Translation Workflow Make or Buy?

Business Process Analysis and Workflow Design

Frank Bergmann, 2005-10-22

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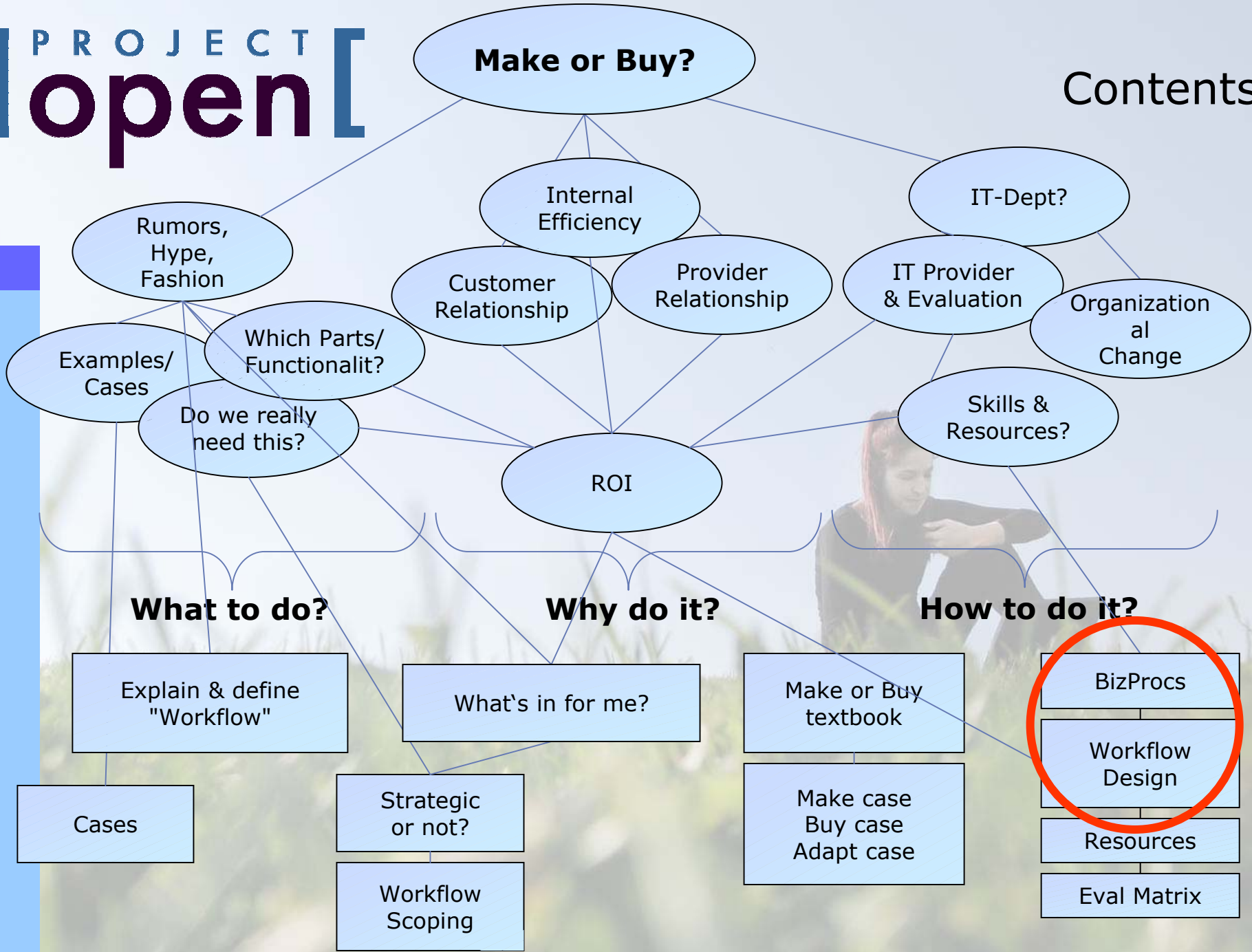
Contents



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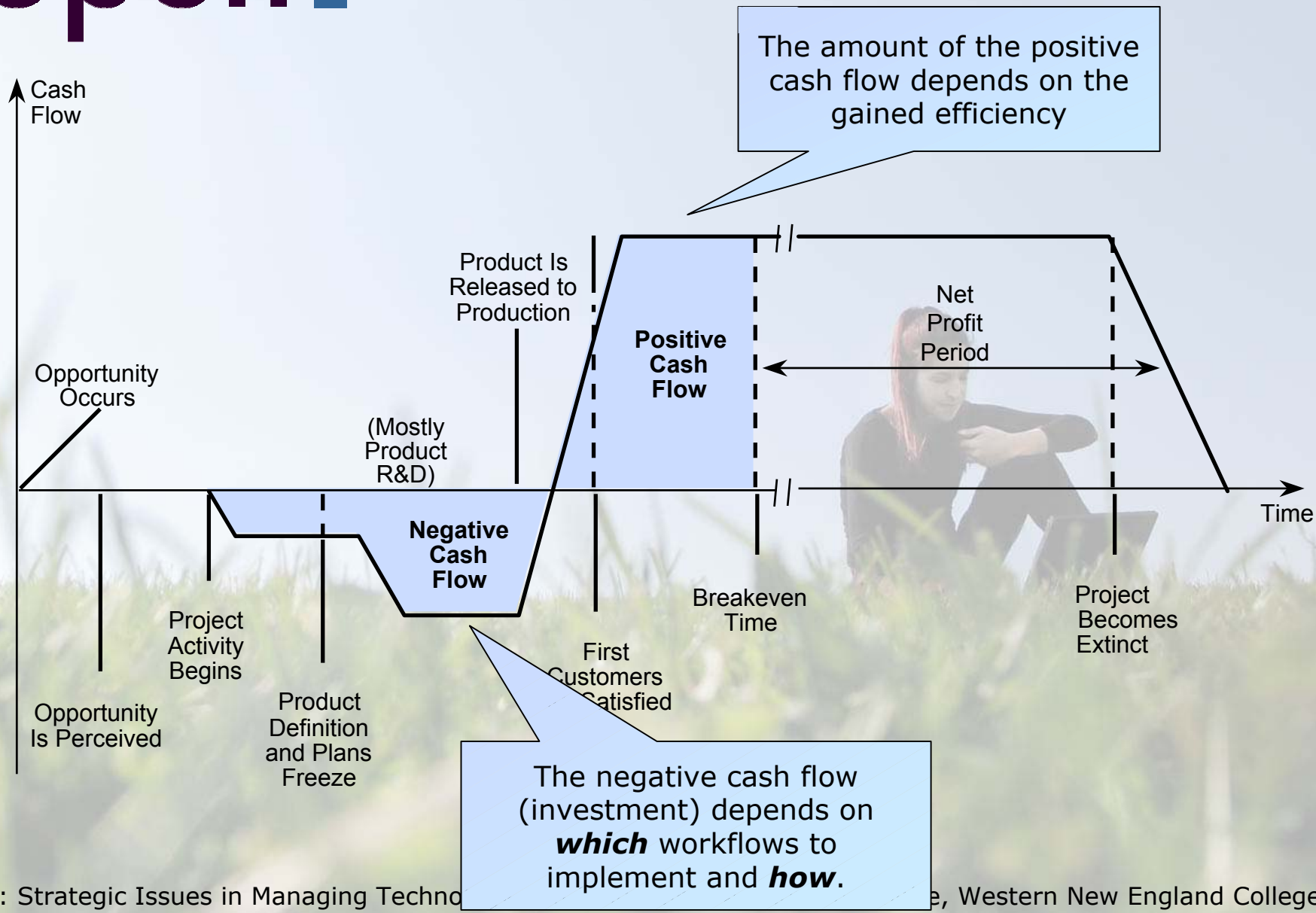
Why These Slides?

Do we really have to go through this?

