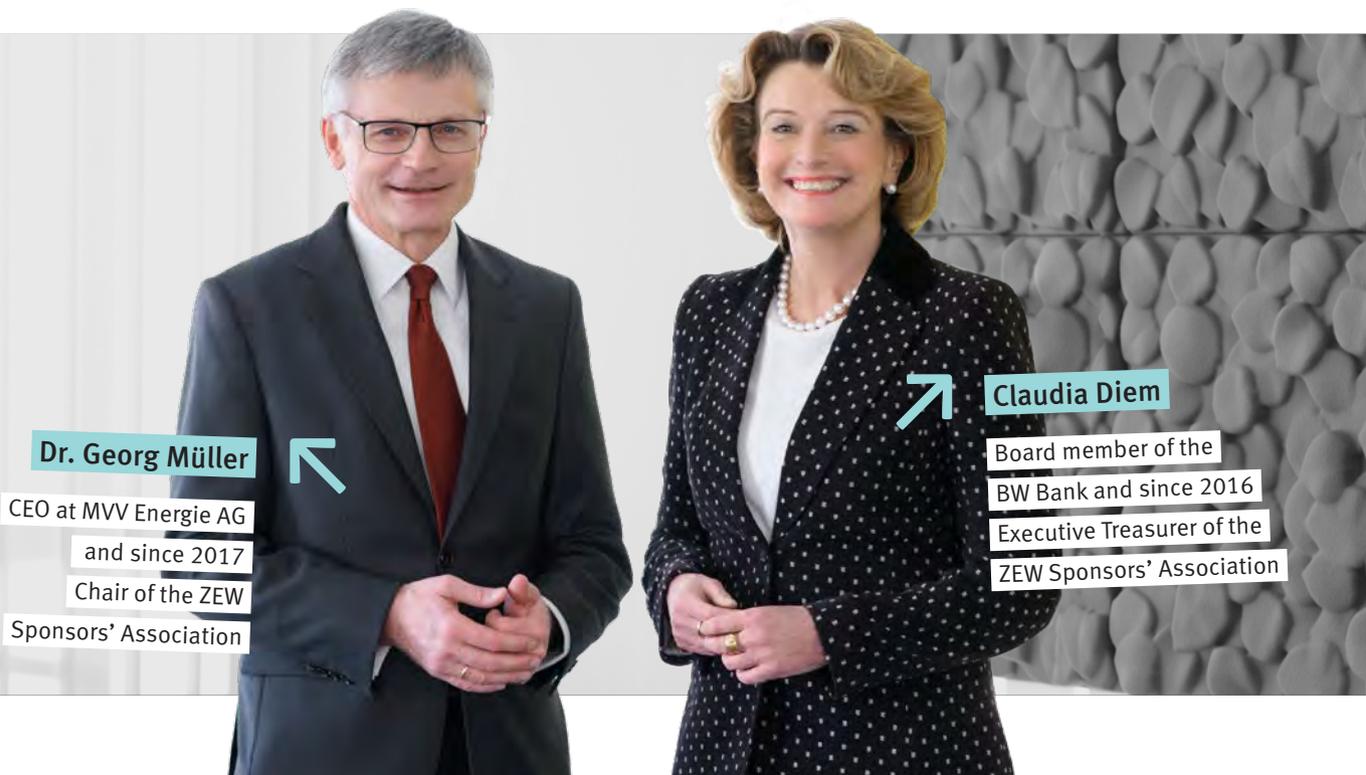
The ZEW Sponsors' Association creates a space for open dialogue between research and practice. Its 140 members and member companies initiate practice-focused research projects, promote events and sponsor prizes for excellent research at ZEW, among other activities.

## Why did your companies decide to participate in the ZEW Sponsors' Association?

**Diem:** The LBBW/BW Bank is a founding member of the Sponsors' Association and has supported ZEW since 1993. Now as then, we are convinced of the need for a strong economic research institute in Baden Württemberg. ZEW studies facilitate the examination and interpretation of pressing issues

such as the financial crisis and the EU banking union. Studies of international markets help better understand them in the interests of our clients.

