

Perspectives and best practices for data system integration in the EU





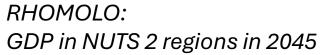
### Introduction

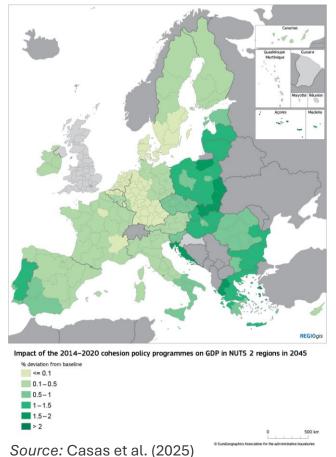
Tillmann Heidelk – European Commission – DG REGIO

### **Cohesion Policy**

- Broad: promote innovations, accelerate the green and digital transition, boost competitiveness in lagging regions, among many areas of intervention
- Big: 1/3 EU budget + MS contributions + private contributions
- Highly evaluated
  - EU / national / regional level
  - Public administrations (European Commission, managing authorities); academia

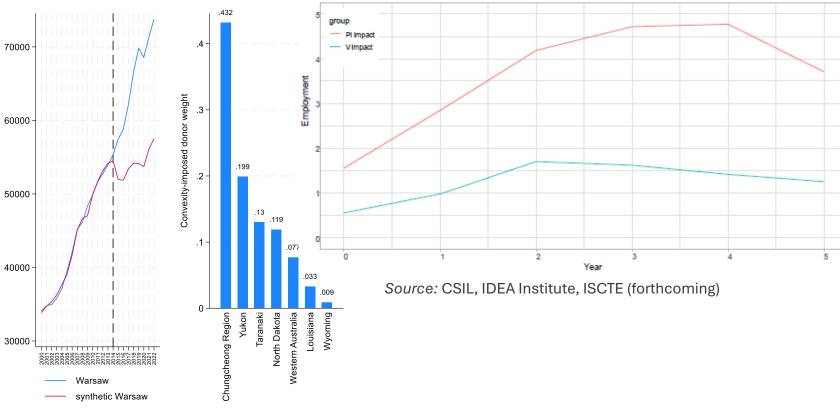
# Examples: Impact of cohesion policy during the 2014–2020 programming period





Synthetic control: Difference in differences:

GDP p.c. (here: Warsaw) Impact on Employment (Portugal)



Source: Spruk (forthcoming)

### Data are (the) key

- Still limited evidence from modelling + econometrics / 'local' data
- Quantitative answers to:
  - What is happening on the ground? How is implementation going? Where? When? Why?
  - What is impact? Where? What works? Why?
  - → Policy making!
- Data are (the) key!
- But: EU level mainly aggregate / regional data
- Lack of automatic 'creation' of comprehensive micro data

### DG REGIO – DIME project

- Promote innovative / enhanced cohesion policy data ecosystems
- Connect cohesion policy data with complementary data (MS + regional)
  - Monitoring: Increase the efficiency
  - Evaluation: More detailed / comprehensive / faster data
- Cohesion policy data transmission and management (EU + MS + regional)
  - How are data in being managed
  - Opportunities for automation and data connections, e.g. transmission of data
  - How can we improve the data system(s)
- More granular data; lower transmission cost; higher speed + data reliability

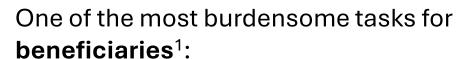
# Survey Results and Emerging Lessons

Wei Lu – Data Scientist – DIME

#### Goal: More Actionable Data with Less Administrative Burden

Most time-consuming M&E task for **program authorities**<sup>1</sup>:

