



ROMÂNIA DURABILĂ

Dezvoltarea cadrului strategic și instituțional pentru implementarea Strategiei Naționale pentru Dezvoltarea Durabilă a României 2030

Administrație publică pentru dezvoltare durabilă

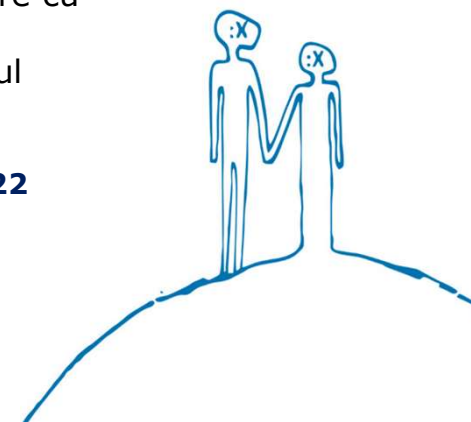
- Program de studii postuniversitare de formare și dezvoltare profesională continuă, înregistrat în Registrul Național al Programelor Postuniversitare cu nr. 338.
- Ocupația/ Grupa de bază din COR pentru care se organizează programul postuniversitar: "expert dezvoltare durabilă", cod COR 242232.
- Organizator: Academia de Studii Economice din București

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Proiect cofinanțat din Fondul Social European prin
Programul Operațional Capacitate Administrativă 2014-2020, SIPOCA 613



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Collecting, analysing and interpreting sustainable development statistical data

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*Proiect cofinanțat din Fondul Social European prin
Programul Operațional Capacitate Administrativă 2014-2020, SIPOCA 613*



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Agenda

- **Context** – role & use of indicators
- **Results** from Eurostat's SDG monitoring report 2022
- *Break*
- **Methods** for assessing progress
- **Making sense** of the data
- *Break*
- **SDG interlinkages** – analysis of interdependencies

Introductory quiz

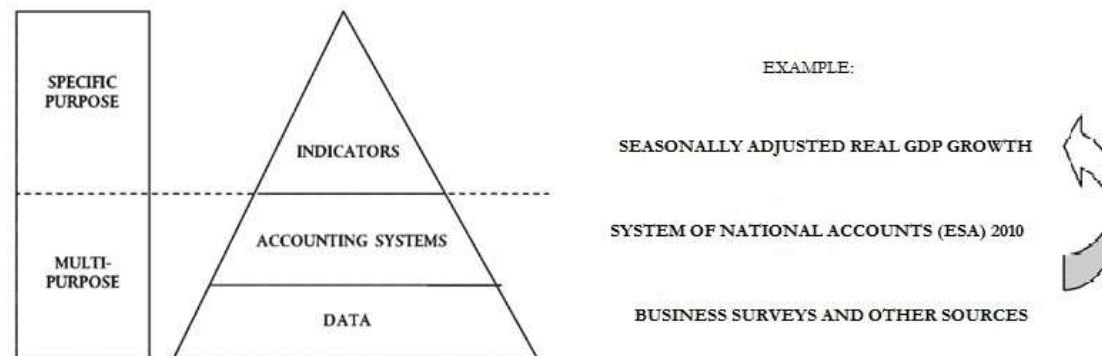
- **About you:**
 - 1) Where do you work?
 - 2) In which area of SD do you work?
- **About SDGs in Romania:**
 - 3) In which SDG does Romania perform best (current situation)?
 - 4) For which SDG has Romania made the most progress (improvement) over the past five years?



<https://www.menti.com/x5oxx3d53v>

Context: what is an indicator?

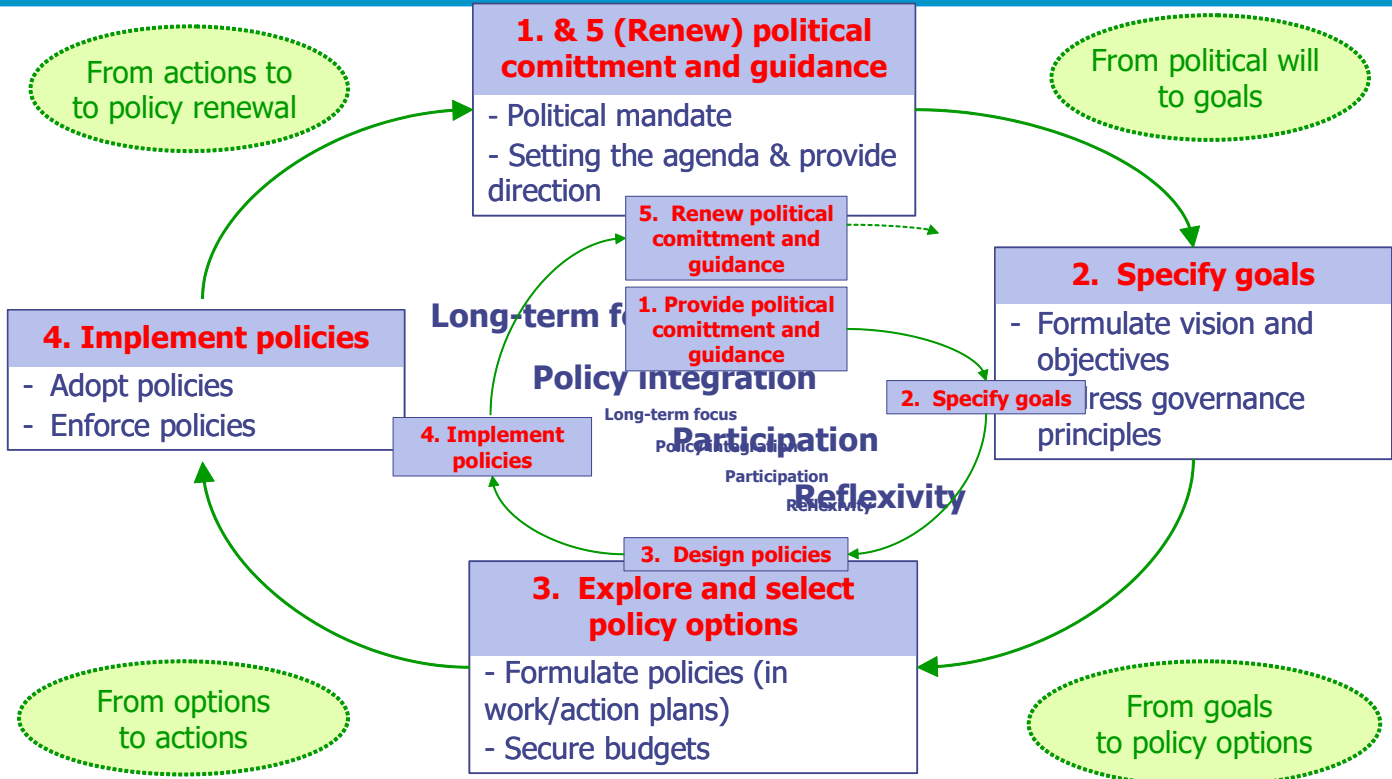
An indicator can be defined as “a parameter, or a value derived from parameters, which points to, provides information about, describes the state of a phenomenon/environment/area, with a significance extending beyond that directly associated with a parameter value.” (OECD, 2003)



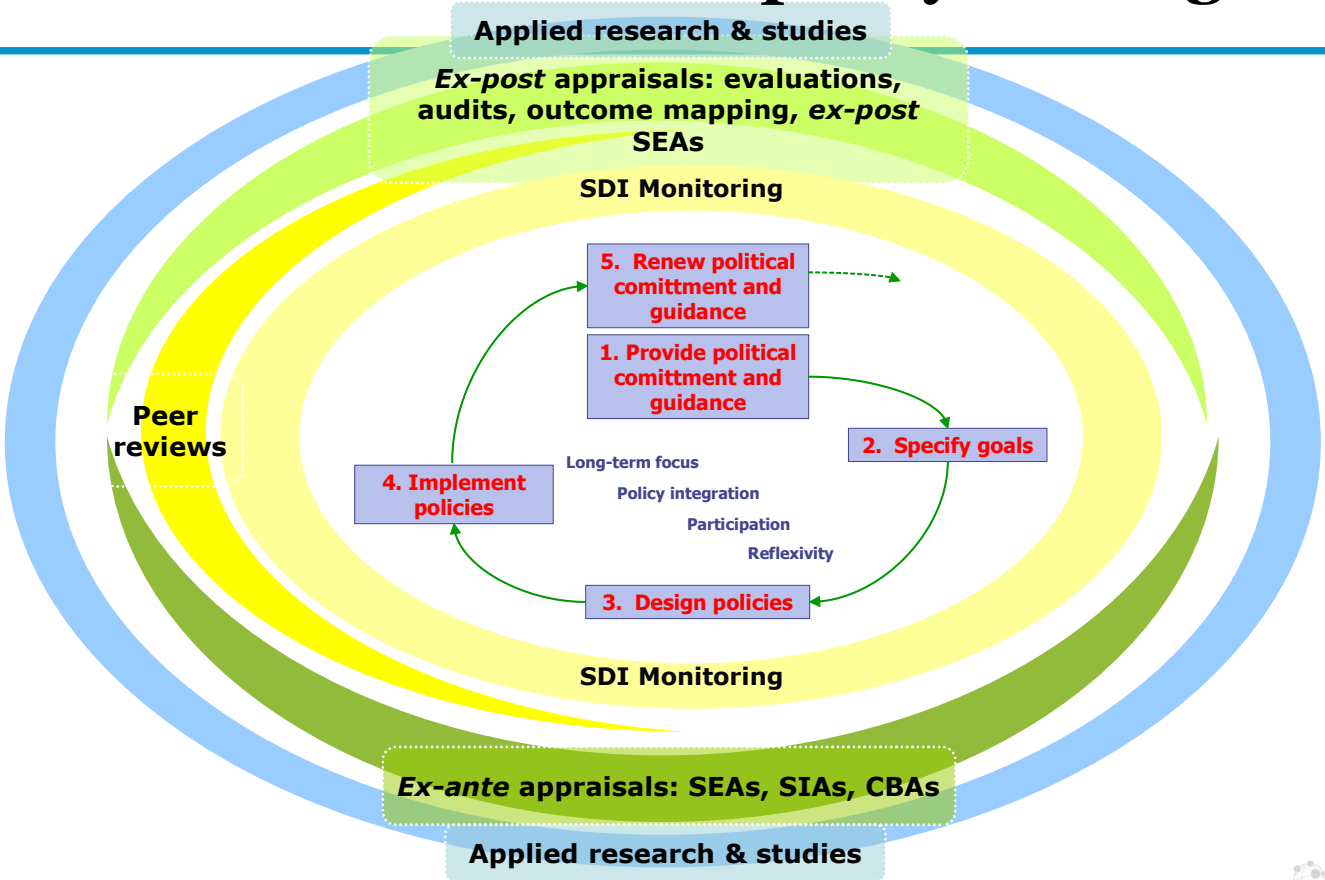
Context: main functions of indicators

- reduce the number of measurements necessary to give an exact description of a situation, i.e. **summarize complexity** into a manageable amount of meaningful information that can be understood and interpreted easily
- indispensable for **measuring progress** towards achieving set goals
- simplify the **communication** of positive and negative developments to politicians, administrators, the public and others
- provide crucial **guidance for policymaking processes**

Context: role of indicators in policy making



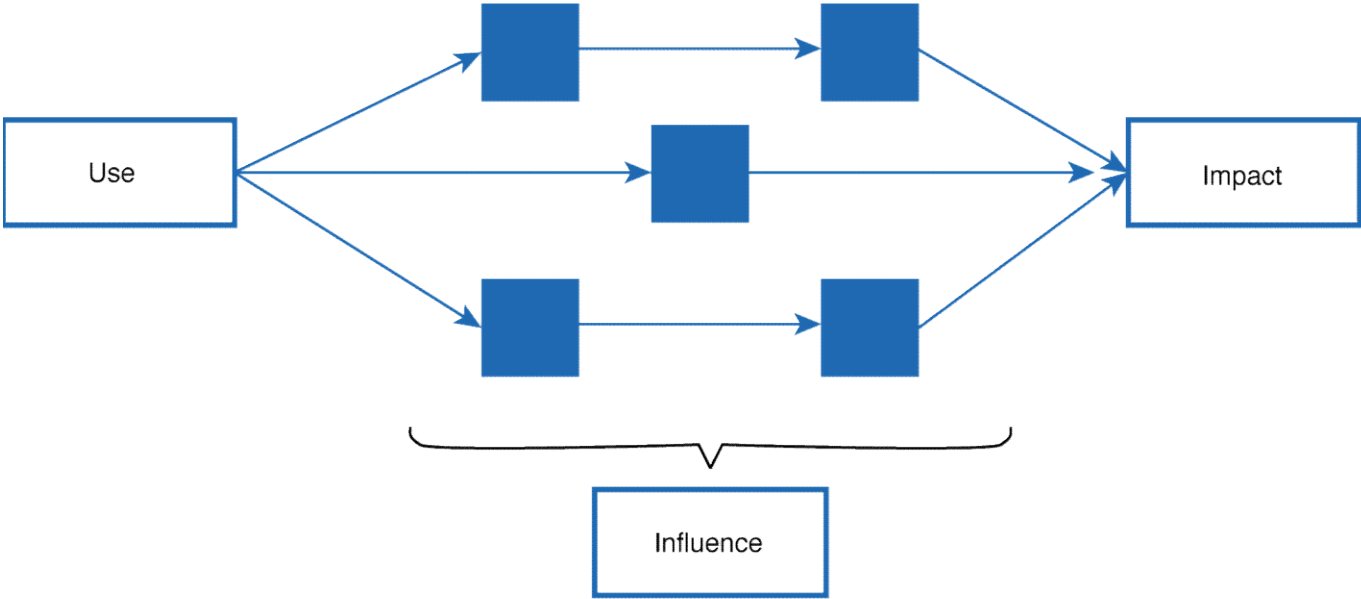
Context: role of indicators in policy making



