

A Territorial Approach to the Sustainable Development Goals in Southern Denmark, Denmark



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This paper was authorised for publication by Lamia Kamal-Chaoui, Director, Centre for Entrepreneurship, SMEs, Regions and Cities, OECD.

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Preface

The OECD and the region of Southern Denmark are delighted to introduce the results of the policy dialogue that was conducted over 2 years with more than 100 stakeholders to strengthen a territorial approach to the Sustainable Development Goals (SDGs) in Southern Denmark, Denmark.

In today's highly uncertain policy environment, the SDGs are more relevant than ever. In shaping long-term recovery measures in response to the COVID-19 pandemic, the SDGs offer a valuable framework to build a more sustainable and resilient society in a shared responsibility across levels of government. Climate change, the transition from a carbon-intensive towards a green economy, and demographic pressures are exacerbating regional and local development challenges in Southern Denmark and require a holistic approach to policymaking.

The region of Southern Denmark has released a new regional development strategy, *Southern Denmark of the Future 2020-2023*, to address the SDGs in areas where it is legally and politically mandated to do so. SDG 17 on Partnerships for the Goals is a priority for the region and will be used as a key lever for implementing the strategy. Several municipalities in Southern Denmark have seized the opportunity to use the SDGs as a tool for engaging citizens, and linking urban development with their sustainability agendas. Another prominent feature of the SDGs' implementation in Southern Denmark is the active role of schools, civil society and the University of Southern Denmark, developing various initiatives to engage young people with the SDGs.

The OECD report *A Territorial Approach to the Sustainable Development Goals in Southern Denmark, Denmark* provides policy guidance on how to use the SDGs as a tool to progress the well-being and quality of life in Southern Denmark and strengthen environmental sustainability. It provides guidance for municipalities to use the SDGs as a tool to improve their local development strategies and actions. Furthermore, the report advises on how to identify and put in place appropriate frameworks to support and scale up initiatives that involve schools and civil society in the SDGs in a systemic way, as well as how to further develop the potential for public-private partnerships through the SDGs.

Throughout the policy dialogue underlying this report, we shared our experience with a wide variety of stakeholders in Southern Denmark and learned from peer policymakers from the region of Flanders (Belgium), from Engagement Global (Germany) and from the United Nations Global Compact. We have worked with numerous municipalities and institutions from the public, private and non-profit sectors to build consensus, discuss the policy recommendations and scale up success stories.

Both institutions are proud of this journey and the results that we achieved together and look forward to continued collaboration to support the implementation of the policy recommendations in the future.



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Acknowledgements

This report was prepared by the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE) led by Lamia Kamal-Chaoui, Director, as part of the Programme of Work and Budget of the Regional Development Policy Committee (RDPC). It is the result of a two-year policy dialogue with more than 100 stakeholders from public, private and non-profit sectors across all levels of government in Southern Denmark, Denmark.

The report was drafted by a core team of OECD policy analysts comprised of Stina Heikkilä and Lorenz Gross of the CFE, and co-ordinated by Stefano Marta, Co-ordinator of the OECD Programme on a Territorial Approach to the SDGs, under the supervision of Aziza Akhmouch, Head of the Cities, Urban Policies and Sustainable Development Division in the CFE. The report benefitted from the support of Marcos Díaz Ramírez, Statistician, for the analysis of the local SDG data for the region of Southern Denmark, Denmark.

The OECD Secretariat is grateful for the high-level political impetus and commitment from Søren Rasmussen, Chairman of the Committee for Regional Development of the Region of Southern Denmark, Denmark. Special thanks are herein conveyed to the excellent local team, which was led by Thomas Dyhr Vestergaard, Head of Division, Regional Development, and was composed of Bo Hanfgarn Eriksen, Chief Analyst, Rikke Stamp Thorsen, Analyst, Rune Stig Mortensen, former Head of Division, and Johanna Lundström, former Chief Analyst, and several other colleagues. Special thanks are also extended to the peer reviewers who contributed their valuable expertise and experience, participated in missions and provided international best practices as well as guidance on the report, namely Ine Baetens, Sustainable Development Expert for the region of Flanders, Belgium, Sebastian Dürselen from Engagement Global, Germany, and Patricia Purcell, from the UN Global Compact.

The final report was approved via written procedure by the RDPC on 15 October 2020 under the cote CFE/RDPC/URB(2020)14.

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Abbreviations and acronyms

3GF	Global Green Growth Forum
ASviS	Italian Alliance for Sustainable Development
CBS	Copenhagen Business School
CEDES	Social and Economic Development Council
CFE	OECD Centre for Entrepreneurship, SMEs, Regions and Cities
CIE	Centre for Industrial Electronics
CIM	Centre for Industrial Mechatronics
CSR	Corporate Social Responsibility
DKK	Danish Krone
EC	European Commission
EC-DG Regio	European Commission's Directorate-General for Regional and Urban Policy
ESD	Education for Sustainable Development
EU	European Union
EU ETS	European Union Emissions Trading System
FUA	Functional urban area
GDP	Gross domestic product
GEUS	Geological Survey of Denmark and Greenland
GHG	Greenhouse gas
GVA	Gross Value Added
GWh	Gigawatt-hours
HLPF	High-Level Political Forum
ICSU	International Council for Science
IEA	International Energy Agency
ISIC	International Standard Industrial Classification
Istat	Italian National Institute of Statistics

IT	Information technology
ITF	International Transport Forum
IUCN	International Union for Conservation of Nature
MPs	Members of parliament
NEET	Not in education, employment or training
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-Operation and Development
PCT	Patent Cooperation Treaty
PM 2.5	Particulate matter 2.5
PPP	Public-private partnerships
R&D	Research and development
RCE	Regional Centres of Expertise
RDPC	Regional Development Policy Committee
SDG	Sustainable Development Goals
SMEs	Small- and medium-sized enterprises
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar
USD PPP	United States Dollar Power Purchasing Parity
VNR	Voluntary National Review
VVSG	Association of Flemish Cities and Municipalities
WDPA	World Database on Protected Areas
WHO	World Health Organization
WRI	World Resources Institute

Executive summary

The region of Southern Denmark shows strong performance towards attaining most of the Sustainable Development Goals (SDGs) and is expected to further increase its efforts to achieve holistic sustainable development through its regional development strategy *Southern Denmark of the Future 2020-2023*, embracing the SDGs. With low poverty rates and inequality, high satisfaction with the regional government's efforts, as well as signs of strong innovative potential, the region appears well equipped to tackle remaining challenges, both by leveraging partnerships and in areas within the region's legal and political mandate. The SDGs represent an opportunity for the region to expand on its regional development efforts, which have been focused on providing for the well-being of its residents, and to address remaining challenges related to environmental sustainability, such as reducing air pollution, in collaboration with the national government, and continuing the costly endeavour to clean up historically polluted sites.

Key findings

Southern Denmark performs above OECD average across most socio-economic SDG indicators, while some environmental challenges remain

- Southern Denmark has a strong performance in most socio-economic indicators, while challenges remain to address women's part-time employment and the spatial implications of ageing and population decline across rural and urban areas:
 - **Only around 12.2% of Southern Denmark's population lived below the relative poverty line defined as 60% of national median disposable income in 2013**, while the average of OECD regions exceeded 20%. In close to 90% of OECD regions, a higher share of the population lived in relative poverty in 2013.
 - **Southern Denmark is among the best performing OECD regions when it comes to life satisfaction and satisfaction with healthcare.** Regarding satisfaction with life as a whole, Southern Denmark scores 7.5 on a scale from 0 to 10 between 2008 and 2018 – higher than in 94% of OECD regions. People in the region are also content with the availability and quality of healthcare, with an average satisfaction rate of 87%, for the period 2008-18. Only one out of ten OECD regions exhibit a higher degree of satisfaction.
 - **Labour productivity and knowledge-intensity of Southern Denmark's economy exceed the OECD average.** In 2016, research and development (R&D) expenditure in the region was equal to 1.8% of the regional gross domestic product (GDP) compared to an OECD average of 1.6%, but low in comparison to top performers such as the Copenhagen region (4.9%).
 - **Trust in institutions, the judicial system and the government in Southern Denmark is among the highest across OECD regions.** In Southern Denmark, around 83% of the population had confidence in judicial systems and courts for the period 2008-18, much higher than the average of OECD regions, which is below 50%.

- **The region's gender gap in part-time employment – 21 percentage points in 2019 compared to the OECD average of 17 percentage points and the national average of 18 percentage points** – belongs to the highest 30% among OECD regions, hinting at potential structural barriers leading to underemployment of women in the region.
- **The projected demographic development is likely to have different effects among the municipalities in the region.** The population shows signs of ageing, with the share of people above 65 growing from 19.8% in the first quarter of 2010 to 24.3% in 2020. Rural areas and small towns are facing a greater decline in the working-age population than cities.
- While satisfaction with the government's efforts in environmental preservation and with water quality is high, continuing the shift towards renewable energy sources, addressing air pollution and cleaning up polluted "mega-sites" are key priorities included in the regional strategy:
 - **Southern Denmark has significantly increased the use of renewables for electricity production, notably wind power. However, more efforts are needed to fully eliminate the use of fossil fuels, particularly coal.** In Southern Denmark, around 58% of the electricity produced in 2017 came from renewable sources. That share lies above the average of OECD regions that produce electricity (around 41%) but below the Danish national average (71%).
 - **In 2019, air pollution levels in Southern Denmark (10.2 µg/m³) were slightly above the World Health Organization (WHO) Air Quality Guideline value of 10 µg/m³ average annual exposure**, at which the OECD has set its suggested end value for 2030. Overall, around 96% of the population in Southern Denmark were exposed to a level of PM2.5 above the WHO Air Quality Guidelines. This corresponds to a significantly larger share of the population than in OECD regions on average (59%).
 - **As of 2014, there were around 43 motor road vehicles registered per 100 people living in Southern Denmark**, slightly more than in OECD regions and Danish regions on average (40 motor road vehicles in both cases).
 - **Three out of the Danish government's ten priority pollution sites are located in Southern Denmark**, constituting a significant cost for the region and the national government to deal with in terms of removal of pollution. Every year, 75 tonnes of pollution dissolved into the groundwater are transported to sea.

The regional strategy provides a holistic framework for the development of the region based on the SDGs, addressing issues within the scope of the regional government's mandate

- ***Southern Denmark of the Future 2020-2023 outlines the regional government's strategy to address the SDGs***, in areas where it is politically mandated to do so. In the Danish context, regions are inhibited from dealing with aspects relating to business promotion, including tourism, which in 2019 became a national government competency. The SDGs provided an opportunity to design the new strategy for 2020-2023, building on the earlier one, called The Good Life, which had a strong focus on well-being.
- ***To address environmental challenges, a set of initiatives related to "Green transition, climate and resources" were included in the strategy***, with a focus on resource optimisation, including the circular economy, as well as utilisation of alternative materials to minimise environmental and impacts.
- ***Municipalities have a key role in the 2030 Agenda.*** Several municipalities in Southern Denmark are using the SDGs as a tool to assess the contribution to, and the coherence of their plans or actions with, the targets of the goals. Examples of municipalities connecting the SDGs to their local development plans include Haderslev, Kolding, Middelfart, Odense, Sønderborg and Vejle.

Multi-level governance should be strengthened to leverage the co-ordination potential of the 2030 Agenda

- **At the national level, several initiatives exist to push the level of ambition for Denmark to contribute towards the achievement of the SDGs; yet the importance of the subnational level is not fully captured**, as in the National Action Plan for example. Lack of co-operation, for instance, with regards to the development of subnational indicators is a challenge for the harmonisation of efforts.
- **On the other hand, through the 2030 Network of Members of Parliament (MPs), SDG 11 was highlighted as a key priority.** A baseline study showed that while Danish cities are commonly at the forefront of global targets, sustainable building practices and waste management can be improved at the municipal level.

Schools, civil society and the University of Southern Denmark are actively engaging with the 2030 Agenda, while the SDGs are also a means to foster public-private partnerships

- **A prominent feature of SDGs implementation in Denmark** is the active role of schools, civil society and the University of Southern Denmark which are developing various initiatives to capture young people's interest towards the SDGs. One example is the Global High Schools project (*Globale Gymnasier*), which enables teachers and students to acquire knowledge, attitudes and competencies for action in relation to the SDGs.
- **Companies in Southern Denmark increasingly see the SDGs as a business opportunity**, with the perception that failing to incorporate the SDGs in the core business may leave the company out of business in the long run. Municipalities can be key leaders when it comes to forming a public-private partnership (PPP), as in the case of Sønderborg.

Policy recommendations

To leverage a territorial approach to the SDGs in Southern Denmark, while considering the limitations set by its legal and political mandate, the region should:

- **Use the SDGs as a tool to move forward the new Regional Development Strategy 2020-2023, and improve environmental sustainability.** For example:
 - Climate objectives can be coupled with promoting active means of transport like cycling, walking or shared transport solutions, promoting health and well-being, as well as economic benefits and innovation.
 - More collaboration with municipalities in environmental management is needed to strengthen the holistic management of contaminated sites and groundwater resources and achieve maximum societal benefits, while providing for the long-term health and well-being of the population in Southern Denmark
 - Health and renewable energy sectors hold potential to address the region's skills gaps, attract more women to R&D professions, as well as close the gender gap in part-time employment.
- **Encourage municipalities to use the SDGs as a tool to improve their local development strategies and actions.** The region should support municipalities to shift from complying with and measuring the SDGs, to also seeing them as an engine/opportunity to improve their daily work.
- **Strengthen vertical co-ordination and strategic alignment towards the 2030 Agenda among all levels of government in Denmark, in particular between national and subnational governments, in accordance with their political and legal mandates.**

- **Use the regional development strategy implementation to support municipalities active or incipient on the SDGs, including through raising awareness.** The region should continue its efforts to showcase the tangible contribution of the 2030 Agenda for local economic development, planning, investment and well-being, so that good practices can be disseminated.
- **Ensure adequate resources to implement the Southern Denmark of the Future 2020-2023 strategy, contributing to achieving the priority SDGs.** The SDGs could be a powerful means to implement the new strategy, ensuring adequate resources are allocated to the sub-strategies and action plans that will accompany the overall strategy.
- **Use the SDGs as a framework to strengthen the understanding and measurement of interlinked sustainable development challenges and opportunities, at all government levels.** A step forward is to strengthen the SDGs indicator system at the regional and local levels, and engage in dialogues with other regions and Statistics Denmark to better track local and regional performance. The country-wide project *Our Goals* provides an interesting forum for exchanging knowledge and developing new context-specific indicators at different scales.
- **Identify and put in place appropriate frameworks to support and scale up initiatives on the SDGs that involve schools and civil society in a systemic way.** This will contribute to enhancing the role of youth and civil society as key agents for change in the 2030 Agenda, building on the ongoing efforts on Education for Sustainable Development.
- **Identify and further develop the potential for PPPs through the SDGs,** for example, leveraging Southern Denmark's long-term tradition of PPPs, as well as exploring instruments like sustainable public procurement, to strengthen the private sector contribution to the SDGs and the achievement of the regional strategy.

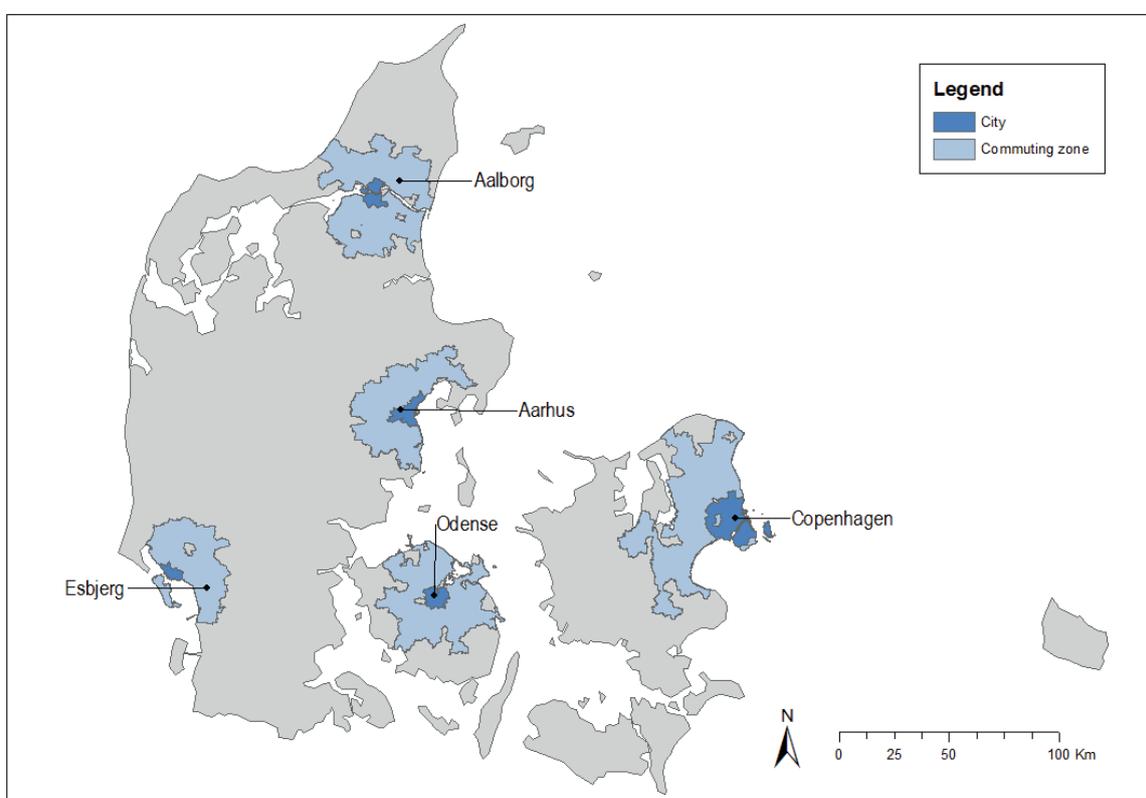
1 The SDGs as a tool to strengthen regional well-being in Southern Denmark, Denmark

Southern Denmark spans from the island of Funen to the east to the peninsula of western Denmark to the west. The region is well connected to Copenhagen Capital Region and shares Denmark's only land border with Germany. The population of Southern Denmark has been growing only slightly in the last decade, showing signs of ageing and further decline in rural areas. Yet, the region enjoys a high level of well-being overall by OECD standards. The region seized the opportunity to use the Sustainable Development Goals (SDGs) to expand on its regional development efforts, which have been focused on providing for the well-being of its residents. Its regional development strategy 2020-23 – Southern Denmark of the Future – is built around the SDGs as a framework and tool to promote holistic sustainable development in the region. Several municipalities have also started to use the SDGs in their planning and partnership activities, designing joint efforts to deliver on the 2030 Agenda.

Southern Denmark: A polycentric region on the border with Germany

Southern Denmark is one of five regions in Denmark and spans from the island of Funen in the east to the border with Germany on the western Danish peninsula. The island of Funen is well connected to Zealand and the Copenhagen capital region capital regions via an 18-km fixed link across the Great Belt (*Storebælt*) comprised of two bridges and one tunnel that have been carrying both road and rail traffic since the late 1990s, reducing travel time to the island of Zealand substantially compared to the previous ferry-based route. The island of Sprogø in the middle of the Great Belt connects the bridges and the tunnel. The western peninsula has the only Danish land bordering with Germany (*Storebælt*, n.d.^[1]). Two of Denmark's five city-regions (defined by the EC-OECD definition of functional urban areas [FUAs])¹, namely Esbjerg and Odense, are located on opposite sides on the region (Figure 1.1).

Figure 1.1. City-regions in Denmark according to the EC-OECD definition of FUAs

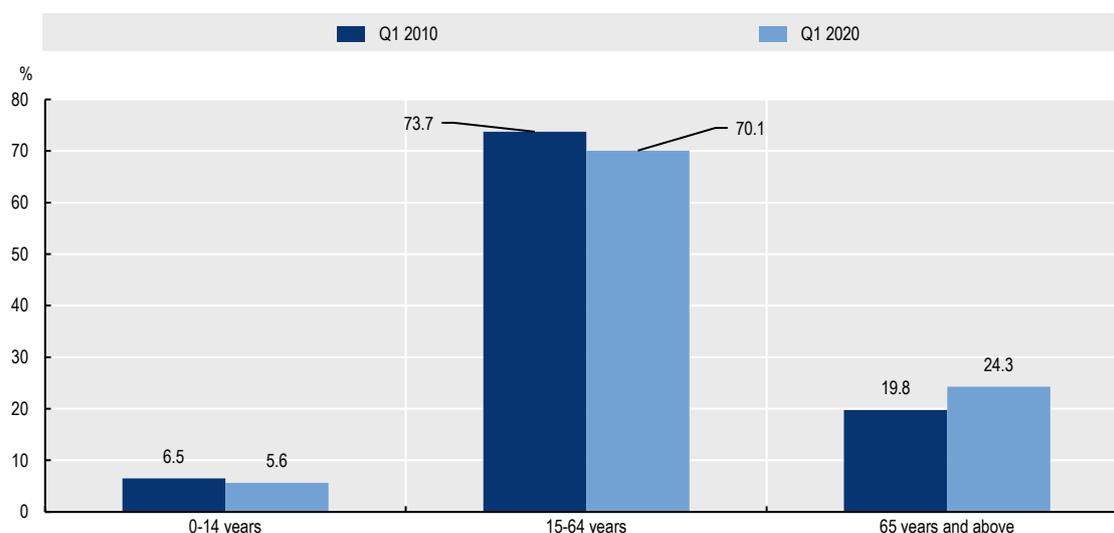


Note: OECD calculations based on LandScan data and 2011 census and administrative boundaries.

Source: OECD (2016^[2]), *Well-being in Danish Cities*, <https://doi.org/10.1787/9789264265240-en>.

The overall population of Southern Denmark has been relatively stable around 1.2 million people since 2010 and shows signs of ageing, with the share of people above 65 growing from 19.8% in the first quarter of 2010 to 24.3% in 2020. In the same period, the share of the working-age population and children between 0 and 14 years decreased (Figure 1.1). The number of immigrants increased slightly, albeit still representing a small share of the total population (Statistics Denmark, 2020^[3]). The population is increasingly concentrated in the region's urban areas, with a drop of 13 000 people in smaller towns, villages and rural areas since 2010 (Region of Southern Denmark, 2020^[4]). The three largest municipalities by population size are Esbjerg, Odense and Vejle.

Figure 1.2. Demographic changes in Southern Denmark between Q1 2010 and Q1 2020



Source: Statistics Denmark (2020^[5]), *Befolkningsfremskrivning 2020 efter område, køn, alder og tid (Population Projections 2020 by Geographic Area, Sex, Age and Year)*, <https://www.dst.dk/da/Statistik/dokumentation/statistikdokumentation/befolkningsfremskrivning>.

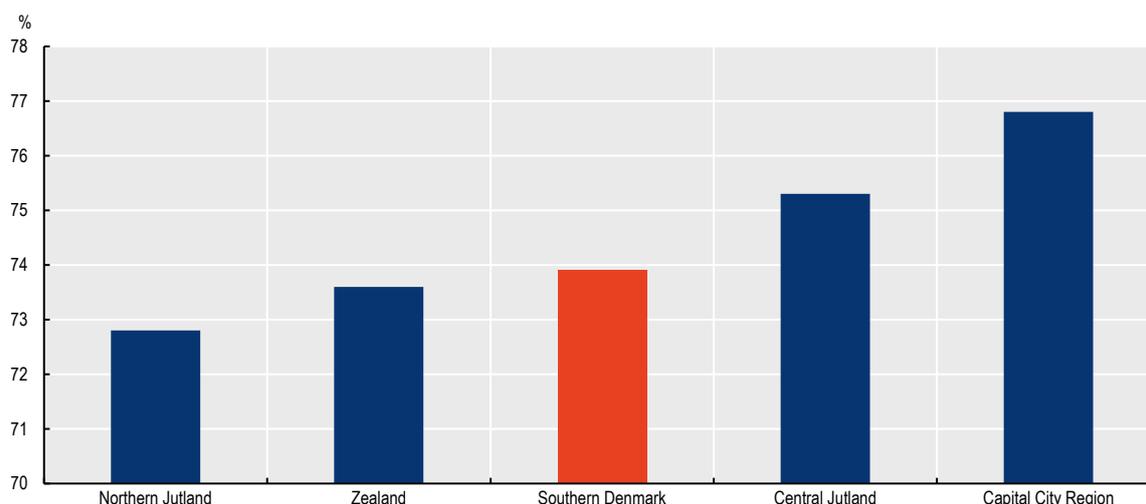
As in line with the slow growth of Southern Denmark's population overall, Esbjerg and Odense have seen a population growth lower than the national average and show signs of ageing. In Esbjerg, the share of people more than 65 years old is further the highest among Danish city-regions (19.8%), followed by Odense (19.4%). This is still low compared to the areas outside the 5 city-regions, where the level is 42.3%, while for Southern Denmark as a whole, the figure is 22%, pointing to the fact that younger people are increasingly settling in urban areas (OECD, 2016^[6]). This is in line with population projections from Statistics Denmark, indicating that rural areas, particularly in the southwest parts of the country, are likely to experience a higher degree of ageing while the capital region will be the least affected (Statistics Denmark, 2020^[5]).

