

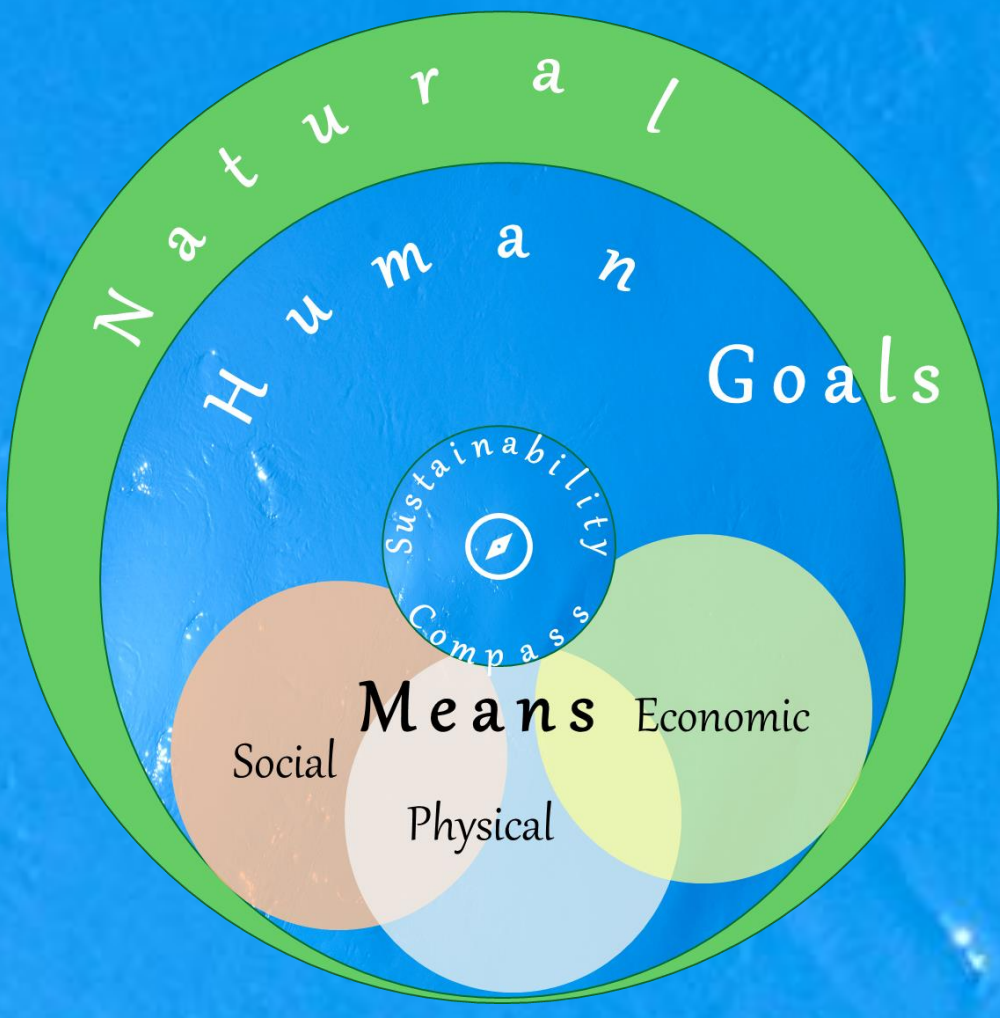
SUSTAINABILITY COMPASS

<http://www.sea.ee/marea/survey/compass>

A bottom-up method for participatory social learning to check the direction towards human prosperity and wellbeing within natural bounds



SUSTAINABILITY COMPASS



Five capitals (Forum for the Future) identify

MEANS&GOALS (Sen, 1997).

Think of your organisations a part of the whole interconnected system:

→ In which node are you placed?

