camunda
the business process company

The 7 sins of workflow and rules in Java

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The ~~7~~ 3 sins of workflow ~~and rules~~ in Java

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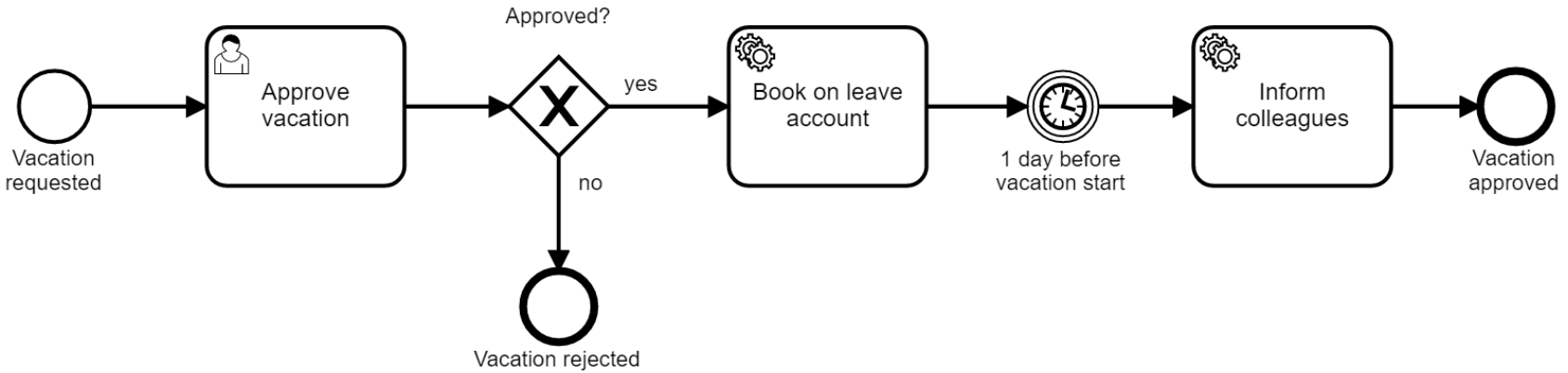
What is workflow?

