

VENETO STARS CHALLENGE

VENETO REGION

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1. VENETO STARS CHALLENGE: "SPACE DATA FOR AGRI-FOOD"

Veneto stars is a Space Data driven challenge promoted by the Veneto Region in Italy and open to European residents. The aim of the challenge is to SELECT, AWARD and EXPLOIT innovative ideas focused on AGRI-FOOD that can be relevant for the region.

AGRI-FOOD is intended as the broad range of elements characterising the AGRI-FOOD arena/industry, ranging for example (not exhaustive list) from aquaculture to land management, from silviculture to smart harvesting, from yield optimisation to autonomous device, etc.

The ideas submitted shall make use of Space Data and must be relevant/applicable in the Veneto Region. Potential challenges of interest could be (not exhaustive list):

- Pesticides and sulfates monitoring in agriculture
- Water resources management
- Crop fields monitoring and smart harvesting
- Aquaculture and seafood production ¹⁻²
- Flavescence dorée and other diseases prevention in viticulture
- Logistics in agriculture, production planning
- Reuse/retrain of rural areas ³
- Soil consumption and land monitoring (health check) ⁴
- Precise weather forecasting for agriculture, fish production/aquaculture
- Forestry and silviculture management
- Vineyards health monitoring
- Inland waterways management and monitoring ⁵

Additional Information about the Veneto Region and examples of Space Data sources can be found in chapter 2.

1 [https://www.europarl.europa.eu/RegData/etudes/note/join/2012/495826/IPOL-PECH_NT\(2012\)495826_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/note/join/2012/495826/IPOL-PECH_NT(2012)495826_EN.pdf)

2 <http://www.sinab.it/sites/default/files/2020%20-%20Pulcini%20et%20al.%20-%20Organic%20Aquaculture%20Production%20in%20Italy%20from%202015%20to%202018%20Species%20Pro.pdf>

3 <https://www.ilsole24ore.com/art/quasi-5mila-edifici-abbandonati-mappa-tesoretto-veneto-AEPURxKC>

4 <https://www.snpambiente.it/2020/12/30/rapporto-2020-sullo-stato-dellambiente-in-veneto/>

5 <https://www.wine-searcher.com/regions-veneto>

Veneto stars twofold objectives are to boost the interest of the European young generation for Space Data and promote the use of Space-connected applications in the Region. The core of the challenge is composed of three steps:

- **SELECT** and invite to pitch in Venice the 10 best ideas/concepts submitted through an online form
- **AWARD** the best advancement from ideas/concepts to mock-up/prototype during the finalists pitch session at the Veneto Space Meetings (May, 15-17, 2023)
- **EXPLOIT** the winner mock-up/prototype by hosting the winning team for a period in Veneto to learn, develop, enhance and apply their prototype to a real context.

1.1 ELIGIBILITY

The challenge is open to teams composed of fresh graduates, students, and young professionals aged 18-25, resident in EEA⁶ +Switzerland. Teams can be made of min. 2 and max. 7 members.

1.2 TIMELINE

The VeneToSTARS challenge covers a five months period and is composed of:

- SUBMISSION

Teams can register and submit their ideas/concepts from February 1st to March 15th hrs 23:59 CET.

- SELECT

Ten (10) ideas/concepts will be selected and the correspondent teams notified before the 1st of April 2023 hrs 23:59 CET.

The selected teams will have the opportunity to pitch during the Veneto Space Meetings⁷ in Venice (May, 15-17, 2023) and meet, among others, investors, end-users, and stakeholders.

After receiving the notification, each team shall communicate to the organisers the name of max. 3 members by the 15th of April who will be sponsored by the Veneto Region to attend the Veneto Space Meetings and pitch their mock-up/prototype i.e. advancement of the idea.

- VENETO TOUR (MAY, 14-17, 2023)

The selected teams will be invited to discover the Veneto Region and get free access to the Veneto Space Meetings.

Potential activities include, but are not limited to, visits and lectures at universities (e.g. Padua, Venice etc), presentations to innovation centres and incubators, experts, Venture Capital funds etc. A detailed program will be delivered to the selected teams before the trip.

Veneto Space Meetings will gather professionals from SMEs, multinational organisations, governments, space corporations, space agencies, academicians and space technology providers. The event will be a unique opportunity to showcase your products and capabilities to an international audience of buyers and procurement professionals with budget authority to spend.

