Multidimensional Indicators systems in Italy and Europe

Sustainable Development Goals and Well-being indicators
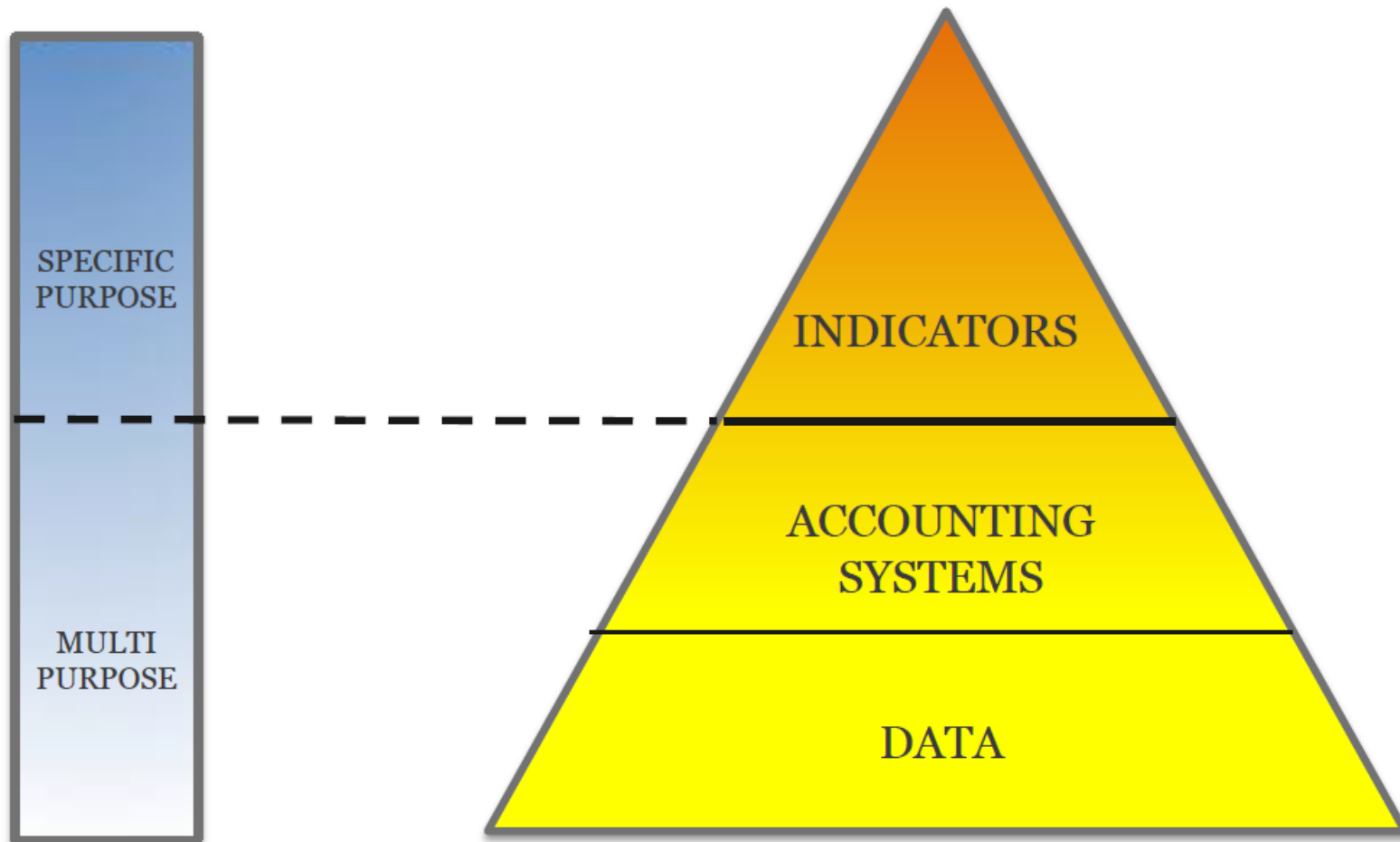
Maria Pia Sorvillo
Istat

