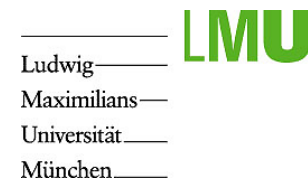# Classifying ITIL Processes
A Taxonomy under Tool Support Aspects

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# What we would like to do,…
(An abridged motivation)

- ITIL is not about IT management tools,
  but about
  - What people can do for service quality improvement
  - Control Mechanisms for coping with imperfect infrastructures and tools
  - Coordinating actions for not predetermined events and tasks
  - IT Service Management „business" processes

- Yet, ITIL defines business processes – and workflow management is about supporting business processes

⬇

Shouldn't we be able to build workflow management systems to support the execution of any ITIL process X?
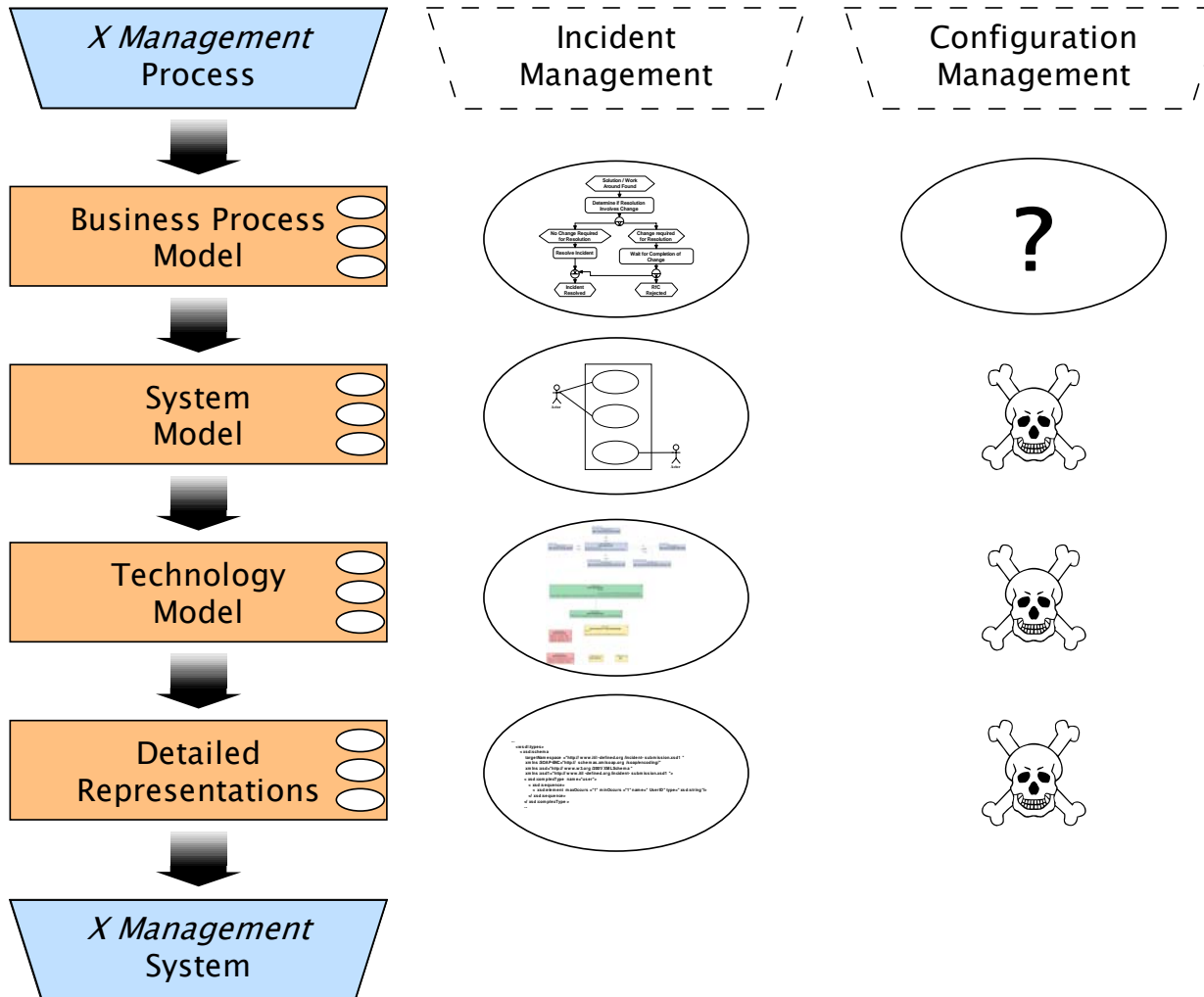
...how we would like to go about it...
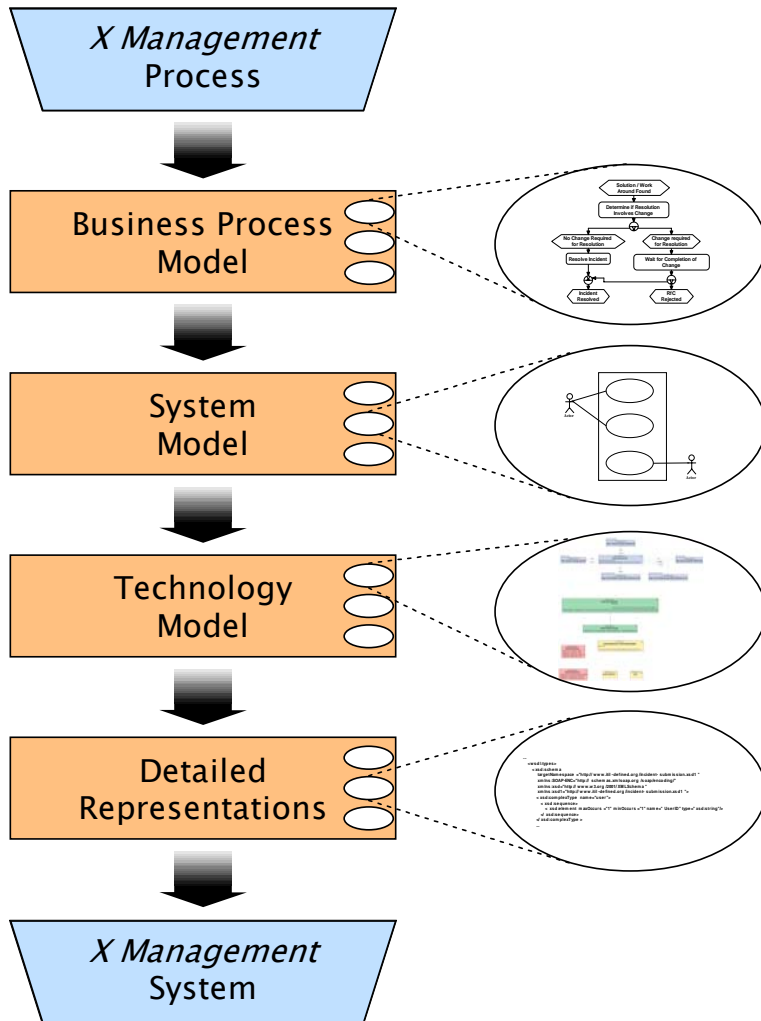
- Take a top-down, model-based approach

