



## **QROWD - Because Big Data Integration is Humanly Possible**

### **Innovation Action**

Grant agreement no.: 732194

### **D2.1 – Ideas Competition**

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## EXECUTIVE SUMMARY

The QROWD platform shall deploy services aimed at improving urban mobility and transportation in the city of Trento while capitalizing on integration of cross-sectoral big data with human computation and feedback. Involvement of different stakeholder groups is therefore crucial to the effective performance of project. This report outlines how participation of and feedback from stakeholder groups are supported, focusing on the task T2.2 (*Ideas competition*) in WP2 assigned to the Municipality of Trento.

The report is confidential and is intended for the members of the QROWD project consortium as well as for the reviewers of the European Commission.

Its content benefits targeted readers as it clarifies the scope and management of the ideas competition envisaged in WP2. The competition, entirely designed and organized by the Municipality of Trento, has been conceived as a first step in the wider citizen engagement plan set up with Università degli Studi di Trento (UniTN). As such it aims both to (i) reach the specific objectives outlined in WP2, improving transportation and mobility in the region of Trento through the delivery of new digitalized services, and to (ii) contribute to T2.3 (*Urban mobility services*) in WP2, by dovetailing with the streaming data gathering activity (Crowds-lab) that will be carried out by UniTN at the end of the idea contest. More precisely, the idea contest feeds this activity through a specifically designed prize awarding mechanism which incentivizes a continuous engagement of citizens and stakeholders in the various activities.

Moreover, the ideas competition is also intended to (iii) contribute to task T2.1 (*Requirements analysis and design*) in WP2 as well as (iv) to task T1.2 (*Hackathon for road information services*) in WP1. In particular, the initial version of the requirements and design of the business case will be updated after the contest to incorporate selected ideas; likewise, some of the ideas issuing from the contest may be developed during the QROWD hackathon that will be organized in early 2018 by TomTom (see WP1).

## 1 INTRODUCTION

The ideas competition aims to identify proposals for improvement of transportation and mobility services in the region of Trento from different stakeholder perspectives. As such, it seeks to understand stakeholders' needs and motivations, as well as to promote their collaboration. Their contribution will be judged by their relevance, innovation, and practicability to improve transportation and mobility in the region of Trento, and will be possibly included in the business case. In particular, ideas deemed relevant may be developed during the QROWD hackathon that will be organized in early 2018.

The challenge targets groups of citizens in the city of Trento, including participants from public administration, academia, local companies and social entrepreneurs.

The ideas competition fits well with the objectives of the business case such as addressing the underuse of existing services and expanding their quality. In combination with crowdsourcing and feedback mechanisms, this form of direct involvement of different stakeholder groups will facilitate the availability of up-to-date and integrated information about transportation in Trento.

## 2 STRUCTURE OF THE IDEAS COMPETITION

The ideas competition represents an essential first step towards the objectives of delivering new digitalized transportation and mobility services (websites or smartphone applications) and enhancing the quality of those already available. More specifically, the competition will lead to the presentation of ideas for such services and will be divided as follows:

1. citizens will report their **needs** with regard to transportation and mobility services in Trento;
2. citizens will submit their **ideas** for a digital service in response to specific challenges, elaborated and launched on the platform by the Municipality of Trento on the grounds of the needs that were deemed as "useful".

Since the contest may be relevant to foreign residents, the proposals can be written both in Italian and English.

When reporting a need, citizens shall consider the following requirements. The need must be:

- consistent with the category: **Transportation and Mobility**
- **realistic**, **reasonable** and **specific** to the region of Trento
- associated to a specific **subcategory** (e.g. drivers, cyclers, pedestrians) so as to arrange them by target groups

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- consistent with the labels defined by the category/subcategory and the tag
- apt to be met by creating a new **web service** or **mobile application**

When proposing a new idea for a digital service, citizens shall consider the following requirements. The service must be:

- **consistent** with the **objective and description** outlined in the challenge
- able to ensure real and actual **benefits** for the citizens of Trento
- **new** and **innovative**, that is:
  - not already present among the existing smart services available in Trento (see [www.smartcityweek.it/Trento-Smart-City/Servizi-Smart](http://www.smartcityweek.it/Trento-Smart-City/Servizi-Smart) for a list)
  - not already satisfied through an existing and available app
- technically **feasible**

The idea for a digital service shall be submitted in a standardized format which includes the following elements:

- **Title**: an explanatory name of the service
- **Description**, divided in the following fields (200 words minimum):
  - A short description of the **service goals**, mentioning how it satisfies **the need** to which the challenge is connected
  - A short description of the **service functionalities** and the general operations that such service should guarantee
  - The proposed technological implementation of the service: as a **website**, as a **smartphone app** or **both** and whether it would require specific (and additional) technologies to work
  - Other more specific, **optional** information:
    - The **type of data** the user would be **required** to provide for the digital service (*optional*)
    - The **type of data from other resources**, specifying both the type of data and the data source required to provide the digital service (*optional*)
    - Expected **time** required for its development (*optional*)
    - Remarks about possible **criticalities and risks** (*optional*)
    - Remarks about possible **evolutions and improvements** (*optional*)
- **Specific Scope**: the topic(s) related to “Transportation and Mobility” issues that the digital service intends to address, choosing from the available list - e.g., Bicycles, Buses, Electric vehicles, Parking places management, Railways, Roads, Traffic, Tram
- **Keywords**: any other “key” issues concerning mobility during events such as “Mercatini di Natale”

Additional attachments may be included after the publication of the idea. Only attachments in the following formats will be considered:

- PDF: all text documents, including presentations
- JPEG or PNG: all images (e.g. mock-up, infographics)
- MP4: videos (max 2 minutes)

### 3. ORGANIZER

As a partner in the QROWD European project consortium, the Municipality of Trento is the Organizer of the competition and will be responsible for its management. The official competition rules will be based on the information herein reported and will be available in Italian on the official website of the Municipality of Trento for the whole duration of the contest. For informative purposes, the Municipality of Trento will publish a simplified description of the contest in the news section of its website. The Organizer reserves the right to modify the deadlines for submitting applications, to manage criteria for prize awarding and decide the types of prizes. Likewise, it reserves the right to temporarily suspend or terminate the competition for justified reasons. The sponsoring institutions may not incur any responsibility owing to these decisions.

### 4. TIMELINE

The following configuration is intended to incentivize and guarantee a continuous engagement of citizens throughout the competition, also in view of the Crowds-lab which will take place afterwards and whereby citizens are called upon to contribute with data concerning their personal mobility preferences using an app (iLog) developed by UniTN.

- **First phase (1 August - 10 September)**: citizens to report their needs on the WeLive platform
- **First award ceremony (16 - 22 September)**, in conjunction with the events connected to the “Mobility week” taking place in Trento
- **Second phase (16 September - 15 December)**: Municipality to launch challenges on the WeLive platform, based on the needs deemed as “useful”, and citizens to respond by submitting their ideas
- **Second (eventual) award ceremony (20 - 22 December)** in conjunction with the events connected to the “Mercatini di Natale”
- **Third phase (15 January 2018- 30 March 2018)**: citizens to evaluate the ideas presented and participate in the Crowds-lab
- **Final award ceremony (11- 15 April 2018)**, in conjunction with the big events and exhibitions connected to the “Smart City week” taking place in Trento

## 5. PLATFORM USED FOR THE IDEA CONTEST: WeLIVE

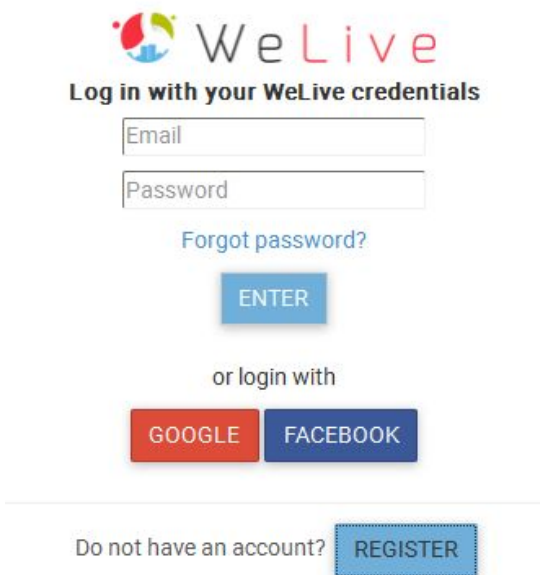
The ideas competition will make use of an online platform developed in the context of the ongoing [H2020-INSO-2014 “WeLive” project \(No. 645845\)](#) in which the Municipality of Trento is currently involved as partner in the project consortium. The [WeLive platform](#) has been intended to facilitate the co-creation of mobility services and has successfully served this purpose since it was set up: an idea contest was organized in December 2016 and the ideas submitted using the platform are currently in their refinement phase. The tools provided by the platform will be tailored to suit the needs of the QROWD ideas contest which will take advantage of the scoring methodology specifically developed to allow for a smooth evaluation process. Its intuitive design coupled with its improved usability make the platform an ideal instrument for the purpose of the QROWD idea contest.