Context: types of indicator use

- **Instrumental use:** use of indicators as direct input to (political) decision making
- **Conceptual use:** use of indicators to shape conceptual frameworks for assessments, ways of thinking and mental models (“enlightenment”)
- **Political use:** use of indicators as accountability tools or supporting arguments in the political discussion to promote specific ideas (including *legitimisation, tactical use* and *symbolic use*)
- **Misuse:** when incorrect conclusions are deliberately reached from the data (including *deliberate manipulation* and *illegitimate suppression*)

Context: indicator use ≠ influence



Context: types of indicator use

- **Take a guess – which type of indicator use is most common?**
 - Instrumental use
 - Conceptual use
 - Political use



<https://www.menti.com/x5oxx3d53v>

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- **SDG interlinkages** – analysis of interdependencies

Eurostat's SDG monitoring reports

- Published annually since 2017
- Purpose: monitor and report on progress towards the SDGs in an EU context
- Based on the official EU SDG indicator set
- Statistical presentation of trends relating to the SDGs in the EU over the past five years ('short-term') and, when sufficient data are available, over the past 15 years ('long-term')
- Since 2022 part of the European Semester, the framework for integrated surveillance and coordination of economic and employment policies across the EU



EU SDG indicator set

- Adopted in 2017, reviewed annually
- ~ 100 indicators structured according to the 17 SDGs → 6 indicators per goal
- EU SDG monitoring report 2022:
 - 101 indicators
 - 67 indicators aligned with UN indicators
 - 31 multipurpose indicators → used in two different goals at the same time
 - 22 indicators monitoring a quantified EU policy target



EU SDG indicator set

Indicator	Long-term trend (past 15 years)	Short-term trend (past 5 years)
Multidimensional poverty		
🎯 People at risk of poverty or social exclusion	:	↑ ⁽¹⁾
People at risk of income poverty after social transfers	↘ ⁽¹⁾⁽²⁾	↗ ⁽¹⁾
Severe material and social deprivation rate	:	↑
People living in households with very low work intensity	:	↑
In work at-risk-of-poverty rate	↓ ⁽²⁾	↗
Basic needs		
Housing cost overburden rate	↗ ⁽²⁾	↑
Self-reported unmet need for medical care (*)	↑ ⁽²⁾	↑
Severe housing deprivation rate (*)	↑ ⁽²⁾	↑

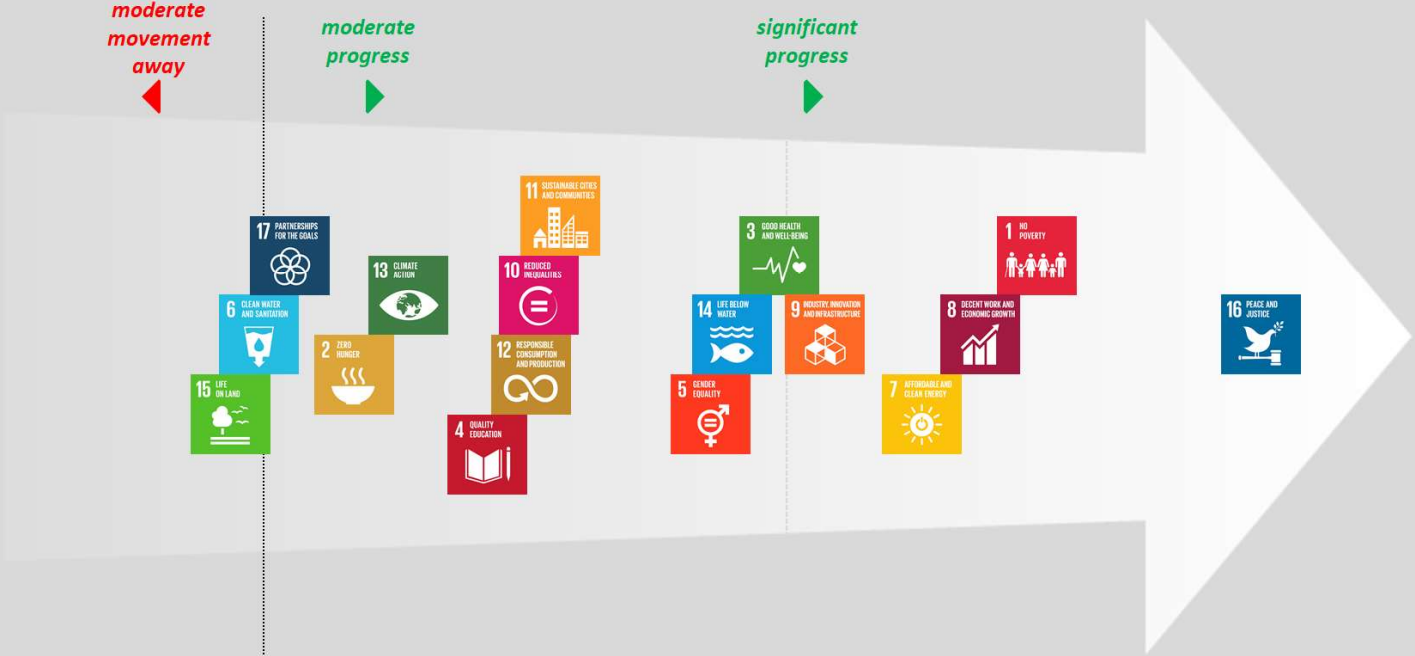
(*) Multi-purpose indicator.
 (1) Assessment arrow shown in grey because trend is influenced by a methodological change in the German EU-SILC survey.
 (2) Past 10-year period.

Indicator	Long-term trend (past 15 years)	Short-term trend (past 5 years)
Economic growth		
Real GDP	↗	↑
Investment share of GDP	↘	↑
Employment		
🎯 Young people neither in employment nor in education and training (NEET)	↘	↘
🎯 Employment rate	↑ ⁽¹⁾	↑
Long-term unemployment rate	↗ ⁽¹⁾	↑
Inactive population due to caring responsibilities (*)	↑ ⁽²⁾	↑ ⁽²⁾
Decent work		
Fatal accidents at work	:	↑
In work at-risk-of-poverty rate (*)	↓ ⁽²⁾	↗

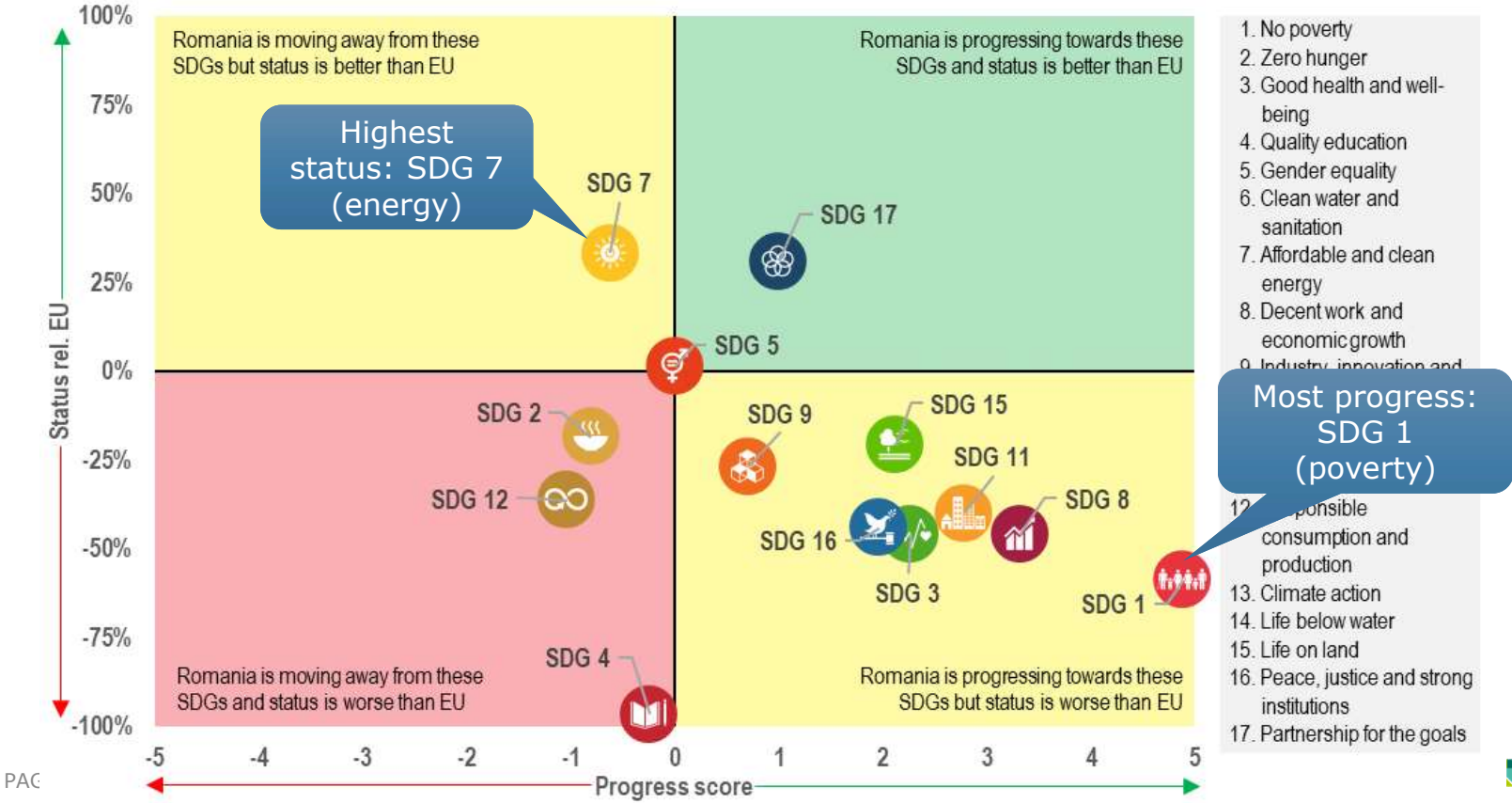
(*) Multi-purpose indicator.
 (1) Past 12-year period.
 (2) Trend refers to evolution of gender gap.
 (2) Past 10-year period.