*aka known as business process management

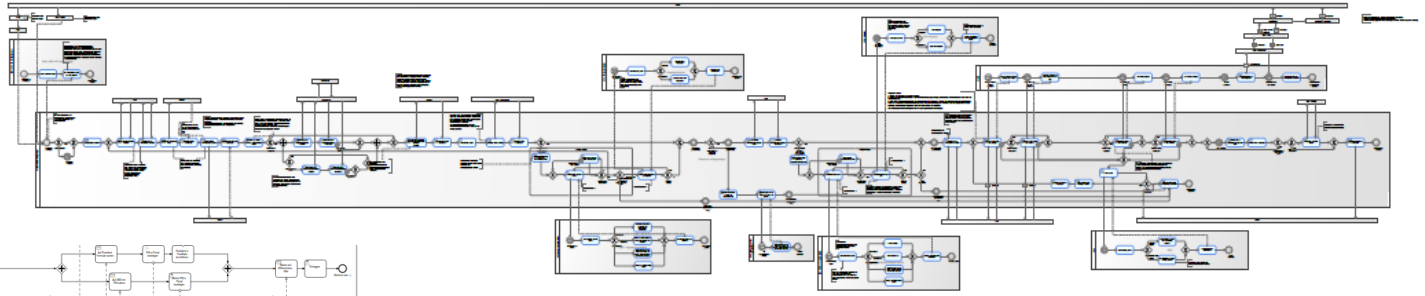
Example

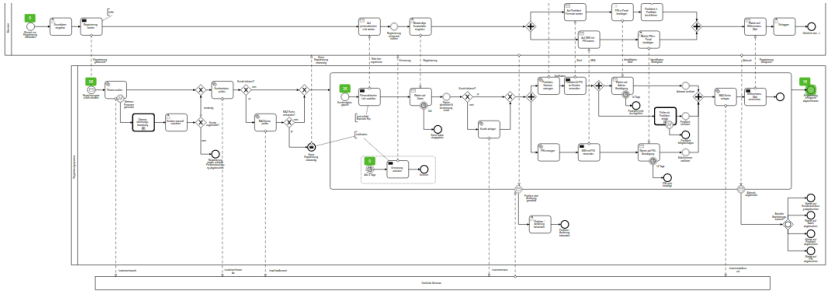


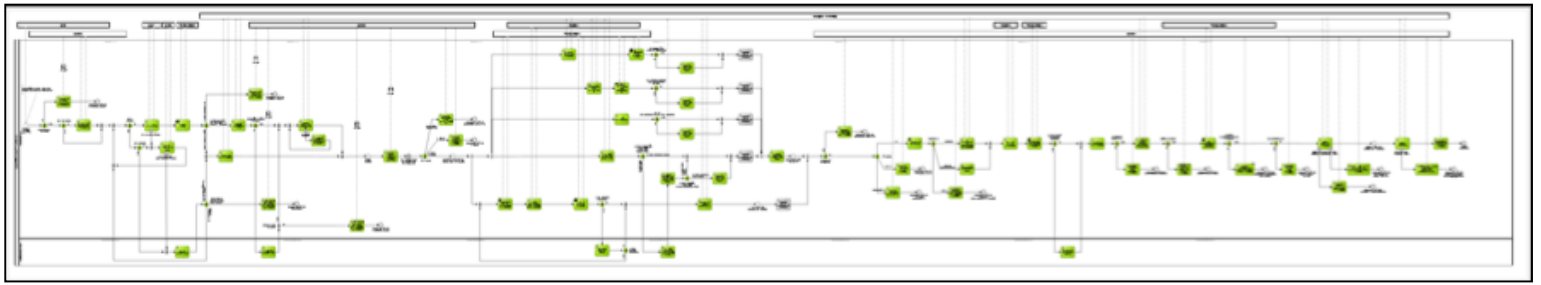
* Modeled in BPMN
= ISO Standard for modeling **and** execution

