

# Bosch Research

## Economy of Things – contributions to the community

### Principles of the Economy of Things support GAIA-X project

In June 2020, GAIA-X, the initiative for establishing a high-performance, competitive, secure, and trustworthy cloud and data infrastructure for Europe, entered its extended project phase. An organization with legal capacity, based in Brussels, has already been established, and Bosch is one of the founding members. “We supported GAIA-X from the very beginning because we are convinced that data sovereignty and open data exchange are success factors for technologies such as artificial intelligence, machine learning and the Internet of Things,” said member of the board of management and CDO/CTO at Bosch, Dr. Michael Bolle, in a [video statement at the beginning of June](#), when German Federal Economics Minister Peter Altmaier and his French counterpart Bruno Le Maire gave a joint presentation of the findings to date and next steps for the GAIA-X project. “Trust in internet platforms is very important for consumers particularly. GAIA-X will play a major role in this by creating a secure and trustworthy ecosystem for innovations,” says Bolle. GAIA-X is about developing a European alternative to solutions from IT corporations in the United States and China.

### Bosch as a strong platform user and co-developer of technologies

Bosch has two roles to play in GAIA-X as it stands today. Firstly, it uses the digital infrastructure to develop innovations in the fields of industry, buildings and mobility. Secondly, Bosch contributes precisely the kind of technological expertise GAIA-X needs to establish trust in a sovereign data economy. This includes distributed ledger technologies (DLT), multi-party computation (MPC) and decentralized identity management (e.g. self-sovereign identity (SSI)), for example. While DLT ensures a transparent, verifiable and consensus-based transaction history, MPC is a cryptographic process that provides the associated calculation environment, safeguarding privacy and thus ensuring security and trust. SSI, for example, gives owners control over their data, whether personal or industrial.

### A vision of fair, digital marketplaces

“Our vision is to create digital marketplaces that are built on the foundations of fairness and neutral competitive conditions. This is precisely what we are working on in the ‘Economy of Things’ strategic advance engineering project at Bosch Research,” explains project director Nik Scharmann. “The principles we have worked out for platforms fit perfectly with GAIA-X, so we are very involved in the project,” Scharmann continues.

The research team feels that a combination of the following features will be a precondition for acceptance and rapid scaling.

- ▶ **Organization:** Trustworthy and collaborative organization with transparent governance, including by industrial companies as marketplace users
- ▶ **Technology:** Use of decentralized and distributed technologies to prevent an information imbalance

### Clear principles as the basis of success

An Economy of Things in the form that Bosch Research feels could work well with GAIA-X would be based on the following principles:

- ▶ **Openness:** The collaboration is always open to all participants who adhere to the principles that apply to everyone
- ▶ **Neutrality:** No single participant in the marketplace ecosystem is to dominate the collaboration
- ▶ **Transparency:** Transparent business model, organization structures, regulations and decision-making processes
- ▶ **Sovereignty:** Keeping sovereignty over the data with the owner and equal access rights to data for all market players
- ▶ **Integrity:** Unique identification of everyone involved and authenticity of information shared
- ▶ **Coopetition:** Cross-company collaboration on developing and operating the technical system; competition on developing new products and services based on the system

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