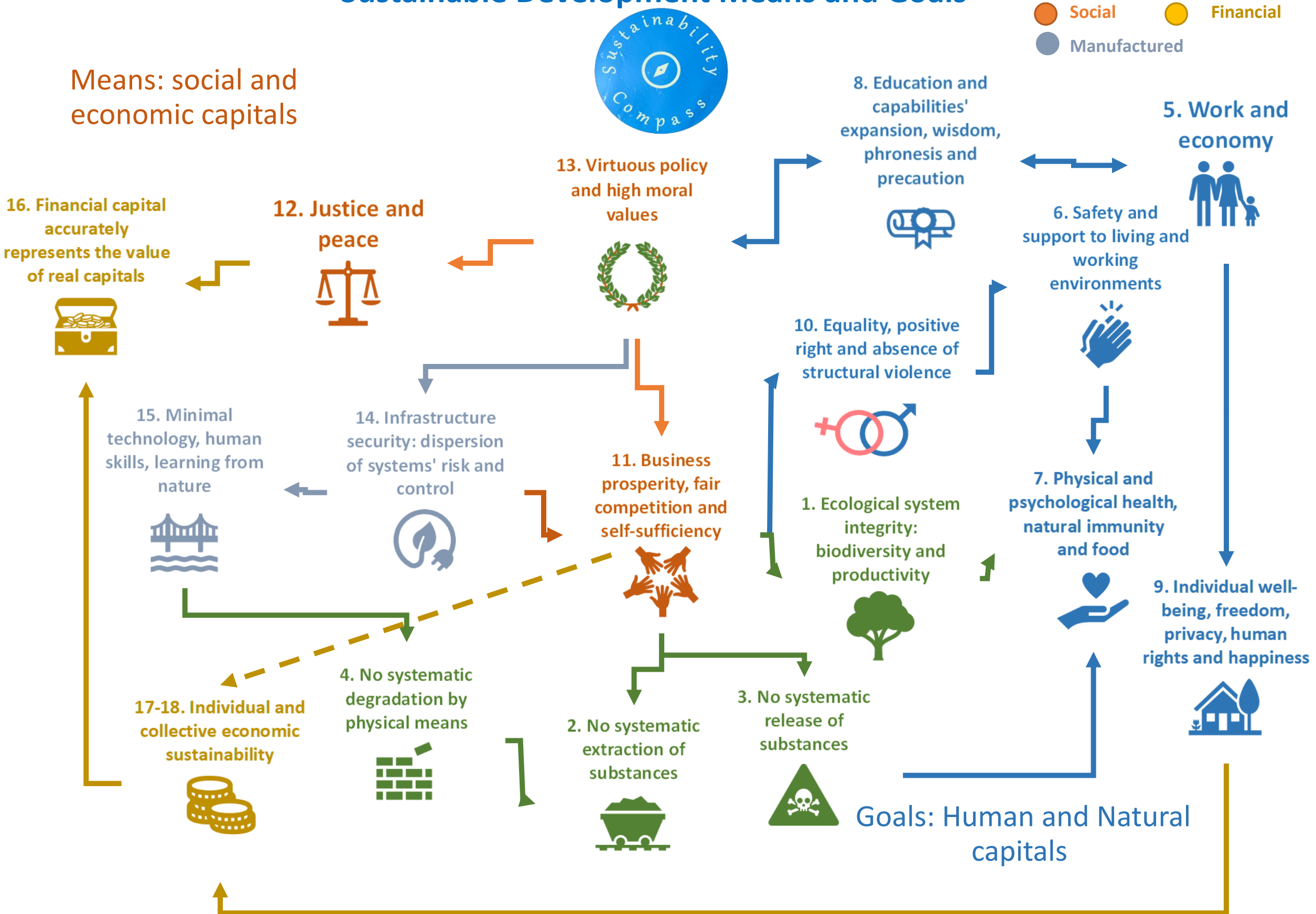
→ How do you contribute to overall sustainability?

→ What do you need from other actors?

Sustainable Development Means and Goals

- Natural
- Social
- Human
- Financial
- Manufactured

Means: social and economic capitals





SUSTAINABILITY COMPASS MEANS & GOALS

Natural systems

1. Ecological system integrity: maintaining biological diversity and productivity

1. Ecological system integrity: biodiversity and productivity



2. No systematic extraction of substances, exceeding the capacity of the environment to neutralise their harmful effects

2. No systematic extraction of substances



3. No systematic release of substances, exceeding the capacity of the environment to neutralise their harmful effects

3. No systematic release of substances



4. No systematic degradation by physical means, exceeding the capacity of the environment to neutralise their harmful effects

4. No systematic degradation by physical means



Human well-being

5. Work and economy: access to varied and satisfying opportunities for work and business, especially rural depressed areas

5. Work and economy



6. Safety and support to living and working environments

6. Safety and support to living and working environments



7. Human health: high standard of physical and psychological health through precautionary principle, to avoid to systematically increase concentrations of substances in human body, e.g. good quality of water and of GMO free and organic food

7. Physical and psychological health, natural immunity and food



8. Education and capabilities' expansion: Independent and free education, open scientific debate, wisdom, phronesis and precaution

