

SDG MAPPING OF CBS' RESEARCH PUBLICATIONS

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INTRODUCTION

With the ambitious goal of meeting the Sustainable Development Goals (SDGs) by 2030, governments, organizations, universities and members of civil society are faced with the task of solving complex environmental, social and economic challenges. There is an urgent need for these wicked problems to usher in a series of profound transformations, focusing on solutions for our most urgent and time sensitive needs, as well as the way we coexist and thrive on our planet.

Universities play a strategic role in supporting the sustainability transformation outlined by the SDGs. Our institutions of higher education gather and disseminate research and play an important role in defining solutions and charting paths towards achieving these Goals. Universities also play the important role of educating and spreading awareness about the SDGs, both locally and internationally.

Copenhagen Business School (CBS) embraces sustainability as a major priority and theme for its research, teaching and community outreach. As part of CBS' longstanding research agenda, the SDGs provide the opportunity for CBS to develop its business-oriented research in new and exciting ways. This report shows how the SDGs are addressed at CBS within research publications, course offerings and departments. This research can be used not only to explore the potential for achieving the SDGs, but can also contribute to applying, testing and scaling these important Goals within society at large.



SDGs IN RESEARCH

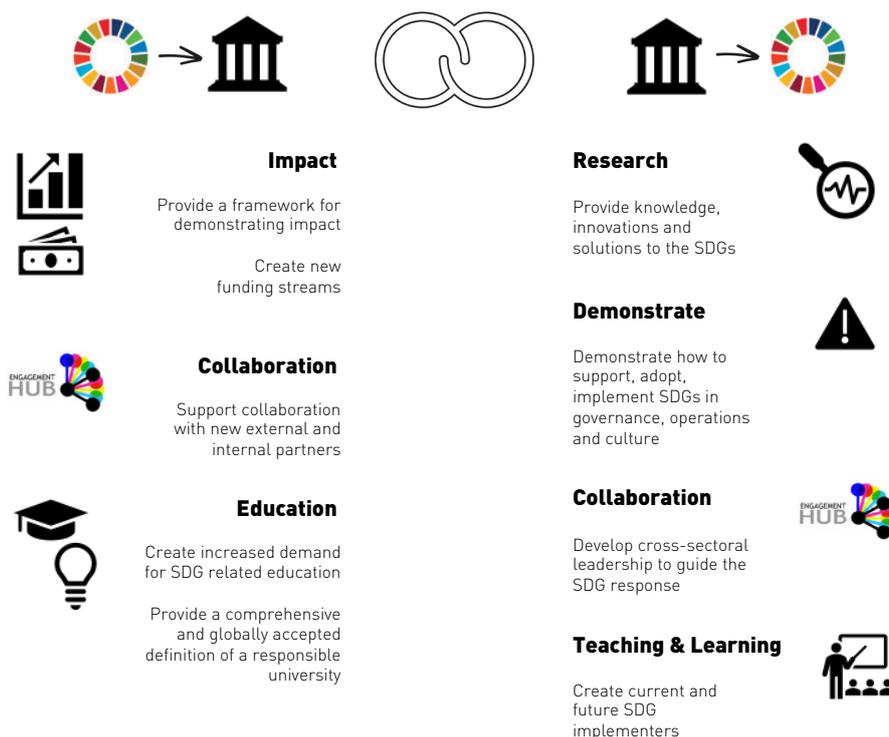
CBS is in the unique position to develop theory-and-practice based leadership in the area of sustainability research, whereby the institution may leverage its status as a business university with strong social science research capabilities.

In the context of the SDGs, CBS can directly support innovative and interdisciplinary research that demonstrates important opportunities to scale-up SDG related ambitions. In addition, the SDGs offer an important lens through which to explore CBS' research impact.

For our CBS stakeholders, this approach will reinforce and illustrate the value of collaborating with our institution. It will also provide increased educational opportunities in the field of sustainability, which can necessitate additional research accordingly. Table 1 illustrates the impact on, and responsibility of, universities engaging in SDG related research.

Research embracing the multiplicity and interdisciplinarity embedded in the SDGs opens up for new exploratory settings to be established. Living laboratory research also offers many opportunities to develop new forms of collaboration and partnership that mutually enrich the teaching and learning experience both on and off campus.

