

Table S1. Digital maturity assessment levels

	Level 1 - Basic	Level 2 – Discovery	Level 3 – Developed	Level 4 – Integrated	Level 5- Leadership
Strategy	The enterprise has developed assumptions for the implementation of digital transformation or has an initial implementation plan with specific milestones.	The company has an implemented digitization strategy and assesses its effectiveness based on analyses. The managerial staff and the board report their readiness to implement digital changes.	The company has a dedicated budget for digital transformation. Employees at all levels of the organization are involved in the digital transformation processes.	The digitization strategy is considered the most crucial driver of business development. The company carries out systematic risk analyses related to digital transformation.	The enterprise implements the best practices of digitization strategies and optimizes them based on the organization's intelligence.
Corporation culture	Employees are collaborative and trust each other to share information. Change management is based on employees' openness and the management staff's support in implementing new ideas and innovations.	The company has implemented a continuous improvement strategy and a change management system. Employees are informed about the risks and changes related to digitization.	Innovative solutions are promoted in the company, and their creators are awarded. Employees receive support in managing risks related to digitization.	The company has implemented a culture open to digitization and technological innovations, and failure is treated as an educational experience and a source of organizational knowledge. Employees accept the principles of active human-machine cooperation.	The company implements the best practices in building a culture of active human-machine cooperation based on transparent management of risk caused by digitization.
Data – Data Management	The enterprise collects data at least manually and	The company implemented a data management strategy	Automation in collecting and distributing data	The company has implemented a data management platform	The enterprise implements solutions enabling automated and

	prepares analyses periodically. It also has developed basic standards for data collection and data distribution.	supported by IT tools, including data life cycle management and data quality.	(e.g., automatically generated reports sent to appropriate managers) has been implemented in the company.	to integrate data from all sources, including business partners. Access to data is real-time and is supported by automatic solutions.	optimized delivery of information in real-time by all systems and implements best practices in data management.
Data – Cyber security	The company's employees are aware of cyber threats, and basic security measures are implemented.	The company has cybersecurity procedures and data access rules, and employees participate in cybersecurity training.	The enterprise has an established internal cyber security policy and prepares a periodic risk assessment.	The company has implemented an integrated cybersecurity strategy that includes employees and business partners. The company uses advanced mechanisms, technologies, and cybersecurity processes that ensure a high level of security.	Best practices in cyber security have been implemented in the enterprise so that this security and related risks can be proactively managed based on supply chain intelligence and to ensure the highest security standards for the organization and its partners.
Processes – Performance management	In the assessed operational division, the company measures processes in a non-standardized manner or based on defined procedures and indicators.	In the assessed operational division, the company bases process improvement on the results of systematic analyses of process efficiency, which are supported by digital technologies	The company uses automated performance measurement based on digital technologies in the assessed operational division, and analytics solutions enable proactive management.	In the assessed operational division, the company uses an optimized measurement of process performance, taking into account integrated data provided in real-time from various sources	The assessed operational division implements the best practices, allowing for fully digitized and automated management of the efficiency of processes in the organization and enabling proactive optimization in real-time.

				(including business partners)	
Processes – Processes management	The assessed operational division documents processes and runs projects supporting their implementation digitally, and core processes are digitized.	The operational division has defined and standardized processes, and all processes are digitized.	Systematic, analytics-based process management has been introduced in the assessed operations division, which is focused on integration, digitization, and automation.	All internal processes and processes implemented at the interface with business partners are digitized, automated, and optimized.	The assessed operational division implements the best process management practices, including inter-department and interdisciplinary collaboration and integration of external stakeholders.
Business partners	The company has digital touchpoints that support the exchange of information necessary for planning activities within the assessed operational division.	The managers of the assessed division take into account the data provided by key business partners in planning the activities of a given operational division and provide them themselves.	Key business partners are informationally integrated with some of the processes carried out as part of the assessed operational division and are provided with real-time data, and the client is a priority in the implemented processes.	The cooperation of the assessed division with business partners is individualized and managed based on analyses and information integration, as well as data available in real-time.	The assessed operational division implements best practices focused on customers and enables a highly individualized exchange of information in real-time.
Employee – Supporting employees' activities	In the operational division, IT solutions are being implemented that	In the assessed operational division, augmented reality technologies and tools	In the assessed operational division, employees are supported by	Autonomous solutions support the execution of operations, provide employees with goal-	The assessed operational division implements best practices, as a result of which autonomous

	support the work of employees, including a digital assistant or other mobile tools	are systematically used to support employees.	autonomous solutions (mobile robots, AUV)	oriented information, and support the development of organizational intelligence.	facilities and organizational intelligence support employees.
Employee – Employee behavior	In the operational division, they like to share their knowledge with colleagues and are open to change and innovation.	In the operational division, employees are motivated to create and promote innovative ideas supported by digital technologies and willingly participate in training to improve their digital competencies.	In the assessed operational division, employees are motivated to interdisciplinary cooperation within the organization and with business partners to create innovative solutions. They perceive digital technologies as a value supporting the implementation of processes.	In the assessed operational division, employees value the autonomy of action, are not afraid to make decisions, and flexibly adapt to working conditions.	In the assessed division, employees consider it natural to constantly implement changes and new technologies supporting their work and the need to develop interdisciplinary solutions supported by the organization's intelligence.
Employee – Development of employees' competencies	In the operational division under assessment, employees can think critically and have access to training to improve their digital skills (e.g., support for new ICT solutions, data	In the operational division, employees develop their competencies in the field of data analysis and the use of IT tools in analytical processes. A plan for acquiring and developing digital	In the assessed operational division, the company has implemented a systematic knowledge management and employee development strategy, and	In the operations division being assessed, the required skills related to digital transformation and an interdisciplinary mindset are ubiquitous (covering all levels of management)	The assessed operational division implements the best practices of knowledge management and employee development, ensuring access to state-of-the-art digital skills.

	security, system thinking skills)	skills for employees and managers has also been implemented.	managers use analytical tools to implement it.		
Technology	The company uses information and communication technology for vertical and horizontal integration along the internal value chain and mobile devices for exchanging information between employees.	The assessed operational division uses sensors to collect data and monitor operations, as well as cloud computing to store and share information.	The assessed operational division uses the Internet of Things to connect and exchange data between devices and systems.	The assessed operational division uses autonomous devices that can decide and work independently, and artificial intelligence is used to optimize processes.	A machine-to-machine communication system has been implemented in the assessed operational division, which enables devices to communicate without human intervention when performing autonomous operations.