Knowledge Based Work Systems and Services

Challenges, Methodologies & Solutions

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U.PORTO 100

Work System

- A comprehensive **set of interacting services, processes, people and technology** that “work” together in order to achieve of a set of **business goals**.

Intensive Knowledge Based Work Systems

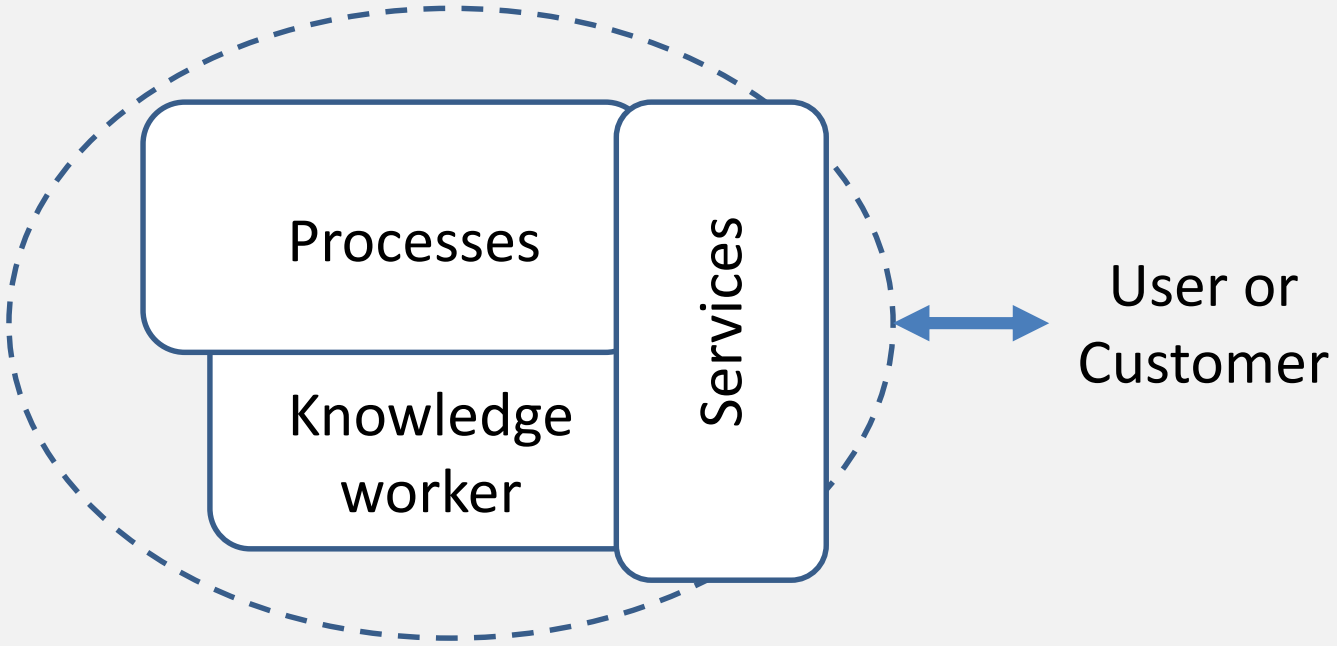
- Work system where **tacit knowledge plays a fundamental role**.

  Some Examples:

  - Software houses
  - Law firms
  - Engineering offices
  - Educational institutions

Intensive Knowledge Services

- are provided by **highly skilled people**
- that work in the context of knowledge intensive work systems.



Work Systems Management *: how to?

- due to the very **nature of knowledge work**,
- knowledge work systems are "**not compatible**" with traditional BPM approaches.

** instead of Business Process Management*

Knowledge work characteristics

- **emergent** and largely **unpredictable**
- urgent deadlines **mixed up** with long running tasks
- information **scattered** across databases, emails and docs
- intensive **human interaction** (both formal and informal)
- **contextual** judgment and **autonomous** decision

