CLIMATE-KIC
TRENTO SMART INFRASTRUCTURES
BLUE AND GREEN SOLUTIONS IN THE ALPINE REGIONS
Trento 2017
Urban challenge
Call for solutions

1. Context
Climate-KIC (www.climate-kic.org) is the EU’s largest public private partnership addressing climate change through innovation to build a zero carbon economy. Climate-KIC addresses climate change across four priority themes: urban areas, land use, production systems, climate metrics and finance. Climate-KIC runs programmes for students, start-ups and innovators across Europe via centres in major cities, convening a community of the best people and organisations. Climate-KIC is supported by the European Institute of Innovation and Technology (EIT - https://eit.europa.eu), a body of the European Union. FEM, HIT and UNITN-DICAM are partners of the Urban Challenge “Trento Smart Infrastructures. Blue and Green Solutions in the Alpine Regions” project with the commitment of the Municipality of Trento.

2. Competition Manual
This document is aimed to be used as competition manual for the Urban Challenge called “Trento Smart Infrastructure”. The objective is to provide the Municipality of Trento with smart solutions beyond business-as-usual and nature-based to be considered in future planning activities and supporting running projects. The solutions will further increase the total economic value of the greening and water in mitigating and adapting to climate risks including both the environmental and the use values.
Our call for solutions is meant for companies, start-ups and self-employed individuals willing to propose ambitious and innovative nature based solutions or services to be integrated with the activities of the Municipality of Trento.

Keywords of the competition are: awareness; valorization; multifunctional landscape, community, network

3. The marginality at the center of Trento’s future

Marginal (mahr-juh-nil) adjective
1. pertaining to a margin.
2. situated on the border or edge.
3. at the outer or lower limits; minimal for requirements; almost insufficient.

Trento’s urban challenge for its future development consist on the activation and regeneration of marginal areas as potential urban reserves for community, microclimate, productivity and excellence. This challenge accomplishes the European goals (EU Urban Agenda) and the guidelines of the review of the urban plan, such as zero consumption soil, valorisation of agriculture, efficient governance of water usage, valorisation of landscape, preservation of environment and biodiversity, and the climate change (microclimate and urban heat island). The marginality is the expression of a spread condition of inactivity, obsolescence, decommissioned of numerous areas in the valley of public and private properties.

At the urban scale, generally, marginality has a negative connotation since it identifies an area on the margins of something, a place of low quality, a residual space that very often lies in a state of obsolescence. Several areas along the valley of Trento are dealing with this condition: they are fragmented and marginal area as well as weak, inactive, unused or even almost unknown areas.

These areas are contiguous to urban, industrial and/or productive districts as well as to infrastructures, river and agricultural fields that all have significantly impacted on the definition of their marginal condition.

In some cases these areas are in opposition to the historic city but in the majority of cases they penetrate into the urban and productive city by leaving empty spaces, characterized by abandonment, and environmental and social decay. In other cases, they used to have an agricultural function in the recent past but today they are wild and uncultivated, exposed to phenomena of productive marginalization forced by the pressure of the surrounded urbanization, mobility infrastructures or progressive abandonment of agricultural activity. Marginality is thus defined not as a general concept but it has to be declined in relation to the surrounding contexts: the urban centre, the productive agricultural areas of the valley floor, the riverfront system.
The call aims to offer a new point of view on the above-mentioned areas by highlighting their possible positive elements that they may have within the urban/territorial systems and by offering space for experimenting innovative devices and tactics to reach climate adaptation. The main objective is to activate a process of valorisation, knowledge, awareness and implementation of the urban fragments through their rediscovery and communication of their potentialities.

The call for proposal aims to find concrete responses by proposing services to reactivate and recovery these areas as new multifunctional spaces but also to communicate and share values.

4. Competition Question

The project aims to enhance, develop and manage marginal landscapes with their natural and cultural assets as part of the Blue and Green Infrastructure (BGI) network for a livable and attractive Trento. BGI have a pro-active role to enhance actions for mitigation, adaptation, reduction of climate change risks, preservation of biodiversity.

