

IdeaSquare
The innovation space at CERN

IdeaSquare and EU Projects

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Presentation Overview


- IdeaSquare strategy wrt EU Funding
- Brief update on running projects and the pipeline
- Conclusions

IdeaSquare

The Innovation Space at CERN

Since the number of EU Projects running at IdeaSquare is significant and will increase in the coming future, it is useful to remind the strategy and rationale behind it.





IdeaSquare runs several EU projects now and it will continue to be so
in the future:

Why and what is the rationale behind it?

■ Why?

- Contributing, with additional resources, to CERN R&D&I programs.
- Contributing to CERN's pillar of education.
- Contributing to increase CERN's footprint in Brussels. In other words, being perceived, as an active actor that uses EU policy instruments, therefore with “full rights” to discuss with the EC about future European R&D&I strategies and policies.

■ Rationale?

- Getting involved in European Projects fully aligned with the “why” in the previous slide.
- Getting involved in European Projects that bring a tangible and strategic value added to IdeaSquare’s values, vision and operations (e.g. education, training, prototyping, linking technology to society).
- Getting involved in European Projects for boosting cross-collaboration inside CERN Departments and with organizations from the CERN Member States.

What run in the past and it is running now?

Project	Contribution to CERN R&D&I programs	Contributing to the CERN pillar of education	Contributing to increase CERN's footprint in Brussels.
ATTRACT Phase 1 (completed)	19 projects of CERN funded related to Detection and Imaging technologies (100 kEuros/each).	100 Young Innovators trained coming from CERN MS.	<p>Star project as recognized by the EC.</p> <p>ATTRACT Project has been selected by Commissioner Mariya Gabriel among the 5 ones strongly contributing to the New European Innovation Agenda adopted by the EC and the MS recently.</p> <p>https://attract-eu.com/attract-was-chosen-as-one-of-the-most-relevant-projects-supporting-neia/</p>
ATTRACT Phase 2 (on going)	1 project of CERN funded with 2 M Euros on Smart Pipes and Ducts.	500 Young Innovators trained coming from CERN MS (ATTRACT Academy integrated into IdeaSquare education programs)	
ATTRACT Phase 1B (ongoing)	Launching an open call for technologies coming from science that tackle Sustainable Development Goals for funding 30 projects 100kE/each.	Additional opportunities for young innovators coming from Phase 2.	
CROWD4SDG (ongoing)		Testing citizen science education methodologies developed at IdeaSquare.	<p>CERN IdeaSquare highlighted on a pier basis with other innovations hubs outside Europe such as the Hitachi and the University of Tokyo Joint Research Laboratory.</p> <p>https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/f35fded6-bc0b-11ea-811c-01aa75ed71a1</p>

What is in the pipeline?

Project	Contribution to CERN R&D&I programs	Contributing to the CERN pillar of education	Contributing to increase CERN's footprint in Brussels.
CARAT (research infrastructures for a sustainable future)	<p>Contributing to achieve the Environmental Commitments of CERN.</p> <p>Contributing to achieve the plan 2040 elaborated by the Site and Civil Engineering at CERN (SCE)</p> <p>Provide resources for the Green Village Initiative recently launched (SCE-IPT Depts).</p>	<p>In the CARAT project a minimum of 50 young innovators will be trained</p>	<p>Putting CERN at the forefront of those Research Infrastructures actively addressing Climate Change related issues.</p>
Women in Tech	<p>Funding Opportunity for those deep tech start-ups/SMEs of CERN MS led by women.</p> <p>Open Call for a total 11 M Euros funding at 75 k Euros/ SME or start-up.</p>	<p>Linking to the ATTRACT project ecosystem and the young innovators of the ATTRACT Academy.</p> <p>Increasing the number of Young Innovator to be trained.</p> <p>Integrated in IdeaSquare training programs.</p>	<p>The Women in Tech initiative of the EC is the jewel programme of Commissioner Mariya Gabriel. It is launched to stay and grow in funding for addressing the gender gap in Deep Tech.</p> <p>The EC contacted the ATTRACT Coordinator off-line for encouraging the submission of a proposal to coordinate the Woman in Tech.</p> <p>Enhancing the ATTRACT initiative and "offering help and expertise to the EC" in a key strategic program.</p>



Brief Updates on EU Projects

ATTRACT Phase 2

- Open Call Launched and Evaluated by an independent R&D&I Committee.
- 18 projects selected for funding out the most promising in Phase 1 with 2 M or 500 k Euros for achieving pre-industrial products.
- Projects up and running almost for 1 year. Mid-term review in June.
- One of CERN (2M Euros) on smart pipes and ducts.
- 500 young innovators on training (ATTRACT Academy). A minimum of 1/3 of them linked to IdeaSquare and financed with ATTRACT budget.
- One multifaceted forecasting socioeconomic study launched, financed with ATTRACT budget, elaborated by different scholars. The goal: Provide information to the EC on the impact of scaling the ATTRACT initiative (upon EC request).

