CBI@PRO / WORKSHOP SUMMARY

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Introduction

The workshop started with an introduction made by Markus Nordberg and Tuuli Utrianen, setting the objectives and context by sharing their vision and analysis of previous CBI experiences.
The activities and discussions that followed were organized in different work packages, considering the different fields to be discussed:

> **WORK PACKAGE A : VISION & OUTCOME**

What will be the outcome of this "adventure"?

> **WORK PACKAGE B : THE CHALLENGES**

How should the challenges be formulated?

> **WORK PACKAGE C : THE TEAMS**

How teams should be composed?

> **WORK PACKAGE D : THE CONTENT**

What makes this "adventure" unique?

> **WORK PACKAGE E : MAKING IT HAPPEN**

How will this work? Who takes part? Collaborations & format

This summary synthetizes and collects the main ideas and concepts expressed by the participants and discussed during the workshop.

> WORK PACKAGE A : VISION & OUTCOME

General objectives proposed for this new initiative:

> Upgrade the previous CBI experiences, keeping the spirit of an experimental platform.

> Get the most out of IS resources and from the potential of CERN connections.

> Accomplish IdeaSquare objectives, stimulating synergies between society and the scientific community at CERN, to accelerate innovation for positive social impact.

> Create impact and demonstrate the impact CERN has on society.

> Push non-incremental innovation.

> Inspire participants, and all people involved, to think differently.

How do the group envision this project?

[Panel activity 1: Describe the final gala]

Desired impact

Independently from the format and challenges that this initiative will take, there is a desired impact for this project that transcends all the topics that have been discussed during the workshop.

> Be a change agent: change the way we see the future and give CERN the next step forward.

> Anticipate the future, by the creation of seed solutions for today that have the power to anticipate big problems of the future.

> Change the way people lives.

> Create a significant contribution to society and social needs in accordance with Sustainable Development Goals

> Create a paradigm and mind shift, transforming people through experience and emotions (*rewriting brains* concept).

> Propose solutions that could be scaled from local to global.

Project success

The projects will be successful if when completing the process, they can achieve:

> Commitment from partners: UN Members and relevant actors from the industry to adopt the "solution" proposed by the project team.

> Attract funding and cross-borders partnerships to scale up in all areas.

> Engagement from individuals willing to be part of the project.

> Generation of ambitious and ongoing projects opening doors for new fields of research and giving people the opportunity to continue the work and get out of their actual scope.

> Proposition of cheap and sustainable solutions to challenges, possible to copy and implement in other contexts, and tested by real users.

> Self-growing and continuation: The projects are just the beginning.

> Creation of solutions that could be implemented by local initiatives that generates local income (e.g. facilitate energy access to poor countries).

Project outcome

The project outcome still needs to be defined, but should accomplish the goals set by the participants:

> The link to CERN projects & expertise should make a difference from other innovation initiatives proposed from other institutions.

> The outcome of the projects should be inspirational, unconventional, fun, presenting novel research data and tech experiments, explained with a breakthrough presentation.

> Experience of prototypes and real-time results during presentation is required. Presentations should be experiential: project teams should help people to deeply understand and experience the proposals (new mental spaces that connects people with the solution has been mentioned).

The are several proposals about *how the results of the projects may be presented*:

Presentation	Festival of solutions	Science demonstration
Non-presentation	Rock festival	Prototype tested by public
TED-talk-like	Videos	Testimonials and experts on stage
Pitch	Film	Event with worldwide livestreaming
Series episodes	Dance	Touring to prototypes and discussion with teams
Forbes article	Theater	Experience of new mental space connections to solutions

There is a strong interest in taking the project's results out of CERN campus, to better connect with society and make results visible for different stakeholders. There have been different locations proposed for project presentations:

UN Headquarters in GVA or NY	Open public space in a middle-class city	LHC or Atlas cavern
CERN auditorium	CMS or Globe outdoors	New facility@CERN
Continuous flow of invitations to teams to present in different events at different locations worldwide (TED, Google Headquarters, Obama Foundation)		Reconstructed Alexandria Library

Key stakeholders

The key stakeholders mentioned during the workshop vary from potential institutions and individuals who could take the projects to the following step, to potential users and beneficiaries of the project proposals.

