

# Statistical monitoring of sustainable development at global, EU and national level

Case study:  
Monitoring sustainable development in Poland

Silesian Centre for Regional Surveys

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*Senior statistician*

# Content

## 1. Sustainable development indicator set (SDI set) for Poland

## 2. SDI Application



# SDI set for Poland

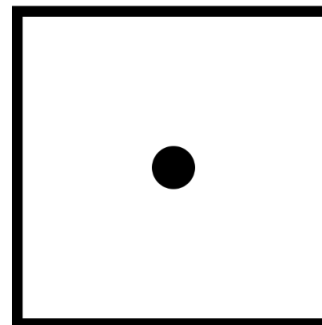
## 1. **Before** 2030 Agenda

- SDI set genesis
- Conceptual foundation
- SDI selection criteria
- SDI grouping method



## 2. **After** 2030 Agenda

- Frame of reference



Icons by Mr Balind and Magicon from Noun Project

# SDI set genesis

- **Grant agreement** between EC and Statistics Poland

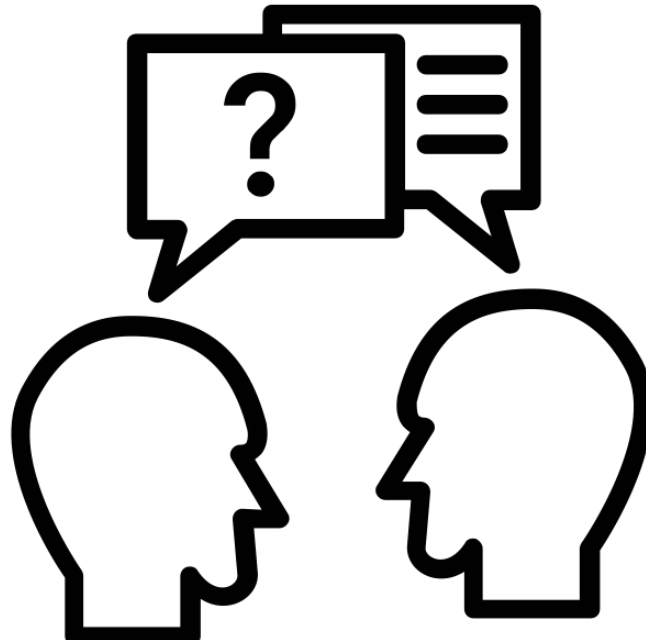


- **Project**

*Support for the Development of Indicator Sets  
for Monitoring National Sustainable Development  
Strategies – Developing and Implementing  
a Polish Set of Sustainable Development Indicators*

## Question 1

What do you think was the biggest **challenge** to the project?

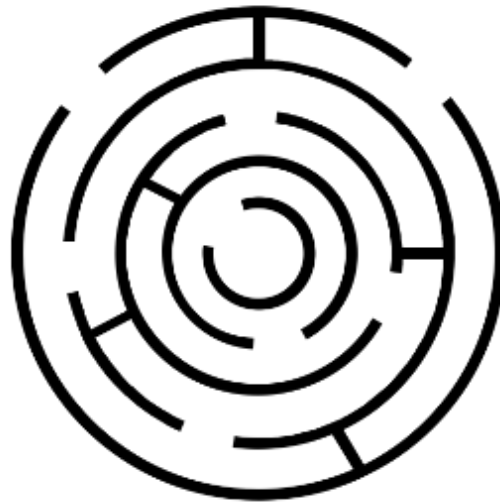


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# Conceptual foundation for monitoring SD

- **Challenge**

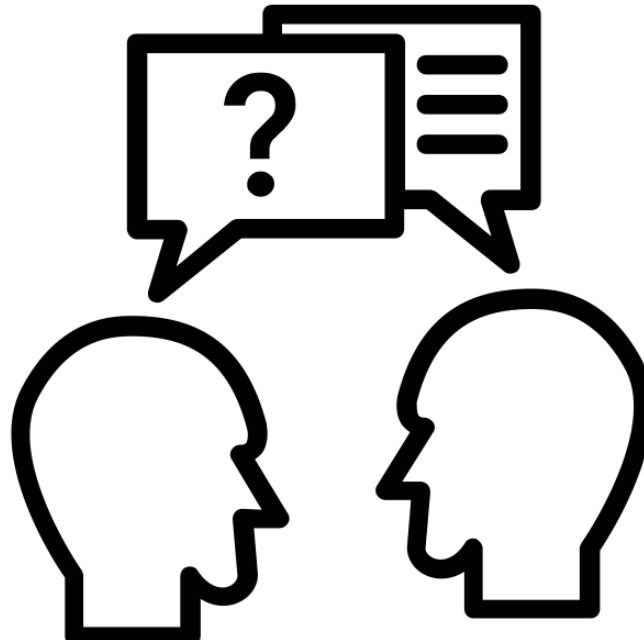
no Sustainable Development Strategy in Poland



Icon by Mood Design Studio from Noun Project

## Question 2

What do you think was the **solution**?

