

ANNEX NO. 1

TO THE FINAL EVALUATION & IMPACT ASSESSMENT REPORT ON TIN AND PID IN A CE/EU POLICY CONTEXT

CE1662_CEUP2030_D.T2.4.3- Final Evaluation & Impact Assessment
Report on TIN and PID in a CE/EU policy context

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1. Introduction

The Policy Intelligence Dashboard monitors, fine-tunes and streamlines policy relevant data on technology trends for a fast-track assessment based on a solid data gathering and evaluation (Tech Radars, A.T2.3). The PID were tested in a common transnational manner, established and anchored in the activated stakeholder scheme (PLLs, TINs). The PID methodology sets the base for the joint policy exploitation with pilots as well as a future planning for 2021-2027 and beyond project's end. The PID is built around a core project principle, that policy-makers can directly benefit, and create onward benefits for the entire innovation eco-system, when they have practical and streamlined knowledge and insight on technology trends and potential industry impact.

Policy Intelligent Dashboard is the most complete one-stop-shop for policy makers and policy influencing stakeholders as research technology organizations and enterprises operating around Advanced Manufacturing and Industry 4.0 topics. PID is located on the <http://ceup2030pid.eu> - website and integrate knowledge and insight developed from dialogue occurring within the Partnership's workshop series includes the following elements for each CAMI4.0 topics like interesting use-cases, summary of the flagships, policy instruments, analysis of the Tech Radar.the toll is located on the website: <https://ceup2030pid.eu/>

Ultimately, CEUP 2030's Policy Intelligence Dashboard activity involved the development and implementation of a practicable and efficient policy tool. This tool is the medium by which select, decision-relevant information is siphoned from the "daily big-data cloud", assessed and provided in an understandable way to key actors. These stakeholders benefit from updates and insight on technology trend monitoring, future foresight, and technology and actor scouting, in the form of compact and high-quality technology radars and risk heat maps for Central Europe industry.

The knowledge embedded in the PID is high quality and relevant to the policy-making stakeholders. Therefore, the tool is embedded in a cross-skilled pool of experts who can provide the appropriate insight and interpretation of key technology trends on industry

Four "PID in Practice", one for each CAMI4.0 topic of CEUP 2030, were created. These are indicated by the following deliverables:

- D.T2.3.2 PID in practice 1: Policy implementation relevant Tech Radar on IPS, PP10/HAMAG
- D.T2.3.3 PID in practice 2: Policy implementation relevant Tech Radar on Automation & Robotics /PP3/PIA
- D.T2.3.4 PID in practice 3: Policy implementation relevant Tech Radar on New Materials / PP8/PTP
- D.T2.3.5 PID in practice 4: Policy implementation relevant Tech Radar on Artificial Intelligence / PP9/PBN

Each PID in Practice represents a tech Radars (TR) including a risk heat map (RHM), where policy-relevant data sources (use cases, organisations, actors, instruments) are identified and classified with a goal to transfer and interpret to policy-decisions. Key use cases were presented in each CAMI4.0 Topic. The partners created an aligned demonstration PID, to provide a model for how this information could be provided in an ongoing way to key stakeholders to ensure sustainable data provision in the form of brochures



2. Scope of Document

D.T2.4.3 aims at collecting and analyzing the main outcomes after the conclusion of the rounds of TTTDMs (i.e. the TTTDMs performed till the end of April 2021), analyze their impact and the consequent activities about the establishment of PIDs.

This document is a part of deliverable D.T2.4.3 and contains only feedback from policy influencing stakeholders after testing the Policy Intelligence Dashboard. The purpose of this report is to provide a final analysis of the feedbacks collected from a select Peer Reviewer group. During preparation to PID testing, Project Partners verified the database of potential stakeholders at regional, national and transnational levels that were previously involved in CEUP2030 implementation through PLLs, TTTDMs or Round Table events. They were expected to represent key RIS3 partners and the DGs (CONNECT, GRO, RTD, REGIO). They were invited to applying and testing the Policy Intelligence Dashboard individually.

