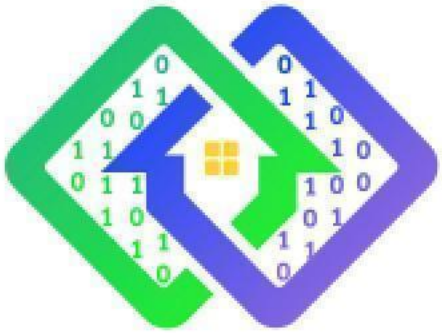
Grant Agreement N° 872592



PLATOON

Digital platform and analytic tools for energy

Deliverable D7.1
Open Call
Package of Documents,
Call 2

Contractual delivery date:
M21

Actual delivery date:
2021-09-30

Responsible partner:
P16: FBA, PL

Project Title	PLATOON – Digital platform and analytic tools for energy
Deliverable number	D7.1
Deliverable title	Open Call Package of Documents, Call 2
Author(s):	Diana Järve

Responsible Partner:	P16 – FundingBox
Date:	2021-09-27
Nature	R
Distribution level (CO, PU):	PU
Work package number	WP7 – WP7-Open Call Management and Ecosystem building
Work package leader	FBA, PL
Abstract:	This deliverable contains documents that inform potential applicants and other involved parties, e.g. external evaluators, about the 2nd open call.
Keyword List:	Open Calls, Experimentation Areas, Prototypes, PLATOON architecture

The research leading to these results has received funding from the European Community's Horizon 2020 Work Programme (H2020) under grant agreement no 872592.

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Document Revision History

Version	Date	Modifications Introduced	
		Modification Reason	Modified by
0.1	14/09/21	Draft document submitted for internal review	Diana Järve
0.2	27/09/21	Final version following the internal review	Diana Järve

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EXECUTIVE SUMMARY

This deliverable provides a set of documents to inform the potential applicants and other involved parties (e.g. evaluators) of the details of the second open call of PLATOON for its successful execution, including:

- Open Call Announcement (CA) – an overview on key data such as the identification of the project and the call, the activities eligible for financial support, total available funding, key dates, participation duration and further information and contact points.
- Guide for Applicants (GfA) – a step-by-step guide with detailed information on the application process.
- Frequently Asked Questions (FAQs) – a list of the most popular questions, available in a form of a repository of knowledge, to support the Applicants during the application process.
- Application form template, including all the application questions to be elaborated on by the applicants.
- Guide for Evaluators (GfE) – an information guide for external experts hired to assess the proposals.

EC CALL ANNOUNCEMENT

PLATOON is co-funded from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No. 872592, foresees as an eligible activity the provision of financial support to third parties, as a means to achieve its own objectives.

For PLATOON's 2nd Open Call, the types of activities that qualify for receiving financial support are the extension of existing products/services by integrating them into the PLATOON ecosystem and validating them in PLATOON's large-scale pilots.

Project acronym: PLATOON

Project grant agreement number: 872592

Project full name: Digital Platform and Analytics Tools for Energy

Call identifier: PLATOON

Call title: PLATOON 2nd Open Call

Publication date: October 1, 2021 at 9:00 Brussels Time

Deadline: December 1, 2021 at 9:00 Brussels Time

Indicative budget for the call: €1,050,000

Expected duration of participation: up to 9 months

Maximum amount of financial support for each third party: up to €150,000

Language in which proposal should be submitted: English

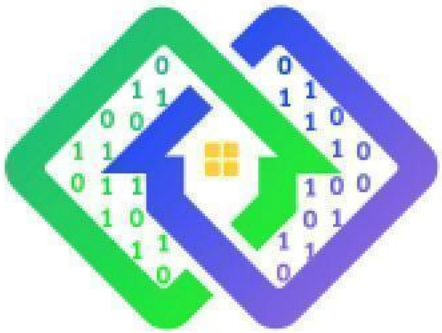
Official project site: https://platoon-project.eu/

Link to online application submission: https://platoon-2nd-open-call.fundingbox.com/

Email address for further information: platoonhelpdesk@fundingbox.com

Questions can also be asked via the Helpdesk space of PLATOON at https://spaces.fundingbox.com/spaces/platoon-questions-and-answers

Grant Agreement N° 872592



PLATOON

Digital platform and analytic tools for energy

Guide for Applicants, 2nd Open Call

Submission starts on 1 October 2021 at 09.00 (CEST, Brussels Local Time)

Deadline is on the 1 December 2021 at 09:00 (CET, Brussels Local Time)

Version 27/09/2021

The research leading to these results has received funding from the European Community's Horizon 2020 Work Programme (H2020) under grant agreement no 872592.

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Terms and abbreviations

EC	European Commission
FSTP	Financial Support to Third Parties
GA	Grant Agreement
GFA	Guide for Applicants
HLUC	High Level Use Case
LLUC	Low Level Use Case
MVP	Minimum Viable Product
PLATOON	Digital PLAtform and analytic TOOls for eNergy
PoC	Proof of Concept
SGA	The Sub-grant Agreement is the contract signed between the beneficiary and FBA on behalf of the consortium.
SME	Small and medium-sized enterprises
SW/HW	Software/Hardware
TRL	As per European Commission definition (Annex G, General Annexes to Work Programme 2018-2020 of the Horizon 2020 Programme), there are 9 possible levels of technology readiness. ● TRL 1 – basic principles observed, ● TRL 2 – technology concept formulated, ● TRL 3 – experimental proof of concept, ● TRL 4 – technology validated in a lab, ● TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies), ● TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies), ● TRL 7 – the system prototype demonstration in operational environment, ● TRL 8 – system complete and qualified, and ● TRL 9 – actual system proven in an operational environment (competitive manufacturing in the case of key enabling technologies; or in space).
TTP1	Technology Transfer Programme 1
TTP2	Technology Transfer Programme 2

1. Basic info about PLATOON

PLATOON (https://platoon-project.eu/) is a project funded by the European Commission that **aims to digitalise the energy sector,** enabling thus higher levels of operational excellence with the adoption of disrupting technologies.

In order to facilitate technology transfer into the market, PLATOON will distribute up to **2M€ among 13 disruptive Bottom-up Projects** that will be selected through **2 Open Calls:**

- 1st Open Call was targeting 6 SMEs to develop different components of the PLATOON reference architecture including data analytics tool for the toolbox (prototypes);
- 2nd Open Call is targeting 7 SMEs to develop new services on existing technologies (MVPs).

Additionally, the selected Bottom-up Projects will become part of the **PLATOON Support Programme** that consists of two types: Technology Transfer Programme 1 (TTP1, 1st Open Call) and Technology Transfer Programme 2 (TTP2, 2nd Open Call). The financial support for both programmes per Bottom-up Project is depicted below.

Technology Transfer Programme 1	Technology Transfer Programme 2
Stage 1: Inception up to €30,000	Stage 1: Inception up to €30,000
Stage 2: Development up to €120,000	Stage 2: Development up to €120,000

In both cases, the selected projects will receive technical mentoring services provided by the core partners, which is one of the added values of the project.

This Guide for Applicants contains relevant information to understand how to successfully take part in the 2nd Open Call.

2. What do we offer?

The 2nd PLATOON Open Call will distribute up to €1,050,000 to **7 bottom-up projects** to extend existing products/services by integrating them into the PLATOON ecosystem and validating them in PLATOON's large-scale pilots.

The selected 7 SMEs will contribute towards the impact of PLATOON, that is to increase renewable energy consumption, smart grids management, increased energy efficiency and optimised energy asset management.

The selected SMEs will benefit from their participation in the PLATOON TTP2 in a number of ways, namely by:

1. securing a position within PLATOON's marketplace as a market driver. The developed product/services will be offered through the PLATOON marketplace (see Annex D);
2. deploying across numerous end-users that are already compliant to the PLATOON ecosystem and
3. fast-tracking and validating their solution through extensive technical and business networks in the energy domain provided by the PLATOON project.

The maximum amount per bottom-up project is **up to €150,000 equity-free funding**. The selected proposals will be invited to join the Technology Transfer Programme 2 (TTP2). For further details see Chapter 5 in this Guide of Applicants.

The 2nd Open Call will **launch on the 1st of October 2021** at 09.00 (CEST, Brussels Local Time) and will have a deadline on the **1st of December 2021** at 9:00 (CET, Brussels Local Time). Applications must be submitted online at: http://platoon-2nd-open-call.fundingbox.com/

3. Eligibility criteria

The eligibility of all proposals submitted before the deadline and via PLATOON's **online application form** will be checked. This chapter lists all the eligibility criteria that projects need to comply with. The projects that do not comply with the criteria will be excluded and marked as ineligible.

The eligibility criteria will be checked throughout the whole evaluation process based on the information provided in the application.

3.1. Types of beneficiaries

PLATOON is looking for SMEs[1] that are legally established at the time of application in the following countries:

- **The Member States of the European Union and its Overseas Countries and Territories (OCT)**,
- **Associated Countries to H2020**, or
- The United Kingdom.

Applicants participating in the Open Call cannot include any PLATOON partners (or their affiliates or employees).

3.2. Type of activity

Participants are expected to address **the scope** of the 2nd Open Call, that is **to extend existing products/services[2] by integrating them into the PLATOON ecosystem** (by adopting the developed common reference architecture, data models, APIs, docker specification…) **and validating them in PLATOON's large-scale pilots**, focused on increased renewable energy consumption, smart grids management, increased energy efficiency and optimised energy asset management. More details on components of the PLATOON reference architecture and pilots can be found in Annex B.

To ensure that the developed solutions can be implemented into the specific platforms for different pilots, the proposed products/services must be developed in accordance with the specifications defined in the project for the following aspects (see also Annex B):

- PLATOON reference architecture;
- PLATOON common APIs and Data models;
- Data governance, security, privacy and sovereignty framework based on IDS reference architecture;
- Data analytics tools docker specification.

Regarding the specific products/services for the open calls, participants are **free to propose their own product/service** based on the project information provided in this guide regarding project objectives, reference architecture, components already under development and the available large-scale pilots.

[1] An SME will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:
• Headcount in Annual Work Unit (AWU) less than 250;
• Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.
Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation:
https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

[2] Applicants' proposed project must be at least at **TRL6** and reach at least **TRL 7 (MVP) by the end of the support programme**. See Annex G of the General Annexes of the Work Programme of Horizon 2020 for TRL definition:
https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

Transversal solutions applicable to more than one pilot will be prioritised. It is also encouraged that participants exploit/develop open-source products and services. In fact, open-source products/services will be prioritised.

In this case**, product/service refers to a software solution that solves a particular use case (see Annex B.1)**. For instance, corrosion image processing product for pilot 1A, smart grid nowcasting product for smart grids in pilots 2A, 2B and 4A or flexibility service for smart buildings in pilots 3A, 3B or 3C.

Also, your project should have a clear European Dimension, i.e. to digitize the Energy Sector and to reinforce the European efforts for modernisation of the European electricity grid, because it focuses the attention to new smart grids services through data knowledge exploitation.

3.3. Submission language

Proposals must be written in **English**. Only parts written in English will be evaluated.

3.4. Multiple Submission (not allowed)

Each applicant can submit only one proposal to PLATOON in this open call. If more than one proposal is identified, only **the last proposal** which has been submitted in order of time will be evaluated.

3.5. Deadline

The deadline for the submission of applications for this call is on the **1st of December 2021, at 9:00** (CET, Brussels Local Time).

The applicant will be able to modify the form until the deadline. Kindly verify the completeness of the form, as it won't be possible to add any further information after the deadline. Only proposals submitted until the deadline will be accepted.

The applicants are strongly recommended not to wait until the last minute to submit the proposal. Failure of the proposal to arrive in time for any reason, including extenuating circumstances, will result in rejection of the proposal.

3.6. Online Submission

Proposals must be submitted online through the PLATOON microsite for this open call at FundingBox Platform: https://platoon-2nd-open-call.fundingbox.com/ before the deadline.

Applications submitted by any other means **will not be considered for funding**.

3.7. Absence of conflict of interest

While assessing proposals, we will take into consideration the **existence of potential conflict of interest**, meaning that impartiality in selection and overall performance assessment of the programme should be guaranteed. Consortium partners, their affiliated entities, employees and permanent collaborators cannot take part in the PLATOON TTP2. All cases of potential conflict of interest will be assessed on **a case-by-case basis.**

3.8. Other requirements

When applying to the open call, please also note that:

- We do not accept entities that are under liquidation or are an enterprise under difficulty according to the Commission Regulation No 651/2014, art. 2.18, or that are excluded from the possibility of obtaining EU funding under the provisions of both national and EU law, or by a decision of both national or EU authority;

- Your project must be based on your original work or your right to use the IPR must be clear. Going forward, any foreseen developments must be free from third party rights, or those third-party rights must be clearly stated.
- Additional material, which has not been included and specifically requested in the online application form, will not be considered for the evaluation of the proposals and data not included in the proposal will not be taken into account, regardless of the reason for not being included. The applicants are solely responsible for verification of the completeness of the form.
- All mandatory sections of your proposal must be completed. The data provided should be actual, true, complete and should allow assessment of the proposal. Additional material, not specifically requested in the online application form, will not be considered for the evaluation.

Note: Grantees of the 1st Open Call **cannot** apply for the 2nd Open Call.

4. How will we evaluate your proposal?

Our evaluation process is transparent, fair and equal to all our participants. We will evaluate all applications in the following phases reflected in the figure below:

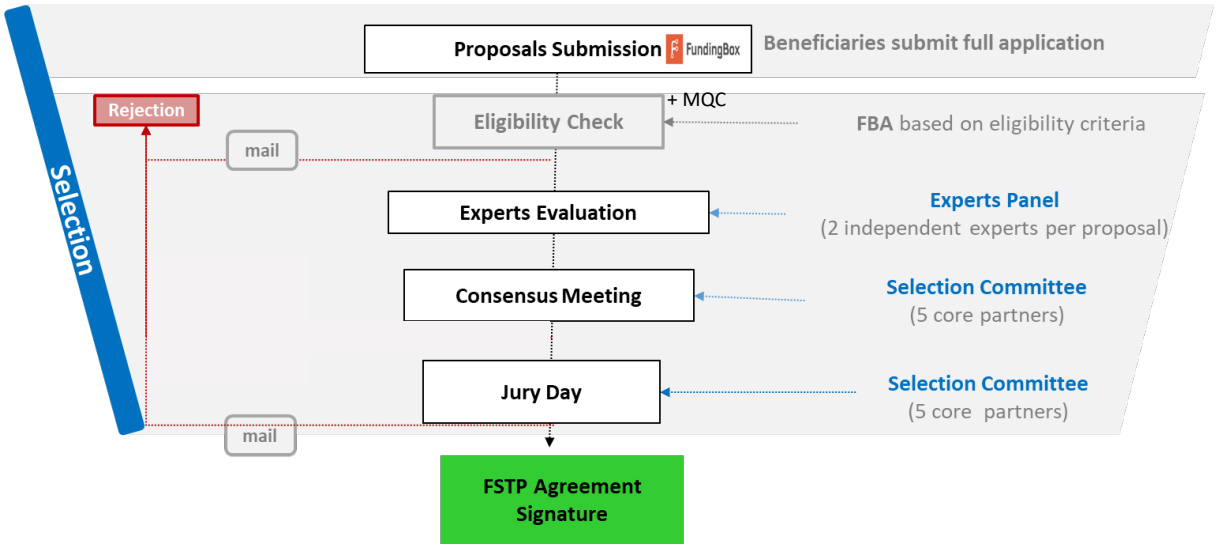

Figure 1 Evaluation process

4.1. First automatic eligibility check

All applications received before the deadline will undergo the first Eligibility Check according to the eligibility criteria set out in Section 3 of this Guide for Applicants and based on the statements included in the applications.

On top of the overall Eligibility Check, there will be a **Minimum Quality Criteria Check**, whereby the applicants will need to fall within the Open Call scope, and demonstrate experience in and target **at least 1 out of 4 experimentation areas** (see also Annex A) listed below:

- Data governance, security, privacy and sovereignty;
- Digital Interoperability (APIs and Data models);
- Data Analytics applications in energy (such as Energy usage optimization, Predictive maintenance, Demand forecast, etc);
- Edge computing (SW/HW).

The applications will be checked internally by the three members of the Selection Committee (**FBA, ENGIE & TECN**).

Applications will be admissible for the next evaluation phase if:

- the application is complete, readable and in English in all mandatory sections.
- the application is submitted via the online form (link) within the **deadline (1 December at 9:00 CET)** and is the only application submitted by the applicant. If more than one project is identified, only the last one which has been submitted in order of time will be evaluated.
- the declaration of honour is included and submitted properly by the applicant. We will verify the submitted statements, therefore, please read carefully and check the **Declaration of Honour** included in the application form here (link). You will not be able to change your statements after the deadline.
- the application has passed the first Eligibility Check, including the Minimum Quality Criteria Check.

A shortlist of "Eligible Applicants" will be produced as a result of this phase. The projects that do not comply with the above listed criteria will be excluded. The applicants will be informed by email whether they have passed the first Eligibility Check or not.

