Application of Vadebike

A. Profile of the Initiative

<table>
<thead>
<tr>
<th>Geographic Region</th>
<th>Western Europe and Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country/Region</td>
<td>Spain</td>
</tr>
<tr>
<td>Name of City/Local Authority</td>
<td>Barcelona</td>
</tr>
<tr>
<td>Organization</td>
<td>VADECITY</td>
</tr>
</tbody>
</table>

Title, Name and Position of Person(s) Leading the Initiative

Basic City Data

<table>
<thead>
<tr>
<th>Population size:</th>
<th>1,620,809</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Growth Rate(%)</td>
<td>10.00</td>
</tr>
<tr>
<td>Surface Area (sq.km)</td>
<td>101.000</td>
</tr>
<tr>
<td>Population Density (people/sq.km)</td>
<td>16000.000</td>
</tr>
<tr>
<td>GDP Per Capita (U.S.$)</td>
<td>145191.000</td>
</tr>
<tr>
<td>GINI Index</td>
<td>0.325</td>
</tr>
</tbody>
</table>

URL/Webpage of Your City:

URL/Webpage of Your Initiative:

Main source of prosperity (e.g. industry, trade, tourism, creative industry, etc.): Tourism

B. Title and Abstract

For a large integrated initiative, please consider submitting up to three initiatives under the same title. For example, you may wish to submit under “Low-Carbon Urban Development for My City” an initiative on public transport, an initiative on energy efficiency in buildings, and an initiative on use of renewable energy.

<table>
<thead>
<tr>
<th>Title or Tagline of the Initiative</th>
<th>Vadebike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-title</td>
<td>Smart Bike parking</td>
</tr>
<tr>
<td>Start date of the initiative</td>
<td>2014-04-20</td>
</tr>
<tr>
<td>Tentative End Date of the Initiative (if not yet completed)</td>
<td>2021-03-31</td>
</tr>
<tr>
<td>Thematic Areas</td>
<td>Others (Please specify): Mobility</td>
</tr>
</tbody>
</table>

Abstract/Short description of the innovative initiative being submitted for Award.(150 words max)

The proposed solution to resolve the problem and satisfy the users’ needs is VadeBike; a secure parking, smart, simple, comfortable, with low visual impact and reduced space requirements that solves the need of parking in the city and satisfies the users’ needs. It is modular, scalable, and valid for any type of bike, with reduced parking space requirements, including the space for the
C. Background Information
Describe the legislative or policy framework under which the initiative is taking place, for example, a public policy document at the central or local government level, a policy statement, a covenant, a compact or internationally recognized agreement including, for example, the Sustainable Development Goals, and/or the New Urban Agenda.

The framework which the initiative is taking place is with the Barcelona City Council and the European Comission.

The relation with the Barcelona City Councils started with the public tender called"Open Challenge", a serial innovative tender to get solution of the most recent problems in the city.

In 2017, as a winners of the H2020 project, the European Comission gived us the funds to empower our project.

D. Summary of the Origins of the Initiative
Describe how the initiative came about and what challenges or issues of sustainable development it is meant to address using the following lead questions as your guide. (350 words max)

1. Describe briefly the reason(s) for undertaking the initiative including social, economic, political or cultural challenge(s) or issues confronting the city/region/community. Include where relevant number of people, enterprises or institutions affected.

   In recent years, population is increasing in urban environments, which is resulting in a change of mobility patterns creating new market opportunities. It is necessary to promote more sustainable forms of transport in the city, and to achieve that, administrations are promoting the use of bicycles. In a nutshell, the main challenges of Urban Mobility in EU/Global are to reduce congestion and pollution. Specifically, congestion costs nearly EUR100 billion, or 1% of the EU’s GDP annually and pollution caused by urban mobility accounts for 40% of all CO2 emissions of road transports and up to 70% of other pollutants.

2. Describe the goals of the initiative in terms of desired change or outcome and timeframe for achieving the change or outcome (for example, change in policy, strategy, business model, technology, means of implementation, financing arrangements, human development and empowerment, measuring and evaluating progress and impact, etc.).

   An efficient and effective urban transport can significantly contribute to face these challenges: The bicycle is the most efficient and effective mode of transport in urban areas for trips under 8km of distance as it is a solution that improves mobility and reduces congestion. For electric bicycles, distance increases above 15km. The use of bicycles as a
way of transport has many benefits to society as a whole, environmental benefits, reduce sedentary, improves cardiovascular health, easy-of-use, low cost, face Europe’s population aging, etc. In addition, the use of bicycles is widespread throughout the world, all cultures, economic levels, age, gender... Therefore, the image and perception people have toward bicycles in countries worldwide has been positive lately.

