

Future  
Finance  
Poland

# FUTURE FINANCE POLAND

**A STRUCTURED DEMOCRATIC DIALOGUE TO IDENTIFY  
EFFECTIVE ACTION TO TO BUILD A NEW GENERATION  
FINANCIAL CENTRE IN POLAND?**

**MAY 2022**

# ACRONYMS

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Acronym	Definition
&	And
#	Idea number
§	Section
C	Cluster
CNR	Consiglio Nazionale delle Ricerche
CNTI	Cyprus Neuroscience & Technology Institute
EIGE	European Institute for Gender Equality
GE	Gender Equality
GEP	Gender Equality Plan
L	Level
MLW	Mutual Learning Workshop
P	Practice
R&I	Research and Innovation
RFO	Research Funding Organisation
RPO	Research Performing Organisation
SDD	Structured Democratic Dialogue
SDGs	Sustainable Development Goals
TQ	Triggering question
V	Votes



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## **ABOUT THE PROJECT**

# 1. Methodology

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## CO-LAB: BRIEF DESCRIPTION AND JUSTIFICATION

Two participatory workshops (typically referred to as Co-Laboratories) were implemented for the “Future Fintech Poland” project. Both were facilitated using the methodology of Structured Democratic Dialogue<sup>1 2 3</sup> (SDD). The first was implemented with members of the client’s group between February and March 2022 using a hybrid virtual model<sup>4</sup>, which combines online synchronous with offline asynchronous sessions. The first purpose was to equip the clients with the methodology, to assist them to generate concise vision statements and to structure them into an Influence MAP (IM). The second purpose as to assist them in preparing vision statements as input for the main SDD, which was conducted face-to-face (f2f) in Warsaw with participants carefully selected by the client. This report documents the results of the f2f SDD.

This particular methodological approach has been chosen for a number of reasons. SDD is a modern participatory method of discussion and decision-making most appropriate for the management of complex problems and challenges that involve multidisciplinary and multi-sectoral stakeholders. This method allows for the integration of contributions from individuals with diverse views, backgrounds, and perspectives through a process that is structured, inclusive, and collaborative. It is considered particularly effective in resolving multiple conflicts, interests, and values and in bringing the participants closer to developing a shared language and understanding, as well as the strategy for resolving the issue.

## KEEPING THE DISCUSSION FOCUSED

The initial component of the SDD Co-Lab was the formulation of an appropriate Triggering Question (TQ). The TQ is framed in a way that provokes participants to generate relevant and concrete responses. It also serves as a tool to keep participants focused on the objectives of the Co-laboratory.

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1 The SDD methodology utilizes Interpretive Structural Modeling (which is incorporated in the Concertina and the Cogniscope software), which eliminates this phenomenon, while also minimizing the number of binary comparisons required with the use of mathematical algorithms.

2 SDD was developed in the 1970s with the initiators Alekos Christakis (Christakis, 1973), John Warfield (Warfield, 1982), and Hasan Özbekhan (Özbekhan, Jantsch & Christakis, 1970), within the Club of Rome.

3 SDD is based scientific on 7 laws of science of complex systems (complex systems) and government (cybernetics) and it has been scientifically documented worldwide in hundreds of cases over the last 30 years. More information on the methodology of the Structured Democratic Dialogue exist in books (Christakis & Bausch, 2006; Flanagan & Christakis, 2009), websites (Wiki, 2010), simple introduction to the theory (Laouris, 2012), or earlier related applications (Laouris, Dye, Michaelides & Christakis, 2014; Laouris, Michaelides & Sapio, 2007; Laouris & Christakis, 2007).

4 The new hybrid model has been developed by the Laouris Group at Future Worlds Center (Laouris & Christakis, 2007; Laouris & 105 others, 2017).

## **AVOIDING GROUPTHINK PHENOMENA**

In meetings where no measures are taken to protect the autonomy and authenticity of all opinions, there is the risk that some participants will support views that represent their "leader" or the majority of the group because they do not want to "go against the group". This results in participants reaching an apparent agreement, which only represents the "most powerful opinion". This phenomenon is known as "Group Think". The SDD methodology prevents this phenomenon by using the Nominal Group Technique, which gives equal time and equal importance to each contributor/idea. Furthermore, it requires a complete separation of content and process, which means facilitators are not allowed in any way to interfere with the content. Finally, all contributions are typed and shared with everyone in real-time, which prevents any subsequent modification by others. Together, these measures combat Groupthink.

## **AVOIDING ERRONEOUS PRIORITIES**

It is well established that a complex problem cannot be solved even if all individual subproblems are solved, simply because there exist interactions between them. The SDD methodology requires participants to explore and detect influence relations between their contributions. This is important because it has been shown that if different stakeholders discuss and propose actions to solve a complex problem, but then choose those actions that the majority sees as most important (i.e., using popular voting), they are likely to decide to invest in solving sub-problems, which at first seem important (in the eyes of the majority) but they in reality might not have sufficient leverage. However, if the same stakeholders were prompted to explore the influence of one action to solve another, they end-up discovering so-called deep drivers, which are different from those chosen earlier through popular voting. The phenomenon of choosing to act on factors that are not the most efficient is known as Erroneous Priorities Effect.

