Information Design for Business Process Management

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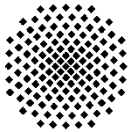

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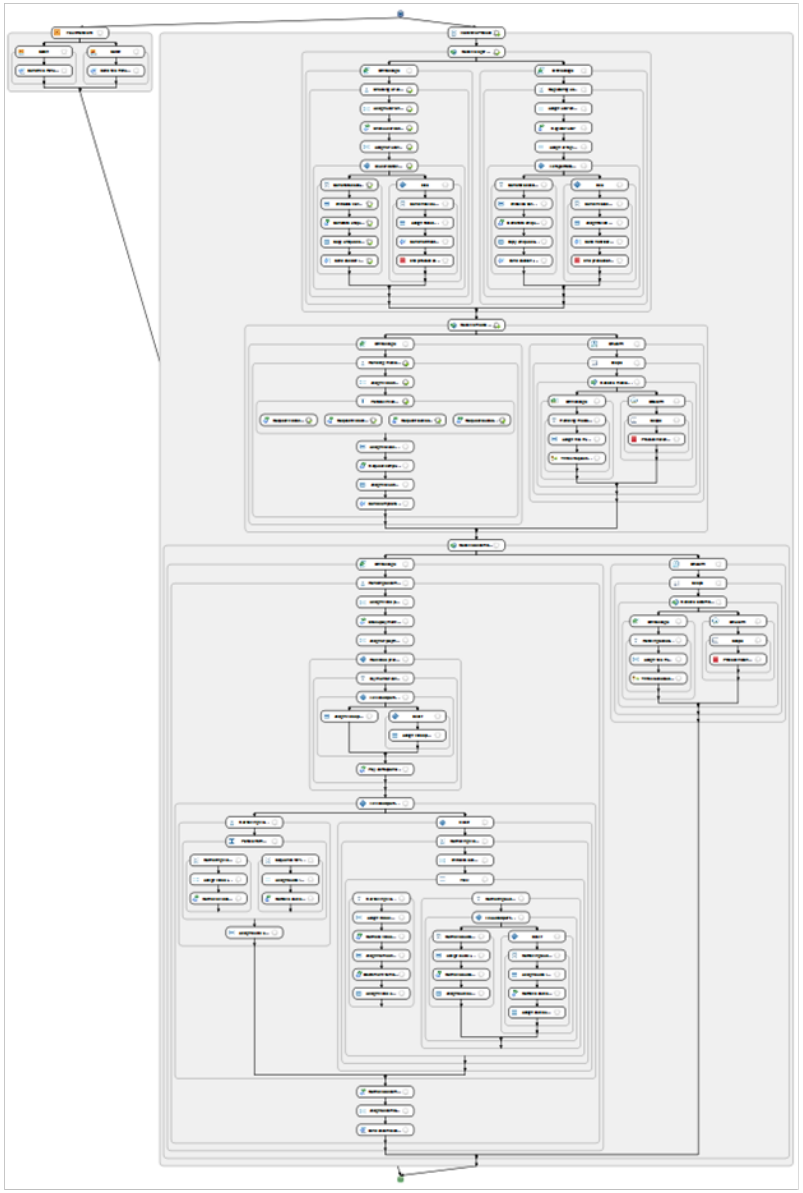
The Problem: Increasing Complexity in BPM

- *Increasing complexity* of business processes
- Possibly hundreds of activities contained in a process
- Various *cross-cutting concerns* need to be considered
  - Security
  - Compliance
  - Auditing
  - …
- *Analytical data* is available but needs to be considered in its context: the business process
  - Data regarding the cross-cutting concerns
  - Data regarding execution and performance
  - Data regarding organizational aspects
  - …