SORRY

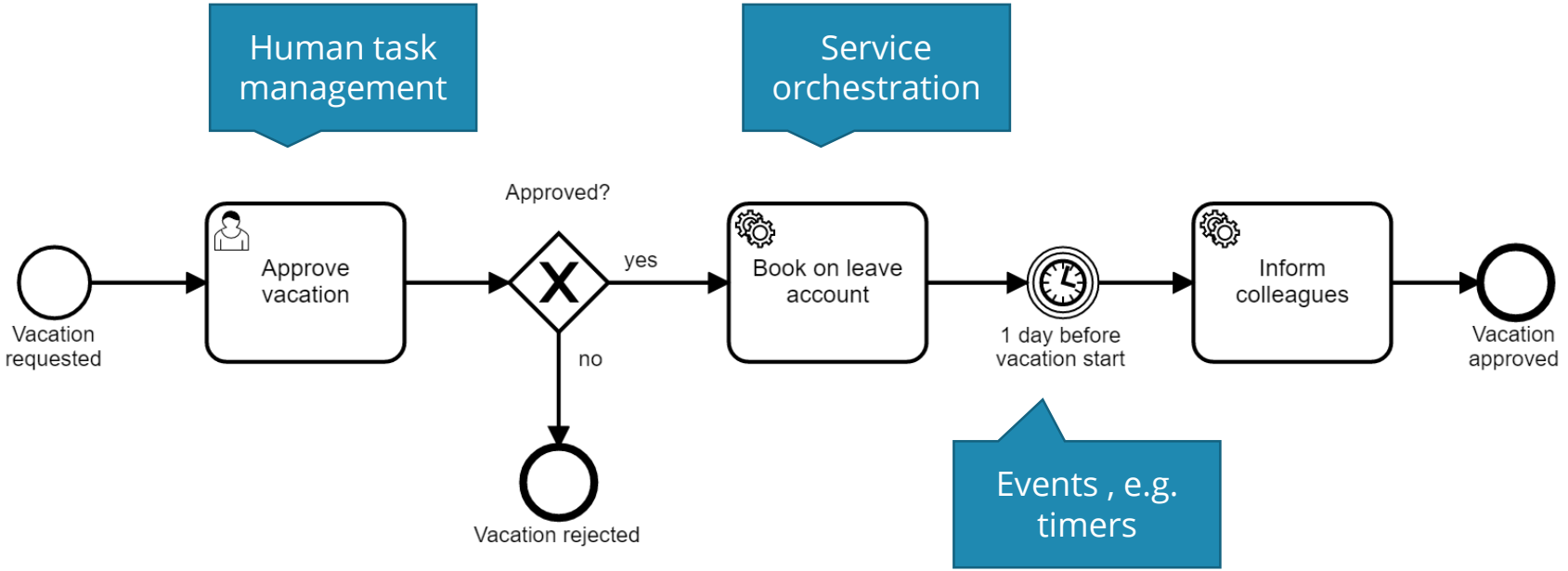
More realistic examples



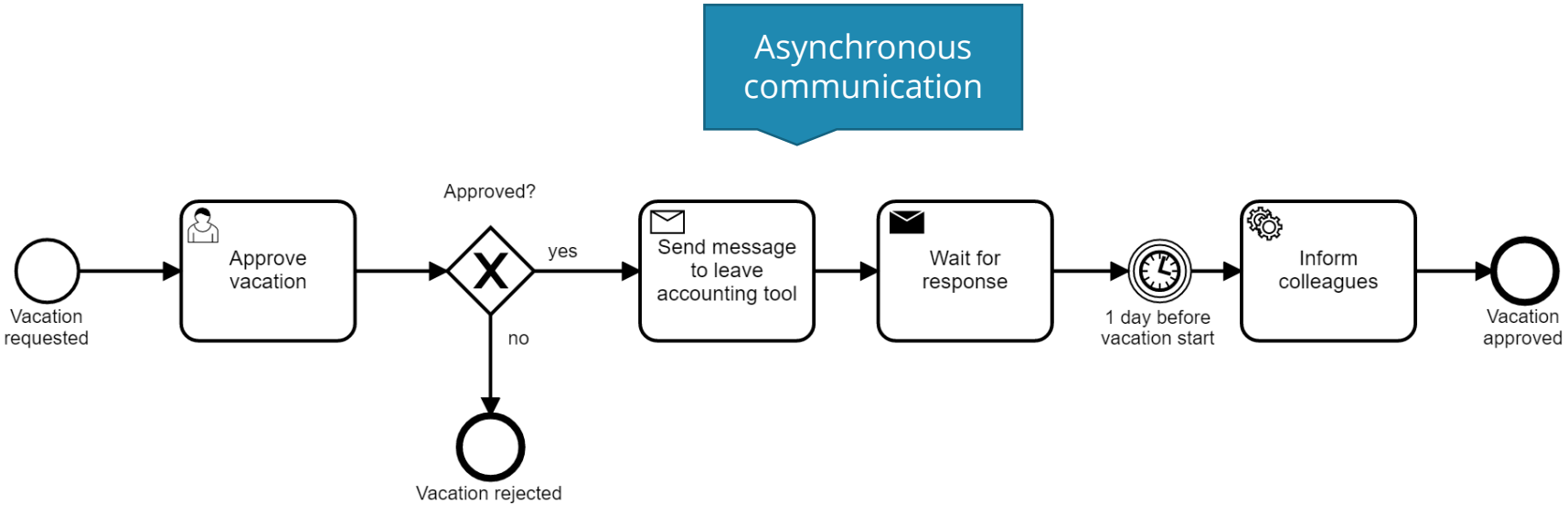




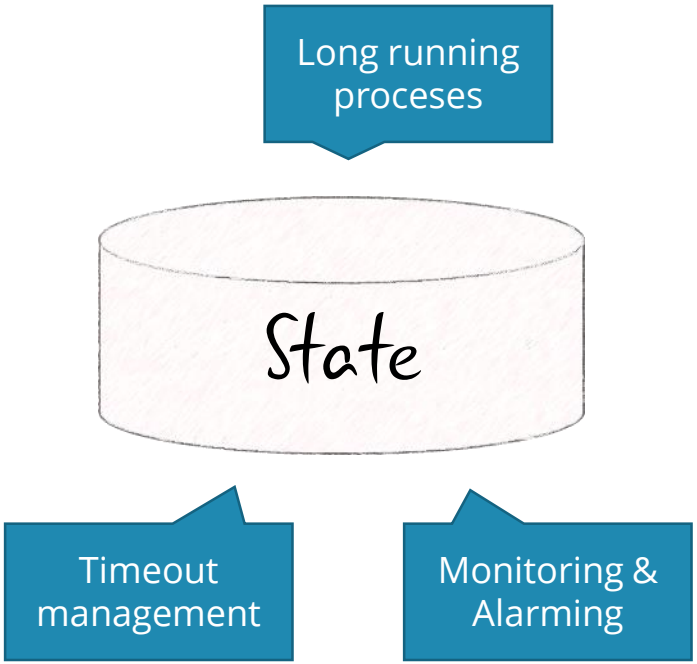
Challenges


Human task management
Service orchestration
Approved?
Approve vacation
yes
Book on leave account
Inform colleagues
Vacation requested
no
1 day before vacation start
Vacation approved
Vacation rejected
Events , e.g. timers

