EUROPEAN CONFERENCE ON QUALITY IN OFFICIAL STATISTICS
2024 ESTORIL - PORTUGAL

INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL

eurostat

The conference is partly financed by the European Union

REFLECTIONS ON ESG DATA QUALITY STRATEGY FOR SUSTAINABLE DEVELOPMENT – An Integrated Value at Risk Approach –

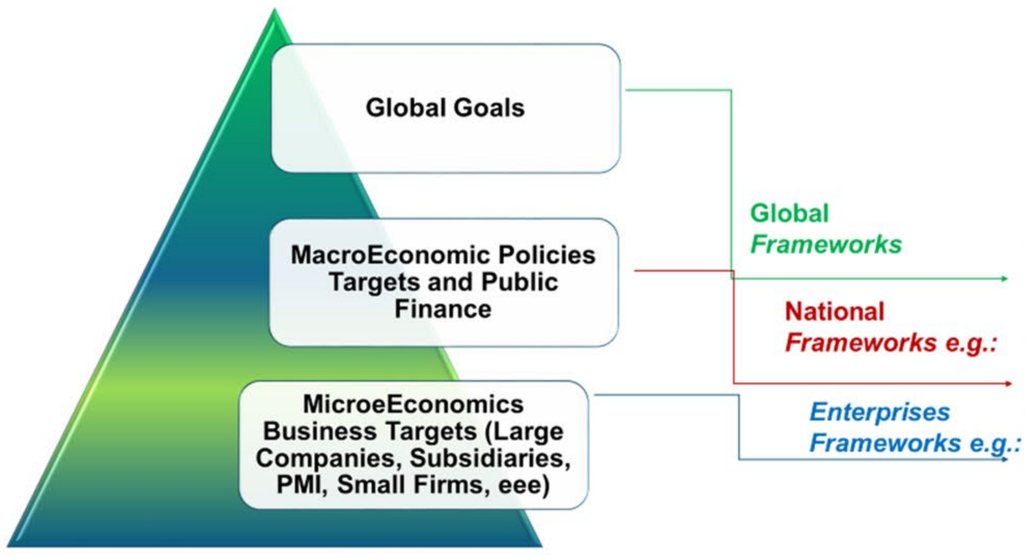
Author: Paola Casciotti – Affiliation: Italian National Institute of Statistics ISTAT (paola.casciotti@istat.it)

The path towards the Sustainable Development Goals set by *Agenda 2030*, given the now short time horizon of reference, highlights challenges requiring innovations in data production, management and interpretation, to improve, at each level, a Systemic Vision in identifying and analysing phenomena, linked to the multiple dimensions of Sustainability. Systemic Vision is strategic to neutralize misleading *green-blue-….washing* phenomena, and to effectively and efficiently converge on the whole system of intermediate and interrelated targets at all decision making levels: Institutional, Public and Private, Individual, Small and Large Businesses. Hence, the importance of strengthening the role of Official Statistics.

LEVELS TO BE CONSIDERED IN A SYSTEMIC VISION

I. FROM GLOBAL TO MACRO AND MICRO *PLAYING FIELDS*

INTERTWINED RELATIONSHIPS



MAIN FRAMEWORKS CONSIDERED FROM AN ESG CRITERIA PERSPECTIVE (SUSTAINABLE FINANCE)

	Goals	Targets	Domains	Missions	Components	Measures	Sub Measures	Standards	Items	Indicators
MDGs (2015)	8	21								60
SDGs (2030)	17	169								247
BES			12							152
PNRR				x	xx	xxx	xxx			xx
GRI*								33	87	395

** 200-300-400*

Environmental - Social - Governance CRITERIA

II. FROM DECISION MAKING TO FINAL DISCLOSURES IN EACH PLAYING FIELD

One of the most challenging aspects of the SDGs framework in relation to data quality, concerns the high degree of intertwined relationships between goals and between intermediate targets relating to the different and complex dimensions of Sustainability.

The no standardized application of several frameworks, models and tools adopted at different decision making levels for implementing, monitoring, evaluating and reporting actions towards Sustainable Goals, make scenarios more complex, to produce robust and consistent data analyses.

HOW TO GOVERN COMPLEXITY AND MEGA-DATASETS FROM DIFFERENT SOURCES ALSO PRODUCED FOR DIFFERENT AIMS?

Classification proposal, based on individual E-S-G- Criteria and on their possible Combination ES-EG-SG-ESG. Interesting areas of correlation or combination between drivers

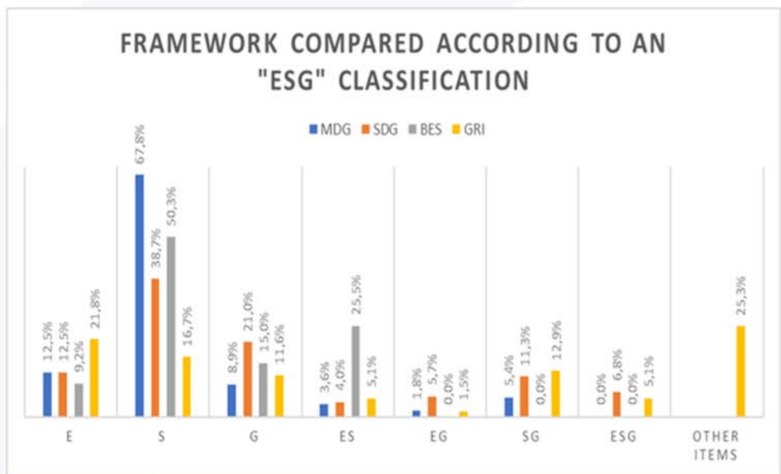
First study Results for points I. – II.

