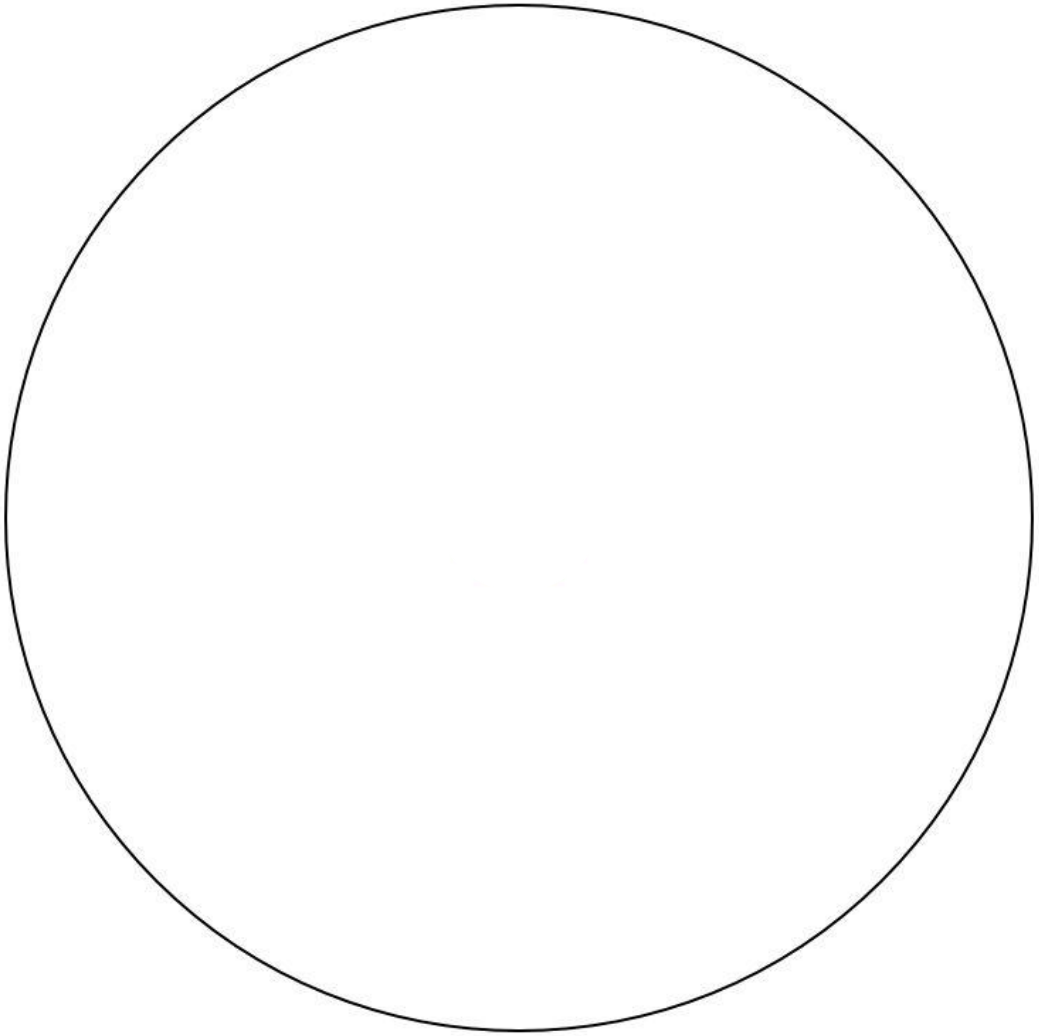
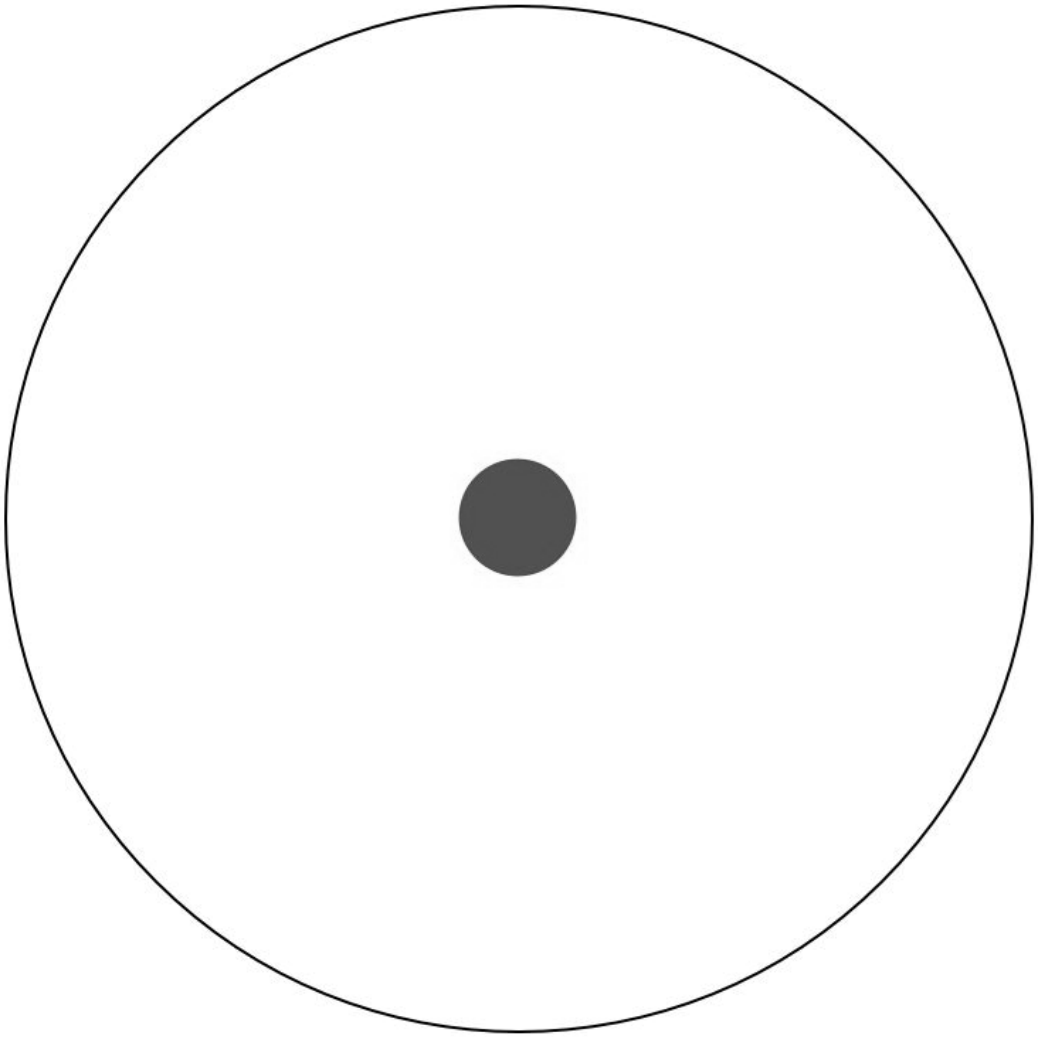
BPM: Reflections on a Broad Discipline

