

# NACHIP – North Adriatic Clean Hydrogen **Investment Platform**

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# **Abstract**

This document provides the official guidelines for participation in the NACHIP Open Call for cascade funding under the I3 Instrument. The call supports Small and Medium-sized Enterprises (SMEs) developing innovative solutions complementary to NACIP's pilots across hydrogen value chains, with the aim of enhancing the technological maturity, safety, efficiency and market readiness of hydrogen-based systems. Funding will be allocated to projects addressing practical challenges linked to the deployment of hydrogen technologies in five European pilot sites, contributing to the EU's strategic objectives for clean energy transition and industrial competitiveness.

The Open Call Text defines the scope, thematic priorities, participation rules, eligibility criteria, funding conditions and evaluation procedures. It also sets out the application process, contractual obligations for selected beneficiaries and provisions for monitoring, reporting and exploitation of results. Financial support will be provided in the form of lump-sum grants in accordance with Horizon Europe cascade funding principles, ensuring a transparent and equitable selection process.

Through this initiative, NACHIP aims to strengthen Europe's hydrogen innovation ecosystem by fostering SME participation, promoting cross-border collaboration and accelerating the uptake of renewable and low-carbon hydrogen in key industrial, transport and energy applications.



# 1 About NACHIP

The NACHIP is an I3 project financed under the Interregional Innovation Investments call I3-2023-INV2a, which aims to accelerate innovation related to the North Adriatic Hydrogen Ecosystem, with a focus on investments in hydrogen technologies. The goal is to strengthen the integration of hydrogen technologies into the ecosystem, boosting sustainability and enhancing the development of the hydrogen market. This project targets three main value chains (manufacturing, urban areas, and mobility) through 5 pilot actions:

#### 1. Green hydrogen production from wave energy - Pag, Croatia

This pilot explores the production of green hydrogen with a novel technology that captures wave energy through a system of submerged devices installed beneath the sea surface. The pilot will also feature the application of multifunctional breakwater technology, being deployed for the first time in Europe.

#### 2. <u>Hydrogen use in urban Areas – Velenje, Slovenia</u>

This pilot aims to establish a system for decentralized supply of energy from onsite renewables to be developed, operated and validated on a public building. The pilot focuses on the integration of clean technologies through sector-coupling (electricity, heat, hydrogen) within the context of the transforming the district heating system when phasing out coal (Just Transition). Supporting activities will include the formation of a "local hydrogen alliance" pursuing the efficient utilization of renewable hydrogen within an environmentally sustainable and economically viable model.

### 3. <u>Dynamic Hydrogen Releasers – Torviscosa, Italy</u>

This pilot develops and demonstrates Dynamic Hydrogen Releasers (DHR), based on Liquid Organic Hydrogen Carrier (LOHC) technology. This innovation supports safe and efficient transport, storage, and on-demand release of hydrogen, contributing to Europe's green mobility and industrial decarbonisation strategies. Throughout the development phase, this pilot needs to define the technical requirements and dimensions of the DHR units.

#### 4. Cost-efficient hydrogen transportation cylinders – Udine, Italy

This pilot develops composite designs for cost-efficient hydrogen transportation cylinders. The focus is on improving vessel designs to enhance the mobility of energy storage, reducing costs while ensuring the safe and efficient transport of compressed hydrogen.

#### 5. Gasification plant for waste materials – Zagreb, Croatia

This pilot focuses on developing a prototype gasification plant for waste materials. The universal gasification system is designed to process municipal solid waste (MSW) and convert it into valuable products such as synthesis gas (syngas) and charred residue (ash), which can be further used.

# 1.1 Objectives financial support to third parties (FSTP) in NACHIP

Financial Support to Third Parties (FSTP), also referred to as cascade funding, is a mechanism of the European Commission designed to distribute public funding to either increase uptake of innovations on the side of recipients such as Small and Medium-sized Enterprises (SMEs) or to support project implementation in addressing specific challenges and advancement towards key objectives.