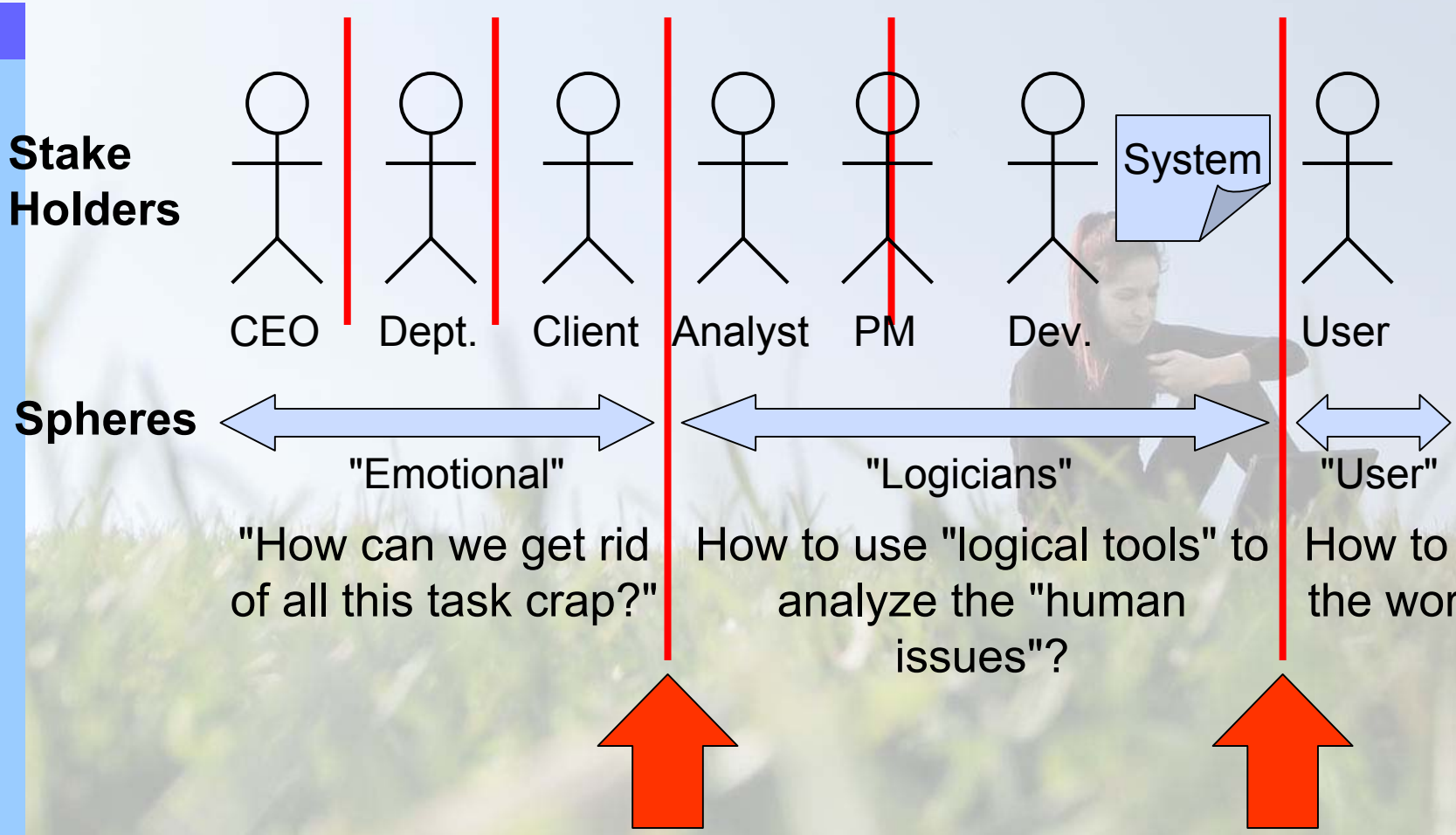
- Reason #1: Understand ROI
- Reason #2: Don't leave it to the Techies!
  (I'm a techie!)
- Reason #3: Know What You're Doing

Reason #1: Understand ROI



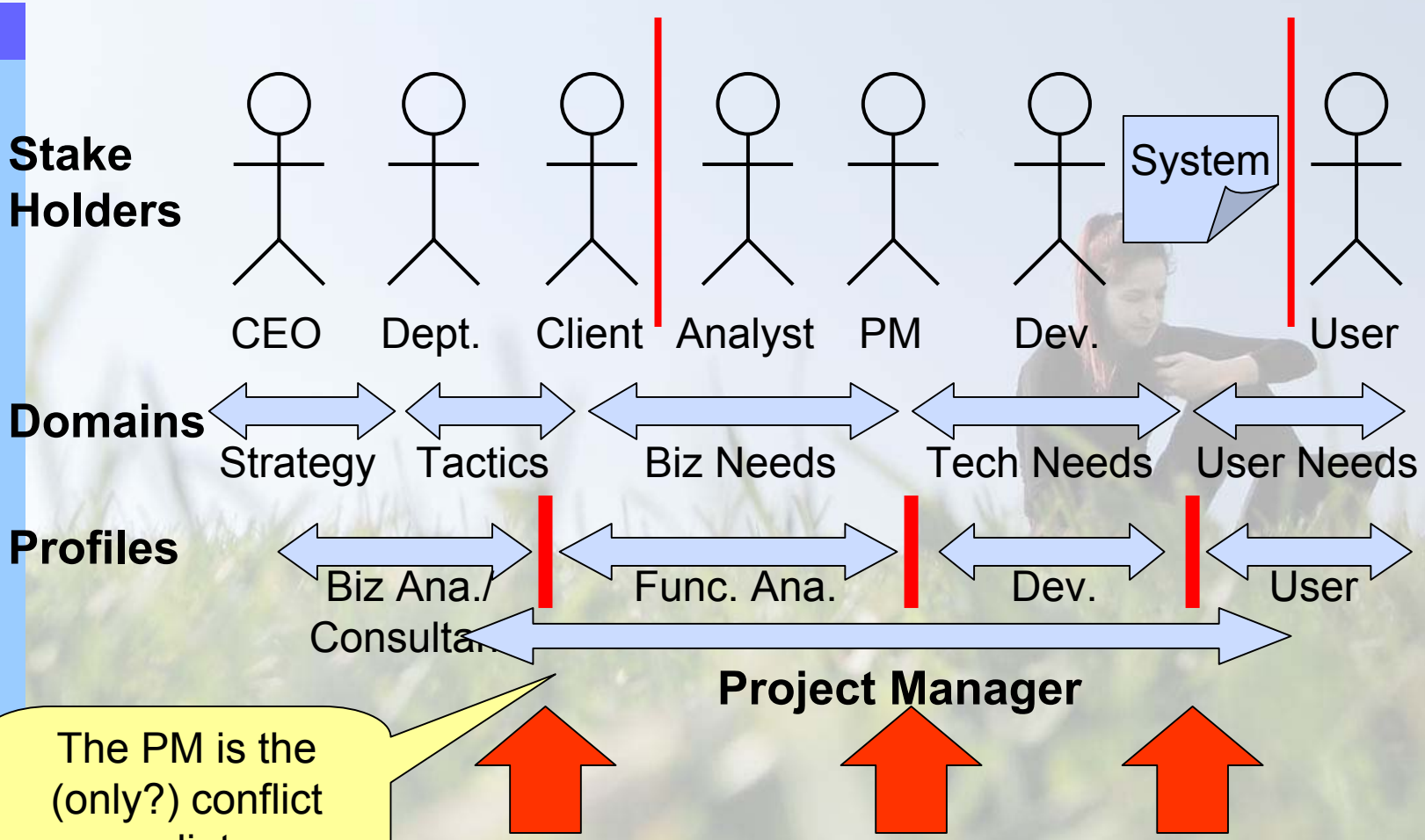
Source: Strategic Issues in Managing Techno e, Western New England College

Reason #2: Don't leave it to the Techies



Text & Analysis: http://www.fawcette.com/interviews/beck_cooper/
Figure:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Reason #2: Don't leave it to the Techies