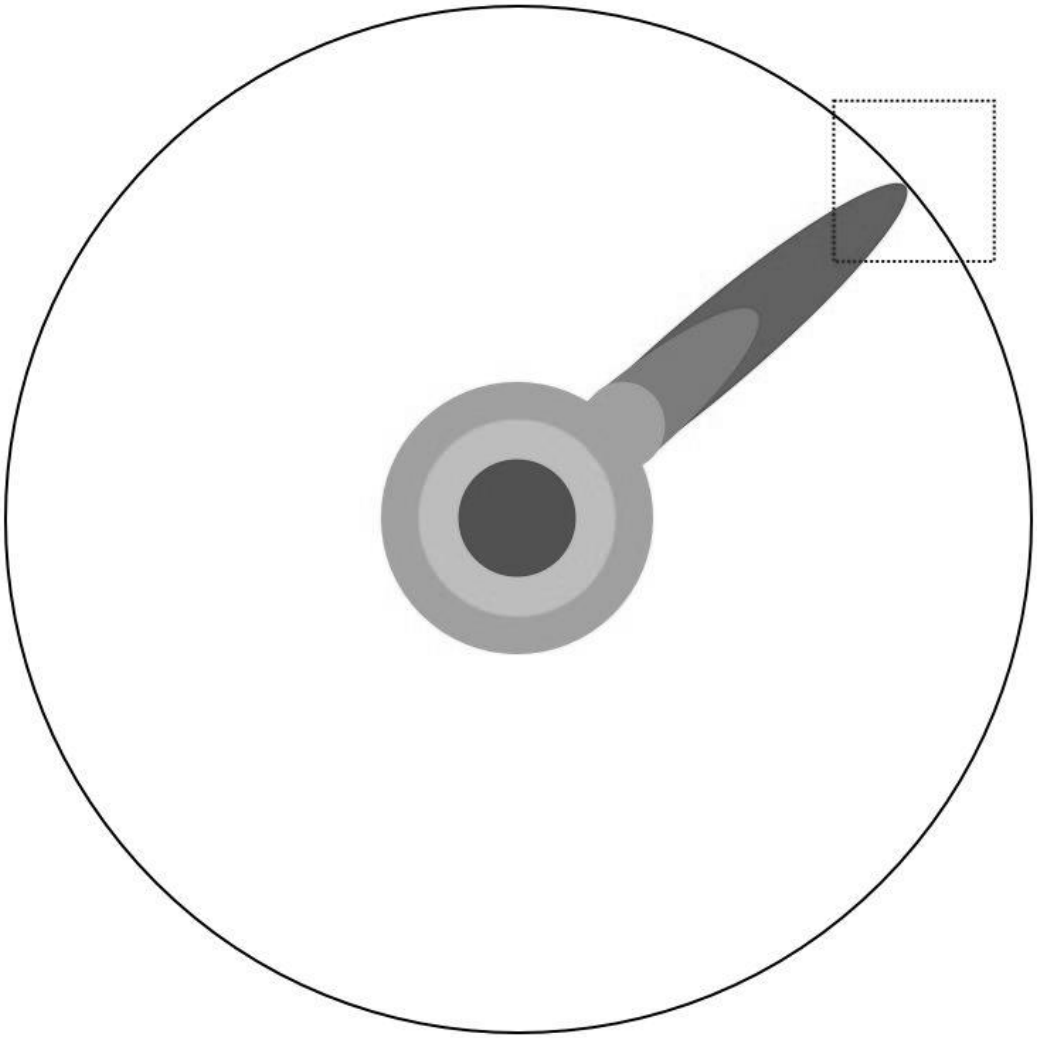
Mathias Weske

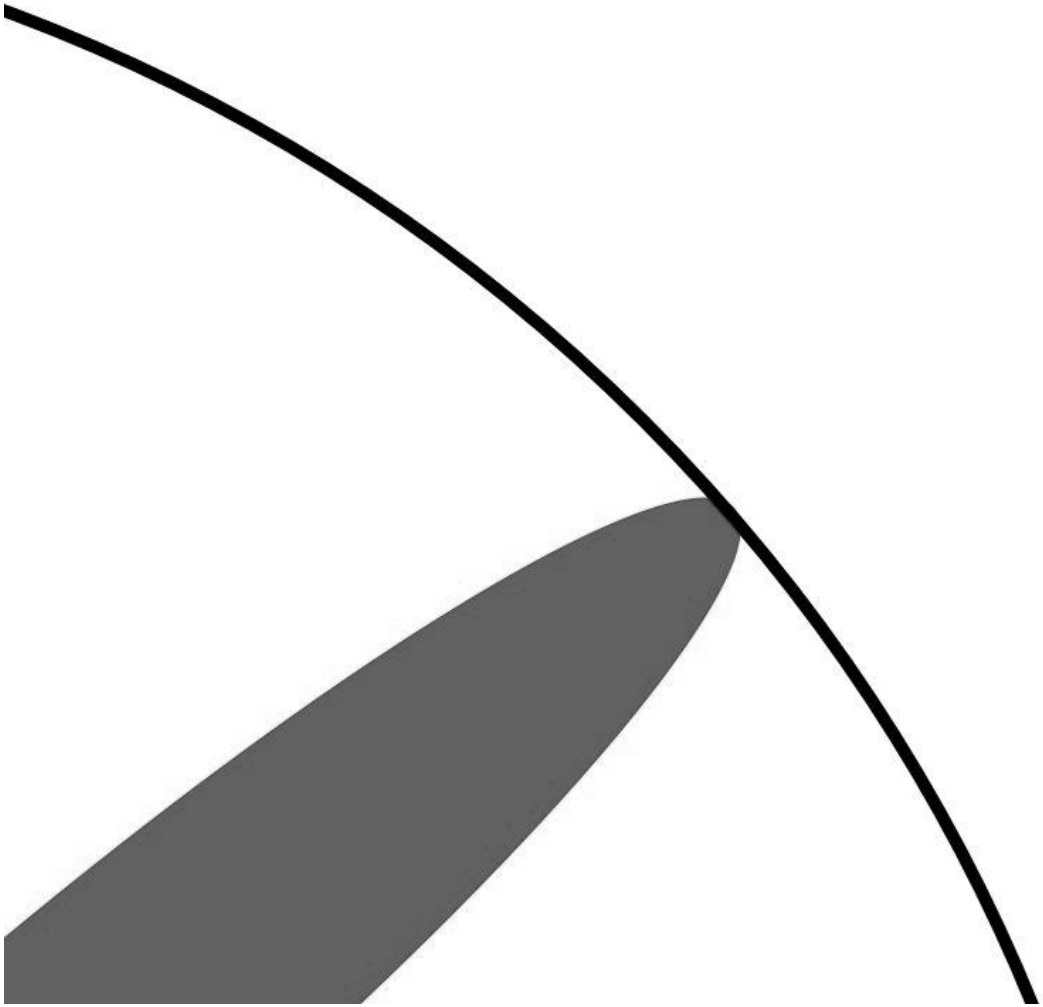
Let’s start broad

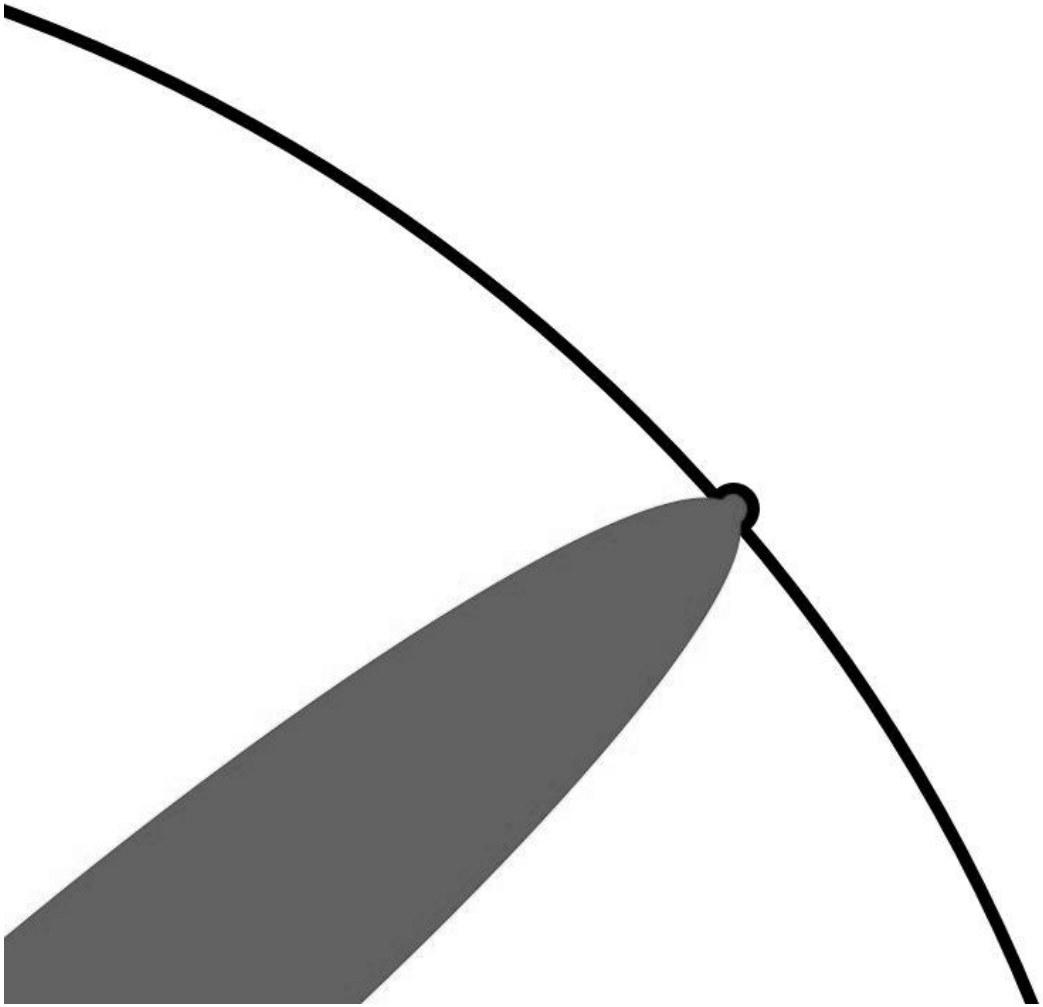


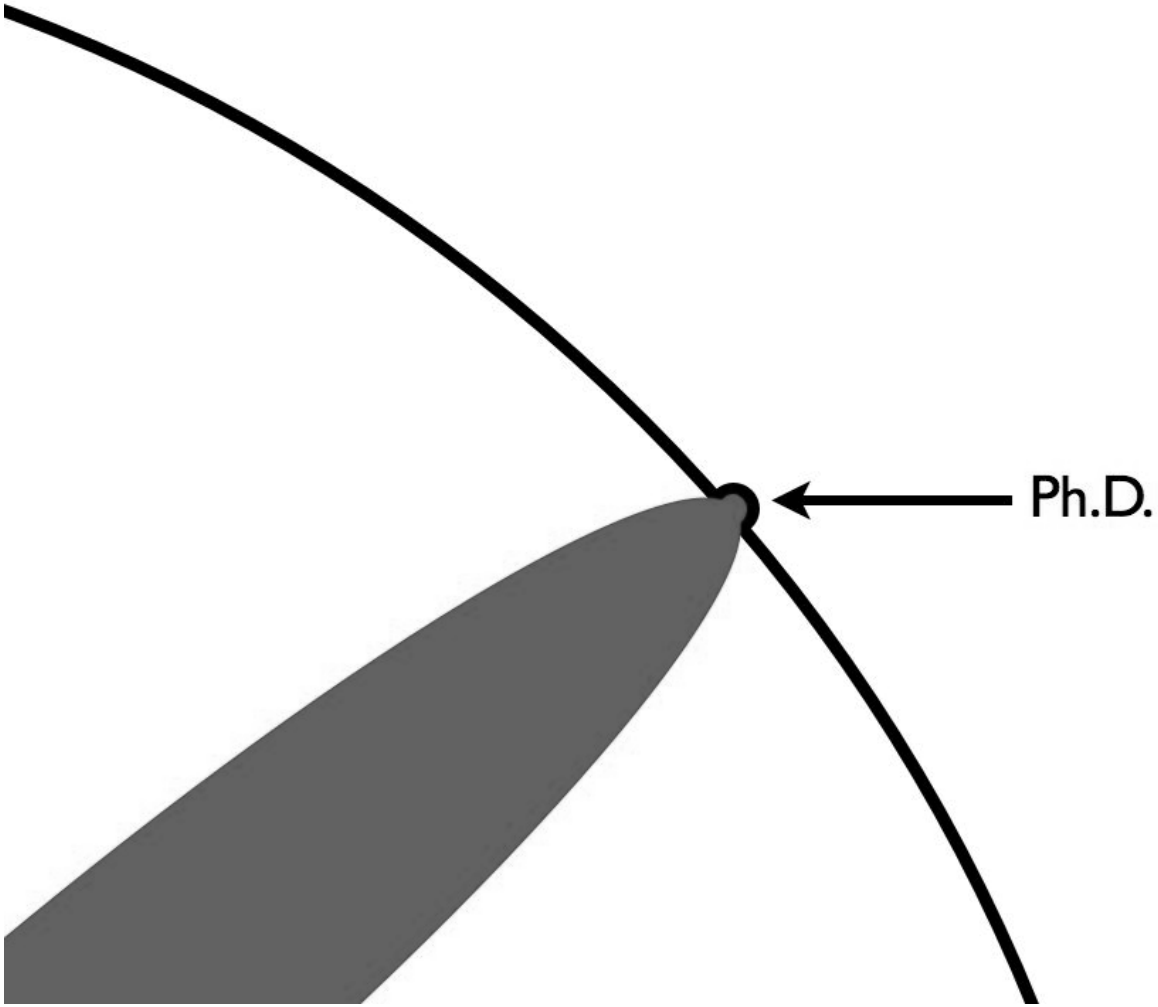
Matt Might’s illustrated guide to a Ph.D.