4.2. External evaluation

Applications that passed on to the next phase will be evaluated by two independent experts. Proposals will be evaluated on the following criteria:

(1) EXCELLENCE:

- **Project scope of the PLATOON 2nd Open call.** Applicants need to demonstrate how their proposal is line with the scope of the Open Call. The scope is to extend existing products/services by integrating them into the PLATOON ecosystem (by adopting the developed common reference architecture, data models, APIs, docker specification…) and validating them in PLATOON's 7 large scale pilots.
- **Problem\Need being solved.** Applicants should describe their capabilities in addressing the challenges around the digitisation of the energy domain. Applicants should include relevant experience in other projects in at least one of the following areas: Interoperability, Data Governance, Data analytics and Edge Computing.
- **Ambition:** applicants should describe the innovative approach behind the products/services proposed and about the degree of differentiation that this project will bring regarding the current status quo. Solutions should be aligned with the PLATOON Reference Architecture (see Annex B), common data models, APIs and Docker specification.
- **Technical approach:** Applicants should provide concrete performance and technology standardization targets in one or several of the PLATOON experimentation areas described in the Open Call. Moreover, the proposal should state how such performance targets will be achieved. **Applicants' proposed projects must be at least at TRL 6 and reach at least TRL 7**[3].

(2) IMPACT:

- **Market opportunity**: The applicants have to demonstrate a clear idea of what they want to do and whether the proposed concept has market potential, e.g. "Candidates' project" will solve a problem for a specific target customer. Candidates' projects or solutions proposed must be compliant with the PLATOON Ecosystem.
- **Commercial Strategy and Scalability**: The applicants have to demonstrate the level of scalability of the proposed solution, meaning that it not only solves a specific problem for a specific customer but is able to be commercialised to solve a structural problem in a specific sector/process/etc. If possible, a potential Business plan linked to these solutions should be provided.

(3) IMPLEMENTATION:

- **Team:** The Bottom-up Projects have to demonstrate their technical competencies in at least one of the four experimentation areas listed in Section 3.3, their ability to take a concept from ideas to market, their capacity to carry through their ideas and understand the dynamics of the market they are trying to tap into. The team should be a balanced and cross-functional team, with a strong background and skill set.

[3] See definition in Annex G of the General Annexes of the Work Programme of Horizon 2020: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

- **Resources**. Demonstrate the quality and effectiveness of the resources assigned in order to get the objectives/deliverables proposed. The SME will need to demonstrate their capacity to deliver the core work.

Each criterion will be scored out of 5. The threshold for individual criteria will be 3. The overall threshold, applying to the sum of the three individual scores, will be 10 out of 15.

The final score will be calculated as an average of the individual assessments provided by the Evaluators, following a check for a significant divergence in scoring. In case the scores of the evaluators differ significantly, this will be solved by a third evaluator.

Ties will be solved using the following criteria, in order:

- Impact score,
- Implementation score,
- Excellence score,
- Date: only the application's last edit will be considered

A **'Ranking List'** will be elaborated and passed to the next phase. All proposals obtaining a score above the threshold, will be passed to the next phase.

4.3. Consensus meeting

The Selection Committee will discuss the best proposals from the "Ranking List" and will consider the ranking of the proposals obtained from the External Evaluation. Furthermore, the Selection Committee will give priority to transversal and open-source solutions. The committee will also consider the input from Pilot Leaders related to whether a project in question is feasible to be implemented/validated in a specific pilot. The Selection Committee will also take into consideration the alignment with PLATOON goals and scope, the ability to achieve the highest impact possible, commercial competition, as well as the existence of significant ethical concerns or a potential conflict of interest. The exact number of proposals approved will be decided based on the overall quality of the proposals.

The Selection Committee will decide by consensus (minimum ⅔ majority votes), the list of applicants to be invited to the next stage.

The Selection Committee consists of the following partners: **ENGIE, TECN, FBA, PUPIN** and **TIB.**

4.4. Jury Day

The pre-selected projects will be invited to a Jury Day, where applicants will have the opportunity to pitch their project in front of the PLATOON Jury. The event may be physical or online (depending on the restrictions caused by COVID-19). Should the event be physical, a €1000 travel and subsistence allowance will be provided to the finalists invited to the Jury Day (upon signature of the micro-grant agreement).

After the Jury Day, the PLATOON Selection Committee will undertake the final evaluation taking into account the following awarding criteria:

- The level of innovation of the proposed solution
- Technical scalability of the proposed solution
- Effective integration of relevant digital technologies
- Demonstration of new scalable data-driven business models
- Competencies and experience of the Team to successfully execute the Programme and beyond
- Solid plan for next steps to reach commercial readiness, after the end of the Development Programme

The Selection Committee will decide by consensus (minimum ⅔ majority votes) the 'List of Finalists' and the 'Reserve List'.

The exact number of proposals approved will be decided based on the overall quality of the proposals.

After the Jury Day, the results will be communicated to the applicants.

4.5. What's next? Sub-grant Agreement preparation and signature

Before the PLATOON Support Programme kick-off, applicants will need to sign the Sub-grant Agreement with the PLATOON Consortium.

Prior to signing the agreement, applicants will be required to go through a Formal Check during which they must provide documents regarding the applicant company's formal status. The PLATOON Consortium will verify the documents to prove applicant's eligibility (for the details please check the FAQ document).

The applicant must finalise the Formal Check within the communicated deadlines. Failure to deliver the requested documents on time, without clear and reasonable justification, will exclude the applicant from the further formal assessment and replacement with the company from the Reserve List.

5. Our Support Programme and payment arrangements

Once the eligibility has been confirmed following the Formal Check and the Sub-grant Agreement is signed, the selected applicants will become official beneficiaries of the PLATOON Technology Transfer Programme, which will last up to 9-months and will help with the execution of the bottom-up projects. The programme consists of 2 stages:

- **Stage 1 - Inception.** The first step of the programme is to engage the talent and build up the best mentoring set-up. Selected teams will meet during a Welcome Event where they will be matched with a technical mentor. After that, the teams will work intensively over a 4-week period to define their Individual Mentoring Plan (IMP). This document establishes the KPIs and Deliverables that will be taken into account when the Mentoring Committee evaluates the bottom-up projects' performance during the Interim Review (see Chapter 5.1). As a result of this stage, a Proof of Concept (PoC) will be defined together with the mentors, including the roadmap to successfully execute the project (by the end of M2 of the programme).

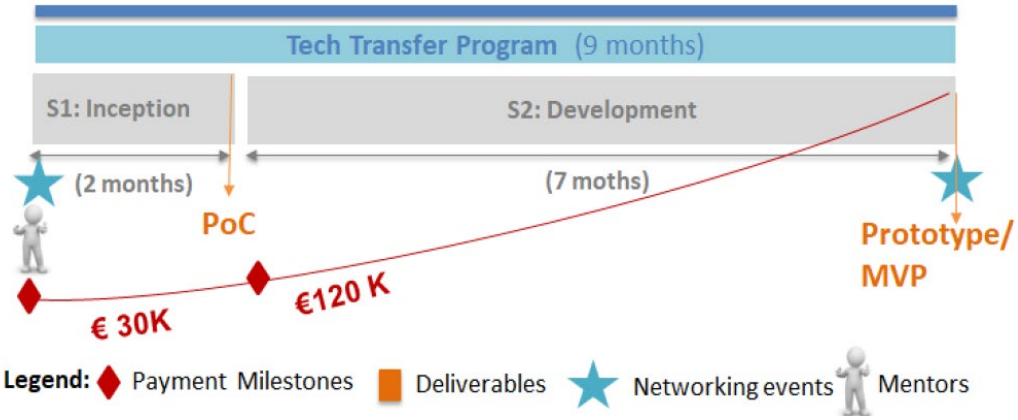

Figure 2 Stages of the Technology Transfer Programme II

- **Stage 2 - Development.** The programme will focus on developing new products/services on existing technologies. The outcome of the programme will be a minimum viable product (TRL7).

5.1. Interim review process

An exhaustive review process will be implemented consists of the following evaluation criteria (see also figure below):

- Deliverables' quality.
- Technical performance indicators.
- Deadline Compliance.

Each criterion will be scored by Technical Mentors from 0 to 10 and the weight of each one of these criteria, in the final score, will be as follow:

- Deliverable quality (45%).
- Technical performance indicators (45%).
- Deadline Compliance (10%).

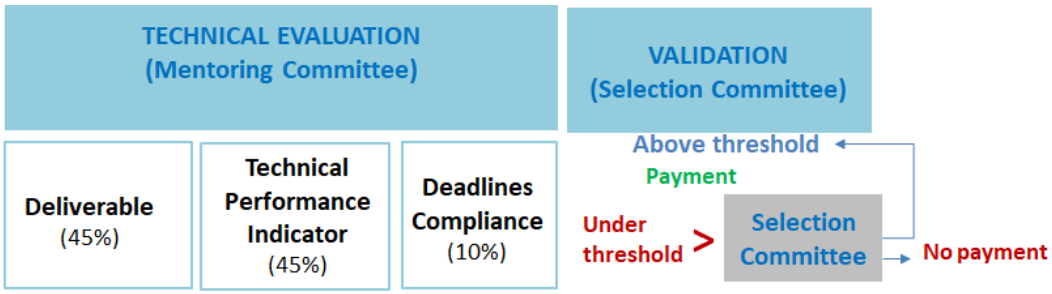

Figure 3 Weight of each evaluation criteria

As a final step, the Selection Committee needs to validate and approve the KPIs/Deliverables.

5.2. Payment plan

Selected grantees will receive a fixed lump sum of up to €150,000. The lump sum is a simplified method of settling expenses in projects financed from Horizon 2020 funds. It means that the grantee is not required to present strictly defined accounting documents to prove the cost incurred (e.g. invoices), but is obliged to demonstrate that the implementation of the project is in line with the set milestones (i.e. KPIs/Deliverables) and the budget (see FAQ, Section 4), which will be defined in the Individual Mentoring Plan at the beginning of the programme.

Financial support will be paid once the KPIs/Deliverables are approved by the Selection Committee, thus, no pre-financing is allowed, see FAQ, Section 4. The final beneficiaries will receive the funding after successfully completing a milestone as follows:

Stage 1 (Duration: 2 months):

- Up to €20,000 at M1 upon validation of the Individual Mentoring Plan – considered as deliverable for this phase.
- Up to €10,000 will be paid at M2 after successful conclusion and validation of the Deliverable for this stage (identification of **Proof of Concept [PoC]**)

Stage 2 (Duration: 7 months):

- Up to €50,000 at M3, upon the reception of the Deliverable stabilised for mid-term (**Prototype Mock-up**).
- Up to €70,000 will be paid at M9 after successful conclusion and validation of the Deliverable stabilised for this stage (**MVP**).

Those not reaching the performance requested, will be invited to leave the program without receiving the corresponding payments.

The payment plan will be further defined during the SGA preparation and signature stage, and is open to changes/adjustments, if necessary.

6. Contact us

6.1. How can we help you?

If you have any questions about the PLATOON Open Call, please check the Frequently Asked Questions (FAQs) document at https:/platoon-open-call.fundingbox.com/.

You can also send us a message to our helpdesk mail platoonhelpdesk@fundingbox.com or post your questions at the Helpdesk space of PLATOON.

In case of any technical issues or problems with the Application Form, please include the following information in your message:

- your username, telephone number and your email address;
- details of the specific problem (error messages you encountered, bugs descriptions, i.e. if a dropdown list isn't working, etc.); and
- screenshots of the problem.

There will also be a number of online webinars on this open call which will be announced at the PLATOON Support Community Space, as well as any other events related such as info days.

6.2. Complaints

If, after receiving the results of one of the evaluation phases, you consider that a mistake has been made, you can send us a complaint. To do so please send us your complaint in English by email to platoonhelpdesk@fundingbox.com including the following information:

- your contact details (including email address),
- the subject of the complaint,
- information and evidence regarding the alleged breach.

Anonymous complaints will not be reviewed as well as complaints with incomplete information.

You have 3 calendar days to submit your complaint starting from the day that the evaluation results were sent to the applicant. We will review your complaint within no more than 7 calendar days from its reception. If we need more time to assess your complaint, we will inform you by email about the extension.

Please take into account that the evaluation is run by experts in the Energy domain without interference from the PLATOON team, therefore complaints related to the results of the evaluation will not be considered, other than related to the mistakes in the evaluation of the first automatic Eligibility Check.

7. Final provisions

Any matters not covered by this guide will be governed by Polish law and rules related to the H2020 and EU grants.

Please note that we will make our best effort to keep all provided data confidential, however, for the avoidance of doubt, you are solely responsible to indicate your confidential information as such.

Your IPR will remain your property.

For the selected grantees, the Sub-grant agreement will include the set of obligations towards the European Commission (for example: promoting the project and giving visibility to the EU funding, maintaining confidentiality, understanding potential controls by the EC/ECA and OLAF).

The PLATOON Consortium might cancel the call at any time, change its provisions or extend it. In such a case we will inform all applicants about such change. Signature of the Sub-grant agreement is an initial condition to establish any obligations among applicants and any Consortium partners (with respect to the obligation of confidentiality of the application).

Annex A: Areas of experimentation & Building Blocks

The purpose of this technology annex is to provide guidance to applicants of the PLATOON Open Call regarding the areas of experimentation.

The PLATOON project is focusing on the following experimentation areas within Big Data and intelligent applications in energy, including new business models and services.

- Data governance, security, privacy and sovereignty;
- Digital Interoperability;
- Data Analytics applications in energy (such as Energy usage optimization, Predictive maintenance, Demand forecast, etc.);
- Edge computing (SW/HW).

Data governance, security, privacy and sovereignty: IDS (International Data Spaces) divides data into spaces facilitating specialisation and creating a distributed data network (further information can be found in internationaldataspaces.org). Solutions must be developed to enable data governance, security, privacy and sovereignty. Data integrity, encryption and security of communications are challenges to be solved. In addition, current data protection legislation (GDPR) must be complied with, delegating data rights to the owner in a proactive manner.

Digital Interoperability: The interoperability of a growing number of highly specialised and decentralised systems requires the development of simple, agile and flexible integration solutions. To achieve this, the semantic approach, structuring the information into semantic data models – ontologies – (formal representation of linked concepts), has proved to be very successful in IoT. Likewise, the development of APIs and the use of open technologies have set a de facto standard supported by development communities.

Data Analytics applications in energy: including physics based, data-driven or hybrid models based on Machine Learning applied to the following Energy Use Cases:

> **Predictive maintenance:** Development of analytical solutions that allow to anticipate the behaviour of a system. It can include launching alerts of potential critical situations in sufficient time to be able to solve them before they occur; optimizing the use of resources in situations where savings can be generated; developing maintenance models for energy elements. To achieve this, it is expected that predictive algorithms will be developed and trained in PLATOON's pilots.
>
> **Demand forecast and Energy usage optimization:** Development of energy demand models for forecasting and optimization of the use of resources. The transfer of models from other domains can also be considered. Methods to verify their validity should be included. Big Data solutions and AI approaches are particularly expected.

Edge computing (SW/HW): Development of solutions, both software and hardware, that allow processing in the devices connected to the system. These devices may consist of sensors, intelligent gateways, etc. which must be provided by the applicant unless they are already available for testing in one of the PLATOON pilots. In this case, please check availability in the open calls support letterbox.

Annex B: PLATOON Reference Architecture and Pilots

PLATOON reference architecture

The PLATOON reference architecture identifies the different modules existing in PLATOON. It helps to know from a technical point of view, the different capacities of the platform and the integration points. Through the open calls it is expected to be able to use or expand this architecture. If the beneficiary chooses to use any of the existing modules, the PLATOON consortium will facilitate it and give instructions for its use. If the beneficiary chooses to expand it, the communication interfaces will be provided. It is not feasible to provide all the technical details in this document, but if there is any doubt about it in order to submit a proposal, the applicant can contact the open calls support mailbox.