## 6. HOW TO PARTICIPATE

To take part in the competition, citizens must complete the specific steps required for the first and the second phase respectively.

### 6.1 *First phase*

1. **Sign up** to the WeLive platform by creating new credentials or log in using your Google or Facebook account

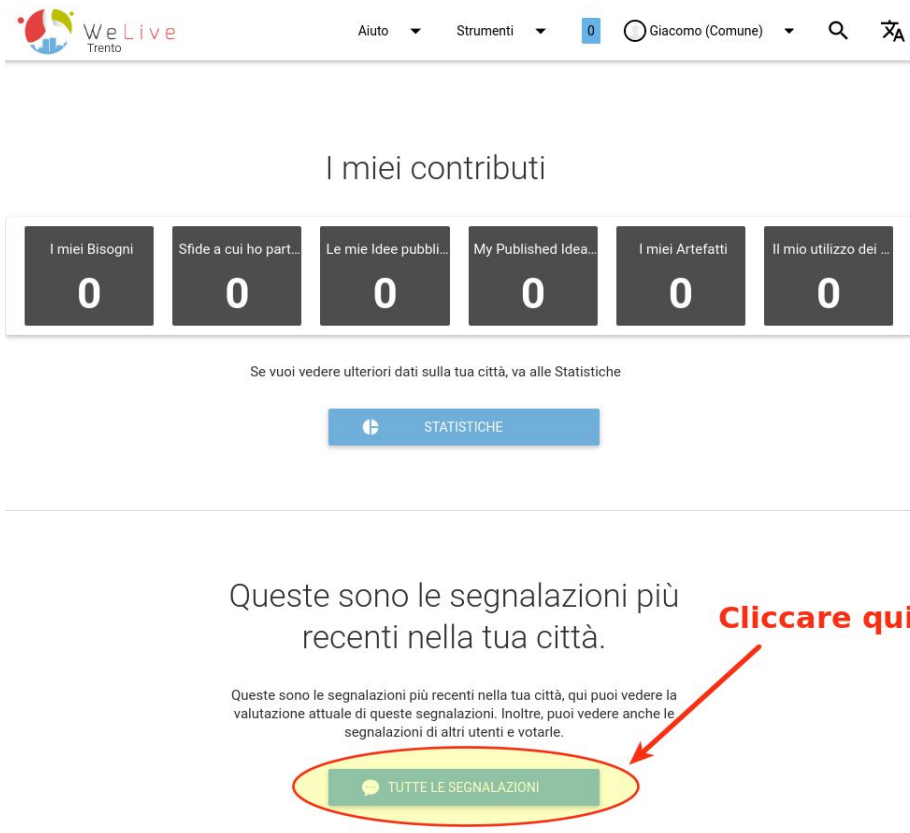


The image shows a screenshot of the WeLive login interface. At the top left is the WeLive logo, which consists of a colorful globe icon followed by the text 'WeLive'. Below the logo is the text 'Log in with your WeLive credentials'. There are two input fields: 'Email' and 'Password'. Below the password field is a link that says 'Forgot password?'. A blue button labeled 'ENTER' is positioned below the input fields. Below the 'ENTER' button is the text 'or login with'. There are two buttons for social login: a red button labeled 'GOOGLE' and a blue button labeled 'FACEBOOK'. At the bottom of the form, there is a link that says 'Do not have an account?' followed by a blue button labeled 'REGISTER'.

Figure 1



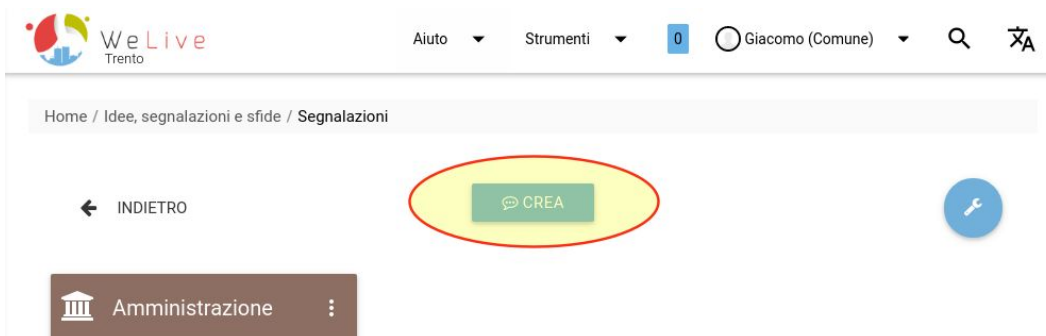
## 2. Go to “View all needs”



