

# CORDIS Results Pack on gaming for good

## Serious video gaming for education, research and health

A thematic collection of innovative EU-funded research results

July 2026



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## Editorial

Gaming can act as a tool for analysing complex issues and educating participants. This CORDIS Results Pack highlights 10 EU-funded projects developing serious games for researchers, students, patients and members of the public. These projects generate recommendations for EU policies and push forward research on videogames, helping to set the EU videogame sector on a path towards sustainability.

Every day, billions of people around the world forget their worries and relax by playing video games. However, this popular pastime also provides major economic benefits for the countries where video games are created.

Video games can be entertaining while also serving as highly effective tools for collaboration and learning. Games designed for purposes other than entertainment are described as 'serious games'. They employ the latest games technologies, computer modelling simulations and digital interactive media, and they are used by industry, planners, educators and artists, among others.

Serious gaming focuses on problem-solving, aiming to deepen understanding of specific topics and build skills through gameplay. Recent years have witnessed an increase in the development and application of serious games and their increasing economic importance.

Furthermore, serious games have links to various fields of policy and are relevant to national ministries, several European Commission DGs and European initiatives.

Horizon Europe contributes to video game research by funding collaborative, multi-disciplinary projects that explore the cultural, societal and economic impacts of gaming. The aim is to boost the competitiveness of Europe's homegrown video game industry. It also fosters the emergence of a European video game research community through a dedicated video game cluster to facilitate collaboration, impact and advance research in the field.

In addition, local and regional ecosystems of interconnected companies, developers, academic institutions and organisations are enabling the emergence of video game clusters. These clusters combine creative talent and technical expertise to drive innovation.

To aid the transition from research to the market, the European Commission supports the early-stage development of video games through Creative Europe MEDIA, but also access to capital for games and technology development in the video game sector via guarantees and equity schemes, drawing from Creative Europe as well as InvestEU.

This Pack highlights a range of projects that exemplify how collaborative research under Horizon Europe is driving research into serious games. They span cultural and creative industries, education and training, policymaking and health, highlighting the breadth and impact of Europe's video game sector and delivering benefits to EU citizens.

**Note:** These projects are also presented at the [Games For Culture Cluster – Emerging forms of play to benefit society](#).

# AI-driven and human-made: locative games boost cultural engagement

Academia, cultural sites and tech partners developed a platform offering AI-driven, human-led location-based Q&A games tailored to users, enabling deeper cultural engagement.



Cultural and creative sectors and industries (CCIs), including museums and cultural heritage sites, are looking for ways to promote access to cultural heritage. This involves engaging younger and more diverse audiences across a wide range of cultural venues. The EU-funded [CULTURATI](#) project has designed a digital solution to address this goal.

## A digital platform for games and routes

With the aim of creating customisable games and routes to engage cultural venue visitors of diverse ages and backgrounds, the project designed a global content platform that [leverages AI](#), Internet of Things (IoT) and mobile technologies. A key feature of the platform is that it personalises content delivery based on user needs, preferences and knowledge level. Additionally, it supports multiple languages.

A consortium of computer scientists, academics and cultural agencies developed a content management and curation system that transforms how cultural heritage is experienced. As project coordinator Eda Gürel explains, “A key innovation of CULTURATI is its co-creation approach, combining AI-driven tools with human-led content creation and validation, enabling citizens,

*A key innovation of CULTURATI is its co-creation approach, combining AI-driven tools with human-led content creation and validation, enabling citizens, cultural professionals and stakeholders to actively contribute content. This ensures that information remains accurate while transforming cultural heritage from a static experience into a dynamic and participatory one.*

cultural professionals and stakeholders to actively contribute content. This ensures that information remains accurate while transforming cultural heritage from a static experience into a dynamic and participatory one.”

With its web-based design, the CULTURATI solution requires no specialised equipment; it runs on personal smartphones and similar devices. While the locative games and routes are designed for on-site use, individuals can also explore content remotely.

Moreover, sensors integrated into the platform can help steer on-site visitors to less congested areas. Such features not only expand the reach of CCIs and protect cultural sites from the wear and tear of excessive foot traffic, but they also support safer visitor management in contexts such as a pandemic, where crowd control and physical distancing are critical.

## Pilot studies in the CCIs

The cultural-educational ecosystem designed by CULTURATI progressed from early-stage conceptual development to real-world deployment. Pilot studies were carried out in five locations across four countries.



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In Turkey, studies were carried out at the Istanbul Rahmi M. Koç Museum, an industrial museum on the shores of the Golden Horn and at the Ankara Citadel, a historic symbol of the city. Ascoli Satriano and Porvoo, towns located in Italy and Finland, respectively, are culturally rich pilot sites. The final pilot site is Blenheim Palace, a UNESCO World Heritage Site and one of England's most striking historical estates.

Platform content highlights narratives, bringing cultural histories to life at all the pilot sites. Gürel shares: "Many of these stories are unique and not available on the internet, as the project specifically aimed to uncover hidden cultural knowledge and local perspectives that are often overlooked."

## Bringing CULTURATI to the mainstream

The project's platform is designed for easy use by a wide range of visitors, making cultural experiences more accessible to all. But institutions must engage with the technology before the public can. This transition requires institutional readiness, technical skills and organisational capacity.

To facilitate adoption, the project created structured onboarding materials including the CULTURATI handbook and the [Join CULTURATI](#) initiative. Developing institutional readiness will also create jobs requiring technical skills, such as content creation and curation.

With uptake across Europe within reach, CULTURATI is set to realise its core value: bringing the right information for the right person at the right time through customised games and routes.