## **IDEA GENERATION AND CLARIFICATION**

The participants were asked to provide their ideas for initiatives or actions by entering them in the IdeaPrism mobile application during the week prior to the first online synchronous Zoom session. They were required to provide their contributions in three different formats:

- A single, concise and concrete Statement
- A few paragraphs clarifying their idea
- A short (max 2 min) video clip clarifying their idea

The purpose of this was, firstly to begin engaging the participants well ahead of the live plenary session, and secondly to reduce the time required for collecting all ideas during the plenary.

The participants were advised to state their ideas in the form of action statements in order to encourage them to think in practical terms. They were also encouraged to explain how their ideas were SMART!

<b>SPECIFIC</b>	<b>How this action could be implemented</b>
<b>MEASURABLE</b>	<b>Provide indicators to measure progress of the action</b>
<b>ASSIGNABLE</b>	<b>Who is responsible for the implementation of the action</b>
<b>RELEVANT</b>	<b>What would the results of the action be?</b>
<b>TIME-BOUNDED</b>	<b>When the result(s) can be achieved?</b>



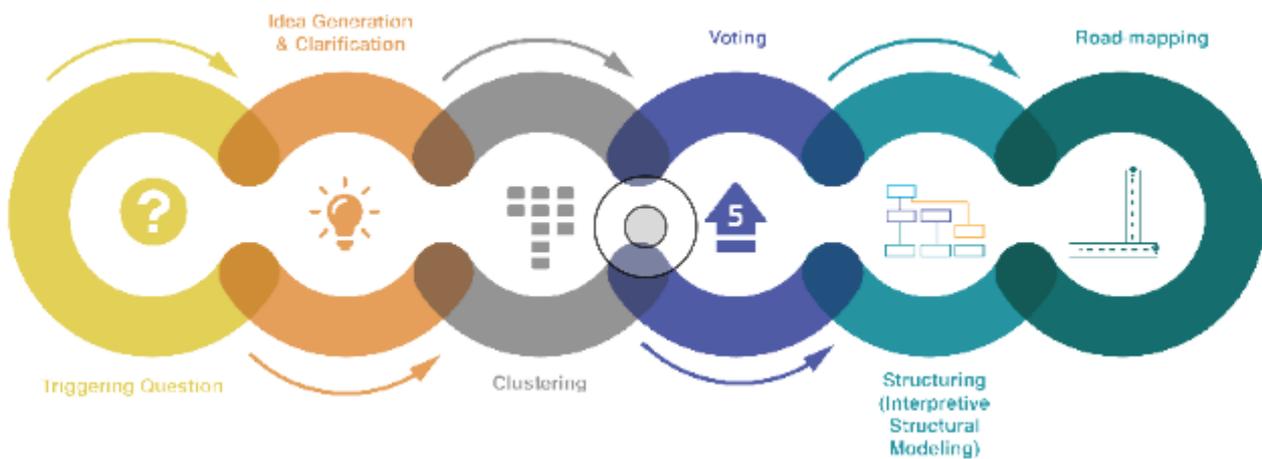


Fig. 1. The Diagram exemplifies the steps of a typical SDD process.

## CLUSTERING

All ideas/actions are grouped into categories or clusters based on similarities and common characteristics. The method requires that the clustering takes place while the participants are asked how two random ideas have enough common features to justify placing them in the same cluster (without this cluster yet existing!). This bottom-up process results in evolutionary clusters and participants benefit from an in-depth discussion around the meaning and importance of each action/ idea, enabling the creation of wider consensus regarding the hot topic discussed.

Through this process, participants develop a common vocabulary and a common understanding about the various aspects of the hot topic (triggering question) being discussed. Broad consensus is achieved through discussion of possible different perceptions in relation to the meaning and importance of each idea/ action. The clustering is registered either in the Concertina™ (online), or in the Cogniscope™ (Desktop application) tool. The clusters and their actions/ideas are printed and distributed so that all participants can examine and review them.

## VOTING

All participants are given five votes and are asked to choose the actions/ideas they believe can help the most in addressing the topic and are the most important for them.

Only actions/ideas that receive two or more votes move to the next and most important step of the SDD process.



## MAPPING

This phase collects the actions/ideas that have received votes. Typically, ideas with 3 or more votes are considered further. If time permits, then ideas with 2 votes are also considered for Mapping. The participants are asked to investigate whether making progress or implementing one action/idea can **SIGNIFICANTLY** support the implementation of another. Two actions are selected by the Interpretive Structural Modeling algorithm and presented in the form:

Assuming we make progress in implementing the first action  
would this **SIGNIFICANTLY** support the implementation of the  
second action  
in the context of the Triggering Question

Participants are allowed to discuss thoroughly and provide their arguments pro or against an influence of one to the other and then take a vote. If 2/3 of the votes are positive, then the relative influence of the first action on the second action is established. When the facilitator asks the participants to vote and the vote is higher or close to 50% but lower than 2/3, the matter is discussed in more depth and the participants are asked to revote. Gradually, after evaluating all relevant pairs in this manner, an influence action tree is created. The actions at the bottom of the tree structure are considered the deep drivers, because they support actions above them; i.e., they pinpoint to those actions that must take place first in order to enable the rest of the actions to be implemented with less effort.

