



Dealing with Surprise

Case Management with BPMN

CamundaCon 2019



Agenda



About

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- *~15 years Workflow Management
~ 7 years with Camunda*
- *Contributor and (Co-)Author of spring-boot-starter, mockito extension, reactor extension, ...*
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Intro

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Motivation

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BPMN vs. CMMN

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Demo Time

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What next?

Dept recovery



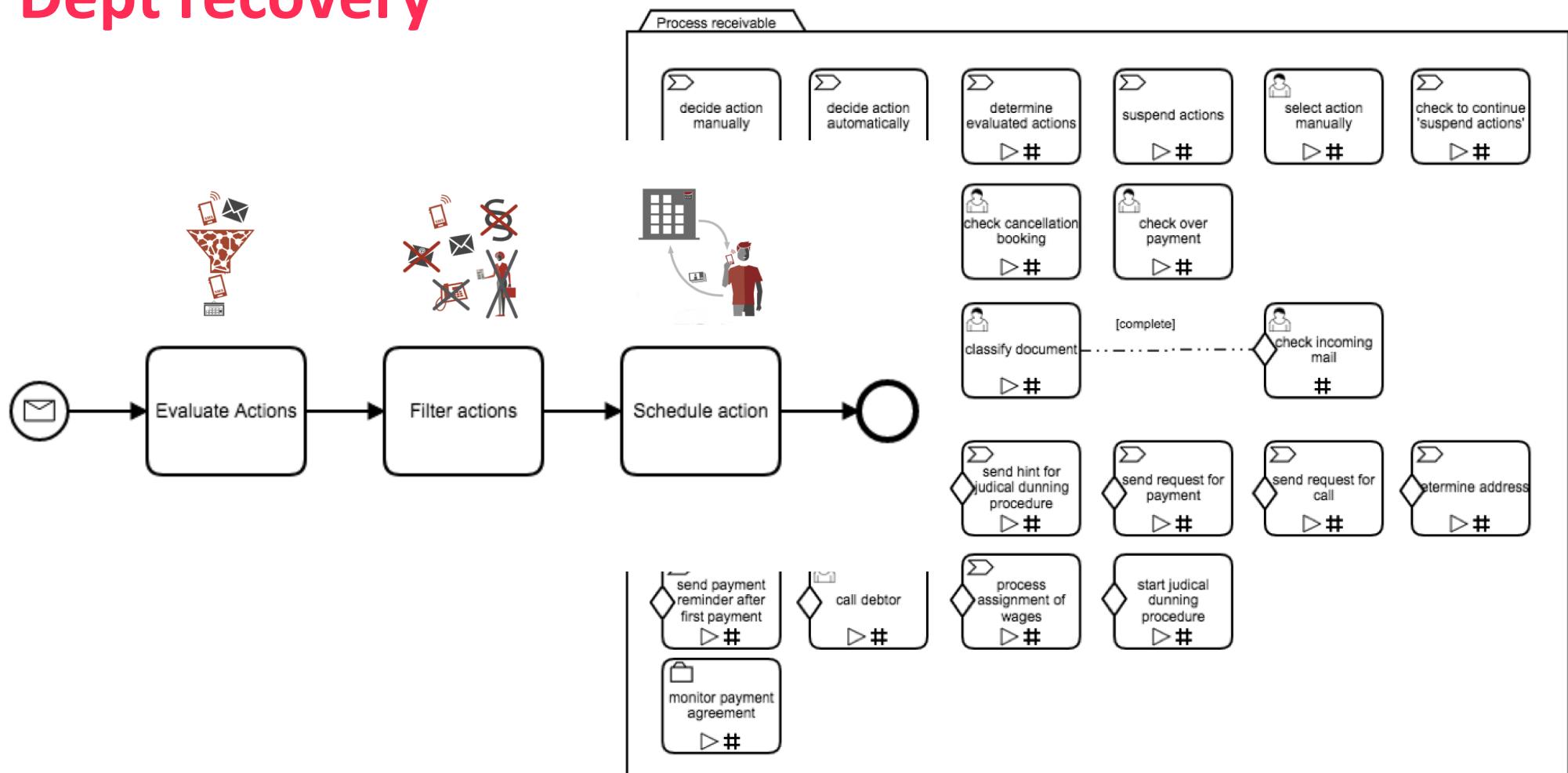
Projekt FX
Best Next>Inkasso



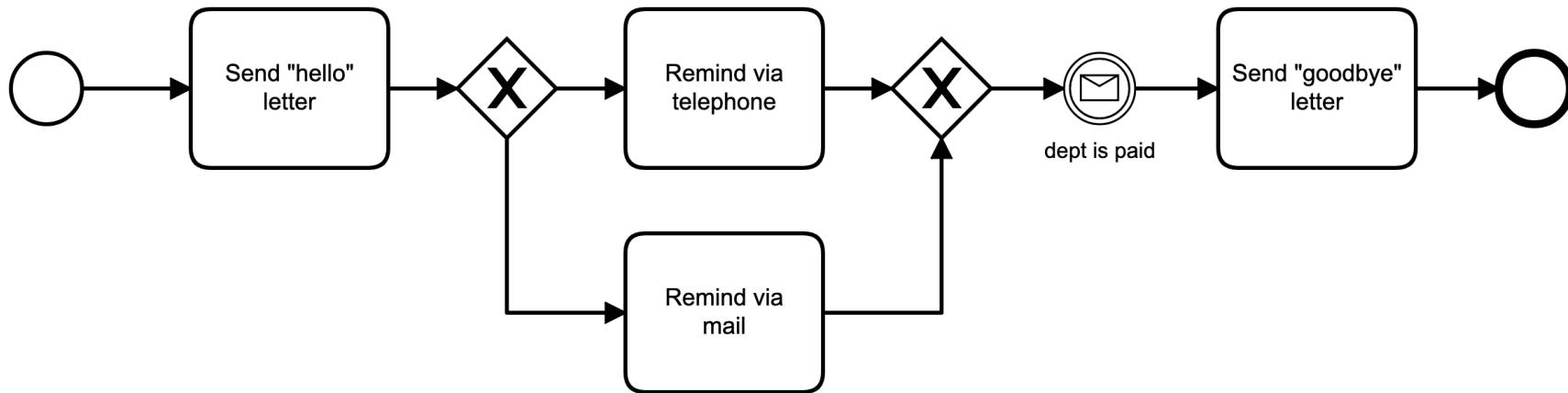
Mastering debt recovery processes
21.09.2018
With head and heart in finance