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### PROJECT

**CULTURATI – CUSTOMIZED GAMES AND ROUTES  
FOR CULTURAL HERITAGE AND ARTS**

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### COORDINATED BY

Bilkent University in Turkey

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### FUNDED UNDER

Horizon Europe – Culture, creativity  
and inclusive society

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### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101094428](https://cordis.europa.eu/project/id/101094428)

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### PROJECT WEBSITE

[culturati.eu/](https://culturati.eu/)

# How digital games helped neurodivergent pupils focus

An EU-funded digital platform was created to help children with neurodevelopmental disorders overcome learning barriers. It kept children engaged, built confidence and gave teachers tools to tailor support.

Many digital learning tools are built for average pupils, not for children who find attention, self-regulation or task switching especially hard. For pupils with neurodevelopmental disorders, that gap can turn an ordinary school day into a series of avoidable barriers.

The EU-funded [EMPOWER](#) project set out to narrow that gap with a digital platform built around [game-based activities](#), teacher support tools and optional sensors. The platform was co-created with teachers, researchers and pupils, then tested in school settings. By the project's end, the priority shifted from whether games could run to whether they engaged children, supported teachers and were sustainable in schools.



*Many of the children came in with significant difficulties sustaining engagement, but over time, I noticed them being engaged for longer periods.*

## Games that kept children focused and confident

Cristina Costescu, associate professor in special education at Babeş-Bolyai University, saw the clearest change in sustained attention. As she mentioned, "The change I observed most clearly was in attention and focus.

Many of the children came in with significant difficulties sustaining engagement, but over time, I noticed them being engaged for longer periods." This mattered because the platform maintained an engaging level of difficulty without overwhelming users.

Paula da Costa Ferreira, a psychology professor at the University of Lisbon, noticed a different but related shift. "By the end of the project, they managed most game mechanics as expert performers. They seemed very motivated and felt at ease with the games," she said. Children also became more willing to talk about what they were doing, share it with classmates and show teachers what they could do.

## Teacher dashboards and classroom realities

The technology was not only for children. Teachers used an app to assign games to individual pupils and follow progress over time. In everyday school life, this made it easier to tailor activities to different needs and paces rather than treating the whole class the same way.

As Costescu put it, "The most useful features for teachers were the progress-tracking dashboards and the ability to assign games to individual children."

The harder part was practical. During initial pilots, device problems sometimes interrupted sessions, and once concentration broke, getting it back was not always easy. Teachers also pointed to a familiar issue that goes well beyond one project: when many children need support at once, schools need enough adults in the room to make personalised work possible.

## What schools would need to keep using it?

Children's engagement stayed high through most of the intervention. Familiarity with the games built confidence rather than boredom, although some wanted to move on once they had mastered a final level. Sensors also became part of the routine surprisingly quickly. For most children, they were not a problem, although eye-tracking calibration could frustrate some pupils with ADHD who wanted to start playing immediately.

Parents and schools did not raise major concerns about data collection, largely because the project clearly explained what was being collected, why it was needed and how anonymity would be protected. The bigger obstacle to long-term use was simpler: staff and equipment.

Contributors said the games themselves are workable in schools, but the full benefits depend on having enough trained professionals, plus access to computers, tablets or more

expensive equipment such as eye trackers and wearables. Even without collecting biodata, the platform still offers a practical game-based resource for more inclusive classrooms.

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### PROJECT

**EMPOWER – Design and evaluation of technological support tools to empower stakeholders in digital education**

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### COORDINATED BY

University of Valencia in Spain

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### FUNDED UNDER

Horizon Europe – Culture, creativity and inclusive society

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### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101060918](https://cordis.europa.eu/project/id/101060918)

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### PROJECT WEBSITE

[project-empower.eu/](https://project-empower.eu/)

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# Games through and for culture empower youth participation

By centring youth and building on the concept of game-making as culture-making, co-created games use heritage content to empower social engagement.

Informing creativity, well-being and identity, [cultural heritage](#) is the backbone of society. However, cultural heritage institutions (CHIs) can find it challenging to engage youth visitors. The EU-funded [EPIC-WE](#) project tackled this challenge by engaging youth and other stakeholders in the co-creation of heritage-related games.

## Quadruple helix structure

A core concept of the project is the quadruple helix structure, a replicable design for stakeholder engagement. In project pilots youth participants, research institutions, creative industries (CIs) and CHIs worked together to create games that use cultural heritage material. By providing a means for active youth

participation, these game-making experiences strengthen cultural belonging, lead to a deeper understanding of personal identity and enrich cultural engagement.

Project coordinator Rikke Toft Nørgård describes this approach as the project's main outcome on the macro level. As Nørgård explains, "The quadruple helix cultural innovation ecosystem is a democratic cross-sector map for cultural innovation where youth citizens are no longer end-users or passive audiences, but helix partners and valued co-inventors of our shared cultural future."

## Cultural hubs

At the meso level, EPIC-WE identifies its cultural hubs – vibrant, real-world living labs – as essential outcomes. Each of the hubs is centred on a partnering CHI. The material used in the hubs represents the diversity of cultural heritage and includes visual art, media archives, historic architecture and literature.

In Aarhus, Denmark, the [ARoS Art Museum](#) opened its collection to project participants. Young people examined their own experiences, then used those insights to design games that explore the meaning of identity.

In the Portuguese village of [Óbidos, a UNESCO City of Literature](#), participants stayed in the village and toured local sites. Games designed in this hub highlighted local folklore, biodiversity, sustainability and democratic history.

The third hub, the [Sound and Vision Media Museum](#) in Hilversum, Netherlands, invited participants to explore media democracy through its vast archival collection.



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Each hub provided a unique and vital ecosystem for the development of games through and for culture. Nørgård shares, "Together the three cultural hubs proved that when we treat our collections and sites not as 'dead history' but as concrete material for imagining and creating games with culture, we empower a new generation to shape their own cultural futures."