The expected solutions should be oriented to the supply of measurement, evaluation, monitoring and/or communication of values of Trento’s marginal areas. The proposed projects should increase environmental, urban and architectural quality as well as provide for a fair distribution of services, territorial provision, infrastructures for a better management of mobility, community, as well as for the reduction of abandonment and decommissioned areas. The proposed solutions may involve measures prone to diversification of rural economy and maintenance or recovery of urban quality, especially regarding ecological regeneration of the urban settlements. For example, systems for emissions monitoring, technological disposals, data collections and integration or management resources could be developed.

The results expected by the above-described urban challenge should address the transformation of the physical space of the urban environment and they may apply to one or more of the following quality objectives:

a. recovery and regeneration of marginal areas characterized by underuse or abandonment (e.g. landed areas or areas awaiting to be reclaimed) and subjected to deterioration phenomena (e.g. marginality, sprawl, structural or infrastructural deficiency, unsuitability of services);

b. interventions able to enhance and promote cultural and natural heritage, for example through projects of street furniture, improvement of accessibility and usability of spaces, improvement of pedestrian mobility and re-evaluation of existent accommodation and catering facilities.

c. evaluation and monitoring of climatic and environmental quality (systems of air, water and soil) through innovative technological systems which can integrate the database availability of the environmental institutions of the territory (Province, Municipality, Research centres, Valley Communities, Associations, etc.).
5. **Competition Format**

The call for proposals will be divided into two stages addressed for two tracks of participants.

**Stages**

1. The first stage is an open submission process published on the website of HIT – Hub Innovation Trentino (www.trentinoinnovation.eu) in which all submission will be reviewed and evaluated and up to 10 finalists (5x2 category of participants) will be selected to join second stage.
2. The selected finalists will be given the opportunity to participate to a 2 days boot camp in Trento and to pitch at the end of the days, to a panel made up of representatives from the organizing partners on December, 5-7 2017. The best of the developed and presented solutions will receive sparring and mentoring for the development of the idea(s).

**Tracks**

The call for proposal will be addressed to two tracks of participants

1. The first is reserved for all the companies, research and public institutions, universities, and individuals affiliated primarily to the Climate-KIC community
2. The second is open to whom who are interested in participating as individual or group such as practitioners, designers, associations, students, etc.

**Organizers welcome applicants which:**

- operate in the sector of climate change technologies and/or products/services;
- are active in the field of urban redevelopment or nature based solutions;
- can propose “ready-to-market” ideas;
- make themselves available for a 2,5 days training and pitching session in Trento;
- have an advanced English level to write and discuss your project idea in fluent English and to take part actively to the training session foreseen by the programme.

**Schedule**

1. Open for submission 23 October 2017
2. Deadline for submission of solutions (I stage) 27 November 2017
3. Announcement of the selected proposals (for II stage) 28 November 2017
4. Boot camp in Trento 5-7 December 2017
5. Pitching event in Trento 7 December 2017, 09.00-12.00
6. Presentation of winners 7 December 2017, 12.00-13.00
6. Selection Criteria

FEM in collaboration with HIT will appoint an evaluation Commission to evaluate and select 5 proposals per track who will be invited to the Trento Boot camp in December.

The Commission will evaluate the applications based on the following criteria:

1) Team Skills (the skills and expertise of the company or group of people proposing): 20 points out of 40
2) Degree of innovation and content: 10 points out of 40
3) Fit with the challenge topic: 10 points out of 40

The 10 applications with the highest final mark will be invited to participate to the boot camp. Not attending the boot camp is considered a reason for dismissal from the contest. In case of early withdrawal, replacements will be admitted using the ranking list whenever possible. If there are 2 or more ideas selected with the same final mark, those who get the possibility to participate will be ranked according to the time and date of their application submission.

Selection results will be published on www.trentoinnovation.eu; selected applicants, invited to the boot camp, will be contacted via the e-mail address provided on the online application form.