In the context of the Veneto Space Meetings, teams will have the chance of exposing themselves and presenting their ideas to a selected jury (AWARD phase).

NOTE: travel and lodging expenses will be covered for a maximum of 3 members per team.

- AWARD

Within the official program of the Veneto Space Meetings, the 10 winning teams will pitch their idea in front of a jury composed of experts and stakeholders' representatives that will select the overall winner of the competition. The overall winner will be selected according to the advancement of the idea/concept versus a mock-up/prototype that has occurred from the notification date (1st April) to the pitching session (May, 16th or 17th). Special mentions can be applied to some teams.

⁶ European Economic Area

⁷ <https://spacemeetingsveneto.com/>

- **EXPLOIT (SEPTEMBER 2023)**

The winning team will be invited to spend one week in Veneto Region in September 2023. A maximum of 3 members will be covered expenses. A tailor-made program will be designed to favour meetings, coaching and advisory activities to further advance the prototype and maybe run a pilot test in a real environment thus interacting with interested stakeholders.

TIMELINE




1.3 ENROLMENT AND IDEAS SUBMISSION

1. Ideas can be submitted **ONLY** via the official form on the challenge website www.venetostars.com The contact person will be asked to provide details of all the other team members.
2. The majority of the team members must be aged 18 - 25 at the time of the submission.
3. The submission material will consist of
 - A. Deck of maximum 10 slides structured as follows:
 - I. Problem
 - II. Solution
 - III. How can your idea be applied to the Veneto Region?
 - IV. Comparison with other existing solutions/similar ideas (if any)
 - V. Team
 - VI. Development Timeline
 - VII. What will be the final concept you will bring to Venice in May?
 - VIII. What kind of support Veneto Region can provide to further develop your idea (in case of overall winning)?
 - B. Acceptance of the Privacy statement in the submission page
4. The requested material shall be submitted between 15th January and 15th April hrs 23:59 CET. Deadline extensions, if any, will be appropriately advertised through communication channels, social media and official web pages.
5. Intellectual property will remain to the idea owners and team members who submitted it.

1.4 IDEAS - SELECTION COMMITTEE AND CRITERIA

The selection committee of the first phase (SELECT) will be composed of Veneto Region experts supported by representatives from the University of Padua and Space Data expert(s).

The selection criteria will consider:

- **Relevance** > the coherence of the idea with respect to the purpose of the VeneToStars challenge, ie the applicability of the idea to the Veneto Region and the compliance with the topics (see section 1);
- **Impact** > at which time and socio-economic scale is the idea bringing concrete benefits to the region? What could be the main and measurable outputs from the application of the idea?
- **Feasibility** > can your idea be exploited using existing technology? What is the service/product Technology Readiness Level (TRL)?⁸
- **Scalability** > (SELECT phase) how well you explained the steps you could do to shift from your idea to a “mock-up/prototype” (or a demo) to be presented during the Veneto Space Meeting in case of selection
- **Presentation** > quality, organisation and overall presentation
- **Team** > gender balance and multidisciplinary

The table below gathers each of the judging criteria along with the respective evaluation range.

CRITERIA	WEIGHT
Relevance	0 - 5
Impact	0 - 5
Feasibility	0 - 5
Scalability	0 - 5
Presentation	0 - 5
Team	0 - 5

Only 10 teams will be selected and the decision of the jury is unquestionable. After the evaluation, selected teams will be properly notified via email by 1st April 2023 at 23:59 CET.

Please notice that an incomplete submission can lead to an exclusion from the challenge.

Passing the threshold of ‘2’ scoring per each criteria is mandatory.

1.5 SPACE MEETINGS VENETO

The (10) ten selected teams will be invited to visit Veneto and attend the unique three-days event “Veneto Space Meetings” in Venice <https://spacemeetingsveneto.com/>

A maximum of 3 members per team will be covered for travel and lodging expenses.

A purely indicative schedule for the teams representatives could be:

14th May: arrival and welcoming

15th May: meeting and lecture at University of Padua - meeting and visit to a vineyard or agri-food player - social dinner

16th May: exhibition access - pitching session

17th May: pitching session - winners announcement and award ceremony

Details can be found at <https://spacemeetingsveneto.com>

1.6 PITCH - JURY AND CRITERIA

The (AWARD) jury will be composed of experts representing the sponsors, the Veneto Region, national and international stakeholders, the Italian Space Agency, space companies (i.e. downstream and upstream), the National Copernicus User Forum, start-ups, investors, end-users and experts.