3. Describe whether the innovation involves any partnership (public-public, public-private, public-community, etc.) and if yes, who is or was the leading partner(s), the role they each played and whether other parties have benefited or are benefiting from your innovation and how?

The project involves a private-public partnership. Vadecity needs the cooperation of the Barcelona City Council and the European Comission. Their role is basically the change to exploit and manage the service in the public space.

4. Describe the resources used for implementing the initiative, including funding/financing strategy or arrangements and any significant contributions that are not in cash, for example, in human, technical or managerial resources.

The economic resources comes basically from the European Comission and the incomes from the users of the services.

E. Summary of the Innovative Aspect(s) of the Initiative

Describe the innovation for the initiative using the following lead questions as a guide. (350 words max)

1. Describe whether the initiative should be considered evolutionary or revolutionary. Evolutionary would imply that innovation evolved over time based on lessons learned from experience and that the changes or outcomes are cumulative. Revolutionary would imply something quite new or something that has been borrowed from elsewhere but never been tried before in the sector or context in question and therefore bears a certain degree of risk. If it’s borrowed from elsewhere, describe what the linkage with the other preceding experiences is.

VadeBike can be placed in number and location, according to needs. It has little visual impact, organizes and manages the parking of bicycles, conveying an image of order and cleanliness of the city. It is currently installed in different locations in Barcelona. Each VadeBike place is intelligent and independent by itself, without need of a totem pole that governs a certain number of places. VadeBike parking is innovative and ingenious by its way of setting the bike and its easy operation giving versatility of disposition in the urban spaces and comfort for the user.

2. Describe where the innovation is being applied, for example, in policy or strategy; planning, design and implementation; business model or financing arrangement; tools and technology; governance and administration; etc

The VadeBike parking is designed for two bicycles. Each bicycle is blocked by three anchor points that protect both wheels, frame, seat and helmet. Each parking place incorporates two chains anti shear that protect both wheels and frame. It also incorporates a receptacle
through which a steel lock protects seat and helmet. VadeBike has been patented at the national (Spain) and international level.

The implementation of the service is simple. It is only need the required space to installed as same as the conventional inverted U steel parking.

As a business model, the service is economical sustainable with the incomes from the users. The fare provides the enough money to face the service requirements.

As a summary:
- Shared Network of parkings
- Very Safety Solution
- Reduced space occupancy
- Cleanability
- Environmentally friendly solution
- Well balanced compromise
- Competitive cost of installation

3. Describe whether there was or are any obstacles or resistance to the innovation and if so, how were/are they being overcome.

Critical mass of users:
The company is carrying out several improvements to the solution (Main purpose of this Phase II) in order to anticipate such problem and avoiding it by providing the service in the most efficient way.

High initial investment:
Although the solution is sustainable, an initial investment is required for installing the first VadeBikes. External funds such as grants or credit from banks will solve this problem.

Long process to enter in new cities and countries:
The company considers the characteristics of every city; its current economy and transport policies, as well as the needs and preferences of the citizens and governments, and also the consumption trends.

Availability of sustainable places to install parking:
The company carries out a study of every city where will be selling the solution in order to located the bicycle parking around the points of interest so that users can benefit from the provided characteristics of VadeBike.

Customer acquisition costs:
Apply different design, marketing and commercialization strategies in all target groups in all cities in order to effectively convince potential customers to buy their service. The current
commercial strategy has already proved to be effective in order to attract the different stakeholders.

Cultural barriers:
It is essential to have the support of governments during the commercialization of the solution; they have to be focused on promoting the bicycle as a sustainable mean of transport.

F. Summary of the Desired Change or Outcome and how it is being Measured

Describe how the initiative, and in particular the innovation, is or will be making a qualitative and/or quantitative change and how that change or outcome is being measured. (350 words max)

1. What change(s) or outcome(s) have you already achieved or hope to achieve? Please describe the nature of the change(s) or outcome(s) in, for example, improved quality of life; new levels of social, economic or environmental sustainability, including new attitudes and behavior; improved efficiency, effectiveness, accountability or transparency, etc. Please describe the scale of the change, for example, primarily local, regional, national or global and where possible, please quantify the change(s) or outcome(s) being achieved.

In this sense, and according to the EU bicycle policy challenges governments have promoted different strategies to promote their use, such as bike lanes, 30 zones, traffic lights for bicycle, bike sharing systems (conventional and electrical), simple parking, among others, that are resulting in an increase of the use of private bicycle as a mode of transport in cities. However, one of the main challenges that cities and Europe are currently facing is the theft of bicycles.

