



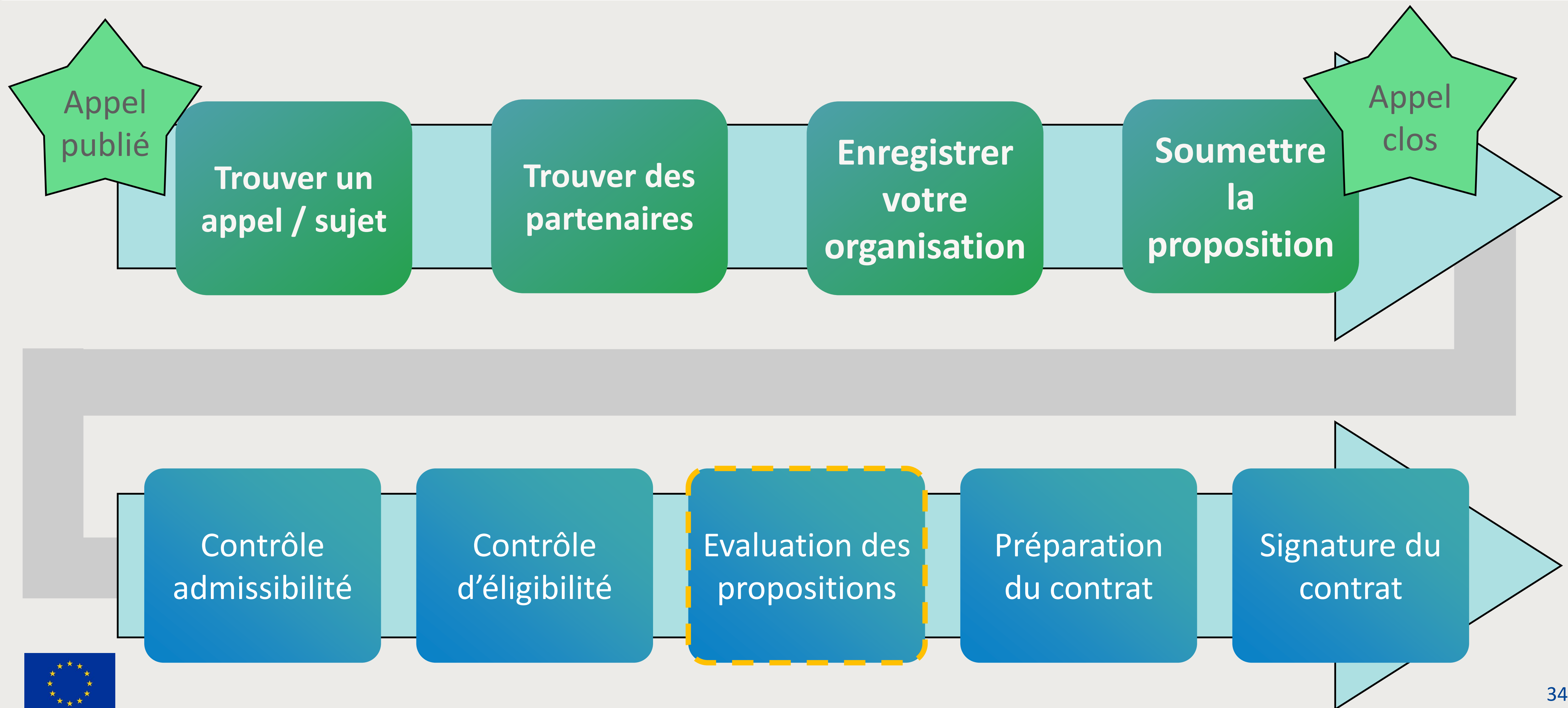
FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING

FCH2 JU Appel à projets 2019

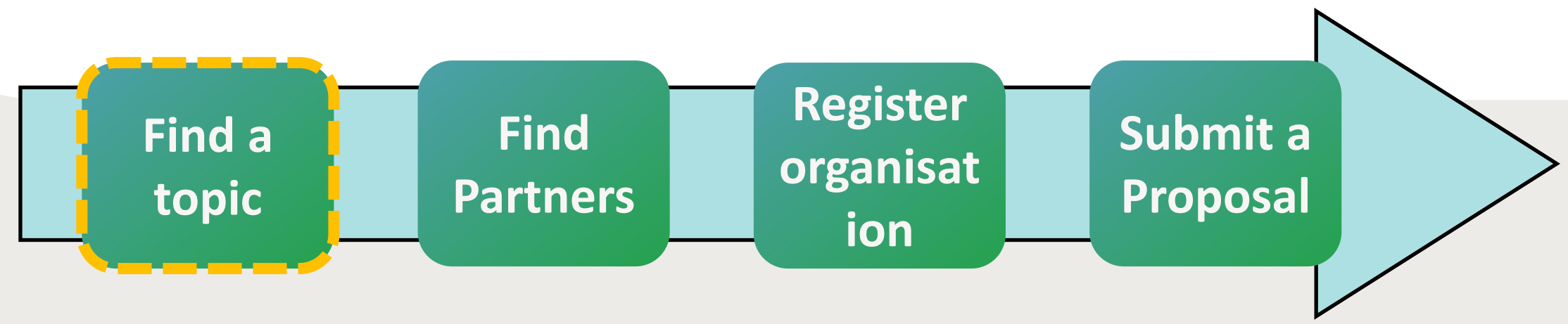
- **Mode d'évaluation**
- **Conseils**

4 Février 2019

Etapes de la publication à la signature du contrat



Finding the 2019 FCH call



Funding & Tender Portal

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

Search Funding & Tender

Type « FCH »

List of 17 topics – Call 2019

European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

Search: fch

Match whole words only:

GRANTS: TENDERS:

Filter by submission status: FORTHCOMING (selected), OPEN, CLOSED

Filter by programme (only for grants): Select a Programme...

Filter by call for tender: Select a Call...