The screenshot shows the 'I miei contributi' (My contributions) section of the WeLive Trento website. It features six dark grey boxes with white text and numbers, all showing '0'. The boxes are labeled: 'I miei Bisogni', 'Sfide a cui ho part...', 'Le mie Idee pubbl...', 'My Published Idea...', 'I miei Artefatti', and 'Il mio utilizzo dei ...'. Below these boxes is a blue button labeled 'STATISTICHE'. Further down, there is a heading 'Queste sono le segnalazioni più recenti nella tua città.' followed by a paragraph of text: 'Queste sono le segnalazioni più recenti nella tua città, qui puoi vedere la valutazione attuale di queste segnalazioni. Inoltre, puoi vedere anche le segnalazioni di altri utenti e votarle.' Below this text is a green button with a speech bubble icon and the text 'TUTTE LE SEGNALAZIONI'. A red arrow points from the text 'Cliccare qui' to this button.

Figure 2

## 3. Click on “Create”



The screenshot shows the 'Segnalazioni' (Reports) page on the WeLive Trento website. The breadcrumb trail at the top reads 'Home / Idee, segnalazioni e sfide / Segnalazioni'. Below this, there is a navigation bar with a back arrow and the text 'INDIETRO'. In the center, a green button with a speech bubble icon and the text 'CREA' is highlighted with a red oval. To the right of this button is a blue circular button with a white key icon. At the bottom left, there is a brown button with a building icon and the text 'Amministrazione'.

Figure 3

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- 4. Start** creating your need by following the instructions. Remember to assign tags to your need so as to arrange them by target groups (e.g. drivers, cyclers, pedestrians).

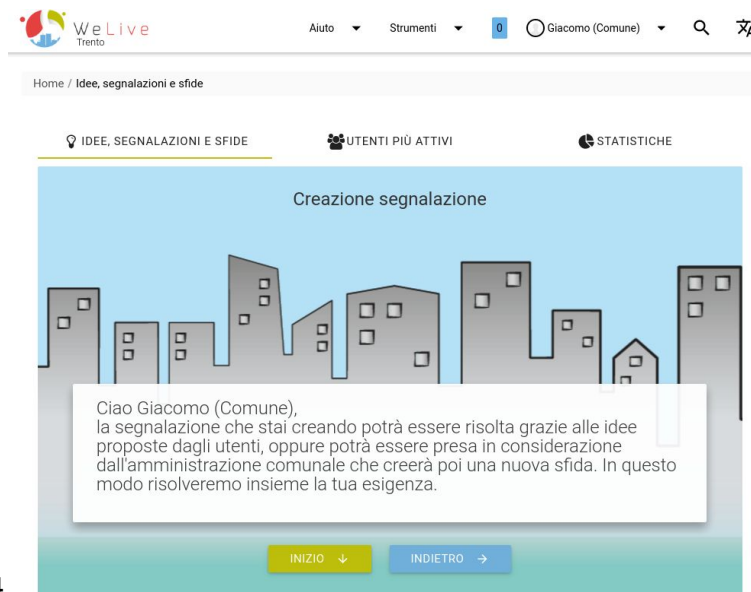


Figure 4

## 6.2 Second phase

- 1. Sign in** to the [WeLive platform](#)
- 2. Click on "Tools"** and go to the **"Ideation board"** in the right-hand corner of the page

