



European  
Commission

# Valorising research through citizens' engagement

## How to run Hackathons with Citizens



*This work should be treated as a 'living document' that can be further enriched with feedback and good practices from the communities of innovation practitioners and knowledge valorisation stakeholders.*

## **Valorising research through citizens' engagement**

### **How to run Hackathons with citizens**

European Commission  
Directorate-General for Research and Innovation  
Directorate E — Prosperity  
Unit E.2 — Valorisation Policies & IPR  
Contact Iphigenia Pottaki  
Email RTD-VALORISATION-POLICIES-IPR@ec.europa.eu  
Iphigenia.POTTAKI@ec.europa.eu  
RTD-PUBLICATIONS@ec.europa.eu  
European Commission  
B-1049 Brussels

Manuscript completed in June 2022

The European Commission shall not be liable for any consequence stemming from the reuse of this publication.  
The views expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.

More information on the European Union is available on the internet (<http://europa.eu>).

---

PDF	ISBN 978-92-76-53057-2	doi: 10.2777/83875	KI-07-22-344-EN-N
-----	------------------------	--------------------	-------------------

---

Luxembourg: Publications Office of the European Union, 2022

© European Union, 2022



The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders. The European Union does not own the copyright in relation to the following elements:

Image credits for cover page and throughout: © ivector #235536634 #249868181 #251163013 #266009682, #273480523 #362422833 #241215668 #244690530 #245719946 #251163053 #252508849, 2020. Source: Stock.Adobe.com.

EUROPEAN COMMISSION

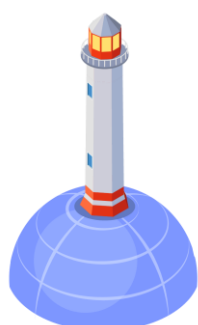
# Valorising research through citizens' engagement

How to run  
Hackathons with Citizens

Edited by Iphigenia Pottaki

# TABLE OF CONTENTS

INTRODUCTION .....	3
CITIZENSHACK2022 – KEY LESSONS.....	5
THE MAIN STAGES OF A CITIZENS’ HACKATHON .....	7
BUILDING BLOCKS OF AN EFFECTIVE CITIZENS’ HACKATHON	11
CONCLUSION.....	17
ANNEX 1 - CITIZENS’ HACKATHON CHECKLIST .....	18
ANNEX 2 - EVALUATION GRID.....	21



# INTRODUCTION

People are at the heart of the EU's research and innovation (R&I) agenda. Their engagement is crucial to tackling societal challenges as well as to create value for all parts of society. Innovative solutions, based on Europe's excellent science base and research, can contribute to improving people's lives, from everyday problems to the green and digital transition. Only by engaging citizens through meaningful opportunities for co-creation, can Europe deliver the changes we need.

Citizen engagement is relevant at all stages of R&I – from the identification and conceptualisation of R&I priorities to the testing and piloting, implementation, utilisation, valorisation and impact assessment of R&I results. As highlighted by the European Green Deal<sup>1</sup>, the EU is committed to promoting experimentation for innovative solutions while mobilising local communities and citizens. The European Research Area (ERA) Communication<sup>2</sup> identifies value creation as one of the key objectives and calls for improved translation of research results to benefit economy and society. To achieve a faster and more inclusive uptake of innovative solutions, we should use a variety of open innovation methodologies, especially those that prove most effective at engaging citizens and enable them to become co-creators of new research-based solutions.

In order to explore and further develop innovative, participatory approaches and open innovation programmes for value creation, the Directorate-General for Research and Innovation (DG RTD) launched an experiment: CitizensHack2022, a hackathon for research based solutions co-created with citizens and driven by their needs.

The hackathon approach is relatively low-cost and widely used in many contexts and for different objectives. Hackathons are events where individuals (usually from a variety of backgrounds) work together to solve challenges, which are often defined in advance. They take different forms, but most are designed to bring together innovators and researchers from various backgrounds to create shareable solutions to a pre-identified problem e.g. problems of common interest.