7. Proposal

Proposals submitted via the form online must contain a written description of the proposal (maximum four pages in A4 format with text in 12 point Times New Roman or similar). Additional information can be attached (maximum three illustrations in A3 format). Proposal must be in English. Proposals must be entered digitally by 18.00 on 13th November 2017 at the latest. All proposal documents must be marked with the name of the proposal. The scope and content of proposal presentations for the boot camp and pitch event will be decided by the organising partners and attached to the invitation to contestants progressing to this stage.

8. Evaluation

Evaluation of the proposals will be carried out by a group of representatives from the organising partners and Climate-KIC. The group may ask other experts to take part in the evaluation or to give their opinion on different aspects of the proposals.

The group will select contestants to be invited to the boot camp and the pitching event in Trento. Invitation will be sent out by 17 November 2017 at latest and with additional material. In Trento, contestants will develop and present to a panel of representatives from the organising partners and other experts forming the Jury and to a larger audience from public and private sector.
9. Criteria
The proposals will be judged according to the following criteria. Economic and technical feasibility are absolute demands for a winning proposal.

Feasibility: how likely is that the solution/service can be implemented?
Technical feasibility, economic feasibility, replicability, adaptation.
Innovation and genius: how will the service be innovative and easy to be spread?
Level of creativeness and innovativeness, evolution of the idea.
Use and function: how will the solution work and be perceived on a daily basis?
Functionality and attractiveness, use, clearness and readability.
Climate impact: how the service will support the city (or a portion of the city) to adapt/mitigate climate change?
Creating climate awareness, sustainable solution.

10. Granted opportunities
All contestants that are invited to the boot camp and to pitch in Trento will be supported by the organisers with a qualified activity of training and coaching and dialogue with potential investors. Organisers will offer meals and animation during the boot camp and accommodation will be offered to at least one member of the selected group of finalists.

11. Implementation
The goal of the competition is to develop a solution/service that fulfils the demands of the partners respect the challenge. These demands concern the technique, production, economy, aesthetics, long-term sustainability, social engagement, possibilities for local employment etc. related to the enhancement of the individuated categories of operation.

The organising partners however, do not take responsibility for the eventual implementation of the project(s). The responsibility of the organising partners end when the pitch stage of the competition is finalised with the prize ceremony.

12. Publishing
All - or at least some - of the proposals submitted to the competition will be published on the competition’s and of Climate-KIC websites, in written documentation associated with the competition, on the websites of the organising partners or under other circumstances in which the organising partners may want to inform about the competition and its results.

Contestants accept by taking part in the first stage of stage of the competition, that their proposals can be published. If this is not acceptable, notice must be submitted when the proposal is registered for the first stage.
13. IPR
The immaterial property rights (IPR) for the proposals are owned by the contestants. The IPR can be transferred to any of the organising partners or any other partner involved in the implementation in return for economic compensation which is agreed between the contestant and the partner willing to take over the IPR separately from this competition.

14. Competition documents
This competition document contains the programme for the competition. Attached there are a collection of maps and figures about the city of Trento and the description of the involved context and climate and physical conditions.

15. Privacy, processing of personal data and transparency
Climate-KIC is funded by the European Institute of Innovation and Technology (EIT). Applicants have to acknowledge that their personal data may be submitted to EIT and to Climate-KIC for the purpose of cost and performance reporting. Personal data provided to FEM and HIT and come into FEM and HIT’s disposal in applying this competition will be treated in accordance with Italian Decree no. 196/03 “Code regarding the protection of personal data.”

16. Responsibility
Each applicant is responsible for the completeness, clarity and truthfulness of the data and information contained in the documents and materials prepared and/or compiled for the application to the present call. The organizers are not responsible for such contents, or for any inaccuracies, omission or violation of other parties’ rights.

17. Request for information
The information and forms related to the present call are available on the following website:
www.trentinoinnovation.eu and www.fmach.eu
For further information, it is possible to contact Alessandro Greter(FEM) Matteo Cevese(HIT):
Email: alessandro.greter@fmach.it, matteo.cevese@trentinoinnovation.eu
Telephone: +39 0461 615572 (Gretter) +39 0461 312085 (Cevese)