2022 monitoring results for the EU

Overview of EU progress towards the SDGs over the past 5 years, 2022 (Data mainly refer to 2015-2020 and 2016-2021)

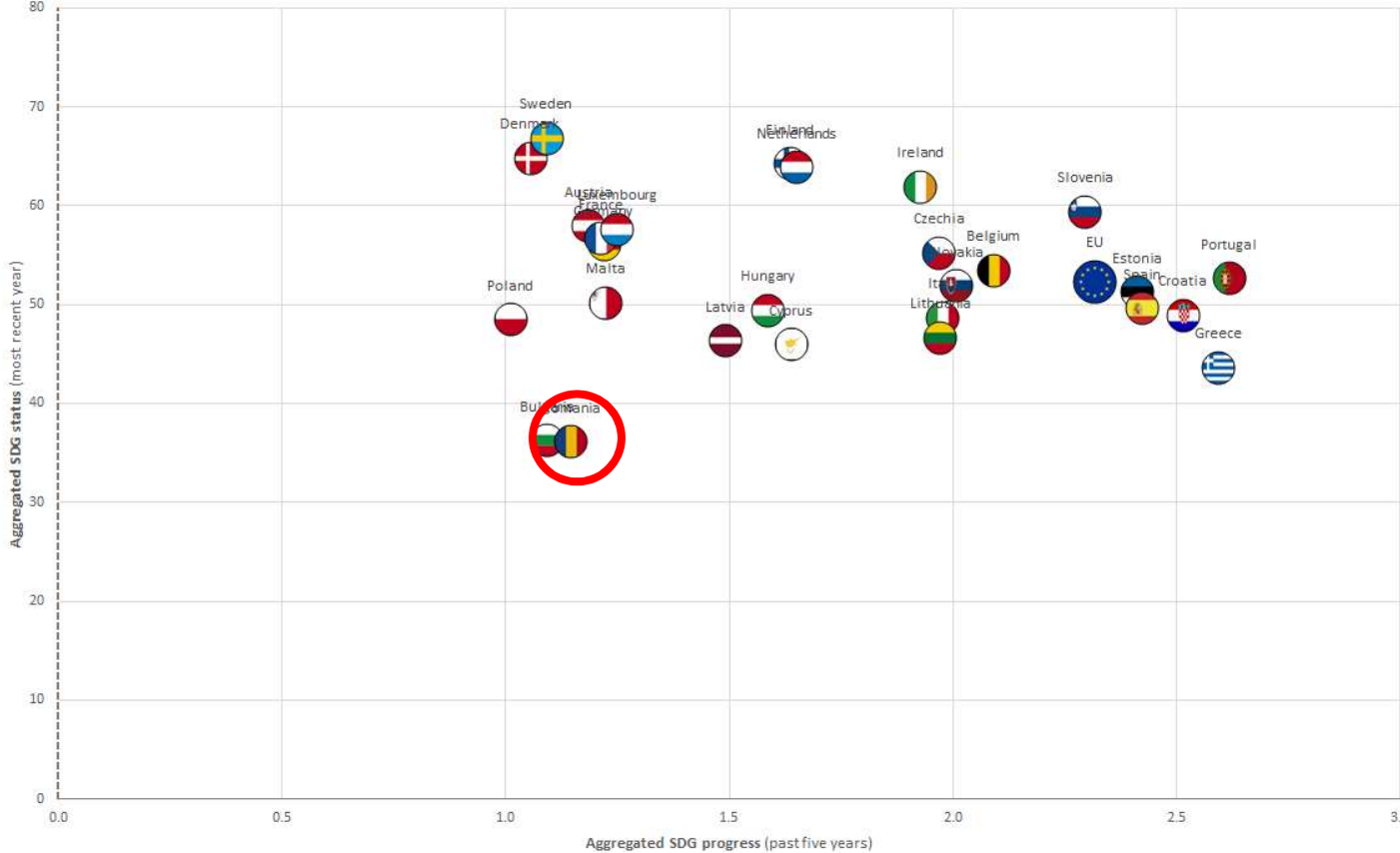


2022 monitoring results for Romania



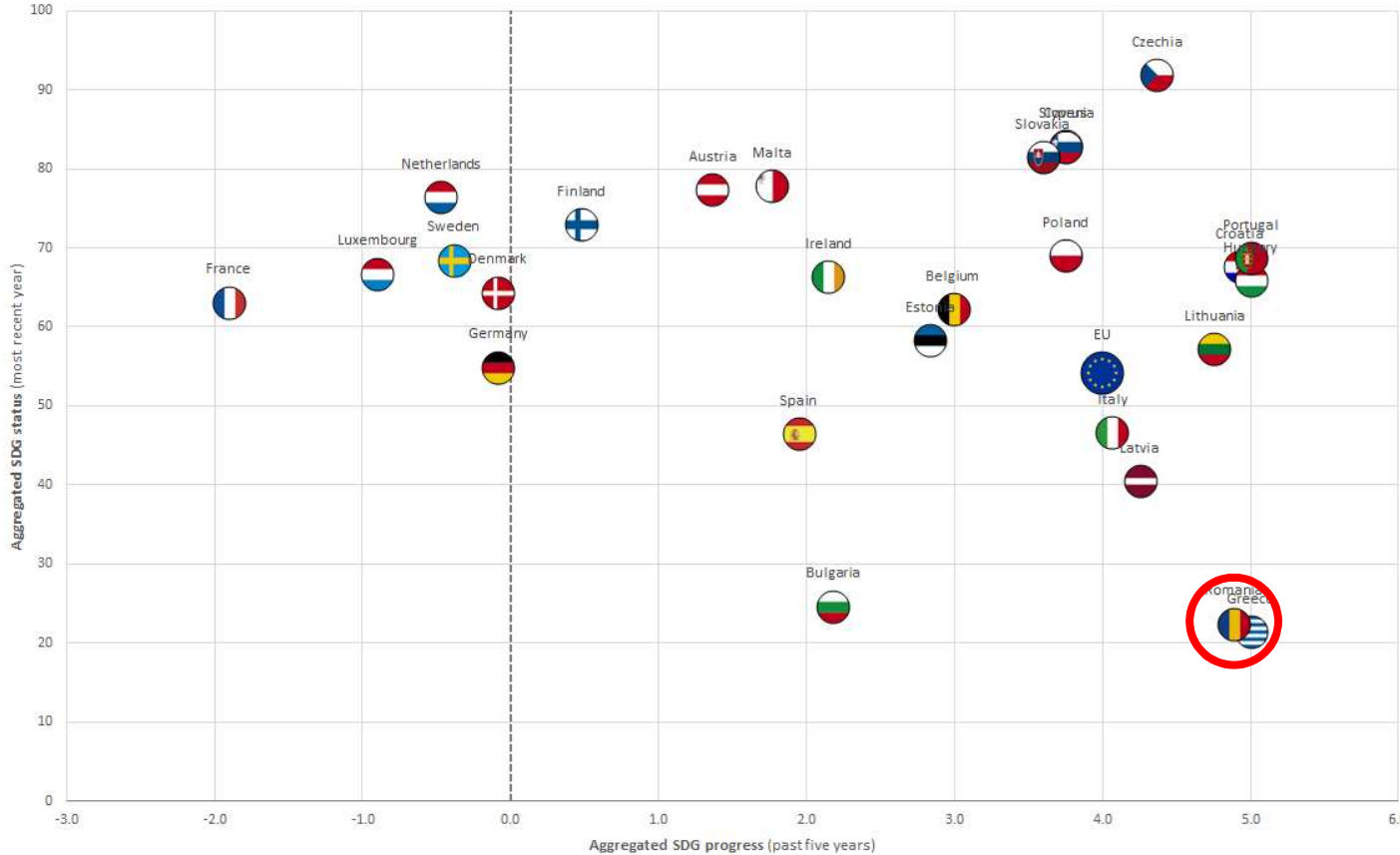
2022 monitoring results for EU countries

- All SDGs



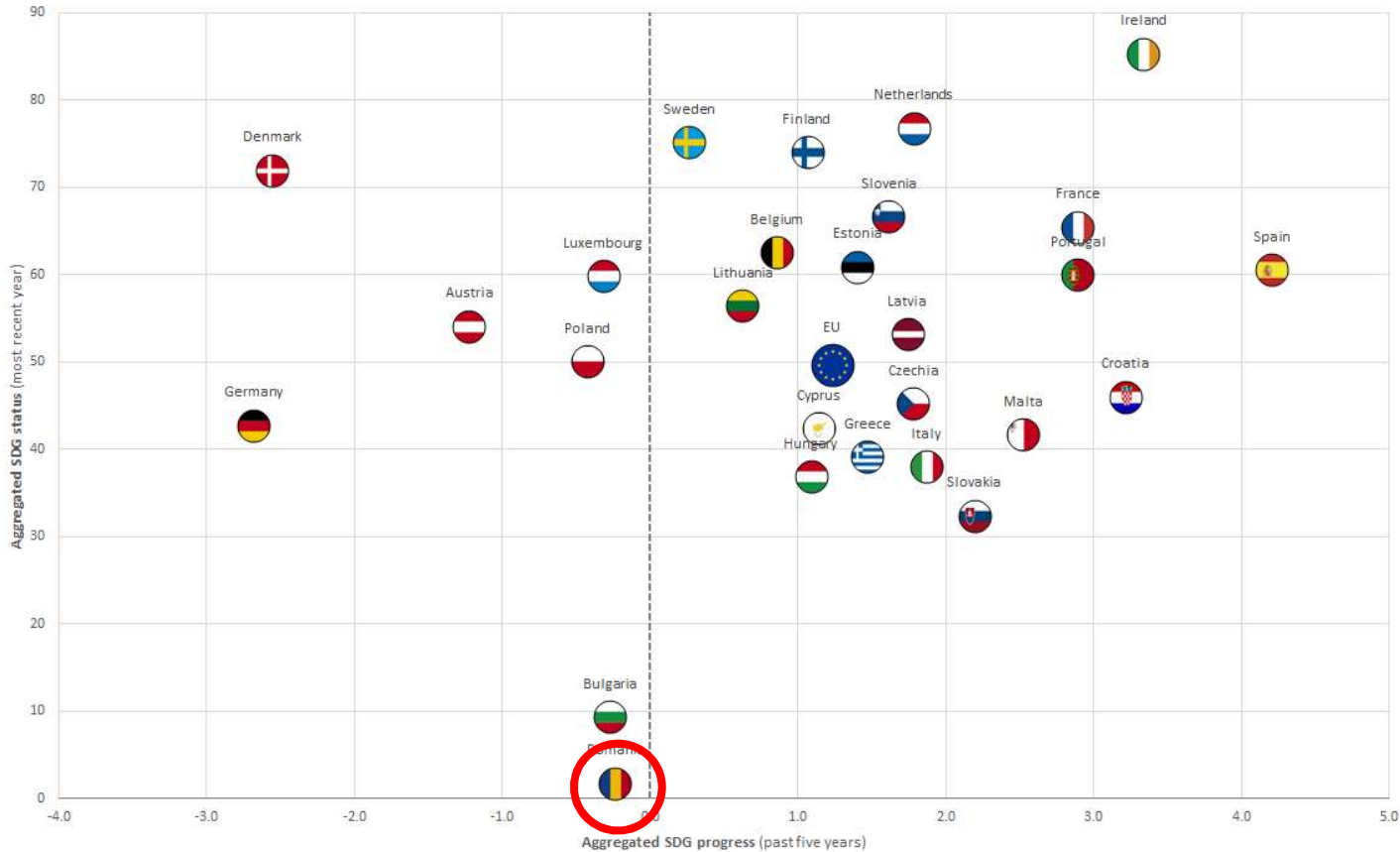
2022 monitoring results for EU countries

- SDG 1 (poverty)



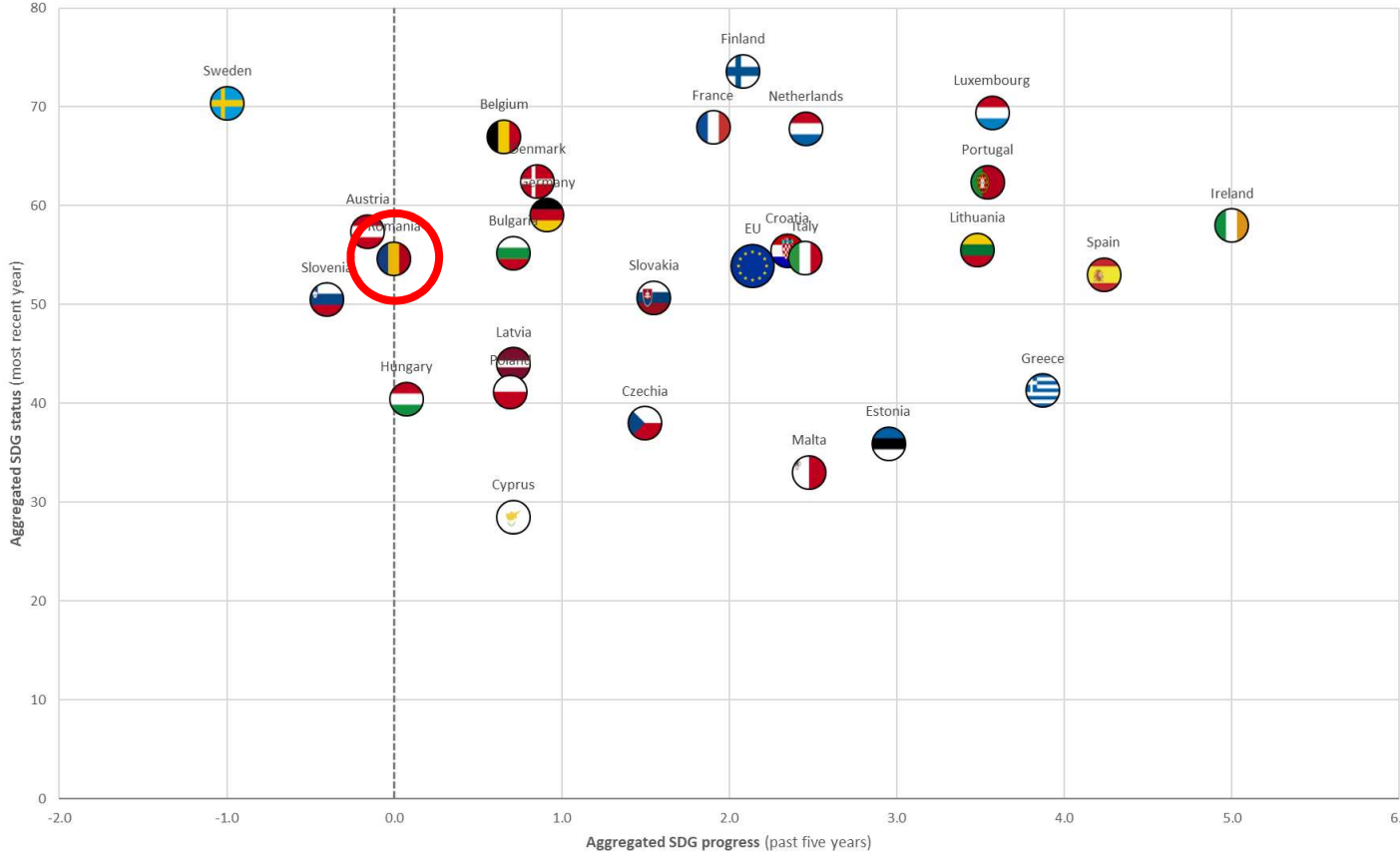
2022 monitoring results for EU countries

