AWARE7

EcoSys4you

Action Plan for WP5

v1.0, 29. Mai 2024

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Action Plan WP5 - EcoSys4U

Datum: 29. Mai 2024

Version: 1.0

Informationsklassifizierung

**SK-1 - Restricted
TLP;GREEN**

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Disclaimer

This document describes the current planning. Unforeseen circumstances and events can lead to steering. Therefore, this document serves as an orientation but not as a fixed roadmap to the hackathon. There might be changes in the exact times when we contact companies or plan challenges. According to A. Einstein: "Planning replaces chances with error".

Implementation Strategy

We decided on a hackathon format as it offers the most flexibility to find solutions for the participants. As we do not know which challenges will be given, we wanted to be as liberal as possible when deciding on a format. We wanted to include as many of the stakeholders as possible early on so we conducted a stakeholder workshop on the 22nd of February 2024. Participants were taking part from all regions of the project. We had a bias towards the Ruhr area as we explicitly invited founders of companies from the area, as we want to collect challenges from them and understand their perspective.

During the workshop we focused on four things with the founders from the Ruhr area:

1. What results would you like to see for yourself, the ecosystem and the young entrepreneurs?
2. What ideas for challenges do you have?
3. Problem definitions and what roadblocks do you see?
4. How would you solve these problems?

The rationales for these four main questions were mainly that we wanted to derive requirements for the hackathon from the stakeholders perspective, tap into previous experiences, understand common roadblocks and create workarounds for these roadblocks altogether.

During the workshop, participants shared their aspirations for the Ecosys4you program. The idea to start with this was to engage the participants early on and share a common understanding of the outcomes of the project. We identified three main dimensions in which the participants of the workshop saw the project develop:

The first dimension is the results of the hackathon itself. Many expressed a desire to engage with real-world problems presented by both young and established companies in the Ruhr region. They hope that the solutions proposed by the program participants will be considered viable and implementable by these companies, thus bridging the gap between theoretical knowledge and practical application while enhancing entrepreneurial spirit. Additionally, there is a strong emphasis on team dynamics, with a preference for teams composed of at least four motivated individuals, fostering an international, collaborative and productive environment.

The second dimension is the ecosystem dimension, which summarizes the outcomes for the ecosystem. Participants envision the development and proposal of viable business ideas that directly address the challenges posed. They anticipate the formation of international groups capable of creating sustainable solutions for local startups, with some of these ideas having the potential to scale beyond their initial context. Moreover, they expect the challenge givers within the ecosystem to

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receive innovative, concrete and actionable solutions, enhancing the overall innovative capacity of the regions involved.

The third dimension was the solution dimension for young entrepreneurs. Young entrepreneurs are expected to benefit significantly from the program, not just from the hackathon itself. Participants foresee a substantial improvement in the young entrepreneurs' understanding of how to develop and implement business ideas in a fast-paced world. The program should be designed to help them identify challenges and find solutions, working effectively in interdisciplinary and international teams. The engagement with meaningful challenges will provide practical experience, preparing them for real-world entrepreneurial endeavors and fostering a deeper entrepreneurial spirit among the youth involved.

The second question focused on actual challenge concepts or concrete ideas the participants had. During the workshop, participants suggested a variety of ideas for challenges that could be incorporated into the Ecosys4you program. One prominent concept that was introduced is to offer a mix of social and technical challenges that align with the interests of the students. This is an aspirational goal for the challenges, which we aim to fulfill. Following this approach ensures that the challenges are engaging and relevant, catering to a diverse set of skills and preferences while staying relevant for the local ecosystem.

There were also already specific challenges proposed, which involves helping a startup expand its market internationally. This challenge would require participants to develop strategies for market entry, considering cultural, economic, and regulatory differences among the ecosys4you regions. Another idea is to create cross-sectoral challenges that integrate fields like cybersecurity and health, encouraging interdisciplinary solutions and collaboration.

Participants also emphasized the importance of real-life challenges provided directly by companies. This would ensure that the problems are current and relevant, providing participants with practical experience. For instance, a challenge involving the implementation of AI in municipal administration could explore how to enhance efficiency and transparency in local government operations. This would fit especially well into the strategy of the City of Gelsenkirchen.

Another technical challenge involves creating an usable system to collect and retrieve references for the consortium partner IAT. The problem they have is, that they need specific reference lists when writing offers. Those lists require detailed information from past projects that is often not readily available. Participants would need to develop a solution that streamlines this process, for example by using an artificial intelligence system.