## Cultural game jams

The project's micro-level achievements are the games themselves. Over 400 youth participated in [cultural game jams](#) at the cultural hubs, working with other partners in the EPIC-WE helix ecosystem to design interactive games that integrate cultural heritage material with prosocial values.

Through the cultural game jam structure, participants created 84 games. One game, 'Metamorphosis', created in collaboration with the CI Mothworks, used speculative design and playful interactions to help youth navigate the complex journey of self-discovery. Another game, 'Smit and the Storm', used archived material to reimagine a historic flood, bringing emphasis to lessons on collective response, human dignity and environmental sustainability.

Youth feedback to the cultural game jams was positive across many levels, showing an appreciation for game design opportunities as well as more introspective outcomes. The project revealed that youth involvement is a critical feature of improving public engagement with cultural heritage.

"As a society, we must recognise young people as partners in cultural innovation, moving them from the margins into the middle of co-creation," Nørgård explains.



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### PROJECT

**EPIC-WE – Empowered Participation through Ideating Cultural Worlds and Environments: youth imagining, creating and exchanging cultural values and heritage through game-making**

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### COORDINATED BY

Aarhus University in Denmark

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### FUNDED UNDER

Horizon Europe – Culture, creativity and inclusive society

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### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101095058](https://cordis.europa.eu/project/id/101095058)

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### PROJECT WEBSITE

[epic-we.eu/](https://epic-we.eu/)



# How gaming hubs are changing Europe's regional dynamics

How do Europe's game clusters take shape? The EU-funded GAME-ER project maps regional hubs, revealing how local ecosystems grow, connect and sustain themselves.

From a post-industrial city in Scotland to a small town in central Portugal, some of Europe's video game clusters are emerging far from the spotlight. The EU-funded [GAME-ER](#) project is revealing their story, bringing attention to smaller cities and peripheral regions that are quietly becoming hubs of interactive media, innovation and economic renewal.

The project has been [studying](#) local and regional video game clusters across five European countries, with the aim of understanding how these ecosystems develop, what supports them and how policy can help them grow.



*Highlighting the development of the video game industry in peripheral regions shows how innovation can thrive in unexpected places.*

"Highlighting the development of the video game industry in peripheral regions shows how innovation can thrive in unexpected places," says project coordinator Luís Leça. "These areas can also make a substantial contribution to Europe's economic and social development."

## Reinvention through play

The GAME-ER project studied [six clusters](#) in Brno (Czech Republic), Lyon and Bordeaux (France), Turin (Italy), Fundão (Portugal) and Dundee (United Kingdom). Many of these clusters share a common origin: regions once dominated by heavy industry, which later declined, leaving video games to become a new driver for economic growth.

"Local and regional clusters often emerge in the aftermath of deindustrialisation," Luís Leça notes. "They can play a crucial

role in the economic and social reinvention of their cities and regions." With their demand for advanced skills, they help prevent the outflow of skilled workers to larger urban centres.

Interestingly, the presence of other creative industries such as cinema or print media did not appear to fuel these clusters. Instead, grassroots community activity – computer enthusiast clubs and informal networks – seems to have been more influential in getting the industry off the ground.

The six clusters studied vary considerably in their maturity and structure. Dundee and Brno benefit from strong ties to public universities, which supply talent and drive research. Turin relies more on private educational institutions and has received significant support from private actors such as the cultural and innovation hub Officine Grandi Riparazioni. Fundão is at an earlier stage, with the local municipality playing a leading role in positioning video games as a strategic development priority.

A recurring challenge across several clusters is the prevalence of work-for-hire contracts, where studios develop games on behalf of other companies rather than owning their own creative output. "In many cases, the intellectual property is owned by non-European companies," says Stefano De Paoli, project scientific coordinator, highlighting one of the challenges to address.

## Putting clusters on the map

Beyond the six case studies, GAME-ER has also produced a data-driven [quantitative mapping](#) of the gaming industry in Europe. It identified the main areas of activity across

the continent and estimated their structure within official classification systems, advancing efforts to capture the video game sector accurately.

Another key output of the project is the [interactive methodological toolkit](#). “Rather than presenting a static report, GAME-ER wanted to create a practical instrument that connects recommendations directly to the project’s findings,” says Luís Leça.

A preliminary version of the toolkit is live for user feedback, showing project data and visualisations that can be filtered by region. The final release, which includes other functionalities and recommendations, is expected in January 2027.

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**PROJECT**

**GAME-ER – Gaming Clusters Across Multiple European Regions**

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**COORDINATED BY**

INOVA+ in Portugal

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**FUNDED UNDER**

Horizon Europe – Culture, creativity and inclusive society

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**CORDIS FACTSHEET**

[cordis.europa.eu/project/id/101132585](https://cordis.europa.eu/project/id/101132585)

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**PROJECT WEBSITE**

[game-er.eu/](https://game-er.eu/)



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# Mapping the road to a fairer European video game ecosystem

Growing fast but still fragmented, Europe's video game industry faces systemic barriers. The EU-funded project GAMEHEARTS points the way forward.

With revenues having reached [EUR 18 billion in 2023](#), Europe's video game sector has seen a significant growth. But in a rapidly evolving digital landscape, the industry remains cut off from cultural sectors that hold key opportunities for economic growth, job creation and social cohesion.

Enter [GAMEHEARTS](#), an EU-funded project bridging the gap between research, cross-sector collaboration and concrete policy recommendations. Bringing together universities, major industry players and video game associations, GAMEHEARTS set out to understand the challenges and trends of the sector to support the integration of the European video game industry ecosystems within creative and cultural industries.

