Project Acronym:	**VICINITY**
Project Full Title:	**Open virtual neighbourhood network to connect intelligent buildings and smart objects**
Grant Agreement:	**688467**
Project Duration:	**48 months (01/01/2016 - 31/12/2019)**

Second Open Call. Guide for Applicants

The VICINITY Consortium

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8. Climate Associates Ltd (United Kingdom)
9. InterSoft A.S. (Slovakia)
10. Universidad Politécnica de Madrid (Spain)
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12. Tiny Mesh AS (Norway)
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For more information on this document or the VICINITY project, please contact us in the following link

Content

1. Introduction

1.1. Overview of the VICINITY project

Summary

The primary aim of the VICINITY project is to provide interoperability to the owners of connected IoT infrastructures, and to enable value-added serviced. The VICINITY IoT platform is a (mostly) distributed approach. It includes neither central operator roles, nor central databases to store sensitive data about users. It connects different smart objects into a "social network" called virtual neighbourhood where the infrastructure owners may control their shared devices and data. The project seeks to enable value-added services on top of the networked IoT infrastructure elements. To facilitate this, VICINITY utilises an automatic discovery process of IoT devices using the most adopted semantic descriptions.

The virtual neighbourhood of interoperable IoT infrastructures enables the creation of a cross-domain environment to exploit and demonstrate the VICINITY value-added services in renewable energy, micro-trading solutions, AI-based services within health data analysis and the transport domain.
The VICINITY project invites proposers to extend the integration scope of VICINITY thanks to third party system integrators integrating IoT infrastructures beyond the capabilities of the consortium through open call proposals.

Challenge

The lack of integration and interoperability across different disciplines, vendors and standards prevents exploitation of the huge potential in successful large-scale IoT implementations.

Moreover, it is difficult to control the data flow and privacy settings between devices and services inside and outside of IoT infrastructures and their applications.
Identifying, configuring, managing and updating information concerning the IoT ecosystem demands technical expertise, which makes it less feasible for the smaller stakeholders, and ultimately may lead to a slow adoption rate among the users that may be in most need - especially within the eHealth and assisted living domain. Lack of technical expertise and/or lack of a suitable platform, such as VICINITY also hold back the adoption of cross domain applications for IOT in smart home appliances and green energy implementations, as well as how smart home systems are tied in with transportation and the nearby surroundings.

Solution

VICINITY presents a virtual neighbourhood of connected devices and services concept. This uses a decentralized approach that resembles in a social network. In virtual neighbourhood the users can create social network of devices and services and are able to fully control their desired level of privacy by configuring control access to their devices by other partners (i.e. "friends") in virtual neighbourhood.

When configured, data exchange between different devices and services is handled through the VICINITY Open Interoperability Gateway (providing Open VICINITY Gateway API). This reduces the need to have a technical background in order to exploit to the VICINITY ecosystem by using VICINITY compliant IoT infrastructure.

VICINITY compliant IoT infrastructure needs to adapt its domain model to common VICINITY format provided by standardized Open VICINITY Gateway API by implemented of the simple VICINITY Adapter. VICINITY Adapter is usually provided by IoT infrastructure vendor. Once an IoT infrastructure is integrated, its owner can simply manage the access to his/her IoT data and controls using VICINITY Cloud web application.

Connections to standard IoT infrastructures are handled by the open-source VICINITY auto-discovery device. The device will automatically discover smart objects and they will appear in the user's device catalogue on the VICINITY Cloud web application. The user will then be allowed to manage the access rules to the discovered smart objects. [1]

1.2. Overview of the VICINITY 2nd Open call

- Open Call launches: 15 December 2018
- Deadline: 15 March 2019
- Total amount of funding: 240.000 €
- Industries of interest are: Start-ups, SMEs, companies, public authorities or research institutes/organizations, with legal entity established.

2. Application

2.1. Who can apply?

Financial support will be provided to individual SMEs, large companies, research institutes, and public authorities such as (city) communities, which are - established in an EU Member State or in an Associated Country which is qualified and is compliant with the rules of participation H2020. Only one entity per proposal will be admitted, so activities in co-operation with other organisations will not be considered eligible.
Existing partners ("beneficiaries") of the VICINITY Consortium will not be eligible for this call. All entitled applicants will receive fair and equal treatment, whereas available information and infrastructures will be equally available to all.

2.2. Open Call requirements

What kind of services are we looking for?

We are specifically looking to fund proposals that provide new services to VICINITY. A list of the required services can be found in section 5 **Annex**. Your proposal should be based on one of more services from the list.