<http://tiny.cc/fxcamundacon2018>

Dept recovery

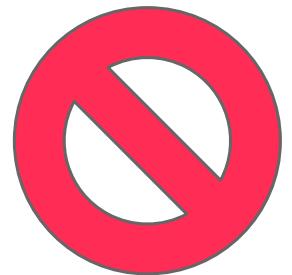


(Simplified) Example₁



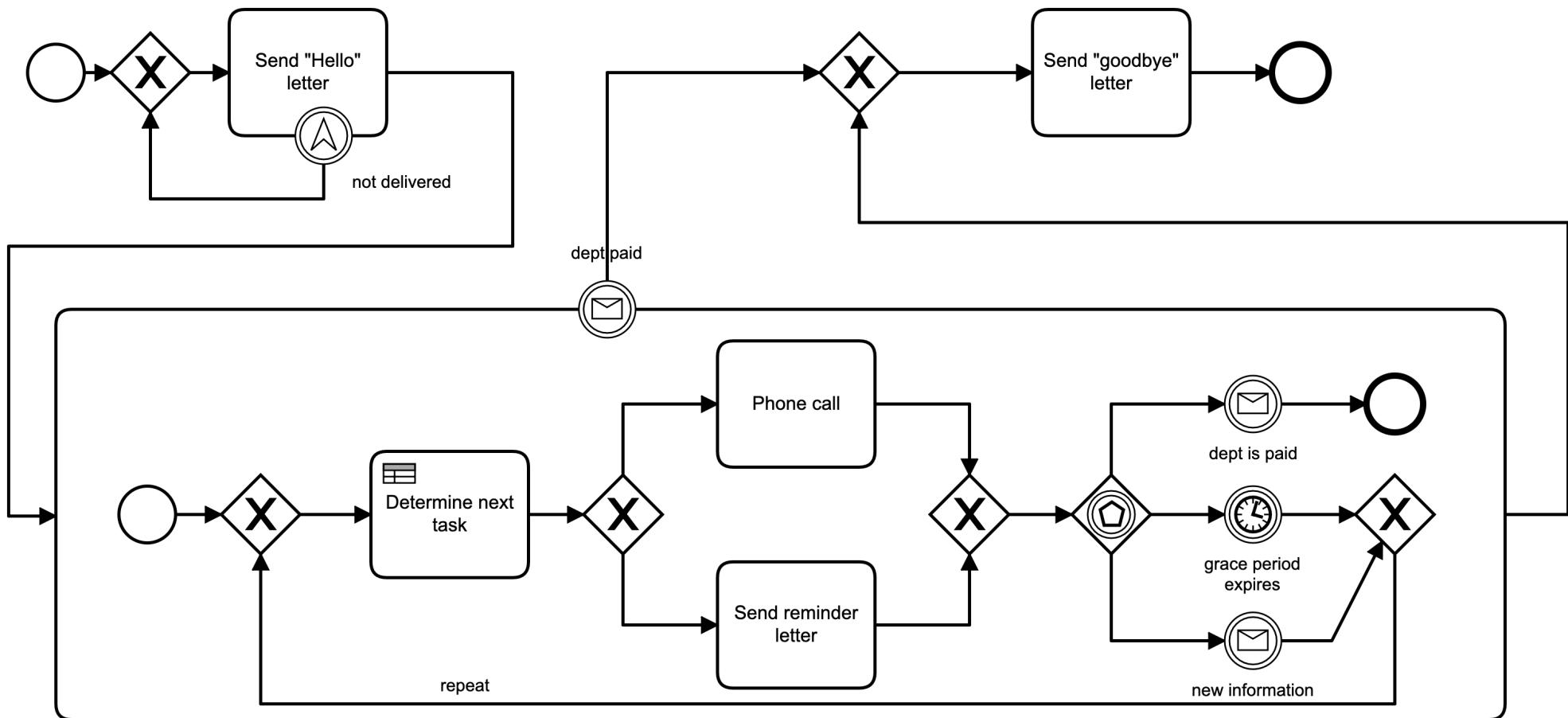
- When a new dept is imported we must send a 'hello'-letter to the depton
- After the letter was received, we might choose to remind him via telephone or mail.
- When the dept is paid, we send a 'goodbye'-letter and close the case.