"Video games operate at the intersection of multiple cultural forms, combining storytelling, visual arts, design, music and digital technology," says project coordinator Katharine Sarikakis. "This integration enables cross-sector innovation, supporting different industries to exchange methods, technologies and creative approaches."

## A fragmented landscape

GAMEHEARTS adopted a holistic ecosystem approach, analysing how developers, policymakers, cultural institutions, players and other actors interact. One of the project's most significant findings concerns policy fragmentation across the EU.

The project also documented persistent structural inequalities: gender disparities, exclusionary work cultures and online harassment hinder inclusivity and diversity within the industry. Skills shortages and uneven access to funding further deepen these divides, particularly for smaller developers and regions outside major hubs.

"These challenges are not isolated problems. They are the outcomes of systemic and interconnected issues across policy, education, culture and economy that require collective action," says Sarikakis.

## Bridging games and culture

GAMEHEARTS also examined the [collaboration](#) between the video game industry and cultural institutions such as museums, orchestras and sports organisations. The research found that financial incentives alone are not enough to make these partnerships work: questions of brand control, cultural ownership and different working cultures all determine whether a partnership can happen.

To put these questions into practice, the project has co-developed a [short narrative game](#) alongside partners of varying gaming familiarity, including the Imperial War Museum, the London Symphony Orchestra and City Football Group. The game follows a football – inspired by the uniting power of sport – as it navigates wartime environments drawn from the museum's archives, set to orchestral recordings.

The game raises questions central to any partnership of this kind: how to balance creative freedom with respect for cultural heritage. "It becomes a playable asset which directly confronts the challenges of video game and cultural collaboration," notes Sarikakis.



*These challenges are not isolated problems. They are the outcomes of systemic and interconnected issues across policy, education, culture and economy that require collective action.*



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Workshops with partners also highlighted shared reasons for collaboration. Many cultural organisations see games as a way to reach younger audiences, while developers can benefit from new narratives and visibility in a crowded market.

## A roadmap for change

Based on its findings, GAMEHEARTS proposes a [coordinated EU roadmap](#) covering harmonised governance, safer online environments, inclusive workplace standards, stronger education-to-industry pathways and dedicated funding for small developers and under-represented regions.

By providing research-based guidance for stakeholders, the project aims to “support more coherent regulation, reduce fragmentation across Member States and encourage fairer and more inclusive industry development,” adds Sarikakis.

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### PROJECT

**GAMEHEARTS – Games, Heritage, Arts, & Sport: the economic, social, and cultural value of the European videogame ecosystem**

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### COORDINATED BY

University of Vienna in Austria

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### FUNDED UNDER

Horizon Europe – Culture, creativity and inclusive society

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### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101132543](https://cordis.europa.eu/project/id/101132543)

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### PROJECT WEBSITE

[gamehearts.eu/](https://gamehearts.eu/)



# Playing for the planet: how games are reshaping climate policy engagement

The GREAT project used digital games in classrooms and on mobile phones around the globe to capture climate policy preferences from citizens across 188 countries and channel them to policymakers.

Achieving environmental sustainability will require policies that motivate citizens to action by representing their preferences and needs. Traditional consultation methods rarely reach beyond small, self-selecting groups.

The EU-funded [GREAT](#) project took a radically different approach. It co-designed digital games to collect data on citizens' climate policy preferences and shared insights directly with policymakers. The outcomes exceeded expectations, reaching millions of players across almost every country in the world.

Leveraging existing  
mobile games  
dramatically increases  
reach

In five case studies, short mobile surveys were embedded in popular games such as Subway Surfers and Pokemon Go. Of note, following an exploratory case study with the United Nations Development Programme, the subsequent full-scale Play2Act case study using Subway Surfers reached one million people across 188 countries – every nation except North Korea and Eritrea.



*This unexpected breakthrough came from working directly with game studios to programme surveys within their games rather than using playable ads as originally planned. It dramatically improved both reach and data quality.*

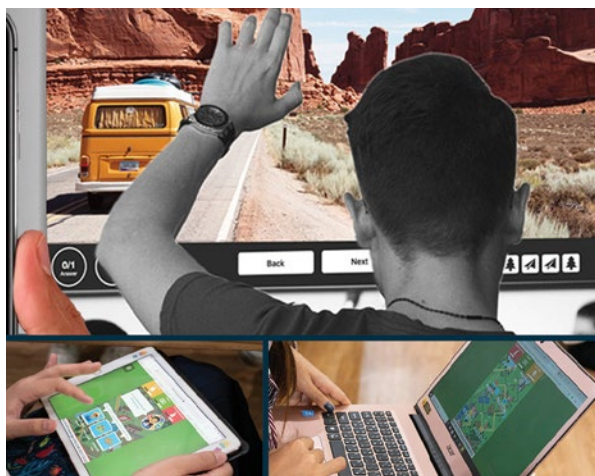
"This unexpected breakthrough came from working directly with game studios to programme surveys within their games rather than using playable ads as originally planned. It dramatically improved both reach and data quality," explains project lead and manager Jane Yau at [DIPF Leibniz Institute of Research and Information in Education](#). Approximately 180 000 completed surveys on citizens' climate attitudes were collected in one-minute interactions, with comparable participation by males and females.

Co-designed climate  
dilemma games  
facilitate dialogue

Longer games involving role play were co-designed by citizens and policymakers. Five case studies involved climate dilemma games played in classroom settings for between 45 minutes and two hours. Summaries of case studies and their

outcomes can be found in the project's plethora of publications in its [results](#) page.