Clear filters

Funding and tenders | Sort by: opening date | title

17 results

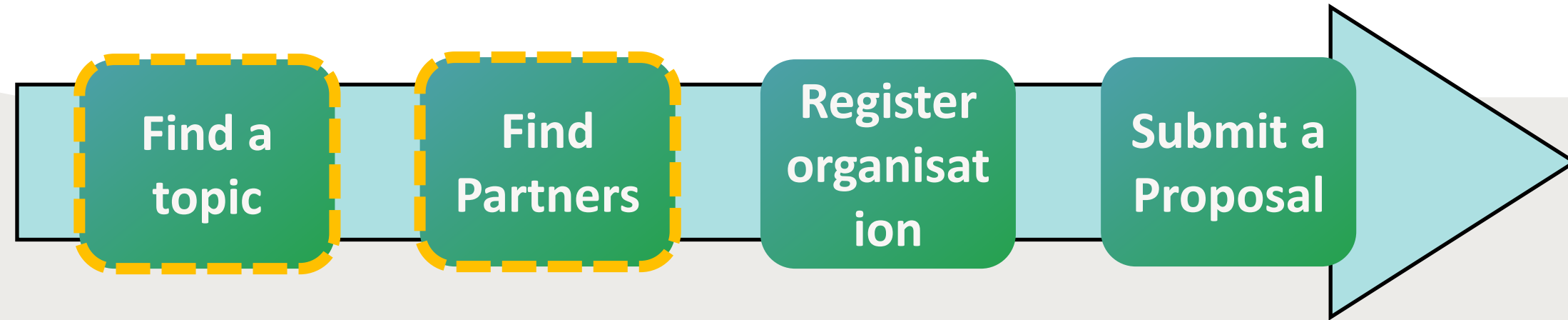
Download all funding and tender opportunities to your calendar or subscribe to the RSS feed (unfiltered).

See all calls for tenders published by EC

- Grant: **Demonstrating the blueprint for a zero-emission logistics ecosystem FCH-01-1-2019**
Types of action: Innovation action | Programme: Horizon 2020
Forthcoming | Opening date: 15 January 2019
- Grant: **Scaling up and demonstration of a multi-MW Fuel Cell system for shipping FCH-01-2-2019**
Types of action: Innovation action | Programme: Horizon 2020
Forthcoming | Opening date: 15 January 2019



Topics details and partner search



Topic description

Topic conditions and documents

Partner search

Submission

- Templates of proposals
- On-line tool for submission

Support and Guidance

- H2020 Online Manual
- HOW TO

European Commission | Funding & tender opportunities | Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

Archived funding (FP7-CIP)

Jan 15, 2019

Demonstrating the blueprint for a zero-emission logistics ecosystem

ID: FCH-01-1-2019

Type of action: FCH2-IA Innovation action | Deadline Model: single-stage | Planned opening date: 15 January 2019 | Deadline: 23 April 2019 17:00:00 Brussels time | Forthcoming

Horizon 2020

Work programme: H2020-JTI-FCH-2019 | Work programme year: H2020-JTI-FCH-2019

Call name: FCH2 JU call for proposals 2019 | Call ID: H2020-JTI-FCH-2019-1 | See all topics of this call

See budget overview

Topic description

Regulations for indoor operations of vehicles and the intensified discussion on air quality for industrial areas (harbours, chemical sites, wholesale markets) demand zero emission drive trains for various kinds of vehicles. Electric vehicles are commonly regarded as the suitable answer. Considering that most operators are procuring battery electric vehicles to meet air quality regulations, the challenge for fuel cell logistic and production vehicles will be to demonstrate the distinct operating advantages of those in comparison to battery solutions. For example, battery-based solutions are often lacking a sufficient operating time in industrial applications (especially in sites with 3 working shifts or 14 hours of operation per day), need relatively long time for recharging, require precious space for the recharging infrastructure or for the storage of replaceable batteries, are unable to work in refrigerated areas and are therefore, not suitable as a replacement of conventionally propelled vehicles.

Previous EU/FCH 2 JU projects on FC based Material Handling Vehicles (MHV) like HAWL, HyLIFT-DEMO and HyLIFT-Europe and especially the success of FC forklifts in the USA (more than 20,000 units in operation) have shown the general technical feasibility on one hand and a realistic potential of an economic operation on the other. However, costs for both FC based logistic vehicles and the necessary infrastructure are still too high in comparison to battery or combustion engine-based solutions. Likewise, beyond forklifts ($2.5t$) other

show more...

Topic conditions and documents

- 1. Eligible countries:** described in Annex A of the H2020 main Work Programme.
A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the Online Manual.
- 2. Eligibility and admissibility conditions:** described in Annex B and Annex C of the H2020 main Work Programme.

show more...

Partner Search

1 Organizations are looking for collaborating partners for this topic:

View / Edit

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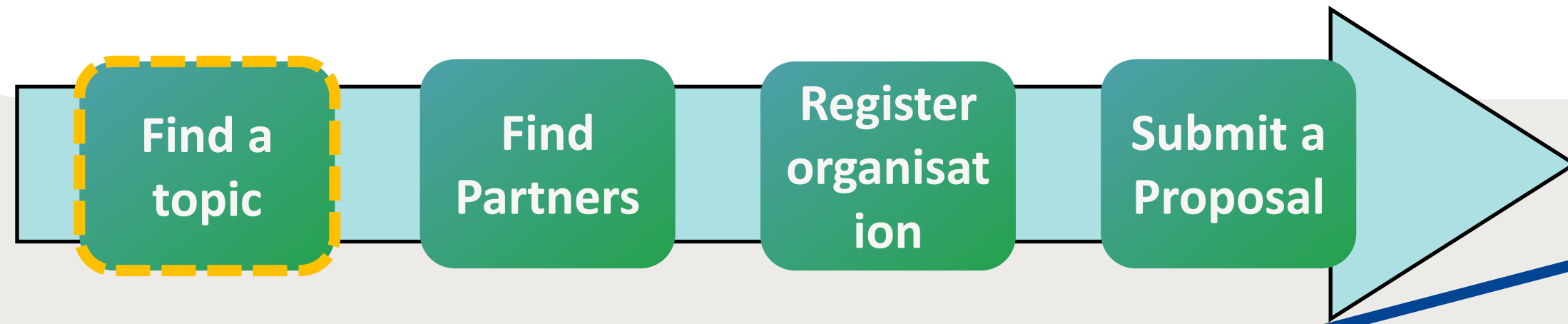
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Get support



Topic description



Specific Challenge

- Context of the topic

Scope

- Operational requirements and focus
- TRL
- Consortium composition
- Indicative budget
- Expected duration
- ...

Expected Impact

- Technical targets
- Costs reduction
- Contribution to policies (env., indus., ...)
- ...

Out-of-scope proposals = ineligible

Topic Description

Specific Challenge:
Mini combined heat and power fuel cell systems (mini-CHP) are energy conversion devices in the range of 5-10 kW and constitute a promising technology to satisfy local demands for heat residential or commercial scale applications, not only for primary power but also for heating. Such system must be able to offer an addition to intermittent RES power production with high efficiency.

Prior projects on HTPEMFCs focused on the increase of electrical efficiency and performance on the stack level. This topic requests to tackle the performance and efficiency of the CHP system to recover the maximum amount of the fuel cell's wasted heat thus, aiming to system's level electrical efficiencies up to 55% (LHV). Furthermore, the design and construction of compact systems are required.