3. Methodology

The selected methodology is user tests. To ensure simplicity and effectiveness of the PID in Practise validation process, test survey was organised using Microsoft Forms: <https://forms.office.com/r/NQhkqhPFRa>, which was sent to different stakeholders at regional, national and transnational level.

User testing is a technique to evaluate a site by testing wide spot on users, who are being asked to either explore the site freely, used it at their convenience and describe their sentiments and observations, or to perform pre-defined tasks.

The overall goal of the research was to:

- Gain the knowledge about the expectations and needs of the future users
- Check if the front page appearance is intuitive and shows the user potential starting points
- Check if the dashboard page is easy in use
- Check if navigation is intuitive and simple
- Check which 4 CAMI 4.0 topics gather the most interest of users
- Check the usability of the following elements:
 - joining the platform
 - finding seeking information
 - complexity of the provided information

The research perspective consisted of 3 phases:

- Expert evaluation
- User tests: identification of the users and performing the user testing
- Optimization plan of the platform, according to the results of the user test

Expert evaluation. The goal was the heuristic assessment (usability audit) that is a review of a given site against a set of best practices and rules of interaction design (heuristics), pinpointing elements or processes, which may result in minor to severe problems when encountered by users. This phase has been conducted during the first week of PID preparation and was conducted with PPs to gather first impression and feedback.



User tests. Within period 4 the platform has undergone continuous development: at the beginning the relevant content been prepared and uploaded on the platform. Before inviting external users for testing, initial users tests were conducted internally by KPT employees not linked with CEUP2030 project team to limit technical errors or thematical issues. After this part, due to the users input some minor changes to the platform have been implemented.

Therefore the user testing methodology has been foreseen and Project Partners verified the database of potential stakeholders at regional, national and transnational levels that were previously involved in CEUP2030 implementation through PLLs, TTTDMs or Round Table events. They were expected to represent key RIS3 partners and the DGs (CONNECT, GRO, RTD, REGIO). They were invited to applying and testing the Policy Intelligence Dashboard individually.

With the involvement of Project Partners, the relevant stakeholders representing policy makers or policy influencing stakeholders were contacted. The target group consisted of key RIS3 partners and the DGs (CONNECT, GRO, RTD, REGIO).and each PP was responsible for delivering 4 surveys.

The goal of the phase was to test all parts of the system - joining the platform, dashboard, navigation, enrolment to relevant four CAMI 4.0 topics and content.

After collection of feedback and recommendation PID the changes were implemented to the platform and optimized.

The survey with the involvement of representatives of relevant target groups (policy makers, business, academia, regional and national administration, RTO, BSO , solutions providers etc.) was organized within 2 weeks, with one additional week for verification of collected feedback and upgrading the PID. The goal of this phase was to gain information from about the usability from target groups in order to improve the platform and to make it more effective tool for CEUP2030 stakeholders.

Optimization plan. According to the results of the both user test (Internal and external), based on the input from the users the platform has been updated and improved continuously.

4. Participants

The main target groups of the platform are: policy makers, policy influencing stakeholders, regional and national administration, business, academia, RTO, BSO, solutions providers and solution receivers, representatives of EU agendas and DGs (CONNECT, GRO, RTD, REGIO), but also all the interested groups on national and transnational level.

The target number was 40 participants testing PID, in total in the research were engaged 53 respondents.

The questions were related to:

1. What country do you represent
2. Name of your organization
3. Type of your organization
4. Have you broaden your knowledge after studying different components of the Policy Intelligence Dashboard related to areas of Intelligent Production Systems, Automation and Robotics, Smart Materials and Artificial Intelligence?
5. Have you found the Policy Intelligent Dashboard informative and useful in your professional activities?

