

# JBoss BPM Past, Present & Future

John Graham

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# Introduction & Agenda

- John Graham (jgraham@redhat.com)
  - JBoss by Red Hat
  - Technical Development Manager
  - SOA, BPM, BRMS
- BPM at JBoss
  - Context
  - Past initiatives
  - Current situation
  - Future directions

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# Context

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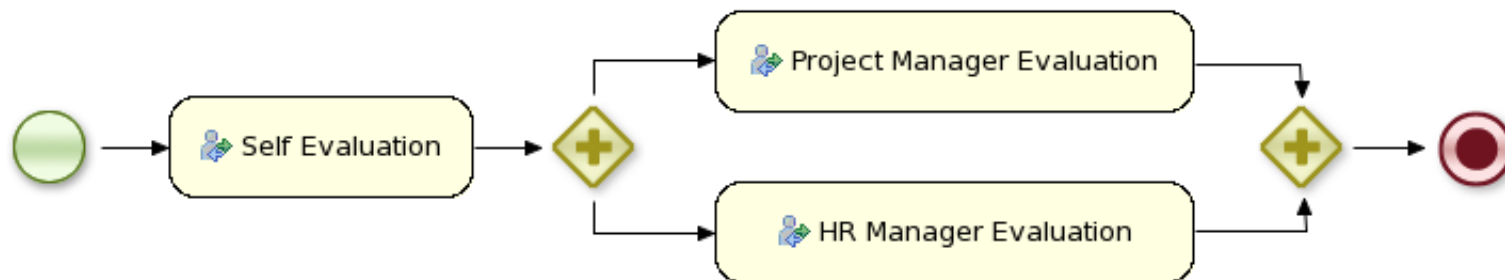
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# Business Process

A ***business process*** is a process that describes the order in which a series of steps need to be executed, using a flow chart.



# Business Process Management

- BPM is a discipline
  - Many actors
  - Entire life cycle
- We focus on ***executable*** processes
- Core engine = key component