Scope:
The overall objective of this topic is to develop, manufacture and validate in a relevant environment mini-CHP energy conversion device using HTPEMFCs technology at 5 kW. The development should focus on reducing the start up time and improve the dynamic response, the volume power density, and simplify the Balance of Plant, as well to increase the durability of a mini-CHP system. Activities on materials and components should be carried out in a relevant environment. If possible, it is encouraged to reach TRL6 by the end of the project.

The project should aim at both high electrical efficiency and performance as well as high volumetric power density of the mini-CHP system. The topic should therefore aim at the following:

- Validation of system's 50-55% (LHV) DC electrical efficiency depending on fuel (NG, LPG or MeOH) and more than 90% overall efficiency and volumetric power density 10-20 W/l. To achieve this, the project should focus on:
 - Improvements or design innovations of the fuel processor and/or the HTPEM stack so that their effective thermal coupling into the system's BoP will reach DC electrical efficiency up to 55% (LHV);
 - Improved BoP design through new concepts for the efficient use of the high temperature heat produced with focus on heating, cooling or additional electricity production;
- The mini CHP unit should be compact with high volumetric power density, according to the KPIs mentioned below. The robustness of the system should be proven with accelerated start up operation.

The projects should increase the state of the technology from TRL3 to TRL5.

The consortium should include at least two industrial partners comprising fuel cell system-core component suppliers (MEA, stack or reformer) and a system integrator with clear perspective on commercialisation.

Activities should build on past experience and achievements, for example, from earlier FCH 2 JU funded projects (e.g. DeMStack, IRMF, CISTEM, etc.).

Any safety-related event that may occur during execution of the project shall be reported to the European Commission's Joint Research Centre (JRC) dedicated mailbox JRC-PTT-H2SAFETY.

Test activities should collaborate and use the protocols developed by the JRC Harmonisation Roadmap (see section 3.2.B "Collaboration with JRC – Rolling Plan 2019"), in order to benchmark the system performance.

The maximum FCH 2 JU contribution that may be requested is EUR 1.5 million. This is an eligibility criterion – proposals requesting FCH 2 JU contributions above this amount will not be eligible.

A maximum of 1 project may be funded under this topic.

Expected duration: 3 - 4 years.

Expected Impact:
The project should:

- Prove the scalability of the components, systems and processes cost reduction for systems up to 50 kW;
- Strengthen the EU knowledge on the CHP technology and result in strong synergies or joint ventures including beyond the consortium for the manufacturing of viable and competitive systems;
- Show that can produce cheap and secure electricity with low carbon footprint according to the KPIs mentioned below;
- Support the RES system with an always available, highly efficient and flexible power source (fast start up in less than 15 min and dynamic adaptation during variable power demand variations).

Additional specific KPIs include the following:

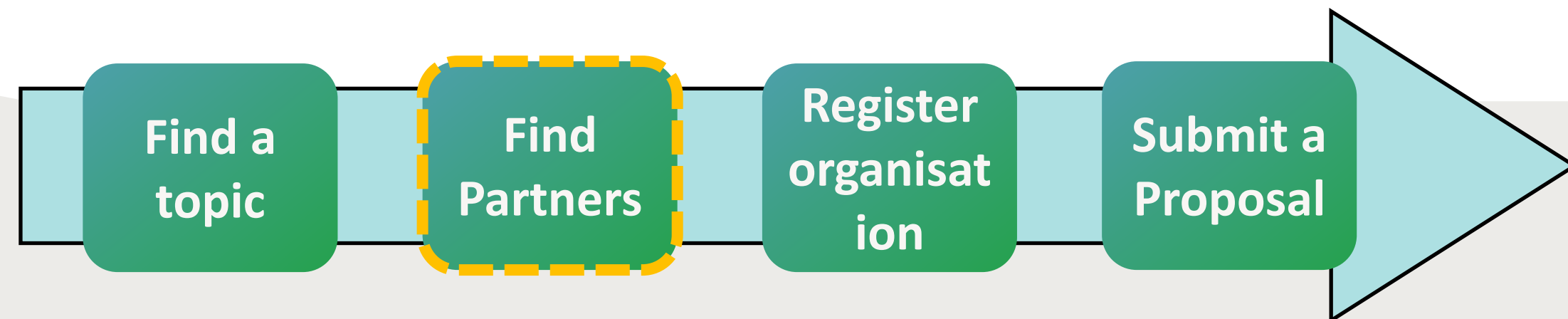
- CAPEX 10,000 €/kW according to the target set for 2024 in the MAWP;
- On the fuel cell stack level electrical efficiency 55% (LHV) at performance exceeding 0.2 W/cm²;
- On the system level Volume Power density 10-20 W/l should be achieved at an electrical efficiency of 50-55% (LHV) depending on the fuel, LPG, natural gas or methanol;
- Projected degradation of the system < 0.4 % per 1,000h on the electrical efficiency at constant power output;
- No less than 85 % fuel processor efficiency at the Begin of Life (BoL);
- Reference test conditions can be realized with reformat gas originating from methanol, bio-gas, LPG/NG or NG blended with H₂ admixtures with composition H₂ (55-70 %), H₂O (7-10 %), CO₂ (10-15 %), CH₄ (1-5 %).

Type of action: Research and Innovation Action

The conditions related to this topic are provided in the chapter 3.3 and in the General Annexes to the Horizon 2020 Work Programme 2018–2020 which apply mutatis mutandis.



Contact partners through the participant portal



Actions:

- Contact per email
- See details

Partner description

Partner Search list

Results: 1

ORGANISATION NAME	REQUEST DATE	ORGANISATI... TYPE	COUNTRY	EXPERTISE REQUEST OR OFFER	ACTIONS
HAPTIC R&D CONSULTING SRL	15-Jan-2019	Small or medium-size enterprise	RO	Expertise offer	<ul style="list-style-type: none"> Contact Organisation Partner search details

HAPTIC R&D CONSULTING, headquartered in Aricestii Rahtivani, Prahova (ROMANIA), is a consulting of global technology and engineering company providing innovative solutions for customers in industrial, commercial, and residential markets.

Navigation: 1 / 10



Une proposition est admissible lorsqu'elle est :

- **Soumise** dans l'outil informatique dédié via Participant Portal à **temps**
- **Lisible**, accessible et imprimable
- **Complète**:
 - Avec tous les formulaires admin et annexes en pdf
 - Preuve de la capacité opérationnelle
 - Plan préliminaire de l'exploitation et la diffusion des résultats

Respectez le format et les limitations de pages !