- Take the ITIL process descriptions

- Build reference models of them

- Elicit requirements from those

- Base system design on these requirements

- ...

…and why it doesn't work
– at least for some ITIL processes

X Management Process → Business Process Model → System Model → Technology Model → Detailed Representations → **X Management System**

Incident Management | Configuration Management (?)

Subjective experience:
Hard to build useful workflow models for some processes!

Is there a mystery behind this?

Or am I the only one having this problem?

Circumstantial evidence that other people have stumbled over similar problems:

- Commercial ARIS ITIL Reference Model
  - Not workflows for all processes
  - Workflow definitions for some processes do not "feel right"

- ITIL implementations in IT organizations
  - Often only Service Support and SLM
  - Most difficulties with Configuration Management

- ITIL tools
  - Many tools for some processes, not others
  - Numerous and specific tool certifications for some processes, not others

Suspicion & preliminary line of investigation

Part of the answer might lie not in the different content and goals of the processes, but in differences of "character"

Approach

① Identify characteristics
  – Relevant for tool support issues
  – Applicable to all IT Service Management (ITSM) processes

② Rate ITIL processes according to characteristics

③ Identify basic classes of ITSM process types and assign ITIL processes to them

First suspects

Five basic ITSM process characteristics

1. **Recurrence**
   How many process instances per hour/day/year?

2. **Lead Time**
   Duration of an instance (hours/days/weeks)?

3. **Organizational Complexity**
   How many parties are involved?
   How complex are their interactions?

