

25th CIRP Life Cycle Engineering (LCE) Conference, 30 April – 2 May 2018, Copenhagen, Denmark

The UN Sustainable Development Goals (SDGs)

are a great gift to business!

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Abstract

Environmental degradation and social tensions have put societies under severe pressures the past couple of decades to such a degree that a historic global political agreement was made in September 2015, when 193 countries signed the United Nations Sustainable Development Goals for 2030, the so-called SDGs or “Global Goals”. The SDGs, and their sub targets, represent a crystal ball for business to “look into the future” and seek long term guidance for investments and new business opportunities. Novozymes, the world’s largest manufacturer of enzymes and microbes for industry, has been a frontrunner in sustainability and to our knowledge the first company in the world to align its company purpose, strategy and long term targets with the SDG’s. Novozymes is now in the process of evaluating and prioritizing its innovation pipeline by potential SDG impact and sourcing new partners for SDG impact. With the SDGs in place, business now have a much clearer set of long term global priorities with political tail wind, and the alignment between policy makers, civil society and the private sector is much stronger. The SDGs are a great gift to business!

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Peer-review under responsibility of the scientific committee of the 25th CIRP Life Cycle Engineering (LCE) Conference

Keywords: SDGs, Business, Strategy, Public Private Partnerships

1. Development of The United Nations Sustainable Development Goals (SDGs) for 2030

Environmental degradation and social tensions has put societies under severe pressures the past couple of decades, with the growing populations and increasing per capita consumption as the key drivers. Pressures, that in September 2015, led to a historic global political agreement, when 193 countries signed the United Nations Sustainable Development Goals for 2030, the so-called SDGs or “Global Goals”. [1]

Already back in year 2000 an agreement for global development was landed when the UN member states agreed to the so-called Millennium Development Goals (MDGs) aimed at driving the global development agenda in the time period 2000-2015. The MDGs targeted eight key areas: poverty, education, gender equality, child mortality, maternal health, disease, the environment and global partnership. Each

goal was supported by 21 specific targets and more than 60 indicators to monitor.



Fig 1. The United Nations Sustainable Development Goals (SDGs)

The MDG's came out of a typical political UN process with limited interactions outside UN and government circles. The outcome of the process, the MDG's, primarily had appeal in the political and regulatory system, as well as to aid- and civil society organizations. The private sector in general did not see its role in relation to the MDGs.

In many aspects MDGs were successful and became recognized as the most successful global anti-poverty push in history. Governments, international organizations, and civil society groups around the world helped reduce the world's extreme poverty rate by more than 50%. Today, much more girls are in school and much fewer children are dying from disease and malnutrition thanks to the focus and actions driven by the MDGs.[2]

However, despite the success of the MDG's, already midway to 2015, it became increasingly clear that the MDG's were not going to solve all major global challenges. Many new and severe societal challenges surfaced in those years and called for global action with a much wider scope. Among the new challenges, that were generally recognized as material, were the many different environmental and social issues related to the fast growing industrial production, consumption and urbanization.

With its focus on poverty, education and diseases the MDG's were primarily driving a political agenda for the developing world. However, with the many new sustainability issues materializing it became very clear that the sustainable development agenda was as much an agenda for the developed world, and especially also for the private sector.

When the revenues of large companies exceed the GDP of many countries, and supply chains stretch around the world, the private sector plays a key role in achieving a global sustainable development – environmentally and socially.

The private sector defines to a large degree the social and environmental performance levels through the entire value chains in which they operate, from production to consumption and disposal of consumer goods. It became widely recognized, also in the UN system, that the sustainable development agenda would only be successful with significant engagement and contributions coming from the private sector.

The SDG development process was formally kicked off at the RIO+20 UN Earth Summit, in Rio De Janeiro, Brazil 2012. The intent was to create a new set of global goals to address the growing challenges to a sustainable development, and to continue the journey started with the MDGs.

