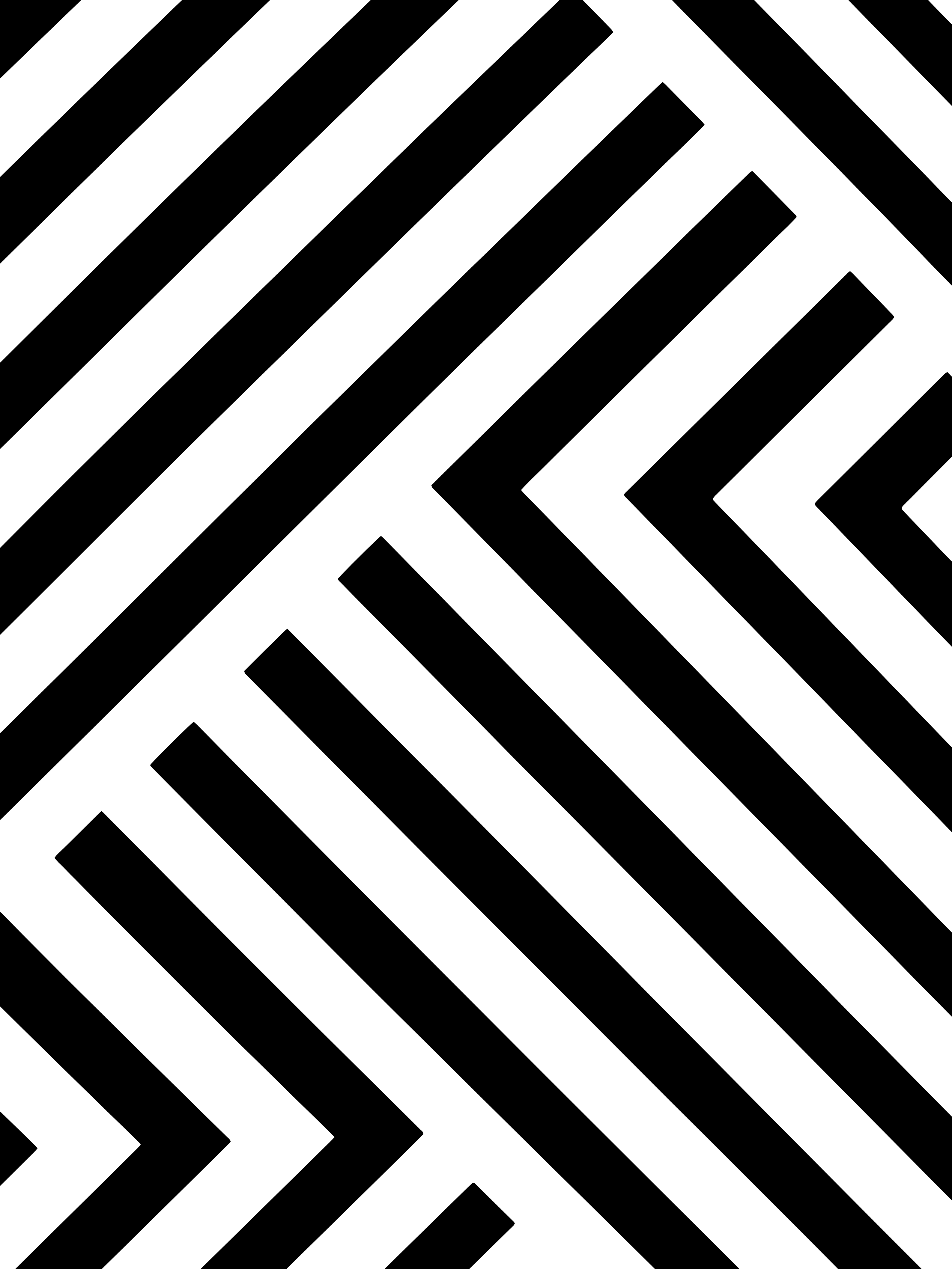
ZEW

Zeitenwende

IN FOCUS

ANNUAL REPORT 2022

Leibniz Gemeinschaft



ZEW ANNUAL REPORT 2022

ZEITENWENDE IN FOCUS.

IN FOCUS

Zeiten WENDE

Focus

FOCUS ON ZEITENWENDE

Research

RESEARCH AND ADVISING

» THE CURRENT SITUATION RAISES NUMEROUS ECONOMIC AND SOCIAL QUESTIONS.

THOMAS KOHL
Managing Director

PROF. ACHIM WAMBACH, PHD
President

FOREWORD.

DEAR READERS,

The war in Ukraine has overturned fundamental assumptions regarding security, peace and freedom in Europe. It has also vividly exposed Germany's economic dependence on non-EU countries, as spiking commodity prices, supply chain disruptions and associated price inflation took hold in the spring of last year. The Russian invasion prompted German Chancellor Olaf Scholz to speak of a *Zeitenwende*, of a world-historical "change of epochs". To be sure, the current moment raises numerous economic and social questions: How can Europe be strengthened as an economic actor, and how can it assert its values? Can the transition to climate neutrality strengthen Europe's economy while making it more independent? What are the impacts of war-related migration for the European labour market? These are just some of the issues being examined at ZEW with the goal of offering insights and recommendations to the policy debate. In the *Zeitenwende* section of this report, you'll find more information about our recent activities in the domain of policy advising.

In 2022, our staff returned to the institute after a long period of pandemic-related remote work. Accordingly, we were once again able to welcome prominent personalities as guests, including Dr. Danyal Bayaz, Baden-Württemberg's Finance Minister; Professor Monika Schnitzer, the Chairwoman of the German Council of Economic Experts; and Carsten Spohr, CEO of Lufthansa. All three gave talks as part of the lecture series First-Hand Information on Economic Policy. We were particularly pleased to hold our first ZEW Alumni Day since the outbreak of the pandemic. Last year was also marked by intensive preparation for the 2023 evaluation of the institute by the Leibniz Association.

With a view to the strategic orientation of our research, 2022 saw the establishment of the "Health Markets and Health Policy" Research Group, which represents a valuable addition to ZEW's research programme. An additional welcome development was the acquisition of Professor Nicolas Ziebarth of Cornell University as the new head of the "Labour Markets and Social Insurance" Research Unit. Professor Ziebarth is an internationally renowned expert on health, public, and labour economics.

Last year ZEW's economic policy expertise was again in high demand. Notable female researchers at ZEW participated in numerous policy forums at the federal level. Professor Irene Bertschek was appointed by Chancellor Scholz to his *Zukunftsrat* ("Future Council"). In addition, Bertschek has long been a member of the Expert Commission on Research and Innovation (EFI), assuming the role of deputy chairwoman last year. Professor Melanie Arntz was appointed in 2022 to the Council of the World of Work of the Federal Ministry of Labour and Social Affairs. Last but not least, Professor Tabea Bucher-Koenen has been advising the federal government and Federal Ministry of Finance on the design of private pension schemes.

WE HOPE YOU ENJOY READING MORE ABOUT OUR DIVERSE ACTIVITIES OVER THE PAST YEAR !

PRESIDENT

MANAGING DIRECTOR

MISSION.

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

ZEW PURSUES 2 CENTRAL GOALS WITH ITS WORK

- POLITICALLY RELEVANT RESEARCH
- EVIDENCE-BASED POLICY ADVICE

ABOUT US.

The Mannheim-based ZEW – Leibniz Centre for European Economic Research is a leading German economic policy institute with a strong Europe-wide reputation, and a member of the Leibniz Association. Its applied empirical 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 carry out major economic policy advising projects.

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

188
EMPLOYEES

9
RESEARCH UNITS

4
JUNIOR RESEARCH GROUPS

2
SERVICE UNITS

ORGANISATION CHART.

AS OF JULY 2023

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PROF. DR. IRENE BERTSCHEK

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MARKET DESIGN
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ENVIRONMENTAL AND CLIMATE ECONOMICS
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PROF. DR. FRIEDRICH HEINEMANN

Research Group
HEALTH CARE MARKETS AND HEALTH POLICY
DR. SIMON REIF

Research Group
INEQUALITY AND PUBLIC POLICY
PROF. DR. HOLGER STICHNOTH

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DR. FRANK HERKENHOFF

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DANIEL SCHEUERMANN (as of 01.05.2023)

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MANNHEIM TAXATION Leibniz ScienceCampus

ZEW FDZ ResearchDataCentre

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AS OF JULY 2023

444 PRESENTATIONS AT CONFERENCES

238 REFEREE REPORTS

166 RESEARCH PROJECTS

75 ARTICLES ACCEPTED IN PEER-REVIEWED JOURNALS

61 TEACHING ACTIVITIES

49 CONFERENCES/ WORKSHOPSS

13 PRIZES/ AWARDS

2022 IN NUMBERS

ZEW SCIENTIFIC OUTPUT

SOURCES OF THIRD-PARTY FUNDING IN 2022

PERSONNEL.

188
EMPLOYEES IN TOTAL

46,8%
FEMALE EMPLOYEES

116
RESEARCHERS

72
STUDENT RESEARCH ASSISTANTS

34,99
AVERAGE AGE OF ZEW RESEARCHERS

39
RESEARCHERS EMPLOYED ON A PART-TIME BASIS

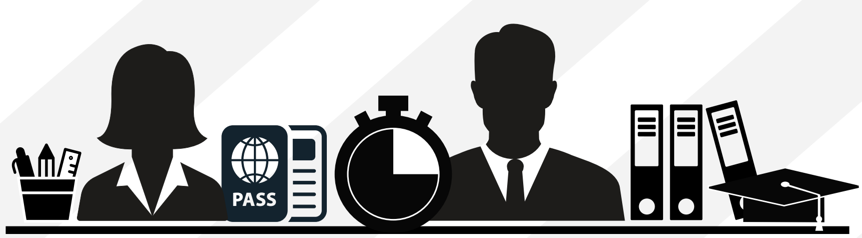
37*
INTERNS

7,37
AVERAGE NUMBER OF YEARS RESEARCHERS ARE AT ZEW

21
INTERNATIONAL RESEARCHERS

1
APPRENTICES/ TRAINEES

9*
DOCTORAL GRADUATIONS



AS OF DECEMBER 2022

* CUMULATIVE FOR 2022

FINANCES.

AS OF MAY 2023

ZEW PROFIT AND LOSS STATEMENT

	2021	2022*
Institutional funds	12,073	12,274
Joint Initiative for Research and Innovation Funding	349	350
Third-party funds (turnover, inventory changes, subsidies)	7,896	6,675
Other business revenues	174	212
Other interest and similar revenues	11	13
Income from the reversal of the special item for contributions to fixed assets	645	653
TOTAL REVENUES	**21,148**	**20,177**
Staff expenditures	14,799	13,977
Third-party services	1,339	1,175
Other operating expenditures	4,310	4,754
Asset write-offs	631	642
Allocation to special items for contributions to fixed assets	411	237
Negative financial result	31	24
Financial result	1	0
TOTAL EXPENSES	**21,522**	**20,809**
PROFIT/LOSS FOR THE FINANCIAL YEAR	**-374**	**-632**
Withdrawals from appropriated reserves	561	688
NET INCOME	**187**	**56**

ZEW BALANCE SHEET AS OF 31 DECEMBER 2021*

ASSETS	2021	2022*
Intangible assets	373	303
Downpayments made	0	0
Real estate and construction in process	7,724	7,496
Equipment	598	491
FIXED ASSETS	8,695	8,290
Stocks	4,691	3,090
Receivables/other assets	1,141	696
Cash at banks	6,449	5,589
CURRENT ASSETS	12,281	9,375
Prepaid expenses	401	550
TOTAL	**21,377**	**18,215**

LIABILITIES AND EQUITY	2021	2022*
Share capital	26	26
Appropriated reserves	3,194	2,692
Other reserves	2,169	2,169
Net income	187	56
SHAREHOLDER’S EQUITY	5,576	4,943
UNTAXED RESERVES	3,779	4,015
Reserves	2,481	2,180
Advances received	4,967	3,323
Liabilities to banks	2,751	2,109
Other liabilities	1,823	1,645
OUTSIDE CAPITAL	12,022	9,257
TOTAL	**21,377**	**18,215**

* preliminary figures in K euros

» ZEW WOULD NOT BE THE SAME WITHOUT ITS ALUMNI.

KATHARINA KOBER

International Co-operation and Public Relations Officer and coordinator of the alumni network

DR. BODO ARETZ

Analyst Global Energy Markets, BASF SE; alumnus and former doctoral researcher at ZEW (2008 to 2013)

ZEW ALUMNI.

A DENSE WORLDWIDE NETWORK.

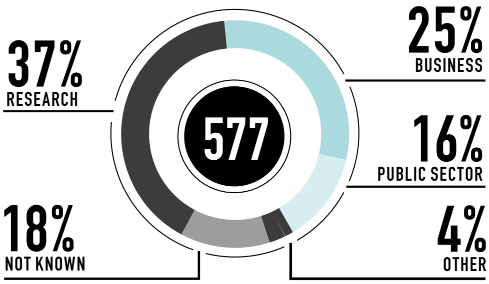
Our network of alumnae and alumni boasts nearly 600 members, many of whom have pursued exciting careers in academia, business, or the public sector and now hold influential positions worldwide.

Within our network lies a treasure trove of invaluable experiences and influential connections. We nurture these bonds to enrich the institute's endeavors. From collaborating on projects to appointing our alumni as ZEW Research Associates, we tap into their expertise as trusted advisors and catalysts for success. Furthermore, we aim to involve alumni even more in guiding and training ZEW's aspiring researchers.

In September 2022, we took a significant step in this direction with an Alumni Day at ZEW. Over 60 alumni joined current ZEW members in a relaxed setting, making the day an opportunity for extensive discussions. The feedback was overwhelmingly positive. We also launched the L7,1 LinkedIn group in 2022, providing former and current employees with a forum for exchange. The group focuses on sharing updates about our members, ZEW news, and entertaining content. Garnering over 170 members within a few weeks, the group was an immediate hit – a testament to the resonance of our approach.

JOIN OUR LINKEDIN ALUMNI GROUP L7,1

WHERE DO OUR ALUMNI WORK?



» THE FOCUS IS ON BECOMING BETTER AWARE OF ONE'S OWN STRENGTHS AND WEAKNESSES.

PAUL BERBÉE

PhD spokesperson, researcher in the "Labour Markets and Social Insurance" Unit (until 30 June 2023)

BARBARA HEY

Trainer and systemic coach in the "Seminars and In-House-Trainings" team

CAROLINE KNEBEL

PhD spokesperson, researcher in the "Pensions and Sustainable Financial Markets" Unit

MENTAL HEALTH.

BOLSTERING THE RESILIENCE OF DOCTORAL STUDENTS.

Doctoral work provides a unique opportunity to delve into a research topic over an extended time period. Yet completing a dissertation is not without its challenges: The research and writing process is rarely straightforward, and doctoral candidates are often pushed to the limits of their emotional endurance. Aside from the satisfaction that can come from making progress on a dissertation, many doctoral candidates also experience stress, self-doubt and loneliness. With the aim of ameliorating such negative psychological impacts, ZEW developed a training course titled "Resilience Strategies for PhD Students", which presents the most important building blocks of resilience over a series of five workshops. The aim of the course is to help doctoral researchers become better aware of their goals, motivations, strengths and weaknesses; to highlight available resources; to improve self-management techniques; and to furnish tools for addressing problems and setbacks. The workshops are unique for their integration of recent insights from the neurosciences and for their open-discussion format; the participants are given ample opportunity to share experiences with long-time professors and with each other.

The first series of workshops at ZEW were greeted with resoundingly positive feedback. As the course is specifically tailored to the needs of doctoral candidates at ZEW, it represents a particular valuable addition to our course offerings. The Resilience Strategies course will be offered again in 2023.

ABOUT THE COURSE

RESILIENCE STRATEGIES FOR PHD STUDENTS

5 WORKSHOPS ON THE FOLLOWING TOPICS:

- SELF-AWARENESS
- SELF-CONFIDENCE
- SELF-EFFICACY
- SOCIAL SUPPORT AND NETWORKS
- BASICS OF COMMUNICATION PSYCHOLOGY

» WE ACTIVELY PURSUE AN OPEN SCIENCE STRATEGY.

MARKUS KOTTE
Member in the
“Strategy & Change” team

LEILI ERFANIAN
Information and Knowledge
Management Officer in the
“General Services” Unit

THE FUTURE IS HERE TODAY.

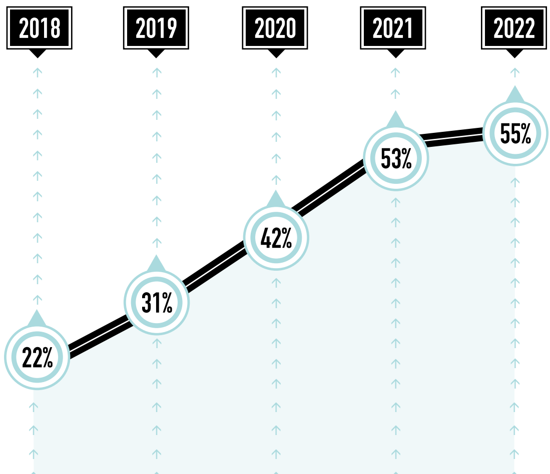
TRANSPARENT AND INNOVATIVE RESEARCH DATA MANAGEMENT.

» At ZEW we are dedicated to ensuring unrestricted and cost-free access to our research findings. In furtherance of this aim, we have adopted an open science strategy, which commits us to openness and transparency in our publication activities. In 2022, more than half of ZEW's high-ranking publications were released under the open access standard. We also provide special funding to make articles available free of charge.

As part of our commitment to transparency, we recently introduced VIVO, a data management system that makes it easier to document our research activities. ZEW staff can directly enter their publications and project activities into the new system. VIVO provides a concise overview of current and historical research output, and is thus a highly valuable resource.

Our forward-looking open-science strategy in combination with this advanced data management tool has enhanced internal communication while also advancing the democratic character of our research activities.

OPEN ACCESS SHARE OF PEER-REVIEWED ARTICLES AT ZEW



» THE HUB CONSOLIDATES ZEW'S EXPERTISE ACROSS ITS RESEARCH UNITS.

**PROF. DR.
MARTIN KESTERNICH**
Deputy head of the "Environmental and Climate Economics" Unit (until 31 March 2023)

**PROF. DR.
ADRIAN HILLENBRAND**
Researcher in the "Market Design" Unit

**DR. MADELINE
WERTHSCHULTE**
Researcher in the "Environmental and Climate Economics" Unit

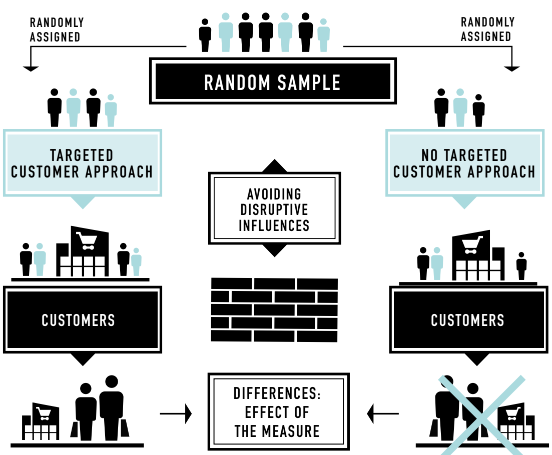
A TESTBED FOR BUSINESS.

THE ZEW HUB: A FORUM FOR FIELD EXPERIMENTS.

Wars, pandemics, inflation: Especially during times of crisis, firms and institutions are confronted with the need to develop innovative and effective solutions. The ZEW Hub was established in recognition of this fact. It provides companies with an opportunity to conduct valuable field experiments and thereby strengthen their business activities. Companies can develop, assess and implement tailor-made solutions by drawing on ZEW's expertise in evidence-based research. Which form of customer address is most suitable for selling a particular product? Do bonus payments increase employee satisfaction? Do energy efficiency measures actually lead to electricity savings? The experimental opportunities are numerous and extend to all areas and levels of the firm.

The Hub consolidates ZEW's expertise across its research units, in part by serving as a forum for knowledge transfer within the institute. Young researchers also particularly benefit from the Hub, as it furnishes them with infrastructure to conduct field experiments.

HOW FIELD EXPERIMENTS ENABLE CAUSAL INFERENCE USING THE EXAMPLE OF DIFFERENT CUSTOMER APPROACHES



FOCUS

ZEITEN WENDE

EXPERT PERSPECTIVES ON THIS MOMENT OF CHANGE.

AN INTERVIEW WITH

Dr. Ralph Rheinboldt, Member of the Executive Board of Fuchs SE and Chairman of the ZEW Sponsors' Association, and ZEW President Prof. Achim Wambach, PhD

» THE DAYS OF CHEAP NATURAL GAS ARE OVER.

On the topic of German energy security: Is the public debate on this issue headed in the right direction? And what does the field of economics have to say?