4. **Service Level Impact**
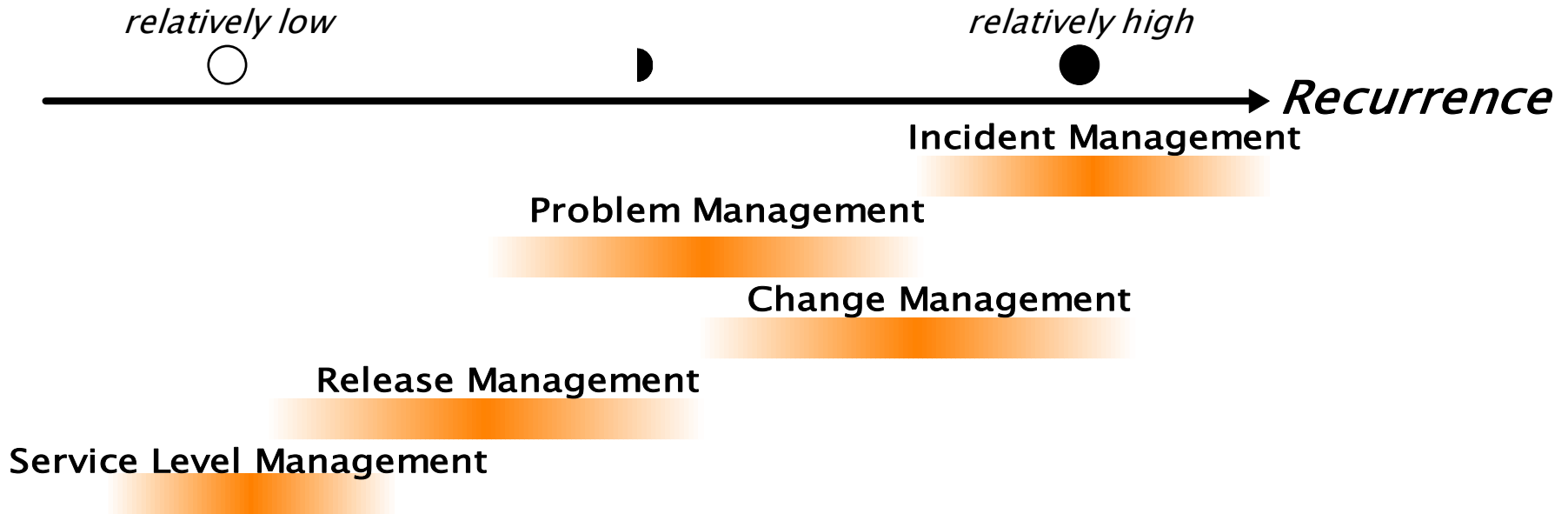   How immediately will process performance impact Service Levels?

5. **Structure**
   How structured is the process?
   Is there a clearly definable workflow?

Looking for evidence
Determining ITIL process characteristics

- No formal deduction, but based on
  - ITIL definitions
  - Real world implementations
  - Common sense
- Only relative placement against other ITIL processes!

Summary of process characteristics

	Incident Management	Problem Management	Configuration Management	Change Management	Release Management	Service Level Management	Financial Management	Capacity Management	ITS Continuity Management	Availability Management
Recurrence	●	◑	na	◑	○	○	na	na	na	na
Lead Time	○	◑	na	◑	●	●	na	na	na	na
Organ. Complexity	●	◑	○	●	●	◑	○	○	○	○
Service Level Impact	●	◑	○	◑	◑	○	○	○	○	○
Structure	●	●	○	●	◑	○	○	○	○	○

- Not all characteristics can be determined for all processes

- Underlying cause: lack of single workflow-structure makes identification of process instances impossible

Prime suspects

A simple taxonomy under tool support aspects

Organizational Complexity

more parties / complex interactions

fewer parties / simpler interactions

Quadrant III

- many parties & interactions / semi-structured
- e.g. project-like processes
- possibly application area for cooperation support systems

Quadrant IV

- many interactions /well-structured
- "classic", workflow-driven processes
- application area for workflow management systems

Quadrant I

- fewer parties & interactions / semi-structured
- e.g. creative, planning, strategic "processes"
- comprehensive tool support difficult

Quadrant II

- few parties & interactions / well-structured
- e.g. system administration procedures
- application area for classic task automation