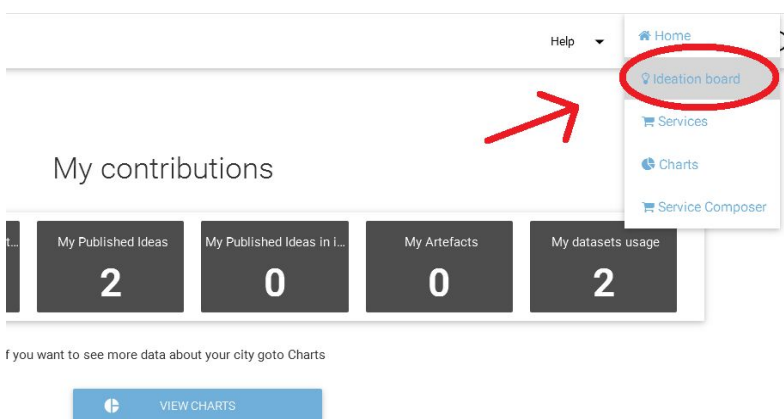


Figure 5

3. Click to see all **challenges**

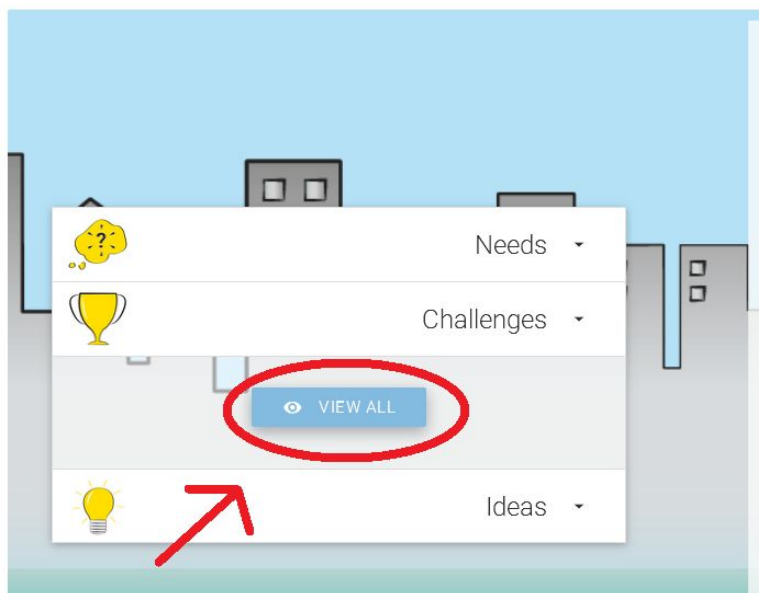


Figure 6

4. Enter one of the QROWD challenges

For an example, see:

[https://test.welive.eu/challenges\\_explorer/-/challenges\\_explorer\\_contest/7301/view](https://test.welive.eu/challenges_explorer/-/challenges_explorer_contest/7301/view)

5. Click on “Suggest an idea”

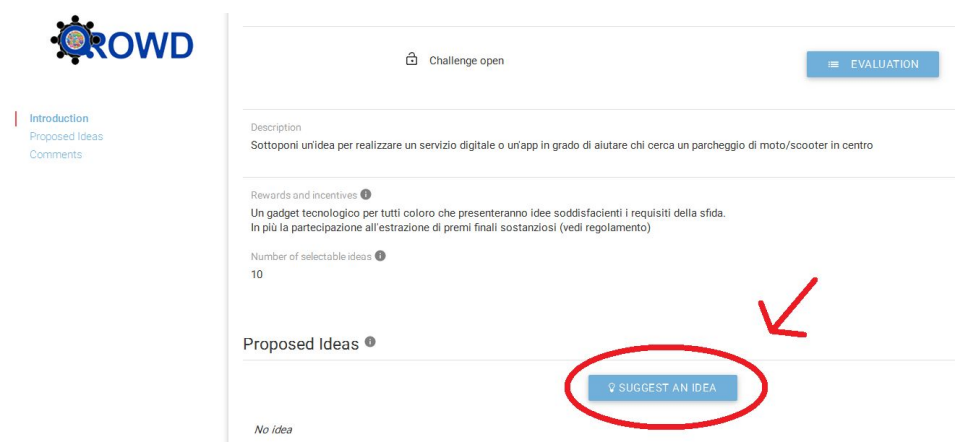


Figure 7

6. Follow the steps outlined in the description of the challenge:

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- Describe your idea in a few words
- Insert the title of your idea
- Choose at least a subcategory for your idea (the main category is inherited from the linked challenge or need)
- Add possible tags to better define your idea
- Review and publish your idea
- Add possible attachments that you think might be useful for the evaluation of the idea (mock-up, presentation, video)

### 6.3 Third phase

- 1 Sign in to the [WeLive platform](#)
- 2 Go to “All ideas” and select one idea connected to one of the QROWD challenges

Queste sono le idee più recenti nella tua città.

Queste sono le idee più recenti nella tua città, qui puoi vedere la valutazione attuale di queste idee. Inoltre, puoi vedere le idee di altri utenti e votarle.