Under NACHIP, FSTP enables targeted support to companies proposing hydrogen-based solutions at a TRL>7, connected to pilot projects that can be validated and deployed in real life settings. The mechanism ensures fast access to funding, reduced administrative burden and a competitive, transparent selection process.

The FSTP reinforces NACHIP demonstration activities through the following specific objectives:



- enabling market adoption of hydrogen-related technologies, products and services developed within Nachip's pilots, combining different Key Enabling Technologies;
- fostering new technological solutions driven by SMEs.

More in particular, the FSTP under the NACHIP project will:

- Enable testing, validation and demonstration of hydrogen technologies in real-life environments through NACHIP pilot sites (specific to the NACHIP inv)
- 2. Support **TRL advancement** of innovative solutions toward market readiness<sup>1</sup>
- 3. Accelerate commercial deployment and exploitation of hydrogen innovations, including crossborder business opportunities
- 4. Address technical bottlenecks and integration challenges in the hydrogen value chain, completing the value chains of the companies belonging to the NACHIP consortium
- 5. Strengthen safety, standardization and regulatory compliance of hydrogen technologies
- 6. Promote cross-sectoral replication and interoperability to enable wider adoption across industries
- 7. Contribute to the **investment portfolio and key performance indicators (KPIs)** of the project

# 2 General Information

# 2.1 Who can apply?

The FSTP mechanism in NACHIP specifically targets Small and medium sized enterprises (SMEs) with high innovation potential in the hydrogen value chain. Participation is particularly encouraged from:

- Technology developers and component suppliers
- Hydrogen production, storage, distribution and end-use solution providers
- Safety, monitoring, control and certification solution providers
- Digital and data technology SMEs enabling hydrogen system optimisation
- Engineering, integration and industrial service providers
- Market analysers of hydrogen needs, electrolysers, exc

SMEs may apply individually or as part of a consortium with up to three SMEs, or legal entities based in one of the following EU regions:

#### **NACHIP PARTNER COUNTRIES:**

- Slovenia: Vzhodna Slovenija; Zahodna Slovenija
- Croatia: Jadranska Hrvatska; Panonska Hrvatska; Sjeverna Hratska;
- Italy: Friuli Venezia Giulia, Lazio; Umbria; Veneto; Sardegna; Sicilia; Calabria; Basilicata; Puglia; Campania; Molise;

#### **ADDITIONAL COUNTRIES:**

Portugal: Norte; Centro; Oeste e Vale do Tejo; Alentej; Acores; Madeira;

<sup>&</sup>lt;sup>1</sup> TRL level advancement expectations specific to individual project pilots





Spain: Andalucia; Extremadura; Castilla-la Mancha

Belgium: Walon

France: Guyane; Mayotte; Réunion; Guadalupe Martinique;

Greece: Kriti; Peloponnisos; Dytiki Ellada; Ionia Nisia; Sterea Ellada; Thessalia; Ipeiros; Dytiki Makedonia; Kentriki Mkedonia; Anatoliki Makedonia Thraki; Voreio Aigaio;

Bulgaria: Yuzhen tsentralen; Yugoiztochen; Severoiztochen; Severen tsentralen; Severozapaden;

Romania: Sud-Vest Oltenia; Sud-Muntenia; Sud-Est; Centru; Vest; Nord-Vest; Nord-Est;

Hungary: Dél-Dunantul; Dél-Alfold; Eszak-Aldold; Eszak-Magyarorszag; Pest; Budapest; Kozep-Dunantul; Nyugat-Dunantul;

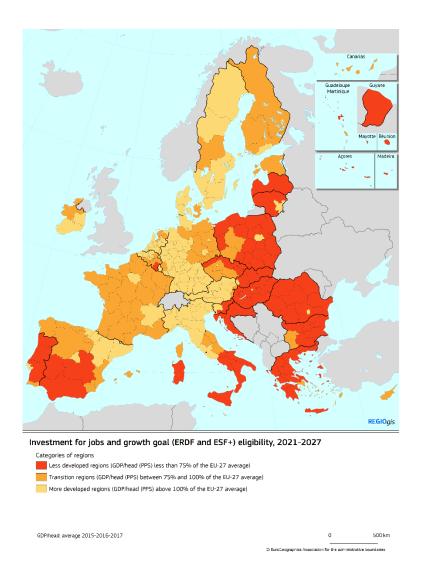
Slovakia: Vychodne Slovensko; Stredné Slovensko; Zapadné Slovensko;

