



UNIVERCITY  
ACTION LAB

The Netherlands

## Good Practice Case Study

20Creathon

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Co-funded by the  
Erasmus+ Programme  
of the European Union



## PROJECT PARTNERS



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## GENERAL INFORMATION

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**Title of the case** 20Creathon

**Sales pitch** Create surprising solutions for social issues

**Organisations** Novel-T, University of Twente, and Project Partners

**Country** Netherlands

**Authors** Fernando Fernandez

**Nature of interaction** Challenge-based Learning and Innovation

**Level of mechanism**

- ☐ Government policy (e.g. law, funding framework)
- ☐ Organisational strategy (e.g. university/business/agency)
- ☐ Structural element (e.g. centre, lab, office)
- ☒ Operational level (e.g. activity or programme)

**Length of programme**

3 days	Formality	Informal
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**Curricula-bound, co or extra-curricular?**

Co-curricula	Level of initiative	Cross-disciplinary
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**Summary** 20Creathon is the latest iteration of the creative spirit of the University of Twente and the government of its neighbouring region. It aims to redefine the role of students within the educational community, engaging in collaborative events designed around the application of digital solutions for existing societal challenges.

The programme is managed by the University of Twente, and offers students the opportunity to combine the skills gained in their course with the expertise provided by representatives of

academia, industry, and government bodies. This creative exchange is created around the social implications of digital technology, encouraging students to become responsible innovators and embrace the principles of sustainability and social justice.

As well as an economic prize for the winning team, 20Creathon offers the opportunity for the most robust ideas to be integrated into the entrepreneurial ecosystem. The combination of lectures, creative workshops, and collaborative activities creates an experience that aims to maximize students' ingenuity, and to introduce experts from industry and governance to fresh ideas to resolve current urban challenges.



## CASE STUDY PROFILE

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### BACKGROUND

20Creathon is the result of decades of continuous cooperation between UTwente and the provincial government. Historically reliant on the textile industry, the decay of this trade required the region to look for alternative activities. Together with Provincie Overijssel, UTwente became a key actor in the regeneration of the economy, focusing on the development of an entrepreneurial network that would support existing industries and attract further investment (1).

Since its creation in 1961, the university has been committed to the delivery of innovation that will benefit society and the economy of the province. This includes the creation of educational activities that match the needs of the region, and the redevelopment of government structures that facilitate dialogue between the university, businesses, and public servants. This collaborative ethos was redefined in the early 2000s when government agencies, universities, and innovators presented a common innovation strategy that aimed to attract national and international investment, as well as drawing clearer cooperation links. As a consequence of this, UTwente embraced more systematic engagement with the municipality and the region, informing future investment, lines of research, and initiatives within the institution to maximise social and economic impact (2).

Being one of the leading institutions within the European Consortium of Innovative Universities (ECIU), UTwente has consistently supported the development of business ideas from the identification of industry needs to the delivery of resources for the utilization and commercialization of concepts. It offers a comprehensive, entrepreneurial ecosystem with a

variety of initiatives matching emerging talent with the most suitable expertise from all societal stakeholders.

## CONTEXT

The concept of 20Creathon is a reflection of the commitment of UTwente to the delivery of programmes that encourage entrepreneurial and creative skills within its community. Evolving around the concept of Hackaton as a collaborative solution, the project was conceived within the structure of Novel-T, the Knowledge Transfer Office of the University of Twente, and Saxion University of Applied Sciences. These partners organised a regional consortium with NDIX (Digital Marketplace for IT Services), Gemgids (e-Government support foundation in NL), and Kick-M (Kokkeler Innovation consult for the public sector). After a two-year trial period, the programme was transferred to the DesignLab within the UTwente in December 2018.

20Creathon focuses on how the digitalization of society, innovation in IT services, and the development of data collection and management solutions can help public authorities deliver sustainable growth. The organization highlights the social component of the creative process, encouraging students and other stakeholders to reflect on the impact that their creations can have not only on the municipality, but also on the society that they represent.