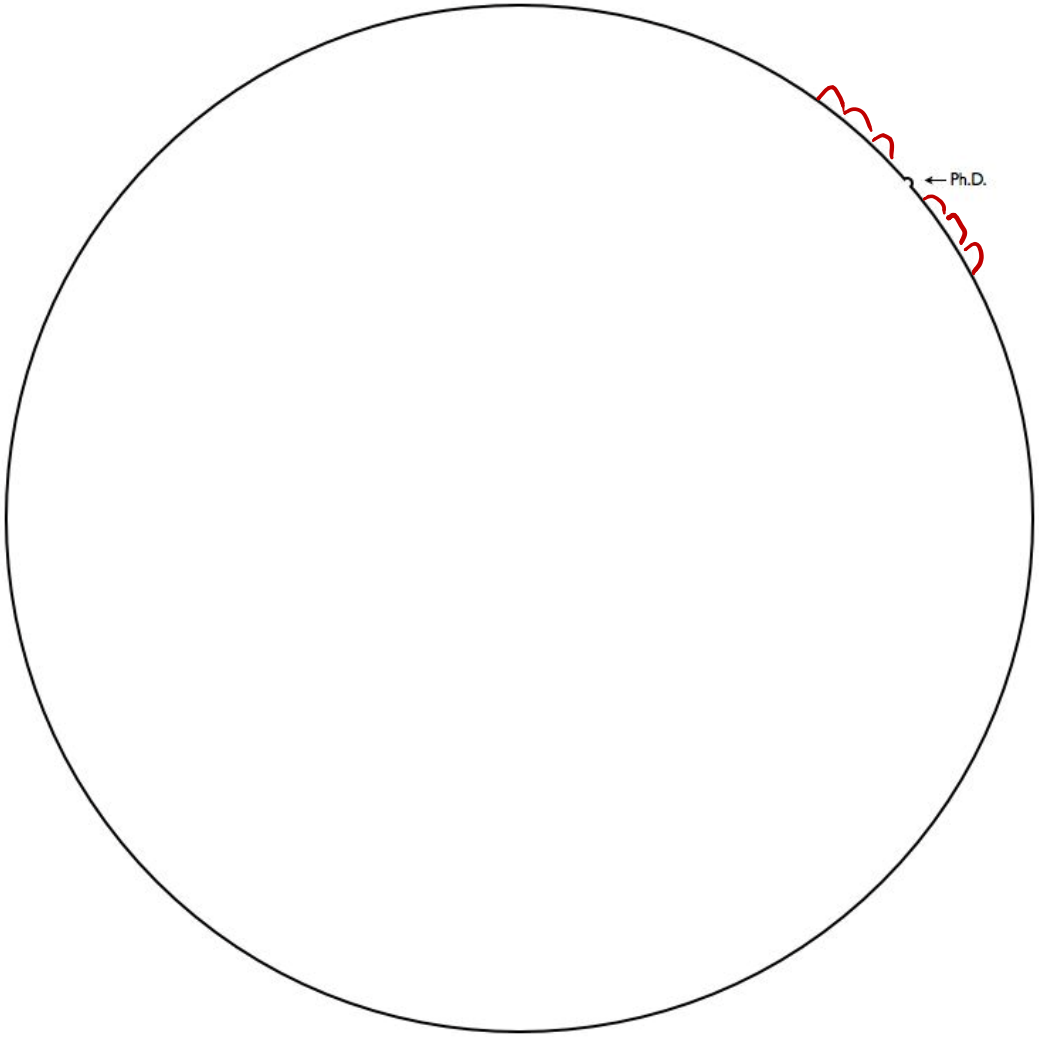





Ph.D.