Poland: Podkarpackie; Malopolskie; Slaskie; Opolskie; Lubelskie; Mazowiecki regionalny; Podlaskie; Warminsko-mazurskie; Kujawsko-pomorskie; Pomorskie; Zachodniopomorskie; Lubuskie; Lodzkie;

Czechia: Moravskoslezsko; Stredni Morava; Severovychod; Severozapad;

Lithuania: Vudurio ir vakaru Lietuvos regionas;

Latvia: Latvia;





Legal entities willing to participate to the 1st Open Call must be officially established in one of the eligible Regions at the moment of the submission of their application. A specific document proving their establishment will have to be submitted together with the application.

In view of promoting synergies, cross fertilization and exploitation, NACHIP encourages the participation of SMEs involved in other I3 projects.

Organisations with any potential conflict of interest are not considered as eligible.<sup>2</sup>

Legal entities can participate to the 1st Open Call individually or in consortia (up to 3 legal entities).

In case of consortia, all members must be an SME.

**SME status** can be checked by applicants through the following link: <a href="https://shorturl.at/bPh5c">https://shorturl.at/bPh5c</a>.

#### 2.2 Activities that can be funded:

Activities need to be coherent with EU priorities defined by the I3 call and must contribute to NACHIP objectives.

In line with the objectives of the I3 Programme, the Financial support in the NACHIP will be used for testing, validation, and demonstration of solutions in the field of hydrogen technologies and integration into realworld applications.

3 main areas of intervention have been identified for the sub-projects funded with the FSTP:

- Input: innovative chemicals/materials for the NACHIP pilot testing
- Process: Solutions to optimize hydrogen-related processes used in the NACHIP pilots
- **Output:** Applications of new technologies complementing the NACHIP value chains: mobility, urban, and manufacturing sectors

A non-exhaustive list of **potential activities** that can be included in the projects presented by the FSTP beneficiaries is:

- trial and testing activities,
- market analysis linekd
- the acquisition and testing of materials
- integration in the pilots of the SME solutions, demonstration in real/operational environment, small and/or medium scale;
- exploitation activities in new application sectors (cross-fertilisation)
- standardisation of deployment (renovation approach, installation process, administrative
- establishment of safety mechanisms for different types of applications
- Cost analysis and pricing as part of a go to market offer
- hiring of additional specialized services that not available within the project consortium
- prototyping.

More details about innovative solutions required by NACHIP partners and the related technical constraints which will be funded with the 1st call are provided in Annex 1 – technical specifications.

<sup>&</sup>lt;sup>2</sup> A Conflict of Interest is a situation where the impartial and objective implementation of the Agreement with the beneficiaries of the Open Call could be compromised for reasons involving family, emotional life, political or national affinity, economic interest or any other direct or indirect interest.





## 2.3 Open Call structure

NACHIP will implement a cascade funding scheme consisting of **two Open Calls**:

- Open Call 1 The first Open Call will be launched the 1st of December 2025 and is the subject of the present document. It will support solution prototyping, integration experiments and performance demonstrations in relevant environments.
- Open Call 2 planned for launch in the fourth quarter of 2026 (date to be confirmed).

The present document defines the rules and conditions for **both calls.** 

The total budget available for the 1<sup>st</sup> Open Call is **€540.000,00**.

## 2.4 Duration of the sub-projects

Each funded sub-project will have a maximum duration of **6 months**. Applications with a longer duration will be considered as non-eligible.

# 3 Submission of applications

The open call is published widely and in conformity to EU standards concerning equal treatment, conflict of interest and confidentiality.

