



**SOLVAY**

asking more from chemistry®

# Solvay proposal for a Quality Index applied to internal ecoprofiles

F.Lartigue

Score LCA Seminar

March, 16th 2017 - Paris

# Context

$$\text{LCI DATA QUALITY} \times \text{LCA METHOD QUALITY} = \text{LCA RESULTS QUALITY}$$

- Need to qualify the ecoprofiles of chemical products “cradle to gate”
  - Level of confidence of the results based on LCI data quality
  - Classify the ecoprofiles done (Very Good, Good, Fair, Poor, Very Poor)
- Statistical studies (ex: Monte-Carlo) limited to flow characterisations
  - Time consuming
  - Pedigree notation reveals to be very different for each practitioner
  - Difficulty to communicate so high uncertainties
- Development of an internal tool to assess the data quality of an LCI
  - Not time consuming
  - Shared with every practitioner and reliable
  - Easy to communicate
  - Take into account not only the quality of the LCI data but also the "confidence" that can be put in the various datasets

# Principle of qualification

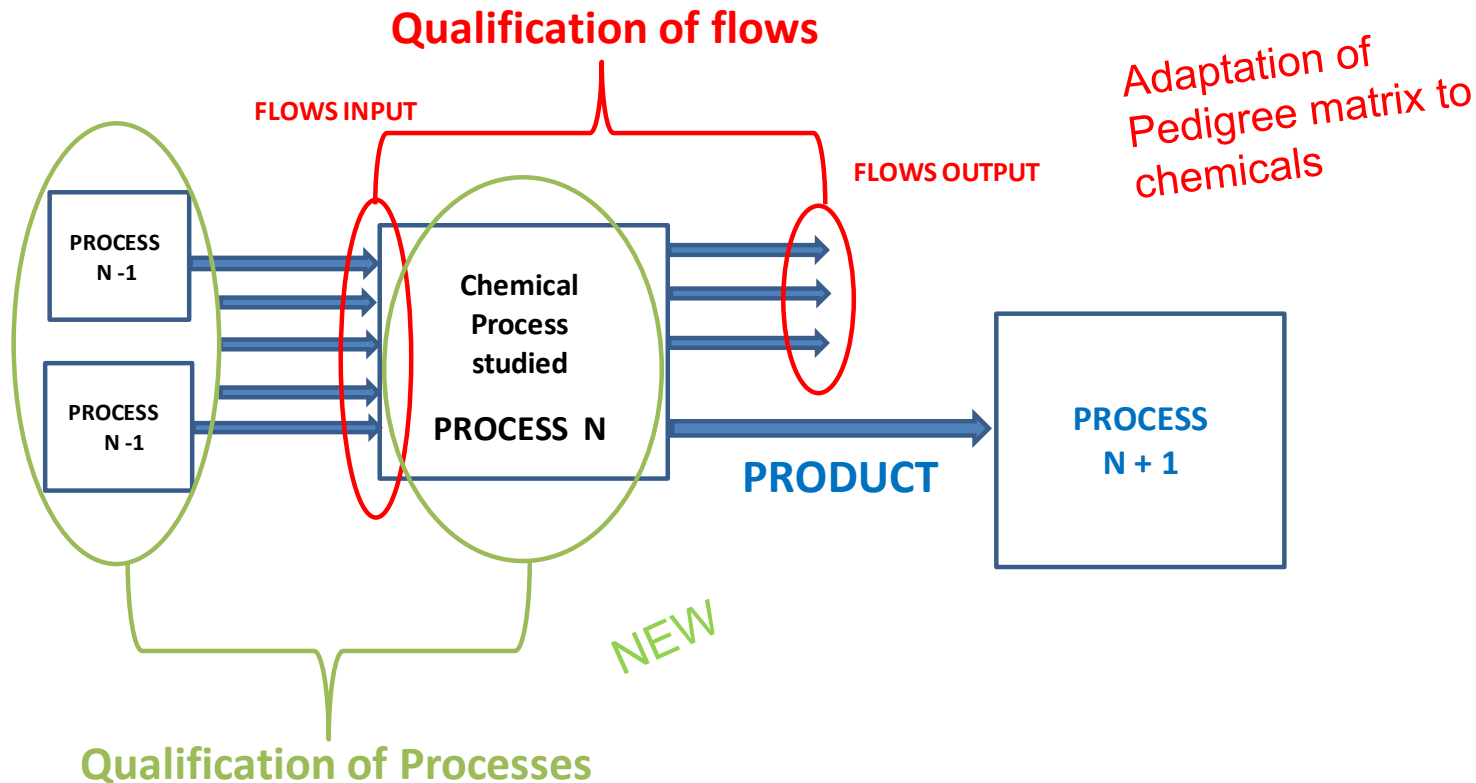
Reliability

Completeness

Temporal  
Correlation

Geographical  
Correlation

Technological  
Correlation



Completeness

Aggregation  
Level

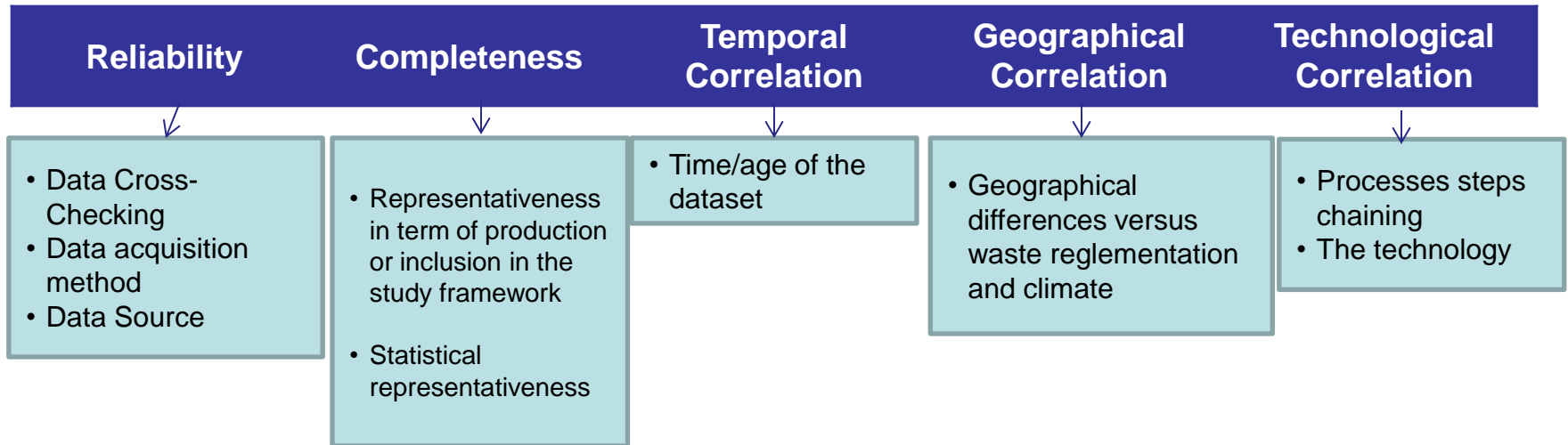
Mass Balance

Allocation  
Pertinence

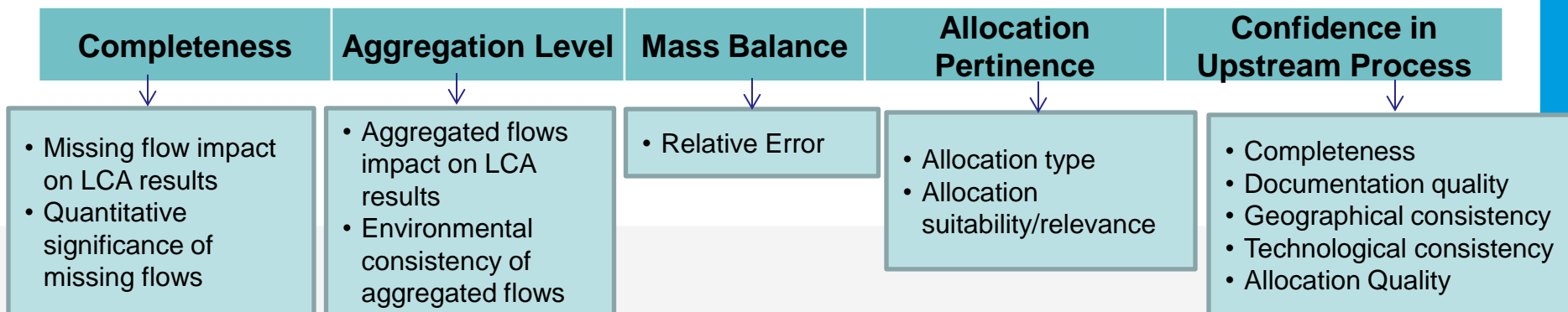
Confidence in  
Upstream Process

