

Business Processes Modelling

MPB (6 cfu, 295AA)

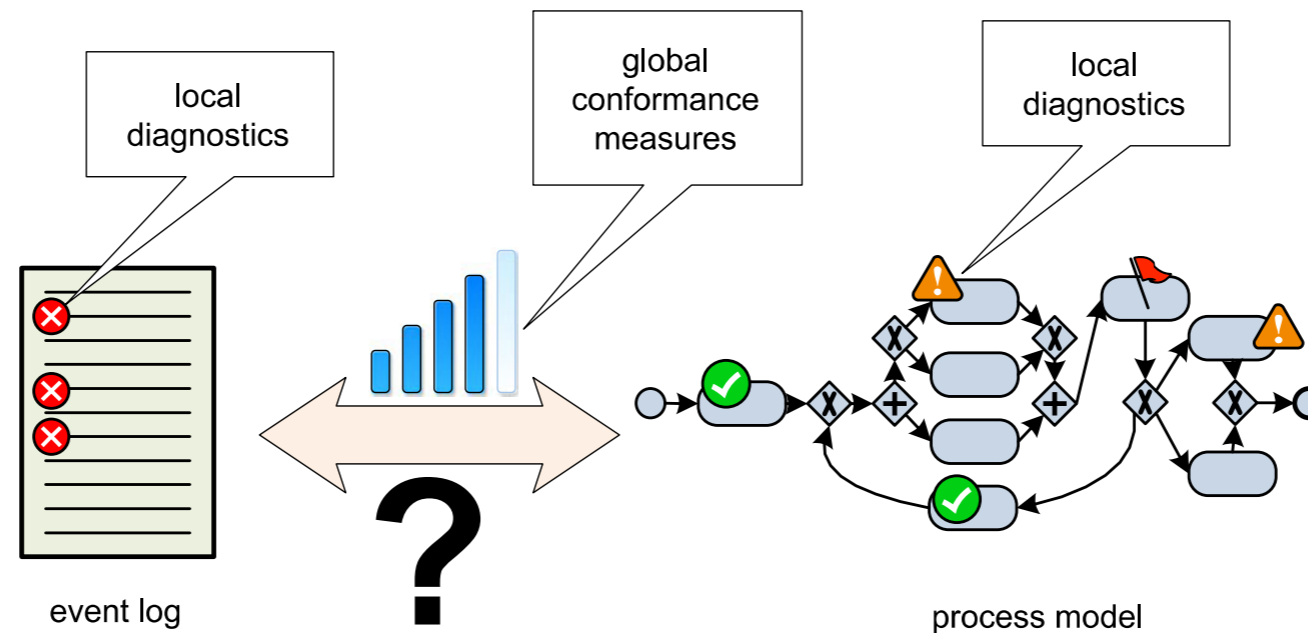
Roberto Bruni

<http://www.di.unipi.it/~bruni>

?? - What we missed



Process mining



Process mining is a relative young research discipline that sits between machine learning and data mining on the one hand and process modeling and analysis on the other hand.

Chapters 1, 5, 7. *Process Mining*. W. van der Aalst

Process Mining

The idea is to improve real processes (not hypothetical ones)
by **extracting knowledge from event logs**
readily available in today's systems (.xes standard format)

it can be used, e.g., for

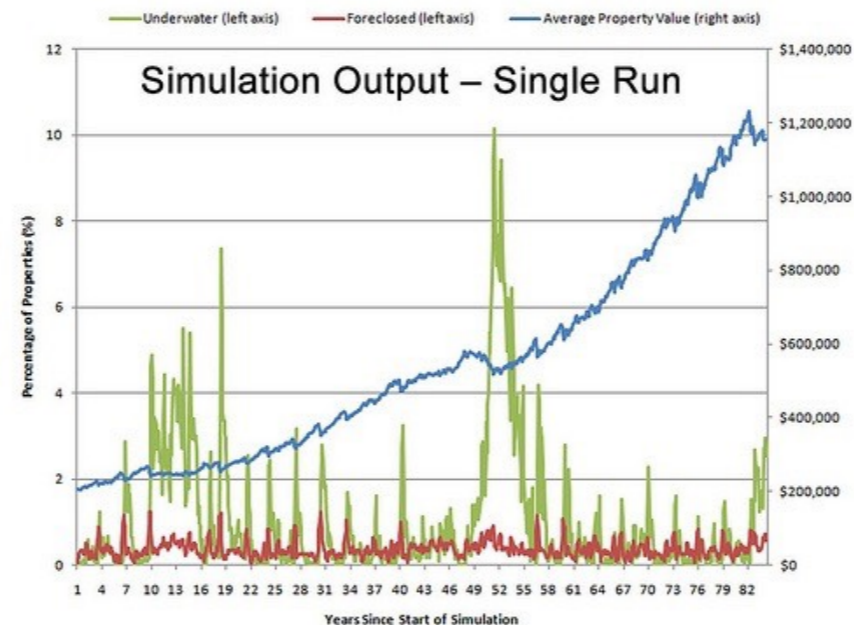
discovery: takes an event log and produces a model

conformance: distance between reality and model

enhancement: extend/improve existing process models

To know more, **ProM:** <http://www.promtools.org>

Process simulation



Process simulation is the most popular and widely supported technique for quantitative analysis of process models.

Ch.7 of Fundamental of Business Process Management. M. Dumas et al.

(inspired by slides available at <https://courses.cs.ut.ee/2014/bpm/>)

Process simulation

It is a very flexible analysis technique.

It is applicable to almost any workflow.

It is accessible to people without mathematical background.