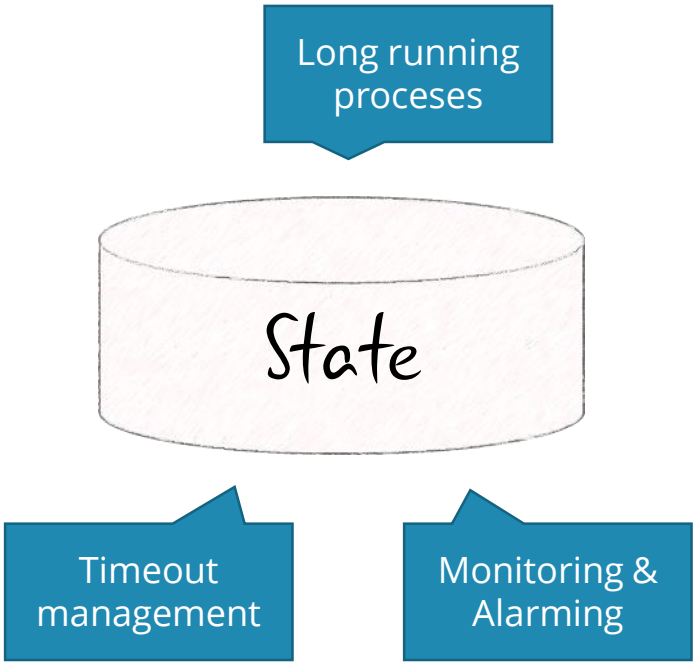
Challenges


Asynchronous communication
Vacation requested
Approve vacation
Approved?
yes
no
Vacation rejected
Send message to leave accounting tool
Wait for response
1 day before vacation start
Inform colleagues
Vacation approved

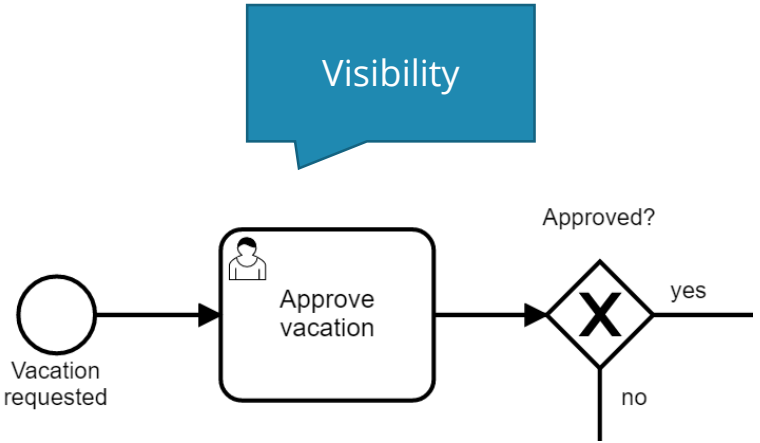
What you need



What you need



What you want



The 7 sins of workflow and Java

1

2

3

4

5

6

7

The 7 sins of workflow and Java

No engine

3

4

5

2

6

7

Alarming by management attention

Information Filter

Instance ID:
79f0efd4-97a5-11e6-bcbb-e4a7a01...

Business Key:
null

Definition Version:
1

Definition ID:
talk-input:1:75369c12-97a5-11e6-b...

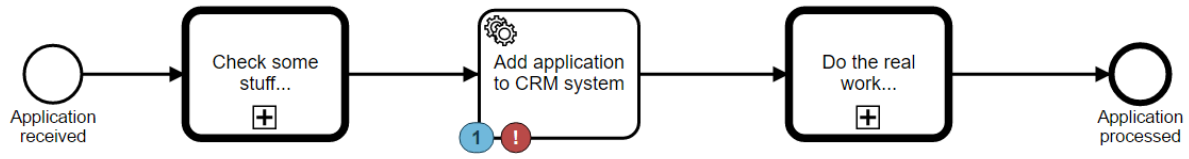
Definition Key:
talk-input

Definition Name:
talk-input

Tenant ID:
null

Deployment ID:
7530346e-97a5-11e6-bcbb-e4a7a0...