The hackathon model has a proven track record in promoting innovation and valorisation of knowledge<sup>3</sup> in the private sector. Hackathons are often used by companies to crowdsource good ideas and solutions to a particular challenge and to develop them further. Recently, *Hacks for Good*, which aim to address systemic issues and put sustainability at the heart of open innovation, have gained popularity.

---

<sup>1</sup> [A European Green Deal | European Commission \(europa.eu\)](#)

<sup>2</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0628&from=EN>

<sup>3</sup> Knowledge valorisation is the process of creating social and economic value from knowledge. It links different areas and sectors and transforms data and research results into sustainable products and solutions that benefit society in terms of economic prosperity, environmental benefits, societal progress and better policymaking.

Examples of EU-level hackathons include:

- The Climathon, run by the European Institute of Innovation & Technology's (EIT) Climate-KIC (Knowledge and Innovation Community) to engage cities and citizens in climate action. It takes place every October over a few days (usually on a weekend). It brings together a variety of participants including policymakers, entrepreneurs, young people, business leaders, hackers, academics and students.
- The Digital Education Hackathon, a grassroots EU project on digital education, implemented by the EIT's knowledge and innovation community and coordinated by Aalto University, Finland. It focuses on the future of education in the digital age, asking education and training institutions to identify key challenges in digital education and to create solutions together across different disciplines.

These EU-level initiatives are part of a trend where the hackathon model is used to achieve public policy objectives. Citizens' hackathons have a lot in common with this broader approach. When they are well designed and well-run, they provide an opportunity to use scientific knowledge and research results to address people's everyday challenges, bringing research closer to society.

# CITIZENSHACK2022 – KEY LESSONS

CitizensHack2022 aimed to combine the typical characteristics of a hackathon model with the needs of a citizen-driven knowledge valorisation approach, and test how the hackathon formula could be effectively used to create value from research through co-creation with citizens and researchers. Instead of focusing on a specific top-down challenge, CitizensHack2022 targeted challenges that were defined by the citizens who participated. These covered different fields, all with the potential to deliver practical solutions to improve people's lives.

The results of this experiment, and of further consultations with experts and practitioners in the field, have been integrated into this document. The aim of it is to describe:

- when citizens' hackathons should be considered as tools for knowledge valorisation within the repertoire of other participatory models;
- how to design and implement such hackathons, which can be adapted to each case.

This is a “living document”, to be updated and further developed with more evidence and examples from hackathons. It will also integrate suggestions and comments on the needs, possibilities and challenges that these approaches present to communities, researchers, policymakers and other stakeholders and practitioners. This document can be used to help design and run a hackathon, or to prepare the specifications for procurement for a hackathon.

It can be used, for example, by:

- Those involved in knowledge valorisation to promote greater acceptance and uptake in society of research results and innovations. The hackathon model proposed here can be used to engage citizens in creating new solutions together with researchers.
- Research organisations, universities, R&I communities and innovation ecosystems. They can use this model to test their research results and bring science – including social sciences – and technology closer to the needs of citizens.
- Cities, local communities, and social economy organisations to address local challenges such as waste management, pollution, violence and crime and to improve the quality of life in cities and communities.

The main characteristic of the hackathon described here involves **identifying the needs of citizens** as the starting point for developing new solutions. Considerable challenges, such as biodiversity and the growing disconnect from nature in urban environments, air pollution, climate change, waste management, recycling, governance and participatory democracy, are examined from the citizen's point of view. What can citizens do, together with researchers, to make a real difference in their lives and their communities? CitizensHack2022 showed that citizens often define the challenges that need addressing for improving their lives and their communities in very specific, real-life terms. This helps create concrete, practical solutions.

In addition to providing a powerful way to collect citizens' needs that can be addressed through research-based solutions, citizens' hackathons are effective in:

- encouraging diversity in the participating teams and the development of different solutions;
- empowering citizens to become innovators, by developing solutions faster ('sprint' aspect);
- enabling the co-creation of new solutions that draw on existing research and scientific knowledge, rather than applying 'off-the-shelf' solutions to diverse local needs;
- providing opportunities for citizens to learn new skills in innovation and project management;
- encouraging societal engagement and civic action, often with transformative behavioural effects on participants.