The selection criteria can be summarised as follows:

- **Relevance** > the coherence of the idea with respect to the purpose of the VeneToStars challenge, ie the applicability of the idea to the Veneto Region and the compliance with the topics (see section 1f;
- **Impact** > at which time and socio-economic scale is the idea bringing concrete benefits to the region? What could be the main and measurable outputs from the application of the idea?
- **Feasibility** > can your idea be exploited using existing technology? What is the service/product Technology Readiness Level (TRL)?⁹
- **Scalability** > (AWARD phase) how well you explained the steps to move from the mock-up/prototype or the demo to a final product
- **Presentation** > quality, organisation and overall presentation
- **Team** > gender balance and multidisciplinary

CRITERIA	WEIGHT
Relevance	0 - 5
Impact	0 - 5
Feasibility	0 - 5
Scalability	0 - 5
Presentation	0 - 5
Team	0 - 5
Overall advancement of the idea/concept since the SELECTION communication	0 - 5

As already anticipated, the overall winner will be selected according to the advancement of their idea/concept from the notification date (1st April) to the pitching session (16 or 17 May).

For example if you submitted a 'disaster monitoring tool concept' by 15th March and you have been selected to fly to Venice, during the "Veneto Space Meetings" live pitch you can showcase a working demo or prototype screenshot or beta version of the tool.

The decision of the jury is unquestionable. The overall winner team will be invited to spend a period in Veneto Region tentatively in September. According to the sponsors decision some runner-up teams could be awarded a special mention/prize.

1.8 EXPLOIT (SEPTEMBER 2023)

The winning team members will be invited to spend one week in Veneto Region in September 2023 and a maximum of 3 members will be covered expenses. A tailor-made program will be designed to favour meetings, coaching and also advisory activities to further advance the prototype and maybe run a pilot test (i.e. real case application).

2. AVAILABLE RESOURCES

The challenge objective is twofold:

- Raise participants' awareness on Space Data sources and accessibility
- Exploit innovative ideas that starting from the Veneto Region needs in the Agrifood-tech arena could expand their reach

The below information are examples of Space Data sources followed by some insights about the Region

2.1 SPACE DATA

The main Space Data sources related to the EU Space Programme can be divided into five main packages:

- Copernicus
- Galileo
- EGNOS
- Govsatcom
- EUSST

The VeneToSTARS Challenge: "Space Data for AGRI-FOOD" is interested in ideas using the first three.

Copernicus is the European Union's Earth observation programme, looking at our planet and its environment to benefit all European citizens. It offers information services that draw from satellite Earth Observation and in-situ (non-space) data.

EUSPA has created a simple guide on how to access Copernicus data for people who hear about it for the first time.

Galileo Galileo is Europe's Global Navigation Satellite System (GNSS), providing improved positioning and timing information with significant positive implications for many European services and users.

<https://www.euspa.europa.eu/european-space/galileo/What-Galileo>

EGNOS The European Geostationary Navigation Overlay Service (EGNOS) is Europe's regional satellite-based augmentation system (SBAS) that is used to improve the performance of global navigation satellite systems (GNSSs). <https://www.euspa.europa.eu/european-space/egnos/what-egnos>

2.2 VENETO REGION AGRI-FOOD SECTOR INSIGHTS

Region of Veneto agricultural sector is characterised by one of the highest revenues-generator in Europe due principally by the high specialised farming: 77.800ha of vineyards, 22.500ha of orchards, 17.000ha of vegetables and 450.000ha of extensive crops.

The quality of the products is appreciated abroad and imitated all over the world, with a constantly increasing turnover over the last years, capable of creating authentic symbols of the region, such as Prosecco or the renowned Veneto cheeses. Moreover, the Veneto Region agriculture boasts the best practices within all the agricultural sector, intended as growers, food producers, but also protection of the environment and promotion of the territory. Future steps envisage the improvement of the agricultural process in the region thanks to the promotion of new technologies (and use of new data and tools) able to reduce the production costs and the environmental footprint.

More information at www.venetostars.com