

**IdeaSquare**

The innovation space at CERN

# **EU Projects, new initiatives and IdeaSquare**

**ISAB Meeting February 11<sup>th</sup> 2022**

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## EU Projects and new initiatives

Among the different activities taking place at IdeaSquare, this presentation focuses in the circled one.

Also, spill-overs and relationships to other activities will be referred to.





**Linking science,  
innovation and the  
SDGs**

**ATTRACT: Update  
and future strategic  
steps**

# #ATTRACT Phase 1: Some numbers

- ATTRACT Phase 1 has been successfully concluded.
- It has been recognized by the EC as a landmark project (DG RTD Director Jean Eric Paquet).
- Initial quantitative and qualitative impact studies have been undertaken led by ESADE Business School. Some example numbers, interesting given the low TRL of Phase 1:
  - 170 innovation projects funded in detection and imaging (19 CERN projects).
  - Due to the ATTRACT label 18% of the funded projects got additional private investment and 30% additional National Funding.
  - 34% of the projects will go towards commercialization.
  - 100 Young innovators trained, which in 11 projects discovered new possibilities for the technologies that researchers did not envision.
- More results are available at:
  - <https://attract-eu.com/facts-and-figures/>
  - J. Wareham et al., *Systematizing serendipity for big science infrastructures: The ATTRACT project*, Technovation, <https://doi.org/10.1016/j.technovation.2021.102374>
- These preliminary results will be expanded and completed through the socioeconomic study to be undertaken in ATTRACT Phase 2 (next slide).



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# #ATTRACT Phase 2: Update

- After successfully finishing ATTRACT Phase 1, ATTRACT Phase 2 is fully ramped up.
- Three open calls have been launched with a total funding of €28 M for funding:
  - The most promising opportunities arising from ATTRACT Phase 1, for a smooth transition from the lab to the market;
  - Young innovators from universities developing ideas and prototypes for social innovation in collaboration with professional researchers within the ATTRACT ecosystem;
  - Professional scholars undertaking a socio-economic study of the ATTRACT initiative.
- The evaluation process of the calls, by three different and call-related Independent Committees, has concluded and the ATTRACT Project Administrative Office is busy completing the necessary procedures for all the projects to start, the latest, May 2022.



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ETRM A



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# #ATTRACT Phase 1 (B): Update



- The full development of the overall ATTRACT initiative continues according to the vision roadmap.
- The first steps have been taken, by the ATTRACT Consortium for the migration of the initiative, encouraged by the EC, from the DG RTD Research Infrastructures unit towards the EC European Innovation Council (EIC).
- The EIC (Innovation Ecosystems unit) launched an *ex-professo* call for facilitating this transition under the label: *HORIZON-EIE-2021-SCALEUP-01-02: Scaling up deep tech ecosystems*.
- The ATTRACT Consortium has applied and the results are expected by mid/end April 2022.
- If funded, the ATTRACT Consortium, by consensus, will launch a similar open call as in Phase 1 but with a special focus on breakthrough technologies from fundamental science applied to Sustainability challenges.
- The Grant Agreement, will provide the right frame for discussing with the EIC the further scalability of ATTRACT.

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# #ATTRACT and IdeaSquare

- IdeaSquare has evolved from being a prototype for the ATTRACT initiative to become an key integral part of it, now and in the future ATTRACT Strategic roadmap.
- How? In Phase 2, IdeaSquare will:



- Host at least 1/3 of the young innovators involved in the call for students out of the 500 expected.
- Host the professional scholars undertaking the socio-economic study of ATTRACT, expecting to be more than 20 of them.
- Host researchers and students from those projects (CERN internal and external) from ATTRACT Phase 1 that already expressed or will express their interest in continue involving young innovators and/or using IdeaSquare's rapid prototyping facilities.
- Host researchers from ATTRACT Phase 2 projects (CERN internal and external) involving students and/or using IdeaSquare's rapid prototyping facilities. (in ATTRACT Phase 2, students' involvement in funded projects is compulsory).