The figure below shows a graphical representation of the PLATOON reference architecture:

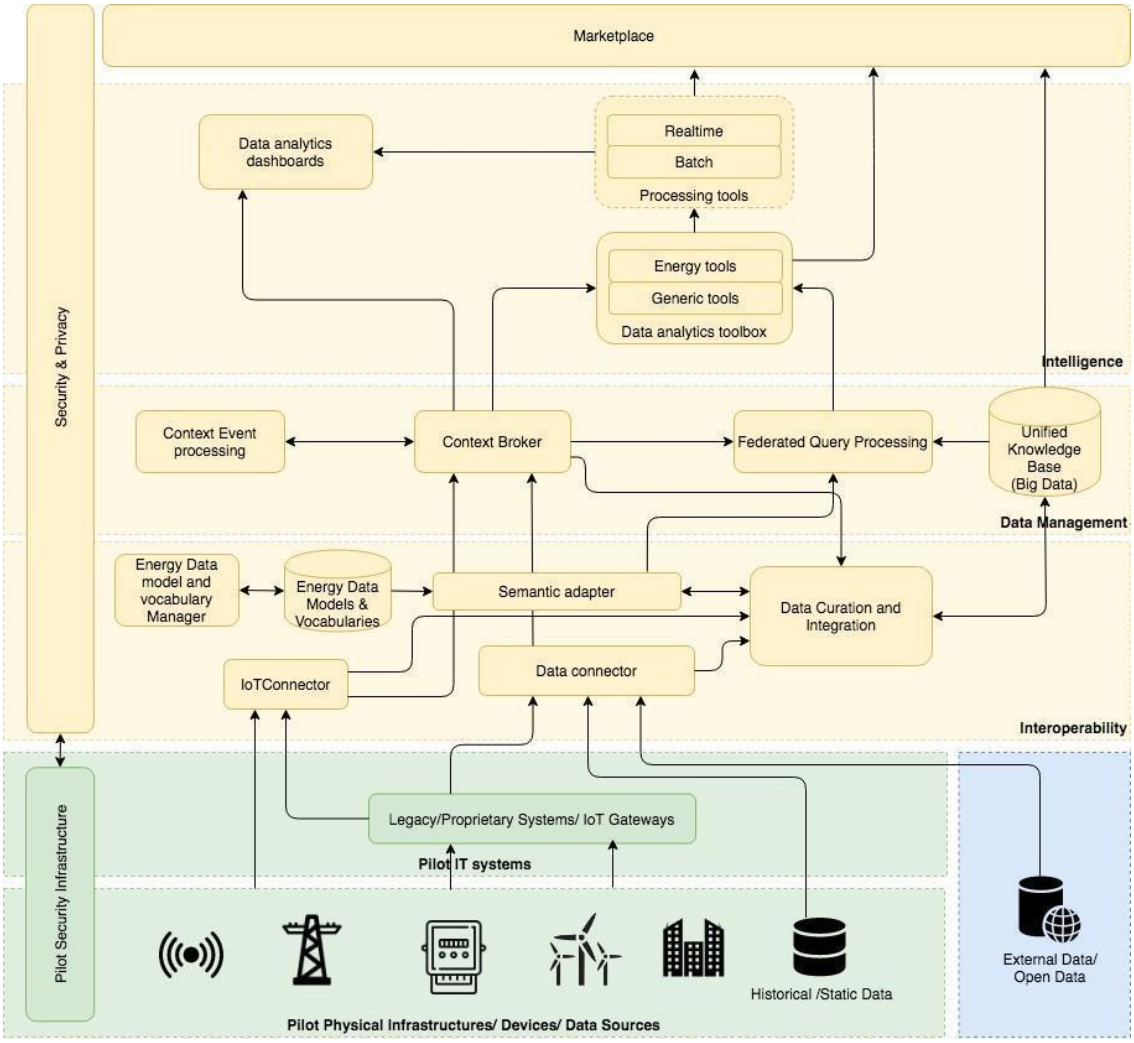

Figure 4 The PLATOON reference architecture

As shown in the picture above, the PLATOON reference architecture comprises the following main logical layers:

- **Physical infrastructure and data sources:** This layer includes all the data sources that are provided in the physical sites of each pilot or in his organizational context. For example, a renewable energy production plant, a building or a complex of buildings, or single devices such as energy meters. In this layer it is also included data that an organization may have collected in the past and that is available for running his business. They can be both historical series of various types such as periodic measurements from sensor or performance indicators made over the years or static data that describes the objects features relevant for the organization (e.g. description of the characteristics of a building or plant, configuration parameters of a device, etc).

- **External Data Sources /Open Data:** It represents all the data sources external to the organizational context (i.e. out of the PLATOON ecosystem) useful for integrating the knowledge base. For example, they can be various types of data such as weather historical series or weather forecasts or, in general, public domain Open Data.

- **Pilot IT Systems:** they are all the possible the proprietary/legacy IT systems that manage the operational and historical databases within the organization. They can manage different type of information such as data collected form IoT devices and any type of Energy related infrastructure: these systems can include IoT gateways that are in charge of translating and adapting IoT (proprietary) protocols or other typology of platforms (e.g. SCADA compliant) providing data to dedicate legacy protocols In the most of cases, for technical reasons or due to company policies, these systems represent the only possible interface for communication among devices and higher-level components in the PLATOON architecture.

- **Interoperability layer:** The interoperability layer is responsible for transforming the data that is collected by data sources into structures that can be managed by systems to be exploited. In particular the capabilities of this layer can be summarised in the following processes:
  - Data collection: the interoperability layer must have the ability to capture and manage heterogenous type of data through IoT Connectors to connect with physical devices such as sensors and embedded systems, and Data connectors in charge of collecting data from legacy/proprietary systems.
  - Semantic Adaptation/Mapping: this will process will include the adoption common semantic models and the concrete adaptation is made through a component that implements the semantic modelization.
  - Data Curation Integration: this defines the logical rules that allow to validate the quality of the data, filtering those that are not optimal for processing and data ingestion and harmonization in a common language/format.

- **Data Management:** This layer is in charge of managing data (historical and real-time) providing it through standard API to the upper layers. The scope of the components of this layer is to provide a unified knowledge base in which the data collected and harmonised in the interoperability layer can be accessed through (semantic) federated queries. This layer will provide the specific big data technologies needed to manage the large amount of data produced by pilots. Moreover, through the mean of a Context Broker the data management layer will manage real-time and context data using a publish-subscribe approach.

- **Intelligence:** intelligence layer represents a key part of the PLATOON architecture: this layer is the one designated for processing information from the lower levels in order to provide value-added services. It includes all types of big data analysis and artificial intelligence, both real time and batch processing. The Intelligence toolbox will be formed of all the data analytics tools

that will be developed in the project by the different partners for the different use cases defined in the deliverable. These tools will allow the extraction of value from heterogeneous data sources.

- **Marketplace:** This component will be in charge of publishing and search different type of assets (including datasets, service and applications (e.g. analytic tools) providing also functionalities to describe them through metadata that includes the properties of the assets and the way to access them. The marketplace will be the way in which pilots can share, with the rest of the ecosystem, data and applications that will be accessible through standard metadata description and API. The marketplace, depending on the specific case, can also enable additional functionalities related, for instance to the asset monetisation and transaction monitoring.

- **Security and Privacy:** This is a transversal layer covering all the aspects related to security and privacy. Specifically, these include authentication and authorisation capabilities, functionalities to ensure confidentiality and integrity of the communications, data usage control and personal data management. This layer is also logically connected with the specific security frameworks of pilots' infrastructure providing functionalities to the rest of the architectural components that have to run in a secure a reliable environment.

The developed PLATOON reference architecture is open source and all the details of all the components can be found in deliverable D2.1 PLATOON Reference Architecture which is a public deliverable of the project.

PLATOON Large-scale Pilots:

In total, seven pilots' activities will be carried out in five different European countries, namely France, Spain, Italy, Belgium and Serbia.

The pilots cover (described in Figure 5) a whole range of potential energy services along the energy value chain:

1. Predictive maintenance in renewables (Wind Farm) – Green.
2. Distribution grids efficient operation and assets life extension - Blue colour.
3. Efficient End Use of Energy, peak avoidance and demand side response (Smart Building) - Orange colour.
4. Optimum Energy Management in a Microgrid, which moreover is linked to the previous services of the other pilots - Grey colour.

The different pilots can be grouped according to the specific application field and the specific analytical tools that will be developed in each of them as summarized in the next figure.

APPLICATION FIELD	PILOT Nb.	PILOT TITLE	COUNTRY	ANALYTICAL TOOLBOX - FUNCTION
Renewable Generation	#1a	Predictive Maintenance of Wind Farms	Belgium	Wind Power Drivetrain Operational Optimiser, Digital Twin
Smart Grids	#2a	Electricity Balance and Predictive Maintenance	Serbia	Generation Forecaster, Load Forecaster, Power Dispatch Optimiser, Assets Health Diagnosis (RTP)
	#2b	Electricity grid stability, connectivity and Life Extension	Spain	Pattern Recognition, Assets Health Diagnosis (RTP)
End Use of Energy	#3a	Office building: Operation performance thanks to physical models and IA algorithms	France	HVAC Optimiser
	#3b	Advanced Energy Management System and Spatial (multi-scale) Predictive Models in the Smart City	Italy	Peak Power characterisation, Load Forecaster, Pattern Recognition
	#3c	Energy Efficiency and Predictive Maintenance in the Smart Tertiary Building Hubgrade	Spain	HVAC Optimiser, Predictive Maintenance(RTP)
Generation, Distribution and End Use of Energy	#4a	Energy Management of Microgrids	Italy	Generation Forecaster, Load Forecaster, Power Dispatch Optimiser, Assets Health Diagnosis (RTP)

Figure 5 Grouping of the pilots

In each pilot, different Data models, Analytical tools and Energy services will be created, tested and deployed for flexible and optimized management of energy systems in real time.

a. Annex B.1: High level use cases overview

This section presents a brief overview of the HLUC defined in PLATOON.

- PILOT #1A - Predictive Maintenance of Wind Farms
- PILOT #2A - Electricity Balance and Predictive Maintenance
- PILOT #2B - Electricity grid stability, connectivity and Life Extension
- PILOT #3A - Office building - Operation performance thanks to physical models and IA algorithm
- PILOT#3B-Advanced Energy Management System and Spatial (multi-scale) Predictive Models in the Smart City
- PILOT #3C - Energy Efficiency and Predictive Maintenance in the Smart Tertiary Building Hubgrade
- PILOT #4A - Energy Management of Microgrids

Figure 6 List of pilots

High Level Use Cases describe business functions, i.e., the business layer of the SGAM framework. For each HLUC, a short description of the scope, objectives and LLUC generated from each HLUC are identified.

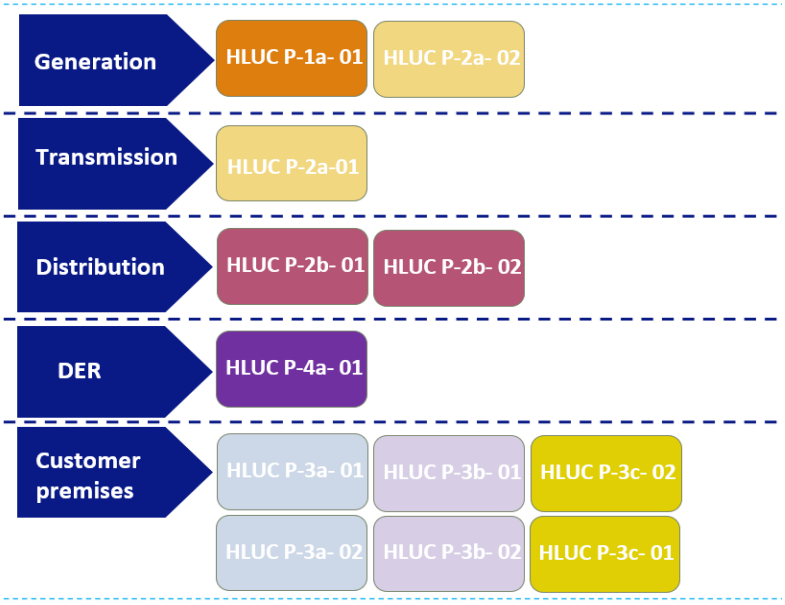

Figure 7 Overview of HLUC

b. Annex B.1.1 PILOT #1A - Predictive Maintenance of Wind Farms

HLUC-P-1a- 01: Predictive Maintenance for Wind Farms

The main goal of this pilot is to reduce operations and maintenance costs linked to unexpected downtimes for a fleet of wind turbines.

Scope

Reduce operation and maintenance costs linked to the unexpected downtimes for a fleet of wind turbines is being considered in this HLUC. The scope is the following:

- Optimize wind turbine availability.
- Optimize wind turbine condition during production.
- Optimize Data Quality.
- Monitoring Data Quality.

Objectives

The main objective of this use case is to optimize the turbine availability.

Short description

This HLUC is related to the development of an integrated monitoring strategy for predictive maintenance of electrical drivetrain components, more specifically the generator and the power converter of wind turbines. Focus is on the combination of data-driven models with physical models of the generator and potentially of the power converter into an integrated digital twin strategy. High frequency (kHz range) detailed measurements will be used in a first step. In a later stage the focus of the analysis will shift towards fleet-wide analytics. At this stage lower frequency SCADA data (10-min) and status logs are used. In addition to the anomaly detection for problem identification also load history of the electrical components is identified. The potential for edge computations of the models is explored. More specifically, the optimization of the computational load for anomaly detection is investigated.

This HLUC comprises the following general steps:

- Short List Failure Modes scoped out.
- Developing detailed understanding of how the failure mode works.
- Define modeling strategy to capture failure mode influence factors.
- Validate model with known failure cases -> Confusion Matrix.
- Test on a larger dataset.
- Increase robustness software code.

LLUC generated from this Use case

- LLUC P-1a- 01: Enhanced diagnostics of failure in electrical drivetrain components in wind turbines using a digital twin approach.

c. Annex B.1.2 PILOT #2A - Electricity Balance and Predictive Maintenance

HLUC P-2a- 01: Electricity Balance

Scope

Improve demand response and production forecast at regional and national level is being considered in this HLUC. The scope is the following:

- Short term load forecasting.
- Forecast about the power production from renewable energy sources (wind power plant).
- State estimation and balancing strategy.

Objectives

The objectives of this HLUC are:

- To balance market operators.
- To improve state Estimation.
- To plan power generation.
- To improve flexibility from existing sources of generation and demand.
- To optimize dispatching schedules and power grid operations.

Short description

Electricity must be 'consumed' as soon as it is produced, because it cannot be stored easily. Balance management is a power system operation service vital for ensuring security of supply through the continuous, real-time balancing of power demand and supply. At each point in time, total production must be equal to total consumption in order to stabilize system frequency; it is therefore also called frequency control. Historically, balancing the system has been maintained mostly by directing thermal power plants to increase or reduce output in line with changes in demand. Storage and interconnectors have also played a part, but a much smaller one.

As the volume of intermittent generation on the system grows, the system is balanced by utilizing both supply and demand resources. However, the existing electric power systems were not initially designed to incorporate different kinds of generation technology in the scale that is required today. With significant penetration of distributed generation, the distribution network has become an active system with power flows and voltages determined by the generation as well as by the loads. Therefore, it is difficult to predict the impact of distributed generation (e.g. from wind offshore farms) on the future energy mix. As a response to this, smart grids are expected to enhance grid flexibility & robustness and enable existing grids to accept power injections from distributed energy resources without contravening critical operational limits (such as voltage control, switching equipment

capability and power flow capacity). In this use case, PLATOON services will be developed that will upgrade the IMP SCADA system with electricity balancing functionalities needed in case of power injections from wind farms. With the increased penetration of distributed generation (e.g. wind power), the risk of temporary imbalances also increases caused by wind power uncertainties due to its dependence on the volatility of the wind. So, advanced demand/response optimization services are needed to prevent power outages or blackouts (complete interruption of power in a given service area). The role of the SCADA / EMS on the production side is monitoring, control of generation and data exchange.

This HLUC comprises the following general steps:

- Define the balancing challenges for the system operator due to increasing amounts of renewable energy sources embedded within the distribution networks (e.g. solar photovoltaic (PV), wind power plants).
- Define supply and demand variables.
- Analysing integration of the state estimation (SE) applications with the IMP proprietary SCADA system.
- Build ML models based on historical data.
- Integrate with the state estimation applications.
- Testing and validation.

LLUC generated from this Use case

- LLUC P-2a-01 Balancing on regional level.
- LLUC P-2a-02 Balancing on country level.
- LLUC P-2a-03 Demand forecast on transmission level.
- LLUC P-2a-04 RES (Wind generation) forecasters.
- LLUC P-2a-05 Effects of Renewable Energy Sources on the Power System (distribution level).
- LLUC P-2a-06 Research Data Management.

HLUC P-2a- 02: Predictive Maintenance in power plants

Scope

Developing a predictive layer on top of existing SCADA in power plants is being considered in this HLUC. The scope is the following:

- Health state estimation.
- Alert generation in case of expected problems with the assets.

Objectives

The objectives of this HLUC are:

- To develop timely and accurate insights for predictive maintenance.
- To decrease in outage costs.
- To improve the system reliability.

Short description

This HLUC comprises the following general steps:

- Defining the requirement and KPIs.
- Defining the measuring variables, and the current functionalities of the Maintenance Management System - MMS, Outage Management System and Asset Management System.
- Defining the integration of SCADA with PLATOON tools.
- Defining the pre-processing approach.

- Development of ML models based on historical data given the system's parameters, draw strategies to deal with similar events in the future.
- Deployment of ML model for real-time monitoring of advanced sensors and monitoring equipment.
- Define the communication with emergency services.
- Testing and validation of the service.

LLUC generated from this Use case

- LLUC P-2a- 07 Predictive maintenance in RES power plants

d. Annex B.1.3 PILOT #2B - Electricity grid stability, connectivity and Life Extension

HLUC P-2b- 01: Predictive Maintenance in Transformers

Scope

The scope of this HLUC is the following:

- Health Monitoring.
- Remaining Useful Life (RUL) estimation.
- Maintenance Planning.
- New scenario cost evaluation.