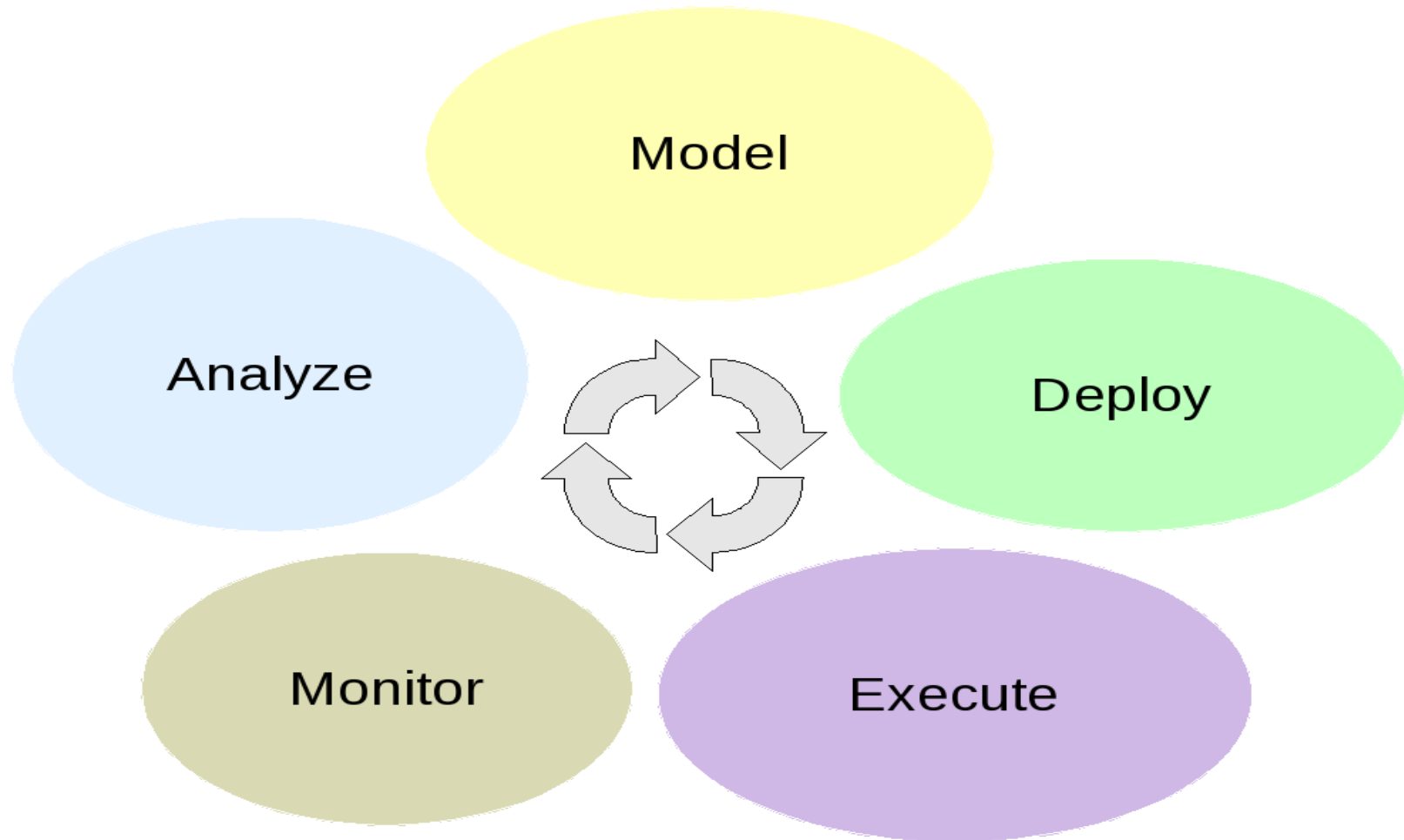
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# Business Process Life Cycle



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# BPM Advantages

- Visibility and transparency
- Monitoring
- Higher-level (involve business analysts)
- Automation, continuous improvement
- Increased speed of development
- Increased agility (change process more easily)
- and many more ...

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# Past

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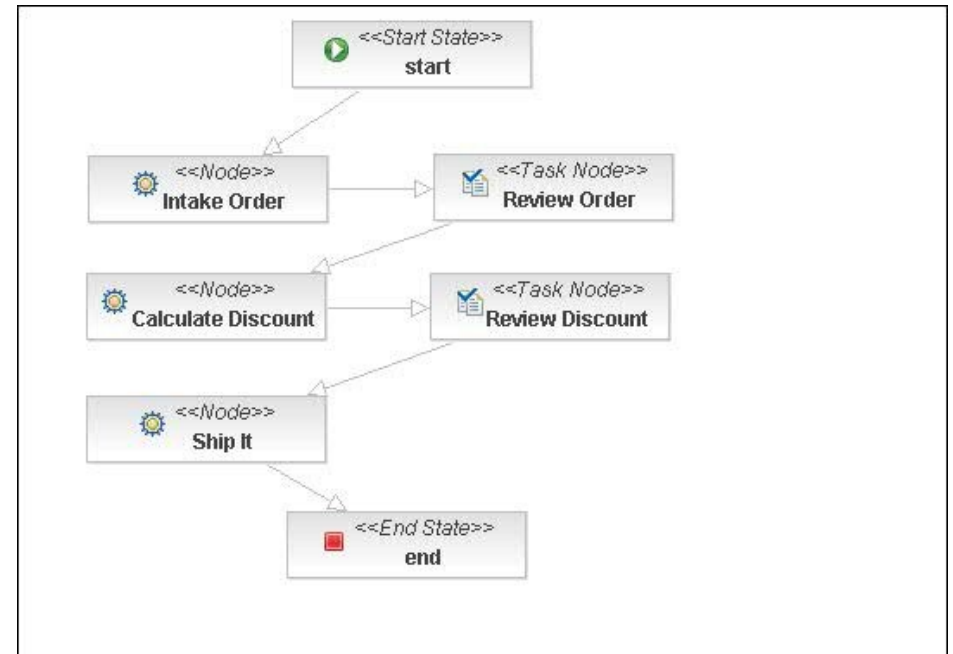
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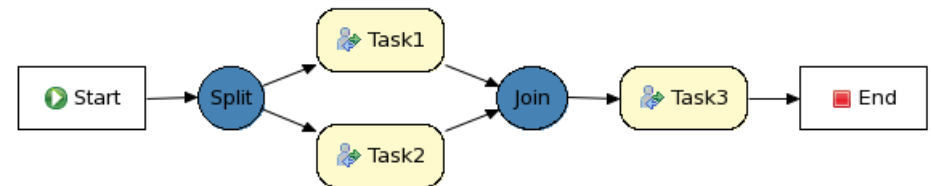
# jBPM

