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Second Annual Summit on Science Enablement for the Sustainable Development Goals

Meeting Report • October 16-17, 2017 • Amy R. Beaudreault, PhD

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INTRODUCTION

In 2015, the UN announced its 2030 Agenda for Sustainable Development, which included 17 Global Goals and 169 specific targets aimed at both the civil and environmental challenges the world faces.¹ The following year, with the support and encouragement of Ban Ki-moon, then Secretary General of the United Nations, the New York Academy of Sciences launched an initiative focused on enabling the achievement of the Goals through science (www.nyas.org/SDGs).

On October 16-17, 2017, the Academy hosted the second *Summit on Science and Technology Enablement for the Sustainable Development Goals* (SDGs). This annual *Summit* built on the inventive and impactful momentum commenced in 2016 and continued the collective action, proof-of-concept projects, and key deliverables identified by participants. The *Summit* also included sessions addressing critical cross-cutting issues identified last year. More than 100 representatives from industry, academia, non-governmental organizations (NGOs), and United Nations (UN) organizations attended, continuing strategic conversations defining the roles of science and technology in overcoming the challenges outlined in the SDGs and developing roadmaps for working towards these goals.

An invited group of more than 80 multi-sectoral and disciplinary researchers, implementers, business leaders, and policymakers attended an all-day Workshop prior to the *Summit* to engage in an active discussion on how progress can be made within four streams selected because of their integrated nature (Figure 1). Topical experts led the consensus-building of each stream to develop a definition and scope of the stream, identify research and data gaps, discuss the role of science and research in closing these gaps, and advance key action items and recommendations. The four streams cross-cut multiple SDGs and targets, encouraging participants to think holistically and consider solutions that may advance multiple Goals. This *Meeting Report* provides an overview of the *Summit* and the outcomes of the Workshop held by the four streams.

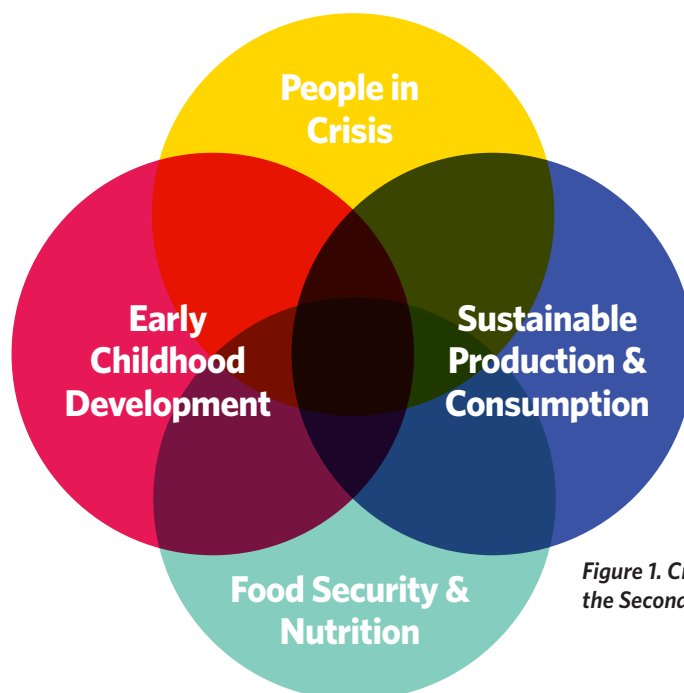


Figure 1. Cross-cutting themes of the Second Annual SDG Summit

¹ Building upon the eight Millennium Development Goals (MDGs), the SDGs encompass a broad range of topics including traditional MDG areas such as poverty, hunger, health, education, and gender inequality. World leaders agreed to expand the areas of the SDGs to include energy, infrastructure, economic growth and employment, inequality, cities, sustainable consumption and production, climate change, forests, oceans, and peace and security.

WORKSHOP: PEOPLE IN CRISIS STREAM

In the working group for the People in Crisis stream, eight leaders from academia, the private sector, civil society, UN agencies and non-profit organizations discussed the opportunities and barriers for science and technology in advancing action around the SDGs to improve the lives of people in crisis. The expertise of the working group included education, law, infectious disease, and poverty reduction.

The working group focused on the key principles that emerged from the 2016 *Summit*:

1. Empowering people and their social resources
2. Integration of planning with the SDGs
3. Long-term impacts of crisis situations on populations

Empowering people and their social resources includes the ability for people to maintain and strengthen their social, human, and economic capital resources. A shift of thinking needs to move beyond emergency relief and integrate long-term recovery and risk reduction including education, livelihood, and opportunity.

