



Cross-industry innovation: IoT & Industry 4.0



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Diverse business opportunities

- › Over 25% of value added of Bavaria's GDP is accounted for by manufacturing. That's why IoT & Industry 4.0 are [key drivers](#) of future growth.
- › From improving production processes to creating new business models, business leaders in Bavaria know that tearing down silos and working with new partners is the only way to make the new industrial revolution a reality.
- › This creates enormous cross-industry innovation business potential for industrial service providers and start-ups from all over the world.

Access to talent

Various universities and institutions are dedicated to developing new skills required for IoT & Industry 4.0, including quantum computing, additive manufacturing and robotics. The Bavarian government finances the expansion of faculties and infrastructure with a wide range of programmes, from high-end R&D to hands-on training. For example:

- › Most of Bavaria's leading universities – such as Julius-Maximilians University in Würzburg, the Technical University of Munich and the Ludwig-Maximilians University in Munich – are surrounded by rapidly growing ecosystems that not only help grow talent but also foster world-class R&D in areas relevant to IoT & Industry 4.0. In Munich, for example, the brand-new [Quantum Valley](#) is a collaboration of the Technical University of Munich, the Bavarian Academy of Sciences and Humanities, the Fraunhofer Gesellschaft, Ludwig-Maximilians University and the Max Planck Society. The Leibniz Supercomputing Centre is also housed next door.
- › The [Technical University in Weiden](#) offers a programme in Industry 4.0 Informatics. Bavarian corporations such as [BMW](#) offer a dual study programme that combines on-the-job training with a degree at the Technical University in Weiden.
- › Another example of cooperation is the [Technical University in Ingolstadt](#), which offers several study programmes focusing on IoT & Industry 4.0 combined with cutting-edge research on topics such as digital factories.

Effective networks

- › Since 2006, [Bavaria's Cluster Initiative](#) has built themed networks that bring companies, researchers, government and independent experts together. Clusters include a multitude of technologies such as sensor technology, mechatronics, automation and new materials – all of them essential in driving collaborative Industry 4.0 projects.
- › Several regional networks focus on specific technologies to strengthen global competitiveness and cross-industry innovation among corporations and institutions within their respective regions. For example:
 - › Northern Bavarian [Automation Valley](#) – focuses on automation technology in Northern Bavaria.
 - › [Mechatronik Competence Network](#) – focuses on creating networks in Eastern Bavaria in close cooperation with nearby universities.
- › New themed networks focus on specific cross-industry innovation technologies in IoT & Industry 4.0, for example:
 - › [Additive Manufacturing Coordination Centre](#) brings together players in this field, reinforcing Bavaria's know-how and technology base.
 - › The [Digital Production & Engineering platform](#) within the Bavarian Digitisation Centre (Zentrum Digitalisierung Bayern) supports networking and best practice sharing within the field.

Global perspectives

- › Bavaria is known as a favourite venue for global players in IoT & Industry 4.0 to meet and connect.
- › [Automatica](#), the world's leading trade fair for smart automation and robotics, has been a popular venue where global technology leaders gather in Munich for over 15 years.
- › Many international corporations such as Microsoft, IBM and Google have established major R&D hubs here taking advantage of the Bavarian ecosystem as a testbed for IoT & Industry 4.0 innovations.
- › While many Bavarian companies enjoy the benefits of being headquartered here – their business is still global. The export quota of goods manufactured in Bavaria is well over 50%.