Table 1: Advantages from interaction between SDGs and academic research



THE SCOPING OF SDG RESEARCH AT COPENHAGEN BUSINESS SCHOOL

SECTION ONE



METHODOLOGY

The adopted methodology was first tested by the Universities of British Columbia, and then by the University of Toronto. The most recent version of this methodology was adopted in 2019 under the Expanded Student Engagement in Sustainability Education Annual Report (Brugman et al., 2019).

Building upon this work at Copenhagen Business School, Dr. Kristjan Jespersen and his team coded all research produced at CBS from January 1st, 1985 to February 29th, 2020. The results illustrate how the Sustainable Development Goals (SDGs) are represented and discussed throughout the universities' research publications.

In line with prior research, a maximum of 8 keywords were selected to represent each SDG. Table 2 below shows the derived keywords used at CBS. Research publication titles and their abstracts were coded based on key word searches, and subsequently assessed and categorized.

Finally, Goal 17, which reads: strengthen the means of implementation and revitalize the goal partnership for sustainable development, was excluded from the keyword search as it stresses the achievement of the other goals rather than bringing a new perspective to sustainability.

Table 2: SDG course search keywords

SDG	Keyword	SDG	Keyword
Goal 1	poverty, income distribution, wealth distribution, socio economic	Goal 9	infrastructure, innovation, industr*, buildings
Goal 2	agriculture, food, nutrition	Goal 10	trade, inequality, financial market, taxation
Goal 3	health, well being	Goal 11	cities*, urban, resilien*, rural
Goal 4	educat*, inclusive, equitable	Goal 12	consum*, production, waste, natural resources, recycl*, industrial ecology, sustainable design
Goal 5	gender, women, equality, girl, queer	Goal 13	climate, greenhouse gas, environment, global warming, weather
Goal 6	water, sanitation	Goal 14	ocean, marine, water, pollut*, conserv*, fish
Goal 7	energy, renewable, wind, solar, geothermal, hydroelectric	Goal 15	forest, biodiversity, ecology, pollut*, conserv*, land use
Goal 8	employment, economic growth, sustainable development, labour, worker, wage	Goal 16	institution, justice, governance, peace, rights

FINDINGS

The objective of the SDG mapping was to explore the publications that address sustainability. The keyword search shows that 1499 publications relate to at least one SDG, making up 19,07%, of all 7680 publications at CBS. It is important to mention that the data includes publications from 1985-2020 (though less than 50 before 1999).

Table 3: Distribution among all SDGs and the publications that address the specific SDG

SDG	Keyword	Number of publications
Goal 1	poverty, income distribution, wealth distribution, socio economic	26
Goal 2	agriculture, food, nutrition	11
Goal 3	health, well being	210
Goal 4	educat*, inclusive, equitable	195
Goal 5	gender, women, equality, girl, queer	98
Goal 6	water, sanitation	30
Goal 7	energy, renewable, wind, solar, geothermal, hydroelectric	67
Goal 8	employment, economic growth, sustainable development, labour, worker, wage	101
Goal 9	infrastructure, innovation, industr*, buildings	67
Goal 10	trade, inequality, financial market, taxation	183
Goal 11	cities*, urban, resilien*, rural	70
Goal 12	consum*, production, waste, natural resources, recycl*, industrial ecology, sustainable design	291
Goal 13	climate, greenhouse gas, environment, global warming, weather	49
Goal 14	ocean, marine, water, pollut*, conserv*, fish	2
Goal 15	forest, biodiversity, ecology, pollut*, conserv*, land use	22
Goal 16	institution, justice, governance, peace, rights	476

Table 4: SDGs with the highest share of sustainability papers

SDG	Number of publications	% of all publications (7680)
SDG with highest share of sustainability papers		
SDG 16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels)	476	6,2%
SDG 12 (Ensure sustainable consumption and production patterns)	291	3,8%
SDG 3 (Ensure healthy lives and promote well-being for all at all ages)	210	2,7%
SDG with the lowest share of sustainability papers		
SDG 15 (protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss)	22	0,29%
SDG 2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture)	11	0,14%
SDG 14 (conserve and sustainably use the oceans, seas and marine resources for sustainable development)	2	0,026%

