energylab 2030

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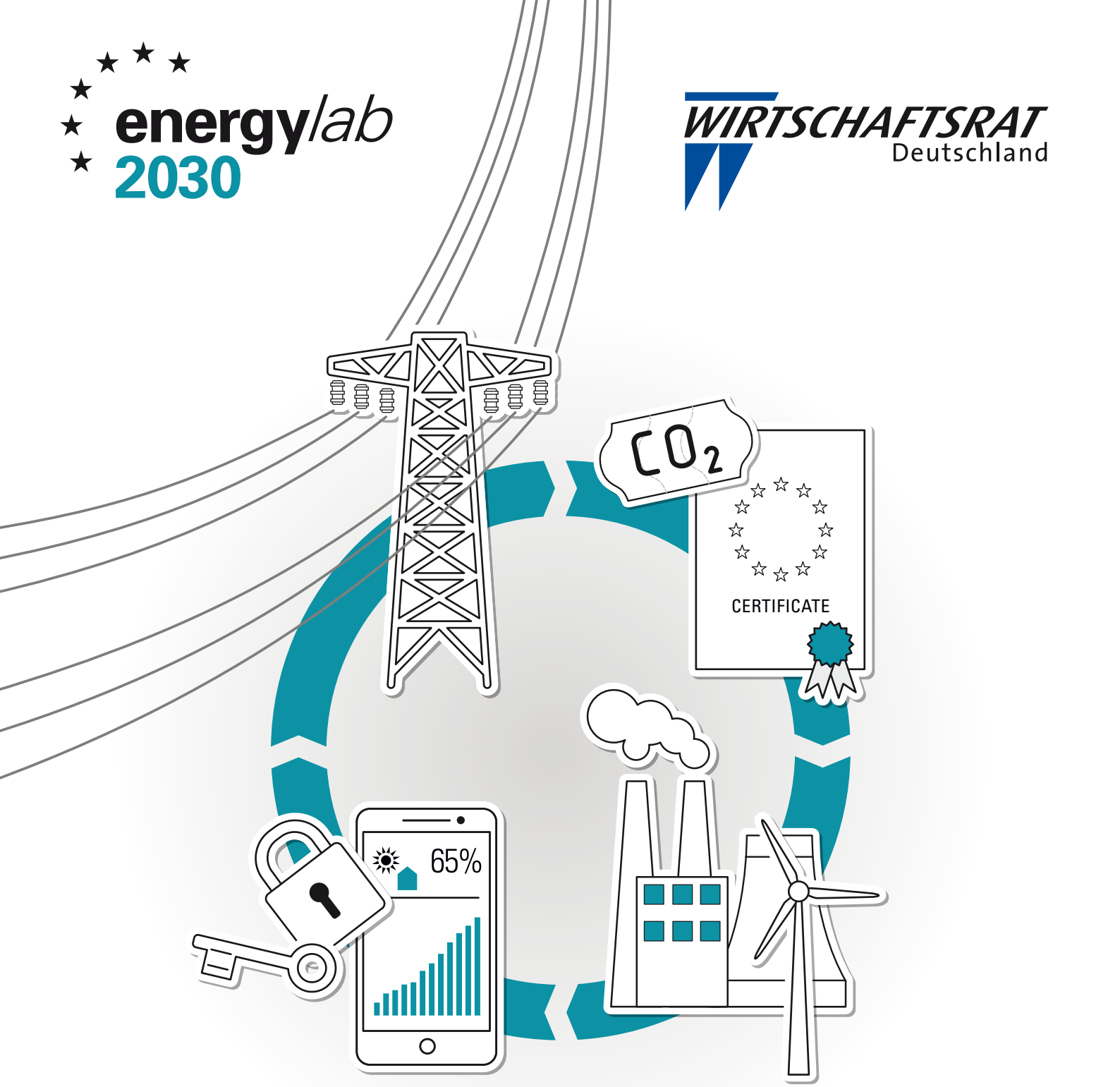

Proposals for a competitive, reliable and innovative EU energy market in 2030

Contents

Introduction

Direct costs of some EUR 31 billion in the past year and stagnating CO_2 emissions show that the German energy transition has never been more expensive and inefficient than today, while the need for action to ensure a new market-based, European approach has never been greater.

