



Enabling Business Process Agility via **Consolidation**

Reculer pour mieux sauter

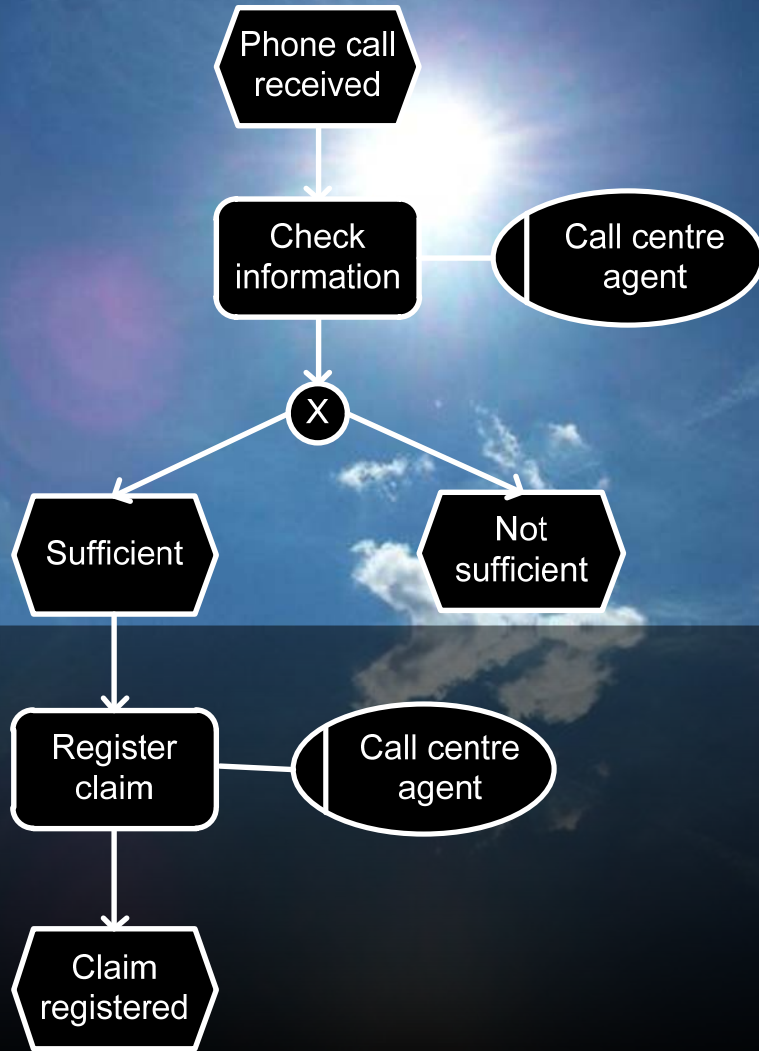
Dr Marcello La Rosa
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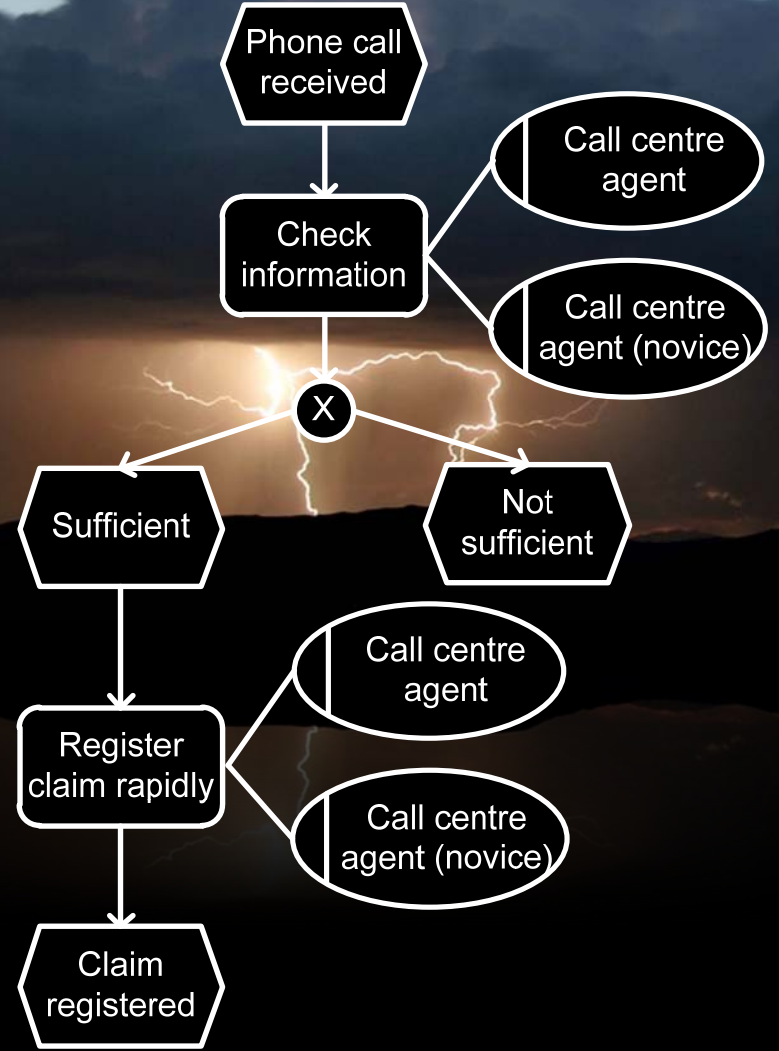
Call center Brisbane (sunny day)

Low Frequency



Call center Brisbane (stormy day)

Hi Frequency



The reality: Suncorp insurance

End to end process has between 250 & 1,000 process steps



Source: Guidewire reference models

Each process is varied by product & brand



| | AAMI | Apia | bingle | CIL | CIO | JUST-CAR | PRUDENTIAL | SUNCORP | vero |
|------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Home | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Motor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Commercial | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Liability | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CTP / WC | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |

30 variations

- Estimated total number of process steps: **15,000**
- Total number of models: **3,000+**

How many of these are real differences?

