The Conceptuality and Potential of Procurement 4.0

What is Procurement 4.0?

The concept of Procurement 4.0 can be described as the integration of technologies, mainly associated with "Industry 4.0", into the procurement function and the implementation of a fully autonomous procurement organisation, which is operated by intelligent systems, handling all the relevant processes tied to the procurement function.

What does Industry 4.0 actually mean?

Industry 4.0, or the "Fourth Industrial Revolution", can be defined as the convergence of information and communication technology and automation of machinery and infrastructure. It characterises itself through advanced digitization within organisations, based on the integration of information and communication technologies and operational technologies in the field of intelligent machines and products.

What can digitization really do?

The three main capabilities of digitization revolve around communication in real-time, multi-level networking and intelligent-autonomous systems.

What are the objectives behind implementing Procurement 4.0?

The overall goal relates to an increase in efficiency and productivity of the procurement function, being fully automated and operated by intelligent machines, which are also able to learn and improve.

How can you achieve Procurement 4.0?

Much has to do with the maturity of certain technologies related to Industry 4.0, such as AI, IoT and Big Data. They need to become capable enough in order to actually bring much added value to an organization.

Also, there are 8 important elements, that need to be focused on in order to properly implement Procurement 4.0:

1. Strategy   **2.** Organisation   **3.** Products   **4.** Operations

5. Network   **6.** Personal   **7.** Governance   **8.** Technology

What are the most important technologies for Procurement 4.0?

Artificial Intelligence is arguably the most prominent innovation regarding Industry 4.0.

AI will build the foundation for intelligent-autonomous systems and become one of the main drivers for Industry 4.0 and Procurement 4.0

Internet of Things will play an integral role in the infrastructure for the transfer of data. It will enable transfer of large amounts of data over multiple levels, over different organisations across the entire value chain.

Big Data solutions will be necessary for analysing large amounts of information.

These technologies need to be implemented together, as they heavily rely on each other to add the most value.

What are the biggest barriers for Procurement 4.0

A big hurdle is the current stage of technological maturity. Many of these technologies just are not quite where they need to be and they are very expensive.

Many organisations lack proper infrastructures and expertise in handling large amounts of data. Building these infrastructures will be costly and will require a lot of expertise.

As automation will continue to rise, many job functions will become obsolete. It is therefore important to devise training in regard to new job functions, as AI supported, automated processes will eventually take over most human tasks.

Also, the proper managerial frameworks and business models have to be devised in order to effectively deal with the impact of Industry 4.0.

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