However, despite the 'sprint' aspect of the contest, there is still a long way to go from the ideas and prototype solutions produced at the end of a hackathon to developing them to the point where they are ready for the market or society. As with most start-ups, the **ideas and prototypes may change significantly** from the original plan as they develop. Especially when the hackathon engages newcomers to the innovation process (citizens with no prior experience and researchers and students with no business background), the outcomes may be at different levels of maturity. They may require **follow-up and support**, for example through incubator and accelerator programmes, training and coaching. This essential follow-up stage can help the teams develop their plans for the market and society. It can also enable them, for example, to continue the project in a supportive environment, join networks or run research projects.

Overall, a citizens' hackathon can be a strong **starting point** for an innovation process, boosting creativity and allowing innovators, including ordinary citizens that are new to the process, to test and develop ideas. It is effective when the ideas and prototypes that are developed during the hackathon are followed up and further developed to reach a sufficient level of maturity level for societal/market uptake. Furthermore, the hackathon innovators are often at an early stage of (considering) a career as entrepreneurs and require guidance and support in a "safe environment" to continue testing their ideas, develop their business plans and promote their innovations. It is through these later steps, the *after the hackathon* phase, that the value creation mainly happens, notwithstanding the educational and often transformational effects that the participating citizens and researchers can experience during the contest.



# THE MAIN STAGES OF A CITIZENS' HACKATHON

## BEFORE YOU START

Preparation is very important. Basic decisions about the scope, format, scale, actors involved, awards etc. need to be made as part of the design. Key aspects such as the appropriate partner networks, tools (including digital ones), resources and infrastructure also need to be in place.

Most importantly, the objectives and expected outcomes of the hackathon need to be defined in advance. If the hackathon aims at educational purposes, or at better identifying the needs of citizens, the emphasis would be on the early stages and the running of the hackathon. If the hackathon aims at developing solutions for deployment, then it is essential to identify the “problem owners” from the start: these are the actors who will engage with the best propositions and teams after the hackathon and take on the role of supporting their development and market/society deployment. A problem owner for example may be a public institution or a municipality that is looking for concrete solutions to a problem affecting the community, and aims to ensure that the community members are part of the solutions. Citizens' groups and civil society organisations may also be problem owners, mobilising further capacities and finance, for example through crowdfunding.

## STAGE 1: COLLECTING CITIZENS' NEEDS

The first stage of the knowledge valorisation citizens' hackathon is to collect the needs of citizens. When the hackathon is announced, citizens can be invited to define the challenges that they want to address. The result should be a list of challenges coupled with the teams that have proposed them. The next stage involves matching the challenges with researchers in the relevant fields. They will join the citizens in their teams to work on the issues during the 'live' hackathon (see stage 2).

One of the main considerations at this stage is how to draw up the list of challenges and to decide whether to group challenges together to create a broader theme, or to tackle very specific, narrowly defined challenges. It is essential that the challenges are proposed by the citizens themselves, but this does not preclude defining a broader overall theme from the start, so that citizens can propose specific challenges within that broader scope<sup>4</sup>.

---

<sup>4</sup> This approach can be especially relevant for a hackathon to promote specific areas of R&I policy or serve broader objectives. A broader objective should still allow citizens to come forward with their specific needs. One of the main strengths of this approach is that it means that broader, strategic objectives and societal challenges can be translated into the everyday needs of citizens. If the hackathon aims to promote European Commission policy objectives and priorities through co-creation and citizen action, the role of the Commission should be clear from the beginning.

An alternative to this approach could be to invite from the start joint teams of citizens and researchers, with the challenges they aim to address, always ensuring though that the challenges are citizen-driven.

## **STAGE 2: CREATING THE TEAMS, FINDING MENTORS AND TOOLS**

The second stage consists of recruiting researchers and matching them with the teams and the respective challenges. At this stage it may be useful to announce (through the hackathon website, for example) the list of challenges so that researchers can apply to work on the ones that best match their interests and research background.

If the hackathon is held exclusively online, this makes it easier for teams to be composed of people from different countries, strengthening the European dimension.