Additionally, some challenges that were given are specific to the Ecosys4you project itself. These include finding effective ways to communicate project results to relevant target groups and strategies for recruiting students for the next cohort of the program. Lastly, a challenge focused on how to attract a skilled workforce was proposed, addressing a critical need for startups and companies within the ecosystem.

The Ecosys4you program faces several challenges in team formation and participation according to the participants of the workshop. One major issue the participants identified is the difficulty in recruiting enough motivated participants, even with the presence of interns. Another challenge will be to manage the challenges effectively. This involves selecting significant and engaging challenges and aligning them with participants' interests. As already described, this is a chicken-and-egg problem. While this is also a chicken-and-egg-problem and there is always a risk that not enough participants will be recruited, the participants also addressed some possible solutions. To address this, a robust recruitment strategy involving partnerships with universities, social media campaigns, and local events can be employed (see Acquisition of Additional Participants for more details). Additionally, offering attractive incentives such as certificates, networking opportunities, and potential job offers can draw more participants to take place in the competition. Defining a compelling prize structure, including for example cash rewards or startup funding, can also probably boost participation.

Engaging companies throughout the entire process of the hackathon is another critical challenge. While companies may be involved in defining challenges, maintaining their engagement throughout the program is essential, therefore the hackathon should become a success in most parts. This can be achieved by developing strong partnerships and clearly communicating the mutual benefits of organizing this first hackathon and then contributing to the following programmes as well. Preliminary meetings with potential challenge givers can help ensure companies provide sufficient insights for defining workable challenges.

Resource provision is another crucial element for the success of the programme. Participants need access to necessary resources, including high-speed internet, clear challenge descriptions, on-site support at least during the daytime, and food. Conducting an equipment audit and arranging for necessary devices, such as laptops and Raspberry Pi kits, ensures that all logistical needs are met.

Lastly the organization and support of teams effectively is also vital. Providing structured support, including mentorship and facilitation, can enhance team performance. Experienced entrepreneurs and industry experts can be recruited as mentors, highlighting the benefits of mentorship, such as networking opportunities and potential new business ideas. Ensuring that teams have the necessary equipment and support throughout the program will help them succeed.

Description	2024											
Co-ideation Challenges	1	2	3	4	5	6	7	8	9	10	11	12
Implementation Strategy	■	■	■	■	■							
Design of First Round Challenges						■	■	■				
Acquisition of Additional Participants							■	■				
Prizes and Awards					■	■	■	■	■			
Hackathon Organization						■	■	■	■			
Evaluation and Optimization										■	■	■
Intellectual Property Support								■				

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Design of First Round Challenges

At the hackathon, participants are confronted with at least three challenges for which they have to find one or more creative solutions within 24 hours. The challenges are set by supporting companies and represent real problems. The hackathon will concentrate on on-site challenges, but hybrid solutions can be added to support participants from our partner regions. Each challenge format was analyzed on how it supports a hybrid conduction. However, the main focus is on the on-site hackathon especially because a hybrid event generates a lot of technical and organizational overhead which is not feasible for the first prototype event.

So far, the following companies are selected to give challenges:
AWARE7 GmbH, XignSys GmbH (LoI), Fairnica GmbH (LoI)

From June 1, 2024, the companies will be tasked with constructing their individual challenges. If one of the LoI companies is not able to provide a challenge a potential replacement will be found. For example the internal ecosys4you challenges which were described in Implementation Strategy could be a fill-in challenge. The challenges shall be finalized by August 31, 2024. The solution is entirely up to the participants. The participants will be presented with various tools for creative problem solving (see below) during the hackathon, but they are completely free to choose their approaches and ideas.

Acquisition of Additional Participants

An online registration form will be available from June 15, 2024. The form should be made available on the ecosys4you.eu website. Registration for the hackathon is thus possible from July 1 to August 31, 2024.

The announcement of the hackathon should be disseminated as widely as possible in order to achieve a high number of participants. The following regional multipliers will be used for this purpose:

- Wirtschaftsförderung Gelsenkirchen
- ruhrHUB
- Anwendungszentrum Künstliche Intelligenz für kommunale Lösungen (KI4KL)
- Hochschule Rhein-Waal
- Westfälische Hochschule
- World Factory an der Ruhr-Universität Bochum
- Cube5
- Senkrechtstarter (Wirtschaftsförderung Bochum)
- start2grow (Wirtschaftsförderung Dortmund)

The multipliers will be contacted as soon as the application is active. They will be extended by the multipliers the other ecosys4you companies have in their respective focal regions.

