

IdeaSquare strategy day 21 January 2020

Visioning session (Audio recording 1)

Current situation – future vision – movement / transition

1. Current

- a. IdeaSquare is like a railway station – *“people are coming and going and usually I have no idea what’s going on” -- “it’s taking people somewhere, but there is no one story”*
- b. Open house – *“you feel it’s open and you can enter whenever”*
- c. Pac-man – *“interesting, a classic, you just pass the screens without purpose and run away from the little monsters but there is no other purpose for the game than surviving”*
- d. A young tree – *“it has roots, a lot of information, it is growing”*
- e. Ant nest – *“everyone is doing something to make it work, but we don’t know what other people are doing”*
- f. Another ant nest – *“the information in the system is only passing from person to person – there is no written description of how to do things”*
- g. Elephant – *“largest animal on earth, but doesn’t do any harm – has a lot of knowledge”*
- h. Machine – *“depending on who you are, the other aspects can be very mysterious”*
- i. A grey galaxy – *“you have stars, other articles, going around”*
- j. Airport – *“we have a lot of people coming and going and having the time of their life, but for the internal teams it’s more of a business as usual and repetitive task”*
- k. Rocket launcher – *“we have a good army, we are good at focusing on multiple targets, but more like one target one action” “very targeted but limiting the impact we have”*

2. Vision

- a. Sydney Opera House – *“Opera is drama, it’s about emotions, it has the audience engaged, there’s harmony – everything we do at CERN”*
- b. A plant – *“things that are growing, the diversity of people is involved”*
- c. Civilisation VI – *“also a game, but with a strategy and the vision to build a world”*
- d. Olive tree – *“specific shape, they are very unique, they are not obvious – the fruits are not catching your attention but they are very precious treasures that everyone appreciates”*
- e. Arrivals / departures sign – *“a place where it’s easy to go in and go out – for people to know what to do there”*
- f. Autonomous manufacturing system – *“being more functional to be able to do innovation and research”*
- g. Honey badger – *“most aggressive animal in the world, fights lions and bigger animals”*
- h. Coffee machine – *“something that looks good and serves the population”*

- i. Coloured galaxy – *“when we get enough colour and new stuff we are able to make it look better”*
 - j. Spacerocket launch pad – *“shoot fewer things in the sky, but have them have more impact – being more unique”*
 - k. Orchestra – *“we are all playing a different instrument but on the same score”*
3. The way to get there // Movement
- a. A cruise ship – *“An ecosystem that contains everything – entertainment, conference rooms, bars, and a lot of people” “everyone is on the same ship”*
 - b. Invitation – *“Open house party – to get more people involved”*
 - c. CTRL+ALT+DEL – *“to reboot the system ... of course the computer takes a while, but afterwards you have the new version installed”*
 - d. 360 degree rotation – *“you have to look around and reboot the system to go back to the initial situation with new information”*
 - e. Megaphone – *“I think we need to let people know what we are doing – advertise it in a way”*
 - f. Map – *“we need to describe the processes to understand how things are done”*
 - g. Money – *“we need money to get more aggressive sales, growth, to be able to scale and grow”*
 - h. Streamlining – *“making it work more seamlessly”*
 - i. Orchestrating – *“you need someone who can measure the value of each one; you need a good writer of a script and once you have them all, you can write a nice harmony”*
 - j. Wrecking ball – *“building on the same foundation and in the same location, but taking the walls down to build anew”*
 - k. Sit down – *“we have to decide which music we like, what we want to play – in a creative way as opposed to processed way – we need to get in the motion of getting there”*

Discussion / analysis starting around 30min

Only recording

Sensing starting around 50min.

Only recording

--Lunch--

Ideation session (File 2)

Oday: Work-in-progress name: **Ideas’ marketplace / Deep Technology Think Tank** – CERN has many technologies; many people with expertise – there are many people who have know-how and would like to do initiatives, e.g. Michael Doser. We should team up with other people and organisations to build stuff. The idea of the marketplace is to cluster them and to share them. For example, ETH knows how to build a quantum computer, but they don’t have the facilities to scale it (that CERN has).

- IdeaSquare would be like a broker / a marketplace for ideas related to deep technology
- Collaboration between KT and IdeaSquare

Luciana & Claudia (presentation slides to be made available). Discussion:

- Viability/feasibility; in theory this kind of a consultancy idea is doable as long as it is carefully framed why this is unique and not competing with existing solutions.
- The practical hurdle is resources – especially the brain resources of the people focusing on the organisation’s core mission. It needs to be defined how this benefits the organisation to get access to the scientists’ time.
- However, there are success cases such as Volvo’s autonomous driving problematic with high speed data processing.
- Discussion was also had on pricing and having potential partners from existing consultancy companies. Maybe this partner could send a consultant to IdeaSquare for 2 weeks to see what happens at CERN and to get some idea on what the unique selling point and what the pricing model and potential could be like.