**Müller:** MVV Energie AG has been a member of the Sponsors' Association for over 25 years. For us it is about promoting top-notch economic research in our region. And, of course, the work of ZEW is of great interest for companies such as MVV when



**Dr. Georg Müller**

CEO at MVV Energie AG  
and since 2017  
Chair of the ZEW  
Sponsors' Association

**Claudia Diem**

Board member of the  
BW Bank and since 2016  
Executive Treasurer of the  
ZEW Sponsors' Association



## INTERESTED IN BECOMING A MEMBER?

If so, contact **Katharina Kober** at the  
ZEW Sponsors' Association Office

Phone: +49 (0)621 1235-302 · foerderkreis@zew.de

faced with challenges such as the energy transition. For instance, we take its findings into account in our decisions.

### What prompted you to become personally involved in the work of the Sponsors' Association?

**Diem:** I find it fascinating to raise business-related questions in dialogue with the Sponsors' Association and ZEW. In the ideal case, the conversations become research projects supported by the Sponsors' Association.

### Do you have an example?

**Müller:** Certainly. In 2019, we funded a ZEW project on Chinese investment in Germany and the possible drain of technological expertise from the acquired companies. It is a wonderful example of how the Sponsors' Association works. We support research on current topics for companies – large, medium and small. ZEW draws on topics from its research agenda. In this way, practice-focused research benefits everyone.

### What are the benefits for the members?

**Müller:** They benefit twice over. Amid the flood of information available today, we all want to strengthen ZEW as an independent voice with evidence-based analysis of economic policy debates. At the same time, ZEW offers us a one-of-a-kind lecture series in the region, with leading representatives from politics, the private sector and research. Recent speakers include Peter Altmaier, the German Minister for Economic Affairs and Energy, and Sabina Jeschke, a board member at Deutsche Bahn. Where else can we hear such luminaries speak in person and take part in conversations with them directly?

**Diem:** There is also regular collaboration between association members and ZEW such as when companies provide data for research projects. It's a win-win situation. Both sides benefit from trust built over years and from the analysis and policy recommendations that grow out of the research.

### What can members look forward to in 2020?

**Müller:** Members can expect several new events that give them more opportunity for dialoguing with ZEW, for networking and for receiving valuable input. The New Year's Lecture, held in January by the ZEW president, is a new highlight at ZEW.

**Diem:** I am especially looking forward to the new ZEW expert discussions exclusively for members of the Sponsors' Association. In 2020, we will hear about the recommendations made by the federal government's Commission of Experts for Research and Development on the topic of cyber security and innovation. Another discussion will focus on the subject of pension plans. All the while, we will continue with our previous activities such as awarding prizes for research excellence at ZEW.