- Based on jPDL
- Deployments
  - Stand-alone
  - SOA-P
  - (Seam)
- jBPM 3
- jBPM 4



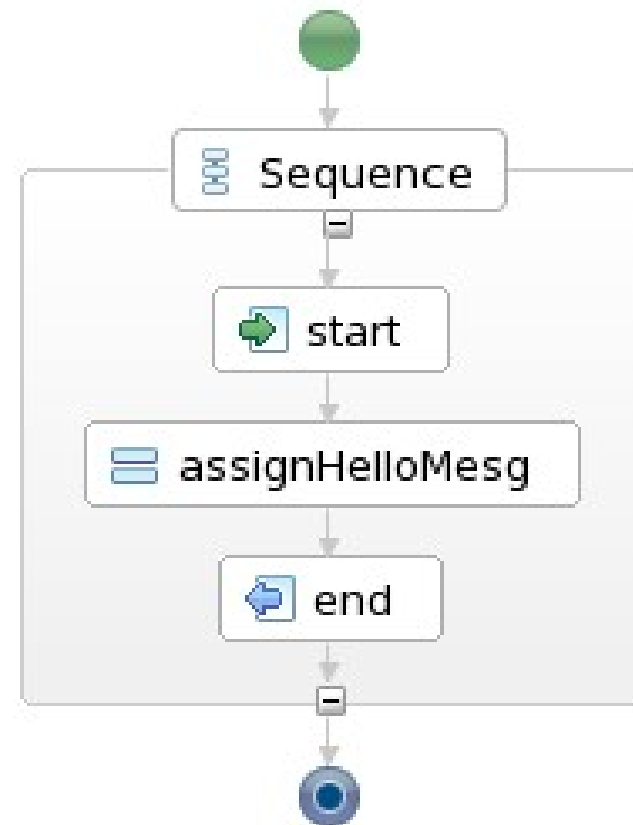
# Drools

- Business Rules
- Components
  - Expert
  - Fusion
  - Flow
  - Guvnor
  - Planner
- BPM in Drools Flow