 Preparing and transmitting data to the European Commission



Collecting monitoring data



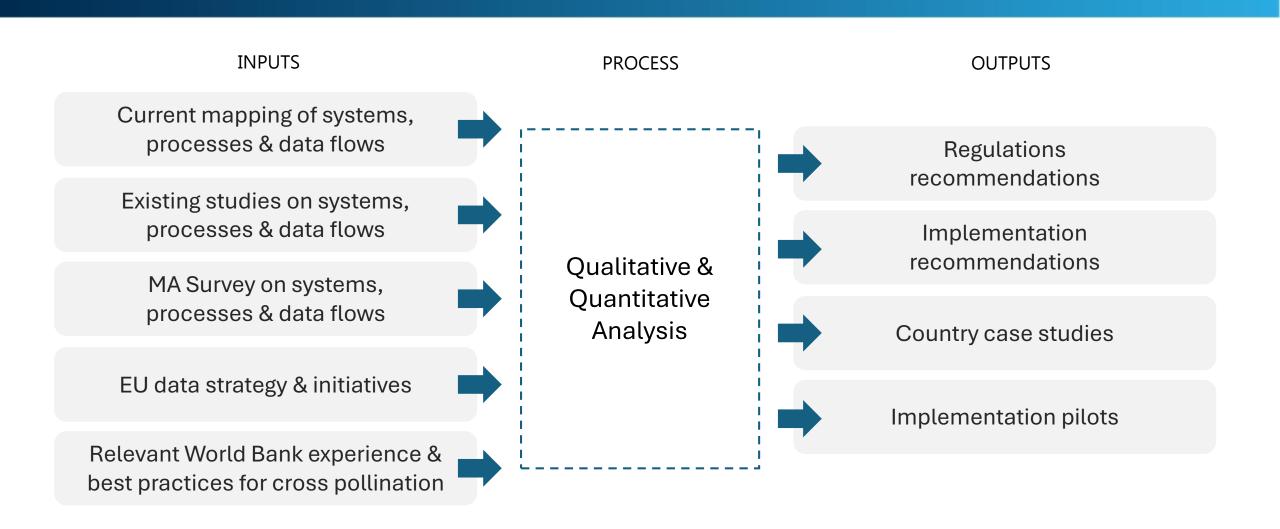
Automate manual tasks to create space for:

- Rigorous impact evaluation
- Adaptive implementation & delivery
- Al-driven innovations

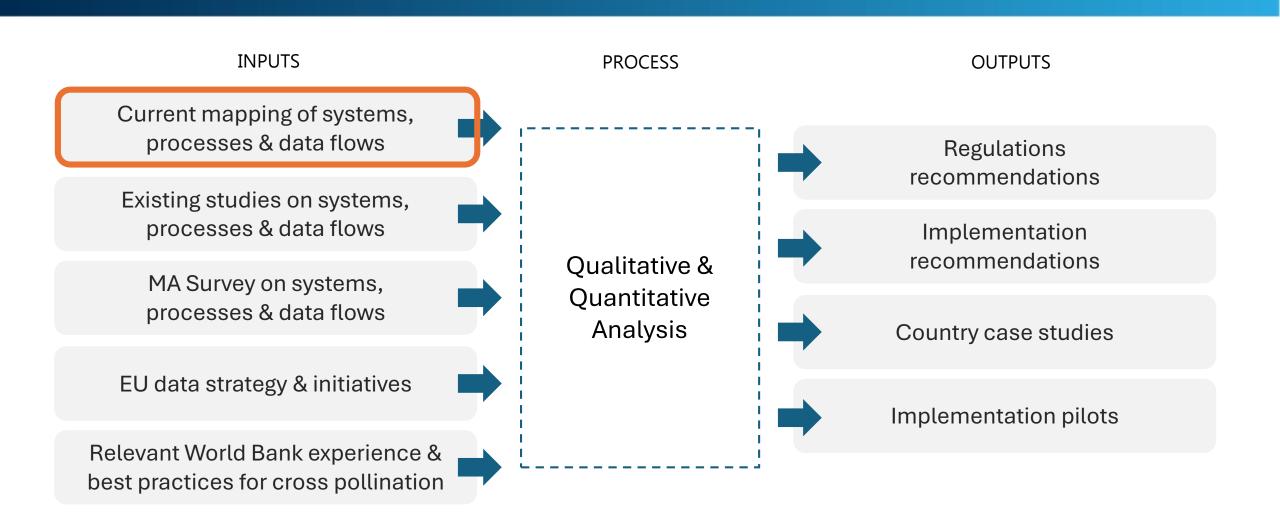
#### How do we get there?