A facilitator presented questions on screen while participants responded on their own devices. GREAT developed data analytics



## Games as a tool for climate action

“GREAT demonstrated that digital games can reach broad, diverse audiences and facilitate meaningful communication on climate issues. Serious games can also promote climate awareness and behaviour change, although the effectiveness can depend on region, income, gender and game format,” says Yau.

However, while digital games can improve communication, achieving real policy impact requires stronger and more sustained engagement with policymakers, and careful measurement is essential to ensure data reflects genuine understanding and commitment rather than surface-level interaction.

methods to reveal connections between players’ in-game behaviour and their attitudes towards real-world experiences.

The green jobs case study explored how policymakers could attract more young people into green jobs and careers. It highlighted the importance of incentives and role models in drawing students to these jobs, as well as young people’s desire for work-life balance and careers aligned with their personal interests.

“Teachers and students alike responded positively to linking climate policy with career education, demonstrating the effectiveness of playful, game-based participation for youth engagement,” notes Yau. GREAT’s open education resource in English and German will enable teachers to run these serious games independently.

The green roofs case study gathered around 100 participants including citizens, architects, urban planners, design students and property owners. It explored perspectives on climate adaptation through implementation of green roofs.

Enthusiasm was consistently high across all groups, underpinned by improved air quality and energy savings. Participants identified responsibility as the greatest policy concern, along with liability, long-term risk, financial constraints, safety and maintenance.

GREAT has established a compelling, scalable model for citizen engagement and climate action through serious games. Supported by its [policy briefs](#) and [toolkit](#) of games and learning materials, GREAT’s approach could fundamentally reshape how global societal challenges can be addressed.

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### PROJECT

**GREAT – Games Realising Effective  
and Affective Transformation  
(societal and cultural domains)**

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### COORDINATED BY

DIPF Leibniz Institute for Research and Information  
in Education in Germany

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### FUNDED UNDER

Horizon Europe – Culture, creativity  
and inclusive society

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### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101094766](https://cordis.europa.eu/project/id/101094766)

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### PROJECT WEBSITE

[greatproject.gg/](https://greatproject.gg/)



# Open by design: building inclusive game creation in Europe

Open-source, cross-sector and built for non-specialists: an EU-funded project is expanding game creation across heritage, education and fashion.

Europe's video games industry has unexplored opportunities: stronger links with culture, education and other public domains could diversify its innovation base and open it up to new audiences. Yet smaller actors frequently struggle to access the talent, resources and visibility they need to grow. The EU-funded [i-Game](#) project set out to change that.



*Its contribution is to create new routes into game creation for organisations and communities that have strong content, knowledge or social relevance but limited access to conventional development structures.*

Rather than competing with established game production pipelines, i-Game focused on broadening the ecosystem around them. As project coordinator Sotiris Diplaris explains, "Its contribution is to create new routes into game creation for organisations and communities that have strong content, knowledge or social relevance but limited access to conventional development structures."

By reaching into domains not traditionally associated with game production – such as museums, heritage, education and fashion – the i-Game project has widened the pool of partners and ideas available to the European games sector.

## A platform for non-specialists

The project's main output is a freely available, open-source platform that guides users through the game design process step by step, free from the cost and constraints of proprietary tools. Unlike conventional development environments that assume prior technical knowledge, i-Game's platform translates core game design logic into a structured workflow accessible to non-specialists.

Users are guided through an inclusive, collaborative co-creation process covering objectives, target audiences, motivations, narratives, game mechanics, storytelling, AI-supported game aesthetics, inclusion choices and intended impact. The process results in a structured game design document, helping non-specialist users translate ideas into a game concept and creating a shared reference point for further development. "This structure does not dictate the outcome. It gives users a clear framework while preserving freedom to shape the concept according to their own context and aims," notes Diplaris.

Beyond co-creation, the project also bridges design and production. Supporting tools include a VR world builder for rapid 3D prototyping, as well as AI-based technologies for training non-player characters, generating story-relevant dialogues and tuning game balance.

The platform is fully operational and has already attracted 190 registered users and 122 game projects across public and private settings. Piloted in three countries, it has yielded a diverse range of prototypes.

In Estonia, teams developed culturally rooted games drawing on textile heritage and folk craftsmanship. In Italy, initiatives explored sustainable fashion, repair and upcycling in connection with museum collections. In Greece, one project focused on dressing skills and accessibility for children with autism.

## Ethical design and social impact

A distinctive feature of i-Game's approach is its emphasis on ethical design, meaning actively integrating inclusion, accessibility and accountability from the very start of the design process, not as a corrective afterthought. The project draws attention

to persistent challenges in the games industry, including the [under-representation of women](#) in the workforce and the risk that AI-driven design tools may reproduce existing biases if ethical considerations are not embedded early.

The project also identified design principles for developing games with societal value. The team found that impact happens when design starts with real user needs and has clear, measurable goals from the beginning.

In addition, the most promising concepts translate social relevance into engaging play rather than didactic messaging. Diplaris also highlights continuity between the game and the world around it: “Several concepts aim not only to inform, but to encourage real-world reflection, repair, reuse or cultural engagement beyond play.”

Beyond the platform, i-Game has produced methodological insights into how co-creation can be structured as a rigorous, sustainable process. “A platform alone is not enough; what matters equally is how participation around it is structured,” Diplaris says. This includes clear roles, governance mechanisms and feedback loops, which contribute to understanding what makes collaborative game ecosystems function effectively.