Example: A Complex Process Model

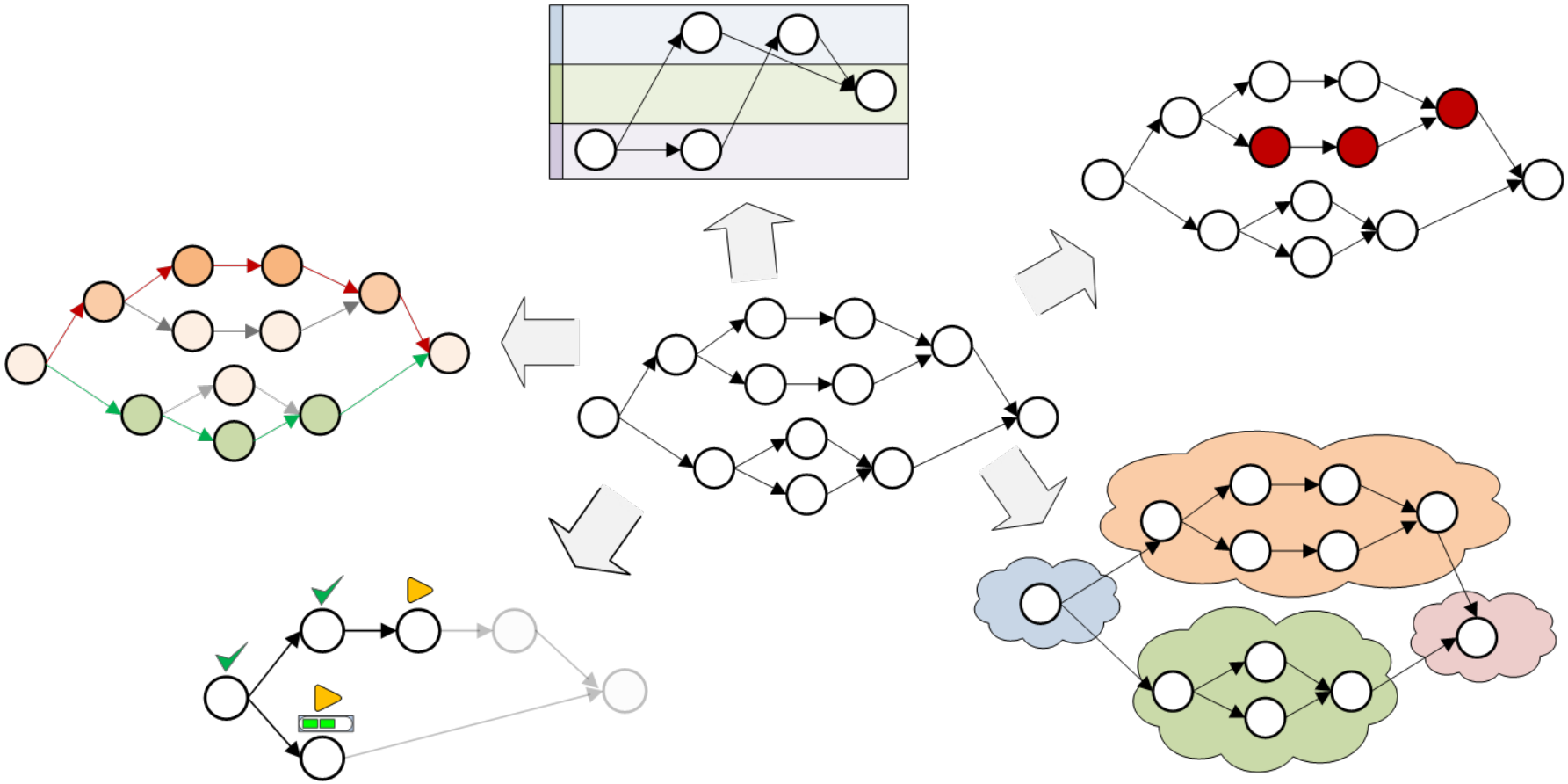


The Information Designer: A Novel Role in BPM

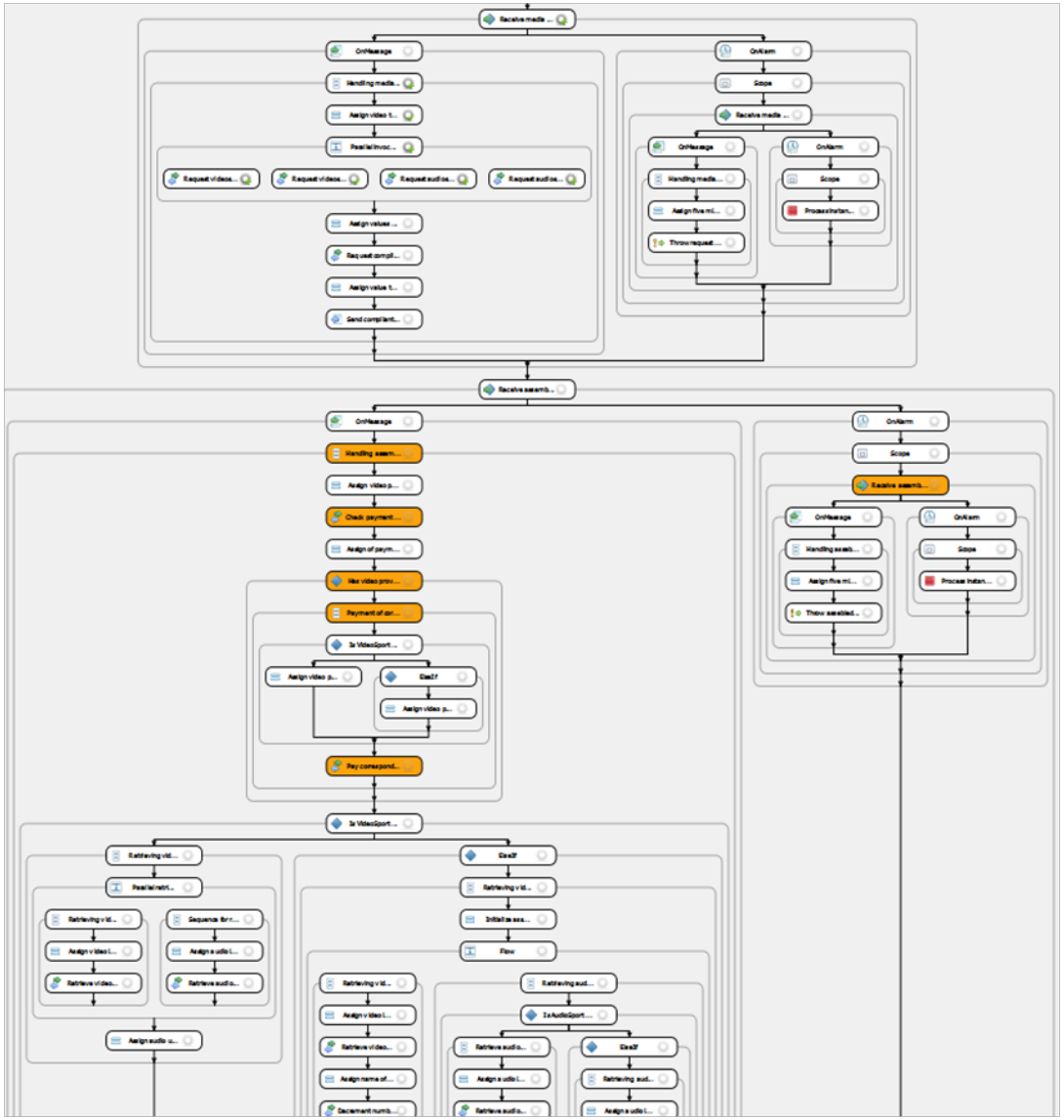
- The *information designer* is a consequence resulting from increasing complexity of BPM
- The information designer…
  - is concerned with information management across the business process life cycle
  - defines and creates views that are tailored to information needs of process stakeholders
  - employs a set of functions which implement view transformation functionality