1. Assessment of administrative costs and administrative burden in the management of the common provisions regulation funds 2021-2027

# Collaborative Process: From Evidence to Recommendations and Action



### Collaborative Process: From Evidence to Recommendations and Action



# The Baseline: Main Systems for Data Collection and for Data Exchange between MAs and EC

### E-COHESION & MANAGEMENT INFORMATION SYSTEM (MIS)

Operation Management: Financial and M&E Data Collection

- Used by Beneficiaries and Program Authorities
- Can be integrated in one system or split between multiple systems

### SYSTEM FOR FUND MANAGEMENT (SFC)

Program Management: Financial and M&E Data Reporting

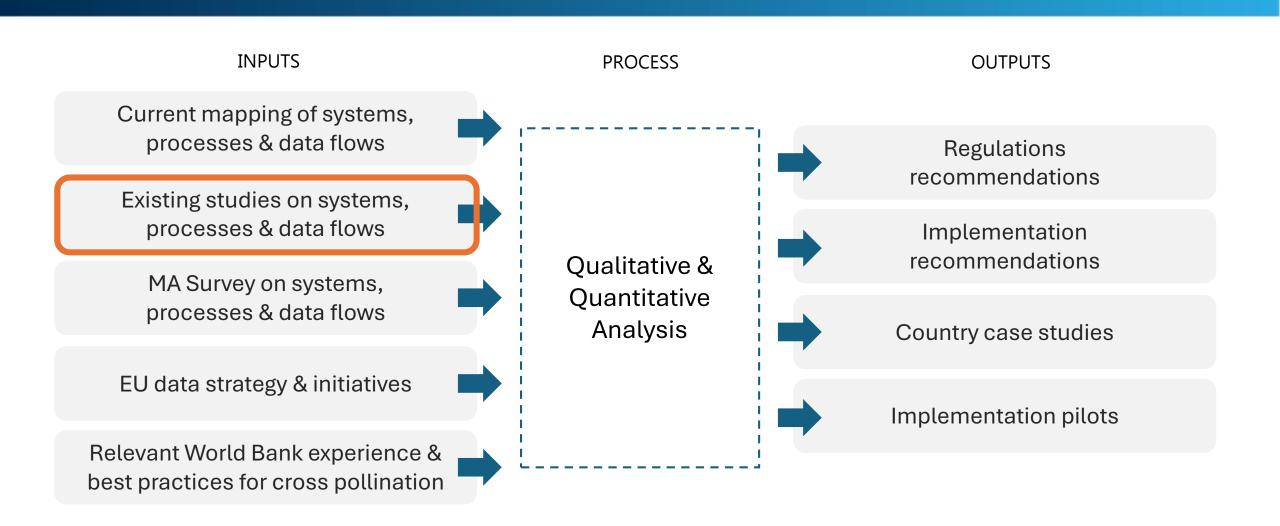
- Usage is mandatory
- Receives financial reporting 5x/year
- Receives performance (M&E) indicators 2x/year
- Receives payment applications up to 6x/year from MAs

#### **ARACHNE**

Beneficiary Risk Scoring and Fraud Prevention

- Usage is voluntary, will be mandatory in the next programming cycle
- Received operationand beneficiary-level data from MAs

# Collaborative Process: From Evidence to Recommendations and Action



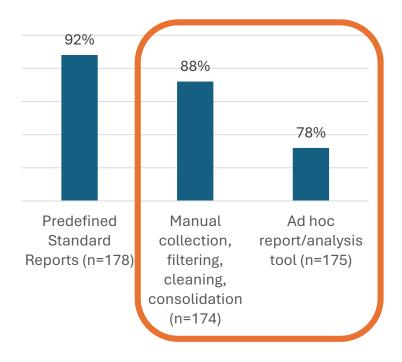
# Starting Point: A Recognized Need for More Efficient Data Processes...

