Università della Svizzera italiana

Faculty of Informatics

Business Process Modeling, Management and Mining

BPM^3 Definitions

Prof. Cesare Pautasso

http://www.pautasso.info

cesare.pautasso@usi.ch

@pautasso

BPM Goals

Analyze, design, execute and re-engineer business processes

Make business processes more efficient and effective: deliver more value for less cost

Fabio Casati

Success

Successful organisations hire and reward the **best people** and explicitly manage and continuously **improve their processes**

©2014 Cesare Pautasso

Processes

Processes are what organisations do

Every external interaction triggers a process

Every internal action involves a process

Dysfunctional?

What is my process?

What is the goal of my process?

How do I measure my success?
How does my manager measure it?

What works? What does not work? Why?

How to improve?

You are working for a dysfunctional organization if you cannot answer these questions.

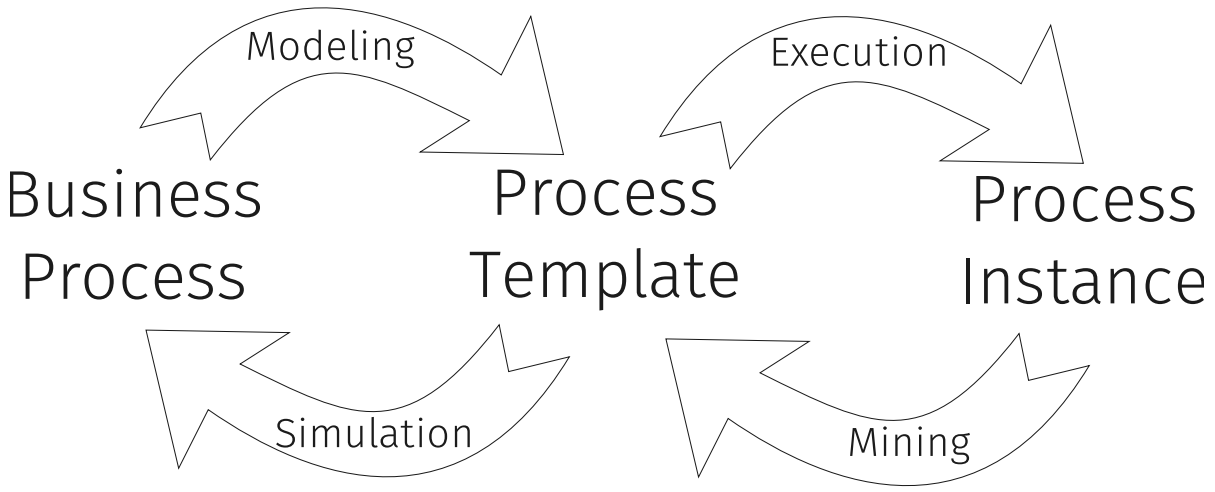
Who does what when

1. Resources, People, Operators, Software Systems
2. Activities, Tasks, Operations, Steps
3. Processes, Coordination, Control and Data Flow

