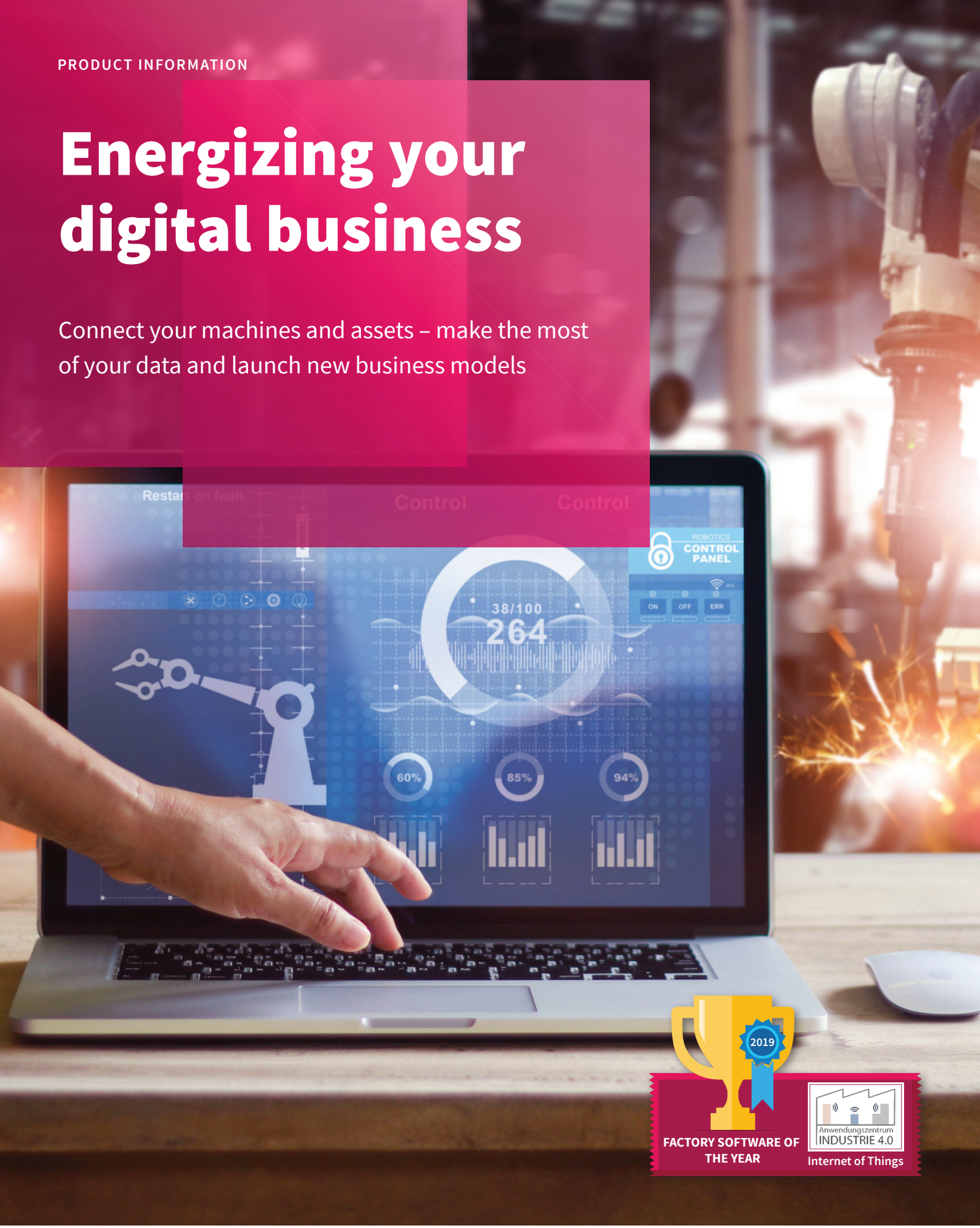
PRODUCT INFORMATION

Energizing your digital business

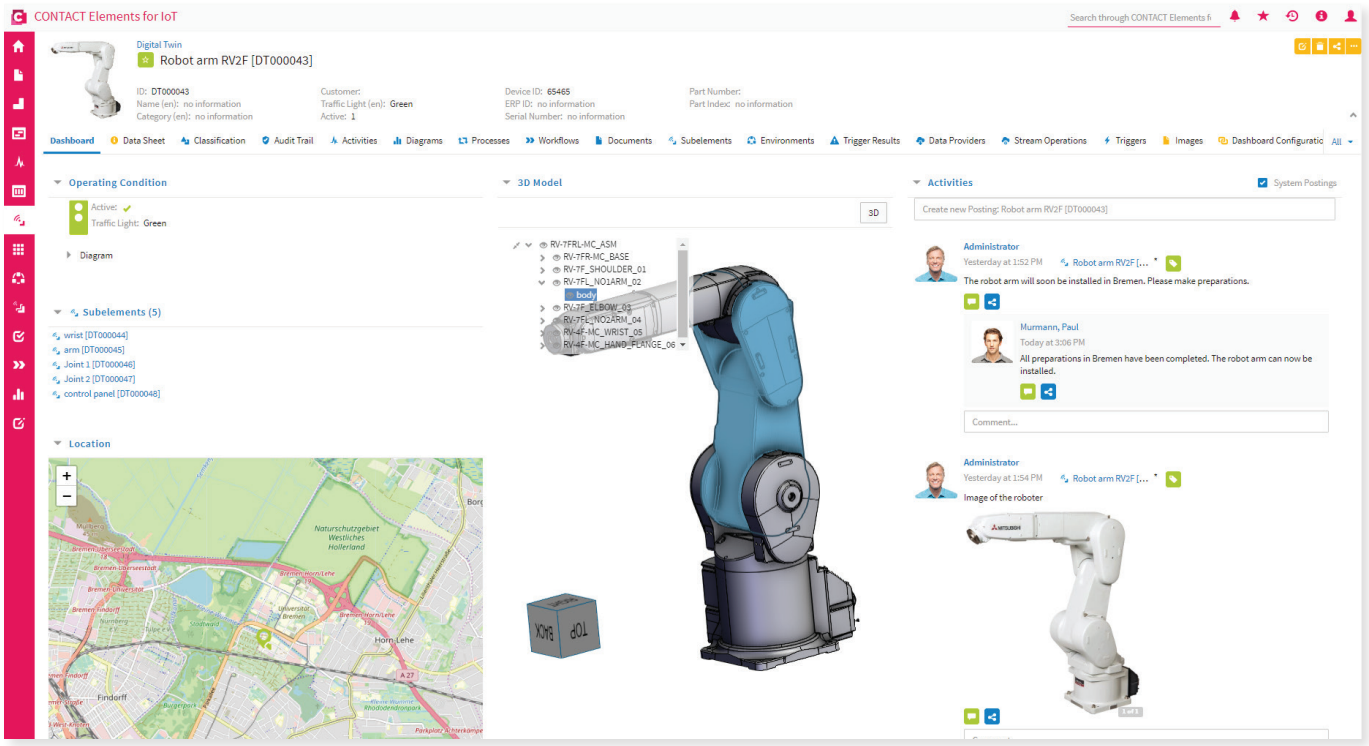
Connect your machines and assets – make the most of your data and launch new business models



energizing great minds

CONTACT Elements for IoT

When it comes to smart products and services, the use of digital twins is a key prerequisite for business success. The IoT platform CONTACT Elements for IoT was designed from the very start to use the digital twin as the database for value-added processes.



Use the Digital Twin Dashboard to manage assets in the field and create the basis for added value

Uncovering a treasure trove with the digital twin

Complex industrial products are a treasure trove of information including sensor data, component structures, service BOMs, product documentation and audit trails. The model structure of the digital twin makes it easier to access and evaluate this data. Gartner predicts that by 2021, 50% of industrial companies will be using digital twins.