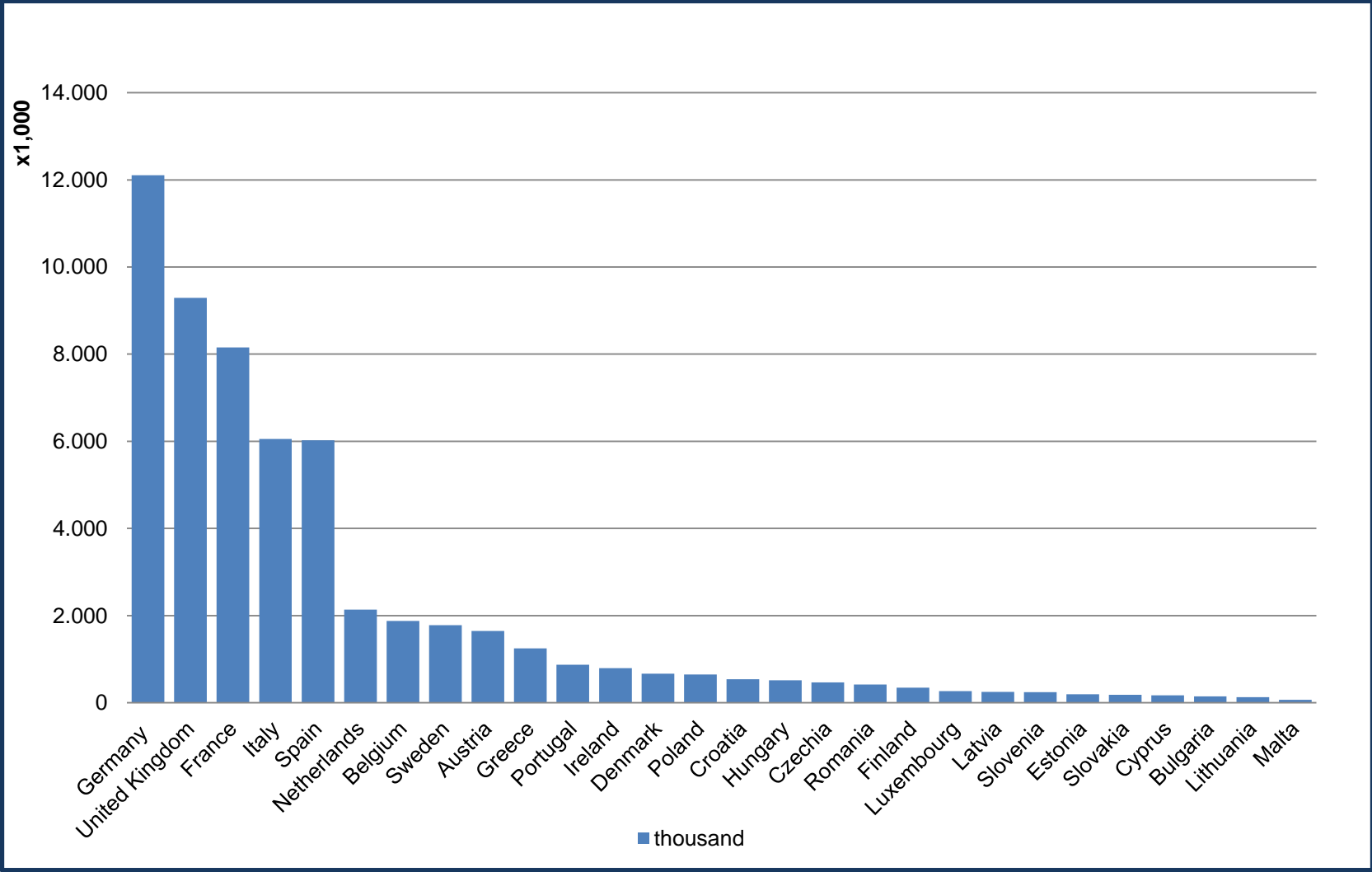Pisa, 16.11.2018

Outline

1. Indicators and indicators' systems

2. The "Beyond GDP" approach and the Agenda 2030

3. Well-being measures and policy making
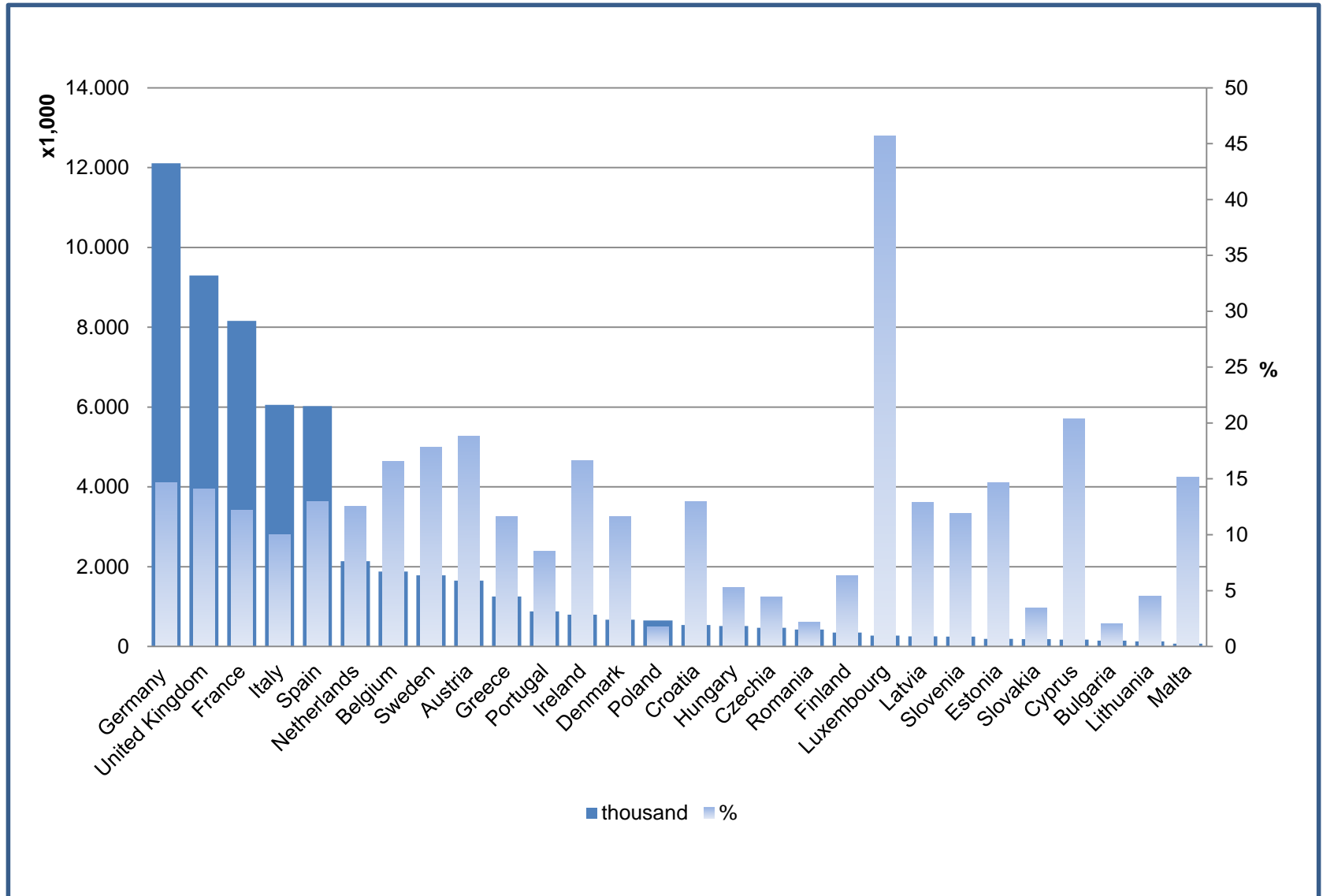
Data and Indicators

Eurostat: the Official Statistics pyramid

Foreign born population in EU member states - Total number (2017)

Foreign born population in EU member states - Total number and % (2017)

Some definitions

- A statistical indicator is a data element that represents statistical data for a specified time, place, and other characteristics
  (OECD glossary)

- A quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of a development actor"
  (DAC Glossary of Key Terms in Evaluation, 2002)

- An indicators provides information, and also guidance...can help reveal trends and simplify complex phenomena… provides warning signals… assists in making evidence-based decisions
  (Eurostat Manual Towards a harmonised methodology for statistical indicators, 2014)

Indicators in Official Statistics

Lisbon memorandum (DGINS 2015)

- Importance of indicators for policy making at regional, national, European and global level is increasing over time

- Scaled-up research on the interaction between statistical indicators and public policies, because statistical indicators do not only help in understanding reality but also influence policymaking.

- Further development of an indicator terminology and methodology, capturing both the statistical aspects and the guidelines for adequate dialogue with users.

- Caution if producing or communicating composite indicators

Main uses

- To compare across places and times
- To add meaning to the data they are calculated from
- To assess trends in relation to goals and targets
- To illustrate complex phenomena
- To communicate synthetic information

Some Instructions

- Indicators are useful to show trends, but they do not necessarily provide an explanation

→ highlight a change, but don't show the reason behind it

- Considered in isolation, are of limited use

→ they tell only a part of the story

- The same indicator can be interpreted in opposite ways

→ positive or negative effects?