Workflow

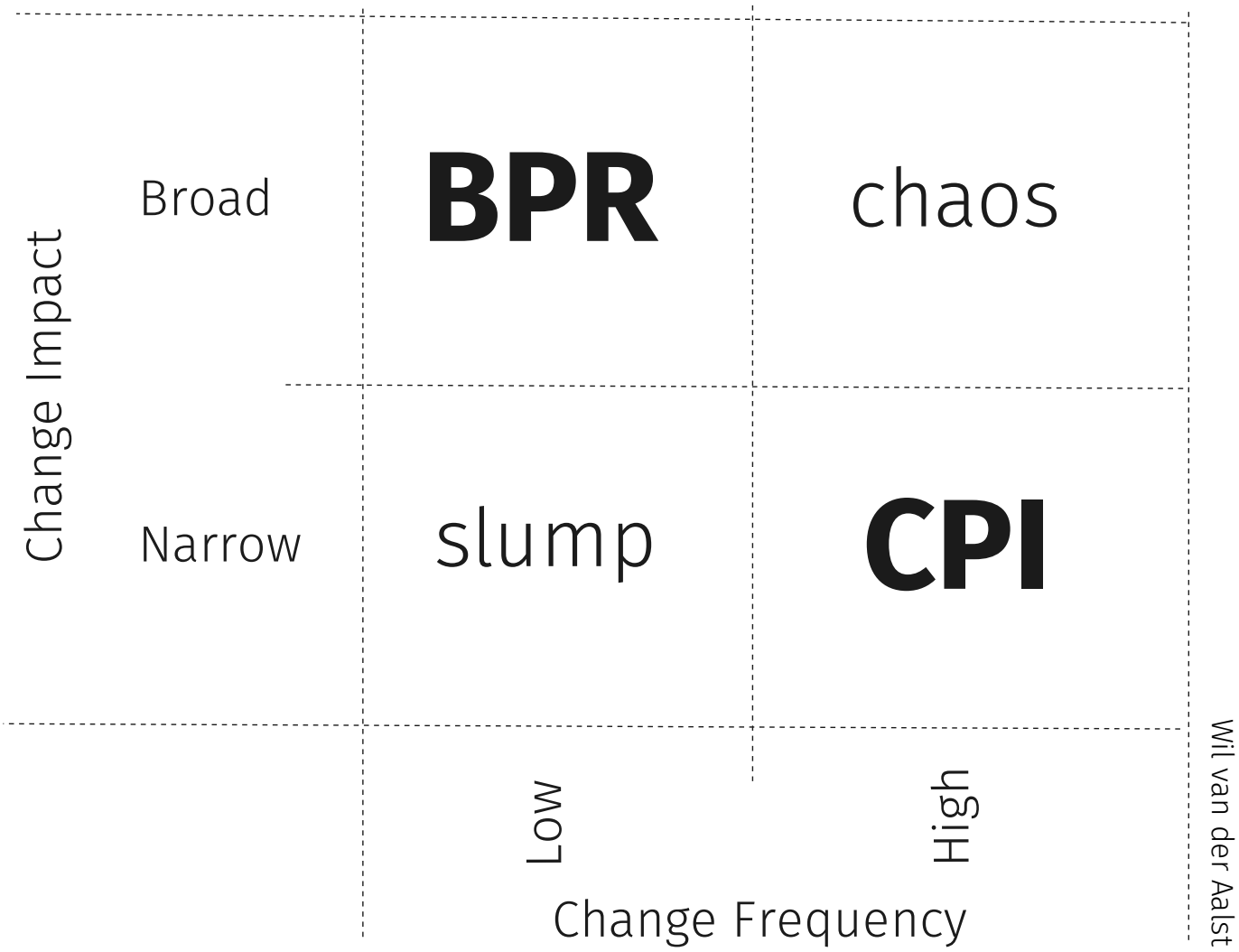
The automation of a business process where **documents**, information to be processed or **tasks** to be carried out are passed from one **participant** to another following a set of procedural **rules**