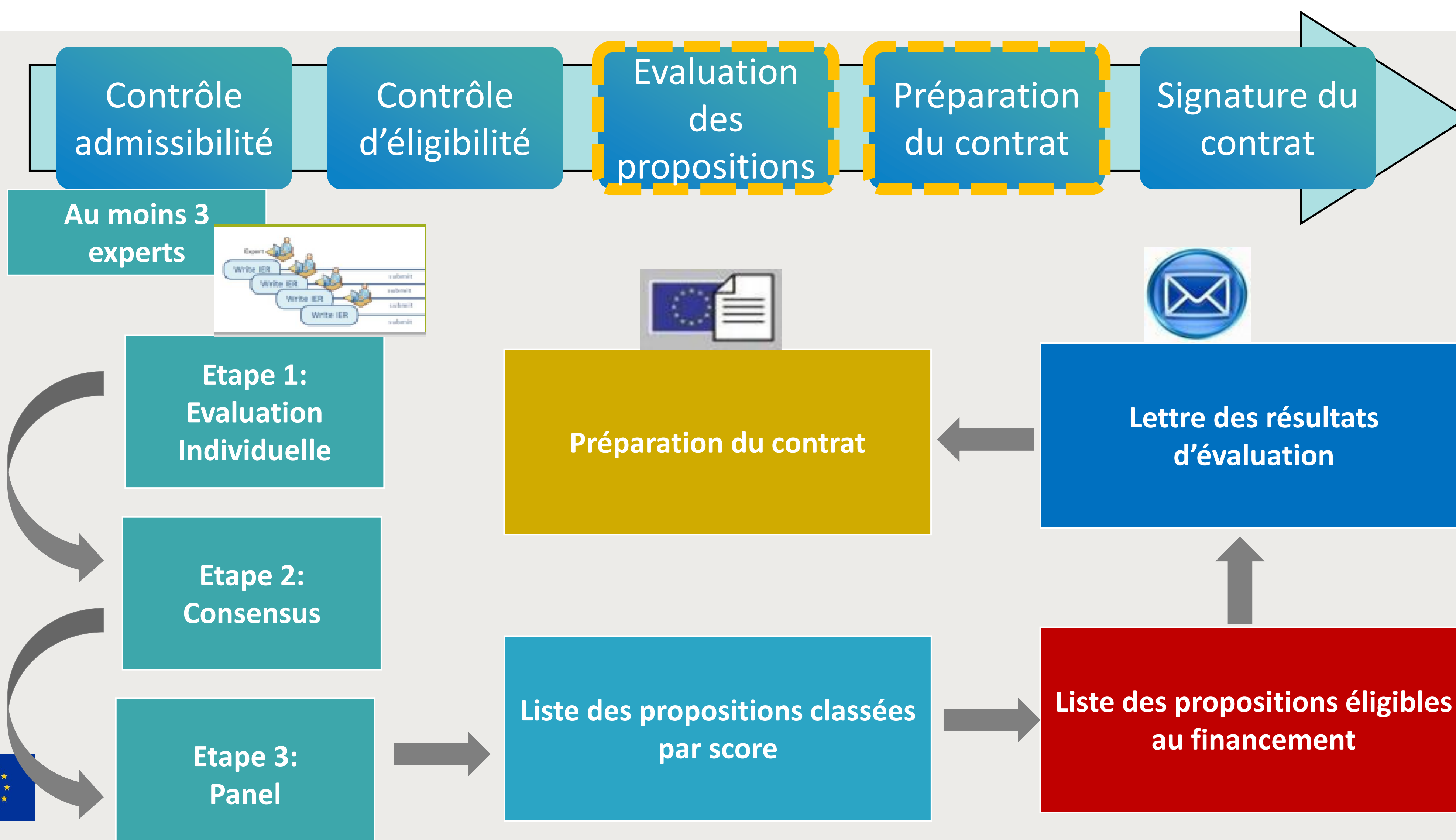


Une proposition est éligible lorsqu'elle :

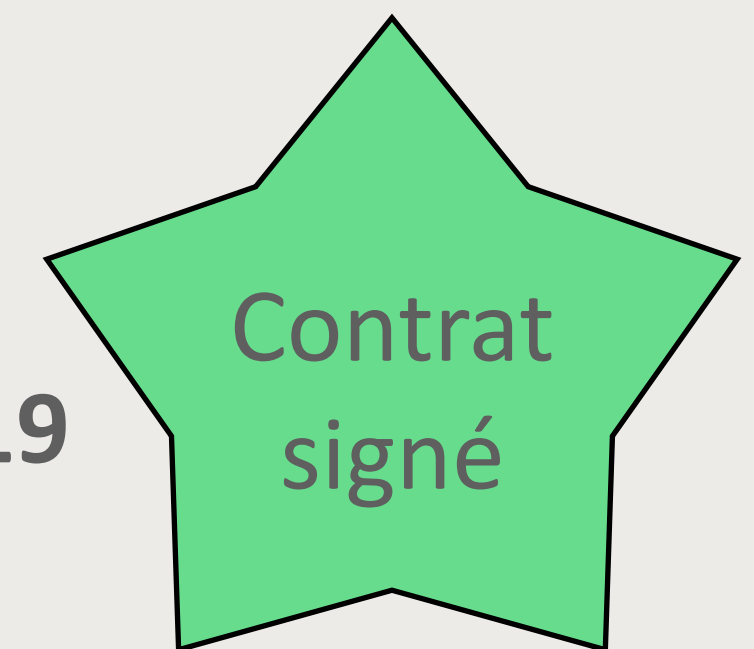
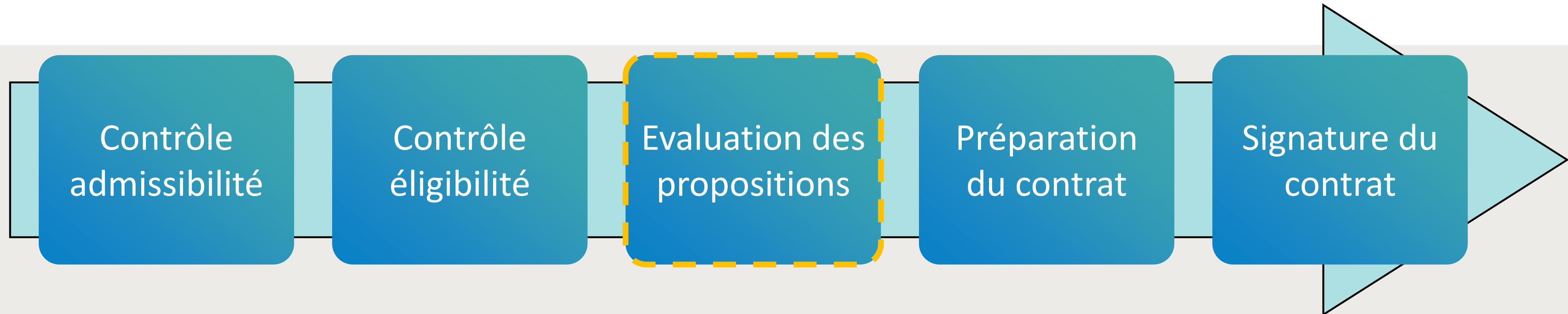
- Répond à un sujet (topic) de l'appel 2019 du FCH2
- Se conforme aux conditions d'éligibilité de l'appel FCH
- Satisfait aux exigences de partenariat