- SDG 4 (education)



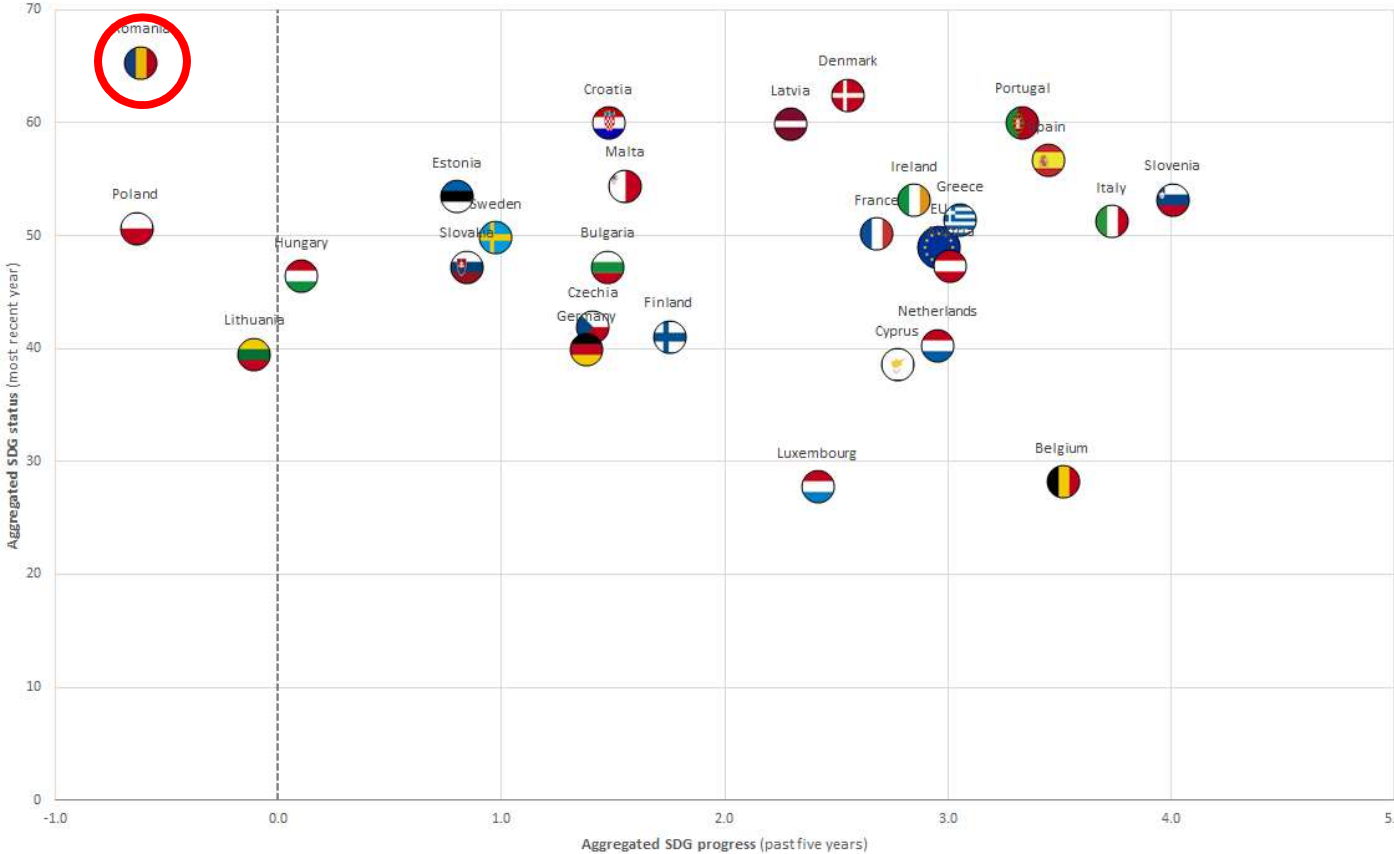
2022 monitoring results for EU countries

- SDG 5 (gender)



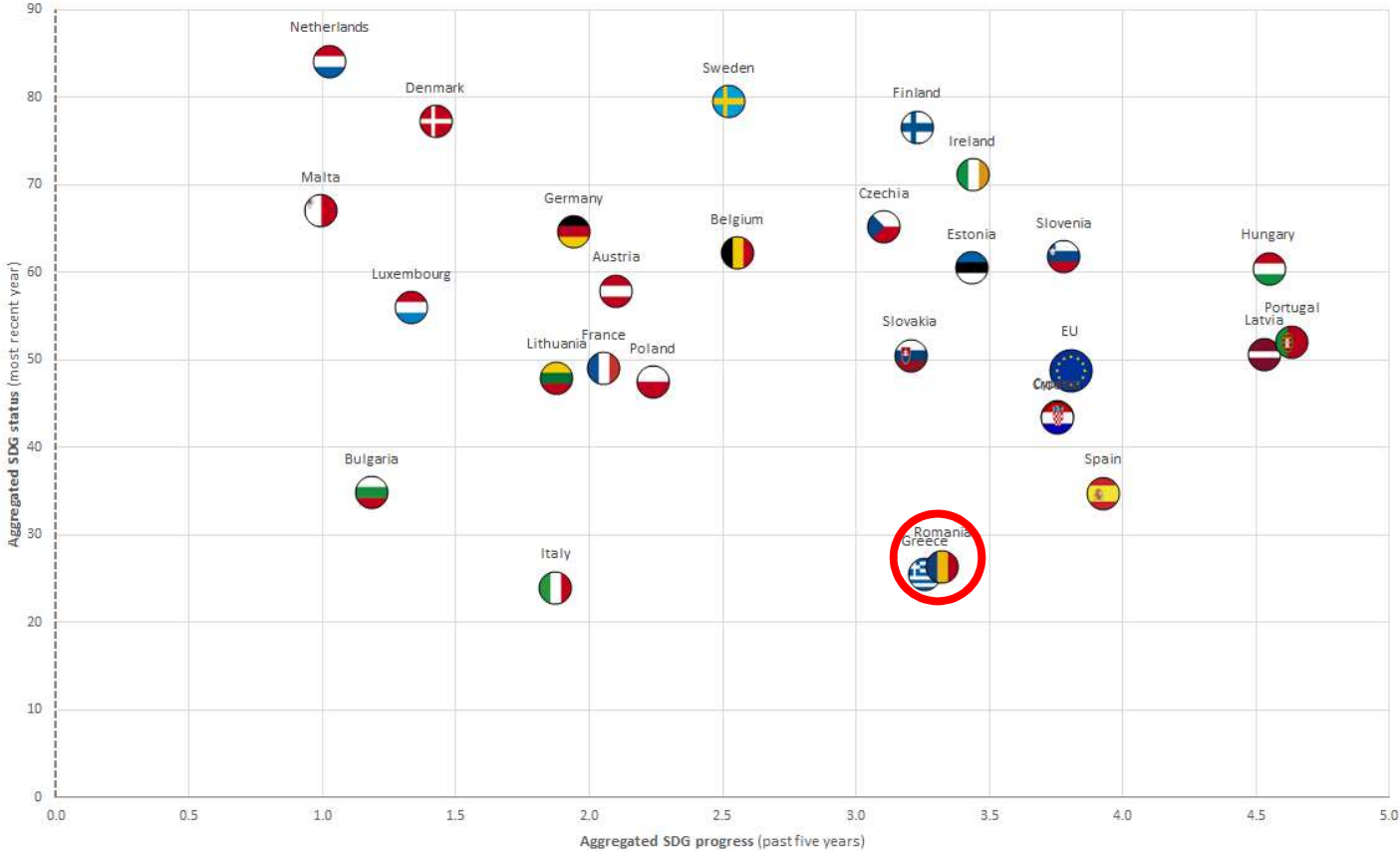
2022 monitoring results for EU countries

- SDG 7 (energy)



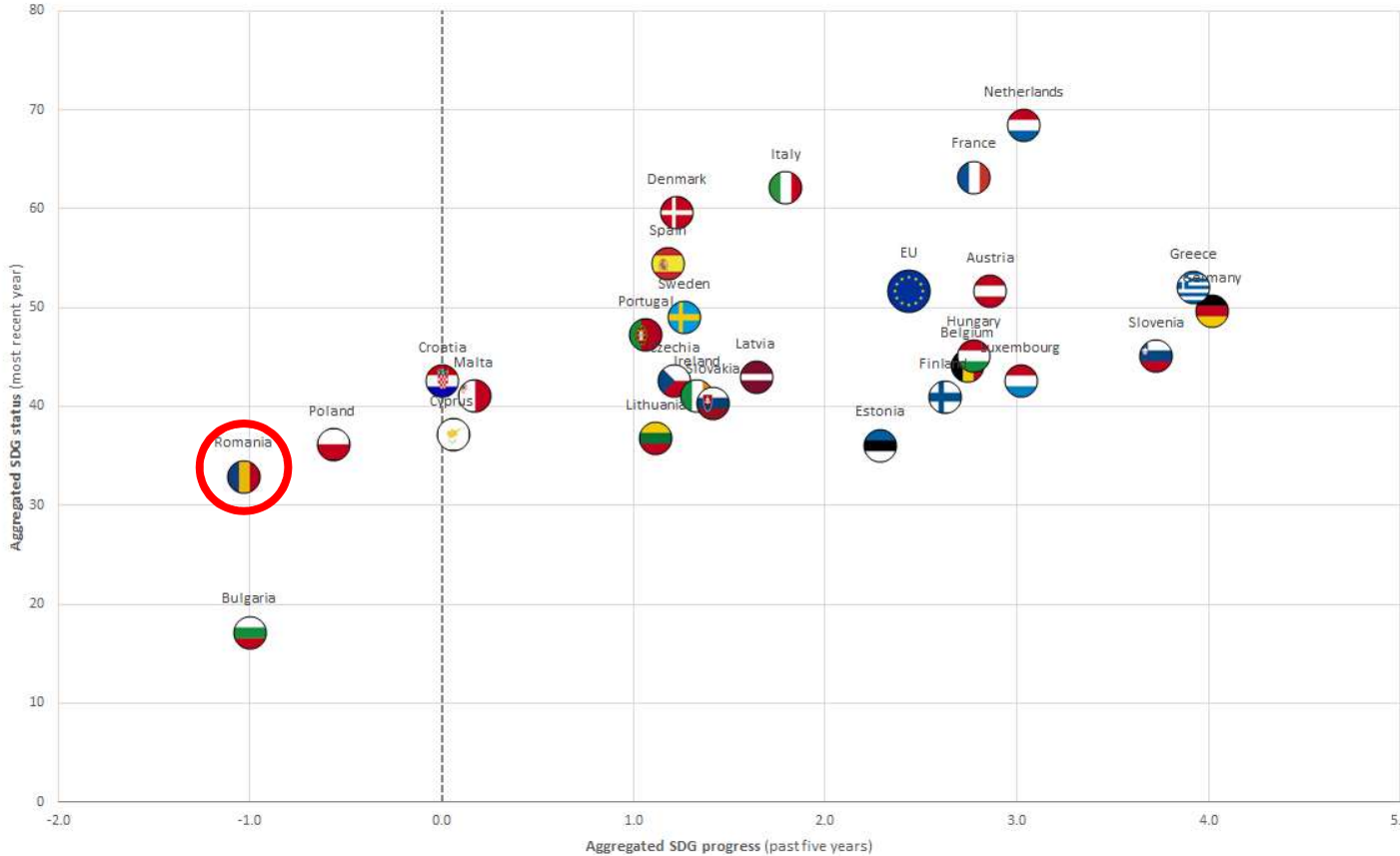
2022 monitoring results for EU countries