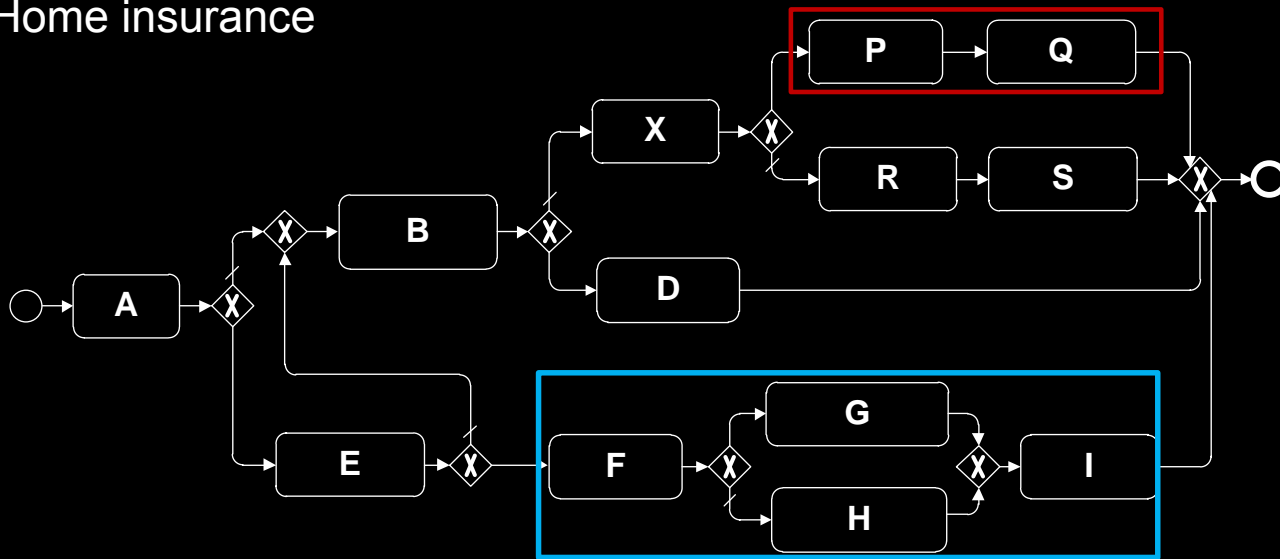


Real Differences
vs
Couleur Locale



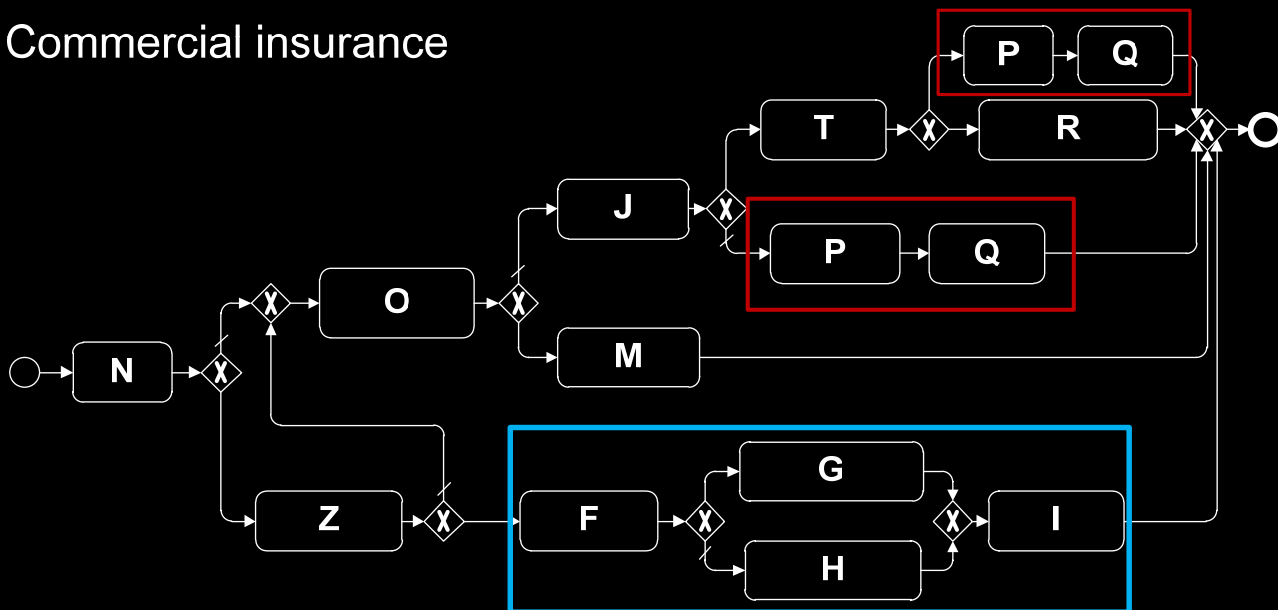
A closer look at Suncorp's repository

Home insurance



- 363 models
- 279 clones:
- 9% of gain

Commercial insurance



Not just a coincidence...