(Simplified) Example - Constraints

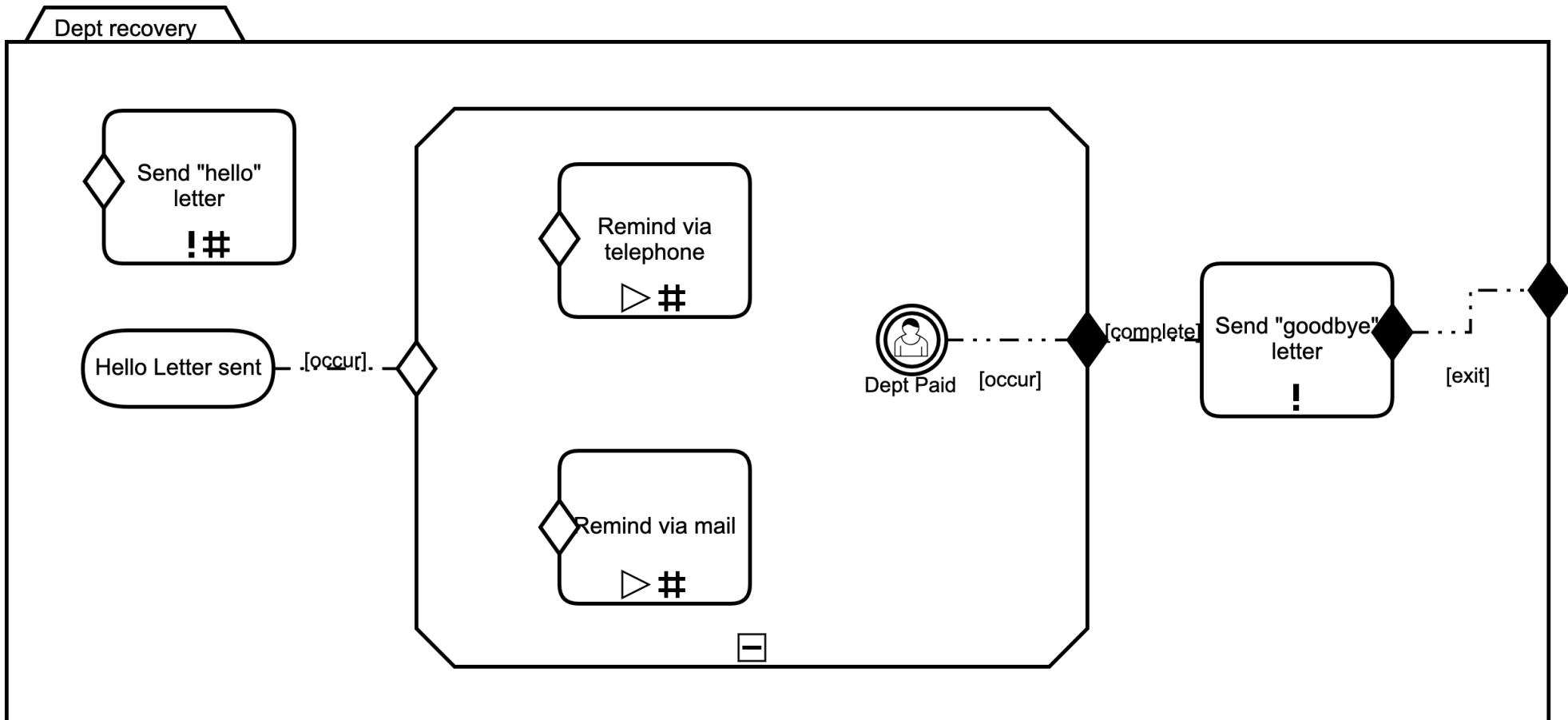


- „Remind via telephone“ is only possible if we have a valid phone number
- „Remind via mail“ requires a valid postal address
- One week after we sent the „hello“ letter, we may assume it was received, but it might not have been, so we have to resend it
- Due to german law, we only must try three times per day to call a depton
- Due to company policies, we do not call on weekends and public holidays
- Once we sent out a letter, we have to grant a grace period for the depton to react
- Until the depton was paid, we want to be able to repeat the reminder steps