- SDG 8 (economy)



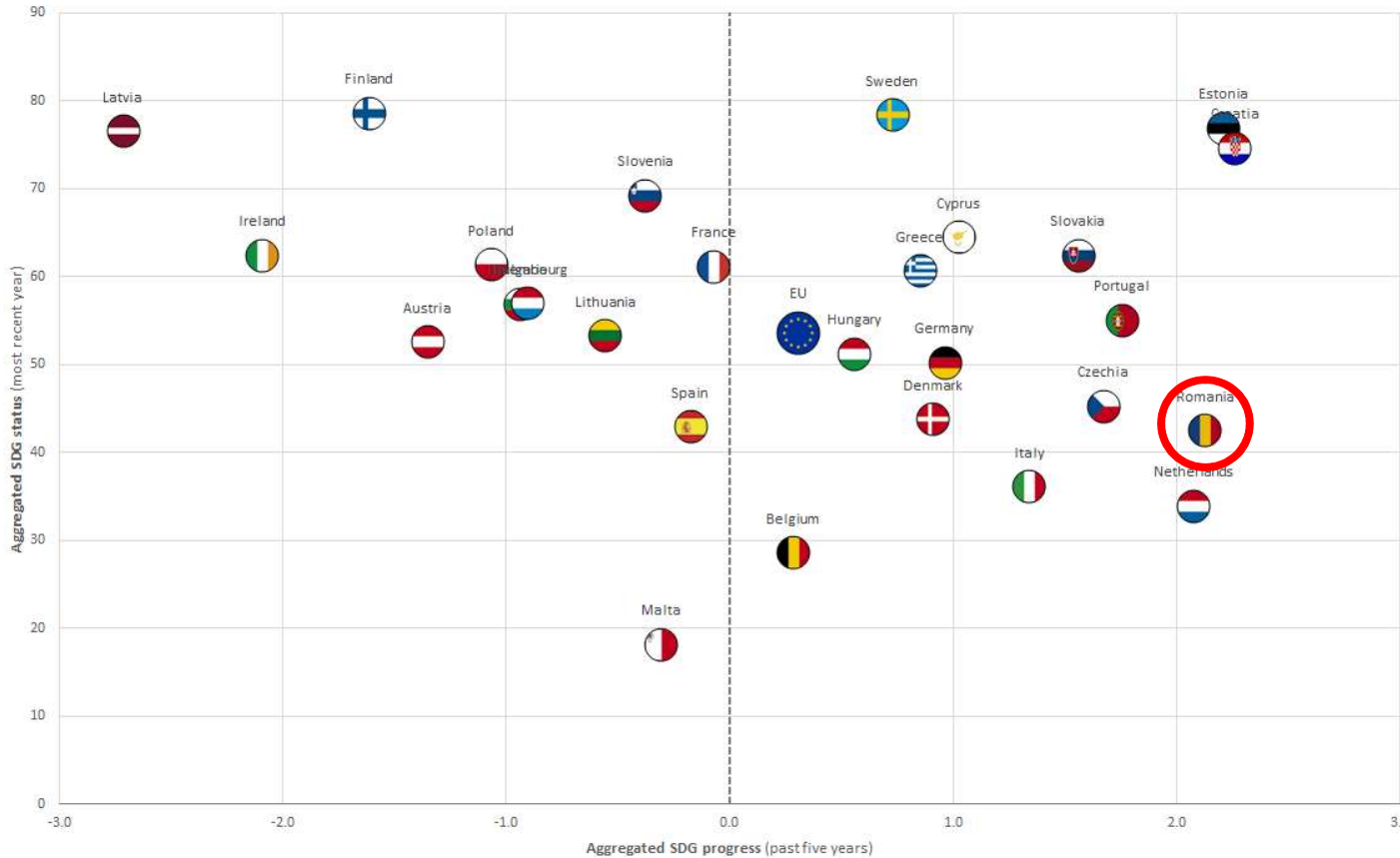
2022 monitoring results for EU countries

- SDG 12 (SCP)



2022 monitoring results for EU countries

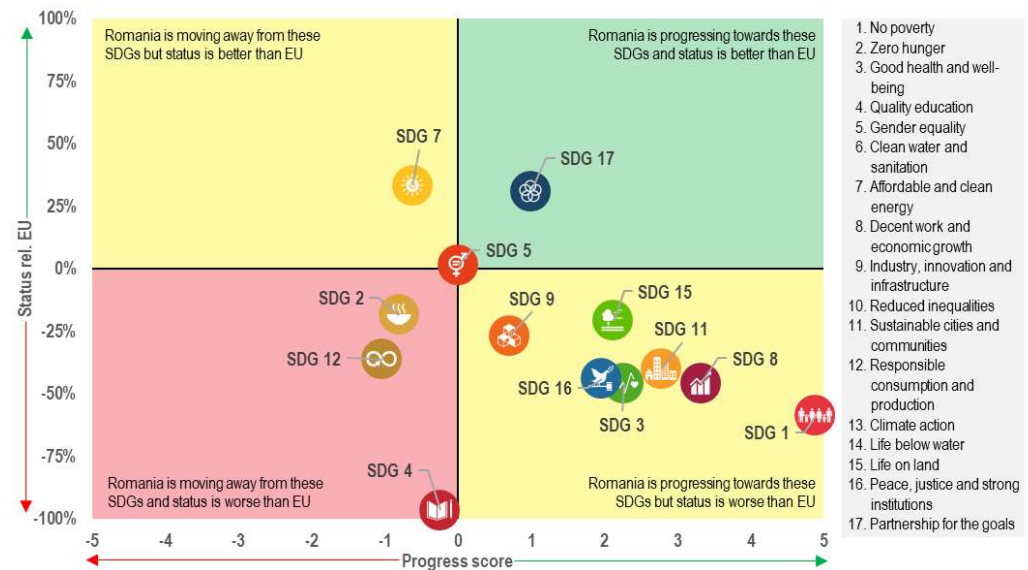
- SDG 15 (nature)



2022 monitoring results for EU countries

Activity:

- Select one of the SDGs and try to explain Romania's status and progress via the individual indicators of that goal
- You can use the Eurostat SDG report 2022:
 - [Online version \(Statistics Explained\)](#)
 - [PDF version](#)





15 Minutes break



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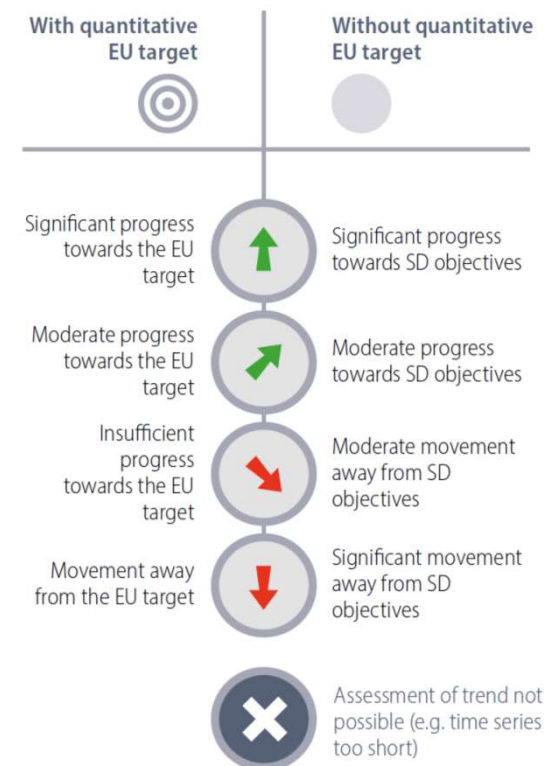
Agenda

- **Context** – role & use of indicators
- **Results** from Eurostat’s SDG monitoring report 2022
- *Break*
- **Methods** for assessing progress
- **Making sense** of the data
- *Break*
- **SDG interlinkages** – analysis of interdependencies

Eurostat's approach for assessing progress

- **Assessment of individual indicator trends...**

- ...with an existing quantitative EU policy target: *“Is the EU on track to reach the target?”*
- ...without a quantitative target: *“Is the EU moving in the right direction with regards to...?”*







Eurostat's approach for assessing progress

- **Method 1: Indicators without quantitative targets**

- Compare indicator trend with desired direction
- Calculate compound annual growth rate (CAGR)

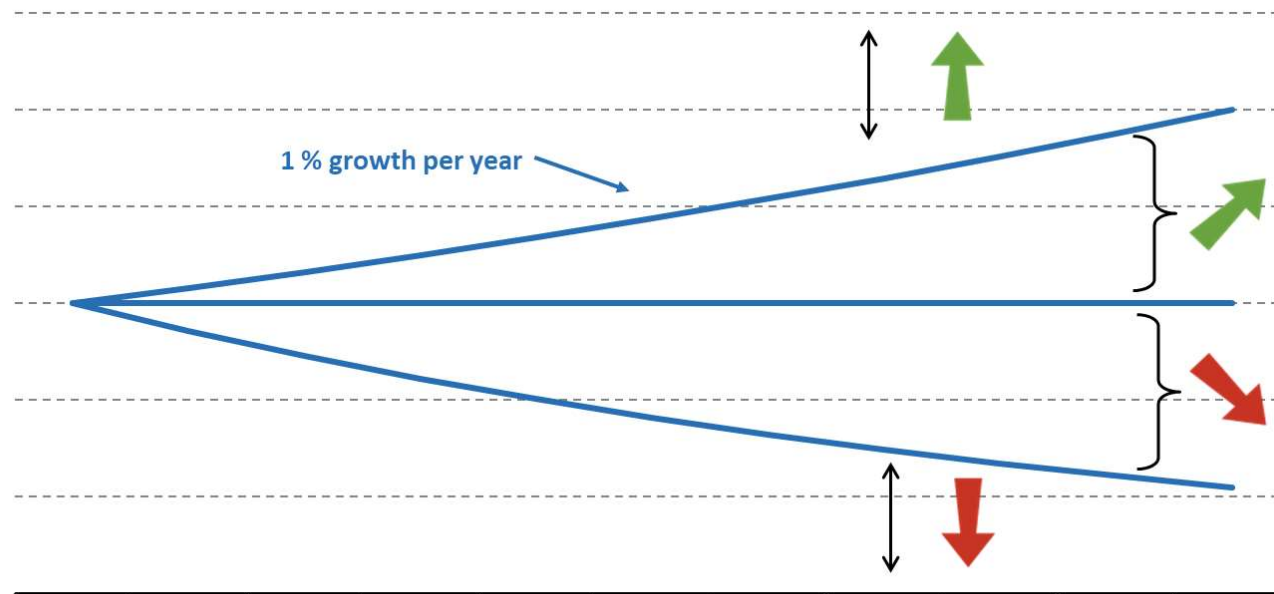
$$CAGR = \left(\frac{y_t}{y_{t_0}} \right)^{\frac{1}{t-t_0}} - 1$$

t₀ = base year, t = most recent year,
 y_{t0} = indicator value in base year,
 y_t = indicator value in most recent year

Growth rate (CAGR) in relation to desired direction	Symbol
≥ 1 %	
< 1 % and ≥ 0 %	
< 0 % and ≥ - 1 %	
< - 1 %	

Eurostat's approach for assessing progress

- Method 1: Indicators without quantitative targets



Eurostat's approach for assessing progress

- Method 2: Indicators with quantitative targets





- Compare actual (observed) with required growth rate

$$CAGR_a = \left(\frac{y_t}{y_{t_0}} \right)^{\frac{1}{t-t_0}} - 1 \qquad CAGR_r = \left(\frac{x_{t_1}}{y_{t_0}} \right)^{\frac{1}{t_1-t_0}} - 1$$

t_0 = base year, t = most recent year, t_1 = target year,
 y_{t_0} = indicator value in base year,
 y_t = indicator value in most recent year,
 x_{t_1} = target value in target year

