



# **Snaminnova**

## **Regulation for the Call4Startup On Our Way to Zero**

**November, 9<sup>th</sup>  
2022**

## 1. Goal

With the “HyAccelerator” initiative, Snam S.p.A. (“**Snam**”) aims to promote collaboration with innovative startups in the hydrogen related environment. [Snam's Hydrogen Innovation Center](#) has structured a path through which the solutions proposed by the startups can be accelerated to design a First Industrial Deployment project. At the end of the acceleration program, if the First Industrial Deployment project will have proved to be an interesting and feasible solution for Snam’s business, a joint pilot project will be developed with the intent of bringing the initial disruptive technology to the market.

The initiative is aimed at national and international innovative startups and SMEs that can offer technological solutions functional to the areas of interest for Snam (as described in chapter 2). The best startups will be selected according to the process outlined in this document. This regulation is available at [www.hyaccelerator.com](http://www.hyaccelerator.com).

## 2. Proposed challenge

Snam has launched the HyAccelerator program to improve existing technologies and tools related to hydrogen and its value chain in order to enhance its Energy Transition initiatives. With HyAccelerator, Snam is looking for startups with new solutions for continuous and innovative improvement of current hydrogen-related technologies.

The Call4Startup named “On Our Way to Zero” will only accept applications from startups and innovative SMEs related to the following areas:

- **PRODUCTION:** technological solutions for the improvement and development of hydrogen production on a large scale, seeking cost reduction alternatives, especially relying on low carbon footprint production methods. Solutions include, but are not limited to:
  - Water electrolysis technologies for green hydrogen production
  - Steam methane reforming (and carbon capture system) technologies for blue hydrogen production
  - New disruptive technologies to produce hydrogen with low carbon emissions
  - New cracking technologies to extract hydrogen from other chemical compounds (e.g. ammonia cracking, etc.)
- **TRANSPORTATION:** optimization and innovation of traditional transportation means as well as identification of new disruptive technologies to bring hydrogen to end users. Particular attention will be dedicated to solutions improving infrastructure and materials.

Solutions include, but are not limited to:

  - New technologies for hydrogen injection into the pipeline (e.g. compressors, etc.)
  - Solutions enabling hydrogen/natural gas blending
  - Innovative infrastructures and materials, and remote controlling systems
  - New approaches to membrane-separation technologies and purification
  - Hydrogen liquefaction technologies
- **STORAGE & CARRIERS:** optimization and innovation of traditional storage means as well as identification of new disruptive technologies to store hydrogen effectively and cost efficiently.

Solutions include, but are not limited to:

  - Solutions for liquid hydrogen storage
  - Physisorption technologies
  - Metal hydrides
  - Liquid Organic and Inorganic Hydrogen Carriers
  - High-performance materials to reduce leakages and tank defects
  - Long-duration energy storage solutions

- **INDUSTRY END-USE:** enhanced and innovative technological solutions to bring hydrogen to industrial users, with the intent to substitute their carbon fossil consumption to hydrogen for their production processes. Solutions include, but are not limited to:
  - Fuel Cell systems for primary generation, backup power and co-generation
  - Innovation of current and/or identification of new hydrogen-fed heat and power generators (e.g. hydrogen boilers, high pressure steam generation, etc.)
  - Innovative processes using hydrogen as feedstock
  - Technologies exploiting hydrogen blended to natural gas
- **MOBILITY END-USE:** identification of high-impact solutions for the exploitation of hydrogen as a feasible and sustainable alternative to polluting transportation means. Solutions include, but are not limited to:
  - Hydrogen combustion engines
  - Fuel Cell Electric Vehicles
  - Hybrid vehicles using hydrogen and other fuels
  - Efficiency improvements for long distance transportation
  - Hydrogen refuelling stations and infrastructures
- **ALTERNATIVE FUELS:** identification of new solutions to produce synthetic fuels starting from hydrogen and CO<sub>2</sub>. Solutions include, but are not limited to:
  - Production of fuels and fuel precursors (e.g. methane, etc.) without carbon emissions
  - Sustainable Aviation Fuels
  - New catalysts and systems for cost-efficient conversions

### 3. Requirements for participation; terms and conditions for the submission of the application for participation

The Call4Startup is addressed to: (i) "innovative startups", i.e. entities that comply with the provisions of Legislative Decree 179/2012 (Article 25, paragraphs 2 and 3), (ii) "Innovative PMI" (i.e. Italian for SMEs), thus subjects in accordance with the DL3/2015 (art. 4, subparagraph 1), and (iii) other entities that are not resident in Italy, the European Union or the European Economic Area but would otherwise qualify as "innovative startups" pursuant to the foregoing provisions.

