T2 Pilot testing and evaluation of smart tools and methods of integrated urban green spaces management (06.2017 - 06.2018)

D.T2.1 Implementing of a community-led planning and revitalisation of the park section reaching over the border of the City of Krakow (WITKOWICE GLL)

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1. Activities

1.1. **Brief summary**

The Municipal Greenery Authority in Krakow is implementing the pilot project WITKOWICE GLL (Witkowice Green Living Lab) in the Witkowice Forest. The project consists in the revitalization of existing tourism and recreation infrastructure so as in the implementation of innovative directions of nature education. It includes transformation of existing green spaces. The aim of this action is the involvement of local community into the whole development procedure based on *consultation process* and *interactive participation* with help of SP, showing also the possibility of cooperation on FUA level.

The estimated investments cost 10,000.00 EUR:
- Information boards - 6 pcs. 3,200.00 EUR
- Preparation and assembly of wood furniture (benches and tables made of local round wood) - 2 sets and 12 individual benches 1,300.00 EUR
- Footbridge over the Bibiczanka river (with a construction project) 4,200.00 EUR
- Strengthening and securing parts of the trail - about 200 m 800.00 EUR
- Surface hardening of two parking places for the disabled people 300.00 EUR
- Marking route and parking spaces - approx. 80 signs 200.00 EUR

The cost provided for the implementation and developing of the multimedia application (with field elements) - 15,000.00 EUR.

In the scope of the parallel objective of pilot actions, which is the increasing of the community involvement, direct support is provided by the Marshall Office of the Malopolska Region (PP6), participating in all actions and meetings with people, for example a picnic on 1st July 2017. Stakeholder Platform meetings organized by Malopolska are focused mostly or also on the pilot, therefore, the full participation of the Krakow Municipality (PP10) is always required.

1.2. **Activities performed**

1.2.1. Revitalization of existing tourism and recreation infrastructure (initiated)

As part of this activity, the largest and most complicated task turned out to be the design and construction of a footbridge over the Bibiczanka River in accordance with the applicable water and construction law. Almost all the other activities (equipment of the educational path, development of the multimedia application) depends on the implementation of the footbridge provided for further part of the park, available on the other side - near the border of the neighboring Zielonki municipality. For this reason, the possibility of their simultaneous implementation was significantly limited. In the process of consultations with the public (including surveys and workshops conducted during the picnic on 1st of July 2017), the requirements regarding the scope and location of individual elements of minor recreational infrastructure were detailed.
The construction project of the footbridge over the Bibiczanka river together with the aquatic legal survey was made, and the necessary permits (water-law permit and building permit) were obtained by December 15, 2017.

A public contract for the footbridge construction was prepared and announced (the contractor has not been selected so far).

1.2.2. Community involvement in the process of planning and revitalizing of the park section, as well as testing and developing a mobile application adapted to the educational program

Pilot actions have been presented and discussed within four local stakeholder platform meetings (26.10.2016, 15.05.2017, 27.09.2017, 8.12.2017) and also were included in the dissemination of general information about the UGB project during external meetings and conferences (15.11.2016, 15.02.2017, 3.04.2017, 14.04.2017, 28.09.2017) to gain more citizens involved.

For this reason, a special picnic was organized in the Witkowice Forest with an educational nature walk (1.07.2017), preceded by an art competition and a forest friend questionnaire (part of consultation process).

The pilot concept was prepared, discussed during project meetings and published on the UGB project website.

From the first meeting we are informing our SP members about the pilot action. We did also pre-consultation action during the SP meeting 15.05.2017 - what is more, we have on meeting a lot interested parties in this particular area and pilot. The primary needs and uses were discussed during SP meeting 15.05.2017.

1.2.3. Implementation and developing of the multimedia application (initiated partly)

The mobile application concept to activate citizens in UGS management and nature conservation was developed with involvement of SP members and more important with picnic participants.

Public procurement has been prepared for the mobile application (not yet announced). Mobile application will be adapted as a part of educational path.