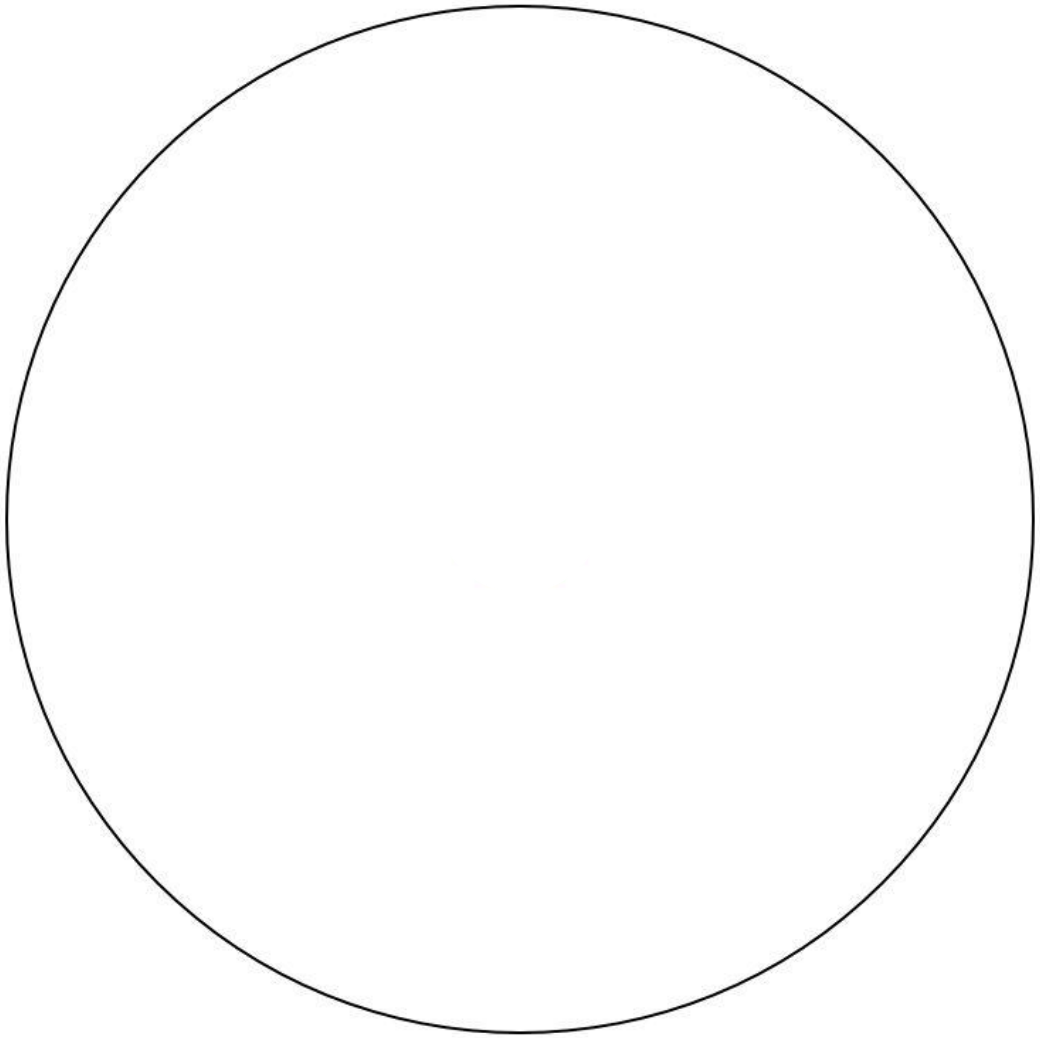
Your view

Zooming out

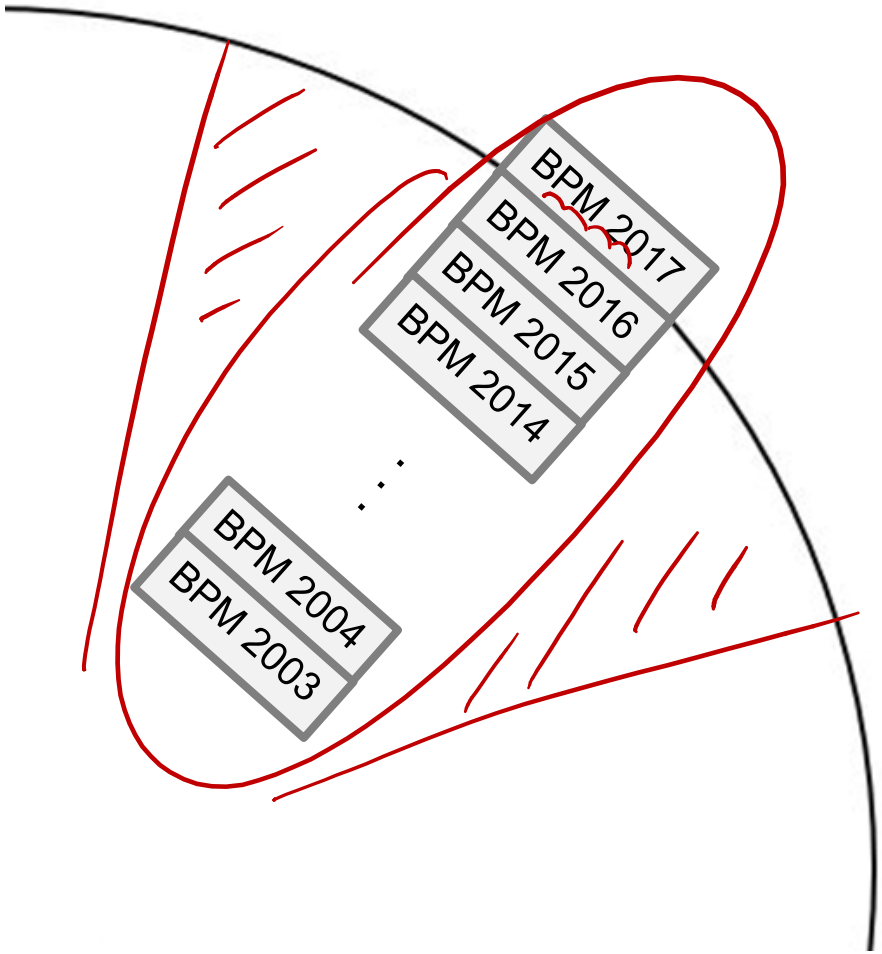


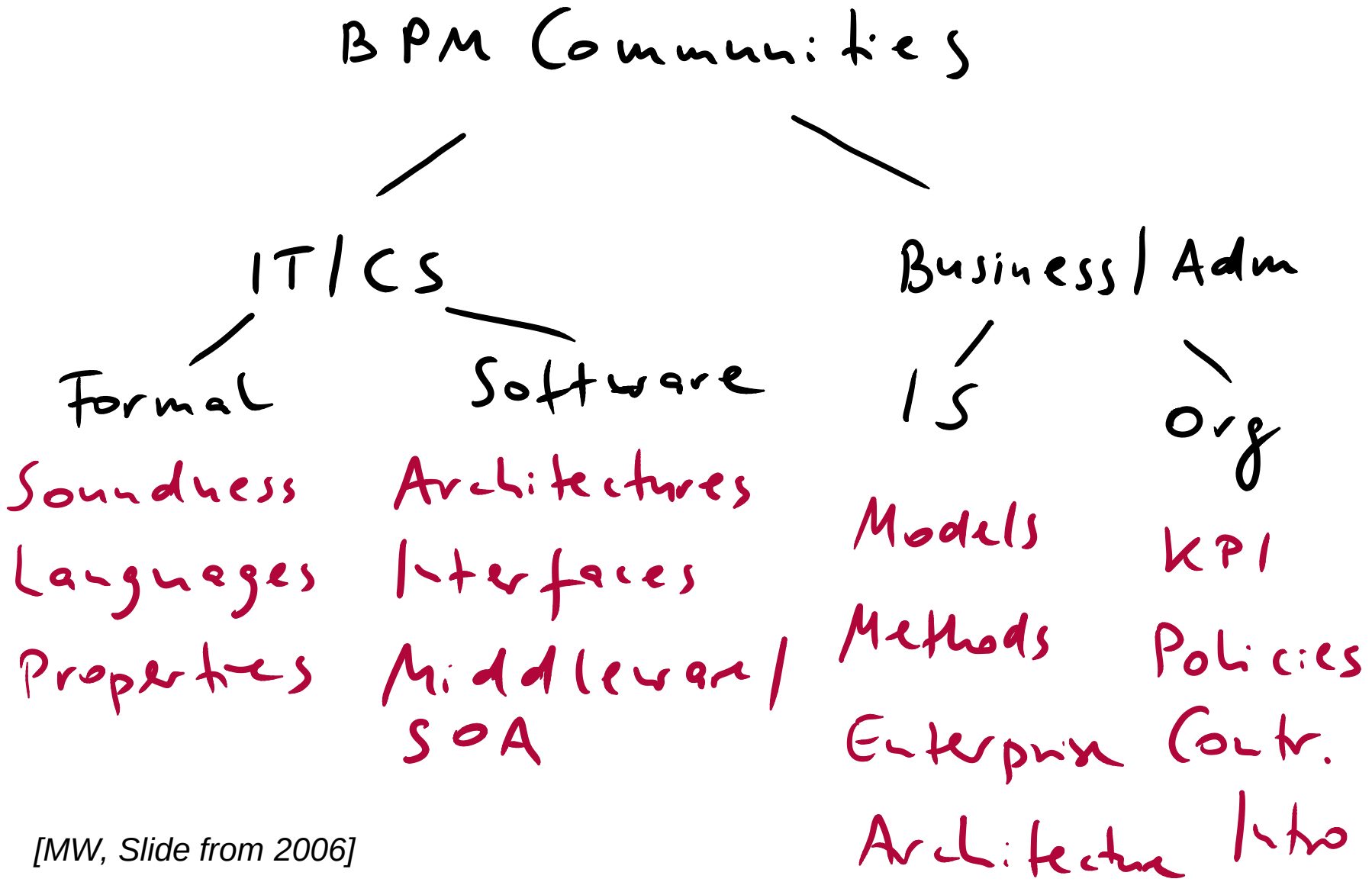
- Some Ph.D. Theses
  - interaction Petri nets
  - configurable process models
  - conformance checking
  - process compliance
  - behavioral profiles
  - runtime prediction.

BPM 2003 – BPM 2017



BPM 2003 – BPM 2017

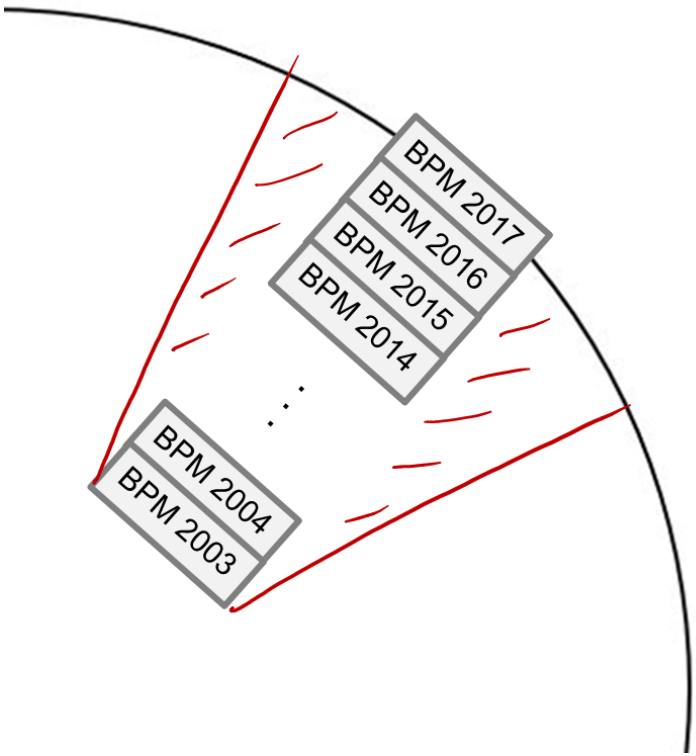




[MW, Slide from 2006]

Observations

- Not all areas of BPM research are represented at BPM
  - Some colleagues find it very hard to enter



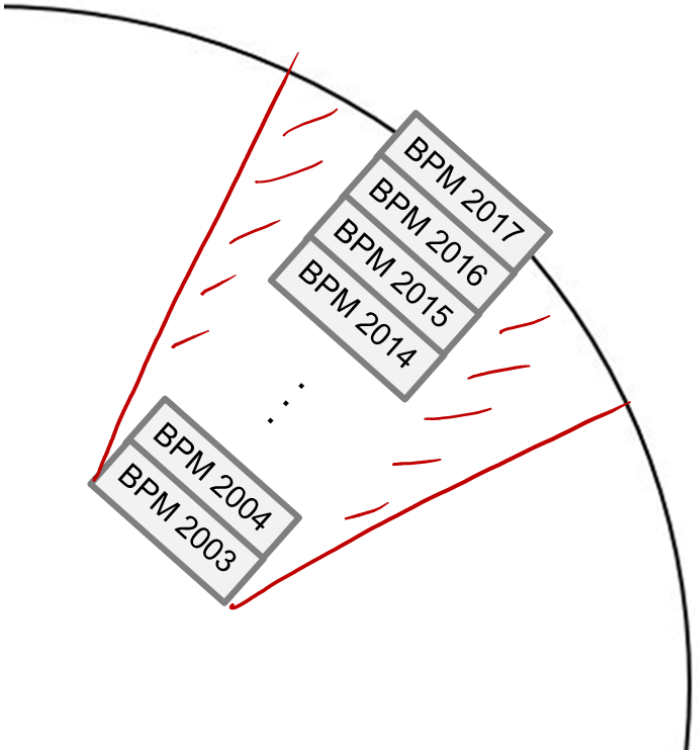
Observations

- Evaluation criteria have changed
  - BPM tends to ask for 16 page journal papers

1. Positioning in core BPM
   Out of scope, reject

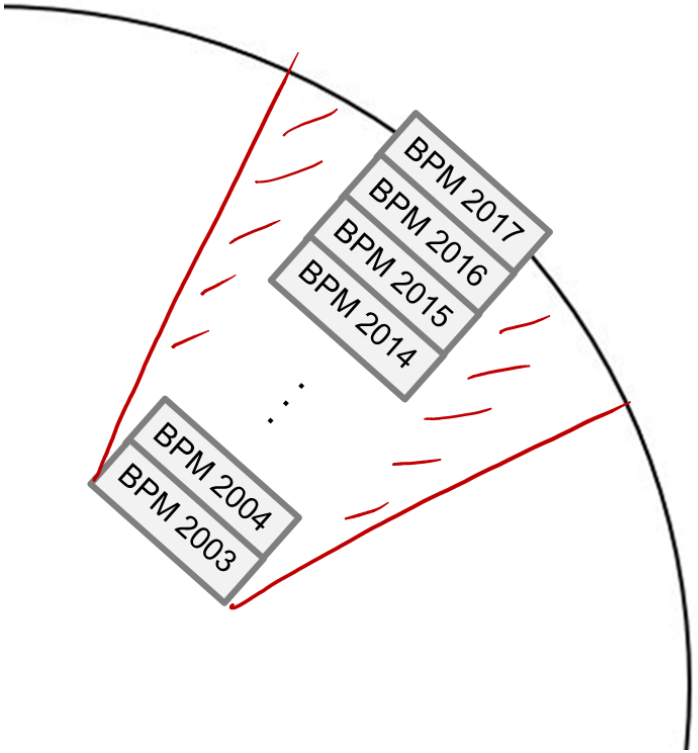
2. Strong theoretical findings
   No technical contribution, reject

3. Empirical evaluation
   No empirical evaluation, reject



Empirical Evaluation

- Is a cornerstone of good research
  - But it can kill innovation, if applied to all submissions
- Not our core competency
  - in writing
  - in reviewing
    - no ee, reject
    - ee, check.
  - “73% of my students would use my approach”
- Would the test-of-time award papers be accepted today?