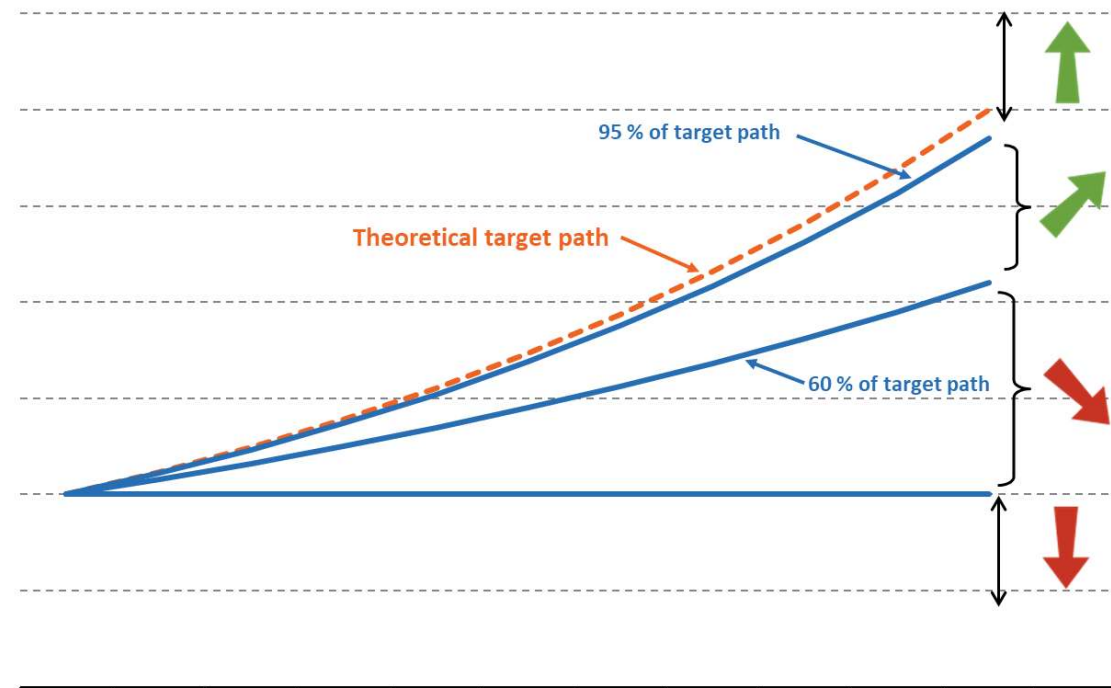
- Calculate ratio of actual to required rate

$$R_{a/r} = \frac{CAGR_a}{CAGR_r}$$

Ratio of actual and required growth rate	Symbol
≥ 95 %	
< 95 % and ≥ 60 %	
< 60 % and ≥ 0 %	
< 0 %	

Eurostat's approach for assessing progress

- Method 2: Indicators with quantitative targets



Other approaches for assessing progress

- **Time-lag compared to target path**

- “S-time-distance method” measures the distance in time (in the horizontal dimension) between two time series when reaching a specific level

$$TL = \frac{\log\left(\frac{y_t}{y_{t_0}}\right)}{\log(1 + CAGR_r)} - (t - t_0)$$

t_0 = base year, t = most recent year,
 y_{t_0} = indicator value in base year,
 y_t = indicator value in most recent year,
 $CAGR_r$ = required annual growth rate

Time lag (TL) = how many years a trend is in front or behind the target path

Other approaches for assessing progress

- **Year when target will be reached**
 - Also based on “S-time-distance method”

$$YTR = \frac{\log\left(\frac{x_{t_1}}{y_{t_0}}\right)}{\log(1 + CAGR_a)} + t_0$$

t_0 = base year, t_1 = target year,
 y_{t_0} = indicator value in base year,
 x_{t_1} = target value in target year,
 $CAGR_a$ = actual annual growth rate

YTR = year when the target will be reached if the current annual growth rate continues

Calculating progress of an indicator

- Online tool to calculate indicator progress according to Eurostat methodology
- short.wu.ac.at/cagr



eurostat - SDG monitoring reports

Calculation of average annual growth rate (CAGR)

- Indicator WITHOUT target: Average annual growth rate (CAGR)
- Indicator WITH target: Ratio actual growth rate (CAGR) / target path growth rate (CAGR)
- DECOUPLING Indicators: Ratio indicator growth rate (CAGR) / GDP growth rate

Starting year (y_s)	<input type="text"/>	Starting value (x_s)	<input type="text"/>
Ending year (y_e)	<input type="text"/>	Ending value (x_e)	<input type="text"/>
Target year (y_t)	<input type="text"/>	Target value (x_t)	<input type="text"/>

© 2017: Markus Hametner

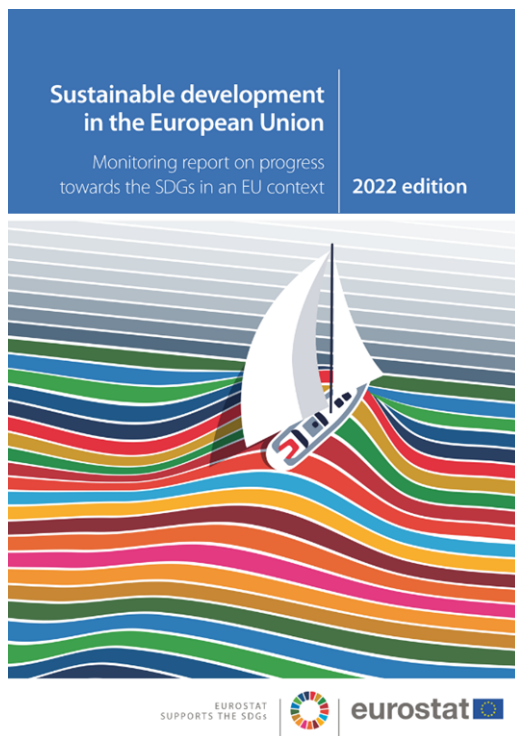
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Eurostat's website on SDG indicators

The screenshot shows the Eurostat website interface. At the top, there is a navigation bar with the Eurostat logo, a search bar, and links for 'Sign In | Register', 'Cookies | Privacy policy | Legal notice | My alerts | Contact', and a language selector set to 'English' with a 'Translate' button. Below the navigation bar, there is a main menu with 'News', 'Data', 'Publications', 'About Eurostat', and 'Help'. The page title is 'Sustainable Development Goals – Overview'. Underneath, there is an 'INTRODUCTION' section with the heading 'What are the sustainable development goals (SDGs)?'. The text explains that the 17 SDGs and their 169 targets are at the heart of the UN's 2030 Agenda for Sustainable Development. A 'Read more' button is provided. Below this, there are two columns: 'HIGHLIGHTS' and 'DIRECT ACCESS TO...'. The 'HIGHLIGHTS' column includes three items: 'SDGs at a glance' (a brochure overview), 'Visualise the SDGs' (an interactive publication), and 'Discover the progress of SDGs in the EU'. The 'DIRECT ACCESS TO...' column includes six items: 'Key findings', 'Database', 'Indicators: goal by goal', 'Publications', 'Statistics Explained', and 'Policy context'. A 'Links' icon is also present at the bottom of this column.

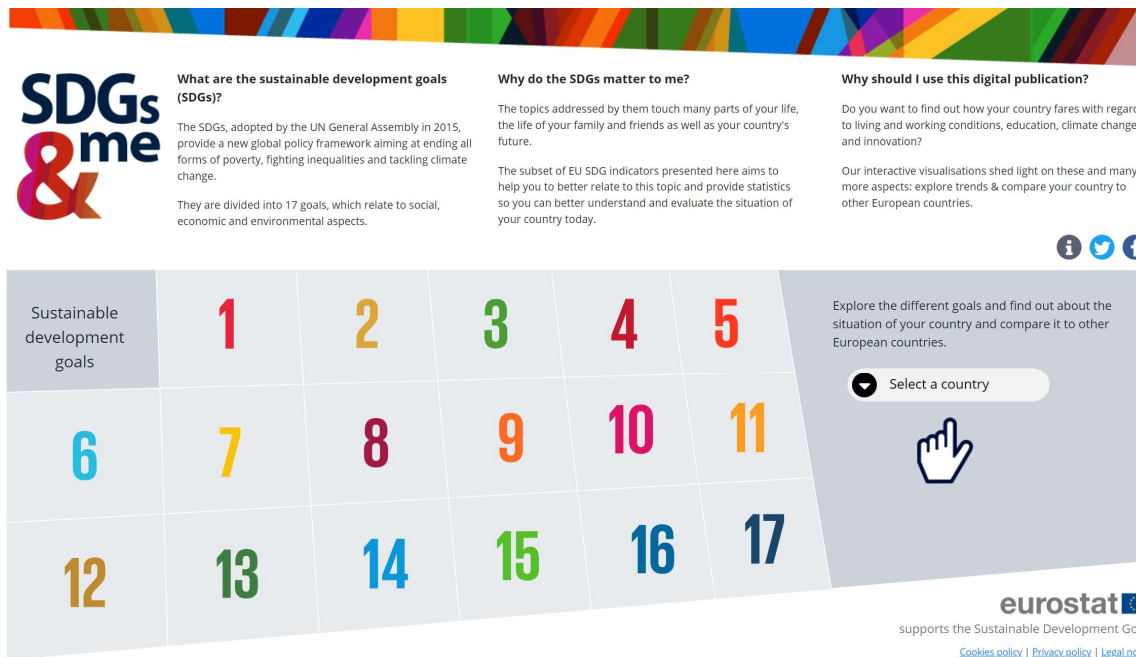
SDG monitoring report 2022 and brochure



Statistics Explained pages on the MR 2022

The screenshot shows the Eurostat Statistics Explained website. The header includes the Eurostat logo, a search bar, and navigation links for Tutorials, HAMETNER Markus, and Log out. Below the header is a blue navigation bar with links for NAVIGATION, ONLINE PUBLICATIONS, TOOLS, and CREATE A BOOK. The main title is 'Sustainable development in the European Union'. Below the title is a 'Translate' button and social media icons for Twitter, Facebook, and LinkedIn. A paragraph of text describes the publication: 'Sustainable development in the European Union is an online Eurostat publication presenting recent statistics on sustainable development in the European Union (EU); it is also available in paper format and as a downloadable PDF file (latest edition), ISBN 978-92-76-46573-7, doi: 10.2785/313289, Cat. No: KS-09-22-019-EN-N.' Below this text is a list of links for various sections: Synopsis, Introduction, The COVID-19 pandemic: detecting impacts and monitoring the recovery, and a list of 14 Sustainable Development Goals (SDG 1 - No poverty to SDG 14 - Life below water). To the right of the text is a thumbnail image of the 'Sustainable development in the European Union' 2022 edition cover, which features a sailboat on a colorful, wavy background.

SDGs & me – digital publication



SDGs & me

What are the sustainable development goals (SDGs)?
 The SDGs, adopted by the UN General Assembly in 2015, provide a new global policy framework aiming at ending all forms of poverty, fighting inequalities and tackling climate change.
 They are divided into 17 goals, which relate to social, economic and environmental aspects.

Why do the SDGs matter to me?
 The topics addressed by them touch many parts of your life, the life of your family and friends as well as your country's future.
 The subset of EU SDG indicators presented here aims to help you to better relate to this topic and provide statistics so you can better understand and evaluate the situation of your country today.

Why should I use this digital publication?
 Do you want to find out how your country fares with regards to living and working conditions, education, climate change and innovation?
 Our interactive visualisations shed light on these and many more aspects: explore trends & compare your country to other European countries.

Explore the different goals and find out about the situation of your country and compare it to other European countries.