Mobile application which enable users to make the most of their walk in the forest. This educational app will gather the information regarding animals, plants and amphibians living in this ecosystem. All this knowledge will be provided in a very easy and useful way. Application will use interactive information such as sounds and noises of the birds or others animals. During the walks users may follow the route which will be added as a kind of game in the app and discover some defined points on the track but also can use it at home and learn more about the forest’s treasures. We consider also adding some kind of interaction between the community of users in the application. They may be allowed to add pictures and comments regarding the forest.
1.3. Activities to be continued and finalized

1.3.1. Construction works for the footbridge and minor recreational infrastructure

Construction works of the of a footbridge over the Bibiczanka River in accordance with the applicable water and construction law, based on the obtained both: construction project and the building permit, so as construction works of the remaining minor infrastructure for the realization of the educational and recreational program Witkowice GLL.

The contractor has not been selected so far because the public procurement for the footbridge construction, prepared and announced on the 2nd of March 2018 at the website https://zzm.krakow.pl/zamowienia.html?task=szczegolyZamowienie&id=97 under the name "Construction of a wooden footbridge over the Bibiczanka river for the realization of the educational and recreational program Witkowice GLL, as part of the UGB project for the Municipal Greenery Authority in Krakow, according to the attached project documentation" is still in progress.

15th of March: Public procurements for the footbridge construction and for the mobile application should be finalized and the contractors selected.

27th of April: Construction of the footbridge should be finished.

End of March or April, depending of the weather conditions, we plan to continue with remaining infrastructure (earthwork, protection of traverses, educational boards, forest furniture, marking the trail).

Description of the minor infrastructure placed in the prepared inquiry for the public procurement:

Information boards - 6 items consisting of wooden posts with a roof for 80x120 cm size boards delivery with assembly;

Wooden forest furniture - including: delivery and assembly of tables made of thick trunks (diameter approx. 60 cm) with seats (tables from thick buried stumps + 4-6 smaller seats at each of two), 2 pcs, delivery and assembly of benches (length approx. 120 cm-160 cm) made from divided tree trunks without backrests,12 pcs;

Strengthening and securing part of the route - about 200 m - repair of losses of existing paths and a wooden palisade of length 7 m and height 80-130 cm.

Hardening using crushed stone of the surface of two parking spaces for people with disabilities - parking lot with an area of ca. 35 m² and area near the palisade of the area 6 m².

Execution of construction works, production or purchase and assembly of a wooden items, marking the trail and parking spaces - approx. 80 signs.

The expected completion date is the 15th of May.

1.3.2. Community involvement in Witkowice GLL

Middle of May: the first step of the mobile application should be developed and implemented to test it with citizens in field conditions.

Also in May, we are planning to organize the running event during which we would like to draw a few running tracks for runners with different stage of advancement.
24th of May: Study visit - presentation of finished achievements, exchange of experiences.

16th of June: „Butterflies - moth” - educational workshops in the Witkowice Forest connected with the Parkobus tour. Workshops will be dedicated to the topic of moths so we plan to realize it after the sunset. It will be realized as a part of cycle of family educational workshops.

25th of August: Survey walk in the Witkowice forest connected with the Parkobus tour (the opportunity to get feedback on the implemented recreational development, maintenance and management of the area, the next stage of the implementation of the mobile application).

1.3.3. Testing and developing a mobile application adapted to the educational program

Public procurement for this external expert service is prepared, while the selection of contractors (required interdisciplinary aptitude: photographic, nature and IT) will require a complicated competitive procedure, in which the price of the contract is determined in advance. We anticipate the performance of the ordered services in the period described above. The tender will be announced soon.

1.4. Activities not started

There is no activities which are not started at all. Conceptions of the minor infrastructure so as for adaption and development of the mobile app are ready, materials for public procurements are prepared and will be announced as soon as possible.
2. Status and Prospect

2.6. Evaluation indicators

According to the indicators defined in our pilot concept (Chapter 2) relative to the tourist infrastructure, we can no measure the value because no elements of the infrastructure have been implemented in Witkowice by the pilot action of the UGB project so far.