#### At the beginning of this programming period...

Member States plan/wish to incorporate more automation in their e-cohesion systems

19 Member States plan/wish for more interoperability with national e-registers/databases

WHAT PROCEDURES WERE IN PLACE TO REPORT MONITORING DATA TO THE EC?



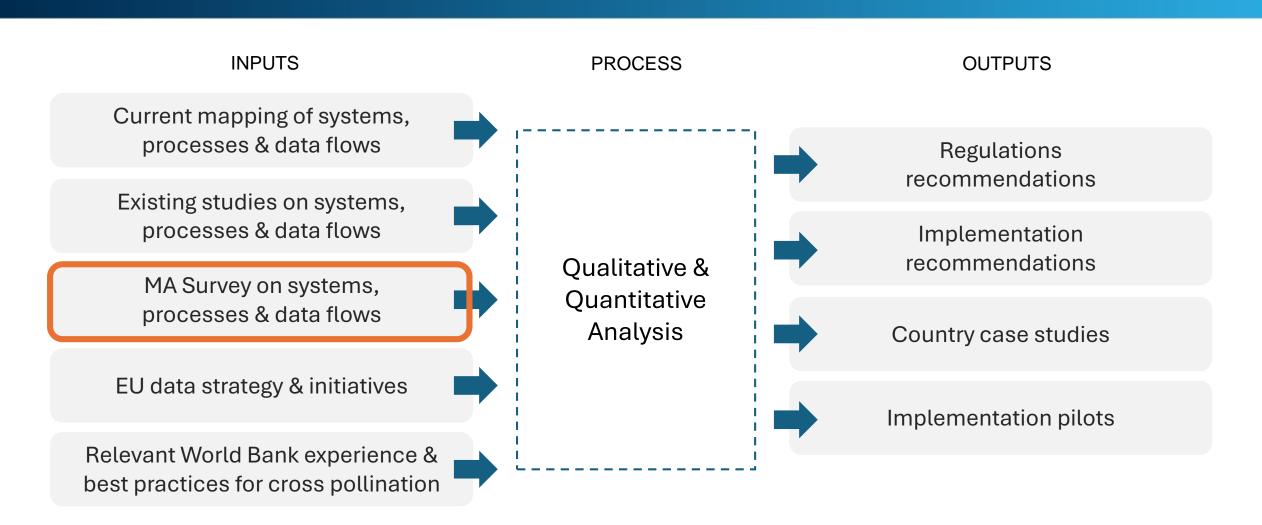
### ... That is Largely Unmet.

The System for Fund Management (SFC) has featured a technical interface for automated data transmission since SFC2007, but uptake has been limited.

9 Member States 6 Member States 5 Member States (CY,CZ,DE,ES,GR,IT,NL,PT,SK) (CZ, DE, ES, FR, EL, IT) (CZ, DE, IE, LU, SE)

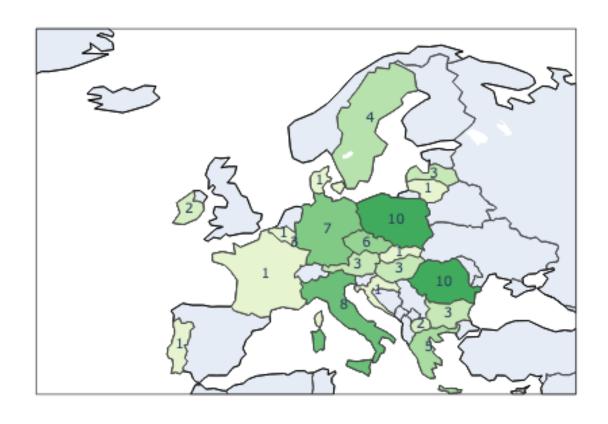
Why? And what can we do to increase automation uptake?