A market-based CO_2 price signal, adaptable consumers and producers, innovative digital solutions and cross-border grid expansion are required in order to improve competitiveness and security of supply in Germany and Europe, as centres of energy and industry. By presenting the proposals developed in the scope of the "European Energy Lab 2030", the Economic Council (Wirtschaftsrat der CDU e.V.) wishes to provide European and German policy makers with constructive proposals to pave the way for a competitive, reliable and innovative energy market in 2030.

The Economic Council wishes to thank the members of the national committees on energy policy and energy efficiency, the selected participants from a range of sectors and countries, its cooperation partners, the editorial team and the moderator for the fruitful discussions and the expertise that has been contributed.

The Economic Council will continue to assist the energy transformation process in Germany and Europe in a constructive manner. We are delighted to have your support in doing so.

Berlin, 10 March 2017

Wolfgang Steiger
General Secretary
of the Economic Council

Dr. Johannes Lambertz
Chairman
of the National Energy Policy
Committee of the Economic Council

Numerous outstanding politicians, economists and scientists actively engaged in and contributed their expertise to the "European Energy Lab 2030" in Brussels, Berlin and Vienna. The Economic Council wishes to thank the following in particular:

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Vice-President of the European Commission

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Chairman of the CDU/CSU Group in the European Parliament

Dr. Herlind Gundelach, Member of the Bundestag
Rapporteur for energy efficiency and energy saving, CDU/CSU Group in the Bundestag

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Chairman of the Management Board and Member of the Executive Committee of the German Association of Energy and Water Industries (BDEW)

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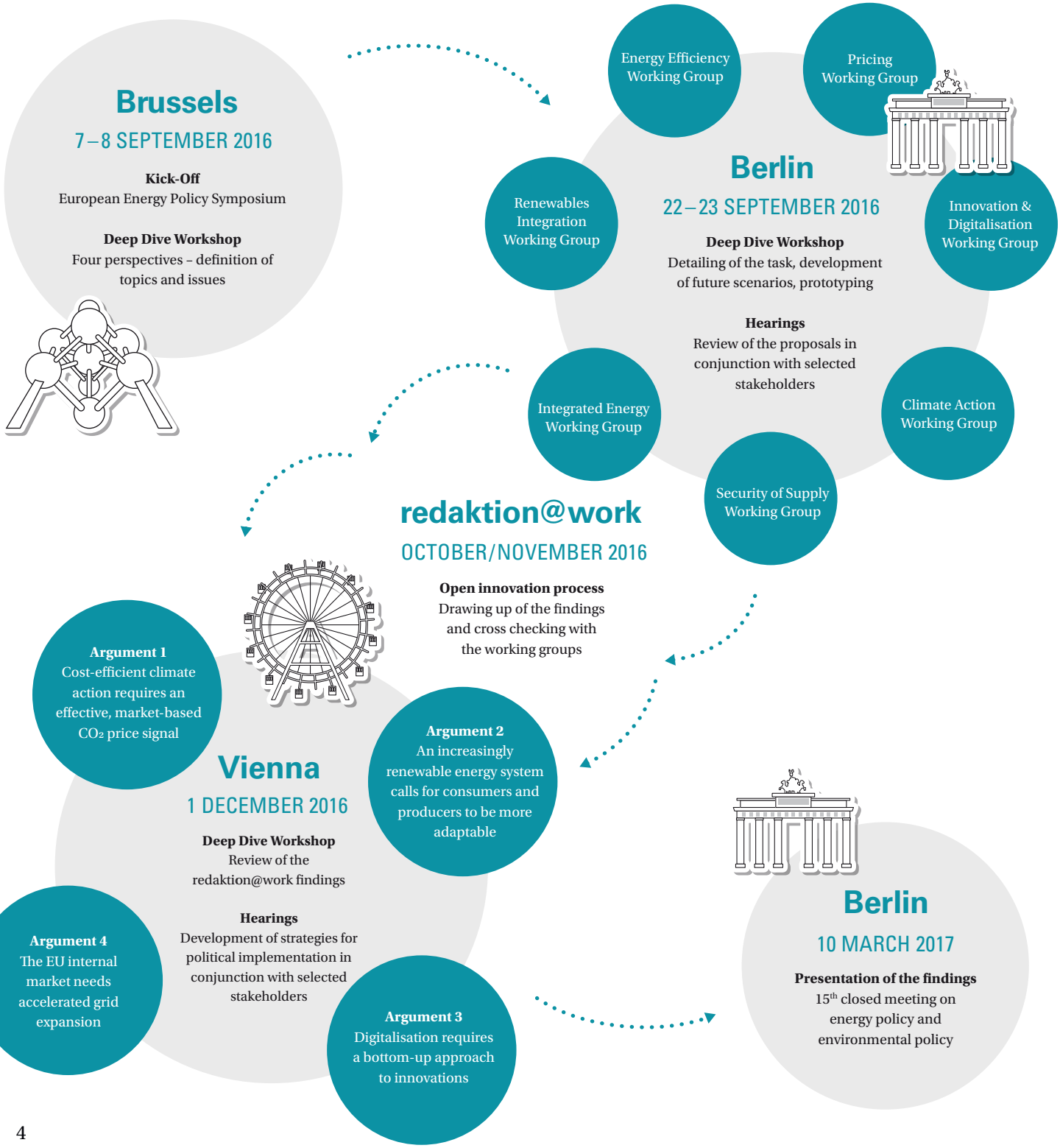
General Secretary, Österreichs E-Wirtschaft (advocacy group for the Austrian electricity industry)