8. Education and capabilities' expansion, wisdom, phronesis and precaution



9. Human well-being, freedom, privacy, individual human rights, peace, justice and happiness

9. Individual well-being, freedom, privacy, human rights and happiness



10. Equality between individuals and organisations, based on race, gender, age, health state or wealth, positive freedom and absence of structural violence and dominant position for assuring equal opportunities of development

10. Equality, positive right and absence of structural violence



GOALS

Social: collective institutions, regulations and social infrastructures and services

11. Business prosperity, competitiveness and self-sufficiency especially for of small scale business and depressed areas, bottom-up approaches of cooperation and avoidance of monopoly or dominant positions

11. Business prosperity, fair competition and self-sufficiency



12. Justice: assurance of trusted, effective fair, accessible and just institutional, legal and judicial services and protection of the citizens, peace, democracy and plurality, public participation and bottom-up approaches. Assurance of basic human rights of physical and psychological integrity.

12. Justice and peace



13. Virtuous policy and high moral values social structures and institutions support human rights and development and to the environmental sustainability, absence of corruption, transparency, accountability, ethics, wisdom and phronesis

13. Virtuous policy and high moral values



Physical infrastructure

14. Security of critical infrastructure: avoiding systems' risk concentration, and of relying on a unique infrastructure or organisation or losing control from users. Non-adoption of innovation when usefulness or absence of harm for individuals is not proven. Efficient, secure an less invasive infrastructure systems and technology, learning from nature. Assurance of individual freedom and privacy.

15. Minimal technology, human skills, learning from nature



15. Minimal infrastructure, technologies and processes at support of human well-being minimum use of natural resources and manufactured capital and maximum use of human work and skills (help to humans)

14. Infrastructure security: dispersion of systems' risk and control



Economy

16. Financial capital accurately represents the value of natural, human, social and manufactured capital

16. Financial capital accurately represents the value of real capitals



17. Economic sustainability for individuals

18. Economic sustainability for public/private organisations

17-18. Individual and collective economic sustainability



MEANS

THE STRUCTURE AND FUNCTIONING OF THE SUSTAINABILITY COMPASS IN THE PLANWISE4BLUE

It integrates different problems, solutions with the support of measurable indicators, and indicated the goals achieved. It represents various thematic areas (related to ecology, human well-being or social, physical and economic capitals) and their distance from the Sustainability Compass Goals

Therefore, it triangulates, sums or complement knowledge from different users and sources, this way making evidence emerging naturally

It is based on database that is provided by different actors and enables to view the existing information or add new

Anonymous contributions can be provided, as well as reference material

Filters of activities, themes and goals enable to select more specific information

Initial interest/problem	Keyword	Solution/action to be taken	Means					Feasibility	Obstacles/advantage to achievement	Indicator	Indicator unit and value	Status	Goals					Theme (capital)	Reference
[Text]	[Text]	[Text]	1. Ecological system integrity: biodiversity and productivity	5. Work and economy	11. Business prosperity, fair competition and self-sufficiency	14. Infrastructure security: dispersion of systems' risk and control	16. Financial capital accurately represents the value of real capitals	Low	[Text]	[Text]	[Text]	Achieved	1. Ecological system integrity: biodiversity and productivity	5. Work and economy	11. Business prosperity, fair competition and self-sufficiency	14. Infrastructure security: dispersion of systems' risk and control	16. Financial capital accurately represents the value of real capitals	Natural	[Text]
			2. No systematic extraction of substances	6. Safety and support to living and working environments	12. Justice and peace	15. Minimal technology, human skills, learning from nature	17. Individual economic sustainability	Medium		Value (when available)	Not yet achieved (in progress)	2. No systematic extraction of substances	6. Safety and support to living and working environments	12. Justice and peace	15. Minimal technology, human skills, learning from nature	17. Individual economic sustainability	Human		
			3. No systematic release of substances	7. Physical and psychological health, natural immunity and food	13. Virtuous policy and high moral values	18. Collective economic sustainability	High		Existing thresholds	Not achieved	3. No systematic release of substances	7. Physical and psychological health, natural immunity and food	13. Virtuous policy and high moral values	18. Collective economic sustainability	Social				
			4. No systematic degradation by physical means	8. Education and capabilities' expansion, wisdom, phronesis and precaution							4. No systematic degradation by physical means	8. Education and capabilities' expansion, wisdom, phronesis and precaution				Physical			
				9. Individual well-being, freedom, privacy, human rights and happiness								9. Individual well-being, freedom, privacy, human rights and happiness				Economic			
				10. Equality, positive right and absence of structural violence								10. Equality, positive right and absence of structural violence							