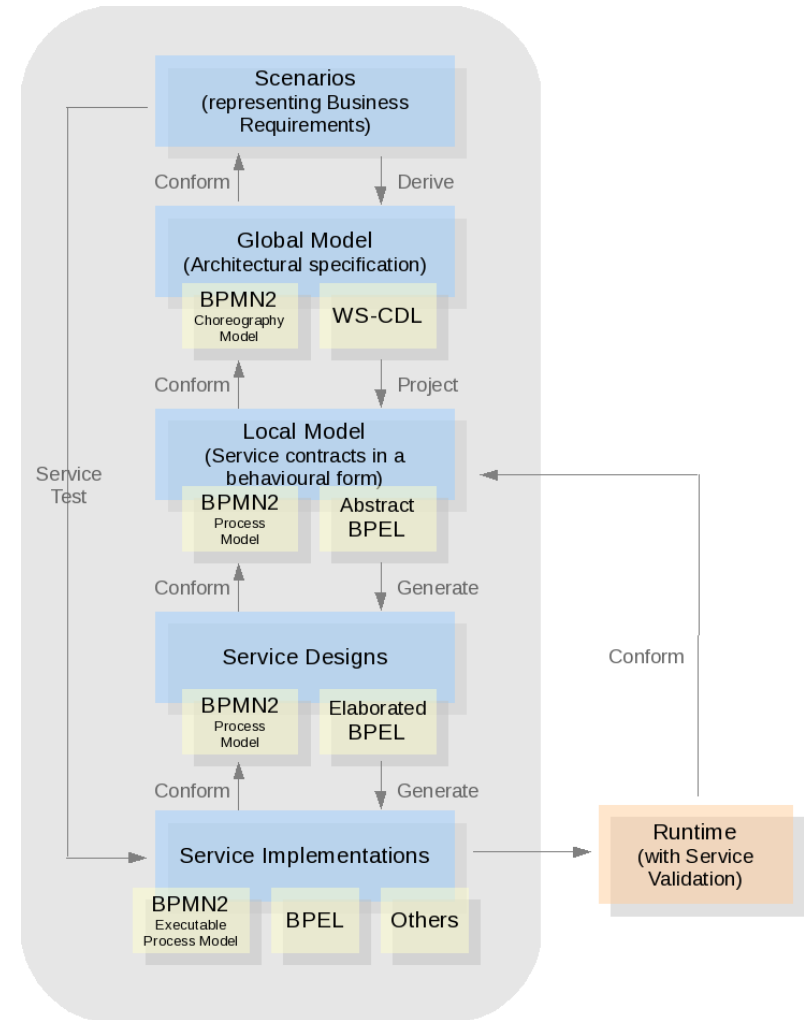
# Riftsaw

- WS-BPEL 2.0
- Related
  - Apache Ode
  - Eclipse BPEL editor
  - Console (from Errai)
- Release 2.1
- Integration with SOA



# Savara

- WS-CDL
- Pi Calculus
- Choreography
- Testable Architecture
  - Development validation
  - Execution governance
- BPMN 2?



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# Present

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# Unifying Use Cases

- Perspectives
  - Rules-based
  - Process-based
  - SOA-driven
- Need to integrate
- Need to avoid overlap
- Enable emergent usage
- Where to go?