Implications to BPM conferences

If we accept only papers with a strong empirical evaluation, we kill papers with novel ideas

We need novelty, and we need to be broad

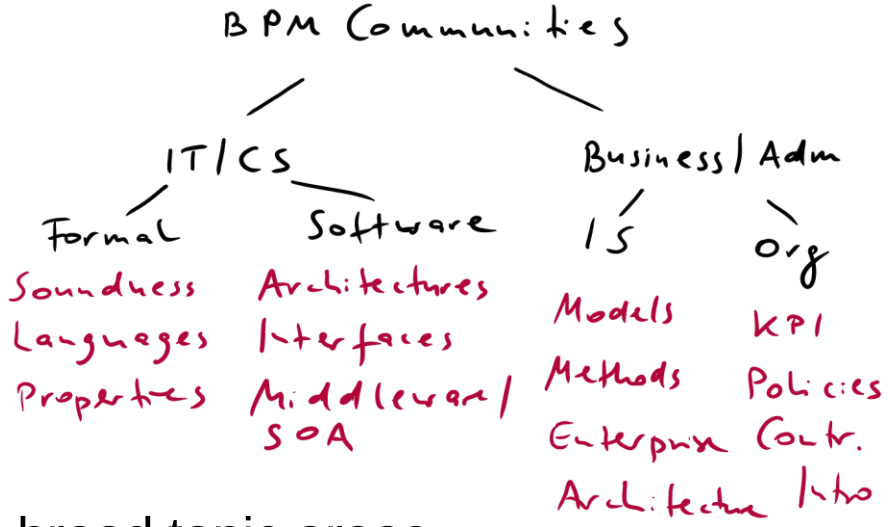
Not all BPM papers make it to a business environment

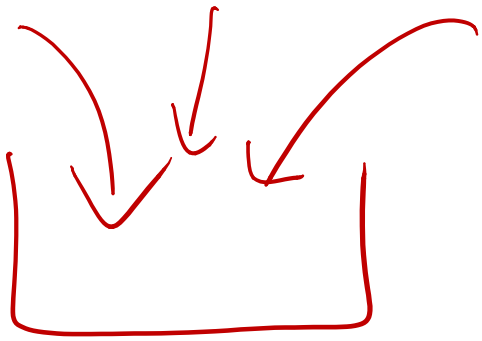
We have to be 5 years ahead of industry, not 5 weeks

Research is for creating knowledge, not revenue

This insight is not new …

- Efforts to broaden BPM
  - PC chairs from different fields
  - Add PC members from the broader BPM area
  - Senior PC, to avoid the "that's not BPM" problem
  - Topic Champions with specific, broad topic areas

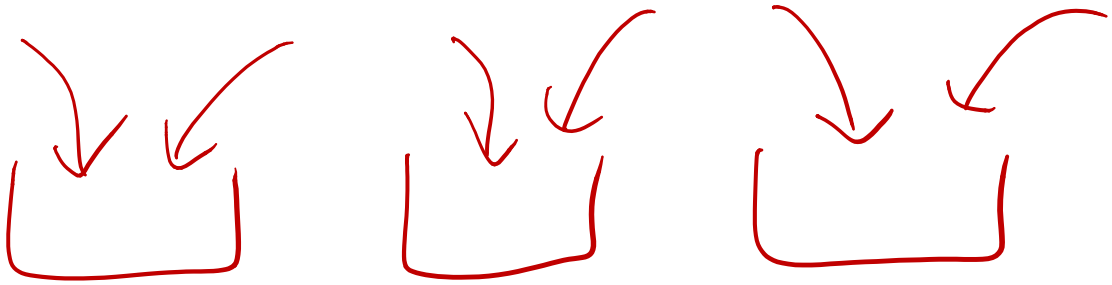




- All papers were thrown into one bucket

… but the conclusion is new

- Increase the diversity of accepted papers
  - Some papers are in core BPM, some are in broader BPM
  - Some papers introduce new theoretical findings
  - Some improve a finding and show its value empirically
  - Some investigate the business value of a finding



- Papers need to be thrown into different buckets
  - Evaluation criteria, chairs, and program committees

Thanks to

- The members of the Steering Committee
- Many colleagues of the – broader – BPM community

Steering Committee

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How to cut the Cake?

- Along the BPM Lifecycle?
- Based on
  Research Methods!
- BPM 2018 Structure
  - Track I: Foundations (Track Chair: Marco Montali)
  - Track II: Engineering (Track Chair: Ingo Weber)
  - Track III: Management (Track Chair: Jan vom Brocke)
  - Consolidation Chair: Mathias Weske

Track I: Foundations

- Focus
  - Investigation of the principles underlying BPM systems

- You should send your paper to Track I if:
  - It advances the state of the art in BPM through the study and development of formal methods, algorithms, concepts, and architectures
  - It tackles conceptual modelling issues of BPM systems and their environment
  - It investigates novel concepts of BPM systems through the development of proof-of-concept implementations

Computer science perspective

Track II: Engineering

- Focus
  - Design of artefacts and their empirical evaluation in context

- You should send your paper to Track II if:
  - It has a significant technical contribution
  - Its results are empirically evaluated
  - It reports on a system that you designed, with a maturity of at least a prototype that can be evaluated in context

Information systems engineering perspective

Track III: Management

- Focus
  - Investigation of BPM methods and techniques and their contribution to business value

- You should send your paper to Track III if:
  - It addresses a solution to an organizational challenge
  - It draws from real-world organizational endeavors in BPM
  - It extends the BPM body of knowledge to better contribute to strategy delivery

Management perspective

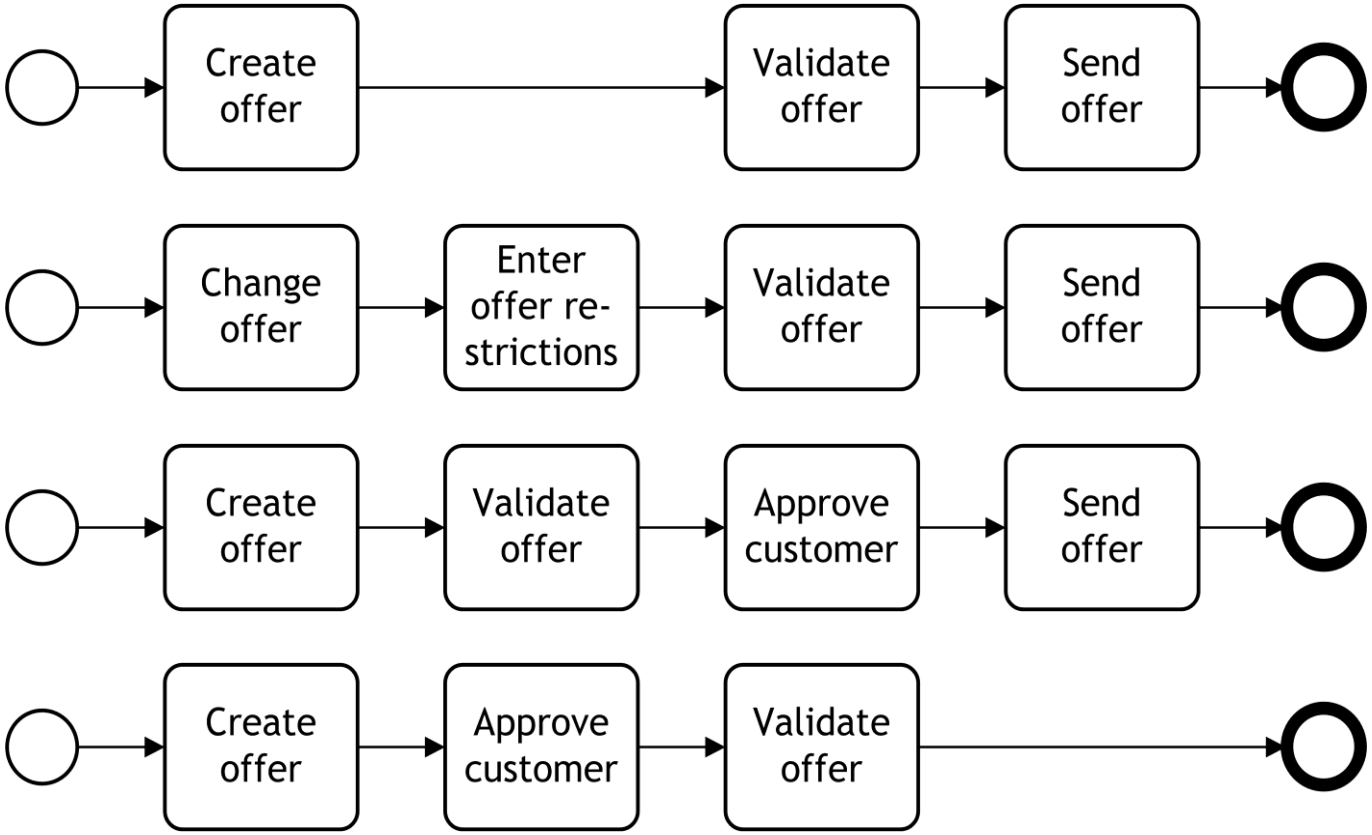
Chimera Case Management

- Healthcare processes @ Charité
  - Unfold over time
  - Are driven by staff members
  - Contain structured parts
  - Contain flexible parts
  - Come in variants