This increase creates the need to manage parking on destinations. In this way, users are demanding secure parking due to the high number of bicycle thefts that occur in cities. The promotional campaigns of the bicycle tend to draw attention to the need to protect the bike properly using the anti-theft devices. However, despite these measures, the theft remains the main obstacle for the private use of the bicycle as a mode of transport. Therefore, companies are developing new parking solutions with built-in safety systems to satisfy these needs.

2. What indicators or metrics are you using to assess the change? Describe who is doing the measuring, and who is using the measurements and how.

Bicycle users by day
Bicycle trips by day
Bicycle thefts by year
CO2 emissions by year
NOx emission by year
3. Describe any specific tools or methods that were developed or applied to improve the chances to attain the desired outcome or change, for example, new working methods, new data and information, new incentives or disincentives, new means of communication and knowledge, new technology, etc.

The specific tools need are the whole Vadebike service promotes:

- Vadebike parkings physical infrastructure (parking slots)
- Vadebike network system
- Vadebike team to manage the service
- Marketing and advertising campaigns to promote the Vadebike users
- Vadebike users assistance
- Vadebike website and APP for mobiles

4. How does the initiative and its intended changes or outcomes contribute to a new image or reputation for your city or community?

Many associations for the bicycle exist currently in the city of Barcelona. Those ones are asking the public administrations to face the main problem for them, the thefts. They will be so happy for the implementation of our system to reduce the thefts. In order to increase the bicycle users and trips in the city.

G. Describe what you think other cities can learn from our initiative and what your city/community is prepared to do to further that learning.

Choose any of the above headings or a particular aspect of the initiative that you wish to highlight and that you think best describes the reasons why the innovative aspect(s) of the initiative could be of benefit to improving social, economic and environmental sustainability in cities and regions and, in so doing, to advance the prosperity and quality of life of their citizens. (400 words max)

The other cities can learn a new method to increase and promote effectively the use of the bicycle in the city as a new transport alternative. I think, it will be so beneficial for those cities are so affected by the pollution of the motor transportation.

H. Relevance of the Initiative to the 2030 Agenda for Sustainable Development, Commonly Referred to as the “Sustainable Development Goals” and to the New Urban Agenda.

Please tick the most appropriate boxes and provide a brief description of the relevance of your initiative in relation to the relevant goal(s). Please also refer to the complete text of the Sustainable Development Goals at:

Goal 3: Ensure healthy lives and promote well-being for all ages
Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- Target 2: Access to safe, affordable, accessible and sustainable transport systems for all
- Target 6: Improve air quality and manage municipal and other wastes
- Target 9: Improving resource efficiency, mitigation and adaptation to climate change, resilience to disasters and implement holistic disaster risk management

Goal 13: Take urgent action to combat climate change and its impacts

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions for all

Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

<table>
<thead>
<tr>
<th>I. Descriptive Materials in Annex to the Document</th>
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</thead>
<tbody>
<tr>
<td>These are materials destined to allow members of the Technical Committee and the Jury to have a better understanding of the context of your initiative which is a very important consideration. Please do not exceed the specifications below; anything that exceeds these specifications may not be availed to the Technical Committee or the Jury. Please provide, where possible and relevant, the following:</td>
</tr>
<tr>
<td>♦ Up to 5 press clippings or copies of covers and tables of content of reports published on the initiative.</td>
</tr>
<tr>
<td>♦ Up to 5 photos (with titles) that best illustrate the initiative (.jpeg at 300 dpi, 2000 x 2000 px max).</td>
</tr>
<tr>
<td>♦ Up to 5 graphics that best illustrate the initiative (300 dpi). These graphics could illustrate for example, trends, ratios or percentages; tools or technologies; etc.</td>
</tr>
<tr>
<td>♦ 1 map that best illustrates the physical context of the initiative (300 dpi)</td>
</tr>
<tr>
<td>♦ 1 chart that best illustrates the initiative (300 dpi)</td>
</tr>
<tr>
<td>♦ 1 technical drawing (300 dpi)</td>
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<table>
<thead>
<tr>
<th>J. Additional material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any additional material such as videos should be submitted on a DVD/CD or by email to the Secretariat at <a href="mailto:info@guangzhouaward.org">info@guangzhouaward.org</a>.</td>
</tr>
<tr>
<td>Note: Any additional material should be submitted to the Secretariat via email or mailing.</td>
</tr>
<tr>
<td>The Guangzhou Award Secretariat</td>
</tr>
<tr>
<td>Tel: +86-20-66289390</td>
</tr>
<tr>
<td>Fax: +86-20-66289391</td>
</tr>
<tr>
<td>Email: <a href="mailto:info@guangzhouaward.org">info@guangzhouaward.org</a></td>
</tr>
<tr>
<td>Address: 3901-02, Pearl River International Building, 112 Yuehua Lu, Guangzhou, P.R. China</td>
</tr>
</tbody>
</table>