Process Views

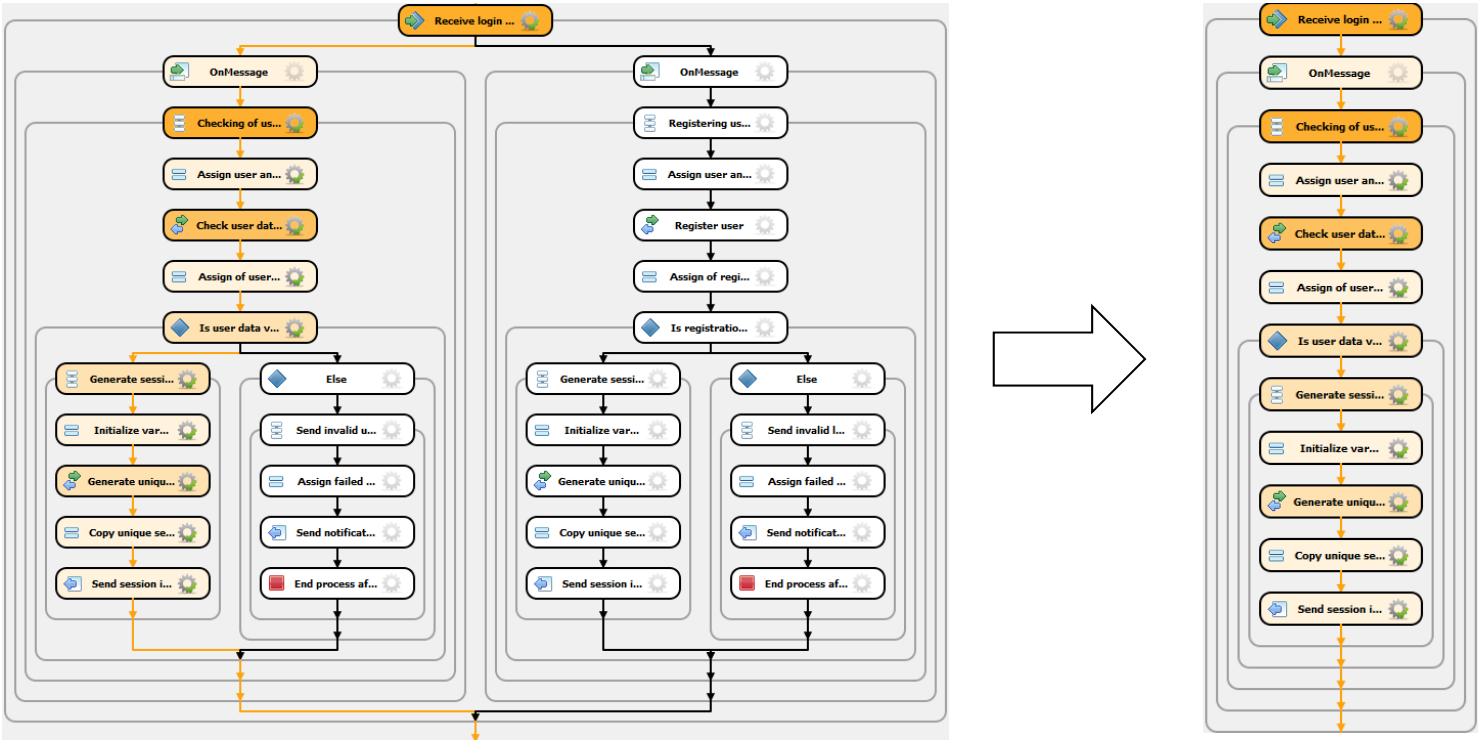
- Process views are the graphical presentation of the result obtained after specific *transformations* have been applied to a process model



Example: Highlighting of Process Structures



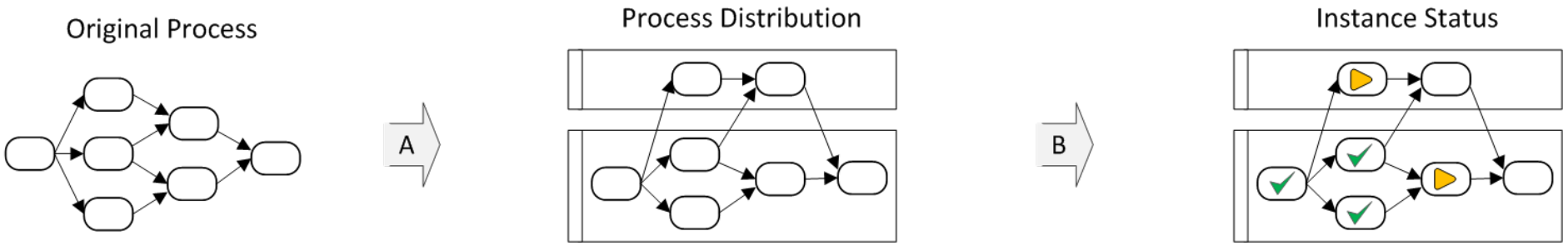
Example: Process View Transformations



The tool "Business Process Illustrator" has been developed by Gregor Latuske in the course of his diploma thesis. It has been ported to WSO2 Carbon by Jakob Krein in the course of his student thesis.