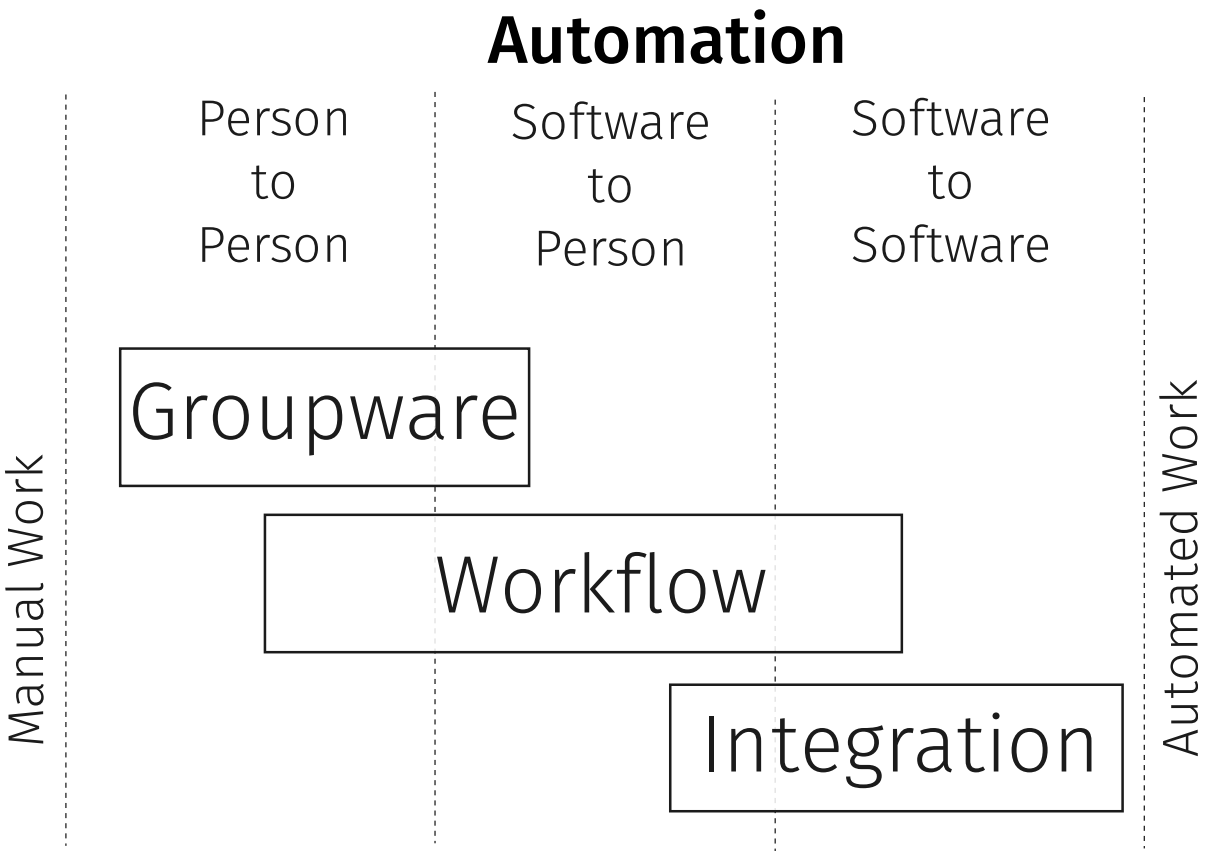
Workflow Management Coalition, 1993



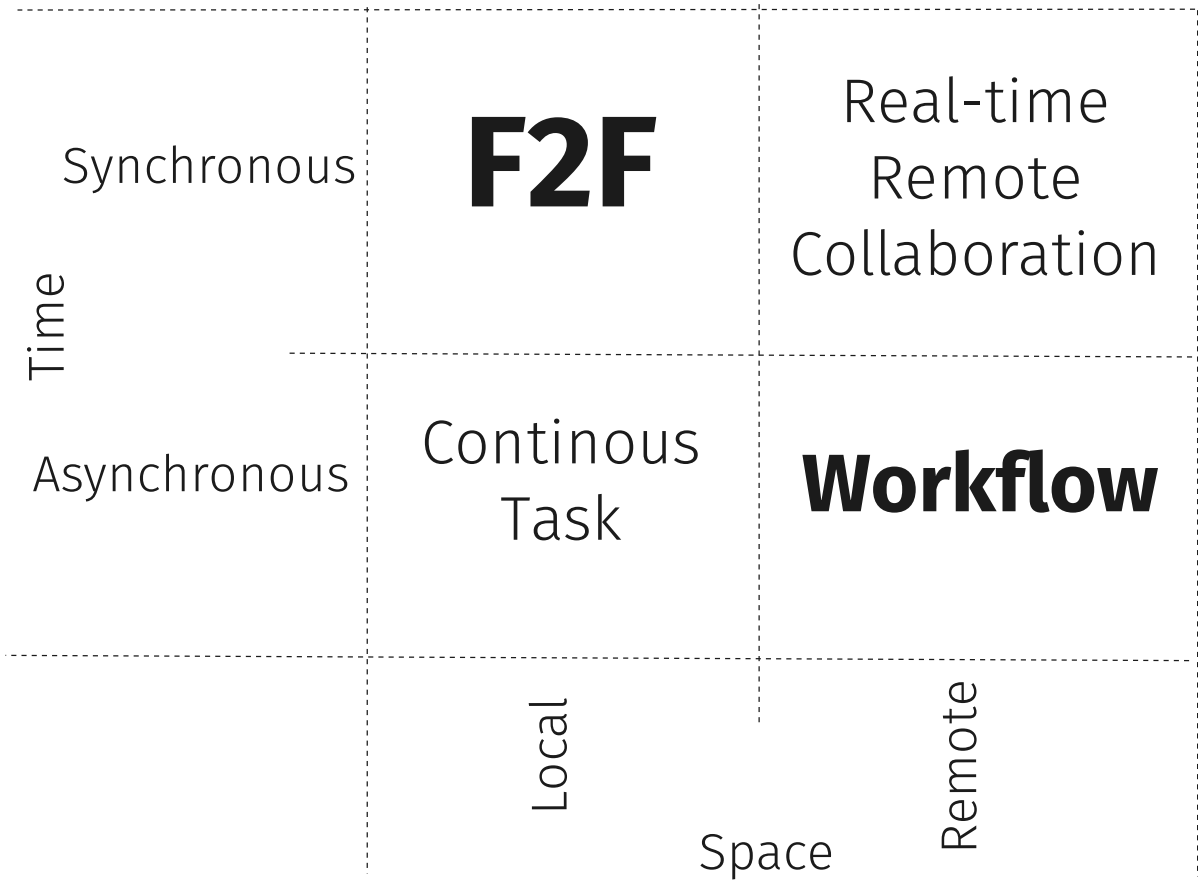
