



D 2.3. Maturity Assessment Tool

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The overall aim of DIHNET.EU is to create a sustainable European network of Digital Innovation Hubs (DIHs), by developing a set of tools and boosting the collaboration of the different DIH networks, DIHs and other key DIH stakeholders in Europe. The project will act as a coordinator to enhance the collaboration, aligning and synchronizing their activities. This is considered crucial for a better support of SMEs and MidCap companies in offering and using digitisation services.

The project is carried out by TNO, TECNALIA, Fundingbox, euRobotics, BluMorpho and FEDIL, have strong experience in DIHs and well connected to the EU DIH community.



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www.dihnet.eu



Executive Summary

DIHNET.EU aims to create a sustainable European network of Digital Innovation Hubs (DIHs), by developing a set of tools and boosting the collaboration of the different DIH networks, DIHs and other key DIH stakeholders in Europe.

Deliverable 2.3. **Maturity assessment Tool** is framed under WP2: **Collaboration platform for DIHs agents**; Task 2.4: **Task 2.4 Digital maturity scan tool**. The task aims at providing a Maturity assessment Tool to identify Mature DIHs. The tool is based on a questionnaire with different block of questions (open and multiple-choice questions) available at the DIHNET.EU Community. This task has been developed together with task 3.4 (see WP3) and Deliverable 3.4. **Common approach for Maturity assessment**, as both tasks and Deliverables are interrelated.

Chapter 1 is introductory to the deliverable. **Chapter 2** presents the process to set up the Maturity Assessment Tool and the **Chapter 3** introduces the Maturity assessment Tool/Questionnaire that will be available at the DIHNET.EU Community.

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1 Introduction

1.1 About DIHNET.EU

The **overall aim of DIHNET.EU** is to create a sustainable European network of Digital Innovation Hubs (DIHs), by developing a set of tools and by boosting the collaboration of the different DIH networks, DIHs and other key DIH stakeholders in Europe. The project will act as a coordinator to enhance the collaboration, aligning and synchronizing their activities. This is considered crucial for a better support of SMEs and MidCap companies in offering and using digitisation services.

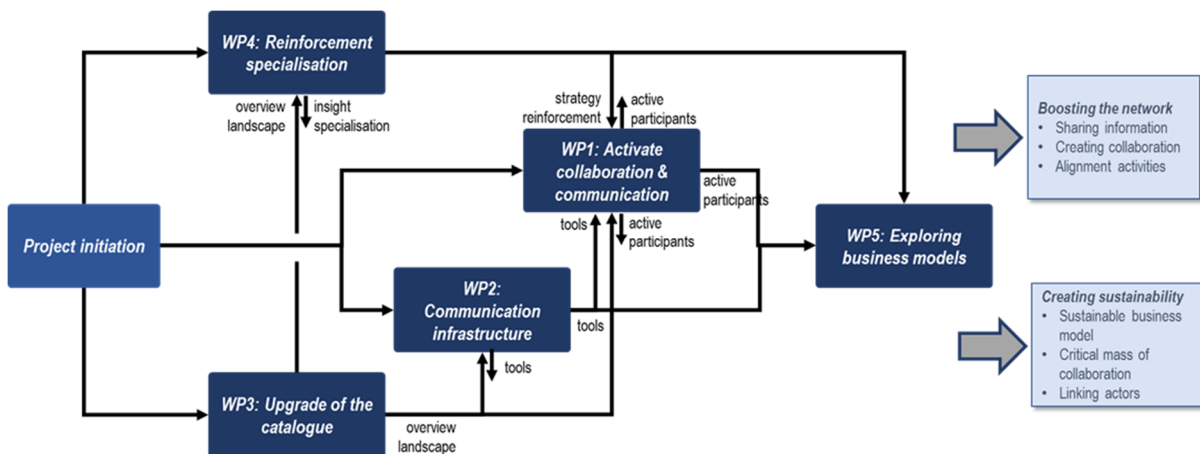
This **Deliverable** will provide a Maturity Assessment Tool that will allow individual DIHs to better understand their Maturity according to predefined common approach (predefined under Deliverable 3.4) under DIHNET.EU project as well as to identify and support Good Practices of Mature DIHs that will serve as an inspiration for other DIHs from the DIHNET.EU Community.