Management strategy: ad hoc collaboration

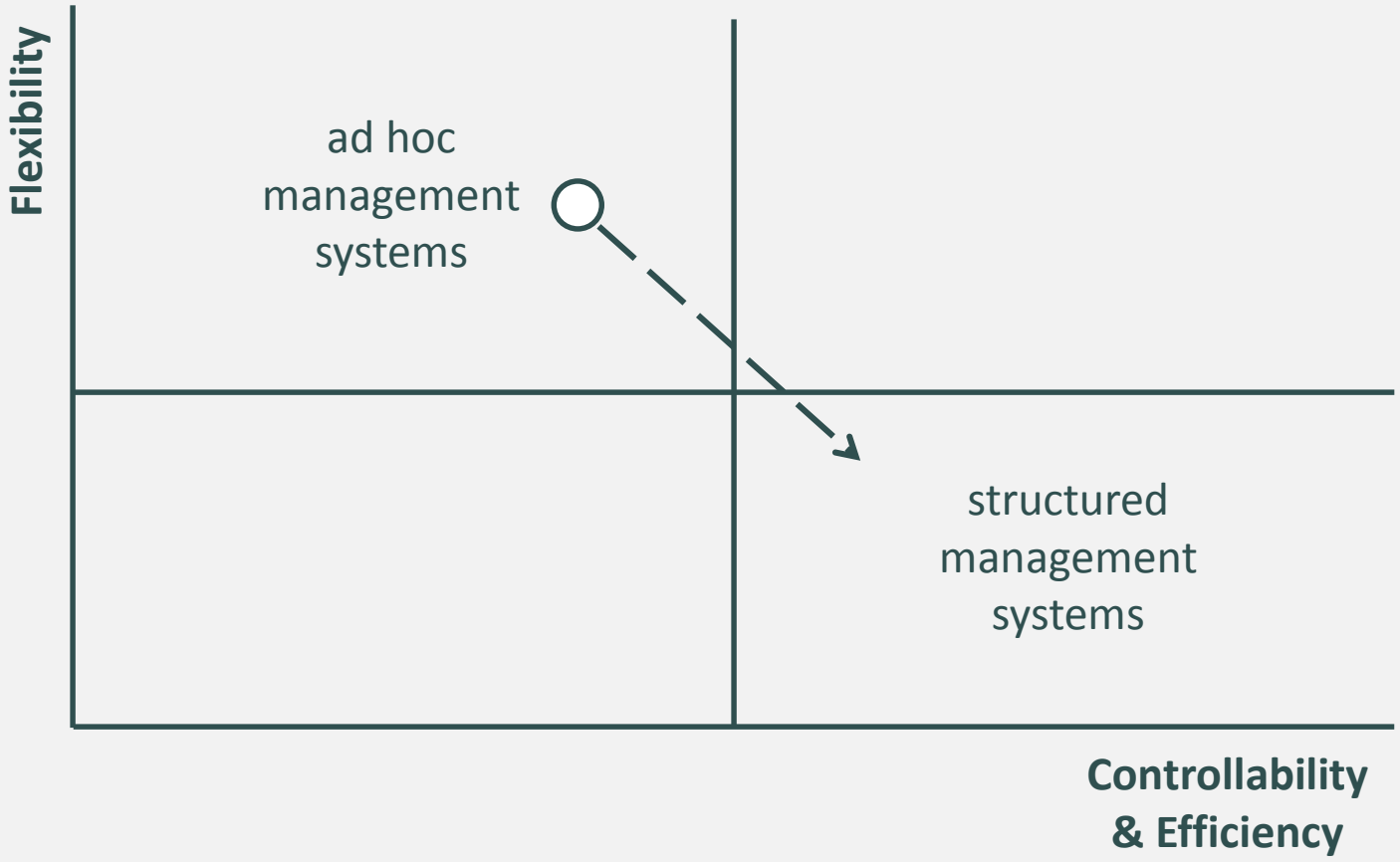
- offers **high flexibility**
- but also **lacks controllability and efficiency**

- knowledge workers appreciate flexibility,
- but **managers need controllability and efficiency**.

This often leads managers to define and implement:

- prescriptive **procedures** and **workflow systems**
- **KPI's** and **business intelligence** systems