To a backdrop of a net loss following the 2008 financial crisis, Southern Denmark saw a net growth of 2.7% in the number of jobs in the region between 2015 and 2017. In 2017, there were on average 94 jobs available per 100 inhabitants aged 24-65. Most of the region's employment is located around the largest municipalities, as well as around the municipalities Fredericia, Kolding and Middelfart, where the number was over 100 in 2017. 69.6% of jobs are in the private sector, while 15.6% in health and social care, 4.6% in public administration, 6.4% in education and 3.8% in other public-sector employment (Region of Southern Denmark, 2020^[7]). The main industries in Southern Denmark are construction, foods, medical and healthcare, and transportation. The offshore wind industry outside Esbjerg, tourism, automation and cleantech is also of growing importance for the region (European Commission, 2019^[8]).

People in Southern Denmark fare well in terms of well-being and the region is performing well in relation to several key dimensions of the OECD well-being framework (Box 1.1). Yet, some challenges and gaps remain when comparing with other Danish regions. Indicators that place the region in the top 20% or above among regions in OECD countries include the fact that 88% of people had broadband Internet in 2018 (Access to Services), although this is the lowest rate among the Danish regions. Moreover, 95.7% of the population perceive that they have a social support network (Community) and 85.8% voted in the last general elections (Civic Engagement), which is high by OECD standard yet among the lower levels in Denmark. People also score a high 7.5 on a scale from 1-10 in relation to Life Satisfaction, which is in the top 10% among OECD regions but one of the lowest scores among Danish regions, shared with Zealand. Other well-being indicators where Southern Denmark performs well in comparison to other OECD regions

(in the top 45% and above) and Danish regions include a life expectancy of 81.3 years at birth (Health) and on average 2.0 rooms per person (Housing), which are also high by national standards (Figure 1.3). The region is also in the top 40% of all OECD regions in the Jobs dimension with its employment rate, however, being slightly below the national average in Denmark.

Figure 1.3. Employment rate, percentage of employment 15-64 year-olds over working-age population, 2019



Source: OECD (2020^[9]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

In terms of challenges, the Education dimension places the region in the bottom 44% among OECD regions and third among Danish regions, with 78.1% of its labour force having at least a secondary education diploma in 2017. Its 1.0 homicides per 100 000 people in 2018 makes the rate the highest one in Denmark (OECD, 2018^[10]). This said, Danish citizens enjoy high living standards overall and disparities are low compared to OECD countries (OECD, 2016^[2]). Recent data shows that exposure to atmospheric particulate matter (PM2.5) – at 10.2 µg/m³ per resident in 2019 – is higher than the World Health Organization (WHO) recommendation of 10 µg/m³ (Environment) and highest among all Danish regions.

Box 1.1. OECD Regional Well-Being: A Closer Measure of Life

The OECD regional well-being framework measures how regions are performing across 11 topics – income, jobs, housing, health, access to services, environment, education, safety, civic engagement and governance, community and life satisfaction. It includes 13 indicators comparable across 402 OECD regions. Data come from official sources in most of the cases and are publicly available over different years in the OECD Regional Well-Being Database. Since well-being indicators are expressed in different units (for example the household disposable income per capita is expressed in USD whereas voter turnout is the percentage of registered voters who voted at the most recent national election), to compare indicators on the same scale, they have been normalised using a statistical formula that range values from 0 to 10 (for more information, see (OECD, 2018^[10])).

The initiative was developed as part of the recognition that gross domestic product (GDP) and economic statistics are not sufficient to know how a society is doing and that some factors that most influence

peoples' well-being are local issues. Hence, taking a regional view offers further insights into the quality of people's lives where they live.

The OECD conceptual framework to measure well-being in regions and cities has the following features:

- It focuses on individuals and place-based factors, as people's well-being is shaped by a combination of individual and place characteristics.
- It is influenced by citizenship, institutions and governance.
- It is multi-dimensional and includes material and non-material dimensions. It looks at synergies and trade-offs among the different dimensions.
- It considers the well-being distribution in the population and places, alongside the average outcomes.
- It concentrates on results that provide direct information on people's lives rather than inputs or outputs.
- It looks at the sustainability of well-being over time and at the resilience of different regions.

Since the launch of the 2030 Agenda, the OECD well-being framework and the 2030 Agenda have been noted to be highly compatible frameworks, which is why starting with an overview of the well-being context in Southern Denmark provides a useful prelude to the more comprehensive data analysis in Chapter 2, covering the OECD localised indicator framework for the SDGs.

Table 1.1. Comparison of the OECD well-being framework and the 2030 Agenda

Dimensions of individual well-being	SDGs
Income and wealth	SDG 1 (poverty); SDG 2 (food)
Jobs and earnings	SDG 8 (decent work and economy)
Housing	SDG 11 (cities)
Health status	SDG 3 (health)
Work-life balance	SDG 8 (decent work and economy)
Education and skills	SDG 4 (education)
Civic engagement and governance	SDG 16 (institutions)
Environmental quality	SDG 6 (water); SDG 11 (cities)
Personal security	SDG 16 (institutions)
Subjective well-being	Not covered
Social connections	Not covered
Differences across groups	SDG 1 (poverty); SDG 5 (women); SDG 10 (inequality)
Sustainability of well-being over time	SDGs
Natural capital	SDG 13 (climate); SDG 14 (oceans); SDG 15 (biodiversity); SDG 12 (sustainable production)
Economic capital	SDG 7 (energy); SDG 8 (decent work and economy); SDG 9 (infrastructure); SDG 12 (sustainable production)
Human capital	SDG 3 (health); SDG 4 (education)
Social capital	SDG 16 (institutions)

Note: Adapted version (see box source for the original table).

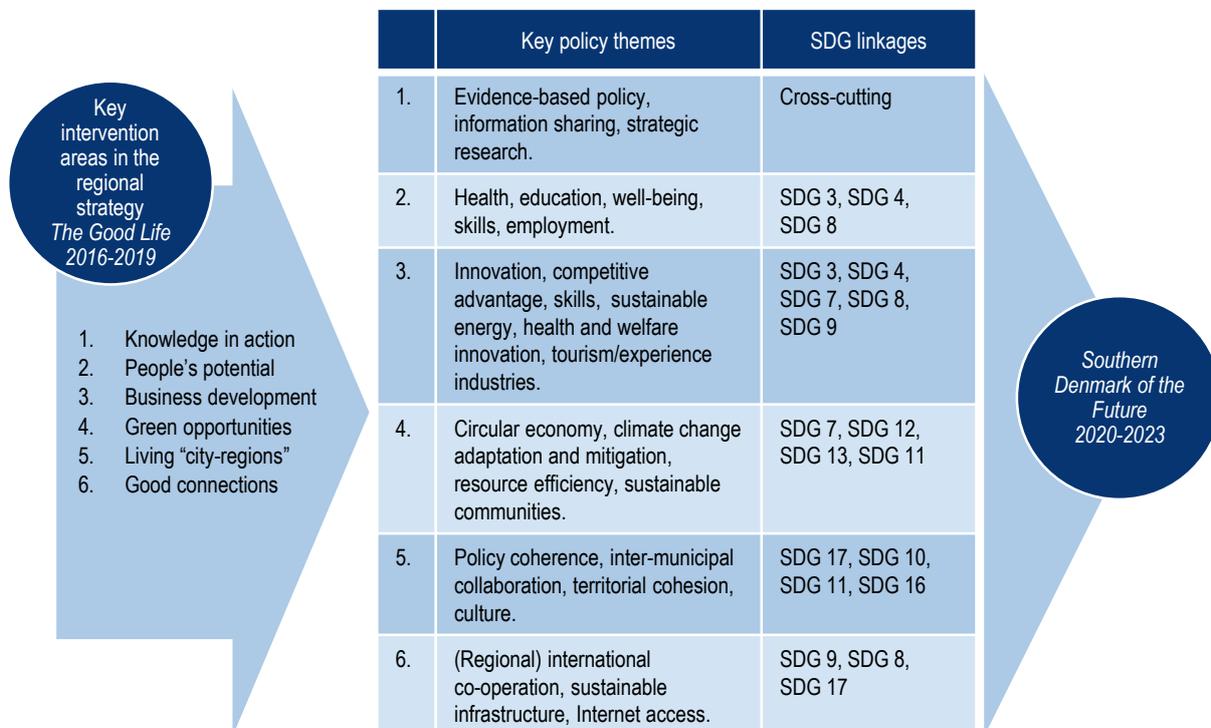
Source: OECD (2018^[10]), *Measuring Distance to the SDG Targets 2017: An Assessment of Where OECD Countries Stand*, <https://doi.org/10.1787/9789264308183-en>.

Strategies for the 2030 Agenda and the SDGs in Southern Denmark

The SDGs to go from regional well-being to sustainable development

The SDGs were a natural step to link the new strategy for 2020-23 to the regional growth and development strategy for the previous period, 2016-19, which was called The Good Life (*Det Gode Liv*) and had a strong focus on well-being. The former strategy aimed at creating opportunities for Southern Denmark to become a more *attractive, active* and *productive* region, where residents have vast opportunities to have a good life both as private citizens and as economic actors (Region of Southern Denmark, 2016^[11]). Many of these themes are carried forward in the new strategy, although the new strategy among others has a stronger emphasis on creating an environmentally sustainable, low-carbon region. Moreover, as of 1 January 2019, key competencies related to business development support were transferred from the regions to the central government level. The new regional development strategy thus includes a lesser focus on this area (Region of Southern Denmark, 2019^[12]).

Figure 1.4. Linkages between the former regional growth and development strategy and the SDGs



Source: OECD elaboration based on Region of Southern Denmark (2016^[11]), *Det gode liv som vækstskaber - Regional vækst- og udviklingsstrategi 2016-2019 (The Good Life as a Growth Engine - Regional Growth and Development Strategy 2016-2019)*, <https://s3.eu-central-1.amazonaws.com/mq-web-site-detgodeliv.regionsyddanmark.dk/2016/03/udviklingsstrategi-2016.pdf>.

The SDGs further offered a shared language and a common ground for policy dialogue and were used to engage all the key regional actors in the development of the Southern Denmark of the Future strategy. The SDGs served as a helpful tool in this process, since actors, from the private sector to the municipalities, non-governmental organisations (NGOs) and schools could identify with them at their own levels and according to their own fields of activity and responsibility. Youth played a key role in the process, coming both from the regions high schools (*gymnasium*) and higher education institutions. Involvement and multi-stakeholder partnerships are also key when it comes to the implementation of the different tracks and their sub-strategies.

The region of Southern Denmark has a strong tradition of evidence-based policymaking, some of which is built in collaboration with the 22 municipalities. For example, publications developed jointly with the local authorities are part of a shared knowledge basis called *Kontur*, which includes municipal profiles for all the local governments in the region. Another project pursued by the region is “The Geography of Health”, which helps to build knowledge around local differences in health outcomes and access to healthcare (Box 1.2).

Box 1.2 The Geography of Health: Exploring local differences in health and healthcare needs in Southern Denmark

“The Geography of Health” initiated in 2018 investigates how geographical analyses documenting local differences in health and healthcare needs can support regional and municipal efforts in the health area and, further, the broad regional development by linking a regional development perspective to health data.

The project provides an evidence-base for health planning across administrative boundaries in Southern Denmark, and explores the potential collaboration between the region and municipalities, specifically in terms of knowledge and data sharing across administrative boundaries for geographical analyses and, through this, contributes with new perspectives on municipal and regional healthcare activities. Data are summarised by geographical cells and combine geographic information with demographic and health data. The project also explores the potential for sharing data in aggregate form and the opportunities for sharing analyses and results with other stakeholders.

The project currently investigates geographical perspectives using data from municipal home care, regional hospital admissions and outpatient visits along with demographic data from regional development. These analyses and results enable healthcare practice planning and health planning in general.

Examples of concrete issues that the project explores are:

- Mapping of health, disease and health behaviour along with the identification of prevalence of chronic disease and the association with gender, age, educational level, economic and employment status.
- Analyses that enhance knowledge about public health in relation to distance to available healthcare services.
- The use of statistical projections and models to estimate trends and scenarios for health and the use of healthcare services in the future in the region of Southern Denmark.

The Geography of Health further deals with issues relating to mental health among young people. This stream of activity focuses on whether the mental well-being of young people relates to their choices of education or training activities and to their employment status.

Source: Information provided by the Region of Southern Denmark

Building on well-being to achieve sustainable development in the regional strategy Southern Denmark of the Future 2020-2023

Regional priorities through six strategy tracks

Southern Denmark’s most recent regional development strategy – Southern Denmark of the Future 2020-2023 – focuses on providing regional development through interlinked SDGs as a holistic framework.

Approved in May 2020, it includes six strategic tracks, with respective priority SDGs and four cross-cutting themes (Figure 1.5). Each of the strategic tracks will be implemented through specific sub-strategies. The SDGs help to ensure cohesion across strategic tracks and take into account interlinkages between the goals to ensure for instance that an initiative designed to solve issues in the field of mobility does not result in an inappropriate impact on the climate or environmental issues (Region of Southern Denmark, 2020^[4]). SDG 17, a priority for the region, will be used as a key lever for all strategies. The reporting on the strategy implementation's progress will take place on an annual basis with reference to the regional goals set in the strategy. Indicators will be developed to capture both progress, remaining challenges and new developments.

The regional development strategy was developed within the framework provided by national legislation, which limits the regional governments' political and legal mandate to certain fields of activity and excludes – as of January 2019 – business development (Box 1.3). This means that regional strategies in the context of Denmark are limited in scope, especially when it comes to economic development, compared to, for example, other Nordic countries like Norway and Sweden. As a result, the strategy addresses issues that are relevant in the context of SDGs but only within the scope of the regional government's mandate. Therefore, while citizens and organisations experience regional outcomes related to the SDGs, regional governments in Denmark are only able to address a subset of these in their policies and programmes. Partnerships with the private sector in areas like infrastructure and cross-border collaboration can therefore complement public action and stimulate a healthy business climate. Lastly, education is a key investment in Southern Denmark in order to leverage on its strong innovation capacity and attract young people to the region (see further Chapter 3).

Figure 1.5. Southern Denmark of the Future: Strategy tracks, priority SDGs and cross-cutting themes



Source: OECD elaboration based on Region of Southern Denmark (2019^[12]), "Forretningsudvalget - Referat - 06. februar 2019 (Executive Committee - Minutes - 06 February 2019)", <https://www.regionyddanmark.dk/wm513425>.

Box 1.3. Regional and municipal planning in Denmark: An overarching framework for institutionalising the SDGs

The Danish Business Promotion Act

The Danish Business Promotion Act, adopted in December 2018, provides an opportunity for the regions to develop regional development strategies. The scope of such strategies is limited to the future development in the region within the regional government's legal and political mandate, namely

covering: education, soil and water, health, infrastructure, development in peripheral areas, nature and recreational purposes, green transition and climate transition, and cross-border co-operation. Regional development strategies *cannot* include aspects relating to business promotion, including tourism, since as of 1 January 2019, key competencies related to business development support were transferred from the regions to the central government level (Region of Southern Denmark, 2019^[12]).

The Danish Planning Act

According to the Danish Planning Act, all regional and municipal councils must produce sustainability strategies. The strategies need to be published online and sent to the Ministry of Business and Industry by the end of the first half of each government term, with information on how the regional or local government plans to work with sustainability in a holistic way, interdisciplinary and long-term (Government of Denmark, 2019^[13]).

For the Regional Council, the strategy must include the following areas of action:

1. Reducing environmental impact.
2. Promoting sustainable regional development.
3. Involving local residents and businesses in local Agenda 21 work.
4. Promoting interaction between decisions related to the environment, mobility, private sector, social and health issues, education and cultural and economic issues.

For the municipal councils, the strategy must include the following areas of action:

1. Reducing the environmental impact.
2. Promoting sustainable urban development and urban transformation.
3. Promoting biodiversity.
4. Involving local residents and businesses in local Agenda 21 work.
5. Promoting interaction between decisions related to the environment, mobility, private sector, social and health issues, education and cultural and economic issues.

While the Business Promotion Act hence provides the framework for Southern Denmark's regional development strategy for 2020-23, the Planning Act aligns with the region's efforts to address sustainability holistically through the SDGs.

Source: Region of Southern Denmark (2019^[12]), "Forretningsudvalget - Referat - 06. februar 2019 (Executive Committee - Minutes – 06 February 2019)", <https://www.regionsyddanmark.dk/wm513425>; Government of Denmark (2019^[13]), *Retsinformation (Legal Information)*, <https://www.retsinformation.dk/forms/R0710.aspx?id=200614#da0914ff7-fc61-4ca7-90a3-3f2dbaae835d>.

Box 1.4. Why a Territorial Approach to the SDGs?

The 2030 Agenda was not designed specifically for cities and regions but they play a crucial role to achieve the SDGs. The OECD estimates that at least 105 of the 169 targets underlying the 17 SDGs will not be reached without engagement and co-ordination with local and regional governments as cities and regions have core responsibilities that are central to sustainable development and well-being (e.g. water services, housing or transport). They also discharge a significant share of public investment (60% in OECD countries), which is critical to channel the required funding to meet the SDGs. Although the SDGs provide a global framework, the opportunities and challenges for sustainable development vary significantly across and within countries, regions and cities. However, they are also an integral part

of the solution as the varying nature of sustainable development challenges therefore calls for place-based solutions tailored to territorial specificities, needs and capacities.

Place-based policies incorporate a set of co-ordinated actions specifically designed for a particular city or region and stress the need to shift from a sectoral to a multi-sectoral approach, from one-size-fits-all to context-specific measures and from a top-down to a bottom-up approach to policymaking. Based on the idea of policy co-ordination across sectors and multi-level governance, whereby all levels of government and non-state actors should play a role in the policy process, they consider and analyse functional territories, build on the endogenous development potential of each territory and use a wide range of actions (OECD, 2019^[14]).

The SDGs can help to advance conceptually the shift towards a new regional development paradigm and provide a framework to implement it because:

- The 2030 Agenda provides a long-term vision for strategies and policies with a common milestone in 2030, while acknowledging that targeted action is needed in different places since their exposure to challenges and risk vary widely as does their capacity to cope with them.
- The 17 interconnected SDGs cover the social, economic and environmental dimensions of sustainable development in a balanced way and allow policymakers to better address them concomitantly, building on the synergies and taking interlinkages into account.
- The interconnected SDGs framework allows the promotion of policy complementarities and the management of trade-offs across goals.
- The SDGs allow better implementation of the concept of functional territories, a common framework that neighbouring municipalities can use to strengthen collaborations and co-ordinated actions.
- The SDGs can be used to promote multi-level governance and partnerships, including the engagement of various stakeholders in the policymaking process

OECD's analytical framework for A Territorial Approach to the SDGs

The OECD has identified four critical megatrends influencing the achievement of the SDGs in cities and regions: i) demographic changes, in particular urbanisation, ageing and migration; ii) climate change and the need to transition to a low-carbon economy; iii) technological changes, such as digitalisation and the emergence of artificial intelligence; and iv) the geography of discontent. Building on that, the OECD has developed a framework for cities and regions to systematically think about the SDGs as a means to respond to global megatrends. The framework foresees three key areas, policies and strategies, actors and tools, for cities and regions to implement a territorial approach to the SDGs.

Policies and strategies

Regional policy aims to effectively address the diversity of economic, social, demographic, institutional and geographic conditions across cities and regions. It also ensures that sectoral policies are co-ordinated with each other and meet the specific needs of different regions and provides the tools that traditional structural policies often lack in order to address region-specific factors that cause economic and social stagnation (OECD, 2019^[14]). Cities and regions can use the SDGs as a means to shift from a sectoral to a multi-sectoral approach, both in the design and in the implementation of their policies. The SDGs can help to bring various departments of a local administration together to strengthen the collaboration in policy implementation.

Tools

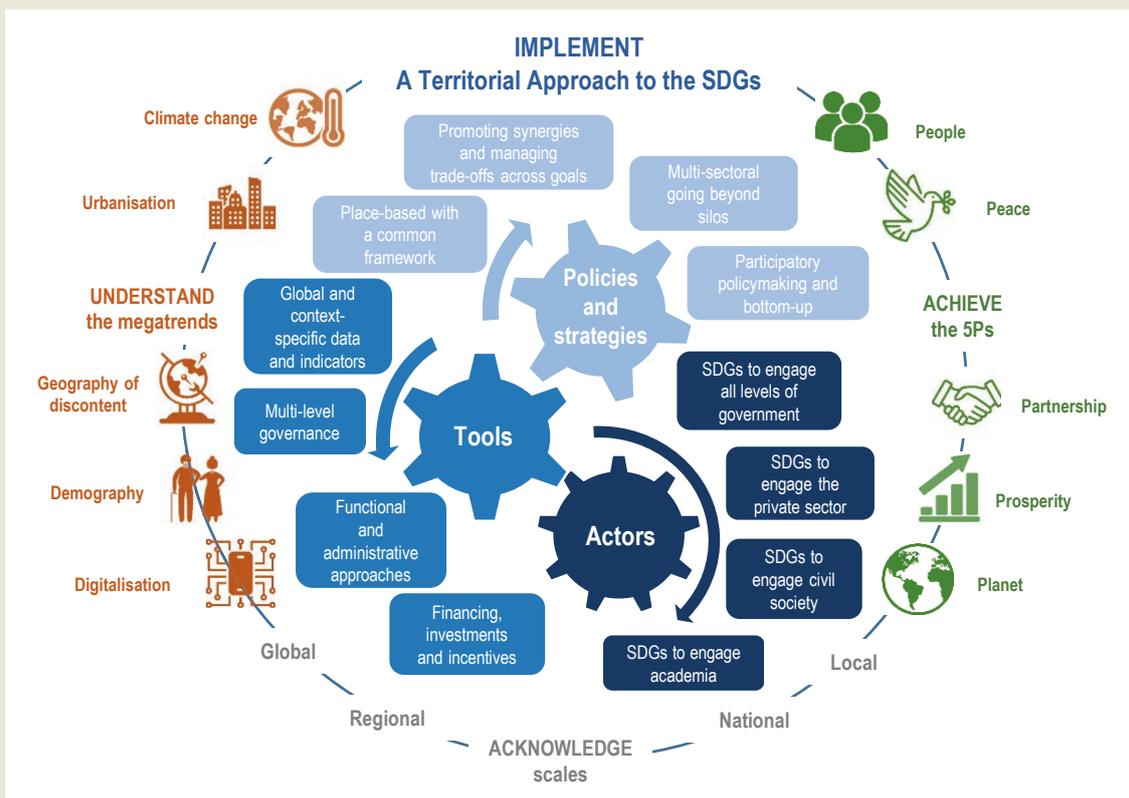
The effective implementation of a territorial approach to the SDGs implies the combined use of a variety of tools. These span from a solid multi-level governance system to global and context-specific data for

evidence-based policies, from combining functional and administrative approaches to address territorial challenges and opportunities beyond borders to investment and incentives, in particular for the private sector. Multi-level governance represents a key tool to promote vertical – across levels of government – and horizontal – both within the government and between the government and other key stakeholders – co-ordination. National governments can use the SDGs as a framework to promote policy coherence across levels of government, align priorities and rethink sustainable development through a bottom-up approach.

