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Macro from Micro

New horizons for financial statistics

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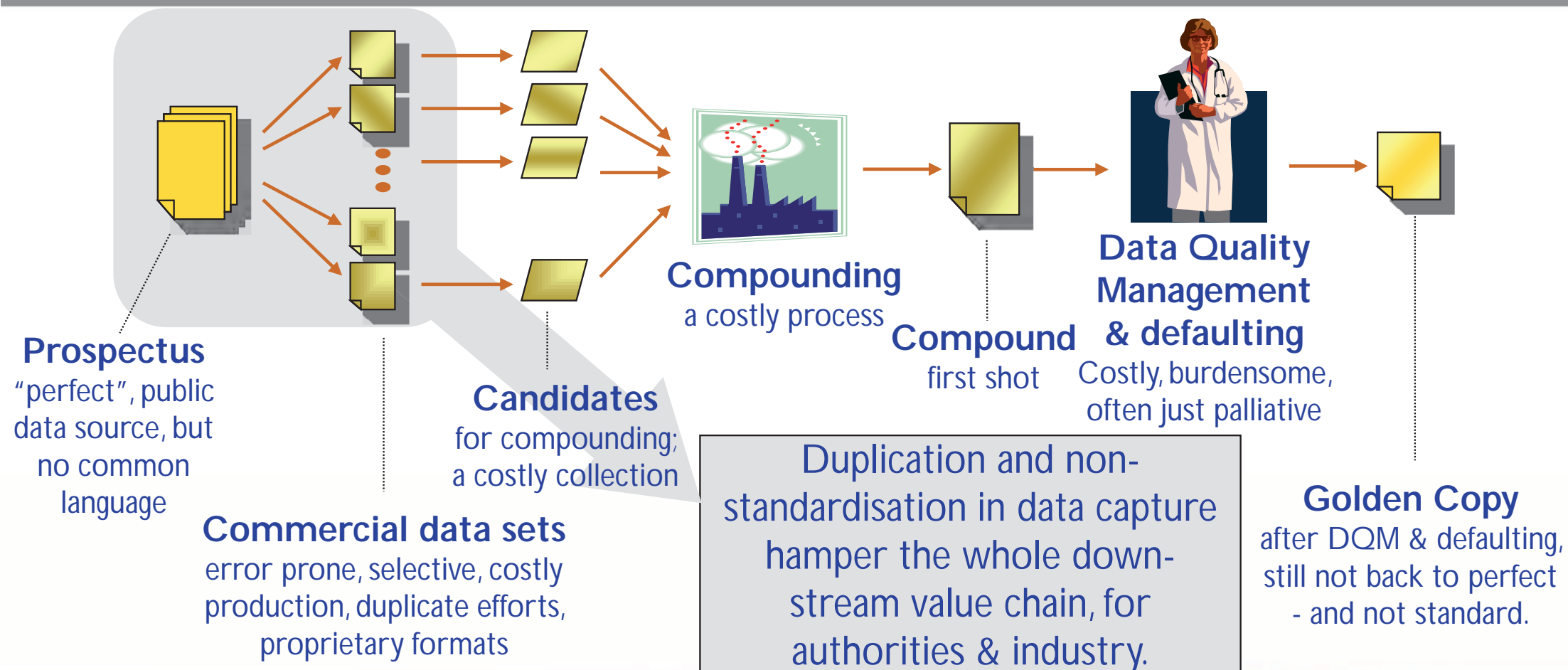
The ESCB's CSDB: macro from micro

- **Centralised Securities Database:** 7 million instruments, 2 million price points/day, fully automated compounding.
- CSDB Network: Staff from 27 NCBs work online
- Development supported by a dedicated Working Group
- In production for four years – never missed a date
- Semi-finished products for statistical production
- Enables statistics not possible before
- Soon to support non-statistical uses

CSDB: lessons learned

- **A wonderful tool, but it needs better data sources!**
- **No unique, reliable public source for the data; instead:**
- **Many commercial sources, overlapping & contradictory.**
- **Data usage constrained by commercial and legal barriers.**
- **Yearlong & ongoing efforts to “clean” the data and:**
- **Everyone across the financial system does the same,**
- **On basics that should be unequivocal ...**

The CSDB data supply chain



Financial Markets have changed profoundly...