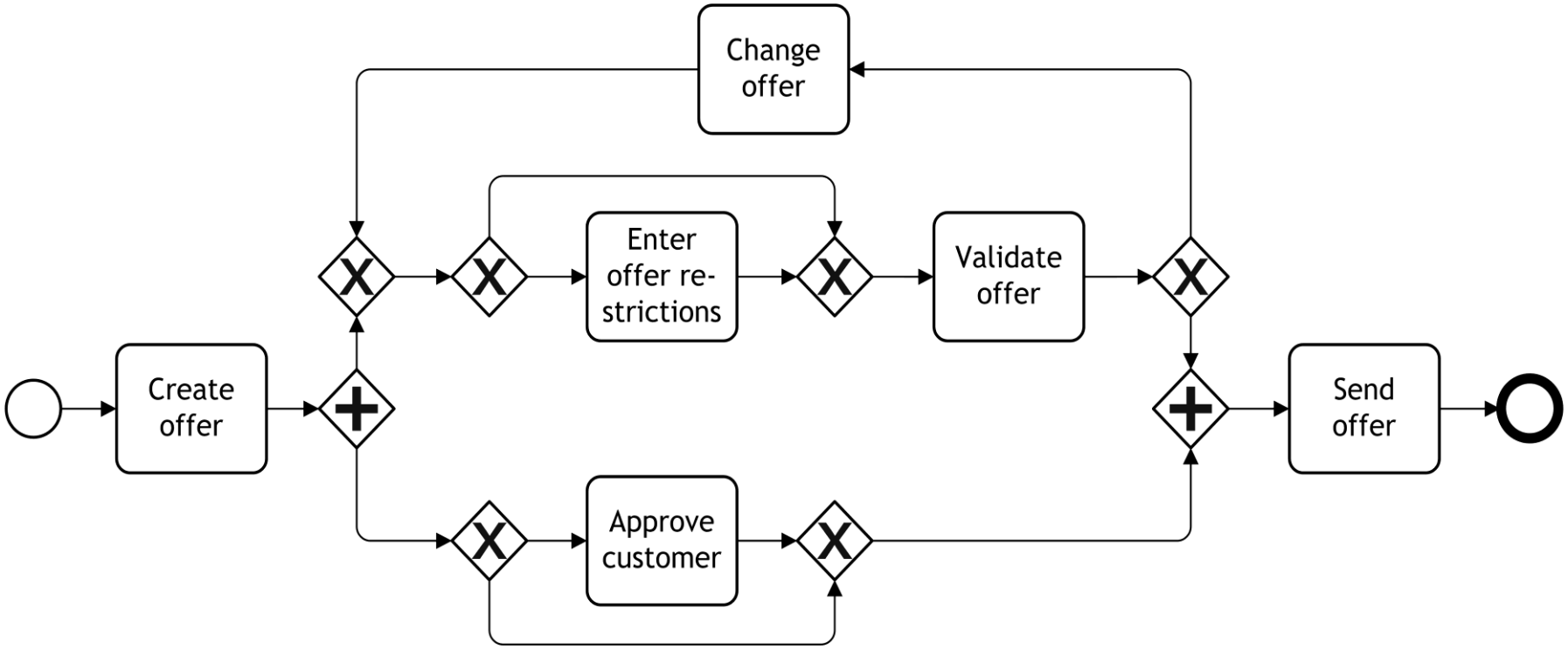
- Chimera: Fragment-based case management
  - Process fragments
  - Data classes and objects
  - Lifecycles

[Hewelt, Weske: BPM Forum 2016]