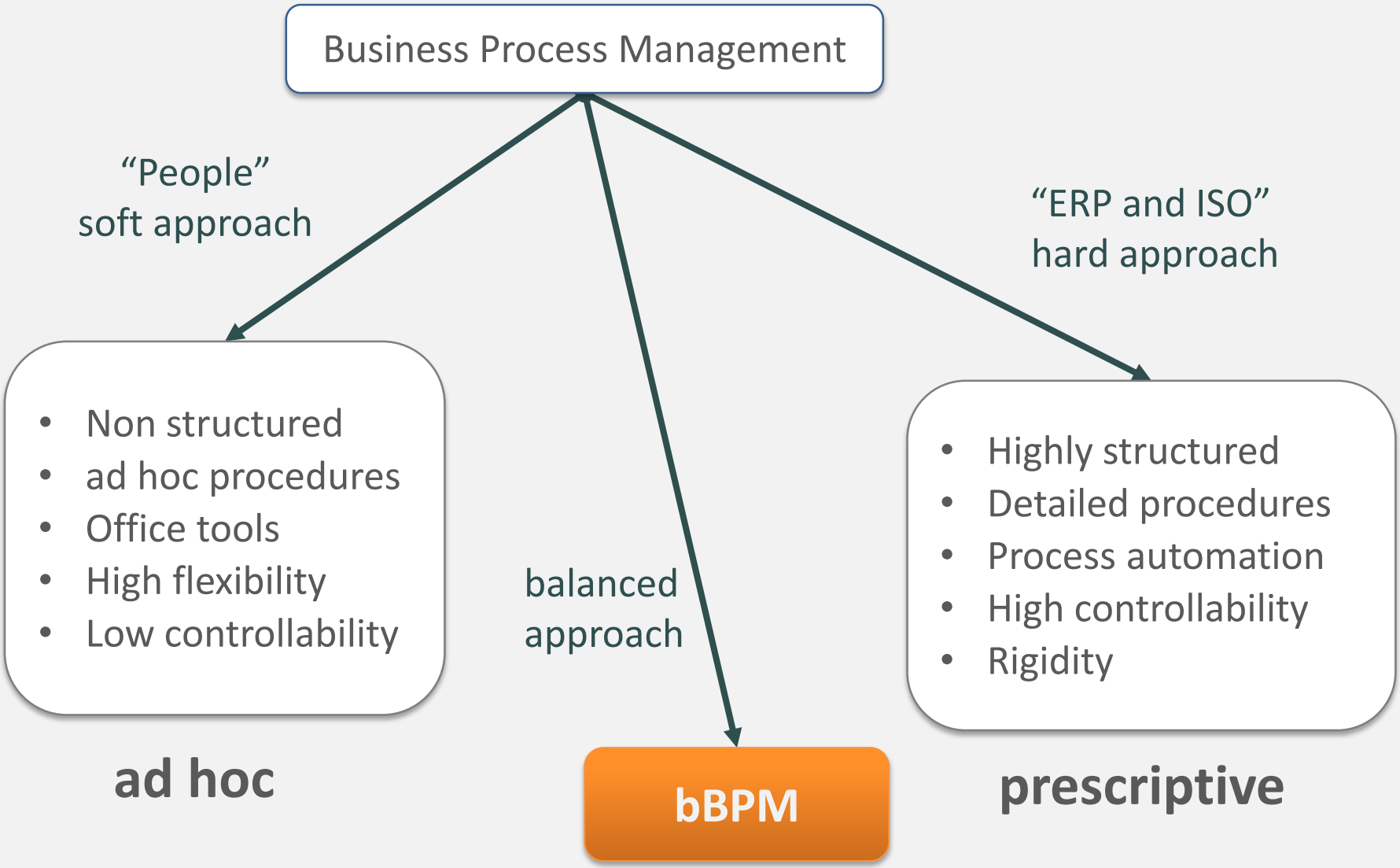
“the long jump”