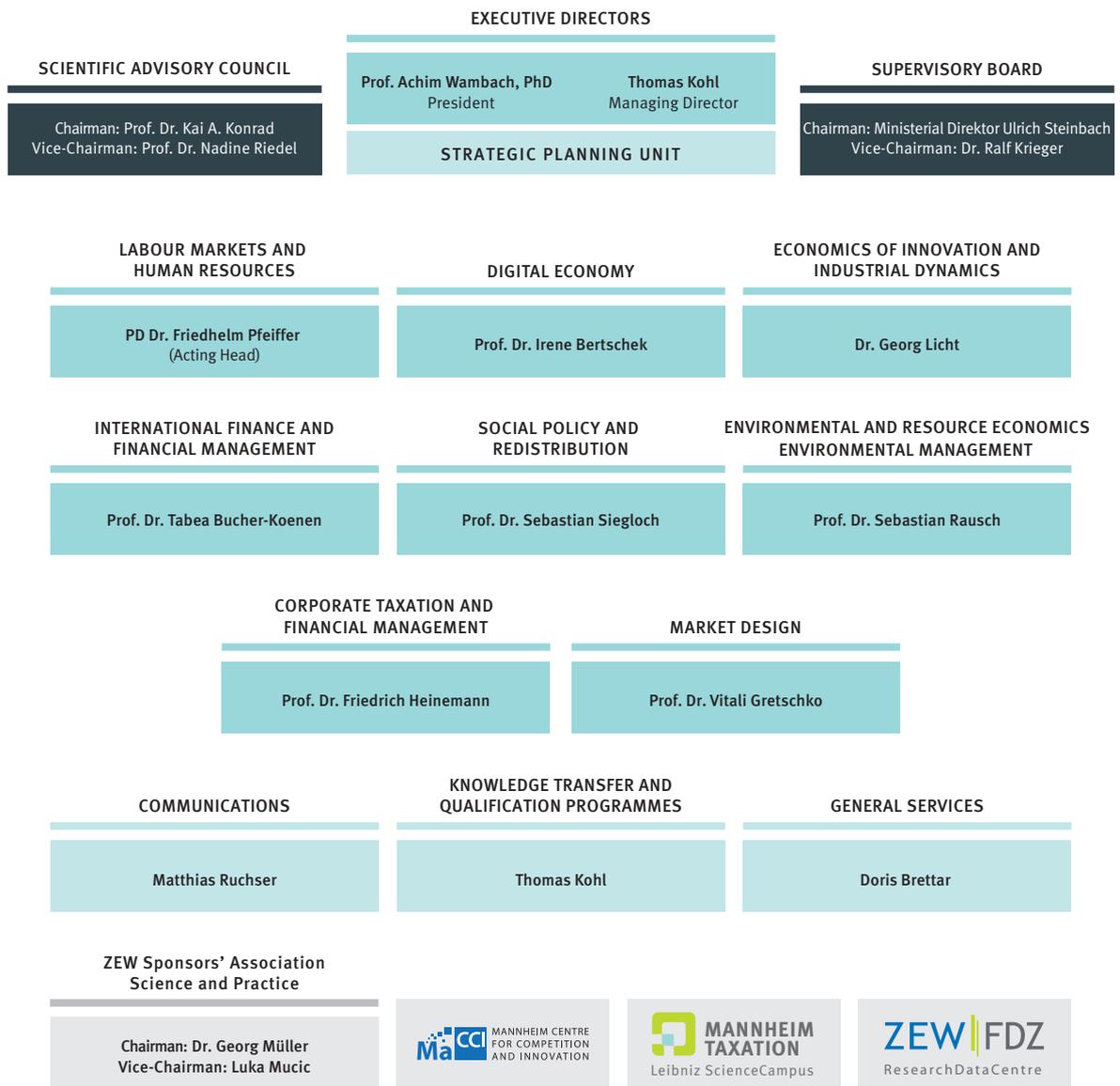
### What are the goals of the Sponsors' Association in the coming years?

**Müller:** Where possible, we support ZEW and fund projects for which the institute would otherwise lack the resources. We want to expand this potential and attract new members. A stronger Sponsors' Association will help make ZEW stronger and vice versa.

**Diem:** For 2020, we want to expand local membership, especially among newer start-ups. For it is precisely younger businesses that stand to gain the most from our business networks and from exchanges with ZEW researchers.

# ORGANISATION CHART

## HOW ZEW IS ORGANISED



# ↑ COMMITTEES

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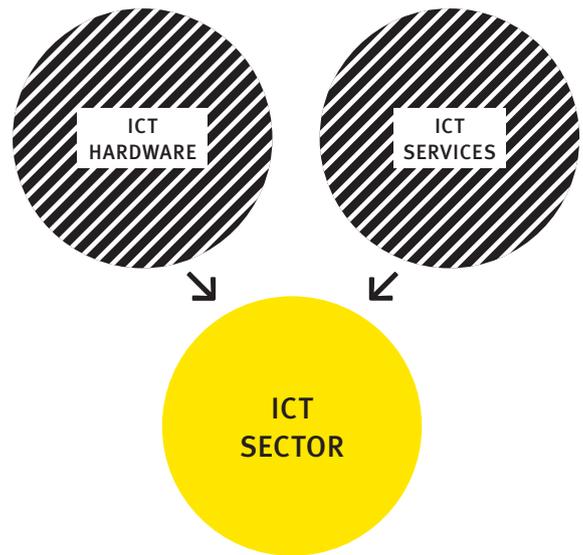
LMU Munich