Key actors

Participatory policymaking and a bottom-up process are one of the core elements of a territorial approach to the SDGs. Shifting from a top-down and hierarchical to a bottom-up and participatory approach to policymaking and implementation is key for the achievement of the SDGs. The 2030 Agenda requires a more transparent and inclusive model that involves public as well as non-state actors to co-design and jointly implement local development strategies and policies. The SDGs provide cities and regions with a tool to effectively engage in multi-stakeholder dialogues with actors from the private sector, civil society, as well as schools and academia.

Figure 1.6. The OECD analytical framework for A Territorial Approach to the SDGs



Source (figure): OECD (2020^[15]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>.

Source (box): OECD (2019^[14]), *OECD Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas*, <https://doi.org/10.1787/9789264312838-en>.

The first strategic track in the Southern Denmark of the Future strategy is “Green transition, climate and resources”, aimed at contributing to the national ambition to make Denmark climate-neutral and independent of fossil fuels in 2050. Initiatives planned to be supported and pursued in this area include a focus on resource optimisation, including circular economy with improved use and reuse of materials, as well as utilisation of alternative materials to minimise environmental and impacts. The region plans to seize its own responsibility for resource efficiency and waste reduction linked to its own areas of competency, such as hospitals. Continuing efforts that were already part of the previous regional strategy, the track includes planning for more sustainable extraction and the use of raw materials in the region. A dedicated raw materials plan will outline how these efforts will be carried out. In addition, an exploration of opportunities for working with Germany on a raw material administration in the border region will be launched. A separate climate strategy will also be developed.

Polluted soil and the resulting health hazards and risks posed for the region’s drinking water is a complex and urgent challenge that the region of Southern Denmark continues to grapple with, although citizens express a high satisfaction with water quality. In the second track “Clean water and soil”, it is highlighted that there are around 10 000 areas of polluted soil in the region. Two of these are inherited contaminated “mega-sites”, namely Grindsted and Kærgaard Dune Plantation. Significant efforts by the region of Southern Denmark must therefore go into wastewater treatment, mapping water resources and cleaning up pollution of these sites (Box 1.5). To implement the strategic track, a soil pollution strategy and annual, site-specific action plans are drawn up. In June 2020, the Danish parliament decided to fund efforts to clean up the ten “generational” or “mega” pollution sites in Denmark including three sites in Southern Denmark. In addition to the three, there is also a newly investigated pollution site, at Himmark Beach on Northern Als, in Sønderborg Municipality. While the parliament has yet to design concrete measures and funding, all political parties agree on the priority to clean up generational and mega pollution sites in Denmark. In 2019, the region of Southern Denmark received DKK 50 million from the government for the mega pollution sites. The majority of these funds were spent on the pollution at Grindsted and a smaller proportion at Kærgaard. Yet, an estimated total of nearly DKK 700 million for the 3 pollution sites in the region are still needed, pointing to the magnitude of the problem.

Partnerships with both local municipalities and water utilities are key to face the challenge of clean drinking water in Southern Denmark. One example includes the partnership “Common Catchment” where the region of Southern Denmark, Odense Municipality, and the Geological Survey of Denmark and Greenland (GEUS) cooperate to protect the groundwater in an area west of Odense together with the main water provider VandCenter Syd, which has further integrated the SDGs as a core part of its work (Box 1.6).

Box 1.5. Kærgaard Dune Plantation: A mega-site of polluted soil

The worst pollution incidents in Danish history

One of the biggest and most severe pollution incidents in Danish history that the region of Southern Denmark is still actively combatting unfolded between 1957 and 1973 in the dune area Kærgaard Dune Plantation in Southern Denmark. It was caused by the discharge of 286 million litres of highly toxic wastewater from the pharmaceutical company Grindstedværket into the area's soils and groundwater (Figure 1.7). Granted with permission from the state, the company started to dump its toxic wastewater in the Kærgaard area (64 km from the factory) in six rectangular deposits with an average surface area of 1 000 square metres and 2-3 metres' depth, without firm flooring. Facing growing opposition from local residents and summer house owners due to the smell and health hazard caused by the toxic wastewater, the discharge in Kærgaard finally ceased in 1973. Before that, in 1963, pollution led to a ban on bathing and using the beach next to Kærgaard.

Due to its local economic importance as one of the few employers in the area with over 1 100 employees, the company was allowed to continue the dumping. Following the 1973 decision, a new permission to dump its wastewater in the North Sea was granted and continued until 1983, when it was withdrawn due to non-compliance to the terms by Grindstedværket. The ban on 1 400 metres of beach in Kærgaard is still in place today.

The laborious task of de-pollution

Southern Denmark started its work to remove the pollution in 2007, together with the Danish Environmental Protection Agency. The approach taken to the complex task was to pilot the best removal and purification processes for the first two holes where the wastewater was dumped. This proved to be an effective and economic approach, allowing for lessons to be learnt for the next segments. Technical, chemical and biological methods for removing pollution were tested through a consortium of both international and national leading companies and the department of Aalborg University in Esbjerg, as well as the Technical University of Denmark in Kongens Lyngby.

Despite the successful development of removal and purification methods, as well as 7 000 tonnes of polluted soil already removed, the challenge for the region is far from resolved. Every year, 75 tonnes of pollution dissolved into the groundwater are transported to the sea and there are still large quantities of pollution in the groundwater under the holes. Regional experts estimate that another 15 to 20 years will be needed for the concentration of toxins in the groundwater to stay permanently below allowed thresholds. This will further depend on whether the region can secure funding for a full-scale clean-up. Only then can the ban on bathing and using the beach be lifted.

In the coming years, the Committee for the Environment of the region of Southern Denmark and its partners are expected to mobilise additional resources for groundwater purification. Already in January 2017, the Regional Council adopted an action plan for the future pollution removal efforts at Kærgaard Dune Plantation. The plan, for which DKK 7 million are already reserved, includes setting up a demonstration plant to test clean-up and purification methods, which can be subsequently used for full-scale removal.

Source: Region of Southern Denmark (2018^[16]), *Kaergaard - Bliv klog på en af Danmarks værste forureningsager (Kaergaard - Get to Know One of Denmark's Worst Pollution Cases)*, <https://rsyd.dk/wm210777>.

Figure 1.7. Amounts of discharged chemicals through toxic wastewater in Kærgaard Klitplantage 1957-73



Note: Informal translation. Source: Region of Southern Denmark (2018^[16]), *Kaergaard - Bliv klog på en af Danmarks værste forureningssager (Kaergaard - Get to Know One of Denmark's Worst Pollution Cases)*, <https://rsyd.dk/wm210777>.

Box 1.6. Integrating the SDGs in a water utility company: The case of VandCenter Syd

VandCenter Syd is one of Denmark's oldest water utility companies. It operates as a public limited company owned by the municipalities Odense and Nordfyn, with 89% and 11% of shares respectively. Their main activities are the production and distribution of drinking water and the disposal and treatment of wastewater. The company is responsible for around 85% of water distribution in Odense, alongside some smaller private players. Through its 8 water treatment plants and over 2 600 kilometres of sewage pipes, the company also takes care of all industrial wastewater, as well as that from almost all households in Nordfyn and Odense. VandCenter Syd has prioritised sustainability, for example by investing in climate change adaptation and reforestation.

In 2016, VandCenter Syd started working with the SDGs through an initial analysis of how the 17 SDGs and 169 targets match ongoing work and efforts. The investigation revealed the need for a more in-depth study of the potential role that the company could play in the 2030 Agenda, like for example education or green energy. An inter-organisational project group was set up to work on this issue in 2018-19, preparing for using the SDGs in the formulation of the company's 5-year strategy for 2020-24.

Going beyond the corporate social responsibility (CSR) lens, the company started using the SDGs as a key driver of change, in particular with regards to innovation policy and R&D activities, which state – *inter alia* – that innovation must contribute to addressing relevant challenges expressed through the SDGs. Analysing the role of the company's R&D activities from a business point of view (strategic fit, level of innovation, competencies, customer value, economy) and a global sustainability perspective (climate change, resources, eutrophication, biodiversity), VandCenter Syd defined three keywords to guide its action, namely: materiality, core business and transparency.

Source: VandCenter Syd (2019^[17]), *FN's Verdensmaal (The UN Global Goals)*, <http://www.vandcenter.dk> (accessed on 3 September 2020).

The track "Skills for the future" aims to make education more accessible and attractive in the region. Both public and private employers in the region of Southern Denmark have an increasing need to find the right type of skills, while the region faces the problem of young people moving away from the region to study and work in main cities like Aarhus and Copenhagen. The projected demographic development is likely to have differential effects among the municipalities in the region. Rural areas and small towns are facing a greater decline in the working-age population than cities. Skills in particularly high demand are natural sciences, technology and health sciences. The region also works in partnership with national authorities,

educational institutions and private companies to face this challenge, including through digital forms and improved public transport links. Another youth-related issue in Southern Denmark is the high number of daily smokers, which has been observed to be a problem starting in educational institutions. An additional focus area concerns young people's mental health. Partnerships with local authorities and schools thus aim at improving both the skills and health of young people. These initiatives will be covered in a dedicated education strategy.

The track "Healthy living conditions" builds on the regional competency in health and social care innovation developed over time in Southern Denmark through collaboration with private companies, municipalities, research and educational institutions. The goals are to improve citizens' mental and physical well-being and to strengthen the evidence and knowledge-base on local and socio-economic differences in health outcomes and the use of the healthcare system. Moreover, new solutions for the healthcare sector are explored in public-private innovation programmes. The region adopts digital healthcare solutions to help access services throughout the region and thus reduce inequalities in health outcomes. The region will further continue to invest in knowledge regarding the health and well-being of its citizens. The innovation strategy of Southern Denmark includes this area.

The track "An attractive region, rich in experiences" aims at leveraging the links between culture, nature and health to promote an active lifestyle and well-being in Southern Denmark. To make the region more attractive, building on the existing strengths of the region, the track seeks to increase attractiveness and settlement and innovative ways to involve citizens. Some examples of initiatives already taken by the Regional Council include co-financing events centred on the United Nations Educational, Scientific and Cultural Organization's (UNESCO) recognition of the Wadden Sea as a cultural heritage site and bringing the Tour de France to Southern Denmark both aimed at raising the profile of the region by using partnerships around cultural projects and sports events as leverage. The region is further one of the partners responsible for marking the reunification celebrations in 2020.

The track "Mobility for all" thus plans to orientate action towards technological solutions making new forms of both work and transport possible. Indeed, road congestion is a challenge in Southern Denmark, with an increasing number of people commuting over longer distances using cars. This trend, combined with continued urbanisation, makes the public transport provision challenging in non-urban areas compared to urban areas, where it becomes more feasible.

The region of Southern Denmark continuously evaluates relevant infrastructure projects in close dialogue with the municipalities. The following infrastructure priorities were decided jointly by the region of Southern Denmark and the 22 local authorities in 2011 (updated most recently in 2019). They reflect a continuation of the previous regional strategy and focus on crosscutting priority to strengthen Danish-German collaboration:

- Implementation of the "One Hour Model" for long-distance high-speed trains, with five anticipated stops in Southern Denmark (Odense, Esbjerg, Fredericia, Kolding and Vejle) and in a form that supports "The Large H" – including a southbound connection in Jutland that can contribute to an improved connection to Hamburg.
- A Mid-Jutland Motorway linking up with Billund Airport, and with a cross-connection to the E45 motorway south of Vejle.
- A parallel motorway connection across the Little Belt.

In addition to these three priorities, the region also highlights the E20 motorway south of Odense and a double-track railway between Tinglev and Padborg, for which the region is seeking funding in order to complete (Region of Southern Denmark, 2020^[41]).

Municipal strategies and actions for the SDGs focus on sustainable urban development projects and raising citizen awareness

Several municipalities in Southern Denmark seize the opportunity to use the SDGs as a tool for linking urban development with policy dialogue and citizen engagement. Examples of municipalities connecting SDGs to their local development include Haderslev, Kolding, Middelfart, Sønderborg and Vejle.² In Kolding, the municipality works with the slogan “We design life”, drawing its circular economy agenda with the SDGs. In this way, the municipality aims to address the root causes of unsustainable development in terms of how we organise our society. Awareness raising campaigns also engage citizens through information booths, events, and education. In Vejle, the “Resilient Vejle” strategy focuses on the four strategic pillars of co-creation, climate resilience, social resilience and smart city, including the co-creation of resilient “districts” within the city at the core of their strategy. The municipality of Middelfart is also using urban design to deal with challenges like climate change adaptation (Box 1.7).

Box 1.7. The Climate City in Middelfart (*KlimaByen*)

The Climate City in Middelfart is one of Denmark’s largest demonstration projects for incorporating climate change adaptation into urban development. Responding to increasing frequency and intensity of heavy rains caused by climate warming, the Climate City takes an innovative approach to manage rainwater on the ground level, while making it a visually appealing feature of the urban design.

The Climate City project was brought to life between 2013 and 2018 through a partnership between the municipality of Middelfart, the private company Middelfart Wastewater Utility and Realdania, a philanthropic association that supports projects in the built environment. The 3 project partners contributed with about equal amounts to the total project cost of DKK 76.4 million. The 450 000 m² project area is located in the neighbourhood of Kongebrovej in Middelfart and is divided into 3 sub-areas with distinct physical and topological features. Different strategies for the areas were formed on the basis of a feasibility study carried out by the partners prior to realising the project. The whole area stretches from the residential neighbourhoods in Middelfart’s western outskirts, through the central town to the historic district and the city’s old harbour. In each of the three sub-areas, rainwater is incorporated in the urban design depending on the nature of the area, ranging from the slightly elevated forest neighbourhood to the lower harbour area.

Innovative rainwater management practices

The Climate City has marked a shift in the municipal strategy for rainwater management, whereby instead of expanding the traditional sewage system, rainwater is handled on the ground level, as a supplement to underground pipes. In addition to reducing pressure on the sewerage system, the rainwater does not require the same sanitation treatment as sewage water, which saves costs.

The project has gained both national and international recognition. For example, it was selected for the Danish Pavilion at the 2016 Venice Architecture Biennale to demonstrate how a shared problem like floods can be solved jointly through close multi-stakeholder collaboration and dialogue while addressing climate change adaptation through urban design.

Source: Middelfart Spildevand, Middelfart Kommune & Realdania (2019^[18]), *Klimabyen i Middelfart (The Climate City in Middelfart)*, <http://dx.doi.org/www.klima-byen.dk/om-klimabyen/baggrund> (accessed on 3 September 2020).

Haderslev has the ambition to make local development relevant for more people while looking at the development process as a whole and seeing its role in a global world. Following these aspirations, the municipality has decided to implement the SDGs in its strategic plan for the period 2019-23. The strategic plan is divided into four interdisciplinary areas, bringing together future physical planning priorities. A selection of SDGs has been chosen and connected to the interdisciplinary areas according to their relevance. The SDGs are used as an overall framework for the strategic plan. Haderslev sees the 2030 Agenda as appealing and relevant to its holistic, interdisciplinary development agenda, as well as for promoting “public service motivation”. Political support for this can be read in the slogans used by the municipality: “Mayors rule the world and city councils change the world”.

Similarly to other municipalities, Haderslev labels urban development as an SDG initiative, such as the *Jomfrustien* project, which combines affordable and sustainable housing at the neighbourhood scale. Moreover, the municipality has had the chance to improve its school building standards, following green and energy-efficient standards that reduce CO₂ emissions. This was the first opportunity to build new schools in a 40-year period. Haderslev also encourages the use of the SDGs for business development and social responsibility in the local business community. A close collaboration between the region of Southern Denmark and the municipal level is with the municipality of Haderslev, namely on identifying SDG indicators at the municipal level (see the section on multi-level governance).

ProjectZero: Striving for local carbon neutrality and active citizens for the 2030 Agenda in Sønderborg

The municipality of Sønderborg uses the SDGs as a continuity to its commitment to carbon neutrality. Building on its 2007 ProjectZero, the municipality has worked with a participative, multi-stakeholder approach to involve both local residents, associations, schools and businesses in its vision to become CO₂ neutral in 2029, based on an energy system transformation involving both enhanced energy efficiency and the expansion of renewable energy sources. Creating 8 local working groups involving over 100 participants across society, the ProjectZero has launched a road map that strives to achieve a 75% reduction by 2025. The aim of the project is to enable the right policy environment. A key factor of success has been to focus on “low-hanging fruits” such as involving families and educating them in energy-saving measures, as well as the public-private partnership approach taken. Furthermore, the project encourages businesses to establish an ambitious and measurable climate strategy with clear goals and milestones and focus on the 17 SDGs. More than 55 local companies committed to the ProjectZero vision. Since 2007, carbon emissions in the Sønderborg area have been reduced by 38.3% and energy consumption by 14% contributing to the environmental and energy-related SDGs, such as SDG 7. The project has gained international recognition both at the European Union (EU) level (through the EU SmartEnCity Network) and beyond, like in China and the C40 network (ProjectZero, 2018^[19]).

The municipality welcomes the SDGs as a global framework to further realise its ambitions, with a focus on involving local residents – in particular families and youth – in the sustainable future of the municipality. For instance, the local authorities have set the goal to make 10,000 citizens ambassadors for sustainability. As part of these efforts, Sønderborg has become a UNESCO Learning City and organises SDG workshops, SDG learning weeks and an SDG festival (Nordregio, 2018^[20]).

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Notes

¹ The OECD and the EU (Eurostat and EC-DG Regio) have developed a methodology for defining cities called “functional urban areas” (FUAs) (sometimes called “city-region”) based on the daily movements of the people who live, work and consume within a certain space, rather than on a legal or administrative boundary of a municipality. This definition increases international comparability of economic, social and environmental performance. In the case of Denmark, almost 60% of the population live in FUAs that include both large and densely inhabited settlements and low-density or even rural areas. FUAs of at least 50 000 inhabitants identified in Denmark are Aalborg, Aarhus, Copenhagen, Esbjerg and Odense, among which only Copenhagen count as a “metropolitan area” with more than 500 000 inhabitants. Using population density and travel-to-work flows as key information, city-regions emerge as being characterised by densely inhabited “urban cores” and less-populated commuting zones defined as the “worker catchment area” of the urban labour market, outside the densely inhabited city core (see OECD (2016_[2]) for details of the approach and analysis).

² This is a non-exhaustive list of municipalities acting on the SDGs based on stakeholder consultations carried out in the period of policy dialogue organised around the drafting of this report.

2 Sustainable development opportunities and challenges in Southern Denmark, Denmark

The region of Southern Denmark shows a strong performance in most socio-economic development indicators, including high household income and low levels of relative poverty and inequality. The region also displays very high levels of trust and confidence in the judicial system and the government as well as good results in indicators related to research and development (R&D), innovation and most aspects of gender equality. Policy areas with room for improvement, compared to other OECD regions and the end values set for 2030, are part-time employment levels, air pollution levels and the region's persisting reliance on fossil fuels despite the expansion of renewable energy production in recent years. The Sustainable Development Goals (SDGs) provide a framework to move towards long-term sustainability through an integrated approach in Southern Denmark, notably with regards to climate action, gender and demographic pressures.

Measuring the distance to the SDGs in Southern Denmark

This chapter assesses the performance of Southern Denmark towards the SDGs based on the OECD localised indicator framework for the SDGs. The section follows the structure of the five critical dimensions of the 2030 Agenda, namely people, planet, prosperity, peace and partnerships. It considers a selection of 75 indicators covering at least one aspect of all 17 SDGs.¹ Further information on the methodology of the assessment can be found in Box 2.1.

Figure 2.1. The 17 Sustainable Development Goals



Source: UN (2020^[11]), *Sustainable Development Goals*, <https://sustainabledevelopment.un.org/?menu=1300>.

Box 2.1. OECD methodology for measuring cities' and regions' distance to achieving the SDGs

The OECD has developed a framework to localise the SDG targets and indicators and measure the distance of regions and cities to each of the 17 SDGs. This consensual, comparable and standardised framework allows to benchmark performances within countries and across regions and cities to support public action across levels of government.

In the context of OECD countries, 105 out of the 169 SDG targets have been identified as very relevant for regions and cities. Through an extensive literature review and expert consultation, the 169 SDG targets from the United Nations (UN) indicator framework have been classified by their level of relevance for subnational levels of government (place-relevant) and advanced economies (OECD-relevant). Subsequently, a subset of these SDG targets has been selected based on its applicability to the context and specificities of OECD countries. The result is a selection of 105 SDG targets and 135 indicators for OECD regions and cities (also referred to as the “subnational SDG targets”).

With its 135 indicators, the OECD localised framework covers at least 1 aspect of each of the 17 SDGs for both regions and cities. Nevertheless, the coverage in terms of indicators and targets is higher for regions than for cities. Currently, 56 indicators (covering 32% of the SDG subnational targets) are available for cities with more than 250 000 inhabitants in OECD and partner countries. Although the set of indicators aims to cover the broad spectrum of all 17 SDGs, the coverage in terms of indicators also varies widely across SDGs.

In order to evaluate the achievements of a city or region on the SDGs, the OECD localised framework defines end values to shed light on the global trends in OECD regions and cities working towards the SDGs, based on available indicators, and to provide technical guidance for governments to use the SDG indicator framework as a tool to advance local development plans and sustain evidence-based policies. By defining end values for 2030, regions and cities can assess where they stand today and seize how much distance they have to travel to reach the intended end value. When they are not inferable from the UN framework, the OECD defines end values for indicators based on the knowledge of experts in the field or, alternatively, based on the best performance of regions and cities in that indicator. The OECD localised indicator framework attributes end values to 88% of its indicators, of which 65% are defined using the criteria of “best performers”. The framework also normalises the SDG indicators from 0 to 100 – where 100 is the suggested end value of an indicator to be achieved by 2030 – and aggregates headline indicators that belong to the same SDG to provide an index score towards each of the 17 SDGs. The distance to the target or goal is the number of units the index needs to travel to reach the maximal score of 100. Each of the 17 indexes uses a selection of indicators that better reflect the essence of the goal and that benefit from good coverage across OECD regions and cities.

Selection of indicators used to assess the region of Southern Denmark’s achievements on the SDGs

The indicators were chosen based on: i) the availability of data for the region of Southern Denmark; and ii) a relevance assessment of the OECD indicators conducted by the region’s representatives. Generally, the analysis prioritises those indicators that were assessed by the representatives of Southern Denmark to be relevant or very relevant against place-based considerations and priorities. However, in some cases, the analysis also includes indicators of lower relevance for a more holistic and comprehensive picture of the region.