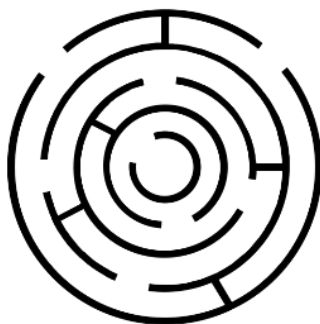


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# Conceptual foundation for monitoring SD

- **Challenge**

no Sustainable Development Strategy in Poland



- **Solution**

EU documents related to SD  
+ Polish strategic documents related to SD  

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= **SDGs for Poland**

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# Conceptual foundation – system of integrated strategies

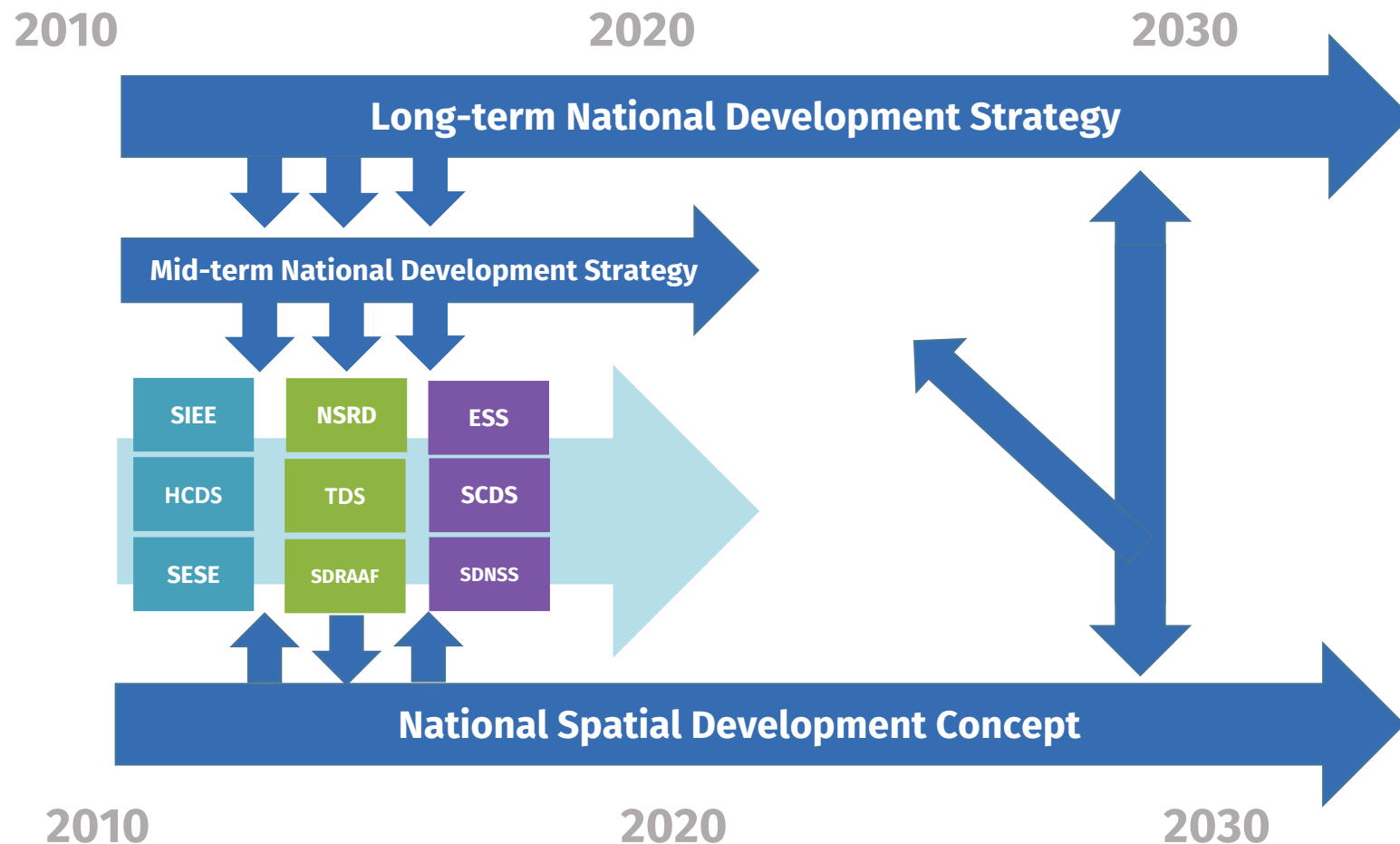


Fig. 1. New strategic order (system of 9 integrated strategies)

Source: Poland 2030. The Third Wave of Modernity. Long-term National Development Strategy