Project team members	CERN Direction	CEO's of young startups
Romain's mother	UN General Assembly	Google, Facebook, future of tech companies
Kids	Heads of states	Press, bloggers
CERN Scientists	Partner organizations	Influence figures as Bill Gates, Elon Musk
Professionals from multiple disciplines: Psychologists, neuroscientists, among others.	Policy makers	NPO leaders
	Heads of Industry	The whole world

> WORK PACKAGE B : THE CHALLENGES

According to the participants, projects should be the result of a process that involves different stakeholders during different stages. This process has not been defined yet, but some ideas have been shared during the workshop.

[Panel activity 2: What ingredients should the challenges contain?]

Challenge creation process

> Challenges definitions should be the result of thematic workshops done every year, co-created in collaboration with key partners.

> Challenge preparation is an ongoing project.

> A *Challenge Definition Team* needs to be created, including a diverse representation from: IS project team, CERN representation (scientists, tech experts, KT), Investors, Business angels, Key partners (UN, NGOs, Universities, collaborating institutions related to the topic), Industry/Start-ups, problem owners, smart skeptics.
> Time preparation: 3 to 6 months.
> The level of definition of the challenges prior the beginning of the project has been under discussion: *Challenges should be defined in advance? Should challenges be defined by the Solution Builder's teams?*

Challenge content definition

To accomplish the proposed objectives, the definition of the challenges has to meet the criteria proposed:
> Projects should be science driven.
> Challenges should be linked to CERN areas of expertise, bringing CERN expertise to the needs of people (Sensing and imaging, detection and measurement, international collaboration).
> Hugh social impact should be obtained in accordance with SDGs.
> The scope should be outside the economical thought.
> Key problem should be solved: *What will be the Holy Grail in this field?*
> Challenges must question the actual society.
> Follow diversity: J.O.L.T., Journey Of a Life Time.
> About the target, there's an open question: *Should the target that will be direct beneficiary of the solution be defined in advance?*