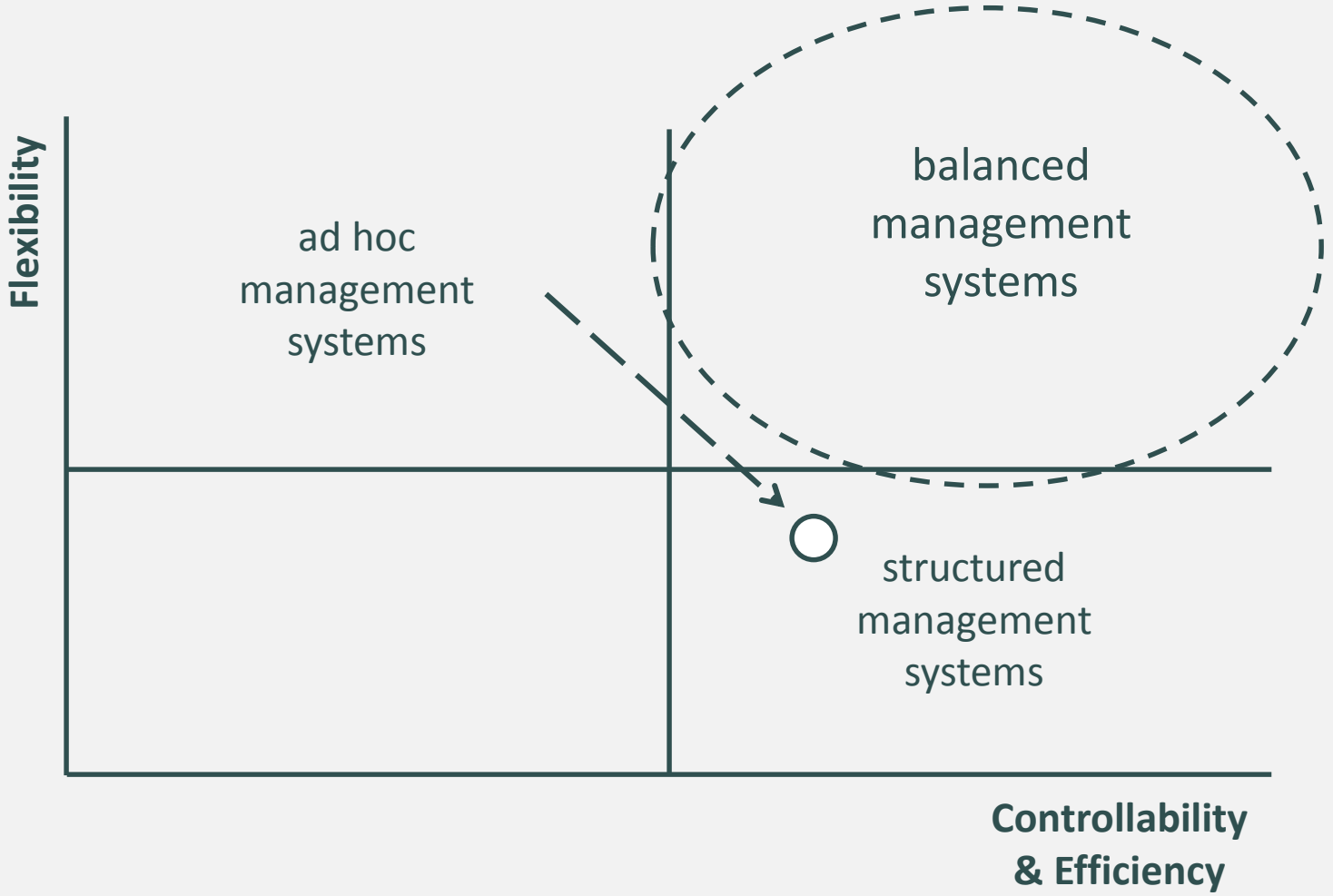
Knowledge work management systems

Instead of enforcing the compliance to standard prescriptive rules, the management systems should:

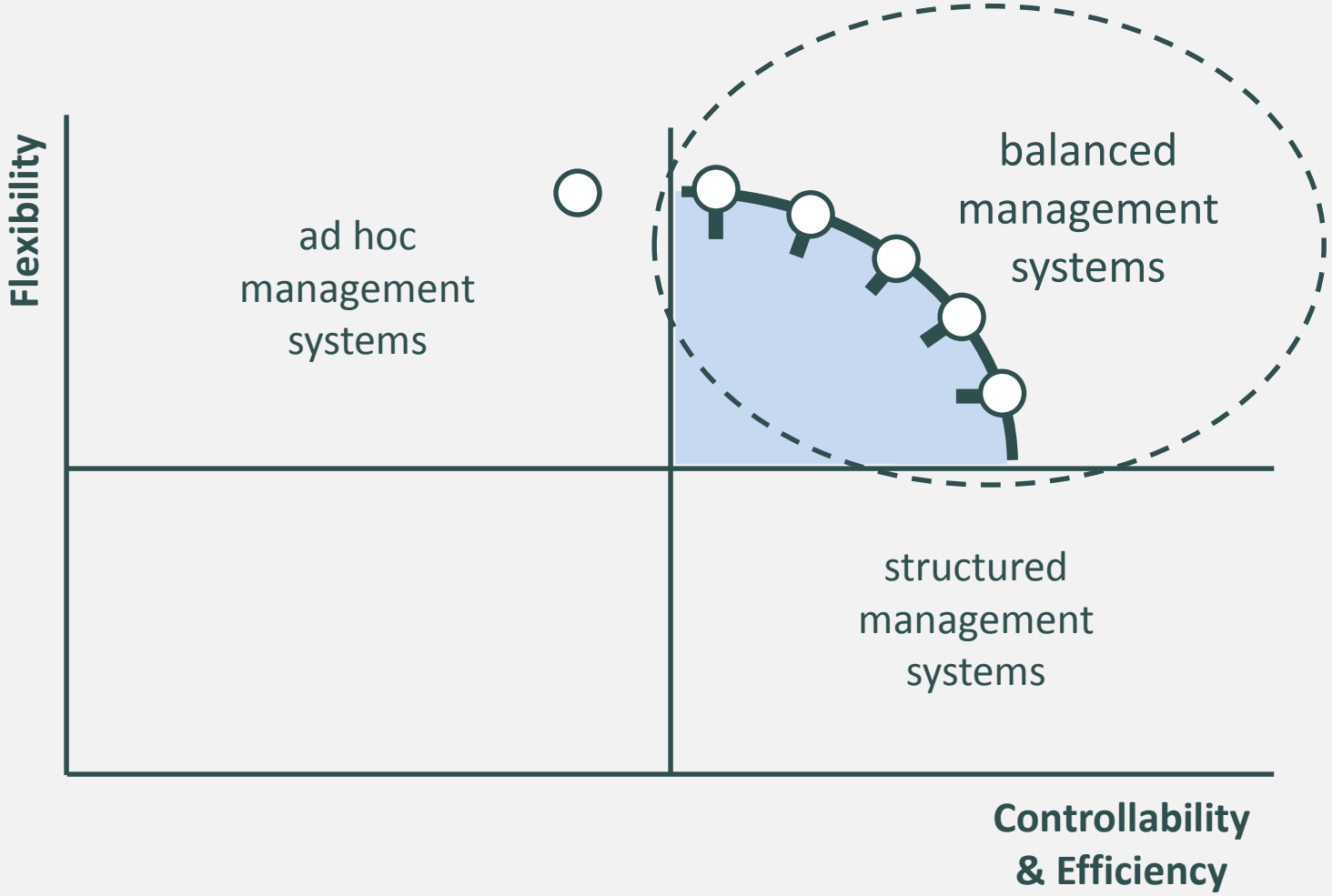
- **provide guidance** to the knowledge worker and
- allow to **fine-tune** the "**unique**" best practices of the organization.