Objectives

The objectives of this HLUC are:

- To develop a predictive maintenance tool for LV/MV transformers using available data from Sampol's smart grid in ParcBit, Majorca (Spain).
- To determine remaining useful life and calculate health index of the transformers
- To optimize maintenance plan in order to reduce O&M costs

Short description

This HLUC focuses on transformer predictive maintenance, estimating transformer components health and its maintenance costs, planning maintenance actions, monitoring transformer alarms and studying different grid scenarios in case of replacing old transformers or adding complementary transformers.

This HLUC comprises the following general steps:

- Gather available transformer information and measurements, and maintenance logs, and create a database.
- Define the transformer components and the failure modes that will be analysed.
- Define required measurements and install new sensors.
- Specify the requirements for the asset health management platform, including all its functionalities.
- Exploratory data analysis, including data cleaning and pre-processing, and labelling of the dataset: Identification of faulty periods and check the maintenance logs.
- Develop virtual sensor models to estimate the state of the transformer, avoiding the over monitoring of the transformer.

- Develop a model to calculate the RUL of the critical components of the transformer, for different failure modes, due to aging in working conditions.
- Develop a model to calculate the health index of the transformer.
- Develop an economic calculation method for defining the optimal maintenance plan of the transformer.
- Develop a model to simulate the effect of different operational actions in the grid O&M cost sheet.
- Implement and validate the asset health management platform.

LLUC generated from this Use case

- LLUC P-2b- 01 Predictive Maintenance for MV/LV Transformers

HLUC P-2b- 02: Non-technical loss detection

Scope

The scope of this HLUC is the following:

- Quantification of losses in the distribution grid.
- Characterization of prosumers' energy profile.
- Detection and identification of non-technical losses (NTL).

Objectives

The main objective of this HLUC is to develop a tool for the quantification of losses in the distribution grid of a DSO and the detection of non-technical losses (NTL), using the available smart meter data from Sampol´s smart grid in ParcBit, Majorca (Spain).

Short description

This HLUC considers different techniques to calculate the losses, detect NTL appearance and identify NTL authors (prosumers and non-customers) using data from the smart meters of prosumers and measurements at the substations and transformation centers.

This HLUC comprises the following general steps:

- Gather electricity grid topology and parameters.
- Gather historical load data, at the MV substation level, and for the smart meter of each of the prosumers connected to the distribution grid.
- Historical load data cleaning and preprocessing.
- Labelling of prosumer load dataset: Identify historic known NTL, if any, based on evidence of fraud.
- Exploratory assessment of energy losses, based on energy balances, to determine thresholds of reasonable level of technical losses.
- Prosumer segmentation based on clustering techniques applied to their load profiles.
- Development of an NTL detection algorithm to detect PTUs in which NTL would have occurred, based on losses higher than reasonable technical losses, which accuracy can be improved taking into account grid topology.
- Development of an NTL identification algorithm for identification of NTL authors, based on the detection of abnormal behaviours of prosumers.
- Development of a software platform which integrates load data acquisition with use case logic (prosumer segmentation, NTL detection and identification algorithms), with a friendly user interface.
- Validation of NTL detection and identification algorithms.

e. Annex B.1.4 PILOT #3A - Office building - Operation performance thanks to physical models and IA algorithm

HLUC-P-3a- 01: Save X% on the GHG emissions

Scope

The scope of this HLUC is the following:

- Optimize energy production regulation.
- Optimize use of energy storage for optimizing generation efficiency.
- Optimize energy distribution regulation (return water temperature...).
- Optimize window opening and blinds.

Objectives

The objectives of this HLUC are:

- To follow and guarantee energy savings.
- To follow and guarantee GHG emission savings.

Short description

This HLUC concerns the reduction of energy consumption and greenhouse gases emissions for the building. It can be realized through optimization of HVAC operation and control in the building, as well as the use of local renewable energy sources (PV) that could be installed on the building. The different possibilities and strategies to reduce the energy consumption, using the data available on the building and the different equipment, will be evaluated and tested.

This HLUC comprises the following general steps:

- Check the level of data available for the building.
- Follow the building for a full year, appoint a team for being sure that the data are clean.
- Build an algorithm for comparing the various years (occupancy, climate, energy efficiency of appliances ...).
- Develop a digital twin of the building compatible with energy management constraints.
- Define the management strategies, test them on the digital twin.
- Install new appliances in Stains building.
- Conclude with the comparison algorithm brick, compare the various years.

LLUC generated from this Use case

- LLUC P-3a 01 Optimization of HVAC operation regarding building occupancy

HLUC-P-3a- 02: Power Management and flexibility

Scope

The scope of this HLUC is the following:

- Storage capability of the buildings.
- Thermal storage.
- Battery storage (including those in laptops).
- H2 storage.
- Comfort level and acceptability of lowering comfort.
- Flexibility mechanism.

Objectives

The objectives of this HLUC are:

- To reduce the load peak.
- To respond to flexibility demands.

Short description

This HLUC concerns the electrical load management with flexibility services that could be offered to the grid. It can be realized through specific controls of the electrical loads in the building: heating and cooling loads, using the building inertia and other type of electrical load that could be shifted. Switching to other energy sources or using storage equipment (batteries, H2) could also be part of the scope. An analysis of the flexibility available in the building, and the use of digital twin can enable us to evaluate the potential and predict the available flexibility on the building.

This HLUC comprises the following general steps:

- Assess the building against existing flexibility framework.
- Define the priority actions (focus on PC batteries? focus on reduced comfort? Add thermal storage?).
- Simulate on digital twin. Essential to define what specific service is most beneficial, and thus what is the complexity needed for the digital twin.
- Install on Stains, run on 1 year.
- Comparison with the test year.

LLUC generated from this Use case

- LLUC P-3a 02 Provide Demand Response services through building inertia and HVAC controls

f. Annex B.1.5 PILOT#3B-Advanced Energy Management System and Spatial (multi-scale) Predictive Models in the Smart City

HLUC P-3b- 01: Building Energy Management System

Scope

The scope of this HLUC is the following:

- Energy consumption analysis and forecast.
- Daily and hour energy consumption forecast.
- Lighting optimization.
- Predictive maintenance.
- Energy efficiency plans (heating, cooling).

Objectives

The objectives of this HLUC are:

- To improve efficiency and flexibility of energetic systems and distribution on selected buildings.
- To ensure energy saving on selected buildings.
- To improve energy efficiency plans.

Short description

Poste Italiane manages around 220 buildings in the area of Rome Municipality. In the context of this HLUC, 16 of the 220 buildings are selected as ‘test set’ grouped according to the end use and

characteristics: Data center, Logistic Centers, Retail, Office Space. These buildings will be used for modelling, benchmarking, and evaluating PLATOON components, algorithms and optimization actions in the following areas: Cooling and Heating Plants Consumptions Forecasting; Cooling and Heating Plants Predictive Maintenance and Lighting Consumption Estimation.

This HLUC comprises the following general steps:

- Identify a set of significant buildings.
- Identify the data set to be collected.
- Define frequency and check the data volumes to be produced.
- Define data flows and exchange requirements.
- Define criteria and outputs for data analysis.
- Install the new devices in the PI buildings.
- Activate and test the new devices.
- Activate the data flow toward PLATOON Platform.
- Validate pilot hypothesis.

LLUC generated from this Use case

- LLUC P-3b 01 Buildings Heating & Cooling consumption Analysis and Forecast.
- LLUC P-3b 02 Predictive maintenance of cooling & heating plants.
- LLUC P-3b 03 Lighting Consumption Estimation & Benchmarking.

HLUC P-3b- 02: Building Asset Energy Management System

Scope

The scope of this HLUC is the following:

- Energy consumption analysis and forecast.
- Power peak consumption.
- Predictive maintenance.
- Energy Auditing improvement and validation.
- RES and Storage self-consumptions potentiality.

Objectives

The objectives of this HLUC are:

- To improve forecast capability and to update Energy Efficiency scenarios (EMS and Audits).
- To detect critical issues for plant and building envelope systems (Peak Power, Anomalies, …).
- To improve energy management by using analysis tools and algorithms.
- To integrate predictive maintenance toolset in EMS and DSS.
- To perform energy audits data exploitation/integration for the municipal asset EM.
- To perform spatial analysis and visualization of energy Big Data.
- To maximize self-consumption for each building through RES and storage potentiality.

Short description

This HLUC includes about 1600 buildings owned by ROME with different uses and different plants and devices, including 165 photovoltaics, located in Rome. The data collected from the meters (power and gas) and from the available Energy Audits will be sent to the PLATOON platform for energy consumption analysis and forecast, for anomalies detection, for automated validation/updating of energy efficiency scenarios, for data integration and new EMS tools implementation.

This HLUC comprises the following general steps:

- Identify the datasets to be collected (energy meters, energy audits).
- Define extent of ROME buildings (number/typologies) and check the data volumes to be produced.
- Define data flow and exchange requirements for energy meters.
- Define criteria and outputs for data analysis (Use Case and Business Case final definition).
- Test data treatment and outputs for a control set of buildings.
- Activate the data flow toward PLATOON Platform.
- Proceed to Big Data analytics and to the outputs progressive assessment.
- Co-work to define the tools and user interfaces matching the EM needs (Usability Check).
- Validate pilot hypothesis and expectations.

LLUC generated from this Use case

- LLUC P-3b 04 Monitor and analysis system for the Data flow coming from 8950 power and gas energy meters of ROME Municipality buildings asset

g. Annex B.1.6 PILOT #3C - Energy Efficiency and Predictive Maintenance in the Smart Tertiary Building Hubgrade

HLUC P-3C- 01: Advanced EMS in Smart Tertiary Building

Scope

This HLUC focuses on the Advanced EMS to be implemented in PLATOON. This EMS will optimize the local renewable energy resources (RES) and HVAC operation following a multi-objective pattern which targets to reduce the overall energy bill and maximize the usage of RES.

The scope of this HLUC is the following:

- Develop an optimization algorithm for the HVAC system of the building to reduce the energy cost taking into account PV panels energy production and energy cost while ensuring comfort requirements (temperature, humidity and air flows).

Objectives

The objectives of this HLUC are:

- To reduce energy costs.
- To reduce GHG emissions.

Short description

This HLUC addresses the main functionalities and requirements related to the advanced EMS to be implemented within PLATOON. The aforesaid EMS will optimize the local renewable energy resources (RES) and HVAC operation as a function of building and RES characteristics, building comfort constraints, ambient conditions and energy market price following a multi-objective pattern which targets to reduce the overall energy bill and maximize the usage of RES.

This HLUC comprises the following general steps:

- Extract the data.
- If necessary, look for external data sources (weather, electricity market ...) to extract remaining parameters.
- Data Cleaning: analyse the quality of the data and correct inconsistencies/errors (missing values, outliers, inconsistent values...)

- Exploratory data analysis: analyse the data using visual and statistical methods (unipara metric analysis, multiparametric analysis, correlation analysis...).
- If necessary, apply signal processing/smoothing methods to reduce the noise.
- Pattern recognition and benchmarking.
- Create a data driven or hybrid model of the building which simulates the thermal behaviour of the building using historical off-line data.
- Build, train and validate the HVAC optimisation algorithm using historical off-line data.
- Validate the developed algorithm with online data and modify the algorithm as necessary to get an acceptable performance.
- Implement the developed algorithm in the production system.

LLUC generated from this Use case

- LLUC P-3c 01 Advanced EMS for Tertiary Buildings.

HLUC- P-3C- 02: Predictive Maintenance in Smart Tertiary Building

Scope

The scope of this HLUC is predictive maintenance of:

- Air handling units.
- Water pumps.
- Chillers
- Heat pumps.

As for the previous HLUC, this HLUC will at first be focused on a single tertiary building (Donostia's CIC Nanogune), then, the outcomes will be extended to more than 10 buildings.

Objectives

The objectives of this HLUC are:

- To increase the availability of the assets.
- To increase the useful life of the assets.
- To reduce maintenance costs.

Short description

This use case describes the process of the development and the implementation of predictive maintenance tools for the thermal control assets of smart tertiary buildings (Boilers, Chillers, Air Handling Units (AHU), Split Systems, Fan coils, Extractors and Pumps). as Additional targets are improving the maintenance policy increasing the availability and useful life of these assets and reducing the general maintenance costs.

This HLUC comprises the following general steps:

- Extract the data.
- Data Cleaning: analyse the quality of the data and correct inconsistencies/errors (missing values, outliers, inconsistent values...)
- Exploratory data analysis: analyse the data using visual and statistical methods (unipara metric analysis, multiparametric analysis, correlation analysis...).
- If necessary, apply signal processing/smoothing methods to reduce the noise.
- Label the dataset: Identify faulty periods and check the maintenance logs.
- Develop a data driven or hybrid model to simulate normality using the data records for healthy condition.

- Analyse deviations from faulty points compared to the normal simulated by the developed normality model.
- Feature creation to quantify deviations from faulty points compared to normal condition modelled by the developed model.
- Train and validate algorithms using the newly created features and other features to detect failures. Use historical off-line data.
- Validate the developed algorithms with online data and modify the algorithm as necessary to get an acceptable performance.
- Implement the developed algorithm in the production system.

LLUC generated from this Use case

LLUC P-3c 02 Predictive Maintenance in Smart Tertiary Building Assets.

h. Annex B.1.7 PILOT #4A - Energy Management of Microgrids

HLUC-P-4A- 01: Energy Management of Microgrids

Scope

The scope of this HLUC is the following:

- EMS with real-time processing and optimization for small-scale/renewable electricity generation.
- Generation and load forecast.
- Smart storage/generation.
- V2G.

Objectives

The objectives of this HLUC are:

- To improve the availability of big data and big data management,
- To provide an analysis facility for real-life scale research, simulation and test purposes, thus allowing to study new data-driven paradigms for energy management able to deal with increased complexity of the energy systems
- To assess the advantages of innovative strategies.

Short description

This HLUC applies to a microgrid test-bench, to provide an analysis facility for real-life scale research, simulation and test purposes.

The aforementioned microgrid test-bench is dedicated to improve the availability of big data and big data management, providing an analysis facility for real-life scale research, simulation and test purposes, thus allowing to study new data-driven paradigms for energy management able to deal with increased complexity of the energy systems and to assess the advantages of innovative strategies.

This HLUC comprises the following general steps:

- Install all needed meters.
- Gather data from different sources internal/external (weather condition/forecast).
- Create an integrated, clean and consolidated DB.
- Create a data driven model of the grid using historical off-line data.
- Build and train a forecasting algorithm.

- Develop a robust optimization model for optimal power flow.
- Validate the model and the predictive algorithms.
- Implement the production system with edge computing capability.
- Develop an interface and data monitoring software.

LLUC generated from this Use case

- LLUC P-4A 01 Energy Management of Microgrids

Annex C: PLATOON Marketplace

Data is a valuable resource in any digital, data-driven business and it is necessary to enable participants to leverage the potential of their data and tools within a secure and trusted business ecosystem.

The PLATOON federated platform will enable the exploitation of digital services (both data and data analytics tools) amongst different stakeholders through the PLATOON Marketplace.
The PLATOON Marketplace will be a one-stop shop that integrates some of the datasets used in the project and the tools developed as a result of the project. Equally, all the services developed as part of the open calls will be available through the marketplace. Moreover, additional services from previous projects can also be made available in the PLATOON Marketplace.
The marketplace will mainly offer two types of services:

1. Data services: exchange and monetisation of raw and processed data. This includes contract for 'bulk' ad hoc transfers or unlimited pay-per-use.

2. App services: Data analytics tools that can be implemented in two ways:
   a. The tools (code) are downloaded and implemented directly in the app consumer´s platform.
   b. The tools are implemented as a microservice. In this case the tool is implemented in the app provider infrastructure and the code is not shared. Instead, there is an exchange of raw and processed data between the app provider and app consumer.

Regarding the monetisation of the different datasets and tools used and developed in the project, a “freemium” approach will be followed. In fact, there will be a basic free account that allows access to free datasets and tools. On top of that basic free account, there will be additional premium datasets and tools that are proprietary, and that the user will have to pay to have access to them. At this stage of the project two types of potential business models have been considered: pay per license and pay per use.

Annex D: Processing of personal data

CONTROLLER'S IDENTITY AND CONTACT DETAILS

The data controller is FundingBox Accelerator sp. z o.o. (Al. Jerozolimskie 136, 02-305 Warsaw, Poland).

In all matters regarding personal data, you can contact us using the following email address: **privacy@fundingbox.com**.