# DIGITALISATION

**THE INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SECTOR IS A KEY DRIVER OF DIGITAL TRANSFORMATION.**

## ICT SECTOR IN NUMBERS

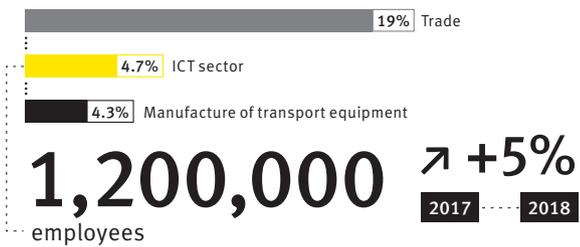
The ICT sector consists of ICT hardware manufacturers and ICT service providers. Innovative and dynamic, the ICT sector has contributed to value added and job growth over the past years.



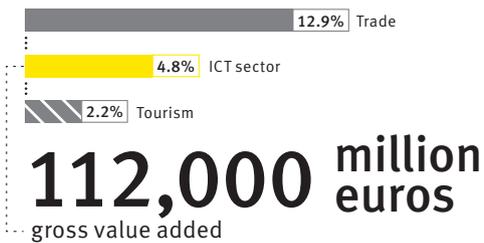
### SHARE OF ALL BUSINESSES IN THE COMMERCIAL SECTOR



### SHARE OF ALL EMPLOYEES IN THE COMMERCIAL SECTOR



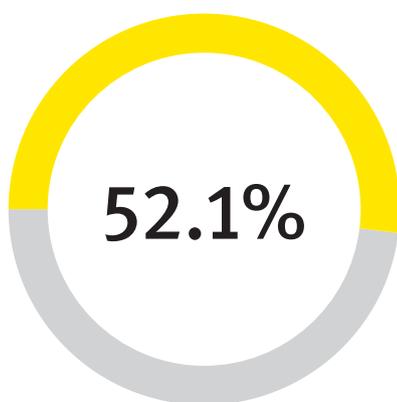
### SHARE OF GROSS VALUE ADDED IN THE COMMERCIAL SECTOR



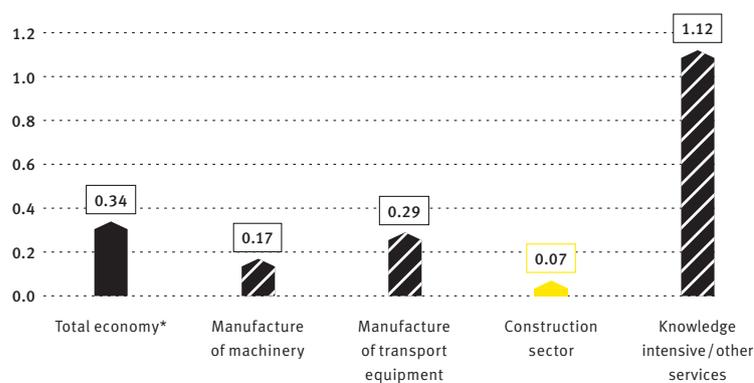
## CONTRIBUTION OF DIGITALISATION TO PRODUCTIVITY – THE CONSTRUCTION SECTOR

When it comes to digital technology use, the German construction sector is still lagging behind other sectors and countries. This is reflected in the contribution of digitalisation to labour productivity.