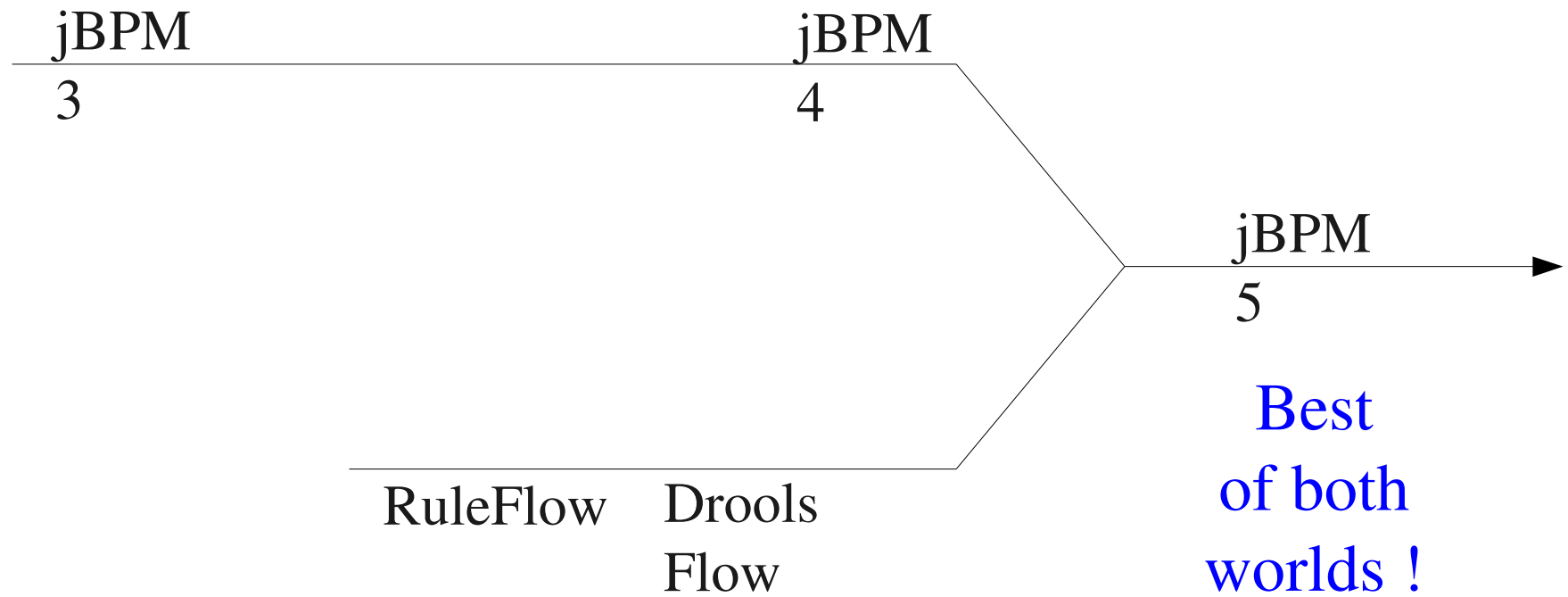
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2005 ..... 2008 ..... 2009 ..... 2011



# Key Characteristics

- Business process engine
  - using BPMN2 standard (native execution)
  - lightweight, embeddable
  - generic process engine
- Full life cycle support
- Higher-level, domain-specific processes
- Powerful *business rules* and *event processing* integration





# BPMN 2.0

- OMG standard that defines
  - Graphical notation
  - Process definition format (XSD / XMI)
  - Execution semantics
- Extensible
- Interoperability!

See <http://www.omg.org/spec/BPMN/2.0/>



```
<definitions ... >
  <process id="com.sample.bpmn.hello"
    name="Hello World" >
    <startEvent id="_1"
      name="StartProcess" />
    <sequenceFlow sourceRef="_1"
      targetRef="_2" />
    <scriptTask id="_2" name="Hello" >
      <script>System.out.println("Hello
        World");</script>
    </scriptTask>
    <sequenceFlow sourceRef="_2"
      targetRef="_3" />
    <endEvent id="_3"
      name="EndProcess" />
  </process>
</definitions>
```

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# Generic Process Engine

- Generic features
  - Persistence
  - Transactions
  - Timers
  - Expression dialects
  - Multi-threading
  - Events
  - Commands + interceptors
  - Session management