## **MULTI-CRITERIA EVALUATION**

In order to consider additional parameters to support decisions for action, the factors that made it to the final MAP are scored by the participants for Impact, Feasibility and Probability of happening without intentional intervention. These scores, in connection with the consensus achieved during the ISM step, are used to make better decisions when choosing actions to act upon.

## 2. RESULTS

### PRIORITIZATION OF ACTION PLANS

The plenary session began with a short introduction of the purpose and aim of the project by one of the hosts. The facilitator reminded them to state their ideas-actions following the SMART criteria. Subsequently, the participants stated and explained their ideas/actions to all other participants one after the other. This requires active participation and active listening by all. Time was allocated to each idea for others to ask clarification questions, but were not allowed to express judgement or criticise any idea. The premise of the clarification phase is to allow participants to gain greater understanding of the action based on the meaning attributed to the action by its own author. Each proposed action was recorded in Cogniscope™ software and broadcasted via Zoom to all. The sessions were also videotaped.

### TRIGGERING QUESTION

Jakie krótkoterminowe, wymierne działania możemy podjąć w ramach inicjatywy Future Finance Poland, aby Polska znalazła się w czołowej trzydziestce rankingu GFCI w ciągu najbliższych 2-3 lat?"

Each participant has received 5 stickers-votes and requested to place them on their top-5 actions. The following Table shows the results. Fig. 2 shows the same results in the form of a Histogram. The latter illustrates the fact that a few factors receive most of the votes. Overall, about half of the factors have received any vote at all, indicating that the participants have converged in their preferences. The percentage of factors with 1 or more votes is known as Spreadthink.

#	VOTES	ACTION PLAN
1	10	Prioritize the FFP on the political agenda
8	7	Partnerships with other Financial Centers throughout the world
17	7	Building Future Finance Poland lighthouse
37	7	Map of available research and analytical resources and ongoing projects
3	6	Creating a detailed strategy for sustainable financing
12	5	More recognized and better picture of Poland on international markets
2	4	Promotion campaign on business services centers in Poland
29	4	Market-wide technological ecosystem for creating and testing financial innovation
33	4	Poland as a European Hub of decentralized finance and web 3.0
36	4	Business services center as a part of a successful FFP structure
4	3	Support local partnerships between fintechs and local FS sector
11	3	Develop new products and markets that have export potential

16	3	Creating programs like Erasmus for startups
31	3	Public-private collaboration
38	3	Building a decentralized network of FFP supporters (beyond Warsaw)
14	2	Supporting open finance development
15	2	Creating innovation hub based on the digital currency
18	2	Create forums for networking with other Financial Centers
19	2	Education and promotion program FFP for students
21	2	Simplification of new business establishment
22	2	Introducing regulations for tokenization of securities and real estate
6	1	Finding competitive advantage of Polish financial sector
10	1	Customer financial education
20	1	Building trust for the financial sector from the market
24	1	Permanent forum for the dialogue about the future shape of the FFP
27	1	Internal development of Polish capital market
28	1	Blockchain and AI legislation
30	1	Promoting sustainable finance
35	1	Infrastructural development of Warsaw
5	0	Introducing competitive legislation in finance
7	0	Creation of an effective and friendly regulatory environment is a must otherwise it will not compete with other regional centers
9	0	Sustainable finance innovation hub to recruit the hottest fintechs
13	0	Conduct research about financial sector policy and long-run growth
23	0	Engage large, state-owned financial institutions in promoting FFP
25	0	Financial inclusion competence center
26	0	Foreign capital protection road map
32	0	Regulations improving cross-border data exchange
34	0	Improving regulations for promoting AI

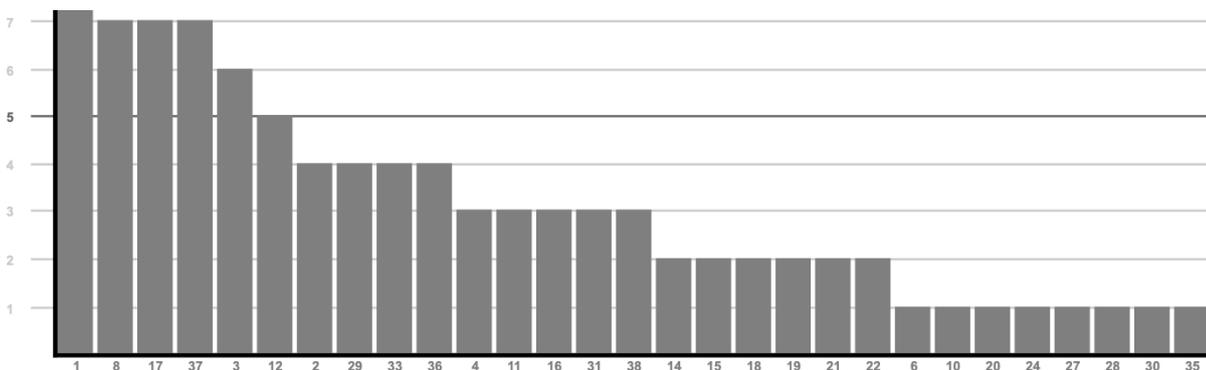


Fig. 2. Plot shows the number of votes per idea.

# CLUSTERS

In the next step, the participant conducted clustering using the bottom-up approach explained in the methodology. They discovered 7 Clusters, shown in Fig. 3.