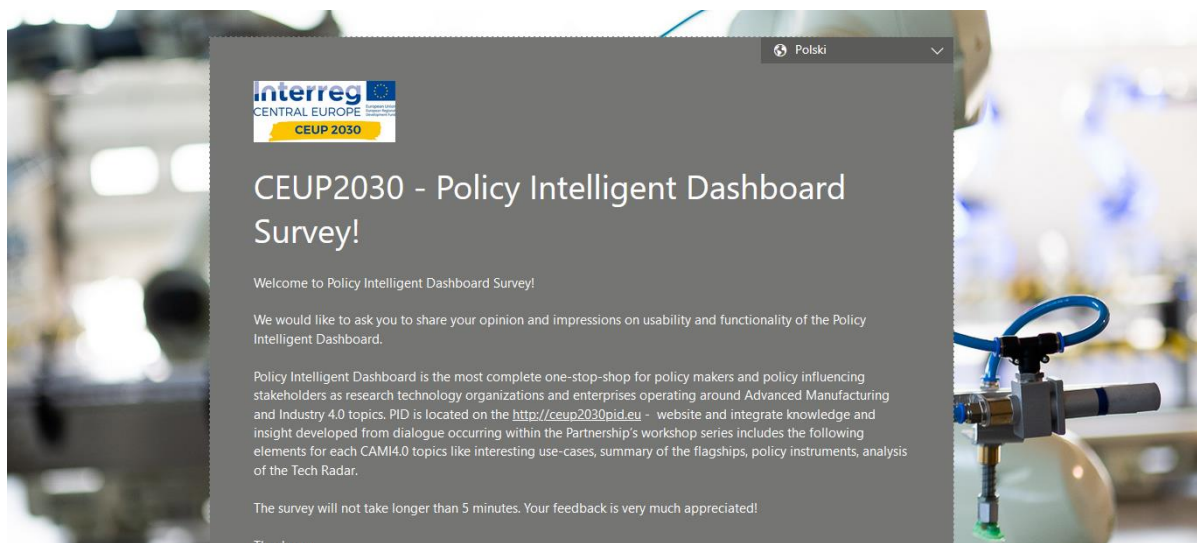


6. Which component (use cases / policy instruments / tech radar / flagships) have you found the most useful?
7. Are you interested in joining one or more tools opportunities presented in the PIDs?
8. What kind of information would you like to find in new updated version of the Policy Intelligent Dashboard?
9. In which area have your knowledge been broaden the most?
10. Any other suggestions, comments?

It is recommended that the Partners gain insight from 4 stakeholders: Expert and/or Policy Making & Influencing Stakeholder. These stakeholders provide different insight on demo improvements, and therefore will foster a well-rounded feedback on the PID in Practice.

5. Detailed report on the PID survey

Before starting the survey the peer reviewers were introduced with a short information on CEUP2030 project and PID.

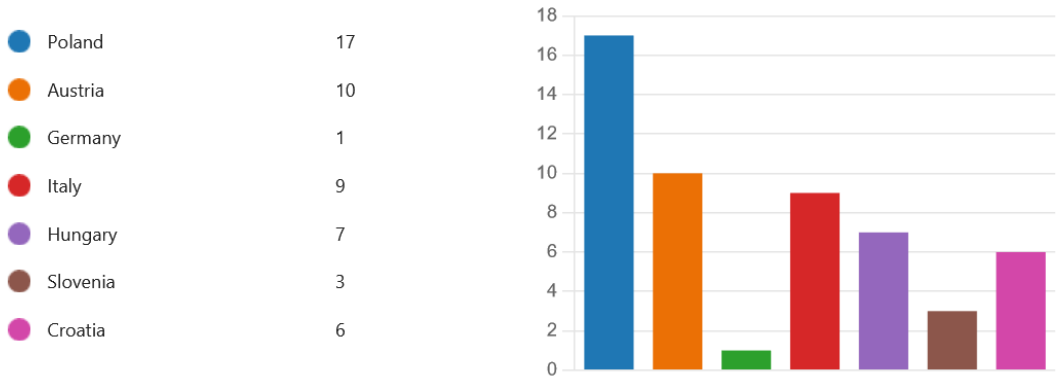


In the survey there were 11 questions asked, plus 3 open questions where PPs aimed to collect free recommendations and suggestions regarding to all possible improvements that could be implemented to tailor PID even better adjusted to needs and expectations of the policy influencing stakeholders.