Santeri: (IdeaSquare Technology Crash Test Course, original ideation notes below):

A narrative on why this idea is essential for the future of IS and how this relates to ATTRACT and CERN:

- IdeaSquare has expertise of futuristic thinking, outside-of-the-box creative projects, commercialization, bankability, sustainability
- ATTRACT will produce project that are future-oriented by birth, are looking for funding to be commercialized, and should serve society
- CERN provides a testing ground for deep tech solutions (e.g. OpenLab), however, collaboration is done usually with larger industry partners

Hence, the purpose of the ITCTC would be to:

1. Provide a testbed for ideas that spring out of ATTRACT
2. Help ideas/startups/established companies future-proof their solution
3. Act as connector between the two “client groups”

What is the envisaged first tangible deliverable: Develop a plan for hosting one or more ATTRACT- or student course based ideas at IdeaSquare for a month-long “crash course program”

The timeframe to develop your idea to i) first deliverable and to ii) final execution ; as a baseline the starting time for all ideas will be January 2021

1. Development of working plan in 2021
2. First pilot “clients” in end of 2021
3. The rest depends on the schedule of ATTRACT

What is the estimated team effort: By estimate, around 1.5 FTE’s working on it at first. Very high involvement of OpenLab/other CERN players.

Is your idea revenue generating: It can be made into revenue generating idea if offered to e.g. VC's, accelerators, incubators

Which IdeaSquare's Stakeholders will be the first impacted by your idea: ATTRACT projects; internal stakeholders (would benchmark OpenLab)

Hans: **IdeaSquare section in the Learning Hub:** Having IdeaSquare as a separate instance within the learning hub. Info on IdeaSquare, ATTRACT, workshop usage, prototyping courses, design thinking workshops etc., FPGA,

- Could also include MOOCs for outside people
- Could also include KT content
- What about having all this content, or at least recurring events, on the IdeaSquare page

Pablo:

1. **EU Funding application training**

2. **Investor course on future-proofing & testing ideas with end users with futuristic scenarios** - a place where the investors don't feel harassed in the way "invest here, invest there" – and they are able to talk to CERN experts and discuss technology. Would involve opportunity to talk about the technologies with university students, i.e. the future users of their solutions – and they would pay for the space.

3. **TOP SPIN** (presentation slides to be made available). Discussion:

- It's an experience on how to do innovation.
- The focus would be SDGs.
- "Mini Marie Curie instrument"; a first experience on young people on how innovation is done. It would be complementary to ERASMUS+.
- The reason IdeaSquare (and Aalto/DFGN) should be doing this is because we are doing ATTRACT.

Luciana & Claudia: **Challenge Based Innovation (and similar courses?) student course report / book** (presentation slides to be made available). Discussion:

- We really do need to have something physical that we can give to people to showcase our student courses.
- DFGN-connection to be explored: what differentiates IS from other DFGN is the connection to a research institute.
- The content should be firstly, book of lessons learned (personal experiences of using the ME310-inspired methodology, instead of describing too much the methodology itself). Secondly, getting together and designing something new that has not been tested, it could be based on hypothesis for future testing. Also having a reward for everyone who has participated in the previous years.
- Co-financing with EU funding? There are instruments that are around 100ke/year for 2 years that can be used to pay for meetings and other costs related.
- What is the thing that would be CERN-inspired that could be replicated outside of CERN? Like a model for what is the next step from a hackathon?
- Our expertise: how do you get people in the mind state of innovating.

- How does IdeaSquare differ from other social innovation labs? There are general innovation labs that are straight forward KT or UN labs; basically, these always have a link to government or NGO; to a university so its education; or to a technology or product in a company. These usually rise and die very fast. What successful spaces do is creation of safe space – something that feels like fun, and where there is not so strict deadlines – somewhere peoples’ creativity can run unimpeded.
- **Claudia’s article to be shared with the participants.**