Composition of Process Views

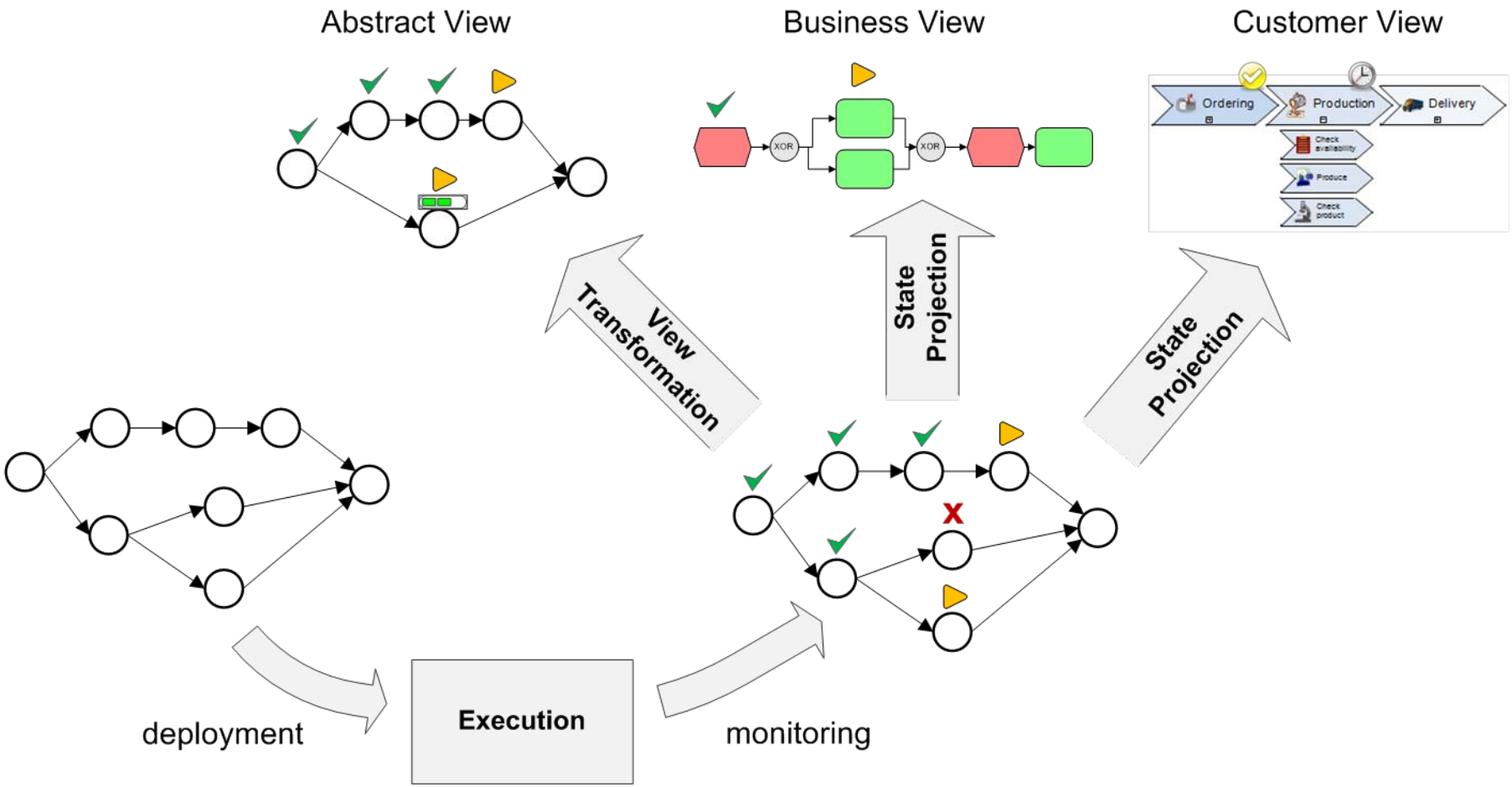
- Process views can be *composed* to form complex view transformations