RIA and IA →	<u>At least three legal entities</u> each established in a different Member State or Associated Country. All three legal entities shall be independent of each other.
CSA →	<u>At least one legal entity</u> established in a Member State or in an Associated Country

Evaluations et prep. du contrat



8 months for Time-To-Grant



Préparation du contrat

- Interactions FCH JU et partenariat (coordinateur)
- Transformation proposition → projet
- No négo
- Corrections des erreurs cléricales et prise en compte des commentaires des évaluateurs



8 mois pour un contrat, quelles implications?



What does “Max. 8months for grant signature” mean for the evaluation of proposal?

-The experts evaluate each proposal as submitted not on its potential if certain changes were to be made

-The experts do not recommend substantial modifications

such as change of partners, additional work packages, significant budget or resources cut, additional scientific activities to strengthen the concept, trans-disciplinary aspects not appropriately covered

-If the experts identify significant shortcomings, they must reflect those in a lower score for the relevant criterion

Proposals requiring substantial modifications are not expected to pass the relevant thresholds !

-Any proposal with scores above the thresholds and where there is sufficient budget will be selected as submitted

Is there a margin for making some recommendations?

-Minor and specific corrections to be implemented without negotiation, e.g. timing of work package...

-Obvious clerical errors



Evaluation by independent experts

How are the evaluators selected?

European Commission database of experts

Register through the Participant Portal

Selection of experts

- High level of skill, experience and knowledge
- Independence and absence of conflict of interest

And a **balance** in terms of:

- geographical diversity
- gender
- where appropriate, the private and public sectors, and
- an appropriate 'rotation' from year to year.



The screenshot shows a blue header with the text 'Experts' and 'H2020 ONLINE MANUAL'. Below the header, the text reads: 'Join the database of independent experts. The European Commission appoints independent experts to assist with assignments that include the evaluation of proposals, monitoring of projects, and evaluation of programmes, and design of policy.' To the left of the text is an illustration of a human head profile filled with gears and symbols.

[REGISTER AS EXPERT](#)

In principle, each proposal will be examined by **at least three experts**

Presence of **one or more independent observers**

Experts that have a **conflict of interests** will be excluded by us !

Evaluation rules – Annex H

Award criteria, scores and weighting

The proposals will be evaluated against the following **award criteria**:

- **Excellence**
- **Impact**
- Quality and efficiency of the **implementation**

Evaluation grid available in Annexe H

Scores, weighting and thresholds



Thresholds apply to:

- Individual criterion, score must be ≥ 3
- Overall score must be ≥ 10



A éviter

- **Objectives** are general and not quantifiable;
- Not credible, lacking technical details on the proposed **approach**;
- Project is overly ambitious and the **approach** is not convincing;
- Insufficient evidence that the adopted approach takes into account the **state of the art** knowledge or the know-how acquired from past and currently running projects by some of the consortium members;
- **Clarity and relevance** of the proposal are weak;
- Low level of **innovation**, no **progress beyond SoA**;
- **SoA** and existing know-how is not fully described, and it is **not clear the current TRL**;



Excellence - Recommandations



Recommandations

- Vérifiez que la proposition est en lien direct avec le sujet
- Expliquez l'état de l'art et comment la proposition va au-delà de celui-ci (spécialement si la proposition continue de précédents projets toujours en cours)
- Définissez des KPI clairs, quantifiez-les et montrez comment vous allez les atteindre
- Déclarez clairement quelle est la science supportant le projet
- Expliquez le potentiel novateur et ce que votre proposition apporte de neuf par rapport aux projets / activités existants
- Donnez les détails d'éventuelles tâches déjà réalisées par les membres du partenariat – le projet ne commence pas par une feuille blanche !
- Montrez que le risque est limité (ou mesurez le degré de risque)



Impact



A éviter

- Impact **not adequately outlined**; The overall impact of this project is **expected to be low**;
- Expected impact **is not credible, no convincing plan is presented** to show how this will be achieved;
- Fail to explain **how the project would build on SoA to provide significant potential impacts** either technologically or academically;
- It is not clear **how the project will impact the industry**;
- **No gap analysis is provided** for the proposed technology;
- **Exploitation plan** is not provided/convincing/ lacks credible engagement of several partners;
- **Dissemination plan, IPR management** not addressed/not adequately reasoned out;
- **Targeted audience** and how, where and when a targeted audience will be engaged is not specified;



Impact - recommandations

Lien avec FCH2 JU

- Répondez aux impacts attendus listés dans l'appel à projets FCH 2018
- Comment le projet permet d'atteindre les objectifs du AWP/MAWP du FCH2 JU?

Au-delà...

- Mesurez l'impact ~~de la technologie~~ du projet spécifiquement, et précisez quelles seront les mesures/activités prises pour réaliser cet impact
- Quantifiez les impacts
- Incorporez les aspects socio-économiques (création d'emploi, investissements, etc.)
- Annoncez clairement les aboutissants du projet et comment ils seront utilisés
- Présentez dans le détail le plan d'exploitation des résultats, et la viabilité à long terme
- Détaillez le modèle économique (Innovation Action)

Plan de diffusion

- Identifiez ce que vous souhaitez communiquer, à qui, pourquoi, et comment
- Utilisez aussi les nouveaux moyens/méthodes de dissémination
- Décrivez l'open access aux données de recherche
- Incluez suffisamment de **livrables publics**
- Traitez les questions de propriété intellectuelle – IPR



Implementation



A éviter

- **Work-plan is poor and does not have an adequate structure; Details are missing;** Information about the overall governance and project management scheme is lacking;
- **No risk analysis** as well as **no flow chart** are provided;
- **Resource allocation** is not justified and is unbalanced; **Breakdown** of resources/cost categories is missing;
- **Limited number of milestones** that remain general and not appropriate;
- **Unbalanced consortium** towards Academia/Research - demonstrating **poor industrial support;**
- **Key expertise is missing in the consortium**, e.g. end users not included in the consortium;
- A clear **management structure and risk analysis plan** is not provided;
- Does not show **convincing mitigation or contingency plans;**



Implementation - recommandations

Le **plan de travail** doit être crédible et cohérent avec le type d'action, les défis et la méthodologie

- Liez tâches, responsabilités, livrables et ressources

Calendrier

- Les **jalons** (milestones) permettent un suivi du projet: mesurables et points de décision
- Vérifiez le timing des démonstrateurs (IA), les interdépendances entre tâches

Analyse des risques et plan de mitigation doivent être complets et crédibles. Pensez aussi aux risques techniques / administratifs

Budget: justifiez et détaillez les postes principaux, spécialement le recours à la sous-traitance

- Surestimation du budget / personnel = échec de la proposition
- Détaillez les postes budgétaires (équipement, voyages, etc.) $\geq 15\%$ coûts de personnel
- Annoncez clairement la dépréciation et l'utilisation des équipements



Implementation - recommandations

Le **partenariat** doit répondre aux exigences de H2020 et de l'appel à projets FCH 2018.