Select a country

eurostat supports the Sustainable Development Goals
[Cookies policy](#) | [Privacy policy](#) | [Legal notice](#)

European Green Deal – visualisation tool



Accessing the Eurostat data on the SDGs

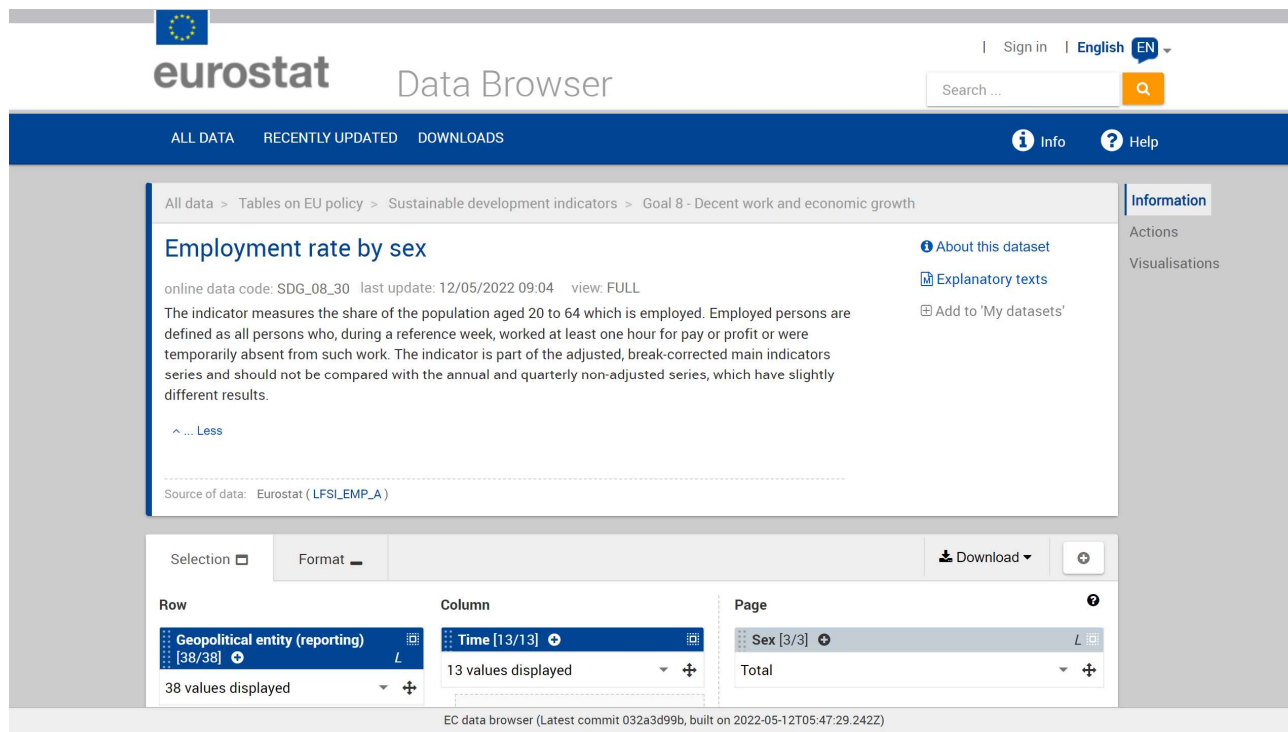
The screenshot shows the Eurostat website interface. At the top, there is a navigation bar with 'eurostat' logo, 'Your key to European statistics', and a search bar. Below the navigation bar, there are tabs for 'News', 'Data', 'Publications', 'About Eurostat', and 'Help'. The main content area is titled 'European Commission > Eurostat > Sustainable development indicators > Database'. On the left, there is a sidebar with 'SUSTAINABLE DEVELOPMENT' and 'DATABASE' sections. The 'DATABASE' section lists 13 indicators under 'Indicators'. The main content area is titled 'DATABASE: SDGS BY GOALS' and lists 12 Sustainable Development Goals (SDG_01 to SDG_12) with their respective indicators. Each goal is accompanied by a small icon and a list of indicators. The indicators are listed with their names and codes, such as 'Real GDP per capita (sdg_08_10)', 'Investment share of GDP by institutional sectors (sdg_08_11)', 'Young people neither in employment nor in education and training by sex (NEET) (sdg_08_20)', 'Young people neither in employment nor in education and training (NEET), by citizenship (sdg_08_20a)', 'Employment rate by sex (sdg_08_30)', 'Employment rate, by citizenship (sdg_08_30a)', 'Long-term unemployment rate by sex (sdg_08_40)', 'Fatal accidents at work per 100 000 workers, by sex (sdg_08_60)', 'In work at-risk-of-poverty rate (sdg_01_41)', 'Inactive population due to caring responsibilities by sex (sdg_05_40)', 'Goal 9 - Industry, Innovation and Infrastructure (sdg_09)', 'Goal 10 - Reduced Inequalities (sdg_10)', 'Goal 11 - Sustainable Cities and Communities (sdg_11)', and 'Goal 12 - Responsible Consumption and Production (sdg_12)'. Each indicator entry includes a small icon and a link to the data.

Eurostat's Data Browser

The screenshot shows the Eurostat Data Browser interface for the indicator 'Employment rate by sex' (SDG_08_30). The page includes a navigation bar with 'ALL DATA', 'RECENTLY UPDATED', and 'DOWNLOADS'. The main content area displays the indicator name, its description, and source information. Below this, there are configuration options for 'Row', 'Column', and 'Page' breakdowns. The 'Row' breakdown is set to 'Geopolitical entity (reporting) [38/38]' and 'Time [13/13]'. The 'Page' breakdown is set to 'Sex [3/3]'. The data is presented in a table format, showing the employment rate percentage for various regions from 2011 to 2021.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
European Union - 27 countries (from 2020)	67.1	66.9	66.6	67.5	68.5	69.6	70.9	71.9	72.7	71.7	73.1
European Union - 28 countries (2013-2020)	67.1	66.9	66.6	67.5	68.5	69.6	70.9	71.9	72.7	71.7	73.1
Euro area - 19 countries (from 2015)	68.1	67.7	67.4	67.9	68.8	69.8	70.8	71.8	72.5	71.2	72.5
Belgium	67.3	67.2	67.3	67.3	67.2	67.7	68.5 (a)	69.7	70.5	69.7	70.6

Indicator definition (short description)



The screenshot shows the Eurostat Data Browser interface. At the top, there is a search bar and navigation links for 'Sign in' and 'English'. The main header includes 'eurostat Data Browser' and navigation tabs for 'ALL DATA', 'RECENTLY UPDATED', and 'DOWNLOADS'. The breadcrumb trail indicates the path: 'All data > Tables on EU policy > Sustainable development indicators > Goal 8 - Decent work and economic growth'. The main content area is titled 'Employment rate by sex' and includes the following text: 'online data code: SDG_08_30 last update: 12/05/2022 09:04 view: FULL'. The description states: 'The indicator measures the share of the population aged 20 to 64 which is employed. Employed persons are defined as all persons who, during a reference week, worked at least one hour for pay or profit or were temporarily absent from such work. The indicator is part of the adjusted, break-corrected main indicators series and should not be compared with the annual and quarterly non-adjusted series, which have slightly different results.' Below the description, there is a 'Source of data: Eurostat (LFSLEMP_A)' section. On the right side, there is an 'Information' sidebar with links for 'About this dataset', 'Explanatory texts', and 'Add to My datasets'. At the bottom, there is a 'Selection' panel with three columns: 'Row' (Geopolitical entity (reporting) [38/38]), 'Column' (Time [13/13]), and 'Page' (Sex [3/3]). The footer of the browser shows 'EC data browser (Latest commit 032a3d99b, built on 2022-05-12T05:47:29.242Z)'.

Indicator metadata



Employment rate by sex (sdg_08_30)

ESMS Indicator Profile (ESMS-IP)
Compiling agency: Eurostat, the statistical office of the European Union

Eurostat metadata	
Reference metadata	
1. Contact	
2. Metadata update	
3. Relevance	
4. Statistical Indicator	
5. Frequency and Timeliness of dissemination	
6. Coverage and comparability	
7. Accessibility and clarity	
8. Comment	
Related Metadata	
Annexes (including footnotes)	

Eurostat Quality Profile	
4.5. Source data	ESS (LFS)
5.1. Frequency of dissemination	Every year
5.2. Timeliness	T+1 year
6.1. Reference area	All EU MS
6.2. Comparability - geographical	All EU MS
6.3. Coverage - Time	> 10 years
6.4. Comparability - over time	> 4 data points

Description of Eurostat quality grading system under the following [link](#).

For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)


[Download](#)

1. Contact		Top
1.1. Contact organisation	Eurostat, the statistical office of the European Union	
1.2. Contact organisation unit	E2: Environmental statistics and accounts; sustainable development	
1.5. Contact mail address	e-mail contact : ESTAT-SDG-MONITORING@ec.europa.eu	

2. Metadata update		Top
2.1. Metadata last certified	10/09/2018	
2.2. Metadata last posted	20/05/2022	
2.3. Metadata last update	05/05/2022	

3. Relevance		Top
<p>This indicator is part of the EU Sustainable Development Goals (SDG) indicator set where it is used to monitor progress towards SDG 8 on decent work and economic growth; which is embedded in the European Commission's Priorities under the 'European Green Deal' and 'An economy that works for people'. SDG 8 calls, among other things, for providing opportunities for full and productive employment and decent work for all.</p> <p>The breakdown of the indicator by citizenship is presented as a separate table, sdg_08_30a. It is used to monitor progress towards the social inclusion of migrants within the scope of SDG 10 on reducing inequalities.</p> <p>Employment and other labour market-related issues are at the heart of social and political debate in the EU. Paid employment is crucial for ensuring sufficient living standards and it provides the necessary foundation for people to achieve their personal goals and aspirations. Moreover, employment contributes to economic performance, quality of life and social inclusion, making it a cornerstone of socioeconomic development and well-being.</p> <p>The EU supports growth, job creation and competitiveness through funding instruments such as the European Fund for Strategic Investments, the European Social Fund and its successor, the European Social Fund Plus, the European Structural and Investment Funds, Horizon 2020, the Programme for Employment and Social Innovation (EaSI), the Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME), the Emergency Support Instrument, the Connecting Europe Facility and the Creative Europe Programme (CAP).</p> <p>The European Pillar of Social Rights, jointly proclaimed by the European Commission, the European Parliament and the European Council in 2017, sets out 20 key principles and rights essential for fair and well-functioning labour markets and social protection systems. The European Pillar of Social Rights Action Plan, adopted in 2021, turns the Principles into concrete actions to benefit citizens. It also proposes an ambitious employment target of 78 % of the population aged 20 to 64 for the EU to reach by 2030. In support of this, the Action Plan proposes to halve the gender employment gap by 2030 compared with 2019 and to decrease the rate of young people neither in employment nor in education or training (NEET) aged 15 to 29 to 9 % by 2030.</p>		

Metadata of underlying data set (LFS)



LFS main indicators (lfsi)
 Reference Metadata in Euro SDMX Metadata Structure (ESMS)
 Compiling agency: Eurostat, the statistical office of the European Union

Eurostat metadata

Reference metadata

- [1. Contact](#)
- [2. Metadata update](#)
- [3. Statistical presentation](#)
- [4. Unit of measure](#)
- [5. Reference Period](#)
- [6. Institutional Mandate](#)
- [7. Confidentiality](#)
- [8. Release policy](#)
- [9. Frequency of dissemination](#)
- [10. Accessibility and clarity](#)
- [11. Quality management](#)
- [12. Relevance](#)
- [13. Accuracy](#)
- [14. Timeliness and punctuality](#)
- [15. Coherence and comparability](#)
- [16. Cost and Burden](#)
- [17. Data revision](#)
- [18. Statistical processing](#)
- [19. Comment](#)
- [Related Metadata](#)
- [Annexes \(including footnotes\)](#)

For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#) [Download](#)

1. Contact Top	
1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	Unit F3: Labour market
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG

2. Metadata update Top	
2.1. Metadata last certified	23/01/2017
2.2. Metadata last posted	14/01/2022
2.3. Metadata last update	14/01/2022

3. Statistical presentation Top	
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Disaggregations of the data

The screenshot shows the Eurostat Data Browser interface for the 'Employment rate by sex' dataset (SDG_08_30). The interface includes a search bar, navigation tabs (ALL DATA, RECENTLY UPDATED, DOWNLOADS), and a table of data. A red circle highlights the 'Sex' dimension in the breakdown panel, which lists 'Total', 'Males', and 'Females'.

Employment rate by sex
 online data code: SDG_08_30 last update: 12/05/2022 09:04 view: FULL
 The indicator measures the share of the population aged 20 to 64 which is employed. Employed persons are defined as all
 Source of data: Eurostat (LFSLEMP_A)

Selection Format Download

Row: Geopolitical entity (reporting) [38/38] 38 values displayed
 Column: Time [13/13] 13 values displayed
 Page: Sex [3/3] Search by label

Time frequency: Annual Employment indicator: Total employment (resident popu...
 Age class: From 20 to 64 years Unit of measure: Percentage of total population

Employment rate by sex (online data code: SDG_08_30)
 Source of data: Eurostat

	TIME	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
GEO											
European Union - 27 countries (from 2020)		66.9	66.8	67.5	68.5	69.6	78.9	71.9	72.7	71.7	73.1

EC data browser (Latest commit 032a3d99b, built on 2022-05-12T05:47:29.242Z)

Navigating the Eurostat database

The screenshot shows the Eurostat Data Browser interface. At the top, there is a search bar with the text 'employment rate educ' and a search icon. Below the search bar, there are navigation tabs: 'ALL DATA', 'RECENTLY UPDATED', and 'DOWNLOADS'. The main content area is divided into two columns. The left column contains a navigation menu with categories like 'Population and social conditions', 'Labour market', and 'Earnings'. The right column displays search results for 'Employment and activity - LFS adjusted series', listing various data series such as 'Employment and activity by sex and age - annual data', 'Part-time employment and temporary contracts - annual data', and 'Total absences from work by sex and age group - quarterly data'. Each result includes a link to the data and a small icon for download or print.

