



# Integrating sustainable development in Stockholm

## Enabling a systematic approach to the SDGs

### Purpose

- Aims to facilitate sustainable development in Stockholm.
- ✓ Identify synergies and contrapositions in SDGs.
  - ✓ Identify clusters and goals that can serve as guidance when planning for expansion or change in the city.
  - ✓ Will enable a systematic understanding of how SDGs interact.
  - ✓ Will improve resource allocation significantly when planning for development.
  - ✓ Can serve as a guidance when designing further projects within interaction analysis, especially when studying cities.
  - ✓ May enable people to think "outside of the box".

### Procedure

- Analysing all interactions between the SDGs and then perform a network analysis.
- ✓ We analyse and discuss all interactions between the seventeen sustainable goals in the context of Stockholm City.
  - ✓ All interactions are summarized on a cross-impact matrix. In this matrix, a high row sum indicates that the goal generates positive interactions.
  - ✓ From this cross-impact matrix, a network analysis is then performed.
  - ✓ Our analysis follows a state-of-the-art methodology and involves support and interaction with participants of prior interaction analysis projects.

### Theory

- Based on a rigid and proven framework.
- ✓ Using the SDG interaction framework developed by Stockholm Environment Institute (SEI).
  - ✓ Previous studies have mainly focused on identifying clusters related to a specific cause (e.g climate change).
  - ✓ Framework used worldwide for policy planning and specific cases include Mongolia and Sri Lanka.
  - ✓ This type an analysis has previously never been done on a specific city but Sweden as a whole has been studied by SEI researchers (only for selected SDGs).

# 16

### SDGs addressed

All SDGs except for SDG 17 are included in our project. Since SDG 17 is the main goal of implementation if included it is likely that this would become the most important goal and hide other important interactions between goals.

# 240

### Interactions analysed

Each possible interaction between the 16 SDGs was analysed. Each SDG has several sub-targets (in total 169) that together generates almost 30,000 possible interactions. However, we to limit our project to the main 16 goals.

# 7

### Scoring levels

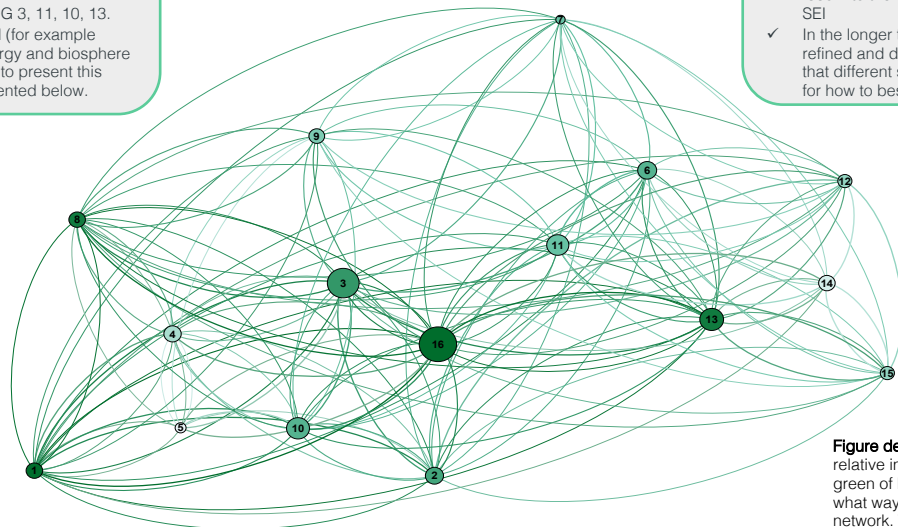
All interactions are graded on a seven stage scale: (+3) Indivisible, (+2) Reinforcing, (+1) Enabling, (0) Consistent, (-1) Constraining, (-2) Counteracting, (-3) Cancelling. The scale is generally tipped to the positive side, more positive than negative interactions.

### Results

- ✓ Clear interactions between SDGs, mainly positive
- ✓ SDG 16 is the most important for the agenda as a whole in Stockholm
- ✓ Other important SDGs are: SDG 3, 11, 10, 13.
- ✓ Some SDGs are more isolated (for example SDG 7 and 15) relating to energy and biosphere
- ✓ There are a multitude of ways to present this analysis, one of which is presented below.

### Impact

- ✓ We aim to share our findings with concerned stakeholders (eg. Stockholms Stad).
- ✓ The insights from conducting this pilot project will feed into the development of the methodology by SEI
- ✓ In the longer term, this methodology will be refined and developed into a smart application that different stakeholders can use when planning for how to best achieve the SDGs



### Project Group 10.3:

Daniel Helldén  
Martin Söderberg  
Jay Parekh  
Adam Steen  
Dennis Fageräng  
Felix Tuominen

**Figure description:** Size of node represent the relative importance of the SDG while scale of green of both Goals and interactions reflect in what way the Goal /interaction influence the network. The more darker green the more positive influence.

### Resources:

- Nilsson M, Griggs D, Visbeck M. Policy: Map the interactions between Sustainable Development Goals. Nature. 2016 Jun 15;534(7607):320-2.  
- Weitz N, Carlsen H, Nilsson M, Skånberg K. Towards systemic and contextual priority setting for implementing the 2030 Agenda. Sustain Sci. 2018 Mar 12;13(2):531-48.