To apply for funding, a proposal must:

[1] For more technical detail please refer to technical detail of this document or functional and architectural design of the VICINITY (D1.5 Technical requirements specification and D1.6 VICINITY Architectural design).

1. Create new specific value-added services based on the VICINITY platform or create new specific micro-services to enhance the VICINITY Platform. Both services and microservices are listed in the Annex to the present document.

2. Co-operate with the VICINITY partners to demonstrate of the open call project's results within the duration of the proposed project;

   - Provide support for testing and system integration within the overall VICINITY framework.
   - Provide access to the new service to enable the VICINITY consortium to test and use the service.
   - The results should be demonstrated in the VICINITY General Assembly (Q2-2019); also, a video of the demonstration should be recorded.

3. The proposal must explain how the services supports existing use-cases, services, and/or business models in VICINITY, or new ones, and/or undertake co-creation activities.
   Information about the value-added provided by the project, the business model selected and the co-creation activities undertaken should be included in the interim and final report.

The proposals will be evaluated according to the benefit for VICINTY, its business model, its technical excellence and soundness, and the capability of the proposer to achieve the objectives of the proposal (see Section 3.2).

A proposal should consider the following points:

- Explain the services and how it will be integrated in the VICINITY platform,
- Explain the demonstration environment of the services
- Show the new data for exchange via VICINITY and its value for VICINITY.
- Provide information explaining how your proposal will interact with VICINITY and its long-term impact on VICINITY (e.g. value-added services or business models enabled, etc.).
- Show how to demonstrate how the project is going to increase the VICINITY impact.
- Explain how stakeholders are brought to VICINITY. Co-create with other stakeholders: involve the relevant people (developers, citizens, communities, NGOs, municipalities, researchers, utility companies, larger technology companies, etc.) in collaboratively defining and running your proposal. You need to obtain letters of support from the relevant and upload them in your application.
- Explain the available of resources and capabilities required to carry out your project.
- Carry out an evaluation of your technology to find out if it is fit for purpose.
- The proposal should provide or foresee a data management plan, if needed.

2.3. Prepare and submit a proposal

Proposals must be submitted:

- Electronically through the VICNITY page on https://www.f6s.com/opencall2vicinity ;
- The language used in the proposal should be English;
- Before the deadline announced in the call announcement.

For further information of FS6 platform, please check the document "VICINITY F6S Walkthrough"

2.4. Funding conditions

The financial support to be provided to the third parties in this Second Open Call totals 240.000€. The third parties involved in the 2nd Open Call will be funded to a maximum of 60.000 € per project. Participating projects will be focused on the provision of new services to be integrated into VICINITY.
Projects that are eligible for receiving VICINITY funding shall provide the following activities and expected achievements:

1. **Integrate the** new specific value-added services based on the VICINITY platform or create new specific micro-services **into VICINITY.**
2. Co-operate with the VICINITY partners to **demonstrate of the open call project's results** within the duration of the proposed project
3. The proposal must **explain** how the services **supports existing use-cases, services, and/or business models in VIINITY**, or new ones, and/or undertake co-creation activities.

2.5. Timeline

- **Call open for applications:** 15th December 2018 at 9:00 (Brussels time)
- **Deadline for the proposals:** 15th March 2019 at 17:00 (Brussels time)
- **Notification of selected projects:** 15th April 2019
- **Project Start:** 15th May 2019
- **Project End:** 15th October 2019

3. Evaluation process

3.1. Who will evaluate my proposal?

The proposals will be evaluated as submitted. The evaluation will be carried out by independent external experts and the scientific/technological coordinator, and the coordinator. In order to ensure transparency and confidentiality, each selected expert should sign a declaration of confidentiality concerning the contents of the proposals they read and they should also confirm the absence of any conflict of interest.
The outcome of the evaluation will be a ranked list of all proposals, based on the scores obtained by each proposal.

3.2. What does evaluation measure? Marking Criteria for Evaluation of Proposals

The evaluation will be done based on the following criteria:

- **Benefit of the service for VICINITY:** Identification, relevance and amount of benefit for VICINITY's (or other) use cases, services customers, society. Sound co-creation plan (25%).
- **Business model:** Monetization, customer segment identified, value proposition convincingly explained (25%).
- **Excellence and soundness:** clarity of problem and solution; novelty; soundness of solution; management of sensitive data (25%).

- **Capability of the proposer:** quality of the team, availability of services to VICINITY partners, coherences of workplan, tasks, resources. Technological and logistic capability of the proposer to successfully deliver the promised results (25%).

