


LIFE SCIENCE AND THE UN SUSTAINABLE DEVELOPMENT GOALS

FOR SUSTAINABLE DEVELOPMENT IN HEALTHCARE



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This project has been carried out by Nordic Center for Sustainable Healthcare
on behalf of Business Region Göteborg.

The purpose of the project is to highlight the links and synergies between Life
Science, the UN Sustainable Development Goals and the European Green Deal.



INTRODUCTION

There is an ever-increasing amount of financing opportunities for various types of sustainability initiatives, which are also available to organisations working in the area of Life Science and healthcare. The European Green Deal, which is set of policy initiatives by the European Commission, is investing billions in making the EU climate neutral by 2050, with grants available to organisations in member states working in both the public and private sector.

This project seeks to highlight the synergies and links that exist between different Life Science segments, the UN Sustainable Development Goals (SDGs) and the targets of the European Green Deal. The SDGs are an important component of all sustainability initiatives at both the national and international level. Accordingly, it is also important for organisations to understand how to link their own projects and activities to these goals.

Three matrices have been developed as part of the project to match various Life Science segments with the 17 SDGs, the targets under SDG 3 Ensure healthy lives and promote well-being for all at all ages, and the European Green Deal's policy areas. The aim is for companies and other organisations within the Life Science sector to be able to use these matrices as a guide when applying for funding for their sustainability initiatives. The matrices should also help strengthen and secure strategic sustainability efforts throughout the entire value chain.

The SDGs and policy areas of the European Green Deal are also presented in this report to provide greater understanding and context when using the matrices.



PRIOR WORK

Many reports and tools have been published in the past to help private individuals, industries, companies and other organisations understand how to work with, and contribute to, fulfilment of the UN SDGs. When creating the matrices for this project, consideration has been given to this body of work. Three specific tools and matrices that were used as a reference are presented below.

SDG INDUSTRY MATRIX

SDG Industry Matrix is a tool created by KPMG and United Nations Global Compact. It focuses on 6 industries and how they can be linked to the SDGs. The report also contains five steps that companies can follow to maximize their contribution to the goals, adapt the direction of sustainability work and ensure that efforts are based on their organisation's core business (KPMG & UN Global Compact, 2015).

SDG COMPASS

The SDG Compass is a 30-page report created by GRI, United Nations Global Compact and World Business Council for Sustainable Development. It was created as a guide for companies, containing information on such things as how the SDGs affect companies and how companies can contribute to their fulfilment (GRI; UN Global Compact; WBCSD, 2015).

SDG SELECTOR

SDG Selector is a digital tool created by PwC. With this tool, it is possible to choose between a couple of different industries and businesses, then, see which of the SDGs can be linked to the chosen category (PwC, 2015).



THE UN SUSTAINABLE DEVELOPMENT GOALS



Figure: UNDP, 2017

United Nations Secretary-General, António Guterres, has described climate change as a ‘direct existential threat’ to humanity. The United Nations Sustainable Development Goals (SDGs) serve as the blueprint to give our planet a better future. It’s a future where the focus for sustainable development is on peace, humanity, prosperity and the planet. There are 17 Sustainable Development Goal, which have been further broken down into targets and indicators. They cover a broad scope, which includes ending poverty, sustainable consumption and production, and many other goals in a variety of areas. It has been widely recognised that, to achieve the 17 SDGs by 2030, solutions will need to be implemented in parallel and in synergy. In other words, all of the goals must be integrated in how solutions are adopted. The 2030 Agenda for Sustainable Development has been adopted by 193 Member States of the United Nations and it serves as a guiding framework and universal call to action.

The World Health Organization (WHO) estimates that achieving the health-related targets under the Sustainable Development Goals (SDGs) by 2030 will require adding more than 23 million health workers, and building more than 415,000 new health facilities, 91% of which would be primary health care centres. The investments could prevent 97 million premature deaths and 20 million deaths from non-communicable diseases such as cardiovascular disease, diabetes and cancer. Life expectancy would increase by between 3.1 and 8.4 years. (WHO, 2017).