# Conceptual foundation – system of integrated strategies

**SIEE** – Strategy for Innovation and Efficiency of the Economy

**HCDS** – Human Capital Development Strategy

**SESE** – Strategy for Energy Security and the Environment

**NSRD** – National Strategy of Regional Development

**TDS** – Transport Development Strategy

**SDRAAF** – Strategy for Sustainable Development of Rural Areas,  
Agriculture and Fisheries

**ESS** – Efficient State Strategy

**SCDS** – Social Capital Development Strategy

**SDNSS** – Strategy for Development of the National Security System

# Conceptual foundation – 10 Themes (EU SDS)

Socioeconomic development

Sustainable consumption and production

Social inclusion

Demographic changes

Public health

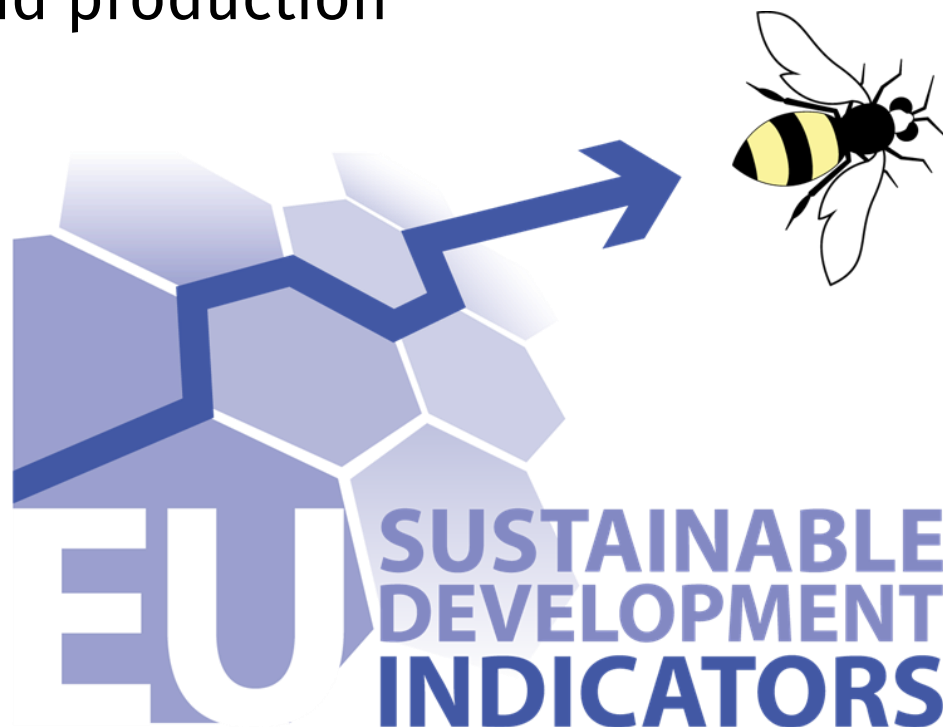
Climate change and energy

Sustainable transport

Natural resources

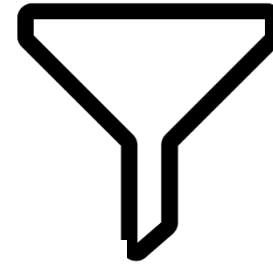
Global partnership

Good governance



# SDI selection criteria

- Presence on the list of EU SDS indicators
  - International comparability
  - Data availability
  - Reliability of data source
- 
- Correctness requirements
    - substantive link with SD
    - formal correctness



