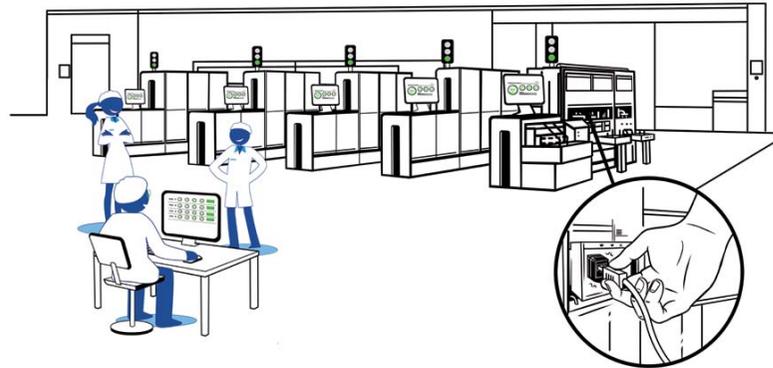




➤ PLUG & PRODUCE: YOUR ENTRY POINT TO PHARMA 4.0

Werum IT Solutions, Dividella, Mediseal and Seidenader are working on a solution for structured data exchange between the production management software (Level 3) and the equipment in a pharmaceutical plant (Level 2). "Plug & Produce" is the Medipak Systems vision for a new industry standard which we would like to present to you today!



Vertical integration is a fundamental condition for the implementation of numerous Industrie 4.0 solutions. It means, among other things, the creation of a standardized interface between the machines on the shop floor and the customer's production management system. Vertical integration is therefore an important aspect of the Industrie 4.0 initiative by Medipak Systems, which involves creating fully networked industrial production using the latest information and communications technology.

Werum IT Solutions is currently working with teams from Dividella, Mediseal and Seidenader, as well as the partner ABB, on a new integration concept. The IT company is also collaborating closely with organizations such as the ISPE, in which customers and other providers are represented. The goal is to jointly develop a new industry standard in the regulated environment.

Similarly to the connection of an electronic device via a USB interface, it should be possible in future to link a line, system or machine such as a packaging machine to the network, simply and straightforwardly. Werum's "PAS-X" MES software, as the manufacturing execution system, then detects the precise type of machine, calls up all relevant information from the equipment and uses it, for example, for master batch records (MBR) and electronic batch recording (EBR). On the basis of new technologies which are emerging for instance with OPC-UA, communication between systems in production and software functions at the production management level is being redefined from tag-based to message-based communication. The new message-based interface facilitates the secure exchange of structured information with the systems, regardless of whether this is the OEE data on a packaging machine, the Track & Trace data for a line management system or EBR data from a granulator or DCS system.

For our customers in the pharma and biotech industry the concept offers significant benefits: costs and complexity are reduced. The engineering and qualification costs for integrating a new machine into the production network are substantially lower. It is also important in the regulated industry, for example in the case of change over to a different medicine, for all process steps to be documented inaccurately. This previously took an enormous amount of time. With a standardized interface between the machines and the production management system, such changes can be made more quickly and more efficiently.



➤ Further information on our website:
www.plugproduce.com

OPEN PLATFORM COMMUNICATION UNIFIED ARCHITECTURE (OPC UA)

OPC-UA is an industrial machine-to-machine communication protocol. As the latest of all OPC specifications from the OPC Foundation, OPC-UA differs considerably from its predecessors, particularly in its ability not only to transport machine data (control variables, measured values, parameters, etc.) securely, but also to describe it semantically in a machine-readable manner.

TAG-BASED COMMUNICATION

Information is written as individual values on tags (data points in the controls) and read by tags. The validity of the data depends on the states of the systems. Guaranteeing secure transmission between IT systems and equipment (vertical integration) involves high costs and may have effects on system performance.

MESSAGE-BASED COMMUNICATION

Messages are structured information, assembled at the time of validity and exchanged as a message between transmitter and receiver.