



## Smart Tourism ReInHerit Hackathon

### *Author(s)*

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### *Type of best practice*

Smart Tourism - Smart Destinations

### *Keywords*

Smart Tourism Hackathon, ReInHerit, Technology Integration, Game Prototypes, Business Ideas, App Prototypes

### *Theme*

Technology

*The best practice describes the Smart Tourism Hackathon, which was co-organized by two EU-funded projects, ReInHerit and DiGiNN, on the 21st and 22nd of January in Nicosia, Cyprus, at the CYENS Centre of Excellence. The Hackathon was a unique opportunity for tech enthusiasts, cultural heritage and museum experts, and lovers to come together and brainstorm to create innovative solutions on how we experience museums and cultural heritage sites. Teams were tasked with developing cutting-edge projects that leverage technology to improve visitor experiences, promote sustainable tourism practices, and optimize destination management.*

### **Organisation in charge of best practice**

CYENS Centre of Excellence

### **Location**

Nicosia and Online

### **Dates**

The two weeks before the main event included the pre-hackathon webinars on January 8, 9, 10, 12, 15, 17, and 18. All the webinars started at 16:00 (EET). The main event was on the 21st and 22nd of January.

### **Description**

The main goal of the Smart Tourism Hackathon was to deliver creative solutions to enhance the experience of museums or cultural heritage sites by employing new and innovative ways and using technology. The goal of the Smart Tourism Hackathon was to address possible problems or challenges related to its topic. More specifically, provide help to museums and cultural heritage sites to attract wider audiences.

The objectives of the Hackathon were the following:

- a) Promote cross-functional collaboration across engineering and non-engineering teams.
- b) Generate high-value, actionable business ideas and product concepts.
- c) Boost





innovation culture. d) Establish idea-sharing, effective collaboration, and creativeness driven by enthusiasm towards a shared goal. e) Identify Talent.

The Smart Tourism Hackathon tackled challenges in attracting broader audiences to museums and cultural heritage sites. Key stakeholders were provided a collaborative space to innovate and experiment, resulting in interdisciplinary projects. The goal was to create tailored multimedia experiences that are adaptable yet deeply personal for visitors. The emphasis was on enhancing indoor and outdoor spaces to enrich visitor experiences. Following the ReInHerit Hackathon, resources and networking platforms were available to support cultural tourism. The focus was cultivating a new generation of visitors, particularly teenagers and young adults, through interactive technologies and gamification. Diverse teams, including professionals from various fields, collaborated to develop projects that complement existing exhibitions and museum spaces. The Hackathon aimed to generate novel ideas and projects linking technology with museums and cultural heritage sites. Goals included developing apps, digital tools, or platforms for cultural preservation and promotion. Additionally, the event facilitated Artistic Expressions for Cultural Sites, encouraging artistic works to engage the public. The outcomes featured innovative ideas and products enhancing smart tourism, with interdisciplinary teams fostering collaboration and idea sharing. The primary outcomes of the Hackathon included:

1. App Prototypes: Functional apps to enhance museum experiences, reaching TRL3.
  2. Business Ideas: Plans addressing value propositions, customer segments, and revenue streams.
  3. Game Prototypes: Interactive games educating about museums and history.
- Participants included students, designers, engineers, developers, startups, and cultural heritage professionals. The Smart Tourism Hackathon was co-organized by two EU-funded projects, ReInHerit and DiGiNN. The hackathon's theme was based on the themes of the ReInHerit research project and the apps developed for smart tourism. The hackathon was organized in two days (the 21st and 22nd of January) as a physical event held in Nicosia, Cyprus, at the CYENS Centre of Excellence. Additional satellite events were organized with a total duration of two weeks before the main event. Participants took part in the pre-hackathon webinars to get informed about the thematic of the hackathon and what would be expected to be delivered as a final project. Seven webinars (one introduction to the hackathon and six for the three thematic) were hosted by the mentors invited to participate in the main event to present projects and ideas based on their related background for app prototypes, business ideas, and game prototypes. The webinars were held virtually using the Zoom platform. In each webinar, around fifteen people participated. The esteemed mentors of the hackathon, a group of seasoned professionals and experts in various fields, played a crucial role in guiding and inspiring participants with their wealth of knowledge and experience. Mentors and the judging panel were selected based on their professional background, which should be related to the main thematic of the hackathon. Mentors could also be involved in the ReInHerit - Redefining the Future of Cultural Heritage, funded by the European Union's Horizon 2020 research and innovation program under grant agreement No 101004545 so that they were able to guide participants on cultural heritage, museums, and more. In addition, the distinguished panel of judges for the hackathon is a group of accomplished professionals and industry leaders whose expertise and discernment played a pivotal role in evaluating and recognizing the outstanding projects



presented by the participants. The prizes for the winners were attractive awards, and special awards from sponsors were also included. The winning project should showcase the collaborative part of tech enthusiasts, cultural heritage experts, and museum experts to present solutions on how we experience museums and cultural heritage sites. Teams were tasked with developing cutting-edge projects that leverage technology to improve visitor experiences, promote sustainable tourism practices, and optimize destination management.