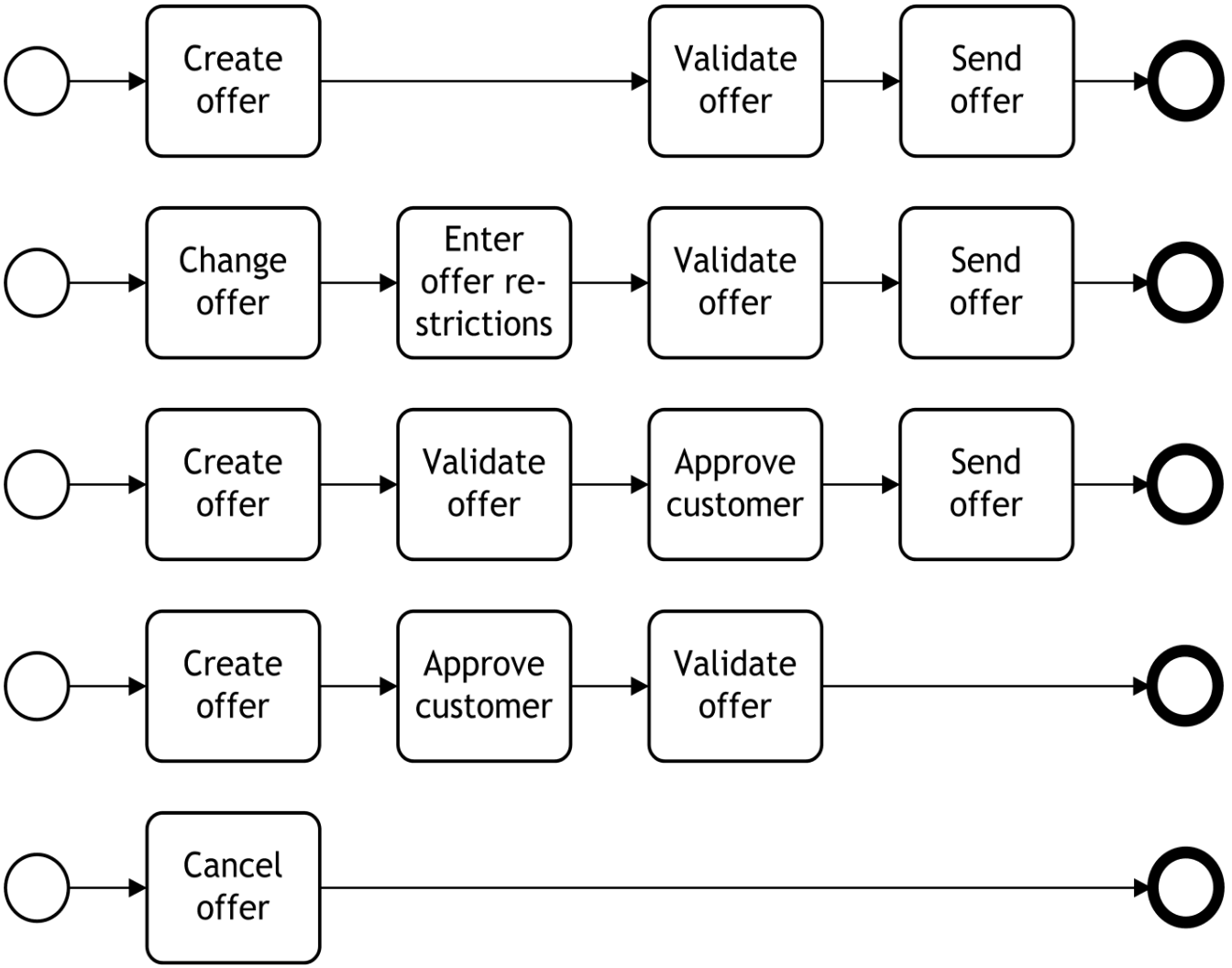
Many options available …



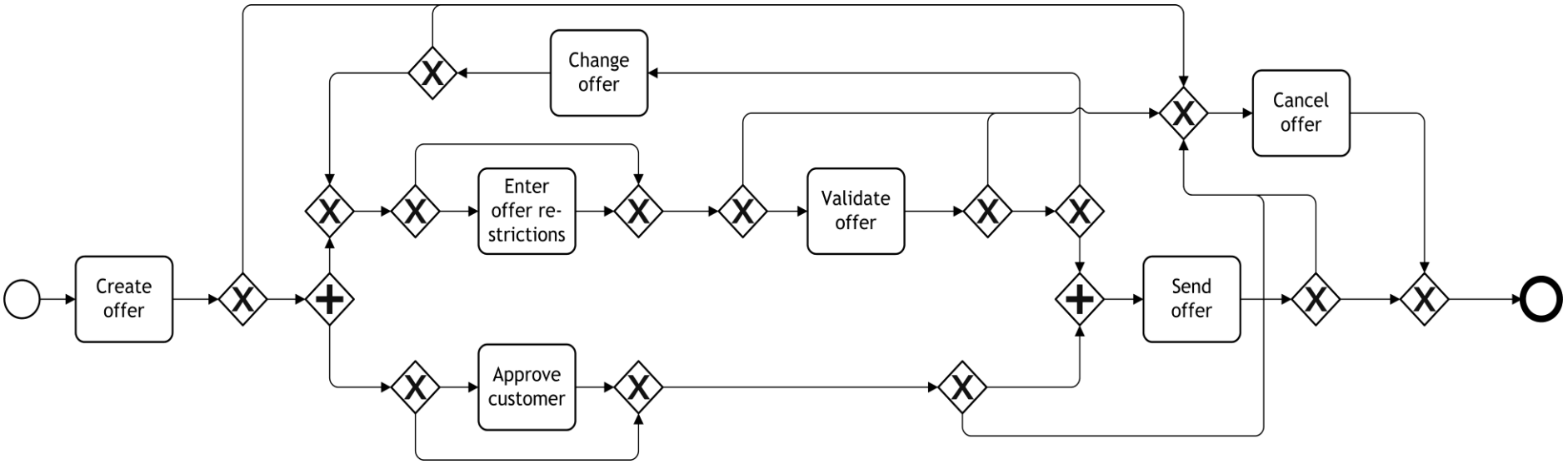
… combined to one process model



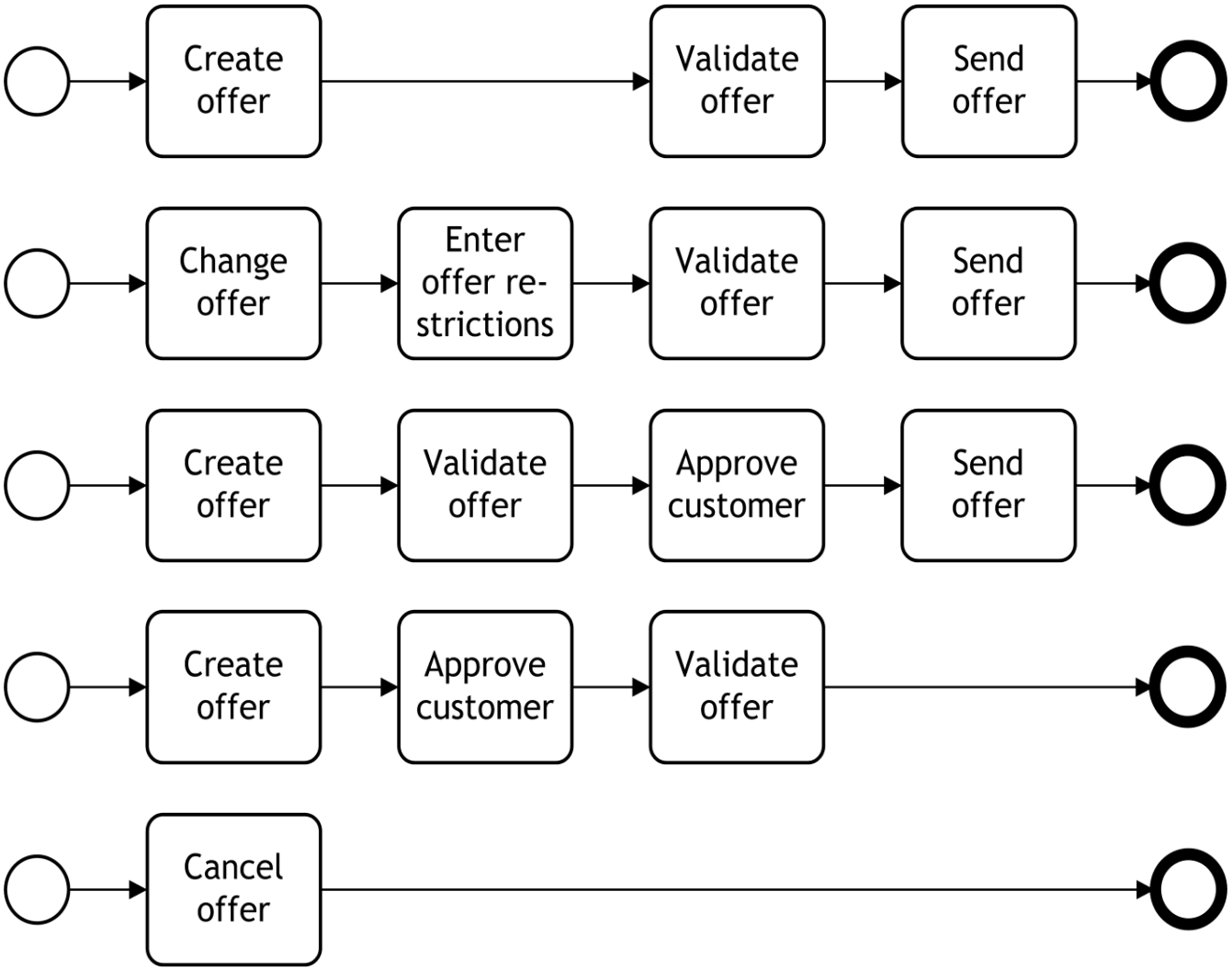
Adding an option …



… increases model complexity

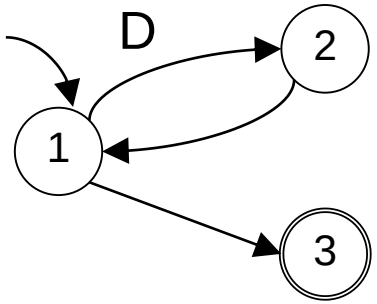


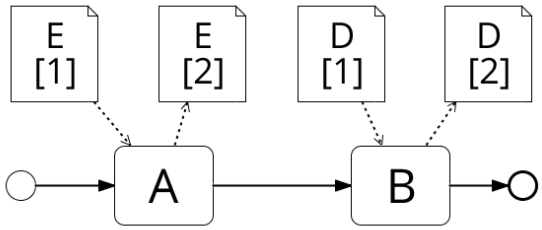
Key Idea of Chimera

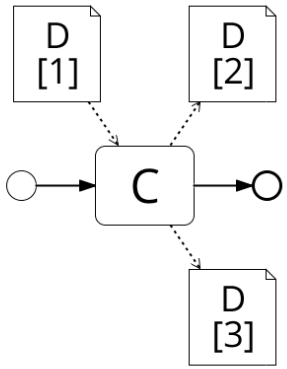


Chimera Approach

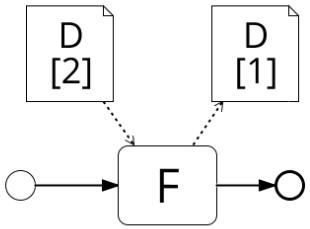
- Case model contains process fragments
  - Fragments are dynamically combined at runtime
- Case data represented by data objects
  - Attributes and object life cycles
- Cases have a termination condition

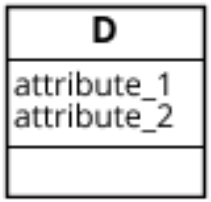


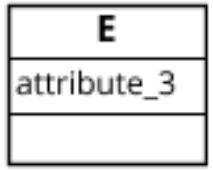




D[3] ∧ E[2]

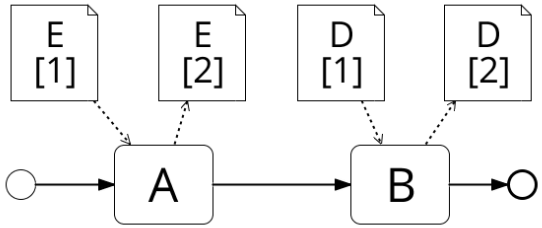


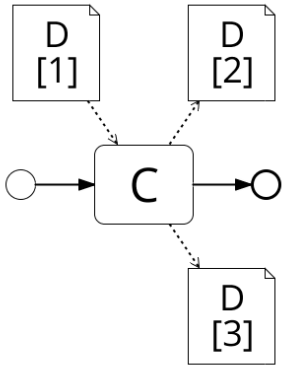


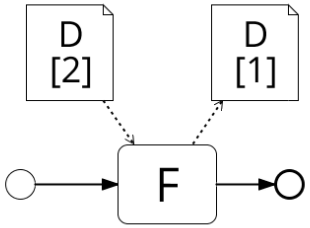


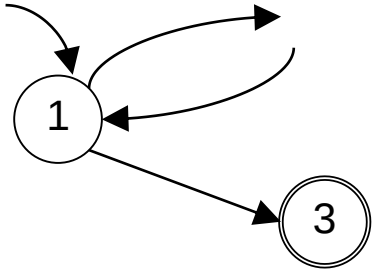
Chimera: Foundations

- Concepts, semantics, formal analysis









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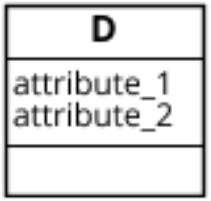
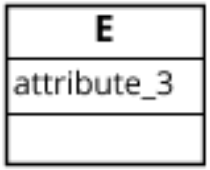
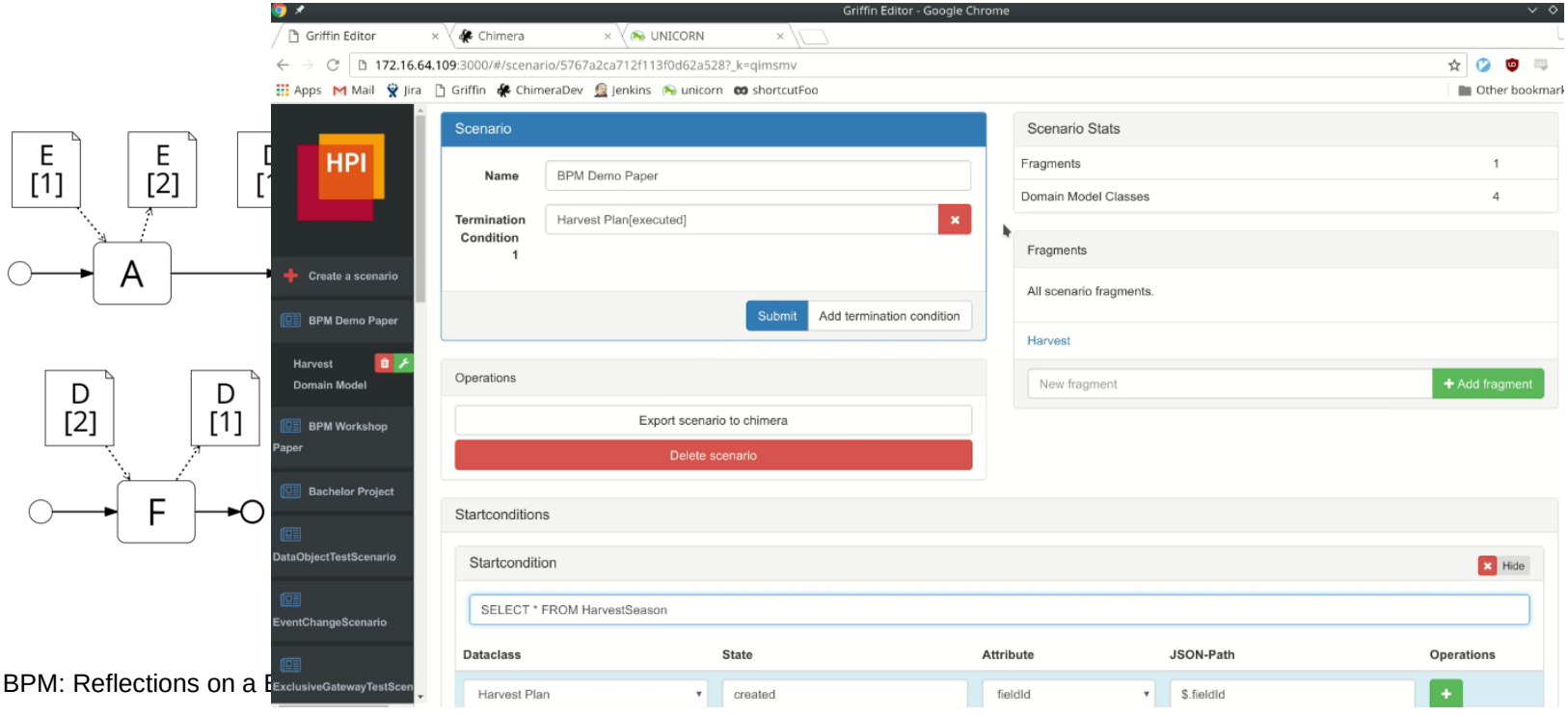