Q 1. What country do you represent?

In PID testing 53 peer reviewers took part and completed the survey (versus targeted 40). They were policy influencing stakeholders approached by Project partners.



All Project Partners’ regions were involved with the highest number of representatives from Poland and Austria.

Q2. Name of your organisation

This question was optional. We received 49 answers (in total number of 53 responds). Below there is a table presenting the answers.



1	anonymous	TECOS, Slovenian tool and die development centre
2	anonymous	Forschung Burgenland
3	anonymous	TECOS
4	anonymous	Malopolska Region
5	anonymous	Joint Research Centre
6	anonymous	M.A.D. Engineers
7	anonymous	Mechanical Engineering Company
8	anonymous	TECOS
9	anonymous	Grupa Azoty S.A.
10	anonymous	Pannon Business Network
11	anonymous	Municipality of Szombathely
12	anonymous	Municipality of Szombathely
13	anonymous	Marshall Office of the Malopolska Region
14	anonymous	Scientific Association for Mechanical Engineering
15	anonymous	Municipality of Szombathely
16	anonymous	Ecipa Hub
17	anonymous	Krakow Technology Park
18	anonymous	Chamber of Commerce of Vas County
19	anonymous	University of Pécs_ Faculty of Health Sciences



20	anonymous	Krakowski Park Technologiczny
21	anonymous	Plattform Industrie 4.0
22	anonymous	Plattform Industrie 4.0
23	anonymous	Association Industry 4.0 Austria
24	anonymous	Business Upper Austria
25	anonymous	Polish Organisation for Sport and Tourism Development
26	anonymous	ENoLL
27	anonymous	Nerosubianco
28	anonymous	Sogen
30	anonymous	Krakow Technology Park
31	anonymous	MIND CONSULT & RESEARCH GmbH
32	anonymous	CENTRAL POINT SP z o.o. sp komandytowa
33	anonymous	Stowarzyszenie Klaster Technologii Informatycznych w Budownictwie
34	anonymous	DGS
35	anonymous	Standortagentur Tirol
36	anonymous	AIT Austrian Institute of Technology
37	anonymous	Standortagentur Tirol
38	anonymous	ePM spółka z ograniczoną odpowiedzialnością
39	anonymous	Association Industry 4.0 Austria
40	anonymous	Optimizacija Ltd



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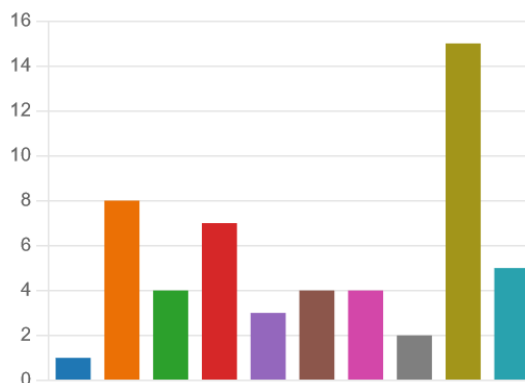
41	anonymous	EBN
42	anonymous	RIT Croatia
43	anonymous	Siemens
44	anonymous	Development strategies ltd
45	anonymous	RIT Croatia
46	anonymous	HAMAGBICRO
47	anonymous	CreateHub sp. z o.o.
48	anonymous	Croatian Agency for SMEs, Innovations and Investment (HAMAG-BICRO)
49	anonymous	FINCONS s.p.a.

3 respondentów (6%) odpowiedziało **Municipality of Szombathely** na to pytanie. ...