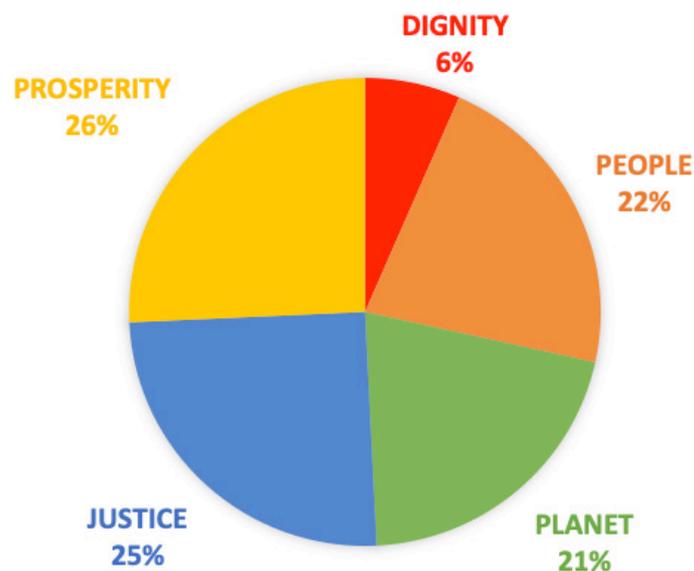
SUSTAINABLE DEVELOPMENT GOALS



In addition to the analysis of sustainability publication distribution, it is important that the results of the mapping be easily understood and relatable. While the Sustainable Development Goals maintain great significance as internationally adopted objectives, the sheer number of Goals can make it difficult to conceptualize the themes through which we understand multifaceted issues. Filho et al. (2017) propose a set of six thematic areas to group the SDGs in order to address this issue: dignity, people, planet, partnerships, justice, and prosperity.

Figure 1 summarizes the grouping of these thematic areas and the percentage of sustainability publications at CBS within each. It is important to note that since many publications are clustered under more than one SDG, they may fit under multiple thematic areas. Therefore, these thematic areas are not mutually exclusive.

Figure 1: Grouping of thematic area, and the number of sustainability publications within each



When comparing research data to the course distribution data in the “SDG Mapping of CBS’ Course Offering” InFocus Report No. 2, it is of significance to outline some discrepancies between what is offered through CBS’ research, and what is available through course offerings (Jespersen & Freese, 2020).

The most noteworthy difference is between the number of publications in the thematic areas of People (SDG 2,3,4), Planet (SDG 6, 12, 13, 14, 15) and Justice (SDG 16) and the course offerings in these fields.

Clearly, when compared to the number of courses offered at CBS in these areas (see Figure 2 below), there is a need to ensure that the research is making its way into the classroom. Another finding is that the thematic area of Dignity (SDGs 1 and 5) is underrepresented in the overall research output of the university. Dignity focuses on topics such as poverty, income distribution, gender, equality, and socioeconomic wellbeing, and may be an area requiring more focused attention.

Figure 1: Grouping of thematic area, and the number of sustainability publications within each (continued)