(Simplified ?) Example₂

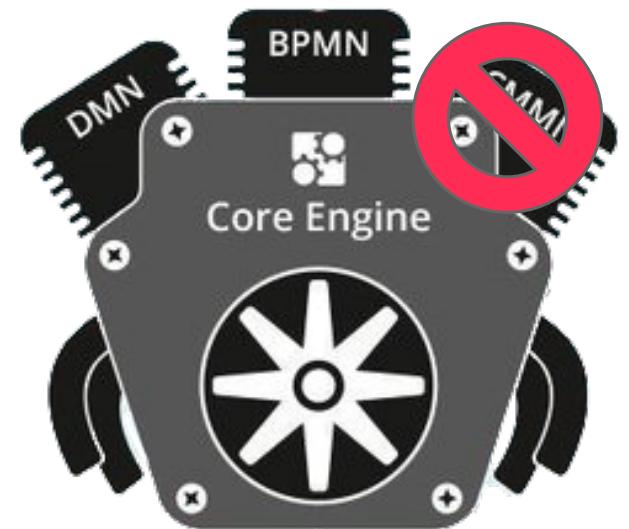


(Simplified) Example₃ – CMMN to the rescue



5 years ago

**This would
have been it**



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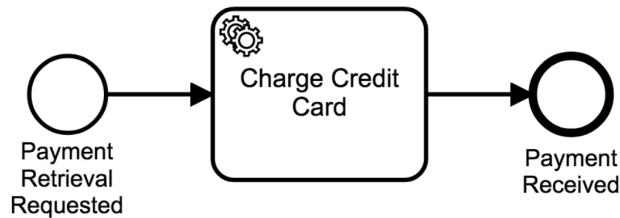
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What next?

OMG Standards for process automation

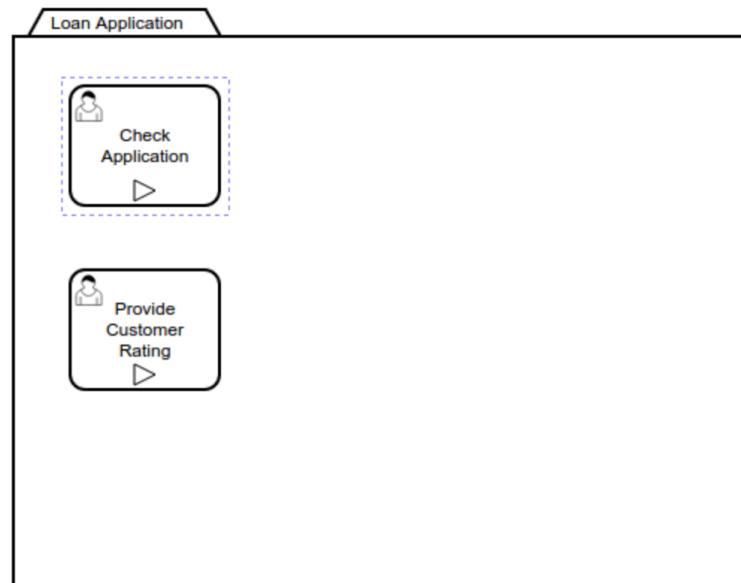
BPMN (2005)

- Strongly structured
- Key element: follow a plan



CMMN (2014)

- Weakly structured
- Key element: deal with surprise



Indicators for Case Management

*„I must be able to do a certain task at will,
because ...“*

*„Our business is highly individual, we
cannot force following a process.“*

*„I have to know the context and
history to decide how to
continue“*



CMMN - Problems

1. Specification not as mature as BPMN

- For example: Unclear execution of manualStart and repetition rule
- Requires a lot of manual configuration

