

ISAB-G FINDINGS AND RECOMMENDATIONS AFTER ITS MEETINGS

ON 24 FEBRUARY AND 6 APRIL 2023

1. Concerning the IdeaSquare activities in 2022, ISAB-G is impressed with the progress. The fast ramp-up of activities after the Covid-19-related restrictions were lifted over the summer is impressive, including receiving many students in CBI programmes. The communication efforts have improved to a very satisfactory level. The activities for CERN personnel have mobilized a significant number of them. The focus on ATTRACT-related activities provides reasonable financial stability. The Green Village idea has taken shape and IdeaSquare is well involved. ISAB-G thanked the IdeaSquare personnel for their achievements and for the clear and informative presentations.
2. ISAB-G considers that the sharing of tasks and co-leading of the activities between the two IPT-groups at IdeaSquare is natural. ISAB-G concludes that the structure of groups and teams at IdeaSquare have clear reporting lines. ISAB-G **recommends** continuing the current sharing of administrative tasks between the basic IdeaSquare operations and the EU-funded project activities.
3. ISAB-G finds that the financial situation of IdeaSquare has improved. For the coming two years the required basic operation budget seems to be secured, for the longer term the baseline for personnel may be covered from EU subsidies. The worries have now shifted to sufficient funding being available to allow a healthy growth of activities that requires more space and to have long-term baseline funding to allow activities that are not a priori earmarked, e.g., CBI activities not relating to EU funded projects. The latter is needed to keep IdeaSquare the vibrant creative space for new ideas. There is a parallel between the funding situation of IdeaSquare and a typical start-up company in terms of instability and keeping everybody on their toes. ISAB-G **recommends** that the CERN management sets up modest stable long-term baseline funding that covers basic operations that cannot be funded from grants such as by the EU, and some free-running creative activities in addition to the grant-sponsored activities. ISAB-G further **recommends** that IdeaSquare regularly informs the CERN Finance Committee (e.g., once a year) of its activities and connects through the CERN KT Group to the industrial liaisons of the (Associate) Member States.
4. ISAB-G finds the need to extend the IdeaSquare building natural, given the increasing involvement in EU-funded projects (ATTRACT, Green Village etc.) as well as with Science Gateway. ISAB-G **recommends** that IdeaSquare works together with the CERN management to explore ways to expand the building and suggests that IdeaSquare finds a significant part of the required funding for this expansion from external parties, such as from providing executive management courses and other activities for third parties that align with the agreed IdeaSquare strategy.
5. ISAB-G notes the success of the Terra Forming theme for CBIs. It **recommends** continuing with this theme and to further developing it.
6. ISAB-G took note of the evolution of the CERN IdeaSquare Journal of Experimental Innovation (CIJ). CIJ now has a rather stable number of submissions, publications, and readers audience. However, it falls below the threshold to be indexed by Web of Science. The unique character of CIJ is both a strength and a weakness. A general concern is that large amounts of data are acquired for CIJ-related research without the goals or the conditions of data gathering being sufficiently clear. ISAB-G suggests

that CIJ could organise training, especially for young researchers, to improve that situation. Such training will lead to higher-impact articles and possibly more submissions to CIJ. ISAB-G recognises the large in-kind contributions made by S. Makinen V. Brancolini and the other editors and thanks their employers for allowing them to do this important job. ISAB-G recommends improving the advertisement of CIJ and bringing it to the attention of a much larger community. CIJ should set target publication rates well in excess of 20 per year.

7. ISAB-G took note that ATTRACT is now running stably and that a new Phase-1B is starting imminently and of the efforts to bring ATTRACT and IdeaSquare to the attention of the relevant EU bodies and **recommends** continuing the effort to work with the EU on continuing ATTRACT and ATTRACT-like activities, such as Green Village, CARAT and Women in Tech, and even to intensify the collaboration with the EU on this if possible.

8. ISAB-G supports the presented Green Village initiative, which visibly will connect IdeaSquare with CERN strategies for the future and recommends continuing to incorporate technologies and ideas that contribute to the Green Deal from the outside world inside CERN, therefore offering to re-vitalize one of the key ideas behind GRADE.

9. ISAB-G appreciates the efforts to strengthen the role and visibility of IdeaSquare in supporting CERN in its future plans. ISAB-G **recommends** that IdeaSquare continues to offer fast prototyping to CERN personnel, continues to host an internal open day (“Open Doors”) and continues to host high-level events to bring together experts from several different domains, including the EC and other European related policy makers. IdeaSquare should showcase how their education programmes may help CERN employees to think about creating value for society.

10. ISAB-G **recommends** that IdeaSquare explores the possibility to better involve the CERN Member States, especially those from the East and South parts of Europe, e.g., by better promoting IdeaSquare in these countries, offering satellite activities, organizing hybrid events or by associating to similar parties in these countries. If hybrid events will be hosted regularly, ISAB-G recognizes that some investment in supporting equipment should be done.

11. ISAB-G took note of the achievements of IdeaSquare in Crowd4sdg which is now coming to an end. It recognises that it only tangentially touches on IdeaSquare aims and strategy. Nevertheless, because of its innovative role model, ISAB-G **recommends** that IdeaSquare exploits this citizen science project to its full potential, and more specifically uses the lessons learnt from Crowd4sdg as part of CERN’s overall strategy related to citizen science (e.g., Science Gateway, the Library, the experiments, IT).

12. ISAB-G took note of the contacts between IdeaSquare and Science Gateway and the plan for a joint Pilot project for later this year. A good relationship will strengthen both entities. ISAB-G **recommends** to keep working with Science Gateway in positioning IdeaSquare in the palette of offerings of Science Gateway.

13. ISAB-G notes that the identified security and access questions related to IdeaSquare now being on the public side of CERN, are being addressed. ISAB-G **recommends** keeping both the open spirit of IdeaSquare and guaranteeing a safe workspace for those working there.

14. ISAB-G congratulates IdeaSquare on its new communication strategy and its execution. ISAB-G **recommends** that the ongoing incorporation of both an expert abstract and a layman's summary in ATTRACT showroom be completed soon.
15. ISAB-G appreciates that interesting detector R&D projects take place at IdeaSquare, e.g., concerning electronics and three-dimensional scintillator detectors. ISAB-G **recommends** exploring the possibilities for a residence programme for deep tech innovation. The CERN programmes for fellowships and associateships could provide such a framework. A link could be established with the ECFA detector R&D and training programmes (e.g., via IdeaSquare web pages). IdeaSquare could be a valuable partner in educational networks, such as Erasmus Mundus Master programmes for instrumentation.
16. ISAB-G much appreciates the work done on Relation Value, with a tool being developed by Prof. Ambos from the University of Geneva in conjunction with IdeaSquare. Such a tool may have much wider use for knowledge institutions than just IdeaSquare. ISAB-G **recommends** to further develop this tool and presenting it at a next meeting.
17. Concerning equipment for rapid prototyping ISAB-G is satisfied with what is available and notes that this is well used. ISAB-G **recommends** being careful with new acquisitions unless there is the expertise available to have it well used. An example of a possible acquisition that could be explored for potential is eXtended Reality technology.
18. ISAB-G **recommends** that the membership of its committee is published on the IdeaSquare website.