Related:
- Migration



Variables Incidents Called Process Instances User Tasks Modify

Message	Timestamp	Activity	Cause Process Instance ID	Root Cause Process Instance ID	Type	Action
network unavailable	2016-10-21T17:46:05	Add application to CRM system			Failed Job	

Camunda Cockpit Processes Decisions Cases Human Tasks More Demo Demo

Dashboard » Processes » talk-input : 79f0efd4-97a5-11e6-bcbb-e4a7a0132825 : Runtime

Information Filter

Instance ID:
79f0efd4-97a5-11e6-bcbb-e4a7a01...

Business Key:
null

Definition Version:
1

Definition ID:
talk-input:1:75369c12-97a5-11e6-b...

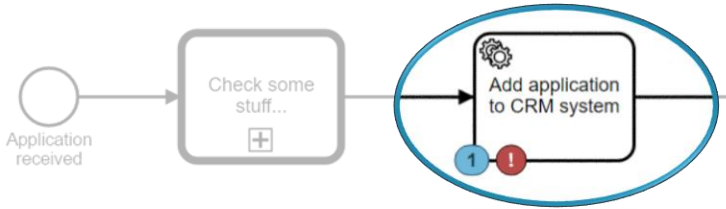
Definition Key:
talk-input

Definition Name:
talk-input

Tenant ID:
null

Deployment ID:
7530346e-97a5-11e6-bcbb-e4a7a0

Related:
- Migration



Variables Incidents Called Process Instances User Tasks Modify

Message	Timestamp	Activity	Cause Process Instance ID	Root Cause Process Instance ID	Type	Action
network unavailable	2016-10-21T17:46:05	Add application to CRM system			Failed Job	

localhost:8080/camunda/app/cockpit/default/

Powered by camunda BPM / v7.6.0-alpha5-ee

The 7 sins of workflow and Java

No engine

Wrong engine

3

4

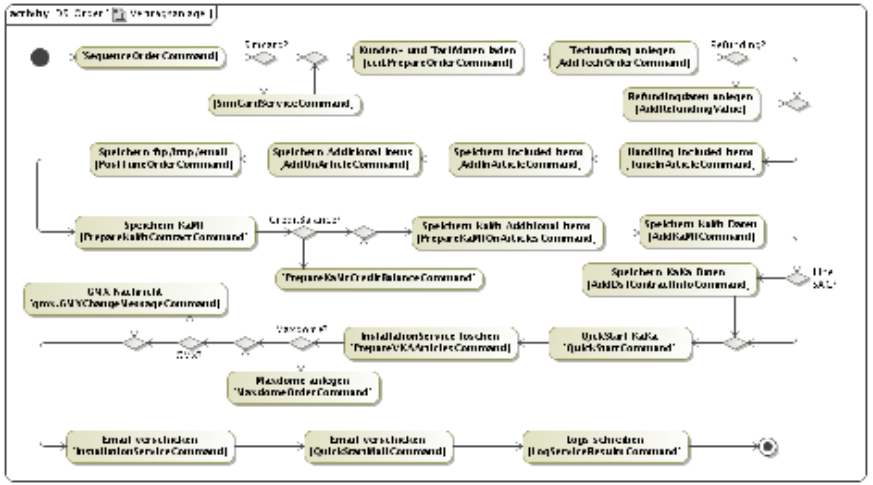
5

Homegrown engine

6

7

Typical outcomes



Own DSL, parsing, graphical representation, modeler, persistence, escalation, version management, tooling, ...