2. Lack of tool support

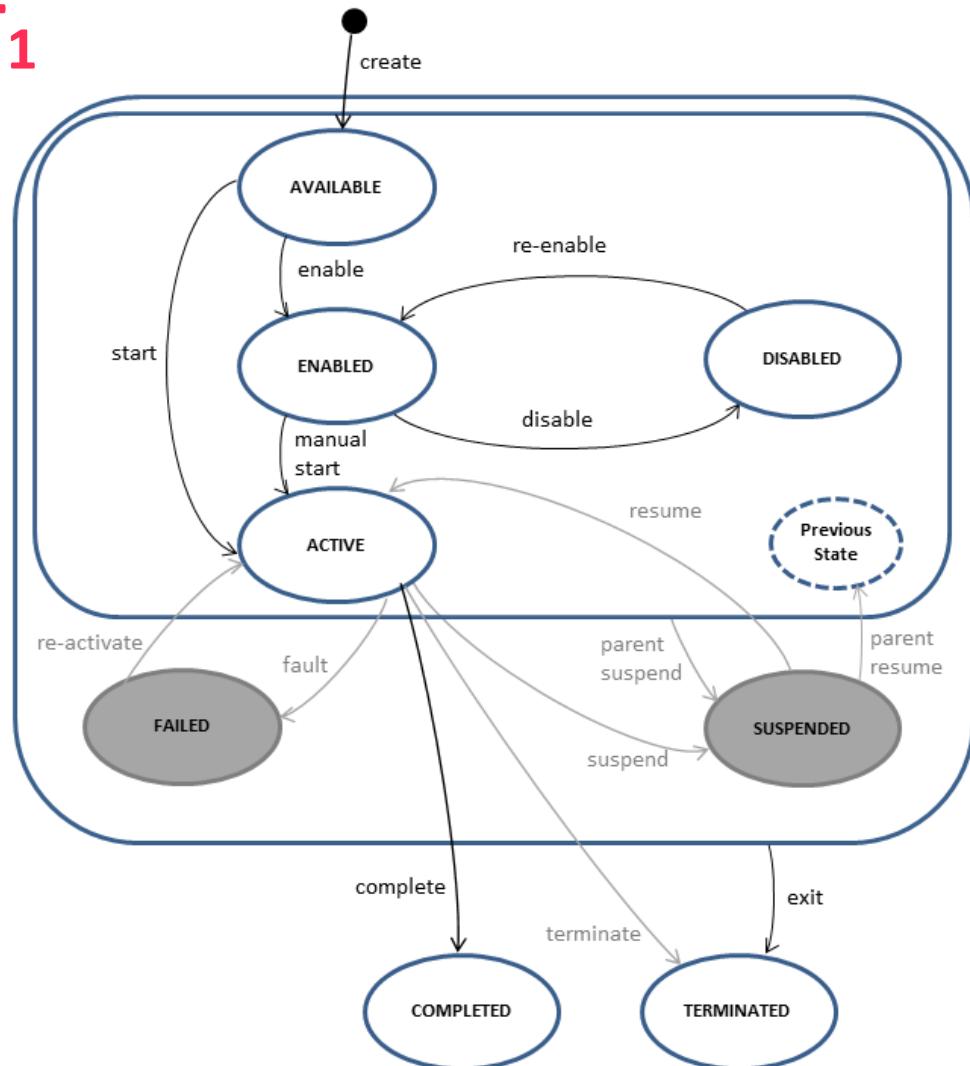
- For example: No events in camunda cmmn
- No further development
- Chicken vs. egg

3. Business-IT-Alignment

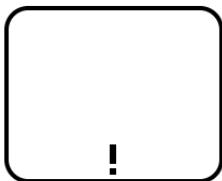
- Diagrams are complex and hard to read
- Hard to talk about what's going on