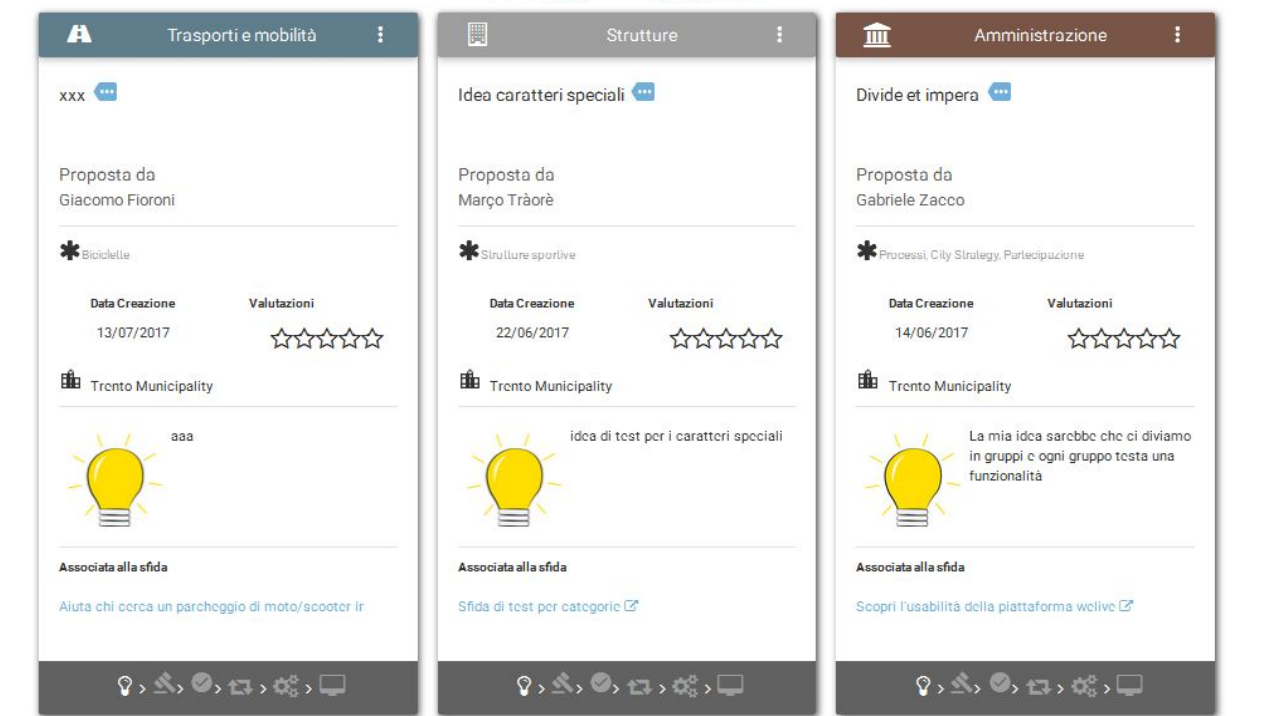


Figure 8

- 3 Rate the idea (1 to 5 stars) in the right-hand corner of the page



Figure 9

## 7. EVALUATION PROCESS

### 7.1. First phase evaluation process

Each need presented must meet all of the following minimum criteria, under penalty of exclusion from the competition:

Criteria	Yes/No
Is the proposed need consistent with the category: Transportation and Mobility?	Yes
Is the proposed need realistic?	Yes
Is the proposed need reasonable?	Yes
Is the proposed need specific to the region of Trento?	Yes
Can it be met by creating a new web service or mobile application?	Yes

### 7.2. Second phase evaluation process

The process that will be followed for the evaluation of each idea is described in

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the following diagram:

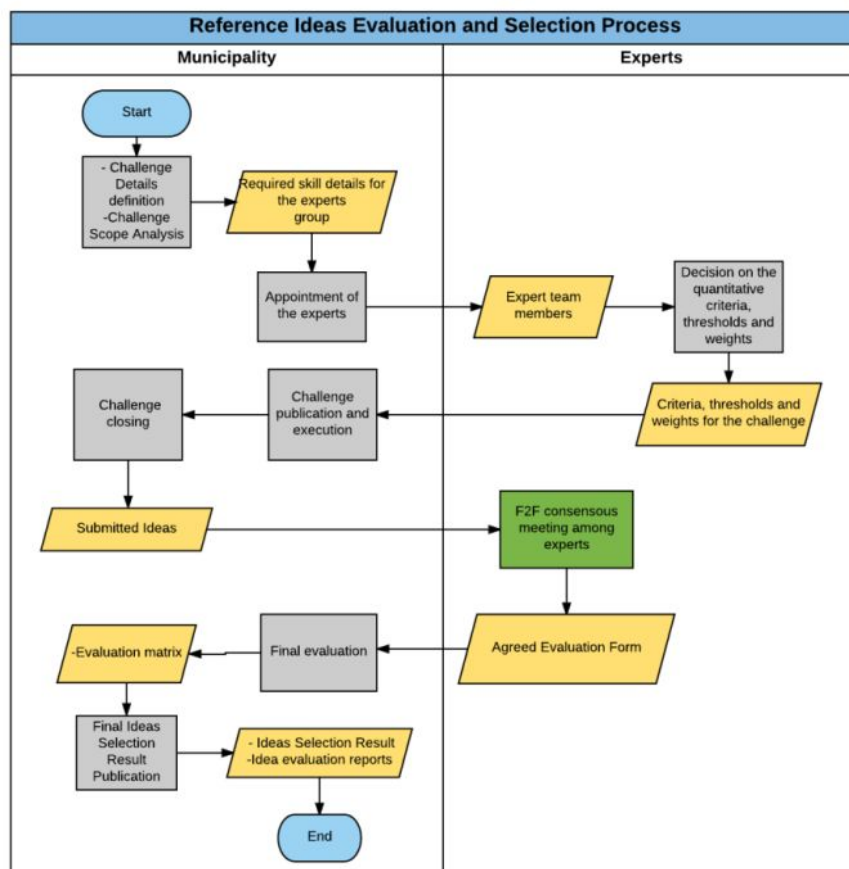


Figure 10

Each idea presented must meet all of the following minimum criteria, under penalty of exclusion from the competition:

Criteria	Yes/No
Is the proposed idea consistent with the objective and description outlined in the challenge?	Yes
Is it an interesting idea for the city of Trento and is it practical?	Yes
Is it technically feasible? (Can it be met by creating a new web service or mobile application?)	Yes
Is it an innovative service that is not already present among the existing smart services available in Trento?	Yes

Is it an original idea that does not reproduce any content that can be attributed to other ideas previously presented by others?	Yes
Is the description of the service goals satisfactory?	Yes
Is the description of the service functionalities satisfactory?	Yes
Has the technological implementation (website, smartphone app) of the service been specified?	Yes

### 7.3. Quantitative criteria

For each of the following criteria a minimum threshold and a specific weight are defined:

- **Minimum threshold:** minimum value set for each criterion so that the idea can continue through the evaluation process.
- **Weight:** the importance associated with each criterion for calculating the final score.

N.	Criteria	Score from 0 to 5	Minimum threshold	Weight
1	To what extent is the idea technically feasible?	from 0 to 5	2	4
2	To what extent does it address the need set out in the challenge?	from 0 to 5	2	3
3	How much social impact can the idea have?	from 0 to 5	2	5
4	Usability, design and simplicity of the features described.	from 0 to 5	No threshold	2

Jurors shall assign each idea a score from 0 to 5 and shall then calculate the total scores based on the weights assigned to each criterion.

As already mentioned, there are 5 different scores:



Score	Meaning
0	The idea fails to address the criterion or cannot be evaluated because of missing or incomplete information.
1 - Inadequate	The criterion is addressed inadequately, or there are serious intrinsic shortcomings.
2 - Right	The proposed idea generally addresses the criterion, but there are significant shortcomings.
3 - Good	The proposed idea addresses the criterion well, but there are a number of shortcomings.
4 - Very good	The proposed idea faces the criterion very well, but there is a small number of defects.
5 - Excellent	The proposed idea successfully addresses all relevant aspects of the criterion. Any deficiencies are minor.

#### **7.4. Rules on the content of the ideas presented**

Only ideas specifically related to the QROWD challenges can be submitted.

Each idea presented must be original and cannot violate in any way the intellectual property rights of others.

The author of the proposal declares and warrants that the idea presented does not infringe any intellectual property rights or any other third party's rights, and that no third party license or authorization is required, assuming full responsibility for any breach. The Organizer may not incur any responsibility owing to any breach.

Any content that reproduces or that can be attributed to different ideas previously presented by others will not be considered for evaluation.

Proposals whose content violates these rules will not be accepted.