➔ **Rheinboldt:** From my perspective, we need to discuss both security of supply and energy prices; these two issues must be considered jointly. The future viability of Germany as location for industrial production is very much at stake, and energy prices are highly relevant in this context.

➔ **Wambach:** Ensuring security of supply is an important issue and the government is sure to take action in this area, among others. The Platform for a Climate-Neutral Power System [a deliberative forum established by the reigning German coalition] is currently discussing how the energy market should be redesigned; one laudable recommendation is to devote more attention to promoting power-system capacity. To be sure, energy will remain expensive moving forward. The days of cheap natural gas are over. Germany will continue to import liquefied natural gas (LNG) over the medium term. We already had the highest energy costs in Europe before the outbreak of the crisis, and they will not become cheaper with the shift to LNG. The government has been focusing on the power prices paid by industry consumers while forgetting that households will ultimately shoulder the burden of price subsidies to industry. Given this fact, we should strive to ensure an efficient energy market, in order to keep prices as low as possible.

➔ **Rheinboldt:** Will the market always be able to ensure efficient energy prices? Hopefully. We will potentially need a special energy tariff for industrial consumers. The topic of energy prices is naturally linked to that of employment. Discussion concerning the substitution of domestic production with imports is certainly relevant and legitimate. However, domestic employment will suffer;

» WE WILL SEE EVEN HIGHER INTEREST RATES.

this should not be overlooked. In this way, framing the discussion solely in terms of security of supply and energy prices leads to an excessively narrow perspective. To be sure, this discussion is necessary for ensuring the strength of the German economy and its attractiveness as a business location.

Let us turn to the topic of inflation. The ECB keeps raising interest rates, despite forecasts of weak growth. In this environment, one would normally expect interest rate cuts. Is the ECB acting appropriately in the current situation?

➔ **Wambach:** While inflation slowed somewhat at the beginning of 2023, it is too early to sound the all-clear. Wage demands are very high. Inflation is not only attributable to rising energy costs, but also to higher prices in other areas. Therefore, the ECB would be well advised not to announce that the battle against inflation has been won. I think we will see even higher interest rates.

➔ **Rheinboldt:** There has been a massive increase in the price of many input materials, not only due to rising energy prices, but also due to supply chain problems, falling production capacities and high freight rates in the global logistics market. I think it would be wrong to believe that we have seen the end of inflationary trends. With regard to your question: The ECB is acting as one might expect, as it has been setting interest rates rather high in order to counter inflation. One should mention that inflation has led many firms to have large sums tied up in current assets, due to price increases in input materials. So in addition to increased interest rates, the financing needs of companies have increased.

We had a global financial crisis in 2008 and 2009. The US emerged from this crisis faster than Europe. Is history repeating itself?

➔ **Rheinboldt:** Other countries, including the US and China, have been pursuing hard-nosed, self-interested industrial policy. Adopting such an approach has been difficult for the EU. I find the two crises difficult to compare. The 2008–09 crisis was a financial crisis that had no impact on our supply chains. The current crisis has demonstrated that global supply chains are not always advantageous. Indeed, the crisis indicates that the partial regionalisation of German and European supply chains could be beneficial.

➔ **Wambach:** The crises are not comparable. One should not underestimate that European banks were not as profitable as US banks, even before the financial crisis. And the problems in the European monetary union that led to the euro crisis do not exist in the same way in the US. Regionalisation is a tool to make supply chains more secure. Another tool is to diversify supply chains, so as not to be dependent on a single supplier.

➔ **Rheinboldt:** One thing is certain: Diversification is the order of the day. Of course, it is better for us as a company to have a multiple supplier strategy for all input materials. Yet we have to meet regulatory requirements in this regard. Government must strike the right balance, which means avoiding a mere proliferation of rules and regulations.

➔ **Wambach:** Reshoring – the process of bringing supply chains back to the home region – works differently in national economies compared to business management. As a company, I can acquire another European company or engage a supplier in

» DIVERSIFICATION IS THE ORDER OF THE DAY.

Mr. Habeck stated towards the end of last year that 2023 would be the year of industrial policy. The primary objective is to preserve value creation, the industrial core of Germany, the production of essential goods, and consequently, jobs and economic resilience.

Europe. However, in a national economy, something else needs to be sacrificed for that. Let's take the example of the chip industry: The EU has passed the Chips Act. If we produce chips in Europe, given the current scarcity of skilled workers, our production of other goods will inevitably decrease. Studies indicate that if we pursue extensive reshoring to Europe, Germany stands to lose seven per cent of its value creation.

➔ **Rheinboldt:** Let's consider another market: the battery technology associated with electric mobility. The EU has initiated substantial programmes to attract investments back to Europe and Germany in this field. I find this favourable since relying on imported technologies from Asia for achieving electric mobility in Europe would create a new dependency.

➔ **Rheinboldt:** I think looking back at 2022 shows that the German industry is very resilient. Nevertheless, I agree with him: We must prioritise industrial policy more than ever to ensure our continued success. Companies, I believe, are prepared and have demonstrated their commitment to preserving employment through innovation and responsible actions. My outlook is positive.

➔ **Wambach:** I believe that quote originated during a period of exceptionally high energy prices, when there were concerns about a massive decline in the industry. Otherwise, I find the statement too defensive. Our focus should not merely be on preserving the industry; rather, we are facing an immense transformation. We must successfully navigate the energy transition while simultaneously fostering prosperity. Achieving this necessitates implementing traditional economic policies, such as developing robust infrastructure, streamlining approval procedures, and addressing the shortage of skilled workers.

MORE ON THIS TOPIC...

Would you like to learn more about the topic? Then listen in to the #ZEWPodcast. The entire interview (in German language) is available as a podcast episode at ➔ **www.zew.de/AM8506**.

THE ZEW SPONSORS' ASSOCIATION FOR SCIENCE AND PRACTICE

ZEW FÖRDERKREIS
Wissenschaft und Praxis

The members of the Sponsors' Association, 140 companies and individuals, ensure a constant exchange between the domains of research and entrepreneurial practice. Among other things, the association promotes research projects with practical applications, recognises outstanding scientific contributions through awards, and supports lecture series featuring distinguished speakers from the worlds of politics, business, and academia. Regular meetings are held between the board, ZEW President Achim Wambach, and other ZEW researchers for in-depth discussions on pressing issues, such as the energy crisis and inflation. These candid exchanges benefit both parties, fostering dialogue and collaboration between science and business.

COMMITMENT THAT PAYS.

CONTACT

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for Science and Practice
(Registered Society)
Katharina Kober · foerderkreis@zew.de
Phone: +49 (0)621-1235-302
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ENERGY.

A

The past year has underscored the crucial role of a reliable energy supply in maintaining our prosperity. From powering our homes and workplaces to facilitating transportation, electricity and heat are indispensable components of our daily lives. Whether you're an individual or a large corporation, the need for dependable energy is undeniable. As such, the energy transition seeks to establish an energy supply that is not only secure and cost-effective, but also sustainable for generations to come.

EU-WIDE PROCUREMENT OF NATURAL GAS

AVOIDING ENERGY PRICE SPIKES

ZEW POLICY BRIEF BY LEONARDO GIUFFRIDA, PHD

Since the start of the Russian-Ukrainian war, EU countries have recognised the urgency of reducing their energy dependence on Russia while protecting European households and businesses from rising energy costs. Joint procurement of natural gas would address this dual problem. EU-wide procurement would be an efficient means of preventing energy price spikes, as a ZEW policy brief shows.

The natural gas supply situation in Europe continues to worsen as costs are rising and supplies are cut. Efforts by many European countries to reduce their dependence on Russian gas following the invasion of Ukraine are immense, and a joint approach would improve the situation for all countries. The study assumes that centralised procurement is much more effective in the case of natural gas than it was for COVID-19 vaccines. This makes it a valuable policy tool for shielding EU businesses and citizens from rising energy prices.

EU-wide procurement always involves trade-offs, even for a commodity like natural gas, but it can be worth it: after all, not all products and services that are purchased centrally come with the same trade-offs. One of the main advantages of procurement centralisation is lower prices, by virtue of greater purchasing power, which increases the purchaser's leverage while tapping economies of scale. Other benefits include lower administrative costs, as fewer tenders and contracts are required, or improved management, due to the need for fewer procurement officers. Costs include, for example, the need to set up a coordination unit or central procurement office, or difficulties in adapting to specific local needs.

When it comes to centralisation of gas purchasing, the benefits tend to outweigh the associated costs. In fact, the cost-benefit analysis is significantly more favourable for natural gas than for other products and services. This is primarily because natural gas is a relatively straight-forward, standardised commodity. Another factor is the structure of the market, which features just a few incumbent suppliers, due to resource monopolies. EU-wide procurement would therefore be much more effective for this commodity, even given rigid procurement rules.

ZEW POLICY BRIEF

„The Centralization of Natural Gas Procurement in the EU: An Economic Perspective“

www.zew.de/PU83492

WORST-CASE SCENARIO

GAS MARKET COLLAPSE

ZEW POLICY BRIEF BY PROF. ACHIM WAMBACH, PHD AND PROF. DR. AXEL OCKENFELS

Although hopes are high that the gas supply will be secured by measures taken by the federal government, we must still be prepared for the worst-case scenario – a collapse of trading in the gas market –, warn Professor Axel Ockenfels (University of Cologne) and ZEW President Professor Achim Wambach. Both economists therefore not only call for stronger incentives to shift away from gas, but also outline what a suitable economic regulatory framework might look like if trading in the gas market collapses.

ZEW POLICY BRIEF
„Was tun, wenn der Markt kollabiert?"
www.zew.de/PU83732

In a functioning market, the price is determined by supply and demand. However, this mechanism can fail when markets for essential goods face extreme shortages, as is currently the case with gas. In the event of a collapse, the market can no longer fulfil its price-determining function to balance supply and demand. In this case, the state must step in and, in extreme cases, even determine the gas price and how the gas is allocated. Policymakers and regulators still have to provide answers as to who will receive how much gas and at what price in the event of a market collapse. Yet clearly communicated emergency plans are already needed today. This is because the answer to the question of what exactly happens in the event of a market collapse has a significant impact on current behaviour and thus on the likelihood of a collapse. After all, if companies facing a gas shortage assume that they will be given priority and receive gas at moderate prices, they have little incentive to prepare for such an event. The shortage will then even be exacerbated as they will continue their high consumption. In contrast, there is a strong incentive to save gas in cases where companies expect to be left empty-handed or have to pay extremely high prices.

The economists also recommend that, irrespective of the so-called privileged customer groups, priority be given to those companies that have a higher value added by gas, that can less easily switch from gas to other energy sources and whose products are more difficult to substitute. Finally, to prepare for a gas shortage, both economists advocate further incentives such as shutdown auctions for a longer period of time to encourage companies to save even more gas.

MIGRATION.

B

The war in Ukraine has brought about a significant change in refugee migration patterns in Europe. As a result, more individuals from Ukraine and Russia are now seeking refuge and employment opportunities in Western Europe. This has given rise to distribution challenges that need to be addressed.

REFUGEES FROM UKRAINE

INTEGRATION THROUGH DAYCARE

COMMENT BY DR. GUIDO NEIDHÖFER

Europe is showing unity and solidarity with the refugees of the Ukraine war. In Germany, they are being received quickly and unbureaucratically. However, there are still many unresolved issues. For example, it is not clear how long they will need protection. In the event that they cannot return to their destroyed homeland in the foreseeable future, strategies for successful integration are necessary. ZEW studies show that the integration of young children can be particularly helpful for the successful integration of the entire family.

It is therefore important to provide education and care services for refugee children as quickly as possible. Daycare centres and other facilities help to speed up integration. Policymakers should take this aspect into account when distributing Ukrainian families across Germany, and accommodate them in places where it is possible to get a daycare place quickly. In a second step, it is essential to equip schools and childcare facilities appropriately and to involve the mothers at an early stage in the process. ZEW research findings show: Mothers with young children who fled to Germany between 2013 and 2016 due to the war in Syria and were assigned to municipalities where it is more likely to get a daycare place soon after their arrival have significantly better language skills and rate their future labour market integration much more positively than refugee mothers in places where there is hardly any capacity for their children to be enrolled in education and daycare services. The effect is particularly strong for single mothers and mothers who have fled alone, although mothers in families where the father lives in the same household also benefit. However, the so-called 'Königstein Key', as well as other locally used quota systems, generally do not yet take these factors and circumstances sufficiently into account when distributing refugees.

INTERESTING FACTS
ABOUT THE TOPIC

**www.zew.de/
PM6858**

INFLUX OF RUSSIAN MIGRANTS LIKELY

MIGRATION STRATEGY

ZEW EXPERT BRIEF BY KATIA GALLEGOS TORRES
AND DR. KATRIN SOMMERFELD

Several million people from Ukraine have fled the country since the start of the war. As a result of the invasion, more and more people are also fleeing from Russia. Reasons for this range from the restricted freedom of expression, fear of political persecution or being drafted into military service, to poor economic prospects. What is different with current Russian migrants fleeing to neighbouring countries compared to Ukrainian migrants, is that there are indications that the economically active population is over-represented among the Russian emigrants. This may include specialists in the IT and other creative sectors of the economy, who have international language skills as well as customers.

Past economic ties between Germany and Russia and the presence of Russian diaspora in Germany such as represented by ethnic Germans ("Spätaussiedler") will likely contribute to the desire of some Russians to move to Germany in the medium to long run. A study by ZEW thus recommends policymakers to bring forward a strategy of how to deal with migrants from Russia. A smart policy would take into account the main strategic arguments, would try to build up immigration policies targeted at Russian immigrants and would keep up the corresponding capacities to also deal with Russian immigrants in the future.

If Russians are free to move within Germany, one would expect the regional distribution to follow past ethnic networks. Russian citizens are currently concentrated in large cities such as Berlin, Hamburg and Munich. Meanwhile ethnic Germans ("Spätaussiedler") are larger in number and somewhat more equally dispersed throughout the country.

Germany has not yet seen such an immediate wave of Russian migration given flight and other travel restrictions, but examples from countries geographically and culturally closer to Russia are informative on what is to come in the more medium term. There are indications that post-Soviet countries of the Caucasus and Central Asia, as well as countries like Turkey, are sought after by Russians. Armenia, for example, has already received an estimated number of up to 75,000 people from Russia in just the first three weeks of war, which is 2.5 per cent of its population.

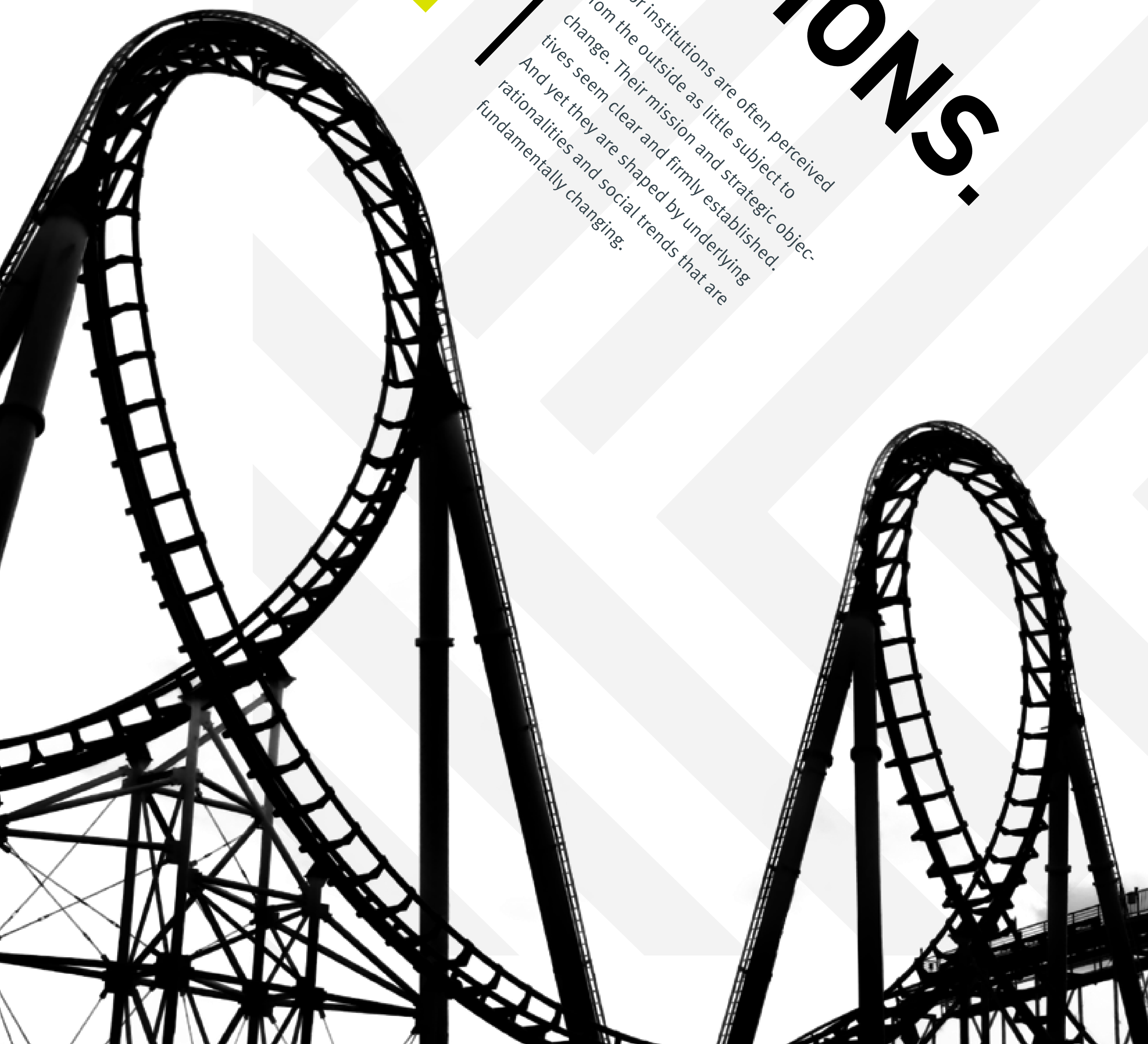
ZEW EXPERT BRIEF
„Regionale Verteilung russischer Communities in Deutschland"

www.zew.de/PU83292

C

INSTITUTIONS.

Major institutions are often perceived from the outside as little subject to change. Their mission and strategic objectives seem clear and firmly established. And yet they are shaped by underlying rationalities and social trends that are fundamentally changing.



ECB COMMUNICATION

FOCUS ON PRICE STABILITY

ZEW EXPERT BRIEF BY PROF. DR. FRIEDRICH HEINEMANN AND JAN KEMPER

In public speeches, Christine Lagarde and the other members of the ECB's Governing Council more frequently address additional goals beyond the main monetary policy objective of price stability. A ZEW study, supported by the Brigitte Strube Foundation, analysed this change in the ECB's communication since the introduction of the euro. For this study, over 3,800 speeches were compared with the help of AI-based text analysis methods.

These research results show that Council members dedicated significantly more attention to economic and social goals other than price stability since the introduction of the euro. Financial stability, government bond markets and public debt, for example, are addressed significantly more often since the financial and public debt crisis in 2008/09. Over the past five years, however, climate policy has been the "shooting star" in ECB speeches. Before this point in time, climate policy was hardly ever addressed by ECB representatives. Now, they address the issue in every other speech. Compared to her fellow ECB Executive Board members, ECB President Christine Lagarde mentions climate policy most frequently in her speeches, while her predecessor Mario Draghi hardly ever addressed the issue.

The focus on the primary objective of price stability has fluctuated over the years. Compared to the years following the introduction of the euro, the prominence of the price stability issue had somewhat declined before the pandemic. Due to the rising inflation, price stability has become a more prominent concern again. In their speeches, representatives from Southern Europe do not address price stability as often as their colleagues in Northern and Western Europe.

According to the study, opening monetary policy discourse to a wide variety of objectives clearly reflects the ECB's strategy to demonstrate that monetary policy goes hand in hand with societal accountability. The authors point out that this strategy might turn out to be risky regarding the latest significant surge in inflation. If ECB representatives continue to address a wide variety of issues, this could reduce their credibility concerning monetary policy. The public might start to think, the ECB no longer prioritises price stability. The study authors therefore recommend the ECB to communicate in unmistakable terms that its monetary policy is now completely focused on fighting inflation.

ZEW EXPERT BRIEF

„Inflation of Objectives Instead of Focus on Inflation?"

www.zew.de/PU83620

CORE BUDGETS

ROLE OF STATE-OWNED ENTERPRISES

ZEW EXPERT BRIEF BY DR. ZAREH ASATRYAN, PROF. DR. FRIEDRICH HEINEMANN AND JUSTUS NOVER

The core budget of the federal government, the federal states, the municipalities and social security system provide less and less of a comprehensive picture of government activities. Over the last ten years, the number and economic relevance of state-owned enterprises (SOEs), whose figures are not included in the core budgets, have increased significantly. This is confirmed by a study conducted by ZEW with the support of the Strube Stiftung.