The working group also stressed the opportunity for people to be active participants in the decision-making process after the occurrence of a crisis. This means a change in paradigm where people are in a stronger position than where they were before a crisis. They become an active contributor to their future and are empowered with additional opportunities than prior to a crisis.

Since crises occur within multiple SDGs, the understanding of the linkages of the SDGs and people in crisis is vital. Achieving the SDGs requires a baseline of peace and a stable environment. SDG planning should be done holistically in coordination with risk reduction, response, and management.

The working group addressed two data topics: data associated with demographic information and the security of this data. Important data elements include language, education level, social media, religion, culture, skills, and aspirations. Although the information may be sensitive, the information aids in response and resettlement. This data plays an imperative role in the response as well as for the displaced individual. Different datasets are required for long-term individual needs versus response management needs during the aftermath of a crisis. However, in all uses personal data must be kept secure.

Drawing from examples in pharmaceuticals, the working group agreed that evidenced-based policymaking and multi-stakeholder research initiatives are top priorities. The group provided examples of how the Bill and Melinda Gates Foundation and The Rockefeller Foundation influenced policy and treatment of tuberculosis (TB) throughout the world. A suggestion was to establish working groups that meet regularly to address a very specific issue with the goal of outcomes that assist policymakers. In addition, collaborative design among end-users, scientists, and additional stakeholders would ensure the research is actionable.

In terms of evaluation, measurable impacts should be established to document change both in the short- and long-term. Social return on investment analyses would be beneficial across SDG initiatives. Stakeholder groups involved should include public-private partnerships where participation is incentivized.

The working group suggested that future discussions should look at specific concrete topics and/or crises and how they integrate with additional SDGs. The group recommended the development of a sustainable

DEFINITION:

People who are subject to or at risk, including at risk of persistent displacement, due to economic crisis, armed conflict, violence, violations of human rights, or natural or human-made disasters and as a result are made more vulnerable.

STREAM LEADS:

Elizabeth Cheung-Gaffney,
The Catalyst Foundation

Tine De Marez,
Johnson & Johnson

Carter Ingram,
Ernst & Young

working group, meeting throughout the year to discuss specific issues with the overall objective of changing the transition to long-term, post-crisis livelihood improvement.

An area of focus for research would be the identification of additional requirements for data collection or databases for identity demographics that protect privacy. Activities may include a symposium with diverse sectors present to discuss opportunities for data collection and storage. An open innovation challenge could focus on pilot programs for such data management obstacles.

WORKSHOP: EARLY CHILDHOOD DEVELOPMENT STREAM

Early Childhood Development (ECD) refers to the critical periods of development through the life of a child, starting in the mother’s womb. ECD is a dynamic process that includes multiple maturing systems including social and biological factors. The maturation pathways do not always develop linearly. Therefore, understanding the developmental trajectories of each period and what factors contribute to them is critical in developing goals. The 17 members of the ECD working group included representatives with a wide range of backgrounds—including education, developmental psychology, capacity development, and program implementation and evaluation—from city governments, non-governmental organizations, academic institutions, and industry.

Biological development is influenced by multiple environmental and psychological factors including the physical and social environments, nutrition, and resource availability. Combined, these factors create many risk and resilience elements that need to be researched and understood at various stages of development. Figure 2 illustrates these complex interactions.

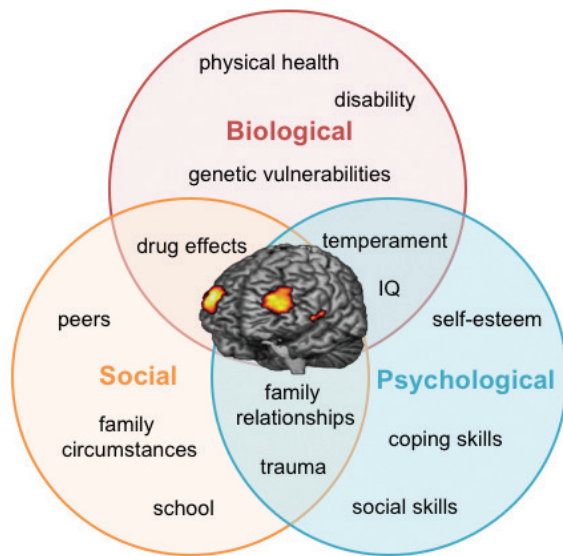


Figure 2. Social, biological and psychological variables of ECD

DEFINITION:

Early child development (ECD) encompasses basic needs including adequate nutrition and sanitation, a safe environment and nurturing caregivers, protection from violence, and enrichment activities that feeds a child’s natural curiosity and create a firm foundation for learning, during the period of conception through age six years.