The submission of applications for participation will take place in the period between 10:00 am CEST on 09/11/2022 and 11:59 pm CEST on 31/12/2022 through the website dedicated to the HyAccelerator initiative, at the address [www.hyaccelerator.com](http://www.hyaccelerator.com), which will lead for registration to [Snaminnova](http://Snaminnova) (the website of Snam's Open Innovation program, which aims to accelerate the company's innovation capacity). To participate in the Call4Startup it is necessary to fill-in the related application form. The form may no longer be modified once the submission has been sent. The application form has three different levels of registration.

The **first level** of registration concerns the personal user profile and requires the following information:

- Name
- Surname
- E-mail
- Password

The **second level** of registration concerns the profile of the Startup and involves the request for the following information:

- Type of profile and title
- Company /role
- One-line description
- Industry of interest
- Technology used
- Entity description
- Logo/profile image
- Date of incorporation
- Business name
- VAT number/Fiscal Code (if applicable)
- Address, location of headquarter
- Contact data (Contact person, email, phone number, website)
- Level of maturity
- Pitch/business presentation
- Business model
- Target market and customer description
- Competitors and differentiation from them
- Number of filed/submitted patents and description
- Latest Revenue and fundraising (type and amount)

The **third level (call specific)** of registration concerns the submission to a given challenge and involves the request for the following information:

- Type of Innovative Profile
- Solution title
- Focus area of your solution
- Motivation of what is your solution and why it is suitable for the specific challenge
- Description of the unique value and advantages of your solution
- Elaboration on a possible future First Industrial Deployment of your solution according to Snam businesses and activities
- Elaboration on the possible target market and size of your solution
- Illustration of the needs of facilities/tests set-up to scale up your solution
- Description of your (expected) performance with respect to similar solutions and peers (ex. efficiency, LCOH, LCOE, cost saving, etc.)
- Description of the potential drivers for market growth related to your solution
- List of national/international funding instruments (e.g. Clean Hydrogen JU, Innovation Fund, Horizon Europe, LIFE, etc.) that you are considering to potentially apply to support your solution
- Number of employees
- Startup members (Name, Last Name, Role in the Startup, link to LinkedIn page)
- A short video to present your solution (max 2 minutes)
- Other useful documents
- Other useful links

#### **4. Process and selection**

At the end of the proposal submission phase (December 31<sup>st</sup>, 2022), the startup evaluation process will begin, encompassing the following phases:

1. application screening;
2. preliminary shortlisting;
3. interview and presentation.

##### **Application screening:**



First of all, a team composed of members of Snam's Decarbonization Projects Unit and other selected members from other Snam divisions and the Snam Hydrogen Innovation Center will exclude from further selection any candidate whose profile and documentation does not comply with the basic requirements and conditions established for On Our Way to Zero Call4Startup. Namely, such constraints include:

- **Object of the Call4Startup:** all candidates whose solution does not pertain to the topic proposed, shall not proceed for the next stage
- **Aim of the challenge:** candidates whose solution does pertain to the topic of the Call4Startup, but does not relate to the specific challenge, shall not proceed for the next stage

### **Preliminary shortlisting:**

A team composed of Snam's Decarbonization Projects Unit and other selected members belonging to other Snam divisions and Snam Hydrogen Innovation Center will proceed to analyse in detail all the proposed solutions that passed the "Application Screening" stage. Members of the committee will evaluate each application based on pre-defined criteria (described in Chapter 5) and express their preference to form a shortlist of applicants. Shortlisted candidates will then take part to 1-to-1 interviews with senior members of Snam's Decarbonization Projects Unit, who will be supported and advised by Snam's network of academic and industrial partners.

### **Interview phase:**

Once the shortlist is drafted, meetings with every shortlisted startup will be held, in which members of Snam's Decarbonization Projects Unit will conduct tailor-made interviews with the help of other experts within Snam's network. Such professional figures might be involved for different purposes, including to provide a critical and technical opinion over candidates and their proposed solutions or to express their preference over certain applicants, if asked. In any case, interviews will revolve around the questions chosen by Snam, which may relate to, among other things:

- Technical aspects of the proposed solutions
- Business expectations for the proposed solutions
- The way in which the proposed solutions would apply to Snam's business
- Candidates' academic and professional background
- Startup evolution and growth

Once all the shortlisted candidates will have been interviewed, the best performing applicants will be offered to take part in a corporate event, where they will expose their project to a "Final Jury".

