

# Business Intelligence for the Real-Time Enterprise (BIRTE)

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## Roundtable panel discussion

"How real can real-time business intelligence be?"

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### Some Intelligence Community\* Challenges:

- “no inter-agency system exists to rapidly integrate broad data sets.”
- “... models ... need to be integrated seamlessly.”

\* “Intel” and “IC” not  
Intel Corp and Integrated Circuit

### Problem:

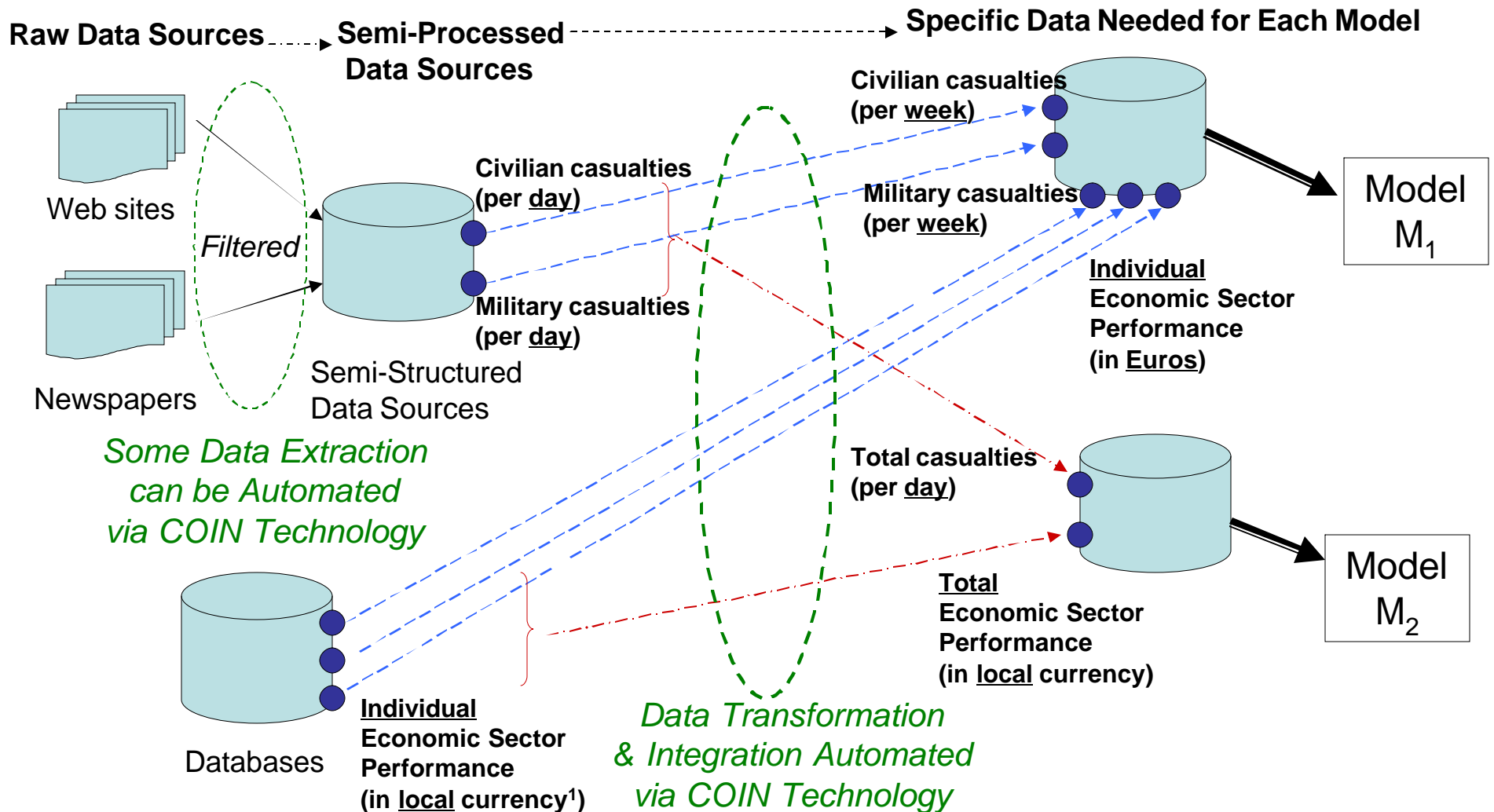
- Feasible to solve (manually) when stable and only 3-4 data sources and 2-3 models
- But, if grow to many data sources and models – becomes major effort
  - Hard to scale to large number of sources and models
  - Hard to change (to incrementally add new sources and models)
  - Hard to evolve (changing specifications of existing sources and models)
  - Hard to automate the integration and maintenance