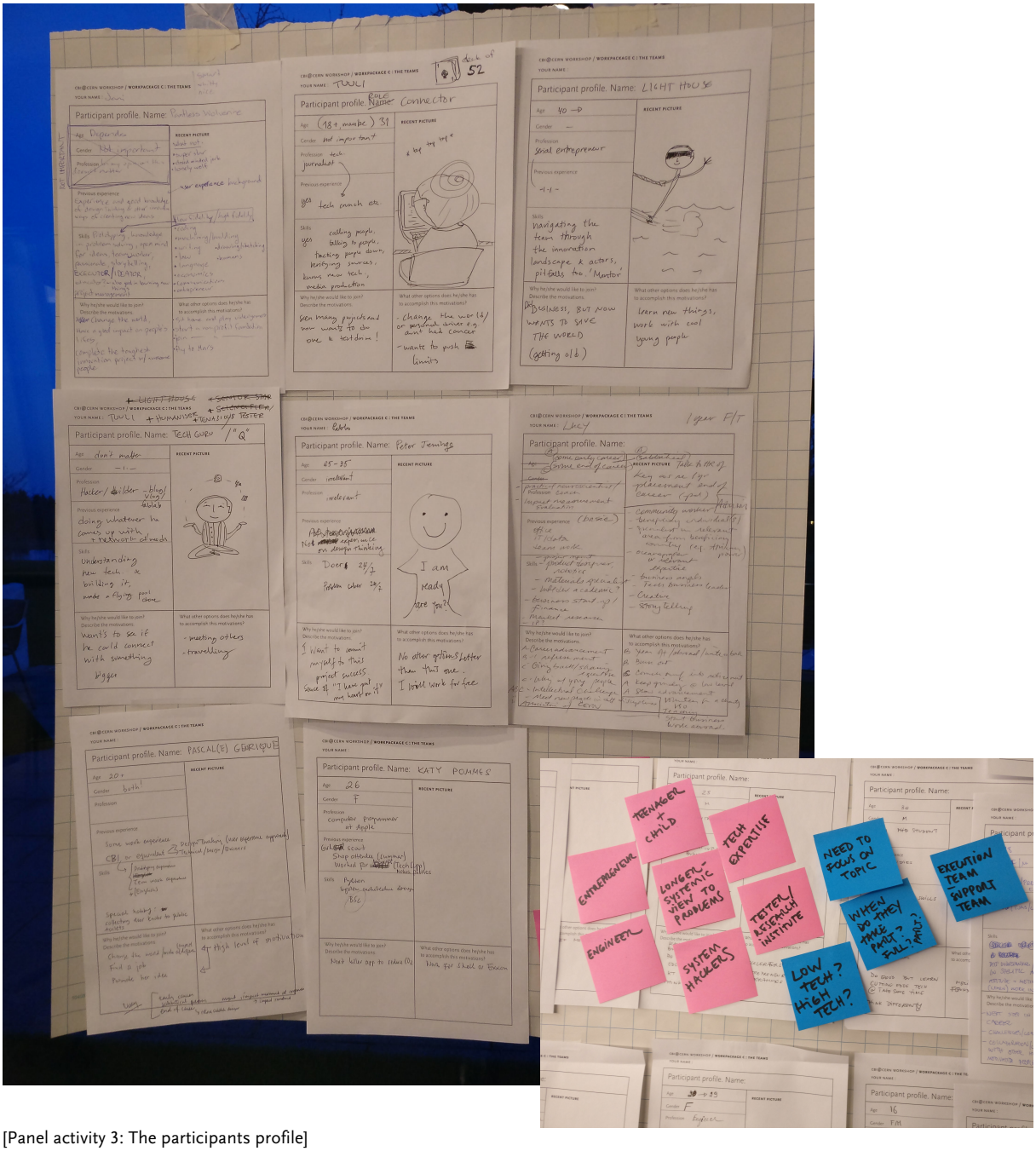
Challenge topics

Even if the definition of the challenge topics was not part of the workshop, some ideas emerged:
> Interesting topics could be found around the Geneva 2030 ecosystem, that could also provide links with organizations.
> There's an interesting opportunity in finding which expertise would be interesting to create inside CERN with this initiative, and generate a new way in which CERN could address social problems.

Some topics proposals:
> Oceans sustainability (and recollecting plastic from the oceans)
> Internet of things
> Aviation
> Humanitarian foresight

> WORK PACKAGE C : THE TEAMS

The project teams have been defined as *Solution Builder Teams.* The composition of this teams has been very difficult to define without knowing the specific topics that will be addressed. However, some general characteristics have been defined and should be considered when selecting the candidates to integrate this teams.



[Panel activity 3: The participants profile]

Solution builder team's composition

The teams should be arranged considering the following criteria:

> Teams should contain a wide range of professions including different areas of expertise, different qualities of people, with various motivations.

> Different roles are needed, but have not been specifically defined yet (e.g. the entrepreneur, the researcher, the tech savvy, the doer, the connector, the problem solver).
> Base selection done based on their potential to face specific defined challenges (people with some previous experiences on the subject).
> Create a Mix: soft skills and hard skills, low fidelity and high fidelity, tech-centric and human-centric.

There are some common denominators that should be considered:
. Willingness to commit to the project.
. Capacity to bring their specific skills to the team.
. Individual knowledge about themselves: what they want and what their motivations are.
. Open minded.
. Entrepreneurial profile: push projects forward.
. Ability to give longer/systemic view to problems.