We can, however, give the numbers of participants in pilot meetings and of visits to websites but we expect an increase in the numbers after the infrastructure for the Witkowice GLL is ready and the app works.

So far only one big pilot event - on the 1st of July 2017 a picnic in the Witkowice Forest have been organized: A total of 59 participants dealing with green infrastructure, nature protection and education, representing: local and regional authorities, universities and other research institutions, NGO's, small business dealing with green architecture and private people - mainly students and residents of Krakow and the surrounding area.

A thematic related post on Facebook https://www.facebook.com/zzm.krakow/photos/pcb.1820503734930519/1820501518264074/?type=3&theater showed a significantly prevailing satisfaction of the picnic participants (there was no satisfaction questionnaire prepared) and other Internet users - cf. the number of entries on Facebook (1610 entries, 12 likes, 2 shares, 1 comment).

2.7. Budget

Excluding the personnel costs of employees directly remunerated from the project (development of concepts, materials for public procurement, process supervision, etc.), only the construction costs of the pedestrian bridge over Bibiczanka river have been incurred, with the necessary permits being obtained equal to approximately EUR 5,000.

In addition, a small cost related to the organization of the picnic - an equivalent of less than EUR 250 was incurred, not included in the table below.

<table>
<thead>
<tr>
<th>Costs description</th>
<th>Budget line (external/equipment/infrastructure)</th>
<th>Status (procurement in progress/contracted/paid)</th>
<th>Amount of the costs EUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building project for the footbridge incl. required permits</td>
<td>equipment/infrastructure</td>
<td>paid</td>
<td>5,000</td>
</tr>
<tr>
<td>Construction of the footbridge</td>
<td>equipment/infrastructure</td>
<td>procurement in progress</td>
<td>&gt;5,000?</td>
</tr>
<tr>
<td>Remaining minor infrastructure</td>
<td>equipment/infrastructure</td>
<td>procurement prepared</td>
<td>&lt;5,000?</td>
</tr>
<tr>
<td>Adaption and development of the multimedia app</td>
<td>external</td>
<td>procurement prepared</td>
<td>10,000</td>
</tr>
</tbody>
</table>

The remaining infrastructure costs showed above are based on updated estimates and market recognition. It is planned to allocate the whole amount of EUR 10,000 for the
adaptation, development and testing of the application. The element of competition during public procurement will be its attractiveness and functionality, as well as the substantive educational value for the natural environment. The need to transfer funds for the implementation of the pilot activities listed in the table above is justified in the next section.

2.8. Assessment

It was planned in the application form 10,000 EUR for the infrastructure but due to the change in the market situation, the originally planned costs of the footbridge project, even after excluding from the scope of the remaining minor infrastructure, have been underestimated (the potential contractors were not interested in such a small project, however, requiring difficult procedures). After two voided public procurement procedures and after conducting negotiations with the contractor, a contract for an amount equivalent to EUR 5,000 was signed on 27th of June 2017, but only for the construction project of the footbridge (not for its construction and for development of remaining infrastructure).

The necessity to extend the deadlines for responding to requests for quotations and repeating the non-productive public procurement procedures was the main reason for delay, despite the preparation of materials in advance.

First public procurement 14.04.2017 - 5.05.2017 (proceeding voided due to the lacking of offers on the described scope of the inquiry): Preparation of the construction project of a wooden footbridge together with obtaining the necessary opinions, decisions, applications, permits, as well as development of a small architectural project for realization of the educational and recreational program WITKOWICE GLL within the UGB project for the Municipal Greenery Authority in Krakow. Second public procurement 5.05.2017 - 13.06.2017 (proceeding voided due to exceeding in the most advantageous offer the amount allocated to the order): Preparation of the construction project of a wooden footbridge together with obtaining the necessary opinions, decisions, applications, permits for realization of the educational and recreational program WITKOWICE GLL. The infrastructure costs to the amount 15,000 Euro due to the fact that after initial price recognition (underestimated cost of the construction project and necessary permits for the most important element - a footbridge - was verified by two public procurements), it turns out that the costs will be around 5,000 Euro higher. However, adaptation and testing of the multimedia application will be cheaper, therefore 5,000 Euro will be transferred from Line 4 to line 6. In addition, the payment for the implementation of the application adaptation in connection with the inclusion of two main seasons, i.e. spring and summer will be divided into two parts. The first installment will be pay until the end of May and the second until the end of August”.