ZEW EXPERT BRIEF

„The Other Government: State-Owned Enterprises in Germany and their Implications for the Core Public Sector“

www.zew.de/PU83796

Enterprises that are predominantly state-owned have gained in importance, as calculations by ZEW show. Nearly 40 per cent of all public sector employees in Germany work in SOEs rather than in public authorities funded from the core budgets. Since 2008, the total number of these enterprises has grown considerably, especially among municipalities and federal states. For municipalities, the increase is 26 per cent, for federal states 54 per cent. The number of people employed by SOEs at the municipal level has reached almost the same number of employees financed through the core budgets. The total debt volume of enterprises owned by municipalities even exceeds the debt reported for the core budgets. The authors of the study point out that SOEs are likely to offer greater flexibility and better corporate control compared to the public sector. Therefore, SOEs should not necessarily be viewed in a purely negative light. Still, high debt beyond the budget reduces fiscal transparency. Especially the federal states' common debt figures now only provide limited information.

The study shows that the federal states' debt per capita differs greatly depending on whether the debt of SOEs is considered along with the core budgets. Some federal states that already have a high debt level in their core budget, such as Berlin and Saarland, report a particularly high level of debt in SOEs, but so does the wealthy federal state of Hesse.

The results are also highly relevant for the debt brake anchored in the German Basic Law. Even if the analysis cannot prove it, the study authors suspect that the federal and state governments are shifting debt to where it is not restricted by the debt brake.

VOTING AGE REFORM

LOWERING THE VOTING AGE

ZEW EXPERT BRIEF BY DR. ZAREH ASATRYAN

Due to demographic change, Germany is increasingly developing into a so-called "gerontocracy". A reform lowering the voting age to 16 is supposed to counteract this. A ZEW study examines the question of whether such a reform is ambitious enough to anchor future-oriented interests more strongly in current politics. The study suggests that lowering the voting age does little to change a central limitation of democracy: If voters care only about their narrow interests, then policies will tend to be strongly shaped by the present and, in this case, an ageing society.

Germany is getting older and so are its voters: The most recent federal elections, for example, were dominated by people over 50, who made up 60 per cent of the electorate, while only 14 per cent of voters were under 30. This demographic change may have serious implications for the political system in Germany. A ZEW study examined the extent to which old people have different policy preferences than young people and investigated the potential implications of these age gradients for democratically adopted policies. Preferences do vary by age. For example, the expansion of renewable energy or the relevance of digital technologies are areas that mainly younger voters tend to care about. The older generation, on the other hand, is more in favour of the debt brake and tax increases to support the pension system. Higher public spending on education, typically thought of as a policy targeting the youth, is widely supported across all age groups.

The study suggests that lowering the voting age would have little impact on shaping future policies. A voting age of 16 would bring about 1.5 million new voters aged 16 and 17, but they make up only 2.5 per cent of the electorate. At the same time, the German population continues to age, while the voting age cannot be lowered much further than 16. So, if democratic participation is strictly limited to voting for policies that only benefit the narrowly defined self-interest, then this is a recipe for disaster in the long-term. Intergenerational altruism among voters should be encouraged and more investments should be made to improve voters' education about long-term policy challenges.

ZEW EXPERT BRIEF

„Representing the Future in Aging Societies: Policy Implications of the Voting Age Reform in Germany"

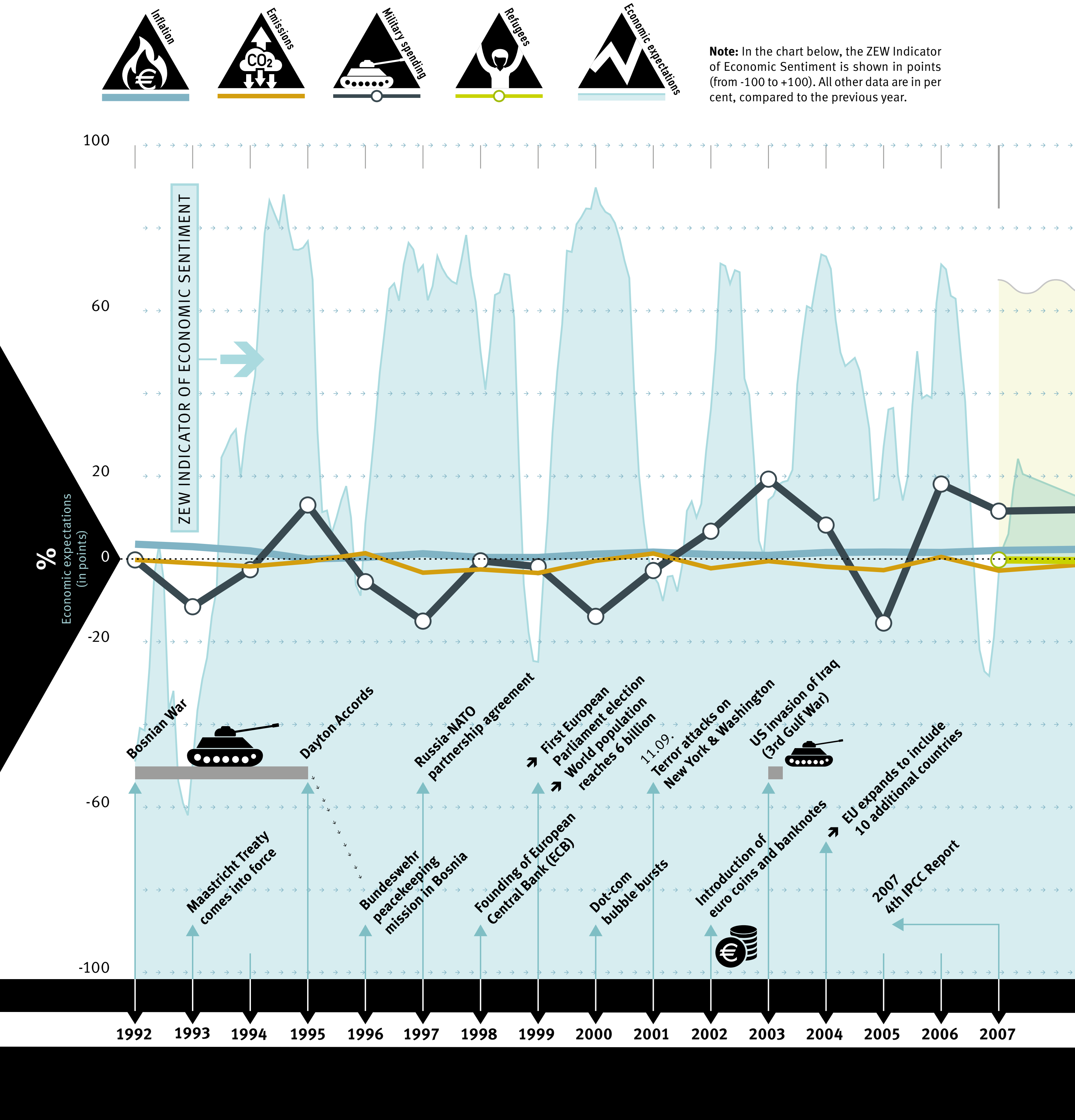
www.zew.de/PU83323

ZEITENWENDE

NEW CHALLENGES FOR THE TRANSFORMATION OF THE ECONOMY?

To provide context to the subtopics addressed in this annual report, the following chart shows historical change in European inflation rates, German military spending, German CO2 emissions, and the number of refugees seeking protection in Germany. Refugee figures prior to 2007 are not available. The chart also includes values for the Indicator of Economic Sentiment, which is published by ZEW each month based on its survey of market experts. Absolute figures over a ten-year period are shown at the top right.

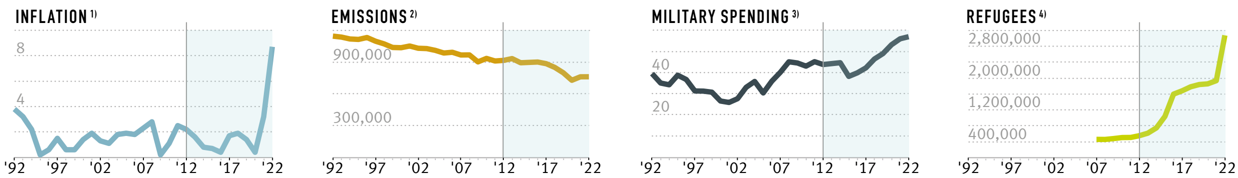
Note: In the chart below, the ZEW Indicator of Economic Sentiment is shown in points (from -100 to +100). All other data are in per cent, compared to the previous year.

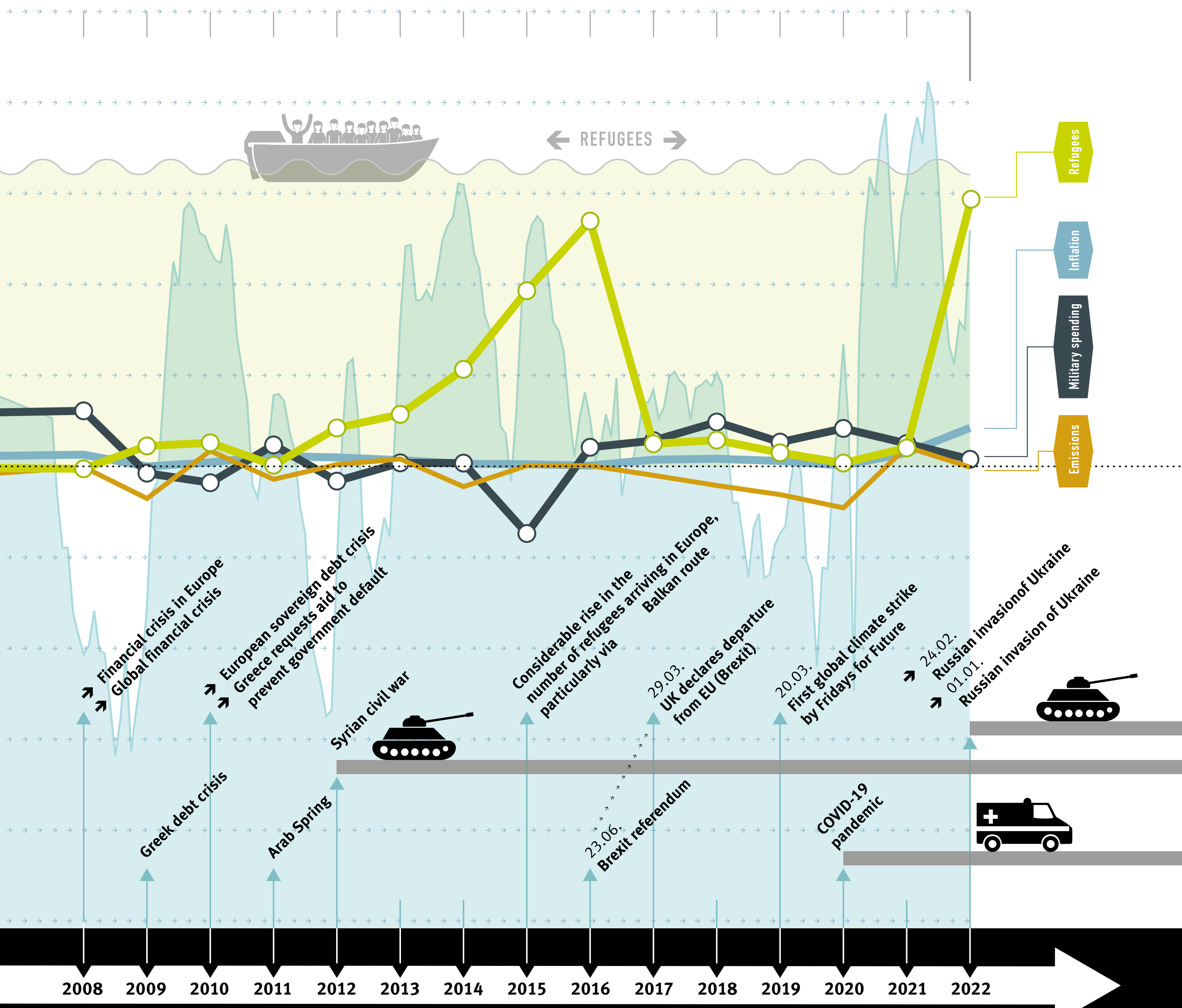


DEVELOPMENT OVER THE PAST 10 YEARS (in Germany)	TREND	2012	2022	CHANGE IN %
	INFLATION (in %)	2.2	8.7	+295.45% ↗
	EMISSIONS (in ktCO2e)*	916,901	762,000	-16.89% ↘
	MILITARY SPENDING (in USD billions)	43.8	57	+30.13% ↗
	REFUGEES	549,825	3,079,000	+460.00% ↗

* Not including emissions from land use, land use change, or forestry

HISTORICAL TRENDS (1992–2022) (The blue areas demarcate the 10-year time frame of the above table.)





Sources: (1) European Central Bank – Statistical Data Warehouse; (2) Federal Environment Agency, National Greenhouse Gas Inventories, 1990 to 2020 (as of 5/2022), 2021 data are preliminary; (3)www.macrotrends.net; (4) www.destatis.de – Federal Statistical Office

Rəse
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PENSIONS AND SUSTAINABLE FINANCIAL MARKETS

01

HEAD

Prof. Dr. Tabea Bucher-Koenen

DEPUTY HEAD

Dr. Karolin Kirschenmann

RESEARCH AREAS

- Savings and old-age provision
- Financial literacy
- Financial situation of households during the COVID-19 crisis
- Expectation formation in financial markets
- Bank lending and its impact on the real economy

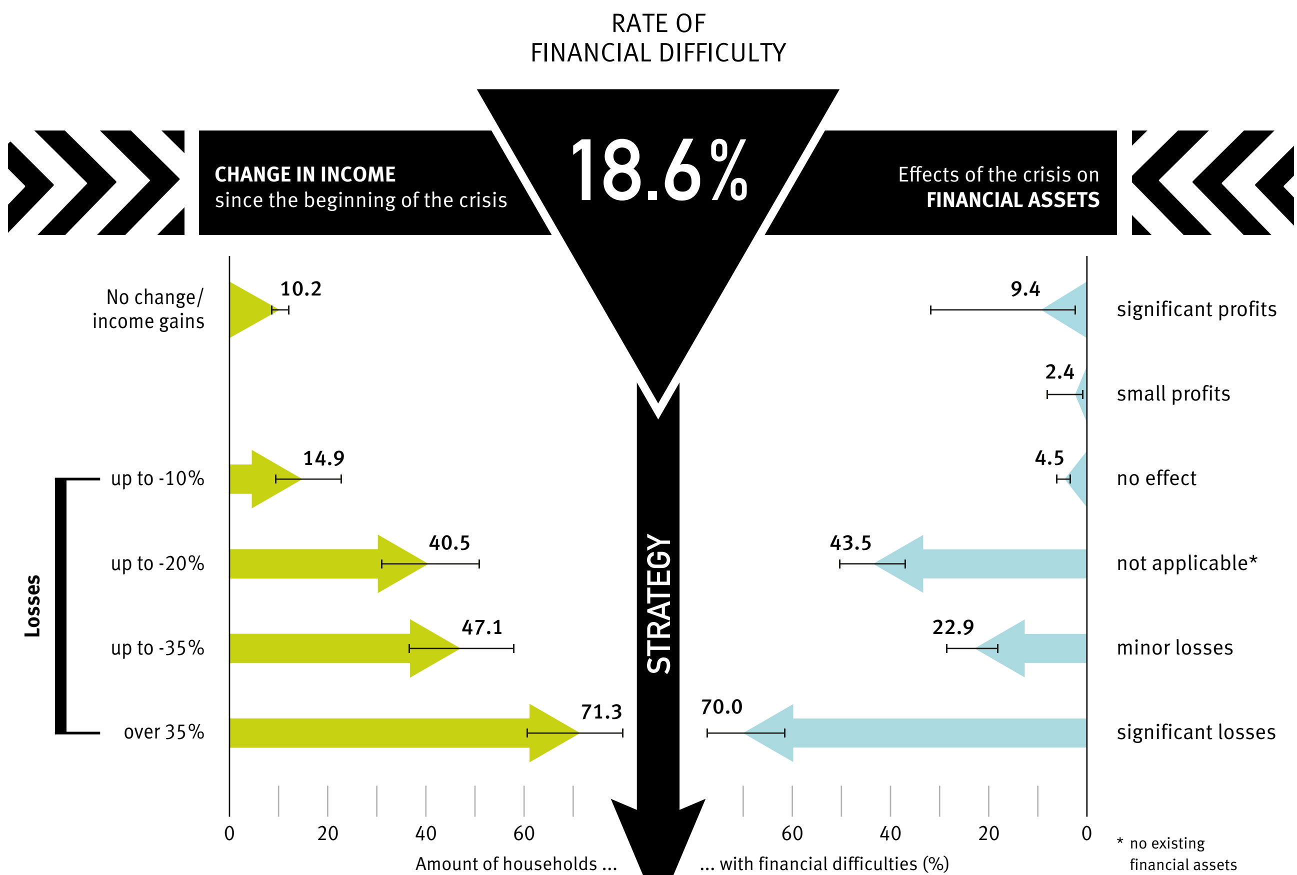
THE PANDEMIC INCREASED THE RISK OF EXCESSIVE HOUSEHOLD DEBT

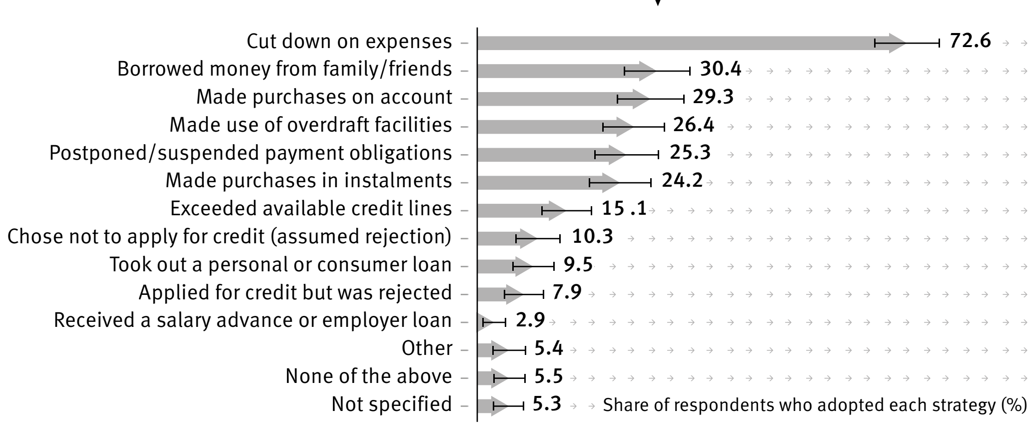
➔ Financial difficulties increase with the intensity of income and asset losses.
➔ Households should be supported in making provisions to reduce the risks of over-indebtedness following financial setbacks.

The COVID-19 pandemic was an extraordinary crisis with wide-ranging impacts on human health, society and the economy. In cooperation with the Leibniz Institute for Resilience Research and the University of Mannheim, ZEW has been conducting empirical studies to investigate how the pandemic affected the financial and psychological well-being of the working population in Germany.
The results of the first survey conducted in December 2020 and January 2021 suggest that about one fifth of the survey participants encountered financial difficulties between March and December 2020. The financial repercussions of the pandemic were a potential trigger for the increasing financial vulnerability of households. Survey participants were more likely to report financial difficulties if they faced income losses, dealt with substantial asset losses, or held no significant financial assets before the crisis. Moreover, the survey shed light on how households adapted their financial behaviour in response to financial distress. About 73 per cent of respondents grappling with financial challenges cut their expenses, three out of ten borrowed money from family or friends or made purchases on account. In addition, about a quarter of the respondents made use of overdraft facilities, postponed or suspended payment obligations, made purchases on instalment plans, or exceeded their available credit lines. Accordingly, there are indications of financial behaviour that can pose risks of over-indebtedness over the long term. The findings underline the importance of supporting households in taking proactive measures for financial preparedness and safeguarding them against unforeseen financial setbacks, thereby mitigating the risks of over-indebtedness.

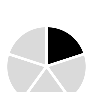
STUDY
"Finanzielle Vulnerabilität in der Coronakrise"
www.zew.de/PU83784

FINANCIAL DIFFICULTY AND STRATEGIES FOR RESOLUTION DURING THE COVID-19 CRISIS





SOURCE:
Aprea, C., T. Bucher-Koenen, M. Cziriak, D. Gilan, O. Hahad and M. Lohner (2022), Finanzielle Vulnerabilität in der Coronakrise, DIFIS-Impuls 6/2022.



Survey
December 2020 and January 2021

1/5

About one-fifth of survey participants experienced financial difficulties between March and December 2020.

73%

cut down on their expenses.

3/10

survey respondents with financial difficulties borrowed money from friends or family, or shopped on credit.

