

Summary Report:

“Business-Academia Working Conference #1: Building the Green Innovation Pipeline Network”

26 June, 2023

The Program

On June 26, 2023, the Global Green Innovation Collaborative hosted its initial Business-Academia Working Conference, [“Building the Green Innovation Pipeline Network.”](#) Business and academic leaders from the United States, Sweden, France, Saudi Arabia, Belgium, and Mexico convened at the World Trade Center in Stockholm, Sweden, to discuss how to mobilize support for and accelerate global green innovation.

The event kicked off with opening remarks from Stephen Jordan, CEO of the [Institute for Sustainable Development](#), who outlined the purpose, goals, and objectives of the conference.

Next, Dr. Cherry Murray, Deputy Director of Research for [Biosphere 2](#), Professor of Physics, and Professor of Electrical and Computer Engineering at the University of Arizona, explained why “business as usual” for the environment is no longer feasible. According to the Intergovernmental Panel on Climate Change (IPCC), Earth will likely exceed 1.5° Celsius in global temperatures in the next five to seven years. While the broad scope of environmental impacts has been mapped out, the need for accelerated habitat research and development (R&D) is crucial for adaptation, mitigation, agriculture, biodiversity, carbon capture and retention, and a host of other needs.

Dr. Joaquin Ruiz, Director of Biosphere 2, then discussed the structure of Biosphere 2 and how it has evolved to house the world’s largest integrated research experiments in a controlled environment. Dr. Ruiz explained that currently, Biosphere 2 contains five habitat biomes:

1. ocean,
2. mangrove wetlands,
3. tropical rainforest,
4. savanna grassland, and
5. fog desert.

If Sweden were to develop a “Sustainable Valley,” a Biosphere “twin” in Sweden would complement these habitats well by housing experiments in cold climate habitats like permafrost, arboreal forest, or that of the Baltic Sea.

He further noted that there is already a nascent network of habitat researchers in Morocco, France, Mexico, Israel, and Saudi Arabia, and that creating mechanisms for both academia and business to increase information flow, coordination, and collaboration would lead to important synergistic breakthroughs. What has been missing so far is an abundance of innovation capital for sustainability and climate change technology.

Christer Otterström, CEO of [Hummeltorp Sverige AB](#), and Stephen Jordan agreed that having a Biosphere research anchor in Sweden would be very attractive for the development of a Swedish Sustainable Valley. Sweden ranks as one of the five most innovative countries in the world, has a deeply ingrained culture of sustainability and respect for nature, and has been ranked as the number one green economy in the world for the past five years.

For these reasons, creating a “super cluster” of sustainability-oriented academic and business ventures that would double as a global Center of Excellence for resilience and sustainability just makes sense. However, what is important is not simply that more R&D take place, but that the connections among basic academic R&D, practical applied research, product development, scalability, and idea diffusion are also achieved.

Martin Eriksson, Architect for [C.F. Møller](#), then provided a high-level overview of what Sustainable Valley could look like. In order to be successful, key values of knowledge-sharing, social sustainability, and research must remain at the heart of its mission, vision, and strategy.

Following these baseline presentations, Björn Frössevi, Partner at [TruePoint – Innovation in Management](#), moderated a discussion with: Val Livada, Research Affiliate for the [MIT Materials Research Laboratory](#), Nizar Kammourie, CEO of [SAWACO](#) and ESG Committee Chair for [AmCham Saudi Arabia](#), and Anders Sköld, Head of Strategy for [NCC](#). They highlighted several key factors to consider, including:

- There are plenty of opportunities for green solutions for climate change, from habitat research and carbon sequestration, to the roles of AI and digitization in sustainability.
- Sweden would be an excellent location for a potential twin to Biosphere 2. The Swedish Biosphere twin must appeal to local research and business needs.
- However, climate change is a global problem that requires global solutions and connections. Therefore, this twin must also make an international impact and act as a global hub for resilience and sustainability research.
- There is high potential to take advantage of emergent AI and digital technologies.

Next, a networking lunch was complemented by a special presentation from Luis Neves, CEO of the [Global Enabling Sustainability Initiative \(GeSI\)](#), who discussed the international landscape for sustainability. Sustainability as a principle is not isolated, but rather, must be considered in tandem with other societal, environmental, and economical (to name a few) issues and solutions. Neves also advised participants to be wary of several challenges moving forward, such as greenwashing and the accelerated growth of AI.

To kick off the afternoon program, participants then split into two breakout groups - one focused on business perspectives, and another on public policy and civil society. Findings from these discussions included:

- A “clusters” model is important for keeping innovation and collaboration at the heart of the Biosphere twin.
- Digitization and AI are critical tools and assets for advancing sustainability.
 - However, in a world set to reach more than 11 billion people by the end of the 21st century, we cannot neglect the “human needs” of green innovation and the Biosphere twin.
- Champions from business, academia, and government are key ingredients for success for building up the Global Green Innovation Collaborative and Biosphere twin.
 - Universities and the academic sector are a major source of talent, ideas, and technology.
 - Meanwhile, business and industry are often accelerators for ideas – they offer funding, resources, and other support for bringing products and services to market.
 - There is a need to encourage decisionmakers of relevant businesses to “open up” for innovation, so as to reduce time from inception, to realization, and finally, commercialization of critical innovations.
 - This collaborative model should be empowered by a motivation to *partner*, not to compete.
 - Chalmers University of Technology, KTH Royal Institute of Technology, Karolinska Institutet, and Swedish Incubators and Science Parks (SISP) offer just a glimpse of Sweden’s rich business-academic ecosystem.

Next Steps

The program concluded with the identification of the following workstreams:

1. continue to develop a policy coalition to elevate the importance of R&D and innovation in global climate policy,
2. in tandem with the policy coalition, develop a business-academia practitioner network for resilience and sustainability observation, research and analysis, and education,

3. solidify Sweden as the premier site for a Sustainable Valley environmental innovation super cluster by creating a “Sweden Committee” to mobilize support and partnerships to accelerate its development, and
4. continue to develop the concept of a twin to Biosphere 2 based in Sweden and aligned to Swedish research needs.

Opportunities for Future Involvement

1. Complete [this survey](#) regarding your priorities for green innovation and which level/workstream of this project you are most interested in.
2. Volunteer for one of the following committees:
 - a. The Biosphere 2-sponsored network for international habitat research
 - b. The Swedish Committee to work on the following:
 - i. The vision, mission, and initial focus of Sustainable Valley
 - ii. The development of the Sustainable Valley academic coalition
 - iii. What Sustainable Valley should prioritize and include in the longer term
 - iv. What a “Biosphere 2 Sweden” research facility should prioritize
 - c. The ISD Business Advisory Council for Green and Blue Innovation
3. Save the date and/or register for the following events of interest:
 - a. September 27-29, 2023: [“Digital with Purpose Global Summit 2023”](#)
 - i. Hosted by GeSI in Lisbon, Portugal
 - b. January 15-18, 2024: Business-Academia Working Conference #2 at Biosphere 2 in Oracle, Arizona

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