THE UN SUSTAINABLE DEVELOPMENT GOALS

The 17 Sustainable Development Goals (SDGs) each have their own targets. For example, SDG 6 has outcome targets 6.1, 6.2, 6.3 etc. Many of the targets also have indicators for measuring how well each goal is being met. Targets with letters, such as 6.a and 6.b are “means of implementation targets”. There is no financial support that can be applied for that is directly linked to the SDGs and United Nations Development Programme (UNDP). However, countries that have officially adopted the SDGs agree to create various systems and support functions at both the national and international level for achieving the goals. The 2030 Agenda leaves it up to the countries that have signed the agreement to identify and take action for achieving the goals in a way that is consistent with their national goals. One such support function is the European Green Deal, which is described in the sections that follow.

SDG 3

SDG 3 represents the heart of sustainability work for Life Science. ‘Ensuring healthy lives and promoting well-being’ includes such things as antimicrobial resistance and developing cost-effective treatments and products. It also includes lowering the risk of disasters, such as epidemics and pandemics.

SDG 3: Targets

- 3.1 Reducing the global maternal mortality rate
- 3.2 Ending preventable deaths of newborns and children under 5 years of age
- 3.3 Combatting communicable diseases
- 3.4 Reducing premature mortality from non-communicable diseases and promoting mental health
- 3.5 Strengthening the prevention and treatment of substance abuse
- 3.6 Lowering the number of global deaths and injuries from road traffic accidents
- 3.7 Ensuring universal access to sexual and reproductive health-care services
- 3.8 Achieving universal health coverage
- 3.9 Reducing the number of deaths and illnesses from hazardous chemicals and pollution
- 3.A Strengthening the implementation of the World Health Organization Framework Convention on Tobacco Control
- 3.B Supporting the research and development of vaccines and medicines for all
- 3.C Increasing health financing and the recruitment, development, training and retention of the health workforce
- 3.D Strengthening the capacity for early warning of global health risks



1. End poverty

*(Poverty is defined from a socio-economic perspective, lack of freedom, power, influence, health, education and physical safety)

- 1.3 Implement nationally appropriate social protection systems
- 1.4 Equal rights to property, basic services, technology and economic resources
- 1.5 Building the resilience against economic, social and environmental disasters

2. End hunger

- 2.1 Access by all to safe, nutritious food
- 2.2 Ending all forms of malnutrition

4. Quality education for all

- 4.4 Increasing the number of people with relevant skills for achieving financial security

5. Gender equality

- 5.6 Universal access to sexual and reproductive health and reproductive rights
- 5.b Enhance the use enabling technology to promote the empowerment of women

6. Clean water and sanitation for all

- 6.2 Achieve access sanitation, hygiene and toilets for all
- 6.3 Improve water quality, lowering the proportion of untreated wastewater and increasing recycling
- 6.4 Increasing water-use efficiency and secure water supply

7. Sustainable energy for all

- 7.2 Increasing the share of renewable energy in the world
- 7.3 Doubling the global rate of improvement in energy efficiency

8. Decent work for all and sustainable economic growth

- 8.2 Achieving higher levels of economic prosperity through diversification, technological upgrading and innovation
- 8.4 Improving resource efficiency in consumption and production

9. Sustainable industry, innovation and infrastructure

- 9.4 Upgrading all industry and infrastructure to make them more sustainable
- 9. b Supporting diversification and domestic technology development

10. Reducing inequality

- 10.2 Promoting social, economic and political inclusion Example: braille
- 10.3 Ensuring equal opportunity and eliminating discrimination

11. Sustainable cities and societies

- 11.6 Reducing adverse environmental impact of cities
- 11.b Implementing strategies for inclusion, resource efficiency and resilience to disasters

12. Sustainable consumption and production	12.2 Sustainable management and efficient use of natural resources 12.4 Responsible management of chemicals and all wastes 12.5 Substantially reducing waste generation
13. Combating climate change	13.1 Strengthening resilience and adaptive capacity to climate-related disasters
14. Oceans and marine resources	14.1 Reducing marine pollution
15. Ecosystems and biodiversity	15.1 Ensuring the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems 15.5 Protecting biodiversity and natural habitats
16. Peaceful and inclusive societies	16.7 Ensuring responsive, inclusive, participatory and representative decision-making
17. Implementation and global partnership	17.6 Collaboration and knowledge-sharing on science, technology and innovation 17.16 Enhance the Global Partnership for Sustainable Development

THE EUROPEAN GREEN DEAL

The European Green Deal is a growth strategy for making the EU climate-neutral with no net emissions of greenhouse gases by 2050. The goal is to transform the EU into a modern, resource-efficient and competitive economy, where economic growth is decoupled from resource use.

