

## Concept and aims of the platform

**Self-learning systems** are increasingly becoming a driving force behind digitalisation in business and society. They are based on Artificial Intelligence technologies and methods that are currently developing at a rapid pace in terms of performance. Self-learning systems are machines, robots and software systems that learn from data and use it to autonomously complete tasks that have been described in an abstract fashion – all without specific programming for each step.

Self-learning systems are becoming increasingly commonplace supporting people in their work and everyday lives. For example, they can be used to develop autonomous traffic systems, improve medical diagnostics and assist emergency services in disaster zones. They can help improve quality of life in many different respects, but are also fundamentally changing how humans and machines interact.

Self-learning systems have immense economic potential. As digitalisation takes hold, they are already helping companies in certain sectors to create entirely new business models based on data usage and are radically changing conventional value creation chains. This is opening up opportunities for new businesses, but can also represent a threat to established market leaders should they fail to react quickly enough.

Developing and introducing self-learning systems calls for special core skills, which need to be carefully nurtured to secure Germany's pioneering role in this field. Using self-learning systems also raises numerous social, legal, ethical and security questions – with regard to data protection and liability, but also responsibility and transparency. To tackle these issues, we need to engage in broad-based dialogues as early as possible.

**Plattform Lernende Systeme** brings together leading experts in self-learning systems and Artificial Intelligence from science, industry, politics and civic organisations. In specialised focus groups, they discuss the opportunities, challenges and parameters for developing self-learning systems and using them responsibly. They derive scenarios, recommendations, design options and road maps from the results.

### The platform aims to:

- shape self-learning systems to ensure positive, fair and responsible social coexistence,
- strengthen skills for developing and using self-learning systems,
- act as an independent intermediary to combine different perspectives,
- promote dialogue within society on Artificial Intelligence,
- develop objectives and scenarios for the application of self-learning systems,
- encourage collaboration in research and development,
- position Germany as the leading supplier of technology for self-learning systems.