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Prizes and Awards

The best projects of the participants are awarded prizes at the hackathon. A jury consisting of representatives of the supporting companies and mentors will select the best projects based on characteristics yet to be defined. Novelty, originality, potential impact and applicability could be evaluation dimensions for the finished projects. Every participant will be awarded with a certificate of participation.

AWARE7 will provide one of the prizes. Further prizes will be made available after consultation with other supporting local companies.

Further companies will be recruited by DOBA and RAPIV from the Varna and Maribor region.

Hackathon Organization

The hackathon will take place in the Science Park Gelsenkirchen, Munscheidstraße 14, 45886 Gelsenkirchen. The challenges will be held in the glass foyer of the building. A conference room will also be available for presentations. The award ceremony will take place in the Heilig-Kreuz-Kirche nearby, a former church and now event location. If this location is unavailable the award ceremony will also take place in the Wissenschaftspark.

The hackathon begins on September 21, 2024 at 9:00 a.m. with a short welcome. The supporting companies will then pitch their challenges for five minutes each. The 24-hour implementation period will officially start at 10:00 a.m. on the same day. From the commencement of the event, participants will be given a 24-hour window to conceptualize and develop their ideas. Participants are given the chance to be introduced to various creative problem solving tools that can help them develop their ideas. However, they are not forced to participate in any of the additional input events. Problem solving tools are described in chapter [Challenge Methodology](). The hackathon ends on September 22, 2024 at approximately 10:00 a.m., 24 hours after the start.

IMPORTANT: Participants are not obliged to use any of the provided tools, but are completely free to choose how they work and find results.

Participants will be provided with food and drinks throughout the hackathon. So far, the following catering is planned:

- **Lunch:** Soup from 12:00-15:00 (vegan)
- **Dinner:** Pizza (vegetarian/vegan options)
- **Breakfast:** Bread Rolls, Coffee, Tea
- **Drinks:** Water all day long, self-service

Participants should bring a sleeping bag if they do not want to hack 24 hours. They will be able to sleep in a conference room. The Wissenschaftspark will not be closed at night, so participants are able to choose their own timing.

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The first hackathon ends with the pricing ceremony on September 23, 2024, the first day of the Ruhr StartUp Week. The project teams will pitch their projects to the jury and afterwards the jury selects a winning team.

Challenge Methodology

For the hackathon, at least three challenges will be issued by companies and partners from the region. Participants are free to choose their methodology to tackle these challenges and can form groups on their own. There will be mentors available to assist participants in finding each other and organizing into groups. The choice of challenges will be left up to the participants, although we can provide support in conducting Co-Ideation Challenges. The possible formats will be outlined in this section.

Future Workshop

In a future workshop, a diverse group of participants gathers to explore and plan for the anticipated innovations or societal shifts on the horizon. The event kicks off by pinpointing the key trends and pressing issues likely to impact what lies ahead. Small groups then form, each diving into creative brainstorming sessions to unearth solutions and forge new ideas. These sessions are punctuated with hands-on activities, such as building prototypes or crafting scenario maps, allowing participants to tangibly engage with possible futures.

- **Phases:** Future Workshop consists of three main phases: Critique phase, Fantasy phase, and Implementation phase.
- **Goal:** To transform criticism of the present state into constructive future visions and actionable steps.
- **Engagement:** Encourages active participation and democratic processes among participants.
- **Flexibility:** Adaptable to different group sizes and contexts, focusing on generating practical and innovative solutions.

Characteristic	Details
Number of Participants	Typically 12-25, can be adapted for smaller or larger groups.
Duration of Execution	Usually 1-3 days, depending on the depth of the topics. Can be adapted to a single-day challenge.
Suitable for Hybrid/Webcam	Yes, effectively with moderation.

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Facilitation Intensity	High, requires active moderation to guide through phases.

Critique Phase
- **Objective:** Identify and articulate dissatisfaction and problems in the current scenario.
- **Activities:** Participants discuss and list grievances or shortcomings without proposing solutions.
- **Outcome:** A clear understanding of what is wrong or lacking, setting the stage for creative brainstorming.

Fantasy Phase
- **Objective:** Encourage unrestricted creativity in envisioning solutions.
- **Activities:** Participants use imaginative thinking to develop ideal solutions without constraints of feasibility.
- **Outcome:** Generation of visionary, sometimes radical ideas that represent participants' desires and aspirations.

Implementation Phase
- **Objective:** Turn the creative ideas into practical, actionable plans.
- **Activities:** Participants analyze the ideas from the Fantasy phase for viability, develop strategies, and plan implementation.
- **Outcome:** Concrete steps and measures that can be implemented to address the initially identified problems.