STREAM LEADS:

- Aysenil Belger, UNC Chapel Hill
- Aisha Yousafzai, Harvard School of Public Health

A key barrier discussed in the 2016 *Summit* was the lack of the evidence-based data and lessons learned from implementation or process evaluations needed to scale-up effective ECD programs. This barrier focused on the “how to do” rather than the “what to do.” This year’s working group focused on five recommendations to bridge implementation and research partnerships to:

1. Promote evaluation culture
2. Foster stakeholder engagement
3. Plan ECD Services as a continuum of services in the life course
4. Promote aggregation of data for policy and practice
5. Share resources with better effectiveness

The first strategy the working group presented was the promotion of ECD evaluation to increase feasibility and reduce barriers, thus improving the research to practice cycle. By publishing and disseminating program evaluation evidence, implementers would have access to existing best practice models where programs effectively integrate evaluations and optimize use of monitoring and evaluation data. Since evaluations may be costly, reducing the cost through the availability of open access tools would benefit both researchers and implementers. Research and partnership learning would enable stakeholders to reach consensus on a range of methods that would provide valid evidence for program effectiveness and processes.

The second strategy the working group discussed was to foster stakeholder engagement in and knowledge of program experiences to increase successful implementation and community participation. Stakeholder engagement is critical in making progress towards SDG achievement. Strategies include diverse communication and dissemination of information to gain support and participation from stakeholders. An underlying goal of the SDGs is participation—this participation needs to continue through 2030. One strategy suggested to achieve stakeholder participation was the development of a stakeholder analysis through net mapping.

The working group then acknowledged that guidance on how to plan holistic services from conception through age six years is needed. An approach discussed was the development and dissemination of case studies to provide examples of successful programs. Case studies would help build equity across the globe in program delivery technical capacity by building an accessible knowledge library.

The fourth goal of the working group was to create data platforms (or better exploit existing data platforms) that provide timely access to data by stakeholders and agencies. These data platforms would enable analysis and feedback to support program implementation. Data track and monitor progress towards the SDGs, but how do stakeholders utilize that data to make improvements? Data use and access that supports the scaling-up or improvement of programs is a research gap. A strategy suggested by the working group was to convene partners on data access and use to support ECD programs.

Lastly, the final goal presented was to share what is already known about effective models and their adaption to local contexts and realities. Through showcasing the barriers and enablers of implementation, a community learns from the reported experience in the literature. Although researchers know what works, adoption tools for various on-the-ground realities would increase the efficiency and effectiveness of programs, allowing a community to be successful in a program. The dissemination of best evidence-based practices to those working directly in ECD would aid in local adoption.

WORKSHOP: SUSTAINABLE CONSUMPTION AND PRODUCTION STREAM

Similar to other streams, the Sustainable Consumption and Production working group discussed how the delivery of human needs intersects with many of the 17 SDGs. A robust group of 16 diverse experts across sectors in sustainability, climate change, energy, and change management contributed to the lively day of discussion.

Continuing the work from the 2016 *Summit*, participants agreed that the goal of sustainable consumption and production is to close production loops as far as possible in all sectors. A closed loop production system recycles valuable materials that are often wasted to make new products. Science has an opportunity to accelerate progress to make consumption and production more sustainable. The group focused on the need to close current production and consumption lifecycles to be environmentally and socially sustainable. The working group focused on three areas for science action:

1. Inform and incentivize changes in behavior in production and consumption
2. Use data to develop closed loop cities
3. Engage consumers to shift consumption patterns

The working group brainstormed a range of ideas of how to inform and incentivize changes in behavior in production and consumption. For producers, individuals, and policymakers, information is broadly focused on rating and indexes. The working group focused on two exciting opportunities: creating a materials resilience index and developing scalable and affordable lifecycle assessments.