An initial interest or problem is identified

A keyword can be assigned

A possible solution or action can be proposed

This solution is associated to a mean (drop-down list). In spite of the classification of means and goals, these can be used both: some means can be intermediate goals, some goals can define measures to achieve other goals

The feasibility of the action is assessed through the drop-down list

The obstacles or advantage for the solution proposed

Possible indicators are identified

Indicators' metrics, values and thresholds (when available) are provided.

The goals achieved are described (also intermediate)

The theme/capital involved: natural, human, social, physical infrastructure or economic capital.

A final reference can be added



SUSTAINABILITY COMPASS

The Sustainability Compass can be used for visualising already collected data or for inserting new data, such as for example **Risks for birds: collision and disturbance**. In order to perform searches a **keyword**, is assigned here in this example **Bird life**.

For the initial interest on **Risks for birds: collision and disturbance** the solution or action to be done is **Minimizing impact on birds by using radars and cameras**. Another solution could be **Painting one blade black**. These solutions should be inserted into the system in two different rows and all the rest should be duplicated. The **indicators** and the **unit of measurement** in use in the stated indicator are also filled in for each line item separately.

In our example, the **feasibility** of the action of **Minimizing impact birds by using radars and cameras** was rated as **High** based on the interviews conducted with Finnish companies with existing or planned offshore operations. The obstacles were seen as **Expensive and finding the necessary equipment may be difficult**. A qualitative description of the identified obstacle and the status of the solution was marked as **Achieved**. An explanation of the possible advantage can be added. The indicator identified for this issue by the researchers was **Bird mortality** with the **indicator unit** as **Number of birds killed by wind turbines**.

Initial interest/problem	Keyword	Solution/action	Means	Feasibility	Obstacle/advantage	Status	Indicator	Unit	Goals	Theme/capital	References
Risks for birds: collision and disturbance	Bird life	Minimizing impact on birds by using radars and cameras	15. Tehokkaat, turvalliset ja vähemmän invasiiviset infrastruktuuriturvajärjestelmät ja -teknologiat, joissa otetaan oppia luonnosta. Yksilön vapauden ja yksityisyyden turvaaminen	High	Expensive and finding the necessary equipment may be difficult	Objective achieved	Bird mortality	Number of birds killed by wind turbines/time	1. Ekologisen järjestelmän eheys: biologisen monimuotoisuuden ja tuottavuuden säilyttäminen	Natural	Interview with companies
Risks for birds: collision and disturbance	Bird life	Painting one blade black	15. Tehokkaat, turvalliset ja vähemmän invasiiviset infrastruktuuriturvajärjestelmät ja -teknologiat, joissa otetaan oppia luonnosta. Yksilön vapauden ja yksityisyyden turvaaminen	High	Expensive and finding the necessary equipment may be difficult	Objective achieved	Bird mortality	Number of birds killed by wind turbines/time	1. Ekologisen järjestelmän eheys: biologisen monimuotoisuuden ja tuottavuuden säilyttäminen	Natural	Interview with companies