NOT IN THE MOOD? BANK MANAGER SENTIMENT, LOAN GROWTH AND BANK RISK

➔ Financial supervision and regulation should take bank managers' sentiment into account in their analyse.

Instincts and emotions can have a significant impact on agents' economic decisions. A ZEW study specifically focused on the sentiment of bank managers to answer two questions: Compared to what economic and financial fundamentals would justify, are bank managers systematically too optimistic or too pessimistic? And if so, does this influence bank managers' lending policy and the bank's perceived risk by financial markets? Answering these questions is important from both an economic and financial stability perspective. If banks lend too little, they would not fulfil their main purpose, which is to finance the economy. If, on the contrary, banks lend too much and/or if their riskiness is underestimated, this could threaten the stability of the financial system.

To answer these questions, ZEW researchers collected press releases from around 200 European banks from the period between 2006 and 2019. They then applied methods of text analysis to convert each press release into a value indicating how optimistic or pessimistic that press release is (optimism value; see chart). Finally, they isolated the part of each score that cannot be explained by contemporaneous economic and financial fundamentals – the bank managers' sentiment.

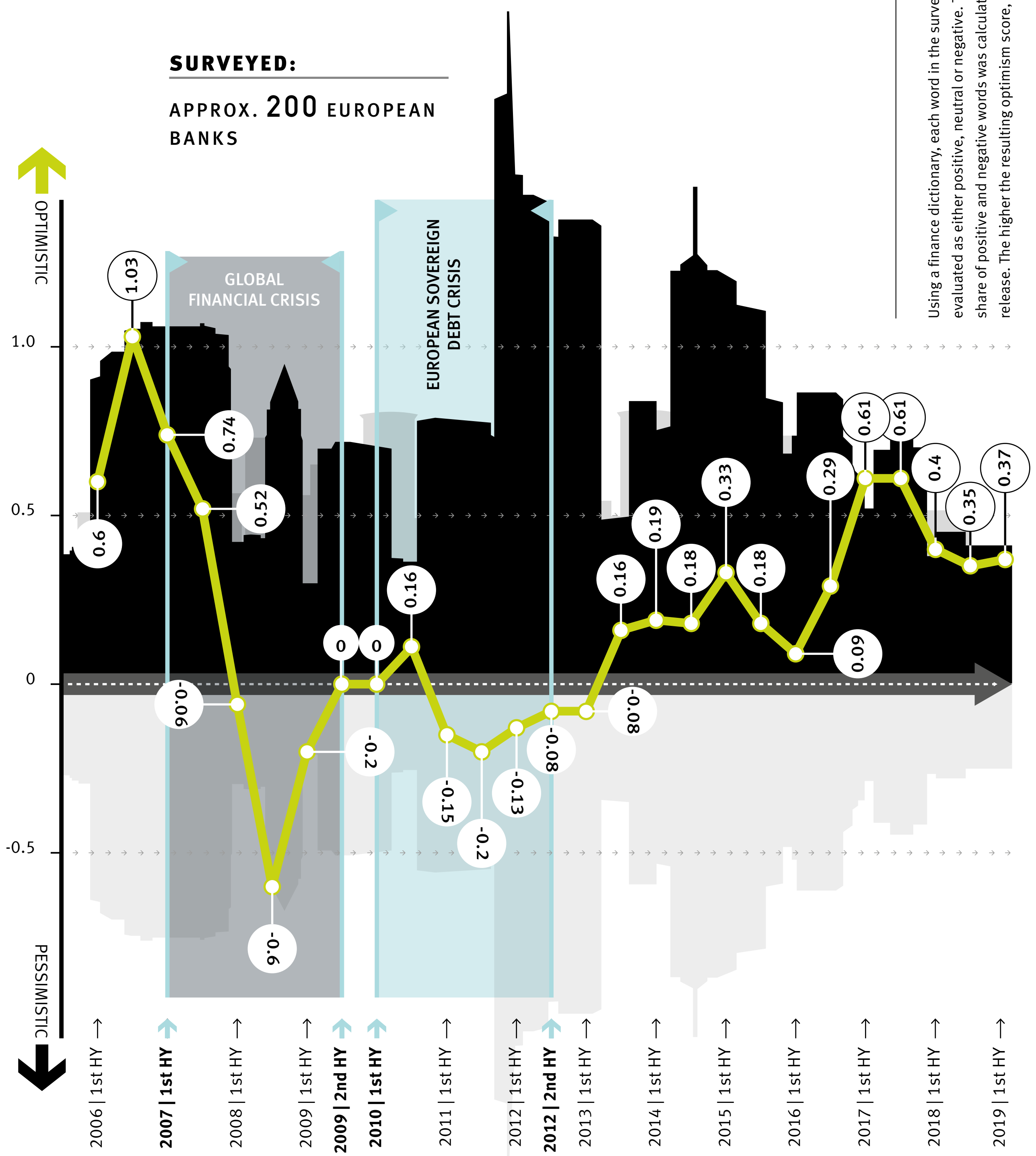
The authors find that bank manager sentiment systematically influences banks' credit supply and the risk of the banks as perceived by financial markets. Besides, bank manager sentiment adjusts too slowly to new economic and financial conditions. With regard to potential real economic consequences and the stability of the financial system, policymakers should therefore take bank manager sentiment into account in their analyses.

STUDY
"Bank Manager Sentiment, Loan Growth and Bank Risk"
www.zew.de/PU83851

BANK MANAGERS' OPTIMISM OVER TIME
(AVERAGE OF ALL BANKS IN PER CENT)

SURVEYED:

APPROX. **200** EUROPEAN BANKS



Using a finance dictionary, each word in the surveyed banks' press releases was evaluated as either positive, neutral or negative. Then, the difference in the share of positive and negative words was calculated for each individual press release. The higher the resulting optimism score, the more optimistic the bank.

SOURCE: ZEW

LABOUR MARKETS AND SOCIAL INSURANCE

HEAD

- Prof. Dr. Nicolas Ziebarth

DEPUTY HEAD

- Prof. Dr. Melanie Arntz
- PD Dr. Friedhelm Pfeiffer

HEAD OF JUNIOR RESEARCH GROUP

INTEGRATION OF IMMIGRANTS AND ATTITUDES TOWARDS THE WELFARE STATE (IMES)

- Dr. Katrin Sommerfeld

RESEARCH AREAS

- Education and social mobility
- Digitalisation and structural change
- Health at work
- Immigration and integration

WORKERS FROM EASTERN EUROPE HELP RELIEVE THE TIGHT GERMAN LABOUR MARKET

➔ As a result of the EU eastward enlargement, the number of people from these countries taking up employment subject to social insurance contributions in Germany has increased sharply, especially in occupations facing shortages in skilled labour.

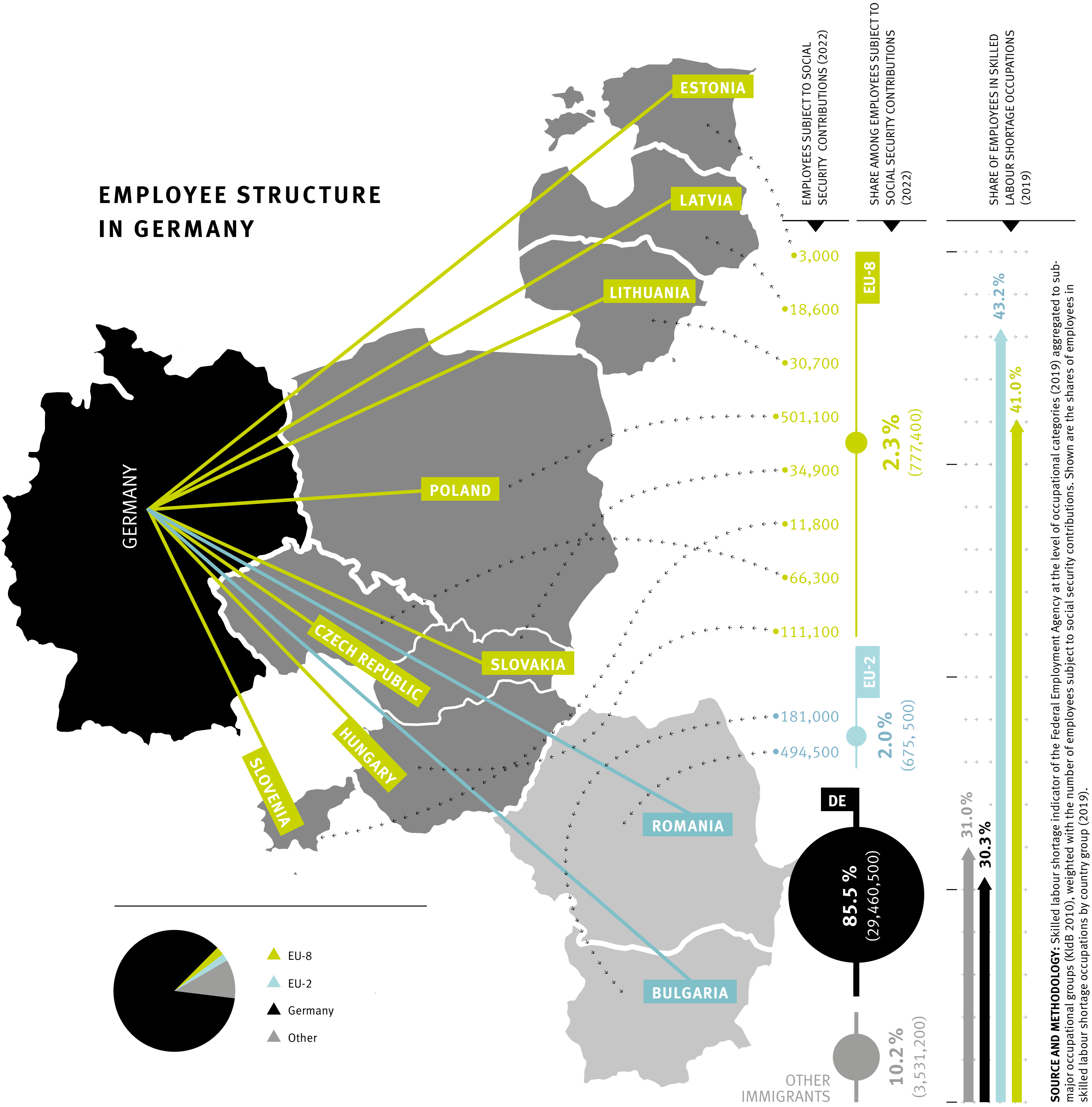
ZEW EXPERT BRIEF
"18 Jahre EU-Osterweiterung: Wo Osteuropäer/innen in Deutschland arbeiten"
www.zew.de/PU83319

Employees from eastern and south-eastern EU Member States work disproportionately often in occupational fields where there are shortages of skilled workers. Such is the result of a ZEW study that examined the development of employment trends following the two Eastern enlargements of the EU in 2004 and 2007. In Germany, freedom of movement for workers from the new EU Member States was not granted until seven years after each respective enlargement. Accordingly, citizens from the EU-8 countries (Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, Czech Republic, and Hungary) attained full freedom of movement in May 2011, followed by citizens from the EU-2 countries (Bulgaria and Romania) in January 2014.

In the subsequent years, the share of foreign workers subject to social security contributions rose sharply, reaching 12.9 per cent (1.3 million workers) in 2020. This means that the share doubled in a period of ten years: from 2000 to 2010, this share of workers had still remained relatively constant at around 6.5 per cent.

Workers from the EU-8 and EU-2 countries are most commonly employed in postal services, warehousing and logistics, vehicle operation, and cleaning industries. These occupations are particularly characterised by low requirements for language skills and a low share of non-routine interactive tasks. Compared to Germans, employees from the new EU countries work disproportionately often in occupations which are experiencing a shortage of skilled workers. While around 43 per cent of workers liable to social security contributions from the EU-8 and EU2 countries work in occupations with skilled labour shortages, this is only true for about 32 per cent of Germans. Thus, workers from these EU Member States tend to relieve the tight German labour market.

EMPLOYEE STRUCTURE IN GERMANY



Top 5 occupational groups for employees subject to social security contributions from EU-8 + EU-2

SOURCES: Federal Employment Agency: Employees subject to social security contributions by nationality (2022) and occupational group (2019)

LOCKDOWN DEMONSTRATIONS INCREASED INCIDENCE OF COVID INFECTION

➔ Protests against pandemic lockdowns caused a jump in infection rates in protestors' local areas.

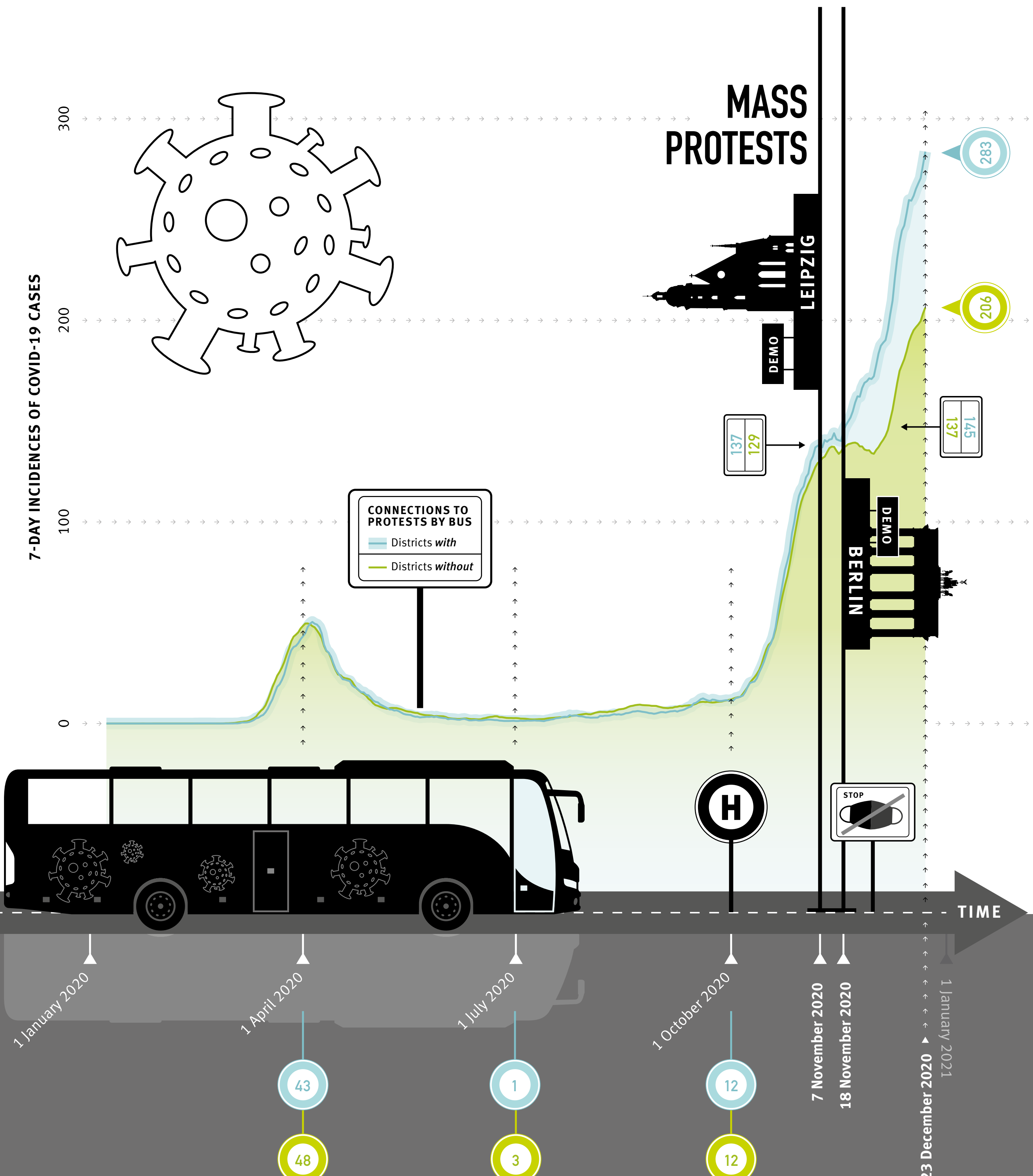
In November 2020, two large-scale demonstrations in which tens of thousands of people protested against lockdown measures resulted in up to 21,000 additional COVID-19 infections. This is the key finding of a study conducted by researchers at ZEW and Humboldt University of Berlin; the study was published in the prominent international journal Health Economics.

The authors analysed the infection situation before and after two large demonstrations in Leipzig and Berlin, which attracted up to 45,000 participants. Demonstrators at these events usually did not comply with the applicable hygiene requirements, such as wearing facial coverings or keeping a minimum distance from each other. Drawing on data from bus companies specialised in transporting demonstrators to such events, the researchers determined the departure points of the demonstrators. Based on these locations, the study examined the incidence of infection before and after the demonstrations, comparing regions with and without such bus connections.

The figure shows the seven-day incidence of COVID-19 infections for locations with and without a bus connection to the demonstrations. After the completion of the mean incubation and reporting period for new infections of approximately ten days, higher infection rates can be observed in the local areas of the protest participants. The study controlled for other influencing factors, and the graph has been adjusted to account for these factors. Accordingly, the remaining excess infections in the locations with bus connections can be attributed to participation in the protests.

STUDY
"Spreading the Disease: Protest in Times of Pandemics"
www.zew.de/PU83546

SEVEN-DAY INCIDENCES FOR LOCATIONS WITH AND WITHOUT BUS CONNECTIONS TO THE MASS DEMONSTRATIONS



SOURCE: ZEW

DIGITAL ECONOMY

03

HEAD

→ Prof. Dr. Irene Bertschek

DEPUTY HEAD

→ Dr. Dominik Rehse

HEAD OF JUNIOR RESEARCH GROUP

DIGITAL MARKET DESIGN

→ Dr. Dominik Rehse

RESEARCH AREAS

- Diffusion of digital technologies
- Digitalisation and corporate strategies
- Digital platforms
- Digital market design

IS THE DIGITAL TRANSFORMATION AN ENERGY GUZZLER?

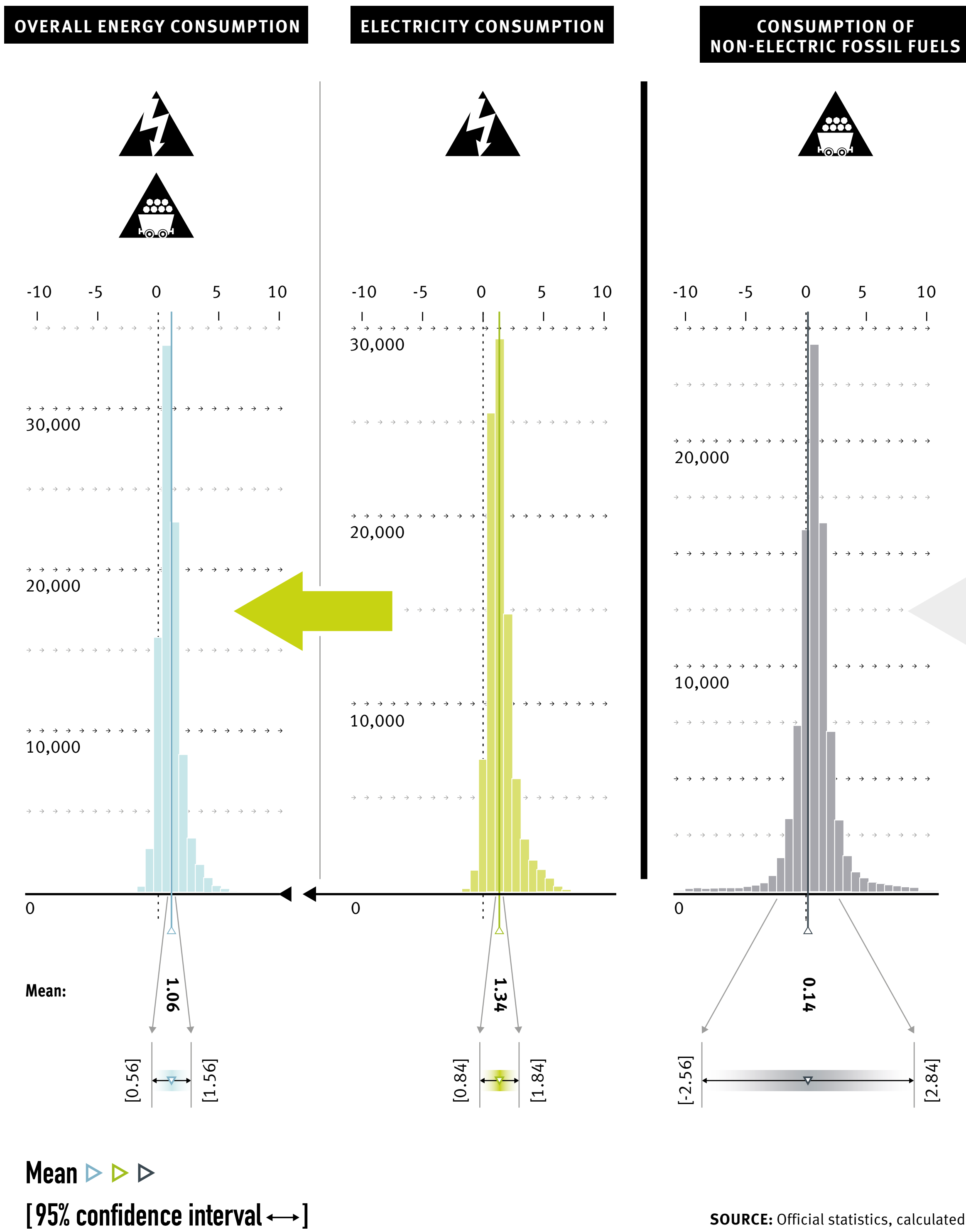
➔ Additional electricity demand overrides energy-saving potential of ICT technologies in companies.
➔ Energy consumption of small companies increases more than that of large ones.

