

## Alliance for the Strengthening of Digital Infrastructures

### Political Demands for the Strengthening of Digital Infrastructures

#### 1. Strategically strengthen and develop Germany as a data centre location

The German federal government must develop a consistent strategy for the strengthening of Germany as a data centre location, which should focus just as much on aspects of international competitiveness and technological innovation for providers and users as it does on aspects of data security and the digital supply of industry and society.

Given that data centres are operating in a market environment with strong international competition, it is important to further develop Germany as a data centre location in a targeted manner to secure the establishment of new data centres. Three future scenarios for the industry should be taken especially into account in doing this:

- a. The strategic establishment of high-performance and energy-efficient hyperscalers, in order to also play a central role in the infrastructure of the digital world of tomorrow – for example, in the area of artificial intelligence.
- b. The conceptual integration of future-oriented scenarios in which decentralised requirements for micro data centres – as they are employed in edge and/or fog computing – will play a more and more decisive role in the areas of autonomous driving, Industry 4.0, and Smart Home & Smart City.
- c. The strengthening and targeted subsidisation of existing infrastructures and expansion of the core infrastructure, so that Germany can maintain its attractiveness in the international competition for locations.

#### 2. Recognise digital infrastructures as an important factor for the competitiveness of Germany as an industry location

The German federal government must develop a comprehensive understanding of digital infrastructures in Germany. Data centre providers, colocation and cloud infrastructure providers, and Internet and hosting service providers form the foundation of all digital value creation and innovation ecosystems. Their innovation and impact potential, as well as the challenges they are facing, must be given a stronger economic weighting and included in policy concepts.

#### 3. Drive forward broadband expansion

To exploit the full potential of digital infrastructures for the success of the digital transformation of society and the economy, there is no alternative to the rapid rollout of nation-wide broadband networks, and this must be driven forward more strongly by the German federal government.

4. Fund research in the data centre area

The German federal government must promote a strong research landscape around the topic of data centres. Here, it is particularly important to significantly expand existing strengths, e.g. in the areas of security, as well as high performance fog and edge computing. In addition, politics must continue to expand basic research into sustainable improvements in energy efficiency for existing and future digital infrastructures. This also includes research into technological solutions in the field of 2D materials, carbon-based microelectronics, quantum computing, silicon photonics, neuromorphic processors, hydrogen and fuel cell technologies, efficient algorithms and software, and European/international concepts relating to operational reserve power. Politics must also promote the development and use of natural, largely climate-neutral refrigerants for data centres.

5. Reduce bureaucracy; develop leaner and more efficient administration processes

To do justice to the increasing demand for and the rapid growth of the digital economy, application and approval processes, as well as conditions, must be adapted and made more efficient. This is especially the case for administrative processes for new constructions, changes, and modernisations. Here, it is important for the federal, state and local governments to work in close alliance to find solutions for the providers of digital infrastructure services – as has already been achieved for other industries, for example, with the Investment Acceleration Act. Accelerated procedures are also essential in order to build new or modernise existing data centres in the most energy-efficient way possible.

6. Develop a cross-ministry approach and take different business models into consideration

Politics must ensure a coordinated approach across ministries and departments and together with the providers of digital infrastructures, so that politically-agreed goals are accepted and can be achieved. This requires a coordinated approach to strengthen the business location, secure and develop skilled workers, and promote research on energy and environmental policy issues. Sustainable digitalisation must be in harmony with the performance and competitiveness of Germany and Europe as a digital location. In order to maintain the competitiveness of digital infrastructures in the face of ambitious energy and climate policy targets, and to stimulate innovation, their infrastructure characteristics and business models, as well as the needs of business and private users, must be taken into account in the development of future measures.

7. Create the framework conditions for achieving the EU climate targets

For many years now, operators of digital infrastructures have been committed to greater sustainability, which is why data centres in Germany and Europe are, in international comparison, already among the most energy-efficient in the world. Instead of concentrating on purely national certification approaches in the field of energy efficiency, policy-makers at European level must develop common standards and certification models, and do so in close cooperation with the

industry. The GAIA-X project is a good platform for such cooperation between providers, users, and political decision-makers, and should be used to develop and establish European standards and criteria regarding the sustainability of data centres.

8. [Make electricity costs more competitive](#)

Electricity costs are an essential competitive factor for data centres and for the operators of digital infrastructures. Electricity costs in Germany are among the highest in Europe. This is mainly due to the considerable levies, charges and the electricity tax in Germany, which do not exist in this manner and to this extent in other EU countries. The levy, charge and tax burden on electricity for data centres must be reduced to a moderate level in order to mitigate this competitive disadvantage and retain competitiveness in Europe.

9. [Accelerate the energy transition and the expansion of renewable energies](#)

An accelerated energy transition and the expansion and availability of renewable energies will contribute to an even greater reduction in CO<sub>2</sub> emissions from digital infrastructures in Germany. The political objective must therefore be to prioritise and accelerate the energy transition in Germany so that the ambitious CO<sub>2</sub> targets of the European Green Deal can be realised in practice and achieved by the operators of digital infrastructures.

10. [Make sustainable use of waste heat from data centres](#)

Waste heat from data centres represents a valuable energy resource. However, there are currently too few possibilities to channel the waste heat into a systematic and efficient secondary use, e.g. feeding into local or district heating networks or vertical farming. In order to harness this potential sustainably, politics must promote and support waste heat recovery in a targeted manner. This could be achieved by, among other things, purchase obligations for heating network operators. In addition, the technical systems for waste heat recovery must be improved and the possibilities for its use in both urban and rural areas must be further developed.