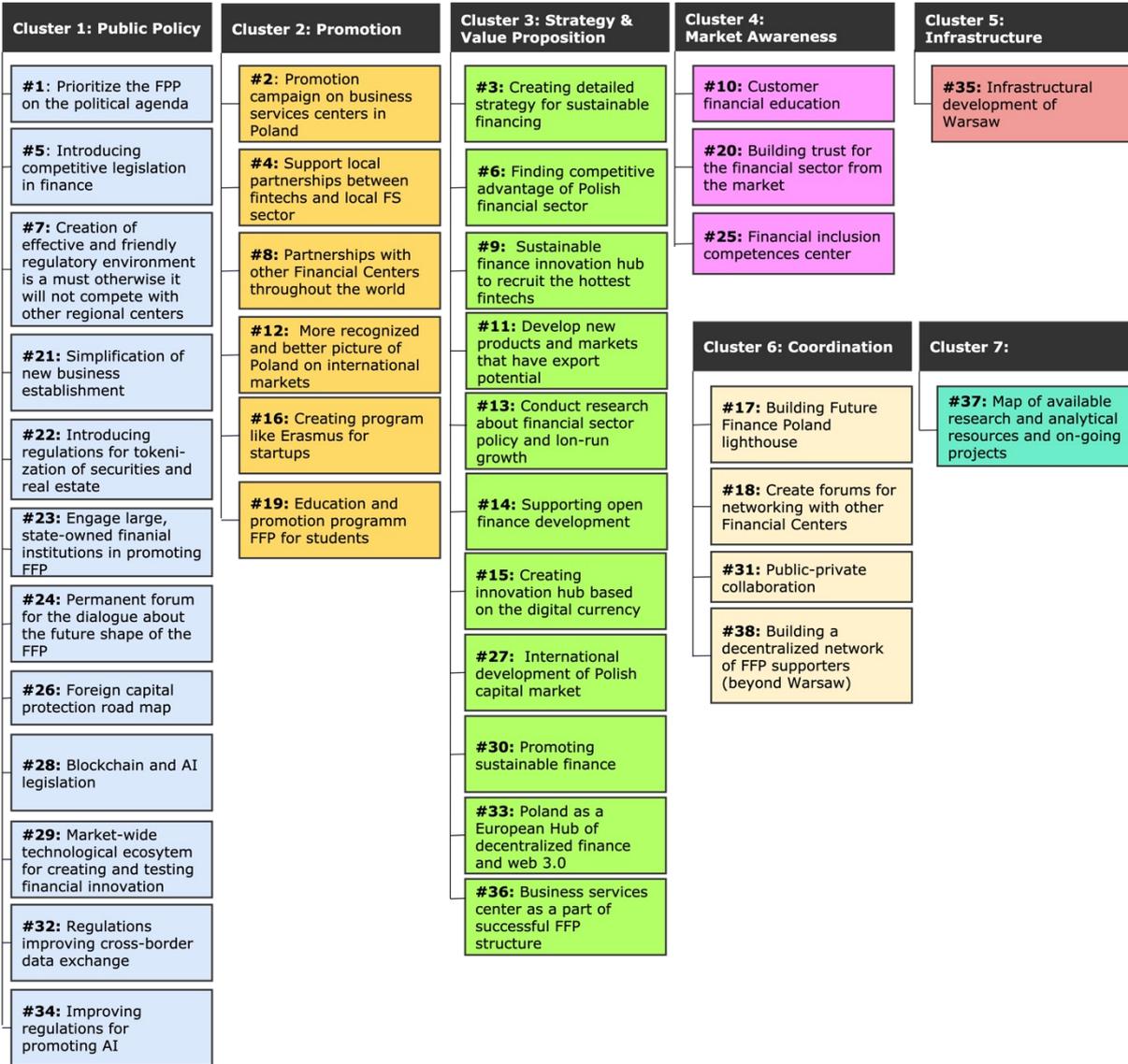


Fig. 3. Categories created during the clustering process.

## STRUCTURING ACTIONS ACCORDING TO INFLUENCE

At the end of an about 90 min-long mapping session, the participants managed to structure all actions that have received 3 or more votes. The influence relations between those ten actions are shown in Fig. 4. The obvious characteristic of the MAP is that it features two pathways, but both pass through Action #17: Building Future Finance Poland Lighthouse. Examining the root of the MAP, we observe that Action 37: Map all available research and analytical resources and ongoing operations supports only the left pathway; i.e., through Action: 8: Partnerships with other Financial Centers throughout the world, it supports Action: 17, which in turn supports all actions lying above it. On the contrary, Action #36: Business service centers as part of a successful FFP structure, supports both the left and the right pathways.