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## Linking science innovation and the SDGs

**Green Village: Some  
considerations**





# #The Green Village: Rationale



- A new value-driven visionary initiative steered by IdeaSquare and the Site and Civil Engineering Department at CERN (SCE).
- Rationale premises:
  - CERN is taking proactive commitments towards its environmental sustainability as a facility (see [CERN published Environment Reports](#)).
  - The SCE Department is the translator and implementer of such commitments into the reality of the CERN site.
  - **Why not providing an opportunity for linking CERN's environmental sustainability roadmap with Industrial solutions for sustainability and young innovators?**

# #The Green Village: Main vision elements

## CERN site key figures (courtesy of the SCE Dept.)



- 590 ha (220 fenced)
  - 2 main sites and 15 satellite sites
  - 670 building from 10 m<sup>2</sup> to 20.000 m<sup>2</sup>
  - 65% built before the 70s
  - 70 km tunnels and 80 caverns
  - 30 km roads
  - 1000 km technical galleries and trenches
  - 9000 persons/daily
  - 490 hostel rooms
  - 8500 working places
  - 4300 parking places in Meyrin, 1400 in Preveessin
  - 25000 daily movements to- and inter-sites
  - Public transport links in CH, not in FR
- Besides a top fundamental science research facility, from the Civil Engineering perspective, CERN, is a “large village”.
  - Making available the CERN campus and actively collaborate with those industrial organizations willing to test sustainability solutions (SCE).
  - Facilitate the involvement of interdisciplinary teams of young entrepreneurs’ who, inspired by the testing, think and prototype for cross-disciplinary applications (IdeaSquare).
  - When possible and suitable, co-fund the testing with EU grants (EU Office).



# #The Green Village: Examples of challenges



- Office space management intelligence
- Sustainable use of space facilities.
- Urban analytics and data.
- Full smart and green mobility on site.
- Zero-waste solutions.
- Improve and more sustainable waste collection and recycling.
- Sustainable solutions for energy consumption in new and depreciated buildings.

(courtesy of the SCE Dept.)



## **#The Green Village: Status, future vision and potential impact**

### **Status**

- Preliminary and informal conversations are ongoing with representatives of industry. The first reactions are highly encouraging.

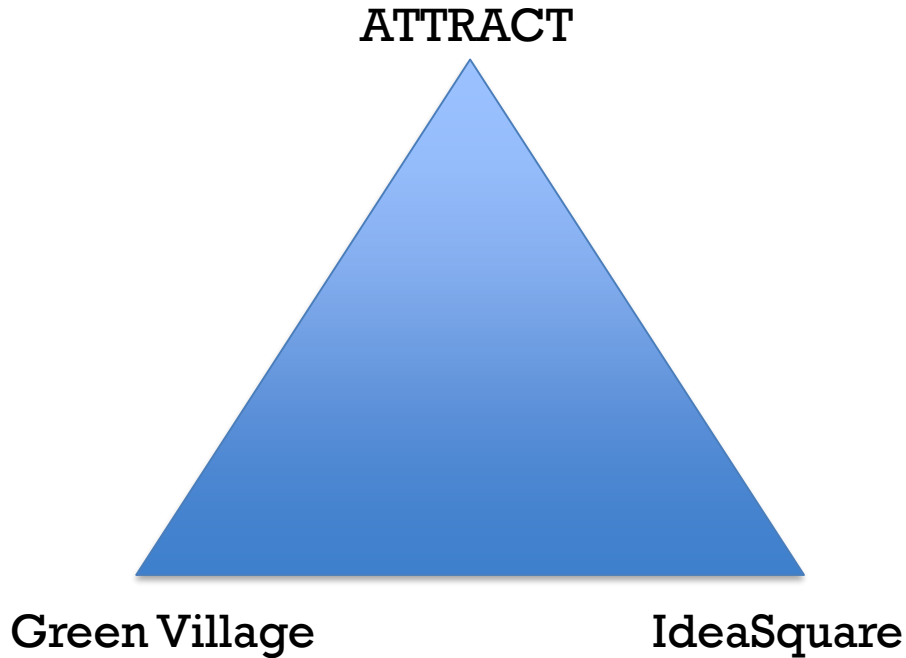
### **Future vision**

- The CERN site, as a platform for sustainability solutions, offering young innovators a real experience for getting involved in real sustainability projects.