Q3. Type of your organization

- Start up 1
- SME 8
- LE (Large enterprise) 4
- RTO (Research Technology Org... 7
- academia 3
- local public authority 4
- regional public authority 4
- national public authority 2
- business support organisation 15
- Inne 5



Answering the question what type of organization do you represent:
- 30% of stakeholders choose Business Support Organizations,



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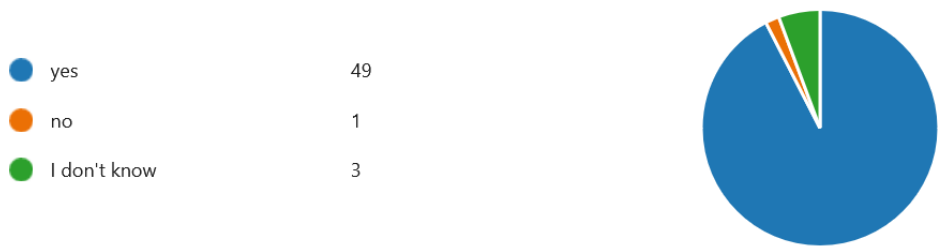
- 18% are representatives of local, regional and national public authority,
- 16% represent SMEs,
- 14% represent Research Technology Organizations.

Q 4 Have you broaden your knowledge after studying different components of the Policy Intelligence Dashboard related to areas of Intelligent Production Systems, Automation and Robotics, Smart Materials and Artificial Intelligence?



91% of respondents confirmed that they increased their knowledge after studying the PID. 8% of respondents did not know and 1% of respondents did not broaden their knowledge.

Q5: Have you found the Policy Intelligent Dashboard informative and useful in your professional activities?



92% of respondents confirmed that they found the PID informative and useful, 2% of respondents did not know and 6% of respondents did not find the PID informative and useful.

Q 6: Which component (use cases / policy instruments / tech radar / flagships) have you found the most useful?

In this question respondents had to rate from 1 to 5 where 1 for useless and 5 for very useful.

We received the following rates:

- For use cases - 4,22
- For policy instruments - 3,78
- For tech radar - 3,94
- For flagships - 3,96



Analyzing these number it seems that respondents really appreciate the practical examples of use cases presented in different regions.

Q7: Are you interested in joining one or more tools opportunities presented in the PIDs?

● yes	36
● no	6
● I don't know	11



68% of respondents were interested to join one or more tools opportunities presented in the PID. 21% of them still do not know if they want to join and 11% of them were not interested

Q8: What kind of information would you like to find in new updated version of the Policy Intelligent Dashboard?

It was an open question. 23% of respondents gave us a feedback on this question. The detailed list of recommendation how to improved PID is presented below

Feedback 1: Risk Heat Map for AI

Feedback 2: Circular economy

Feedback 3: More information of new developed technologies.

Feedback 4: about potential partner to develop policy instruments

Feedback 5: MORE PRODUCTION ORIENTED DATA

Feedback 6: more case studies

Feedback 7: Call opportunities - like cascade

Feedback 8: Maybe updates of the flagships, or even opportunities for trainings/workshops in the thematic fields either online or offline organised by expert partner(s)

Feedback 9: The information are really beneficial which are already available on the Dashboard. Perhaps, apart from the CEUP Partners' contacts, further contact and organisation details (e.g. use case/policy instrument owners) might appear.

Feedback 10: Maybe the updates of the calls for proposals of different international programmes (Horizon, Danube Transnational, Central Europe..), in particular in connection with the 4 thematic topics, can appear on the Dashboard in order to foster and enhance the collaboration and the preparation of new proposals among the partners and their stakeholders.



Feedback 11: Maybe workshop opportunities provided either by project partners or their stakeholders might be also beneficial to be shared on the dashboard.

Feedback 12: Apart from the direct partners, some additional institution contacts (e.g. use case owners) might be also added, based on their main competencies and expertise in the thematic topics.