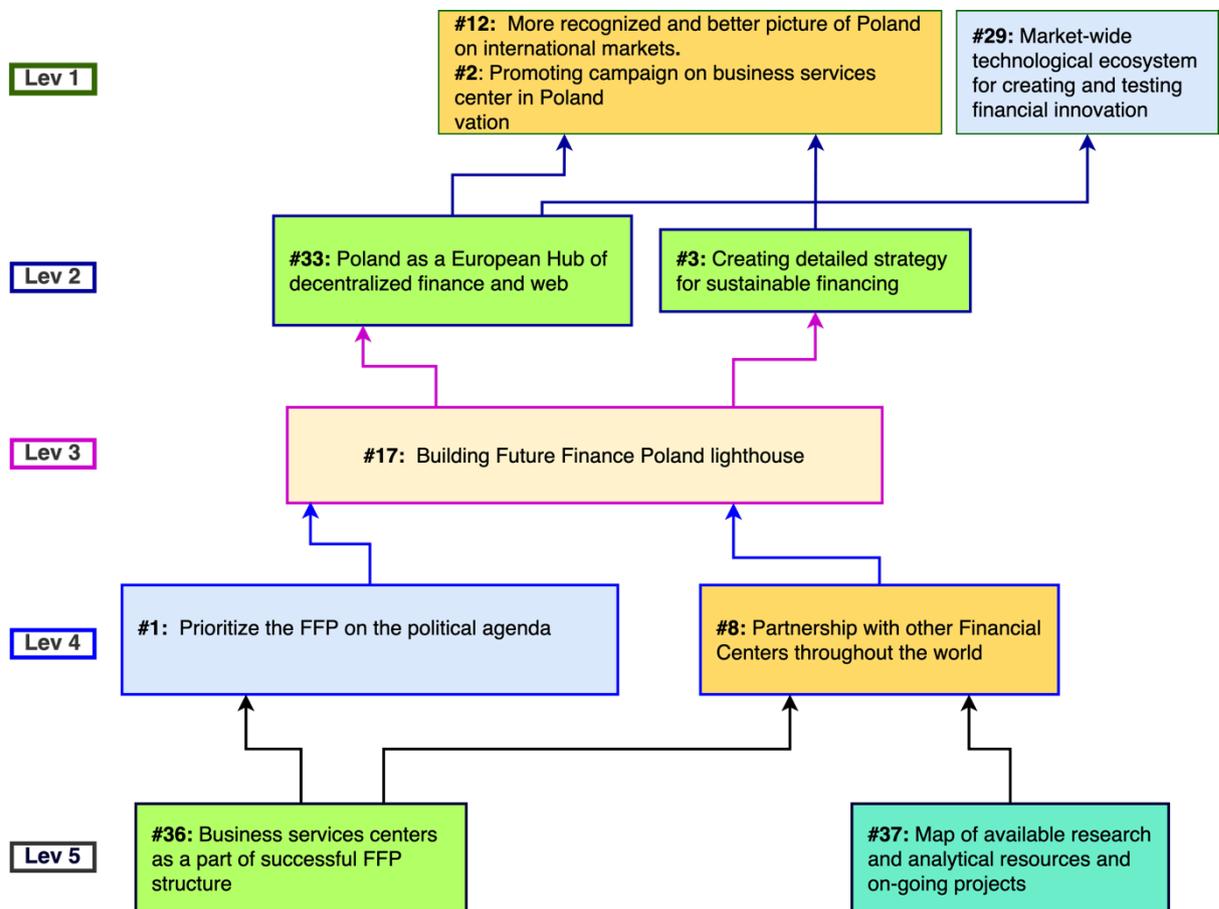


Fig. 4 The MAP that has been generated during the computer-assisted step of the

The most striking characteristic of this MAP is that Action 17 appears to be an instrumental, intermediary step that provides support for the implementation of the actions that lie at the top of the MAP. Typically, the top of the tree structure is populated with ideas that pinpoint towards ultimate goals of a strategy; i.e., they are more visionary. In this case, we have:

- ACTION: #29: Market-wide technological ecosystem for creating and testing financial innovation
- ACTION: #12: More recognized and better picture of Poland in international markets
- ACTION: #2: Promotion campaign on business centers in Poland

Following the 90-min formal structuring session, the facilitators have asked the authors of the actions that have received 3 or 2 votes to take the printouts of their ideas from the wall, to go and stand in front of the MAP that has been reconstructed at another place in the room, and discuss with the rest of the group whether that particular action can be placed at some location within the existing structure.