By coordinating a series of collaborative events with targeted topics, 20Creathon encourages representatives of both the public and private sector to actively participate in assisting students in the development of ideas that can potentially be further developed into applicable solutions.

## OBJECTIVES AND MOTIVATIONS

The project aims to facilitate the integration of collective learning within the quadruple helix. The main objective is to explore the application of open data and digitalization to modern issues, and explore the potential to establish clear collaboration and enhance synergy between business, education, and government.

For universities, 20Creathon intends to enhance the role of students within the educational ecosystem, evolving towards a model where they have an active part in the conversation and help shape the future of teaching and learning. In addition to this, the collaboration with representatives of local and regional governance aims to trigger an interest in the value of professionals to society, transcending the academic component of their education.

For government officials, the motivation is to understand how digital solutions can assist municipalities in their role, making better use of recent innovations and helping define priorities for forthcoming research. By achieving a seamless transition from HEIs and businesses to municipalities, entrepreneurs can make better use of the available data, improving the delivery of services and achieving inclusive growth.

## STAKEHOLDERS

The main objective of the project is to create solutions that benefit the **population of the Overijssel Province**. The selection of topics, guidelines for potential ideas, and conditions for implementation are based on the principles of social inclusiveness and sustainable development. Interested citizens can get involved in the weekend challenges.

Acting as representatives of the public interest, **public servants and members of government agencies** are directly involved in the development of ideas and are the direct beneficiaries of potential successful concepts created in the 20Creathon events. Representatives of Provincie Overijssel and local authorities contribute to identifying potential areas of interest and helping teams with the weekend events.

**UTwente** takes part in 20Creathon from two different perspectives. **Researchers and academics** supervise students through the creative process, encouraging collaboration and the production of ideas that meet the needs of the project. Also, **students** from a variety of disciplines take part in the activity, applying their knowledge to real life scenarios through the challenges.

For the **businesses**, 20Creathon is an opportunity to get in touch with the potential workforce, understanding their skills and transmitting their input as potential employers. Also, the possibility for a company to get involved with the local community can increase their understanding of existing issues.

## PROCESS

### INPUT

The celebration of challenges requires a wide range of support, which can be classified in four groups:

- Provincie Overijssel. The government of the province provides financial support and networking opportunities for the development of 20Creathon. It also facilitates access to data that will allow for the development of the challenges (3).
- 20Creathon partners i.e. Universiteit Twente (UTwente), Saxion UAS, NDIX, Gemgids and Kic-M. The provision of physical resources is covered by the 20Creathon consortium partners, including use of their facilities for the daily activities of the consortium, as well as hosting events. Part of the staff involved in the development of 20Creathon proceeds from the HEI and members of the university assist during the events.
- 20Creathon staff. The organization establishes communication between government bodies, universities, and businesses. Their expertise allows for a more successful understanding of the priorities of public servants, the academic approach of researchers, and the need for potential commercialization for entrepreneurs.

- Other partners. Creative cooperation and technical expertise are also provided by businesses, primarily related to the IT and innovation industries. They can participate on a permanent basis as members of the 20Creathon consortium or as promoters of specific challenges.

## ACTIVITIES

The project is structured around weekend challenges celebrated on university premises. Prior to the event, members of 20Creathon propose a series of questions to representatives of 'Challenge providers', i.e. local or regional authorities and/or businesses. These initial ideas are discussed based on existing priorities for public bodies and the potential impact that might arise from the event.

Once these leads are outlined, 20Creathon conceptualizes the question to make it adequate from an academic perspective. This supervision ensures that the challenges are relevant to students and their courses, enhancing the experience for participants and increasing future demand. Topics for past events include food waste, water stress, or facial recognition. (4)

A variety of groups from different universities attend the weekend event. With the assistance of researchers, representatives of the municipality, and the business community, the proposal of digital solutions is shaped on the basis of potential applicability and societal benefit.