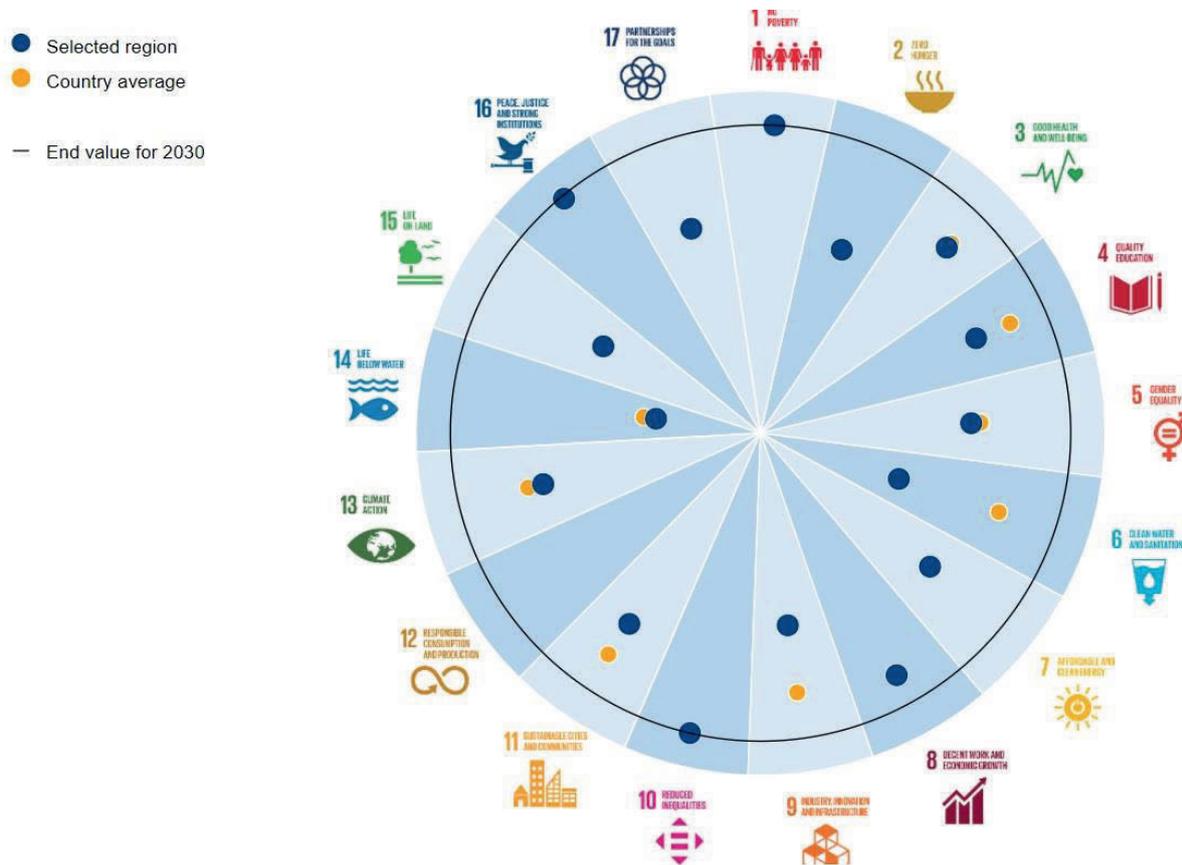
When comparing the indicators across different countries and regions, it has to be considered that the political mandate of regions in different countries is not the same. The Danish regions hold a rather narrow mandate within regional development compared to, for example, other Nordic countries like Norway and Sweden. Differences among regions in terms of policy differences therefore ultimately depend on wider contextual factors. Consequently, the capacity to influence indicators might differ across regions in different countries from a regional performance point of view. Nevertheless, such comparisons can be an important tool to reveal important challenges and potential to improve and adjust policies related to sustainable development across government levels.

Source: OECD (2020^[2]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>; OECD (2019^[3]), *OECD Regional Outlook 2019: Leveraging Megatrends for Cities and Rural Areas*, <https://doi.org/10.1787/9789264312838-en>.

Overall, Southern Denmark’s performance towards the SDGs is higher than the average of OECD regions. The region’s results are particularly good in the indicators of inequality and poverty reduction (SDGs 10 and 1 respectively), such as the Gini index of disposable income and the share of population living below 60% of the national median disposable income. The region also displays very high levels of trust and confidence in the judicial system and the government (SDG 16). Southern Denmark further shows good results in indicators related to R&D and innovation (SDG 9), with for instance a high rate of per capita patent applications and productivity. Most of the indicators on gender equality (SDG 5) also display good

performance for Southern Denmark. Policy areas with room for improvement, compared to other OECD regions and the end values set for 2030, are air pollution levels (SDG 11), the region's persisting reliance on fossil fuels despite the expansion of renewable energy production in recent years (SDG 7) and part-time employment levels (SDG 8).

Figure 2.2. Southern Denmark and the SDGs – Distance to the end values



Note: Index from 0 to 100 (100 is the end value: black circumference); Darker dot: Region of Southern Denmark's result; Lighter dot: Country average of Danish TL2 regions. For more details about the methodology to build SDG indexes, see OECD (2020_[2]). For some of the SDGs (SDGs 1, 2, 3, 7, 8, 15, 16, 17), no country average appears in the wheel as it is almost equal or equal to the regional value, so that the two dots overlap).

Source: OECD (2020_[4]), *Measuring the Distance to the SDGs in Regions and Cities (visualisation tool)*, <http://www.oecd-local-sdgs.org/> (Accessed on 1 September 2020)

People: Southern Denmark has very low levels of relative poverty and income inequality and very high levels of people's satisfaction with life

Southern Denmark is characterised by a low degree of relative poverty. An integral part of the 2030 Agenda is the fight against poverty as expressed through SDG 1, which has the objective to end poverty in all its forms everywhere. It is also a policy area where Southern Denmark performs particularly well in comparison to other OECD regions. The OECD localised indicator framework focuses on indicators of poverty such as the average disposable income per day of the first quintile of the population (equivalised household, in USD PPP, constant prices of 2010) and the share of the population with an income below 60% of the national median disposable income. In Southern Denmark, the average disposable income per day of the first quintile of the population was around USD 38 in 2013, slightly above the average of Danish regions of USD 37.5. Such a level of disposable income is considerably higher than the average of OECD

regions (USD 23) and indicates a comparatively high income level in both the region and the country. In addition, around 12.2% of Southern Denmark's population lived below the relative poverty line defined as 60% of the national median disposable income (Figure 2.3), while the average of OECD regions exceeded 20%. By reaching the value of 12.2%, Southern Denmark already undercut the suggested end value of 12.3% for 2030 based on the best performing regions. In close to 90% of OECD regions, a higher share of the population lived in relative poverty for the same year.

Table 2.1. OECD indicators used to assess the dimension People in the region of Southern Denmark

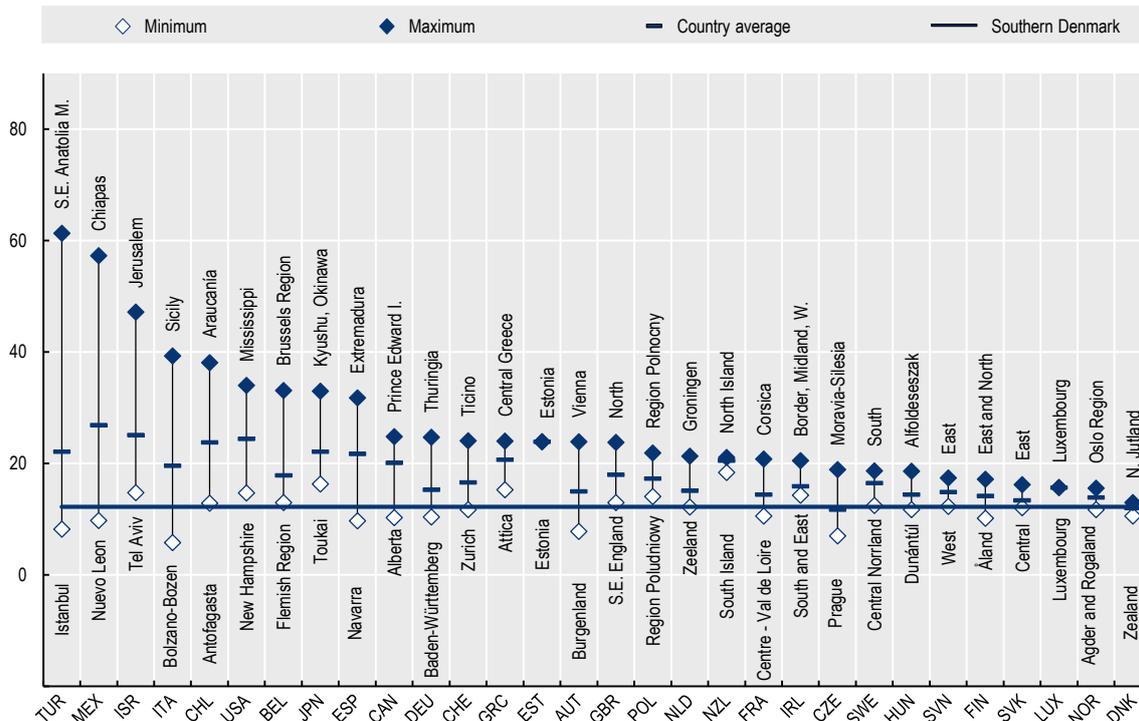
SDG	Indicator
	Average disposable income per day of the first quintile (equivalised household, in USD PPP, constant prices of 2010)
	Percentage of the population living below 60% of the national median disposable income
	Decrease in poverty rates (national poverty line) due to transfers and taxes (%)
	Rooms per person
	Percentage of the population satisfied with efforts to deal with poverty
	Productivity (gross value added [GVA] per worker) in agriculture, forestry and fishing (ISIC rev4) (in constant 2010 USD purchasing power parity [PPP])
	Change in cropland (from 1992 to 2015, percentage points)
	Cropland as a percentage of total area in 2015
	Mortality rates for the 0-4 year-old population
	Infant mortality rate (number of deaths of children 1-year-old or younger per 1 000 live births)
	Life expectancy at birth
	Satisfaction with life as a whole (from 0 to 10)
	Percentage of people satisfied with the availability or quality of healthcare
	Active physicians rate (active physicians per 1 000 people)
	Hospital beds rate (hospital beds per 10 000 people)
	Percentage of the population from 15 to 19 years old enrolled in public or private institutions
	Percentage of the population from 25 to 64 years old with at least tertiary education
	Gender gap in the rate of young population (18 to 24 years old) not in education, employment or training (NEET) (percentage points)
	Percentage of the population that believe women are treated with respect and dignity in their country
	Gender gap in employment rate (male-female, percentage points)
	Gender gap in part-time employment incidence (female-male, percentage points)
	Female R&D personnel as a percentage of total R&D employment

Source: OECD (2020^[2]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>.

Transfers and taxes play a crucial role in decreasing poverty rates in Southern Denmark. Across OECD regions, Southern Denmark's redistributive policies are among the most effective in reducing relative poverty. Transfers and taxes contributed to an overall decrease in relative poverty rates (based on the national poverty line) by close to 60% in 2013. This is around 20 percentage points higher than the average redistributive effect in OECD regions. The redistributive measures are also a key tool to reach the targets of the 2030 Agenda such as reducing the proportion of men, women and children of all ages living in poverty according to national definitions (Target 1.3) or implementing nationally appropriate social protection systems and measures for all (Target 1.4). It is worth highlighting that poverty goes beyond monetary aspects. The SDG localised framework therefore also provides indicators relative to overcrowding conditions of households and the general satisfaction of the population with efforts in the country to deal with poverty. In Southern Denmark, each person living in the region had two rooms at their disposal in 2019. This value, which is slightly higher than the national average of 1.9, suggests low overcrowding conditions in Southern Denmark on average. In line with the good results for indicators of SDG 1 and based on self-reported surveys covering the period between 2008 and 2018, the majority of

people in Southern Denmark (54%) stated to be satisfied with the efforts to deal with poverty. This is about the equivalent of the Danish national average (55%). While such a value might not appear particularly high, it exceeds the corresponding satisfaction rates registered in 90% of OECD regions.

Figure 2.3. Percentage of the population living below 60% of the national median disposable income, 2013



Note: Japan (2009); Slovenia (2010); New Zealand (2011); Austria, Israel, Mexico, Netherlands, Norway, United States (2014); United Kingdom (2015).

Source: OECD (2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

The productivity of the primary sector in Southern Denmark exceeds the average of OECD regions. Another goal of the 2030 Agenda is to end hunger and ensure food security by 2030 (SDG 2). Efficient food production systems and the implementation of resilient agricultural practices are important factors that can contribute to the achievement of this goal. The cropland area in Southern Denmark has slightly decreased, by two percentage points, between 1992 and 2015, but the region still possesses vast areas of cropland. In 2015, cropland covered around 75% of the region's area, which is one of the largest shares of cropland area among OECD regions. In order to reach the objectives of SDG 2, the UN advocates for an improvement of agricultural productivity. Southern Denmark's productivity in agriculture, forestry and fishing (GVA per worker in constant 2010 USD PPP) reached around USD 45 000 in 2016 thus exceeding the average of OECD regions (USD 42 000) and the Danish national average (USD 43 000). Yet, around one-third of OECD regions have a higher GVA per worker in the primary sector, which suggests the potential to enhance the efficient use of agricultural land in Southern Denmark.

Southern Denmark is among the best performing OECD regions in terms of life satisfaction and satisfaction with healthcare. Ensuring good health and well-being for people (SDG 3) is at the core of the 2030 Agenda. In this area, Southern Denmark tends to perform very well, as reflected by subjective well-being indicators obtained from self-reported survey data. One particular example is the indicator of satisfaction with life as a whole, where the region scores 7.5 on a scale from 0 to 10 (for the period 2008-18). Put into perspective,

the satisfaction with life as a whole in Southern Denmark is higher than in 94% of OECD regions. It also reflects the high degree of satisfaction in Denmark overall, which averages at 7.6. People in Southern Denmark are also content with the availability and quality of healthcare, which is reflected in an average satisfaction rate of 87% (for the period 2008-18). The OECD regional average for this indicator is about 20 percentage points lower than in Southern Denmark. Only one out of ten OECD regions exhibits a higher degree of satisfaction with healthcare than the Danish region.

Infant and child mortality rates in Southern Denmark are lower than the average of OECD regions, while life expectancy exceeds it. As survey data comes with a certain degree of subjectivity, the OECD localised indicator framework also considers objective health indicators such as child and infant mortality rates. These indicators contribute to monitoring targets such as 3.2 of the 2030 Agenda, which aims at ending preventable deaths of newborns and children under 5 years of age. Southern Denmark's performance in these indicators is higher than the average of OECD regions. The region's mortality rate for the 0-4 year-old population reached 8.7 deaths per 10 000 children in 2017 compared to the OECD regional average of 11.8 deaths. Its infant mortality rate of 3.2 (the number of deaths of 1-year-old or younger children per 1 000 live births) undercut the regional OECD average of 5.9 deaths. In addition, life expectancy in the region was 81.3 years in 2017, which exceeded the average of OECD regions by close to 1.5 years.

The regional coverage in terms of physicians is high, while the low number of per capita hospital beds is an intended feature of the Danish healthcare system. While the indicators of mortality and life expectancy are related to health outcomes, the number of active physicians (or doctors) refers to input necessary to improve these health results. With 3.4 active physicians per 1 000 people in 2015, Southern Denmark had a higher per capita rate of active physicians than the majority of OECD regions (with an average of 2.8 active physicians). Its rate was similar to the average of Danish regions (3.7 active physicians) and overall higher than the corresponding values of around two-thirds of OECD regions. On the other hand, the hospital beds rate in 2018 (of 18.6 hospital beds per 10 000 people) was more than 50% lower than the average of OECD regions (41.4 beds per 10 000 people). With such a low rate, Southern Denmark ranks in the bottom 25% of OECD regions in terms of hospital beds per inhabitant. It has to be considered however that the low number of hospital beds per capita reflects the design of the Danish healthcare system. The Danish government has focused on limiting the amount of time patients occupy hospital beds to achieve better health outcomes and greater economic efficiency. The Danish system emphasises large units with highly specialised departments in conjunction with co-operation between hospitals, municipal healthcare providers and the primary care system (mainly physicians). The system aims to reduce the number of days patients are admitted to hospitals while providing care on a local and out-patient basis, which explains the comparatively low number of hospital beds in the region.

The share of tertiary degrees among the adult population in Southern Denmark is similar to the OECD average. SDG 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Its first target is to ensure that all girls and boys complete free, equitable and quality primary and secondary education. The OECD localised indicator framework uses the proxy indicator of the population's share enrolled in a public or private educational institution (for the 15-19 year-old population). Based on this indicator, Southern Denmark is on a good pathway to reach the end value of 100% enrolment given that more than 90% of its population between 15 and 19 years are enrolled in public and private institutions. This value is higher than the average of OECD regions (82%) and around 5 percentage points above the national average. When looking at the percentage of the population from 25 to 64 years old with at least tertiary education, an important indicator to evaluate educational outcomes, Southern Denmark shows results similar to the average of OECD regions. As of 2018, around one-third of the population 25 to 64 years old had completed tertiary education, while the corresponding share averaged at 31% among all OECD regions. Compared to the national average of Denmark (37%), Southern Denmark was however lagging slightly behind. In addition to the share of enrolled students and tertiary degrees, SDG 4 also puts emphasis on gender disparities in education (Target 4.5), which is reflected in the OECD's indicator of the gender gap in the rate of young population from 18 to 24 years not in education, employment or training.

While OECD regions exhibit an average gender gap of more than 5 percentage points in this indicator, Southern Denmark's 0.9 percentage points are already close to the end value of 0 percentage points to be reached by 2030 – although compared to other Danish regions, Southern Denmark is one of the few regions where the share of young women not in education, employment or training is higher than the one of young men.

With the exception of the gender gap in part-time employment, Southern Denmark presents similar or better results than the average of OECD regions in terms of gender equality. SDG 5 focuses on achieving gender equality and empowering all women and girls. To capture part of the essence of Target 5.1, which aims at ending all forms of discrimination against all women and girls everywhere, the OECD indicator framework uses the share of the population that believe women are treated with respect and dignity in their country. Southern Denmark displays very good results in this indicator. Between 2008 and 2018, around 92% of the region's population agreed that women are treated with respect and dignity – very close to the suggested end value of 100%. Only around 3% of OECD regions perform better than Southern Denmark in this indicator. In addition, Southern Denmark has a comparatively low gender gap (6 percentage points in 2016) in employment rates, an indicator that captures part of the exclusion women face in the labour market. The average of OECD regions for this indicator (15.6 percentage points) is more than twice the value of Southern Denmark. On the other hand, the region's gender gap in part-time employment incidence of around 21% in 2019 – compared to the OECD average of 18% – is among the bottom third of performances across OECD regions. This indicator partially accounts for the precariousness of female workers with respect to men as intra-household inequalities often push women, more than men, towards part-time jobs (in the labour market) and unpaid housework. Reducing the gap in part-time jobs could reflect a more balanced distribution of quality jobs between men and women. Gender inequalities in the labour market are also reflected in the types of occupations held by men and women. For instance, the share of female R&D personnel as a percentage of total R&D employment is lower than the share of male. As of 2015, around 37% of people employed in R&D in Southern Denmark were female which equals the average of OECD regions and the Danish average but lags behind the suggested end value of 50% – where men and women are equally represented in R&D occupations.

Planet: Satisfaction with water quality and efforts to preserve the environment are high but more efforts are needed to reduce the number of cars and to extend coastal protection

The volume of water bodies in Southern Denmark has remained relatively stable over the past decades and satisfaction with the water quality among the population is close to 100%. Water as the basis of human life is one of the preconditions of human development. The UN has therefore reflected its importance in SDG 6, which has the objective to ensure the availability and sustainable management of water and sanitation for all. In Southern Denmark, inland waters cover around 4% of the region's area. As SDG 6 acknowledges that the protection of water-related ecosystems is crucial for sustainable water supply management, halting the loss in water bodies is fundamental to ensure the future availability of water resources. Between 1992 and 2015, the volume of water bodies in Southern Denmark has been relatively stable considering that the volume decreased by only about -0.2 percentage points. It is worth noting that this indicator captures very few of the essence of SDG 6; thus, it should be used only as a starting point to advance on the measurement of sustainable management of water at the local level. The OECD localised indicator framework therefore also considers the indicator of satisfaction with water quality as a proxy to capture some elements of Target 6.3, which aims at improving water quality globally. In that regard, Southern Denmark is one of the OECD regions with the highest share of the population satisfied with the quality of water, although polluted soil poses risks for the region's drinking water. Between 2008 and 2018, on average around 96% of the people in Southern Denmark stated being satisfied with the quality of water. This corresponds roughly to the national average in Denmark (95%) but is at the same time considerably

higher than the average of OECD regions (81%). Efforts invested in de-pollution and water management in Southern Denmark, as outlined in Chapter 1, could be a contributory factor in this regard.

Table 2.2. OECD indicators used to assess the dimension Planet in the region of Southern Denmark

SDG	Indicator
	Percentage of the population satisfied with the quality of water
	Change in water bodies (from 1992 to 2015, percentage points)
	Water bodies as a percentage of the total area in 2015
	Number of motor road vehicles per 100 people
	Percentage of the population satisfied with efforts to preserve the environment
	CO ₂ emissions per electricity production (in tonnes of CO ₂ equivalent per gigawatt-hours)
	Coastal area as a percentage of the total area
	Protected coastal area as a percentage of the total coastal area
	Change in tree cover (from 1992 to 2015, percentage points)
	Tree cover as a percentage of the total area in 2015
	Terrestrial protected areas as a percentage of the total area

Source: OECD (2020^[2]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>.

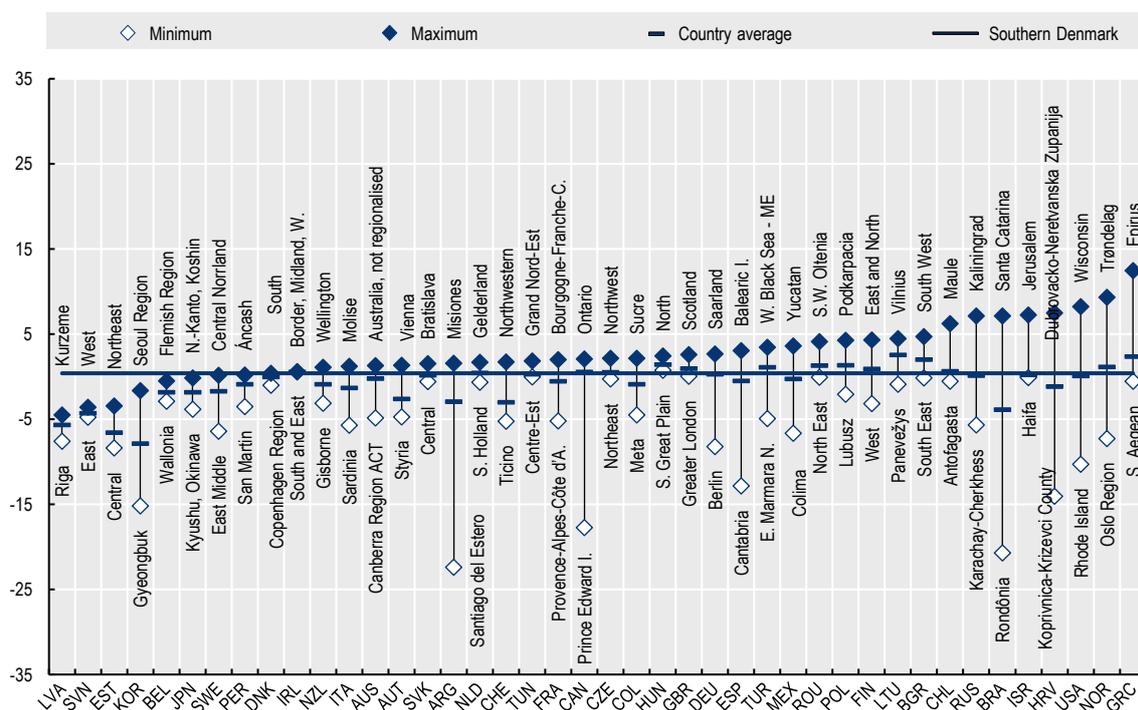
The number of motor road vehicles in Southern Denmark slightly exceeds both the national and OECD average. SDG 12 emphasises the urgent need to disconnect economic growth from intensive resource use in order to reduce the human negative impact on the planet. Relating to consumers' and producers' material footprint, which should be reduced as much as possible to protect natural resources and to limit pollution, the OECD localised indicator framework uses the number of motor road vehicles per 100 people to capture one of the key aspects of SDG 12. As of 2014, there were around 43 motor road vehicles registered per 100 people living in Southern Denmark, slightly above the Danish and OECD regional average (of 40 motor road vehicles per 100 people). A high number of motor road vehicles also relates to the use of fossil fuels and CO₂ emissions, which is one of the major issues of resource utilisation in developed countries.