According to the International Energy Agency, the manufacturing industry accounts for 26 per cent of global CO_2 emissions and 38 per cent of global energy consumption. So the savings potential is huge. New digital technologies, such as smart sensors and further developments in data analysis, make it possible to use energy and resources more efficiently in production. However, these technologies also consume energy. An analysis by ZEW and the University of Göttingen of more than 28,700 manufacturing companies provides new insights into the relationship between digital technologies and changes in energy consumption.

The study shows that changes in energy consumption vary greatly between companies as the use of digital technologies increases. On average, energy consumption rises by 1.03 per cent. Electricity consumption even grows by 1.34 per cent. Non-electric fossil fuel use, on the other hand, does not change significantly. The results thus suggest that the overall rise in energy consumption is due to an increase in electricity consumption. Furthermore, the analysis shows that on average there is a greater increase in electricity consumption in small and medium-sized enterprises in economically underdeveloped regions compared to large companies in economically stronger regions. This has significant political implications. Structural support measures for small and medium-sized enterprises and those in structurally weak regions may conflict with the goal of reducing the energy consumption of these enterprises, according to the current state of research.

STUDY
"What Drives the Relationship Between Digitalization and Industrial Energy Demand? Exploring Firm-Level Heterogeneity"
www.zew.de/PU83816

DISTRIBUTION OF ESTIMATED CHANGE IN ENERGY CONSUMPTION
(IN PER CENT)



On average, energy consumption rose by 1.03 per cent. Electricity consumption by itself increased by 1.34 per cent, whereas the use of non-electric fossil fuels did not experience significant change. Therefore, the results suggest that the overall increase in energy consumption was the result of increased electricity usage.

SOURCE: Official statistics, calculated by ZEW, 2022

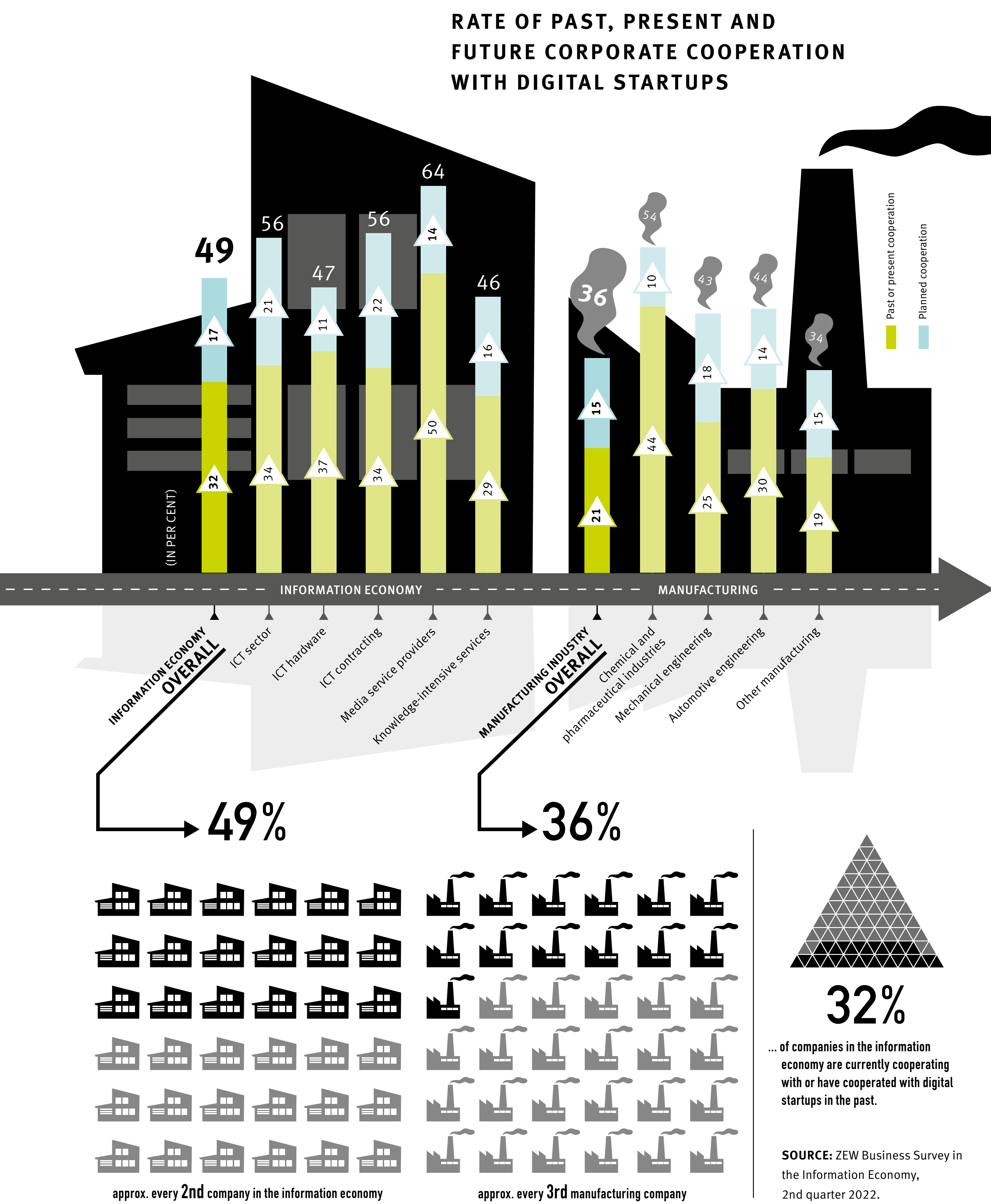
DIGITAL START-UPS: A CATALYST FOR CORPORATE INNOVATION

➔ Established companies expect innovations and access to technological knowledge from collaborations.
➔ Often it is more available information that is needed for more cooperation.

The combination of market experience and financial strength of established companies with the agility and technological know-how of digital start-ups holds a variety of potentials, but also poses some challenges. A representative company survey by ZEW shows that, in Germany, one in every three companies in the information economy and one in five in the manufacturing industry is currently collaborating with digital start-ups or has done so in the past. In the survey, more than 1,200 companies in these industries were asked about the scale, motives and obstacles of cooperation between established companies and digital start-ups.

As the results show, companies hope that through collaboration with digital start-ups they can develop new products or services or improve existing ones. Established businesses expect to get access to technological know-how, technology or software. In most cases companies achieve at least part of their set goals through the cooperation. For instance, they were able to improve their products or services or create something new through cooperation. In contrast, around 60 per cent see no projects as suitable for cooperation. Moreover, around half of businesses are uncertain about the benefit of a cooperation or feel that there is uncertainty in regard to maturity, reliability or survival chances of the collaborating start-up. Improving available information on collaboration possibilities or organising networking events can therefore help to bring together suitable cooperation partners.

ZEW EXPERTISE
"Schwerpunktstudie Kooperationen mit digitalen Start-ups: Die Sicht etablierter Unternehmen"
www.zew.de/PU83756.pdf



SOURCE: ZEW Business Survey in the Information Economy, 2nd quarter 2022.

ECONOMICS OF INNOVATION AND INDUSTRIAL DYNAMICS

04

HEAD

- Prof. Dr. Hanna Hottenrott (as of 1 April 2023)
- Dr. Georg Licht (until 30 June 2023)

DEPUTY HEAD

- Prof. Dr. Bettina Peters
- Dr. Christian Rammer

HEAD OF JUNIOR RESEARCH GROUP COMPETITION AND INNOVATION

- Prof. Dr. Bernhard Ganglmair

RESEARCH AREAS

- Innovation processes in firms
- Industry-science linkages
- Intellectual property rights
- Firm foundations and closures
- Mergers and acquisitions
- Competition and innovation

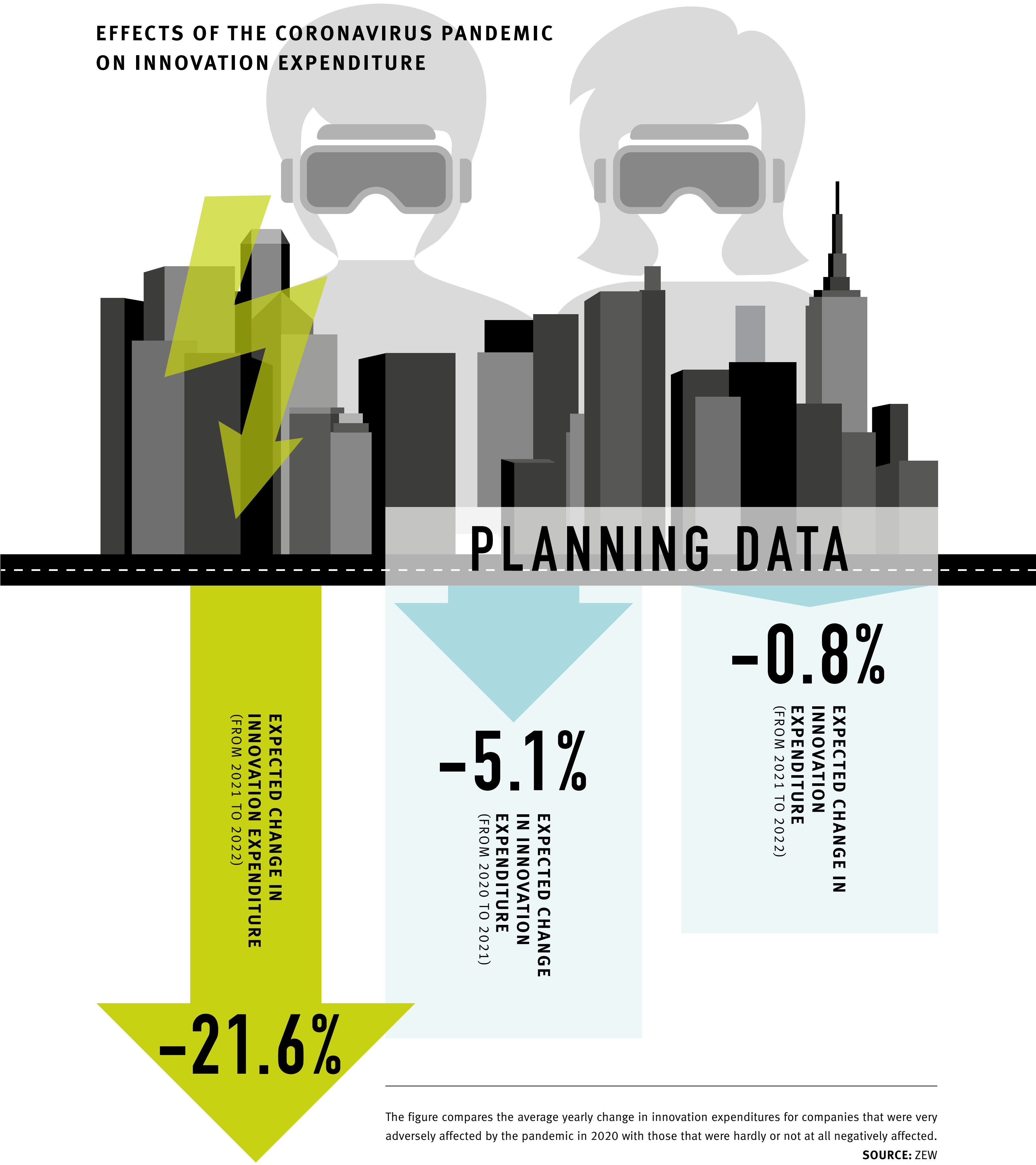
THE GERMAN INNOVATION SYSTEM IS SUFFERING FROM LONG COVID

➔ The COVID-19 pandemic has led to short- and long-term declines in innovation spending.
➔ Highly-digitalised firms were more resilient in the crisis.

The outbreak of the COVID-19 pandemic in early 2020 was an unexpected blow to economies worldwide, and it triggered a deep recession. To survive in such moments of crisis, firms must adapt their business strategies. Past crises have shown that in a recession, firms spend less on innovation due to lower demand and lack of liquidity. During the COVID-19 pandemic, the decline in innovation spending was likely to be even more pronounced, as it was accompanied by other intensifying factors, including extensive reliance on remote work, supply chain disruptions, and loss of labour inputs due to illness or quarantine. On the other hand, the pandemic restrictions forced many firms to develop new products, processes and business models.
Based on 2019 – 2022 data from the Mannheim Innovation Panel, a ZEW study within the H2020 project "GROWINPRO" examined the short- and long-term effects of the pandemic on innovation expenditures by German firms. In order to isolate impacts, it exploited the fact that not all firms were equally affected by the pandemic. The study shows that firms that were severely affected by COVID-19 reduced their innovation spending by 21 per cent more than comparable firms that were hardly affected. Firms that had digitalised before the crisis also proved to be more resilient during the crisis. Furthermore, firms heavily affected by the pandemic planned to spend significantly less on innovation in 2021 and 2022 as well. These long-term COVID-19 effects have been inhibiting more rapid post-pandemic recovery.

STUDY
"Pandemic Effects: Is the German Innovation System Suffering from Long-COVID?"
www.growinpro.eu/pandemic-effects-is-the-german-innovation-system-suffering-from-long-covid

EFFECTS OF THE CORONAVIRUS PANDEMIC ON INNOVATION EXPENDITURE



The figure compares the average yearly change in innovation expenditures for companies that were very adversely affected by the pandemic in 2020 with those that were hardly or not at all negatively affected.

SOURCE: ZEW

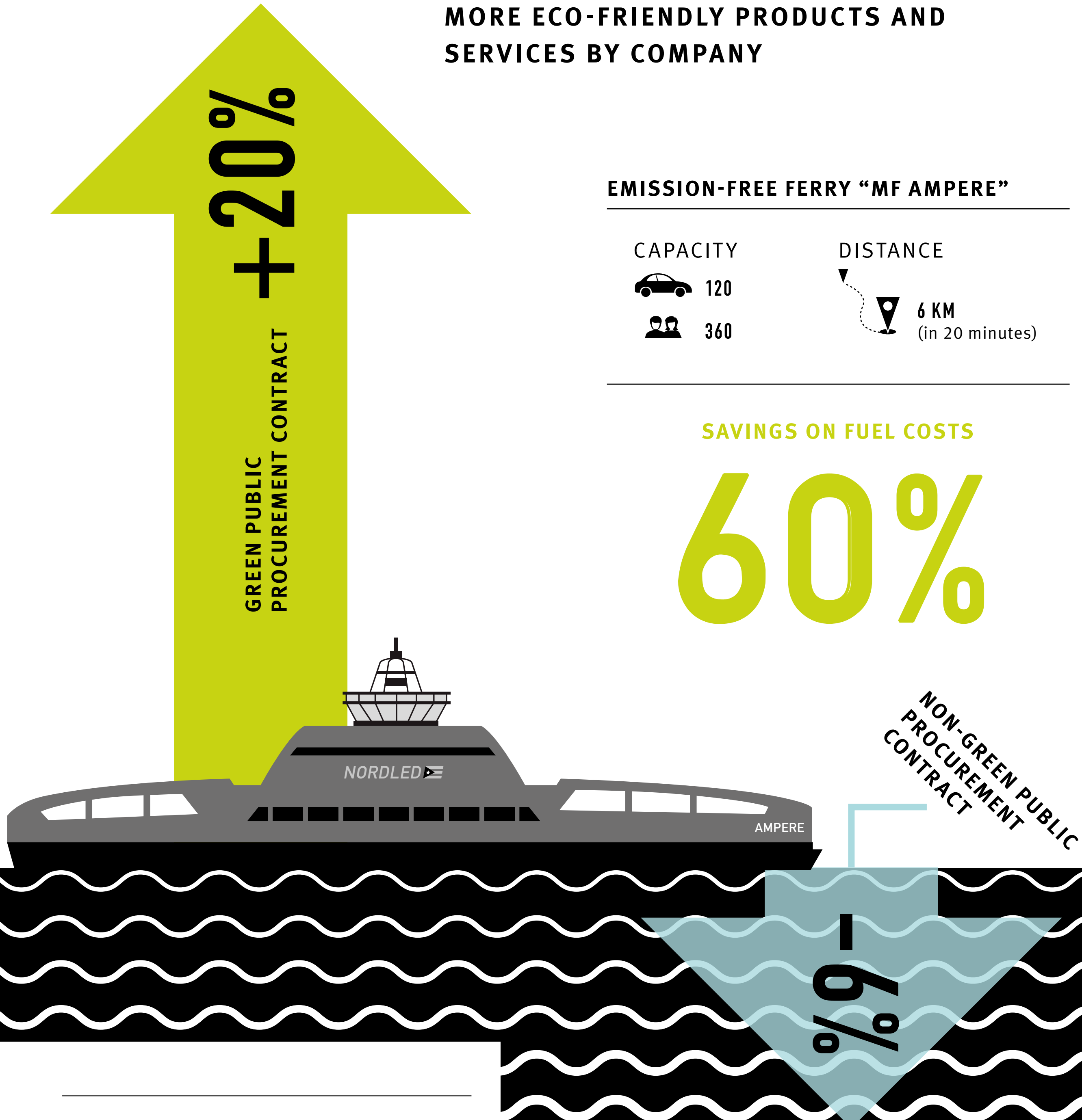
MORE ECO-FRIENDLY PRODUCT INNOVATION THROUGH GREEN PUBLIC PROCUREMENT

➔ Green public procurement has a high priority in European policy.
➔ SMEs in particular introduce more eco-friendly products as a result.

Public sector procurement represents a considerable share of demand in certain subsectors – and thus has a strong impact on the products and services offered by firms. In 2017, for example, public procurement corresponded to 16 per cent of EU GDP. In recent years, environmental criteria have become increasingly common in public sector calls for tender. One goal of such criteria is to encourage companies to develop green innovations.
A ZEW study analysed how green public procurement impacted private-sector environmental innovation. When a company introduces a new product or process that has environmental benefits compared to the company's usual way of doing business, this is termed an 'environmental innovation'.
The study shows that companies acquiring public sector contracts with green criteria are 20 percentage points more likely to introduce eco-friendly product innovations. However, green public procurement has no significant impact on the introduction of eco-friendly processes (e.g. manufacturing techniques). A look at the individual company sizes shows that green public procurement mainly influences small and medium-sized enterprises. Winning green public procurement contracts increases their likelihood of introducing more eco-friendly products by 25 percentage points. Ultimately, the study confirms that green public procurement is effective as a demand-side policy tool for encouraging innovation, especially among small and medium-sized enterprises.

STUDY
"Does Green Public Procurement Trigger Environmental Innovations?"
www.zew.de/PU82817

CHANGE IN LIKELIHOOD OF INTRODUCING MORE ECO-FRIENDLY PRODUCTS AND SERVICES BY COMPANY



EMISSION-FREE FERRY "MF AMPERE"

CAPACITY

120

360

DISTANCE

6 KM
(in 20 minutes)

SAVINGS ON FUEL COSTS

60%

The figure illustrates the change in probability that companies will introduce more eco-friendly products and services when companies have 1) won a public procurement contract with environmental criteria (+20 percentage points) versus when they have 2) won a public procurement contract without environmental criteria (-6 percentage points).

SOURCE: ZEW, Corvus Energy

MARKET DESIGN

05

HEAD

Prof. Dr. Vitali Gretschko

DEPUTY HEAD

Dr. Marion Ott

RESEARCH AREAS

- Auctions
- Matching markets
- Allocation processes
- Behavioural economics

NOBEL PRIZE WINNER WELCOMED AS WORKSHOP GUEST

➔ The market design workshop saw vibrant scholarly exchange on a range of topics.
➔ Nobel laureate Paul Milgrom gave a talk as the guest of honour.