The project is coordinated by TNO and implemented together with Tecnalía, Fundingbox, euRobotics, BluMorpho and FEDIL, partners with strong experience on the field.

1.2 Context of Deliverable 2.3

Deliverable 2.3: Maturity assessment Tool is framed under WP2: **Collaboration platform for DIHs agents**. WP2 aims at providing a collaboration Platform as well as the core technological infrastructure of the project, to support DIHs, networks and other actors in their acquisition of knowledge and collaboration among themselves (DIH agents). **Task 2.4 Digital maturity scan tool** aims at providing a Maturity assessment Tool to identify Mature DIHs based on a questionnaire with different block of questions (open and multiple-choice questions). This task has been developed together with task 3.4 (see WP3) and Deliverable 3.4. **Common approach for Maturity assessment**. The Maturity Tool is hosted under DIHNET.EU Community/Platform.

The following chart shows how this deliverable is framed within the DIHNET.EU project:



1.3 Objectives of Deliverable 2.3

Main aim of Deliverable 2.3 is to suggest a **Maturity assessment Tool** with the purpose of:

- (i) identify good practices cases of advanced/mature DIHs that others could learn from;
- (ii) identify the Mature DIHs/DIH champions in the proposed categories;
- (iii) foster future matchmaking opportunities (DIHs finding those with the expertise they need/miss) and
- (iv) help fine-tune information in the DIH catalogue on a regular basis.

DIHs Maturity assessment has been linked to a **Champions Challenge** that will award a **DIH Champions Prize** to the Most Mature DIHs. This process has been developed by DIHNET.EU project for its Community of DIHs. The **Champions Challenge**, which first edition is in 2019 gives visibility to both Deliverables 3.4 and 2.3.

It is important to highlight, that this process will be piloted during 2019, as it is the first time launched. It is expected that the results obtained, based on the DIH responses to the Questionnaire obtained from the Community will provide a good basis for setting KPI targets. As for 2019, the Champion Challenge it is expected to award 2 Prizes. More information and Guidance is provided in Deliverable 3.4.

1.4 Measurable Impact of Deliverable 1.1

Although the **Maturity Assessment Tool** will an impact on almost all the activities of the project, it will specially answer to the **Objective 3** set in the DIHNET.EU project: *To develop a clear **overview of the DIH related services provided in Europe** to better align the offering of services and improve access to the services offered, by providing a common framework for the **upgrade and update of the information provided by the Catalogue of DIHs**. The **DIH Catalogue** will be further improved in cooperation with the JRC and other networks. The project will facilitate the development of a structured approach, creating added value for all participants, but aligning their actions through a systematic multi-user data model (e.g. policymakers, SMEs/MidCaps, regional development agencies, individual DIHs, H2020 Innovation Actions, H2020 CSAs).*

The KPI is linked to WP2.

KPI nº	KPI name	KPI target	Success
KPI 2.6	# of digital maturity scan tools	1 tool	Reached in April M6

2 Process to set up the Maturity Assessment Tool

As already explained, the Maturity Assessment Tool consists on a questionnaire that contains a set of 10 blocks and several questions per block. These questions are qualitative and quantitative ones, some linked to KPIs.

The Maturity Assessment Tool will allow DIHs to assess their Maturity. The **DIH Maturity questionnaire** is linked, for some questions, to Key Performance Indicators (KPIs) that will allow to select the mature **DIH** and the **Champions**. The procedure will be documented and explained in our DIHNET.EU Community.

The process has been presented as **DIHs Champions Challenge**, developed by DIHNET.EU project for its Community of DIHs with the objective to:

- identify good practices of advanced/mature DIHs that others could learn from;
- identify the DIH champions under two categories that focus on collaboration;
- foster future matchmaking opportunities (DIHs finding those with the expertise they need/miss) and
- help fine-tune information in the DIH catalogue on a regular basis.

