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# A project management tool for flexible collaboration



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# CONTEXT

Most software and system processes contain tasks that can be performed by multiple actors, known as **collaborative tasks**.

- When it is executed, a collaborative task is deployed with many instances, each one is performed by one actor.
- There are various strategies describing relations between instances of a collaborative task (sequence-based, parallel-based).

Process Management Systems (**PMS**) provide functionalities to control task instances' evolution at execution time.

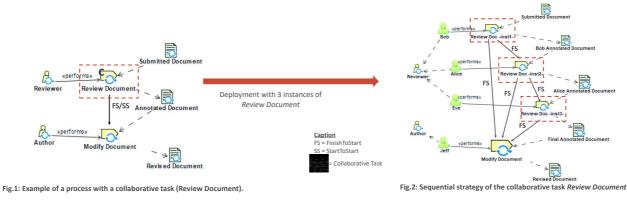
# MOTIVATION

Existing process modeling languages lack a clear semantics on how to instantiate and execute a collaborative task.

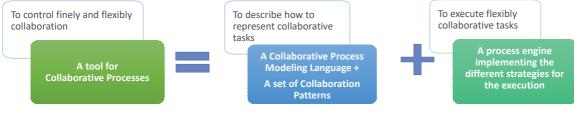
Execution of collaborative tasks is not yet finely controlled in PMS

Existing PMS do not support selecting different strategies to instantiate and execute a collaborative task.

Execution of collaborative tasks is not flexible



#### WORK SUMMARY



#### Fig.3: Overview of our approach

### RESULTS

A set of Collaboration Patterns allowing representing different strategies that can be used at execution to perform a collaborative task. These patterns describe the possible control flows (sequential, parallel) and the way of sharing work products among instances of a collaborative task.

\* A Process Modeling Language to express collaborative concepts.

\* A prototype of a Collaborative Process Engine allowing to instantiate and execute collaborative tasks based on chosen strategies.

## CONCLUSION

- We propose a flexible way to enact collaborative tasks,
- For a more intelligent assistance in selecting an execution strategy for a collaborative task, we are investigating :
  - A language of definition of context elements,
  - An algorithm of pattern recommendation based on context elements values.

ask description				Collaboration Patterns
Instances	Affected actors	Input	Output	Sequential Instances, Out Parameter
Cowriting Instance_1	Alice 👻	None	Chapter 1	Sequential Instances, Composite Out Parameter (Finish To Start)
Cowriting instance_2	Bob -	None	Chapter 2	Parallel Instances, Composite Out Parameter
Cowriting instance_3	Eve 🔺	None	Chapter 3	Sequential Instances, Composite Out Parameter
Cowriting instance_4	Charly 🔺	None	Chapter 4	

- left side: list of task instances; right side: the choice of a collaboration pattern.