For further information, see the document "VICINITY Evaluation Criteria"

In order to avoid misuse and waste of resources, the following rules will lead to rejection of a project:

- Appropriateness of costs/efforts: The proposals shall include an estimation of the costs and efforts required. If costs are considered as inappropriate for the estimated effort and/or results by at least two members of the evaluation board, the project shall be rejected.
- Exclusion of similar projects: If two or more proposals have a large overlap or similarities with other projects in this call (or other ICT30 calls), the lower ranked will be rejected. This is the case if at least two members of the evaluation board raise this concern.
- Exclusion of already funded projects: If a project is already funded by another H2020-ICT30 call, it shall not be funded and will be rejected.

Note: In the questions where page limits apply. Your proposal must not exceed the maximum number of pages indicated in form). Excess pages will be automatically overprinted with a "watermark", after the call deadline these pages will be not evaluated.

3.3. In the case of a draw

In the case of a draw in the final scoring, the following criteria will be used in the following order of priority:

- Higher score **Benefit of the service for VICINITY** criterion
- Higher score for **Business model** criterion
- Higher score for **Excellence and soundness** criterion
- Higher score for **Capability of the proposer** criterion

4. Support options

The information of the Open calls is gathered in the VICINITY web page: http://vicinity2020.eu/vicinity/content/open-calls in the second Open call section.

4.1. FAQ

The consortium will maintain a frequently asked questions (FAQ) section available in http://vicinity2020.eu/vicinity/content/open-calls. It will be updated continuously. For specifically technical details check first the available documentation in the website.

4.2. Helpdesk services

The answers that you can't find in the FAQ section can be submitted by contacting opencalls@vicinity2020.eu . Here, you can get support regarding technical matters or the proposal.
There will be different events in which the open call will be presented and support will be provided in preparing the applications. Follow the web site and also the social networks accounts of the project to get information about the open call.

5. Annex

IMPORTANT NOTICE. Please note the following:

Submissions for the "Open Call #2" of the VICINITY project shall enrich the platform or its use cases by new services. We invite submissions from the following two categories:
(A) "Value added services" that provide additional services on top of the VICINITY platform.
(B) "Micro-services" that implement additional functionalities inside the VICINITY platform that can be used in various services.

Projects shall target at least one of the following issues (A.1) … (A.13) and/or (B1) … (B4)
Note the IDs of the suggested services tackled in the Applicant Form.

Suggested Services for VICINITY Open Call 2 Submissions

For **value-added services**, we expect proposals to strengthen the existing use-cases of VICINITY by co-creation and cooperation. These use cases focus on the domains of traffic management, building automation, eHealth and energy management. Projects can build on top of the existing VICINITY infrastructures, and/or bring in its own infrastructures.

Traffic services:

(A.1) Solutions for the integration of smart parking with other transport related sectors.
(A.2) Smart integration of Electric Vehicle charging stations into smart parking solutions, including consideration of current status and technical information.
(A.3) Smart transaction and rental models for vehicles and parking space that consider access, need, ownership.
(A.4) Smart booking systems, e.g. integrating Outlook or other personal information managers.

Building automation services:

(A.5) Capturing the *subjective* experience of a room's indoor climate and/or "cleanness" status on a specific time to plan climatization and cleaning.
(A.6) Using the *occupation information* of a room to plan climatization and cleaning.
(A.7) Integration BIM models with dynamic data from sensors; dynamic audit.

eHealth services:

(A.8) Analysis of real-time data from e.g. fitness trackers or beacons in sports centers.
(A.9) Monitoring of medical treatment plans based on IoT equipment, e.g. drug dispenser, dash buttons.
(A.10) Detection of social difficulties of the elderly via IoT devices and psychological profiles.

Cross-domain services with energy (e.g. traffic + energy):

(A.11) Consideration of prediction of renewable energy production, e.g. with solar irradiance measurements in above services.
(A.12) Consideration of price signals from the energy market in above services.
(A.13) Analysis of energy savings, and of its impact, maybe in context with other data.

For **Micro-services**, projects implement one or more of the following services and demonstrate its application within an existing VICINITY use case or value-added service:

(B.1) Frameworks that provide *incentive mechanisms* or micro-payments, using e.g. smart contracts.
(B.2) Frameworks that make the development of interactive applications on top of the VICINITY platform more efficient and easy, e.g. by software components that help to analyze, visualize data provided by VICINITY, or to interact with users.
(B.3) Provision of information from *personal information managers* such as Outlook to other services.
(B.4) Integration and co-creation with *social network platforms* such as MyData or DIGIME.