- **Globalisation**
- **IT-intensification 1: fast networks**
- **IT-intensification 2: automation**
- **People: many more active, driven brains at work**
 - **much higher SPEED**
 - **Much higher COMPLEXITY**
 - **At times, INSTABILITY**

... but data & measurement haven't kept up

Measurement must evolve with its object

- Staying in control demands agile measurement, for all, especially during turbulent times.
- Flexible, near-time, i.e. agile statistics are necessary.

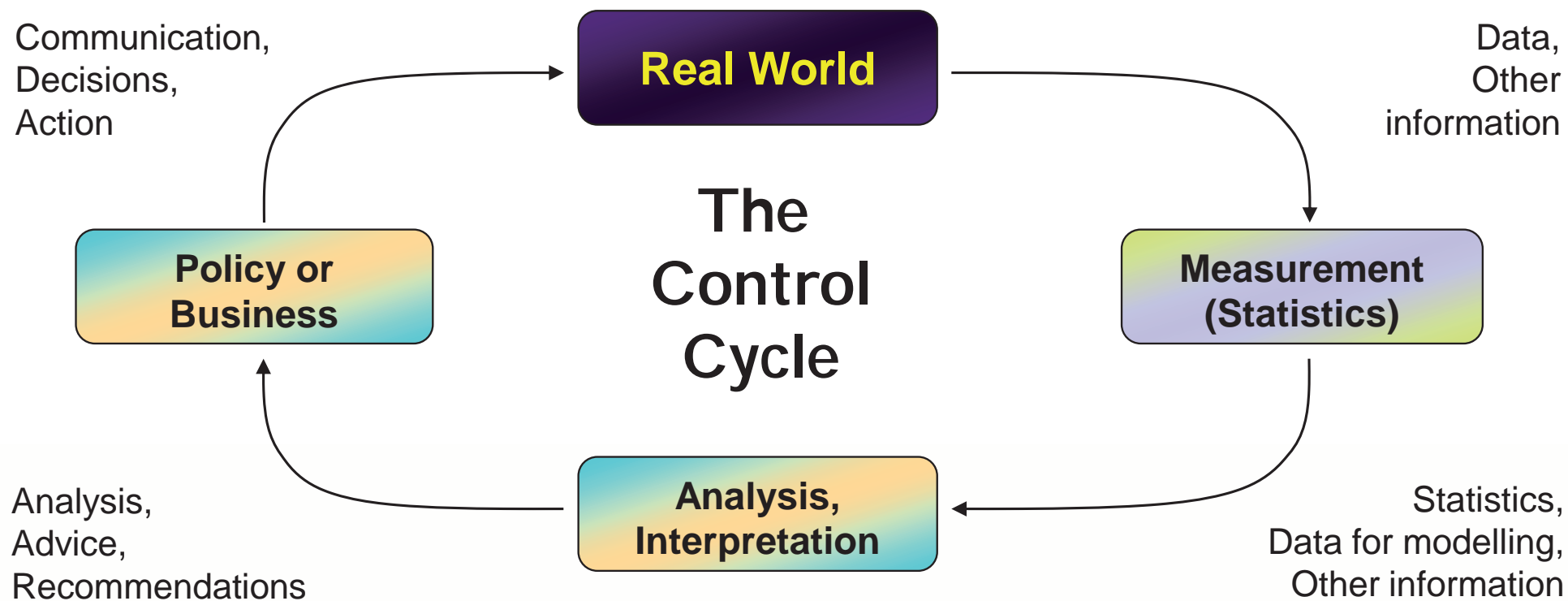
→ Improve the data

→ Make better use of it

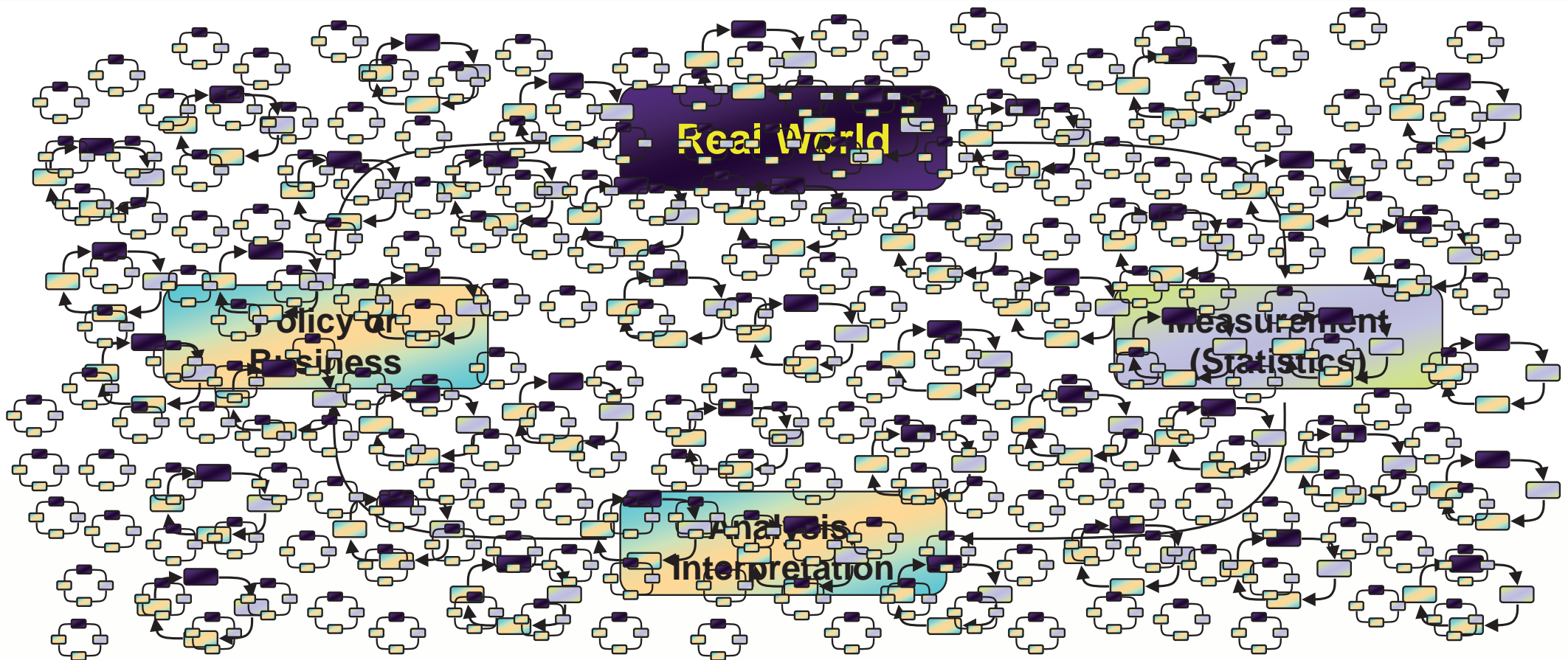
Starting points for building a strategy

- **A model of the system in which we measure.**
- **The stakeholders and their interests.**
- **The substance of the financial markets.**