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#### PROJECT

**i-Game – Building a community for the co-creation of games with high impact on innovation, sustainability, social cohesion and growth**

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#### COORDINATED BY

CERTH – Centre for Research & Technology Hellas in Greece

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#### FUNDED UNDER

Horizon Europe – Culture, creativity and inclusive society

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#### CORDIS FACTSHEET

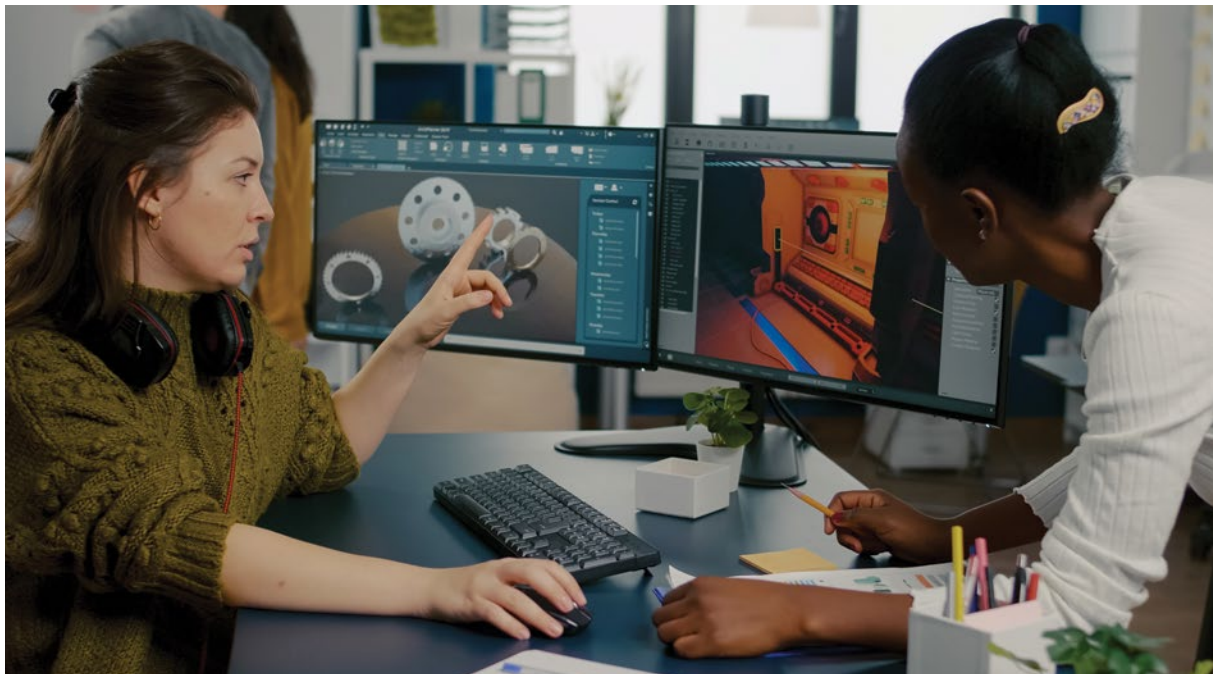
[cordis.europa.eu/project/id/101132449](https://cordis.europa.eu/project/id/101132449)

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#### PROJECT WEBSITE

[igameproject.eu/](https://igameproject.eu/)

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# Augmented reality expands access at cultural heritage sites

With a focus on site-specific narratives and spontaneous interactions, game design and visitor experience guide experts in creating the next generation of heritage-based digital enhancements.

The digital revolution has changed every aspect of modern life, and it is set to transform how we interact with the past as well. Technology such as QR codes and audio headsets has long been available at museums, but advances in [augmented reality](#) have made even more immersive experiences possible.

As cultural heritage sites incorporate advanced technology, it is essential to pay attention to design features and ethical frameworks that promote the goals and interests of all stakeholders. The EU-funded [LoGaCulture](#) project focused on how [locative games](#) can leverage technology to meet the needs of diverse audiences and cultural institutions.

The review of digital design provides guiding insights for future locative game development. Tension between heritage preservation and public engagement demands co-creation by digital and cultural experts.

Developers must also keep in mind the fine line between attention and distraction. The goal of locative games is to bring visitors into a closer, more reflective relationship with their heritage, not to impress them with digital bells and whistles.

## Case studies at heritage sites

Diverse locations in England, Germany, Ireland and the Madeira Islands illustrate the potential of well-designed locative games. The Avebury Neolithic landscape in Wiltshire, UK is part of a 26 square kilometre expanse centred on stone circles. In Germany, the Senckenberg Natural History Museum in Frankfurt is a well-known museum featuring large dinosaurs.

Case studies in the Boyne Valley of Ireland – the Battle of the Boyne site and the Hill of Tara – represent historical landmarks of high importance. The Madeira Islands of Portugal, located in the Atlantic Ocean off the coast of North Africa, are a unique natural environment, characterised by remoteness and rich biodiversity.

## Augmented reality tools

The project developed and deployed different locative games at each location. A key instrument for game design was the LoGaCulture unity toolkit and engine (LUTE), developed by project partners in the UK. Researchers tested LUTE with local

### A roadmap for locative games



*These insights point towards a design space in which locative games function less as traditional games and more as forms of embodied, site-responsive narrative experience.*

The project performed a comprehensive review of locative games to uncover key mechanics and narrative conventions. One important observation is that locative games tend to be educational in nature: imparting knowledge is a priority.

Locative games emphasise narratives, discovery and engagement, and game users prefer minimal screen interaction. As project coordinator Valentina Nisi points out, “These insights point towards a design space in which

locative games function less as traditional games and more as forms of embodied, site-responsive narrative experience.”



© Marta Ferreira, LoGaCulture team

designers at a game jam. The engine was used to support games in multiple case studies.

As Nisi shares, “LUTE gave designers early confidence to explore and experiment with locative games, which allowed them to try things out quickly. Designers working with adventure games or playful interactive narratives found LUTE supported them strongly.”

