

# Industrial Adoption Breakout Group

- Participants
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# Industrial Adoption

- Concrete use cases of MDE in companies
  - Can we find failures of the use of MDE ?
    - What was the reason of these failures ?
  - Can we find successes of the use of MDE ?
    - Why was it successful ?
    - Which MDE tools and techniques were used ?
    - What added value did it bring ?
- Success stories
  - Automotive, embedded systems, telecommunication
  - Web application development: Ruby on Rails, AndroMDA
  - more in the community of Matlab - Simulink, and much less in the UML community
- BMW use case of using MDE
  - Use models for formally specifying the system
    - Reduces ambiguity, improves quality of the specification
  - The actual system is developed by third parties
  - Use of AutoSar

# Industrial Adoption breakout group

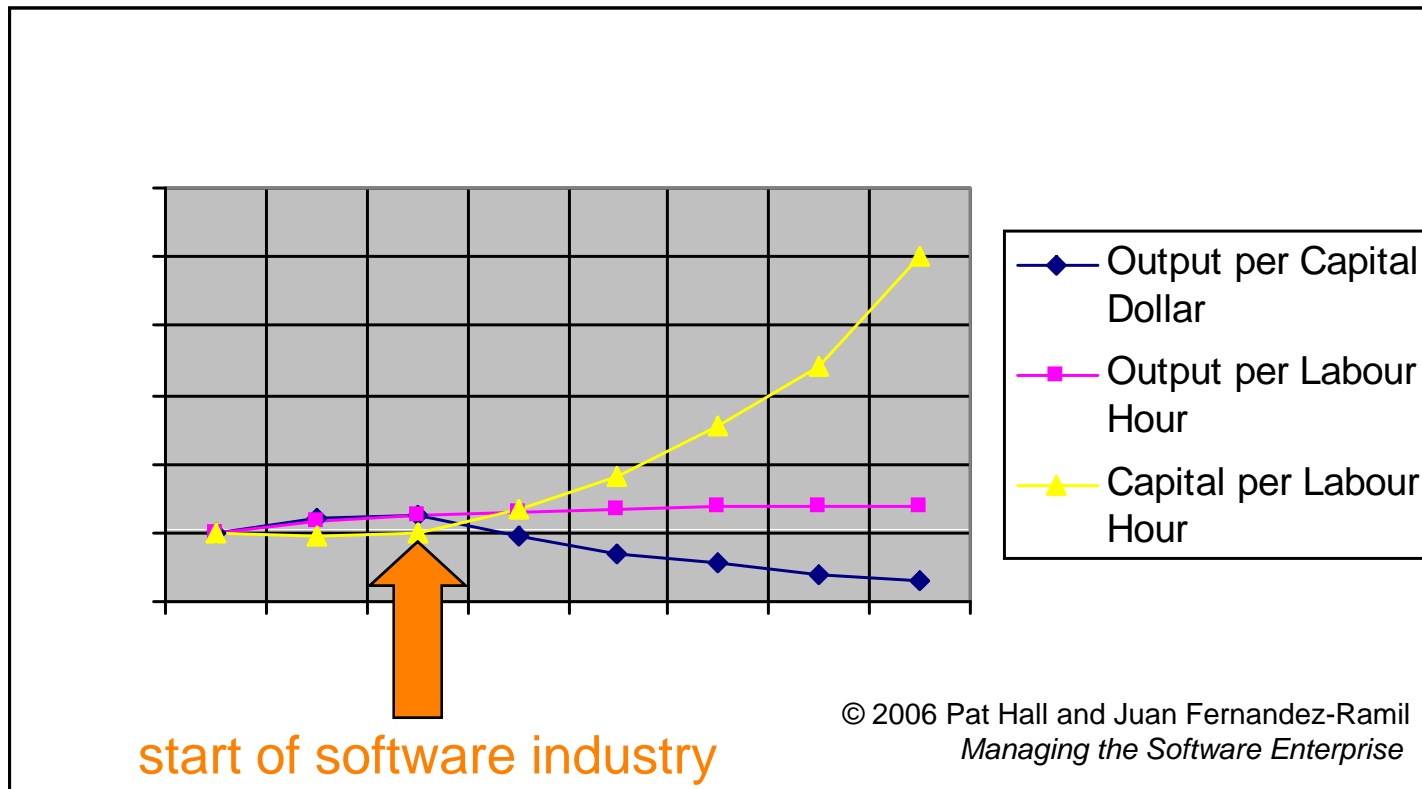
- Why are software companies not using MDE?
  - MDE works for specific problems in specific domains
  - Some companies *are* using MDE
    - E.g., automobile industry, insurance, telecommunication
    - They always use models in a specific domain
    - A universal modeling language will never work in industry
  - There is a threshold before you can use it effectively
  - Some companies do not use MDE, they only use models for communication
  - Some companies are using software that is decades old (e.g. COBOL in banks), making it very difficult to migrate to MDE technology
  - Technology transfer from academia to industry is very difficult
    - companies need to open up their minds to accept new ideas
    - The only way is by direct contact: “I scratch your back, you scratch mine”
    - Possibility: industrial PhD students => programmes of people in academia going to industry for a certain time and vice versa.

# Industrial Adoption

- How can MDE bring value to industry?
  - Possible added value
    - Reduce cost
    - Productivity should be improved
    - Maintenance should be easier
    - Performance should not be sacrificed
    - Problems / inconsistencies can be found earlier in the life cycle
  - Industry needs to be convinced of this added value: can only be done by empirical studies
    - How can we access data from industry? Only by direct contact
  - We need to understand *the process* that companies use in order to be able to improve those parts of the process that are suitable for MDE

# Has software been beneficial for industry ?

- Software has not yet lived up to its promises
  - Increase in cost; reduction of productivity



# Has MDE been beneficial to industry?

- Does it lead to an increase or decrease of
  - Productivity ?
  - Complexity ?
  - Quality ?
- How to reduce the accidental complexity arising due to MDE technology ?
- Need empirical studies to evaluate/assess this