Text & Analysis: http://www.fawcette.com/interviews/beck_cooper/

Figure:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

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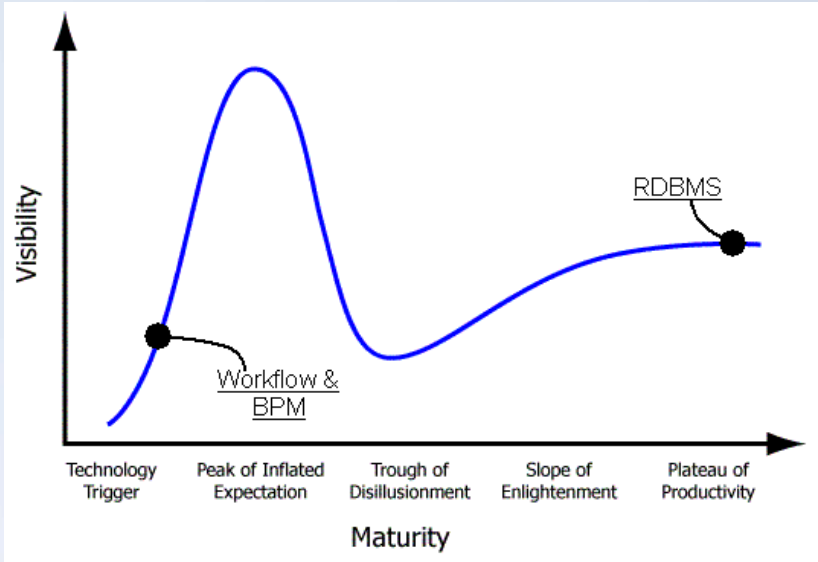
Reason #3: Know What You're Doing

- Technology is fashion business – it changes every 3-8 years
- "Hypes" usually take a lot of attention
- Most hypes contribute something, and leave their trace in the industry.
- Some don't.



Source: http://www.jboss.org/products/jbpm/stateofworkflow

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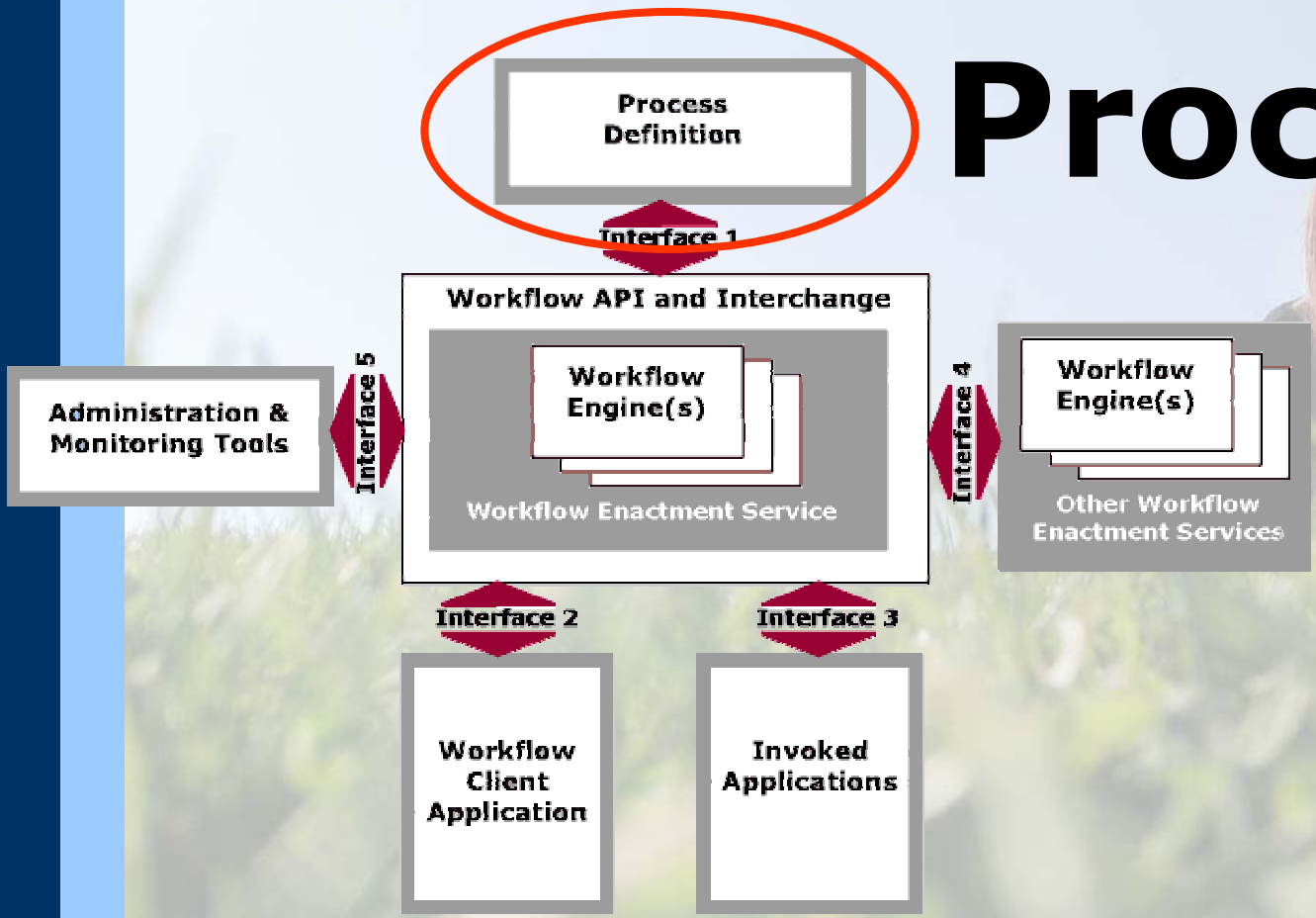
Business Processes



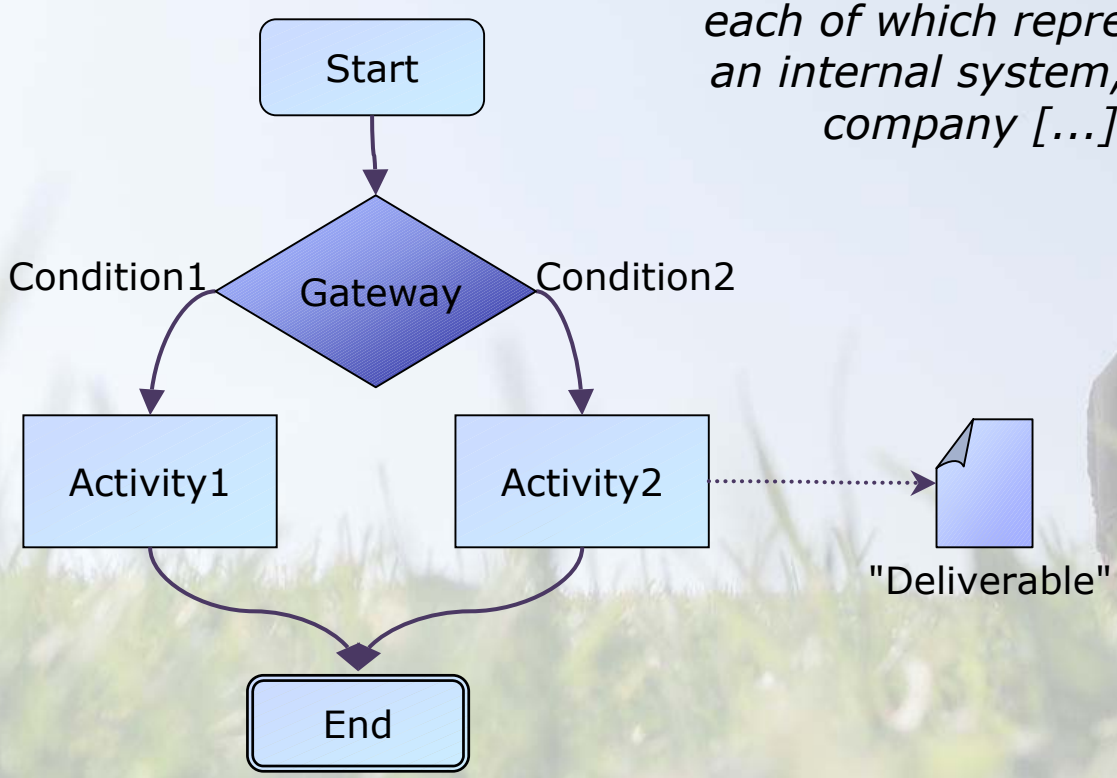
Source: Workflow Reference Model, The Workflow Management Coalition: http://www.wfmc.org/

What's a Business Process?