At the end of this stage the hackathon should be ready to start. Manuals, briefings for the mentors, teams and jury members, training material, tools and templates should be sent to all participants before the hackathon starts. Briefings with the jury members and mentors could be beneficial. It could also be a good idea to have a preparatory information session for the mentors, jury members and teams to get to know each other.

## **STAGE 3: RUNNING THE CONTEST**

Running a hackathon requires a detailed programme that includes all the elements, workshops and (possibly) time for networking/socialising. Teams need enough time to work together to develop their projects, get support from mentors, fine-tune their plans and prepare their presentations (pitches) to the jury members. Time for the evaluation and an awards ceremony will need to be factored in as well.

Some of the most critical elements at this stage are:

- maintaining people's energy and enthusiasm throughout the hackathon;
- ensuring good communication and effective support from the mentors (and avoiding repetition);
- ensuring that the tools are easy to use;
- ensuring that there are common standards for the preparation of projects;
- ensuring that the evaluation process is clear and that everyone understands it.

The evaluation process takes time, including giving the pitches and allowing enough time for the jury members to select the winners. It may also include a stage where finalists are interviewed by the jury members before winners are chosen. The award ceremony at the end of the contest should be a celebration. In a citizens' hackathon, everyone who participates is a winner, since they gain experience and skills in co-creation.

---

## AFTER THE HACKATHON

The follow-up to the hackathon is key to boosting its impact, especially for the delivery of innovative solutions that meet citizens' needs. In this type of hackathon, the follow-up needs to include support to the teams for the further development of their ideas and prototypes to be taken up by society.

The role of the project owners is key in this stage.

The follow-up should also include communication activities, to promote the ideas and help the teams gain visibility and possibly find support to further develop their project.

# KNOWLEDGE VALORISATION HACKATHON

## BEFORE YOU START

- Define the format, the scope and the problem owners
- Prepare the promotion of the event
- Ensure hackathon's infrastructure
- ...



## STAGE 1 CITIZENS NEEDS

- Recruit the citizens and collect challenges
- Announce evaluation criteria, awards and follow-up
- ...



## STAGE 2 TEAMS MATCHING

- Recruit the researchers
- Recruit enough mentors
- Recruit jury members with the appropriate expertise
- Brief all participants
- ...



## STAGE 3 RUNNING THE HACKATHON

- Share a clear agenda and participant's manuals
- Hold a pitching session
- Run evaluation and awards
- ...



## AFTER THE HACKATHON

- Ensure follow-up for solutions deployment
- Communicate the results
- ...

# BUILDING BLOCKS OF AN EFFECTIVE CITIZENS' HACKATHON

## SCOPE OF THE HACKATHON

Citizens' hackathons can be thematic, addressing one specific challenge such as ageing, urban mobility or waste management in rural areas, or totally open to any challenge that the citizens define. An advantage of the more thematic approach is that it makes it easier to recruit mentors and experts with expertise in the relevant fields, who can support the teams during the live hackathon (stage 3).

When choosing to organise a fully open and cross-cutting hackathon, certain aspects of the design of the support and resources needed in all stages will be affected. For example, the selection of mentors should include people with more general profiles. It may be necessary to have additional experts, who can cover different fields, involved from the beginning since it will be difficult to predict the specific technical expertise that might be needed.

Overall, the cross-cutting, fully open approach is more demanding and may be more difficult to manage during the hackathon, as well as to plan the follow-up. Which approach to use depends on the objectives of the hackathon: if the priority is to collect citizens' needs *in any area*, then the cross-cutting approach could be better.

## THE 'PROBLEM OWNERS'

In citizens' hackathons, the aim is to develop innovative solutions to respond to citizens' needs. In other words, the citizens are the ones with an interest in addressing these challenges. In addition, there is often a broader societal benefit in addressing the challenges in socially acceptable and inclusive ways. The hackathon may also help address policy objectives, for example the objectives of EU R&I policy.

Overall, in citizens' hackathons, there is a broader societal interest in addressing the challenge and supporting the development and application of solutions. This may involve different actors who can take ownership and be responsible for following up with testing and possible deployment. These actors are the 'problem owners', and it is essential to identify them before the hackathon begins.