Business Process Management
"People"
soft approach
"ERP and ISO"
hard approach
Non structured
ad hoc procedures
Office tools
High flexibility
Low controllability
balanced
approach
Highly structured
Detailed procedures
Process automation
High controllability
Rigidity
ad hoc
bBPM
prescriptive

the balanced approach



the balanced approach

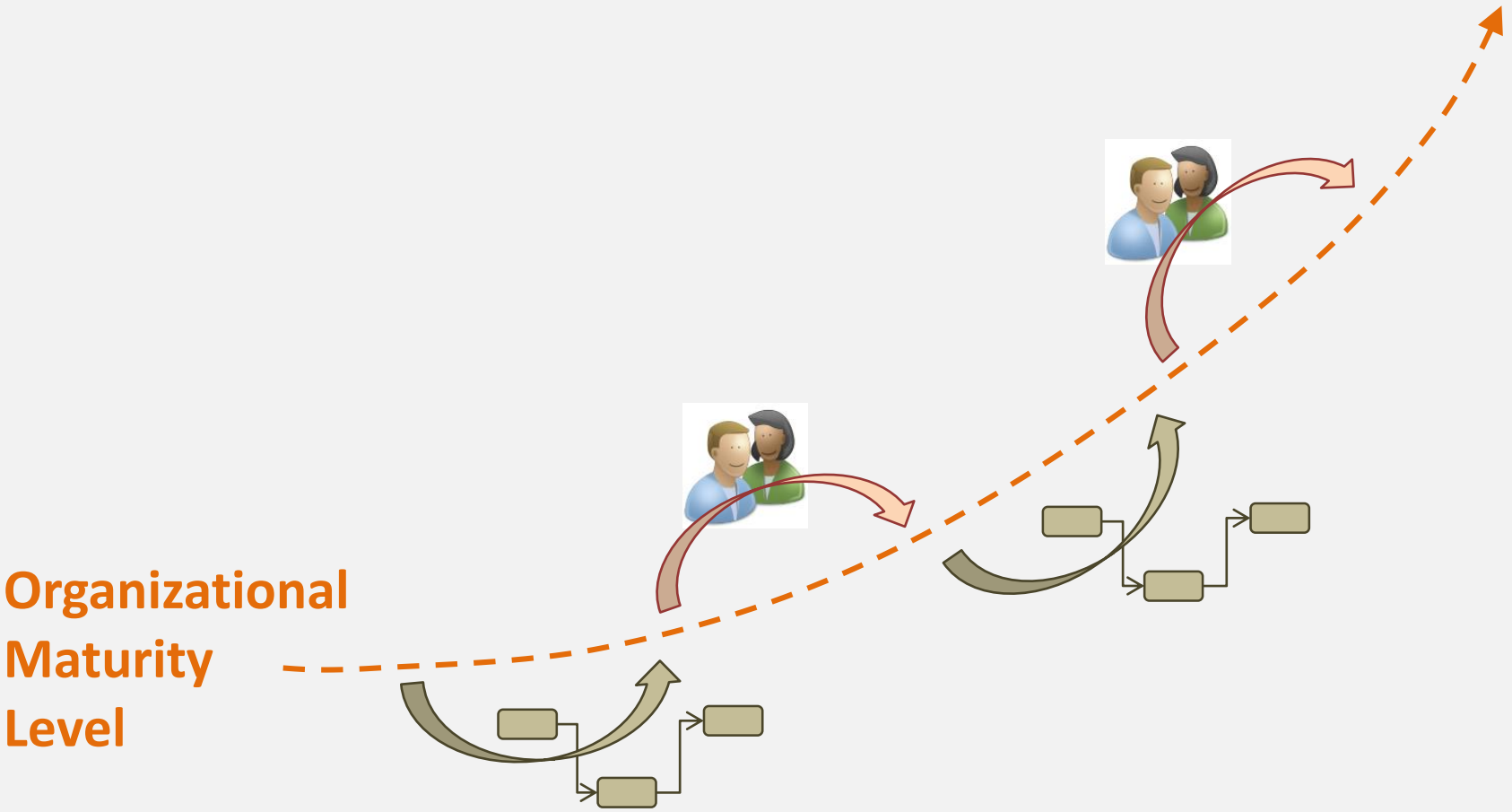


The Learning Organization

- if **all stakeholders participate** actively in the design of the management system,