semi-structured   *structured*

Structure

Organizational Complexity

cooperation support ||||

IV workflow management

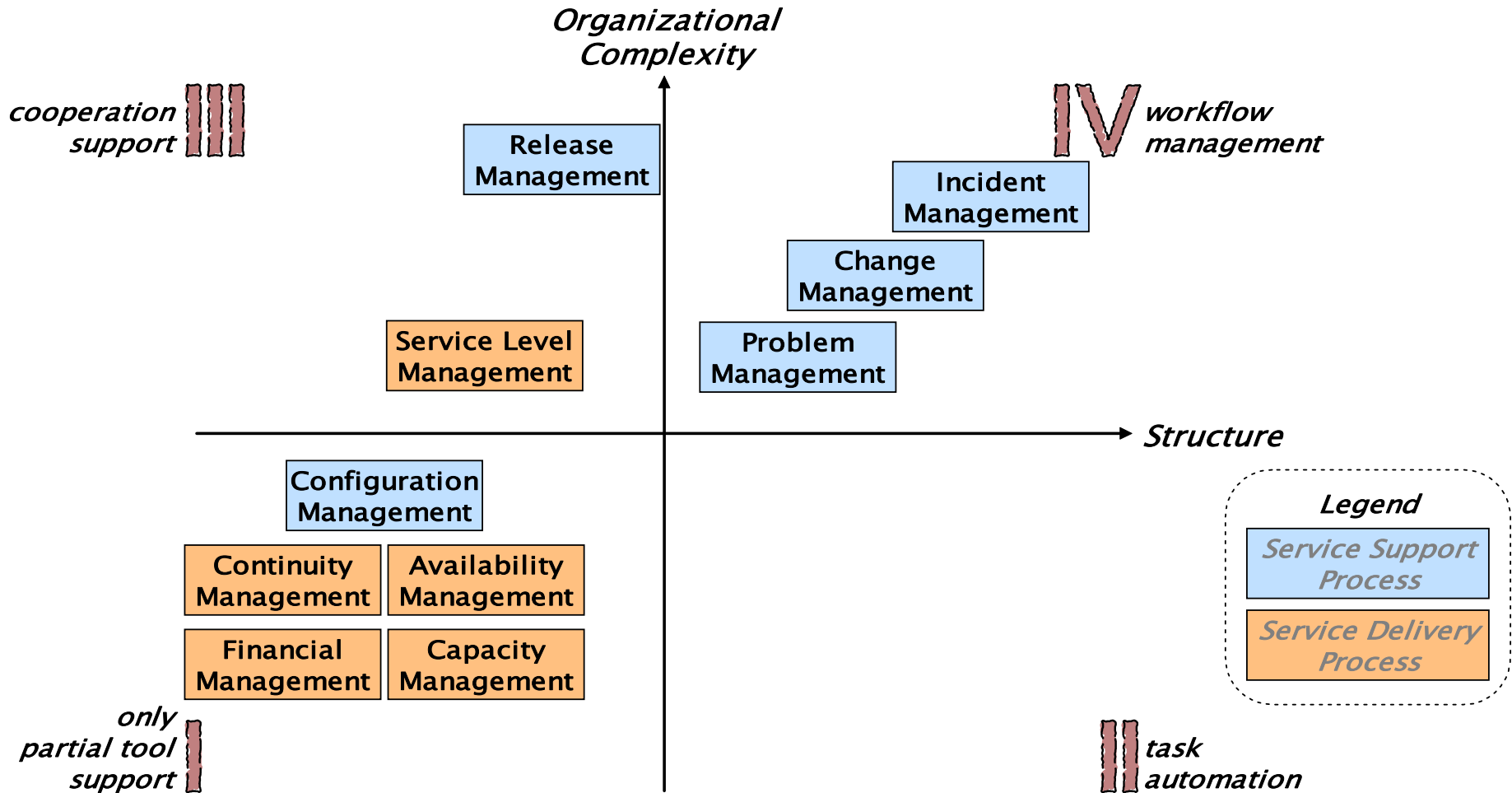Release Management

Incident Management

Change Management

Service Level Management

Problem Management

Structure

Configuration Management

Continuity Management

Availability Management

Financial Management

Capacity Management

Legend

Service Support Process

Service Delivery Process

only partial tool support |

|| task automation

Conclusion

Findings

No fundamental redefinition of ITIL, but:

- Not all ITIL processes are created equal
  - ITIL takes a very broad view of the term "process"
  - Fundamental differences in characteristics like structure, organizational complexity etc.
  - Not all processes can be modeled in the same way
  - Not all processes can be supported by the same type of tool
  - Best candidates for workflow support:
    Incident, Problem, Change Management

- Intuitive perceptions of differences in ITIL process "character" now explicit and explainable

- Starting point for further discussion!
  (Early results, nothing carved in stone yet)

Case closed?

Open issues & planned work

- Maturing of the classification scheme / taxonomy
  - Validation of findings in real-world ITIL implementations?
  - What are essential ITIL process characteristics, what is just a problem of ITIL's documentation style?
  - Other characteristics?
  - Other taxonomies for other purposes?

- Further Topics
  - Meaning of findings for other process life cycle phases (design, analysis)?
  - Evaluating modeling concepts for quadrant I and III
  - What if we divide up quadrant I processes?
  - …

- Planned work
  - Definition of reference models for quadrant IV processes
  - Elicitation of requirements
  - Attempt a system design for workflow support (with integration of traditional management tools)