- Useful to simplify complex phenomena

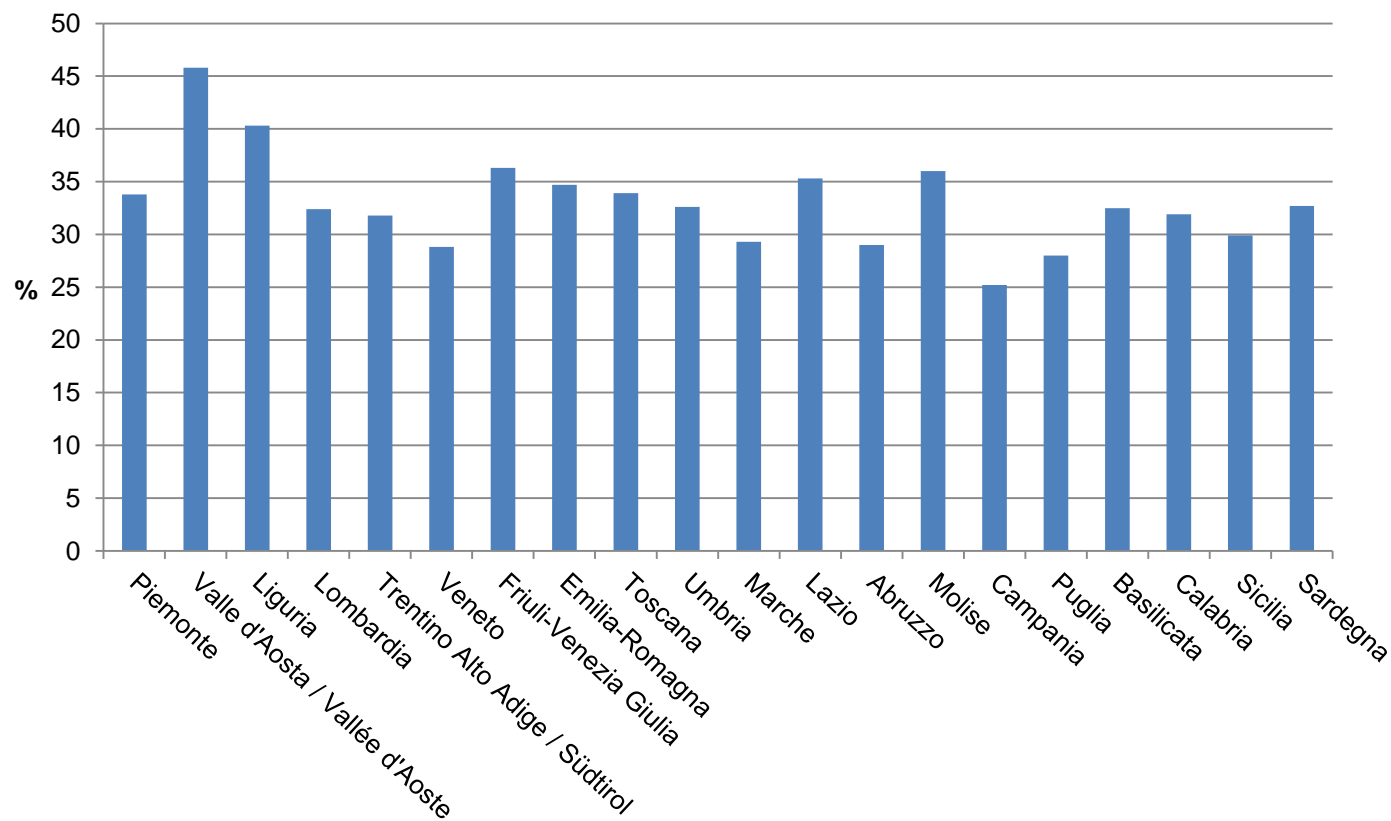→ risk of over-simplification

Mean adjusted income in Italy (2004-2017)