Two main Categories are suggested for the assessment of the DIH Maturity and the selection of the **DIH Champions**, provided that these categories are key to measure the performance of DIHs, as well as to guide and inspire others. The **Categories to assess the DIH Maturity are related to:**

- **Services offered** by the DIH to support the digitalisation of SMEs related to ecosystem building, financing, testing, digital Skills development.
- **Collaboration Strategy** leading to a number of cross-border technology transfer opportunities or joint investments due to structured and sustainable collaboration, including **mechanisms** such as (business models, impact KPIs, Funding mechanisms) and **alignment with S3 priorities**.

The 2019 edition of the **DIH Champions Challenge**, was presented during the 7th Working Group meeting of DIHs, last 1st July 2019 in Brussels. The Challenge will be opened at the DIHNET.EU Community on 10th July 2019. DIHs interested could answer the questionnaire from 10th July up to September 15th, period in which the Challenge will be opened.

After this, the evaluation period will be opened. The winner (s) of this Challenge will be announced in Madrid, on the Stakeholder Forum on 13-15 November 2019.

Every year the DIHNET.EU project will organise and launch a Call at the [DIHNET Community](#) to select the **Best DIH Practices/ DIH Champions** that will be closely followed by a Prize. The main purpose of this initiative is to identify, show and support success stories on **Mature DIHs** that can inspire and guide other DIHs in their developments.

The announcement and submission of the DIH Champion Challenge, as well as other related news will be on the DIHNET.EU Community. The winner will be presented in one of the European Commission events related to Digital Transformation, like the Stakeholders Forum or DIH Annual Event.

3 Maturity Assessment Tool/Questionnaire

3.1 Main Blocks

To support the process of selection of Best DIH Practices/DIH Champions and the Prize described, DIHs will be assessed against the following 10 blocks which include specific questions, agreed with the European Commission and JRC.

- Basic Data
- DIH Outcomes
- Strategic positioning in regional/national innovation eco-system
- Services offered by the DIH to support SMEs
- Collaboration Strategy
- Skills development strategy for SMEs
- Sustainability mechanisms
- Technological Focus
- Sectoral Focus
- Processing of personal data

3.2 Questionnaire

Although the Questionnaire will be available at the DIHNET.EU Community, and must be completed at the Community, hereby a drat of the questions are presented.

Block 1. Basic Data:

1. Name of the DIH: *(text box)*
2. Contact person: *(text box)*
3. Email address: *(text box)*
4. Country: *(drop down menu with list of EU and H2020 associate countries)*
5. Region (NUTS2). (link to the NUTS2 code *text box*)
6. Fully operational/: *(only one option possible)*

Yes

No

7. DIH Website (in format <https://...>)
8. Link to the DIH's information on the DIH Catalogue website: *(text box format required <http://www>)*

Block 2. DIH Outcomes:

1. How many SMEs have you supported? *(textbox)*

2018

2019

2. Which is the percentage on increase since 2018/2019? *(textbox)*
3. Which have been the main services provided in 2019? Please select
 - i. screening,
 - ii. training,
 - iii. demonstration,
 - iv. experimentation,
 - v. business guidance,
 - vi. Other. Please specify *(textbox)*
4. Could you please estimate the employment created in 2019 thanks to the activities of the DIH? *(textbox)*
5. How many successful business cases has your DIH generated resulting from the support to digitalisation? *(textbox)*
6. How many new companies have been created? *(textbox)*
7. Did you generate new patents? YES/NO
4. If Yes How many? *(textbox)*
8. Which is the amount of additional investments successfully triggered (e.g. through venture capital, bank loan, ERDF grants, etc.). Please indicate: *(textbox)*
9. How many additional companies are using in 2019 new technologies resulting from the DIH activities? Please indicate: *(textbox)*

Block 3. Strategic positioning in regional/national innovation eco-system:

- 1- How would you rate the alignment of your DIH's technical competences and market sectors served with the priorities of regional/national smart specialisation strategies (or current innovation strategies)? Please rate it from 1 to 10 (1: DIH not aligned at all with the priorities if S3 – 10 DIH completely aligned) *(dropdown list 1 to 10 only one option possible)* and explain why. *(textbox)*
- 2- How would you rate the contribution of your DIH in shaping regional/national digital transformation strategies (i.e. Industry 4.0 Strategies and others) and its involvement in the implementation of these strategies? Please rate it from 1 to 10 (1: DIH not contributing at all

in the shaping and implementation of strategies – 10 DIH fully contributing) *dropdown list only one option possible*) and explain why (*textbox*)

Block 4. Services offered by the DIH to support SMEs:

1. How many digital projects has the DIH started with SMEs in 2019?. Please indicate(*textbox*).

1. How many of them are cross-border? Please indicate: (*textbox*).

2. How many services have you offered to newly contacted SMEs (or from traditional sectors) Please indicate:

2018

2019

2. Could you please indicate the increase in percentage (from 2018 to 2019). (*textbox*)

3. How many industrial case examples does the DIH has where the DIH has offered facilities or access to facilities to an SME to test the latest digital technologies and/or develop a prototype? Please indicate(*textbox*)

2018

2019

3. Could you estimate the increase in percentage from 2018 to 2019? (*textbox*)

4. How many industrial case examples does your DIH has where the DIH has facilitated product development and increase? Please indicate(*textbox*)

2018

2019

4. Could you please also indicate the increase in percentage from 2018 to 2019? (*textbox*)

5. Could you please indicate the number of referrals to ICT companies and other service providers?

5. Could you please indicate the number of referrals to other service providers? (*textbox*)

6. Which are the main services you offer to SMEs? Please provide examples.

(*textbox, limited characters*)

7. **Awareness raising mechanisms.** Which are the main mechanisms you use to approach new companies and disseminate your DIH activities? (*checkboxes*)

- Specific and targeted campaigns
- DIH Website

- Specific marketplaces?
 - Social Network
 - Meetings
 - Support by other actors in the innovation ecosystem (please specify) (*textbox*)
 - Participation in targeted events and Workshops
 - Other (*textbox*)
- 8. Ecosystem Building:** Which are your strategies to build, maintain and enlarge the DIH Ecosystem?
- Regular meetings with other innovation ecosystem players (such as for example clusters, business development agencies, incubators, etc.)
 - Helping SMEs get access to large companies / value chains
 - Matchmaking / brokering activities
 - Alliances to work on specific projects
 - Structured cooperation with other DIHs
 - Networking with relevant stakeholders
 - Enterprise Europe Network
 - Other: please specify (*textbox*)
- 9. Testing, experimentation and specific support to SMEs.** How do you support SMEs to test and experiment to allow them to better reach the market?
- Demonstration facilities so that SMEs can see how digital technologies work in real life (if so what) (*textbox*)
 - Access to technologies and technological infrastructure
 - Resources for prototyping new products and services
 - Testbed(s) and facilitate testing and validation
 - Scale-up and internationalisation
 - To integrate digital into their process / product / business model and generate new products
 - To identify what digital technologies would best fit their needs
 - Other: please specify (*textbox*)
- 10. Promoting financing/funding of digital initiatives and ventures.** How do you support companies in finding suitable funding mechanisms?

- Support companies, digital tech start-ups and new ventures in getting access to investors or bank loans
- Attracting funding to cover the cost of the digitalisation services the DIH provides
- Other: please specify *(textbox)*

11. Building and improving Skills. How do you support the skills development of your stakeholders and in particular, SMEs? *(checkboxes)*

- Structured training and skills development on digitalisation
- Organise training courses
- Participate in EU related projects
- Personnel Exchange with other DIHs to increase capacities
- Have you received support of any EU initiative? If so which one? *(checkboxes)*
 - ✓ **I4MS** mentoring programme (<https://i4ms.eu/mentoring-programme>)
 - ✓ **Smart Factories in new Member States:** training for DIHs in Central and Eastern Europe (training materials also open for consultation)
 - ✓ **DIHELP** - DIH Enhanced-Learning Programme (<https://ec.europa.eu/digital-single-market/en/news/dihelp-call-30-digital-innovation-hubs-take-part-training-programme>)
 - ✓ **EIT Digital** (<https://www.eitdigital.eu/>)
 - ✓ Others, please specify *(textbox)*
- Other: please specify *(textbox)*