From the beginning of the process the private sector was invited to contribute via a so called Open Working Group (OWG) established early 2013 to coordinate the interactions between the UN system, civil society and business [3]. This opening of a major UN process to the private sector represented a significant paradigm shift in the way UN operates.

2. Business and the SDG's

In general, businesses succeed when they can meet people's needs with solutions that people want, and when a rewarding business model can be established around that interaction. In general business ask policy makers for clear and robust long term policy frameworks, in which they can operate and which they can use to guide investments, target

innovation and support business development decisions. The new open UN SDG process initiated in 2012 thus motivated many businesses to engage. The private sector in general hoped to be able to inform, inspire and influence the process to deliver an outcome with much more private sector relevance and appeal compared to the MDGs.

The private sector hoped that the SDG development process would deliver the desired long term political framework that effectively could enable more private sector contributions to a global sustainable development, which were in better sync with societal needs and long term priorities, and therefore which could help secure the long term license to operate and success of the business.

From 2013, where the OWG was formally established, to 2015 many representatives from the private sector, including the major business organizations, provided their inputs to the SDG development process.

With the signing of the SDG's in September 2015 the private sector in many ways got the gift it had asked for. The 17 SDG's, the 169 specific targets and the thousands of indicators represent a long term political framework for business to contribute to sustainable development. They outline exactly that long-term guideline for what will be needed, accepted and supported by societies in the coming decades and therefore, consequently, what will be demanded by the markets long term. As such they offer a crystal ball for business to "look into the future" and seek guidance for investments and new business opportunities and they represent a new tool box for innovation and market development. To other companies, who may be in the business of "SDG unfit" solutions, the SDGs provide similar guidance to reduce risk and costs, and in some cases perhaps to transform the company and change its business models into more sustainable versions.

However, from high level political agreements, like the SDGs, to real and short term market impact is a long distance. A distance which may be overwhelming for many short term focused businesses who may be unfamiliar with the processes of collaborating with the UN and policy makers.

Progress is certainly being made at the political levels. Since the signing of the goals in September 2015 the 193 individual UN Member States have all begun to develop and implement SDG plans at national level. In July 2016, the first 22 countries volunteered to present their plans¹. In July 2017, 44 more countries², presented their plans and the rest of the UN Member States are due to follow each year until 2020.

The SDG implementation plans are set to guide and drive country specific focus areas, policies, regulations, financing, stimulus programs, awareness campaigns and many other activities aimed at delivering to the achievement of the SDGs at national level. Progress reporting and review of the national plans is set to take place at the UN over 5 year cycles.

¹ China, Colombia, Egypt, Estonia, Finland, France, Georgia, Germany, Madagascar, Mexico, Montenegro, Morocco, Norway, Philippines, Korea, Samoa, Sierra Leone, Switzerland, Togo, Turkey, Uganda, Venezuela.

² Afghanistan, Argentina, Azerbaijan, Bangladesh, Belarus, Belgium, Belize, Benin, Botswana, Brazil, Chile, Costa Rica, Cyprus, Czech Republic, Denmark, El Salvador, Ethiopia, Guatemala, Honduras, India, Indonesia, Iran, Italy, Japan, Jordan, Kenya, Luxembourg, Malaysia, Maldives, Monaco, Nepal, Netherlands, Nigeria, Panama, Peru, Portugal, Qatar, Slovenia, Sweden, Tajikistan, Thailand, Togo, Uruguay, Zimbabwe.

Novozymes' business & sustainability journey



Fig 2. Novozymes' strategic journey to SDG alignment

The SDG's are a gift to business because the economic rewards for delivering to the needs defined in the SDG's are very significant. According to the Business & Sustainable Development Commission the potential economic reward from delivering solutions to the SDGs could be worth at least \$12 trillion each year in market opportunities and generate up to 380 million new jobs by 2030 [4].