Applications must be submitted exclusively through the **dedicated webpage** (www.nachip.eu), any time during the following application period:

from 01/12/2025 (opening of the call) to 03/02/2026 (deadline of the call)

To submit their sub-projects, applicants will have to use the **templates** available on the website (Annex 2 – Proposal template). All applications have to be submitted in English.

Evidence about their legal status (demonstrating their eligibility) must be also provided with their application. Such document can be provided also in original language.

In case of technical problems with the submission of applications, please write to: nachip@metagroup.com

Applications presented with different modalities than those described here will be rejected.

# 3.1 Maximum Grant Amount per Project:

Each applicant entity may receive up to €60,000, based on the scope and needs of the proposal. The funding covers a variety of costs, including technology development, research of the potential of SME solutions, and pilot testing. In the case of sub-projects presented by consortia of SMEs, the total amount of the grant for the sub-project can be up to €180.000. However, in this case, the grant per each member of the consortium cannot exceed €60.000.

The payment of the funds will be split in 2 different payments. The 1st payment will be done at the beginning of the project after the signature of the contract and will be of the 30% of the total requested grand. The 2<sup>nd</sup> payment will be done at the end of the project and after the verification what has been done.

A maximum total budget of EUR 540.000 will be distributed during the 1st call. Budget which will not be consumed during the 1st call will be added to the budget dedicated to the 2nd call (EUR 540.000).

# 3.2 Funding rate

Project costs specified in the application form are 100% funded by the FSTP.



### 3.3 Funding Scheme

This FSTP is implemented in the form of "lump sum funding", which offers a simplified approach to funding, reducing administrative and financial errors and removing obligations on reporting actual costs incurred by sub-projects.

Monitoring of beneficiaries will focus on achievement of expected results and successful **implementation of planned activities** of the sub-projects rather than on detailed cost accounting.

The beneficiaries must describe the resources mobilised with the fixed lump sum foreseen in the framework of the present call.

#### 3.3.1 Eligible costs

There is no particular cost category restriction for the implementation of such activities (e.g. personnel costs, subcontracting costs, purchase costs, travel costs, etc.).

Payments under the **Lump Sum funding** do not depend on a successful outcome, but on the **completion** of activities. No financial accounting and reporting is foreseen for beneficiaries.

However, contractual obligations foreseen by the Grant Agreement also apply to third parties receiving the support (See section "7 Obligation of the beneficiaries" in this document). Recipient of the FSTP need to keep records and in case of audit, they must provide information to the grant authority and access to relevant documentation to the auditors.

This means that documents such as Time-sheets, Pay-slips or contracts, Invoices are not needed. Beneficiaries are required to make available just documents proving that the work was done as detailed in their action plans.

At the application stage, beneficiaries will have to present a **detailed budget** associated to their **action** plan to define and justify the amount requested with the lump sum.

The proposed **costs estimation in the budget**:

- must be in line with applicants' normal practices
- must be reasonable / not excessive
- must be in line with the activities proposed
- are subject to the basic eligibility rules of I3<sup>3</sup>

These **costs and categories of costs** may be the following:

- Direct personnel costs: employees or equivalent (resolved by staff category); natural persons under direct contract; seconded persons; SME owners and natural person beneficiaries
- Direct subcontracting costs
- Direct purchase costs: travel and subsistence; equipment; other goods, works and services
- Purchase of equipment (considering only its depreciation)

Double funding (e.g. in case of SMEs involved in other I3 projects) for the same activities will not be eligible.

### 3.4 Expected Results from Applicants:

Applicants are expected to deliver results such as:

**Prototype development:** Demonstrating the feasibility of proposed hydrogen technologies.

https://eismea.ec.europa.eu/programmes/interregional-innovation-investments-i3-instrument\_en#i3-instrument under-the-european-regional-development-fund-erdf





- **Integration into existing infrastructure**: Scaling the technology for real-world applications.
- **Innovation**: Novel solutions related to hydrogen energy storage, transport, or utilization.