Business Process Re-Engineering

Continuous Process Improvement

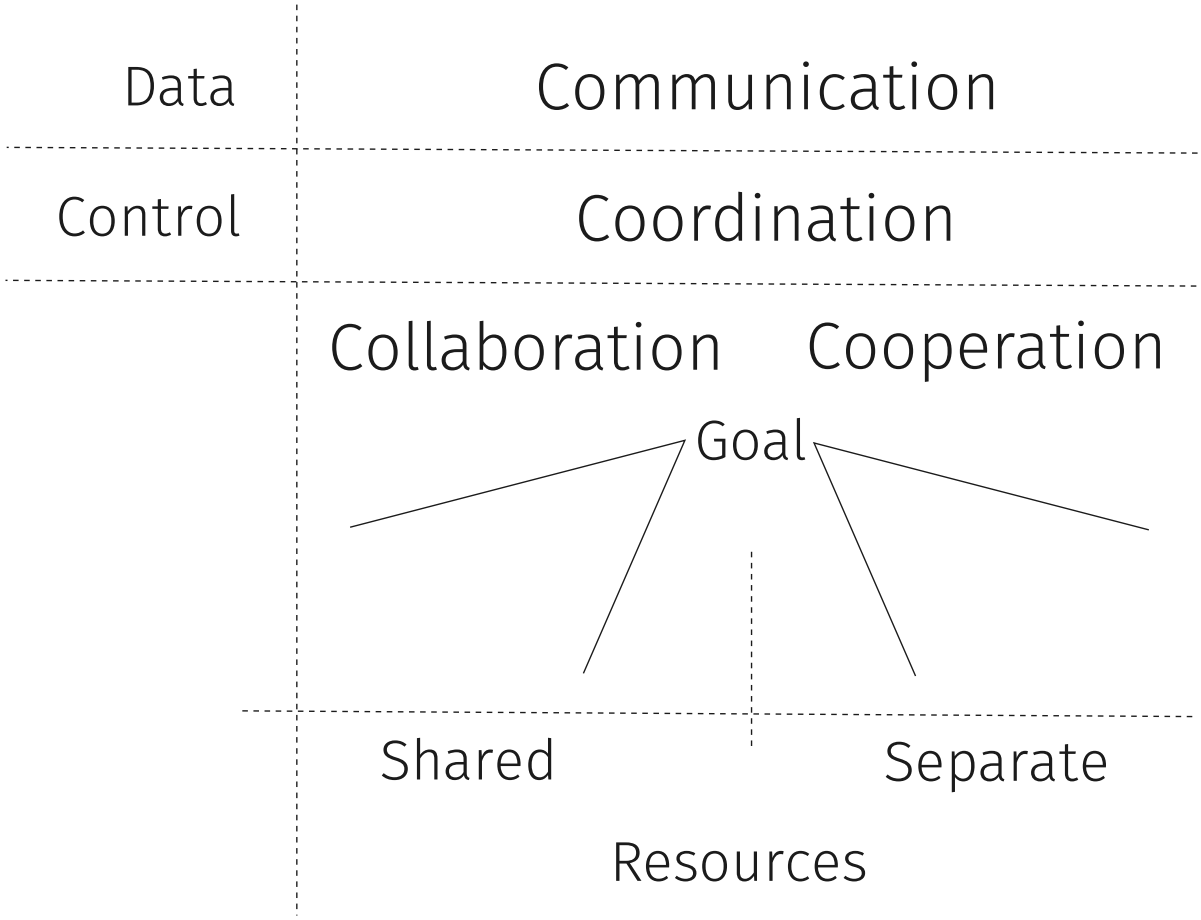




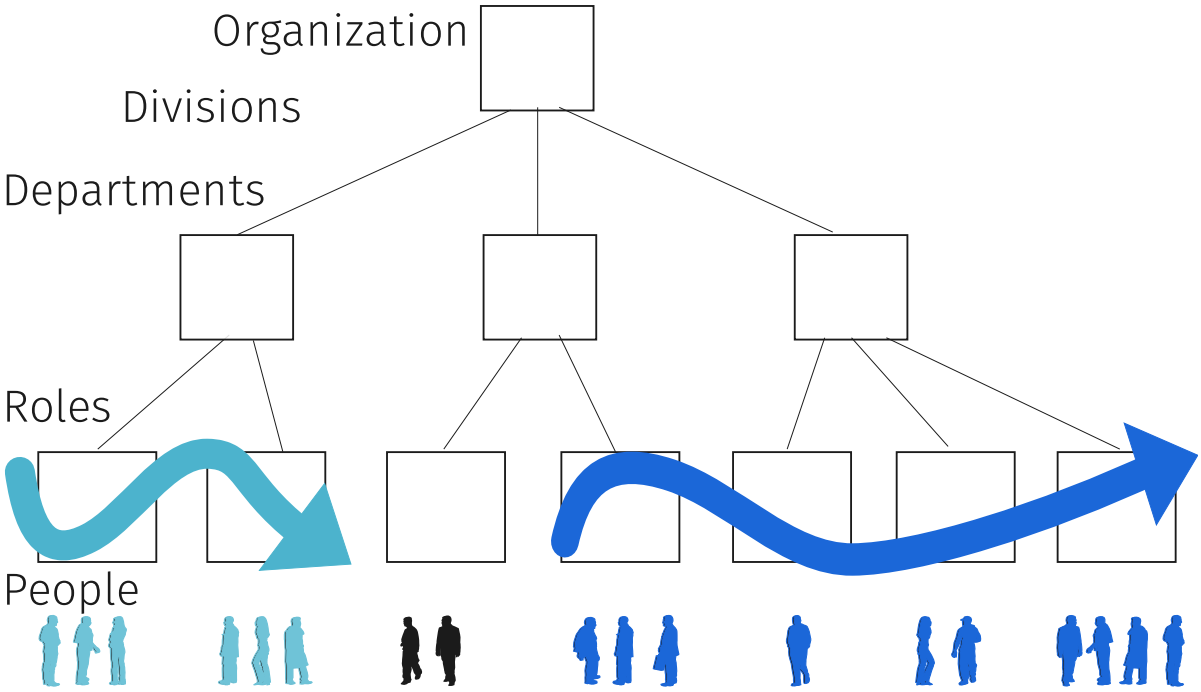
Groupware (CSCW)



C^4


Data
Communication
Control
Coordination
Collaboration
Cooperation
Goal
Shared
Separate
Resources

