

Present: Mar Capeans (CERN), Kalevi Ekman (Aalto University), Sijbrand de Jong (Radboud, Chair), Erika Garutti (Hamburg), Michela Magas (ICF)*, Ezri Tarazi (Technion); Markus Nordberg (CERN, secretary).

Meeting agenda: <https://indico.cern.ch/event/1253317/>

*part-time

S. de Jong opened the meeting at 10.30 and welcomed everyone to the 2023 Annual ISAB(-G) meeting and presented the goals and overall schedule for the meeting. On behalf of the Board, he warmly thanked the outgoing members, Julian Birkinshaw (LBS) and Matteo Cavalli-Sforza (IFAE) for their critical friendship and all their help. The draft agenda was approved.

M. Nordberg provided responses to the ISAB recommendations in 2022 (Appendix 1). Of the ten recommendations made by ISAB, eight have been implemented or launched. Recommendations 4 and 8 are waiting for further guidelines from the CERN management. ISAB enquired about the nature of the new access system being implemented for IdeaSquare. **M. Capeans** explained special efforts are being made to keep it both simple and to reflect the spirit of openness of IdeaSquare, at the same time fulfilling internal CERN requirements.

M. Nordberg proceeded then to present an update to the Strategy Plan 2023 – 2025 (Appendix 2). He summarized the key activity drivers and resources, emphasizing that IdeaSquare is now fully engaged in ATTRACT and showed the distribution of tasks across the IdeaSquare personnel across the key activities. M. Nordberg reminded ISAB that Figure 11 (Budget Plan) has been updated to reflect the planned expenditures and income (CERN, other income). M. Nordberg noted that the plan of extending IdeaSquare by 400m² is now included as a place holder but that this has not yet been formally discussed with the CERN management. He noted that in case CERN would not make an operating budget available beyond 2023, plans for extending the building would then need to be shifted further in the future.

In the discussions that followed, ISAB asked about the financing plans for the proposed extension of IdeaSquare, and where the size of the extension comes from. M. Nordberg explained that plans for extending the building go back to 2017 when an internal study was made to re-use some materials from Proto-DUNE, but this did not go further. The extension is assumed in the Plan to be financed by external income (e.g. offerings to exec mgmt. courses and/or philanthropists) but not by 2025, thus requiring more detailed discussions with the CERN management as to how to possibly handle the cash flow. It was commented by ISAB that the size (400m²) sounds somewhat modest given the future plans for Science Gateway, Green Village and future ATTRACT and that this should be carefully looked at, even if the cost would then be higher.

V. Brancolini continued by giving an update on [CIJ](#) (Appendix 3). The number of annual accepted articles is stable, and an updated strategy is in place to increase the number of articles and further strengthen the niche in which CIJ currently operates. She noted that CIJ is now integrated closer to CBI and ATTRACT projects and that increased marketing of the Journal is now happening.

ISAB expressed its appreciation in the evolution of CIJ and in the in-kind contributions being made by S. Makinen, V. Brancolini and all the reviewers and co-editors involved. ISAB asked about the nature (re-usability) of the data authors are encouraged to submit as part of their articles, to which V. Brancolini clarified that co-editors and reviewers are expected to be helpful in this respect¹. ISAB also asked whether any studies were being submitted where the aspect of diversity bias (e.g. gender) is addressed to which V. Brancolini responded she was not aware but would pass on this suggestion to the co-editors.

P. Tello then continued by first introducing **R. Pennings** who has joined the EU-Group and IdeaSquare to help with running ATTRACT and launching other EU-initiatives, and then providing an update on ATTRACT and related new initiatives (Appendix 4). He presented the current role of IdeaSquare in these initiatives and explained why and how IdeaSquare is an integral part of them.