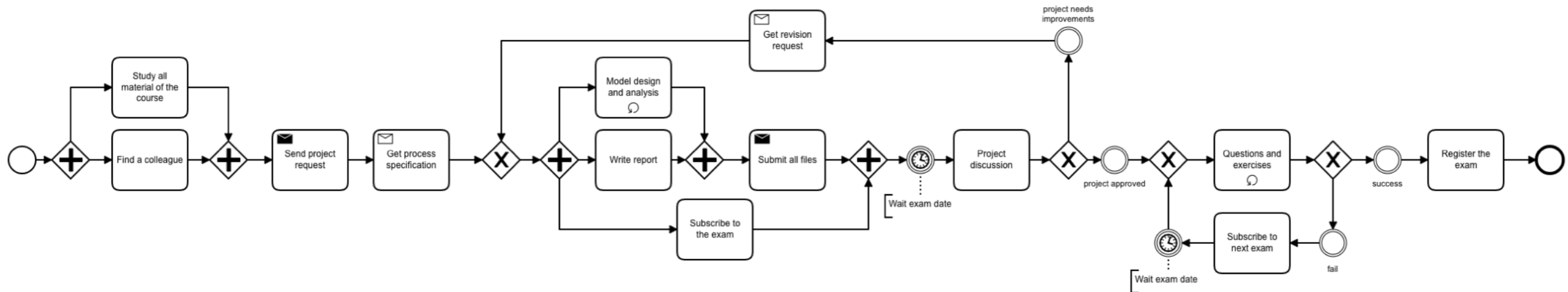
It can be used to estimate, e.g.

process duration, cost information,

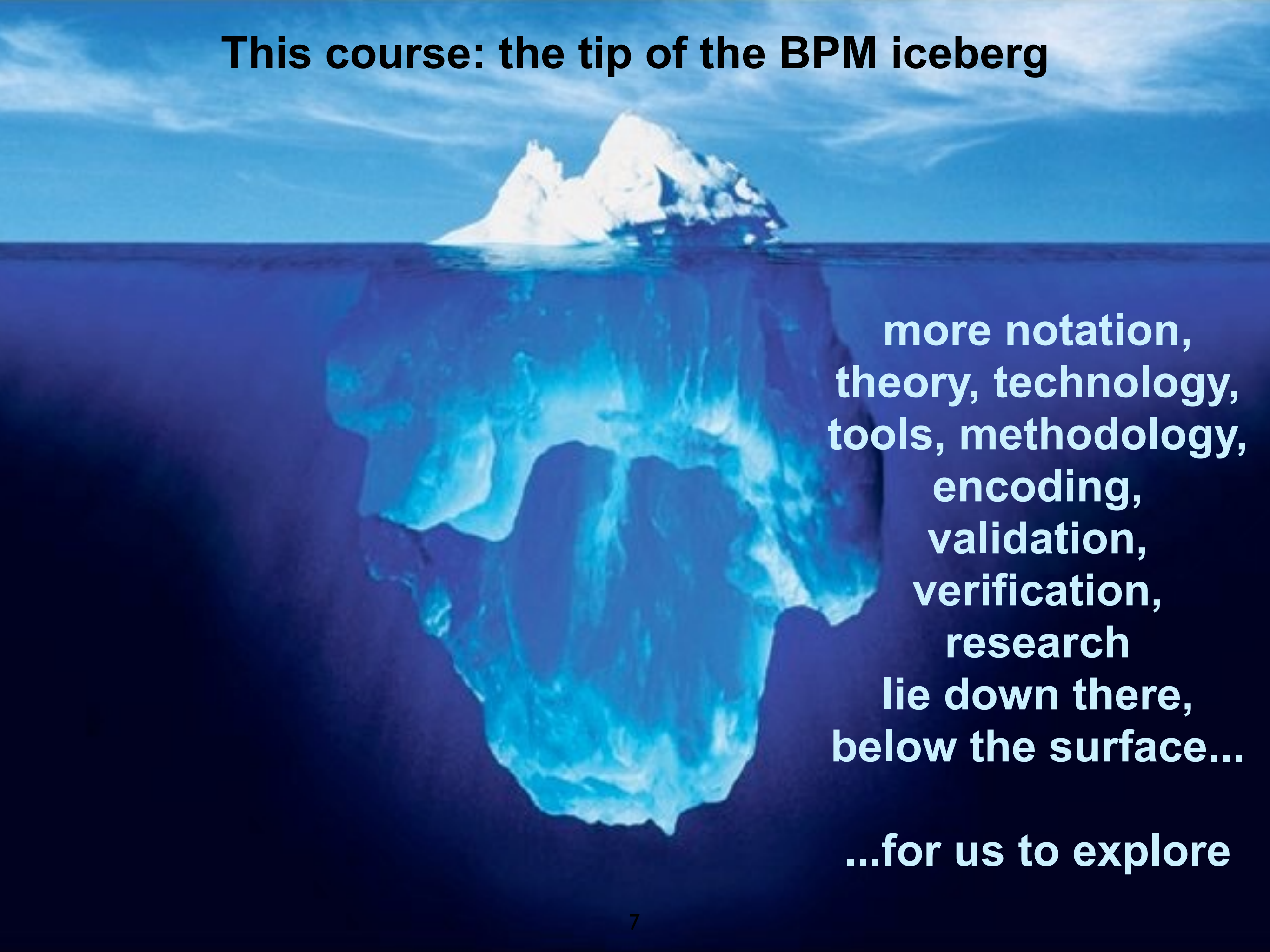
bottlenecks, resource utilization

To know more, **BIMP**: <http://bimp.cs.ut.ee>

Final exam



This course: the tip of the BPM iceberg



**more notation,
theory, technology,
tools, methodology,
encoding,
validation,
verification,
research
lie down there,
below the surface...
...for us to explore**