A materials resilience index would utilize the work of planetary boundaries and look at individual elements. The index would provide a detailed roadmap of the materials available, what materials are under threat, and the level of dematerialization needed. This information would provide the foundation to inform and drive future research and development in the creation of new materials. Policymakers, governments, and innovators would use this information to make better decisions on the materials they utilize.

The additional opportunity the working group discussed was scalable and affordable lifecycle assessment. Overall, this would expand the understanding of environmental and social impacts of production systems. The challenge is to create data sharing and standardized approaches to make the information gathered in individual lifecycle assessments more widely available and comparable among organizations of varying sizes.

The working group then discussed the second area of science action, the use of data for closed loop production in cities (Figure 3). Prioritized project ideas included city-based mapping and a resilient city index. City-based mapping would use

DEFINITION:

A system to produce goods and services that is socially just and within environmental limits utilizing closed production and consumption and minimal use of natural resources and emissions of waste and pollutants.

STREAM LEADS:

- Stephanie Draper, Forum for the Future
- Norine Kennedy, USCIB
- Margo Mosher, SustainAbility
- Ewelina Samchalk, PepsiCo



technology and data to understand the resource flow of the city to develop a resource map, allowing for optimization of resources available that are currently being treated as waste to repurpose them. The working group recommended this industrial ecology approach to commence with approximately three practical pilots with city administrations partnering with data providers and academics. To incentivize cities to engage in mapping, a resilient city index would drive improvement on resource management by recognizing the circular nature of a city. Ideally, this city index would be aligned with a current city index or provide supplementary information.

SCP: Getting to a Closed System

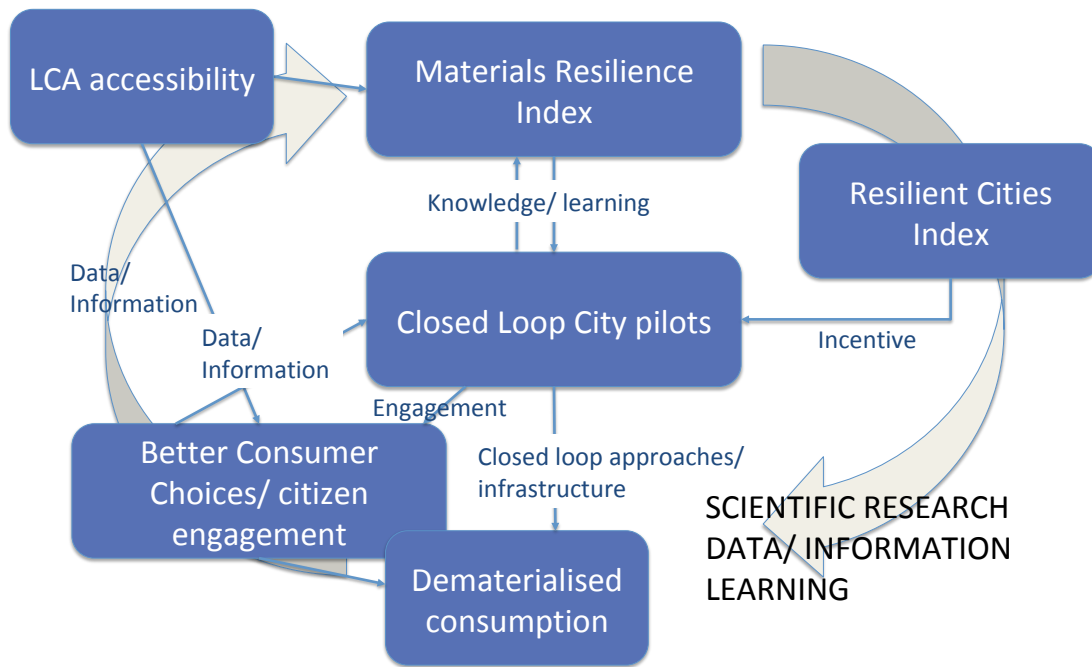


Figure 3. Closed loop consumption and production model

Lastly, the working group focused on the essential role science may play in encouraging consumers to actively engage in their consumption activities. By utilizing social science and behavior change evidence-based targeted interventions, consumers can be encouraged and motivated to make better choices. Additionally, consumers have a role in dematerialized consumption. An opportunity for research is to assess new consumption models that decouple consumption from environmental impact (e.g., sharing economy, service-based consumption, new forms of exchange) and their application in developing markets.