In the discussion that followed, ISAB observed that ATTRACT Phase-1B (5M€) is less than 17M€ in the previous Phase-1 and asked whether this suggests ATTRACT is in decline. P. Tello clarified that Phase-1B is transition funding while integrating ATTRACT into future EU-funding structures. Thus, it should not be misinterpreted as ATTRACT coming to an end, but based on current new trends in Brussels it is clear that new initiatives (i.e., concrete projects such as in the Green Village) will also be crucial in securing the longer term success of the ATTRACT as a feasible and sustainable funding model. ISAB also asked about the role of IdeaSquare in administrating the Green Village initiative like CARAT and the Women in Tech calls, to which P. Tello confirmed IdeaSquare will run them as ATTRACT, nevertheless noting that they will not be as admin-intensive as ATTRACT. P. Tello also clarified that in the Green Village initiative, 21 proposals have so far been received from industry to provide environmental technologies to be tested at CERN, where IdeaSquare plays a role also for incorporating new technologies from the outside.

C. Marcelloni and **A. Yannouli** gave an update on the status of Crowd4SDG (Appendix 5). She summarized the final phase of the project (Cycle 3), culminating in the Final Conference at IdeaSquare on March 17th where 5 projects will present their results, as well as 3 projects from the previous Cycles. M. Marcelloni also highlighted the material produced for future use, e.g. in CBI.

ISAB asked about the fate of the teams from the past Cycles to which M. Marcelloni clarified that apart from one team, all of them will be present in the Final Conference to also offer

¹ She noted a shift is taking place among reviewers to move from being critical to be more collaborative and mentor-like. Related to this, M. Nordberg noted that originally, linked to each Annual ISAB meeting, a dedicated CIJ WS would take place for PhD students to help them to prepare submissions to CIJ, including how to design data collection and analysis for possible future comparative studies. Due to COVID, this never happened but if ISAB wishes to return to 2-day annual events, such a WS could be organized.

them help to take their projects further. ISAB also asked about how IdeaSquare will take further its gained experience in Citizen Science, to which C. Marcelloni and M. Nordberg responded that this will depend on how CERN in general will get involved in Citizen Science initiatives and how IdeaSquare can best contribute, most likely in connection with Science Gateway. Further guidelines are expected to be received from the CERN Management in 2024.

C. Batista provided an update on CBI-like student activities at IdeaSquare (Appendix 6). She noted that in 2022 activities at IdeaSquare were fully resumed only as of June, nevertheless 434 students could be facilitated by IdeaSquare personnel (ca. 370 physically at IdeaSquare). She also noted that most of CBI activities are now part of ATTRACT and that the IdeaSquare team is being strengthened to manage the increasing CBI activities. In line with the Strategy Plan, pilot projects have started in Terra Forming, aiming at launching a new student program in 2025.

ISAB asked whether the possible involvement of IdeaSquare in the “Grand Challenge” of the Royal College of Art (RCA) could be a new model for IdeaSquare operating outside CERN, C. Batista, M. Nordberg and P. Tello clarified that RCA is a special case where IdeaSquare’s role is more limited, despite the appealing impact, so not a viable model in general. They also emphasized that it would rely on additional resources (T. Utriainen and R. Muller have been asked to look into this). ISAB noted that to handle all the increasing student activities planned ahead related to ATTRACT, Green Village and Terra Forming, the need for a new building is inevitable.

D. Zimmermann continued giving an update on prototyping-related activities at IdeaSquare (Appendix 7). Scientific projects at CERN continue actively to use the workshop premises available at IdeaSquare. Technical workshops have resumed since last June, and are ramping up with very good attendance (e.g., FPGA). D. Zimmermann reported also on CBI-related prototyping activities.

ISAB asked about the level of usage of the equipment at IdeaSquare and why projects go there. D. Zimmermann estimated that while the students are in (roughly half of the time), equipment is in good use. Thus, there is more scope to use the equipment for the CERN projects but having only one person to support all technical activities at IdeaSquare, the projects using the equipment need to be self-sufficient. D. Zimmermann added that projects come here because they find it faster, more flexible and efficient to come here. ISAB discussed what type of equipment should be available at IdeaSquare, noting that as a general rule, whatever one has, one should then master it really well (i.e., not a collection of ill-used equipment that no-one knows how to use). Use of new technology (small investments) is also encouraged if it helps to demonstrate its potential and limitations for students and other curious users (e.g., eXtended Reality-technology).