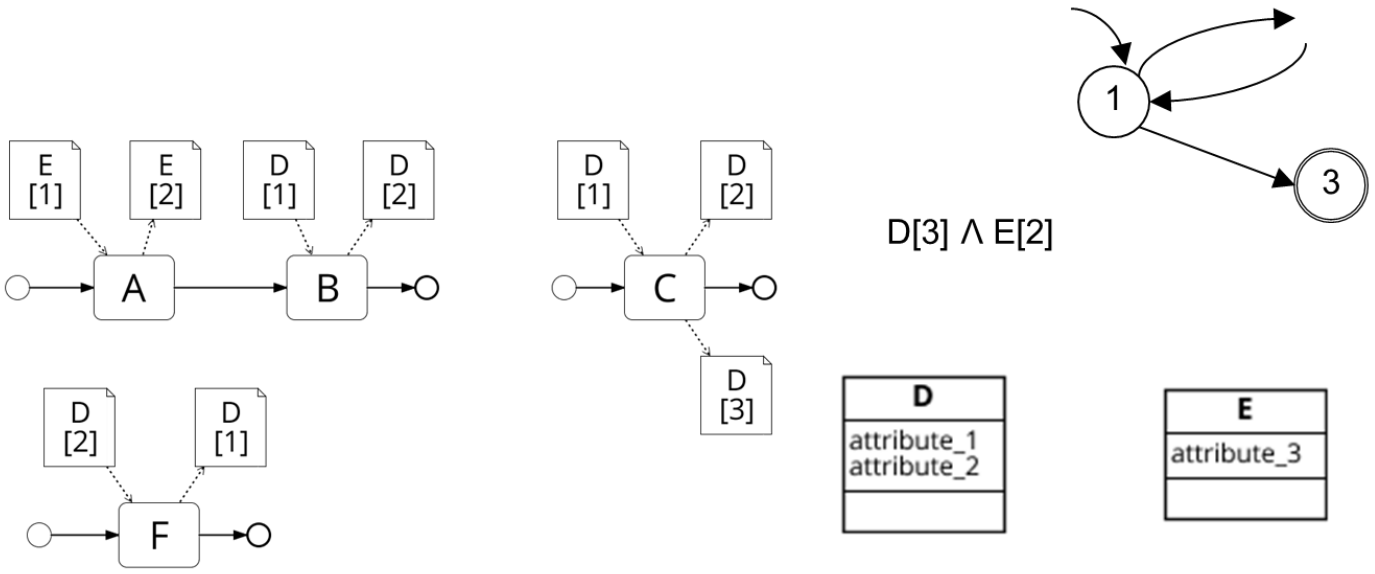
Chimera: Engineering

- Potential engineering topics
  - Analysis of change, maintenance effort
  - Investigation of process variant management
  - Understandability of case models and process models
  - Runtime evaluation of prototype in context

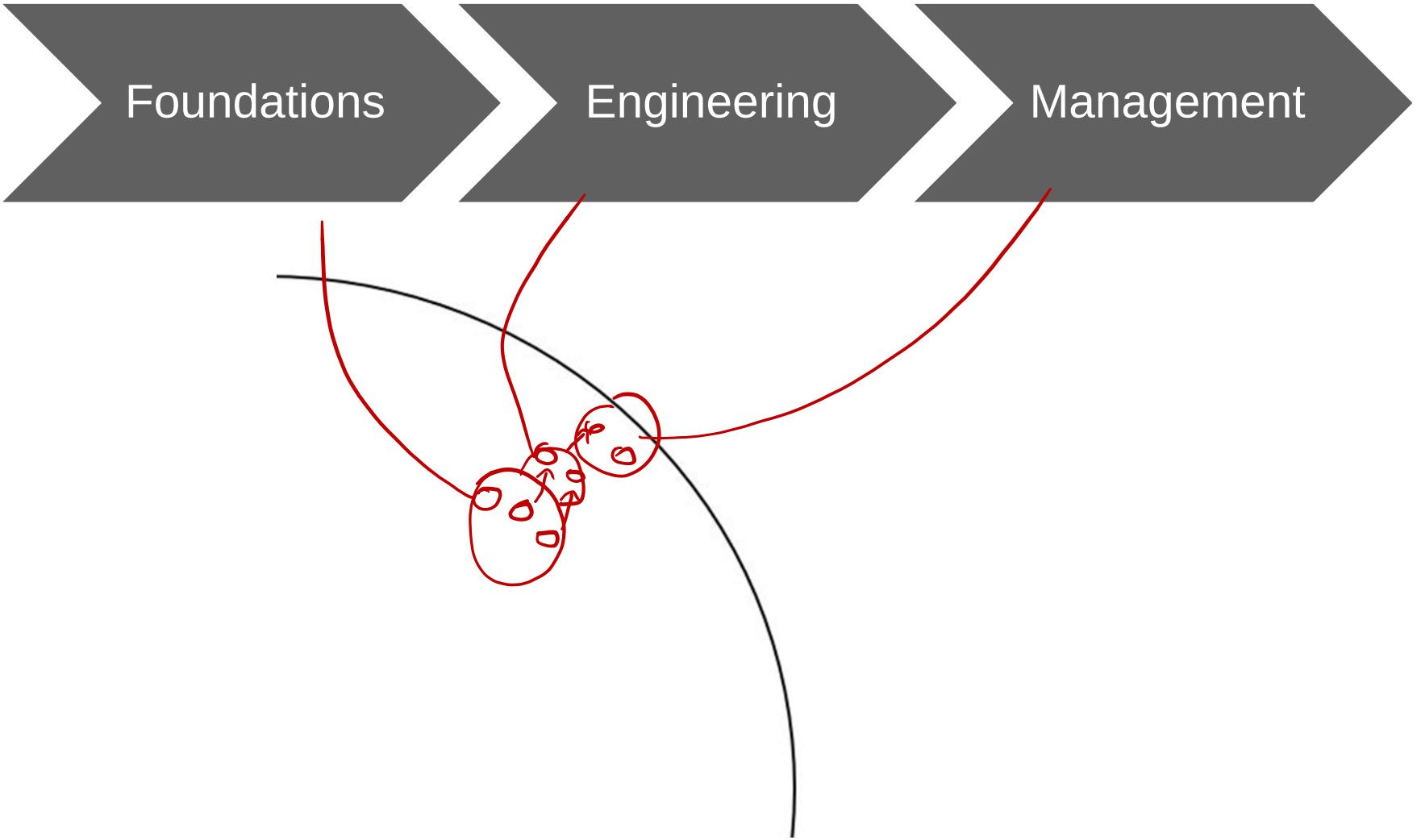


Chimera: Management

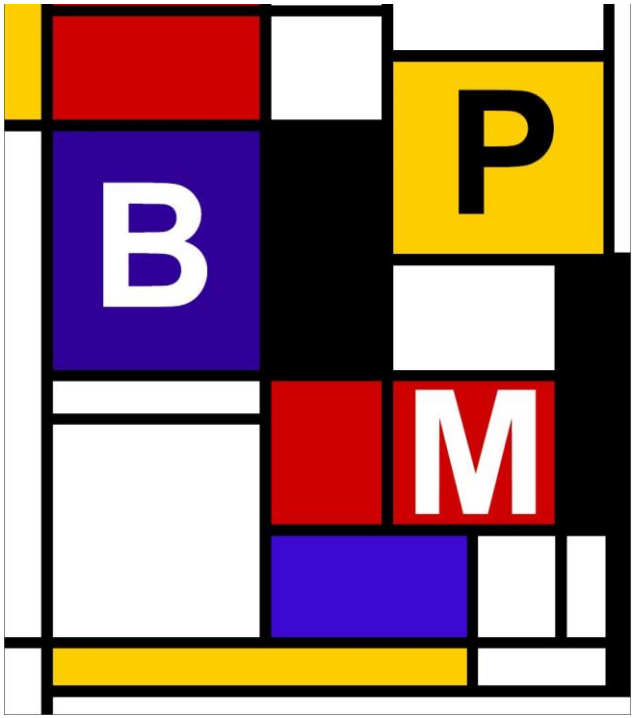
- Potential management topics
  - Which roles in the organization do we need to define, maintain, and execute process fragments?
  - How can an organization improve its agility with Chimera?
  - How can the approach be used to become more competitive?



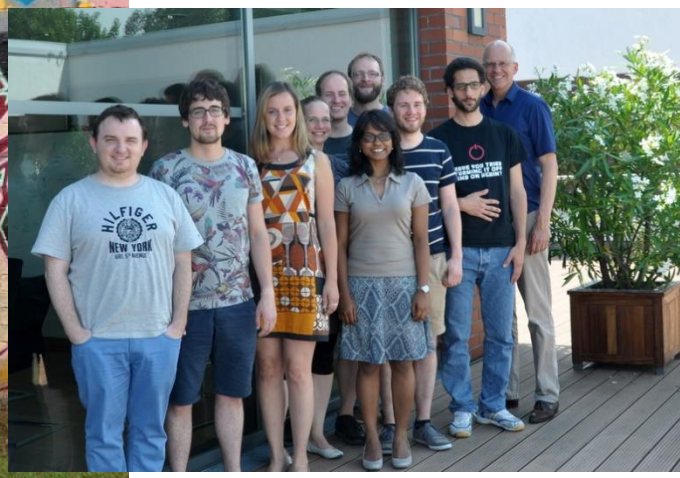
BPM Research Value Chain



Conclusions



- BPM is highly successful
  - Very well managed conference with a strong community
  - With risk of narrowing
  - Opportunity of broadening
- Track structure starting BPM 2018
  - Different buckets
  - Positive feedback
  - More continuity than it might look
- But
  - Not all questions are answered
  - We ask for your feedback and support



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