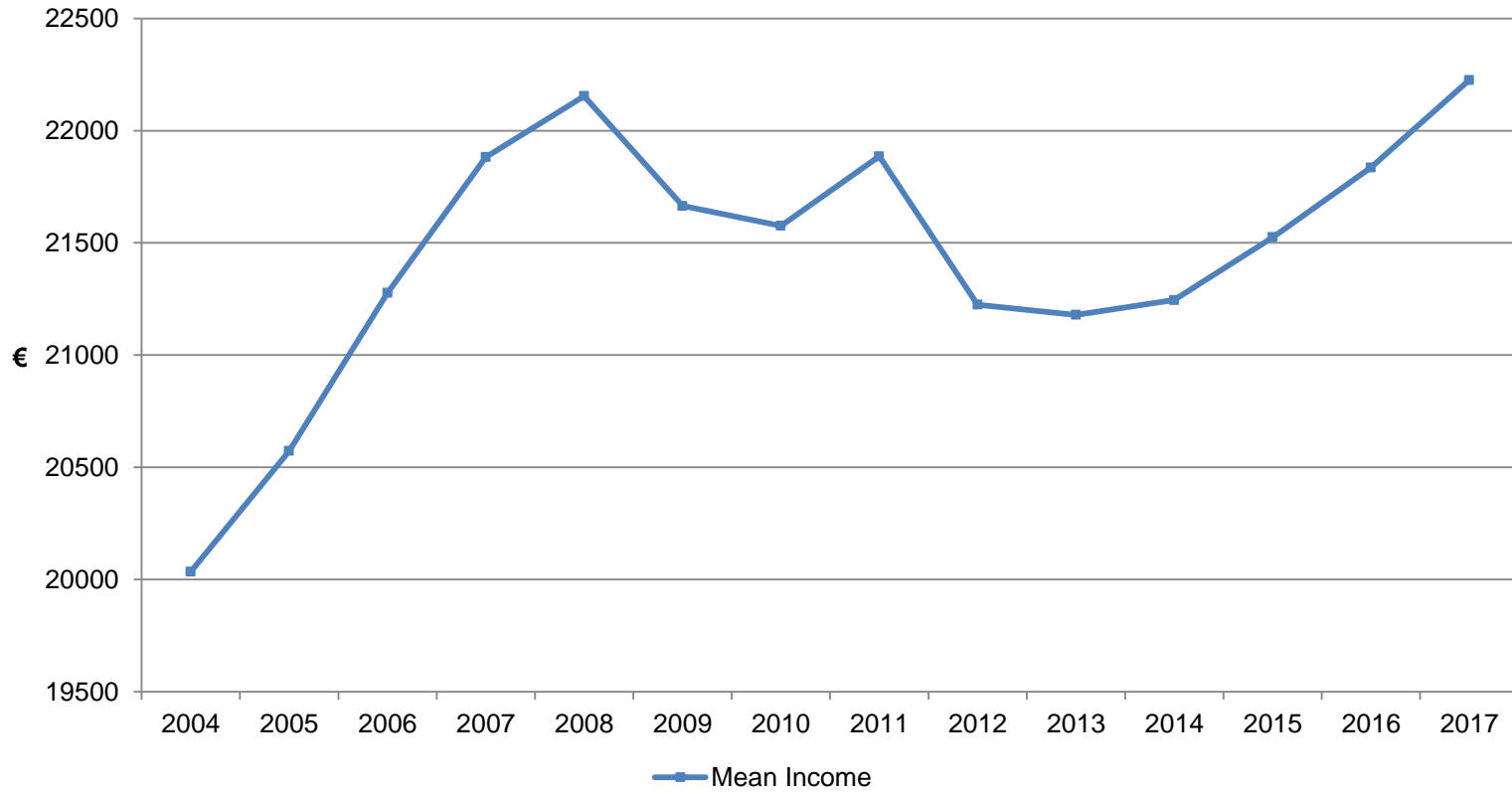
Mean adjusted income and income inequality in Italy (2004-2017)
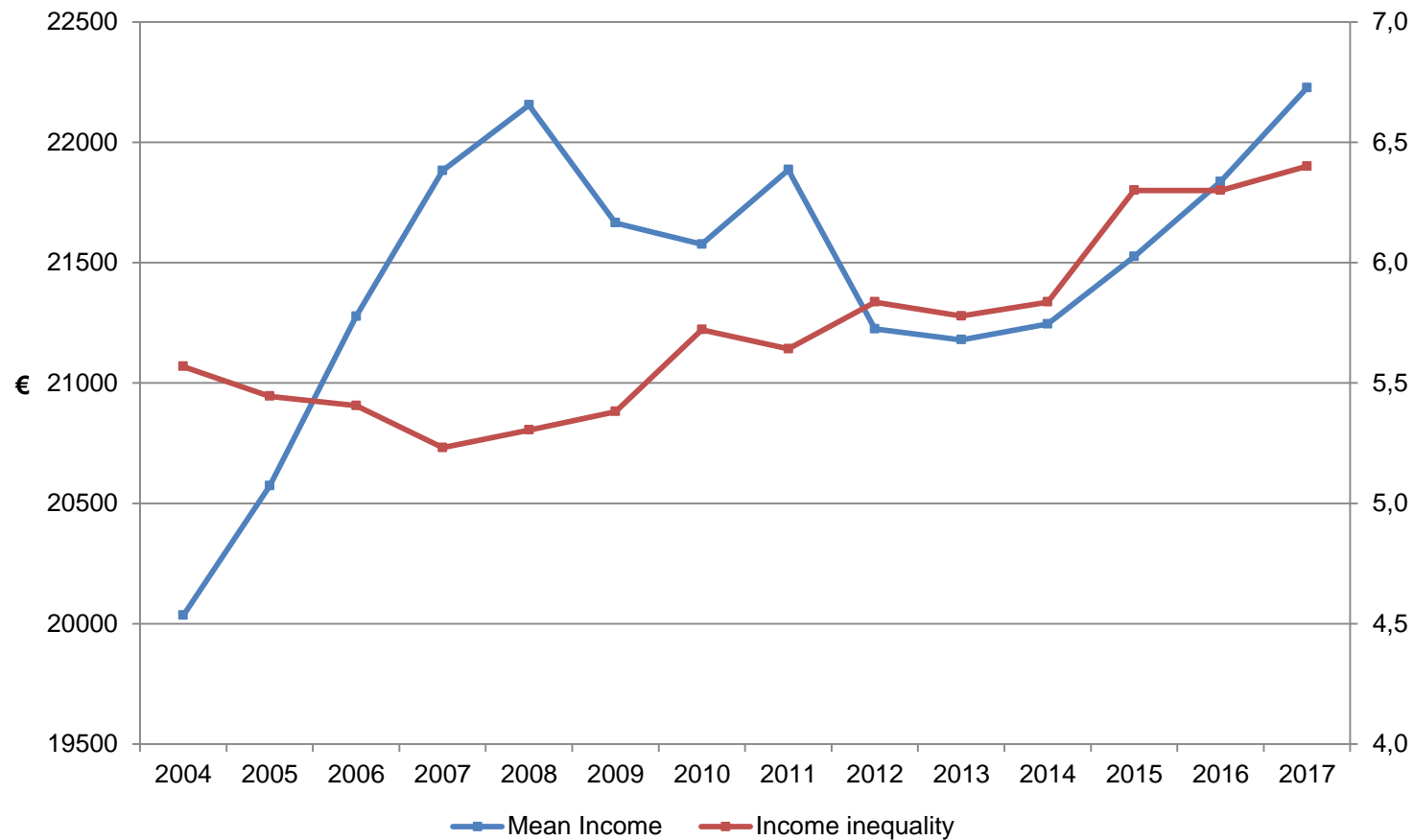
One-person households in Italy – 2017 (%)