# MA Survey: Uncovering the Reality and Challenges for Program Authorities.

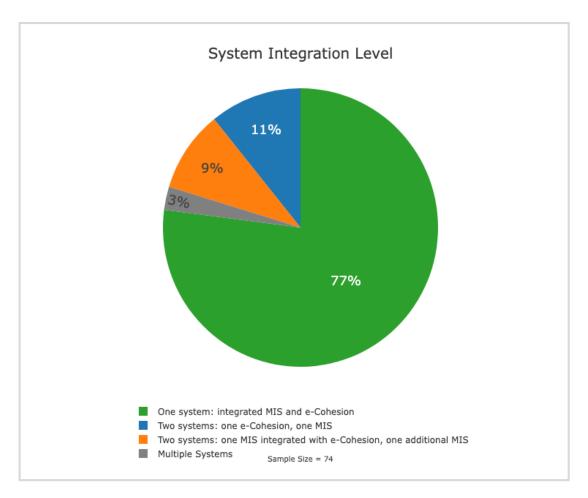


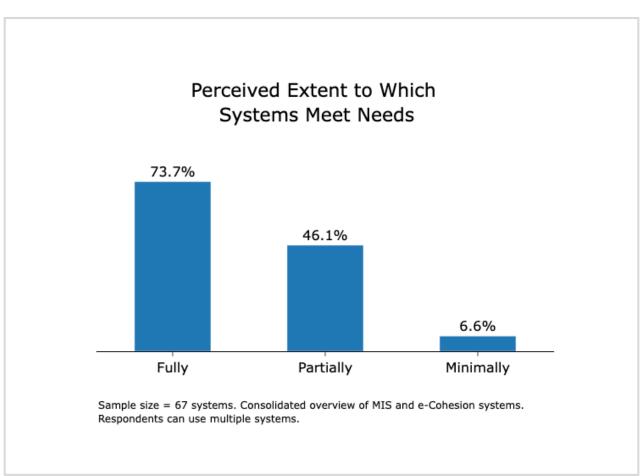
# Who We Heard From: Survey Participants and Representation

- Survey period: April 23 May 16, 2025
- Responses from 79 MAs across 21
   Member States + North Macedonia
- Represent approximatively 225
   programs supported by 15 billion in EU funds (e.g. ERDF, ESF+, CF)
- Responses include both national and regional-level MAs

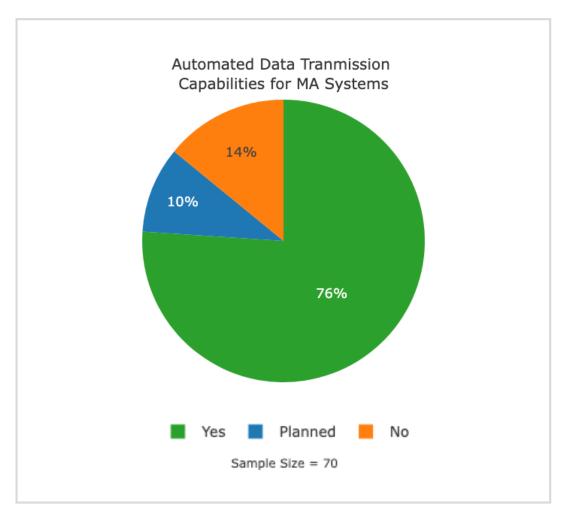


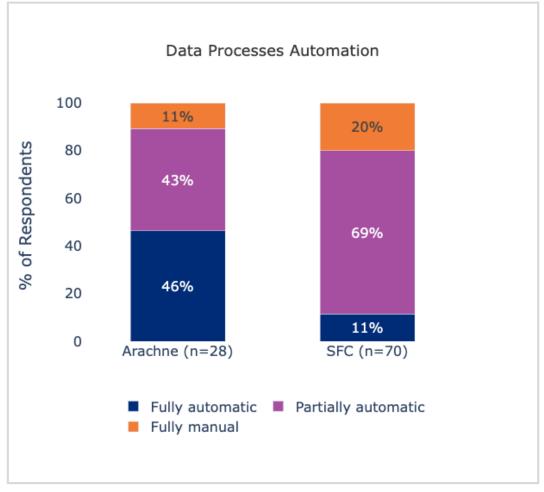
### Most MAs Operate Within an Integrated System Landscape That Meets Their Needs