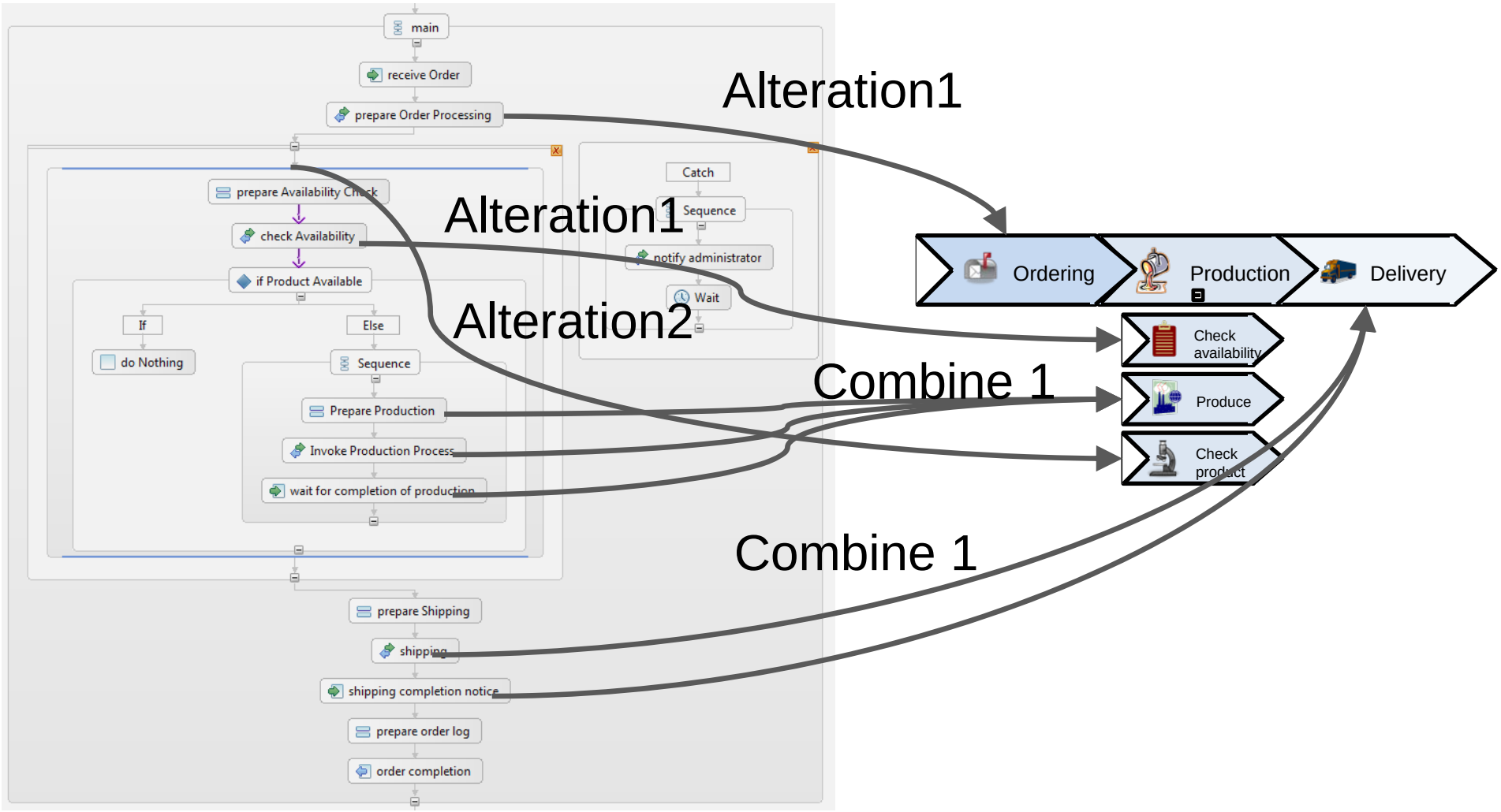
Source: D. Schumm, J. Cai, C. Fehling, D. Karastoyanova, F. Leymann, M. Weidmann: *Composite Process View Transformation*. To appear in: Proceedings of the 12th International Conference on Electronic Commerce and Web Technologies (EC-WEB), 2011.

State Projections

- State projections, made up of state propagation rules, *cross the borders* of process models and languages