Icons by Kirby Wu and Arthur Shiain from Noun Project

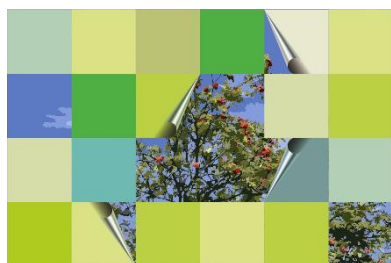
# SDI grouping method – DOMAINS



SOCIAL DOMAIN



ECONOMIC DOMAIN

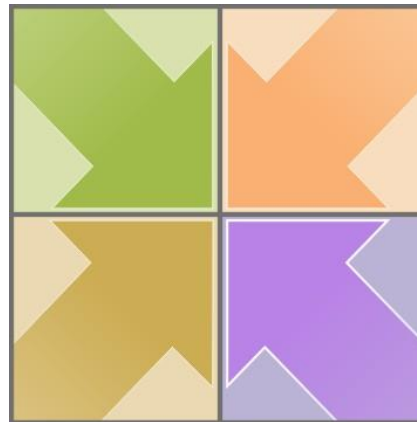


ENVIRONMENTAL DOMAIN



INSTITUTIONAL-POLITICAL DOMAIN

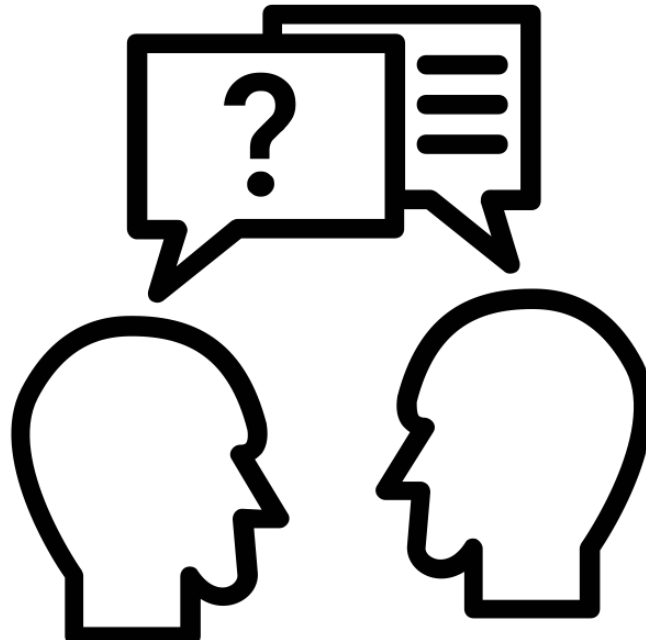
# SDI grouping method – INTEGRATED DOMAIN



# SDI grouping method – INTEGRATED DOMAIN

## Question 3

What do you think **INTEGRATED DOMAIN** is all about?



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# SDI grouping method – AREAS

## ▼ Social domain

- ☐ Demographic changes
- ☐ Public health
- ☐ Poverty and living conditions
- ☐ Education
- ☐ Access to labour market
- ☐ Public safety
- ☐ Sustainable consumption patterns