### **Presentation:**

Each of the innovative startups selected in the previous phase will be invited to participate in a dedicated event during February 2023 (Pitch Event), which Snam may elect to open up to the public and to experts in the sector (e.g. journalists). During the Pitch Event, each finalist will have few minutes to present its innovative solution and to explain how it can be applied to Snam's organizational and business characteristics, followed by few minutes to answer the potential questions of a "Final Jury". The "Final Jury" will be composed of selected members of Snam and the Snam Hydrogen Innovation Center and will preside over the final evaluation. The "Final Jury" will select the winning startups in its sole discretion, proclaiming them publicly.

## **5. Evaluation criteria**



Submitted proposals will be evaluated based on the following criteria:

1) **Technical and business-related aspects:**

- **Business need:** proposed solution shall be mostly aligned with Snam's business needs, possibly including also adjacent solutions
- **Technical and economic feasibility:** proposed solution shall be sustainable in real environment and technically fit for the market
- **Technology maturity:** startup's technology shall be close to PoC/pilot phase
- **Innovation level:** startup shall be adequate in terms of disruptive effect for the energy transition
- **Business model/Scalability:** scalability of the solution is considered essential

2) **General features:**

- **Startup Team:** startup's team shall be evaluated according to experiences, competences and heterogeneity
- **Business evaluation:** a market evaluation will be made based on future market potential
- **Intellectual Property:** existing and proven IP or similar will be valued but not required
- **Received funding:** funding will be valued but not required (seed capital and beyond)

## 6. Awards

Winning applicants will have the opportunity to take part in the HyAccelerator Acceleration Program, which aims to give participants the tools to draft a First Industrial Deployment design (FID-d) document, encompassing a technical feasibility study, a business plan and a commercial offering structure for their proposed solution. In order to accomplish such objective, participants will receive the opportunity to take part in personalized mentorship programs and receive access to R&D facilities and labs. In exchange, candidates will guarantee Snam pre-emptive rights to develop joint projects (e.g. supply contracts, joint pilot projects, etc).

Awarded perks may include but not be limited to:

- Funding amount to be defined by Snam
- Technical development through R&D support from Snam
- Access to Snam Hydrogen Innovation Center
- Access to the Snam Network
- Development of a partnership

## 7. Intellectual property, indemnify and warranties

For the purposes of this Regulation for the Call4Startup, "**Intellectual Property Rights**" means any and all intellectual property rights and other rights of a similar nature, anywhere in the world, whether registered or unregistered, in each case subsisting now or in the future, including all rights in and to the following: (i) patents, petty patents and utility models, inventions and invention disclosures, (ii) trademarks, service marks, trade or business names, brand names, social media handles, Internet domain names, logos, (iii) copyright and neighbouring and related rights, moral rights, computer software, (iv) designs, industrial designs, (v) databases, (vi) know-how, confidential information and trade secrets, (vii) all registrations or applications for registration for any of the foregoing, and any provisionals, divisionals, continuations, continuations-in-part, renewals, reissuances, re-examinations and extensions of any of the foregoing (as applicable), and foreign counterparts in all jurisdictions worldwide, and the right to claim priority from, and right to apply for the same, and (viii) the right to sue for past, present and future infringement of any of the foregoing.

Snam is the owner of several trademarks for products and services, whether registered or not. The trademarks and other Intellectual Property Rights of Snam or other companies belonging to Snam's group may not be used without the prior written consent of Snam or the relevant



company to which they belong. Participation in Call4Startup does not grant the participant any right to use any such Intellectual Property Rights or the subject matter thereof in any part of the world.

All names, trademarks, logos, graphic interfaces, texts, user interfaces, computer code and any distinctive sign mentioned or reproduced in the section dedicated to Call4Startup on the Snam website are and remain the exclusive property of their authors and right holders. The reproduction and/or representation, in whole or in part, of the aforementioned elements is strictly prohibited.

Participants acknowledge that each participant and/or their assignees remain fully responsible for the protection of their Intellectual Property Rights against unauthorised use (e.g. registration application, patent application etc.), through legal actions, including the payment of any fees or costs incurred, whether such rights are owned by them and/or are legally available to them. Subject to the limits of the law, to this end, each participant agrees that Snam is exempt from any liability arising from infringement by third parties of Intellectual Property Rights contained in the application for admission to Call4Startup pursuant to this regulation.