M. Capeans summarized the status of planning for the New European Bauhaus [\(NEB\) event](#) to be hosted at IdeaSquare the following week². The main goals are ideation of the concept of “NEB Academy” and setting an agenda for the “DigiNEB”. This is a bottom-up, exploratory

² This follows from the ISAB recommendation number 5.

event and the potential role of IdeaSquare/CERN in the NEB community is to be considered following the event. The event will be moderated by **M. Magas** who emphasized the multidisciplinary and grass-roots nature of the event focusing on creative commons and digital ecosystems. She also invited P. Tello to give a presentation about ATTRACT.

C. Marcelloni and **J. Poulailon** continued by providing an update on the communications activities and support for IdeaSquare (Appendix 8). C. Marcelloni showed some statistics on the use and impact of social media platforms. She also shared several video clips (links visible in the presentation), highlighting the recent [Open Doors event](#)³ and other events.

ISAB took note of and congratulated with the impressive results obtained both in the outreach/inreach efforts made by IdeaSquare. ISAB asked about the strategy of IdeaSquare related to the expected high numbers of visitors to Science Gateway and asked to comment on the (modest) level of followers on the social media. C. Marcelloni clarified that the current strategy is to engage interested people, not in general numbers of “likes” and thus go for more qualitative “KPIs”. She added that the unique offering from IdeaSquare within the basic Science Gateway messages about CERN is its *mind-set*. ISAB acknowledged the wonderful work done since last year but asked why ISAB was not visible on IdeaSquare web pages. C. Marcelloni expressed her apologies for this and assured that it will be fixed soon, along with other people who are helping IdeaSquare.

Related to the status of R&D&I activities at ID2, ISAB visited the Light Lab (U. Kose, G. Aielli) where an update was offered on on-going work on Neutrino-platform and on fast-tracking trigger chip for LHC experiments (Appendix 9)⁴.

M. Nordberg proceeded then to present the organization structure and Budget Plan in more detail (Appendix 10). He reminded ISAB of the history of IdeaSquare in the internal organization structures of CERN and why and for what ISAB was created. He also explained why today two groups of IPT, namely DI and EU-PI play the central role in it, in addition to involvement from EP and elsewhere. M. Nordberg moved on to describe the Budget Plan 2023-2025 and to comment on longer-term planning, as recommended by ISAB last year. He noted that the plan up to 2025 assumed an annual operating budget from CERN and that the planned new income (from exec mgmt. education) would be used towards funding the building extension. On the plans beyond 2025, M. Nordberg commented on a draft plan for growth requested by and submitted to the hierarchy late last year (but not yet discussed further), noting that it is optimistic but doable, nevertheless not being able to be fully self-financing. P. Tello added that funding prospects from the EU are good but not sustainable, as they do not cover operating costs and as 70% of the awarded overheads (some 25% of the funding total) are removed by the CERN Administration.

ISAB considers that the structures put in place have so far worked well and that division of labour between the two groups in IPT at IdeaSquare (i.e., sharing of admin and EU project

³ It is reminded that ISAB recommended an annual Open Day for the CERN community in 2019 (#8) but due to COVID-restrictions, could not be organized until now.

⁴ Due to lack of time, M. Nordberg did not present an update on the status of GRADE. It is noted that Neutrino-activities have their own reporting structures, thus falling outside the scope of GRADE but new initiatives are expected to soon emerge in GRADE, e.g. related to Green Village.

mgmt. tasks) is natural. ISAB noted that EU-funds cannot cover all costs at IdeaSquare, in particular infrastructure costs, and a co-funding element from CERN for baseline support needs to be there. ISAB asked whether IdeaSquare has a line of its own in the MTP planning of CERN (i.e., 5-year rolling forecast) to which M. Nordberg responded it does not.

S. de Jong then thanked IdeaSquare staff for the high-quality and informative presentations and opened the internal deliberations of the ISAB-G. He noted the tremendous progress made since last year and that business after COVID has resumed beyond expectation. The growth model is really there and activities are climbing for which more person power is now needed to support it and that the need for additional space is inevitable. This view was unanimously supported by the ISAB.