## Links

<https://reinherithackathon.cyens.org.cy/homepage/>

## Resources needed

The Smart Tourism Hackathon required Human resources, including the organization committee and technical team - technicians and researchers from multiple research groups in the CYENS CoE - and participants. Technical resources such as Eventbrite for event organization, Social Media for announcing milestones (Facebook, LinkedIn, Twitter, News outlets), Devpost for project submissions, Slack channel to connect with participants, etc., and online platforms like Zoom for webinars were utilized. The website



*This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101004545.*



provided all the necessary information, and participants booked free tickets via Eventbrite. The hackathon occurred at the CYENS Centre of Excellence in Nicosia, Cyprus.

### Challenges encountered

Some of the challenges that were faced during the hackathon include the following: - We found it challenging whether the whole event would be physically for everyone, whether it could be hybrid (having people in a physical event but also having people participating virtually), or if it would be an online event for everyone. Having a hybrid event seemed to be the most challenging option since we should be in charge of people in a physical space and coordinating a virtual event simultaneously. We believed that a physical event, compared to an online event, would be more enjoyable for the participants to experience the hackathon. - Time management was crucial since we had a tight deadline to meet all the requirements for the event organization. - We had some constraints on resources, such as limited time to organize the event and the space we would choose to make it comfortable for the participants to work throughout the night. Other limitations included software and hardware for developing the group ideas. To have flexibility, we chose that participants would be responsible for bringing their laptops during the physical event, and they could download any software they needed. - Budget was low for certain parts of the hackathon.

### Evidence of success

Following the conclusion of the Hackathon, a satisfaction survey was administered to allow participants to evaluate various key aspects of the event. The survey targeted critical areas such as content, skills acquisition, activities during the Hackathon, including mentoring and collaboration, and the overall organization of the Hackathon. Participants were encouraged to provide feedback on their satisfaction levels, utilizing a scale ranging from 1 (indicating very dissatisfied) to 7 (indicating very satisfied). Satisfaction with the content encompasses the quality (M = 7.00) and usefulness (M = 6.50) of the materials presented during the Hackathon. Participants evaluated both the quality of the content and its practical usefulness. Notably, all participants expressed satisfaction, with most indicating complete satisfaction regarding the content provided during the Hackathon. Satisfaction with the new skills acquired includes skills acquisition, encouragement (M = 6.00), and support for innovative and creative ideas (M = 6.75) during the Hackathon. All participants expressed their satisfaction with the newly acquired knowledge and skills, indicating high satisfaction with the encouragement and support for innovative and creative ideas provided during the Hackathon. Hackathon activities, including mentoring and collaboration, were assessed on various dimensions, including the overall flow and organization of activities throughout the event, encompassing transitions between different phases and events (M = 6.75). Participants provided feedback on the quality of mentors, considering factors such as content knowledge and the effectiveness of explanations (M = 6.75). The evaluation also explored the collaborative dynamics within participant teams during the Hackathon (M = 7.00). Almost all participants conveyed complete satisfaction with all the aspects above. The Hackathon facilities encompass the venue and the overall facilities (e.g., seating arrangements, audio-visual equipment, lighting; M = 7.00). Participants expressed high satisfaction levels, particularly concerning the Hackathon facilities. Moreover, they expressed satisfaction with the Hackathon venue (M = 6.00). The organization of the Hackathon encompasses both the Hackathon schedule and the





information disseminated by the organizers. Participants were satisfied with the information provided by the organizers (M = 6.00) and were very satisfied with the Hackathon schedule (M = 6.75). Lastly, participants were requested to share their overall satisfaction with the Hackathon. All participants were very satisfied with the Hackathon (M = 7.00). There were three open optional questions. For “How could the Hackathon be improved?” one participant referred to the chairs used for working during the Hackathon. At the “What other events would you be interested in attending in the future?” question, one participant referred to webinars and meetups. In the additional comments, one participant commented that it was very good. Also, as evidence of success, there were 24 participants, and at each webinar, they attended approximately 15 people.

### **Potential for transfer**

The hackathon was organized so that we could use the same structure, methods, and expected outcomes for organizing future hackathons. For that reason, all steps throughout the procedure were well documented, and due to this comprehensive documentation, several organizations may use this to organize similar events.

### **Further Information**

All hackathon information and data were reported in deliverable D7.12: Cultural Hackathon Report.