12. Other services. Could you please specify which other support services does your DIH provide? *(checkboxes)*

- Brokering between end-users and potential suppliers of technological solutions
- Networking
- Support to internationalisation
- Business advice (including feasibility and business plan support)
- Providing incubation or accelerator programs for digital/tech start-ups
- Support on specific technologies and related services offered such as in AI, HPC, Cybersecurity and trust, advanced digital skills.
- Other: please specify *(textbox)*

Block 5. Collaboration Strategy

1. Nº of Cross-border and interregional collaboration projects in which the DIH is part.

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

2. Nº of Collaboration with other DIHs at EU level. *(textbox)*

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

3. Nº of EU related DIH networks and/or EU projects. *(textbox)*

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

4. Nº of Infrastructures jointly shared / joint investments. *(textbox)*

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

5. How many customers do you have? *(checkboxes only 1 option possible)*

<ul style="list-style-type: none">● 0-5 customers● 6-25 customers● More than 25 customers

6. What is your average Client size? *(checkboxes only one option possible)*

<ul style="list-style-type: none">● Micro enterprises (<10 employees)● Small enterprises (10-49 employees)● Medium sized enterprises (50-249 employees)● Mid-caps (250-300 employees)

7. Which mechanisms do you have in place to enhance the DIH collaboration? *(checkboxes)*

- Cross-border collaboration projects
- Interregional collaboration
- Collaboration with other DIHs, please indicate if at national, regional or EU level.
- AI DIH Network
- Infrastructures jointly shared
- Are you part of any EU Project in the framework of the Pan European network?
(checkboxes)

- ✓ **I4MS**-ICT Innovation for Manufacturing SMEs (<https://i4ms.eu/>)
- ✓ **SAE**-Smart Anything Everywhere (<https://smartanythingeverywhere.eu/>)
- ✓ **EIT Digital** ((<https://www.eitdigital.eu/>)
- ✓ Data Pitch Innovation Programme (<https://datapitch.eu/>)
- ✓ **ODINE**-Open Data Incubator Europe (<https://opendataincubator.eu/>)
- ✓ **ECHORD++**-European Coordination Hub for Open Robotics Development (<http://echord.eu/>)
- ✓ **ROBOTT-NET** (<https://robott-net.eu/>)
- ✓ **CSA-RODINE**-Robotics Digital Innovation Network (<https://cordis.europa.eu/project/rcn/218635/factsheet/en>).
- ✓ **ACTPHAST 4.0**-Access Centre for Photonics Innovation Solutions and Technology Support (<http://www.actphast.eu/>)
- ✓ **EPRISE**- Empowering Photonics through Regional Innovation Strategies in Europe (<https://eprise.eu/>)
- ✓ **SESAME NET**- Supercomputing Exercise for SMEs (<https://sesamenet.eu/>)
- ✓ **DG RTD- EPPN network**: European Network for Pilot Production Facilities and Innovation Hubs (<https://www.eppnetwork.com/>)
- ✓ **DG GROW**-EU Mapping of Technology Centres in Key Enabling Technologies (KETs) (<https://www.clustercollaboration.eu/news/eu-mapping-technology-centres-key-enabling-technologies-kets>)

- Are you part of other DIH networks or Communities? If yes, which ones? *(textbox)*

Block 6. Skills development strategy for SMEs

Please indicate the following values for 2019, as well as the increase from 2018-2019 in percentage:

1. N° of personnel exchanges with other DIHs. *(textbox)*

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

2. N° of specific training programmes launched by the DIH. *(textbox)*

2018
2019

- Increase in % from 2018 to 2019 *(textbox)*

Block 7. Sustainability mechanisms (business models, including impact KPIs, Funding mechanisms)

1. N° of specific and targeted campaigns organised by the DIH to attract companies *(textbox)*

2018
2019

- Increase in % from 2018 to 2019 *(textbox)*

2. How many new structured collaboration agreements have been signed with ecosystem actors?

2018
2019

- Increase in % from 2018 to 2019

3. How many new companies have attended the dedicated events in 2019? *(textbox)*
4. How many companies have visited the demonstration facilities in 2019? *(textbox)*
5. How many new structured collaboration agreements have been signed with ecosystem actors? *(textbox)*