PURPOSES, LEGAL BASIS AND PROCESSING PERIOD

The purpose of processing	Legal basis for processing	Period
To run an Open Call and collect data necessary to evaluate applications submitted in the Open Call	The legal basis for processing is the indispensability to implement the legally justified interest of the data controller, consisting in fulfilling the obligations laid down in the Grant Agreement (Article 6 paragraph 1 point f) GDPR in this respect.	6 years from the end of the year in which the PLATOON Project ended
To realize the Project goals described in the Grant Agreement (communication, reporting, collaborating with other project partners)	The legal basis for processing is indispensability to implement the legally justified interest of the data controller, consisting in effectively participating in the project and fulfilling the obligations laid down in the Grant Agreement (Article 6 paragraph 1 point f) GDPR in this respect.	6 years from the end of the year in which the PLATOON Project ended
In order to consider potential complaints	The legal basis for processing is indispensability to implement the legally justified interest of the data controller fulfilling the obligations laid down in the Grant Agreement (Article 6 paragraph 1 point f) GDPR in this respect.	6 years from the end of the year in which the PLATOON Project ended
In order to possibly establish and enforce claims or defend against them	The legal basis of the processing is the legitimate interest of the data controller consisting in the protection of its rights (Article 6 paragraph 1 point f) GDPR in this respect.	6 years from the end of the year in which the PLATOON Project ended

DATA RECEIVERS

Data controller will transfer personal data only to trusted recipients such as entities belonging to the FundingBox's capital group, evaluators, IT service providers, accountants, law firms, postal and courier companies (who process personal data on the controller's behalf).

To realize the PLATOON Project Data can be transferred also to Project Partners (complete list of the project partners is available at the email address: privacy@fundingbox.com), European Commission and other affiliated entities.

RIGHTS OF DATA SUBJECT

Due to the fact that we process your personal data, you have the right to:

1) request access to your personal data,

2) demand the rectification of their personal data,

3) request to remove or limit the processing of your personal data,

4) complain with the supervisory authority (The President of the Personal Data Protection Office, Warsaw, Poland).

You also have a right to object to the processing of your personal data (according to Article 21 of GDPR).

INFORMATION ABOUT VOLUNTARY OR OBLIGATORY DATA PROVISION

Providing data is voluntary, although it is necessary to participate in the PLATOON 2nd Open Call. Without providing your data, it is not possible to contact you and evaluate the application

Grant Agreement N° 872592

PLATOON

Digital platform and analytic tools for energy

Frequently Asked Questions

Submission starts on 1 October 2021 at 09.00 (CEST, Brussels Local Time)

Deadline is on the 1 December 2021 at 09:00 (CET, Brussels Local Time)

Version 14/09/2021

The research leading to these results has received funding from the European Community's Horizon 2020 Work Programme (H2020) under grant agreement no 872592.

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Terms and abbreviations

GfA	Guide for Applicants
MVP	Minimum Viable Product
PLATOON	Digital PLAtform and analytic TOOls for eNergy
PoC	Proof of Concept
SC	Steering Committee
SGA	Sub-grant Agreement - the contract signed between the beneficiary and FBA on behalf of the consortium.
SME	Small and medium-sized enterprises
SW/HW	Software/Hardware
TRL	Technology Readiness Level

1. GENERAL QUESTIONS ABOUT THE PROJECT

1.1. What is PLATOON?

PLATOON (https://platoon-project.eu/) is a project funded by the European Commission that aims to digitalise the energy sector, enabling thus higher levels of operational excellence with the adoption of disrupting technologies.

The project will reinforce the European efforts for modernisation of the European electricity grid because it focuses the attention on new smart grids services through data knowledge exploitation. Finally, the project will offer access to cheaper and sustainable energy for energy consumers and maximise social welfare. Thus, PLATOON will contribute to increased renewable energy consumption, smart grids management, increased energy efficiency and optimised energy asset management.

For more information, please see the Guide for Applicants (GfA), available here: **https://platoon-2nd-open-call.fundingbox.com/**.

1.2. How does the project work?

PLATOON will launch two open calls over the course of the project to select 6 and 7 projects respectively, with the aim to develop new components, tools and services in the energy sector.

1.3. How much funding will be distributed?

PLATOON's 2nd Open Call will distribute €1,050,000 among 7 bottom-up projects targeting SMEs that are already legally established at the time of application. The maximum amount per bottom-up project is up to €150,000 in funding.

2. GENERAL QUESTIONS ABOUT THE 2nd OPEN CALL

2.1. Who can apply to this open call?

PLATOON is looking for SMEs[4] that are legally established at the time of application in the following countries:

- The Member States of the European Union and its Overseas Countries and Territories (OCT),
- Associated Countries to H2020, or
- The United Kingdom.

Applicants participating in the Open Call cannot include any PLATOON partners (or their affiliates or employees).

2.2. Which requirements must be fulfilled?

The following requirements must be fulfilled:

- Proposals should address the scope of the 2nd Open Call which is to extend existing products/services[5] by integrating them into the PLATOON ecosystem (by adopting the developed common reference architecture, data models, APIs, docker specification…) and validating them in PLATOON's large-scale pilots, specified in Annex C in the GfA.
- Participants need to demonstrate that they target 1 out of 4 experimentation areas described in Section 4.1 in the GfA.
- Proposals must be submitted in English online through the Funding Box Platform: https://platoon-2nd-open-call.fundingbox.com/ before the deadline of 1 December 2021.
- Proposals must not have any conflict of interest nor be included in any exclusion cases to be eligible for funding.

Check Section 3 Eligibility Criteria of the GfA for this open call for the complete list of requirements.

2.3. What types of projects is the call looking for?

The PLATOON project is focusing on the following experimentation areas within Big Data and intelligent applications in energy (see Section 3.2 and Annex A in the GfA for more information):

- Data governance, security, privacy and sovereignty;
- Digital Interoperability;
- Data Analytics applications in energy (such as Energy usage optimization, Predictive maintenance, Demand forecast, etc.);
- Edge computing (SW/HW).

[4] An SME will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:
• Headcount in Annual Work Unit (AWU) less than 250;
• Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.
Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation:
https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

[5] Applicants' proposed project must be at least at **TRL6** and reach at least **TRL 7 (MVP) by the end of the support programme**. See Annex G of the General Annexes of the Work Programme of Horizon 2020 for TRL definition:
https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

2.4. What is the scope of the call that the applicants must address?

The scope is to extend existing products/services[6] by integrating them into the PLATOON ecosystem (by adopting the developed common reference architecture, data models, APIs, docker specification…) and validating them in PLATOON's large-scale pilots (see Annex B in the GfA).

2.5. What kind of products/services is PLATOON looking for?

Applicants are free to propose their own product/service based on the project information provided in the GfA regarding project objectives, reference architecture, components already under development and the available large-scale pilots.

A product/service refers to a software solution that solves a particular use case (see Annex B.1 in the GfA). For instance, corrosion image processing product for pilot 1A, smart grid nowcasting product for smart grids in pilots 2A, 2B and 4A or flexibility service for smart buildings in pilots 3A, 3B or 3C.

2.6. Should the products/services follow any framework?

Yes. The proposed products/services must be developed in accordance with the specifications defined in the project for the following aspects (see also Annex B in the GfA):

- PLATOON reference architecture;
- PLATOON common APIs and Data models;
- Data governance, security, privacy and sovereignty framework based on IDS reference architecture;
- Data analytics tools docker specification.

2.7. Can we submit more than one application?

No, you can't. If more than one proposal is identified, only **the last proposal** which has been submitted in order of time will be evaluated.

2.8. How can I apply to this open call?

Online through the PLATOON microsite for this open call at FundingBox Platform: https://platoon-2nd-open-call.fundingbox.com/

2.9. Which is the deadline for proposals' submission?

This call will have a deadline on 1 December 2021 at 09:00 (CET, Brussels Local Time).

2.10. How long does it take to complete the application?

It will probably take around 2 days of writing to produce a good application, but you'll be able to add contributors, so that work can be split among team members.

Take into account that specific character limits have been established in each field of the online application form, so we encourage you to keep your proposal focused on the requested information.

We also recommend you to start the submission process quite in advance before the deadline in order to avoid last minute circumstances.

[6] Applicants' proposed project must be at least at **TRL6** and reach at least **TRL 7 (MVP) by the end of the support programme**. See Annex G of the General Annexes of the Work Programme of Horizon 2020 for TRL definition: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

2.11. Will there be more open calls?

No.

2.12. Will I be able to modify my proposal after submission?

You can modify the application at any time until the deadline.

3. QUESTIONS RELATED TO EVALUATION

3.1. What happens after proposals are submitted?

After the deadline of the open call, the evaluation procedure will start. Evaluation is composed of the following phases:

- First automatic eligibility check (including the Minimum Quality Criteria check),
- External evaluation,
- Consensus meeting,
- Jury Day.

See Section 4 in the GfA for further details.

3.2. What is the first automatic Eligibility Check?

All applications received before the deadline will undergo the first Eligibility Check according to the eligibility criteria set out in Section 3 of the GfA and based on the statements included in the applications. This includes the **Minimum Quality Criteria check** whereby applicants will need to fall within the Open Call scope and target **at least 1 out of 4 experimentation areas** (see also Annex A) listed below:

- Data governance, security, privacy and sovereignty.
- Digital Interoperability
- Data Analytics applications in energy (such as Energy usage optimization, Predictive maintenance, Demand forecast, etc.)
- Edge computing (SW/HW)

See Section 4.1 in the GfA for more information.

A shortlist of “Eligible Applicants” will be produced as a result of this phase

3.3. What is an external evaluation?

Proposals in the list of “Eligible Applicants” will be evaluated by two independent experts. See Section 4.2 in the GfA for more information.

3.4. What is the purpose of a consensus meeting?

The purpose of the consensus meeting is to decide by consensus (⅔ majority votes), the list of applicants that will be invited to the next stage, i.e. Jury Day. See Section 4.3 in the GfA for more information.

3.5. What is a Jury Day?

During the Jury Day you will have the opportunity to pitch your project in front of the PLATOON Jury composed by the Selection Committee. See Section 4.4 in the GfA for more information.

3.6. Where will the Jury Day be held?

The event may be physical or online (depending on the restrictions caused by COVID-19). Should the event be physical, a €1000 travel and subsistence allowance will be provided to the finalists invited to the Jury Day.

3.7. Which are the criteria for evaluating proposals during the external evaluation?

There will be 3 main criteria that will be considered by evaluators when assessing the proposals: Excellence, Impact and Implementation.

Complete information about this is in Section 4.2 in the GfA.

3.8. How much time does it take the evaluation process?

Evaluation process is expected to take up to 3 months counting from the Open Call deadline.

3.9. Will we be contacted when the evaluation process ends?

Yes, applicants will be informed of the status of their proposal after the first automatic Eligibility Check and after the Jury Day.

4. QUESTIONS RELATED TO FUNDING AND THE SUPPORT PROGRAMME

4.1. How much funding can each proposal get?

Each selected proposal can get up to €150.000 in funding.

4.2. Can I apply for this Open Call if I have already received Horizon 2020 funding?

Yes, you can. However, if you are selected, you will need to demonstrate that the PLATOON funding is not funding the same work that you are currently delivering in your other project (no double funding allowed). You will also need to make sure that you have enough resources in-house to run two projects in parallel, and the progress of your project will be reviewed throughout the Support Programme. For more info check Section 5 of in the GfA.

Grantees of the 1st Open Call **cannot** apply for the 2nd Open Call.

4.3. When do selected teams receive the funding?

The grant is paid as a lump sum against specific Deliverables/KPIs (see Section 5 of the GfA). E.g. the first tranche (€20,000) is transferred to the beneficiary following the approved completion of Milestone 1.

The fixed lump sum tranches are the following:

- Tranche 1: €20,000
- Tranche 2: €10,000
- Tranche 3: €50,000
- Tranche 4: €70,000

4.4. Is there any pre-financing?

No, there is no pre-financing. Thus, the budget defined in the Individual Mentoring Plan must be linked to the established tranches, see also question 4.7 and 4.8.

4.5. How long will the support programme last for?

The support programme will last for up to 9 months.

4.6. What are the different stages of the support programme?

The programme comprises two stages: Inception and Development. See Section 5 in the GfA for more information.

4.7. Will PLATOON monitor the progress of the projects?

Yes, an exhaustive review process will be implemented in order to deliver payments linked to the achievement of the KPIs/Deliverables established. The review process consists of following evaluation criteria:

- Deliverables' quality.
- Technical performance indicators.
- Deadline Compliance.

4.8. What is the Individual Mentoring Plan (IMP)?

This document establishes the KPIs/Deliverables that will be considered during the exhaustive review process. The IMP will also include a budget estimation on how the project resources will be used to achieve the KPIs and deliverables set in the IMP.

4.9. Does the budget estimation included in the IMP need to be linked to each payment tranche?

Yes, there must be a link between the budget estimation and the payment tranches if the grantee wants to receive the maximum grant amount. The budget estimation can be higher than a payment tranche but grant amount cannot be higher than the budget estimation.

Example: if your budget for Milestone 1 is 4K€, then you cannot receive the fixed lump sum of 20K€ for this milestone – you will receive 4K€. However, if the budget is 25K€ then you will only receive 20K€.

4.10. What is lump sum?

The lump sum is a simplified method of settling expenses in projects financed from Horizon 2020 funds. It means that the grantee is not required to present strictly defined accounting documents to prove the cost incurred (e.g. invoices), but is obliged to demonstrate the implementation of the project in line with the milestones set for it.

The lump sum is an approximation of the beneficiary's underlying actual costs. The budget must be presented, and it should justify how the grant will be spent according to the implementation of the project

4.11. Will selected teams get any additional support on top of funding?

Yes, technical mentoring will be provided by PLATOON's technical partners.

4.12. Will I have to sign any agreement?

Yes, you will sign a Sub-grant Agreement with Fundingbox Accelerator (on behalf of the consortium) once all formalities are checked, and the Formal Check has been successfully completed.

4.13. What is the Formal Check?

For the Formal Check, applicants included in the List of Finalists will have to provide all documentation required (e.g. registration document of the Applicant, bank identification form etc.) to prove their compliance with the Eligibility Criteria and fulfilment of the legal requirements. See also question 4.14.

4.14. How will you check our SME status?

Before signing the Sub-grant Agreement, we are going to verify your SME status. More specifically, we will request you to provide the following documentation:

- Status information of the beneficiaries.
- SMEs checklist. In the event they declare being non-autonomous: the balance sheet and profit and loss account (with annexes) for the last period for upstream and downstream organizations.
- Financial information. It includes the headcount (AWU), balance, profit & loss accounts of the latest closed financial year and the relation, upstream and downstream, of any linked or partner company.

- Legal existence. Company Register, Official Journal or similar, showing the name of the organisation, the legal address and registration number and, if applicable, a copy of a document proving VAT registration (in case the VAT number does not show on the registration extract or its equivalent).
- In cases where either the number of employees or the ownership is not clearly identified: any other supporting documents which demonstrate headcount and ownership such as payroll details, annual reports, national regional, association records, etc.
- Bank identification form.
- Information about participation in other acceleration programmes and other H2020 grants received.

5. TECHNICAL QUESTIONS

5.1. Do we need to use open-source licenses for our solutions?

It is encouraged that participants exploit and/or develop open standards and data models. It is also encouraged that open-source licenses are given priority during the development of the applicant's solutions, ensuring compliance with the PLATOON architecture. However, we are interested in receiving your proposals with other suggestions and argumentations.

5.2. Will my company own the IP rights in the developed technology?

In principle, yes. However, it could happen that there is a co-development with another partner from the project. In that case the ownership of the developed technology will be shared amongst the co-developers. For each of the winners a Sub-grant Agreement will be signed where all the specific terms regarding IPR will be defined. Also, bear in mind that as stated in the GfA the development and release of open-source components will be favourably considered when scoring the application.

5.3. Who would have access and could use my developed solution?

It is foreseen that the partners will implement the developed solution in their pilots, but other arrangements can be made throughout the project. More on this and other IPR aspects can be found in the Sub-grant Agreement.

6. COMMUNICATION

6.1. Who can I contact during the open call?

During the Open Call, you can contact us via the helpdesk email platoonhelpdesk@fundingbox.com.

6.2. Will I get any notification after the evaluation?

Applicants will receive an email indicating if they passed on to the next phase or not.

6.3. How can I appeal?

A complaint following guidelines as per Section 6 in the GfA should be drawn up in English and submitted by email to platoonhelpdesk@fundingbox.com.

6.4. Can I arrange a short call with FundingBox?

We do not organise 1-1 calls with potential candidates, but we welcome you to join the community **here**, where you will be notified of future events, including an FAQ session we plan to run in November, where you can ask your questions.

Grant Agreement N° 872592

PLATOON

Digital platform and analytic tools for energy

Guide for Evaluators, 2nd Open Call

The research leading to these results has received funding from the European Community's Horizon 2020 Work Programme (H2020) under grant agreement no 872592.

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Introduction

PLATOON (https://platoon-project.eu/) is a project funded by the European Commission that aims to digitalise the energy sector, enabling thus higher levels of operational excellence with the adoption of disrupting technologies.

The project will reinforce the European efforts for modernisation of the European electricity grid, because it focuses the attention on new smart grids services through data knowledge exploitation. Finally, the project will offer access to cheaper and sustainable energy for energy consumers and maximise social welfare. Thus, PLATOON will contribute to increased renewable energy consumption, smart grids management, increased energy efficiency and optimised energy asset management.