SAP R/3 reference model:

- 595 models (size from 5 to 119 nodes)
479 clones: **13.8% gain**

SAP R/3 reference model: Curran, Keller, Ladd, SAP R/3 Business Blueprint, Prentice Hall, 1997

IBM BIT library:

- A: 269 models (size from 5 to 47 nodes)
174 clones: **9% gain**
- B3: 247 models (size from 5 to 42 nodes)
49 clones: **6.6% gain**

IBM BIT library: www.zurich.ibm.com/csc/bit/downloads.html

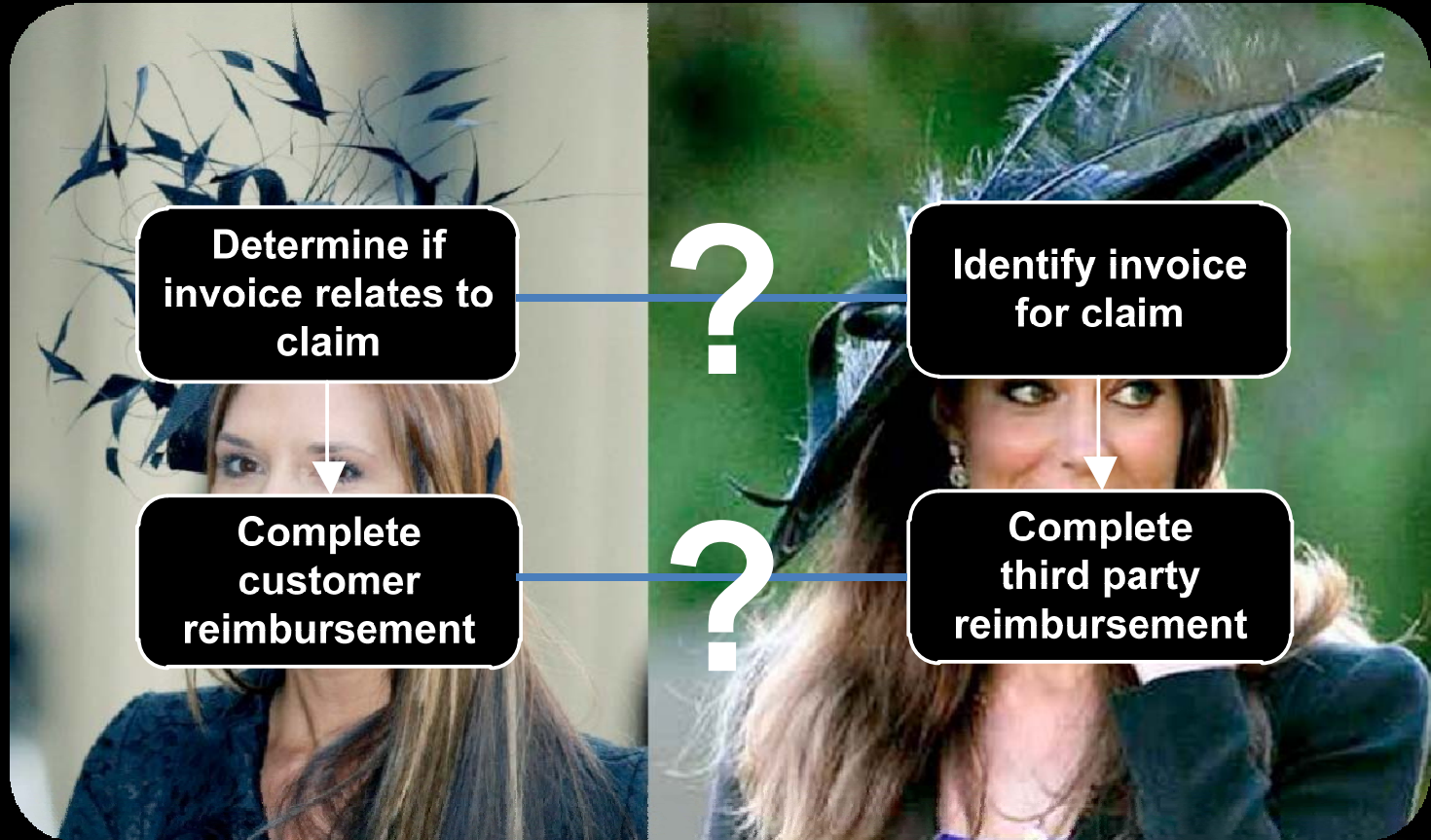
The problem of cloned fragments

- Clones may be modified independently, leading to unwanted **inconsistencies**
- Clones hide potential **efficiency gains**
- Clones make individual process models larger than they need be, thus affecting their **comprehensibility**



Not only “exact” clones!

There are also “approximate” clones, i.e. similar fragments



“Victoria Beckham and Kate Middleton – Similar Fashion Sense”

Process model “chaos”

- Proliferation of variants
- Stagnating improvement initiatives
- Inability to turn agile



- Need for solid process modeling foundation
 - Continuously clean to achieve agility:
perpetual (and lightweight) consolidation