Participation is also forbidden, *inter alia*, to ideas that feature violent,



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xenophobic, or pornographic content, that violates the right to honor and reputation, that incite or advertise illegal activities and services, that negatively affect the property rights of others, that in any way violate Italian legislation. These proposals will be immediately excluded.

The Organizer and the jury can arbitrarily evaluate the technological aspects of the ideas presented, which means that they may ask, at any time, for any clarification deemed necessary. The Organizer may exclude those ideas that provide solutions that are technically inadequate for the purpose of the competition.

Acceptance of the competition rules is a necessary precondition for participation. Users must accept such rules upon registration.

### **7.5. In case of doubts**

In case of doubts concerning the submission of needs and ideas, each registered participant may request for clarification directly on the page of the challenge by posting a new comment.

The Organizer promises to answer all questions raised in the same way (by posting a comment) so that all participants have access to the same information.

Information explaining how to create an idea can be found in the Citizen Guide on the WeLive platform .

## **8. ELIGIBILITY**

The competition is open to all people who are over 16 years of age.

Each participant can report one or more needs and can equally propose one or more ideas on the platform. All needs and ideas presented will be evaluated.

Persons who have been involved in the organization of the contest and members of their families (parents, children, spouses or partners) may not participate in the contest.

The Organizer reserves the right to reject a proposal for failure to comply with the criteria as mentioned in section 2 and more specifically in section 7.

## **9. PANEL**

For the idea competition a jury of 3 members will be set up:

- a person proposed by the Municipality of Trento;
- a person proposed by the University of Trento;

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- a person proposed by stakeholders (Trentino Mobilità, Trentino Trasporti Esercizio S.p.a.).

The jury will be appointed by the Organizer and its composition will be made public on the project website. One of the members of the jury will be appointed as president whereas another one will act as secretary.

## 10. AWARDS

There are two types of prizes awarded to participants in recognition of their participation in the contest:

- **small** prizes (gadgets, e.g. USB pen drivers)
- **substantial** prizes (e.g. e-bike).

All participants who have registered to the platform and contributed:

- by reporting their needs in the first phase,
- by submitting their ideas in response to the challenges in the second phase
- by evaluating other users' proposals and participating in the Crowds-lab in the third phase

will be awarded a **small prize** (gadget) to reward them for their active involvement as well as to foster continuous participation in the contest and will have the chance to win a **substantial prize** (greater in terms of size and value) decided by lottery at the end of the contest.

All users that have participated in one of the phases of the idea contest are eligible for the final lottery. However, those who have taken a more active role throughout the contest (i.e. they have fulfilled as many tasks as possible) will be guaranteed a higher chance to win (participation in each phase entails one more chance).

Participants may receive further recognition for their contributions: if deemed relevant, some of the ideas emerging from the competition will be developed during the QROWD hackathon that will be organized in early 2018.

## 11. ADVERTIZING

The competition will be promoted:

- through specific press releases and press conferences
- on local media
- on the Municipality of Trento newspaper (Trento informa), distributed free of charge to all residents and available online on the Municipality's website
- on the Municipality's website

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- through posters at the city library and in the city center
- at events and exhibitions taking place in conjunction with events such as the Mobility Week (16 - 22 September), Mercatini di Natale (in December) and Smart City Week (11 - 15 April 2018)

### **11.1. Slogan**

#### **Italian version:**

“Come migliorare la mobilità nella tua città? Pensa ad alcune idee o servizi digitali (app) che potrebbero aiutare i cittadini nei loro spostamenti: parcheggiare, utilizzare i mezzi di trasporto locale, usare mezzi alternativi e più sostenibili”.

#### **English version:**

“How would you improve mobility in your city? Think about some ideas or digital services (apps) that could help improve transport, traffic, parking and sustainable mobility in the city of Trento.”

## **12. PERSONAL DATA**

The gathering and use of personal data and of data related to the ideas submitted is necessary for the performance of the competition. Personal data will be processed in compliance with the privacy laws currently in force, as specified in the document [Informativa trattamento dati personali e privacy](#) available on the Municipality's website and mentioned in all pages providing information about the idea contest.

## **13. CONCLUSIONS**

This deliverable outlines the main features of the ideas contest, specifying its unique design (consisting of more distinct phases), the timeline and the configuration of the prize awarding mechanism. It also details how contributions from stakeholders shall be submitted, the criteria they shall meet, and the evaluation process they are subject to. Furthermore, the deliverable clarifies the interlinkages between task T2.2 (*Ideas competition*) and the other tasks in WP2 as well as task T1.2 (*Hackathon for road information services*) in WP1.