In order to facilitate technology transfer into the market, PLATOON will distribute up to **2M€ among 13 disruptive Bottom-up Projects** that will be selected through **2 Open Calls:**

- 1st Open Call was targeting 6 SMEs to develop different components of the PLATOON reference architecture including data analytics tool for the toolbox (prototypes);
- 2nd Open Call is targeting 7 SMEs to develop new services on existing technologies (MVPs).

The 2nd Open Call of PLATOON will distribute €1,050,000 **among 7 bottom-up projects** targeting start-ups, SMEs and scale ups. The maximum amount per bottom-up project is up to **150,000€ in funding**. The selected proposals will be invited to join the Technology Transfer Programme 2 that consist of 2 stages.

The 2nd Open Call will **launch on the 1st of October 2021** at 09.00 (CEST, Brussels Local Time) and will have a deadline on the **1st of December 2021** at 9:00 (CET, Brussels Local Time). Applications must be submitted online at: http://platoon-2nd-open-call.fundingbox.com/

This Guide for Evaluators (GfE) contains relevant information to understand how to successfully evaluate the 2nd Open Call.

1. General questions related to the 2nd Open Call

1.1. What is this call supporting?

PLATOON will support SMEs that fall within the Open Call scope, and demonstrate experience in and target **at least 1 out of 4 experimentation areas** listed below:

- Data governance, security, privacy and sovereignty.
- Digital Interoperability
- Data Analytics applications in energy (such as Energy usage optimization, Predictive maintenance, Demand forecast, etc.)
- Edge computing (SW/HW)

The scope of the 2nd Open Call is **to extend existing products/services[7] by integrating them into the PLATOON ecosystem** (by adopting the developed common reference architecture, data models, APIs, docker specification…) **and validating them in PLATOON's large-scale pilots**, focused on increased renewable energy consumption, smart grids management, increased energy efficiency and optimised energy asset management. More details on components of the PLATOON reference architecture and pilots can be found in Annex B in the GfA.

To ensure that the developed solutions can be implemented into the specific platforms for different pilots, the proposed products/services must be developed in accordance with the specifications defined in the project for the following aspects (see also Annex B in the GfA):

- PLATOON reference architecture;
- PLATOON common APIs and Data models;
- Data governance, security, privacy and sovereignty framework based on IDS reference architecture;
- Data analytics tools docker specification.

Regarding the specific products/services for the open calls, participants are **free to propose their own product/service** based on the project information provided in this guide regarding project objectives, reference architecture, components already under development and the available large-scale pilots. Transversal solutions applicable to more than one pilot will be prioritised. It is also encouraged that participants exploit/develop open-source products and services. In fact, open-source products/services will be prioritised.

In this case**, product/service refers to a software solution that solves a particular use case (see Annex B.1 in the GfA)**. For instance, corrosion image processing product for pilot 1A, smart grid nowcasting product for smart grids in pilots 2A, 2B and 4A or flexibility service for smart buildings in pilots 3A, 3B or 3C.

More details about these aspects can be found in **Annex A, B and C** in the GfA. See also **Section 3.2 'Type of activity'** in the Guide for Applicants.

1.2. Who can apply?

PLATOON is looking for SMEs[8] that are legally established at the time of application in the following countries:

[7] Applicants' proposed project must be at least at **TRL6** and reach at least **TRL 7 (MVP) by the end of the support programme**. See Annex G of the General Annexes of the Work Programme of Horizon 2020 for TRL definition: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

[8] An SME will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:

- The Member States of the European Union and its Overseas Countries and Territories (OCT),
- Associated Countries to H2020, or
- The United Kingdom.

Applicants participating in the Open Call cannot include any PLATOON partners (or their affiliates or employees).

1.3. What is it in for selected applicants?

The selected applicants, after signing the "Sub-grant Agreement" with FundingBox Accelerator (FBA), will become part of the PLATOON Support Programme, i.e. Technology Transfer Programme 2. The financial support for the programme per Bottom-up Project is depicted below.

Technology Transfer Programme 2
Stage 1: Inception up to €30,000
Stage 2: Development up to €120,000

Bottom-up Projects will receive technical mentoring services provided by the core partners, which is one of the added values of the project.

2. Overview and summary of the evaluation process

The main objective of the external evaluation phase is to provide a score and a recommendation to applicants of the open call issued within the PLATOON project.

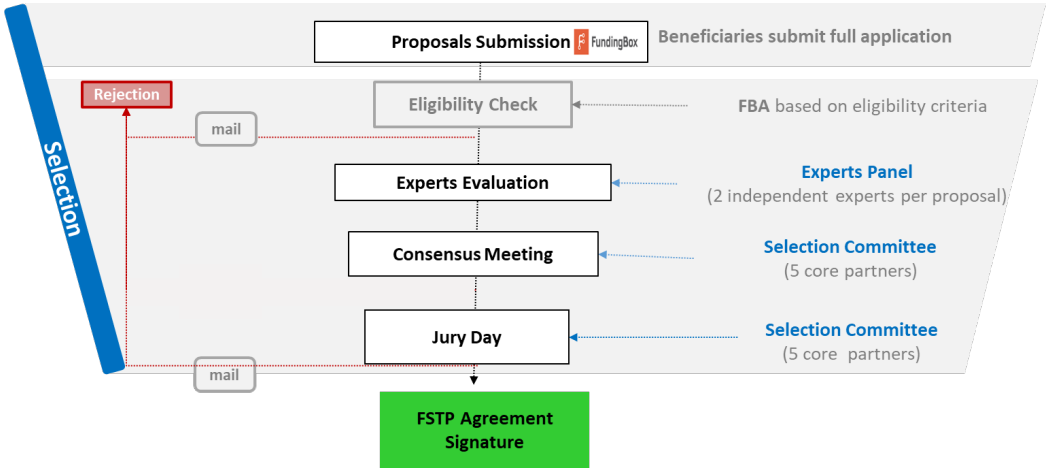
The score will allow building a ranking of applications and identifying the best project ideas that will pass to the next evaluation phase. The score has to be based on a qualitative assessment, considering weaknesses and strengths related to different aspects considered within each of the evaluation criteria.

After the deadline of the 2nd Open Call, the evaluation procedure will start. Evaluation is composed of the following phases:

- Eligibility check (including Minimum Quality Criteria Check),
- External evaluation,
- Consensus meeting,
- Jury Day.

The complete evaluation process is illustrated in the following figure:

• Headcount in Annual Work Unit (AWU) less than 250;
• Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.
Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation:
https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en



Once proposals are received there will be a first automatic eligibility check, which includes a Minimum Quality Criteria check, whereby the applicants need to demonstrate experience in and target **at least 1 out of 4 experimentation areas** (See Section 4.1 of the GfA). This check will be undertaken by three partners from the PLATOON Selection Committee: FBA, ENGIE and TECN.

Afterwards, proposals will be evaluated by two external experts. Once completed, experts will provide a list of final ranking (i.e. a 'Ranking List') of the selected proposals.

In the online Consensus Meeting the Selection Committee will decide by consensus (⅔ majority votes), which projects will be invited to the Jury Day.

2.1. Scoring procedure

Proposals in the list of "Eligible Applicants" will be evaluated by two independent experts on the following criteria:

(1) EXCELLENCE:

- **Project scope of the PLATOON 2nd Open call.** Applicants need to demonstrate how their proposal is in line with the scope of the Open Call. The scope is to extend existing products/services by integrating them into the PLATOON ecosystem (by adopting the developed common reference architecture, data models, APIs, docker specification…) and validating them in PLATOON's 7 large scale pilots.
- **Problem\Need being solved.** Applicants should describe their capabilities in addressing the challenges around the digitisation of the energy domain. Applicants should include relevant experience in other projects in at least one of the following areas: Interoperability, Data Governance, Data analytics and Edge Computing.
- **Ambition:** applicants should describe the innovative approach behind the products/services proposed and about the degree of differentiation that this project will bring regarding the current status quo. Solutions should be aligned with the PLATOON Reference Architecture (see Annex B), common data models, APIs and Docker specification.
- **Technical approach:** Applicants should provide concrete performance and technology standardization targets in one or several of the PLATOON experimentation areas described in the Open Call. Moreover, the proposal should state how such performance targets will be achieved. **Applicants' proposed projects must be at least at TRL 6 and reach at least TRL 7**[9].

[9] See definition in Annex G of the General Annexes of the Work Programme of Horizon 2020: https://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

(2) IMPACT:

- **Market opportunity**: The applicants have to demonstrate a clear idea of what they want to do and whether the proposed concept has market potential, e.g. “Candidates’ project” will solve a problem for a specific target customer. Candidates' projects or solutions proposed must be compliant with the PLATOON Ecosystem.
- **Commercial Strategy and Scalability**: The applicants have to demonstrate the level of scalability of the proposed solution, meaning that it not only solves a specific problem for a specific customer but is able to be commercialised to solve a structural problem in a specific sector/process/etc. If possible, a potential Business plan linked to these solutions should be provided.

(3) IMPLEMENTATION:

- **Team:** The Bottom-up Projects have to demonstrate their technical competencies in at least one of the four experimentation areas listed in Section 3.3, their ability to take a concept from ideas to market, their capacity to carry through their ideas and understand the dynamics of the market they are trying to tap into. The team should be a balanced and cross-functional team, with a strong background and skill set.
- **Resources**. Demonstrate the quality and effectiveness of the resources assigned in order to get the objectives/deliverables proposed. The SME will need to demonstrate their capacity to deliver the core work.

Each evaluator will rank the application assigning a score from 0 to 5 for each criterion according to the following scale:

- 0: The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information
- 1 (Poor): The criterion is addressed inadequately, or there are serious inherent weaknesses
- 2 (Fair): While the proposal broadly addresses the criterion, there are significant weaknesses;
- 3 (Good): The proposal addresses the criterion well, although improvements would be necessary
- 4 (Very good): The proposal addresses the criterion very well, although certain improvements are still possible
- 5 (Excellent): The proposal successfully addresses all relevant aspects of the criterion in question.

The final score will be calculated as an average of the individual assessments provided by the evaluators, where the weight of each criterion is as follows:

Criterion	Scores	Score Threshold
Excellence	From 0 to 5	3
Impact	From 0 to 5	3
Implementation	From 0 to 5	3

The threshold for individual criteria will be 3. The overall threshold, applying to the sum of the three individual scores, will be 10.

If scores of a project show significant divergence between the two evaluators, a third evaluator will be involved to provide an additional independent assessment of this proposal.

Ties will be solved using the following criteria, in order:

- Impact score,
- Implementation score,
- Excellence score,
- Date: only the application's last edit will be considered

A **'Ranking List'** will be elaborated and passed to the next phase.

2.2. The importance of comments and feedback

For the purpose of reaching the objectives of the project and supporting the consortium in selecting the right candidates, it is very important that **evaluators include comments to justify their scores**.
A value-added comment should be included for each of the evaluation criteria. Evaluators' **comments will be shared with the applicants anonymously**, in order to pass on valuable feedback which can help them improve their business ideas independently of the final result of the selection. **Comments are therefore mandatory and cannot be omitted**.
Please read these 5 tips to provide valuable feedback:

- **Use direct wording:** Try to avoid writing about applicants in a third person. The feedback is meant for them, not for other evaluators or experts.
- **Make sure your message is clear:** Express your message in clear language.
- **Make sure your feedback is helpful to the recipient:** The purpose of giving feedback is to improve the applicant's proposal. They might be more receptive when your approach is positive and focused on improvement.
- **Convey your opinion in good intentions:** Provide more positive than negative feedback.
- **Get specific:** Try to give examples whenever it's possible.

If needed evaluators can contact the Selection committee to get further information on the regional contexts and/or objectives of the project.

3. Technical aspects of the evaluation

Evaluation process will be undertaken through FundingBox Platform at https://gear.fundingbox.com/.

The details of the registration procedure are described in Annex I of this GfE. Each evaluator will be granted access to Evaluation Dashboard and will be asked to assess a maximum of 10 applications assigned to him/her. Each evaluation should need, on average, around one hour and a half.

More information about how to evaluate in FundingBox is included in Annex II of this GfE.

4. Evaluation calendar

The evaluation period will have a duration of 2 weeks starting with the expected assignment of applications during the 2nd week of December 2021. The expected deadline for the external evaluation phase is end of December 2021.

5. Evaluators' obligations

The following specific conditions, related to the "*Code of Conduct for Independent Experts*" are shared with the experts appointed as evaluators, to be sure that they will be aligned with PLATOON project principles in terms of expert's evaluation:

- The task of an expert is to participate in a confidential, fair and equitable evaluation of each proposal according to the procedures described in this guide and in any programme-specific evaluation document. The expert must use its best endeavours to achieve this, follow any instructions given by the 'PLATOON Team' to this end and deliver a constant and high quality of work.
- The expert works as an independent person. He/she is deemed to work in a personal capacity and, in performing the work, does not represent any organisation.
- The evaluators must sign a Contract, by which they accept the present Code of Conduct. Evaluators must sign a Contract before starting the work. Invited experts who do not sign the Contract will not be allowed to work as an evaluator.
- In doing so, the expert commits him/herself to strict confidentiality and impartiality concerning his/her tasks.
- If an expert has a conflict of interest with a proposal, he/she must declare such facts to the responsible contact person designated by the evaluation organisers as soon as he/she becomes aware of this.
- Experts may not discuss any proposal with others, including other experts or personnel of the evaluation organisers not directly involved in the evaluation of the proposal, except during the formal discussion at the meetings moderated by or with the knowledge and agreement of the responsible contact person from the 'PLATOON Team'.
- Experts may not communicate with applicants. No proposal may be amended during the evaluation session. Experts' advice to the 'PLATOON Team' on any proposal may not be communicated by them to the applicants or to any other person.
- Experts are not allowed to disclose the names of other experts participating in the evaluation.
- As the proposals are to be available electronically to experts, who will work from their own or other suitable premises, the expert will be held personally responsible for maintaining the confidentiality of any documents or electronic files sent and for returning, erasing or destroying all confidential documents or files upon completing the evaluation as instructed. In such instances, experts may seek further information (for example through the internet, specialised databases, etc.) in order to allow them to complete their examination of the proposals, provided that obtaining such information respects the overall rules for confidentiality and impartiality. Experts may not show the contents of proposals or information on applicants to third parties (e.g. colleagues, students, etc.) without the express written approval of the 'PLATOON Team'. It is strictly forbidden for experts to make contact with applicants.
- Experts are required at all times to comply strictly with any rules defined by the PLATOON Team for ensuring the confidentiality of the evaluation process and its outcomes. Failure to comply with these rules may result in exclusion from the immediate and future evaluation processes.

6. Processing of personal data

To the extent that the activities of the Expert or the services provided by it involve the processing of personal data held by FundingBox, FundingBox authorizes Expert to process those data. The Expert shall comply with the following obligations:

- to process personal data in accordance with the instructions given in this agreement;
- to use personal data included in the application forms only to evaluate those proposals;
- do not apply or use personal data for any purpose different then evaluation of the assigned proposals;
- do not transmit personal data, not even for its preservation, to any third party;
- do not copy any of the data included in the proposal;
- to return to FundingBox the personal data, as well as any support or document in which they appear at the termination of the contractual relationship;
- do not give access to the applications to any other person and/or institution
- to apply all technical and organizational security measures adequate to the level of risk that secure personal, among others to:
    - do not share your pass password to the Funndingbox.com platform to anyone;
    - do not use public networks, use only secured internet connections;
    - do not use computer that might be accessed by other persons;
    - log out after each session;
    - do not let your internet browser keep your password to the assessment platform.

Authorisation to process personal data is valid until completion of the Contractor's tasks.

Annex I: Registration and application submission

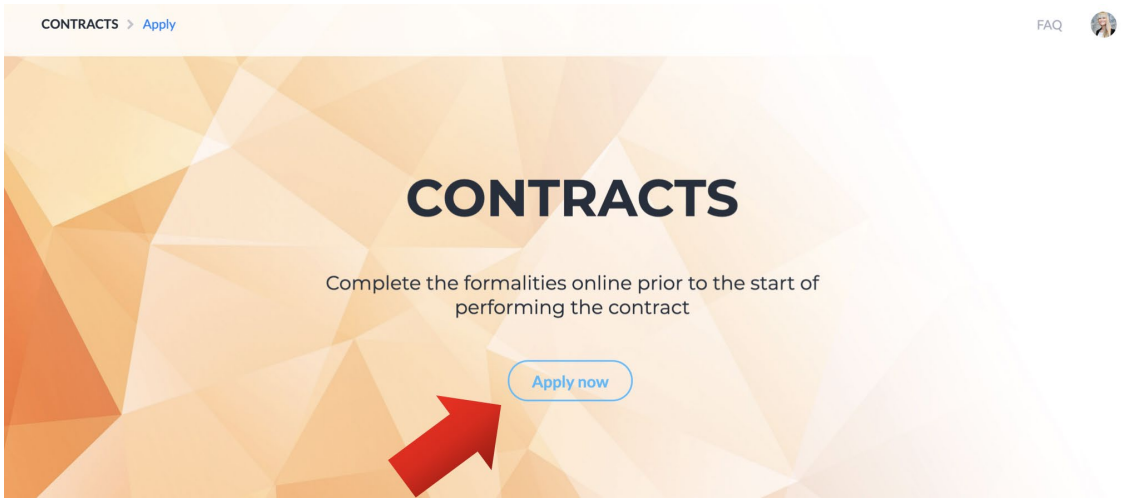
1st Step: Register as a user

First step is to register yourself on the FundingBox platform. Access the FundingBox Platform at https://spaces.fundingbox.com/ and click on the **"Signup"** button in the top right corner of the page in order to be redirected to the registration page. Alternatively, access https://spaces.fundingbox.com/signup to proceed with the registration.