Process model consolidation

1. Feudalism (current situation)

One separate, independent model per variant

2. Weak Federation

One top-level model per variant, but shared sub-processes

3. Strong Federation

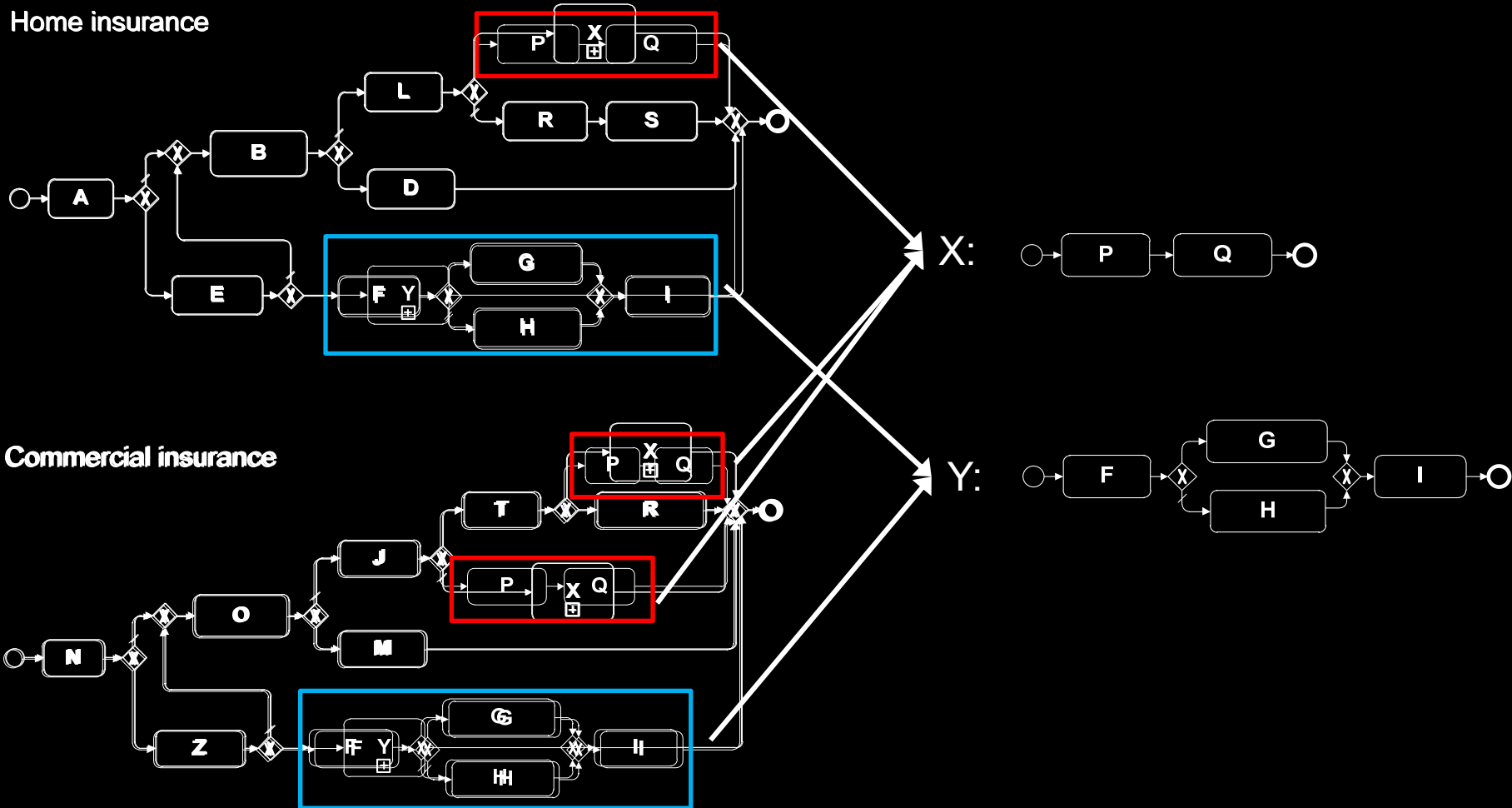
One model per variant, models synchronized via change propagation

4. Unification

One über-model for all variants

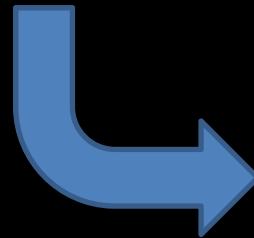
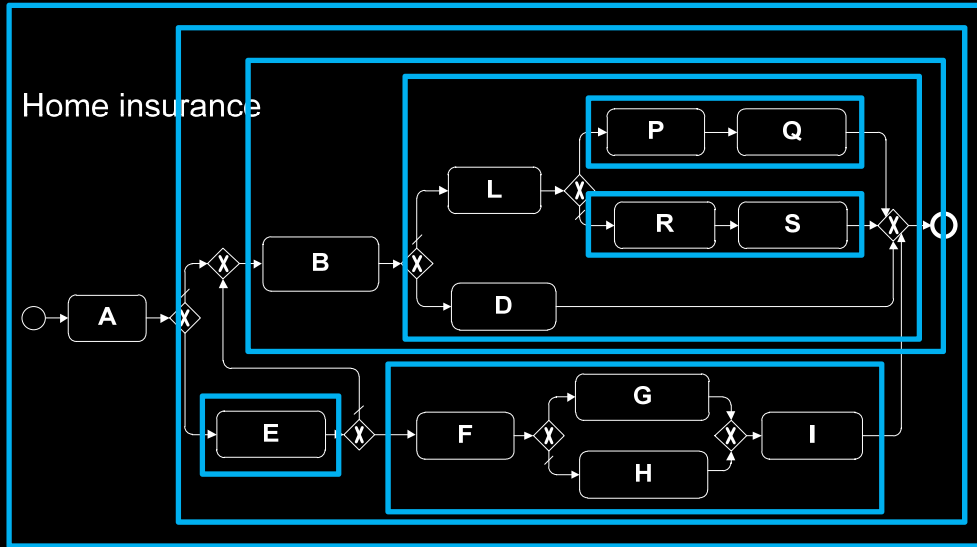
2. Weak federation

Extract cloned fragments and store them as separate sub-processes

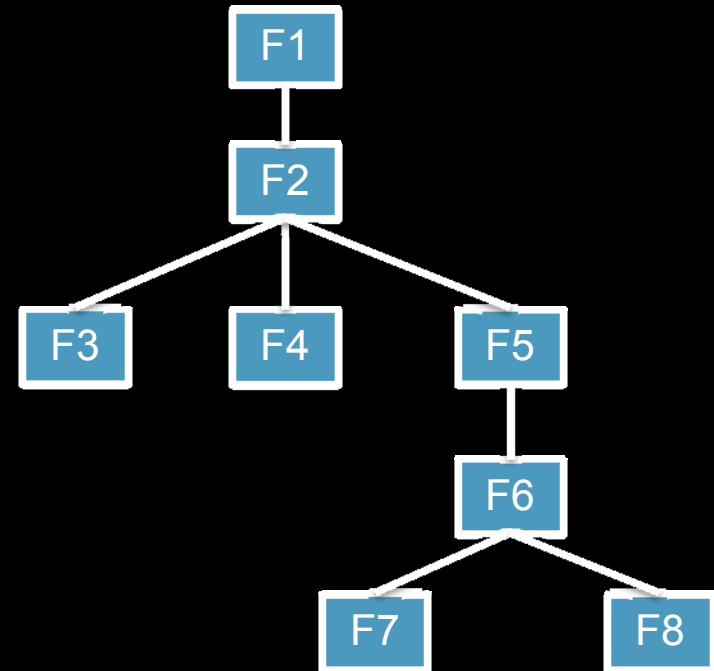


3. Strong federation

Store process models as “fragments” ...