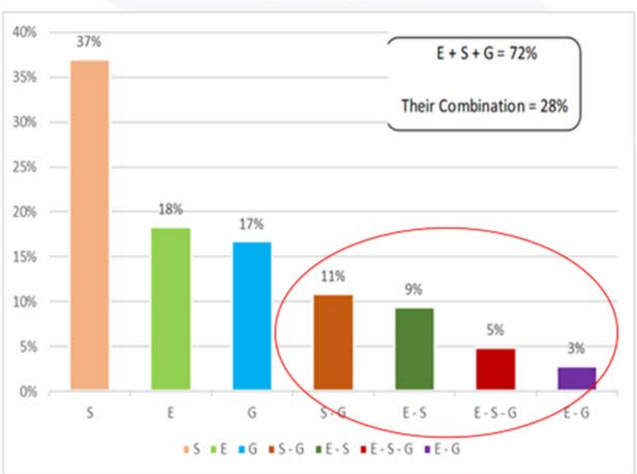
«A COMPARISON BETWEEN SUSTAINABILITY FRAMEWORKS: AN INTEGRATED READING THROUGH ESG CRITERIA FOR BUSINESS STRATEGIES AND ENTERPRISE RISK MANAGEMENT» → **ESG Criteria application to Data Mapping and Classification, for producing integrated *Statistics* about Sustainability**

It is strategic to develop integrated and balanced ECOSYSTEM of analytical data in compliance with data quality principles, similarly to the development processes and methods typical of wide experienced Value at Risk approach.

Opportunity to adopt ESG criteria and their combinations to develop an integrated datawarehouse for the different dimensions of Sustainability comprehensive of the financial ones according to a Medium-Long term vision

ESTIMATION OF WEIGHTS AND CORRELATED ITEMS IN FRAMEWORKS CONSIDERED ρ >0 ρ <0



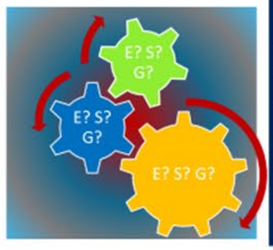


III. CHALLENGES *«SUSTAINABLE DATA (and Tools) FOR SUSTAINABLE DEVELOPMENT»*

TO DETERMINE DOUBLE MATERIALITY MATRIXES to analyse and evaluate both *Inside – Out* and *Outside – In with positive and negative* Impacts, related to all Sustainability Risk Drivers (non financial and financial ones).

Sustainability Dimensions vs Process Quality Dimensions and Analytical Tools

Accuracy;
Clarity;
Comparability,
Completeness;
Consistency,
Equilibrium;
Flexibility
Modularity;
Timeliness;
Verifiability
.....



STATISTICS
- Data
- Indicators
- Measures
- Studies, Analyses

TO INTEGRATE
- Connections
- Correlations
- Sources
- ……..

TO DEVELOP
- Identify and Plan
- Model
- Metrics
- Prototype
- Integrated Information Frameworks

Specify needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate
1.1 Identify needs	2.1 Design outputs	3.1 Reuse or build collection instruments	4.1 Create frame and select sample	5.1 Integrate data	6.1 Prepare draft outputs	7.1 Update output systems	8.1 Gather evaluation inputs
1.2 Consult and confirm needs	2.2 Design variable descriptions	3.2 Reuse or build processing and analysis components	4.2 Set up collection	5.2 Classify and code	6.2 Validate outputs	7.2 Produce dissemination products	8.2 Conduct evaluation
1.3 Establish output objectives	2.3 Design collection	3.3 Reuse or build dissemination components	4.3 Run collection	5.3 Review and validate	6.3 Interpret and explain outputs	7.3 Manage release of dissemination products	8.3 Agree an action plan
1.4 Identify concepts	2.4 Design frame and sample	3.4 Configure workflows	4.4 Finalise collection	5.4 Edit and impute	6.4 Apply disclosure control	7.4 Promote dissemination products	
1.5 Check data availability	2.5 Design processing and analysis	3.5 Test production systems		5.5 Derive new variables and units	6.5 Finalise outputs	7.5 Manage user support	
1.6 Prepare and submit business case	2.6 Design production systems and workflow	3.6 Test statistical business process		5.6 Calculate weights			
		3.7 Finalise production systems		5.7 Calculate aggregates			
				5.8 Finalise data files			

medium-low criticality

medium-high criticality