A business process is the flow or progression of activities [...]

each of which represents the work of a person, an internal system, or the process of a partner company [...] toward some business goal.

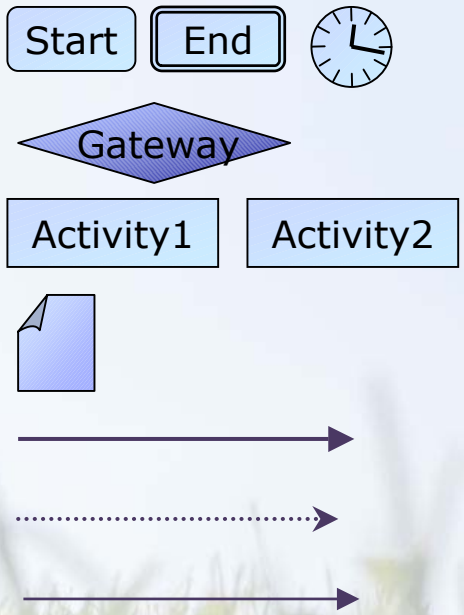
Mike Havey



A sample Business Process in BPMN
(Business Process Modelling Notation)

Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Business Process Elements



- "Event"
- Gateway
- Activity
- Artifacts (Documents)
- Sequence Flow
- Document Flow
- Message Flow

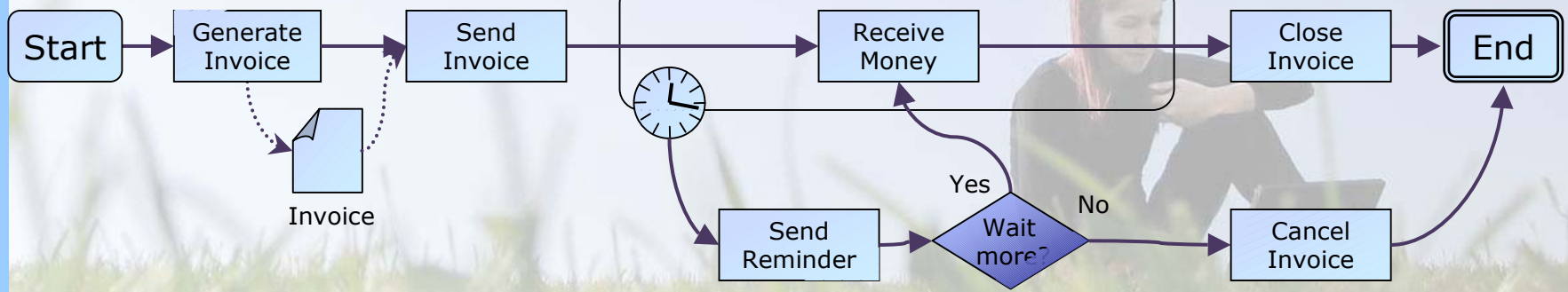
Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

A Very Simple Invoice Example

- Business Process Modeling Notation (BPMN)
- Designed to be understood by business users

Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Invoice Example (2)



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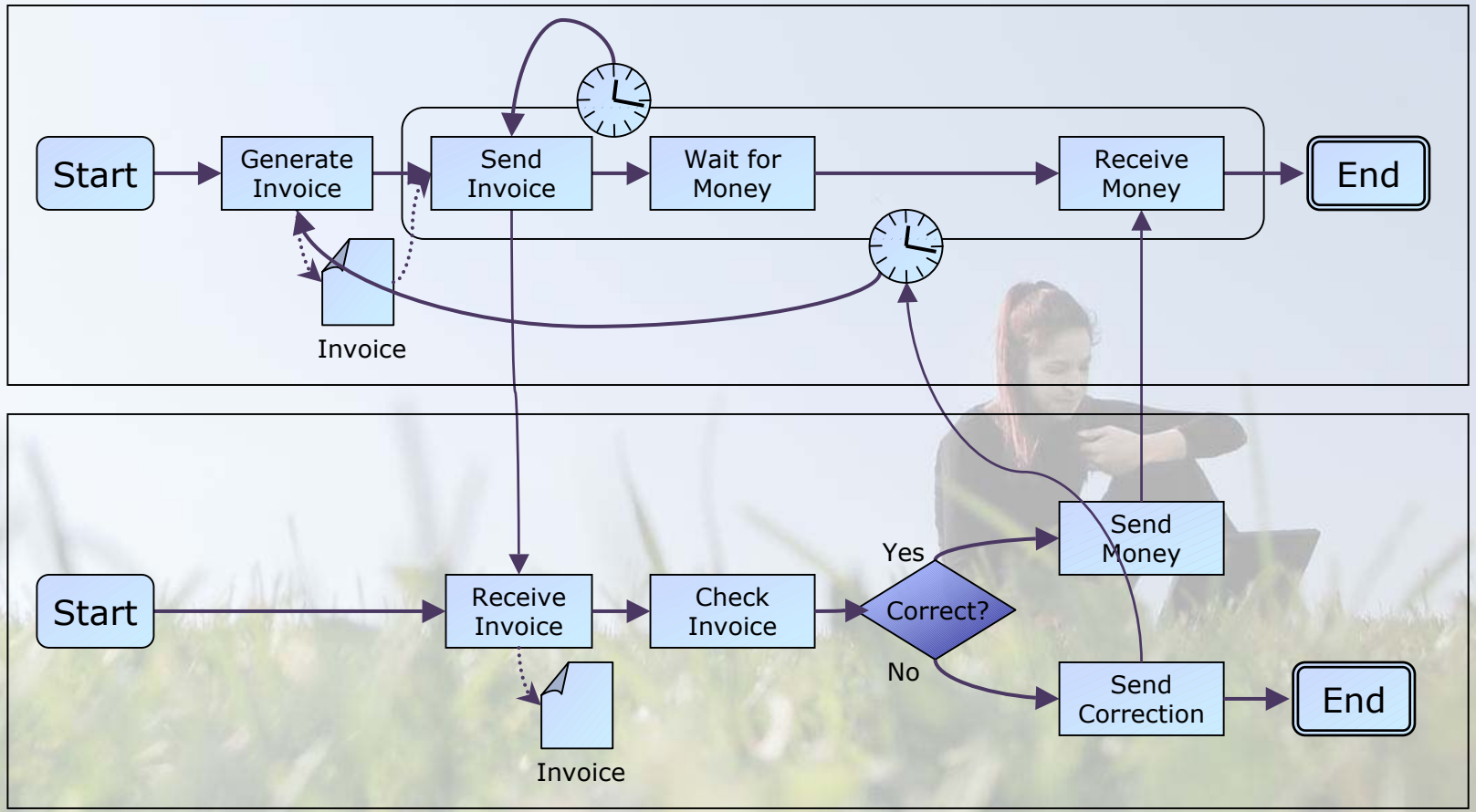
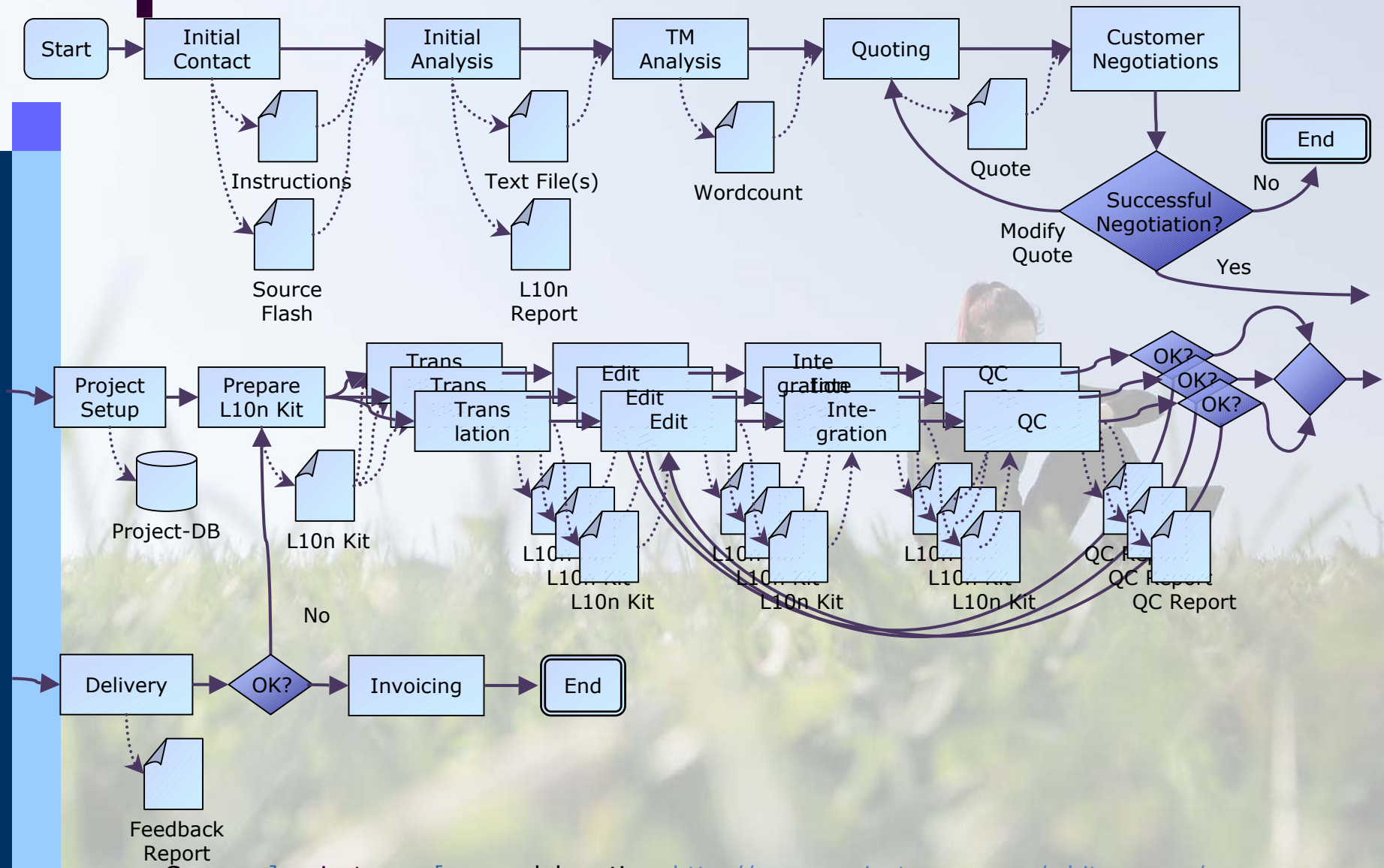
Invoice Example (3)



Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Sample Flash L10n Process



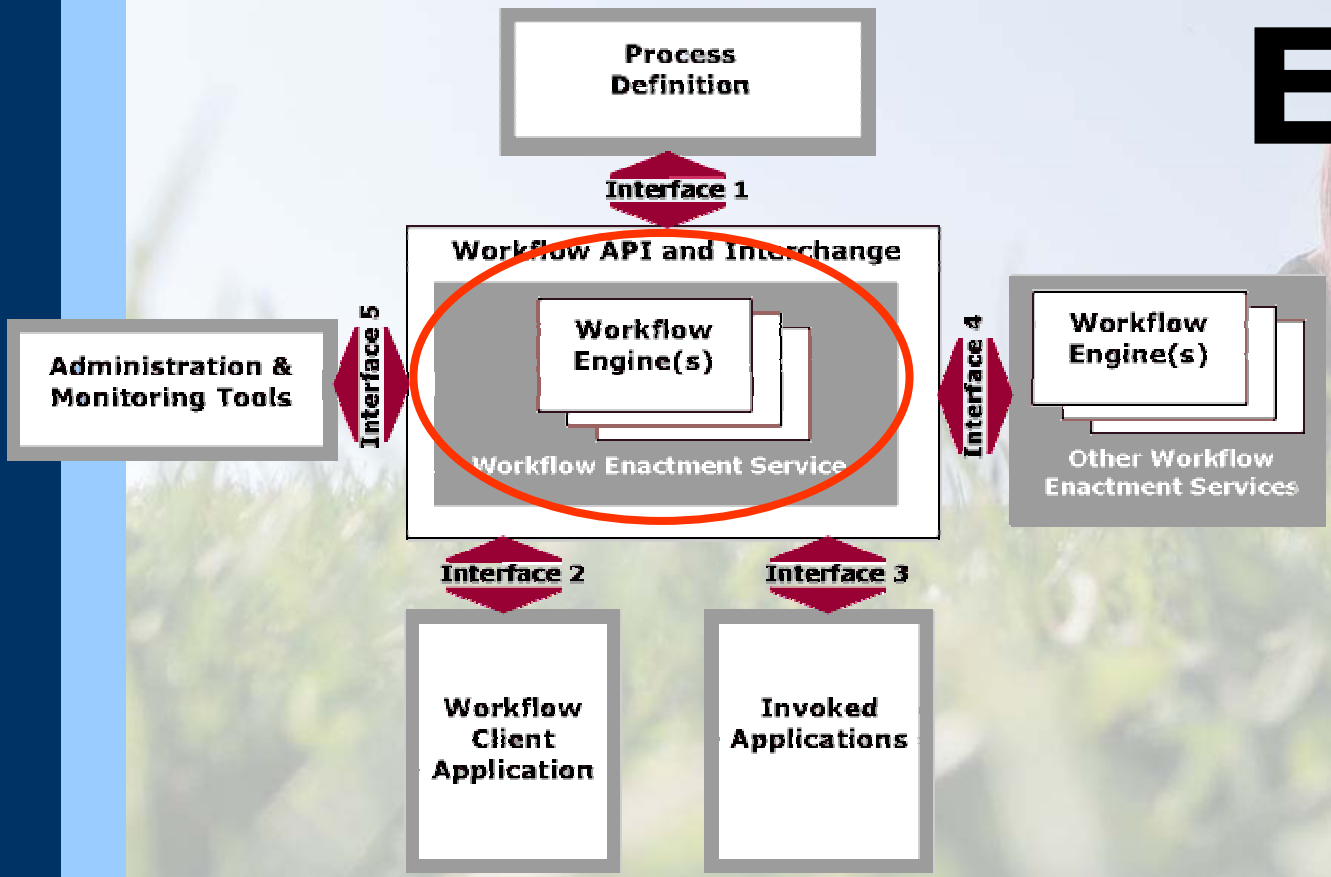
Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Business Process Description Languages

Standard	Organization	Type
Business Process Execution Language (BPEL)	OASIS	Execution Language
Business Process Modeling Notation (BPMN)	Business Process Management Initiative (BPMI)	Notation language
Business Process Modeling Language (BPML)	BPMI	Execution language
Business Process Query Language (BPQL)	BPMI	Administration and monitoring interface
Business Process Semantic Model (BPSM)	BPMI	Process metamodel, in fashion of Object Management Group (OMG) Model-Driven Architecture (MDA)
Business Process Extension Layer (BPXL)	BPMI	BPEL extension for transactions, human workflow, business rules
UML Activity Diagrams	OMG	Notation language
Workflow Reference Model	Workflow Management Coalition (WfMC)	Architecture
XML Process Definition Language (XPDL)	WfMC	Execution language
Workflow API (WAPI)	WfMC	Administration and monitoring, human interaction, system interaction
Workflow XML (WfXML)	WfMC	Choreography (or similar to it)
Business Process Definition Metamodel (BPDM)	OMG	Execution language and/or notation language, as MDA metamodel
Business Process Runtime Interface (BPRI)	OMG	Administration and monitoring, human interaction, system interaction, as MDA metamodel