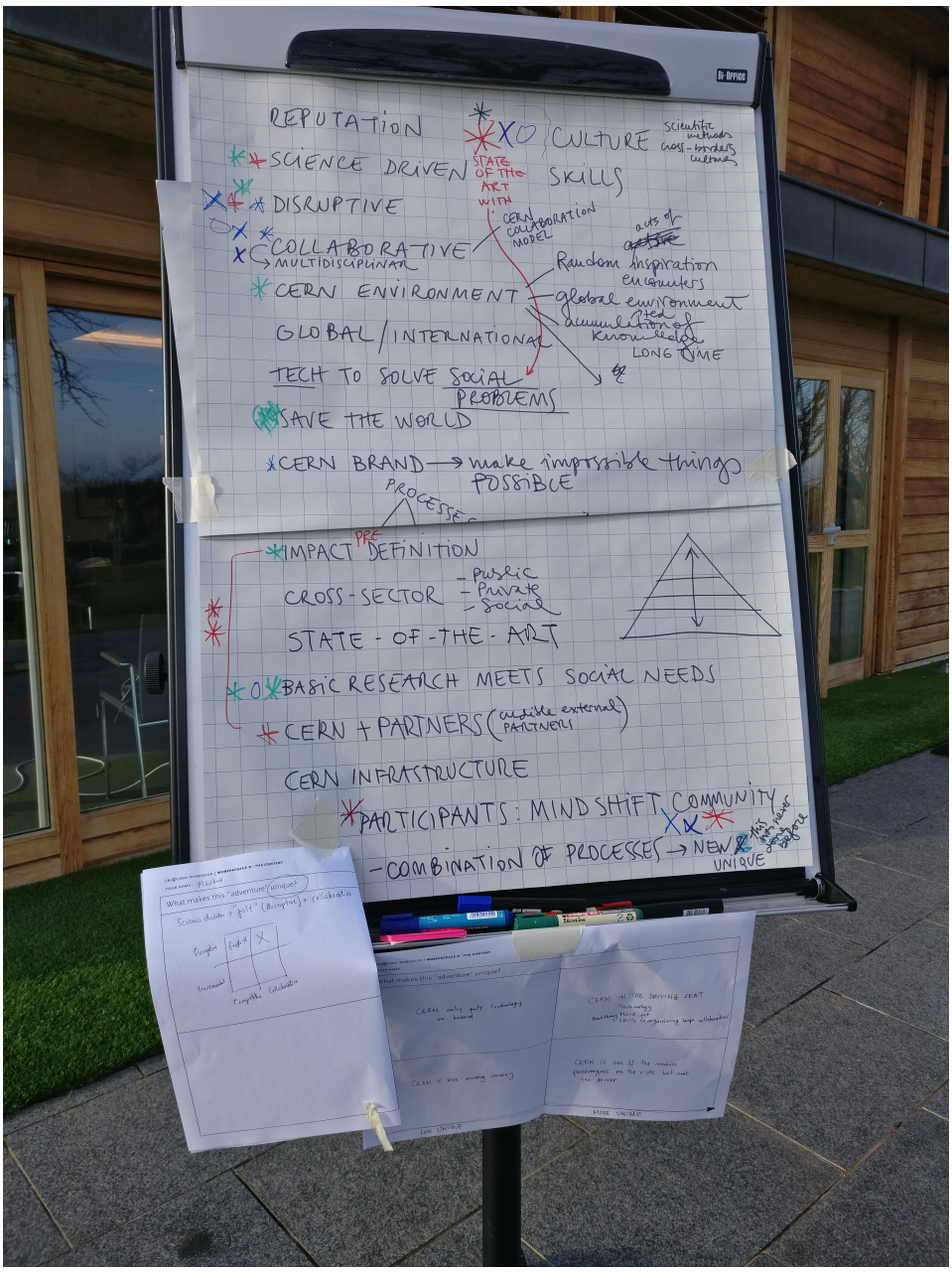
Team member's profile

The profiles proposed are very different and rich (Please review the full profiles in PDF Annex).
> Ages proposed: from 16+. Age is not an important indicator, profiles propose people staring their career and some at the end of it.
> Motivations are very wide. Some of the most popular are: meet interesting and motivated people, meeting his/her childhood science dreams, working in a multidisciplinary team with entrepreneurial application of scientific process, learn about cutting-edge tech, address a challenge that matters, do a next step in the career, change the world, realize a crazy idea, start and ambitious project, cool opportunity with payed expenses, intellectual challenge.
> Areas of expertise are very wide: Biologist, PHD students, entrepreneur, designer, academic, market researcher, teacher, programmer, mechanical engineer, start-up founder, dancer, child.