WORKSHOP: FOOD SECURITY AND NUTRITION STREAM

The UN marked October 16th as World Food Day to celebrate the founding of the Food and Agricultural Organization (FAO) in 1945. Despite successful nutrition interventions on the ground, 2 billion adults and 44 million children are overweight or obese, 815 million are underweight, and 2 billion lack the necessary micronutrients for optimal human health.² Of the 17 SDGs, 12 include indicators that are significant to nutrition and 56 of the indicators for success are relevant to nutrition.³

On World Food Day, 10 leaders from academia, the private sector, civil society, UN agencies and not-for-profit organizations—with expertise in food production, behavior change, food systems, nutrition, communication, evaluation, and public health—discussed the opportunities and barriers that science and technology have in advancing action around the SDGs to improve food security and end hunger.

After much discussion, the group agreed to use the FAO definition of food security. However, the variables discussed included the role of sustainable agriculture and food science in food security, the differences among low- and high-income countries, the disconnect between quality and quantity of food, and food availability. The group organized its discussion outcomes into three topical areas within food security:

1. Understand the food system effect on consumption
2. Highlight education, awareness, and behavior change needs
3. Develop a resiliency and emergency food system

The food system is a complex web of a multitude of variables involved in the farm to fork process. This includes, but is not limited to the: growing, harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food. Food waste and loss occurs throughout the supply chain from postharvest loss to food waste at the consumer level. A gap in research is the lack of integrated measures throughout the supply chain focused on food loss and waste. Measurement of the costs of losses, whether supply meets consumer demand, and economic tools for measuring food quality, production, and diet are all opportunities for science to play a key role.

A lack of an integrated approach affects the food system because data-sharing across disciplines and sectors is limited. Optimal nutrition varies across the lifespan and tools targeting specific age groups are lacking. In terms of access to food, country data exists yet local community data does not. Multi-sectorial collaboration is an opportunity to measure impact of food system interventions.

DEFINITION:

Food security exists when all people, at all times, have physical, social, and economic access to safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

STREAM LEADS:

- Amy R. Beaudreault, UC Davis
- Marcela Duron, Ernst & Young
- Michael McBurney, DSM

2 Development Initiatives, 2017. *Global Nutrition Report 2017: Nourishing the SDGs*. Bristol, UK: Development Initiatives.

3 International Food Policy Research Institute. 2016. *Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030*. Washington, DC.

The working group discussed how food system access does not mean access to food only. Access also includes the ability of scientists to evaluate interventions and learn the current science; availability of the scientific literature; and whether a body of evidence is available to drive policy and regulation. Often local community data does not exist nor do evaluations of food system policies and regulations using scientific methods.

Participants concluded that research gaps exist in the measurement of non-traditional indicators, commonly identified as nutrition-sensitive indicators. Nutrition-specific interventions address the immediate causes of malnutrition such as poor dietary intake. Nutrition-sensitive interventions account for supporting factors of nutritional status like agriculture, education, public health, and welfare. A wide variety of sectors play a role in developing nutrition-sensitive indicators. To educate and change behavior, additional implementation data is needed in food security. How food and nutrition education can be integrated into school systems and food supply also was suggested as a research need area.

Food security is at risk during times of conflict and emergency. Improvement of food systems infrastructure is needed as well as risk assessments. The environment affects food security in multiple ways through mechanisms such as climate change and the water supply. Food nutrients may also be altered because of environmental changes. The effects of the environment on dietary changes is an area of research need that involves multiple disciplines. In addition, how does food production affect the environment?

Food innovation today focuses on making products more sustainable and nutrient-dense. Topics considered included alternative sources of protein and sweeteners, and the use of functional ingredients. Agricultural technology attempts to improve the supply chain by decreasing food loss and water use. An additional opportunity for technology is the development of evaluation tools to better assess long-term behavior change. Assessment tools can be improved to promote urgency in food security and sustainable agriculture. However, technology may have both intended and unintended consequences in the food system. This requires scientists and researchers to play larger roles in building trust with the public. Food system science and technology provide an opportunity to engage with communication outlets to translate outcomes and provide cross-disciplinary training.

Advances in food security research may be achieved through partnerships and increasing the diversity of funders setting the research agenda. Like other streams, many resources are necessary to achieve food and nutrition security. Funding for food systems and nutrition research is low and should be provided by diverse stakeholder at various levels of support. For organizations that focus on food and nutrition security, external and internal organization support is important. In addition, multi-sectorial engagement and representation in strategy development is critical.