## ▶ Economic domain

## ▶ Environmental domain

## ▶ Institutional-political domain

# SDI conceptual foundation and grouping method

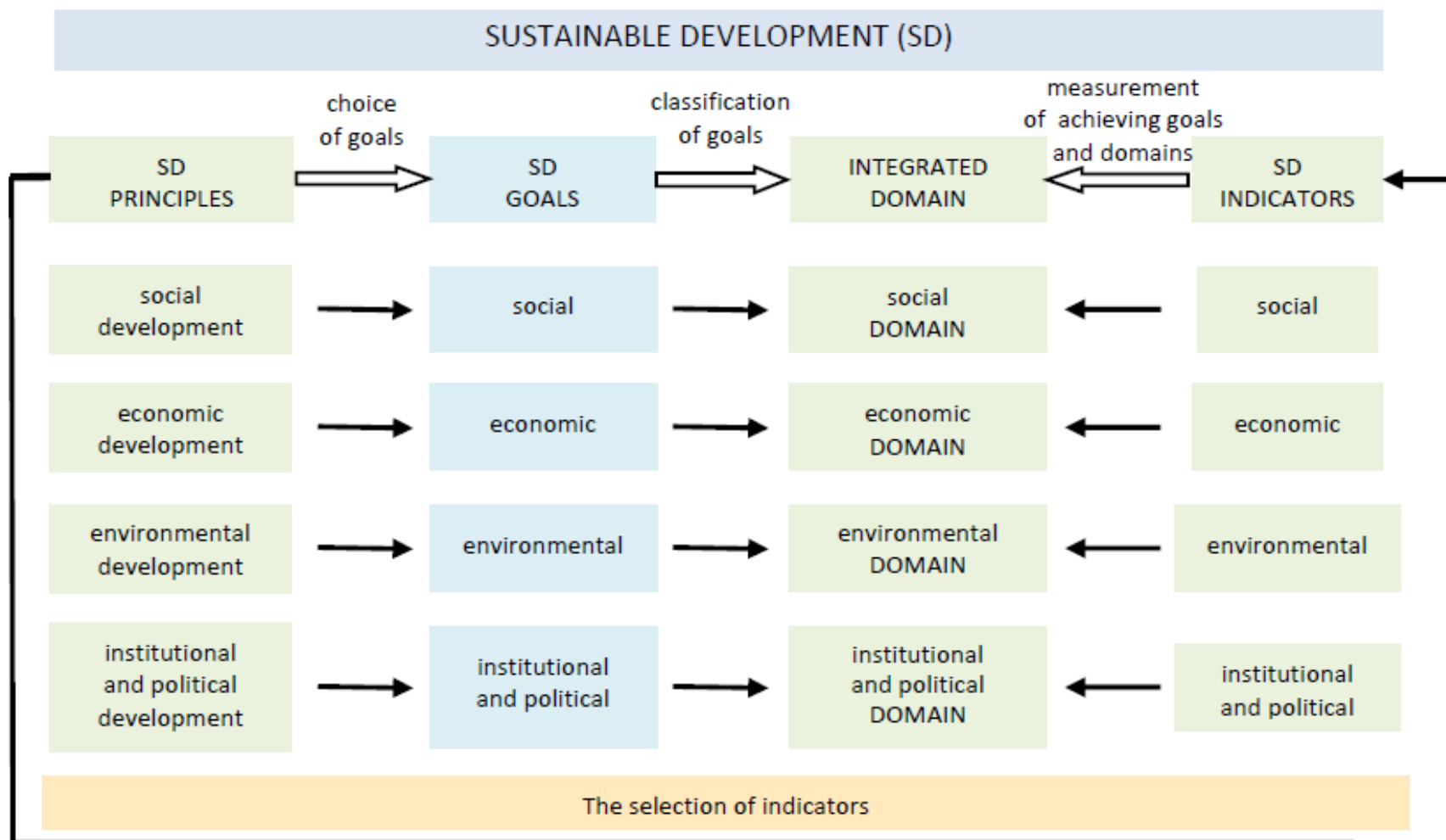


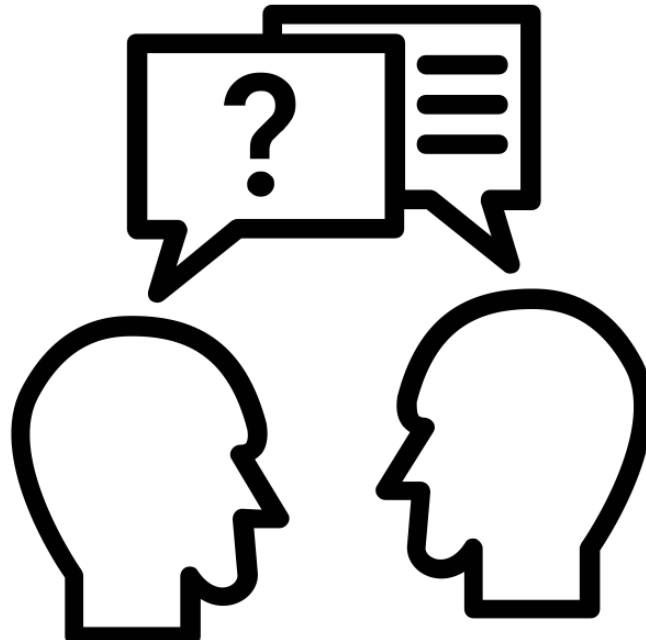
Fig. 2. Construction and classification of national sustainable development indicators

Source: *Sustainable Development Indicators for Poland*

# SDI grouping method – INTEGRATED DOMAIN

## Question 4

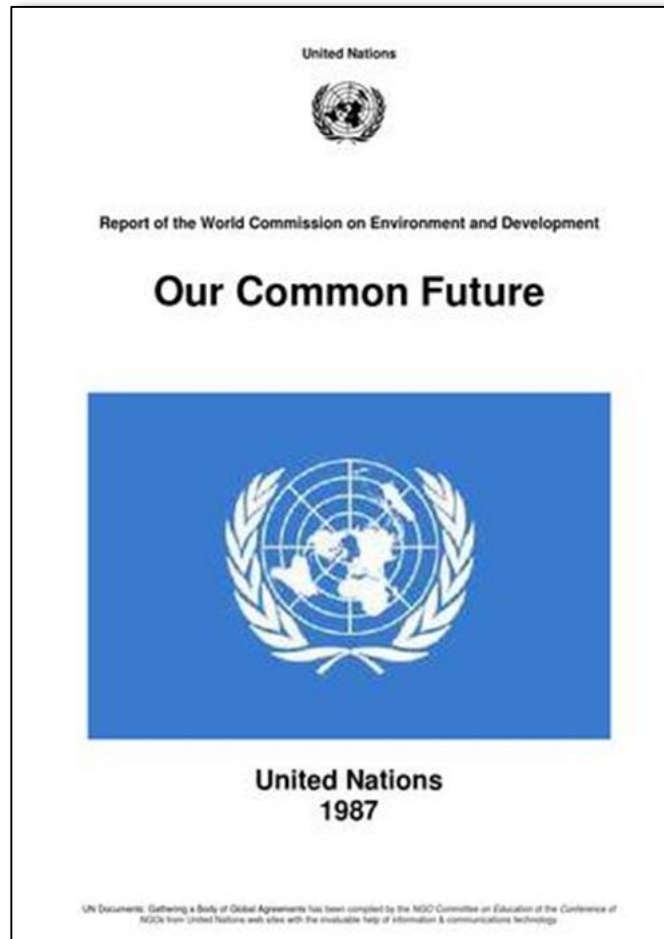
What is the **key principle** for the **SDI** set in your opinion?