# LCI Data Quality Criteria

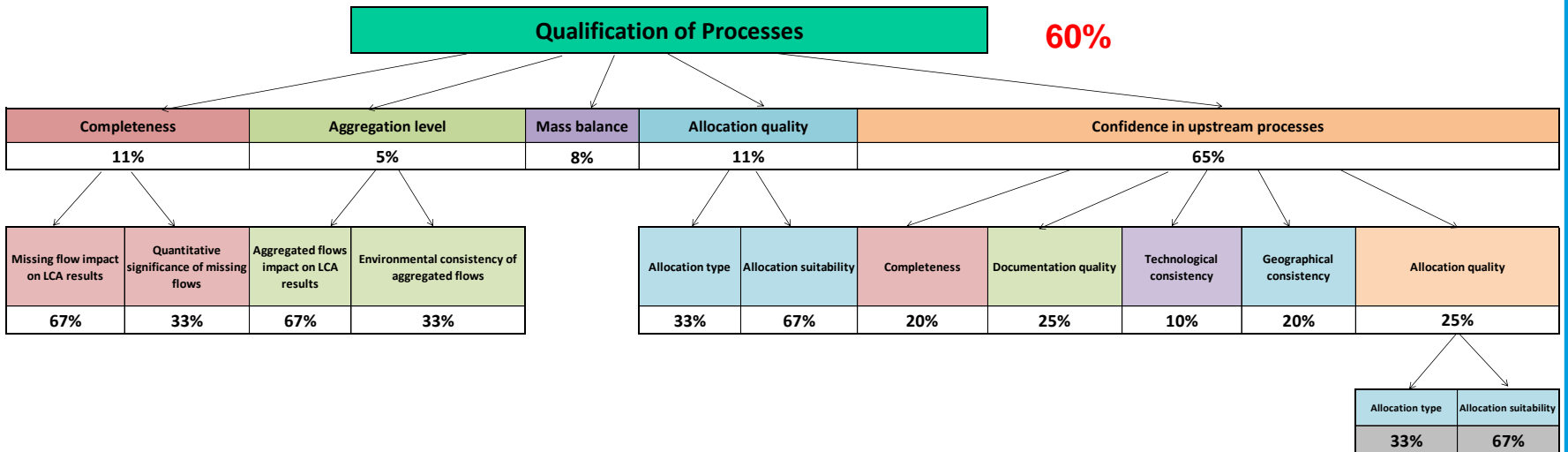
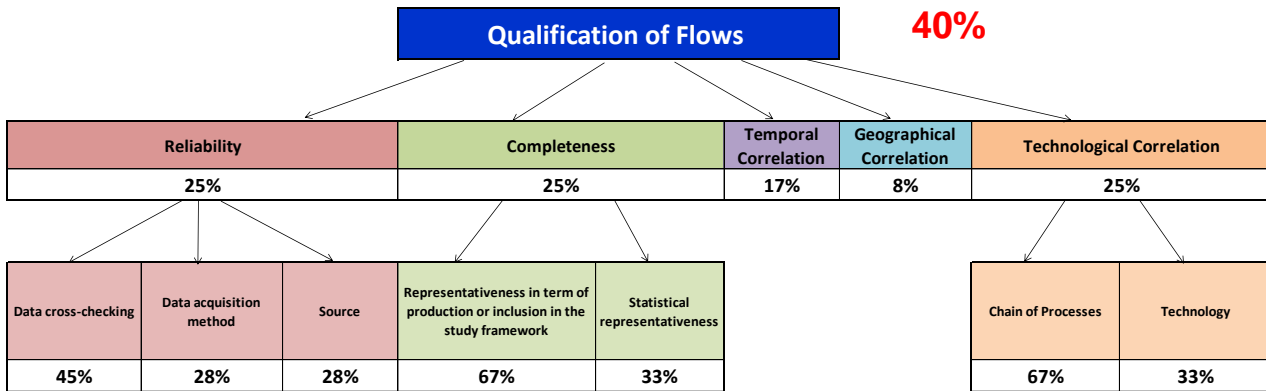
- Criteria and sub-criteria for Flows:



- Criteria and sub-criteria for Processes:

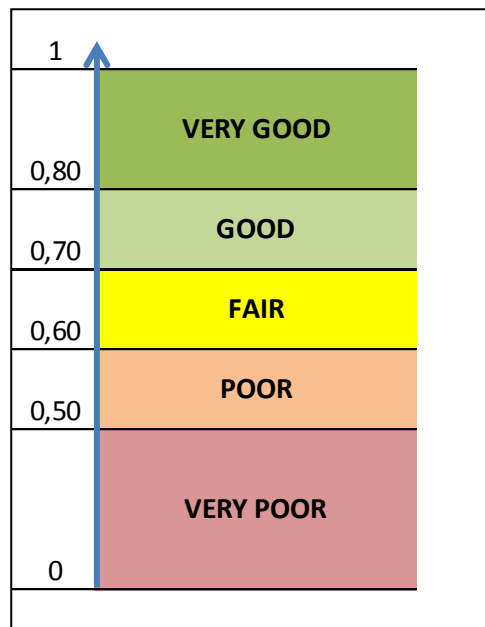


# Quality index: weighting



# From Quality Index to Confidence Level

- Proposal: Classification of ecoprofiles for chemicals



➔ Macroscopic scale, fully consistent with our internal tool for environmental impact assessment of chemical product portfolio

## ➤ Tools developed:

- Guides for flows qualification and processus qualification
- Automatic flows and processes quantification forms
- Automatic quality index calculation form (10-15 min/assessment)