

NEW SERVICES FOR THE DIGITAL INNOVATION HUBS - TEMPLATE

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NEW services for the Digital Innovation Hubs

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CCIS





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1. Services to support SMEs' investments in processes and products innovation

1.1. Service no 1: Founder of Digital Innovation Hub Slovenia (DIH Slovenia)

1.1.1. Summary of the service

DIH Slovenia is a one-stop-shop in Slovenia and beyond for promoting industrial digital transformation. It creates awareness and provide services to grow digital competencies, share digital experience and case studies locally, regionally and internationally, influence the government to adapt regulation and open its data to foster entrepreneurship.

1.1.2. Description of the service

As part of the pilot project, CCIS founded Digital Innovation Hub Slovenia (DIH Slovenia) which is an industrial digital transformation one-stop shop for Slovenian and foreign markets. It creates awareness and provide services to grow digital competencies, share digital experience and case studies locally, regionally and internationally, influences the governments to adapt regulation and open its data to foster entrepreneurship. Through building the network and establishing a sustainable ecosystem at national level, DIH Slovenia aims at connecting and supporting different industrial sectors, providing for a broad spectrum of needs and striving to support all industries that can seize and benefit from the opportunities of digital transformation. DIH Slovenia focuses on supporting the industries that are highlighted as priority ones by Slovene Smart Specialization Strategy (S4), such as: smart cities and communities, smart buildings and smart factories. However, it does not exclude other industries from S4, ranging from high-tech to more traditional ones.

Key initial partners of DIH Slovenia are coming from the S4 specialization platform Smart Factories Cluster, ICT horizontal network (SRIP PMiS), Smart cities and communities, industry (members of above mentioned Smart Factories Cluster, TECOS), universities (University of Ljubljana, University of Maribor) as the largest research organization in Slovenia, SME's supportive environment (Association for Informatics and Telecommunications, Chamber of Commerce and Industry of Slovenia, Technology park Ljubljana (connecting SME and several research institutes for innovation), Smart Factories Cluster, Wood Industry Cluster, IIBA Slovenia Chapter and others.

1.2. Service no 2: Individual digital readiness assessment and coaching on the concepts of Industry 4.0 for manufacturing SME's

1.2.1. Summary of the service

The assessment is carried out in the form of a workshop at the company's headquarters. Prior to the workshop the STEPS TML questionnaire is used to evaluate the company on digital and Industry 4.0 readiness. First part of the workshop includes a lecture on key Industry 4.0 concepts and the elements of a smart factory, a presentation of relevant public finances and other projects and organisations that could benefit the companies. After the TML Index is calculated an interview is carried out with the relevant actors in the company to establish the level of development in individual technology pillars. After the workshop a walkthrough of the manufacturing plant is carried out to identify possible improvements to the production process. After the workshop the company receives a report of all workshop activities and results.



1.2.2. Description of the service

The service was developed during our pilot project that included manufacturing SME's. The general concept is to provide a service that gives SME's that are lagging behind on digital development the knowledge and ideas to start their digital transformation. 3 main areas are covered in the service: Digital readiness, Industry 4.0 concepts and public financing options. The service is carried out as a workshop at the relevant SME's headquarters. The workshop participants are an evaluator from the DIH, IT and digitalisation expert employees and management from the evaluated company. Before the workshop the TML Index questionnaire is filled out which serves 2 purposes:

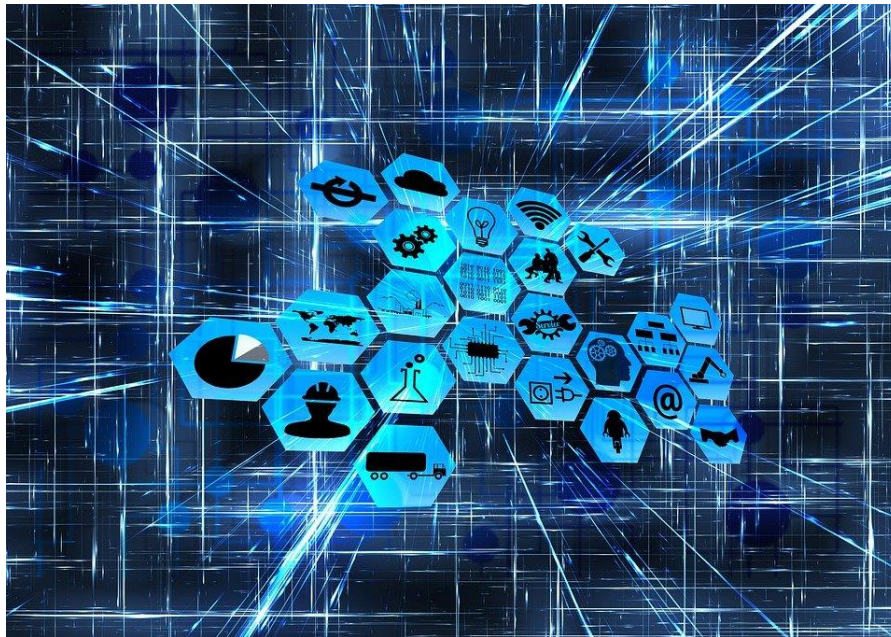
- calculate the TML index which gives the company information on the strong and weak areas of digitalisation compared to the local region and to the central European region
- gather relevant information about the company to better prepare for the workshop

With the gathered information a relevant lecture on I4.0 and smart factory concepts is prepared. The DIH financing expert prepares the relevant open and upcoming calls for projects. Running projects and organisations that could benefit the company in the field of digitalisation are screened and included in the workshop. If needed and/or possible, representatives of the projects and organisations are included in the workshop. The workshop itself consists of three parts:

- **The lecture:** A powerpoint presentation is given to the relevant employees and management which covers the basic topics of Industry 4.0 and digitalisation such as I4.0 technology pillars, the vertical and horizontal structure of the smart factory, typical types of manufacturing plants and key I4.0 concepts related to these types. The second part of the lecture consists of the presentation of possible public funding and other financing options for I4.0 and digitalisation projects. In the last part of the lecture the relevant projects and organisations are presented and, when possible, their representatives give a presentation on their work. The lecture also serves to unify the terminology used later in the interview.
- **The interview:** A structured interview is carried out to identify the level of development of the following areas:
 - Vertical and horizontal systems integration
 - Shopfloor connectivity (IoT)
 - Manufacturing planning and control
 - Automatization
 - ERP and MES intelligence
 - Digital strategy
 - Human resource digital development
- **Manufacturing plant tour:** The interview serves as insight into the structure and concepts of the intangible processes in the company. Many missing key concepts can be identified while observing the physical system. During the walkthrough the concepts explored in the interview are further observed and crucial shortcomings in the processes are observed.

Using the information gathered in the workshop a report is prepared for the company. The company includes the TML Index compared to the local region and the central European region, an analysis of the digital development in the company in the area of I4.0 as well as other areas of digitalisation and suggested focus areas for future project and development.

In case of COVID-19 epidemic restrictions the service can be provided via online streaming platforms such as MS Teams and Zoom depending on the SME's preferred software. The service is similar in on-line form except for the manufacturing plant tour. While a lot of information can be gathered via an interview, the employees usually paint a perfect picture of their digital processes. The factory walkthrough serves as a comparison to the information gathered in the interview. Because of this it is highly recommended the service is provided when epidemic conditions allow.



Source: Pixabay

1.3. Service no 3: Analytical assessment and individual coaching of SMEs on the topic of sustainable value chain reporting

1.3.1. Summary of the service

Goal of this service that was developed during the pilot project is to carry out assessments and one on one coaching of SMEs upper management employees on topic of sustainable value chain reporting.

1.3.2. Description of the service

Goal with this new service is to coach and assess SMEs on topic of sustainable value chain reporting. Firstly, new responsible experts were assigned with knowledge and experience on traceability, sustainable value chain and reporting. This DIH experts are leading assessments and coaching in SMEs headquarters where upper management and other relevant personnel from SME are present. Initial assessment and coaching are based on non-financial reporting, followed by analytical assessment of traceability system in SME. Last part of the workshop is coaching on sustainable value chain reporting. Following DIH experts are also carrying out promotional services among SMEs.