The event starts with keynote lectures by professionals, introducing the challenge and a first insight into the topic. Each group develops a solution to the given problem, in the form of software or hardware. Within the topic, students have freedom to choose their own approach and the opportunity to argue their choices in a collaborative environment.

After receiving pitch training by professionals, the different teams present their concepts to entrepreneurs and municipalities who can show their interest in the acquisition or further development of these.



## OUTCOMES AND IMPACT

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### OUTPUTS

The production of ideas from the different groups is owned by the team who generates it. This intellectual property is subject to further implementation by industry or government.

In addition to the specific concept developed through the weekend, the events facilitate the creation of networks for students. This can benefit their understanding of the industry and create opportunities for the development of their professional careers.

Thanks to the specificity of the challenges, 20Creathon is a good networking opportunity for experts from public and private sector. The creation of a collaborative environment with

academics, students, and other professionals is a unique situation with the potential to establish more permanent relationships.

## IMPACTS

20Creathon is helping develop the entrepreneurial spirit of participants. The production of innovative ideas that can be implemented in real life generates a high level of engagement from students, exposing them to high pressure environments and allowing them to create solutions that can be further developed. Also, the challenges expose students and young professionals to the benefits of knowledge transfer, creating opportunities for future cooperation.

The celebration of different challenges is effectively bridging the gap between technology and governance. This progress has different implications for each of the parts involved:

- **Public servants:** 20Creathon allows them to understand the potential of digital solutions to achieve inclusive growth, improving performance and reach within their daily activities.
- **Businesses and academics:** by joining the different events, they can identify specific needs of the public sector and enhance the potential applicability of their solutions by government agencies and policy-makers. It is also an opportunity to explore innovative solutions facilitated by students with a fresh approach.
- **Students:** the creative challenges allow them to gain insight on the complexity of the existing issues in the urban environment, and the impact that technology can enable in public life and society. They also improve their teamwork and communication skills.

## SUPPORTING ENVIRONMENT & SYSTEM

### SUPPORTING MECHANISMS

The **ambitious long-term vision by Provincie Overijssel and its collaboration with the University of Twente** enables the different stakeholders to tackle current urban issues that require a multidisciplinary approach. Acknowledging that complexity, and the role of technology to provide a suitable response, is key to present specific challenges to the teams of experts and students, creating an environment that encourages cooperation.

Also, the **structure created by 20Creathon** has been facilitated by the University of Twente, providing the necessary physical and human resources. Being part of ECIU, the project receives support from a wider network of institutions, allowing it to grow and establish itself as a successful model.



## BARRIERS AND DRIVERS

The main driver of the initiative is to instigate innovative thinking and a collaborative approach to modern urban issues. By motivating students to take part in the challenges, the provincial government pursues a closer connection to forthcoming graduates and their skills, hoping to overcome the existing gap between university frameworks and public services.

The potential of 20Creathon is hindered by universities' resistance to change. Despite being recognized at an institutional level, the need for a more innovative educational model is not being fully implemented. The possibilities associated with challenge-based learning are restricted by the consideration of these events as extra-curricular activities, failing to integrate them within the traditional curriculum.

From an operational perspective, the project is restricted by the different priorities by municipality and university. Due to the nature of their activities, government bodies present a pragmatic approach to specific issues, trying to find an efficient and effective solution. However, academics prioritise a deeper understanding of a generic question that will enable further investigation. This divergence requires 20Creathon to invest time and resources to bridge that gap when designing challenges, maintaining the relevance for municipalities without damaging the educational component that universities want to observe.



## LESSONS LEARNED

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### CHALLENGES

The challenges organized by 20Creathon are currently accommodated as extra-curricular activities. Despite the attempts to integrate challenge-based learning in the existing educational structure, there is a lack of flexibility within universities.