Reverse Brainstorming

Reverse brainstorming is an imaginative twist on traditional brainstorming methods, where participants are encouraged to think of ways to cause a problem instead of solving it. This approach starts by identifying a specific issue or challenge and then deliberately brainstorming ideas that would exacerbate or create the problem. This counterintuitive strategy sparks creativity and can lead to innovative solutions by exploring the problem from a unique angle.

Process:
- Identify the problem.
- Reverse the problem by asking, "How could we cause this problem?" or "How could we make things worse?"
- Generate ideas based on these reverse questions.
- Reverse the ideas to find potential solutions to the original problem.

Objective: To uncover overlooked issues and generate innovative solutions by thinking from a different perspective.

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Characteristic	Details
Number of Participants	Typically 5-15, suitable for small to medium-sized groups
Duration of Execution	Usually 1-2 hours, depending on the complexity of the problem
Suitable for Hybrid/Webcam	Yes, moderate requirements
Facilitation Intensity	Moderate, requires guidance to ensure focus and productivity

Scamper

SCAMPER is a creative thinking technique that guides participants through a structured process to generate innovative ideas by modifying existing products, services, or strategies. The acronym SCAMPER stands for Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, and Rearrange. Each of these prompts serves as a lens through which participants examine and reimagine a given subject.

Process:
- Apply each SCAMPER prompt to the product, service, or idea to generate new ideas.
- Discuss and refine the generated ideas for feasibility and impact.

Objective:
- To stimulate creative thinking and explore a wide range of possibilities for innovation and improvement.

Substitute:
- Replace a component, material, or person with another.
- *Example*: Use a different material for manufacturing to reduce costs.

Combine:
- Merge two or more elements to achieve a new result.
- *Example*: Combine two products to create a new, multifunctional product.

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Adapt:
- Adjust or tweak an existing item to serve a new purpose or improve it.
- Example: Adapt a successful strategy from another industry to your own.

Modify:
- Change the form, appearance, or attributes of a product.
- Example: Modify the design of a product to make it more ergonomic

Put to another use:
- Use the existing item for a different purpose.
- Example: Repurpose an old device for a new function.

Eliminate:
- Remove elements or components that are unnecessary.
- Example: Eliminate features that add complexity without value.

Reverse:
- Rearrange or invert components or processes.
- Example: Reverse the order of steps in a process to improve efficiency.

Characteristic	Details
Number of Participants	Typically 5-15, can be adapted for larger groups
Duration of Execution	Usually 1-2 hours, depending on the depth of exploration
Suitable for Hybrid/Webcam	Yes, effectively
Facilitation Intensity	Moderate, requires a facilitator to guide through the SCAMPER prompts

Design Thinking Workshop

A Design Thinking workshop is a dynamic and interactive event that utilizes the principles of design thinking to tackle complex problems with innovative solutions. This method emphasizes understanding user needs, challenging assumptions, redefining problems, and creating innovative solutions through a hands-on, user-centric approach.

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Process:
- **Empathize**: Understand the user's needs and experiences through research.
- **Define**: Clearly articulate the problem to be solved.
- **Ideate**: Generate a wide range of ideas and solutions.
- **Prototype**: Build tangible representations of the best ideas.
- **Test**: Evaluate prototypes with users and iterate based on feedback.

Characteristic	Details
Number of Participants	Typically 5-20, suitable for small to medium-sized groups
Duration of Execution	Usually 1-3 days, depending on the scope of the workshop
Suitable for Hybrid/Webcam	Yes, effectively with GOOD moderation
Facilitation Intensity	High, requires skilled facilitation to guide through the stages.

Six Thinking Hats

A Six Thinking Hats workshop is structured around a decision-making technique developed by Edward de Bono, which uses six distinct types of thinking to explore ideas comprehensively from multiple perspectives. This method encourages parallel thinking and helps minimize the confusion and confrontations that often occur during group discussions. Each "hat" represents a different style of thinking, and participants systematically switch hats to ensure a rounded view of a situation.

- **White Hat**: Focus on facts, data, and information.
- **Red Hat**: Express emotions, feelings, and intuitions.
- **Black Hat**: Identify potential problems, risks, and critical judgment.
- **Yellow Hat**: Highlight the positives, benefits, and opportunities.
- **Green Hat**: Encourage creativity, new ideas, and alternatives.
- **Blue Hat**: Manage the thinking process and maintain control.