## NETWORKING AND PARTNERSHIPS

Forming the right partnerships is key to success: identifying who to partner with, forming the partnerships and agreeing how to collaborate. For example, to recruit researchers who will join the hackathon and create solutions together with citizens, it is important to contact networks of researchers with expertise in different fields, including open innovation, co-creation, social sciences and humanities. To recruit citizens, these partnerships should involve networks of cities and local communities, civil society organisations, innovation hubs, associations and social innovation networks, for example.

## SCALE AND FORMAT

Successful hackathons may be local and organised around a specific challenge faced by a community, or they may be national, European or international in scale. The right scale depends not only on the objectives, ambitions and resources, but also on who the 'problem owners' are.

An online, virtual format makes it much easier to work together across borders. A virtual hackathon can also provide flexibility and reduce the costs of taking part. A hybrid model that combines an online format with face-to-face interaction allows participants and other actors to contribute both on-site and online.

## DURATION

The 'sprint effect' is a typical characteristic of hackathons, however the usual 48-hour duration may be too short for the citizens' hackathon model. More time may be needed for extra training and workshops, and for the evaluation process that can give feedback and advice to participants. Each of the different parts and sessions of the hackathon should not be too long (no more than 45 minutes) or repetitive.

## PROMOTION

Effective promotion means identifying multiple channels and partners to reach all potential participants, both citizens and researchers, who could be eager to work on ideas to help their local communities. The use of appropriate messages and media, such as the press, social media or websites and platforms, should be considered to reach target audiences effectively.

## TRAINING AND WORKSHOPS

In a knowledge valorisation hackathon with citizens, extra support and workshops are needed, including basic educational workshops, for example on idea crystallisation, roadmap building, service design, sustainable business, business models. This requires extra work in the preparation phase to identify the needs to be addressed and to plan, prepare and run the workshops. Brief information materials should be provided for each workshop for later reference.

This learning aspect – workshops on topics like sustainability and business models – is one of the strengths of a citizens' hackathon. This can be highlighted early in the promotion phase to encourage people to take part.

## TOOLS FOR COLLABORATION AND PROJECT DEVELOPMENT, INCLUDING STANDARDISED TEMPLATES

A streamlined process needs to be developed for teams and mentors to communicate during the hackathon, with customised templates to avoid repetition and to build momentum. This helps the teams present their projects and get feedback from the mentors.

The tools selected for the hackathon should be easy for everyone to use, without special IT skills or resources. Support should be provided where needed, for example in the preparation of the pitches, when the teams present their project ideas to the jury members. These pitches should have a similar and simple structure, responding to a small number of questions, and tailored to the scope and objectives of the hackathon.

Specific support would need to be provided for the preparation of the pitches, where the teams present their project ideas to the jury members. These should have a similar and simple structure, responding to a small number of questions, tailored around the scope and objectives of the hackathon.

## MANUALS AND GUIDES

Manuals should be tailored to the type of actor – team member, mentor or judge. They should contain key information such as the detailed hackathon programme and the purpose of each event, what to expect, what to do and how to do it (and what not to do). They should also describe who the other actors are and advise on how to interact with them, describe the evaluation process and criteria, and explain how to use the tools and troubleshoot technical problems. A code of conduct for participants can help ensure common standards for good cooperation and respectful interaction.

## MENTORS

The success of a hackathon greatly depends on the participation of qualified mentors to advise and guide the teams. Generally, it is recommended to recruit professionals with sufficient experience of mentoring, and with skills in coaching or similar know-how. When citizens define challenges, the selection of mentors needs to take into account their experience and ability to give general support to the teams, rather than strictly focusing on expertise in specific disciplines. Citizens' hackathons can be quite demanding on mentors, so there should be enough of them to provide support to all the teams (at least one mentor per team), depending on the time that they dedicate to the hackathon.

Mentors may be allocated to teams from the start, or teams may draw from a pool of mentors, receiving support from different professionals. In this case, it is important to have a system that allows the teams to progress while collecting input from different mentors, rather than having to repeat information when they start with a new mentor. Reporting templates can help address this.