Whole teams maintaining something that always lacks behind

© kallejipp / photocase.com

The 7 sins of workflow and Java

No engine

Wrong engine

Zero-code suites

Wrong usage

Homegrown engine

4

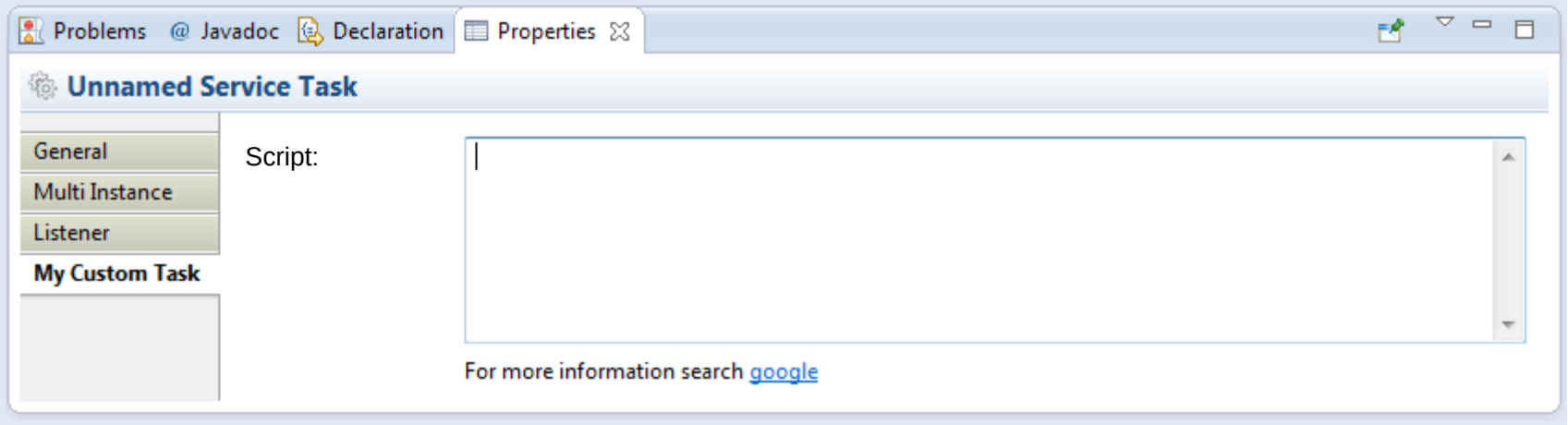
5

6

7

Death by properties panel

Please enter your complex code here.
(Without IDE support of course!)



BPM Suites

By the way, we introduce an own development approach, IDE, version control, user management, reporting, ...

Zero code & developers

We have a lot of problems!

It totally sucks!
I hate BPM!

Bernd Rücker

Co-founder camunda
> 10+ years workflow
Technology evangelist

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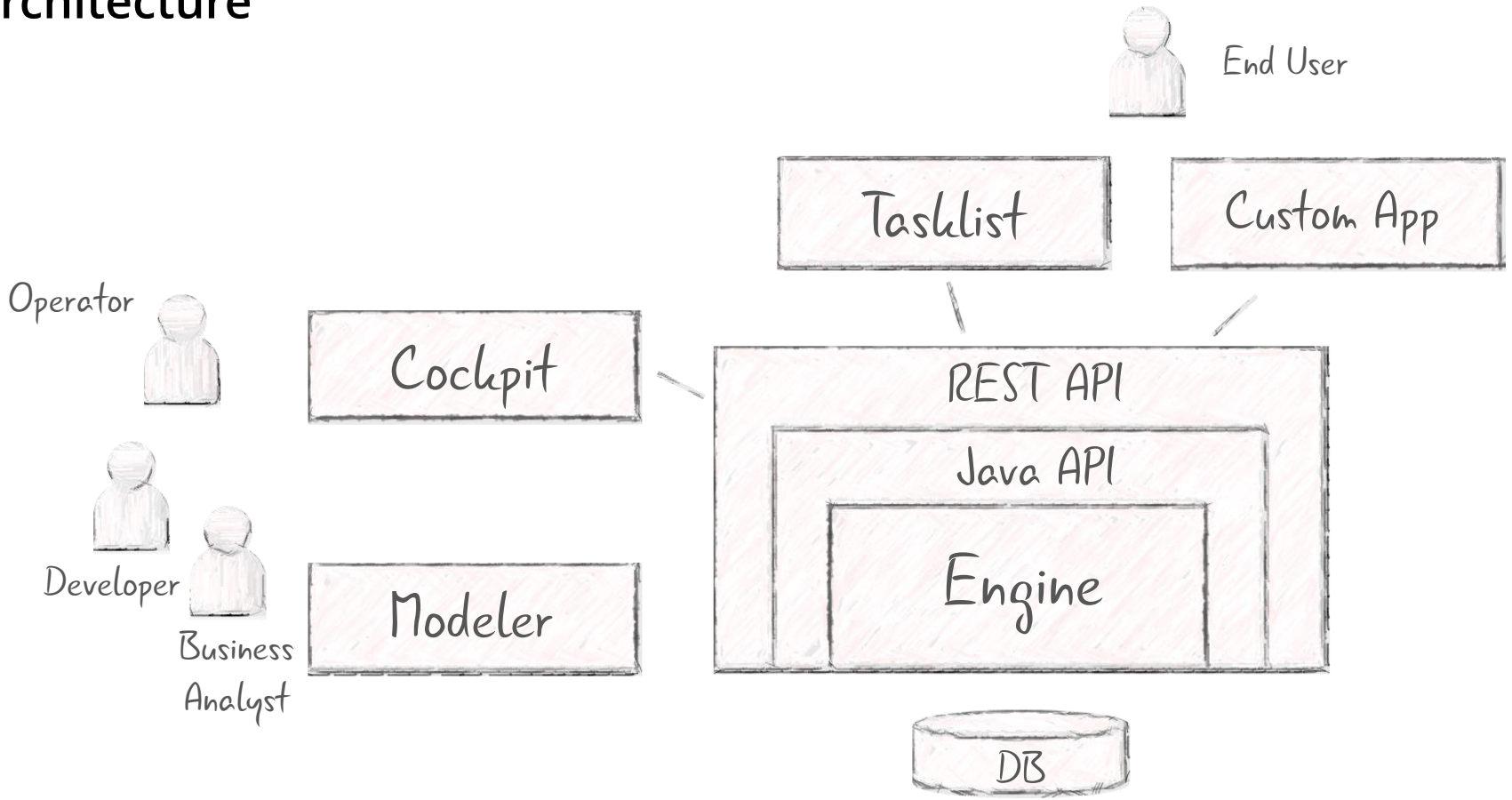
bernd.ruecker@camunda.com