Participants in the initiative represent and warrant that the content submitted:

- does not contain material that is unlawful, prohibited by law or contrary to what is indicated in this regulation;
- does not contain material in violation of the Intellectual Property Rights of third parties;
- is freely and legitimately usable in accordance with the provisions of this Regulation, as the participant is the owner of the rights of use of the same, or as it has acquired the availability from all persons entitled, having taken care of the complete fulfilment and / or satisfaction of rights, including of economic nature, due to the owners of the Intellectual Property Rights.

The participants undertake to indemnify and hold Snam S.p.A. harmless from any loss or other prejudicial consequence (including legal costs of any legal proceedings) resulting from their infringement of Intellectual Property Rights.

The participants declare that they are aware of the responsibilities, including criminal liability, which they will incur in case of untruthfulness of the contents of the projects they submit and / or in the event of false statements regarding the requirements they have submitted in order to participate in the initiative governed by this Notice, and hereby release Snam and the other companies of the Snam group from any claim of third parties.

The material and intellectual property that has been submitted, together with the applications sent by the participants, remains the property of the respective owners, with the right of Snam and the other companies of the Group to use the same, solely with reference to the Call4Startup initiative.

Accepting these Regulation for the Call4Startup, by submitting the application, winning participants authorise Snam:

- to publish on its websites and/or social channels (e.g. LinkedIn, Facebook, Instagram, Twitter, YouTube) the title of the winning project of the initiative and the description of the project. It is understood that information in addition to the above may not be disclosed without the prior consent of the winning participant.

to use their names, trademarks, logos and/or distinctive signs for advertising and/or promotional purposes of the Call4Startup.

## 8. Terms and exclusion

Any person who submits statements and / or documents bearing information partially or totally false and / or incorrect are excluded from the initiative. In addition, they may be excluded if information is:

- incomplete;
- sent after the indicated deadline;
- in contrast to the rules laid down in this Regulation;
- in violation of Intellectual Property Rights of third parties.

## 9. Confidentiality and processing of personal data

The interested parties, with the submission of their application, will give consent to the processing of their personal data for the application of the activities referred to in this Regulation.

The information submitted in the participation form and the related attached documentation are examined only by:

- the members of Snam's Innovation and Decarbonization Projects Unit and other personnel within the Snam group;
- the web platform administrator for the collection of applications;
- the members of the Final Jury;
- internal Snam and external people who, for reasons related to the management of this initiative, must have access to it.

The above-mentioned parties undertake the responsibility to maintain and protect the confidentiality of the materials and submitted information for their evaluation, and not to use the information relating to the proposals received, except for purposes strictly related to the initiative.

## 10. Storage and access to documentation

The original of this document is kept by Snam's DT&T Open Innovation Hub (OPIN).

The records produced (processing, data collection, supporting documents for the data collected) are kept, to the extent applicable, for a period of at least 24 months within the Snaminnova platform (both for data collected for the registration of the user profile, and for those relating to the registration of the startup profile). The Decarbonization Projects Unit is responsible for monitoring the adequacy and updating of this "Regulation" in order to achieve the objectives set.

## 11. Limitation of Liability

Snam and the other companies in the Group accept no responsibility for technical, hardware or software malfunctions, interruptions in network connections, failed, incorrect, inaccurate, incomplete, illegible, damaged, lost, delayed, incorrectly addressed or intercepted user registrations, or for participants registrations which, for whatever reason, have not been received, electronic or other communications which have been delayed, or for other technical problems related to the registration and uploading of content as part of this initiative.

Snam and the other companies in the Group will therefore exclude any form of reimbursement and compensation, whether partial or total, for any damage to property and/or persons caused by the participants, or by third parties, during the various phases of the competition.

## 12. Obligations of participants

Participation in the Call4Startup initiative implies the complete and unconditional acceptance of this Regulation. In the event of changes of this Regulation, participants acknowledge and





accept that the new regulation will be effective for them from the date of publication on the website [www.HyAccelerator.com](http://www.HyAccelerator.com) without prejudice to their right to withdraw their participation in the initiative in question.

### **13. Information and support**

Further information and clarifications can be requested at any time by e-mail to [hyaccelerator@snam.it](mailto:hyaccelerator@snam.it) or to [snaminnova@snam.it](mailto:snaminnova@snam.it).

### **14. Applicable law**

This Regulation and the participation in the Call4Startup initiative are governed by the internal laws of Italy.