People and Processes

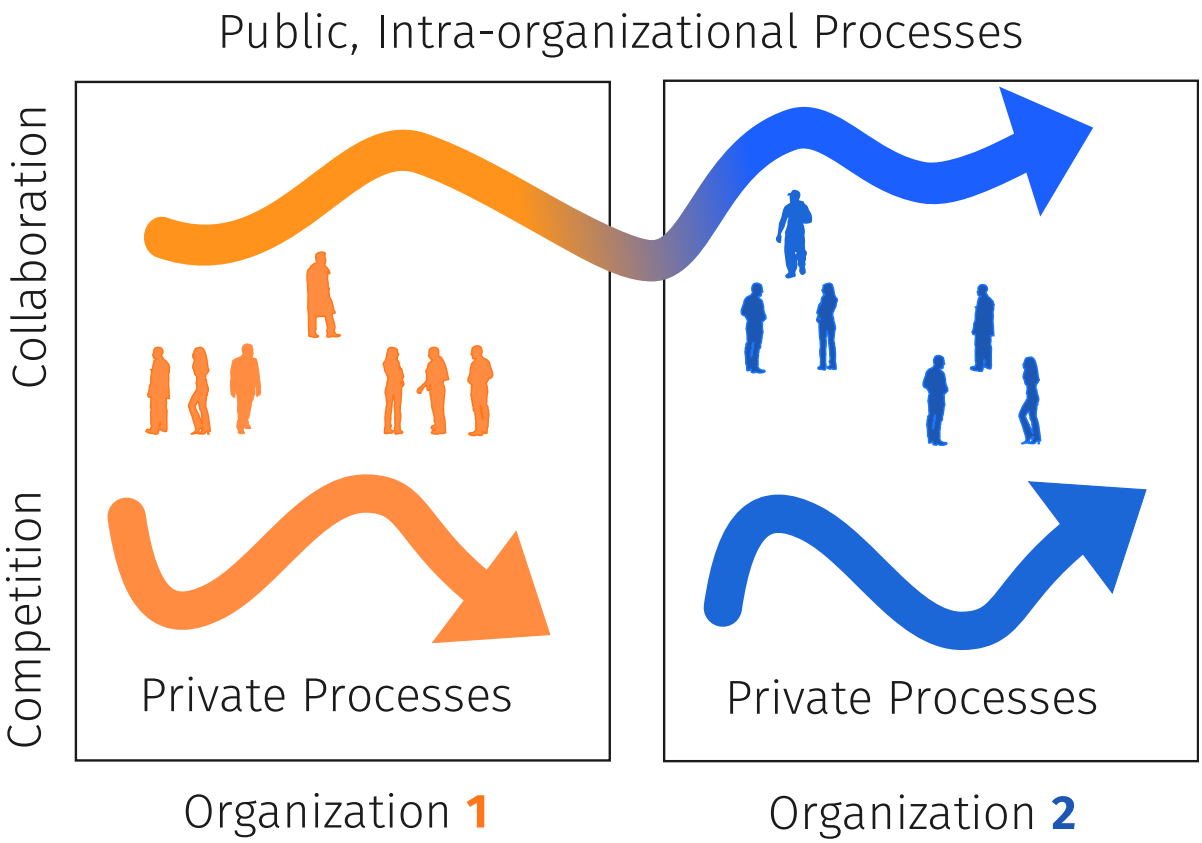


Roles

Processes encompass one or more roles. Typical roles are hierarchically organized into companies, divisions, departments, functions.

Roles are made of users with a common characteristic: programmers, lawyers, managers, consultants, secretaries, accountants.

They identify a **pool of interchangeable human resources** capable of dealing with a concrete set of tasks.