Camunda

Open Source BPM vendor
Berlin + San Francisco
> 60 employees - growing
No venture capitel

www.camunda.org

Architecture



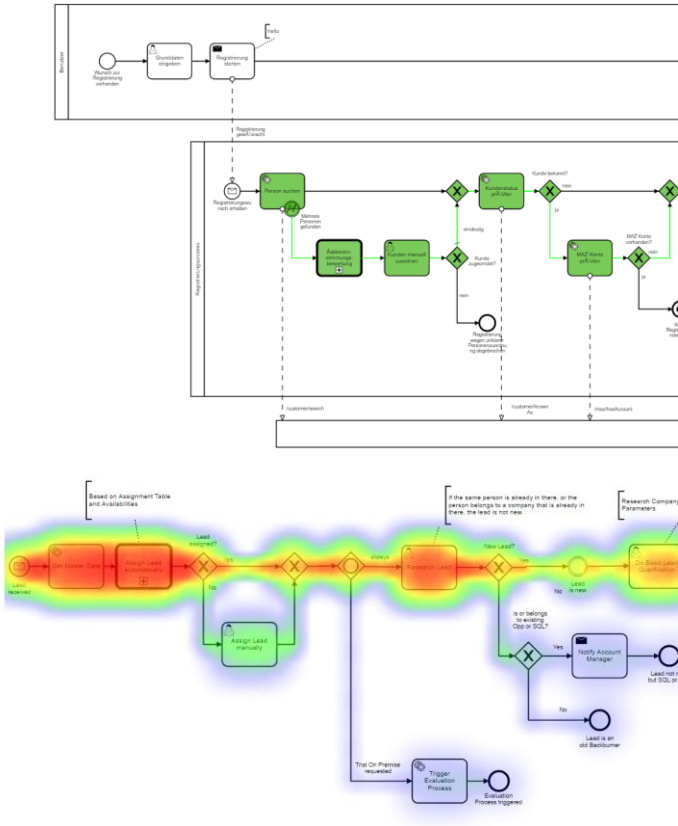
Developer friendly

```
ProcessEngine processEngine = ProcessEngineConfiguration
    .createStandaloneProcessEngineConfiguration()
    .setJdbcUrl("jdbc:h2:mem:camunda")
    .buildProcessEngine();

processEngine.getRepositoryService()
    .createDeployment()
    .addClasspathResource("vacation-request.bpmn")
    .deploy();

ProcessInstance processInstance = processEngine.getRuntimeService()
    .startProcessInstanceByKey("VacationRequestProcess“, variableMap);
```