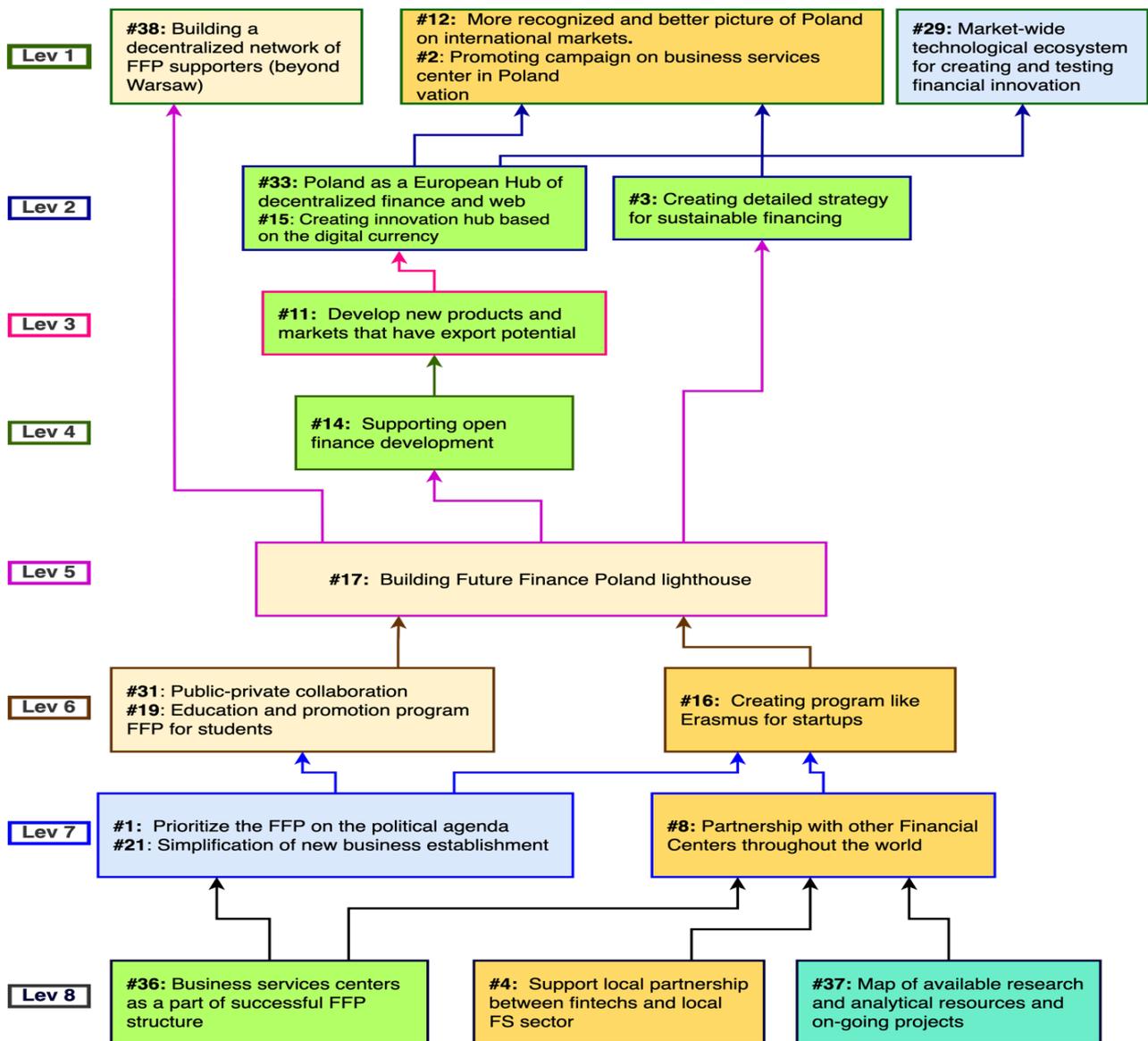


Fig. 5 The MAP as amended by the participants manually

This step is less formal and the outcomes are not grounded on strict majority voting as in the previous step. The justification for such a “manual” continuation of the mapping step is that participants have already understood and internalized the use of transient logic and of influence relations and they are therefore in a good position to make such “surgical” insertions to the MAP. The resulting MAP is shown in Fig. 5. The new MAP is different from the original in the following ways:

### **1. A NEW ACTION AT THE TOP**

Action #38: Building a decentralized network of FFP supporters (beyond Warsaw) has been inserted at the top of the MAP. As explained above, ideas at the top are typically more visionary and their implementation requires support from other actions. The participants justified the placement of action #38 at the top because they agreed that it would be easier to implement once Action #33 is implemented.

### **2. A NEW ACTION AT THE ROOT**

The participants inserted Action #4: Support local partnerships between fintechs and local FS sector at the root, supporting Action #8. In other words, they looked at Action #8: Partnership with other Financial Centers throughout the world, and agreed that Action #4 could significantly support it.

### **3. TWO NEW LEVELS ADDED**

Probably the most interesting outcome of the follow-up manual mapping is the fact that the participants have created two new levels to the MAP, one below and one above Factor #17, which continues to stand out as an important intermediary step. Action #31: Public-private collaboration and Action #16: Creating a program like Erasmus for startups were inserted below Action #17. Action #11: Develop new products and markets that have export potential was inserted above Action #17 and below the actions that made it to the top of the tree.

The discovery of actions that lie at the root, as well as actions that lie within the structure (e.g., the actions that lie below and above Action #17) is of great importance, because they render the implementation of the overall action map smoother and more effective.

## ANALYSIS OF SCORES FOR IMPACT, FEASIBILITY, AND PROBABILITY

The stakeholders were requested to score (Likert scale 1-5) the actions that made it to the MAP (i.e., Level 5: 36, 37, Level 4: 1, 8, and Level 3: 17) for, Impact, Feasibility, and their Probability to be implemented without any intervention by some actor. The detailed results are available in Appendix X.

The consideration of these scores, in connection with the consensual discovery of the most effective actions (i.e., those at the root of the MAP), equips stakeholders with additional criteria and leverages to decide on how to prioritize the most appropriate, value-for-money, actions while developing their change strategy.



Fig. 6. Impact minus Probability (Y Axis) for Actions with 2 or more votes (X Axis)

Fig. 6 shows the differences between the scores for Impact and Probability for the 21 actions that have received 2 or more votes. The red line corresponds to the average and it is shown to distinguish between actions that lay above or below. Actions above that (arbitrary) baseline have a high impact but will only happen if the relevant stakeholders take specific actions, i.e., low probability to happen without new intervention. According to this analysis, the following factors should be considered as having some priority, after addressing the deep drivers discovered during the ISM step:

- 1 Prioritize the FFP on the political agenda
- 17 Building Future Finance Poland lighthouse
- 12 More recognized and better picture of Poland on international markets
- 29 Market-wide technological ecosystem for creating and testing financial innovation
- 33 Poland as a European Hub of decentralized finance and web 3.0

- 31 Public-private collaboration
- 38 Building a decentralized network of FFP supporters (beyond Warsaw)
- 15 Creating an innovation hub based on the digital currency
- 18 Create forums for networking with other Financial Centers

Taking into account that 1 and 17 have already been identified as critical factors during the Mapping step, this analysis recommends considering also 12, 29, 33, 31, 38, 15, and 18 as possible priorities.