Icon by Vectors Market from Noun Project

# SDI grouping method – INTEGRATED DOMAIN

The principle of **intra- and intergenerational equity**



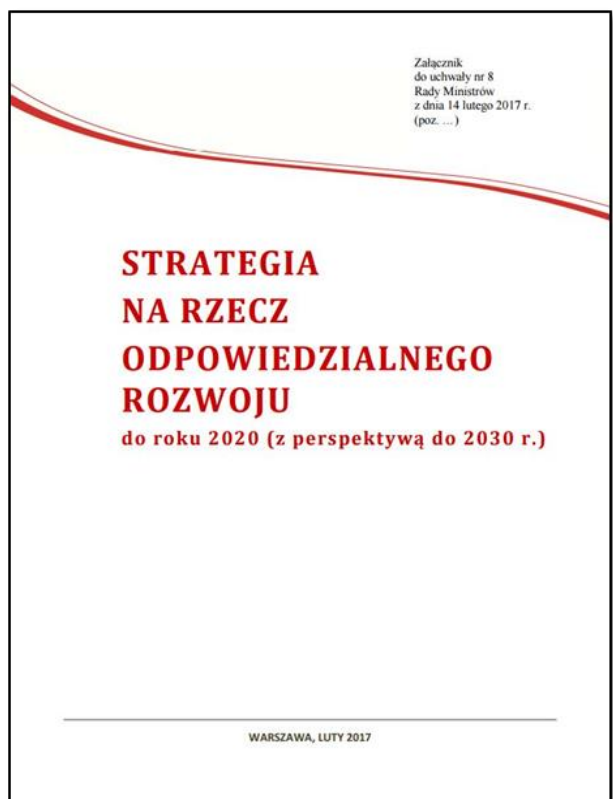
# SDI set for Poland before 2030 Agenda

- Set of **77** SDIs grouped into 4 domains and 24 areas (the project result) – **2011**
- Set of **101** SDIs (further work result) – **2015**
  - domain and area framework
  - SDI **profile** revision
  - Polish **SDGs** update
  - **2 new areas**
  - **40 new SDIs**
  - **Key** indicators



# SDG indicator set for Poland after 2030 Agenda (in progress)

## Frame of reference – Strategy for Responsible Development



### Specific Objective I



### Specific Objective II



### Specific Objective III



# SDG indicator set for Poland after 2030 Agenda (in progress)

## Grouping method – 17 SDGs



# SDI set for Poland after 2030 Agenda



**HIGH-LEVEL POLITICAL FORUM  
ON SUSTAINABLE DEVELOPMENT**

**POLAND IS PART OF THE 2018  
VOLUNTARY NATIONAL REVIEW OF  
THE HIGH-LEVEL POLITICAL FORUM  
ON SUSTAINABLE DEVELOPMENT**

# SDI Application – strategy for SDI dissemination

## Deployment of **SDI Application** on the Information Portal of Statistics Poland (**2016**)

### NATIONAL MODULE

Poland  
European Union  
EU Member States



### REGIONAL MODULE

Poland  
Regions  
Voivodships



### LOCAL MODULE

Poland  
Powiats



# SDI Application after 2030 Agenda

## 2030 AGENDA MODULE with global indicators for Poland (2017)

### 2030 AGENDA MODULE

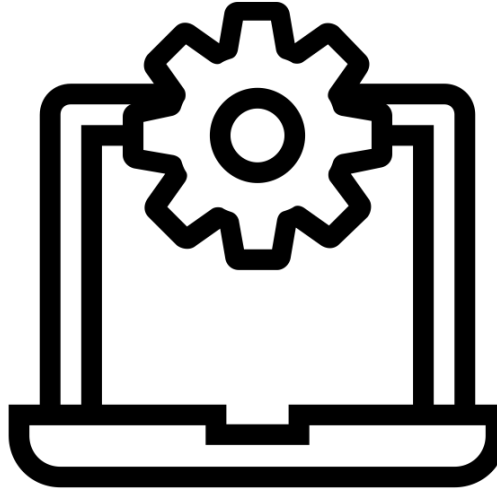
SDG indicators for Poland



# SDI Application after 2030 Agenda

## SDI **Application revamp** (in progress)

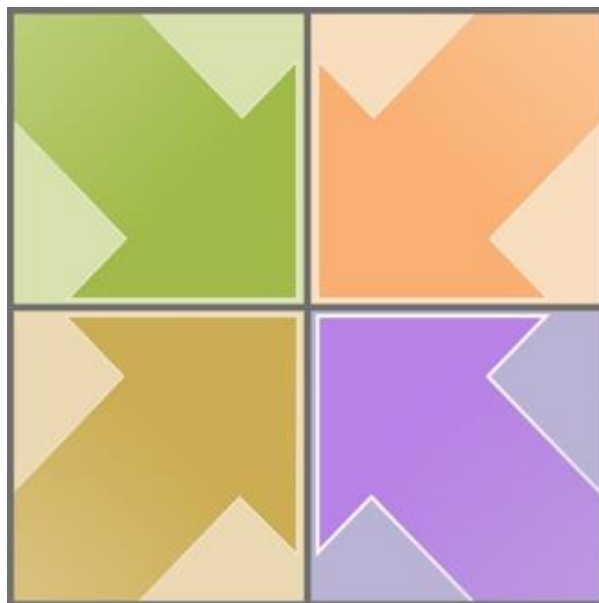
- New grouping method (**SDG** indicators vs **SDIs**)
- New visual identification of Statistics Poland
- New name and user interface