- then, **people and processes development will reinforce together**

The Learning Organization



2. Methodology

BP2IT methodology

From Business Processes to Information Technology

Phase 1
Understand the business

1. Business process model
2. Service portfolio & process landscape

Phase 2
Design the organization

3. Detailed service design
4. Detailed process mapping & analysis

Phase 3
Design the management system

5. Management system analysis
6. User interface and repositories design

BP2IT methodology

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ONE methodology

ONE methodology

3 analysis perspectives

3 design principles

Work perspective

Tools

- Project portfolio
- Gantt chart
- Backlog
- To Do's list
- Check list
- Agenda
- Activity log
- …

Information perspective

Tools

- Databases
- File & doc system
- Email
- Wiki’ s
- Annotations
- Debates
- …

Information perspective

Tools

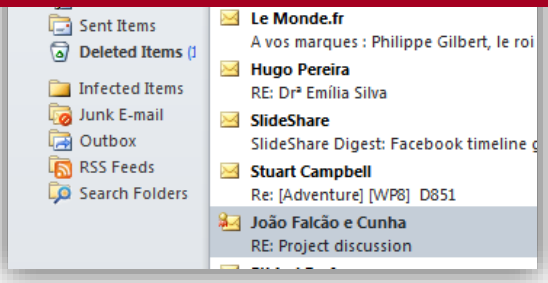
- Email
- Notifications
- Alerts
- News
- Dashboard
- ...

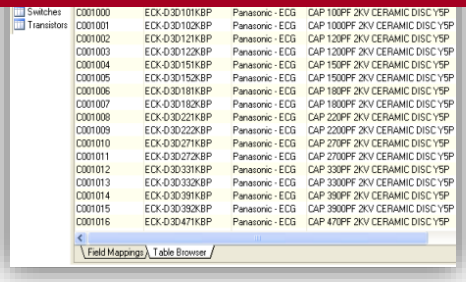
3 design principles

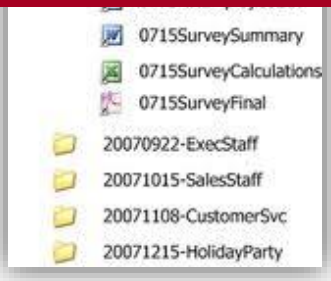
find docs, data & email on the same interface