Following several pandemic-related postponements, the second KIT-Paris-ZEW Workshop took place in June of 2022. Held at the Paris-Panthéon-Assas University, the workshop, which was dedicated to market design topics, hosted a total of twelve renowned researchers as well as outstanding young talents who presented their findings and discussed the results. As a co-organiser, ZEW's "Market Design" Unit was represented by a large number of participants at the event. The presented papers, which stimulated vibrant scholarly exchange, addressed a range of general theoretical, applied and experimental topics, including marketplace rating systems, the design of crowd-funding mechanisms, exam design features that maximise imparted knowledge, how algorithms can affect auction outcomes, and techniques for motivating healthy eating behaviour amongst children.

Paul Milgrom of Stanford University was the guest of honour at the event. His 2020 Nobel Prize in economics brought renewed global attention to the field of market design. In his talk, he discussed the use of algorithms to improve auction mechanisms. Algorithms can generate better investment incentives as part of auctions for the allocation of scarce resources, such as airport take-off and landing slots. In an interview with ZEW, Milgrom also discussed the challenges and opportunities attendant to the design of efficient and effective markets, highlighting by way of example his recent research on markets mechanisms to manage water scarcity in California.

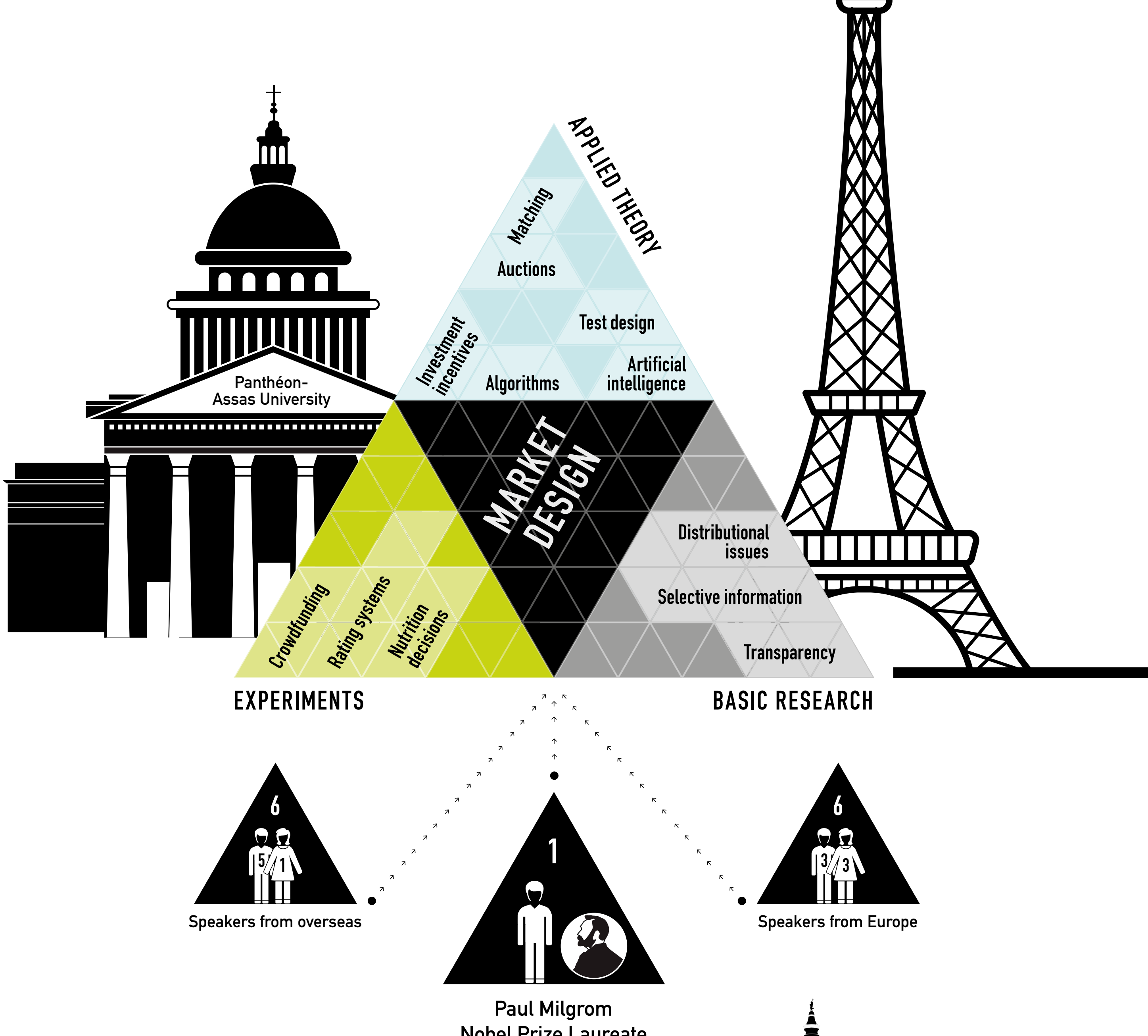
The workshop underscored the value of in-person exchange in addition to the now common virtual exchanges. The third workshop is currently in planning and slated to take place in Mannheim in 2023.

INTERVIEW
https://zewquote.podigee.io/23-neue-episode/

JUNE 2022

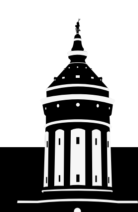
2ND KIT-PARIS-ZEW WORKSHOP

APPROACHES TO MARKET DESIGN RESEARCH



PLAN: 2023

3RD KIT-PARIS-ZEW WORKSHOP



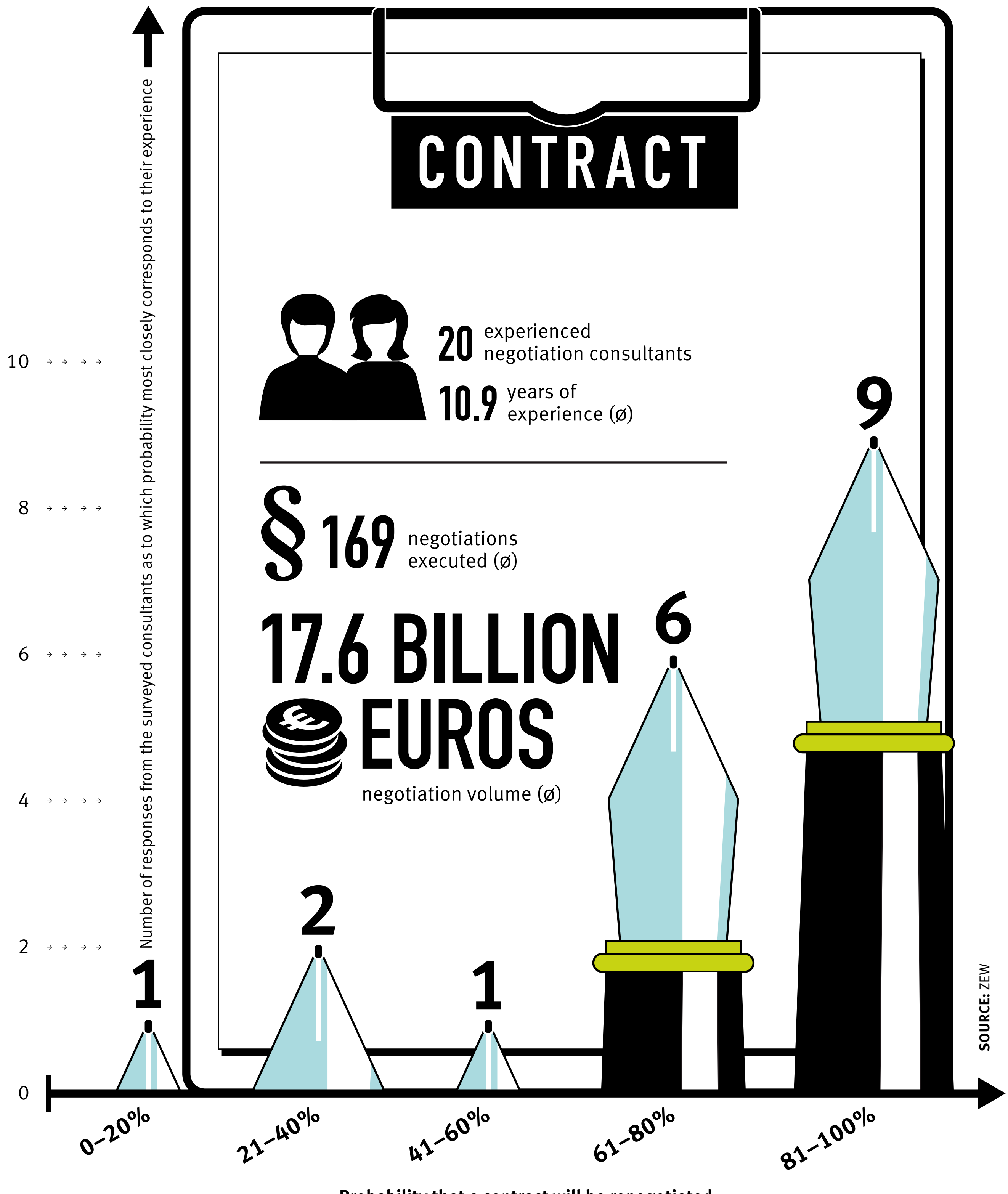
MANNHEIM

CONTRACTOR CATEGORIES PROMOTE CONTRACT STABILITY

➔ Contractors are often grouped into categories.
➔ The well-known theory of optimal contracts cannot explain this practice.
➔ A new stability concept under renegotiation provides a possible explanation.

In many situations in which a formal contract governs an economic transaction, contractors are grouped into categories. For example, most procurement departments classify their suppliers into categories. Similarly, employees are classified into salary bands and policyholders are subdivided into risk classes. However, such a rough classification cannot always be explained by transaction costs. Contract theory indicates that contracts tailored to individual characteristics of the counterparty are optimal. However, this often requires the counterparty to provide potentially private information. For example, since only suppliers know their cost structures, and only policyholders know their individual risks, such contracts are inefficient, because they can be renegotiated after the contract has been signed. This possibility for renegotiation undermines the incentives for contractors to disclose private information. Therefore, when contracts are drafted, they must provide incentives to disclose private information. The ZEW research unit has thus developed a new theoretical concept for stable contracts, i.e. contracts that are not renegotiated. They show that stable contracts optimally group contractors into categories. Categorical grouping protects the private information of the individuals, while nevertheless allowing segmentation according to individual characteristics. The study described in the foregoing received a revise and resubmit decision from the prestigious American Economic Review.

HOW HIGH IS THE PROBABILITY OF A CONTRACT RENEGOTIATION?



ENVIRONMENTAL AND CLIMATE ECONOMICS

HEAD

- Prof. Dr. Sebastian Rausch

DEPUTY HEAD

- Prof. Dr. Martin Kesternich (until 31 March 2023)
- Prof. Kathrine von Graevenitz, PhD

RESEARCH AREAS

- Policy evaluations
- Sustainable behaviour
- International cooperation for climate action
- Climate-friendly energy systems

FOR A MORE FACTUAL DEBATE ON THE GERMAN NUCLEAR PHASE-OUT

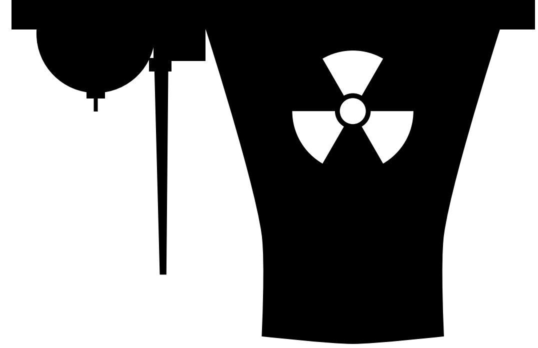
➔ Professor Sebastian Rausch appraised current research findings in an article published in Nature Climate Change.

The proper role of nuclear energy is a recurring theme given its relevance not only for climate change and energy security, but also for air pollution and human health. Nuclear power is controversial, not least because of the risk of accidents and the problem of nuclear waste. At the same time, nuclear energy has been gaining support as a form of energy generation with low greenhouse gas emissions.

In the aftermath of the 2011 Fukushima disaster, Germany vowed to completely phase out nuclear power. This process, which was completed in April 2023, furnishes a natural experiment for examining the effects of a large-scale transition away from nuclear energy. ZEW researchers conducted a cost-benefit analysis of the impacts of concrete policy measures while also drawing comparisons to other policy options and evaluating a counterfactual scenario that presumed continued reliance on nuclear power. To compare scenarios, the researchers estimated "social costs", which consisted of two components: private costs that could be traced back to changes in energy production expenditures and net electricity imports, as well as external costs such as health costs (resulting, for example, from local air pollution due to the additional use of fossil energy as an alternative energy source). According to a recent study, these health damages account for almost two-thirds of the social costs of the nuclear phase-out. These costs are offset by a reduction in external costs stemming from the storage of nuclear waste and the risk of nuclear accidents.

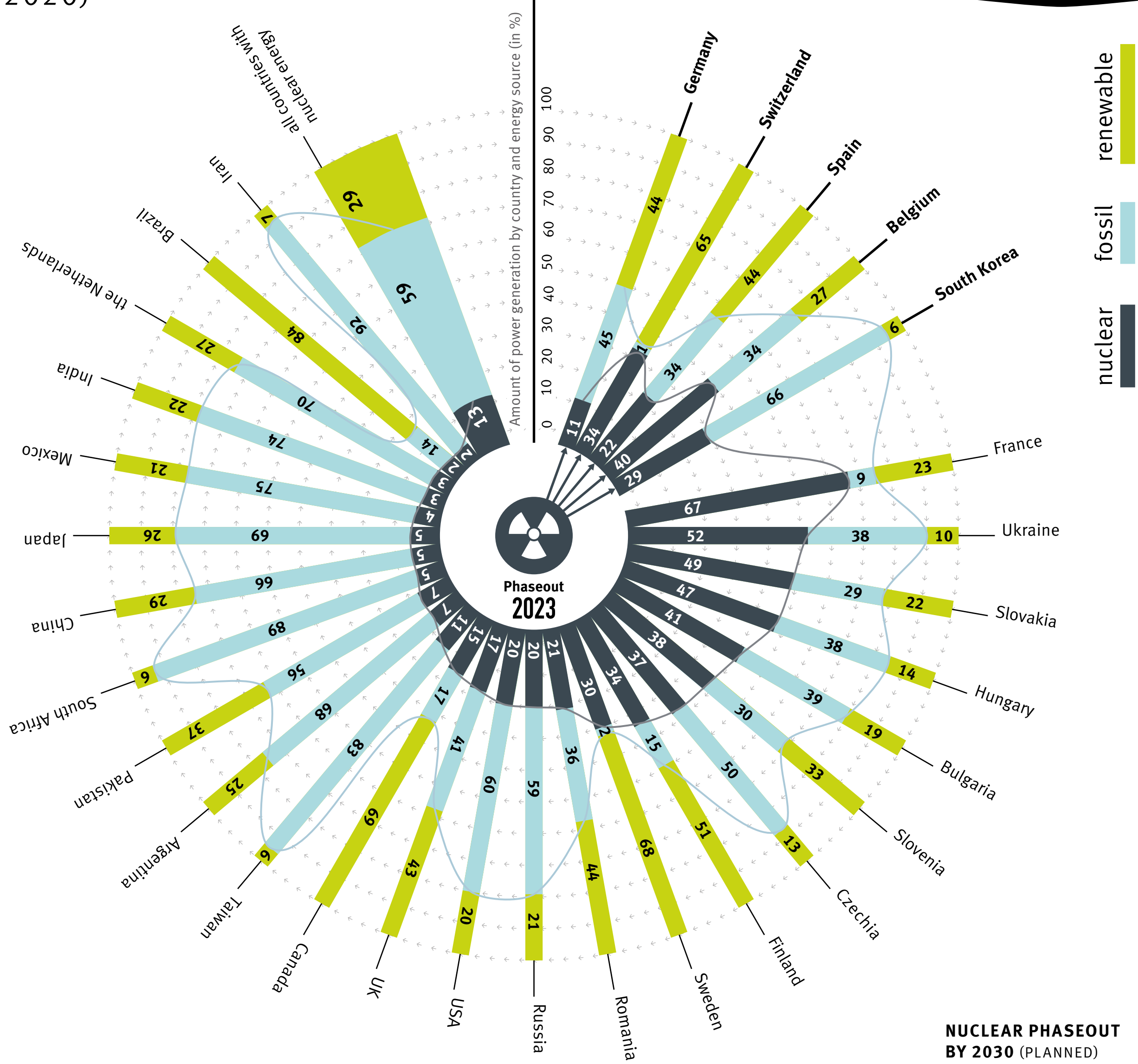
As Germany ratified its nuclear phase-out, the expansion of fossil-based power generation was cheaper than the expansion of renewable energy, due to the overcapacity in the domain of fossil-based power generation. Today, renewable energy sources have lower electricity generation costs than conventional ones, which is why the high health damage from fossil fuels is likely to be lower in future nuclear phase-outs. This augments the relative importance of waste storage and the risk of nuclear accidents in relation to increased air pollution. Energy security will continue to be important, but will lose significance as an argument for continued reliance on nuclear power, due to the competitiveness of renewable energy.

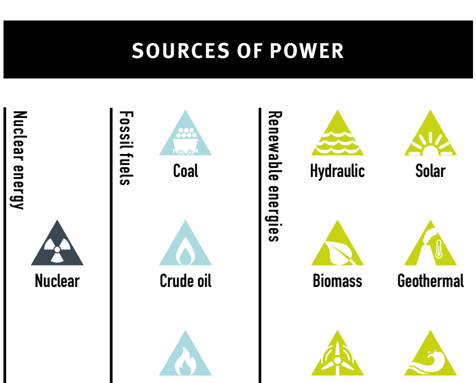
STUDY
"Assessing Nuclear Phase-Out"
www.zew.de/PU83256



ENERGY MIX IN COUNTRIES WITH NUCLEAR ENERGY

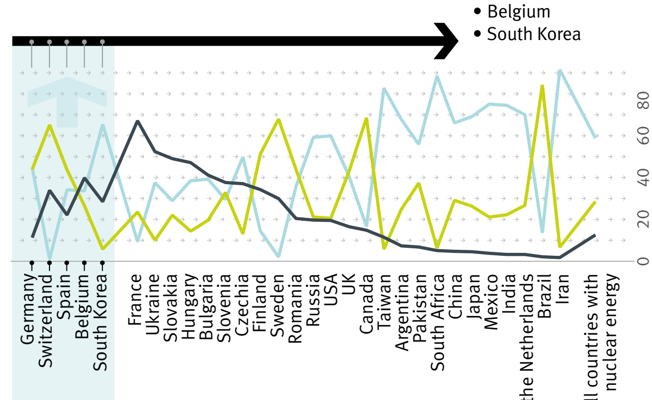
(IN 2020)





NUCLEAR PHASEOUT BY 2030 (PLANNED)

- Germany
- Switzerland
- Spain
- Belgium
- South Korea



SOURCE: ZEW

REDUCING GAS CONSUMPTION BY HOUSEHOLDS AND COMPANIES

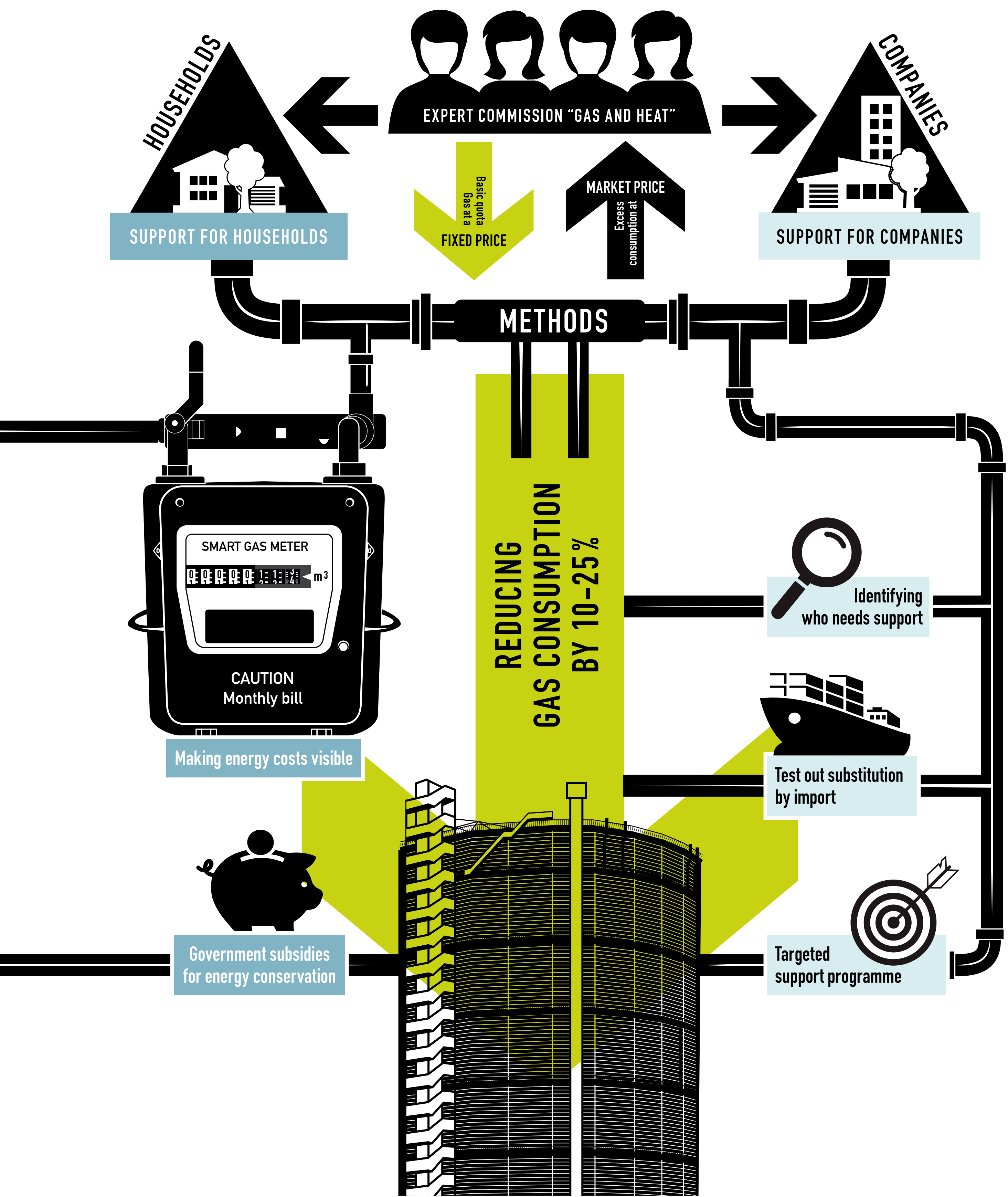
➔ Real-time billing can help households save energy.
➔ Rising prices require changes in the production processes used by companies.