To achieve this transition, the EU will be using the following policy tools: regulation and standardisation, investment and innovation, national reforms, engagement with the labour market and international collaboration. The European Green Deal consists of several strategies for achieving a sustainable transition of the EU's economy.



Figure: European Commission, 2019

1 Conservation and restoration of ecosystems and biodiversity

The EU has developed a strategy for biodiversity that will be followed up with specific actions in 2021. The strategy aims to address the most important reasons behind the loss of biodiversity along with setting measurable targets to limit the loss.

2 From Farm to Fork

The Farm to Fork strategy covers all links in the food chain aimed at creating a more sustainable food policy. A proposal has been put forth for the EU budget 2021-2027 that at least 40% of Common Agriculture Policy should contribute to climate action. In addition, at least 30% of the maritime fisheries fund should contribute to climate objectives.

3 Clean and secure energy supply at a reasonable price

The EU will be striving for energy efficiency and an energy sector that is based on renewable energy, along with phasing out coal and fossil fuels in the gas sector. As a step towards achieving that, the EU member states have revised their national energy and climate plans. The EU will also be reviewing the regulations for energy infrastructure so that it complies with climate neutrality.

4 Industry shall strive for a clean and circular economy

The EU has developed an industrial strategy for facilitating the transition to sustainability and digitalization. A key aspect of this is stimulating development of pioneer markets for climate-neutral and circular products within and outside the EU. The European Commission will also be creating new requirements, legislation and business models to stimulate the circular economy. Investments will be made in strategic value chains and new forms of collaboration with industry will be promoted.

5 Construction and renovation in an energy-efficient and resource-efficient way

The EU is collaborating with member states to spark a Renovation Wave of both public and private buildings to drive energy efficiency in the sector and deliver on objectives. Focus will be on renovating schools and hospitals, since money saved with efficient buildings helps fund education and public health.

6 Faster transition to sustainable transport and smart mobility

The EU will be contributing to development of smart traffic management systems and integrated mobility solutions via the funding instrument, Connecting Europe Facility, CEF. There will be a review of the legislation on CO₂ emission standards from passenger cars. The EU will be supporting the expansion of public charging stations and refuelling points, along with expanding the production of sustainable alternative fuels.

7 Vision for zero emissions and non-toxic environment

In 2021, the European Commission will be adopting a zero pollution action plan for air, water and soil. Existing requirements on air quality will become stricter as regards monitoring, modelling and air quality plans. The EU will also be developing a chemicals strategy for sustainability and promoting innovation for the development of safer, more sustainable alternatives.

8 Increasing the EU's climate ambition for 2030 and 2050

The EU will be taking action in many areas to sharpen the climate targets. For example, a proposal for European Climate Law has been put forth, a strategy for climate adaptation will be developed and there is a proposal for a carbon border adjustment mechanism for selected sectors. There is also a plan to increase the EU's greenhouse gas emission reductions target for 2030 to at least 50% and towards 55% compared with 1990 levels (COM(2019)640 final).

INVESTMENT PLAN FOR THE EUROPEAN GREEN DEAL

Making the transition to a climate-neutral economy for the EU by 2050 will require major investments by both the EU's and its member states' public and private sectors. The EU has therefore presented an investment plan for the European Green Deal for mobilising and freeing up both public and private funds using the EU's funding instruments. The goal is to mobilise at least EUR 1 billion for sustainable investment over the next decade.