Ash: **What motivates and how do you reward people?**

- *Coalition of the willing* – something people believe in and they consider to be a part of their work.
- If there is an incentive that we can showcase within the CERN community (e.g. meeting a leader like Satya Nadella), what kind of other than financial incentives could we offer? Connections, student interaction, open house to interact people in.
- *“What is our currency?”* Machine time, experience (coaching/tutoring/design thinking), learning, event participation, knowledge or whatever one might call it.
- What about (the incentives) for the more experienced experts? For them, we don’t yet have as many incentives.
- The desired incentives need to be distinguished between different groups;
- Mostly (the things we would want from internal stakeholders) are part of the job but some people work harder and go the extra mile, whereas others don’t work as hard.
- There are also many people who are building on the case “life after CERN” – these are the ones who are interested in entrepreneurship, additional training, professional growth etc.
- There are people who work with KT and those who don’t.
- We should focus on the ones that bring money (working with people working on projects that we might be able to capitalise on), but there still isn’t a model at CERN to work on these (unlike in some universities, for example, where an inventor might get 30% of the earnings made by a patent)

Luciana & Claudia: On **Science Gateway** (slide available). Discussion:

- Universities that might be interested in collaborating: IED Barcelona, ESADE, UPC, CREA Geneva.
- The goal is to make a concrete installation that is first piloted in BCN and then developed to be built at SG.
- Pablo (& Santeri) interested in developing the human-machine-interaction methodology.
- Anecdote: The direction of the *intentionality* is changing; the machine is creating the reality to the human as opposed to how it has been so far.
- The installation should focus on the process of science, process of innovation (as opposed to “traditional” exhibitions).
- Good to think of connection with KT, but it is not necessary.

- There is an EU project called DigiConnect that might be related. They are introducing artistic approach to science to disrupt thinking and create a bridge between the worlds.

Romain: movement / space awareness and innovation (Romain please do fill detailed notes). Discussion:

- There has also been a previous experiment at IdeaSquare by Australians where everyone at IS wore orange hats to follow where in the space innovation is happening physically (something similar is also planned to happen at SDG Solution space)

What has moved in us during the day? Where are you now compared to in the morning?

Claudia: I was excited in the morning; Happy to have seen many good ideas on projects and how the different ideas are linked. Two things as input: the report + how to reward people. There are some projects (like Pablo's) where it's quite clear on how they could be done; other projects still need a little bit of working / planning.

Luciana: I share the perspective with Claudia: many ideas are interrelated and complimentary and that there is potential for a system. How to get the tools to implement everything?

Pablo: There are a lot of good things on the floor/table. The transition year leaves us room to test seriously. Projects like TOP SPIN will need a team and commitment from all of the members, they are not just "Pablo's projects". We should commit to pilot them to get input and insight that we don't yet have. It's time to prototype our ideas.

Ash: there's deep expertise for EU funding, that should be scaled and replicated in other funding models. There is training that is required for this. We are still a hub for people that come and go; but we need to find out how we might be the best railway station or space shuttle. It's exciting to figure out why we can create the best one. IS is a wonderful place to test why stuff works.

Hans: There's a clearer path emerging compared to the morning. There's abstract and tangible ideas.

Santeri: Kind of same.

Laetitia: It shows a very clear vision and I see we have a lot of ambition.

Romain: There has been a lot of quality in the creation that we've achieved. I really want to take a paper and draw how all the ideas are connected into each other. It's great to see something that's great and organic. I believe we can deliver value on this.

Thierry: I think it was a good day since it raised the awareness for many people. We couldn't have expectations to have solutions but we are definitely closer to them now. There is still a long process to go, but at least now the seed has been placed. A consensus can be identified, with a lot of good ideas brought out in the afternoon. Some of them are more incremental whereas others are more transformative. Not all these ideas are related to the problems in the morning, though, so those problems will still need to be developed in the coming months. The part on how we will get there can still be explored.

Markus: I can see a system and connections which I started to draw but it still needs work. Warm thanks to everyone, especially Romain. I also agree that there is some incremental stuff there, but the key takeaway for me is that we need to also be more ambitious. For the ISAB meeting, I will send you all a short description of the screenplay, or the way I suggest that we respond and present our ideas to the board. The board will have a specific list of 12 questions, and I will propose the 4-5 that we have discussed here. I will produce something that we can present there. The strategy will be to have 2020 as a transition year, which means we need to prototype the new ideas this year. For the second strategy day, 26th of May has been proposed. During the month of February, we (Markus and Thierry) will summarize the output of the strategy day. One of our key KPIs has been keeping the place busy but that might not be the case in the future; however, this has to be done keeping our collaborators in mind. By the end of this year we will need to have a written strategy. This strategy should be embedded with these ideas on projects that you would like to do. The really important things we need to involve Luciana in are 1) start to think of doing the next progress report (due end of 2021), 2) end-of-year CBI teacher meeting 3) Science Gateway.