Seventy percent of people in Southern Denmark are satisfied with efforts to preserve the environment and carbon efficiency in electricity production is higher than the OECD average. A change in production and consumption patterns (SDG 12) can also have a beneficial effect on the achievement of SDG 13 that has the objective to take urgent action to combat climate change and its impacts. The level of greenhouse gas (GHG) emissions per electricity production in tonnes of CO₂ equivalent per gigawatt-hours (GWh or carbon efficiency in electricity production) is one of the indicators to capture a core element of SDG 13, the reduction of GHG emissions and the fight against global warming. In 2017, Southern Denmark emitted around 290 tonnes of CO₂ equivalent emissions per GWh of electricity produced, a level lower than the OECD average (340 tonnes). It is worth noting that Danish regions have been making progress towards clean electricity production, in particular by investing in wind power. Nevertheless, more efforts are needed to fully eradicate the use of fossil fuels (including coal) for electricity generation. An indicator that reflects people's perceptions on the progress towards SDG 13 is the percentage of the population satisfied with the effort to preserve the environment. Southern Denmark belongs to the best performers among OECD regions in this indicator. Between 2008 and 2018, around 70% of the population stated to be satisfied with the efforts to preserve the environment. While that level implies that there is still potential to move closer to 100%, the rate is nevertheless considerably higher than the average of OECD regions (52%) and also exceeds the Danish national average (65%).

Only around 15% of coastal areas in Southern Denmark have the status of a protected area. Conserving and sustainably using the oceans, seas and marine resources for sustainable development (SDG 14) is another objective of the 2030 Agenda. By applying geospatial analysis techniques to the International Union for Conservation of Nature (IUCN) World Database on Protected Areas (WDPA), the OECD has modelled both the share of coastal areas of a region or city and the share of that coastal area² that is protected according to the WDPA (Mackie et al., 2017^[6]). In Southern Denmark, where 100% of the area falls under the category using the above-mentioned methodology, the share of protected coastal areas was about 15% of total coastal area in 2017. It was thus lower than the average of OECD regions (20% of the coastal area has protected area status). More than 50% of OECD regions and most regions in Denmark, with the exception of Zealand, registered a higher degree of coastal preservation in the same year. While the indicators of protected coastal areas are a starting point to monitor SDG 14 at the subnational level, more efforts are needed to fill the data gaps in crucial elements of SDG 14, such as marine pollution (for example through plastics debris, Target 14.1) and for sustainable fishing (Target 14.4).

The degree of terrestrial protection is lower than in the majority of OECD regions and the share of forest areas is comparatively small. In order to measure the achievements on SDG 15 about life on land, the OECD localised indicator framework uses the indicators of tree cover loss (from 1992 to 2015, in percentage points) and terrestrial protected areas as a percentage of total area. Both indicators reflect the main purpose of SDG 15, which is to protect and restore territorial ecosystems, by combatting deforestation and desertification. While the indicator of tree cover loss intends to capture the extent of deforestation (Haščič and Mackie, 2018^[7]), the second indicator seizes the efforts to protect biodiversity (see Mackie et al. (2017^[6]) based on the WDPA). Considering that the whole area of Southern Denmark falls under the coastal area category, its share of protected coastal areas in 2017 equates its share of protected terrestrial areas (14.7%). In comparison with the average of OECD regions (19.2%), Southern Denmark is lagging behind in its degree of biodiversity protection. The same holds with respect to the Danish average (16.6%). Resulting from the large share of cropland area in Southern Denmark, the region's tree cover is low in comparison to the average of OECD regions (9.6% vs. OECD regional average of 37.7%). Furthermore, its share has only slightly increased by around 0.4 percentage points between 1992 and 2015 (Figure 2.4). This also holds implications for the achievement of other environment-related SDGs considering that the restoration of trees is one of the most effective strategies for climate change mitigation (Bastin et al., 2019^[8]) (see section "The SDGs as a means to address environmental challenges through an integrated approach in Southern Denmark" below).

Figure 2.4. Change in tree cover, percentage points, 1992 to 2015



Source: OECD (2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Prosperity: Innovation, labour market outcomes and low-income inequality are key strengths in Southern Denmark, while efforts are needed to further reduce air pollution

Southern Denmark has significantly increased the use of renewables for electricity production, notably wind power. However, more efforts are needed to fully eradicate the use of fossil fuels, particularly coal. In order to make the global economy more sustainable, the topic of energy supply is one of the key pillars to be considered. SDG 7, therefore, has the objective to ensure access to affordable, reliable, sustainable and modern energy. In Southern Denmark, the total electricity production³ is rather small in comparison with the average of OECD regions, reaching around 7 300 GWh – around 28% of the average production across OECD regions. SDG Target 7.2 advocates for a substantial increase in the share of renewable energy in the global energy mix. In Southern Denmark, around 58% of the electricity produced in 2017 came from renewable sources. The share thus lies above the average of OECD regions that produce electricity (around 41%) but below the Danish national average (71%).⁴ For Southern Denmark, there remains a considerable gap to close to achieve the suggested end value of more than 80% of electricity coming from renewable sources. Coal remains a prevalent source of electricity production in the region accounting for around 23% of its energy supply. An additional 19% of Southern Denmark's electricity production comes from other fossil fuels (excluding coal). As these two sources are associated with high levels of GHG emissions, the end value to be achieved by 2030 is 0%, which corresponds to a shift away from coal and other fossil fuels for electricity generation. In order to reach those targets, Southern Denmark needs to continue its efforts and investments in renewable sources.

Table 2.3. OECD indicators used to assess the dimension Prosperity in the region of Southern Denmark

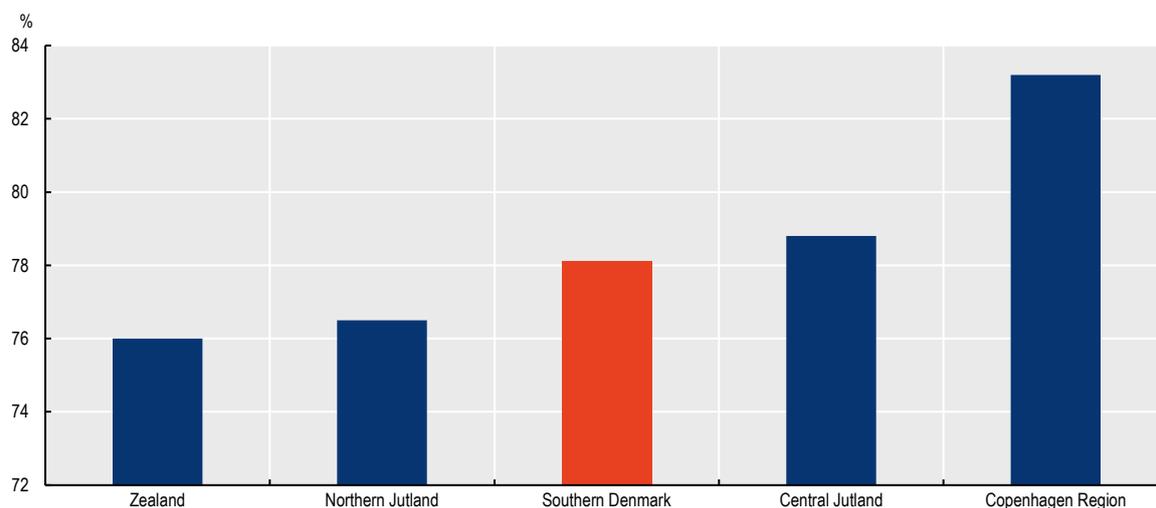
SDG	Indicator
	Total electricity production (in GWh)
	Percentage of the total electricity production that comes from renewable sources
	Percentage of the total electricity production that comes from coal
	Percentage of the total electricity production that comes from fossil fuels (natural gas and oil, excluding coal)
	Annual growth rate of real GVA per worker (%)
	Percentage of the labour force with at least secondary education
	Employment in knowledge-intensive services as a percentage of total employment
	Unemployment rate (%)
	Gender gap in the unemployment rate (percentage points)
	Long-term unemployment incidence (%)
	Part-time employment incidence (%)
	Percentage of the young population (from 18 to 24 years old) not in education, employment or training (NEET)
	Youth unemployment rate (%)
	Productivity (GVA per worker) in manufacture (ISIC rev4) (in constant 2010 USD PPP)
	Manufacturing employment as a percentage of total employment
	Employment in high-technology manufacturing as a percentage of total manufacturing employment
	R&D expenditure as a proportion of gross domestic product (GDP) (%)
	R&D personnel as a share of total employment
	Patent applications (Patent Cooperation Treaty, PCT) per 1 million people
	Average disposable income per equivalised household (in USD PPP, constant prices of 2010)
	Gini index of disposable income (after taxes and transfers) (from 0 to 1)
	Ratio between the average disposable income of top and bottom quintiles
	Median disposable income per equivalised household (in USD PPP, constant prices of 2010)
	Percentage of the population living below 50% of the regional median disposable income
	Decrease in Gini index due to transfers and taxes (%)
	Decrease in poverty rates (regional poverty line) due to transfers and taxes (%)
	Percentage of household expenses dedicated to housing costs
	Percentage of the population satisfied with the affordability of housing
	Difference between built-up area growth rate and population growth rate (percentage points)
	Exposure to PM2.5 in µg/m ³ , population-weighted (micrograms per cubic metre)
	Percentage of people exposed to more than 10 µg/m ³ (micrograms per cubic metre) of PM2.5

Source: OECD (2020^[2]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>.

Southern Denmark's labour productivity and employment in knowledge-intensive services are higher than the average of OECD regions. Sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8) are seen as means to contribute to a transformation towards a more sustainable economy. In order to measure productivity levels (Target 8.2), the OECD uses the annual growth rate of real GVA per worker, which reached 1.2% in Southern Denmark in 2016. It thus exceeded the corresponding OECD and Danish average of 0.9%. The region ranks among the top third of OECD regions in terms of labour productivity even though there remains a gap to the end value based on the best performing regions, which suggests an annual growth rate in productivity of 2%. In addition to technology, knowledge and skills play a key role in increasing productivity levels. In Southern Denmark, around 78% of the labour force had at least completed secondary education, slightly below the average of

Danish regions of 80% and in the bottom half of OECD regions (Figure 2.5). Around 41% of overall employment was concentrated in knowledge-intensive services in 2017. While this share is higher than in OECD regions on average (37%), it is the lowest among Danish regions. It is thus also lower than the average of regions in Denmark, where knowledge-intensive services account for 48% of total employment.

Figure 2.5. Shares of the labour force with at least secondary education in Danish regions, 2017



Source: OECD (2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Unemployment, gender gap in unemployment and long-term unemployment figures are better than the average of OECD regions, but a high rate of part-time employment stands out. SDG 8 also highlights the necessity to ensure decent work conditions for all in order to eradicate all kinds of deprivations. Unemployment and part-time employment are two main aspects to be considered in that regard. In Southern Denmark, unemployment was at 4.9% of the region's labour force in 2019. The rate was hence considerably lower than the OECD average (7.6%). At the same time, it was the lowest among regions in Denmark. The gender gap in the unemployment rate in the same year was 0.4 percentage points, slightly below the national average of 0.5 percentage points, and considerably below the average of OECD regions (2.0 percentage points). Southern Denmark is thus very close to achieving the suggested end value of a 0 percentage point gender gap, an equally low unemployment rate for men and women, by 2030. Overall, in 2019, about 18% of unemployment in Southern Denmark were cases of long-term unemployment incidence of more than one year. This rate was slightly above the national average of 16% but below the OECD average of 30%. In addition, 25% of employment was part-time. Among OECD regions, Southern Denmark thus belongs to the 20% of regions with the highest share of part-time employment (26% in 2019). While this type of employment comes with more flexibility for employees, it also leads to lower salaries and a higher risk of poverty for the part-time employed. The suggested end value to be reached by 2030 is therefore considerably lower, set at 15% based on the best performing regions.

Around 12% of youth in Southern Denmark are unemployed but the proportion of young NEET is low compared to the average of OECD regions. Another core challenge raised by SDG 8 is the integration of young people into the labour market. In many regions in the OECD, youth unemployment is persistently higher than overall unemployment. In Southern Denmark, the share of unemployed young people was at 10% in 2017. This share was lower than in around 70% of OECD regions. Nevertheless, in view of Target 8.5 that aims at achieving full employment and decent work, including for young people, there is still a significant gap to close in Southern Denmark to ensure job opportunities for youth. Moreover, Target 8.6 demands to substantially reduce the proportion of youth NEET. With regard to that target,

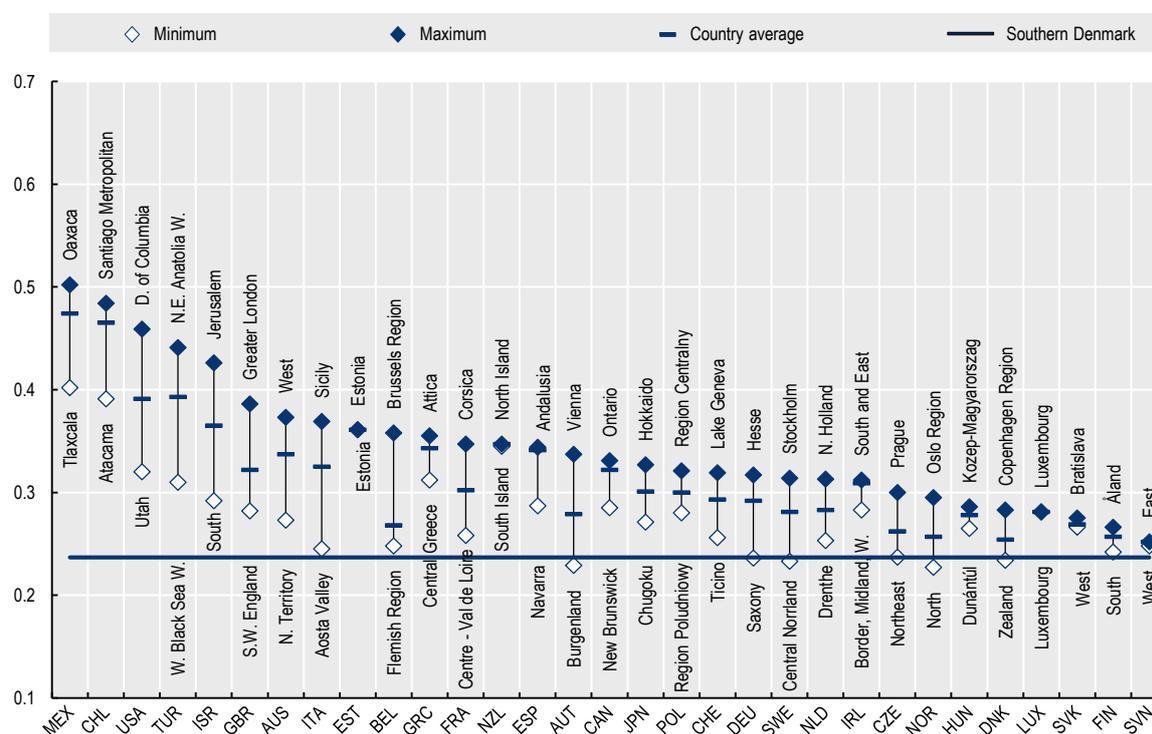
Southern Denmark is among the best performers within the OECD. Around 10% of its youth population belonged to the NEET group in 2018, while the average of OECD regions was almost twice that rate (18%). As is the case for various other indicators, this is in line with an overall good performance of all Danish regions, whose average share of youth that are NEET was 8.9% in 2018. All Danish regions already reached the suggested end value for this indicator of 11% that was defined based on the best performing regions.

Manufacturing-related productivity and employment are higher than in the majority of OECD regions. SDG 9 recognises the key role of innovation in industries to favour sustainable development and has the objective to build resilient infrastructures and promote sustainable industrialisation. With a share of 13.3% of overall employment in manufacturing in 2016, the secondary sector is an important sector for Southern Denmark's economy. On the other hand, employment in high-technology manufacturing only accounted for around 0.5% of total employment in 2017. Southern Denmark thus ranks among the bottom 20% of OECD regions when it comes to employment in high-technology manufacturing. However, productivity levels in manufacturing are high, reaching around USD 95 000 GVA per worker (in constant 2010 USD PPP) in 2016 – 17% higher than the OECD average productivity in this sector. Compared to the average of regions in Denmark (USD 111 000), the productivity levels are however lagging, which is mostly due to very high productivity rates in the Copenhagen region (USD 181 000).

Southern Denmark outperforms most OECD regions in R&D expenditure but is lagging behind other Danish regions. SDG 9 also emphasises the role of R&D as expressed through Target 9.5 “to enhance scientific research and encourage innovation and substantially increasing the number of research and development workers”. R&D investment is an area where Southern Denmark displays results that are above the average of OECD regions. In 2016, R&D expenditure in the region was equal to 1.8% of the regional GDP compared to an OECD average of 1.6%, but low in comparison to top performers such as the Copenhagen region (4.9%). R&D personnel accounted for 2% of total employment, which is a higher share than in three-quarters of OECD regions. On the other hand, the average of R&D employment as a share of total employment in Denmark overall was considerably higher (3.1%), notably in the Copenhagen region (5.1%) and Central Jutland (2.6%). In addition, the number of per capita patent applications in Southern Denmark, an indicator measuring innovation activity, belongs to the top 20% among OECD regions. In 2015, Southern Denmark filed more than 140 patent applications per 1 million people. However, with this rate, Southern Denmark ranked second last with respect to all Danish regions, which illustrates the country's innovative strength in general.

Income inequality in Southern Denmark is very low relative to most OECD regions. Reducing inequalities and ensuring no one is left behind are integral to achieve the Sustainable Development Goals. This objective is also set out in SDG 10 to reduce inequality within and among countries, an area where Southern Denmark displays remarkable results. The average disposable income per equivalised household (in USD PPP, constant prices of 2010) in 2013 was about USD 26 700, putting Southern Denmark into the top half of OECD regions in terms of average household income. At the same time, the median disposable income per equivalised household was only slightly lower than the mean, reaching USD 24 700 – around USD 5 000 above the average of OECD regions in terms of median income. The ratio between the average disposable income of top and bottom quintile, which captures changes in the extremes of the income distribution, underlines the relatively balanced distribution of income in comparison with other OECD regions. In Southern Denmark, the income of the top quintile was about 3.3 times higher than the income of the bottom quintile in 2013 while the same ratio was around 7 in OECD regions on average. In line with that, the Gini index of disposable income (after taxes and transfers – from 0 to 1), which is more sensitive to changes in the middle of the distribution, was at 0.24 in Southern Denmark in 2013 (Figure 2.6). Only 3% of OECD regions displayed a lower degree of inequality expressed by the Gini coefficient.

Figure 2.6. Gini index of disposable income after taxes and transfers, from 0 to 1, 2013



Note: Japan (2009); Slovenia (2010); New Zealand (2011); Austria, Israel, Mexico, Netherlands, Norway, United States (2014).

Source: OECD (2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Transfers and taxes play a decisive role in reducing inequality in Southern Denmark. The relatively low Gini coefficient in Southern Denmark is also the result of transfers and taxes. Redistributive policies are in line with SDG Target 10.4 to “adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality”. In 2013, redistributive measures were responsible for a decrease in the Gini coefficient by about 46%. For the average of OECD regions, the reduction was of 29%. Only 7% of OECD regions displayed more effective redistributive measures than Southern Denmark. At the same time, poverty rates (based on the regional poverty line) were decreased by around 64% due to transfers and taxes, which is also one of the rates of effectiveness among OECD regions.

The satisfaction with the affordability of housing in Southern Denmark is very high, even though the share of expenses dedicated to housing is similar to the OECD regional average. With more than half of the world’s population living in cities, achieving SDG 11 to create sustainable cities and communities and making them inclusive, safe and resilient can have a significant impact on people’s lives. Housing plays an important role in that regard as expressed in SDG Target 11.1, which aims to ensure access for all to adequate, safe and affordable housing and basic services. In Southern Denmark, housing costs accounted for 22.7% of households’ income in 2016, slightly lower than in OECD regions (24.3%) and the Danish national average (23.5%). Despite ranging around the average of OECD regions in terms of the percentage of household income dedicated to housing expenses, Southern Denmark belongs to the top 1% of OECD regions in terms of the share of the population that is satisfied with the affordability of housing. Between 2008 and 2018, on average, 83% of people in Southern Denmark stated to be satisfied with the affordability of housing. This value stands out both in comparison to the average of regions in Denmark (73%) and among the OECD regional average (53%). The OECD further captures sustainable urbanisation through the indicator of the difference between built-up area growth and population growth rates, which is about 0.9 percentage points in Southern Denmark. That means that the built-up area is growing slightly faster

than the population. The end value for this indicator was set at zero, suggesting that to achieve sustainable urbanisation in the long term, the built-up area rate should follow the growth path of the population. While this is not the case for Southern Denmark, the difference between growth rates is overall rather small, even though larger than in OECD regions (0.4 percentage points) and Denmark (also 0.4 percentage points).

Residents' exposure to air pollution in Southern Denmark exceeds the suggested values by the World Health Organization (WHO). Air pollution is one of the main concerns in densely populated areas around the world. SDG Target 11.6 therefore envisages reducing the adverse environmental impacts of cities, including air pollution. In Southern Denmark, air pollution levels are lower than in OECD regions on average, but a large share of the population is nonetheless exposed to pollution levels above the WHO guidelines. In 2019, the average annual level of exposure to small particulate matter with a diameter of 2.5 microns or less (PM_{2.5}) – which can cause cardiovascular and respiratory disease, and cancers – was 10.2 µg/m³ (population-weighted, micrograms per cubic metre). Air pollution levels in Southern Denmark were thus above the WHO Air Quality Guideline value of 10 µg/m³ average annual exposure – which is also the suggested end value for 2030 (WHO, 2018^[9]). Overall, around 96% of Southern Denmark's population were exposed to a level of PM_{2.5} above the WHO Air Quality Guidelines. This corresponds to a significantly larger share of the population than in OECD regions on average (59%).

Peace and partnership: Southern Denmark's residents enjoy very high levels of personal safety and express significant trust in the government

Living in Southern Denmark is safer than in the majority of OECD regions. The SDGs cannot be achieved if people's safety is not ensured in every region and city. This is reflected in SDG 16, which promotes peaceful and inclusive societies for sustainable development through both access to justice for all and effective, accountable and inclusive institutions at all levels. These are policy areas where Southern Denmark exhibits overall positive results. Homicide rates in Southern Denmark are low compared to the regional OECD average. In 2018, the region registered 1.0 intentional homicide and violent death per 100 000 residents, whilst the OECD regional average exceeded a value of 5 homicides per 100 000 people. In a national comparison, Southern Denmark however ranked last (together with Zealand) among the Danish regions, whose average homicide rate per 100 000 people was around 0.9. In terms of assaults, Southern Denmark displays more satisfactory results than most OECD regions. Between 2008 and 2018, less than 3% of Southern Denmark's population stated to have been assaulted or mugged in the previous 12 months, while the average of OECD regions was above 4%. These results are in line with the perceived safety by residents of Southern Denmark. Between 2008 and 2018, around 80% of Southern Denmark's inhabitants expressed feeling safe when walking alone at night around the area where they live. Only around 10% of OECD regions registered a higher perception of safety than Southern Denmark over the same period.