# Many Systems Support Data Integration, Yet Are Only Partially Used





# Data Fragmentation and Incompatibility Are Key Barriers - Bridging the Knowledge Gap Could Help

#### **Automated Data Transmission to SFC**

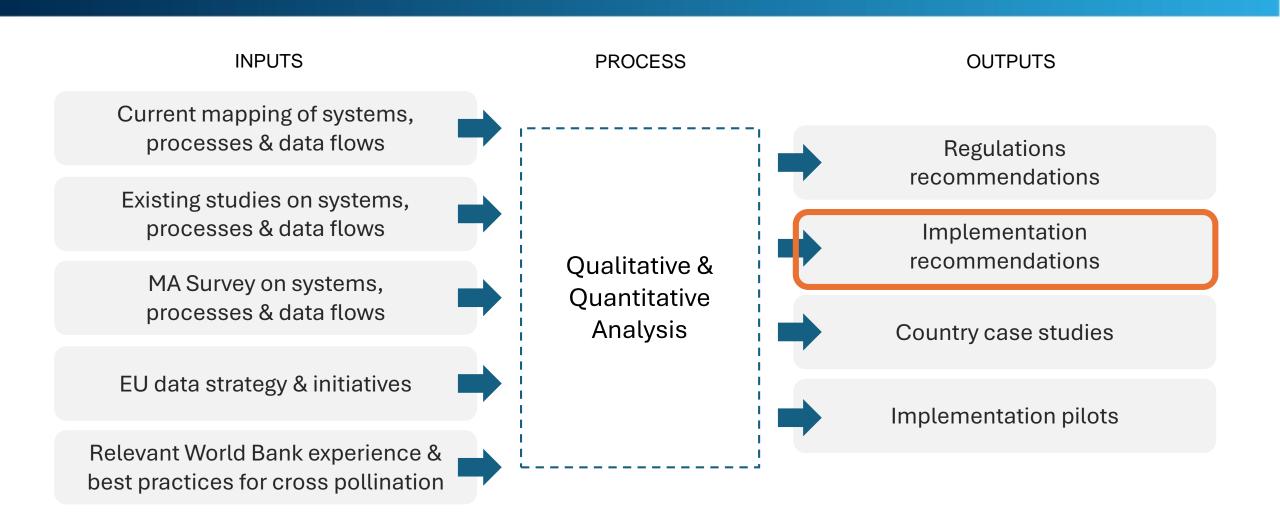
#### Top 5 Challenges

- 1. Need to integrate multiple data sources (40%)
- 2. Need for manual data quality checks (34%)
- 3. Different data formats require conversion (28%)
- 4. Budgetary restrictions (23%)
- 5. Complexity of implementation (23%)

#### **Top 5 Resources Needs**

- 1. IT Support/ Technical Assistance (71%)
- 2. Peer Experience from other MAs (65%)
- 3. Training on API Usage (65%)
- 4. Improved API documentation (53%)
- 5. Budget for staff/contractor (49%)

### Bringing Your Insights Forward: Shaping Implementation Recommendations



### Multiple systems, different functions, but overlapping data needs

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# Reuse of Operation-Level Data Can Streamline Financial and Performance Reporting

#### **Status Quo**

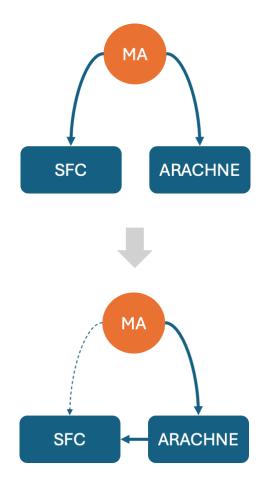
Arachne uptake is ~80%<sup>1</sup>. According to the survey, among adopters, 91% uses at least partial automation for data exchange.