# 4 Evaluation Criteria

The consortium will use a transparent methodology to select SMEs to be included in the portfolio of investments via FSTPs.

## 4.1 Eligibility

As a first step, applicants will be assessed against the following eligibility criteria:

- Being established in one of the eligible Regions (see section 2.1).
- Application are received within the call deadline

SMEs which are part of the NACHIP consortium are not eligible for FSTP support.

Applications which do not match eligible criteria will not be further evaluated.

Applicants will have to declare also their financial stability. SMEs that are "in difficulty" as defined at 2.1 of the Community Guidelines and State Aid for Rescuing and Restructuring Firms in Difficulty (2004/C22/02) will not be considered as eligible.

#### 4.2 Evaluation

At the end of the application period, eligible applications will be further evaluated by a pool of at least 3 **experts**, who will sign a declaration on confidentiality and absence of conflict of interest.

**Selection criteria** that are considered for the evaluation are:

#### Relevance (max 20 points):

- Coherence of the proposed project with the NACHIP objectives and NACHIP partners' business objectives including progress beyond the state of the art (10)
- Consistency with the value chains of the industrial partners (7)
- Complementarity with other innovation actions and I3 projects (3)

#### Quality (max 20 points):

- Technical-financial feasibility of the action plan (10)
- Soundness and credibility of the marketing plan (5)
- Credibility (technical/operational capacity and experience) of the applicant (5)

#### Potential Impact (max 20 points)

- Market potential (13)
- Social, territorial and environmental impact (4)
- Impact on "Less Developed Regions"<sup>4</sup> (3)

**The maximum score of 60 points** can be attributed to each applicant.

Proposals not reaching a minimum quality threshold of 35 points will be rejected.

Applications who receive more than 35 points will be ranked based on their total quality score.

<sup>4</sup> https://eur-lex.europa.eu/eli/reg/2021/1058/oj





The best ranked applications will be selected for interviews until booking of the total available budget (€540.000). Online interviews with potential winners will be organized to verify feasibility and credibility of the proposed projects. In case of negative feedback from interviews, applicants will be rejected and the next applicant in the ranking will be invited to the interview.

Applicants going through positive interviews, will be awarded the requested amount and will have to sign a contract. They will be required to submit also proof of their registration as an SME and a signed declaration on honour about their financial stability.

Projects included in the ranking list but not funded due to budget limitations will be included in a reserve list and will be contacted at the opening of the 2nd call. They will be requested to confirm their interest in resubmitting or updating their application (in case technical requirements have changed for the 2nd call).

**Results** of the evaluation procedure will be communicated to the applicants through the contacts they provided, within **30 working days** from the deadline of the call.

Non eligible or non-successful applicants can send a complaint or a redress request to <a href="mailto:nachip@meta-">nachip@meta-</a> group.com no later than 10 days starting from the communication of the call results.

# 4.3 Gender policy

NACHIP partners promote gender equality at different levels. This includes also the FSTP mechanism.

In particular, in case of applications receiving the same score during the evaluation procedure, those including the highest rate of women within their teams will be preferred.

# **Roles and Expectations**

Applicants are expected to:

**Develop and test hydrogen technologies**: lead the development and demonstration of innovative hydrogen-related solutions in their respective value chains.

#### Invited to:

- Engage and collaborate with NACHIP partners by participation at the events organized by NACHIP partners and contribute to technology validation with their expertise and activities.
- Capacity Building: participate in NACHIP capacity-building activities designed to enhance competences related to hydrogen technologies and the integration of these solutions into various sectors, improve skills related to investment readiness and the commercialization of innovative solutions

#### NACHIP partners could make available for collaboration:

- Laboratories and Testing Facilities.
- Expertise and knowledge on hydrogen technologies, market trends, and regulatory requirements.

# 6 Obligations of the beneficiaries

When signing their specific grant agreements/contracts, the beneficiaries will accept the contractual obligations under Articles 12 (conflict of interest), 13 (confidentiality and security), 14 (ethics), 17.2 (visibility), 18 (specific rules for carrying out action), 19 (information) and 20 (record-keeping) of the I3 Model Grant Agreement (https://shorturl.at/lrwzN).