Andreas Kuhlmann
Chairman of the Management Board of the German Energy Agency (dena)

Prof. Dr. Georg Erdmann
Professor specialising in energy systems at the Technical University of Berlin (TU Berlin), member of the expert committee on the "Energy of the Future" monitoring process

The European Energy Lab 2030

What shape should a competitive, reliable and innovative EU energy market of the future take? Some 40 selected European politicians, economists and scientists tackled that key question in the scope of the "European Energy Lab 2030" of the Economic Council and its cooperation partners. Using innovative methods such as design thinking, three related workshops in Brussels, Berlin and Vienna focused on the development of new ideas and plans to enhance the cross-border electricity market, increase security of supply, and digitalise energy systems. The process was launched at the European Energy Policy Symposium of the Economic Council in Brussels by the Vice-President of the European Commission, **Dr. Maroš Šefčovič**. The findings and specific proposals were presented to **Miguel Arias Cañete**, European Commissioner for Climate Action and Energy, during the closed meeting on energy policy and environmental policy of the Economic Council in Berlin.



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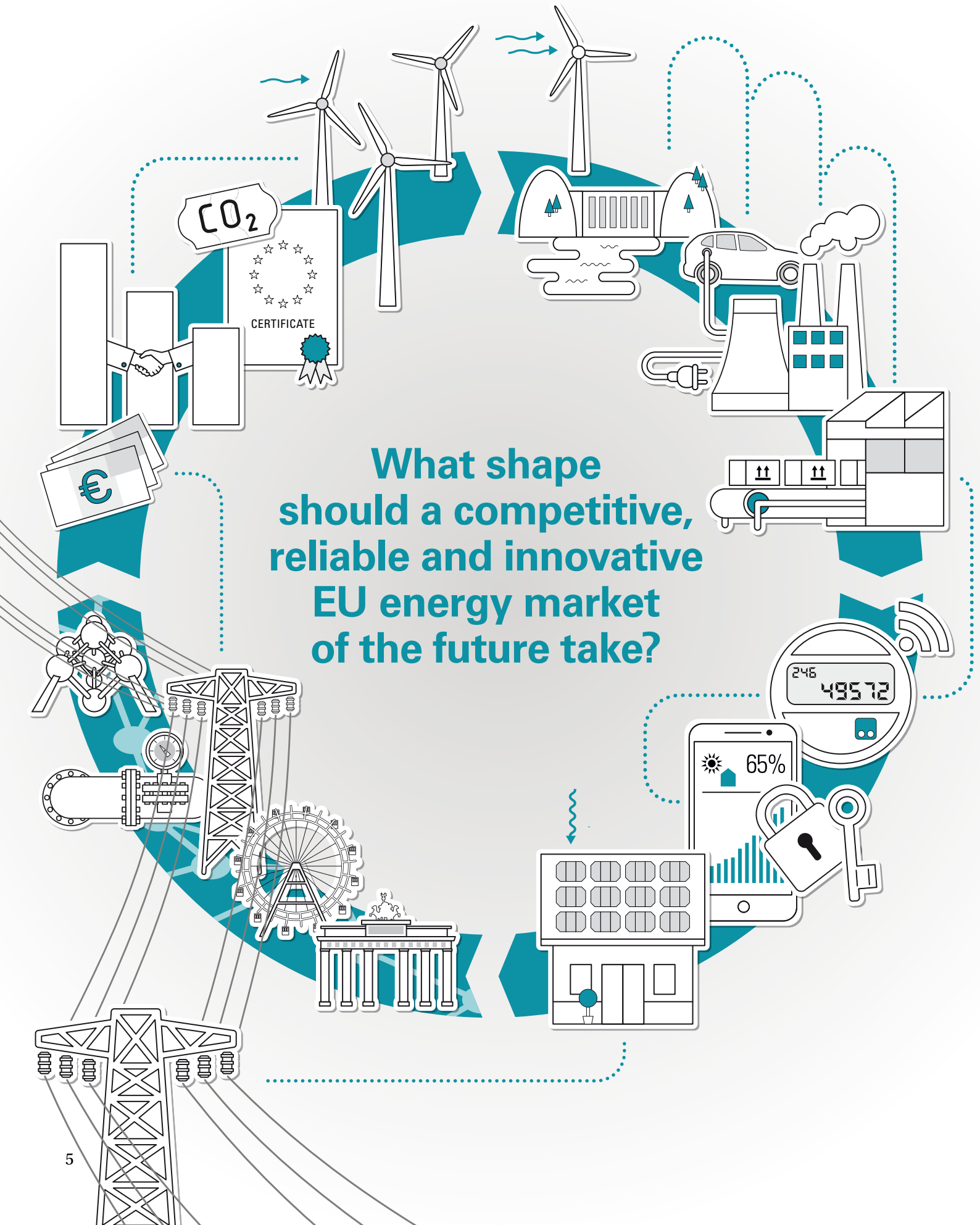

What shape should a competitive, reliable and innovative EU energy market of the future take?

ARGUMENT 1

Cost-efficient climate action requires an effective, market-based CO_2 price signal.

The key European goal must be CO_2 prevention in all sectors. The priority should be to achieve the European climate action goals in a way that is as cost-efficient, technology-neutral and market-based as possible.

CALLS FOR ACTION

- European CO_2 prevention instruments should be extended to further sectors and economic areas. Maximum capability of integration with the instruments of other countries and economic areas must be ensured. While even a uniform CO_2 price level is lacking at the G20 level, the burden on an efficient industrial sector facing international competition should be reduced.
- The European Emissions Trading System (ETS) should be reinforced as a key, technology-neutral instrument so that it sends a CO_2 price signal in line with the climate targets of the EU, and in the interest of achieving a level playing field. Enhancement of the ETS needs to ensure maximum ability to plan ahead for a defined period of sufficient length.
- The quantity of available CO_2 certificates should be adjusted by a clearly defined, linear reduction factor in line with the EU's CO_2 reduction targets for 2030. Alternatively, the number of certificates should be adjusted by means of an equally ambitious, one-off withdrawal of certificates.
- Specific national targets for climate action are counter-productive and should, in general, be dispensed with. In any case, temporary national targets and measures should be limited to the heating and transport sectors, which are not covered by the ETS.