ATTRACT Phase 1B

- Open Call to be launched by the end of March 2023.
- Total funding for 30 projects (100 k Euros/each).
- Call scope:
 - Novel and breakthrough detection and imaging technologies are sought, capable of collecting data (physical, chemical, biological, etc, characteristics) with high specificity and extreme sensitivity (orders of magnitude beyond those being the state of the art) while offering high spatial and temporal resolution and massive parallelism.
 - Proposed technologies should be suitable for seamless integration into pervasive, low-cost and low-power ICT systems (e.g. portable, wearable, IoT, etc).
 - By the end of the project, the technology should achieve an integrated prototype.
- Additional pool of technologies for the trained young innovators in Phase 2.
- Closely linked to CERN's Green Village initiative.

■■■■■ CARAT: First, a brief word about the [Green Village Initiative](#)

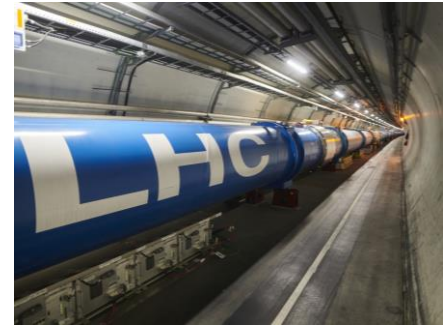
- Launched and ramping up since 2022.
- Strong collaboration between the CERN Departments IPT (EU-PI and IdeaSquare) and SCE.
- Consolidating in 2023 with a strong EU funding component.
- Fully aligned and contributing to CERN [environmental commitments](#) and [SCE Challenges](#) also reflected in the [plan 2040](#).

Green Village: A Simple Idea embedding great value added

- As many organizations, CERN faces challenging environmental commitments for making sustainable the R&D taking place within its facility.
- Do we have to reinvent the wheel for testing and implementing solutions?
- No, there is a lot of interesting and possibly breakthrough technology in the pipeline of different organizations that they also would like to test fast.
- Let's offer them the CERN campus and seek for win-win situations (pilots).
- And also take advantage of EU funding.

CERN CAMPUS: The Perfect Testbed Village for Sustainability Solutions

- 590 ha (220 fenced)
- 2 main sites and 15 satellite sites
- 670 buildings from 10 m² to 20.000 m²
- 65% built before the 70's
- 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 Prévessin
- 25000 daily movements to- and inter-sites
- Public transport links in CH, not in FR
- 150000 visitors /yearly



WHAT WE ARE LOOKING FOR



CARAT

- Responding to the EU Call: *HORIZON-INFRA-2023-TECH-01-01: New technologies and solutions for reducing the environmental and climate footprint of RIs (Research Infrastructures Programme)*. Deadline is March 9th. CERN asked for this call in the last EC-CERN MoU meeting.
- SCE-IdeaSquare are the coordinators. 5 M total EU money.
- The consortium is: CERN, ESO, ESRF, ILL, XFEL, EMBL and GSI. CERN budget will be substantial (1.7 M Euros).
 - Creating digital twins of buildings for managing them sustainably.
 - Monitoring the CERN biodiversity for present and future preservation.
- We will cross-benefit also of the pilots run by the other partners.
- Young innovators from all our MS will be trained as well at IdeaSquare.

Women in Tech

- Responding to the EU Call: *HORIZON-EIE-2023-CONNECT-01-01: Organisation of the Women TechEU Scheme (Innovation Ecosystem Work Programme)*. Deadline March 23rd .
- Context: Before last Christmas, the EC contacted the ATTRACT Coordinator off-line expressing their interest on the ATTRACT Consortium for sending a proposal.
- The Women in Tech initiative of the EC is the jewel programme of Commissioner Mariya Gabriel. It is launched to stay and grow in funding for addressing the gender gap in Deep Tech.
- 15 M total EU funding, single project). 75% in an open call for financing SMES/startups led by women with 75k a piece.
- The ATTRACT Consortium is on board and CERN IdeaSquare will coordinate.
- Young innovators from all our MS will be trained as well.
- Extension of the ATTRACT Ecosystem.

Some Conclusions

- IdeaSquare, ATTRACT, Green Village and EU Funding form an indivisible whole now and in the future.
- This whole serves in a horizontal manner, a large part of the CERN internal community today as well as boosts collaborations with CERN MS organizations and could be extended in the coming future.
- The strategized approach to EU funding constitutes one of the key backbones for this horizontal service as well as crucial to increase CERN's footprint in Brussels.
- Specially this last point could become strategically important for CERN's future endeavours (FCC).



Thanks and Questions