Moreover, beneficiaries will have to submit a **technical report** at **mid-project** and at the **end of the subproject**, detailing progresses made with their activities, compliance with the scheduled action plan, achievements and deliverables obtained, eventual delays in the implementation of activities. The final report of the sub-projects shall include the description of the impact of the supported investment on the value chain.

A **technical mentor** will be assigned to each funded sub-project to support and facilitate collaboration with the NACHIP partners.

Technical mentors assigned to each beneficiary will monitor that the technical part and objectives of the sub-project are being achieved. META will support technical mentors in the monitoring of the advancement of the projects. Who and how many are technical mentors?

(for example): Each beneficiary will be guided/helped by one technical mentor. Technical mentor is a person, employed at one of the pilots- project partners that is most relevant for the cooperation with the SME.

The support provided by each NACHIP partner to FSTP beneficiaries (including the value of the services received by each cascading SME) will be monitored by META Group.

A deviation from the initial action plan or failing in obtaining the expected results could lead to a contractual breach, precluding beneficiaries from receiving the final payment.

Moreover, in case of serious breach of obligations from beneficiaries, META Group may claim back part or the entire pre-financing.

All beneficiaries may be subject to **checks, reviews, audits and investigations** from META Group or NACHIP coordinator. Moreover, the NACHIP granting authority, the OLAF, the EPPO, the ECA can exercise their rights of checks, reviews, audits and investigations towards all recipients of the FSTP grants.

The beneficiaries of FSTP will also commit themselves to participate to at least one of the **dissemination or** communication events organised by NACHIP. Costs for the participation to such event are not reimbursed separately by NACHIP but can be included in the budget of the project.

# Administrative support to applicants

The NACHIP partner responsible for the present administrative procedure is META Group. For any clarification and/or information please contact: nachip@meta-group.com

# 8 IPR

The beneficiary of the sub-grant will retain the **ownership of their background knowledge** declared in the specific consortium agreement/contract.

The NACHIP partners involved in the implementation of the submitted projects will retain the ownership of their **background knowledge** declared in the specific agreement/contract.

If the background is subject to the rights of a third party, the beneficiary or the NACHIP partners must ensure that it is able to comply with its obligations.

Results will be owned by the entity (the beneficiary and/or the NACHIP partners) that generates them and if it is not possible to establish their respective contribution, a joint ownership agreement will be signed by the actors.

If an agreement is not reached before the collaboration begins, the grant might not be assigned to the beneficiary.





The beneficiary and the NACHIP partners must adequately **protect their results** for an appropriate period and with appropriate territorial coverage if protection is possible and justified.

The beneficiary and the NACHIP partners must ensure that the results of their collaboration are not subject to control or other restrictions by a Country (or entity from a country) that is not one of the eligible countries or target countries set out in the call conditions, neither they may transfer ownership of their results or grant licenses to third parties which are established in countries which are not eligible countries or target countries set out in the call conditions.

The beneficiary and the NACHIP partners must grant access to their results — on a royalty-free basis to the granting authority and other EU institutions, for non-commercial and non-competitive use.

# **GDPR**

Pursuant the article 15.2 of NACHIP Grant Agreement and in compliance with the applicable EU, international and national law on data protection (in particular, Regulation 2016/67928), the recipients must ensure that the **personal data** is:

- processed lawfully, fairly and in a transparent manner in relation to the data subjects
- collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes
- adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed - accurate and, where necessary, kept up to date
- kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the data is processed and
- processed in a manner that ensures appropriate security of the data.

The recipients may grant their personnel access to personal data only if it is strictly necessary for implementing, managing and monitoring the Agreement. The recipients must ensure that the personnel is under a confidentiality obligation.