CMMN – The good stuff₁

Task Stage LifeCycle

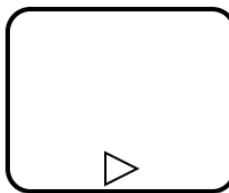


CMMN - The good stuff₂



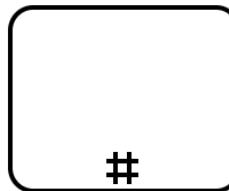
■ Mandatory task

Outer execution must not be completed before this was done



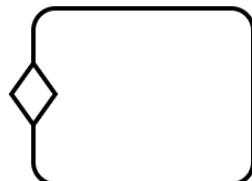
■ Manual Start Task

Does not run automatically, must be explicitly started



■ Repetition Rule

Task might be executed more than once

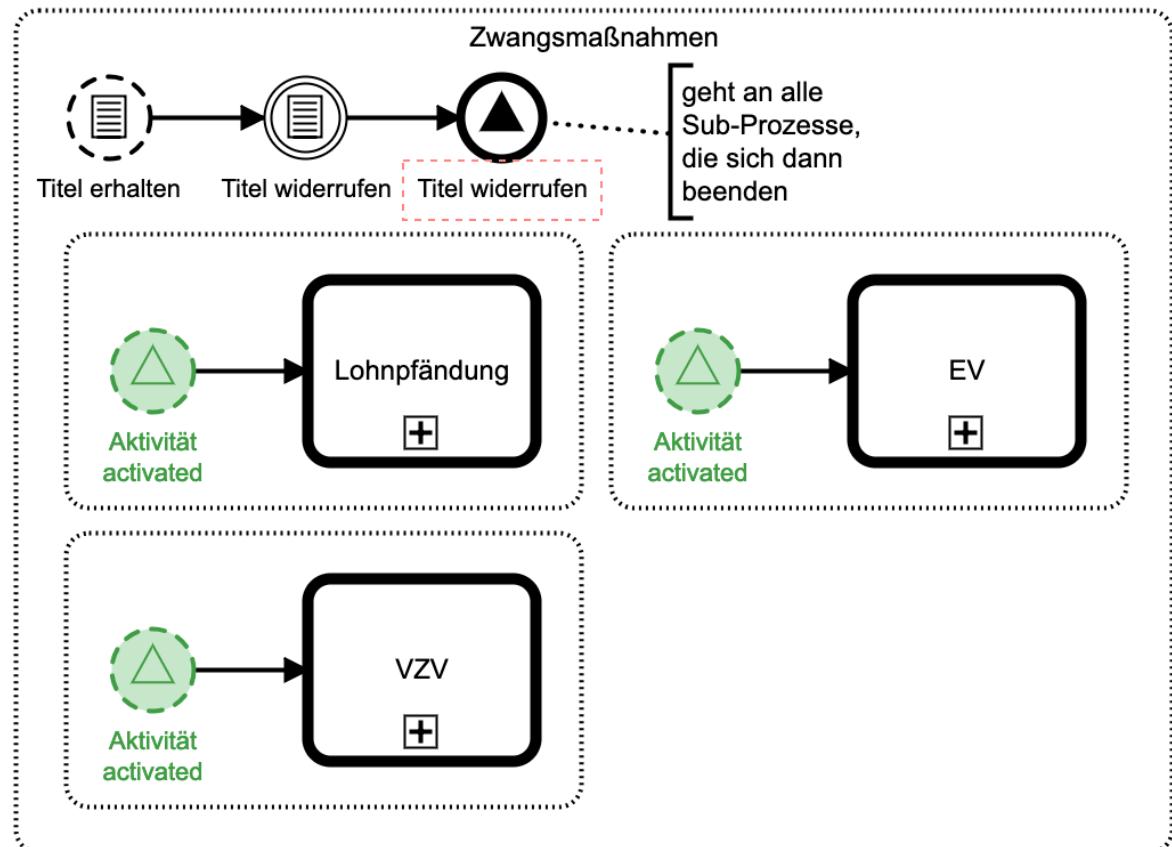


■ Sentry

Task must only start if condition is met

Flexibility with BPMN

- Best of both worlds: event based subprocesses
- Can be started (manually) without interrupting outer process
- But:
 - No State Lifecycle
 - Unlimited repetition