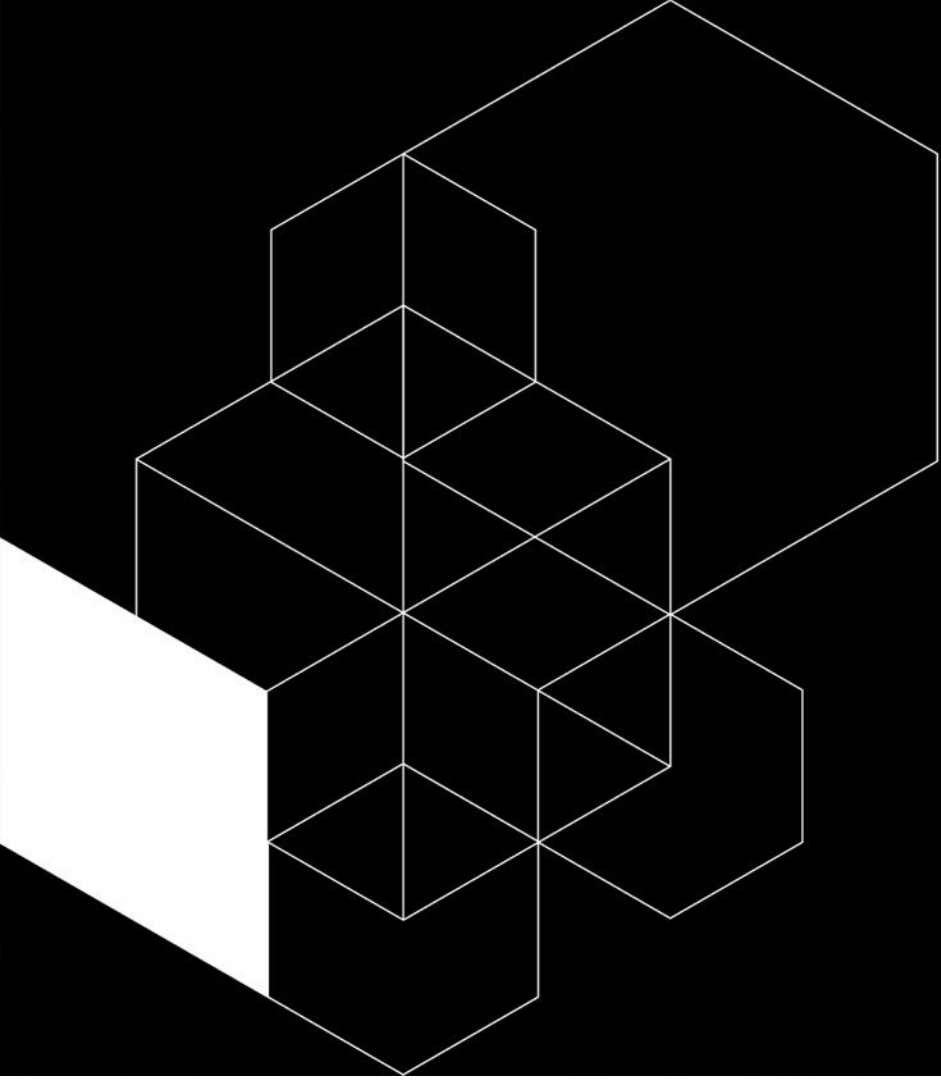
### **Potential impact for CERN's benefit**

- Becoming the first facility, in the RDI context, linking research, industry, young innovators and sustainability in one go.
- A showcase for CERN Science Gateway.
- Opens the door towards green procurement.
- An example of added value, in connection with the EU political agendas, for future high energy physics endeavors (FCC).

# #Final Reflections



- ATTRACT-IdeaSquare-Green Village cannot be understood as separate.
- They are an integrated whole (platform) linking R&D-Sustainability-Innovation-Young Entrepreneurs.
- As a whole, they integrate and promote the interdisciplinary collaboration of different departments and activities at CERN.
- This platform has enormous leverage power that can be used for strongly enhancing the image of CERN for the benefit of future large R&D&I strategic endeavors (e.g. FCC) as well as showcasing the link between CERN-Sustainability to the general public (e.g. Science Gateway).



**Thanks for your  
attention and any  
questions**



*Idea<sup>s</sup>*