How will EUR 1 billion be mobilised? These funds will come from the EU's own budget, InvestEU and revenue from the EU's emissions trading scheme. The EU's next long-term budget covers the 7-year period from 2021 to 2027. According to the European Commission's proposal, 25% of the total long-term budget will contribute to environmental and climate initiatives in a variety of EU programmes, including: Horizon Europe, Life, the European Regional Development Fund, the European Agricultural Guarantee Fund, the Cohesion Fund and others. Overall, the EU budget will provide EUR 503 billion to the European Green Deal Investment Plan (European Commission, 2020-a).

The InvestEU fund will mobilise approximately EUR 279 billion in private and public environmental investments between 2021 and 2030. The Fund includes EUR 38 billion from the EU budget, which provides a guarantee enabling the European Investment Bank (EIB) to invest in more, riskier projects and thus include private investors in the European Green Deal (European Commission 2020-b). The EU will also work to make it easier for investors and businesses to identify credible and sustainable investments, such as an EU standard for green bonds facilitating sustainable investment, as well as other sustainable financing initiatives such as taxonomies, publication and labelling (COM/2019/640 final). Finally, approximately EUR 25 billion will be financed through auctioning of ETS emission allowances.

The European Green Deal Investment Plan also includes a Just Transition Mechanism to ensure that no one is left behind. It will mobilise at least EUR 100 billion in investments over the period 2021-2027 to support workers and citizens of the regions most impacted by the transition because their jobs depend on fossil fuels, thereby alleviating the socio-economic impact of the transition (European Commission, 2020-c).

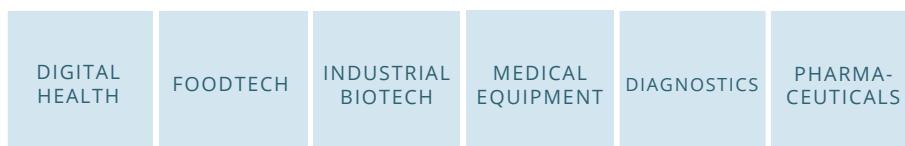
The projects financed under the European Green Deal Investment Plan will contribute to reaching the goals of the European Green Deal, to the emergence of new, clean energy and circular economy industries. Both small projects and larger ones will be able to benefit through dedicated programmes and products. The investment support will be adjusted to the level of risk that specific projects carry (European Commission, 2020-a).

INSTRUCTIONS FOR USE FOR MATRICES

In carrying out this work, the *Life Science* area has been divided into 14 different categories in order to include a wide range of activities. The categories have, in turn, been divided into three main groups: *Life Science Segment*, *Care Management* and *Global Challenges*. They are described in more detail below.

LIFE SCIENCE SEGMENT

This segment includes 6 of the 14 categories: *Digital Health*, *Foodtech*, *Industrial Biotech*, *Medical Equipment*, *Diagnostics* and *Pharmaceuticals*. The segment is primarily focused on industry and the companies that are active in these areas.



CARE MANAGEMENT

This segment includes 3 of the 14 categories: *Preventive Care*, *Medical Treatment* and *Rehabilitation*. The aim of this segment is that it should reflect the value chain and it is primarily focused on healthcare organisations and companies that deliver products and services to these parts of the healthcare chain.



GLOBAL CHALLENGES

This segment includes 5 of the 14 categories: *Lifestyle Diseases*, *Aging Population*, *Environmental Healthcare*, *Infection Control* and *Health Data Management*. This segment focuses on global societal challenges. As a business, it is possible to use this segment for project applications, product development or for creating services that help solve these challenges.



Three matrices were created as part of the project to serve as a visual aid for matching Life Science sectors to the SDGs and the European Green Deal. Users of the matrices select the categories and main groups that match the business or projects. A business might match several categories in the various segments that relate to industry, the value chain or societal challenges.

Some of the businesses listed under the various segments could, of course, over time work towards more goals than those that have been matched in this matrix. It was necessary, however, to define boundaries and decide which SDGs are most clearly linked to each segment so that the matrix fulfils its purpose in providing guidance. A red square in the matrix indicates that there is no clear link between a particular category and a specific goal.