As a consequence of this, the most important challenge for 20Creathon is to expand the impact of collaborative design, acknowledging the opportunities offered by technology and adapting the educational framework. ECIU is trying to achieve academic recognition of the challenges via course credits, and perhaps develop their own independent educational offer.

Also, the assessment of readiness levels is a key objective for the development of 20Creathon. The use of standard assessment techniques is not fully suited for the implementation of technologies to the digital society. In order to optimize the potential of the ingenuity of students, Novel-T will attempt to introduce a more suitable assessment model that will facilitate the growth of proposals.

### KEY SUCCESS FACTORS

The experience of the 20Creathon staff allows for a more precise definition of existing issues. The organization offers a more successful communication between the needs of the

municipality, the rigorous approach of the academic community, and the applicability required by businesses and industry. This enables students to tackle questions that will be relevant for their course, but also for the larger society and for their professional development.

The **consistency in the structure of 20Creathon is facilitated by the determination of Provincie Overijssel** to engage with universities in order to access innovative ideas. This acknowledgement of the potential for students to deliver suitable solutions is key for the creation of proposals that will enable local and regional governance to improve their functions.

The evolution of the programme consists on the consideration of issues for future challenges. Each of the events creates an opportunity for the uptake of ideas by government bodies or members of the business community, building upon the intellectual property by the creators. Feedback from events is used by the staff to define forthcoming topics. In a separate activity, the effects of 20Creathons on participants, challenge providers, and the regional innovation ecosystem were monitored and reported by Dr. J. Bazen and Saxion UAS students. (5)

With a dedicated team, the functioning of 20Creathon enjoys a very stable configuration. Provincie Overijssel has shown consistent support to the promotion of innovation and entrepreneurship through UTwente and its associated structures.



## FURTHER INFORMATION

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### AWARDS AND RECOGNITION

The 20Creathon methodology was recently adopted by the ECIU Consortium of Innovative Universities as their joint approach to stimulate collaboration and student exchange via the so-called 'Nano Challenges' in the ECIU University program.

### TRANSFERABILITY

Thanks to the University of Twente being an active member of The European Consortium of Innovative Universities (ECIU), the success of 20Creathon has been quickly adopted by other members of the group across Europe and in Central America. Weekend events often receive students from a variety of universities within the consortium.

In addition to this, the possibility of utilising the 20Creathon concept to target regional and national objectives is being considered.

## PUBLICATIONS

Bazen, Jacques. (2018). Analysis of the effects of creative hackathons on participants, challenge providers and the entrepreneurial ecosystem. DOI: 10.13140/RG.2.2.29567.05282/1.

Videographic resources have been produced for specific events (a) and to summarise the dynamics of the weekends (b):

a) Sustainability Challenge - Waterstress. Available at:

<https://www.youtube.com/watch?v=SF1noanu3dg>

b) ECIU Creathon for Smarter Regional Development. Available at:

[https://www.youtube.com/watch?time\\_continue=3&v=7kgp75jl5Ll](https://www.youtube.com/watch?time_continue=3&v=7kgp75jl5Ll)

## LINKS

<https://20creathon.eu/>

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## RESOURCES

1) Kopelyan, S. and Nieth, L. (2018) Regional Mission Impossible? The Twente Region and the University of Twente. The Role of Universities in Innovation and Regional Development.

2) Meerman A. (2016), University of Twente: The entrepreneurial university of the Netherlands through hi-tech and human touch. (Case study for the University-Business Cooperation project) Available from: <https://www.ub-cooperation.eu/index/casestudies>

3) Benneworth, P., Bakker, I. and Velderman, W.J., 2018. 14. Beyond big data, the open data revolution for research. Knowledge, Policymaking and Learning for European Cities and Regions, p.193.

4) 20Creathon. Previous challenges. Available at: <https://20creathon.eu/previous-challenges/>

5) Bazen, J. (2018), Analysis of the effects of creative hackathons on participants, challenge providers and the entrepreneurial ecosystem,



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