Live Demo

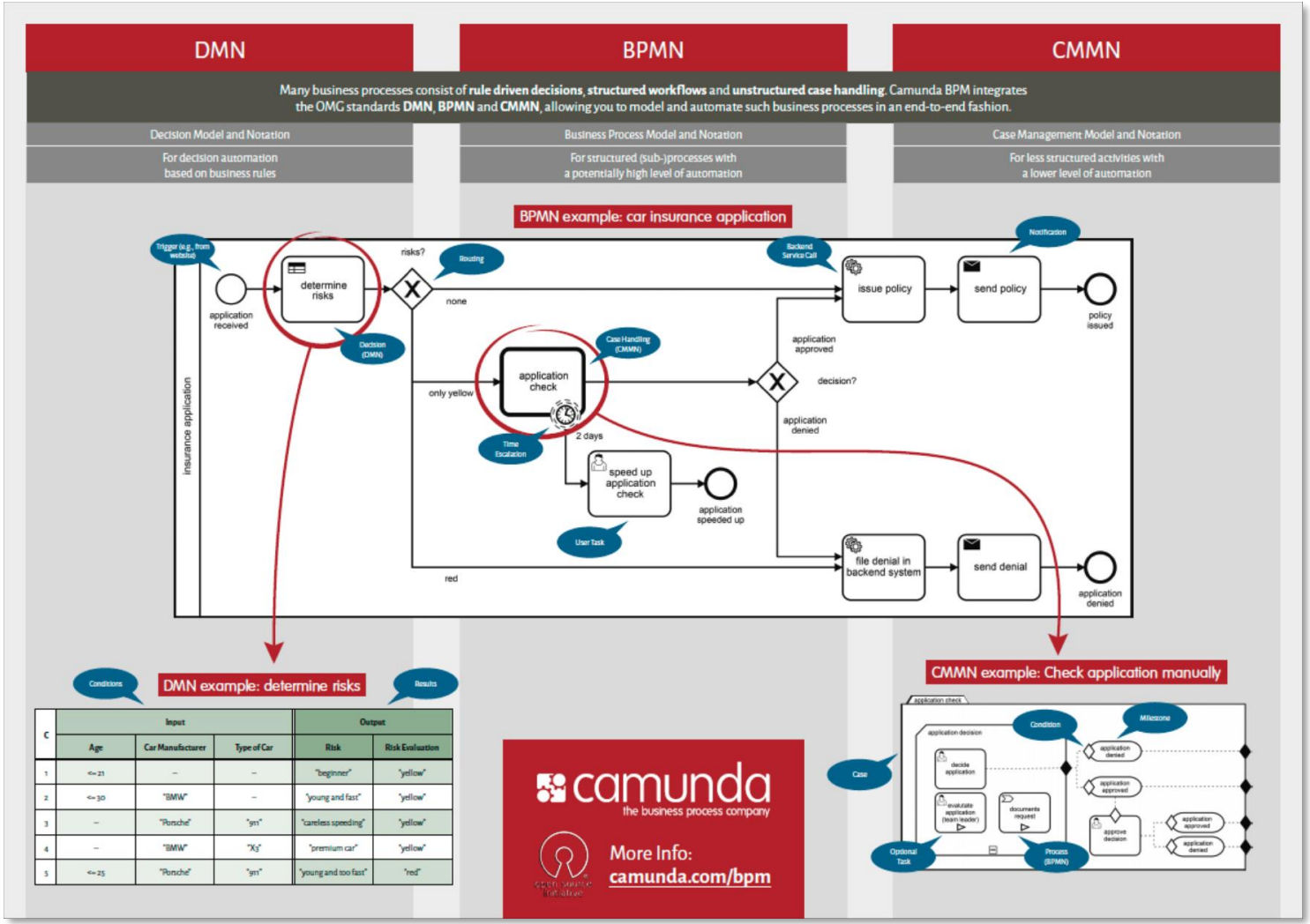
What we couldn‘t look at

- Automated Testing
- Embedded Engine (Spring, Spring Boot, Junit, …)
- Container Integration (Tomcat, WildFly, JBoss, WAS, …)
- Tooling (Webapplications, Modeler, …)
- Connectivity (REST, SOAP, Messaging, …)
- Scalability, Clustering & Performance
- Next generation: Microservices, Event Driven Architecture, Serverless, Cloud, …
- Polyglott



Trio of standards

Get a free poster at out booth



More than 100 Customers

- Finance: Account Opening, Credit Card Provisioning, ...
- Insurance: Insurance Policy Issue, Claim Settlement, ...
- Telco: OSS, BSS, ...
- Media: Digital Content Delivery, ...
- E-Commerce: Order Execution, Purchasing, ...

Visit us at our booth

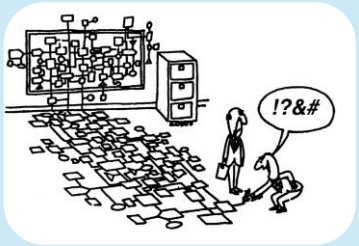
We can also discuss the 7 sins in detail!

No engine

Wrong engine

Zero-code suites

Wrong usage



Granularity bloopers

Over engineering

Homegrown engine

BPM monolith

Stakeholders habitat violation

Thanks! Any questions?