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Characteristic	Details
Number of Participants	Minimum of 6, but can be adapted for larger groups. (Hat Sharing)
Duration of Execution	Usually 1-2 hours, depending on the complexity of the issue
Suitable for Hybrid/Webcam	Yes, but less fun
Facilitation Intensity	Moderate, requires a facilitator to guide the use of each hat

World Café

A World Café workshop is designed to facilitate open and creative conversations to explore a particular topic or solve a problem. This format is particularly effective for engaging large groups of people in a relaxed, café-like environment that stimulates collaborative dialogue.

- **Setup**: Create a café-like setting with small tables and a welcoming environment.
- **Rounds**: Conduct multiple rounds of discussion (usually 20-30 minutes each) where participants move to different tables.
- **Host Role**: Each table has a host who stays put to summarize the discussion for new participants.
- **Harvesting**: Collect and share insights from all discussions in a final plenary session.

Characteristic	Details
Number of Participants	Typically 12-50, but can be adapted for larger groups
Duration of Execution	Usually 1-3 hours, depending on the number of rounds
Suitable for Hybrid/Webcam	Hard to manage Tables, not recommend

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Facilitation Intensity	Moderate, requires a facilitator to guide the process and manage discussions

6-3-5

The 6-3-5 Brainwriting method is a structured brainstorming technique designed to enhance idea generation in groups. It is particularly effective for encouraging all participants to contribute equally without the influence of more dominant voices that can occur in traditional brainstorming sessions.

- **Setup**: Each participant starts with a sheet of paper divided into three columns and six rows.
- **Rounds**: In each round (five minutes), participants write down three ideas and then pass their sheet to the next participant.
- **Building**: Each subsequent participant builds on the ideas already written, generating a total of 108 ideas after six rounds.

Characteristic	Details
Number of Participants	Typically 6, but can be adapted for multiples of 6
Duration of Execution	Usually 30 minutes to 1 hour
Suitable for Hybrid/Webcam	Can be effectively conducted virtually with digital tools but not recommended.
Facilitation Intensity	Low, requires minimal facilitation to manage the process.

General Support Across All Methods

In addition to the support outlined, we require and expect the following assistance from our partners during the execution of the event:

- Supply necessary materials such as stationery, digital tools, and platforms for virtual participation, ensuring all participants have the resources they need.

- Assist in recruiting a diverse and relevant group of participants to foster a broad range of perspectives and skills in the hackathon.

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- Promote the sessions within their networks to ensure robust participation, helping to increase visibility and engagement with the event.

- Help evaluate the effectiveness of the sessions and their outcomes, contributing to the continuous improvement and success of future sessions.

Support based on challenges

Facilitators: Provide facilitators to guide through the method phases on more complex challenges. e.g., Future Workshop will need intense instruction over the course of the workshop.

Hybrid Moderation: Ensure seamless integration of virtual participants with physical ones. One moderator for the virtual participants to synchronize with the on-site moderator.

Hybrid Integration: Some methods, such as World Café and Design Thinking, may present more significant challenges in maintaining engagement and collaboration across hybrid settings due to their interactive nature.

Technical Tools: Methods requiring rapid idea generation and sharing, like 6-3-5 Brainwriting and SCAMPER, benefit from robust digital collaboration tools in hybrid form.

Evaluation

Participants are requested to provide feedback on their experiences both during and after the hackathon. Key aspects of this feedback include the quality of tasks assigned, the effectiveness of the organization and support provided by the coordinating team, as well as the overall conditions of the event.

Similarly, the partner companies involved in the hackathon are also surveyed post-event. They are asked to evaluate the quality of the outcomes produced during the hackathon and the nature of the interactions and connections made with the participants.

The insights gained from these surveys are crucial. They are carefully analyzed and used to enhance and refine the planning and execution of future hackathons, ensuring continuous improvement in both participant experience and partner satisfaction.

Intellectual Property Support

The declaration regulating the ownership of the developed solutions will be provided to both participants and companies, ensuring a fair distribution of Intellectual Property Rights. This arrangement is intended to balance the interests of all involved parties. To formalize these terms, a contract will be drafted and later reviewed and proofread by a legal authority to ensure its compliance with applicable laws and its fairness to both participants and challenge givers. This document will be available by 31/08/2024.

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Ecosys4you – Engaging Entrepreneurial Ecosystems for the Youth (2023-2026) strives to bridge the entrepreneurial ecosystems of the Ruhr in Germany, Varna in Bulgaria, and Slovenia by connecting young founders, start-ups, HEIs and other ecosystem actors.

Consortium