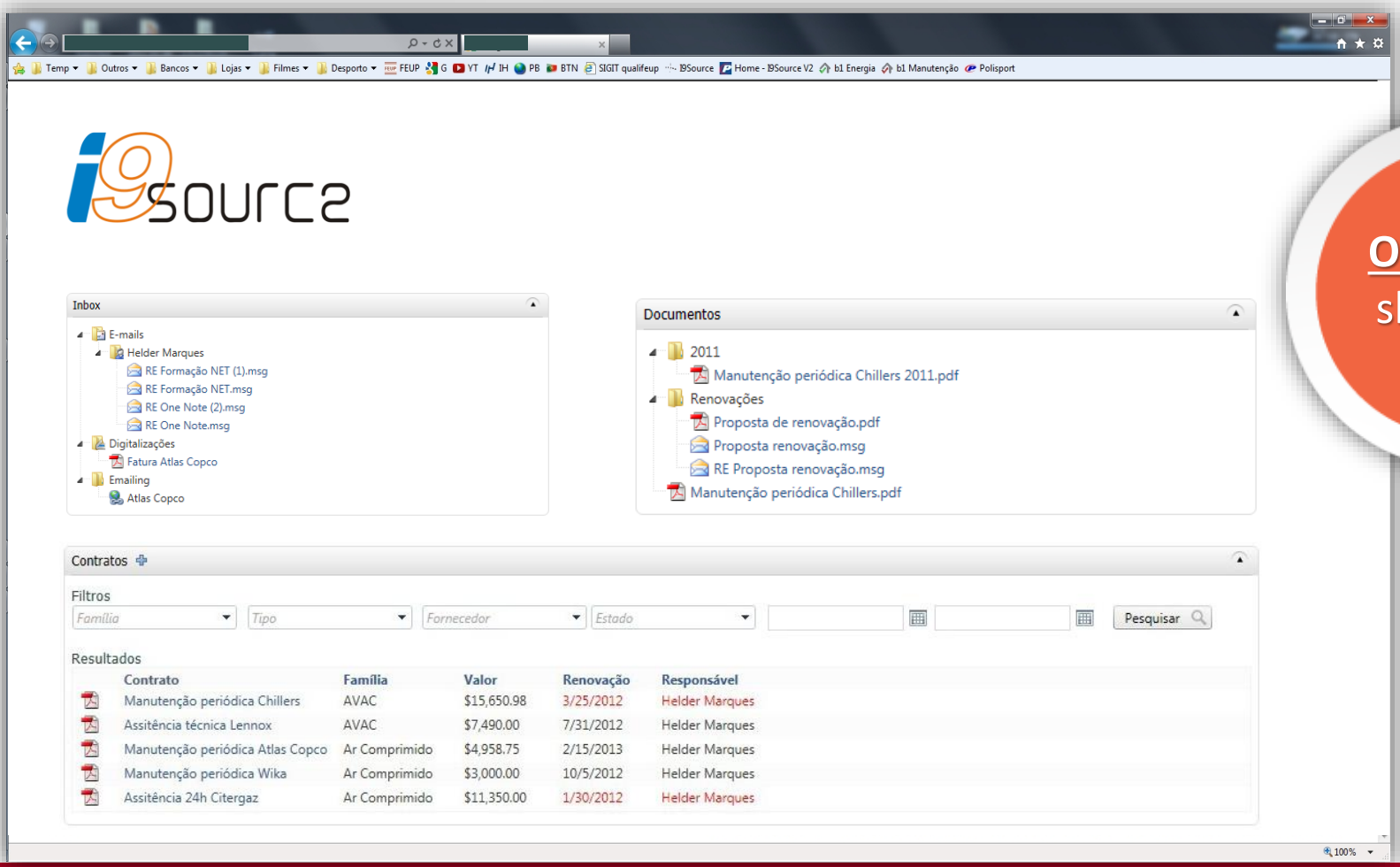
every command at your fingertips

start using it tomorrow



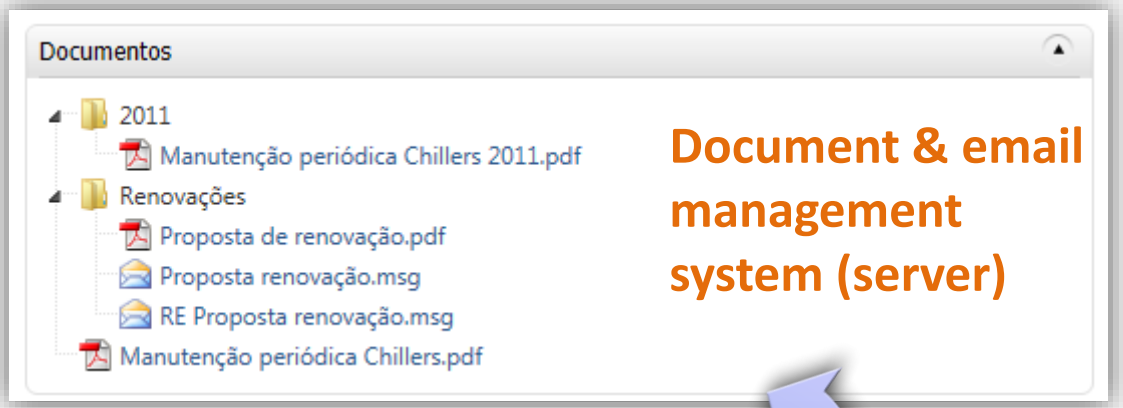






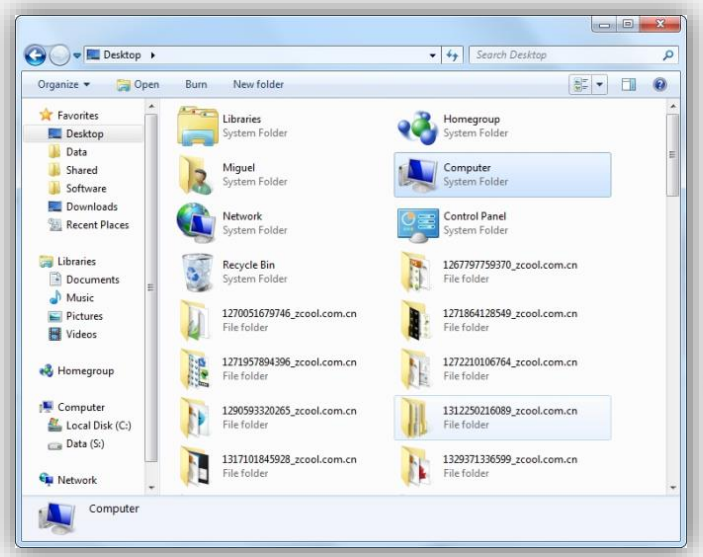
ONE page shows all

Direct drag & drop from office tools to server

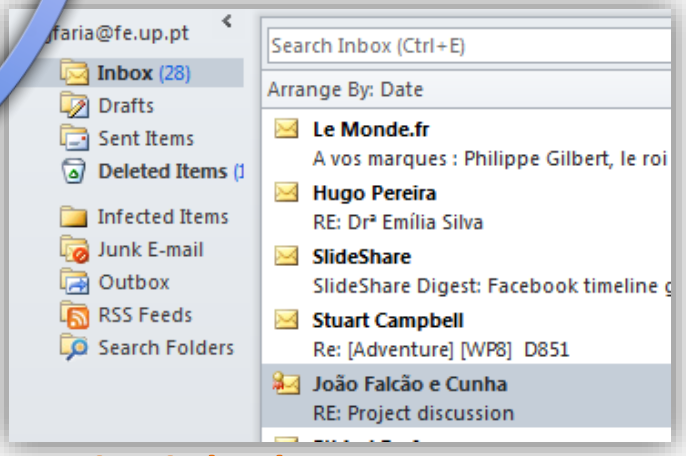


Document & email management system (server)