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# Future

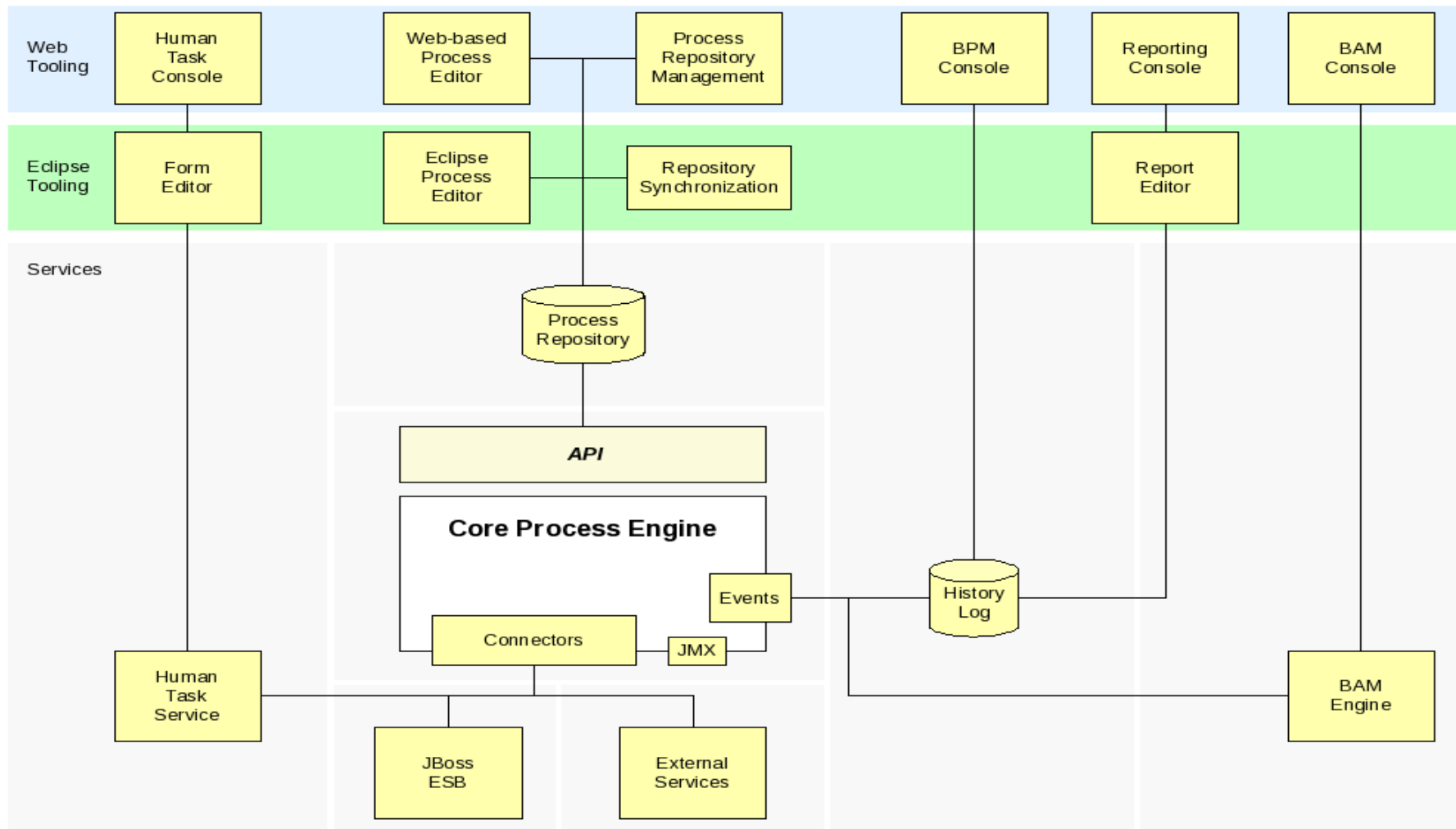
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# Architecture



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# Components

- API
- Core process engine
- Repository
- Human task service
- History log
- BAM engine

