

## Initiatives for Agenda 2030, target 14 – current and potential contribution from the Swedish private sector

Swedish industry has a long history of environmental awareness and successful environmental management. A large number of blue growth initiatives are under way to full scale establishment. Experiences from these initiatives such as technical development and co-operational structures are important assets for the ambitions with the 2030 agenda.

The first environmental protection legislation in Sweden was introduced in 1969. Later on, it was amalgamated with several other environmental acts into the Environmental Code in 1999. The same year the Swedish environmental quality objectives system was put into force. The legislation and the objectives system have contributed as major driving forces for environmental initiatives. Many measures that are and have been implemented to contribute to the environmental quality objectives and the Generation Goal<sup>1</sup> – the overall goal of Swedish environmental policy – are also of importance for the achievements for SDG 14.

Many Swedish companies develop, produce and sell products with a high environmental profile. Environmental initiatives and measures performed by the individual companies contribute to environmental advantages in Sweden and other parts of the world where the products are used. Environmental measures are introduced to reduce environmental impact in all stages of the product and service life cycle.

Sweden provides good opportunities for development and innovation, both in existing industry and in new blue growth companies. We have a long history of innovation and turning ideas and technological development to profitable business solutions. This is an advantage in the 2030 agenda efforts. A basis for this is technical and innovative skills connected to a business approach. We also have an infrastructure of support for development of ideas to business.

Development and innovation include new technology for sustainable production or reduced emissions, new technology for fishery or new solutions for energy or food production from marine environments. It also includes innovative digital solutions and sustainable business models with environmental awareness as an integrated part of the business concept. In many cases, partnership and co-operation form a basis for development and innovation.

### [A new report presents initiatives within Swedish industry and blue growth companies](#)

In January 2017 the Swedish Environmental Research Institute (IVL) was commissioned by SwAM to assist in the identification of initiatives of promising initiatives from the Swedish private sector that are likely to contribute to achieving the SDG 14<sup>2</sup>-targets, including traditional industry and blue growth companies. The work was to be done in dialogue with companies and representatives from industrial sectors.

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<sup>1</sup> The generational goal defines the direction of the changes in society that need to occur within one generation if the country's environmental quality objectives are to be achieved.

<sup>2</sup> Conserve and sustainably use the oceans, seas and marine resources for sustainable development

In the report, IVL presents a list of close to 60 private sector initiatives from the steel industry, pulp and paper industry, chemical industry, wastewater treatment, manufacturing industry, energy industry, fishing industry, agriculture and food industry and initiatives from blue growth companies. For each initiative, the most relevant targets within SDG 14 to which the initiatives could contribute are indicated. The report also summarises competencies, experiences and other prerequisites in Swedish private sector that are advantageous in the ambitions to achieve the goal and targets within SDG 14. Strengths and opportunities for industry and blue growth companies to contribute to achievements in SDG 14 are presented, with the aim to contribute to provide a basis for the strategic planning of activities to fulfil the sustainability goals in a national and international perspective.

### Main strengths and opportunities for Swedish industry to contribute to SDG 14

According to IVL, the main strengths and opportunities for Swedish industry to contribute to achievements in SDG 14 can be summarised in the following areas:

1. Long term partnerships and co-operation
2. System perspective
3. Vast experience of environmental measures and initiatives
4. Innovation and development

### Regulations

IVL found that regulations are a driving force for development of environmental performance. A good example in Sweden is for instance support for developing innovations to business and starting up of companies. The environmental code and the permitting process is also a driving force for the development of environmental measures in new and existing industries. In the permitting process, Sweden has historically used benchmark values for emissions instead of limit values. This has provided a support to industries in their work to test and develop environmental measures. Experiences of policies and regulations in Sweden could also be of use in an international arena.

One example of requested change in regulation concerns simplifying the permitting process for implementation of new technologies and innovations that contribute to SDG 14 targets. Another one concerns strengthening economic incentives for catch crops (in analogy with land-based cultivated grasslands). A third one concerns enhancing co-operation between existing industry and innovation companies (compensation measures, can a catch crop replace a measure for reduced emissions at an existing industrial plant?)

### Conclusions on how to strengthen and enhance current achievements

In order to strengthen and enhance the current achievements within the Swedish industry, IVL made the conclusion that Sweden provides good opportunities for development and innovation, as well in existing industry as in new blue growth companies. Development and innovation include new technology for sustainable production or reduced emissions, new technology for fishery or new solutions for energy or food production from marine environments. Development also include innovative digital solutions and sustainable business models with environmental awareness as an integrated part of the business concept. In many cases, partnership and co-operation form a basis for development and innovation.