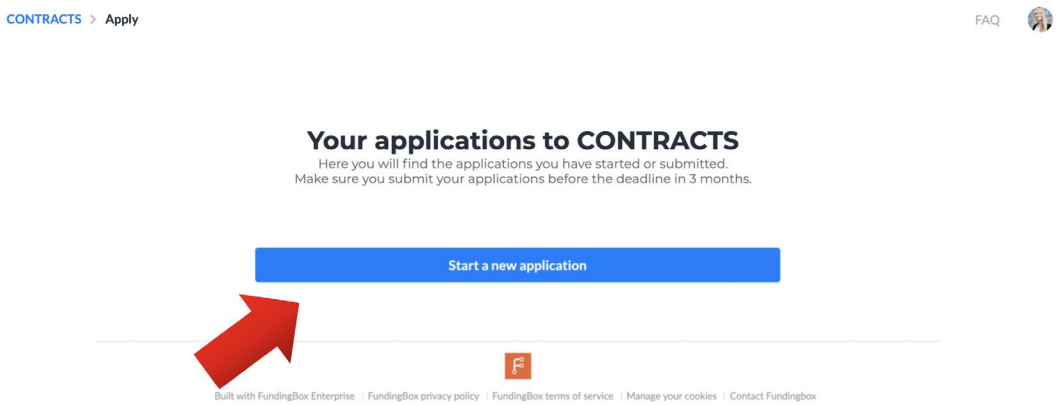
2nd Step: Submit the application

Once your profile is created/verified, you can now submit your application at https://contracts.fundingbox.com/. Please see below instructions for application submission.

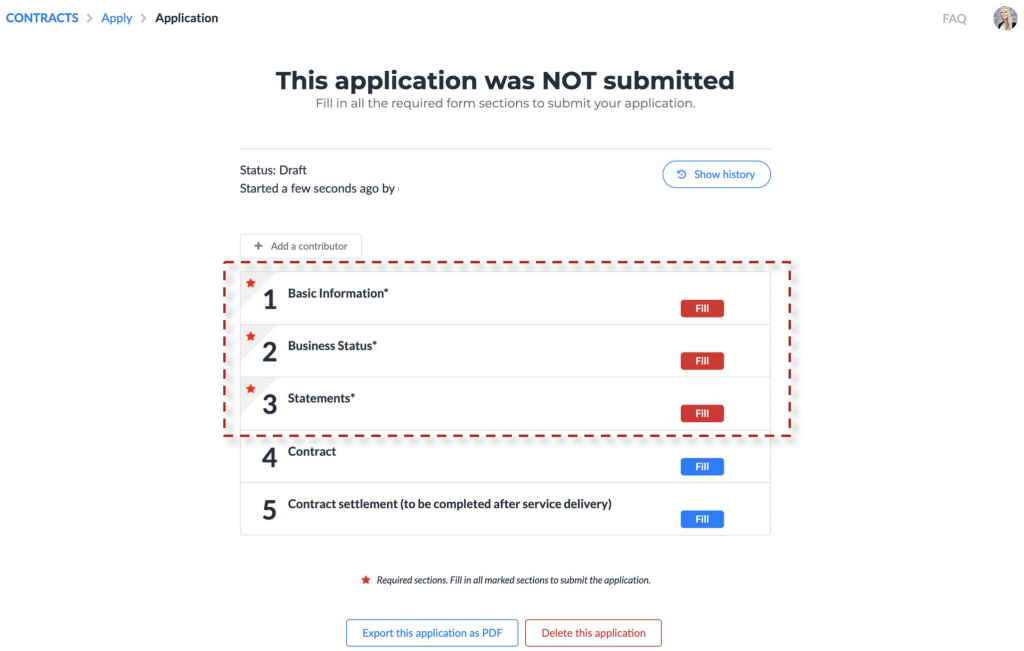
First, click on the "Apply now" button as indicated on the picture below.



You will then be redirected to the next page where you should click on the "Start the new application" button, see below.



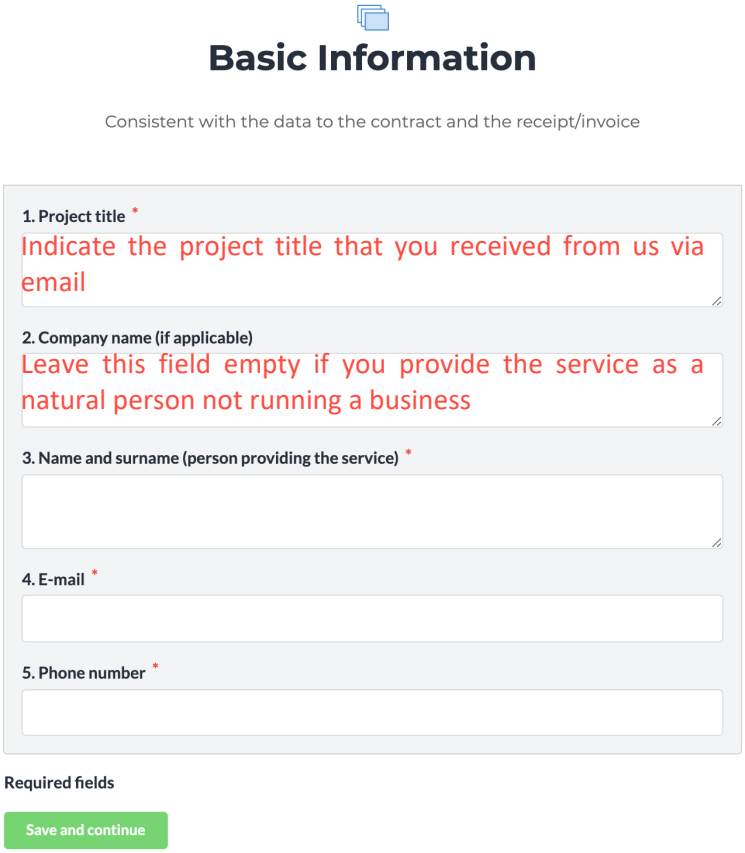
Afterwards, you will be required to fill in Sections 1-3. After you have filled in these sections, submit the application. You will be able to edit the application later, if necessary.



Sections 1-3 are required in order to receive your contract. We will provide you with the contract based on the data that you included in Sections 1-2. Please see below important aspects to bear in mind when filling in Sections 1-3.

Section 1:

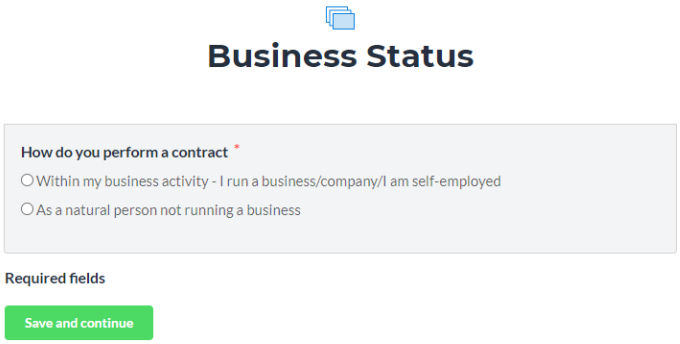
- Indicate the “Project title”, see picture below.
- **IMPORTANT!** ”Company name” is the name of the company that will issue the invoice to FundingBox. The field must be left empty if you provide the service as a natural person not running a business.



Section 2:

Please note that in Section 2 you can choose your legal/business status as follows (see picture below):

- ***Option: "Within my business activity - I run a business/company/I am self-employed".*** This option is for a legal person only, i.e. private (e.g. business entity or non-governmental organization), or public (e.g. government) organizations. You should fill in the data of your company that will issue the invoice.
- ***Option: "As a natural person not running a business".*** This option is only for a natural person who is not running a business.



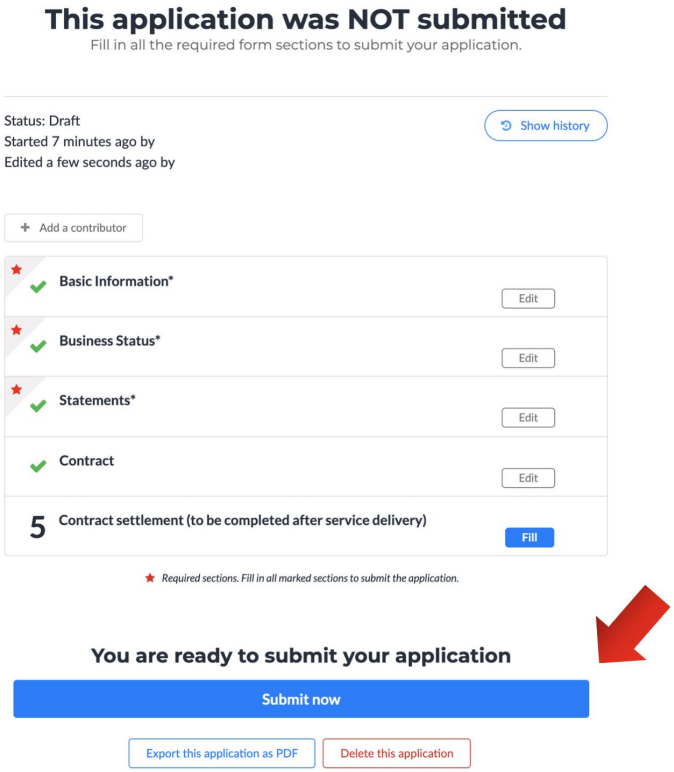
After choosing one of the options, fill in all the data associated with your business activity or personal data (in the case of a natural persons). Please be aware that for natural persons, FundingBox is obliged

to prepare a tax statement at the end of each fiscal year (till the end of February in the following year), that is why we need to gather a lot of your personal data.

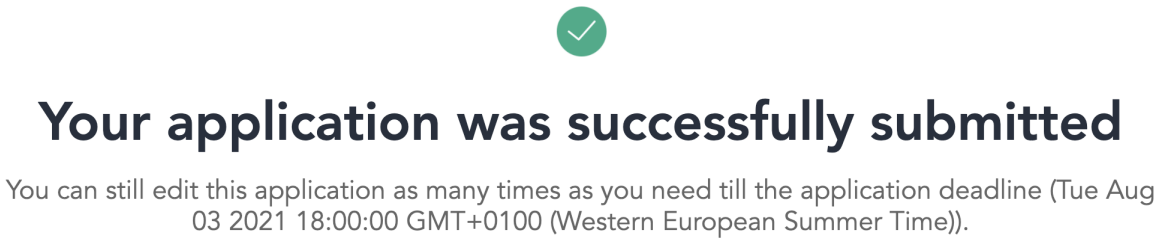
Remember to indicate your **TAX ID number** (TIN) or your company **EU-VAT (or a company TAX ID/TIN) number** in the application form. Please refer to links below if you are unsure of your TAX ID number:

- https://www.oecd.org/tax/automatic-exchange/crs-implementation-and-assistance/tax-identification-numbers/
- https://ec.europa.eu/taxation_customs/vies/?locale=en

When Section 1-3 are filled in, click on the "Submit now" button as indicated on the photo below.



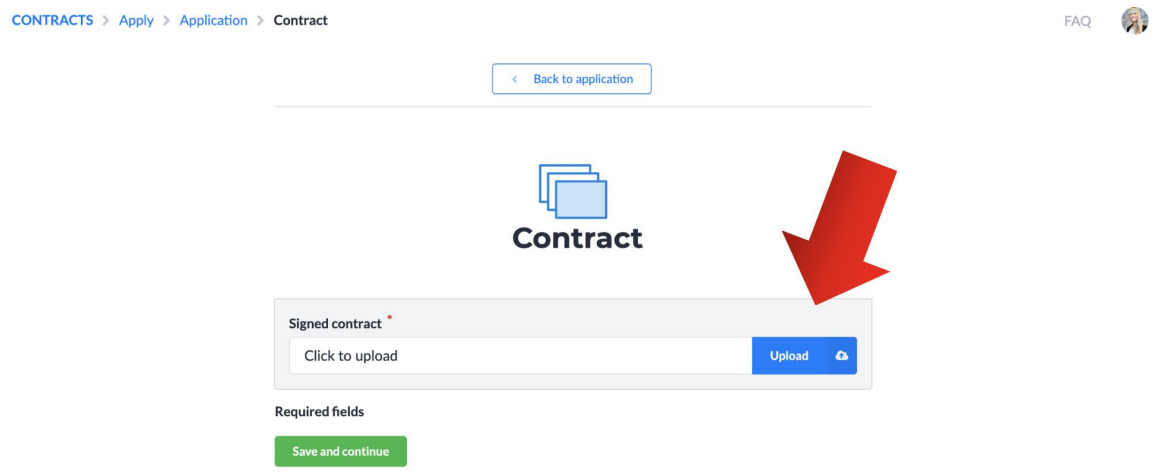
As a result, you should see the following status of your application:



If you experience any kind of problem related to the FundingBox Platform, inform the our Team by sending an email Kasia Goj (katarzyna.goj@fundingbox.com).

Our team will verify all the data, and after that, you will become a member of the evaluation panel, and the evaluations will be assigned to you. Please be aware that the assignment of the proposal just will be made if your contract was appropriately submitted.

Section 4 is used to upload your signed contract. Fill in Section 4 by uploading your contract, as depicted below.

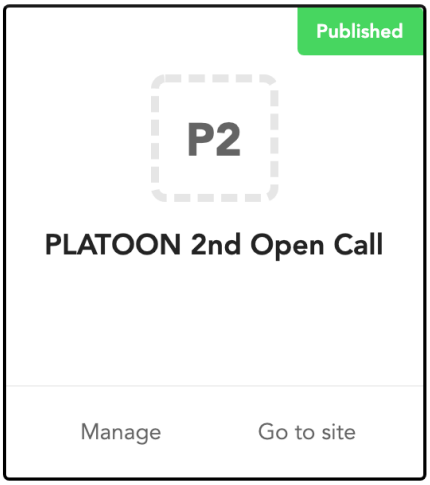


Section 5 will be completed at a later stage, once the services are delivered.

Annex II: Fundingbox evaluation instructions

Evaluation process will be made on FundingBox Platform. Once a FundingBox user is registered he/she will have granted access to the Evaluation Dashboard.

1. FundingBox Login: Access FundingBox Platform at https://gear.fundingbox.com/, click on "Log in" and use with your FundingBox user. Once you are in you will see the *PLATOON 2nd Open Call* to which you were invited.

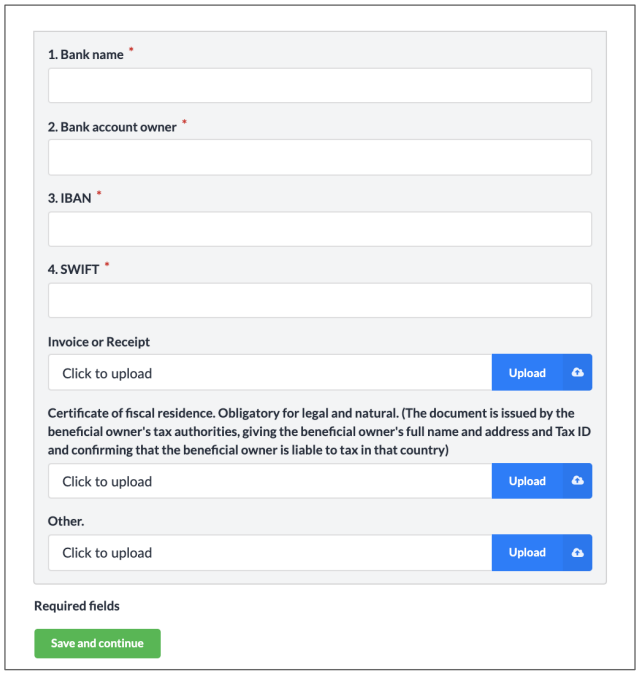


2. Click the Open Call to see the list of applications assigned to you. You can also access the list in the Menu (at the top left corner of the screen) -> Data -> Evaluations.
3. Each Expert should review the applications assigned in order to check if there is no conflict of interest between the evaluator and the applicant. If any conflict arises it should be immediately communicated to the open call manager. After this date there will be no possibility to change the assigned applications.
4. Next to each application you will see a button to fill in the evaluation form assigned to you.
5. Fill in all required fields (including comments).
6. You can edit your evaluations as many times as you need before the deadline. Once the deadline has passed you can't edit them.