### NO NEED FOR DIGITALISATION PROJECTS IN THE CONSTRUCTION SECTOR

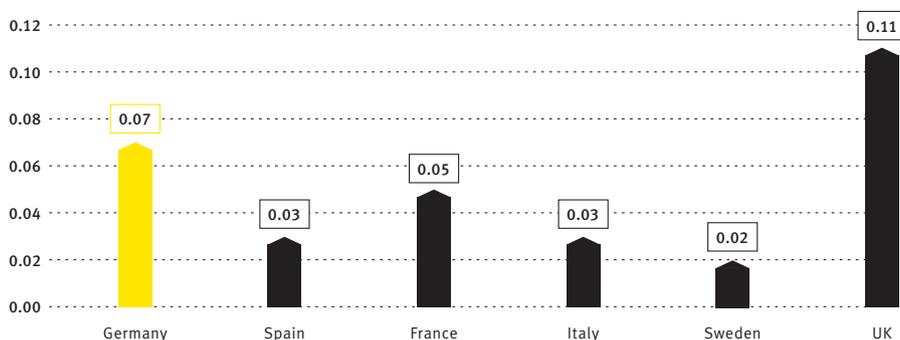


### AVERAGE ANNUAL CONTRIBUTION OF DIGITALISATION TO LABOUR PRODUCTIVITY IN GERMANY BY SECTOR, 1998–2015 (IN PERCENTAGE POINTS)



\* The contribution of digitalisation to labour productivity averaged 0.34 percentage points in the total economy during the 1998–2015 period.

### AVERAGE ANNUAL CONTRIBUTION OF DIGITALISATION TO LABOUR PRODUCTIVITY IN THE CONSTRUCTION SECTOR BY COUNTRY, 1998–2015 (IN PERCENTAGE POINTS)



As in other countries, the contribution of digitalisation to labour productivity in the German construction sector is low, though slightly above average. Of the countries compared, only the UK had a greater contribution to productivity in the construction sector, with 0.11 percentage points.

#### Sources:

ZEW report "IKT-Branche 2018": [www.zew.de/PU81599](http://www.zew.de/PU81599)

ZEW report "Zukunft Bau: Beitrag der Digitalisierung zur Produktivität in der Baubranche": [www.zew.de/PU81248](http://www.zew.de/PU81248)

# YOU ARE INTERESTED IN ...

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... ZEW research results and expert reports, you are looking for an expert or want to be included in our press mailing list?

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**PLEASE CONTACT**

**Matthias Ruchser**  
hone +49 621 1235 - 379  
kommunikation@zew.de

**Sabine Elbert**  
hone +49 621 1235 - 133  
sabine.elbert@zew.de

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... events, publications or want to visit ZEW with your school class?

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**PLEASE CONTACT**

**Dr. Daniela Heimberger**  
hone +49 621 1235 - 109  
daniela.heimberger@zew.de

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... our seminar programme, a further training course or an in-house seminar?

---

**PLEASE CONTACT**

**Barbara Hey**  
Phone +49 621 1235 - 244  
barbara.hey@zew.de

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**DOWNLOAD**

A comprehensive overview of the scientific output and networking activities of ZEW in 2019 can be found (in German only) at:

[www.zew.de/dokujahresbericht19](http://www.zew.de/dokujahresbericht19)

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## **IMPRINT**

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L 7, 1 · 68161 Mannheim  
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### **EDITORIAL COORDINATION**

Sarah Tiedemann, Dr. Daniela Heimberger

---

---

### **INFOGRAPHICS & FOCUS TOPIC EDITED BY**

Sabine Elbert, Carola Hesch

---

---

### **ART DIRECTION**

Janin Villhauer

---

---

### **CONCEPT | REALISATION**

Yvonne Lupp

---

---

### **GRAPHIC CONCEPT | REALISATION**

Simone Mann

---

---

### **DESIGN SUPPORT**

Dirk Aschemann, Darina Brüning,  
Thana Suppiah

---

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### **REALISATION INFOGRAPHICS**

HINTERLAND | Büro für visuelle  
Kommunikation  
(p.52/53, p.108/109, p.128/129)

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### **PHOTOS**

Anna Logue Fotografie; except for: p.122  
(PHOTO Borchard A. Loeffler), p.123 (YES! –  
Young Economic Summit), Icons p.120/121  
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