The list is now enriched to include all the actions that made it to the MAP, plus the above:

- 1 Prioritize the FFP on the political agenda
- 4 Support local partnerships between fintechs and local FS sector
- 8 Partnerships with other Financial Centers throughout the world
- 12 More recognized and better picture of Poland on international markets
- 15 Creating an innovation hub based on the digital currency
- 16 Creating program like Erasmus for startups
- 17 Building Future Finance Poland lighthouse
- 18 Create forums for networking with other Financial Centers
- 19 Education and promotion program FFP for students
- 21 Simplification of new business establishment
- 29 Market-wide technological ecosystem for creating and testing financial innovation
- 31 Public-private collaboration
- 33 Poland as a European Hub of decentralized finance and web 3.0
- 36 Business services center as a part of a successful FFP structure
- 37 Map of available research and analytical resources and ongoing projects
- 38 Building a decentralized network of FFP supporters (beyond Warsaw)

The next step involves the consideration of feasibility. We do not examine feasibility during the SDD process, because premature consideration tends to discourage stakeholders from even considering proposals that appear (to them) to have low feasibility. Post-SDDP however, we wish to pay more attention to actions that besides having been given high priority based on the previous analyses they are also reasonably feasible.

In Fig. 7, the feasibility scores are plotted against the [Impact – Probability] scores. The red lines represent the respective averages and help the viewer identify the actions that have a high [Impact – Probability] score plus a high Feasibility score; i.e., those clustered in the upper right square.

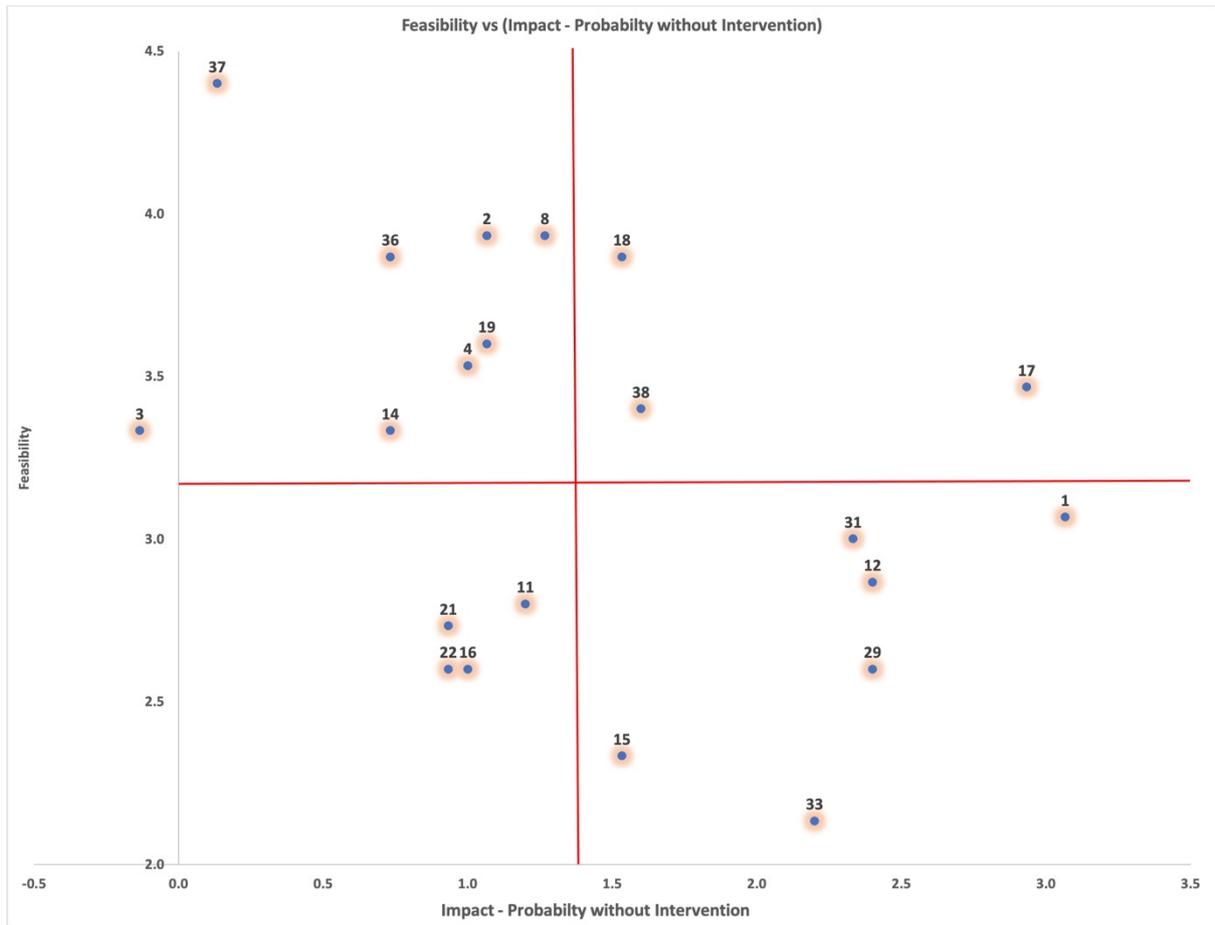


Fig. 7. Impact minus Probability (X-axis) plotted against Feasibility for Actions with 2+ votes