SUMMIT: OPENING SESSION

Ellis Rubinstein, president and CEO of the Academy, opened the annual *Summit* by introducing the importance of convening in a synergistic capacity to drive change. The only way to address the grand challenges of the world today is through collective action—an innovative approach that brings people together to achieve consensus and establishes metrics to evaluate progress. While collective action is vital, individual action is a moral imperative. This *Summit* is one piece of a puzzle that must be solved to address the global challenges the world faces today.

In his keynote address, Zia Khan, Vice President, Initiatives and Strategy at The Rockefeller Foundation, described the SDGs as a north star for success. The path for success relies on coordination and integration across all sectors and better use of the limited resources that cut across governments, civil society, and science. His keynote presentation focused on two themes: integration and productivity.

Integration is the challenging task of combining things that naturally do not come together to realize the benefits that are greater than the sum of its parts. Integration takes significant effort and planning. Two types of integration are needed for the SDGs—integration across sectors, and integrated science from basic research to application. Each SDG targets a problem that can be solved and a longer-term basic science research agenda.

Business views management as a science because productivity translates to competitive advantage. Khan then asked: Should we look at how to better organize, manage, and lead science? How do we manage science as a global network?

Khan closed his keynote by addressing data and how data is used. The SDGs are separate and distinct, yet each one is intrinsically linked to other SDG goals. With the advent of large datasets, could science play a role in enhancing integration and productivity across all sectors in globally-aligned datasets? The SDGs provide an invaluable service but are aspirational and do not provide roadmaps. Reaching the SDGs will require global political will, changes in social attitudes, and significant scientific breakthroughs.



CRITICAL ISSUES: DATA, IDENTITY, AND PRIVACY

A reoccurring theme of the *Summit* was the importance of data in achieving the SDGs. The panel on “Data, Identity, and Privacy” discussed the advantages and risks of using key identifiers of at-risk populations. Although approximately 1 billion people today have no form of identification, the ability to identify impact will play a key role in achieving the SDGs.

Panelist Serge Masyn, Janssen Global Public Health, described his work involving identity for Ebola vaccinations. Throughout Africa, Janssen Global Public Health is utilizing iris scanning and fingerprinting for identification because of the stigma associated with standard identification techniques. Identity of the patient is essential for safety and successful outcomes since an effective vaccine requires a two-step process of a prime and boost.

Martin Fleming, IBM, provided an example from Kenya of using a personal identification system for educational purposes, under the threat of the government utilizing the data for other unintended purposes. Like the Ebola example, concerns included data governance, transparency, and management. Another example from Dakota Gruener, ID 2020, is a pilot for digitalization of vaccination cards. This identification ensures children receive the required vaccination doses as well as potentially providing identification that can be used later in life.

In response to a question on whether human and privacy rights come before data needs, Robert Kirkpatrick, UN Global Pulse, responded that many of the rights people have cannot be protected without the use of data. He added that the challenge is that the social contract around data privacy is currently broken— informed consent is almost impossible. Data has huge importance in service delivery, early warning systems, government accountability, disaster response, and education. However, data is not being used for these purposes, causing a loss of progress towards the SDGs. Kirkpatrick explained that these are human rights and ethical issues. **Misuse** of data is a risk to privacy, but **missed-use** of this data causes setbacks in achieving the SDGs, he said.

Fleming responded that two dimensions of data make him optimistic. Firstly, many of the data breaches occurring today are preventable if appropriate encryption is implemented. There is a social contract of responsible behavior in data management and use in place.

The panel discussion shifted to the topic of ownership and commercialization of data and management systems. Gruener proposed that ownership and control over how an individual’s data is used should be considered a human right. The current model is that an individual provides data to different organizations and has no ability to modify that information, remove him- or herself from a database, or correct misinformation. Opportunities exist for data commercialization, but Gruener said that identity itself should not be a commercial opportunity. Masyn agreed and added that an individual should have the opportunity to opt-in to datasets while the standard today is inclusion by default.

The panel concluded with the final question of whether an ideal data system is feasible. Kirkpatrick responded that the trajectory is toward a system where the risks are better understood, and processes exist to educate people and communities about the risks. The problem today is the fear of risk to privacy is inhibiting the data utility for public good.