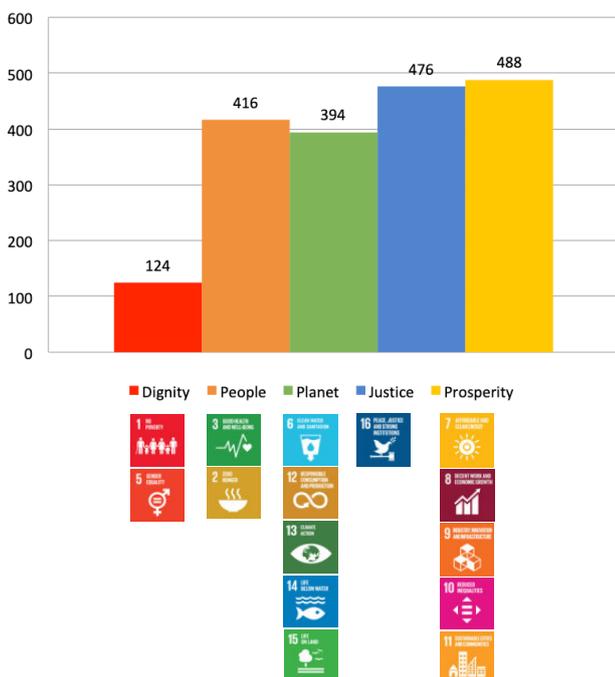
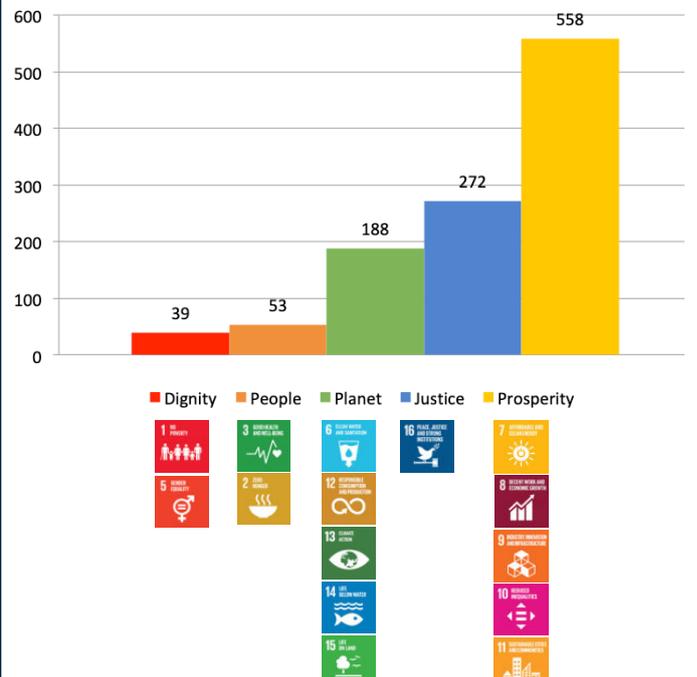


Figure 2: Number of sustainability courses per SDG thematic area





ON THE FOREFRONT OF SDG RELATED RESEARCH

SECTION TWO

Following this initial coding, it is also important to note which CBS Departments and Centres are producing research focused on the SDGs. Table 5 identifies that the Department of Strategy and Innovation, as well as the Department of Management, Society and Communication are leading the way in publishing research that contributes to the SDGs. This is followed by the Department of Management, Politics and Philosophy, and the Department of Organization.

Table 5: Departments and nr. of SDG-related publications

Department	Nr. SDG-related Publications	Percentage
Accounting	25	2%
Operations Management	54	3%
Finance	79	5%
Digitalization	92	6%
Economics	92	6%
Marketing	105	7%
International Economics, Government and Business	109	7%
Organization	176	12%
Management, Politics and Philosophy	190	13%
Strategy and Innovation	280	19%
Management, Society and Communication	298	20%

CONCLUSIONS

SECTION THREE



TO FURTHER PROMOTE SDG RESEARCH AT CBS, **EIGHT KEY AREAS** HAVE BEEN IDENTIFIED FOR **ENGAGEMENT AND FURTHER DEVELOPMENT**

1. Develop initiatives to increase awareness of the SDGs among researchers - with specific focus on Early Career Researchers;
2. Build competencies and engagement pertaining to the 2030 Agenda;
3. Broaden the understanding of how university research currently relates and connects to the SDGs;
4. Consistently map research output vis-à-vis the specific SDGs, identifying and promoting key researchers supporting this initiative;
5. Commit to directly supporting research relating to the SDGs and actively recruit research leaders in the field;
6. Explore the integration of SDGs into the annual staff performance indicators and bonus systems;
7. Promote SDG related research and work actively to illustrate how the different SDGs relate to research platforms, centres, and external research projects; and
8. Support researchers actively participating in and/or building research networks and communities focused on the SDGs.

A photograph of two men in a meeting. One man with a beard is looking at a document on the wall, while the other man with glasses is looking at him. They are in a room with a wooden table and metal chairs.

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