## JURY MEMBERS

The jury members should have the expertise necessary to select the winners of the contest. Setting clear criteria for selecting jury members can be a useful approach, and may include ensuring a good gender and geographical balance.

## EVALUATION PROCESS

If time permits, all teams that have progressed through the hackathon and developed a solution, which complies with its scope, should be able to give an oral presentation to the jury members, live or by recorded video, and to answer their questions. All participants should be invited to the presentations as observers, so they can benefit from the feedback given to other teams and from sharing ideas.

Once all the eligible teams have presented their solutions, the jury members should discuss their views, compile their scores and reach a collective decision on the winners of the hackathon.

Although hackathons are common starting points in the exploration and development of an idea into a project, some ideas may be much more mature than others. Having different tracks for more mature ideas that have already been tested with an audience and worked out and for less mature ideas, allows for fairer competition. It also enables appropriate follow-up, for example the finalists of the more mature track could immediately join an accelerator programme

## EVALUATION CRITERIA

It is essential to set out clear evaluation criteria so the teams know what they are being evaluated on. The jury should also be briefed and have the possibility to attend a preparatory meeting on the evaluation criteria, expected outcomes, and the process to award points. The evaluation process can be simplified by using an evaluation grid (see the example in Annex II).

Depending on the nature and thematic scope of the hackathon, evaluation criteria covering an area specific to a particular domain could be considered, but it is advised to keep the evaluation process as simple as possible. The four evaluation criteria described below could be used.

### 1. Knowledge valorisation criterion

This criterion assesses the extent to which existing research results, scientific knowledge and data are used in developing the solution.

### 2. Feasibility criterion

This criterion assesses how feasible the solution is. In other words, whether it can be implemented in real life with the proposed plan and resources, and in a sustainable way. This assessment should take account, for example, of access to finance, a viable business plan, and regulatory and legal frameworks.

### 3. Potential impact criterion

This criterion assesses the solution's potential to provide an effective response that could have a substantial impact on the community and could even be replicated or scaled up.



#### 4. Progress during the hackathon

This criterion assesses the progress made during the hackathon by each team. Feedback from the mentors and the different reporting tools should be available to the jury to allow it to assess how the project has developed. To be able to evaluate the progress of the different teams, the jury members should have the possibility to be involved during the entire hackathon or should receive detailed feedback from the mentors.

The evaluation phase is also an opportunity for the jury to give constructive comments and advice to the teams. The jury's expertise can be shared through this feedback and will help the teams with the follow-up to their solutions.

### AWARDS

Awards may work as incentives to promote the hackathon in advance and to recruit participants. They can also motivate participants to take part in the hackathon until the end. Awards can take the form of a cash prize or gifts. For example, in European contests a total prize pot of between EUR 5 000 and EUR 10 000 is typically offered for cash prizes shared between three teams.

While cash prizes are common in traditional hackathons, a knowledge valorisation hackathon with citizens can work very well with other incentives, since the participants' main motivation is to support their community, address everyday challenges, and test research results that are relevant to society's needs.

Finalists or winners could also receive a 'quality' label or certificate for their idea. Certificates can boost visibility and make it easier to access funding and programmes to develop their solutions further. If the hackathon is aimed at students, a strong incentive could be offered by awarding study credits.

### AFTER THE HACKATHON

Since the ideas developed during the hackathon are usually not mature enough to be taken up by the market or society more generally, it is essential to have a follow-up mechanism that helps the teams further develop their ideas.

It is mainly the role of the problem owners to step in at the end of the hackathon and take responsibility for supporting the teams and bringing their solutions towards full development and deployment. The problem owners should be identified and involved before the hackathon starts and should remain involved until the finish. They may play an active role in the hackathon, but just as importantly, they should plan and organise the follow-up activities for an appropriate length of time. This includes financial and technical support, coaching and entrepreneurship training, and making useful contacts with investors, industrial partners or cities, for example.