ONE click management

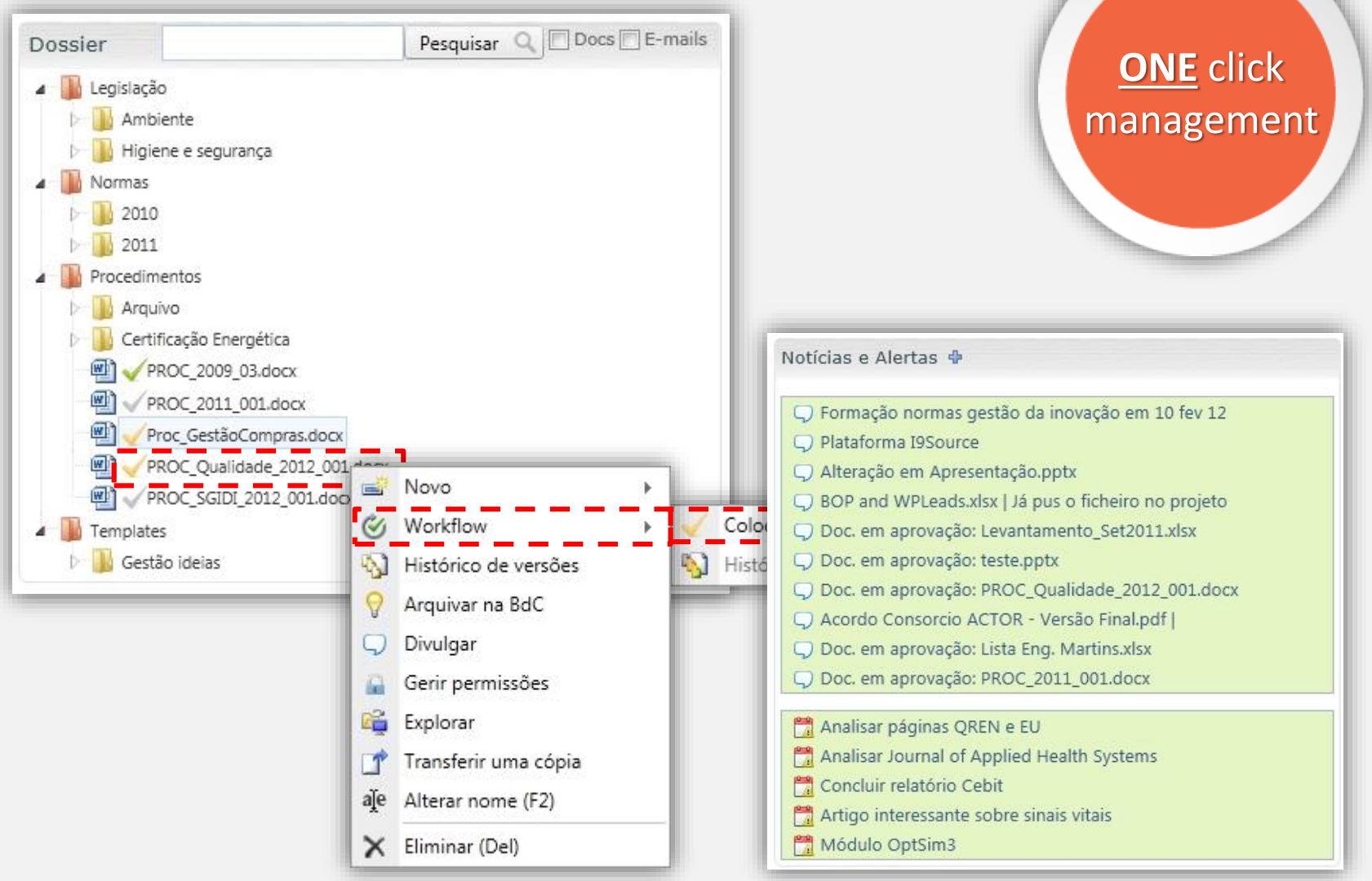


Explorer (PC)



Outlook (PC)

Commands directly available at the context menu



Our target

Combine the **usability of desktop** applications

together with the **robustness of server** applications

3. Solutions

Solutions

Innovation management platform

buildONE

Facility management platform

main modules

- Ideas and opportunities management
- Project management
- Portfolio management
- Documents management
- Knowledge management
- Communication management
- Organizational development management

buildONE

main modules

- Maintenance management
- Subcontracting management
- Energy management
- Environment, health and safety management
- Documentation management
- Project management