From reality to indicators to indicators systems

Real world
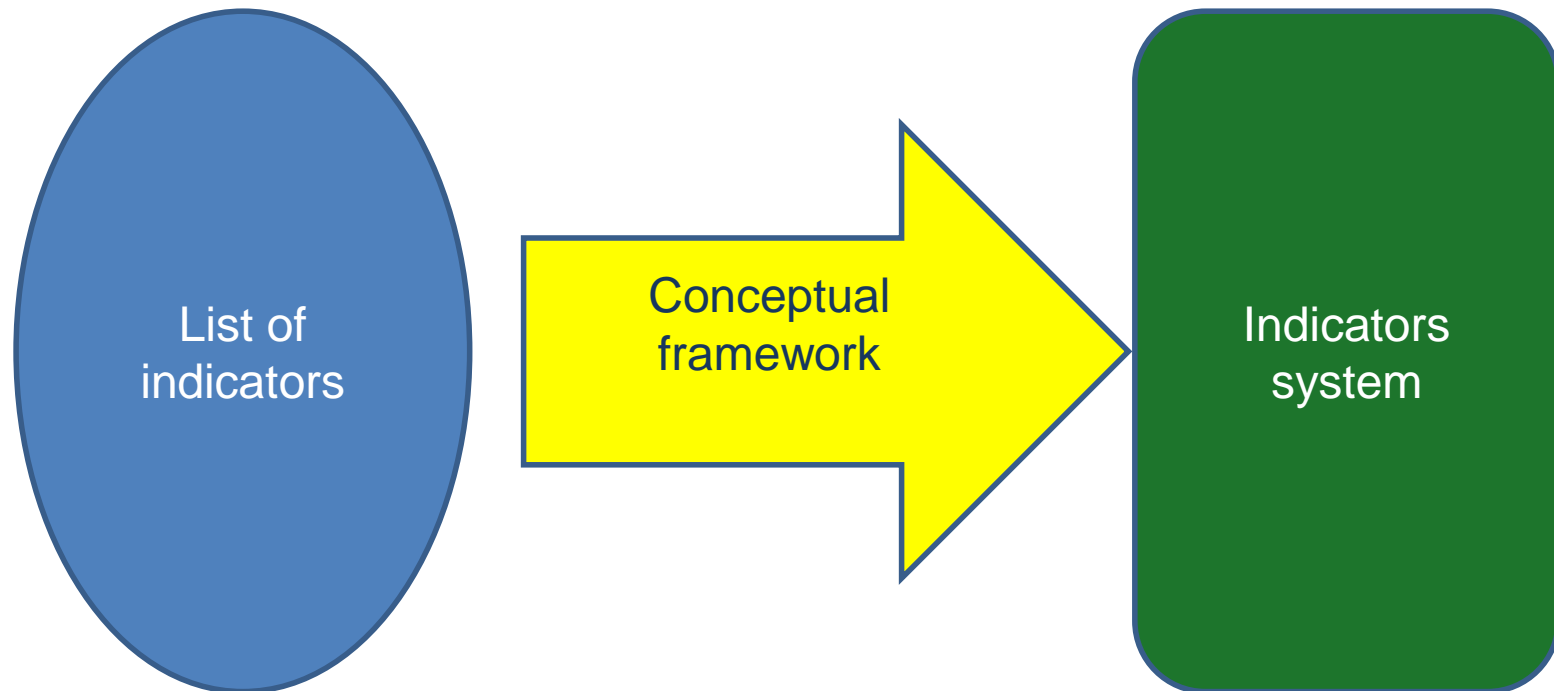

Indicators

Indicators' system

Indicators Systems

Indicators Systems

- Growing interest for complex frameworks as tools to inform decision making

- Increasing need to measure, monitor and analyse complex dimensions of social and economic trends

❖Multi-topic systems

(Sustainable development, Quality of life, Smart cities,…)

❖Sectoral systems

(education, economics, health,…..)