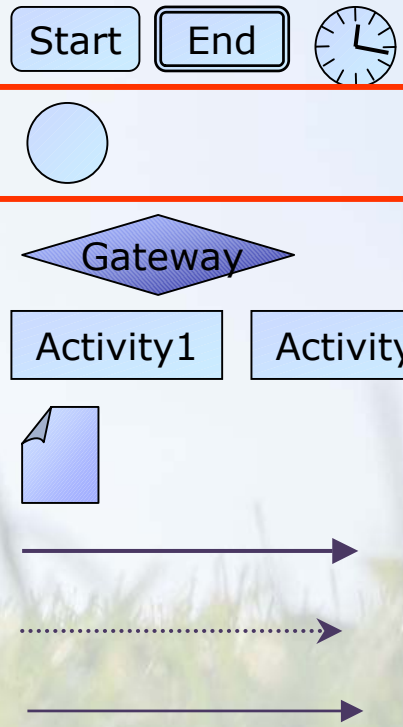
Source: Mike Havey, author of Essential Business Process Modeling

Workflow Engine



Source: Workflow Reference Model, The Workflow Management Coalition: http://www.wfmc.org/

Workflow Process Elements



- "Event"
- State
- Gateway
- Activity
- Artifacts (Documents)
- Sequence Flow
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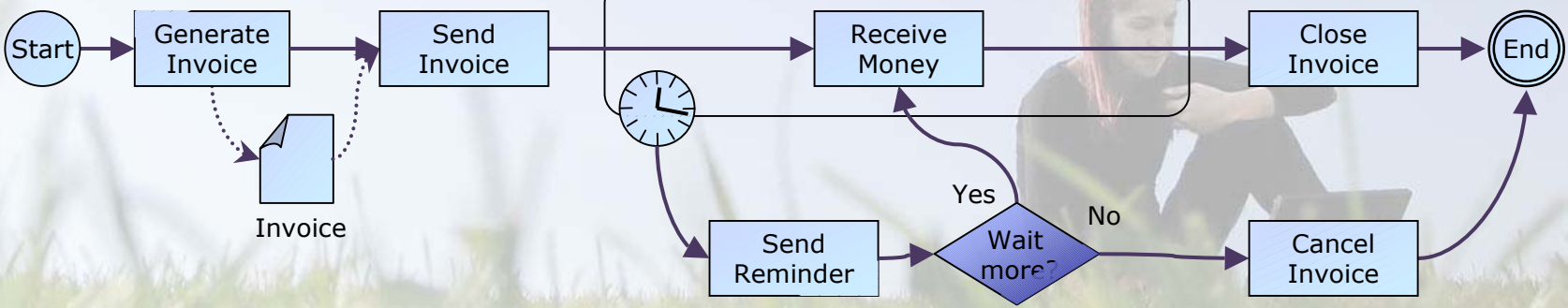
Invoice Example (2)



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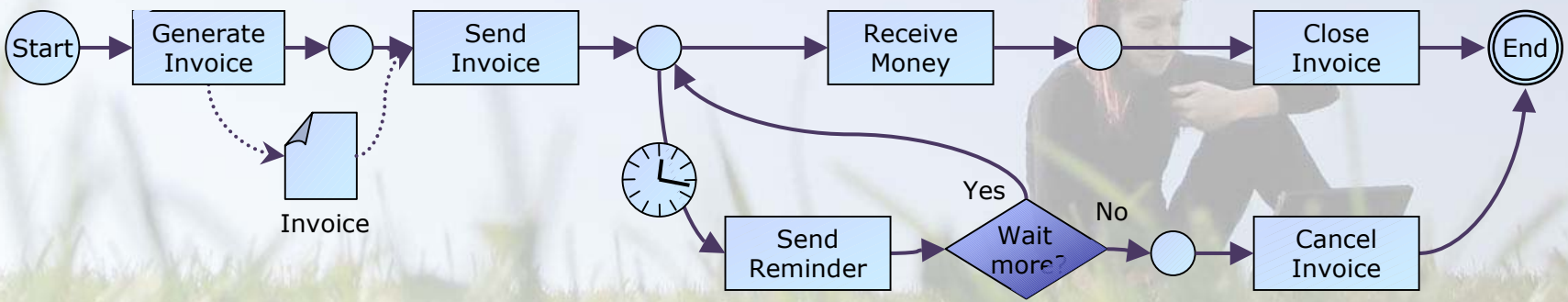
Invoice Example (2) With States

State Diagram / Petri Net



Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

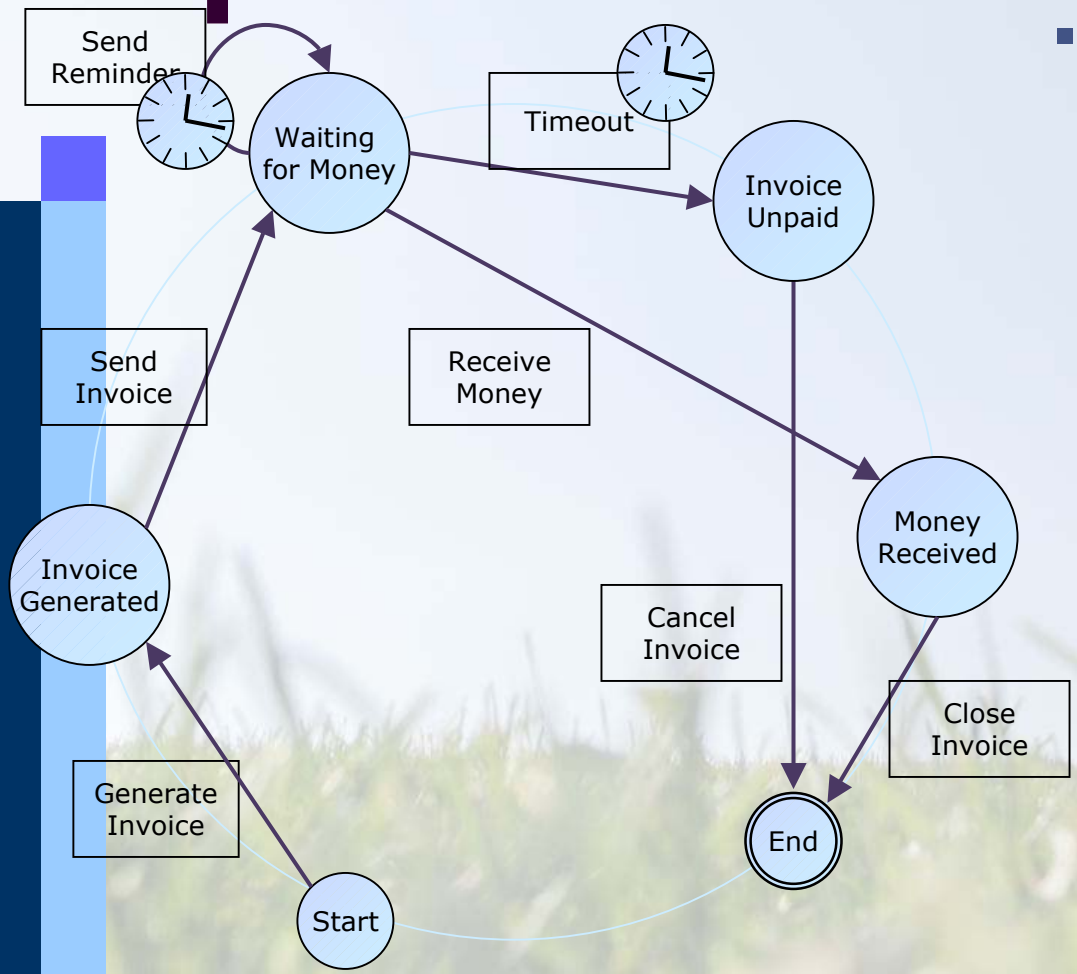
What's the difference?

- The "State" concept allows your IT guys to put this description into a computer system (specification)
- "States" won't work in high-level process designs. It forces the business analyst to get down to "reality"

Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Status Engine Example

- The diagram shows a status engine according to the business process that we have defined before.