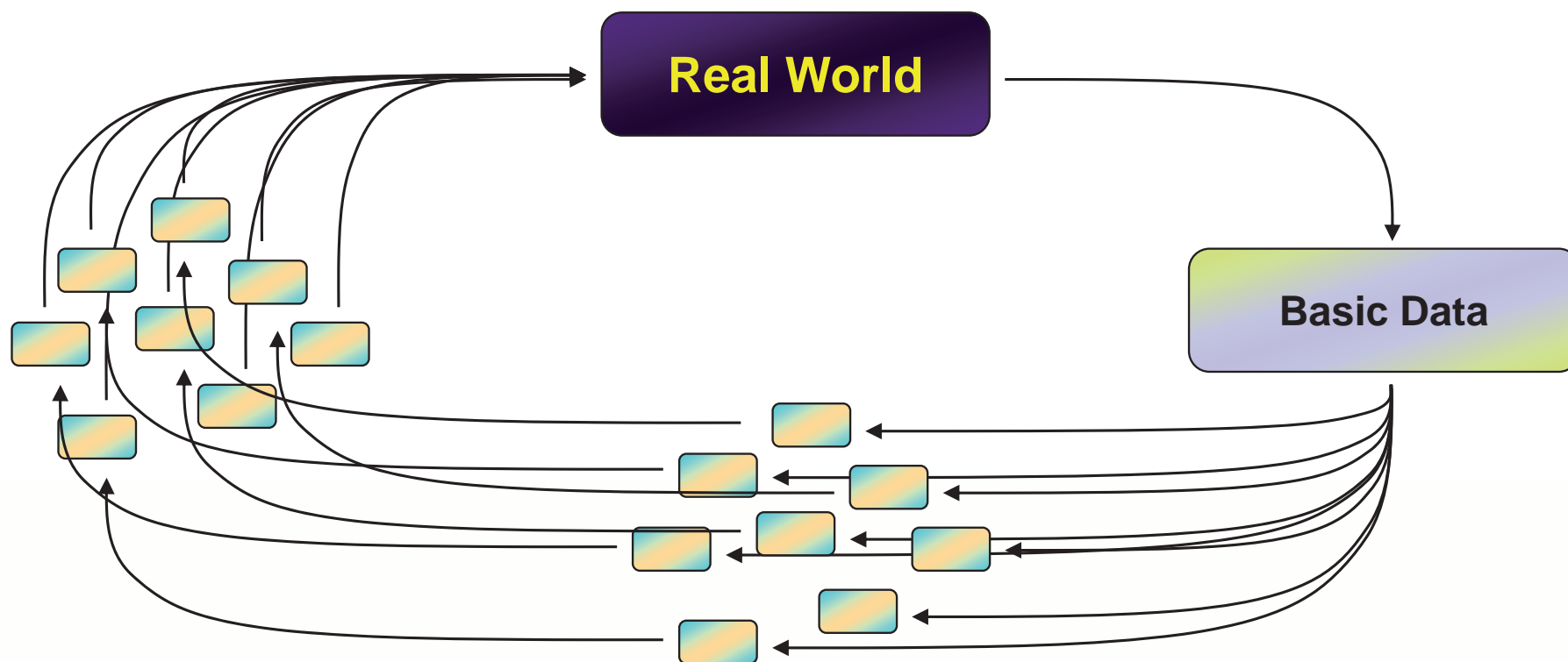
Measurement in the Control Cycle



The System as a Population of Control Cycles



All control cycles share the real world and basic data



All stakeholders need better basic data

- **All stakeholders:**
 - need better efficiency and control of their processes
 - look at the same substance, even if from different angles
 - need to exchange data reliably with many others
- **Solution: same standard for all on basic Reference Data** (identification and basic description, i.e. Reference Data)
- **Industry now demands international regulation for better reference data: Smart, Cooperative Regulation**

An alliance for a joint solution is possible

The substance we measure

The financial system has an atomic substance

The atoms:

- Financial contracts (instruments)
- Parties to contracts (legal entities)

Each atom:

- is very well defined
- can be uniquely identified
- can be described in its basic attributes

A possible strategy for statisticians (1)

Improve the agility of financial market statistics by:

- **Moving data reduction closer to the product by**
- **Using micro-data in much larger volumes and**
- **Using large-scale IT.**

A possible strategy for statisticians (2)

To that end, as a necessary preparation:

Move upstream to improve basic data by

- **Forging an alliance with other stakeholders to**
- **Create standards on reference data and to**
- **Build a shared reference data infrastructure**

A new positioning for statisticians in finance ?

The positioning of Statisticians could evolve over time

- From “HUNTER-GATHERERS” of data
- To interdisciplinary “**DATA FARMERS**”.

Data farmers influence the industry they measure, helping it to improve its own functioning (operational cost & risk) by adopting data standards that will also help industry and other stakeholders to better measure its activity.

Measure the world better by making it easier to measure !

A possible strategy for statisticians (3)

And finally as a practical and necessary first step:

Join and influence the international initiative to establish an international, standardised and legally compulsory **Legal Entity Identifier (LEI)** and the **Reference Data Utility (RDU)** that will hold the reference data as a public good.

The time for effective data standards has come

“Detailed and reliable data on securities issues and holdings are indispensable to any systemic risk assessment.

The CSDB would be best complemented by a public reference data utility providing standardised information on instruments and entities that would be operated on the basis of an international agreement.”

J.C. Trichet, 19 October 2010, ECB Statistics Conference