Table 2.4. OECD indicators used to assess the dimensions Peace and Partnership in the region of Southern Denmark

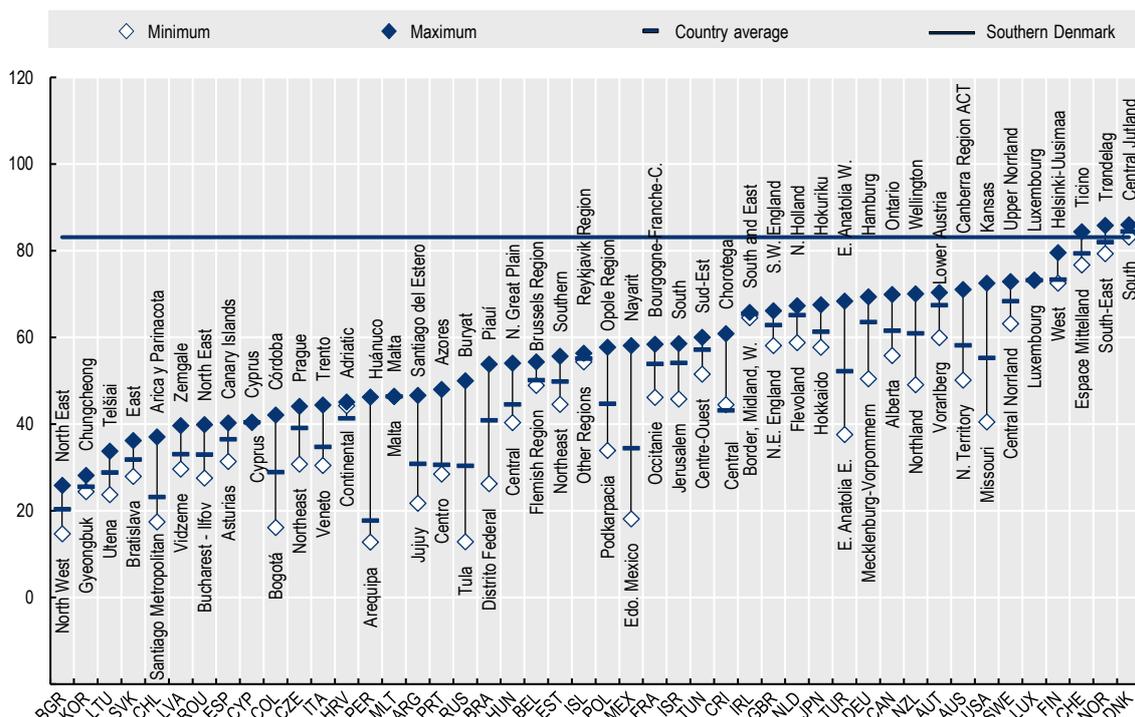
SDG	Indicator
	Homicides per 100 000 persons
	Percentage of the population that have been assaulted or mugged in the previous 12 months
	Percentage of the population that feel safe walking alone at night around the area they live
	Confidence in the judicial system and courts
	Percentage of the population that believes corruption is spread throughout the government in the country
	Percentage of the population that have confidence in the national government
	Percentage of the population that believes their place of residence is a good place to live for migrants
	Percentage of the population that believes their place of residence is a good place to live for gay or lesbian people
	Share of PCT co-patent applications that are done with foreign regions (in % of co-patent applications)
	Percentage of households with broadband Internet access

Source: OECD (2020^[2]), *A Territorial Approach to the Sustainable Development Goals: Synthesis report*, <https://doi.org/10.1787/e86fa715-en>.

Around 75% of the population in Southern Denmark believe that their place of residence is a good place for both migrants and homosexual people. Personal safety and a life without discrimination, in particular for minority groups such as migrants or gay and lesbian people, are essential for a peaceful and just society. Between 2008 and 2018, more than 75% of people in Southern Denmark believed that their place was a good place to live for migrants, 9 percentage points above the average of OECD regions. However, around one-third of OECD regions perform better than Southern Denmark, which suggests room for improvement, particularly considering that the desired end value for this indicator is defined at 100%. In the case of gay or lesbian people, Southern Denmark registered a similar rate of people believing that their place of residence is a good place to live (75%). This is particularly remarkable in comparison to the average of OECD regions, which is only slightly above 50%. Consequently, Southern Denmark ranks among the 20% best performing OECD regions regarding this indicator. Nonetheless, a gap of 25 percentage points remains with respect to the end value of 100%.

Trust in institutions, the judicial system and the government in Southern Denmark is among the highest across OECD regions. SDG 16 also promotes justice for sustainable development through institutions. In Southern Denmark, around 83% of the population had confidence in judicial systems and courts. This indicator is used as a proxy to capture SDG Target 16.3, which advocates for the rule of law at all levels and equal access to justice for all. Reflecting an overall very high degree of confidence in judicial systems and courts in Denmark, an area where the national government holds the sole responsibilities, the region of Southern Denmark outperforms around 98% of other regions with regards to this indicator (Figure 2.7). To put this into perspective, the average of OECD regions for this indicator is below 50%. An equivalent gap between the average of OECD regions and Southern Denmark can be observed when looking at the percentage of the population that believes corruption is spread throughout the government in the country. While this was the case for 17% of the population of Southern Denmark between 2008 and 2018, the average of OECD regions amounted to close to 62%. Again, Southern Denmark belongs to 2% of the best performing OECD regions in this indicator. What is more, the share of population having confidence in the national government, which reached on average around 53% between 2008 and 2018, is higher than in 80% of OECD regions and above the OECD regional average (40%).

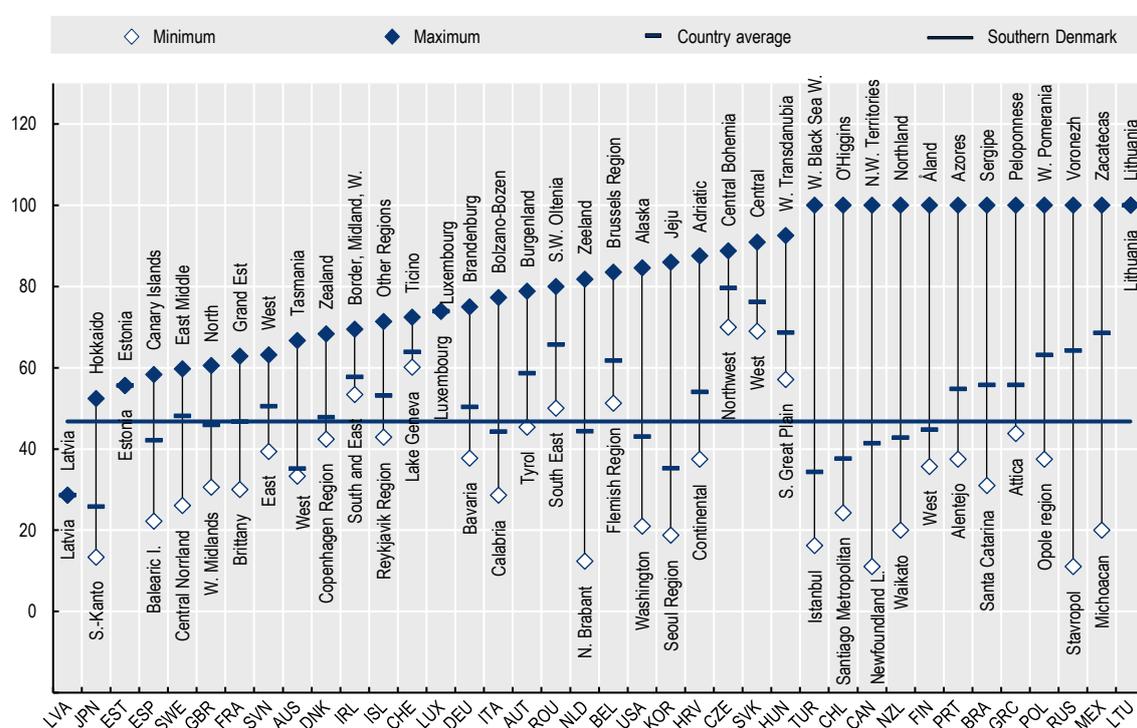
Figure 2.7. Confidence in the judicial system and courts, 2008-18



Source: OECD (2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Access to broadband Internet is almost universal, while collaboration with other regions in the area of research and innovation could be strengthened. The SDGs are a shared responsibility both within and across countries. SDG 17 therefore aims to strengthen the means of implementation and realise the global partnership for sustainable development. In order to measure how advanced a region is on the pathway to achieving that goal, the OECD uses the indicators of the share of co-patent applications that are done with foreign regions (in percentage of co-patent applications) and the percentage of households with broadband Internet access. The former reflects how knowledge sharing between regions can enhance access to innovation and foster sustainable development. The latter captures the use of “enabling-technologies” (Target 17.8) that favours the emergence of new sustainable development models and partnerships between stakeholders and citizens. In Southern Denmark, around 47% of the co-patent applications were filed together with foreign regions in 2015. This is similar to the Danish average of 48% (Figure 2.8). Compared to the average of OECD regions (54%), Southern Denmark is, however, lagging slightly behind. Around 60% of OECD regions use co-patent applications with foreign regions to a larger extent. On the other hand, broadband Internet is widespread in Southern Denmark. Around 88% of the households in the region had access to it in 2018 compared to the OECD regional average of 74%. Among Danish regions, Southern Denmark’s share of broadband Internet coverage is the lowest, even though the difference to the national average of 90% is marginal.

Figure 2.8. Share of PCT co-patent applications that are done with foreign regions, in percentage of co-patent applications, 2015



Source: (OECD, 2020^[5]), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>.

Moving towards long-term sustainability through an integrated approach to the SDGs in Southern Denmark

Southern Denmark shows strong performance on most socio-economic and well-being indicators, yet interlinkage between environmental, social and economic aspects is essential to achieve long-term sustainability. For example, it has been proven that long-term exposure to ambient air pollution can lead to premature deaths, to the extent of 4.2 million worldwide in 2016, by contributing to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer (WHO, 2018^[9]). In this regard, Southern Denmark's high level of PM_{2.5} air pollution (10.2), which exceeds the 10.0 µg/m³ annual exposure of PM_{2.5} end value for Target 11.6 of SDG 11 recommended by the WHO, poses a health risk to its population and might jeopardise a stable performance on SDG 3. An interrelated risk factor in this regard is the highest number of daily smokers among youth in Southern Denmark (compared to other Danish regions) – an issue that is being tackled through collaboration with municipalities and high schools in the regional strategy (Region of Southern Denmark, 2020^[10]).

Reducing air pollution is intrinsically linked to urban planning and waste management efforts, including transitioning to greener transport systems, energy efficiency and reducing the need for incineration of waste. This is challenging in Southern Denmark where an increasing number of people commutes over longer distances using cars, while depopulation of rural areas makes market-based rail services economically unviable for example. The transport sector is projected to contribute with the highest share of GHG emissions in the 2021-30 period (42%) (Region of Southern Denmark, 2020^[10]), challenging performance on both SDGs 11 and 13. At the same time, the climate policy set by the national government should lead to a gradual transition away from carbon-intensive vehicles by 2030. Improving and

incentivising the use of public transport in areas with higher accessibility can help to improve the situation, while active means of transport like cycling or walking can help to provide additional health benefits. Other measures that can help to reduce road congestion are ride-sharing options. The OECD International Transport Forum (ITF) has conducted shared mobility simulations in a number of cities in OECD countries, showing how they can drastically improve equality of access to services and job opportunities, while reducing individual car use (ITF/OECD, 2020^[11]). In a region such as Southern Denmark that performs well on SDG 9, especially when it comes to R&D and innovation, mobility solutions can be a way to stimulate innovative partnerships, including with international sharing economy players. At the same time, considering the limited mandate of the regional government in the business and economic development sectors, the scope to directly address and support such initiatives beyond the regional administration itself is likely limited.

Another environmental dimension of the SDGs linked with long-term health and well-being in Southern Denmark is its limited degree of protected land and coastal areas, whose shares are lower than the OECD averages and show gaps towards the end values for SDGs 14 and 15. While the designation of protected areas like beaches and dunes are regulated by national laws and reforestation is a national responsibility, taking a broader view, regions and municipalities can still play an important role in aspects of preservation of natural areas. For Southern Denmark, this role is demonstrated in the region's efforts to clean up historic soil pollution incidents, which currently limit the possibilities to enjoy some of the coastal areas in the region, with potential effects on human health and well-being. Municipalities can have an important role to play through spatial planning. For instance, in the government's ambitious climate agenda aiming to reach carbon neutrality by 2050, co-operation with municipalities is highlighted as essential to ensure the designation of existing and potential natural areas for preservation, through the so-called Green Map requiring municipalities to plan and designate existing and potential natural areas and wildlife corridors to improve biodiversity in Denmark (OECD, 2019^[12]). The agricultural sector is further the most dominant player in environmental protection in Denmark, projected to contribute with 36% of Southern Denmark's GHG emissions towards 2030 (Region of Southern Denmark, 2020^[10]). To mitigate downside effects of agriculture on the environment, the Multifunctional Land Redistribution Fund helps to convert farmland into natural sites (OECD, 2019^[12]). Linking up the region's well-being agenda with a stronger focus on environmental dimensions – as in the regional strategy – is essential to fully consider the interlinked nature of the SDGs.

Improving performance across environmental indicators is further needed to face the impacts of climate change (SDG 13). Increasing frequency and intensity of heavy rains are likely to be one of the most notable impacts of climate change in Southern Denmark, while its small forest cover makes the region more vulnerable to floods. A high share of the built-up environment further threatens biodiversity, with a negative effect on the overall resilience of ecosystems in the region. There are some leading examples of efforts being undertaken to address this issue, such as the Climate City in Middelfart (*KlimaByen*) that incorporates climate adaptation into urban development (see Chapter 1, Box 1.7). The need to spread competencies in environmental management across municipalities has been highlighted at the national level in light of ambitious climate and energy policies (OECD, 2019^[12]). The SDGs can provide the needed framework and shared language to systematise approaches across the region and share good practices among municipalities.

Southern Denmark has significantly increased the use of renewables for electricity production, notably wind power. However, more efforts are needed to fully eradicate the use of fossil fuels, particularly coal. Providing a good example of how synergies between the SDGs can be leveraged, namely the region's strong performance on SDG 9 in favour of improved performance on SDG 13. Over 40% of employment in the offshore wind energy sector in Denmark was located in Southern Denmark in 2016 (Region of Southern Denmark, 2016^[13]). To continue tapping into this potential, the region previously supported small- and medium-sized enterprises (SMEs) to carry out R&D in energy efficiency and renewable energy, which has however been discontinued in light of the limited mandate of regional governments in the area of

business development. Municipalities are also contributing to address the region's energy challenge. The leading example is Sønderborg, where CO₂ emissions have been reduced by 38.3% since 2007 and energy consumption by 14%. In this case, collaboration with local residents and companies provided ingredients for success, for which lessons can be spread across the region. The regional government has further committed through the regional strategy to lead by example to improve energy efficiency in facilities directly under the operational responsibility of the region, such as hospitals.

The region of Southern Denmark also has advanced competencies in health and welfare innovation, including automation, intelligent aids, information technology (IT) and telemedicine. As of 2016, around 300 private companies were working on welfare technology, employing 3 000 people and with a turnover of around DKK 5 669 million. This is a strength to consider in the context of the region's ageing population, where pressure on the health system is likely to increase. Telemedicine can help to enhance access to services for the region's ageing population, reducing the need for transportation, which is challenging in some rural areas. It can further help to address inequality in access to health and other services. On the other hand, such initiatives must be designed, taking into account the potential risk for loneliness among the elderly, which constitutes a growing health concern in many OECD countries (OECD, 2020^[14]). To fully exploit the synergies between SDGs in this field, there is an increasing need for skills notably in areas like natural sciences, technology and health sciences. This is put at odds with the trend of young people moving away from the region to other parts of the country, notably Aarhus and Copenhagen. In the areas of innovation, education and partnerships, there are thus many interlinked issues at stake that can help to determine the holistic development of the region.

While social inequalities are generally low in Southern Denmark, largely due to effective redistributive policies, some gender gaps might put certain groups at risk in the long term, impeding progress on SDGs 5 and 10. For example, the region's high share of women in part-time work can have an impact on both career progression and old-age pensions later in life. While data from OECD countries show that inequality among retired people is a concerning trend, Denmark performs better than most OECD countries in this regard (OECD, 2019^[15]). Another point of attention is the lower share of women employed in R&D sectors (37% of total employment). This, in combination with the need for increased skills in the region, could be an opportunity to address SDGs 5, 8 and 9 in parallel by attracting more women to both tertiary education and employment in R&D activities.

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Notes

¹ While more than 100 indicators are currently available for the measurement of the SDGs in both regions and cities in OECD countries, the coverage varies depending on the type of geographical unit to which each indicator is associated. While 122 indicators (covering 59% of the SDG subnational targets) are available for regions, only 56 indicators (covering 32% of the SDG subnational targets) are currently available for cities. Although the set of indicators aims to cover the broad spectrum of all 17 SDGs, the coverage in terms of indicators also varies widely across SDGs.

² Going beyond administrative boundaries, the coastal area is here defined as the overlap between the regional or city area and a buffer of 50 km from the coastline (this can include the area of regions or cities without a coastline but within 50 km from it).

³ The indicators on electricity production are modelled based on publicly available data sources, primarily from the Global Database of Power Plants by the World Resources Institute (WRI) and the International Energy Agency (IEA) database.

⁴ Only 95% of the total country's electricity production is covered. Electricity production from hydro and waste power plants is missing.

3

The SDGs to strengthen multi-level governance for sustainability

The national government of Denmark committed to the Sustainable Development Goals (SDGs) through a dedicated action plan that aims to move beyond global goals and targets, taking a more ambitious approach for the country. Yet, more explicit alignment of priorities and initiatives can magnify the engagement, energy and resources across government levels, civil society and the private sector. Civil society, schools, universities and research already contribute to advance Education for Sustainable Development in Southern Denmark, while there are also positive signs of collaboration between the private sector and municipalities to move forward the 2030 Agenda.

Reaching ambitious targets in Denmark requires effective multi-level governance

The national government's Action Plan for the SDGs consolidates its commitment to sustainability, but only briefly mentions the role of subnational governments

The Danish central government's National Action Plan for the SDGs, adopted in 2017, is based on the key strengths of the Danish society, such as gender equality, the Danish welfare state model, sustainable growth, as well as perceived areas of improvement. It mainly focuses on the national-level implementation, whereas international development co-operation is dealt with in another strategy. The priorities are grouped in relation to four of the five Ps included in the 2030 Agenda, namely: i) growth and prosperity (Prosperity); ii) people (People); iii) environment and climate (Planet); and iv) peaceful and safe society (Peace). In each of the areas, several SDGs are included. The framework of the 5Ps reflects the interrelated nature of the goals, with SDGs 16 and 17 seen as cross-cutting themes for all the priorities. In terms of reporting, the government plans to annually report the progress made on the action plan, with an additional statement every four years outlining key challenges and adjustments, as relevant. For the Voluntary National Review (VNR) to the United Nations (UN) High-Level Political Forum (HLPF), three reports are proposed from 2017 to 2030 (Government of Denmark, 2017^[1]).

The three pillars of sustainable development (economic, social and environmental) are already integrated into Danish policymaking as well as into the National Action Plan for the SDGs. For example, when a legal bill is proposed to the Danish parliament (*Folketinget*) or when a new policy or plan is developed by the government, the potential fiscal and environmental impacts, as well as those on gender equality must be assessed, when expected to be significant. The National Action Plan for the SDGs requires for these assessments to be linked to the SDGs. A concrete model for carrying out the analysis is under development.

Climate change mitigation is also a key priority at the national level, including in the Action Plan, which emphasises the need for reduced greenhouse gas emissions, sustainable use of natural resources, and energy efficiency as key priorities for Denmark to remain a "pioneering" county for green transition (Government of Denmark, 2017^[1]). The Energy Agreement for 2020-24, adopted in June 2018, further includes the goal to achieve 100% green electricity by 2030 and net-zero emissions economy-wide by 2050. The Energy Agreement was further complemented in 2018 by a climate and air proposal addressing emissions outside the EU Emissions Trading System (EU ETS), such as in transport and agriculture. Even if agriculture contributes 20% of GHG emissions in Denmark, there are no direct regulations for the sector. The national government appears to have prioritised climate mitigation in the transport sector through a goal of phasing out fossil-fuel-based buses and cars. With regards to increasing the carbon capture potential in Denmark, the OECD has stressed the need to build capacity for environmental planning at the municipal level (OECD, 2019^[2]).

An inter-ministerial working group on the SDGs co-ordinates the action plan, led by the Ministry of Finance, while Statistics Denmark is responsible for monitoring and reporting. The government also encourages non-state actors to implement and monitor their contributions to the SDGs and lists various fora that can support the co-ordination of these efforts, namely: the Dialogue Forum on Growth and Corporate Social Responsibility (CSR) (a central platform for the business community); the Development Policy Council for development co-operation and development policy; the Contact Committee for Europe's 2020 Strategy; or the Global Green Growth Forum (3GF).

While regions and municipalities are listed among the key partners, their role in the 2030 Agenda is not elaborated to any great extent in the Danish central government's National Action Plan for the SDGs, adopted in 2017. It outlines the government's framework and priorities with regards to the SDGs, with the ambition to provide a basis for further action and partnerships across the Danish society. The action plan however places emphasis on *partnerships* and the role of all actors in achieving the SDGs, including the private sector, civil society, regional and municipal authorities, academia and other research bodies.

Business and investment communities have a strategic role in promoting the SDGs and are seen as providing opportunities for new types of partnerships in the action plan. The action plan also includes the Danish position in a global context. In particular, the government plans to work closely with the European Union (EU) and other regional bodies (e.g. the Nordic Council and the OECD).

The 2030 Network: a vehicle to catalyse political action for a more ambitious 2030 Agenda

The 2030 Network (*2030-netværket*) is a voluntary network of members of parliament (MPs) across political parties and other actors from different sectors of the Danish society aiming to push for a more ambitious and transformative 2030 Agenda in Denmark. Formed in 2017, the network aims for a forum triggering broad and inclusive debate on the SDGs and enters into regular dialogue with ministers responsible for the National Action Plan on the SDGs. The purpose of the 2030 Network is not to discuss legislation and political reforms *per se*, but rather promote dialogue and provide Members of Parliament with the knowledge and recommendations to make an informed decision. As of March 2020, 69 out of 179 MPs participated in the 2030 Network (Danish Parliament, 2020^[3]).

The 2030 Network also set up the 2030 Panel (*2030 Panelet*), which carries out independent analytical work, knowledge sharing and meetings with the network on different topics. The panel consists of 23 “strong and diverse stakeholder profiles” representing major players in Danish society, or by virtue of their personal capacity, knowledge and role in the implementation of the SDGs. Private sector actors like the Confederation of Danish Industry sit on the panel, as well as the national association of municipalities (2030 Panel, 2020^[4]).

Every year, the 2030 Network and the 2030 Panel organise a Multi-stakeholder Forum on the SDGs. In 2018, the forum’s focus was on SDG 11 and the role of municipalities in the 2030 Agenda, following a strong demand from its members and constituencies. It was organised in collaboration with the National Parliamentary Transport, Building and Housing Committee. A baseline study for SDG 11 presented to municipal and regional authorities providing 7 sub-targets of SDG 11,¹ with indicators selected to fit the Danish context and reflect the transformative potential of the 2030 Agenda (see Annex 3.A). Overall, the SDG 11 baseline study shows that while Danish cities are commonly at the forefront of global targets, there is room for improving sustainable building practices, as well as reducing, separating and recycling waste. Continued innovation is further needed to ensure that progress towards sustainable cities and communities does not stall (Dansk Arkitektur Center/Rambøll Management Consulting, 2019^[5]).

The 2030 Panel launched a project in collaboration with Statistics Denmark called Our Goals (*Vores Mål*), which invites citizens and interest groups to provide input and participate in the debate on how to measure progress on the SDGs in the Danish context. The project receives financing from the Danish Industry Foundation, the Lundbeck Foundation, the Nordea Foundation, Realdania and the Spar Nord Foundation and is planned in four phases involving both digital and physical participation and consultation. The project made its first report available for public consultation in May and June 2020. The final report is expected to be released and presented to the parliament before the end of 2020, with some delay caused by the COVID-19 pandemic. (Voresmal.dk, 2020^[6]). The focus is primarily on national indicators.

According to the 2030 Network, the transformative element of the 2030 Agenda is not yet in place in the National Action Plan for the SDGs, which is considered to represent the status quo and rebrand previous efforts. This is also reflected in the budget, where no significant allocations have been made towards the SDGs. A higher ambition in the National Action Plan is desired to reduce the Danish carbon footprint, and address, amongst others, biodiversity loss (partly due to agriculture intensive landscape) and mental health issues and inequality.