This analysis reveals that, according to the stakeholders' judgment, actions 18, 36, and 17 are both relatively more feasible than the rest, and at the same time they have a high [Impact – Probability] score. Interestingly, Action #18: Create forums for networking with other Financial Centers was among the only two (i.e., 18 and 22) that the stakeholders did not amend to their final MAP during the final step, but they considered as highly feasible and with a good [Impact – Probability] score. Action #36 ended up at the root of the MAP, therefore this analysis re-confirms the role of 36 in the system of actions. Finally, the fact that Action #17 has been scored as both feasible and having a good [Impact – Probability] score is a reinforcement of its role and priority.

## APPENDIX I: LIST OF ACTION PLANS

In response to the Triggering Question "Jakie krótkoterminowe, wymierne działania możemy podjąć w ramach inicjatywy Future Finance Poland, aby Polska znalazła się w czołowej trzydziestce rankingu GFCI w ciągu najbliższych 2-3 lat?": the participants generated the following 38 proposals for actions.

#	ACTION PLAN
1	Prioritize the FFP on the political agenda
2	Promotion campaign on business services centers in Poland
3	Creating a detailed strategy for sustainable financing
4	Support local partnerships between fintechns and local FS sector
5	Introducing competitive legislation in finance
6	Finding the competitive advantage of the Polish financial sector
7	Creation of an effective and friendly regulatory environment is a must otherwise it will not compete with other regional centers
8	Partnerships with other Financial Centers throughout the world
9	Sustainable finance innovation hub to recruit the hottest fintechns
10	Customer financial education
11	Develop new products and markets that have export potential
12	More recognized and better picture of Poland on international markets
13	Conduct research about financial sector policy and long-run growth
14	Supporting open finance development
15	Creating innovation hub based on the digital currency
16	Creating program like Erasmus for startups
17	Building Future Finance Poland lighthouse
18	Create forums for networking with other Financial Centers
19	Education and promotion program FFP for students
20	Building trust for the financial sector from the market
21	Simplification of new business establishment
22	Introducing regulations for tokenization of securities and real estate
23	Engage large, state-owned financial institutions in promoting FFP
24	Permanent forum for the dialogue about the future shape of the FFP
25	Financial inclusion competence center
26	Foreign capital protection road map
27	Internal development of Polish capital market
28	Blockchain and AI legislation
29	Market-wide technological ecosystem for creating and testing financial innovation
30	Promoting sustainable finance
31	Public-private collaboration
32	Regulations improving cross-border data exchange

- 33 Poland as a European Hub of decentralized finance and web 3.0
- 34 Improving regulations for promoting AI
- 35 Infrastructural development of Warsaw
- 36 Business services center as a part of a successful FFP structure
- 37 Map of available research and analytical resources and ongoing projects
- 38 Building a decentralized network of FFP supporters (beyond Warsaw)

## FACILITATION TEAM

### **Dr. Yiannis Laouris**

Yiannis is a social, science and business entrepreneur, a neuroscientist and systems engineer. He founded Future Worlds Center, the Cyprus Neuroscience & Technology institute, the Cyprus Society for Systemic Studies, and several high-tech companies. He is Member of the Board of the Institute for 21st Century Agoras, national representative in several COST Actions, Insafe, Inhope, EU Kids online, ECSO, Cybercrime Centre of Excellence, ECTEG – Europol, etc. He is one of the 12 authors of the ONLIFE Manifesto. Laouris promotes the application of digital technologies and structured democratic dialogue as tools to harness the collective intelligence and collective wisdom of people. His team develops systems to scale up participatory dialogic processes to engage asynchronously thousands of participants in meaningful authentic dialogues, thus accelerating institutional and societal change. Laouris has a medical degree and a PhD in Neurophysiology from Germany, and an MS in Systems and Industrial Engineering from the US. His work is published in several books, over 100 scientific papers and honored with more than a dozen distinguished awards.



### **Mr. Kevin Dye**

Kevin is a Senior Research Scientist at Future Worlds Center, Senior Analyst at Ekkotek Ltd., and Research Director at the Institute for 21st Century Agoras. He studied Mechanical Engineering at Northeastern University and Massachusetts Institute of Technology. As Special Assistant to the Vice President of Information Systems of UTC Otis World Headquarters he managed the task force in structured systems analysis, supervised much of the research and gained commitment of \$10M. As President of the Green Light Foundation he was responsible for engaging stakeholders in sustainable community development. He is expert in Research Program Planning, Technology Strategy, Design Methodology, Requirements Engineering, Multi-Criteria Decision Support, Systems Analysis, Process Re-design, and Knowledge Engineering. Kevin is credited for the discovery of the Eronneous Priorities Effect.



