



RESULTS OF THE BREAK-OUT SESSSIONS

Group 1: **TEAM CLEAN**

Targeting SDG 6 CLEAN WATER AND SANITATION



Team members: Ma'n Zawati (Canada) (Pitcher), Linda Kamau (Kenya) (Rapporteur), Yessica Elizondo (Costa Rica), Raquel Montenegro (Brazil), Mahjoub Olfa (Tunisia), Thomas Edison E dela Cruz (Philippines)

To find a solution, we first worked to find what caused the lack of clean water and sanitation.

The Impediments to lack of clean water and Sanitation

1. Basic education
2. Lack of Public engagement
3. Lack of Infrastructure

Our solution focused on ONE-THING that had the least effort but creates the greatest impact — Use of Technology

Statistics show that there are as many mobile phones as there are people in the world. We will build an application that provides information to people on how to harvest water during rainy season, how to treat water, ways to recycle water with the goal of reducing wastage of clean water.

This application will be built in partnership with ministry of environment, young scientists, software engineers and the general public. It would take a bottom-up approach where local, small scale methods of water treatment will be used, trainings in schools on water sanitation, the homepage of the computers in schools will be the application that will have been built.

GROUP 2: **SCIENCE FOR EDUCATION**

Targeting SDG 4: QUALITY EDUCATION



Team members: Eli Grant (South Africa) (pitcher), Jonathan Dawes (UK) (rapporteur), Anindita Bhadra (India), Maria Ines Carabajal (Argentina), Simge Davulcu (Cyprus), Min Tze Liong (Malaysia), Dimitry Maslov (Russia), Romana Siddique (Bangladesh), Shaher Zabada (Palestine)

Problem statement:

There is no consensus on what works best in education, and how to measure 'quality of education'.

Solution: Use young scientists, and modern technology, to consolidate the best practice in education, globally, into a single UN-led platform.

We believe that education is a key enabling factor for all seventeen Sustainable Development Goals and moreover that science is the key to providing and guaranteeing **quality education (goal 4)**. Our proposal is to develop a platform for integrating young scientists into global education strategy, led by the UN and working with national science academies and others. We will follow the ‘open source / open data’ philosophy which is proven to be cost effective, facilitate bottom-up and culturally appropriate development, and enable global data collection.

In more detail, the problems in education provision and the solutions that this global platform would offer are as follows.

1. Student development

- Independent validation of the achievements and credentials of students, boosting equality of opportunity and outcomes.
- Provide mechanisms to draw students in to the provision of resources: suggesting study topics, and delivery mechanisms, that fit local needs.
- Enable global transmission of learning across countries – leaving a legacy of globally aware citizens.

2. Support for teachers

- Provide a common framework for, and dissemination of, resources and training materials for teachers.
- Enable rapid, independent, apolitical assessment (student examinations) using international metrics. In particular this will allow assessment continuity when a national political situation changes.

3. Policy implications

- Develop a dialogue between current scientific research, and researchers, and local education systems.
- Develop an evidence basis for the selection and use of training materials: “how do we know what works?”
- Provide a mechanism for sharing best practice globally
- Address issues of lifelong learning – including the continuing education of policy makers themselves.

We will deliver this platform through a combination of new technologies and the values and influence of the UN. This will enable us to innovate in education delivery, overcoming barriers of language, culture and community participation.

Group 3: **DRASTIC PLASTIC**

Targeting SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION



Team members: Luis Alvarez (France) (Pitcher); Simon Barnaby (Canada) (Rapporteur), Yo Jan Chang (China, Taiwan), Ilse Corkery (Ireland), Gavin Collins (Ireland), Agnes Melinda Kovacs (Hungary), Hassel Johnson (Peru) :

Ensuring sustainable consumption and production patterns (SDG 12) is a global challenge that young scientists wish to take on by tackling the non-recycled plastic consumption. Even if a lot of efforts are made to reduce plastic consumption and recycle them, the volume of waste plastics are still increasing on land and water. A sad example is the huge amount of plastics constantly being accumulated in some parts of the oceans. Petrochemical based plastics are the major problems. Bio-based plastics are a solution that replace fossil resource based plastics. However, all the bio-based plastic development groups, institution or industry, are working individually and do not succeed in establishing and commercializing bio-based plastic products. Concertation and coordination are needed. Then, young scientists would like to gather researchers around the world with key industrial partners to start an International Research Consortium on Bio-based Products. Such consortium will accelerate R-D on bio-based plastics and even technology transfer, which will concretize rapidly some actual projects or initiatives. Bio-based plastics produced from renewable resources are attractive for industry leaders and consumers. Efforts are made since many years, but concertation is needed to finally substitute fossil resource based plastics by renewable alternatives and mitigate the problem of waste plastic accumulation. All the world knows about the waste plastic accumulation problem. Industries and consumers will agree to use alternatives if researchers, or young scientists, ally with industrials to form a world global consortium and start a flagship project to develop, contribute to technology transfer, assure social acceptability and commercialize environmentally friendly alternatives.