In Madeira, the team deployed [Biotopia](#), a transmedia experience integrating multiple technologies including screen-based interactions, wearable devices and site-specific AI bots. This solution is particularly mindful of the complex intersection of tourism, economy and biodiversity preservation.

LoGaCulture has designed tools that employ multiple senses, deepen understanding of nature and history, and encourage thoughtful engagement with cultural heritage. In multiple ways, the project is designing games for the good of society.

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#### PROJECT

**LoGaCulture – Locative Games  
for Cultural Heritage**

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#### COORDINATED BY

Instituto Superior Técnico in Portugal

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#### FUNDED UNDER

Horizon Europe – Culture, creativity  
and inclusive society

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#### CORDIS FACTSHEET

[cordis.europa.eu/project/id/101094036](https://cordis.europa.eu/project/id/101094036)

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#### PROJECT WEBSITE

[logaculture.eu/](https://logaculture.eu/)



# Commercial video games are unlocking soft skills for Europe's workforce

A novel platform supports the evaluation and development of essential soft skills for professional and personal growth – while people play commercial video games they already love.

Europe is facing a [significant soft skills mismatch](#) and difficulty identifying and developing these 'transversal competencies' at scale. The EU-funded [MEGASKILLS](#) project developed a platform harnessing commercial video games that millions play to evaluate and develop the soft skills employers want most.

To address this, MEGASKILLS worked closely with European agencies such as those cooperating on the management of the European skills, competences, qualifications and occupations (ESCO) classification as well as 36 staff members from European SMEs across the six target sectors to develop industry-specific definitions.

## Standardising the taxonomy of the most critical soft skills

MEGASKILLS focused on six target sectors critical to the [European Skills Agenda](#) (automotive and transport, health, advanced manufacturing, smart grids, tourism and construction) and four essential soft skills (critical thinking, complex problem solving, agility and flexibility, and time management).

"We found no definitive list of soft skills, agreed definitions or evaluation rubrics across existing competency and skills definition models," explains Leire Bastida of TECNALIA, project coordinator. The project stayed closely aligned with these models, collaborating and harmonising these taxonomies.

"A skill like critical thinking may have a common definition, yet its practical implementation can vary significantly from one role to another within the same sector – and even more so across industries," notes Flavio Escribano, MEGASKILLS' technical manager.



*A skill like critical thinking may have a common definition, yet its practical implementation can vary significantly from one role to another within the same sector – and even more so across industries.*

## Nuances of soft skills development via commercial video games playing

The MEGASKILLS platform is perfectly suited to soft skills evaluation and development, given the average age of gamers in Europe is now over 35. "Our platform translates what a player does while gaming on Valve's Steam (a leading video games platform) into soft skills proficiency," says Bastida. Data is presented in a standard Europass format, making future validation of soft skills alongside hard skills for job applicants a realistic prospect.

About 500 students, managers, migrants and unemployed persons supported training and testing of the algorithm. Gamers proved highly effective at time management while strategy games significantly fostered problem-solving skills – the latter formally measured for the first time.

"Hundreds of pre- and post-tests in this group showed users can significantly improve their soft skills even after fewer than five hours of play," Bastida says.

Moreover, MEGASKILLS showed how training one skill can develop others and that transferring skills from gaming to personal and professional life requires guidance. Finally, play strictly for skill development rather than leisure can trigger frustration, necessitating careful management.

## From platform to policy: institutions, employers and citizens

Companies and institutions agreed nearly universally that soft skills are central to recruiting new talent and upskilling existing employees. This makes greater emphasis on soft skills training important, especially as AI and large language models render hard skills increasingly automatable.

In addition, "The current Pan-European Game Information (PEGI) content rating system should be updated to highlight games' cognitive and educational benefits along with risks," notes Escibano. This will stimulate game producers to increase such functionalities while helping individuals select games that train them.

"The market is acutely aware that the trillions of data points generated by gamers are a gold mine for behavioural analysis," says Bastida. The MEGASKILLS platform could soon allow employers to differentiate between nearly identical academic qualifications based on precise soft skills or enable employees to diagnose and upskill themselves for desired positions. Fun and engaging soft skills development at scale could be around the corner, boosting Europe's competitive edge.

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### PROJECT

**MEGASKILLS – METHodology  
of Psycho-pedagogical, Big Data  
and Commercial Video GAMES procedures  
for the European SKILLS Agenda  
Implementation**

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### COORDINATED BY

TECNALIA Research & Innovation in Spain

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### FUNDED UNDER

Horizon Europe – Culture, creativity  
and inclusive society

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### CORDIS FACTSHEET

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### PROJECT WEBSITE

[megaskills.eu/](https://megaskills.eu/)



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# Playing with empathy: immersive museum games make history personal

Digital games highlighting exhibits at three museums show that immersive storytelling can measurably shift attitudes and build empathy for others' lived experiences.

Museums conserve and exhibit the tangible and intangible cultural heritage of humanity for education and entertainment. They offer perspectives on science, culture, conflict, human rights and environmental destruction.

Traditional exhibitions often lack the emotional depth needed for empathy and meaningful learning. The EU-funded [MEMENTOES](#) project explored collaborations between game developers and museums to create immersive digital experiences grounded in real artefacts, facts and human stories.

The project developed three accessible digital games that turned museum narratives into deeply personal and emotionally resonant experiences. By combining storytelling and museum exhibition design with established game design practices, MEMENTOES demonstrated that immersive games can serve as powerful vehicles for education, empathy and social change.

## Immersive games that connect people

Three museums were chosen to pilot the concept. Le Bois Du Cazier Museum and Causa Creations produced 'Those from Below'. It focused on a former coal mine and UNESCO World Heritage Site in Belgium best known for the 1956 disaster, which killed 262 migrant workers, highlighting dangers faced by labourers in profit-driven extractive industries.