Statistics Denmark is responsible for mapping and measuring the SDGs and related indicators at the national level. The agency has found that there are still many gaps in terms of data availability at the

national level, while the need for localising the SDGs is pressing. To this end, Statistics collaborated with the region of Southern Denmark in September 2018 to develop a localised indicator framework with SDG indicators at the regional and municipal levels. The ambition is to develop two SDG indicator frameworks, one for global reporting and the other with indicators tailored to the context of Denmark. The collaboration, which ended in 2019, focussed on indicators related to SDGs 3, 6, 9, 11 and 17 all of which - alongside 6 other SDGs – have been incorporated in the Regional Development Strategy. The project also included the municipality of Haderslev, whereby the region and municipality worked together to develop indicators for the municipal level.

Southern Denmark is actively engaging with its municipalities on the 2030 Agenda

The region seeks to actively engage with the 22 municipalities in the implementation of the SDGs. The mechanisms and fora connected to the regional strategy, including regular meetings between the 22 local mayors and the chairwoman of the regional council, are used to that effect. In some areas, such as health, the SDGs can also help to make the links between national, regional and municipal development priorities more visible (Box 3.1). Being responsible for a range of welfare services, as well as growth and development measures, municipalities can play a strong role in the implementation of the 2030 Agenda, especially given their local democratic legitimacy that can help to “democratise the SDGs”.

Since March 2018, the region has collaborated with the municipality of Haderslev around the development of a local pilot baseline for the implementation of the SDGs. The project, completed in 2020, translated the SDGs into local targets and indicators, guiding the work on sustainability in the municipality. The SDG baseline, which is currently underway, will help to draw attention to areas where there is a need or potential to work more sustainably and provide a framework for follow-up and monitoring. Yet and overall, the availability of indicators at the municipal level remains a key challenge in the Danish multi-level governance context.

Box 3.1. Multi-level governance for SDG 3 in Denmark: From national priorities to local actions

National health challenges requires joined-up approaches for achieving SDG 3. Some common Danish health issues include chronic diseases like cardiovascular disease or diabetes, while risk factors include tobacco and alcohol consumption, raised blood pressure and obesity (World Health Organization, 2014^[7]). For example, 22% of Danes are daily smokers. To combat this, a national network called Smoke-free Future launched by the Danish Cancer Society and the Danish foundation TrygFonden aims to reduce the share to a maximum of 5%.

While the Ministry of Health provides the overall regulatory framework for the health sector in Denmark, the Danish regions own and operate public hospitals, while municipalities are responsible for preventive care and health promotion as well as other types of care that are not related to inpatient care, such as rehabilitation and social psychiatry. Social services handled by the municipalities further include care for the elderly, disabled people’s care and support to chronically and mentally ill people.

To promote co-ordination across health and social services in municipalities and regional hospitals, regions and municipalities sign mandatory healthcare agreements (Frølich, Jacobsen and Knai, 2015^[8]). The Danish healthcare system is mainly financed through taxation (around 80%), with a health expenditure above the OECD average, at 10.4% of gross domestic product (GDP) in 2016 compared to 9% on average for OECD countries (OECD, 2020^[9]) This further relates to the national priority to achieve better health outcomes and greater economic efficiency, aiming to reduce the number days patients are admitted to hospitals while providing care on a local and out-patient basis.

In the 2019 budget for the region of Southern Denmark, the healthcare agreement signed with municipalities thus focuses on the following priority areas of action: i) prevention of inappropriate hospital re-admissions, for example through joint emergency teams between the region and the municipalities; ii) labour market integration for citizens with chronic illness; iii) examining the possibility to support the municipalities' short-term centres for people who need intensive care and training in a short-term period (i.e. where help at home is not enough) and iv) exploring options for co-operation on preventative care, e.g. in relation to smoking, alcohol and overweight. The healthcare agreement states that it should be examined whether such centres can be run in co-operation between the regions and municipalities.

By way of illustration of how national priorities link to municipal action, Haderslev's health centre has launched a range of initiatives in their role as providers of preventative care and to meet Danish health challenges. For example, a "health bus" with a health professional visits small settlements in the municipality, while "Dad's Kitchen School" teaches fathers and their kids to cook healthy food together. The municipality further works towards a smoke-free future by 2030 and collaborates with the region to specifically target the mental health of girls.

Source: Information provided by the region of Southern Denmark

The SDGs as a tool to engage the private sector and civil society in regional development

Civil society has a special role in education and partnerships to strengthen citizen awareness and engagement

Education for Sustainable Development (ESD) is a prominent feature of the SDGs implementation in Denmark. One key player in ESD is the Danish foundation Chora Connection, recently renamed Chora 2030 to demonstrate its commitment to accelerating progress towards the 2030 Agenda. For example, Chora 2030 hosts one of the 140 Regional Centres of Expertise (RCE) worldwide, where scientists, civil servants, teachers and non-governmental organisations (NGOs) work together to develop ESD initiatives. Chora 2030 is further developing a certification programme for primary and secondary schools to include the SDGs both in curricula and in their daily operations, drawing on recommendations from the UN SDG-Education 2030 Steering Committee. The foundation also plays a key role to foster multi-stakeholder partnerships. After three years of operation, the organisation has been partnering with 36 organisations, including NGOs, local government and businesses. Another prominent initiative by Chora 2030 was the 17FOR17 campaign, where 17 Danish artists designed 17 posters interpreting the SDGs. 17FOR17 was mentioned in the Danish Voluntary National Review to the United Nations High Level Political Forum, as an example of the implementation of the SDGs and attracted much media attention. Chora 2030 has been partnering with both Dutch and French designers to reproduce the initiative internationally (Chora 2030, 2018^[10]).

Other actors in the Danish education sector, such as a network of secondary schools, are taking a proactive approach to spread awareness, knowledge and fostering action for the 2030 Agenda and the SDGs. Shaping well-informed and responsible future citizens is at the core of such initiatives, inspiring the students to believe and act to change the world for the better. Ad hoc consultations with universities and schools in the development are also planned by Southern Denmark as a way of involving the education system in the regional strategy 2020-2023 (Box 3.2).

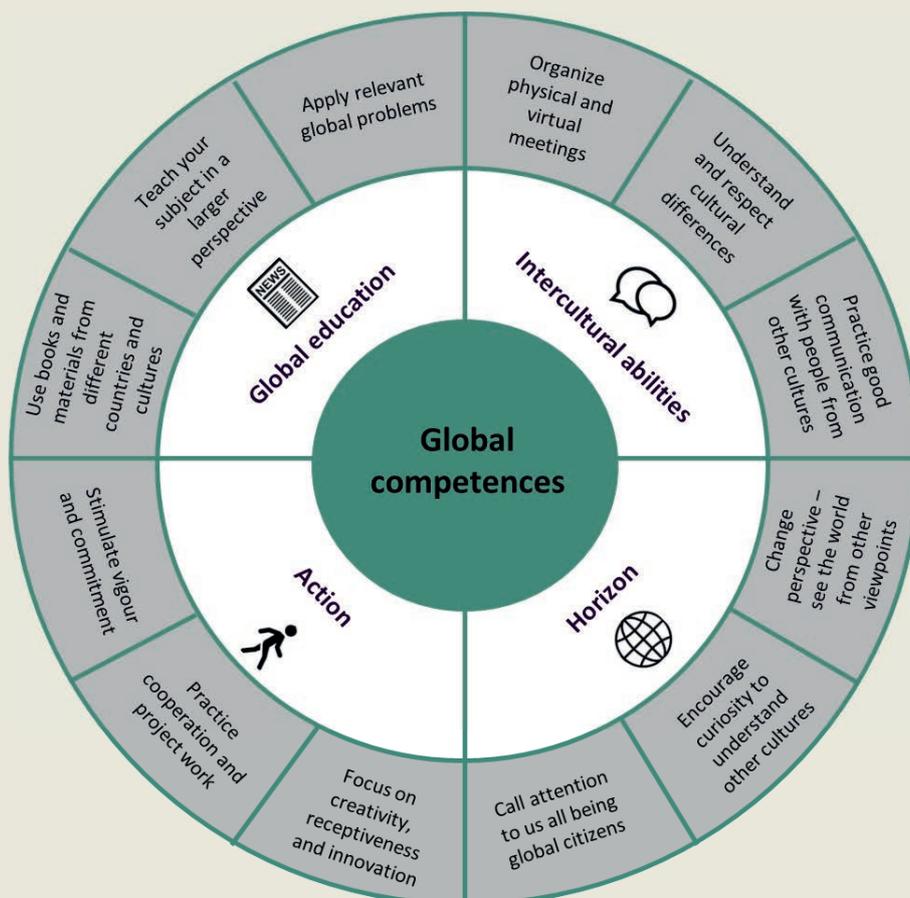
The University of Southern Denmark has already taken several steps to allow students to learn about and explore SDG-related challenges. In addition to planning an introductory course for new students on the

SDGs, the university offers various platforms and activities for students to incorporate the SDGs in their work. Examples include an SDG youth camp and forum, as well as an SDG pool where students can connect and find resources about SDG research. An award has further been instituted, the Inspiration Award, which is given to groups of students or staff who have made special efforts to work with the SDGs.

Box 3.2. Global High Schools (*Globale Gymnasier*) and the SDG Learning Platform

Global High Schools (*Globale Gymnasier*) is a collaboration project between 8 high schools across Denmark, which aims to promote competencies that prepare students to become responsible, democratic citizens in a rapidly changing, complex, insecure and global world. The platform was developed together with UNDP and Action Aid with the goal to enable teachers and students to acquire knowledge, attitudes and competencies for action in relation to the SDGs. More specifically, the schools have developed a Global Competence Wheel (Figure 3.1), which breaks down the concept into four manageable global competencies: Global scholars, Intercultural education, Horizon and Action. In essence, the focus is on building internal awareness and resilience, while fostering respect for cultural differences and preparing the students to face unforeseen situations and challenges posed by a global world.

Figure 3.1. The Global High Schools' Global Competency Wheel



Global High Schools has further resulted in spin-off initiatives, such as the SDG Learning Platform (www.verdensmaalene.dk) which provides students and teachers with teaching and learning materials relevant to the SDGs.

Source (box and figure): Globale Gymnasier (2018^[11]), *Globale Gymnasier (Global High Schools)*, <http://www.globalegymnasier.dk> (accessed on 3 September 2020).

The private sector: A sustainable development partner for the SDGs

Companies in Southern Denmark – as in Denmark overall – increasingly see the SDGs as a way to future-proof their strategies, with the perception that failing to incorporate the SDGs in the core business may leave them out of business in the long run. Hence, many companies are starting to use the SDGs to strengthen their core business strategies, beyond corporate social responsibility (Box 3.3) with the strategic objective to create new market opportunities, as well as to attract and retaining talents within a workforce that increasingly demands “purpose” in their work.

In general, many private companies in Southern Denmark are going beyond “greenwashing” when working with the SDGs. The SDGs can help to define new business opportunities by thinking more broadly than business traditional sustainability approaches (see Table 3.1). This is not without barriers, however, since internal processes (e.g. research and development [R&D]) and practices are hard to change, and have to be constantly balanced with responding to consumer demand and other market needs. One way that the company Danfoss used to accelerate change is through launching innovation challenges among employees, where the top 10 ideas are presented to an innovation board and the top 3 to senior management. As such, the SDGs are seen as helping to break the silos between finance, marketing and R&D departments.

Table 3.1. Business strategies for the SDGs: Two examples from Southern Denmark

Company	Key activities and strategic elements	Focus on SDGs in their core business
Danfoss	<p>Founded in 1933 as a one-person company, Danfoss has grown into a leading multi-national corporation focusing on engineering solution for sustainability, for example energy efficiency. The company seeks to be a frontrunner, analysing and adapting to a changing world.</p> <p>Its sustainability strategy targets both internal and external dimensions, including reducing the environmental impact of its operations along the supply chain, while fostering a safe and healthy work environment.</p>	<p>In its current strategy, Danfoss has identified five key megatrends confronting it, which have further been mapped to the SDGs. These are: i) digitalisation (SDG 9); ii) electrification, (SDGs 7 and 13); iii) urbanisation, (SDGs 6, 7, 9 and 11); iv) food supply (SDGs 2, 12 and 13); and v) climate change (SDGs 7 and 13).</p> <p>The sustainability strategy also distinguishes between Danfoss’ prioritised SDGs (SDGs 6, 7, 11 and 12), society-oriented SDGs (SDGs 2, 4, 5, 8, 9, 13, 16 and 17) and those that are indirectly affected by the company (SDGs 1, 3, 10, 14 and 15).</p>
Naturmælk	<p>Naturmælk is a small dairy company from Southern Jutland that produces organic and biodynamic milk products. It was founded by the first organic farmer in Denmark in 1994 and now engages 33 farmers who work with Naturmælk through all stages of the value chain (from cow feed to final product). The company developed the RISE, a method for assessing the sustainability of agricultural production at the farm level.</p> <p>Naturmælk currently focuses on the circular economy, an increasing priority topic for its consumers . A key focus for Naturmælk currently is to establish a viable business model based on the ecologic principles of the company. The company considers a sustainable public procurement policy to be key to incentivise the uptake of SDGs in private companies as well as customers’ willingness to pay.</p>	<p>The company is already addressing many SDGs through core business activities (e.g. SDGs 2, 4, 6, 7, 9, 11, 12 and 13) and the 2030 Agenda is planned to be used as a framework for internal operations. This will be a medium-term strategy for the company as incorporating the SDGs in R&D activities takes time, in particular in a small company.</p>

Box 3.3. From philanthropy to business

A project by the Confederation of Danish Industry, Global Compact Network Denmark and Copenhagen Business School (CBS)

In 2017, the Confederation of Danish Industry launched the project “The UN Sustainable Development Goals – From philanthropy to business” (*FN’s verdensmål – fra filantropi til forretning*). The project, which ran from October 2017 to September 2020, aimed to provide insights, inspiration and tools for companies to use the SDGs to generate new business and job opportunities. Project financing (DKK 5.25 million) came from the Danish Industry Fund (*Industriens Fond*), while the other project partners were the Global Compact Network Denmark and CBS. The project also collaborated with the United Nations Development Programme, the public-private (not-for-profit) partnership State of Green, the Danish food industry cluster Food Nation and the multi-media platform The Best News in the World (*Verdens Bedste Nyheder*), which reports on SDG-related news.

The project involved 21 companies that seek to operationalise the SDGs in their core business, selected based on their level of vision and ambition. Their stories will provide inspiration to the rest of the Danish business community. The project consisted of three pillars, namely: i) building business models based on sustainability; ii) communication; and iii) networking activities. The project website (www.di.dk/sdg) worked as a platform providing an entry point for other companies willing to work with the SDGs. In addition, a dedicated LinkedIn page has been set up to connect companies and allow members to find expertise and inspirational news, events and debates.

One of the key challenges for many companies is the vast amount of information available about the SDGs. The project thus aimed to help companies filter information and find the right tools. To this end, the experiences of the 21 companies participating in the project are contributing to a guide on how to integrate the SDGs into their core business. The different steps described in the guide are “Impact, Focus, Vision, Engage and Scale”. As part of the project, each company carried out a materiality analysis to assess where their business could have the highest impact (environment, society, economy, etc.).

Another important feature of the project was the High-level Advisory Board established in 2018. Its role was to facilitate a close dialogue between a group of leading companies and people who work with the sustainability agenda in Denmark and to guide the evolution of the project. The board met twice a year and acted as an expert panel for the project specifically, as well as for the confederation’s activities within the area of sustainable business development overall. H.K.H Crown Princess Mary participated in the advisory board meetings.

Source: Confederation of Danish Industry (2020^[12]), *Fra filantropi til forretning (From Philanthropy to Business)*, <https://www.danskindustri.dk/sdg/om-projektet/> (accessed on 19 April 2020).

While the role of the private sector in achieving the SDGs can be significant, readiness to pay for sustainability is needed to leverage this potential. Some challenges that emerge in this regard are procurement (including public procurement) and consumer preferences. The perception among business representatives is that procurement too often focuses exclusively on price, leaving limited space for a broader set of goals and a transformative agenda. Similarly, consumers are not perceived to be ready to pay for sustainability. Higher ambitions for awareness-raising as well as legislation promoting circular and sustainable businesses is needed to move forward business strategies towards sustainability.

Public-private partnerships (PPPs) in action through the SDGs – The case of Sønderborg

Through their proximity to citizens and the local business community, municipalities can incentivise PPPs that generate joint value. One good example in line with the regional development strategy priorities can be found in Sønderborg, where the municipality worked closely with local companies to improve its sustainability on various fronts.

One example of a PPP that highlights how joint efforts can align local, regional, national and global priorities is the Centre for Industrial Electronics (CIE), which was established in 2017 thanks to a partnership between the University of Southern Denmark, the region of Southern Denmark, and the companies Danfoss and Linak, which have their headquarters near Sønderborg municipality. Having suffered a shortage of engineers – as a result of the skills gap and outmigration of youth – the companies decided to invest in attracting a future workforce to the local area (Region of Southern Denmark, 2020^[13]). The CIE offers courses designed specifically to provide the skills needed by their industries. Beyond the short- to medium-term benefits to the local and regional businesses and community, the CIE offers top laboratory facilities that will benefit the entire industry for energy efficiency and lead to new business opportunities as well. It further caters for both Danish and German researchers. Now, the same partnership works to establish a Centre for Industrial Mechatronics (CIM).

Partners like Danfoss and Linak also realise the importance of showcasing the change they are promoting in their internal operations. For example, Danfoss has managed to increase energy efficiency so that they are able to produce the same output in 2019, with 45% less energy compared to 2007. After less than 3 years, the cost savings from the increased energy efficiency had already paid off the initial investments. At the same time, they also led to a reduction of GHG emissions. Initiatives such as the local ProjectZero or the Global Compact Network Denmark are important to help raise awareness of such gains among different local companies. Linak has also become a local champion of the ProjectZero's ZEROCompany programme whereby local companies commit to improve their energy efficiency. Between 2009 and 2014, Linak reduced their power consumption by 20% and gas consumption by 30%, cutting down their CO₂-emissions by more than 25%, thanks to both energy efficiency measures and photovoltaic installation to cover 12% of the company's energy consumption (ProjectZero, 2014^[14]).

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Note

¹ Targets 11.A, 11.B, and 11.C were excluded, as these constitute a special category of targets that deal with the resources to be implemented to achieve global goals, which was outside the immediate scope of the baseline study on SDG 11 in the Danish context.

Annex 3.A. SDG 11 indicators for the context of Denmark

Annex Table 3.A.1. SDG 11 targets and indicators adapted to the Danish context

SDG 11 target	UN official indicator	Comment by Statistics Denmark	Additional indicators proposed in the baseline study
11.1. By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing	No entire population groups are living in slums or informal settlements. While homeless people and individuals are living in unsuitable homes, this does not occur to the extent as to have official statistics.	<p>Indicator 1: Development of the “housing burden” (share of disposable income that goes to expenses associated with buying and owning housing)</p> <p>Indicator 2: Development of rent in public housing</p> <p>Indicator 3: The number of homeless people</p> <p>Indicator 4: The number of Danes living in disadvantaged residential areas</p>
11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	11.2.1. Proportion of population that has convenient access to public transport, by gender, age and persons with disabilities	Statistics Denmark is investigating currently whether there are data available on this indicator.	<p>Indicator 1: Prices of transport in relation to the consumer price index</p> <p>Indicator 2: Emissions of CO₂ within transport</p> <p>Indicator 3: Accessibility and distance to public transport for people with reduced mobility</p> <p>Indicator 4: Distance to public transport</p>
11.3 By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	<p>11.3.1. Ratio of land consumption rate to the population growth rate</p> <p>11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically</p>	<p>11.3.1. The indicator is calculated by Statistics Denmark based on land use measurement accounts.</p> <p>11.3.2 Through the right to participate in municipal elections, no adults (18 and over) are cut off from being able to participate in public planning and management.</p> <p>11.3.2. No data source found that can measure citizen involvement (excluding the indicator for participation in local elections)</p>	<p>Indicator 1: The relationship between the land use rate and population growth</p>
11.4. Strengthen efforts to protect and safeguard the world’s cultural and natural heritage	11.4.1. Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating	There are still no official UN definitions for measuring this indicator.	<p>Indicator 1: Number of protected properties</p> <p>Indicator 2: Number of m² protected nature</p> <p>Indicator 3: Financial means set aside for environmental protection</p>

SDG 11 target	UN official indicator	Comment by Statistics Denmark	Additional indicators proposed in the baseline study
	expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)		
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	11.5.1. Number of deaths, missing persons and persons affected by disaster per 100 000 people 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services	Statistics Denmark is investigating currently, whether there are data for this indicator. Statistics are not compiled in this area, but it is considered to occur very rarely or never.	Indicator 1: Public expenditure used for protection against climate change. Indicator 2: Insurance payment relating to cloudburst and flood
11.6. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	11.6.1. Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities 11.6.2. Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	In Denmark, all waste collection is and treatment under public control. The indicator is calculated by the Department of Environmental Science, Aarhus University.	Indicator 1: Waste in tonnes produced per inhabitant Indicator 2: Share of recycled waste
11.7. By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	11.7.1. Average share of the built-up area of cities that is open space for public use for all, by gender, age and persons with disabilities 11.7.2. Proportion of people victim of physical or genderual harassment, by gender, age, disability status and place of occurrence, in the previous 12 months	There are still no official UN definitions for measuring this indicator.	Indicator 1: Perceived safety Indicator 2: Reported sexual and violent crimes Indicator 3: Number of traffic accident fatalities Indicator 4: Area used for parks, sports facilities and other recreational areas

Note: Informal English translation.

Source: Dansk Arkitektur Center/Rambøll Management Consulting (2019^[5]), *Baseline for verdensmålene - Verdensmål 11: Bæredygtige byer og lokalsamfund (Baseline for the Global Goals - SDG 11: Sustainable Cities and Communities)*, https://dac.dk/wp-content/uploads/2019/01/Baseline_for_verdensm%C3%A5lene.pdf.

4 Policy recommendations

This final section suggests policy recommendations to enhance the territorial approach to the Sustainable Development Goals (SDGs) in Southern Denmark and to fully leverage the SDGs as a holistic framework, bringing focus on linking environmental performance to its strong socio-economic achievements and support municipalities to embrace the SDGs as a framework for planning. Finally, there is scope to increase the use of public-private partnerships (PPPs) to promote sustainable development in Southern Denmark, for which there are already leading examples in the region. Further support should also be directed to efforts undertaken by the civil society and education system to forward the 2030 Agenda.