MATRIX 1: The 17 Sustainable Development Goals

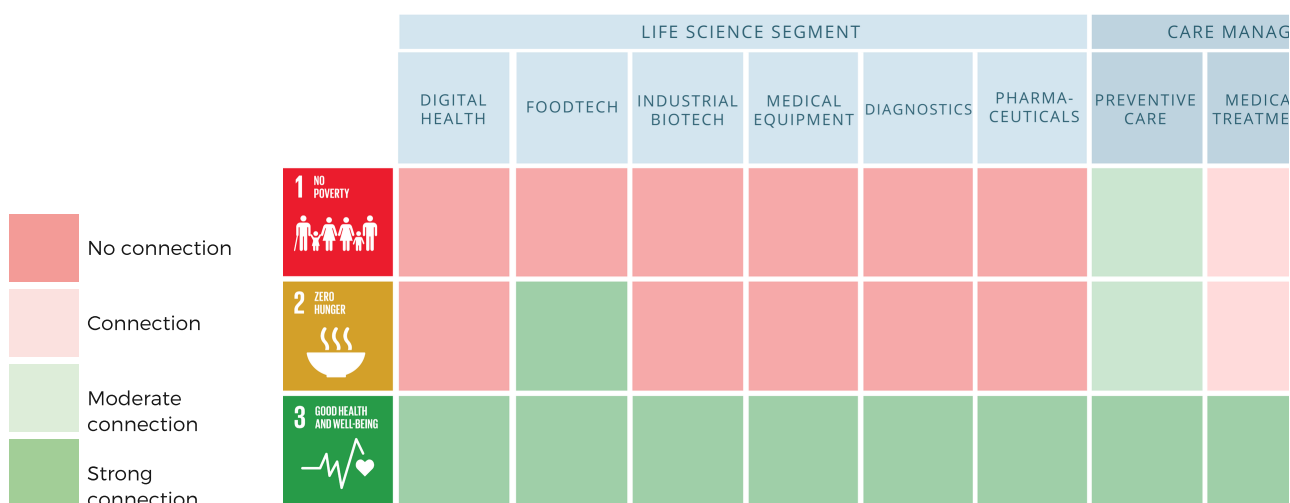
Matrix 1 aims to visualise the link between the selected categories and the UN Sustainable Development Goals. The x-axis contains the various Life Science categories and the y-axis contains the 17 SDGs. A colour scale has been added to show how each category is linked to each goal.

MATRIX 2: Goal 3 Good Health and Well-Being

Matrix 2 matches the Life Science categories to all of the targets of SDG 3 Good Health and Well-Being, since this goal is specifically linked to the Life Science area.

MATRIX 3: The European Green Deal

Matrix 3 matches the Life Science categories to all of the European Green Deal policy areas. As with the other two matrices, the various Life Science categories are on the y-axis and the European Green Deal policy areas are on the x-axis.



The picture shows an extract from matrix 1.

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FOR SUSTAINABLE DEVELOPMENT IN HEALTHCARE

The purpose of the project is to highlight the links and synergies between Life Science, the UN Sustainable Development Goals and European Green Deal.

The matrices that were created as part of the project are available on the websites of Nordic Center for Sustainable Healthcare (NCSH) and Business Region Göteborg.

ABOUT BUSINESS REGION GÖTEBORG

Business Region Göteborg is responsible for business development in the City of Gothenburg and represents 13 municipalities in the region. Business Region Göteborg contributes to creating more jobs and thereby achieving sustainable growth in the Gothenburg region's business community by offering knowledge and contacts to companies wishing to set up or expand businesses in the region. Read more at:

businessregiongoteborg.se



**BUSINESS REGION
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AB NORDIC CENTER FOR SUSTAINABLE HEALTHCARE (NCSH)

Nordic Center for Sustainable Healthcare (NCSH) is an international network run by the TEM foundation. Over a five year period, NCSH has built up a large, influential network in the area of sustainable healthcare. NCSH works with the entire value chain and the network includes companies, hospitals, regions, universities, NGOs, clusters and more. In total, the network comprises more than 100 member organisations from 15 countries around the world. Read more at:

nordicshc.org