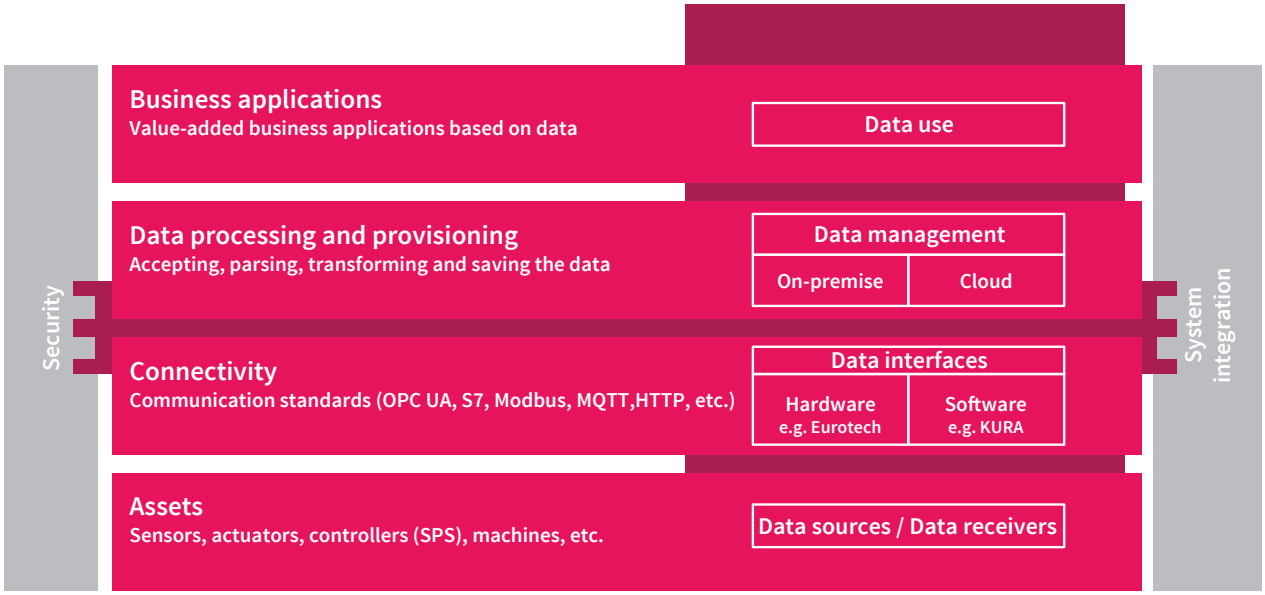
Numerous other studies also assume that the importance of smart products will increase significantly in the future and see the digital twin as a central tool for product-related data and information integration – for example, the study “Smart Industrial Products” conducted by the Fraunhofer IPK’s PDM|PLM Competence Center, CONTACT Software and the Association of German Engineers (VDI) (2019). The virtual representations of objects in the field can also be grouped to create environments and fleets to manage entire systems such as wind farms or perform collective operations such as over-the-air updates.

Easy automation of condition monitoring and predictive maintenance

Manufacturing systems, product portfolios and fleets incorporate hundreds or thousands of data sources. This makes it all the more important that setting up and using triggers and workflow processes in the digital twin be made as easy as possible. With CONTACT Elements for IoT as a low-code platform, specialist departments are capable of acting independently. They define rules that determine the response to certain events, e.g. automated service workflows if sensor values are too high, without the need for any programming.

Improving customer relationships by offering new digital services

Companies that exploit product-oriented customer relationships by using digital services to create more value-added touchpoints will remain at the top in the face of the competition. Examples



The layer model illustrates the logic behind the world of IoT: making the data from the assets available for business applications

here include usage-driven invoicing models, over-the-air updates, better spare parts provisioning thanks to predictive maintenance, community forums or digital documentation and e-learning for their products. CONTACT Elements for IoT enables you to create these types of services for your customers.

Connecting IT systems with open interfaces

The challenge facing every IoT solution is the smooth flow of data. In practice, stand-alone systems prevent effective interaction between operational technology (OT) and strategic IT business applications such as PLM and ERP. CONTACT Elements for IoT provides an open infrastructure for connecting OT and IT that synchronizes the data of the digital twin between the systems. Whether this takes place in public clouds like AWS and MS Azure, in a private cloud or in your own data center is irrelevant.

Edge connectivity with industry standards from OPC UA to PPMP

Existing machine pools and production systems are made up of many different devices. Elements for IoT therefore uses standard protocols such as OPC UA, MQTT or PPMP to integrate products from different manufacturers and transfer the data from these products to the IoT architecture using shared edge controllers.

CONTACT Software works closely with leading technology and industrial companies and is a member of the Eclipse IoT Working Group. CONTACT makes the Python implementation of the PPMP available as open source in the Eclipse Unide project.

What is CONTACT Elements for IoT?

Industrial assets such as production systems and smart products provide valuable data that often remains unused. CONTACT Elements for IoT enables companies to quickly make solutions that intelligently evaluate the data available, with focus placed on the digital twin as a comprehensive representation of industrial assets. The advantage is that value-added processes such as predictive maintenance can be carried out digitally, making them much more flexible and cost efficient.

CONTACT Elements for IoT is a complete platform – from product connectivity to the finished business application – for your customers in the web. Elements is ideal for companies that want to configure their solution according to the low-code/no-code principle and create it in an agile manner. Elements meets comprehensive requirements relating to security, cloud operation, multi-tenancy operation and integration in the corporate IT landscape.

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