Germany had to sharply reduce its natural gas consumption in the winter of 2022 – 2023 due to the cessation of Russian imports. However, gas supplies remain limited, and Germany must keep a close eye on reserve levels. To encourage lower natural gas and electricity consumption, prices should not be lowered. Instead, government should provide support to households and companies on a lump-sum basis, i.e. regardless of current consumption. Germany's Expert Commission on Gas and Heat has proposed making a basic quantity of energy available to consumers at a fixed price, while market-based pricing applies for higher demand levels. The idea is to preserve incentives to reduce natural gas consumption.

ZEW researchers assessed which support measures are effective in encouraging households and companies to further reduce gas consumption. For households, one of the key challenges is the fact that the massive increases in natural gas and electricity prices are only reflected in utility bills after a long delay, with final accounting taking place just once each year. The true costs of energy consumption thus only become apparent after a significant time lag, which dilutes incentives for near-term adjustment.

With a view to companies, energy costs historically account for just two to three per cent of total expenditures on average. However, last year's price increases go far beyond historically observed values, and require adjustments to production processes. When developing government support measures, it is crucial to differentiate between companies that can pass on increased energy costs to final consumers through higher prices and those that are not able to do so.

METHODS TO REDUCE GAS CONSUMPTION



CORPORATE TAXATION AND PUBLIC FINANCE

07

HEAD

- Prof. Dr. Friedrich Heinemann

DEPUTY HEAD

- Dr. Zareh Asatryan
- Jun.-Prof. Dr. Katharina Nicolay

RESEARCH AREAS

- European tax analyzer
- Empirical effects of corporate taxation
- European fiscal institutions
- Tax and debt preferences
- Public procurement

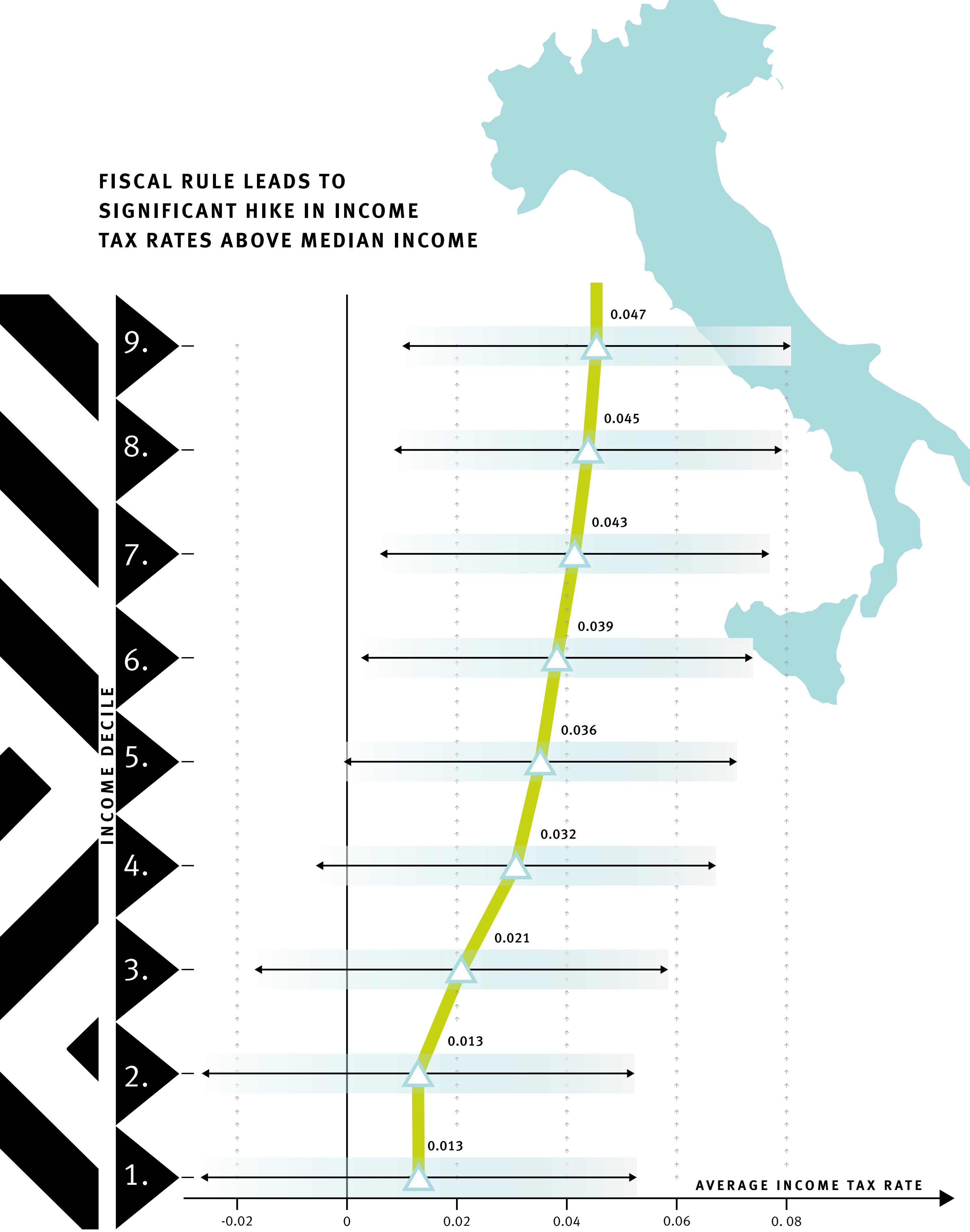
HOW DOES AUSTERITY AFFECT REDISTRIBUTIVE POLICY?

➔ Empirical research on how austerity influences distributive policy.
➔ Deficit limits in Italy have led to significant increases in tax rates on high incomes.

In response to the global financial crisis of 2007 – 2009 and the COVID-19 outbreak of 2020, governments enacted comprehensive stimulus measures. Yet such stimulus measures often require fiscal austerity in subsequent years. So far, evidence concerning the distributional impacts of austerity measures has been largely anecdotal. Accordingly, ZEW took up this question in a recent study. The researchers drew on data from Italian local governments to provide the first quasi-experimental evidence of the impact of austerity measures on distributional policies. Italy is particularly well suited for the study of this research question, as Italian municipalities have considerable autonomy in setting local income taxes with non-linear schedules. The researchers took advantage of a strong exogenous constraint on the fiscal space of Italian municipalities – namely, the introduction of a national balanced budget requirement in 2013 that extended the Stability Pact requirement to previously exempted municipalities. The results of the study show that local governments responded to this fiscal requirement by gradually increasing tax rates. The increase in tax rates was larger for higher incomes, and only became significant for individuals with taxable incomes above the median (see figure). The relative impact was considerable: Tax rates for income earners in the top decile of the municipal income distribution increase by 13 per cent compared to the sample mean. Examining the intersection between fiscal policy and taxation, the study is a good example of research conducted by ZEW's "Corporate Taxation and Public Finance" Unit.

STUDY
"Austerity and Distributional Policy"
www.zew.de/PU81747

FISCAL RULE LEADS TO SIGNIFICANT HIKE IN INCOME TAX RATES ABOVE MEDIAN INCOME



SOURCE: ZEW

HOW HAVE INVESTORS ASSESSED NEW TAX REPORTING RULES?

STUDY
"How Do Investors Value the Publication of Tax Information? Evidence from the European Public Country-By-Country Reporting"
www.zew.de/PU83798

- ➔ The announcement of a country-by-country reporting requirement in the EU triggered significant stock price declines.
- ➔ Reputational losses and possible distortions to competition are more important to investors than information gains.

In tandem with measures designed to curb profit shifting by multinational companies, the OECD and European Commission have been expanding tax transparency requirements. In June 2021, for example, the EU Commission announced it would introduce public country-by-country reporting (CbCR) for large companies. This tax policy push came unexpectedly (see figure), as there had long been strong support for the existing, confidential CbCR.

In cooperation with the Collaborative Research Center 266 and the University of Mannheim, ZEW researchers investigated how capital markets reacted to this policy announcement. The investigation showed that the policy announcement led to significant share price losses for impacted companies. Specifically, the cumulative average abnormal return (CAAR) registered a decline of -0.699 per cent, which translates into a capitalisation loss of around 65 billion euros for up to three days after the announcement. This result suggests that investors value reputational risks and potential competitive disadvantages more highly than the potential benefits of an improved informational environment. This is also reflected in cross-sectional tests, in which the average negative investor reaction is more pronounced for companies with higher reputational risks and in more competitive environments. The conclusions of the study are of particular importance not only for current tax policy in the EU, but also with regard to current debates on similar disclosure requirements, particularly in the US.

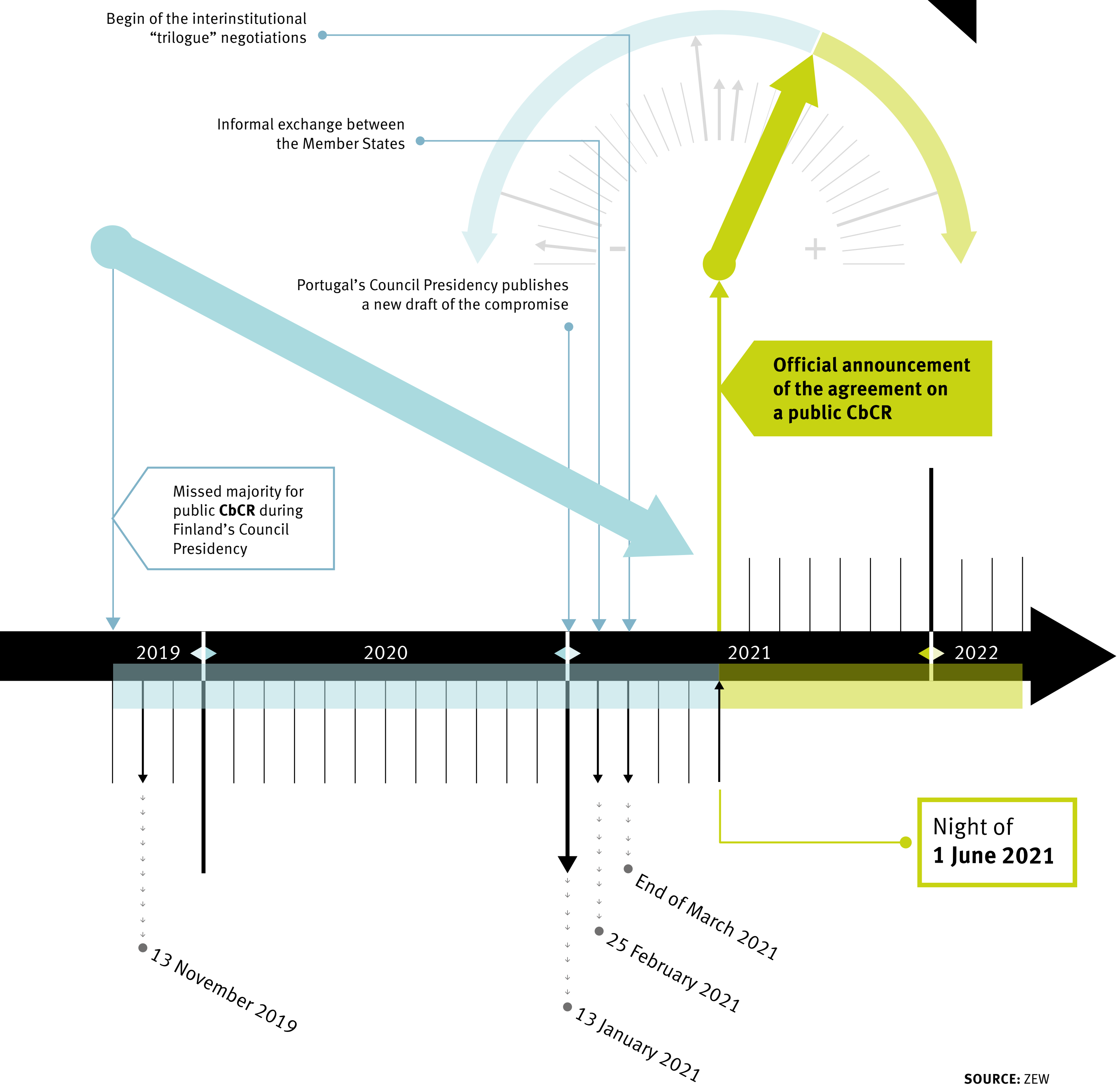
“CbCR”

COUNTRY-BY-COUNTRY-REPORTING

PART OF THE ACTION PLAN
to develop more fiscal transparency in the fight against international tax planning.

The EU Member States have until 22 June 2023 to implement the public CbCR directive into national law.

CHRONOLOGY OF THE TAX POLICY UNIFICATION PROCESS TO A PUBLIC CBCR



SOURCE: ZEW

HEALTH CARE MARKETS AND HEALTH POLICY

HEAD

Dr. Simon Reif

RESEARCH AREAS

- Digital health
- Health care market structures
- Reimbursement schemes

REAL-WORLD DATA FOR THE EVALUATION OF DIGITAL HEALTH APPS

➔ Digital health apps are becoming ever-more common.
➔ Real-world data offer evidence-based opportunities for improving their adoption.

Mobile health applications are becoming increasingly popular and serve a range of purposes – for example, to remind users to take medications or to document blood sugar levels. In 2019, the Digital Care Act was passed in Germany, which, among other things, introduced the reimbursement of health apps prescribed by a medical professional from the social health insurances. The new legislation broadly sets forth how app developers can demonstrate the use-value of their products. To this end, the legislation foresees drawing on real-world data – such as claims data from health insurance companies, or digitally collected biomarkers such as blood pressure – to evaluate app benefits. However, since the introduction of the Digital Care Act, such data have rarely been used in evaluations.
Against this backdrop, the Health Innovation Hub of the German Federal Ministry of Health and the Digital Medicine Society convened a series of discussion panels to bring together international experts in the field of evidence generation for digital medical products. ZEW researchers were among the participants. The discussion panels aimed to (1) accelerate innovative approaches for the evaluation of digital medical products; and (2) promote the international harmonisation of best practice. The experts identified nine topic areas (see figure) in which there is a need for action by researchers or regulators. Addressing these topic areas will enable the broader use of real-world data in the future – an important building block for the safe, effective and evidence-based introduction of digital health solutions and for their proactive adoption by the population.

STUDY
"Advancing Digital Health Applications: Priorities for Innovation in Real-World Evidence Generation"
www.zew.de/PU83242

FIELDS OF ACTION

FOR WIDER USE OF REAL-WORLD DATA

Dealing with
missing data

Definition of
comparator groups

Standardisation of
endpoints

Dealing with multimodal
interventions

Determining suitable
questions to ask

Dealing with
biases

Equal access to
supplies

External validity

Strategies for
implementation

OVERVIEW OF UKRAINIAN AND RUSSIAN-SPEAKING PSYCHOTHERAPISTS

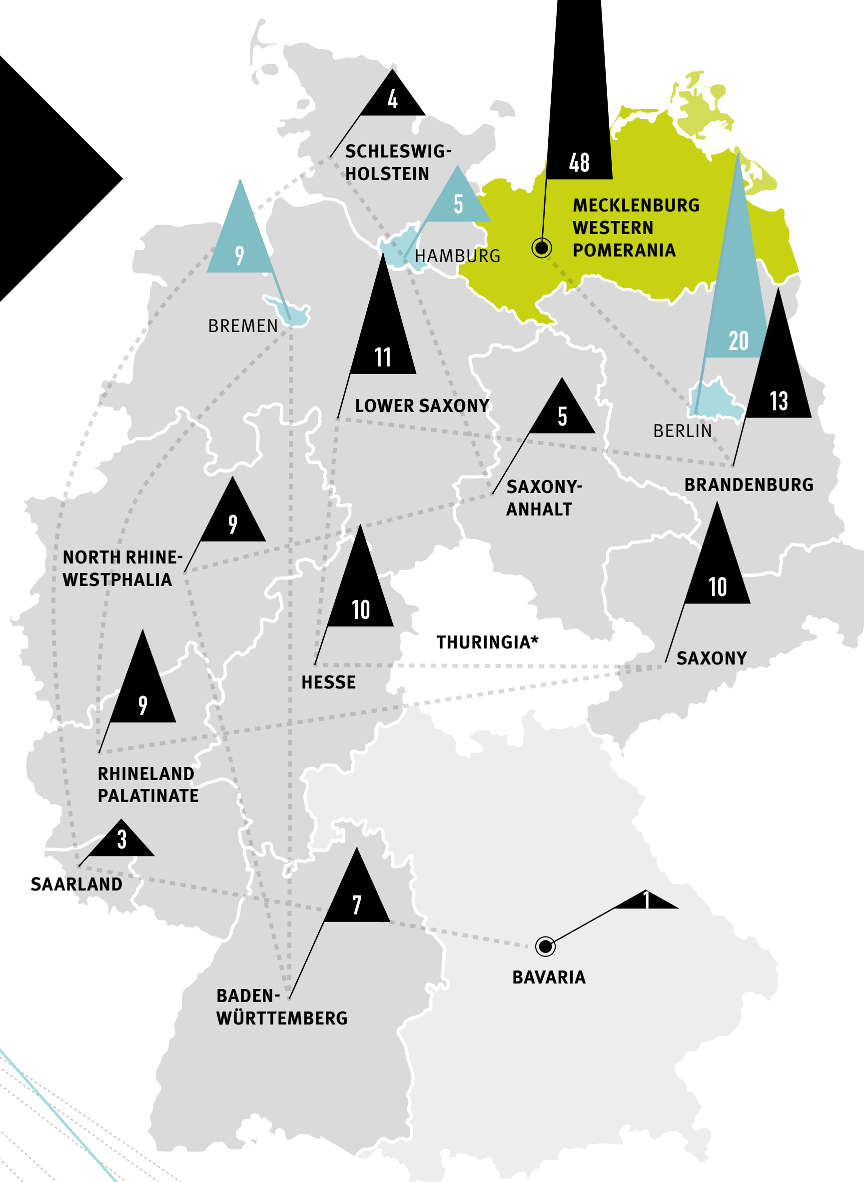
➔ High demand for psychological support for refugees expected
➔ Map with Ukrainian and Russian-speaking psychotherapists accessed over 100,000 times

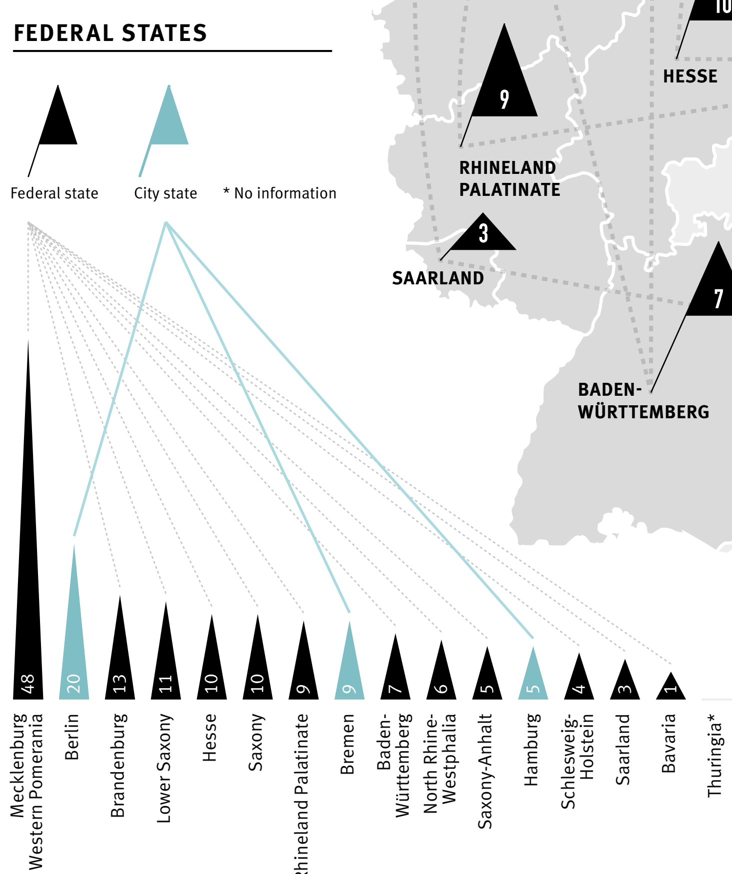
Several million people have fled from war and violence in Ukraine, especially women and children. Often they need not only medical but also psychological help after their arrival in Germany. However, the existing language barrier should not be underestimated: While interpreters can facilitate communication in the treatment of physical illnesses, for example, it is a challenge to establish a relationship of trust with psychotherapists in this way. Of the 17 associations of statutory health insurance physicians to which most practices belong, 16 (all except Thuringia) enable patients to search for doctors with certain language skills. However, since this information is difficult to obtain, the ZEW economists created an easily accessible and simplified map on Google Maps containing all psychotherapists who speak Ukrainian or Russian. The map was accessed over 100,000 times in the first year, showing that data on medical care can only unfold an added value if they are prepared in an easily accessible way.
In addition to the direct benefit for the displaced persons, the map provides an overview of the regional distribution of the indicated language skills. A total of 659 psychotherapeutic practices offering treatment in Ukrainian and Russian are listed in the registers of the associations of statutory health insurance physicians, most of which are located in Mecklenburg-Western Pomerania, the fewest in Bavaria.