© MEMENTOES Consortium

'We Grew Up in War', created by the War Childhood Museum and Charles Games, was built on personal stories and artefacts of children in conflict in Bosnia, Syria and Ukraine. 'Gulag Diaries', created by Gulag.cz and ICS-FORTH, drew on expeditions,

archival research and an online museum dedicated to preserving the memory of Soviet gulag victims.

The games were evaluated through questionnaires, empathy and learning measures, observation sheets and interviews to assess usability, engagement, narrative immersion, emotional impact and knowledge acquisition.

"Players exhibited more positive attitudes towards refugees in 'We Grew Up in War' and gains in cultural knowledge in 'Gulag Diaries' and 'Those from Below', alongside reported emotional connection and engagement," explains project coordinator Nikolaos Dimitriou of [CERTH's Information Technologies Institute](#).

## Beyond information: engagement, empathy and attitudes

MENTOES' outcomes suggest that immersive games can effectively educate about social issues and influence attitudes



*The studies also indicated that use of multiple perspectives is an important design strategy for representing socially debated issues in a balanced and meaningful way.*

when combining narrative immersion, historical grounding and perspective-taking. Even short prototype games produced measurable positive changes in attitudes towards refugees and migration.

"The studies also indicated that use of multiple perspectives is an important design strategy for representing socially debated issues in a balanced and meaningful way," notes Dimitriou. By enabling players to emotionally connect with complex historical experiences, the games promote empathy and reflection on contemporary social issues, going beyond information delivery.

## Framework and toolkit to scale the immersive games approach

MENTOES produced a framework for game developer–museum collaboration, supporting design and evaluation of immersive games that balance entertainment and empathic learning. Its automated accessibility testing will support more inclusive cultural heritage game experiences.

Furthermore, AI-supported game creation tools including generative AI, image and video enhancement, 3D asset acquisition and adaptive game experiences offer substantial design freedom. A single reconstructed 3D asset now requires 98 % fewer polygons and can yield unlimited variants. In addition, most methods can be combined to produce game-ready 3D assets from 2D data without compromising visual quality.

Culturally, MEMENTOES extends museums' educational missions beyond physical boundaries. Socially, it provides a scalable, engaging and inclusive model for how immersive media can shape public understanding of history and foster empathy around issues that define the past, present and future.

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### PROJECT

**MENTOES – iMmersive gamEs for Museums  
as vehicles to Engage visiTOrs  
in Empathetic reSponses**

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### COORDINATED BY

Centre for Research & Technology Hellas (CERTH)  
in Greece

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### FUNDED UNDER

Horizon Europe – Culture, creativity  
and inclusive society

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### CORDIS FACTSHEET

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### PROJECT WEBSITE

[mementoes.eu/](https://mementoes.eu/)

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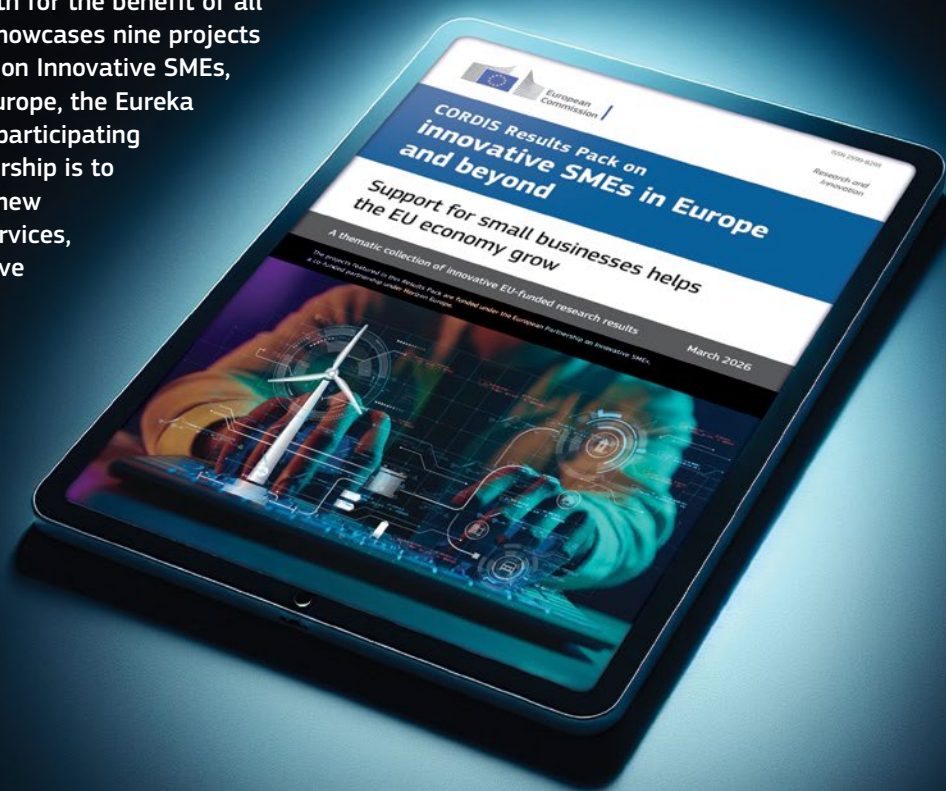
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Small businesses are the engine of the European economy, driving innovation and generating growth for the benefit of all EU citizens. This CORDIS Results Pack showcases nine projects supported by the European Partnership on Innovative SMEs, co-funded by the EU through Horizon Europe, the Eureka Network and innovation funders in the participating countries. The overall aim of the partnership is to support innovative SMEs in developing new and original products, processes and services, helping to make Europe more competitive in the global market.



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