Professional support and coaching could have a big impact on value creation by providing the teams with the necessary help to continue developing their projects. This can take the

form of one-to-one sessions with professionals who can provide in-depth feedback in a way not possible during the relatively short duration of the hackathon. This could also include sessions on what kinds of financing are available (for example, in publicly funded research projects and consortia) or helping teams pair up with other relevant research projects. By joining an incubator or accelerator programme, impact hubs, or local or regional innovation ecosystem, teams can continue to develop their ideas in supportive environments.

Communicating the results of the hackathon can increase the visibility of the projects. For example, podcasts, articles, social media posts or videos could explore the ideas and experiences of the teams and allow them to publicise their projects.

## CONCLUSION

New open innovation approaches such as hackathons are particularly relevant to strengthening citizen engagement for a fast and inclusive uptake of innovative solutions. Hackathons are low-cost, action-oriented, co-creation platforms, which are widely used in many contexts, most commonly in the private sector but also, more recently, in the public domain. With the aim to test the hackathon model as a method to engage citizens and develop innovative and feasible solutions to citizens' needs while valorising knowledge, DG RTD carried out a six-month experiment – CitizensHack2022. The current document draws on this experience as well as further consultations with experts and practitioners to describe how to use hackathons as a tool to valorise knowledge with citizens on the driving seat.

Knowledge valorisation hackathons with citizens, when appropriately designed and adapted to the needs of each case, can be a valuable, additional tool to the existing toolbox of participatory approaches, engaging citizens and delivering value for society. One of the main characteristics of this model is that the challenges to be addressed during the hackathon are brought in by the citizens, who also participate in the contest and become co-owners of the solutions. This is potentially a powerful, action-oriented approach, which can enable policy makers to integrate the citizens' perspective, concerns, and creative capacity in the innovation and knowledge valorisation process to achieve policy goals.

# ANNEX 1 - CITIZENS' HACKATHON CHECKLIST

## BEFORE YOU START

- Have you clearly defined the **objectives** of the hackathon?
- Have you selected the **format** of the hackathon – a physical, hybrid, virtual event? If online, what **digital platform** will you use?
- Have you decided if the hackathon will have a **thematic focus** or a **wide scope**, for example if it would include any challenge defined by citizens and responding to their needs, or specific citizens' challenges within a broader policy area?
- Have you identified the **problem owners** who will engage in the follow-up of the solutions developed in the hackathon?
- Have you ensured adequate **capacity** for running of the hackathon – either in-house or via contract?
- Have you established **effective links** and **partnerships** with actors and networks to recruit citizens and researchers?
- Do you have a plan for the **promotion** of the event? Is it appropriately targeted to reach citizens?
- Have you put in place the **appropriate infrastructure** including **support tools** and **materials** for the teams to tackle the challenges?
- Have you considered **citizens' training needs**? Will they have access to **research tools and databases**?
- Are there sufficient and appropriate **incentives**, such as prizes and rewards, professional coaching, business advice etc., to attract and retain participants?
- Have you planned **follow-up activities**?

## STAGE 1 – COLLECTING CITIZENS' NEEDS

- Have you ensured that all future participants have a clear understanding of the **objectives** and their **roles**?
- Have you confirmed the **knowledge valorisation potential**, i.e. that the challenges can be addressed through the use of research results and data in co-creation teams?
- Have you developed and communicated a set of **evaluation criteria** that are simple to use, clear and transparent?

- Have you ensured that your communication activities are clear about the hackathon's **rewards** and **follow-up** actions?

## STAGE 2 – CREATING THE TEAMS, FINDING MENTORS AND TOOLS

### Researchers

- Have you ensured the participation of **researchers** who will form joint teams with the citizens to co-create solutions?

### Mentors & experts

- Have you recruited **mentors** with the appropriate expertise needed for the scope of the hackathon? Are they sufficient in number to respond to the extra mentoring needs of a citizens' hackathon?
- Have you recruited **experts** with the necessary knowledge to support the teams?

### Jury members

- Have you recruited sufficient **jury members** with the right expertise and experience and willingness to dedicate the necessary effort for the full evaluation process?