The business of the SDGs will not materialize from a CSR strategy disconnected from the business core. Going for the business of the SDGs will require that business leader weave the SDGs into their long-term business strategies and renew their thinking about stakeholder engagements and how the business is created. Collaboration and Public Private Partnerships (PPPs) will be keys to success for business and for governments in the coming decades.

3. Novozymes' strategic journey to SDG alignment

Novozymes is a biotechnology company and the world's largest manufacturer of biological solutions for industry. Novozymes produces a wide range of industrial enzymes and microorganisms applied in more than 30 different industries ranging from textile, leather, pulp & paper, laundry to food, feed and agriculture.

Novozymes' biological solutions improve industrial products and manufacturing processes by saving energy, water and raw materials, while reducing chemical use, waste generation and emissions.

Being a responsible company, operating with respect for the environment, people and society has been part of Novozymes' DNA throughout the company's history and the company has benefitted from its sustainability leadership in many ways. These include employee motivation, attraction and retention, customer and investor recognitions, goodwill

from policy makers and NGOs, storytelling and branding.

Novozymes was formed as an independent company by a demerger from the pharmaceutical company Novo Nordisk in 2000 and has since then had three business strategy periods, where sustainability has been used in three different ways as illustrated in Figure 2.

In Novozymes' first business strategy period (2000-2008), sustainability activities were primarily focused on controlling operational and supply chain risks, reducing costs, increasing transparency and reporting. Sustainability leadership recognitions in those years primarily came from making award-winning integrated reports on financial, environmental and social performance.

In the second business strategy period (2009-2014), Novozymes' sustainability focus shifted from supply chain and operations to products and customers. Product life cycle assessments (LCAs) were conducted in collaboration with customers to document the sustainability benefits generated by Novozymes solutions - which customers could use in their marketing activities. LCAs also formed the basis for corporate storytelling and communication about the potential of Novozymes' technologies and for dialogues with investors, policy makers and NGOs. Sustainability leadership recognitions came from the ability to integrate the sustainability-related value proposition within different business functions, and support them in their efforts to add value to customers and other key stakeholders.

In the third business strategy period (2015-2020), where Novozymes' current Purpose was launched, business and sustainability ambitions effectively merged and became one at the highest level. The opportunity and challenge within this strategy period is to bring sustainability insights into the process of setting priorities for innovation and business development, and thereby use sustainability insights to set

direction for the business, as opposed to just following and supporting the business.

Succeeding with this strategy will require a much stronger inclusion of sustainability perspectives in business strategy development & execution, as well as in innovation portfolio & pipeline management, and finally a much stronger integration of the Sustainability and Public Affairs work, as the SDG agenda increasingly drives business, sustainability and policy interest of Novozymes closer together.

The role of sustainability is continually intensifying and Novozymes will continue to work with all the sustainability aspects and value drivers mentioned in the three steps above. Going forward, Novozymes believe that sustainability leadership credits will come from the scale of the positive impact on the world you can generate with your business. In that context the SDG's are extremely helpful.

Novozymes has been engaged in the SDG process since its very beginning at the UN Earth Summit (Rio+20) in 2012. Novozymes' engagement has primarily been via memberships of the UN Global Compact (UNGC) [5], The International Chamber of Commerce (ICC) [6] and the World Business Council for Sustainable Development (WBCSD) [7]. Through these organizations, Novozymes has actively taken part in advocating for an SDG framework that was relevant to, and present a prominent role for, business. Already in 2014 Novozymes used the draft SDGs as inspiration when developing its new Purpose, Strategy and Long Term targets for the third strategy period.

To make the SDGs a relevant tool to support business decision making, Novozymes needed to be able to qualify and quantify potential contributions to the SDG's stemming from its core business activities and technologies. Novozymes has therefore developed an SDG assessment and management tool to guide those processes. The tool has already been used to scan the pipeline of innovation opportunities and to identify the most potent future contributors to the SDGs.