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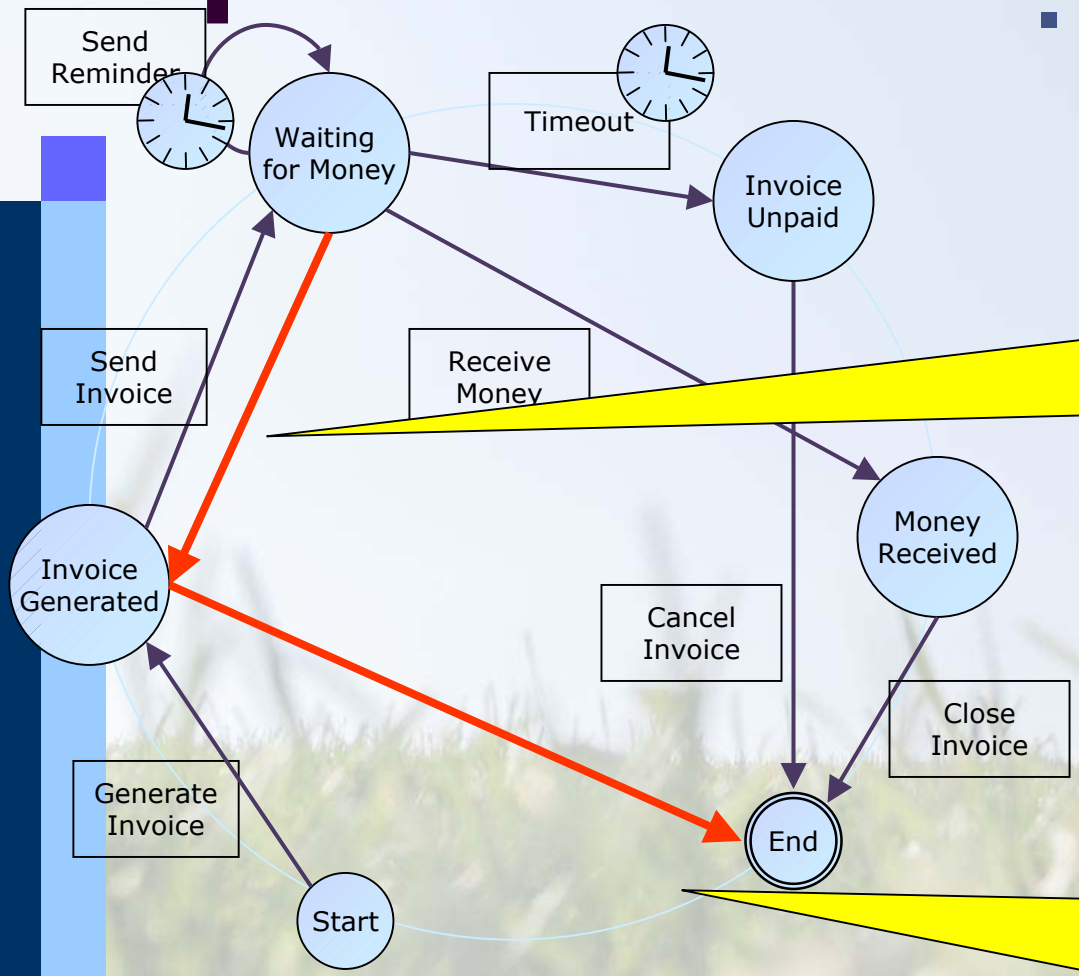
Question to the audience

- Let's imagine we really want to implement this workflow using a Workflow application:



Should we allow the Accountant to reset the invoice status to "generated"?

Should the accountant be able to skip the invoice? What will happen to the $$$?

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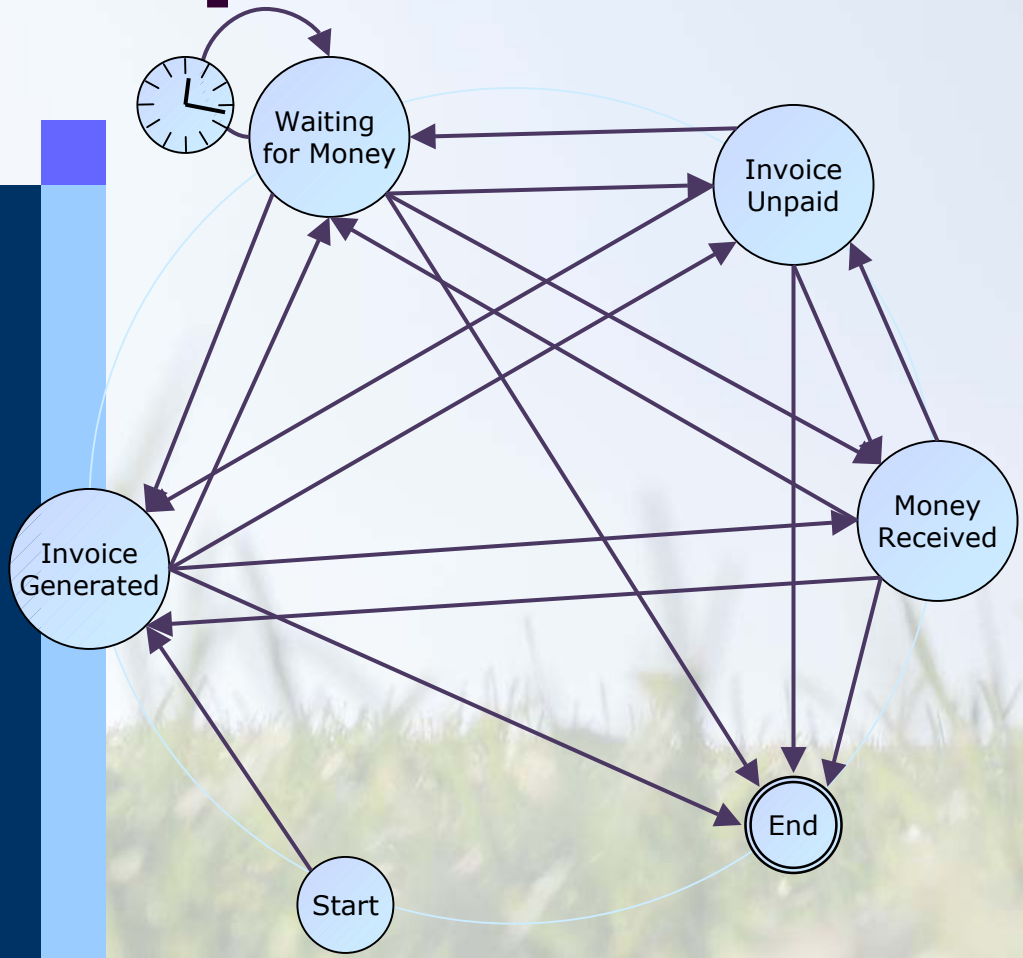
Further Questions

- Should everything be allowed ("collaboration style")?
- When?
- Why not?



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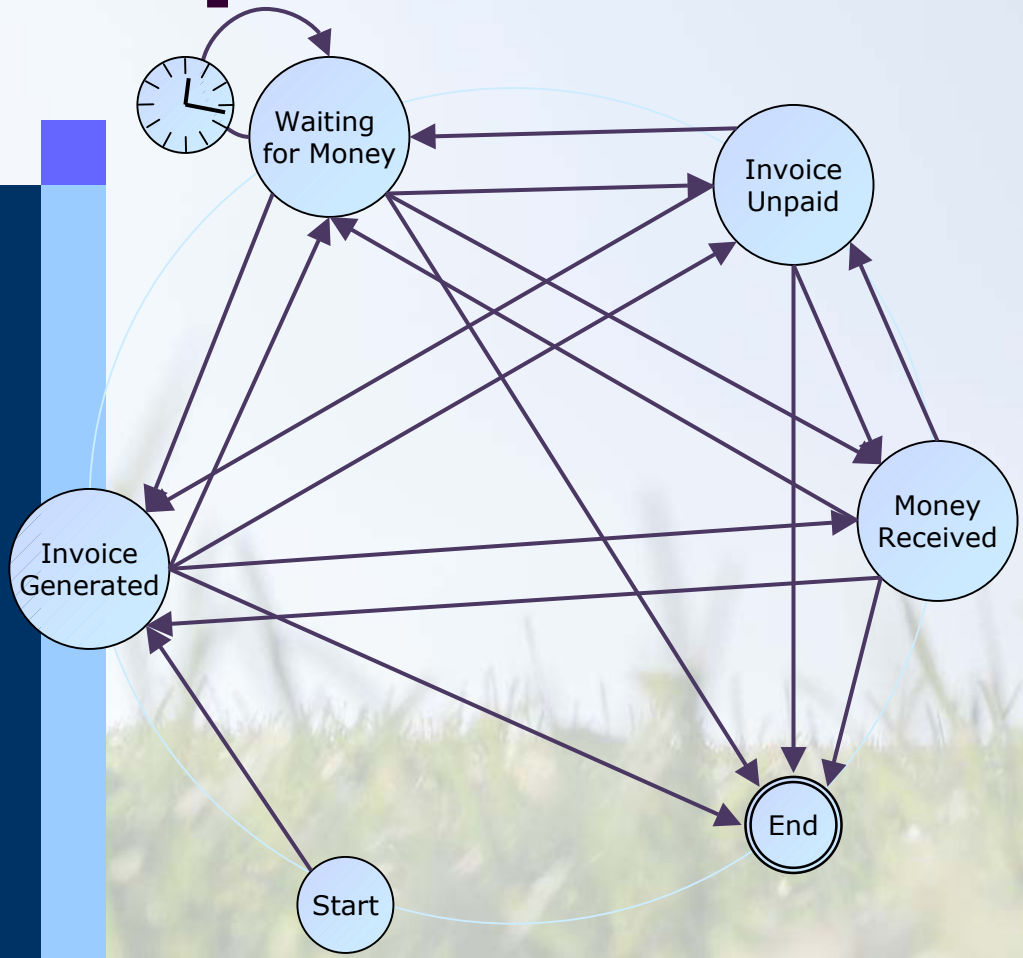
Group Work: Design the Status Engine