Icon by Dinosoft Labs from Noun Project

# Appendix

National **SDI set** for Poland grouped into **4 domains**  
and **25 areas**



Icon by Dinosoft Labs from Noun Project

# Social domain

No.	Area/ indicator name/	Strategic documents
<b>Area: Demographic changes</b>		
1.	Total fertility rate	LNDS, NDS
2.	Net international migration rate	NDS
3.	Actual increase/ decrease rate of the population <b>KEY INDICATOR!</b>	NDS
4.	Population at post-working age per 100 persons at working age	NSRD
<b>Area: Public health</b>		
5.	Healthy Life Years at 65	NDS
6.	Standardised death rates caused by circulatory system diseases, malignant neoplasms, chronic lower respiratory diseases and diabetes mellitus	NDS
7.	Euro Health Consumer Index (EHCI)	LNDS, NDS
8.	Exposure of urban population to oversize impact of the PM10 dust <b>KEY INDICATOR!</b>	SESE
9.	Exposure of urban population to air polluted with ozone	SESE
<b>Area: Poverty and living conditions</b>		
10.	At-risk-of-constant poverty rate	HCDS
11.	People at risk-of-poverty or social exclusion <b>KEY INDICATOR!</b>	NDS, NDS, PA
12.	Inequality of income distribution	HCDS
13.	Debt of households	HCDS
14.	Dwellings completed per 1000 population aged 25-34	HCDS
15.	Average monthly income per capita in household	NSRD

## Social domain (cont.)

No.	Area/ indicator name/	Strategic documents
<b>Area: Education</b>		
16.	Adults participating in education or training (aged 25-64)	NSRD, HCDS, NDS, PA
17.	Share of children aged 3-4 covered by pre-primary education in rural areas	HCDS, SDRAAF
18.	Public expenditure on education in relation to GDP	NDS
19.	Early leavers from education and training <b>KEY INDICATOR!</b>	HCDS, NDS, NSRD, PA
20.	Share of persons aged 25-64 with at least lower secondary education	HCDS
<b>Area: Access to labour market</b>		
21.	Share of people living in jobless households	NDS, HCDS
22.	Long-term unemployment rate (LFS) <b>KEY INDICATOR!</b>	HCDS
23.	Long-term unemployment rate (LFS)	NSRD
24.	Employment rate of disabled persons (LFS)	LNDS, HCDS, NDS
25.	Gender pay gap	PA
26.	Employment rate of women with the youngest child up to 5 years old (LFS)	HCDS, LNDS
<b>Area: Public safety</b>		
27.	Number of fatalities in road accidents per 1 million inhabitants	National Transport Policy for 2006-2025
28.	Number of crimes ascertained by the Police per 1000 inhabitants <b>KEY INDICATOR!</b>	ESS
<b>Area: Consumption patterns</b>		
29.	Structure of passenger cars by age groups	TDS
30.	Electricity consumption in households	SESE
31.	Structure of average monthly per capita expenditures in households by kind <b>KEY INDICATOR!</b>	NSRD

# Economic domain

No.	Area/ indicator name/	Strategic documents
	<b>Area: Economic development</b>	
32.	Growth of gross domestic product per capita	LNDS
33.	Investment rate	NSRD, NDS
34.	Regional differentiation of GDP per capita in PPP at NUTS 3 level	NSRF
35.	General government debt in relation to GDP	NDS
36.	Water intensity of the economy	NDS, SESE, SIEE
37.	Transport intensity of GDP	National Transport Policy for 2006-2025, NDS
38.	Energy consumption of transport in relation to GDP	National Transport Policy for 2006-2025
39.	Result of the general government sector in relation to GDP	PA
40.	GDP per capita at PPP <b>KEY INDICATOR!</b>	NSRD, NDS
41.	Gross savings as percentage of GDP	LNDS
	<b>Area: Employment</b>	
42.	Employment rate of persons aged 20-64 (LFS)	LNDS, HCDS, NDS, PA
43.	Duration of working life	NDS
44.	Percentage of young people neither in employment nor in education and training (NEET) <b>KEY INDICATOR!</b>	LNDS, HCDS, NDS
45.	Activity rate (LFS)	HCDS, NSRD, SDRAAF

## Economic domain (cont.)

No.	Area/ indicator name/	Strategic documents
<b>Area: Innovativeness</b>		
46.	Share of net revenues from sales of innovative products in net revenues from sales	SIEE
47.	Human resources in science and technology	SIEE
48.	Labour productivity	NDS
49.	Expenditures on R&D in relation to GDP	LNDS, NSRD, SIEE, AP
50.	Eco-innovation indicator	SIEE
51.	Number of patent applications to the European Patent Office per 1 million inhabitants <b>KEY INDICATOR!</b>	LNDS
<b>Area: Transport</b>		
52.	Intermodal freight transport by standard gauge railway transport	National Transport Policy for 2006-2025, TDS, NDS
53.	Share of railway and inland waterway transport in total transport	TDS, LNDS, National Transport Policy for 2006-2025, NDS
54.	Share of the length of railway lines adjusted to the speed of 160 km/h and more in total length of railway lines operated	TDS, LNDS, National Transport Policy for 2006-2025, NDS
55.	Number of passenger transport per capita in urban areas <b>KEY INDICATOR!</b>	NSRD, TDS
<b>Area: Production patterns</b>		
56.	Resource productivity	SIEE
57.	Share of agricultural land of organic farming in the total area of agricultural land	LNDS, SDRAAF
58.	Organizations with Eco-Management and Audit Scheme EMAS	SESE
59.	Percentage of green public procurements	SESE, SIEE, NDS
60.	Percentage of agricultural products samples of inadequate marketable quality <b>KEY INDICATOR!</b>	SDRAAF, NDS