PANEL PARTICIPANTS:

- Jennifer Costley, (Moderator), NYAS
- Robert Kirkpatrick, UN Global Pulse
- Martin Fleming, IBM
- Serge Masyn, Janssen Global Public Health
- Dakota Gruener, ID 2020

CRITICAL ISSUES: LINKING RESEARCH TO IMPACT

The panel on “Linking Research to Impact” kicked off by discussing why scientific evidence is crucial to achieving the SDG targets. Aisha Yousafzai, Harvard School of Public Health, started by discussing the history of ECD research; the field has a strong evidenced-based understanding of effective interventions and the inputs required within the first five years of a child’s life. Yet, limited programs have gone to scale. The transition from an efficacy trial to an effectiveness trial, and then the progression to demonstration projects, is often unsuccessful. She noted that although randomized control trial systematic reporting is useful research on the overall process from research to implementation is lacking. Also of importance is integration of the SDGs; the scientific community has a responsibility to make the links systematically utilizing creativity and innovation.

Thomas Gass, Inter-Agency Affairs UN, explained one of the reasons he is excited about the SDGs because science and academia participated in their development. The result was 193 countries supporting a robust and technical 2030 Agenda with great momentum and high international convergence. The SDGs are measurable and we need the scientific community to help develop and track the metrics underlying the SDGs. The complexity of the Goals also requires a shift toward cross-disciplinary thinking.

Lisa Weiss, Pfizer, is an epidemiologist by training and recalled her earlier days working in silos in a research capacity. What has changed for her is the impact of research in pharmaceuticals and other disciplines. By changing one goal implications for other goals arise, which change both measures and outcomes.

Moderator Joanna Rubinstein, World Childhood Foundation USA, prefaced a question by explaining that the earlier Millennium Development Goals took more than five years to initiate engagement of the scientific community and spoke on the need for integrated interventions to achieve the goals. She then asked the panel: What are the best approaches in taking bench research to the field, validating the research in the field, and then taking the evidence from the field to policymakers?

Yousafzai responded that engagement of partners in the early stages of conceptualization, including the community stakeholders and the end-users, is an essential pathway. The process is important in ensuring the end results are translated. Gass added that integration in both directions including political will is crucial. Being connected to the policy world is imperative for science to influence policy.

The discussion changed directions toward how to create a mechanism for scientists and field workers to integrate their research. Gass responded that there needs to be a checks and balance system within institutions that reviews how and if the research has multiple impacts other than the original question posed. Weiss stressed the importance of communication in all positions and institutions.

The panel closed with discussing the compromise between politics and research. Gass commented that politicians tend to simplify problems while researchers make problems more complex. He said, finding a medium to communicate is what the integration of science and policy is about.

PANEL PARTICIPANTS:

- Joanna Rubinstein (Moderator), World Childhood Foundation USA
- Thomas Gass, UN DESA
- Aisha Yousafzai, Harvard School of Public Health
- Lisa Weiss, Pfizer

SUMMIT: ADDITIONAL PANELS AND PRESENTATIONS

Additional panel discussions and presentations covered a wide scope of policy issues. The panel “Systems Thinking in the SDG Context,” led by Laurie Manderino of the Sustainable Development Solutions Network, reinforced the integrated nature of the SDGs and the need for coordinated approaches toward their achievement. Heidi Huusko of the UN Global Compact and Cynthia Cummis of the World Resources Institute described Science-Based Targets, a method developed to provide companies with a clearly defined pathway to future-proof growth by specifying how much and how quickly they need to reduce their greenhouse gas emissions.

The Summit also provided an opportunity for NYAS partners to present their work in supporting implementation of the SDGs in the session “Outcomes: Partnerships and Proofs of Concept.”

SUMMIT: CLOSING SESSIONS

Thomas Gass, UN DESA

In his closing remarks, Gass thanked the Academy for mobilizing the *Summit* and explained that the SDGs are a shared vision of humanity. The SDGs are too ambitious, comprehensive, and complex for any one organization to implement or oversee. On behalf of the UN, Gass asked *Summit* participants to help by partnering with the UN in making the data piece of the SDGs solid. In each of the Goals, the global community needs to go further in defining the indicators. The SDGs need to become a social contract among leaders and the people.

He concluded with a call to action for scientists to:

1. Connect science to policy
2. Help the UN in the trade-offs and synergies
3. Communicate the importance and quality of the SDGs
4. Assist in building partnerships
5. Do not wait for the UN to give permission



Lise Kingo, UN Global Compact

Kingo provided background on the UN Global Compact, a corporate sustainability initiative that focuses on 10 principles that range from human and labor rights, environmental responsibility, and anti-corruption. Currently, the Compact has close to 10,000 companies participating. She noted that the UN is at a special time in history.

