The SDGs and Social Innovation

Haruo Takeda

Corporate Chief Engineer, Research & Development Group, Hitachi, Ltd.

Graduated from Department of Mathematical Engineering at the University of Tokyo and started to work for Hitachi in 1980 at the Systems Development Laboratory. Appointed the head of Research Strategy Center in 2005, the head of Advanced Research Center in 2008, the head of Technology Strategy Office in 2012, and his current position in 2014. He got his doctoral degree from the University of Tokyo.

The SDGs and I

The Engineering Academy of Japan (EAJ) established its SDGs Project in February 2017[1] and appointed me the leader. On the same day, I gave an invited talk at the annual meeting of the American Association for the Advancement of Science (AAAS) held in Boston on "How can the global science enterprise effectively respond to the sustainable development goals?". Treating this as an opportunity to discuss the mission statement of the EAJ's SDGs Project, I, before an audience including a former editor-in-chief of "Science" magazine, spoke as follows:

"Sciences are obviously highly anticipated as a means of achieving the SDGs. At the same time, it must be noted that every science will go through industry in some form or other before it contributes to the SDGs. The problem is that the normal process of, firstly, undertaking scientific research in academia, secondly, implementing it in industry, thirdly, managing it in society in collaboration with government and delivering substantial benefits on a global scale is unlikely to meet the 2030 deadline set for the SDGs. This is why in Japan the SDGs Project was established at EAJ where academia, industry, and government are working closely together. For industry in particular to be able to take active steps, indicators which link the SDGs directly as far as possible to either short-term corporate results or long-term corporate values should be developed.

In May of that year, I was invited by the Ministry of Foreign Affairs and the Japan Science and Technology Agency to speak at the United Nations Headquarters in New York about the actions being taken to achieve the SDGs through collaboration among industry, government, and academia. This presentation was reported by a major global news organization. A special mention was made of Japan's "notable" approach led by a private-sector company.

Indexing, Globalizing, and Standardizing

Motivated by the above discussions, the SDGs Project held its first forum in public on the topic of corporate indicators for the SDGs in July 2017 in Osaka. Representative companies that are actively addressing the SDGs in industries such as materials, electronics, machinery, urban development, and biotech gave their views on such matters as the potential for corporate indicators for the SDGs across all aspects of their particular industries, and also reported the current status and the issues that have arisen. Based on this discussion, an academic society called The Japan Association of Finance for Sustainable Development (JAFSUS) was subsequently established in January 2018 with the involvement of many participants from across academia, government, and industry, especially the finance industry. The mission of the association was to establish the basic rules for ensuring clarity and suitability for comparison in the development and use of indicators such as those for assessing corporate value in relation to the SDGs, and to encourage corporate commitments on action and information disclosure. I was appointed a deputy representative of JAFSUS.

The development of indicators by its nature needs to be done internationally so as to result in international rules. I have also emphasized the point at the SDGs committees in various ministries of the Japanese government that we should take the SDGs as an opportunity for Japan to forge links with the rest of the world. As a result, the January 2018 forum of the SDGs Project was named the First International Conference on the SDGs in Japan and was held at International University of Japan in Niigata. It provided an opportunity for frank discussion with representatives of approximately 30 countries. Many

of them were graduate students sent by overseas governments and industries to study in Japan. The discussion dealt with how Japan should act on the SDGs, keeping in mind the development of indicators. I came away from the discussions at the forum with the thought that the first region that Japan should engage with more extensively on the SDGs is Africa. A pan-African conference on science and technology was held in Rwanda in March 2018 and I went on stage for a panel discussion that took place right after the Chairperson of the African Union gave the opening remarks. Before an audience of more than 1,000 people, the discussion was chaired by a BBC presenter with the conference chairperson and the chief economist of the World Bank among the panelists. The message I passed on the panel discussion was widely covered on a newspaper next morning and also reported subsequently in global media. I returned to Africa in December of 2018 to appear in a UNESCO forum that was billed as Africa's first high-level forum on artificial intelligence. I gave my strongly held views on "AI, the SDGs, and Africa," and I also participated in the first plenary panel discussion moderated by the editor of Le Monde Afrique. At the Seventh Tokyo International Conference on African Development (TICAD VII) in August of 2019, I gave a keynote address at one of the workshops where I called on executives from the African finance industry to engage in the collaborative creation of financial SDG indicators. I also used opportunities provided by the East Asia (e-Asia) Joint Research Program of JST, of which I am a Program Officer, to express the same message to member states of the Association of Southeast Asian Nations (ASEAN), as well as on various stages in Europe, America, and China.

There is a lot of work going into the international standardization of indicators, especially in Europe. The International Electrotechnical Commission (IEC), one of the major organizations that deal with international standardization, established a working group on the SDGs under the IEC Market Strategy Board of which I am a member. The working group which I lead is currently preparing a white paper on what stance the IEC should take in addressing this problem. The International Organization for Standardization (ISO), another major international standardization organization, established a technical committee on sustainable finance at the end of last year. A national action committee for Japan has been formed by a number of industry organizations, including from the finance industry, and I myself am an active member. Serving in my role as chair the National Education Association for engineering[2], I have previously chaired a working group on the formulation of an action plan for fostering people able to work in the field of international rule-making[3] at a public-private strategy summit on international standardization held by the Ministry of Economy, Trade and Industry. I myself am making an effort to implement the action plan.

Towards Social Innovation

When asked what is meant by social innovation, my response is that it is "market-in" innovation, which stands in opposition to the commonly held idea of "product-out" innovation emerging out of disruptive technologies, with the market being disruptive social objectives targeted by society as a whole. The 17 goals and 169 targets of the SDGs are expressed as a vision for the world in 2030. Having been set by the United Nations General Assembly, agreed everywhere in the world, and representing in their entirety a goal that incorporates disruptive value for all of humanity, it is only natural that they form the foundations of this market at this point in time.

Because the SDGs taken together pose large and ambitious targets, they are certainly not something that Hitachi can achieve on its own or even aspire to do so. Collaborative creation with others from industry, academia, and government is essential[4]. In the case of private-sector companies in particular, their major responsibility of pursuing profit makes it vital that aiming to achieve the SDGs together be linked directly to short-term corporate results or long-term corporate value. In my role as someone who works for one of those companies, this is my motivation for advocating the development of indicators in the first chapter of this article. It is because there is no point in adopting indicators unless they are international and standardized that I have been engaging in actions like those described in the second chapter.

The most useful tool for leading the world in the international standardization of indicators, in my view, is science combined with sound arguments based on scientific evidence. Research and development work by Hitachi that aims, in a bottom-up manner, to develop disruptive technologies that give rise to "product-out" innovation needs to remain a major focus as it has in the past. Success at a young age in global academia will lead to becoming a leader on major international stages in the future. On the other hand, there is also a need to embark on completely new forms of research and development for

social innovation. This, I believe, is research that needs to be done in a top-down manner and requires holistic view, position to lead collaborative creation with a variety of internal and external stakeholders, and successful experience in bottom-up research[5]. As an example of research and development of this type, this issue of *Hitachi Review* includes an article by special invitation that describes the results of my own recent work[6].

References

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