



Memorandum

To : Chris Hartley/IPT-DI

From : Markus Nordberg/IPT-DI

Subject : Updating of IdeaSquare Strategic Plan

Cc : Pablo Tello/IPT-EU-PI, Roy Pennings/IPT-EU-PI; Mar Capeans/SCE-DI (as CERN representative of ISAB-G)

Purpose of this Memo

As the CERN management has recognized that IdeaSquare and ATTRACT have become fundamental pillars of CERN's strategy and image, further guidance and support is needed for updating the IdeaSquare strategy for 2025 – 2030 for the overall benefit of CERN. The international IdeaSquare and GRADE Advisory Group ([ISAB-G](#)), formed in 2016 by the request of the Director-General, is asking IdeaSquare to update the endorsed, current [Strategy Plan](#) beyond 2025 to keep up with CERN's forward looking strategy¹. As ISAB-G recommends the direction of strategy, the focus here is on the internal resourcing of IdeaSquare activities up to 2030² in line with the overall CERN strategy.

Proposal for a policy for IdeaSquare to follow

Based on guidance received both from ISAB-G and you, we wish to propose taking the following priority program to follow:

- 1) IdeaSquare is to further contribute to future projects of CERN. This requires capabilities building to support efforts being made in detection and imaging R&D. More specifically, this implies;

¹ We base our understanding on the document "[CERN's Main Objectives 2021-2025](#)".

² As a basis for updating the plan, see IPT-DI/12-22 (3.11.2022) for further reference.

- a. Offering the [GRADE](#) MoU framework for creating and supporting (very) early stage and time-limited R&D&I initiatives in detection and imaging, and to foster them either towards e.g. RD-type of collaborations or into new ATTRACT initiatives or other, suitable EU-funded projects³ for the potential benefit of future CERN physics projects and detector R&D activities.
- b. Investigate ways how to extend the ATTRACT program beyond 2025 as a source of stability (i.e. scaling up cycles or Phases 1 and 2)⁴, benefiting from the input collected and experiences gained at CERN.
- c. Offering space at IdeaSquare for projects to test and prototype ideas in detection and imaging, as well a place to interact with students (e.g. our [CBI-students](#))⁵.

2) Optimize the use of available infrastructure

- a. Offering technical, prototyping and entrepreneurial support⁶ and training at IdeaSquare for CERN personnel in the use of additive manufacturing (and design), laser cutters, water jets and electronics (Arduino, Raspberry Pi, FPGA/Labview etc.)⁷.
- b. Offering CBI-methodology based activities for Science Gateway (SGW) visitors, both at SGW and at Ideasquare⁸.
- c. Offering, whenever feasible, training modules for external organizations, as a source of funding⁹.

3) IdeaSquare is to further contribute to ambitions of CERN

- a. Continuing efforts in launching EU-funded initiatives together with SCE, IPT and HSE, as a source of stability, around CERN's [Green Village](#)-concept.

³ Three of the initial four GRADE projects evolved into ATTRACT (Phase 1).

⁴ It should be reminded that EU-funds will not, however, cover e.g. operating costs.

⁵ Currently, the IdeaSquare lab spaces are actively used by the Neutrino Platform and other projects (see a general status report [here](#)).

⁶ Discussions are on-going with the KT Group on developing the "Garage" concept. This would, however, require more space than is currently available at IdeaSquare.

⁷ Recent examples can be found [here](#).

⁸ Examples of these offerings can be found [here](#).

⁹ As an example, we have been working with ESADE business school since 2017.

- b. To help CERN researchers in their instrumentation development in line with the CERN MTP, using IdeaSquare for small projects and events (like hackathons) for prototyping ideas suitable for CERN and its future projects, also engaging e.g. CBI-students¹⁰.

Implementation

Based on the above approach, we propose the following way to implement our plan:

- 1) Continue current efforts to seek (selectively) EU funding with the aim of funding the major share¹¹ of activities at IdeaSquare, for the overall benefit of CERN.
- 2) Discuss with the CERN & Society Foundation of possibilities to encourage and support young people's interest in physics, engineering and innovation, in collaboration with the KT Group.
- 3) Meet with the Science Gateway (SGW) management to discuss and agree on possible offerings to SGW beyond 2025, without compromising the key objectives of IdeaSquare.
- 4) Actively explore and implement ways to further extend or scale up existing activities (e.g. entrepreneurial support & training, workshops) for external parties such as institutes, universities and NGOs, to cover incurred costs and to contribute to the efficient use of the available infrastructure.
- 5) Through SCE, investigate options how to correspondingly expand the space at IdeaSquare to meet the requirements as proposed above.

Conclusions

Based on above, we request green light to proceed as proposed to meet the ISAB-G request to us to update and extend the Strategy Plan; to explore further how to expand our current offerings (and correspondingly, space required) as well as to seek for external sources of funding to facilitate the possible extended offerings.

¹⁰ Recent examples include e.g. designing self-sustained battery-collection units.

¹¹ To remind, all costs cannot be charged externally, as EU funding does not cover e.g. operation costs.