In the discussion that followed, a concern was raised that a loss in priorities might take place and that perhaps another round of prioritizing could be useful (e.g. cost/benefit ratio in social media efforts). Other comments were made that there is now a lot more focus (see Strategy Plan) but that this does then result in reduced creative freedom. Therefore, a balance should be struck between efforts made inside EU and other externally funded projects and activities, and adequate freedom to find and test new, creative requests made to IdeaSquare.

It was observed that IdeaSquare is now growing rapidly (fuelled by EU-funding) in line with the Strategy Plan, as requested, but while doing it, it is also transforming itself and exploring new initiatives. Many activities are being reported but there is a transformation in progress. IdeaSquare has demonstrated it has internal mechanisms in place to determine what initiatives it is able to support and what not.

Noting that IdeaSquare does not yet have sustainable income and is growing, thus needing to demonstrate internally that it is a “must have”⁵, it was suggested to create a residency program on deep tech innovation at IdeaSquare for innovation researchers from around the world. This could attract longer-term research groups to IdeaSquare which would complement the short-term students coming and going. It could also help CERN personnel thinking about creating start-ups. As CERN has in place already different types of residence programs, perhaps IdeaSquare could assume a role in (re)organizing such a program. In particular attracting research associates (or fellows) in the existing framework could be beneficial for both IdeaSquare and the individuals in such a programme. In a similar vein, it was asked whether IdeaSquare could assume some role as a hub for detector R&D as a training platform for young scientists and engineers. M. Nordberg reminded that the GRADE program was originally set up having in mind also this aspect. ISAB noted again that a balance needs to be kept between focused projects like ATTRACT and more free-running projects and that the latter will need a budget, like a stable CERN baseline budget.

Prof. T. Ambos (UniGen) gave then an update on the use of a “Relational Value”⁶ tool to study relationships and the knowledge embedded in innovation spaces like IdeaSquare. The tool is expected to help to visualize the activities of the innovation units based on defined

⁵ Reference was here made to some of the “Threats” identified in the SWOT analysis in the Strategy Plan.

⁶ This is a follow-up from the ISAB recommendation from 2021 (#6) to explore and quantify how IdeaSquare is creating relational value in its ecosystems. This action was pending during COVID.

goals. The purpose is to show the management how allocated resources are creating relational value. She reported the good progress made in jointly analysing IdeaSquare and another organization in Geneva and thanked IdeaSquare for its active and fruitful contribution to the study.

ISAB thanked T. Ambos for her clear update and expressed its keen interest in seeing the tool in action. The tool could be of much wider interest than just for IdeaSquare, in particular also universities and other research organisation could benefit from such a tool. ISAB asked how the quantification is done, to which T. Ambos replied they are developing a natural language processing tool for this. Input will require about 30 questions (these have been developed together with IdeaSquare). She clarified that this tool is intended for strategy development and monitoring purposes, to demonstrate to external stakeholders how the units create value, compared to other (selected) organizations.

S. de Jong then moved to summarize the day. ISAB is clearly very impressed by the progress being made and by the way things have ramped up after COVID restrictions were removed from IdeaSquare last summer. Significant progress has been made on several fronts and the communication efforts made are both impressive and coherent.

ISAB still has the impression IdeaSquare is a bit like a start-up: the funding situation is not completely stable – which is part of the challenge and not entirely bad as it keeps one on one's toes. Nevertheless, this concern is now less strong than it was a couple of years ago.

S. de Jong invited ISAB members to reflect further on the material presented in the meeting and suggested a follow-up meeting by Zoom to work on the recommendations. He also suggested the next annual ISAB meeting would be a physical two-day event (as they used to be).

Finally, S. de Jong thanked all ISAB members for their active and helpful interaction and constructive feedback. He also congratulated the IdeaSquare team for all their hard work. He said the minutes will be distributed within the coming weeks for comments and further elaboration to recommendations for the follow-up meeting, hopefully completing the cycle by late April. He then moved to close the ISAB-G meeting at 16:45.