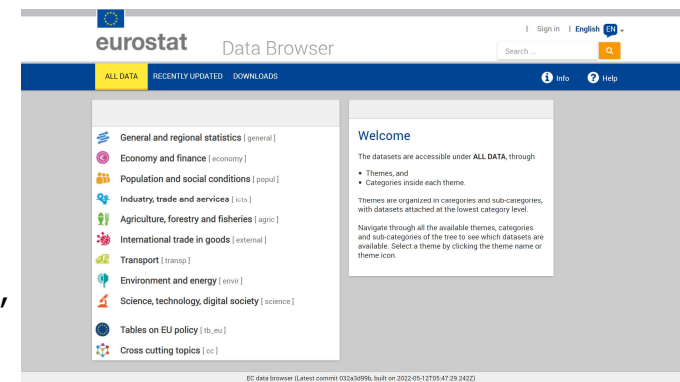
Collecting, analysing & interpreting data

■ Context:

- Ministry of labour wants to launch a programme to increase Romania's employment rate
- You are asked to provide an analysis of the employment situation in Romania
- Ministry wants to know if specific groups (e.g. women, older people, etc.) should be particularly addressed by this new programme

■ Activity:

- Use [Eurostat website](#) to
 - **collect data** on employment,
 - **describe the progress** over time, and
 - **identify potential target groups**
 - make use of disaggregations, e.g. by sex, age, education, citizenship, full-time/part-time, permanent/temporary, urban/rural breakdowns





15 Minutes break



Proiect cofinanțat din Fondul Social European prin
Programul Operațional Capacitate Administrativă 2014-2020, SIPOCA 613



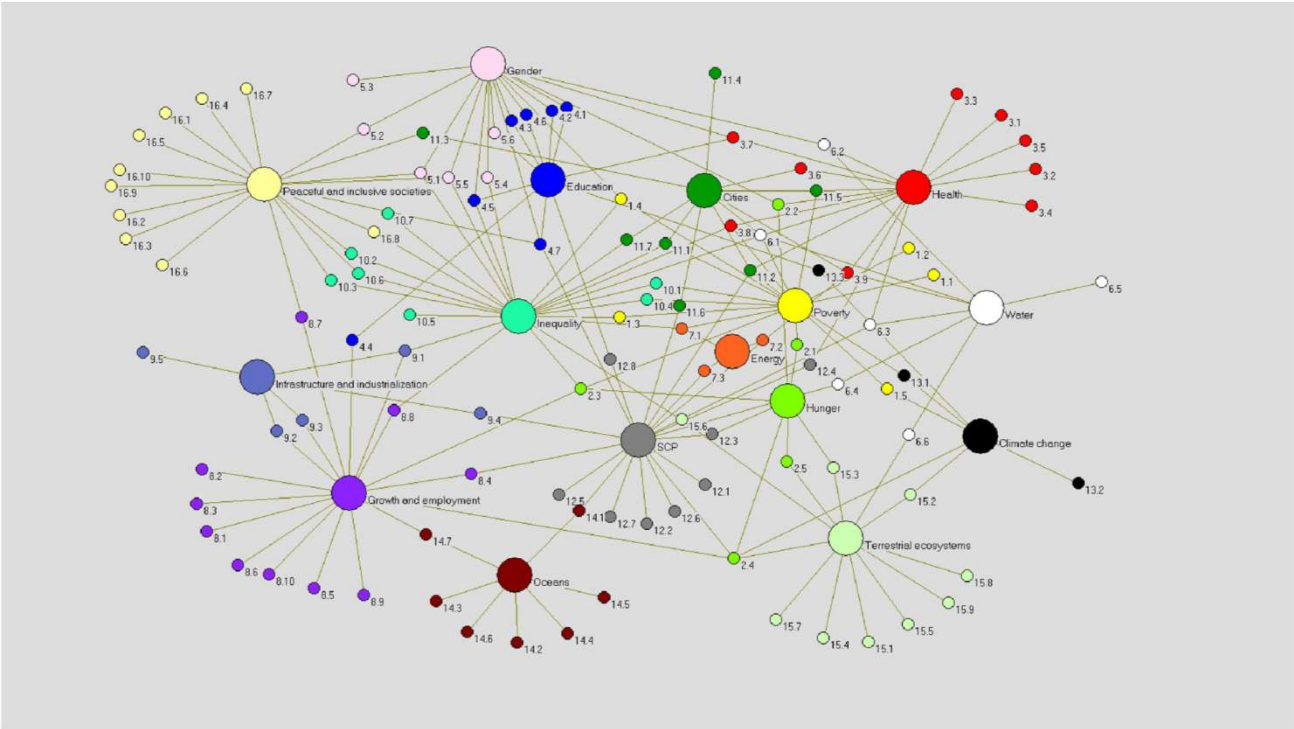
ROMÂNIA DURABILĂ

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Agenda

- **Context** – role & use of indicators
- **Results** from Eurostat’s SDG monitoring report 2022
- *Break*
- **Methods** for assessing progress
- **Making sense** of the data
- *Break*
- **SDG interlinkages** – analysis of interdependencies

SDG interlinkages



Source: Le Blanc (2015), *Towards Integration at Last? The Sustainable Development Goals as a Network of Targets*, Sustainable Development 23, 176–187

Types of interlinkages

- **Synergies** = progress towards one goal helps make progress towards another one
 - GDP growth → employment growth
 - More renewable energies → less greenhouse gas emissions
- **Trade-offs** = improvement in one dimension constrains progress in another dimension
 - GDP growth → more material consumption
- **Non-linkages** = no direct (causal) relationship between goals, targets or indicators
 - Share of women in leadership positions <-> farmland birds

Approaches for assessing interlinkages

- literature review
- expert judgement

qualitative
easy to apply
time-demanding

- linguistic (i.e. based on the wording of the targets)

- quantitative analysis (e.g. correlations)
- modelling complex system interactions

quantitative
(little time for application)
require specialised knowledge &
computer support

Approaches for assessing interlinkages

- **Correlation analysis**

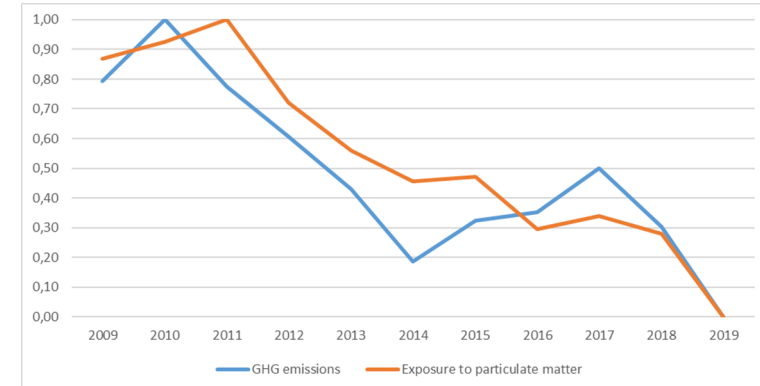
- **Spearman's rank-order correlation coefficient**

- evaluates the strength of an association between two variables

- Synergy/trade-off if:

- Result is statistically significant
 - Correlation coefficient is above a pre-defined value (e.g. 0.5)

- **!! Correlation \neq causality !!**



Approaches for assessing interlinkages

- Correlation analysis for assessing SDG interlinkages in Eurostat's SDG monitoring reports: 2021



Top 10 synergy pairs

3	13	94 %
11	13	83 %
3	11	79 %
4	11	79 %
3	4	77 %
1	4	76 %
3	9	75 %
10	13	75 %
3	12	72 %
4	13	72 %

Top 10 trade-off pairs

2	5	43 %
2	3	40 %
2	9	40 %
2	13	40 %
2	12	39 %
2	7	38 %
5	10	36 %
10	13	36 %
9	15	34 %
2	11	34 %

Approaches for assessing interlinkages

- Correlation analysis for assessing SDG interlinkages in Eurostat's SDG monitoring reports: 2022

Correlations between SDGs



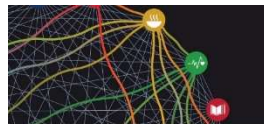
Type of correlation
 Synergies
 Non-correlations
 Trade-offs



Approaches for assessing interlinkages

- **Expert judgment**

- Experts judge whether two variables (goals, targets, indicators) are causally linked
- International Council for Science:



A GUIDE TO
SDG INTERACTIONS:
FROM SCIENCE
TO IMPLEMENTATION



GOALS SCORING

The influence of one Sustainable Development Goal or target on another can be summarized with this simple scale.

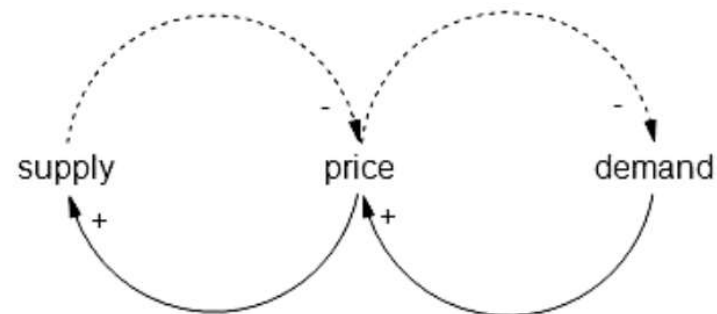
Interaction	Name	Explanation	Example
+3	Indivisible	Inextricably linked to the achievement of another goal.	Ending all forms of discrimination against women and girls is indivisible from ensuring women's full and effective participation and equal opportunities for leadership.
+2	Reinforcing	Aids the achievement of another goal.	Providing access to electricity reinforces water-pumping and irrigation systems. Strengthening the capacity to adapt to climate-related hazards reduces losses caused by disasters.
+1	Enabling	Creates conditions that further another goal.	Providing electricity access in rural homes enables education, because it makes it possible to do homework at night with electric lighting.
0	Consistent	No significant positive or negative interactions.	Ensuring education for all does not interact significantly with infrastructure development or conservation of ocean ecosystems.
-1	Constraining	Limits options on another goal.	Improved water efficiency can constrain agricultural irrigation. Reducing climate change can constrain the options for energy access.
-2	Counteracting	Clashes with another goal.	Boosting consumption for growth can counteract waste reduction and climate mitigation.
-3	Cancelling	Makes it impossible to reach another goal.	Fully ensuring public transparency and democratic accountability cannot be combined with national-security goals. Full protection of natural reserves excludes public access for recreation.

Source: NILSSON, M., GRIGGS, D. & VISBECK, M. 2016. Policy: Map the interactions between Sustainable Development Goals. Nature, 534, 320-2.

Approaches for assessing interlinkages

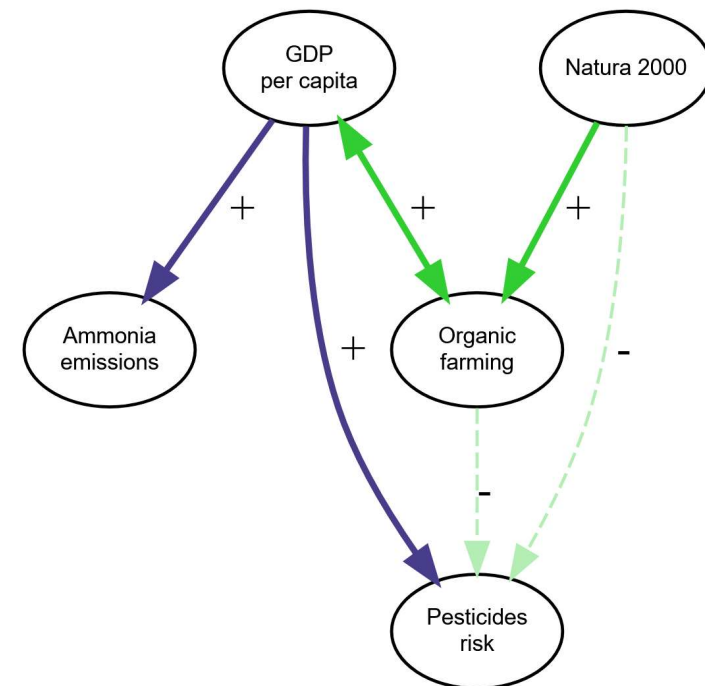
- **Causal loop diagrams (CLDs)**

- Visualise interdependencies between different variables at the same time
- Used in systems thinking („systems maps“)
- Positive & negative relationships → reinforcing & balancing loops



Activity: assessing SDG interlinkages

- Draw a CLD using <https://draw.io>
 - + ... increase in one variable leads to increase in another one
 - - ... increase in one variable leads to decrease in another one
 - green ... synergy (improvement in one variable leads to improvement in another)
 - violet ... trade-off (improvement in one variable leads to deterioration in another)
 - thickness & shape of the arrow ... strength of the relationship



Thank you for your attention!



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