Box 4.1. The OECD Checklist for Public Action to facilitate the uptake and implementation of the SDGs in regions and cities

The OECD Checklist for Public Action is directed to governments at all levels to facilitate the implementation of a territorial approach to the SDGs. The checklist provides action-oriented recommendations around five main categories:

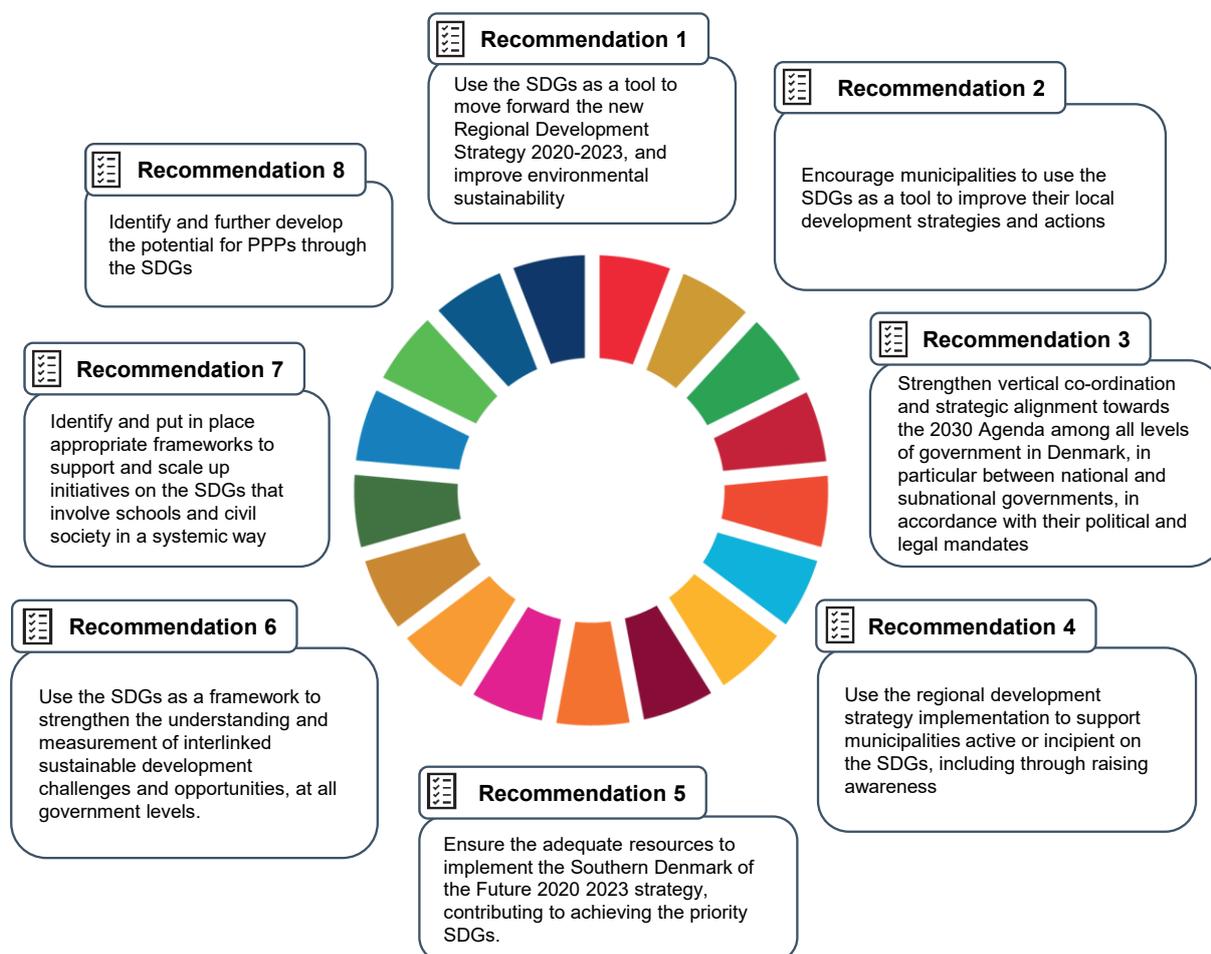
- **Planning, policies and strategies:** Use the SDGs to define and shape local and regional development visions, strategies, plans and re-orient existing ones. Cities and regions should use the SDGs to address local challenges that require a holistic approach, such as clean forms of urban mobility, affordable housing, gender equality, access to green spaces, balanced urban development, clean water and sanitation, air quality, solid waste management, territorial inequalities, or service delivery.
- **Multi-level governance:** Use the SDGs as a framework to align policy priorities, incentives, objectives across all levels of governments as well as to manage trade-offs and promote synergies across policy areas. In particular, regions and cities should be engaged in the process of Voluntary National Reviews to reflect progress at the subnational level and address regional disparities. Voluntary Local Reviews can also drive better multi-level governance of the SDGs and shed light on local initiatives;
- **Financing and budgeting:** Mainstream the SDGs in budgeting processes to ensure adequate resources are allocated for the implementation of the 2030 Agenda and to foster policy continuity across political cycles. Governments should allocate financial resources based on the identified place-based policy priorities and local challenges, and use the SDGs framework to foster multi-sectoral programmes and priorities.
- **Data and information:** Leverage SDG data and localised indicator systems to guide policies and actions for better people's lives, and to showcase the performance and positive stories of cities and regions. In particular, for more comprehensive assessment and policy responses, cities and regions should combine data and indicators at different scales, including administrative boundaries (unit for political and administrative action) and functional approaches (economic geography of where people live and work).
- **Engagement:** Use the SDGs as a vehicle to enhance accountability and transparency through engaging all territorial stakeholders, including civil society, citizens, youth, academia and private companies, in the policymaking process. Cities and regions should use a combination of various tools to engage local stakeholders, such as awareness-raising campaigns, networking opportunities, but also de-risking investments in SDG solutions through grants or loans, as well as fiscal incentives for innovative solutions towards sustainability.

Source: (OECD, 2020^[1]), A Territorial Approach to the Sustainable Development Goals: Synthesis report, OECD Urban Policy Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/e86fa715-en>.

Policy recommendations

The following policy recommendations were developed through the policy dialogue with a wide range of stakeholders in Southern Denmark with a view to moving forward with the SDGs as an integral part of the new regional development strategy. They follow the OECD Checklist for Public Action (Box 4.1). Figure 4.1 summarises the recommendations.

Figure 4.1. Eight OECD recommendations for strengthening a territorial approach to the SDGs in Southern Denmark, Denmark



Planning, policies and strategies

Figure 4.2. Recommendation 1 to use the SDGs as a tool to move forward the Regional Development Strategy 2020-2023, and improve environmental sustainability



Recommendation 1

- **Use the SDGs as a tool to move forward the new Regional Development Strategy 2020-2023, and improve environmental sustainability**

The concepts of quality of life, well-being and sustainability are already part of the regional narrative in Southern Denmark and the SDGs should be the tool to formally include these dimensions – economic, social and environmental sustainability – in all regional development activities. This will help to ensure coherence in the regional development narrative and get buy-in from all regional stakeholders. To further strengthen these efforts, the region should:

- Strengthen the link between well-being and environmental sustainability to further address current regional challenges. For example:
 - Green transition and climate objectives (SDG 11 and SDG 13) can be coupled with promoting active means of transport like cycling or walking, shared transport solutions, as well as health and well-being (SDG 3), economic benefits and innovation (SDG 9).
 - More collaboration with municipalities in environmental management is needed to strengthen the holistic management of contaminated sites and groundwater resources and achieve maximum societal benefits, thus addressing SDG 15, while providing for the long-term health and well-being of the population in Southern Denmark (SDG 3).
 - The SDGs can provide the needed framework and shared language for a whole-of-society approach to adaptation and mitigation of climate change, like for example through urban climate action projects and PPPs (SDG 17) to reduce greenhouse gas (GHG) emissions (SDG 13).
 - Leveraging on the strong innovation potential in Southern Denmark (SDG 9) in both health (SDG 3) and renewable energy sectors (SDG 13), the region can address skills gaps and attract more women to research and development (R&D) professions, and close the gender gap in part-time employment (SDG 5) through dedicated holistic strategies and partnerships (SDG 17).
- Use online information portals to publish updates on how the region is contributing to the SDGs (e.g. fremtidensyddanmark.regionsyddanmark.dk and the website for the region of Southern Denmark) and raise awareness about the 2030 Agenda among local and regional stakeholders and citizens.

Relevant international experience

City of Bonn, Germany



To support its commitment towards a low-carbon economy and international development cooperation, Bonn has embraced the 2030 Agenda and the SDGs as a framework to design, plan and implement the strategic goals of the city's 2030 Sustainability Strategy. The Strategy seeks to address the main challenges faced by the city in terms of providing affordable housing, expanding and maintaining green spaces, shifting to clean forms of transport and energy, and providing employment opportunities for all, especially for low-skilled workers.

County of Viken, Norway



The county of Viken has endorsed the SDGs as a holistic framework for the strategic planning and future development of the region and incorporated the SDGs in its regional development strategy "A Regional Planning Strategy for a Sustainable Viken 2020-2024". Through this strategy, Viken is focusing on utilising the SDGs framework for governmental transformation, drawing on the best available knowledge and indicators for the county and identifying the planetary boundaries within which long-term sustainability can be achieved.

Figure 4.3. Recommendation 2 to encourage municipalities to use the SDGs as a tool to improve their local development strategies and actions

Recommendation 2

• **Encourage municipalities to use the SDGs as a tool to improve their local development strategies and actions**

Various municipalities in Southern Denmark are already using the SDGs as a tool to assess the contribution to and coherence of their plans or actions with SDG targets. Going forward, the region should:

- Support further municipalities to shift from compliance and measurement to using the SDGs as a policymaking tool in their local planning processes.
- Promote a pro-active approach by municipalities to use the SDGs as a policymaking tool in their local planning processes.
- Help build environmental management capacity across municipalities, for more active contribution to the ambitious climate and energy policies set at the national level.

Relevant international experience

City of Kitakyushu, Japan



Kitakyushu's vision "Fostering a trusted Green Growth City with true wealth and prosperity, contributing to the world", was developed within the SDGs framework of the Future City programme launched by the Cabinet Office of the Japanese Government. The programme focuses on the three dimensions of sustainability – and 17 specific measures to implement it. Kitakyushu has identified 8 SDGs that represent the main strengths of the city, mainly linked to the environmental and based on them formulated its SDGs Future Plan.

Municipality of Kópavogur, Iceland



In 2018, Kópavogur, Iceland, formally included the SDGs into its comprehensive strategy for the municipality. A total of 15 SDGs and 36 targets have been prioritised for Kópavogur based on a review of the 65 SDGs targets prioritised by the Icelandic national government, excluding goals where the national government has the main competencies. Kópavogur's SDG strategy is meant to go beyond policy silos, using the SDGs and their targets as a platform to explore synergies between the interconnected goals.

Multi-level governance

Figure 4.4. Recommendation 3 to strengthen vertical coordination and strategic alignment towards the 2030 Agenda among all levels of government in Denmark

 **Recommendation 3**

- **Strengthen vertical co-ordination and strategic alignment towards the 2030 Agenda among all levels of government in Denmark, in particular between national and subnational governments, in accordance with their political and legal mandates**

While all levels of government are required to act within the scope of their political and legal mandates, the SDGs provide an unprecedented opportunity to align strategic efforts under one holistic framework. Enabling frameworks for vertical co-ordination and strategic alignment for the implementation of the SDGs across government levels could become incentives, if the region and the national government strive to:

- Put in place vertical co-ordination mechanisms that allow engaging better local and regional government in the SDG national strategies and actions.
- Develop an indicator framework including relevant measures for all levels of government that can help to identify and address gaps. The Voluntary National Review (VNR) process, involving regions and municipalities, is a good starting point.
- Use the SDGs to develop more partnerships to maximise impact and progress towards the 2030 Agenda and the implementation of the regional strategy.

Relevant international experience

<div style="border: 1px solid black; border-radius: 5px; padding: 5px; margin-bottom: 5px;"> Germany  </div> <p><i>In Germany, the Federal Government provides technical and financial support to municipalities to implement the SDGs through the lighthouse project "Municipalities for Global Sustainability". Since 2017, Germany has supported municipalities in eight states (Länder). A key feature of this project is the involvement of all levels of government, from national through state level to local, while connecting with international governance agents like the UN.</i></p>	<div style="border: 1px solid black; border-radius: 5px; padding: 5px; margin-bottom: 5px;"> Japan  </div> <p><i>The Japanese government has expanded its SDGs Action Plan 2018 to increase national support to local governments, focusing mainly on the localisation of the SDGs through its Future Cities initiative comprising 29 local governments, 10 of which have been selected as SDG Model Cities and are receiving financial support by the national government to implement their SDG strategies</i></p>
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Figure 4.5. Recommendation 4 to use the regional development strategy implementation to support municipalities active or incipient on the SDGs

 **Recommendation 4**

- **Use the regional development strategy implementation to support municipalities active or incipient on the SDGs, including through raising awareness**

The stakeholder engagement process launched by the region for the new strategy is a key opportunity to raise awareness on the SDGs and reach and engage beyond frontrunners. The region should continue its efforts to:

- Showcase the tangible contribution of the 2030 Agenda for local economic development, planning, investment and well-being, so that good practice can be disseminated.

Relevant international experience

VVSG, Belgium



From 2017 to 2019, the Association of Flemish Cities and Municipalities (VVSG) implemented a SDGs pilot project with the aim to integrate the SDGs in local policies and promote coherence for sustainable development. Together with 20 pilot municipalities VVSG developed practical tools and guidelines to integrate the SDGs into local policy, which were then promoted and disseminated to all Flemish municipalities. VVSG has also developed thorough awareness raising campaigns, compiled in a booklet describing 50 awareness raising initiatives such as the SDGs week where the municipalities involve local actors in different SDG-related activities and raise the SDG flag at the town hall.

State of Paraná, Brazil



In Paraná, Brazil, the Social and Economic Development Council (CEDES) is promoting a state-wide agreement to support the implementation of the SDGs with regional associations and municipalities. In August 2019, 16 out of 19 regional associations and 248 out of 399 local governments had already formalised their commitment to the 2030 Agenda. The council also works to strengthen communication between governments and civil society to better engage citizens in the implementation process of the SDGs.

Financing and budgeting

Figure 4.6. Recommendation 5 to ensure the adequate resources to implement the Southern Denmark of the Future 2020-2023 regional development strategy

Recommendation 5

- **Ensure the adequate resources to implement the Southern Denmark of the Future 2020 2023 strategy, contributing to achieving the priority SDGs**

The six strategic tracks, the regional goals as well as the cross-cutting dimension on partnership, of the regional development strategy are strongly linked to the SDGs. The SDGs could be a powerful means to implement the new strategy, ensuring that adequate resources are allocated to the related sub-strategies and action plans. To achieve this, the region should:

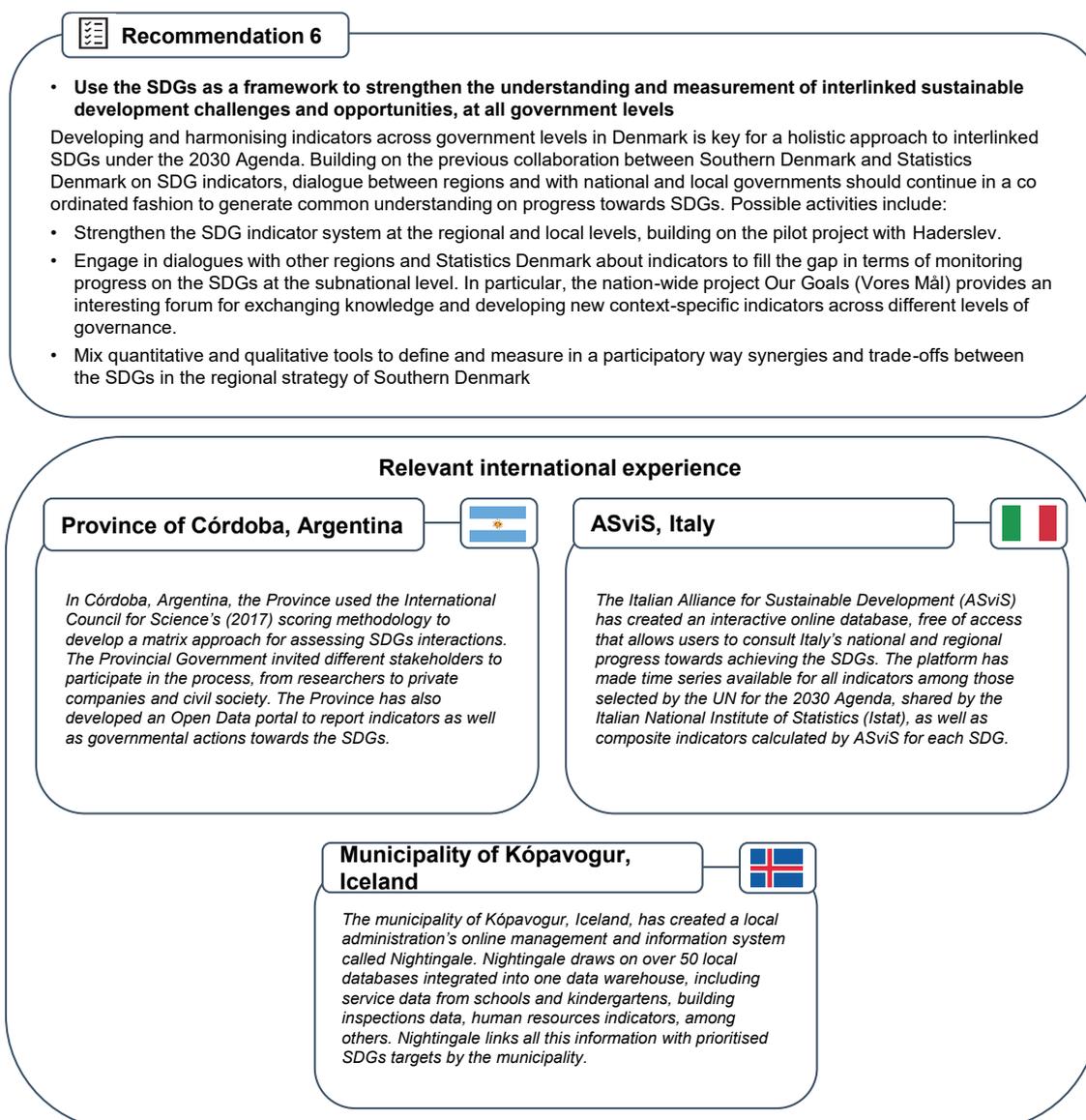
- Use the SDGs as a budgeting tool, convening stakeholders around financing decisions for achieving the priorities.
- Ensure that the strategy implementation is adequately resourced in order to meet its stated goals and targets.

Relevant international experience

<div style="border: 1px solid black; border-radius: 5px; padding: 5px; margin-bottom: 5px;"> City of Bristol, United Kingdom </div> <p><i>In the United Kingdom, Bristol has established a new mechanism to harness the needed resources locally to implement the SDGs. The Bristol City Funds is a mixed funding mechanism that provides loans and grants to deliver key priorities under the One City Plan. Bristol's council is also considering how to leverage the potential of its procurement policy to advance the implementation of the SDGs.</i></p>	<div style="border: 1px solid black; border-radius: 5px; padding: 5px; margin-bottom: 5px;"> City of Mannheim, Germany </div> <p><i>The city of Mannheim, Germany, has actively involved its population to frame a vision statement that is being used as a basis for Mannheim's budget planning. The next budget cycle will be based on the new city strategy Mannheim 2030 including its 126 impact goals and 412 local indicators.</i></p>
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Data and information

Figure 4.7. Recommendation 6 to use the SDGs as a framework to strengthen the understanding and measurement of interlinked sustainable development challenges and opportunities



Engagement

Figure 4.8. Recommendation 7 to identify and put in place appropriate frameworks to support and scale up initiatives on the SDGs that involve schools and civil society in a systemic way

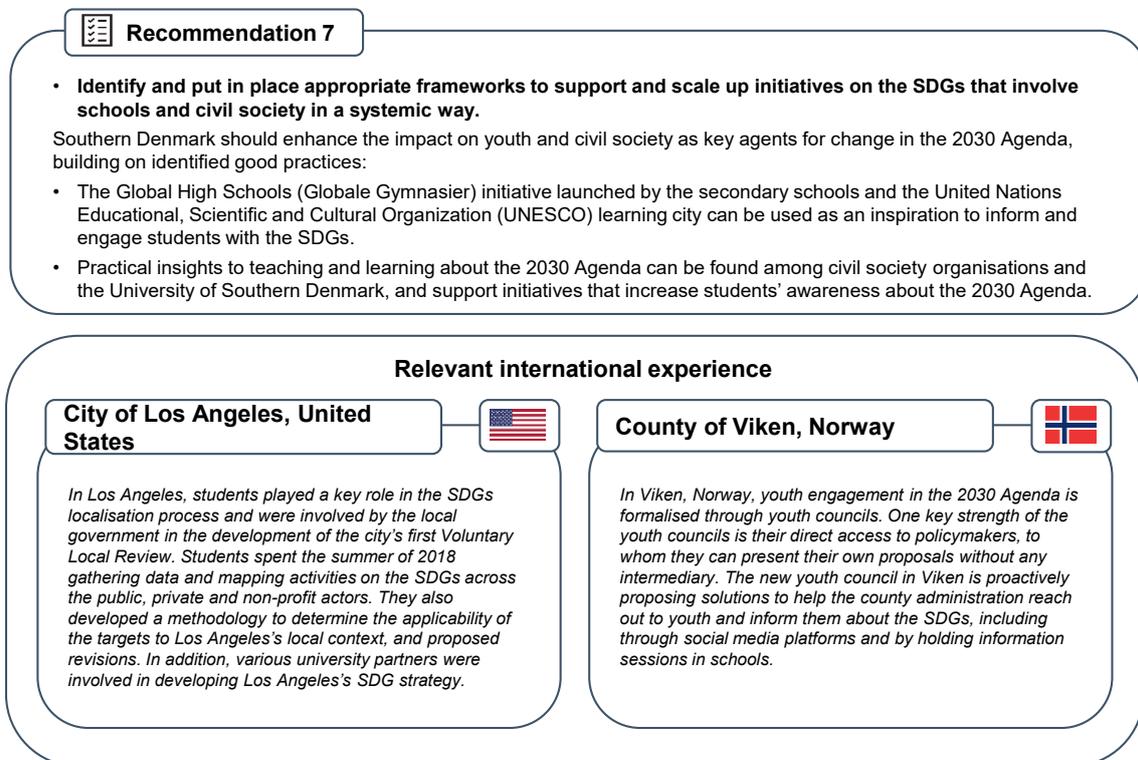
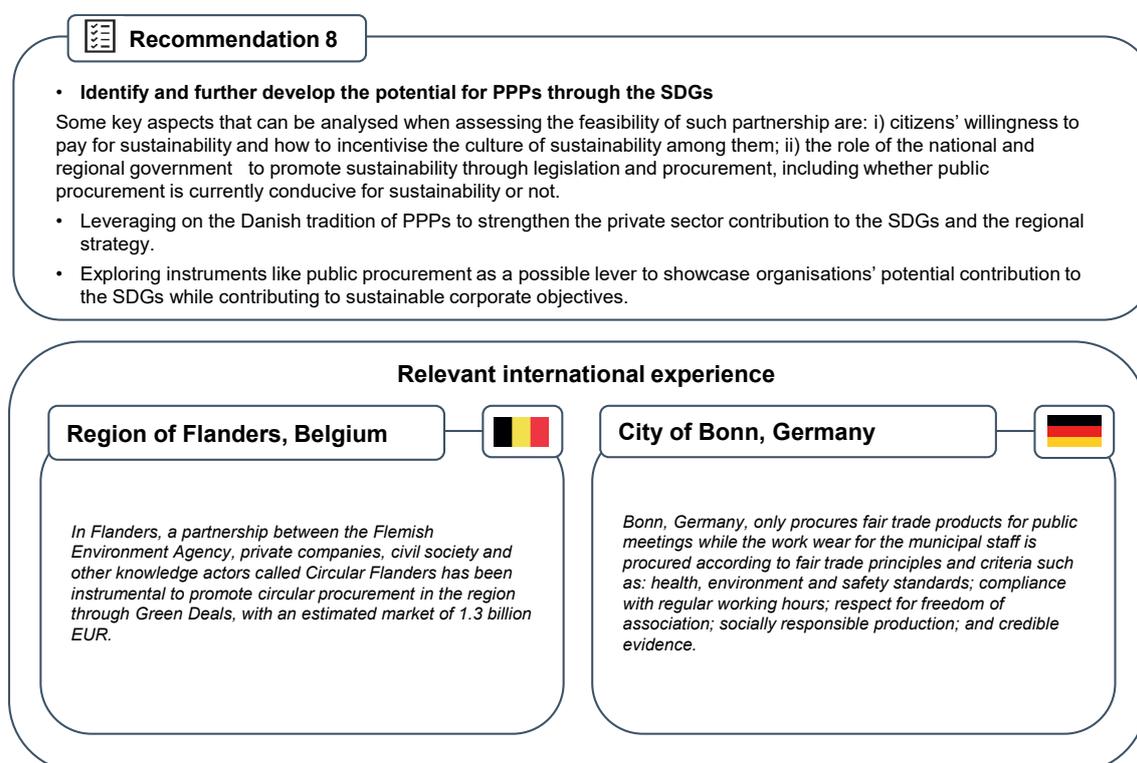


Figure 4.9. Recommendation 8 to identify and further develop the potential for PPPs through the SDGs



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