The Sustainability Compass as it looks in the PlanWise4Blue

SUSTAINABILITY COMPASS

PW4B - Estonia vers 2021

PW4B - Gulf of Finland

Item card

Activities performed

wind

Location

Finland, no location

Initial interest/problem

Reduced catch, loss of fishing grounds during

Keyword

Fishery impacts

Solution/Action to be done

Compensation to commercial fishers

Feasibility

high

Obstacles for achievement

None

Status

Achieved

Indicator

Cost of compensation

Indicator unit

Effect on catch volume, travel time, gear conflict

Mean/Goal

18. Economic sustainability for public/private organisations

Theme

Economy

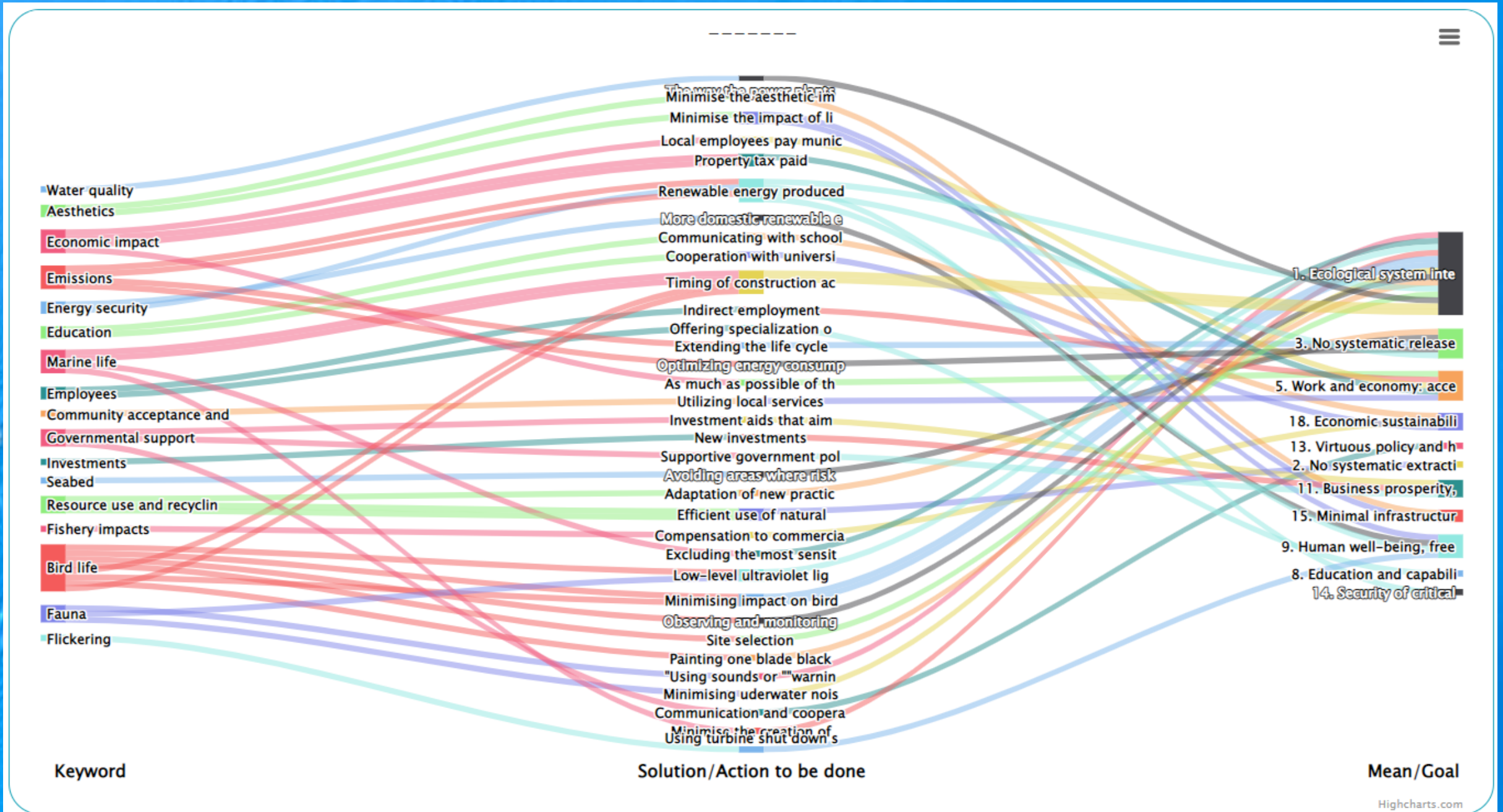
Cancel

Save

government policies

Governmental cooperation with

cooperation has not



SUSTAINABILITY COMPASS

The Sustainability Compass geospatial tool is worth to be used because:

- Allows interested citizens or organisations to get a wider perspective on possible problems, activities or solutions for specific purposes, fields or geographical locations, in order to understand best practices, also in relation to own objectives
- The Sustainability Compass is a simple tool, which aims to avoid too complex and therefore too uncertain interactions, and to identify key factors and indicators, which are more relevant and decisive for the specific field
- The precautionary principle avoids getting involved in too complex and very uncertain matters, and to stop a step before
- In case of high uncertainty, the choice could be even doing nothing or stick to old practices or technologies and avoid solutions, whose impacts might be unknown, or choosing approaches that imitate the natural functioning of ecosystems

SUSTAINABILITY COMPASS

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<http://www.sea.ee/marea/survey/compass>



Realised for the Interreg Central Baltic project



From MARine Ecosystem Accounting to integrated governance for sustainable planning of marine and coastal areas