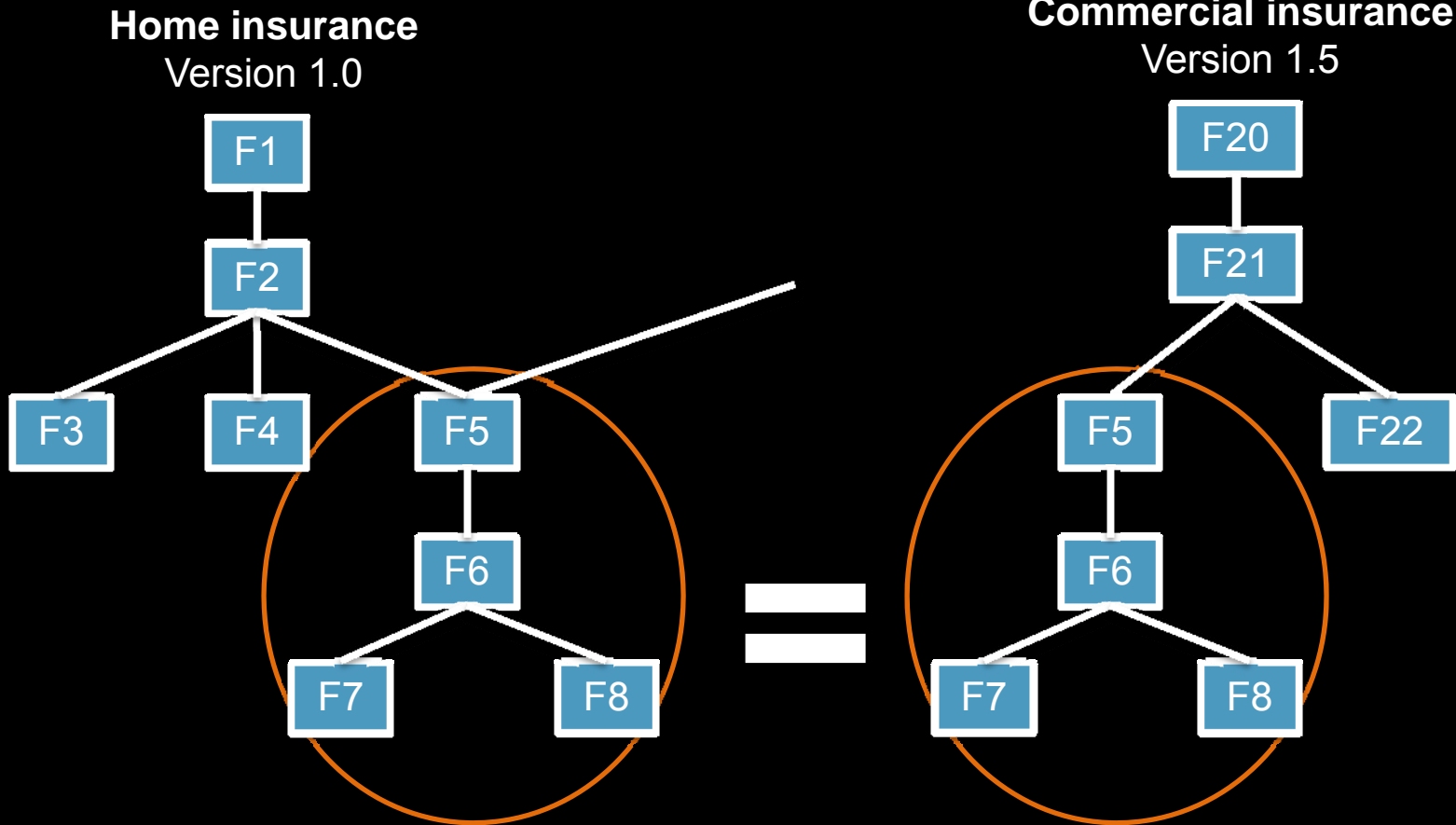


Home insurance
Version 1.0



3. Strong federation

...Add pointers for sharing



3. Strong federation

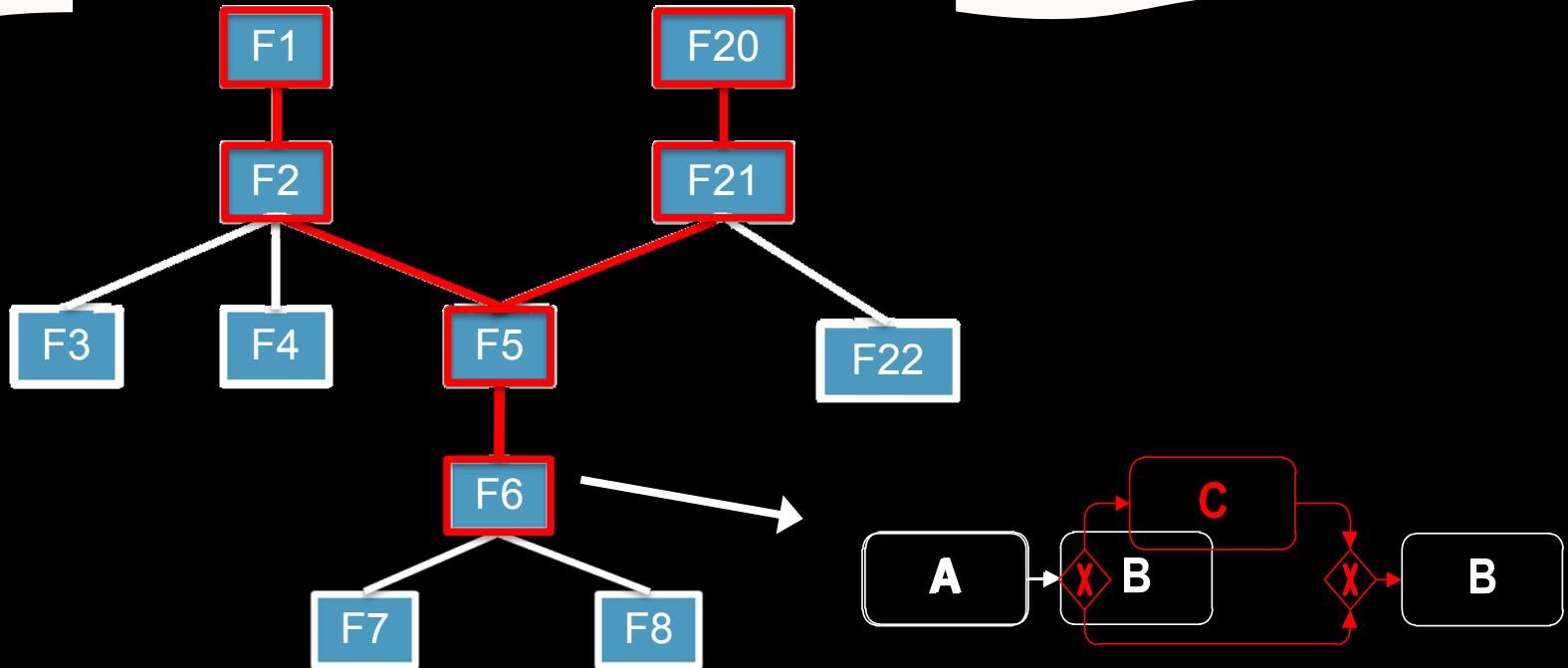
Synchronize via change propagation at the level of single fragments