GROUP 4: **HEALTH 4 ALL**

Targeting SDG 3 – GOOD HEALTH AND WELL-BEING



Team members: Guru Madhavan (US) (Pitcher), Sabina Leonelli (UK) (rapporteur), Karen Lorimer (UK), Laszlo Koczy (Hungary), Tonni Kurniawan (China), Carlo Altamirano Allende (Mexico), Vidushi Neergheen-Bhujun (Mauritius), Aftab Ahmad (Pakistan)

Implementing solutions to promote good health and well-being requires consideration of cultural and social factors that diverge widely across different regions. Current health-related metrics are strongly focused on the cost-effectiveness (and cost-benefit) of interventions, but these do not capture nor account for cultural diversity and human agency. Therefore, cost-related metrics, while important, do not provide a full picture of the performance and sustainability of interventions. We propose an expansion of the analytic paradigm in measuring health and well-being: use systems analysis to enrich our evaluation of human development and health quality, including multi-dimensional measures such as quality of life indicators, measures relating to the Human Development Index and, where feasible, data collected from social media. This will enable to target and assimilate health-related interventions to local capabilities and situations. It will also provide governments with instruments to:

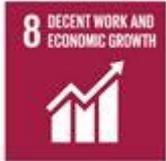
- Carry out context specific analysis of health outcomes

- Identify targets and rank priorities when allocating funding
- Identify and implement regulatory measures, and
- Explore private-public implantation partnerships.
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Government, private, and nongovernmental decision makers have a critical role to play in enabling a systems-based approach to health evaluation on current and future wellbeing of the population.

Group 5: **JOBS OF THE FUTURE – JOF**

Targeting SDG 8 – DECENT WORK AND ECONOMIC GROWTH



Team members: Tolu Oni (South Africa) (Pitcher), Ivana Gadjanski (Serbia) (Rapporteur), Heli Lukner (Estonia), Boaz Katz (Israel), Damon Matthews (Canada), Kim Hyongbum (Rep of Korea), Michael Fischer (Germany), Jauad El Kharraz (Morocco).

The Team JOF: Jobs of the Future proposed to address SD goal 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) through the SUSTAINABLE JOBS OF THE FUTURE INITIATIVE, an imaginary of future jobs and skills that addresses not only SDG8 but other SDGS as well.

SDGs have been set out to address societal challenges over the next 15 years. But who will be implementing the SDGs? Goal 8 identifies need for more jobs. But how can we achieve this goal in a way that sets us up to achieve all others? How do we create new smart jobs within the SDGs timeframe?

The education system is not currently sufficiently responsive. There is a need for disruption to job skills development process. The initiative will do this through activating existing resources of young scientists globally to harness and gather the ideas of young people. We will engage with practitioners, industry, government, global organisations such as UNESCO to obtain their buy in and perspectives.

Specifically, the initiative will ask what jobs do we see as relevant. Can we imagine jobs that are motivated by ideals of sustainability not purely profitability. What skills are needed for these jobs? What educational perspectives are needed? What are in fact these smart jobs of the future? We propose that these results are presented at the next World Science Forum. We will then identify what resources are required to develop these skills in the short term, and will seek to engage policy makers to influence curriculum content and educational perspectives. We would also take advantage of the existing World Lecture Project (<http://www.world-lecture-project.org/>) run by one of the team members (Michael) as a very powerful channel for reaching a wide audience of students, educators, scientists and general public.

We envision new professional profiles to emerge from the overlapping of disciplines taking part within the on-going inter- and multidisciplinary collaborations. This would lead to the scientists-driven production of jobs and skills development towards addressing SDGs.

The applicability of JOF initiative is reflected in its bottom-up approach from the people in and entering job market. The initiative will also guide career planning, business planning, promote development of equitable solutions.

This is the JOF team proposal to address goal 8 towards a sustainable world.

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