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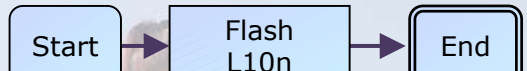
Workflow Design

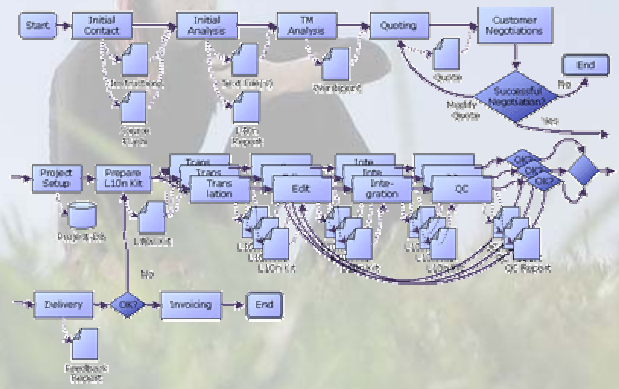
"Fine Grain" or "Coarse Grain"?

To what degree should a company enforce the order of steps and the assignment of tasks of a process?

- Small Company:



- Company specialized on Flash:



- Your Company:

???

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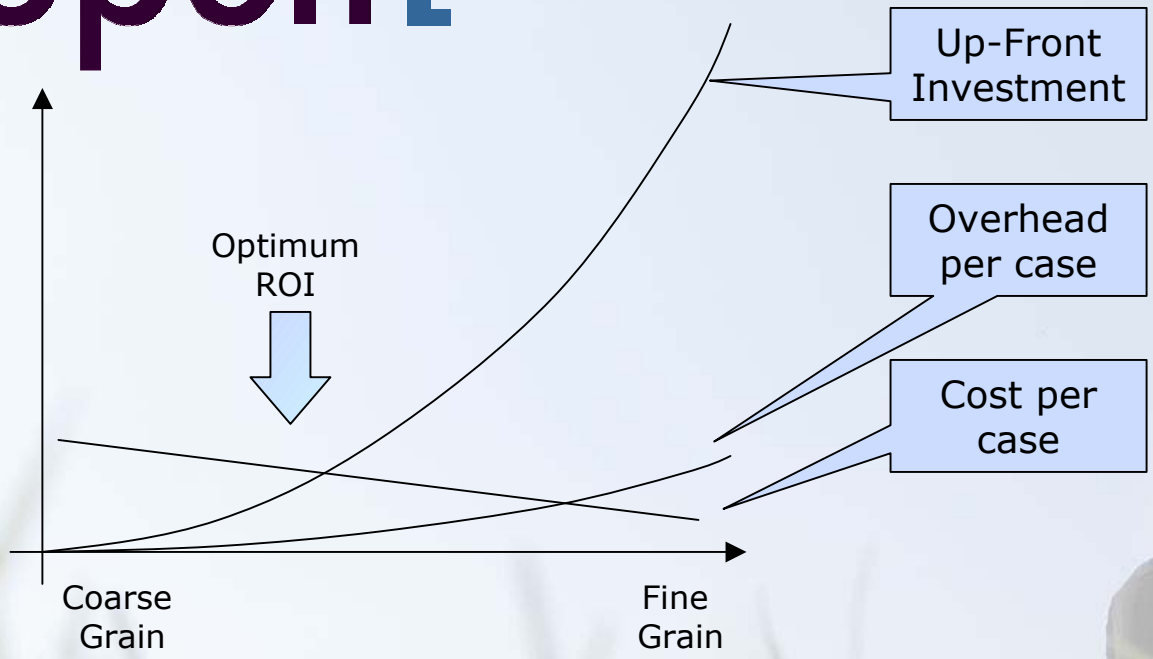
"Fine Grain" or "Coarse Grain"?

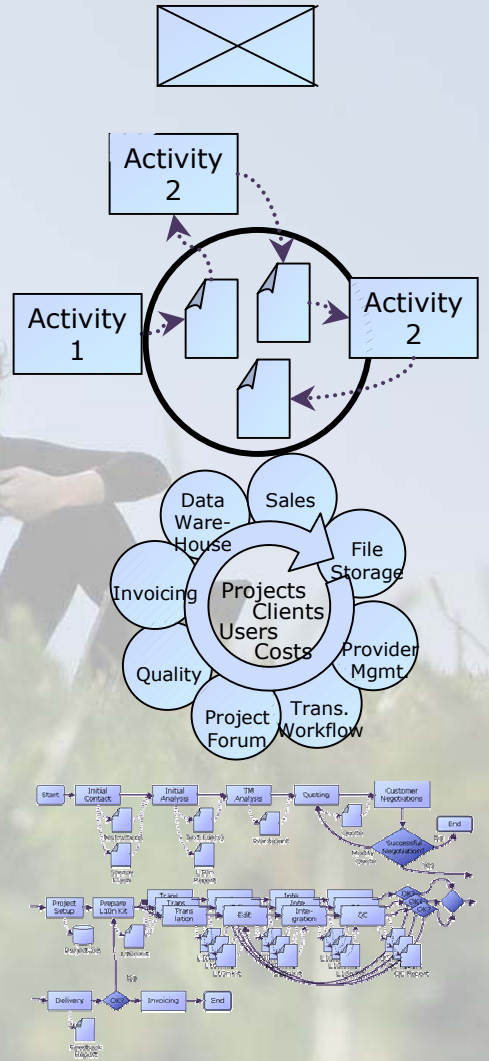


- Workflow implementations behave like other IT investments
- Fine grain workflows have higher initial and setup overhead costs
- The optimum granularity depends on many factors

Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Process Implementation Styles

- "Email" Style
  - No workflow at all, documents are sent around by email
  - Pros: Flexible, no investment, "ad hoc"
- "Collaboration" Style
  - Online Forums, common filestorage, ...
  - Pros: Flexible, low investment
- "Organizational" Style
  - Fixed process, but order is maintained informally.
- "Prescription" Style
  - Formal workflow
  - Pros: Formalized, Standardized, Reporting & Metrics, ...



Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

Workflow Design Criteria

- Workflow design takes a Business Process and creates an IT application from it.
  - "Fine grain" or "coarse grain" implementation
  - Email, Collaboration or Prescription style implementation?
  - Short or long-lived processes?
  - Reporting & Workflow Metrics
  - Flexibility
  - Security & Permissions
  - "Trust Model"
  - "Water-tight" processes vs. Human Decisions?
  - Botton-Up or top-down design?

Source:]project-open[, own elaboration, http://www.project-open.com/whitepapers/

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