Propagation policy:
Instant

Home insurance
Version 1.0

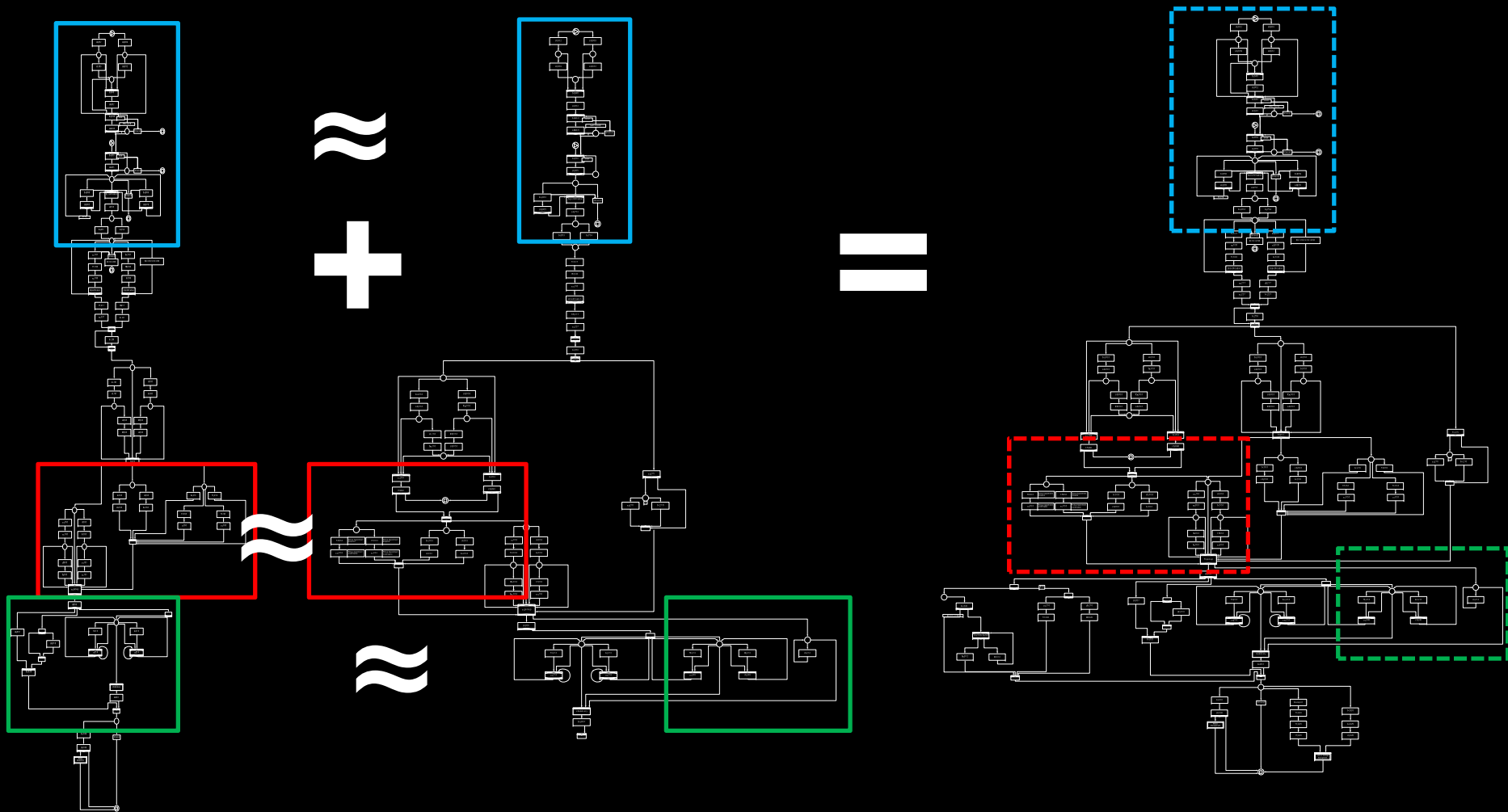
Commercial insurance
Version 1.5

Propagation policy:
Instant



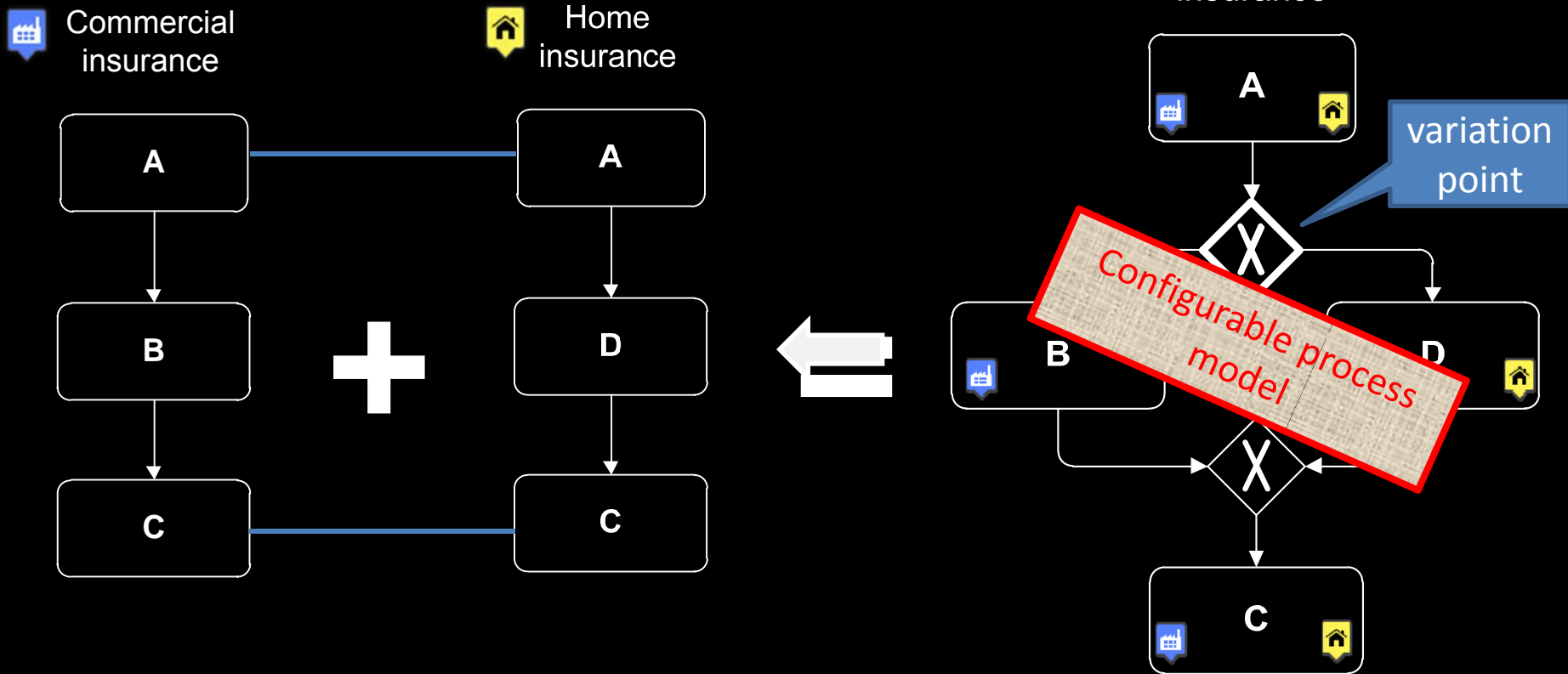
4. Unification

Merge in one über model based on “similar” fragments

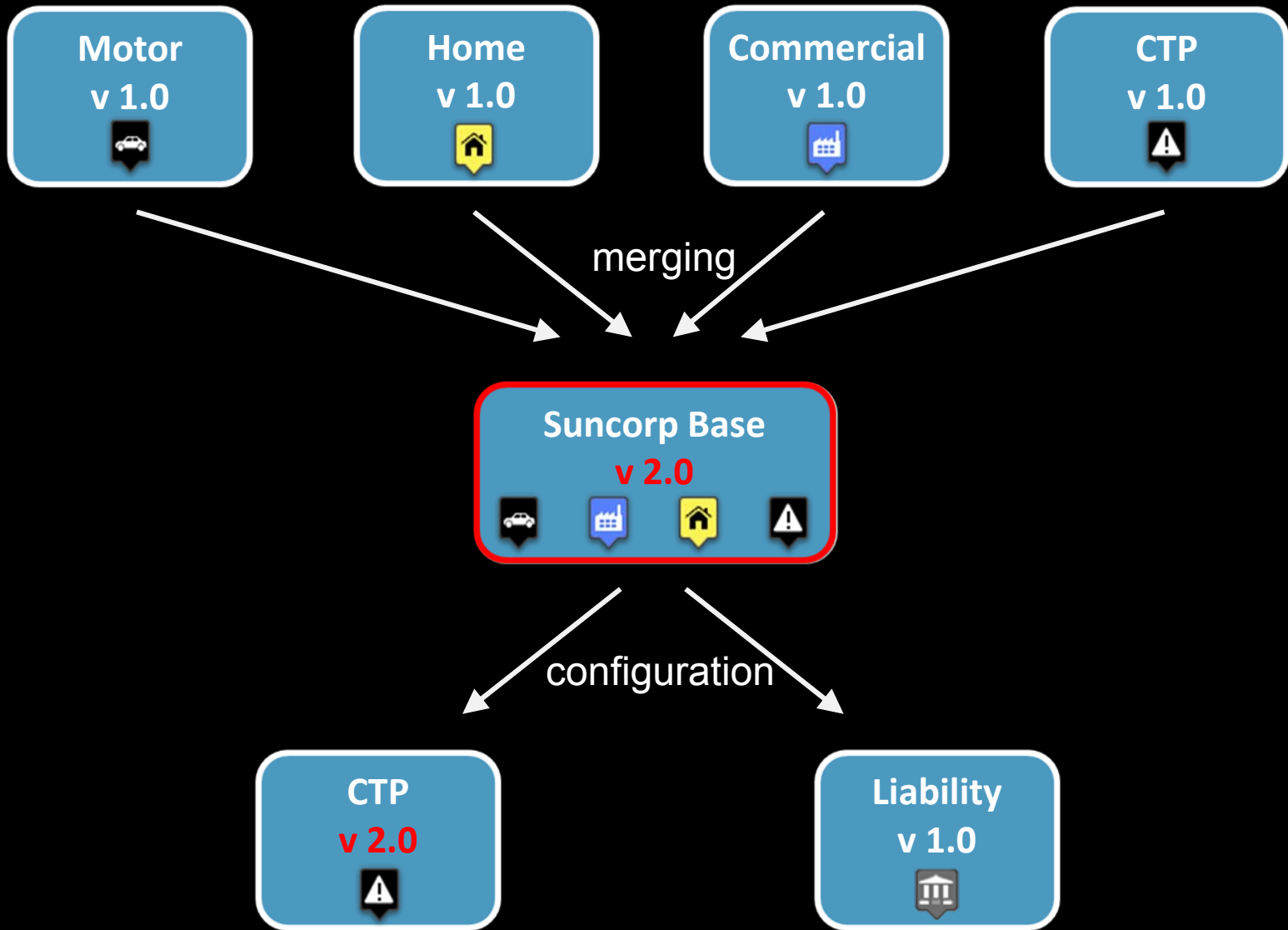


Über model: characteristics

1. Behavior-preservation
2. Traceability
3. Reversibility



Suncorp: example of merging by product



Variants merging @ Suncorp

We run our **merging algorithm** over a collection of Suncorp models:

1. Motor claim initiation + Personal claim initiation
(25% of which merged manually @ Suncorp in **130** man-hours!)
2. Motor claim lodgement + Personal claim lodgement
3. Motor invoice received + Personal invoice received

| Pair # | Size 1 | Size 2 | Match score | Total time (merge time) in msec. | Size merged | Compression |
|--------|--------|--------|-------------|----------------------------------|-------------|-------------|
| 1 | 339 | 357 | 0.84 | 7409 (79) | 486 | 0.70 |