ACCESS THE MAP AT
www.google.com/maps/d/edit?mid=1rskrjh_rV8h3ESh8YFh9HFMvQGd2a-N8
&ll=50.86229742045074 4%2C10.54515109999997&z=6

RUSSIAN- OR UKRAINIAN-SPEAKING PSYCHOTHERAPISTS PER 1 MILLION RESIDENTS

Accessed on Google Maps
more than
100,000 times





659

LISTED PSYCHOTHERAPY PRACTICES
(with corresponding language skills)

SOURCE: ZEW

INEQUALITY AND PUBLIC POLICY

HEAD
Prof. Dr. Holger Stichnoth

DEPUTY HEAD
Dr. Michaela Slotwinski

RESEARCH AREAS
- Inequality
- Tax and social policy
- Life cycle and the family
- Simulation models

GOVERNMENT SPENDING STATISTICS INDICATE INEQUALITY IS LESS SEVERE THAN COMMONLY ASSSUMED

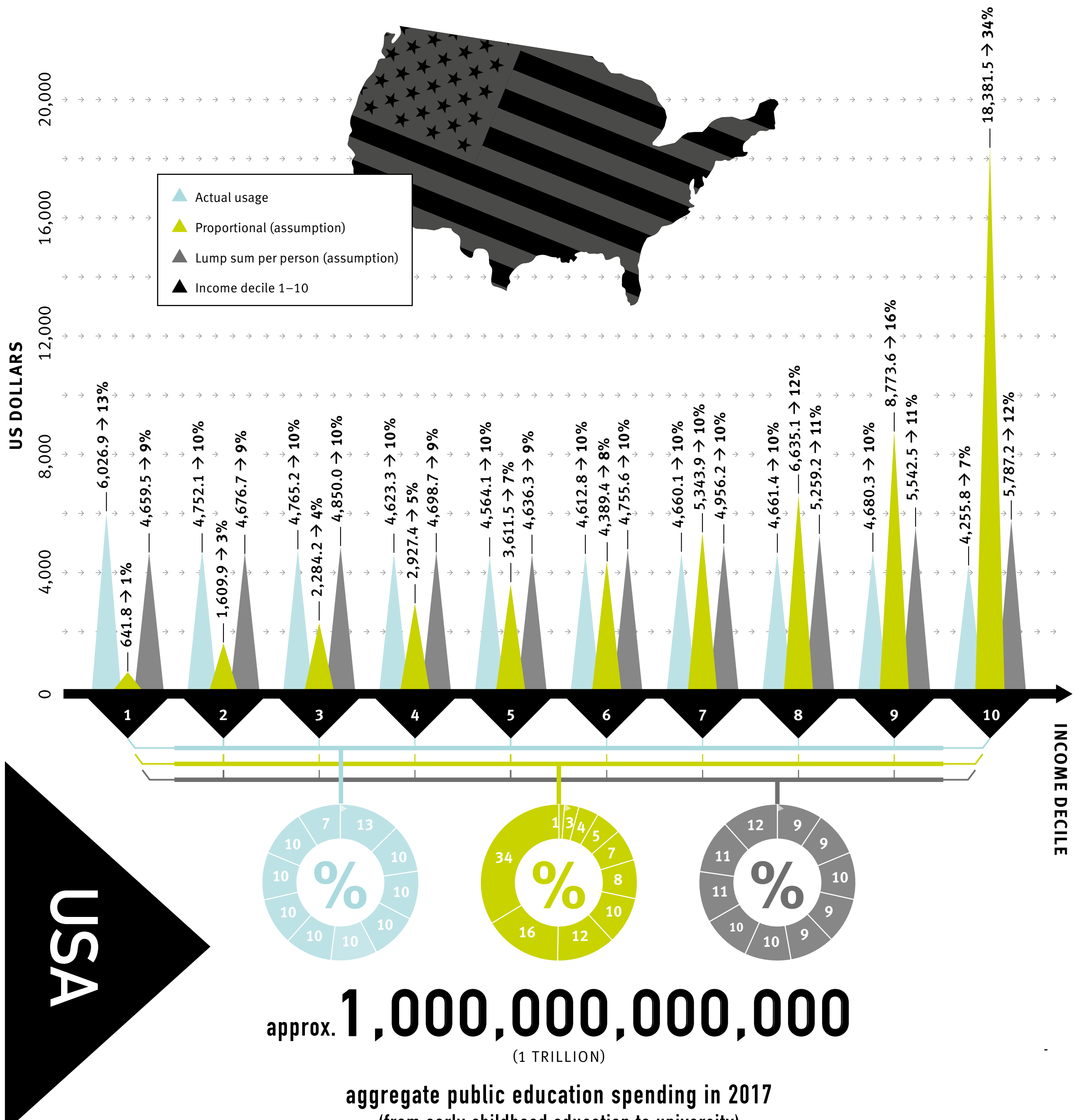
➔ Current literature on inequality considers non-monetary government benefits only on the basis of assumptions and in a redistribution-neutral manner.
➔ Consideration of the actual use of these benefits reduces inequality.

Traditional approaches to measuring inequality typically only consider monetary income. Current research on Distributional National Accounts transcends this limitation by constructing measures of inequality that are consistent with national accounts. An important step in this regard is the allocation of all government expenditures to households and persons. While the allocation of monetary benefits – for example, a child benefit or housing benefit – is easily observable, non-monetary benefits (e.g. education, infrastructure, or defence) are less easy to measure directly. Previous studies have thus assumed that such benefits are distributed proportional to cash income. However, this approach precludes from the outset the possibility that non-monetary benefits can have redistributive effects.

Building on findings from a policy advising project (research on the German government's 6th Poverty and Wealth Report), ZEW researchers studied the actual distribution of non-monetary benefits by specifically examining state-level spending on education in the US. The findings speak against the assumption that such benefits are proportionally distributed. On the contrary, state expenditures on education, in a cross-section of one year, are equally distributed across all income groups. If one were to assume equal distribution of all non-monetary benefits in line with the results presented here for education, this would yield a significant decrease in inequality.

STUDY
"Government Expenditure in the DINA Framework: Allocation Methods and Consequences for Post-Tax Income Inequality"
www.zew.de/PU83229

PUBLIC EXPENDITURE ON EDUCATION BY INCOME: COMPARISON OF ALLOCATION METHODS



approx. **1,000,000,000,000**

(1 TRILLION)

aggregate public education spending in 2017
(from early childhood education to university)

The figure shows the distribution of public education spending in the US across income deciles in 2017. The blue bars represent our findings for the actual use of funds toward education. This is contrasted with the assumption-based distributions proportional to income (in green) and as a lump sum per person (in gray).

SOURCE: ZEW, own calculations

WHAT ARE THE CHALLENGES TO EUROPEAN WELFARE STATES?

➔ ZEW is heavily involved in the WeLaR project, launched in 2022.

Under the leadership of KU Leuven, the ZEW research units of “Inequality and Distribution Policy”, “Environmental and Climate Economics” as well as “Labour Markets and Social Insurance” are participating in this multinational research undertaking. The overarching goal of the Europe Horizon project is to identify challenges faced by the welfare state and to elaborate effective solutions. A focus is being placed on four megatrends – namely, digitalisation, globalisation, climate change, and demographic change. These megatrends are impacting labour markets and society – and they pose multifaceted challenges to European welfare states. WeLaR (short for “Welfare Systems and Labour Market Policies for Economic and Social Resilience in Europe”) aims to fill knowledge gaps about these trends by pursuing two main objectives. First, the project will conduct a comprehensive and comparative diagnosis of how these megatrends impact labour market and present risks to the welfare state. Based on these insights, the second goal is to develop policy recommendations for the adaptation of the welfare state. A particular emphasis is being placed on groups that are often confronted with higher labour market risks – namely, women, young workers, people in atypical employment, and the working poor.

In developing policy proposals, the project will take an interdisciplinary approach, combining quantitative and qualitative methods and adopting cross-national perspectives. To ensure robust policy proposals, extensive consultations and feedback loops with stakeholders will be undertaken, in order to enrich and validate quantitative and qualitative findings. The project will enhance the networking of ZEW at the EU level while also laying an important foundation for future evidence-based policy advising projects.

LINK
www.projectwelar.eu/

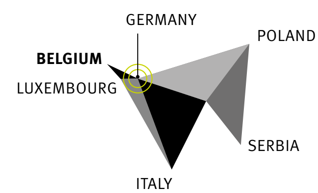
"WeLaR"

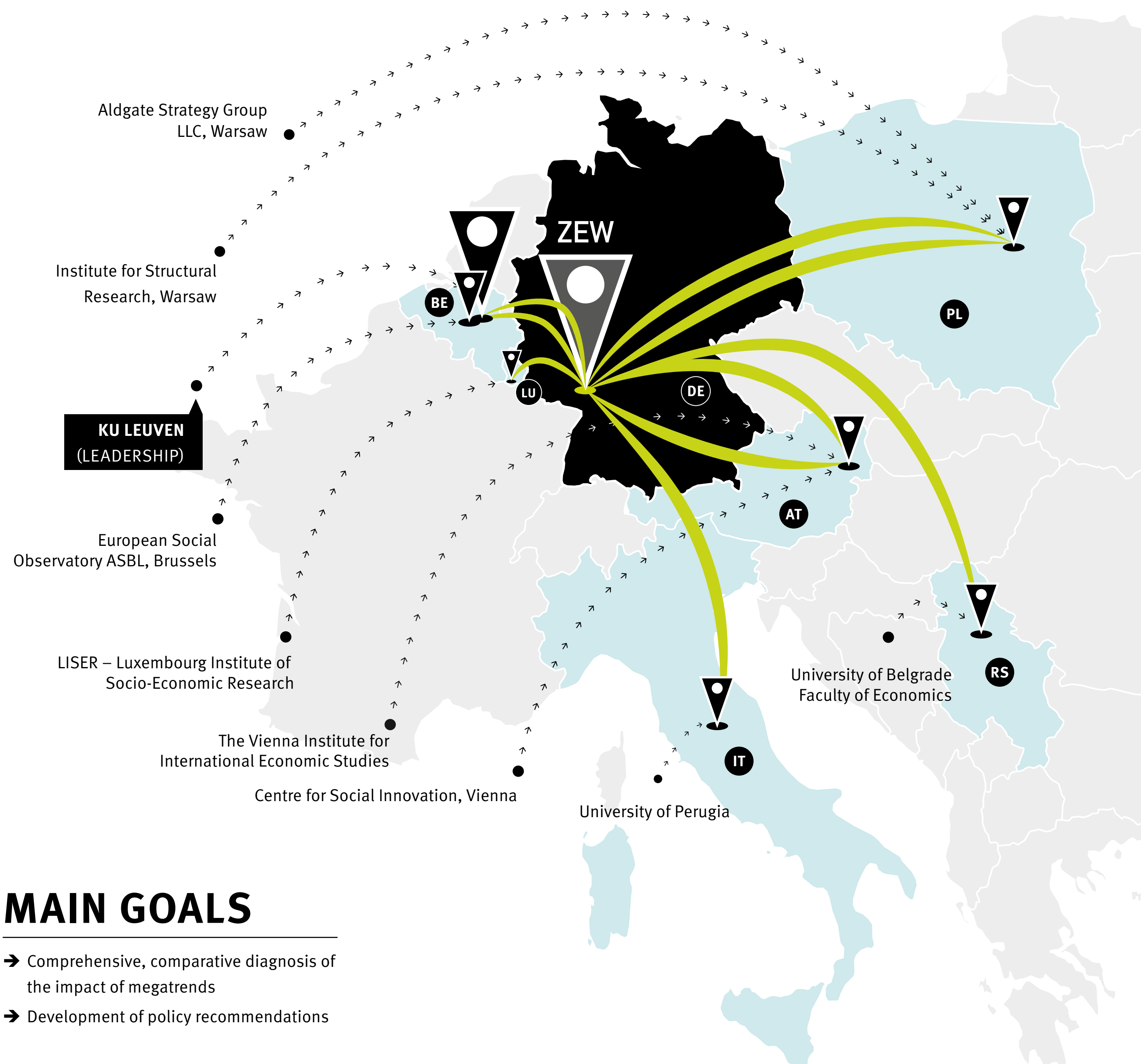
WELFARE SYSTEMS AND LABOUR MARKET POLICIES FOR ECONOMIC AND SOCIAL RESILIENCE IN EUROPE

MEGATRENDS IN FOCUS

- ▲ Digitalisation
- ▲ Globalisation
- ▲ Climate Change
- ▲ Demographic Shifts

PARTICIPATING EU COUNTRIES





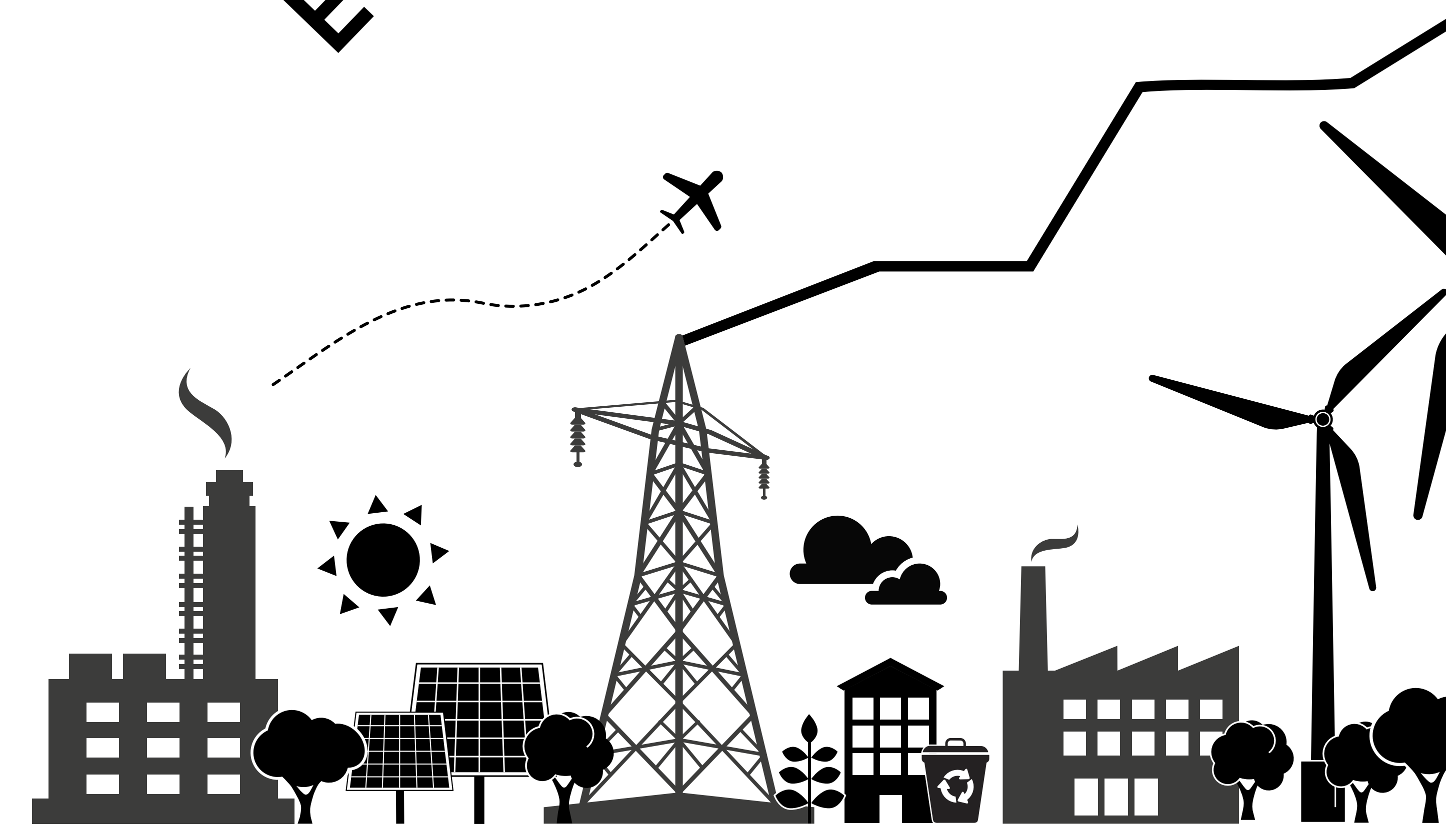
MAIN GOALS

- ➔ Comprehensive, comparative diagnosis of the impact of megatrends
- ➔ Development of policy recommendations

VERLAG HERDER | ACHIM WAMBACH

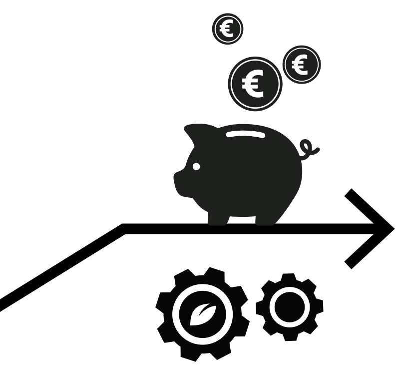
CLIMATE PROTECTION NEEDS TO MAKE ECONOMIC SENSE.

- A highly informative guide to climate protection in a social market economy.
- Sheds light on current debates surrounding energy systems and climate neutrality.



AN ECONOMIC-ECOLOGICAL COMPASS

COMBINING ECOLOGICAL PRINCIPLES WITH THE POWER OF THE MARKET



In his book “Klima muss sich lohnen”, ZEW President Achim Wambach analyses various climate policy measures and illuminates their underlying market mechanisms. In the process, he shows how these measures sometimes have contrary or unanticipated outcomes that diverge from what policymakers intend or what consumers expect. Wambach comes to a number of surprising conclusions. For example, solar systems may make economic sense, but they are not sensible for climate policy. Furthermore, purchasing green electricity does not reduce carbon emissions – but driving less does, at least for the time being. The president of ZEW makes it clear that climate protection needs to be recalibrated by making fewer appeals to individual responsibility or to the pangs of conscience. Instead, there should be a stronger emphasis on well-designed regulatory conditions, and a greater trust in market mechanisms. Ultimately, the most effective route to climate protection is to harness the allocative wisdom of the market.

VOICES.

» The task ahead is daunting: The next ten years will be crucial for the monumental task of ecological transformation. We need to rethink all areas of life. Wambach’s book makes an important contribution to this undertaking. One used to speak of reconciling the economy with the environment. Today, we are one step closer to achieving this goal. We now know that intact ecosystems are essential for economic success.

Winfried Kretschmann
Minister-President of Baden-Württemberg

» This book identifies the policy measures that actually work while clearing up numerous misunderstandings. It provides a clear picture of a complex situation.

Klaus Müller
President of the Federal Network Agency

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