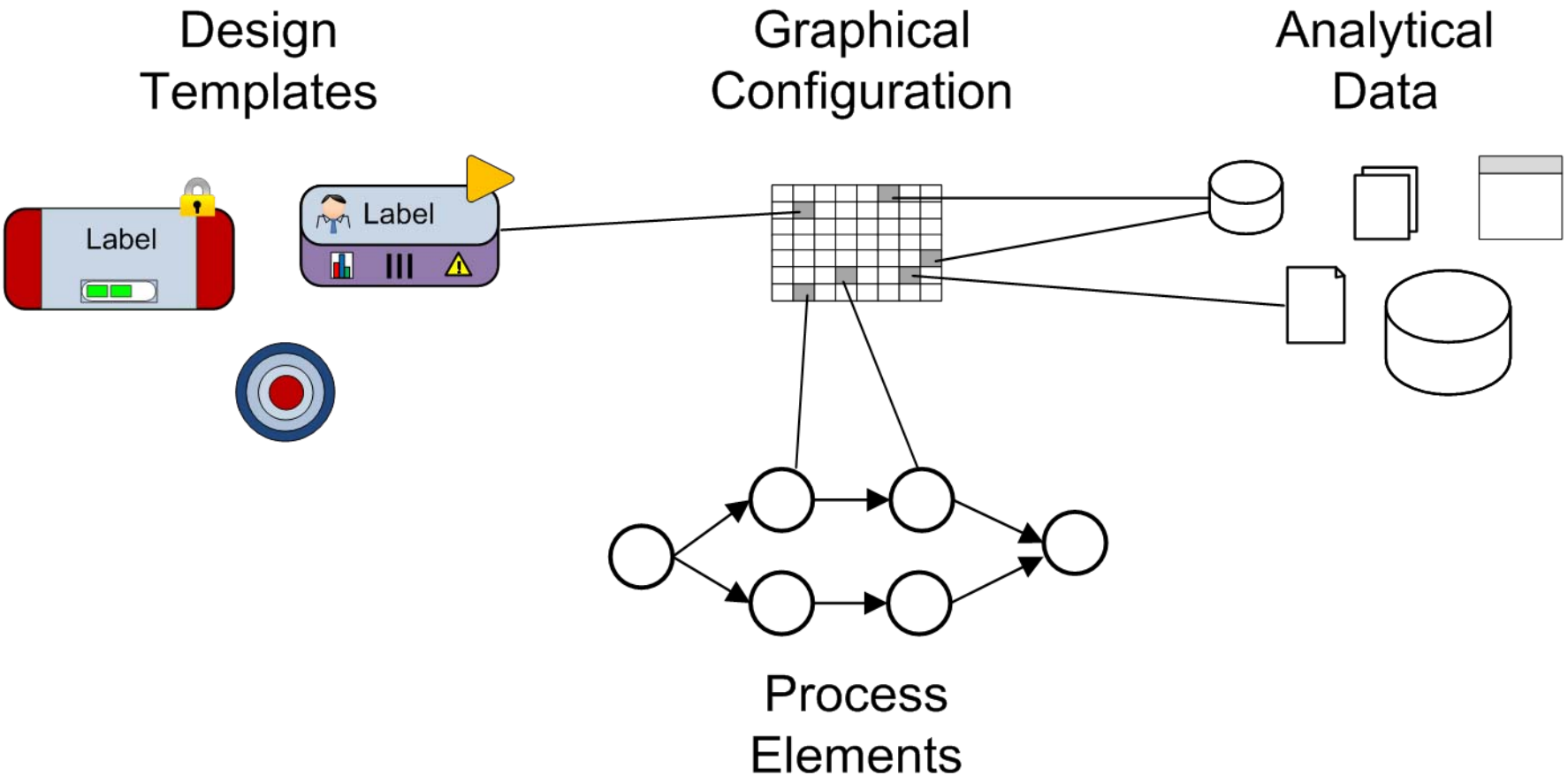
Example: State Projections



Source: D. Schumm, D. Karastoyanova, S. Lee, F. Leymann: Propagation of States from BPEL Processes to Chevron Models. To appear, Technical Report, 2011.

Graphical Configurations

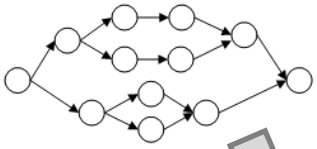
- Graphical configurations provide *loose coupling* of process elements, graphics, and data



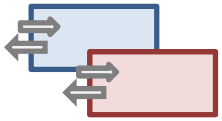
Sketching the Information Designer in BPM

Requirements
- Security
- Compliance
- Auditing
- …

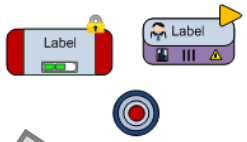
Process Models



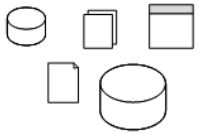
View Transformation Functions



Design Templates

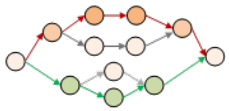


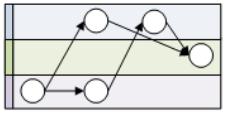
Analytical Data



The Information Designer

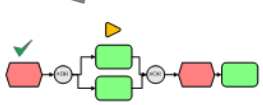
Required skills?
Multiple persons?
To which department does the role belong in a company?





Process Views

Business Insight



State Projections