According to IVL, some possible actions to enhance contributions in Sweden would be to:

1. evaluate the need for changes in present environmental regulations (are they relevant and appropriate for introduction of innovative solutions and initiatives or are they delaying development?),
2. increase incentives to move from innovation to market.

Experiences of environmental measures in industry are often transferrable internationally. Initiatives that today are done in industry on a regular basis in the context of sustainability (concerning the products' lifetime environmental impact) are already transferred to suppliers and users across the world. In this area, the Swedish private sector have good potential to contribute.

Activities in partnership and co-operation and with a system perspective are very much dependent on culture and approach in the individual countries, which implies that it can be a success factor in some cases and not applicable in others. Having this in mind, this area can also be an important strength for Sweden in contributing to the SDG14 on an international basis.

In order for Sweden to contribute to solutions internationally, an understanding of the local societies are needed and adaptation of both decision making processes and technological solutions to the local situations. Improvements by technical solutions, such as process optimisation, emission treatments or improved resource management cannot be implemented without knowledge of the processes for decision making in society and knowledge on how decisions are implemented.

According to IVL some possible contributions from Sweden are:

1. knowledge transfer concerning "eco governance" – co-operation between authorities, between authorities and industry and within industry (dialogue processes),
2. creation of market advantages for products and services that imply improved environmental performance (such as information and international agreements),
3. knowledge transfer concerning environmental performance in the value chain (system perspective).

The contributions from Sweden have good potential to include:

1. [Municipal wastewater treatment \(in combination of energy production and nutrient extraction\), reuse of treated water](#)

Water scarcity and pollution of available water resources are globally increasing problems and they are further aggravated by urbanisation, climate change and water pollution. Introduction of modern municipal wastewater treatment can significantly reduce transfer of pollutants to recipients (freshwater and coastal waters) and also contribute to production of renewable energy (biogas), nutrient recovery and – in combination with additional measures – to water re-use by e.g. infiltration of purified water into groundwater reservoirs.

2. [Shipping – treatment of emissions to air, treatment of ballast water](#)

The shipping sector is a key actor in facilitating global trade and it will likely increase in importance in the future. In comparison to landbased sources of pollution, shipping has until recently, largely been unregulated. Modern technology can be applied to reduce emissions to air affecting ocean ecosystems and human health (e.g. particulates, sulphur dioxide). Modern technology is also the basis for more sustainable fuel use such as LNG or other low-sulphur fuels. Ballast water is a potential media for introduction of invasive species, which are transported and released under uncontrolled conditions. Technologies for treatment of ballast water can significantly reduce these potential problems.

3. Experiences from steel and pulp and paper industry – advanced treatment of emissions, efficient production processes, resource management

Industrial production of steel and pulp and paper is important to Swedish industrial growth. As industries have developed, emissions of pollutants to fresh- and coastal water recipients have been reduced drastically by improved process design and resource efficiency and by introduction of specific treatment steps for pollutants (metals, organic matter/fibres, organic pollutants and nutrients). Vast experience, that can be transferred, exists on technological solutions, target setting and regulatory development.

4. Transfer of knowledge of innovations in blue growth initiatives

Large efforts are currently underway in Sweden and elsewhere to develop and introduce sustainable marine innovations for e.g. energy (wind, waves), production of substrates for biogas and chemical industry, food production. International collaboration, knowledge transfer and exchange of experience can provide the necessary means to increase development from concept to commercially based operations and thus to enhance the development of sustainable blue growth and economic development of coastal communities.

This text is based upon the following report made by the Swedish Environmental Research Institute (IVL): Initiatives in Swedish private sector to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Preparations for the UN Ocean Conference in June 2017. Report no. U 5802, April 2017.

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The report was commissioned by the Swedish Agency for Marine and Water Management (SwAM), as a background report before The Ocean Conference in New York in June 2017 in support of the work to conserve and sustainably use the oceans, seas and marine resources for sustainable development in Agenda 2030. The views and positions contained in the report do not necessarily reflect the view by SwAM.

The report is published here: [www.havochvatten.se/en/initiativesforsdg14](http://www.havochvatten.se/en/initiativesforsdg14)