This indicates an important element of risk in the implementation of investment projects in green areas. As demonstrated during the pilot activities, the complicated procedures, similar for small and large facilities, may be the reason for delays, as well as the resignation of potential contractors from undertaking such projects. We hope, however, that we will be able to finalize all investment works before the end of May, and by the end of August we will complete the planned work on the multimedia application, leaving the proven open road to partially independent further development.
2.9. Challenges and amendments

Based on model approach that the main challenge in consultation process is how to involve people actively into action we organised (with support of PP6):

Consultation based on needs (based also on thoughts and information from the Maribor PP meeting):

- 1.07.2017 Picnic - citizens approach
- PP10 and PP6 prepared a survey in form of interview - it was distributed at school in June 2017. We received around 100 interviews back and it was possible to gather same information about the Witkowice GLL. This interview was really simple one firstly for pupils in the school but also to involve parents into the consultation.
- To make it all more attractive, there was also an art competition entitled "My Witkowicki Forest". During picnic 1.07.2017 the three places were announced and one special prize.
- To make people more familiar with the area - educational walk was organised.
- Consultation-on-the spot

During this event UGB - Witkowice Green Living Lab was presented in an active form. Citizens had an opportunity to mark what they want to have in the forest. We prepared a high resolution posters for picnic participants to mark their needs.

FUA challenge: as our pilot is on the FUA level thus involved not only Krakow citizens/as this group of people knew how green spaces are important / but also municipality citizens is challenging. Other aspect is to show importance to preserve green spaces but also to make those spaces available for people. What is more, maintenance aspects are really important issue for future.

Consultation sum-up: after both stages of consultation the needs due to pilot area are the same and we can group them as: infrastructure needs; recreation and leisure needs; security needs and be-with -nature.

Needs after consultation process in the field on 1.07.2017

Witkowice GLL equipment:
- bicycle stands,
- cycle paths,
- running tracks,
- wider bridges and new bridges,
- grill space,
- benches,
- modern playground,
- recreational path - like in Krynica,
- open- air gym,
- parking spaces,
- development of existing viewpoints,
- no indication or sign that there is a forest park,
- secure pedestrian crossing around the bridge,
• security in the forest - important issue,
• lack of a natural monument in this area,
• educational pylons - can this be changed as this construction look like advertisement pole?
• lack of toilet.

Mobile application:
• cool application idea - for 4 seasons, animals, plants, amphibians / with same clues what is it, what it looks like/
• this application will be nice to have as you can know what to look at, what is in the forest etc.
• photography of species, atlas of fauna and flora - after verification.
• interactive information what is in the park such as: sounds and noises.

2.10. Potential future risks

There is still a relatively high risk related to the public proceedings conducted, consisting in the failure to contract the contractor or offers exceeding the planned funds, withdrawal from the contract and failure to perform works on time.

However, the risk of maintaining the field infrastructure in good condition during the project lifetime is unknown and difficult to assess (cases of vandalism are not covered by the contractor’s warranty), although observations of existing devices such as benches indicate that the intensification of vandalism is progressively weaker, which it is probably associated with the awareness of the public (inter alia through its involvement in broadly understood UGS management).

Certain risks are also associated with planned field events, when their success is determined by weather conditions that are difficult to predict during the time necessary to plan and prepare a given event like “Butterflies - Moths” planned for the 16th of June evening.

The smallest risk, it seems, is related to the perspectives of further development of the mobile application (or responsive website) for the educational program by the residents (for example adding nature photos) to keep it alive and interesting in subsequent years.