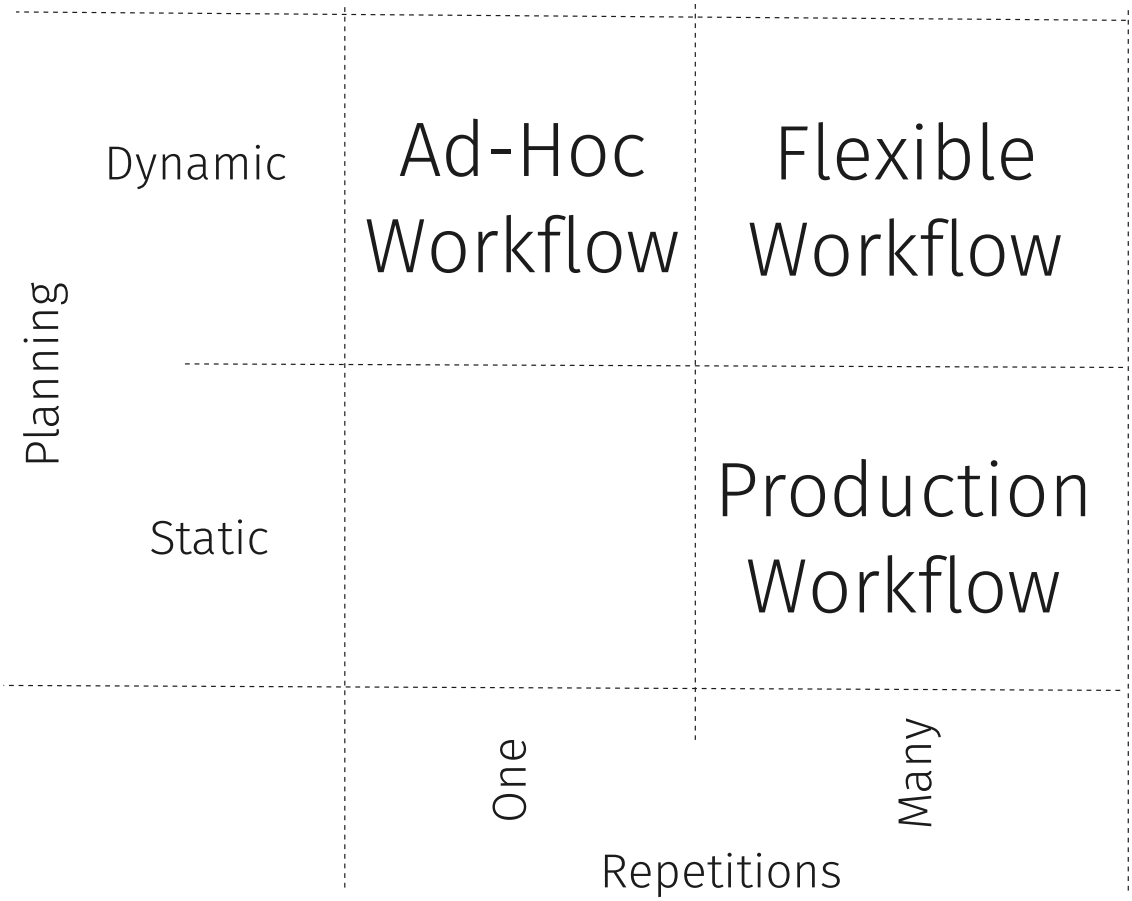
Sustainability

Processes and their activities should be defined based on abstract roles

Running processes that depend on the presence and availability of specific individuals is not sustainable, nor scalable

Each process instance should have a **process owner**, who is responsible of its success

Flexible Processes



Flexible Workflow

How to deal with unpredictable situations?

The plan can be completed based on knowledge available only after the process has started

How to tailor the process to each customer?

The plan needs to be adjusted based on the process context and initial conditions

References

- Fabio Casati, **Business Process Management**, to appear
- Mathias Weske, **Business Process Management: Concepts, Languages, Architectures**, 2nd ed., Springer, 2012, ISBN 978-3-642-28615-5
- Marlon Dumas, Marcello La Rosa, Jan Mendling, Hajo Reijers, **Fundamentals of Business Process Management**, Springer, 2013,
  ISBN 978-3-642-33142-8
- Wil M. P. van der Aalst, **Process Mining: Discovery, Conformance and Enhancement of Business Processes**, Springer, 2011,
  ISBN 978-3-642-19344-6