#### The Ambition

- Change the flow of data to improve efficiency
- Reduce duplication in reporting tasks
- Improve consistency between control and reporting

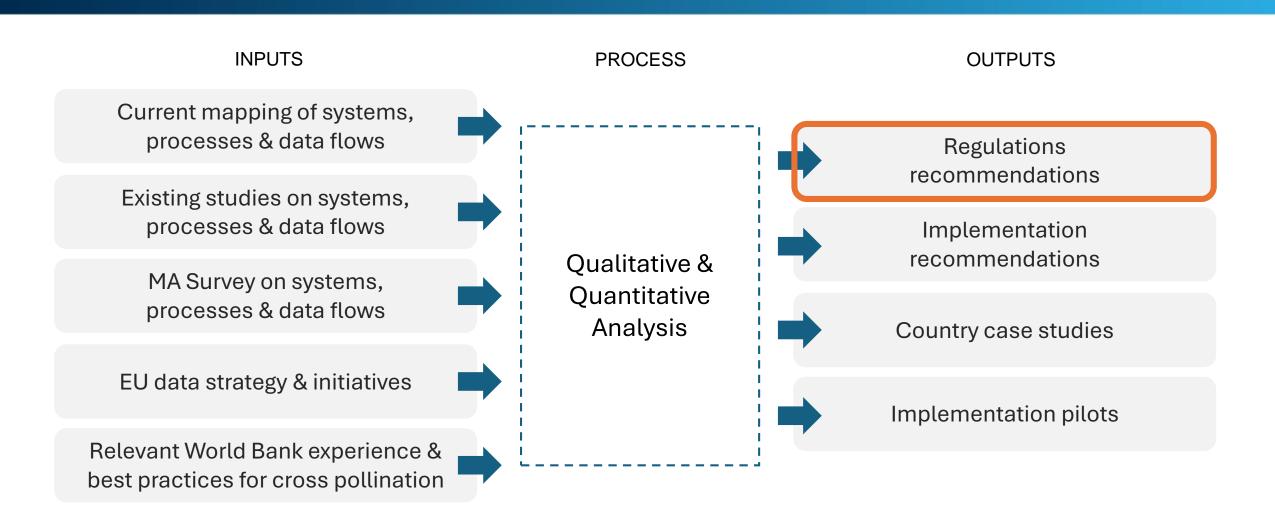
#### What's needed

Enriching operation-level records in Arachne with attributes required for SFC reporting, most of which already exist in MA MIS/e-Cohesion systems



1. EC estimates in terms of expenditure amount covered

# Bringing Evidence Forward: Shaping Regulation Recommendations



### Unlocking the Potential of Administrative Data for Evaluation Within GDPR Frameworks

#### The Challenge

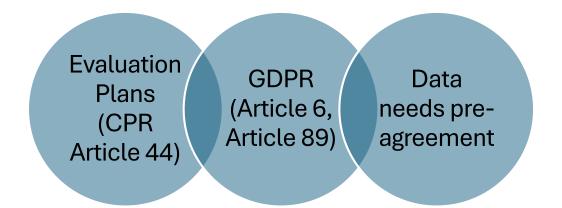
Program authorities face barriers accessing administrative microdata

- Leading to manual data collection
- Increasing administrative burden
- Undermining data quality and timeliness

#### The Potential

**Embed administrative data access requirements** directly in the **Evaluation Plan**, aligning with GDPR through predefined safeguards.

#### **Strategic Alignment**



### Key Takeaways

- Existing systems have untapped potential
  - Technical capacity for data integration exists but remains underutilized
- Several actionable opportunities to significantly reduce reporting burden and improve efficiency, data quality, and data integration
  - Align systems, embed admin data requirements in planning, adapt workflows
- Insights from the past and from program authorities are essential for shaping actionable recommendations for implementation and regulation.

### Fireside Chat

Dragana Von Kaphengst - Senior in charge of M&E of the ESF+ Federal Programme in Germany - Ministry of Labour and Social Affairs

Moderator: Tillmann Heidelk – European Commission – DG REGIO

### Tell us about your experience!

- How do you work with project-level data and monitoring data?
- Which benefits/opportunities do you see for your Programming Authority in improved data transmission systems?
- Do you have any concerns around data transmission and, if so, how can we address them?
- What do you envision as a successful outcome of the collaboration between DG REGIO and the World Bank?

### Thank you!