From a list to a system

1. employment rate (population 20-64 years old)

2. public and private investment in R&D (% GDP)

3. greenhouse gas emissions (tonnes of CO_2 equivalent per capita)

4. renewable energy (% gross final energy consumption)

5. energy efficiency (million tonnes of oil equivalent)

6. early leavers from education and training (% 18 to 24 years old)

7. tertiary education (% 30-34 years old)

8. people at risk of poverty and social exclusion (% total population)

EUROPE 2020
A European strategy for smart, sustainable and inclusive growth

5 key objectives

Increasing Employment

More R&D

Better Environment

Equitable and
Increasing Education

Reducing Poverty

9 indicators (and targets):

1. employment rate of the population aged 20-64 →75%

2. public and private investment in R&D → 3% of GDP

3. greenhouse gas emissions →-20%

4. renewable energy → +20%

5. energy efficiency → +20%

6. school drop-out rates → 10%

7. population 30-34 with tertiary education → 40 %

8. people at risk of poverty and social exclusion → -20mln

The framework in EU2020

Background considerations

(2010 communication from the Commission)

- The economic crisis has wiped out earlier progress
- Europe's structural weaknesses have been exposed
- Global challenges are intensifying
- Action is needed to avoid decline
- Europe has many strengths: talent and creativity, strong productive base, single market and common currency, democratic institutions, consideration for cohesion and solidarity, respect for the environment and for gender equality

The framework in EU2020

General Goals

- **Smart growth**

  through the development of an economy based on knowledge, research and innovation.

- **Sustainable growth**

  through the promotion of resource efficient, green and competitive markets

- **Inclusive growth**

  through policies aimed at fostering job creation and poverty reduction.

Fit the indicators in the framework

General goals	Indicators
Smart growth	
Sustainable growth	
Inclusive growth	

EU 2020 indicators

General goals	HEADLINE Indicators
Smart growth	• public and private investment in R&D • early school leavers • population 30-34 with tertiary education
Sustainable growth	• greenhouse gas emissions • renewable energy • energy efficiency
Inclusive growth	• employment rate • people at risk of poverty and social exclusion

Advantages

- Express key concepts in a simplified powerful way
- Easy to communicate
- Fit to comparisons and monitoring
- Useful to set targets and benchmarks
- Support the policy cycle (formulation, monitoring implementation, evaluation)
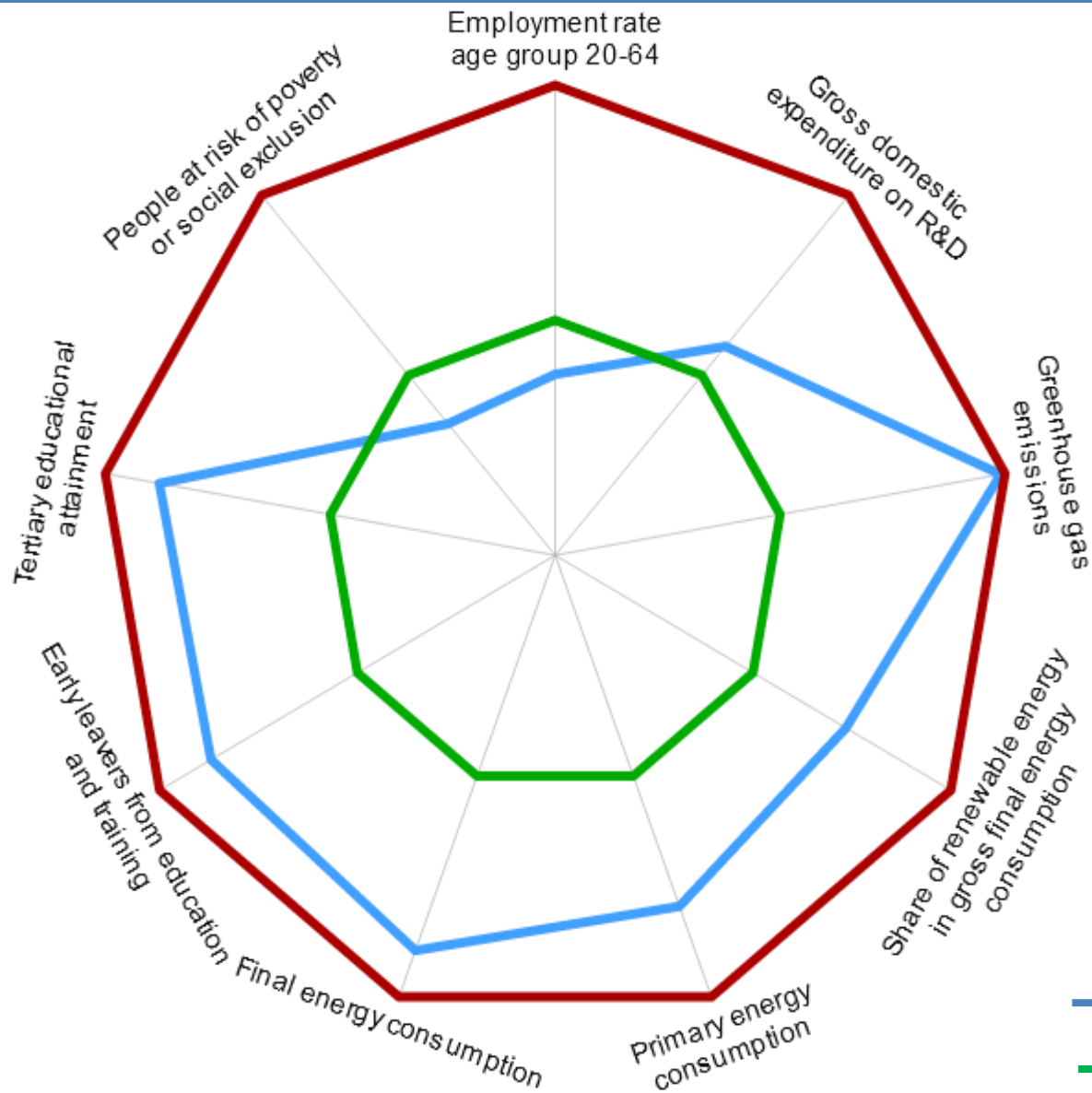
Risks