Annex III: Payment procedure

1. **The Payment procedure starts after last task resulting from this contract.** Please, fill in Section 5 in the previously submitted application on the platform at https://contracts.fundingbox.com/

2. **Follow the template provided below.** All fields are required to fill in.



3. Bank account details.

Payment will be made in EUR (or in PLN in special cases), therefore you have to provide a **EUR/PLN bank account**. Otherwise, you will bear all currency conversion costs. The bank account details should include the following:

- Bank name;
- Bank account owner;

- Account number/IBAN;
- SWIFT/BIC.

Otherwise, the payment might be delayed, and you will bear the cost of the payment. Please be aware that bank account details indicated in the application must be the same as those on the invoice/receipt (if included there). The cost of bank transfers is borne as follows:

- FundingBox bears the cost of transfers charged by its bank;
- You bear the cost of transfers charged by your bank;
- The party causing a repetition of a transfer bears all costs of the repeated transfer.

Payment will be made within 30 calendar days after the completion of your contractual obligations and the submission of all additional required documents (signed contract, properly issued invoice/receipt, CFR).

4. The invoice/receipt needs to be issued to:

The invoice/receipt needs to be issued in line with your national law and contain as a minimum:

- the date of issue;
- your company/personal data;
- the total amount coherent with the contract;
- the description ***provided by us via e-mail****;*
- FundingBox legal data ***provided by us via e-mail while asking you to issue the invoice or receipt*** *(please don't forget to indicate our VAT number).*

5. Certificate of fiscal residence

The purpose of this certificate is to help you avoid double taxation. For more information you could either ask your national tax authority, or have a look here: https://europa.eu/youreurope/citizens/work/taxes/income-taxes-abroad/index_en.htm

Please note that you are obliged to deliver a valid **Certificate of Fiscal Residence** (CFR) before the payment of the remuneration. In case that you fail to deliver this certificate, the remuneration might be reduced by the additional tax (ca 20%) that FundingBox must pay due to the lack of the certificate.

The certificate of fiscal residence is valid for the period it was issued. If no such period is indicated, it's valid for 12 months counting from the date of its issuance.

When possible, **the CFR**, issued by your national tax authorities, **must mention the treaty between Poland and your country of fiscal residence for the avoidance of double taxation.**

In some countries receiving the CFR takes a lot of time, so it's better to apply for it at the beginning of the process. You need to submit the CFR once the service has been delivered and before the payment is released by us. Please note that the CFR may not be replaced by any alternative document! In case of doubts please check with your tax authorities.

Please upload the online version of the CFR or the scanned copy of the original. Note that copies are acceptable only up to 10 000 PLN/fiscal year (around 2 300 EUR/fiscal year). It means that if you earn more than 10 000 PLN through FundingBox per fiscal year, we will request an original version to be sent by post (or the online version uploaded onto the platform if you have previously uploaded only a scanned copy).

Payment is considered to be carried out on the date on which the FundingBox account is debited.

Please note that as the contract is concluded under the Project that is funded by the European Commission under H2020, you are obliged to deliver any additional documentation requested by

FundingBox after the contract is completed, if that request results from the audit run by the EC or another authorised body.

APPLICATION FORM

Form preview

This is how the form will render.

BASIC INFORMATION

Project acronym

Short name of your proposal

Project name *

Your project will be identified by this name

Name of the contact person *

Please, use your complete name (first name and last name)

Email *

Please enter only one email address in format: mail@mail.eu

Phone *

Please add the country code as well

Organization website URL (https://... or http://...)

Include here the link to your site, if available

I would like to receive more information about other funding opportunities

Yes

https://gear.fundingbox.com/opencalls/cad8066a2a4fb3d9e21c9b2d/form 1/10

No

LEGAL INFO

Type of applicant: *

- Organization
- Natural person(s)

Type of organization. Please be aware that you need to be an SME to be eligible. See definition for 'SME' in the Guide for Applicants *

- Small and mid-size enterprises (SME)
- Slightly bigger company
- Middle-capitalization company (Mid-cap)
- Large company
- Research and Technology Organization (RTOs)
- Universities
- Non-profit organizations(NGOs, Foundation)
- Digital Innovation Hubs (DIHs)

Legal name of your organization *

The legal name in the country where the organization is registered.

VAT no.

Your company's VAT no.

Years of operation. Number of years (or fractions) since incorporation/establishment or number of years of experience. *

Organization size. Number of people employed in the organisation.

- 0-1
- 2-9
- 10-49
- 50-249

250-1000

1000+

Organization city

Organization country *

PROJECT

Brief Description *

Tell us about the project which you would like to develop within the PLATOON Support Programme (max. 1000 characters including spaces).

MINIMUM QUALITY CRITERIA

Minimum Quality Criteria (1 out of 4) [Minimum compliance = 1/4]: Experience in and target Digital Interoperability (APIs and Data models) *

Yes No

Minimum Quality Criteria (2 out of 4) [Minimum compliance = 1/4]: Experience in and target Data governance, security, privacy and sovereignty *

Yes No

Minimum Quality Criteria (3 out of 4) [Minimum compliance = 1/4]: Experience in and target Data Analytics applications in energy (e.g. Energy usage optimization, Predictive maintenance, Demand forecast etc.) *

Yes No

Minimum Quality Criteria (4 out of 4) [Minimum compliance = 1/4]: Experience in and target Edge computing (SW/HW) *

Yes No

EXCELLENCE

Project Scope *

Describe why you are a good fit for PLATOON? See the scope, experimentation areas and building blocks' description in GfA (Section 3.3, Annex A & B) (max. 1000 characters including spaces).

The problem and/or need you are trying to solve *

What is the problem that you will be solving? Describe your capabilities in addressing these problems, including relevant experience in other projects concerning the 4 minimum quality criteria listed above. (max. 1000 characters including spaces).

Ambition *

Describe your innovation, and how it solves the problem explained above. Discuss what value it brings (for example in terms of energy savings, privacy or trust, scalability, reliability, etc). Describe how your solutions align to the PLATOON Reference Architecture and specify which part of the PLATOON architecture you will be focusing on (see Annex C of the GfA). (max. 1000 characters including spaces).

Technical Approach *

Explain the technology you use in order to illustrate how your idea works (e.g. describe what libraries are being used, are any technologies open source or proprietary etc.). Provide concrete performance and technology standardization targets in one or several of the PLATOON experimentation areas described in the Open Call. Moreover, state how such performance targets will be achieved. Your proposed project must be at least at TRL 6 and reach at least TRL 7 (see definition of TRL in GfA). (max. 1000 characters).

TRL Level of developed solution at the end of support programme

Describe expected TRL level at the end of the Technology Transfer Programme (max. 500 characters).

TRL Level of proposed solution at the start of the support programe *

Describe current TRL level at the moment of filling this application. (max. 500 characters).

IMPACT

Market opportunity *

Demonstrate a clear idea of what you want to do with your solution and whether your solution has market potential (e.g. enriching the PLATOON marketplace). (max. 1000 characters including spaces).

Commercial Strategy and Scalability *

Demonstrate the level of scalability of the proposed solution, meaning that it not only solves a specific problem but is able to be commercialised to solve a structural problem in a specific sector/process/etc. If possible, a business plan linked to these solutions should be provided. (max 1000 characters including spaces).

IMPLEMENTATION

Team introduction *

Introduce yourself/your team. Who are you, your team members and / or yourself. Have you already worked together? Also, provide experience of related projects you have been involved in. (max. 500 characters including spaces).

Team member - Coordinator (Contact person)

Team member - Coordinator (Contact person)

Name *

Please, use complete name (first name and last name)

Gender *

- Female
- Male
- Don't want to share this info

Role *

Short indication of the role of this person in the proposal

CV Link (e.g. LinkedIn Profile) It will be used by Reviewers as your CV. *

http://...

Background Link to previous/on-going project *

http://...

Team members

Team members

Name

Please, use complete name (first name and last name)

Gender

- Female
- Male
- Don't want to share this info

Role

Short indication of the role of this person in the proposal

CV Link (e.g. LinkedIn Profile) It will be used by Reviewers as your CV.

http://...

Background Link to previous/on-going project

http://...

Press the green (+) button above to add next team member

Work Plan and Resources to be committed

Work Plan *

Break your project into major milestones and describe each milestone and how to verify them. (max 1000 characters including spaces)

Resources *

Indicate how you will use the PLATOON funding, with a breakdown of human resources and costs associated to the project. (max 1000 characters including spaces)

Grant total *

Indicate the total amount of the grant that you are requesting (max amount is €1

Dedication to the project *

How much time will each team member spend on the project? (full time, 50%, 25%, etc) (max 1000 characters including spaces)

Has your company received financial support via open calls (FSTP) from Horizon 2020? *

Yes No

STATISTICAL SECTION

How did you hear about PLATOON? Select from one of the options *

- Social media
- Mailing
- Friends
- FundingBox newsletter or communities
- Events
- Project Website
- Other

Do you have experience with H2020 Projects? Select "yes" option if you have received H2020 funding or financial support to third parties *

Yes No

DECLARATION OF HONOUR

I have read and understood the information about the project, as provided in the Guide for Applicants (GfA) *

Yes No

I have been given the opportunity to ask questions about the project and my participation via helpdesk address *

Yes No

I voluntarily agree to participate in the PLATOON project *

Yes No

I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn *

Yes No

I acknowledge that the evaluators and the European Commission and its bodies and agencies may have access to the data collected under the open call *

Yes No

The data provided in the application form are true and up-to-date *

Yes No

The entity I represent meets the eligiblity conditions described in the GfA, in particular is an SME *

Yes No

There is no conflict of interest between the company I represent and any of the consortium partners *

Yes No

The entity I represent nor the persons with power of representation, decision-making or control over the above-mentioned legal entity, is not in one of the following situations:

it is bankrupt or being wound up, is having its affairs administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings concerning those matters, or is in any analogous situation arising from a similar procedure provided for in national legislation or regulations; *

Yes No

it or persons having powers of representation, decision making or control over it have been convicted of an offence concerning their professional conduct by a judgment which has the force of res judicata *

Yes No

it has been guilty of grave professional misconduct proven by any means which the contracting authority can justify including by decisions of the European Investment Bank and international organisations *

Yes No

it is not in compliance with its obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which it is established or with those of the country of the contracting authority or those of the country where the contract is to be performed *

Yes No

it or persons having powers of representation, decision making or control over it have been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity, where such illegal activity is detrimental to the Union's financial interests *

Yes No

it is subject to an administrative penalty for being guilty of misrepresenting the information required by the contracting authority as a condition of participation in a grant award procedure or another procurement procedure or failing to supply this information, or having been declared to be in serious breach of its obligations under contracts or grants covered by the Union's budget. *

Yes No

I did not make false declarations in supplying the information required, as a condition of participation in the Open Call or does not fail to supply this information *

Yes No

PROCESSING OF PERSONAL DATA

I confirm that I read and understood the information clause concerning processing of the personal data provided above. *

Yes No

I confirm that I have legal basis for processing personal data of the team members listed in the application form. *

Yes No

I will pass the information clause provided above to all team members mentioned in the application form. *

Yes No

Internal Review 1

Mark with X the corresponding column:

Y= yes	N= no	NA = not applicable

Name of reviewer: Begoña Molinete
Organisation: Basque Energy Cluster (CEPV)
Date: 27/09/2021

ELEMENT TO REVIEW	Y	N	NA	Comments	Author
FORMAT: Does the document …?					
…include editors, deliverable name, version number, dissemination level, date, and status?	X				
… contain a license (in case of public deliverables)?			X		
… include the names of contributors and reviewers?	X				
… contain a version table?	X				
… contain an updated table of contents?	X				
… contain a list of figures?	X				
… contain a list of tables?	X				
… contain a list of terms and abbreviations?	X				
… contain an Executive Summary?	X				
… contain a Conclusions section?			X		
… contain a List of References (Bibliography) in the appropriate format?					
… use the fonts and sections defined in the official template?	X				
… use correct spelling and grammar?	X				
… conform to length guidelines (50 pages maximum (plus Executive Summary and annexes)			X	The deliverable is actually a package of documents, which individually meet the length guidelines	BM
… conform to guidelines regarding Annexes (inclusion of complementary information)	X				
… present consistency along the whole document in terms of English quality/style? (to avoid accidental usage of copy & paste text)	X				
About the content…					
Is the deliverable content correctly written?	X				
Is the overall style of the deliverable correctly organized and presented in a logical order?	X				
Is the Executive Summary self-contained, following the guidelines and does it include the main conclusions of the document?	X			The deliverable is a set of informative documents. Therefore, conclusions are not strictly required.	BM
Is the body of the deliverable (technique, methodology results, discussion) well enough explained?	X				

Are the contents of the document treated with the required depth?	X				
Does the document need additional sections to be considered complete?		X			
Are there any sections in the document that should be removed?		X			
Are all references in the document included in the references section?			X		
Have you noticed any text in the document not well referenced? (copy and paste of text/picture without including the reference in the reference list)		X			
TECHNICAL RESEARCH WPs (WP2-WP5)					
Is the deliverable sufficiently innovative?					
Does the document present technical soundness and its methods are correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					
VALIDATION WP (WP6)					
Does the document present technical soundness and the validation methods are correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					
DISSEMINATION AND EXPLOITATION WPs (WP8 & WP9)					
Does the document present a consistent outreach and exploitation strategy?					
Are the methods and means correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					

SUGGESTED IMPROVEMENTS

PAGE	SECTION	SUGGESTED IMPROVEMENT
45	GfA-Annex D	Minor amendment suggested: in the last paragraph, the test “1st Open Call” should be updated to “2nd Open Call”.

Please correct the different minor aspects marked in the document as a comment.

CONCLUSION

Mark with X the corresponding line.

X	Document accepted; no changes required.
	Document accepted; changes required.
	Document not accepted; it must be reviewed after changes are implemented.

Please rank this document globally on a scale of 1-5.
(1-Poor; 2–Fair; 3–Average; 4–Good; 5–Excellent)
Using a half point scale.
Mark with X the corresponding grade.

Document grade	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**
								X	

Internal Review 2

Mark with X the corresponding column:

Y= yes	N= no	NA = not applicable

Name of reviewer: Eduardo Jimenez
Organisation: Indra
Date: 27/09/2021

ELEMENT TO REVIEW	Y	N	NA	Comments	Author
FORMAT: Does the document …?					
…include editors, deliverable name, version number, dissemination level, date, and status?	X				
… contain a license (in case of public deliverables)?			X		
… include the names of contributors and reviewers?	X				
… contain a version table?	X				
… contain an updated table of contents?	X				
… contain a list of figures?	X				
… contain a list of tables?			X	There are not any explicit references	EJ
… contain a list of terms and abbreviations?	X				
… contain an Executive Summary?	X				
… contain a Conclusions section?			X		
… contain a List of References (Bibliography) in the appropriate format?		X		There are not any explicit references	EJ
… use the fonts and sections defined in the official template?	X				
… use correct spelling and grammar?	X				
… conform to length guidelines (50 pages maximum (plus Executive Summary and annexes)			X	Same comment as reviewer BM	
… conform to guidelines regarding Annexes (inclusion of complementary information)	X				
… present consistency along the whole document in terms of English quality/style? (to avoid accidental usage of copy & paste text)	X				
About the content…					
Is the deliverable content correctly written?	X				
Is the overall style of the deliverable correctly organized and presented in a logical order?	X				
Is the Executive Summary self-contained, following the guidelines and does it include the main conclusions of the document?	X			Same comment as reviewer BM	
Is the body of the deliverable (technique, methodology results, discussion) well enough explained?	X				

Are the contents of the document treated with the required depth?	X				
Does the document need additional sections to be considered complete?		X			
Are there any sections in the document that should be removed?		X			
Are all references in the document included in the references section?			X	There are not any explicit references	
Have you noticed any text in the document not well referenced? (copy and paste of text/picture without including the reference in the reference list)		X			
TECHNICAL RESEARCH WPs (WP2-WP5)					
Is the deliverable sufficiently innovative?					
Does the document present technical soundness and its methods are correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					
VALIDATION WP (WP6)					
Does the document present technical soundness and the validation methods are correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					
DISSEMINATION AND EXPLOITATION WPs (WP8 & WP9)					
Does the document present a consistent outreach and exploitation strategy?					
Are the methods and means correctly explained?					
What do you think is the strongest aspect of the deliverable?					
What do you think is the weakest aspect of the deliverable?					
Please perform a brief evaluation and/or validation of the results, if applicable.					

SUGGESTED IMPROVEMENTS

PAGE	SECTION	SUGGESTED IMPROVEMENT

Please correct the different minor aspects marked in the document as a comment.

CONCLUSION

Mark with X the corresponding line.

X	Document accepted; no changes required.
	Document accepted; changes required.
	Document not accepted; it must be reviewed after changes are implemented.

Please rank this document globally on a scale of 1-5.
(1-Poor; 2–Fair; 3–Average; 4–Good; 5–Excellent)
Using a half point scale.
Mark with X the corresponding grade.

Document grade	**1**	**1.5**	**2**	**2.5**	**3**	**3.5**	**4**	**4.5**	**5**
								X	