## Web-based consoles

- Management
- Human tasks
- Reporting / BAM

## Eclipse plugins

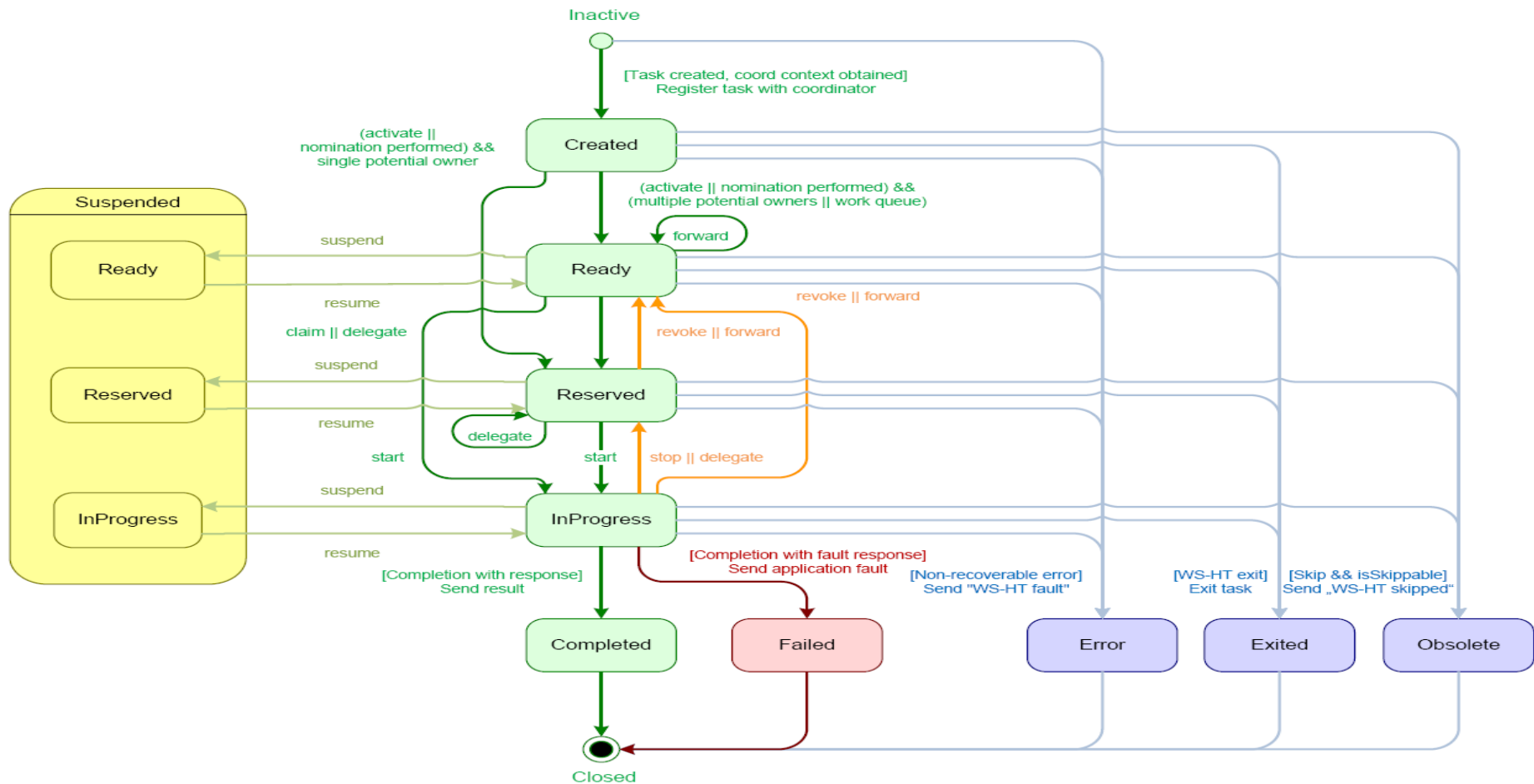
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# Human Task



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# jBPM 5 Roadmap

- Currently under community review
- More details soon!
- jBPM 5.0
  - Focus on core components
  - Near the end of the year
- Regular (2-3 month) releases after that

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# Adaptive Processes

- Traditional workflow management systems have problems with
  - Change
  - Complexity
  - Flexibility
  - Data-based