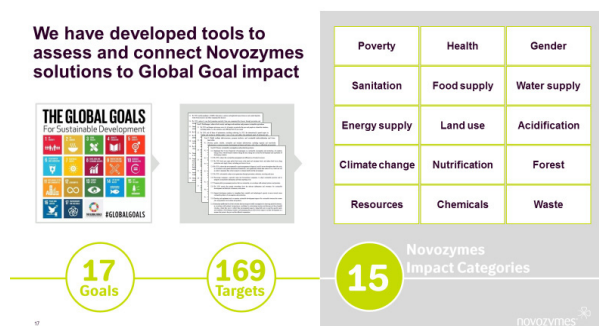


Fig 3: Illustration of Novozymes SDG assessment process

Novozymes believes, given the many stakeholders supporting the SDG agenda and the general desire to see SDG solutions in the market at speed and at scale, that it will be possible to form partnerships with non-business stakeholders with capacity to help accelerate the deployment of its business solutions for the SDG's.

Currently, Novozymes is in the process of using the potential positive SDG contributions from four commercial projects, in animal feed, bioenergy, palm oil and water, as an argument to attract business and non-business partners for business development acceleration.

4. How to unfold and sustain the “SDG gift to business” - step by step

The SDG's most likely represent the best long term strategic market outlook ever put in front of business. The distance from the high level political agreements to real market impact may seem long, uncertain and overwhelming to some. However, if only just half of what the SDGs suggest will materialize by 2030, then the SDGs still represent the best long term market guidance we have ever had before us.

Many of companies seems to share those views and have already embraced the SDGs in many ways. That is good news and a good start. However, to achieve the SDGs it will require that most companies do things differently, and in many cases, do different things.

To some companies the SDG agenda will entail increased risks to their business, because of future regulations or bad will from consumers caused by “SDG un-fit” products or business practices. To other companies the SDG agenda will drive added costs. This is very likely for companies with “SDG un-fit” energy supply systems or raw material needs. To a third group of companies, who deliver “SDG-fit” solutions from the core of their business, the SDGs will drive market growth.

Many companies are still struggling getting it right and to define their next steps to align their strategies with the SDGs and to measure and manage their impacts.

A number of step-by-step tools are available online for free to support those processes – for example the SDG Compass [8], developed by the Global Reporting Initiative (GRI), the U.N. Global Compact and the World Business Council for Sustainable Development (WBCSD). Such stepwise procedures will be relevant to any company no matter what the SDG motives are (risk, cost, opportunity) or what industry or geography it operates in.

And finally, the really good news is that the SDGs are not really a new agenda. The SDG agenda is in its essence just the “old sustainability agenda” made easier. With the SDG's in place we now have a much clearer set of long term global priorities with political tail wind and we have much stronger alignment between policy makers, civil society and the private sector. The SDGs are a great gift to business!

References

- [1] United Nations. *The UN Sustainable Development Goals*. United Nations, New York, 2015. Available at (accessed 16 January 2018): <http://www.un.org/sustainabledevelopment/summit/>.
- [2] United Nations. *The Millennium Development Goals Report*. United Nations, New York, 2015. Available at (accessed 16 January 2018): [www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf).
- [3] Opinion Working Group. Available at (accessed 16 January 2018): <https://sustainabledevelopment.un.org/owg.html>
- [4] Business and Sustainable Development Commission. *Better business better world – The report of the Business & Sustainable Development Commission*. Available at: (accessed 16 January 2018): http://report.businesscommission.org/uploads/BetterBiz-BetterWorld_170215_012417.pdf
- [5] UN Global Compact. <https://www.unglobalcompact.org/>
- [6] The International Chamber of Commerce (ICC). <https://iccwbo.org/>
- [7] World Business Council for Sustainable Development. <http://www.wbcd.org/>
- [8] SDG Compass. Available at: <https://sdgcompass.org/>