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Case Management Extension

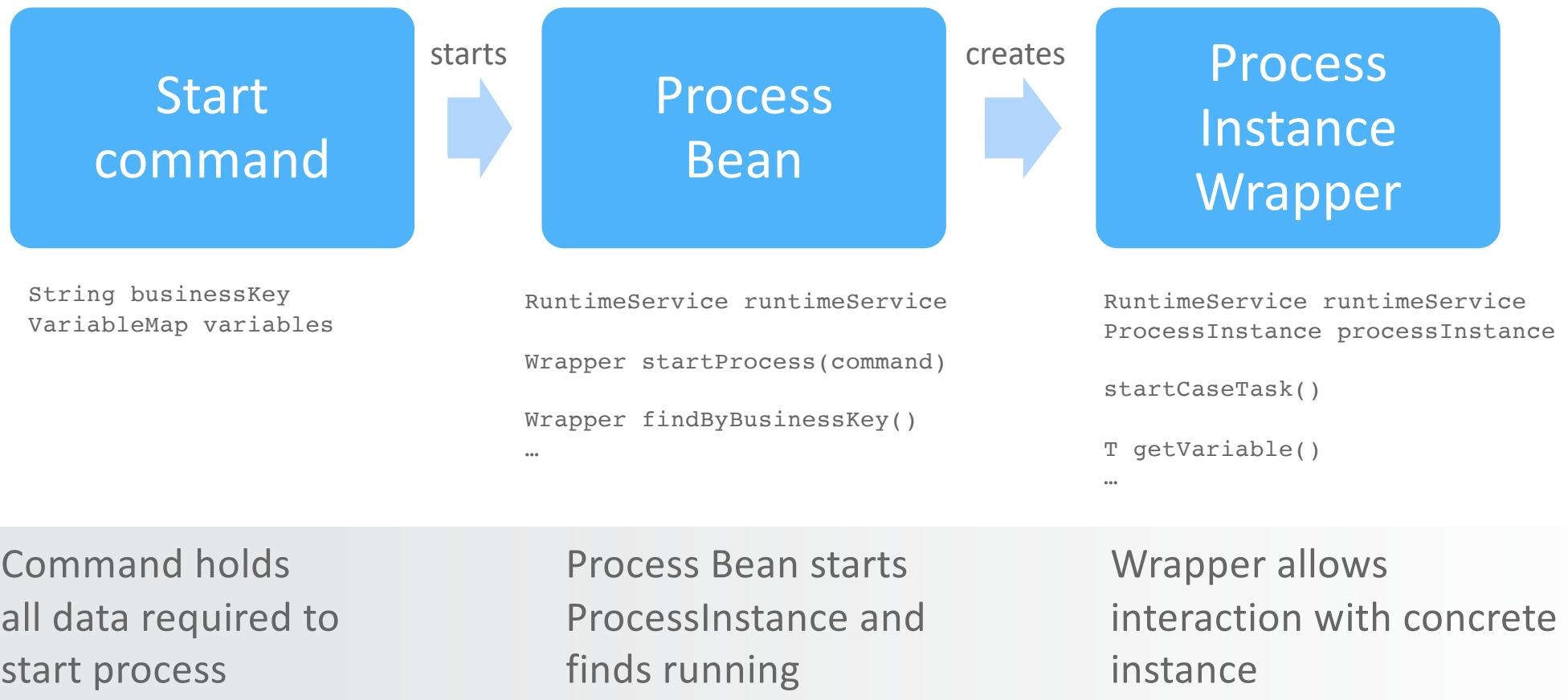
Goals

- Implement reusable extension
- Prepare (simplified) example demo
- Use event based subprocesses as case tasks
- Support
 - Task Stage Lifecycle
 - Repetition rules
 - Manual Start of Tasks

Principles

- Rely on camunda tools and API
 - Plain SE
 - Modeler
 - Process Variables
 - Delegates/Listener
- Use Process-ProcessInstance-Wrapper Pattern

Process-ProcessInstanceWrapper-Pattern (3P)





Demo

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What next?

Community extension ?

- Build on top of the code shown today
- Join forces for solving the valid use case

- Road Map ideas

- Modeler Element templates
 - Modeler overlays for CMMN icons
 - Modeler collapse subprocesses
 - Cockpit plugin to visualize Task state
 - Support for stages (ad hoc)
 - ...



[https://github.com/holunda-io/
camundacon2019-casemanagement-with-bpmn](https://github.com/holunda-io/camundacon2019-casemanagement-with-bpmn)

Q&A