# Environmental domain

No.	Area/ indicator name/	Strategic documents
<b>Area: Climate change</b>		
61.	Greenhouse gas emissions in CO <sub>2</sub> equivalent	<i>Poland's Climate Policy</i>
62.	Greenhouse gas emissions by sector	<i>Poland's Climate Policy, SESE, TDS</i>
63.	Total greenhouse gas emissions per unit of energy consumed <b>KEY INDICATOR!</b>	<i>Poland's Climate Policy, SESE</i>
<b>Area: Energy</b>		
64.	Share of energy from renewable sources in gross final energy consumption <b>KEY INDICATOR!</b>	<i>Energy Policy of Poland until 2030, SESE, LNDS, NDS</i>
65.	Renewable energy in the consumption of transportation fuels	<i>Energy Policy of Poland until 2030, SESE, NDS</i>
66.	Proportion of outlays on fixed assets in the field of non-conventional energy sources	<i>Energy Policy of Poland until 2030, SESE</i>
67.	Proportion of outlays on fixed assets in the field of non-conventional energy sources	<i>LNDS, NDS</i>
<b>Area: Air protection</b>		
68.	Emission of air pollutants by means of road transport per 100 km <sup>2</sup>	<i>National Transport Policy for 2006-2025, SRT</i>
69.	Average emission of CO <sub>2</sub> per 1 km from new passenger cars	<i>TDS, National Transport Policy for 2006-2025</i>
70.	Air quality indicator = (the number of measured zones where the permitted PM <sub>10</sub> /46 level was exceeded) <b>KEY INDICATOR!</b>	<i>SESE</i>
71.	Emission of acidifying pollutants per 1 km <sup>2</sup>	<i>LNDS, SESE</i>
<b>Area: Sea ecosystems</b>		
72.	Size of fishing fleet <b>KEY INDICATOR!</b>	<i>SDRAAF</i>

## Environmental domain (cont.)

No.	Area/ indicator name/	Strategic documents
<b>Area: Fresh water resources</b>		
73.	Water intensity of industry	SESE, SIEE
74.	Population connected to wastewater treatment plants of at least the second degree	SESE
75.	Water withdrawal per capita <b>KEY INDICATOR!</b>	SESE
76.	Capacity of small water retention facilities	PA
<b>Area: Land use</b>		
77.	Share of built-up and urban areas in total area	NDS, SESE
78.	Share of devastated and degraded land requiring reclamation in total area	NSRD
79.	Forest cover	National Forest Policy, SESE
80.	Share of area within applicable local spatial management plans in the total area <b>KEY INDICATOR!</b>	SESE, NSDC, NSRD
<b>Area: Biodiversity</b>		
81.	Share of protected areas in total area	NSDC
82.	Share of Natura 2000 areas in total area <b>KEY INDICATOR!</b>	NSCD
83.	Forest trees damaged by defoliation	National Forest Policy, SESE
84.	Farmland Bird Index FBI	SESE, LNDS, SDRAAF, NDS
<b>Area: Waste management</b>		
85.	Non-mineral waste generated per capita	SESE
86.	Municipal waste generated per capita <b>KEY INDICATOR!</b>	NDS, SESE
87.	Municipal waste treated by landfilling per capita	LNDS, NDS, SESE
88.	Share of municipal waste collected selectively in the total amount of municipal waste	NSRD, PA
89.	Recycling of packaging waste	SESE

# Institutional-political domain

No.	Area/ indicator name/	Strategic documents
<b>Area: Financing of sustainable development</b>		
90.	Official Development Assistance (ODA) for developing countries <b>KEY INDICATOR!</b>	–
91.	Polish direct investments in developing countries	–
<b>Area: Trade globalization</b>		
92.	Imports from developing countries by income groups <b>KEY INDICATOR!</b>	–
<b>Area: Coherence and effectiveness policy</b>		
93.	Level of citizens' confidence in public institutions	SCDS, ESS, NDS
94.	Corruption Perception Index <b>KEY INDICATOR!</b>	ESS
<b>Area: Civil society – openness and participation as well as citizens activeness</b>		
95.	Voter turnout in parliamentary and local elections	SCDS, NSRD
96.	Percentage of households with broadband access to the Internet	NDS
97.	Percentage of individuals using the Internet for contacts with public authorities	ESS, NDS, PA
98.	Indicator of trust	LNDS, SCDS, NDS
99.	Percentage of persons who participate in volunteer work <b>KEY INDICATOR!</b>	SCDS
<b>Area: Gender equality in management</b>		
100.	Share of women in managerial positions in the total number of employees in managerial positions <b>KEY INDICATOR!</b>	PA
101.	Share of women in public life	National Action Programme for Equal Treatment 2013-2016

Further information at: **stat.gov.pl**

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