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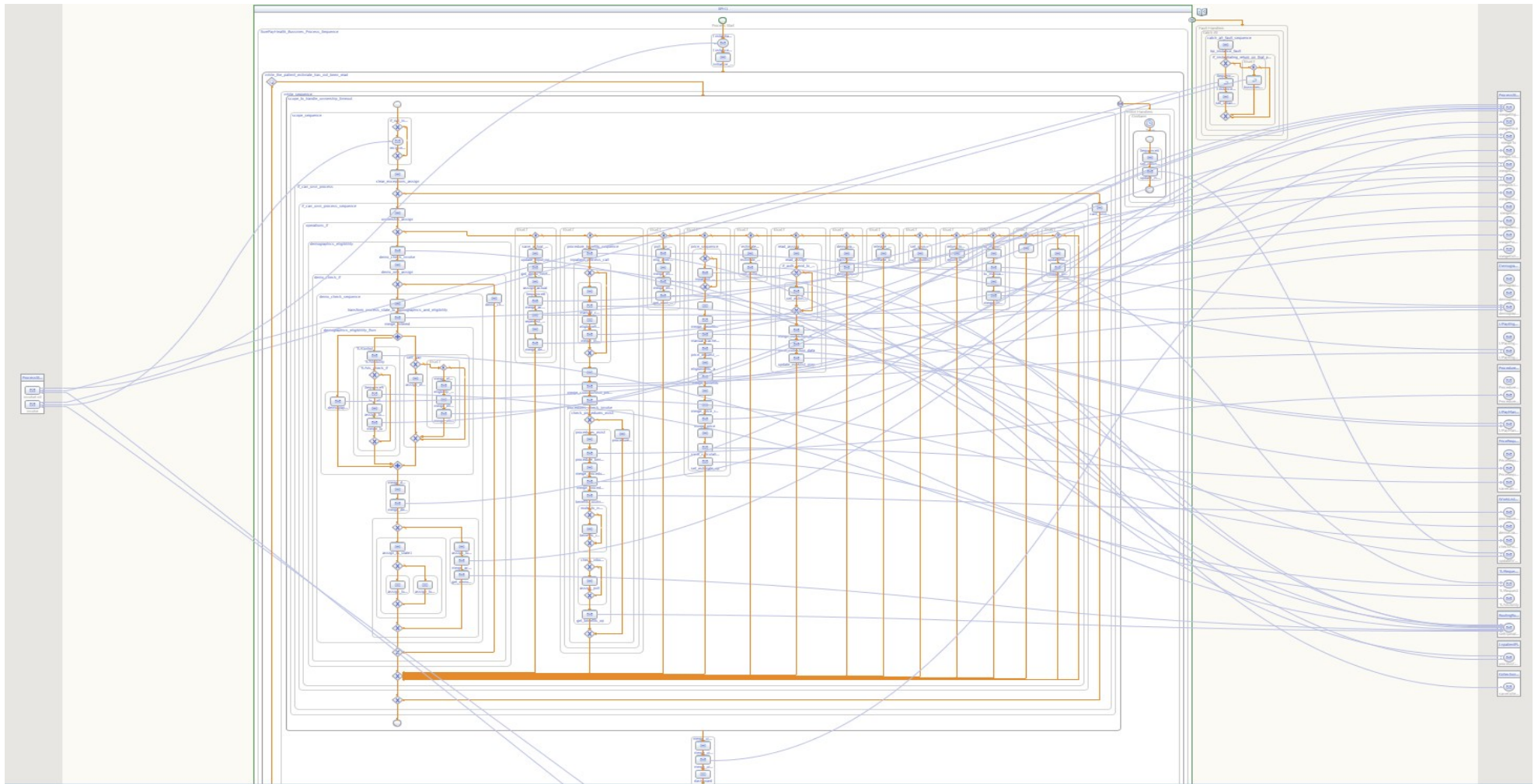
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# Conflated Concerns



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# Gaining Adaptability

- Decision service to externalize decision logic as business rules
- Process improvement
  - Migration of running instances
- Unanticipated work
- Unstructure processes
- Processes, rules and events working together

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# Processes + Rules + Events

- A business solution usually involves the interaction between these technologies.
  - Technology overlap
  - Business overlap
- Several (good) products on the market, better either at rule or business process or event processing

***Attribute the same importance to the three complementary business modeling techniques***

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# Thank You!

# Questions?

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