| 2 | 22 | 78 | 0.56 | 78 (0) | 88 | 0.88 |
| 3 | 468 | 211 | 0.62 | 3693 (85) | 641 | 0.94 |

Which approach fits best my organization?



Feudalism



Weak federation



Strong federation



Unification

Meet-in-the-middle?

1. Simplify individual process models
(enforce modelling conventions, e.g. labels, layout, degree of abstraction)
2. Remove repository redundancies
(extract cloned fragments and store these as reusable sub-processes)
3. Identify similarities and merge

Results:

- Smaller and cleaner models
- Less models
- Embedded agility via configuration!

Vision: AProMoRe

Facilitate the management of *large process model collections* via:

- **Advanced Filtering**

query for similarities or exact matches

- **Clever Design**

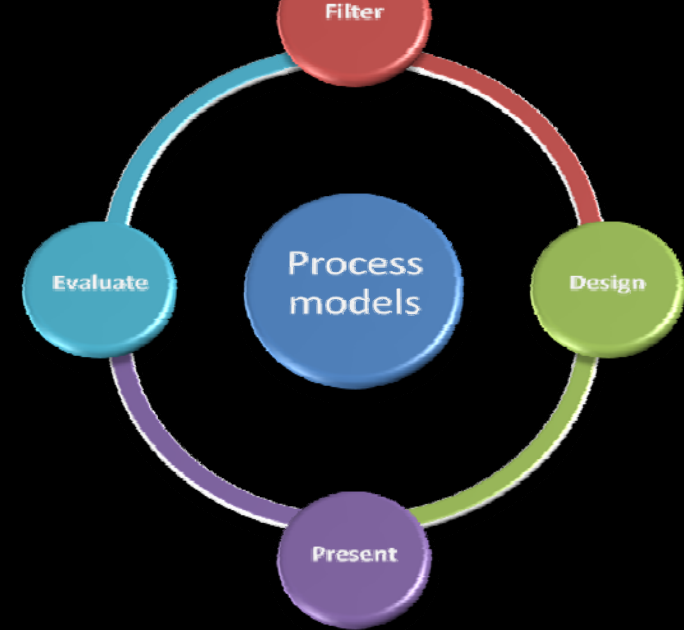
control the creation and evolution of process model collections

- **Enhanced Presentation**

improve the understanding of process model collections

- **Evaluation**

establish adherence to various quality notions



Dashboard

Key Messages

- *Reculer pour mieux sauter:*
 - simplify
 - consolidate
- Build agility as you consolidate:
 - Product/Brand-aware
 - Context-aware
 - Customer-aware...





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More information at

• www.apromore.org

• www.processconfiguration.com

After Morning Tea



| | Business Process Management Stream | Application Integration Stream |
|---------|---|--|
| 10:35am | IBM BPM 7.5 Overview and Demonstration <i>Maxime Cenatiempo, WebSphere BPM Technical Specialist, IBM</i> | Connectivity Enabled Agility for Business Advantage <i>John Pawlikowski, Worldwide Specialist for Differentiating Solutions, IBM</i> |
| 11:25am | Business Process Driven Transformation Through BPM <i>Imre Hegedus, Managing Director for Imre Hegedus Consulting</i> | Developing Mobile Applications <i>Todd Kaplinger, Senior Software Engineer & IBM Master Inventor, IBM WebSphere Technology Institute</i> |
| 12:10pm | Event Concludes followed by Lunch | |