### For all

- Have you conducted a **pre-hackathon meeting** to allow participants and other actors to get to know each other and ensure everyone has a clear understanding of their role?

## STAGE 3 – RUNNING THE CONTEST

- Have you drafted a clear **agenda**, which takes into account the teams' needs for **workshops and training**, and shared it with all participants?
- Have you provided **tailored manuals** for each participants' role – citizen, researcher, mentor, jury member?
- Have you envisaged **adequate time** for teams during the pitching and interview stages?
- Have you scheduled **sufficient breaks** and social time to ensure high energy levels?
- Have you ensured that there is a **standard format** for the participants' pitches to facilitate evaluation?

- Is there a **support mechanism** in place during the hackathon? Have you foreseen **checkpoints** to verify teams' progress?

## AFTER THE HACKATHON

- Have you ensured that the **problem owners** are engaged in the follow-up activities to support further development of the solutions and their potential uptake?
- Have you planned a communications' strategy to **disseminate the results** to the public?
- Have you planned any **post-event support** and **coaching** for the teams?
- Do you plan to **get in touch** with the teams after the hackathon to check their progress?

# ANNEX 2 - EVALUATION GRID

**Hackathon branding name:**

**Evaluation based on:**

LIVE PITCH

VIDEO RECORDED PITCH

**DATE**  
DD/MM/YYYY

**NAME OF THE JURY MEMBER:**

**Team name:**

**Team presenter(s):**

**1. Evaluation criteria of the proposed solution**

	1	2	3	4	5
<b>1. Knowledge valorisation criterion</b>	1	2	3	4	5
The solution utilises existing scientific knowledge, research results, and research data: 1) Barely 2) Insufficiently 3) Sufficiently 4) Well 5) Extensively					
<b>2. Feasibility criterion</b>	1	2	3	4	5
The solution gives evidence of its feasibility and relies on a realistic and sustainable implementation scenario: 1) Barely 2) Insufficiently 3) Sufficiently 4) Well 5) Extensively					
<b>3. Potential impact criterion</b>	1	2	3	4	5
The solution demonstrates potential impact and an effective <u>response to</u> the challenge it aims to address 1) Barely 2) Insufficiently 3) Sufficiently 4) Well 5) Extensively					
<b>4. Progress during the hackathon criterion</b>	1	2	3	4	5
The team that has developed the solution <u>made progress</u> during the hackathon: 1) Barely 2) Insufficiently 3) Sufficiently 4) Well 5) Extensively					

Strong elements of the proposed solution	Weak elements of the proposed solution

**Total score:**



## **Getting in touch with the EU**

### **IN PERSON**

All over the European Union there are hundreds of Europe Direct information centres.

You can find the address of the centre nearest you at: [https://europa.eu/european-union/contact\\_en](https://europa.eu/european-union/contact_en)

### **ON THE PHONE OR BY EMAIL**

Europe Direct is a service that answers your questions about the European Union.

You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by email via: [https://europa.eu/european-union/contact\\_en](https://europa.eu/european-union/contact_en)

## **Finding information about the EU**

### **ONLINE**

Information about the European Union in all the official languages of the EU is available on the Europa website at: [https://europa.eu/european-union/index\\_en](https://europa.eu/european-union/index_en)

### **EU PUBLICATIONS**

You can download or order free and priced EU publications from:

<https://op.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see [https://europa.eu/european-union/contact\\_en](https://europa.eu/european-union/contact_en)).

### **EU LAW AND RELATED DOCUMENTS**

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

### **OPEN DATA FROM THE EU**

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.



New open innovation approaches such as hackathons are particularly relevant to strengthening citizen engagement for a fast and inclusive uptake of innovative solutions. With the aim to test the hackathon model as a method to engage citizens and develop innovative and feasible solutions to citizens' needs while valorising knowledge, DG RTD carried out a six-month experiment – CitizensHack2022. The current document draws on this experience as well as further consultations with experts and practitioners to describe how to run hackathons, as a tool to valorise knowledge with citizens on the driving seat. It is intended to be used as a “living document”, to be further developed and enriched with feedback from practitioners in the field and stakeholders.

*Research and Innovation policy*