- Goodhart's law: "when a measure becomes the target, it can no longer be used as the measure."

- A lot remains hidden

For example

A country can focus on tertiary education to reach the target, subtracting resources from other levels of education

- Measuring improvements in occupation rates, overlooking job quality

General goals	HEADLINE & *Contextual Indicators*

Smart growth	• **public and private investment in R&D**
	  ✓ *R&D personnel and researchers*
	  ✓ *high-tech exports to outside the eu*
	
	• **early school leavers**
	  ✓ *participation in early childhood education*
	
	• **population 30-34 with tertiary education**
	  ✓ *employed recent graduates*

Sustainable growth	• **greenhouse gas emissions**
	  ✓ *global temperature*
	
	• **renewable energy**
	  ✓ *imports in total energy consumption*
	
	• **energy efficiency**
	  ✓ *by sector*

Inclusive growth	• **employment rate**
	  ✓ *gender employment gap*
	  ✓ *involuntary part-time employment*
	  ✓ *overqualification rate*
	
	• **people at risk of poverty and social exclusion**
	  ✓ *by individual and household characteristics*

Defining an indicator system

- Why?
- By whom?
- How?
- For whom?
- Which geographic detail?

From the ESTP Course on Indicators (2017)

Why?

Why is an indicator initiative set up? What is the mandate?

Rationale
- Explicitly measure the implementation of a particular strategy, programme or public policy
- Provide information in a structured manner on a given topic

Purpose
- Monitoring: observation of an evolution in the long run
- Benchmarking: comparison with others / targets
- Controlling: measure whether specific aims are achieved

By whom and How?

- Who are the stakeholders and who sets up the indicator initiative?

- Which organization takes responsibility for managing the system, including updates and dissemination of results?

- Which kind of procedure?
  - Unilateral or participative
  - Involved stakeholders: only government, administration, civil society, academia, …

- How to involve stakeholders effectively ?

For whom: the target audience

Who is the indicator initiative for?

• Politicians, decision makers, researchers, general public,...

Communication channels and dissemination products

• varying according to the users

Geographical breakdown

Local, regional, national, international...

- Implication on stakeholder involvement
- Implication on data availability and comparability

Two examples

of sectoral indicators systems

1

INES

Indicators of Education Systems

The main topics

- The output of educational institutions
- The impact of learning
- The financial and human resources
- Access to education, participation and progression
- The learning environment and organisation of schools

Questions (and indicators)

The output of educational institutions
✓How many students finish tertiary education?
✓How does educational attainment affect participation in the labour market?
✓What are the social outcomes of education?

Financial and human resources
✓How much public and private investment in education is there?
✓How much do tertiary students pay, and what public subsidies do they receive?

Access to education
✓Who participates in education?
✓How many students will enter tertiary education?
✓Who studies abroad, and where?

The learning environment and organisation of schools
✓How much time do students spend in the classroom?
✓What is the student-teacher ratio, and how big are classes?
✓How much are teachers paid?

2   **Circular economy in EU**

Concept:
the circular economy is beneficial, as it offers an opportunity to reinvent our economy making it more sustainable and competitive.

Main topics:
1. Production and consumption
2. Waste management
3. Secondary raw materials (recyclable)
4. Competitiveness and innovation

Measures:
Eurostat is monitoring progress through 10 indicators
https://ec.europa.eu/eurostat/web/circular-economy/indicators

Related policies:
The EU Action Plan for the circular economy establishes a concrete programme of actions outlining measures that cover the entire product life cycle