



### **Bosch readies workers for Industry 4.0**

Comprehensive training program for Bosch associates and interested employees from other companies

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- ▶ Germany's first professional development curriculum in Industry 4.0 for skilled workers.
- ▶ Bosch apprentices act as Industry 4.0 ambassadors in schools.
- ▶ Bosch plants offer associates training and reskilling for Industry 4.0.
- ▶ Third Industry 4.0 learning journey for companies starts in September 2021.

Stuttgart, Germany – Bosch is one of the pioneers of Industry 4.0, and it is driving forward the occupational training and professional development of its associates. Such training is needed: Industry 4.0 links industrial production with modern information and communication technology, changing both working methods and working conditions. This new world calls for new qualifications and skills, including expertise in areas such as automation, sensor technology, and connected manufacturing. To best prepare and train workers for the digital transformation in manufacturing, Bosch has launched numerous initiatives and programs.

#### **Digital transformation manager: shaping Industry 4.0 at the company**

At the start of the 2021/2022 training year, the Würzburg Chamber of Industry and Commerce (IHK) and Bosch Rexroth will be offering a new Industry 4.0 course: participants will learn how to promote digitalization and implement it in logistics, production, and maintenance. They will be able to recognize the Industry 4.0 potential in their own company and develop solutions. The course is divided into four modules centered on smart factories, connected business models, and modern work organization. It is aimed at project managers, product managers, and administrators.

#### **Master craftsman in connected industry: course for technical specialists**

Designed by the IHK together with partners from industry including Bosch Rexroth, the course is aimed at specialists with many years of experience, technical specialists, and future managers. Participants learn how to plan and

implement connected and digital production processes. In addition to technical expertise, the course teaches the social skills needed for instructing and leading workers. Various chambers of industry and commerce have been offering this course since 2020. It offers a total of around 1,200 hours of instruction.

### **Industry 4.0 specialist: vocational training program especially for skilled workers**

Bosch has joined forces with the Stuttgart Region Chamber of Industry and Commerce and other science and industry partners to develop and pilot a certification course known as [Fachkraft für Industrie 4.0 \(IHK\)](#), or Industry 4.0 specialist. The first nationwide IHK training course to cater to skilled workers, it brings technicians up to speed with the requirements of connected manufacturing. The course consists of five modules totaling 104 hours. Theory and practice are given equal weight. Since 2019, various chambers of industry and commerce have been offering this course throughout Germany.

### **Bosch apprentices as Industry 4.0 ambassadors**

As part of the Knowledge Factory – Companies for Germany initiative, more than 500 Bosch apprentices are involved in over 300 educational partnerships. Together with their trainers, the apprentices work on projects to develop syllabuses that will give students an understanding of the world of digitalization and connectivity. The Homburg site, for example, deploys young apprentices as [Industry 4.0 ambassadors](#) at eight partner schools, where they work with their trainers to impart basic digital knowledge. This gives students a practical insight into the world of connected manufacturing and its various job profiles.

### **Bosch plants are training associates for Industry 4.0**

Bosch's manufacturing sites are educating and training associates to prepare them for the challenges of connected manufacturing. The Industry 4.0 lead plant in [Blaichach](#) in southern Germany offers various career development options. Training videos and full-day seminars address the use of new systems and teach teamwork and leadership methods. The plant also offers new job profiles, such as a career as a data scientist. They take care of processing and analyzing data, and develop algorithms for machine learning.

### **Bosch Rexroth Academy offers practical knowledge**

As a leading specialist in drive and control technologies, Bosch Rexroth applies Industry 4.0 in its own plants – and the [Bosch Rexroth Drive & Control Academy](#) passes this knowledge on to technicians, engineers, teachers, and trainers. To this end, the Academy offers a wide range of basic and product training courses. Participants learn important skills: How can manufacturing gradually be brought into the Industry 4.0 era? What are the benefits of different kinds of data, and

how can they be recorded, collected, and evaluated? How can Industry 4.0 optimize processes and increase productivity? With seminars and training courses, the Academy provides its students with future-oriented apprenticeships and professional development programs, and also reskills technical specialists. In September 2021, the Academy will open another location in Bosch Rexroth's new customer and innovation center in Ulm.

### **Best practice for companies: two-year Industry 4.0 learning journey**

The third Industry 4.0 learning journey under the auspices of Bosch and Fraunhofer IPA will be launched in September 2021. In 12 two-day events, Industry 4.0 experts will provide participants from interested companies with detailed insights into current projects. The learning journey is focused on technical solutions and their implementation, professional development for workers, and concrete benefits for customers. This is accompanied by workshops in which participants design possible applications in their own companies. It is possible to take part in events either live on-site in the factories or digitally via the streaming program, which also includes all presentations.

### **Bosch Innovation Center for Industry 4.0 in China**

As a global company, Bosch is actively engaged in education and training worldwide. Bosch Rexroth opened its first Innovation Center for Industry 4.0 in China in 2017. It is located in Chengdu, the capital of Sichuan province in the southwest of the country. On 3,500 square meters of floor space, up to 200 interested parties can improve their knowledge. The [Bosch Rexroth Innovation Center](#) offers courses in manufacturing and logistics as well as Industry 4.0. Participants can choose from 20 different courses, including production and quality management, materials flow planning, and supplier value streams. The Innovation Center has a strong practical orientation and offers apprentices the opportunity to work at connected production lines.

### **Training of Industry 4.0 specialists in Singapore**

Bosch maintains a partnership with the Institute of Technical Education in Singapore, which is based on a transnational exchange program for students in the fields of mechanical engineering and mechatronics. In addition, Bosch Rexroth has joined forces with the government of Singapore and other partners to open the Bosch Rexroth Regional Training Center in Singapore's Jurong Innovation District. The site covers 350 square meters and offers a standardized Industry 4.0 program, which includes the course leading to qualification as an Industry 4.0 specialist.

## **Bosch Industry 4.0 experts provide advice and support**

Bosch provides companies with support in bringing digitalization and connectivity to their manufacturing and logistics activities: from strategic alignment to planning and implementing the right solutions. [Bosch Industry Consulting](#) experts are on hand to provide advice and can draw on comprehensive know-how in lean management. Customers can therefore benefit from the experience gathered in some 240 Bosch plants and over 700 logistics centers worldwide.

**Press photos:** #1846404, #1713214, #1452086, #1452086; #9f6049ab, #9ef459e9

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*The Bosch Group is a leading global supplier of technology and services. It employs roughly 395,000 associates worldwide (as of December 31, 2020). The company generated sales of 71.5 billion euros in 2020. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 129 locations across the globe, Bosch employs some 73,000 associates in research and development, of which nearly 34,000 are software engineers.*

*The company was set up in Stuttgart in 1886 by Robert Bosch (1861–1942) as "Workshop for Precision Mechanics and Electrical Engineering." The special ownership structure of Robert Bosch GmbH guarantees the entrepreneurial freedom of the Bosch Group, making it possible for the company to plan over the long term and to undertake significant upfront investments in the safeguarding of its future. Ninety-four percent of the share capital of Robert Bosch GmbH is held by Robert Bosch Stiftung GmbH, a charitable foundation. The remaining shares are held by Robert Bosch GmbH and by a corporation owned by the Bosch family. The majority of voting rights are held by Robert Bosch Industrietreuhand KG, an industrial trust. The entrepreneurial ownership functions are carried out by the trust.*

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