The two big focus areas of the Compact are inequality and climate change. Within inequality, decent work in the supply chain, gender, and youth are major challenges. More than half of the world's population live in poverty, making less than \$2USD a day. Poverty is a driver of global conflict and instability. To engage young people in the workforce, the economy needs to create 600 million jobs over the next 10 years. In terms of climate change, the Compact is mobilizing business leaders to implement climate change solutions and help influence public policy. Cities account for one-third of the carbon dioxide (CO₂) emissions in the world.

Kingo concluded her remarks by stating that the SDGs will not happen without innovation. She made a call to action for the UN, industry, and scientific communities to collaborate. Leadership is critical and as always, people make the difference. Now that a clear agenda exists, it is time for action.

NEXT STEPS

The SDG Initiative at the New York Academy of Sciences is entering its third year and continues to expand its scope through integration into the Academy's programming. This includes the Change Fashion Challenge which focuses on sustainable innovation to pioneer the future of fashion; our partnership in 2030Vision connecting business, NGOs, academia and Governments with the technology solutions needed to realize the SDGs; our upcoming publication of the 2018 report of the New York City Panel on Climate Change in the Academy's Annals; and our use of the SDGs as a framework for our Global Stem Alliance innovation challenges. For more information, please go to www.nyas.org/SDGs.

APPENDIX: SUMMIT PROGRAM

Tuesday, October 17, 2017 9:00 AM – 6:00 PM

- 8:30 am** **Breakfast and Registration**
- 9:00 am** **Opening the Summit**
Welcome: **Ellis Rubinstein**, President and CEO, The New York Academy of Sciences
Opening Keynote: **Zia Khan**, Vice President, Initiatives and Strategy, The Rockefeller Foundation
- 9:40 am** **Methods: Systems Thinking in the SDG Context**
Moderator: **Laurie Manderino**, Associate Director and Head of New York Office, Sustainable Development Solutions Network
Stephanie Draper, Forum for the Future
Jimena Leiva Roesch, International Peace Institute
Chris Dickey, NYU College of Public Health
- 10:30 am** **Outcomes: Stream Progress Reports**
Stream leads
Session A – People in Crisis
Session B – Early Childhood Development (ECD)
Session C – Sustainable Consumption and Production (SCP)
Session D – Food Security and Nutrition
- 11:10 am** **AM Coffee Break**
- 11:40 am** **Critical Issues: Data, Identity and Privacy**
Moderator: **Jennifer Costley**, Director, The New York Academy of Sciences
Robert Kirkpatrick, Director, UN Global Pulse
Martin Fleming, Chief Analytics Officer & Chief Economist, IBM
Serge Masyn, Director Disease Management Programs – Janssen Global Public Health R&D
Dakota Gruener, Executive Director, ID 2020
- 12:30 pm** **Lunch and Networking**
- 1:30 pm** **Methods: Science-Based Targets**
Heidi Huusko, Senior Manager, Government Affairs/Environment & Climate, UN Global Compact
Cynthia Cummis, Director, Private Sector Climate Mitigation, World Resources Institute

2:30 pm

Critical Issues: Linking Research to Impact

Moderator: **Joanna Rubinstein**, President & CEO of World Childhood Foundation USA

Thomas Gass, Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs, UN DESA

Aisha Yousafzai, Associate Professor of Global Health, Harvard School of Public Health

Lisa Weiss, Senior Director, Clinical Epidemiology, Pfizer

3:30 pm

PM Coffee Break

4:00 pm

Outcomes: Partnerships and Proofs of Concept

1. SDG Masters of Public Health (**Chris Dickey**, NYU College of Public Health)
2. 2030Vision (**Dominic Vergine**, Arm)
3. Global Business Summit on Early Childhood (**Sara Watson**, ReadyNation)
4. Leveraging SDG11 (**Jerry Hultin**, Smart Cities NY)
5. Solving the world's most pressing challenges through open innovation and partnership (**Dawda Jobarteh**, SOLVE)
6. Japan's Practices for Implementation of the SDGs (**Takao Kuramochi**, Japan Science and Technology Agency)

4:45 pm

Next Steps and Call to Action

Thomas Gass, Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs, UN DESA

Lise Kingo, Executive Director, UN Global Compact

5:30 pm

Close of Summit

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