### Many similarities to Business Community

Q: “Russia just suspended payment of its debts... How much do we have at risk?”<sup>1</sup>

# Data Transformation & Integration for BIRTE

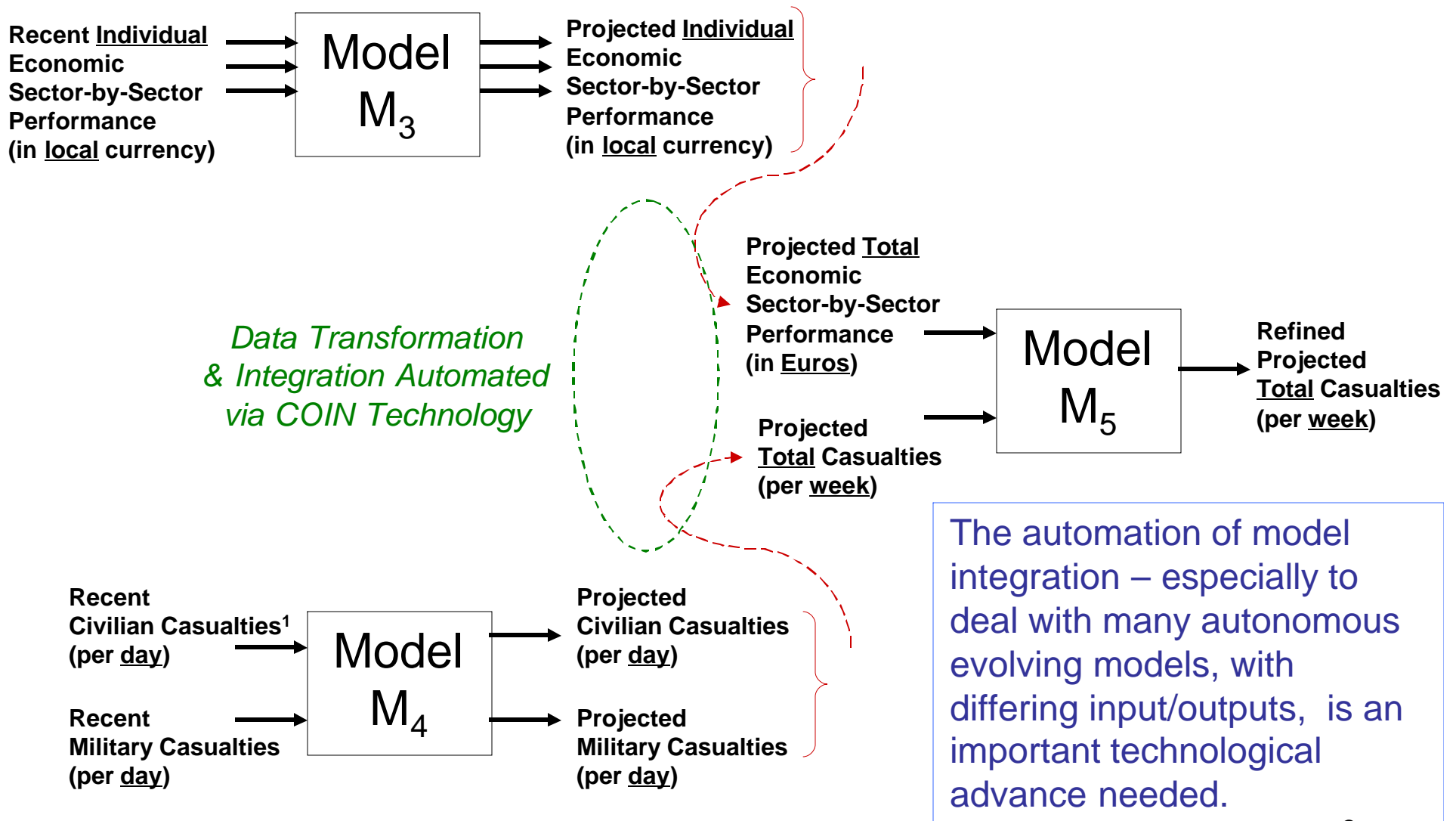
## – Hypothetical Example



<sup>1</sup> Interesting challenge, especially with time series data, is that semantics change over time – e.g., currency in France changed from Francs to Euros; Yugoslavia changed several times. COIN handles this easily as part of its temporal semantics capabilities. 2

# Model Input/Output Transformation & Integration

## – Hypothetical Example



<sup>1</sup> Many more subtleties to data semantics, such as differing definitions of what is a “casualty” in different data sources and as used in different models - that must be reconciled.

# Simplified Overview of COnText INterchange (COIN) Advanced Technology