- Prenez en compte la **coopération internationale**, sujets avec IPHE.
- Veillez à la **dimension européenne** du projet: si le focus est trop déplacé sur un pays/une entreprise, alors une autre source de financement doit être trouvée.
- Construisez un **partenariat équilibré** (secteur et géographie) en lien avec la nature/taille/complexité du projet; et complémentaire, en évitant les partenaires fantômes/cosmétiques

Structure de gestion

- Soyez simple et efficace
- Identifiez les rôles, la composition, les interactions entre les différents comités
- Définissez la gestion de la qualité et suivi des performances



Structure of proposal

Part A

- General information
 - Abstract, panel and fixed keyword (if relevant),
 - Declarations, checklist questions
- Participants and contact persons: **data is read-only** from the Organisation Registry/PIC Validation database (URF/PDM)
- **Budget table** – specific per action types
- Ethics Issues Table: structured, reference to Part B

Part B and Annex

- Templates per calls/topics – **downloadable from the submission system!**
- Page limit will apply per attachments (**65+5 pages or 45+5**) - The check is based on pages of the PDF documents
- **Pages above the limits are made invisible**
- General constraints: 10 MB, PDF
- The complete proposal package receives an **e-receipt upon submission**
- **Annex:** Separate template for the '**Draft Plan for dissemination and exploitation of results**'!



Capacity and appropriate resources



The beneficiaries must have the appropriate resources to implement the action

If it is necessary to implement the action, they may however:

- **Purchase** goods, works and services – best value for money basis
- Use **subcontracting** to implement action tasks – best value for money basis
- Call upon “**Linked Third Parties**” to implement action tasks
- Use **in-kind contributions** (resources) provided by third parties against payment or free of charge

All major costs, third party involvement and subcontracting must be indicated in the proposal



Ethics



Background

"A proposal which contravenes ethical principles or any applicable legislation [...] may be excluded from the evaluation, selection and award procedures at any time." Art. 13 – H2020 RfP

Ethics Self-Assessment

- All proposals must describe ethical issues raised & how they will be addressed
- Each applicant is responsible for:
 - identifying any potential ethical issues
 - handling ethical aspects of their proposal
 - detailing how they plan to address them in detail

Guidelines

[How to complete your ethics self-assessment guide](#)

Think of:

- Personal data
- Third countries
- Environment & Health and Safety
- Dual use
- ...



Intellectual Property Rights, IPR



- **Open access to research data**

Obligation to provide open access to scientific publication and open data. Possibility to opt-out when justified

- **Access rights**

- **Access rights of affiliates**

For *background* (art. 25.4) and for *results* (art. 31.4)

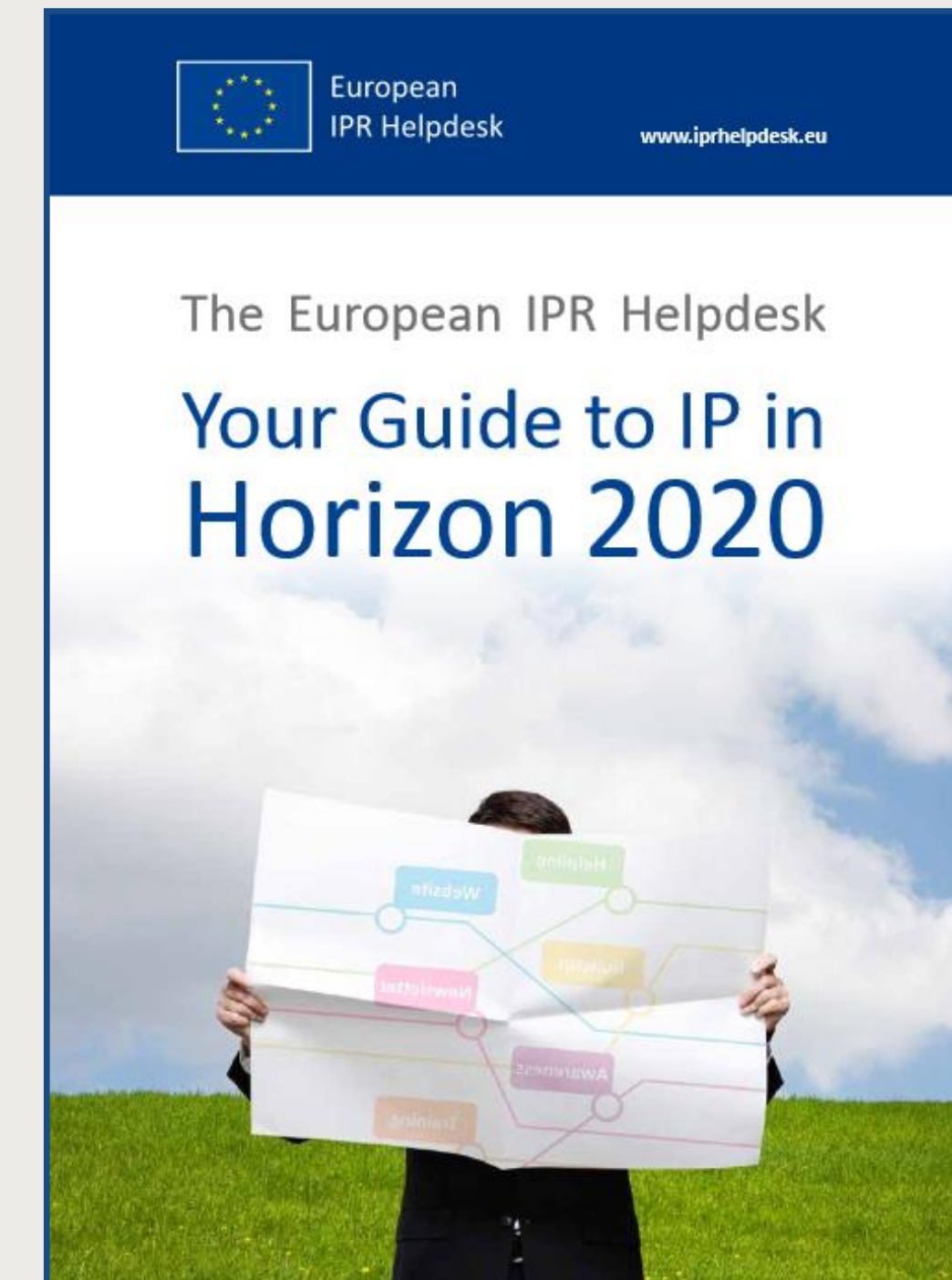
Under ‘fair and reasonable conditions’