For support, please consult guidance\_fstp-good-practices\_en.pdf

#### Contact Details 10

For more information or assistance with the application process, participants can contact the NACHIP project directly:

#### nachip@meta-group.com

Questions to the above-mentioned email address can be submitted until 1st of February 2026.

For further details on project submission, evaluation, or funding, applicants are encouraged to visit the official **EU Funding & Tenders Portal** for the latest updates.

#### **HYDROGEN USAGE/MARKET UPTAKE**

We welcome solutions related to hydrogen usage in the transport/mobility exc. We welcome SMEs developing electric vehicle with or without hydrogen extender (developing/already developed/ with or without extender or with intention to be developed/is being developed, or any similar idea/plans/development in the future). Optimal would be vehicle on hydrogen already developed/being in development, even if in the future.

We welcome also SMEs with any solutions to use hydrogen as a storage (fuel cell). Any developments or already developed solutions are welcome. It is advisable that applicants possess **certifications**, relevant **experience** and the **skills** related to electromobility or/and usage of hydrogen in transport. It is welcome that applicants have already some experiences on the markets related to their planned or already marketable solution. This is advisable to have however not "a must" and can be developed in the future. We welcome also partners already having OR developing solutions related to secure usage/transport of hydrogen. **Innovations/solutions addressing any step within security of hydrogen transport or storage** are very welcome.

#### **FIBERS**

We welcome SME's with solutions/innovations or activities related to (glass) fibers. This can be related to winding machines or other usages. We also search for SMEs working/having solutions of impregnation (of the fibers) related to winding process (or not). We are in search of partners with understanding of composite materials, having or developing composite materials or any other related processes. These solutions can be related to hydrogen or NOT.

#### **Catalyst Design**

We are seeking innovative solutions for catalyst design in the hydrogenation—dehydrogenation domain, with a focus on overcoming current limitations in durability and efficiency. Applicants should also demonstrate solid experience in catalyst replacement and, ideally, the ability to regenerate catalysts directly on site.

#### **Design & Compactness**

We are looking to collaborate with companies that have proven expertise in designing and building engines, to explore opportunities for improving the design and compactness of the DHR and enhancing its scalability for a wide range of future applications. A key selection criterion will be demonstrable capability to introduce upgrades to the current DHR design—

for example, hybrid systems for energy recovery and storage that support improved start-up performance or meet peak-power demands.

Pilot leader will provide applicants with all the technical information necessary for the preparation and development of their project, as well as training sessions on the use of the DHR to familiarize them with its functionality and performance. Agreements must be signed to protect confidentiality and relevant IP.

#### RENOVATION APPROACH

We seek solutions supporting the development of a modular renovation approach that enables the integration of NACHIP-based energy supply and storage systems into existing buildings. This may include implementation methodologies, energy-benchmarking tools, communication strategies for building owners, KPI frameworks, and market research for relevant providers, whether already developed, under development, or planned for the future. We also welcome SMEs able to design and deliver training for emergency first responders, including the preparation of protocols for fire and explosion risk management and the facilitation of knowledge exchange with specialized service providers, with the aim of identifying technology-related risks and improving public perception and acceptance. In addition, we invite comprehensive Life-cycle costing (LCC) analyses for deploying demonstration technologies on representative replication sites located within the eligible FSTP territory, covering at least two different building typologies such as public, multi-residential, or commercial buildings. Across all activities, relevant experience in renovation, energy systems, safety or risk management, or techno-economic assessment is advantageous.

#### PROCESS OPTIMISATION (DSP TOOL)

Related to DSP (decision support tool) we are looking for solutions for assessment of components. For example defining technical and economic parameters related to energy sector.

We also look for SMEs with experiences in component models. For example, that have already developed simple models of prototype components.

We are also searching for SMEs with already created international list of components needed in the hydrogen segment, such as electrolyzers producers in each EU and non EU country, hydrogen storage solutions, with already available technical and economic characteristics.

#### Application of hydrogen demo

Applicants are expected to adapt the technology, make necessary updates, and ensure it fits within the hydrogen value chain, ultimately finding its place in a targeted niche use case.