Some questions to be answered are:
> Define the right group to target: Which is the right people that would like to be part of it?
> Is certain technical expertise needed? (develop a program, mechanical engineering)
> Connection with Key partners: May someone from key partner organization should be part of the team?
> Do team members have the possibility to continue these projects and get a job after?
> Which are the quality standards for selection?
> Do they have to be all involved in the same level of participation during the whole process?
> Who will come? How do we get them on board? How many people?
> Will participants be paid? How do they live during that time?
> Are two parallel teams needed: Solution Builders Team vs Consultancy Team?

> WORK PACKAGE D : THE CONTENT

The main characteristics that should make this experience unique have been defined.



[Panel activity 4: What makes this experience unique?]

This are the proposals, in the order of preference indicated by workshop participants:

> CERN COLLABORATION MODEL (collaborative and multidisciplinary unique way of working: competition + collaboration).

> Disruptive approach.

> CERN CULTURE: scientific methods & cross-border culture to solve social problems.

> Combination of different processes in a new and unique way.

> Basic research meets social needs.

> Science driven.

> Impact of the project is pre-defined.

> Cross sector initiative (public, private and social).

> CERN BRAND: make impossible things possible. Very attractive brand, neutral, high quality with very good reputation. Good tech skills: uniquely good at tech, measuring, detecting.

> CERN + PARTNERS combination, immerse in Geneva environment.

> CERN ENVIRONMENT: global environment, accumulated knowledge, random acts of inspiration.

> Mid-shift community of participants.

> Save the world.

Some specific added value has been defined for different stakeholders' perspective:

For CERN

> Impact of fundamental research leveraging on available resources.

> Access to investors.

> Image & reputation.

For IdeaSquare

> Pioneering new processes, formats and ways of cooperation.

> Develop matchmaking skills among people, processes and challenges.

For Investors

> Association with CERN Brand, technology and reputation.

> Association with a high-quality program.

> Access to talented people.

> Social investor branding and Corporate Social Responsibility.

> Pioneering in processes.

> Full package to make a quantum leap in their challenge to impact the world.

For Participants

> Became a mind-shifter, a change mover.

> Be part of a common creative community, working in a team and creating a network.

> Getting funding for ideas.

> Access to CERN technology and association to CERN Brand.

> Discover new ways of teaching and learning.

> WORK PACKAGE E : MAKING IT HAPPEN & NEXT STEPS

To make this initiative happen IdeaSquare should be place in the driving seat. Several activities should be initiated to move it forward.

Implementation timing

> Year 2019.

> Duration of 10 to 14 months.

> Full time team dedication at CERN Geneva.

Next Steps

> Preparing documentation to present the program internally at CERN to include the program in *CERN & Society* offer.

> Prepare documentation to pitch the project to possible funders: 1st boiler plate next month.

> Planning ready before summer.

> Creating a flashy "brochure/Big idea tangible" to connect with potential funders: Who is the target for this communication piece and what information should contain.

> Pilot the project again and discover different opportunities to improve it.

Next questions to answer and fields to further explore

> Defining the naming. Is this initiative a project, a course? Do CBI "brand" should be maintained?

> Is there a role for role of Universities?

> Explore link to CERN to improve connections and CERN involvement, and describe how this links to CERN expertise.

> Explore KT integration in the project, avoiding overlaps with *CERN Entrepreneurship Student Programme – CESP*

> Create a "Strategy" to engage scientists at CERN, and find a way they can devote time to students and projects (Tuuli's proposal: Generate an official training program part of H.R.)

> Train the teachers.

> Define the right format to contain the activities.

References

Some references have been mentioned during the workshop:

> Google X Prize https://www.xprize.org/prizes

> Sandbox Network http://sandbox.is/

> Sugar Network https://sugar-network.org/

> Goodwall https://www.goodwall.org/

> ISLE Association http://isleassociation.wixsite.com/sdnetwork

> Open Ideo https://openideo.com/

> Lord Sainsbury of Turville https://www.instituteforgovernment.org.uk/

> The Edge foundation http://www.edge.co.uk/

> Geneva 2030 ecosystem http://geneva2030.org/en/ecosystem/