- **Access rights of the EU institutions**

For *results* (art. 31.5)

For developing or implementing EU policies/programmes

Royalty-free, non exclusive, limited to non-commercial / non-competitive use



'Draft Plan for Dissemination and Exploitation of project results'

Measures to maximise impact of the project!



- **Compulsory part of the initial proposal (max 5 pages) – assessment within the Impact criteria!**

a) Dissemination and exploitation of results

- the **area** in which you expect to make an impact and **who** are the potential users of your results;
- **how** you intend to use the appropriate channels of dissemination and interaction with potential users;
- consideration to the possible follow-up of your project, once it is finished (including necessary additional investments);
- **business plan** where relevant, including possible additional activities (e.g. private funding in addition to the project);
- how the participants will manage the **research data** (IPR issues etc);
- strategy for **knowledge management and protection** (including open-access);

b) Communication activities

- proposed communication measures for **promoting the project and its findings** during the period of the grant;



Resources

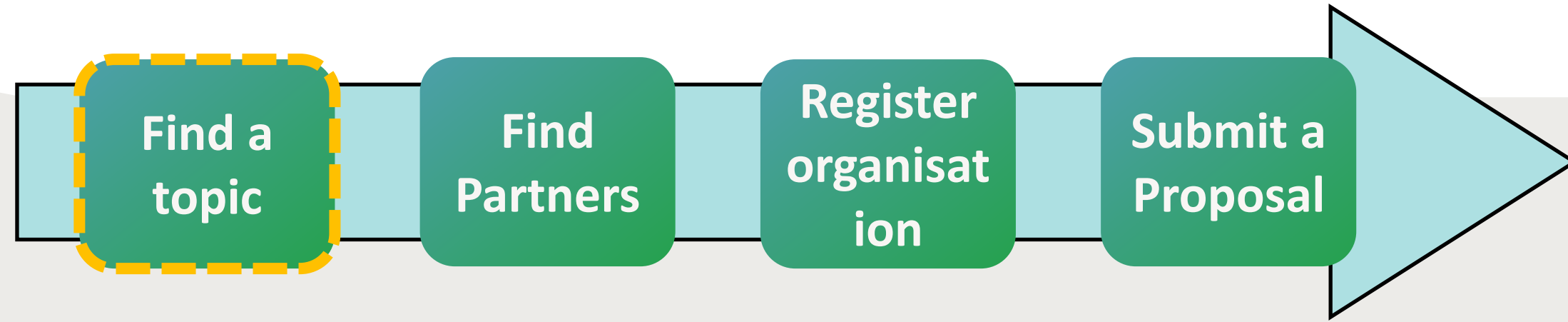


- Research Enquiry Service
<http://ec.europa.eu/research/index.cfm?pg=enquiries>
- H2020 documents in Participant Portal
http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html
- Ethics in Participant Portal
http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm
- IPR in Participant Portal
http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/intellectual-property_en.htm
- European IPR Helpdesk
<https://www.iprhelphdesk.eu/>



Fact Sheet
IP Management in Horizon 2020:
at the proposal stage

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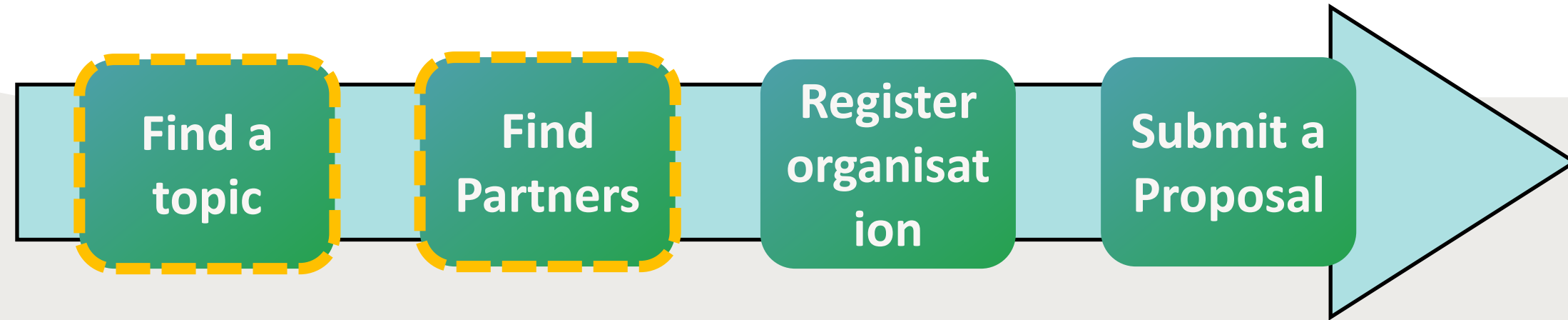
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Forthcoming | Opening date: 15 January 2019
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Topics details and partner search



Topic description

Topic Description

Topic conditions and documents

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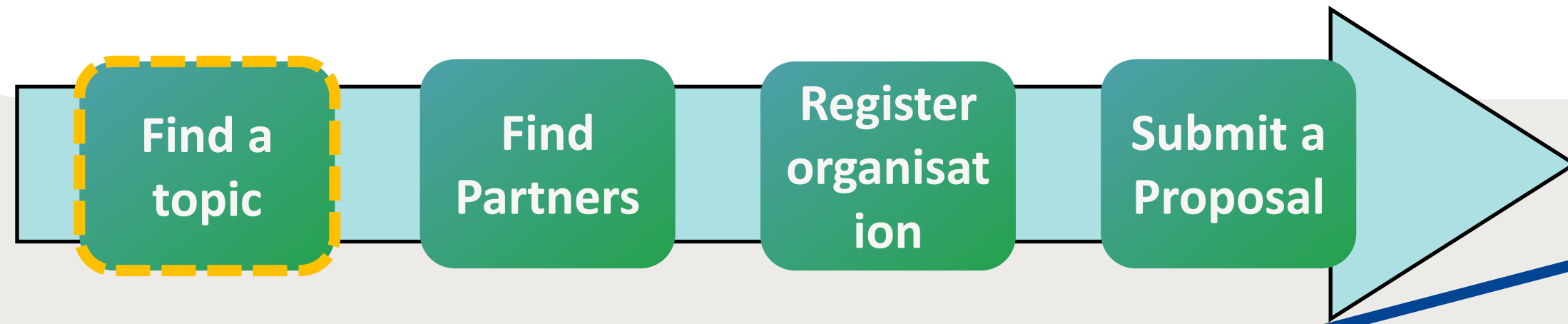
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Scope:
The overall objective of this topic is to develop, manufacture and validate in a relevant environment mini-CHP energy conversion device using HTPEMFCs technology at 5 kW. The development should focus on reducing the start up time and improve the dynamic response, the volume power density, and simplify the Balance of Plant, as well to increase the durability of a mini-CHP system. Activities on materials and components should be encouraged. If possible, it is encouraged to reach TRL6 by the end of the project.