Feedback 13: Maybe new collaboration opportunities, up-to-date information about the possible calls for proposals in connection with the thematic topics

Feedback 14: The broader topics relating to Industry 4.0.

Feedback 15: bio-materials, material recycling

Feedback 16: more case studies

Feedback 17: Call opportunities - like cascade

Feedback 18: Use cases dealing with successful adoption of technologies and description of the adoption process

Feedback 19: An easy to read description of the projects which are displayed in the maps

Feedback 20: up-to-date use cases and clear information about collaboration opportunities for my business

Feedback 21: Detailed Case studies - ex. numbers, opinions.

Feedback 22: a real Radar in the section trend radar

Feedback 23: Industry 5.0

Feedback 24: More details about Policy instruments (links, budget, etc.)

Feedback 25: new opportunities

Feedback 26: Updated tech radars and roadmaps

Feedback 27: database of ongoing projects where partners can join consortia

Feedback 28: Higher visibility: Brief CVs and contacts of potential and ongoing Industry 5.0

Feedback 29: To provide direct links to policy instruments and an indication about when the last tech radar update happened

Feedback 30: trainers/lecturers/researchers/experts (update 1 per week, 1 per two weeks or 1 per month

Feedback 31: Info about other initiatives from non partner network also



Q9. Any other comments you want to share with us?

- Feedback 1: You should make versions of the website in other national languages - many people may not understand technical English.
- Feedback 2: FROM SHOP FLOOR, ROBOTS AND OTHER PERIHPERAL UNITS
- Feedback 3: The current version of the Dashboard is well-structured and comprehensible
- Feedback 4: The Dashboard is attractive and contains several useful knowledge and information. No more comments to add.
- Feedback 5: I could widen my knowledge in the thematic fields due to the described use cases, flagships and tech radars. No further comment from my side
- Feedback 6: Clear page, small and easily digestible doses of knowledge. Great job!
- Feedback 7: Direct links to project websites would be helpful to better understand them.

4 respondentów (17%) odpowiedziało **Dashboard** na to pytanie. ...



Q10. In which area have your knowledge been broaden the most?

● Intelligent Production Systems	23
● Automation and Robotics	24
● Smart Materials	20
● Artificial Intelligence	27



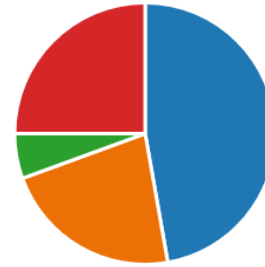
- Answering the question In which area have your knowledge been broaden the most:
- 28% of respondents chose artificial intelligence
 - 26% of respondents chose automation and robotics
 - 25% of respondents chose intelligent production system
 - 21% of respondents chose smart materials

Q11: Which tool you find the most useful?



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● synergy	17
● moodle	8
● hypertree	2
● dihnet	9



67% of respondents were interested to join one or more tools opportunities presented in the PID. 22% of them still do not know if they want to join and 12% of them were not interested.

Answering the question Which tool you find the most useful?:

- 47% of respondents pointed synergy tool
- 22% of respondents pointed moodle tool
- 6% of respondents pointed hypertree tool
- 21% of respondents pointed dihnet tool

6. Conclusions & Next Steps

The Report provides a complete summary of the Peer Review interviews & stakeholder feedbacks, to deliver improvement recommendations for actions that will follow up CEUP2030 project.

The qualitative and quantitative review of the activities in Work Package 2 (WP2) has shown that impact on the participants in the TTTDMs has been made and has the potential to generate connections of potential cooperation between Central Europe triple-helix actors and to really improve the technological transfer.

Overall, Peer Reviewers contacted see the benefit of CEUP2030 and the relevancy of its objectives.

The survey with peer reviewers was very informative and pointed out which steps should be undertaken to smoothen and facilitate the e-learning platform to encourage and maintain focused groups.