1.4. Service no 4: Workshops for manufacturing SMEs on understanding the importance of customer experience

1.4.1. Summary of the service

With this provided services the goal is to educate manufacturing SMEs on importance of understanding their' customers and customers experience.

1.4.2. Description of the service

DIH experts with proper knowledge of customer experience are carrying out workshops in company's headquarters for management, R&D staff, and sales-marketing department. Minimum two workshops are needed to properly convey knowledge and engage SMEs, also space for workshops needs to allow high interactivity (writing on the walls etc.). Following area are covered in these workshops:

- Design thinking workshops with the aim to identify user (SMEs customers) needs
- Mapping users' journey
- Selecting product and/or service of SME to pilot
- Testing theory on the selected product/service

1.5. Service no 5: Pilot platform for the e-life cycle of products

1.5.1. Summary of the service

This pilot platform considers e-life cycle of products (with the help of digital twinning) and offers series of services, such as promotion, showcasing, coaching on topic of ETIM standards of ETIM etc.

1.5.2. Description of the service

A new pilot platform is in development for e-life cycle of a product. Services are provided in connection with ETIM International and the national point ETIM Slovenia. DIH experts with in-depth knowledge on digitalisation and digital twin of the products gives lecturers on promotion of provided services and key concepts. Lectures are part of physical workshops at company headquarters that are conveyed to management of SME, R&D department, IT department and others relevant personnel. Beside promotion part there's a show casing of lecture on successful real-life examples of fully digitised products (digital twins of a product). Additional individual coaching in provided if desired on topic of the international standardization organization ETIM.

1.6. Service no 6: Access to finance

1.6.1. Summary of the service

Services are meant to help SMEs on topic of where and how to access finances for digitalisation of theirs' business model and technologies.

1.6.2. Description of the service

Main goal of this service is to increase awareness of SMEs on topic of access to finances. Physical workshops are carried out in SMEs headquarters. Lecture and presentation are given by a DIH expert, who has knowledge on topic of financing. Participants from the SMEs are upper management, accounting department, information technology and digitalisation



experts and other relevant employees. Before the actual workshop DIH expert internally researches the company's background (number of employees, financial reports, potential fundings for given company etc.). Presentation is given in form of PowerPoint where presenter shows all possible types of funding in area of digitalisation activities such as tenders, grants, vouchers and loans with favourable interest rates on local, regional, national or international level. During or after the presentation there's an active discussion and exchange of information which helps DIH expert to offer most relevant funding options or for company to more accurately understand how to properly apply for funding. From both sides there is an exchange on best practises that may help improve process from both parties. If needed additional one on one consulting is provided according to the SME needs of digitalisation. If company is not entirely sure in which digitalisation technology should they invest then additional lecture (Individual digital readiness assessment and coaching on the concepts of Industry 4.0 for manufacturing SME's) is given by the DIH digitalisation expert.

2. Cybersecurity

2.1. Service no 1: name

2.1.1. Summary of the service

With provided services we want to raise awareness on importance of cyber security and to help develop collaboration between different SMEs, users, experts etc.

2.1.2. Description of the service

The purpose of the cyber security section is to bring together the economy, the public sector, the governmental institutions, and individual experts to jointly develop cyber security capabilities to contribute to the digital development of the economy. By actively cooperating with all stakeholders in cyber security in the Republic of Slovenia, we encourage the development of cyber capabilities of Slovenian companies, providers and users of services, and contribute to the overall development of cyber security in the Republic of Slovenia.

In the field of cybersecurity, we are actively providing following services:

- Raising awareness of the importance of cyber risk management in leading businesses and government bodies.
- Developing the capacity of the cybersecurity competence centre for the needs of business and the public sector.
- Develop the collaboration of cybersecurity service providers, the public sector, service users and professionals.
- Promoting the development of specialist and user skills and enforcing standards and certifications.
- Joint development projects for government programs and specific solutions for SMEs.