ARGUMENT 2

An increasingly renewable energy system calls for consumers and producers to be more adaptable.

To integrate renewable energy into the market and the system effectively, the flexibility of both producers and consumers needs to be increased. The aim should be to interlink the energy sectors to improve the adaptability of the whole energy system and to increase system and grid stability.

CALLS FOR ACTION

- In parallel with reinforcement of the CO_2 price signal, the market integration of renewable energy needs to be promoted systematically. Auctions should take place in a cost-effective, technology-neutral manner, and at a European level in the interest of completion of the EU internal market. In addition, a clear roadmap is required for the phasing out of national schemes for the promotion of electricity generation. However, grandfathering for old plants must be ensured. At the same time, additional flexible models should be developed to enable the increasing market participation of operators of renewable energy plants.
- In order to increase the security of supply and the adaptability of consumers and producers cost-effectively and to manage demand for flexibility, market price signals need to reach producers and consumers.
- The priority is to increase flexibility in a market-based, technology-neutral way. That requires interlinking between the sectors and a level playing field. Taxes and levies should not distort the balance between the market prices of flexibility options.
- To enable the exchange of data in real time between aggregators, grid service providers and end consumers, standardisation of the necessary data exchange should be advanced systematically.

ARGUMENT 3

Digitalisation requires a bottom-up approach to innovations.

Secure data access and secure data communication between the various market players are essential in order to coordinate the increasingly decentralised energy system and to take advantage of the opportunities of digitalisation. The aim should be to enable new business models and digital innovations, while also ensuring security of supply.

CALLS FOR ACTION

- In view of the expansion of the Internet of Things (IoT), minimum European standards on security, data interfaces and data protection should be defined to enable the emergence of new business models, products and services and to reliably protect the existing infrastructure against misuse.
- To ensure that energy data can be stored and released in a secure and encrypted manner and in close to real time, a platform should be established along the lines of the Green Button Initiative in the U.S. That will create transparency and enable new services and products. Data owners alone should be able to decide who uses their data and in what manner.
- To promote the research and development of digital products and services and to test their implementation, large-scale demonstration and pilot initiatives should be launched in the scope of additional showcase projects.
- Cross-sector European networks involving broad-based information schemes should be established for the purpose of assisting companies with adaptation of their business models by developing expertise in the field of digitalisation.

ARGUMENT 4

The EU internal market needs accelerated grid expansion.

National and European grid expansion needs to be systematically accelerated to ensure competitiveness and security of supply in an increasingly volatile energy system. To reduce the overall costs of the energy transition and to speed up planning and approval procedures, acceptance among citizens should be increased through participation and incentives.

CALLS FOR ACTION

- To enable fair balancing and growing trade in energy, the EU target of providing interconnection capacity between neighbouring countries of at least 15 per cent of generation capacity should be achieved by 2030. A monitoring process should be put in place to review and implement that goal.
- With the aim of enabling free flow of electricity in regions consisting of neighbouring Member States at least, and free trade according to the "copperplate" approach, cross-border, regional grid development plans should be developed by the relevant transmission system operators and additional interconnection capacity should be created by 2050.
- Planning and approval procedures must, as a rule, enable a sufficient degree of civic participation, while also becoming significantly quicker. Local participation models involving shares in grid projects can help to increase the acceptance of grid expansion.
- At the same time, the cost-neutral, regional use of electricity that cannot be fed to the electricity grid for reasons of congestion management or peak capping should be enabled. Economic investments in flexibility solutions should be promoted. Such investments must remain a business risk.

The Economic Council wishes to thank the following for their kind support for the European Energy Lab 2030:

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ARGE NETZ

TenneT
Taking power further

Konrad Adenauer Stiftung

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