The project should aim at both high electrical efficiency and performance as well as high volumetric power density of the mini-CHP system. The topic should therefore aim at the following:

- Validation of system's 50-55% (LHV) DC electrical efficiency depending on fuel (NG, LPG or MeOH) and more than 90% overall efficiency and volumetric power density 10-20 W/l. To achieve this, the project should focus on:
 - Improvements or design innovations of the fuel processor and/or the HTPEM stack so that their effective thermal coupling into the system's BoP will reach DC electrical efficiency up to 55% (LHV);
 - Improved BoP design through new concepts for the efficient use of the high temperature heat produced with focus on heating, cooling or additional electricity production;
- The mini CHP unit should be compact with high volumetric power density, according to the KPIs mentioned below. The robustness of the system should be proven with accelerated start up operation.

The projects should increase the state of the technology from TRL3 to TRL5.

The consortium should include at least two industrial partners comprising fuel cell system-core component suppliers (MEA, stack or reformer) and a system integrator with clear perspective on commercialisation.

Activities should build on past experience and achievements, for example, from earlier FCH 2 JU funded projects (e.g. DeMStack, IRMF, CISTEM, etc.).

Any safety-related event that may occur during execution of the project shall be reported to the European Commission's Joint Research Centre (JRC) dedicated mailbox JRC-PTT-H2SAFETY.

Test activities should collaborate and use the protocols developed by the JRC Harmonisation Roadmap (see section 3.2.B "Collaboration with JRC - Rolling Plan 2019"), in order to benchmark the system performance.

The maximum FCH 2 JU contribution that may be requested is EUR 1.5 million. This is an eligibility criterion – proposals requesting FCH 2 JU contributions above this amount will not be eligible.

A maximum of 1 project may be funded under this topic.

Expected duration: 3 - 4 years.

Expected Impact:
The project should:

- Prove the scalability of the components, systems and processes cost reduction for systems up to 50 kW;
- Strengthen the EU knowledge on the CHP technology and result in strong synergies or joint ventures including beyond the consortium for the manufacturing of viable and competitive systems;
- Show that can produce cheap and secure electricity with low carbon footprint according to the KPIs mentioned below;
- Support the RES system with an always available, highly efficient and flexible power source (fast start up in less than 15 min and dynamic adaptation during variable power demand variations).

Additional specific KPIs include the following:

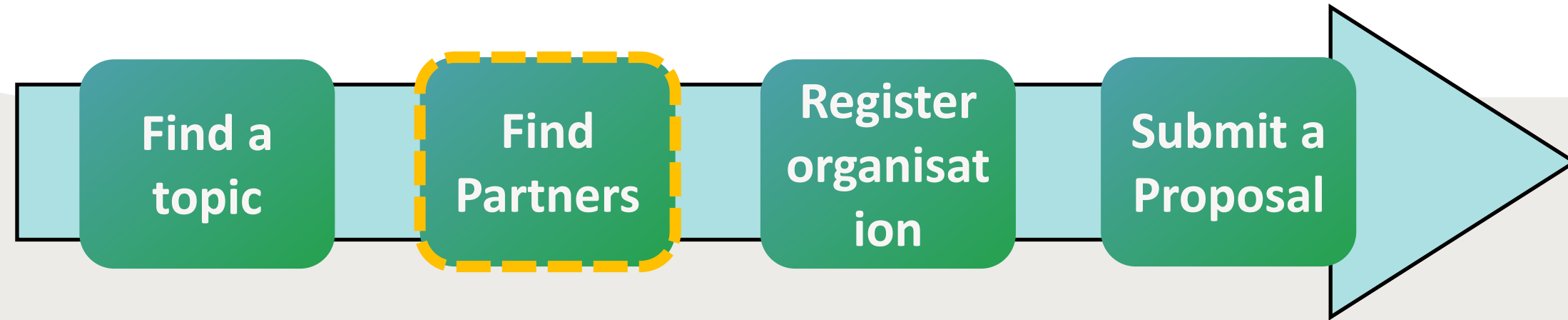
- CAPEX 10,000 €/kW according to the target set for 2024 in the MAWP;
- On the fuel cell stack level electrical efficiency 55% (LHV) at performance exceeding 0.2 W/cm²;
- On the system level Volume Power density 10-20 W/l should be achieved at an electrical efficiency of 50-55% (LHV) depending on the fuel, LPG, natural gas or methanol;
- Projected degradation of the system < 0.4 % per 1,000h on the electrical efficiency at constant power output;
- No less than 85 % fuel processor efficiency at the Begin of Life (BoL);
- Reference test conditions can be realized with reformat gas originating from methanol, bio-gas, LPG/NG or NG blended with H₂ admixtures with composition H₂ (55-70 %), H₂O (7-10 %), CO₂ (15-20 %), CH₄ (1-5 %).

Type of action: Research and Innovation Action

The conditions related to this topic are provided in the chapter 3.3 and in the General Annexes to the Horizon 2020 Work Programme 2018–2020 which apply mutatis mutandis.



Contact partners through the participant portal



Actions:

- Contact per email
- See details

Partner description

Partner Search list

Results: 1

ORGANISATION NAME	REQUEST DATE	ORGANISATI... TYPE	COUNTRY	EXPERTISE REQUEST OR OFFER	ACTIONS
HAPTIC R&D CONSULTING SRL	15-Jan-2019	Small or medium-size enterprise	RO	Expertise offer	<ul style="list-style-type: none"> Contact Organisation Partner search details

HAPTIC R&D CONSULTING, headquartered in Aricestii Rahtivani, Prahova (ROMANIA), is a consulting of global technology and engineering company providing innovative solutions for customers in industrial, commercial, and residential markets.

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