2018
2019

- Increase in % from 2018 to 2019. *(textbox)*

6. Do you have any specific strategy to ensure your sustainability? *(textbox)*
7. Does your DIH have one or several Business Models and if so, what are the most promising approaches? *(textbox)*
8. Does your DIH have impact KPIs, and if so, which ones? *(textbox)*
9. Does your DIH have impact KPIs Financing mechanisms, and if so, which ones? *(textbox)*

Block 8. Technological Focus

1. Which of the following digital technology areas do you focus on? Please select a maximum of 3. (A) hardware, B) Software, C) Services). *(checkboxes where only 3 options can be selected) between 1 and 3 choices*

- A) 3D Printing and additive manufacturing
- A) Smart production systems (e.g. industry 4.0)
- A) Robotics and autonomous systems
- A) Internet of things (e.g. sensory systems and networks)
- A) High-performance computing and supercomputers
- A) Cybersecurity (e.g. biometric systems)
- A) Physical digital infrastructure (e.g. 5G and LoRaWAN)
- B) Software development (i.e. commercial software)
- B) Cloud-based infrastructure and services

- B) Cybersecurity software Artificial intelligence (e.g. machine learning and smart systems)
 - B) High-performance computing and big data analytics
 - B) Block chain technology and its applications
 - C) Digital sales, e-commerce and digital marketing (B2B and B2C)
 - C) Multisided platform(s) and platform economics (e.g. sharing economy services)
 - C) Building or connecting ecosystem(s)
 - C) Applications of Artificial Intelligence
 - C) Big data analytics and data-driven services
 - C) Software development as a service (e.g. consultancies)
 - C) Cybersecurity services
2. Which is the main application area of these technologies? Please select a maximum of 5.
(checkboxes where only 5 options can be selected)
- a. Inbound logistics & warehousing
 - b. Operations (production of physical goods/manufacturing, packaging, maintenance, services, etc.)
 - c. Delivery (invoicing, etc.)
 - d. Marketing and sales (customer management, order processing, etc.)
 - e. Customer service (helpdesk, etc.)
 - f. Administration and management
 - g. Digital infrastructure and information systems
 - h. Human resource management
 - i. Research & development (product and technology)
 - j. Purchasing and procurement
 - k. Software development (developing independent software products and services)
 - l. Other (please specify)*(textbox)*
3. In which digital technology of the above mentioned you would like to find cooperation?
(textbox)

Block 9. Sectoral Focus

1. Which is your sectoral focus? Please select a max. 3 options (*checkboxes where only 3 options can be selected*)

- a. Agriculture, hunting and forestry
- b. Fishing
- c. Mining and quarrying
- d. Electricity, gas and water supply
- e. Construction
- f. Wholesale and retail trade
- g. Hotels and restaurants
- h. Transport, storage and communication
- i. Financial intermediation
- j. Real estate, renting and business activities
- k. Public administration and defence
- l. Education
- m. Health and social work
- n. Other community, social and personal service activities (media, entertainment, etc.)
- o. Manufacturing

Block 10. Processing of Personal Data

- The project won't be responsible to check the veracity of the data provided by the applicants. Additional information or interviews with evaluators might be asked during the evaluation process.
- Before submission: I declare that the information provided is trustworthy and that I can provide evidences of the information shared in this application form.
- GDPR

3.3 The Process

As already explained the Questionnaire is only available online, at the Community (<https://dihnet.eu/>).

The process to assess DIH Maturity has been framed under the **DIH Champions Challenge**, that plans to open a call annually to select the most mature DIHs according to preestablished categories. DIHs interested will need to submit the questionnaire on-line following the conditions and timings. A Guidelines for applicants has been published to support the process as well as a Q&A space. The project team also plans to organise a Webinar.

The 2019 Champions is open from 10th July up to 15th September. More updated information at (<https://dihnet.eu/>).