

# *Advantage of Combining The Archimate, UML and BPMN standard*

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Philippe Desfray – SOFTEAM & Modeliosoft

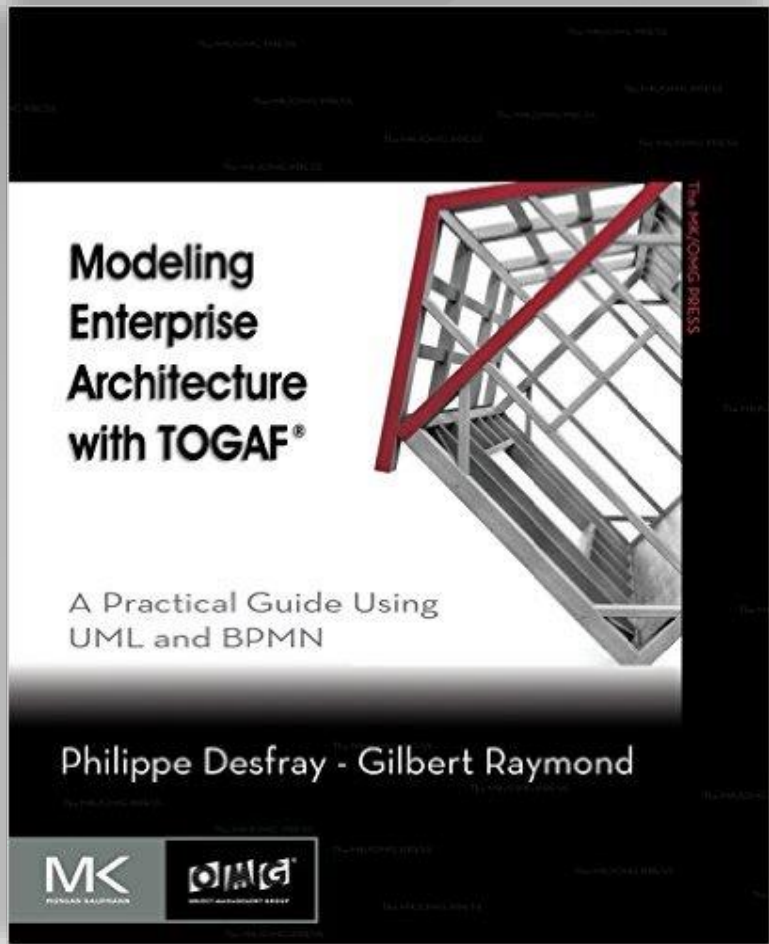
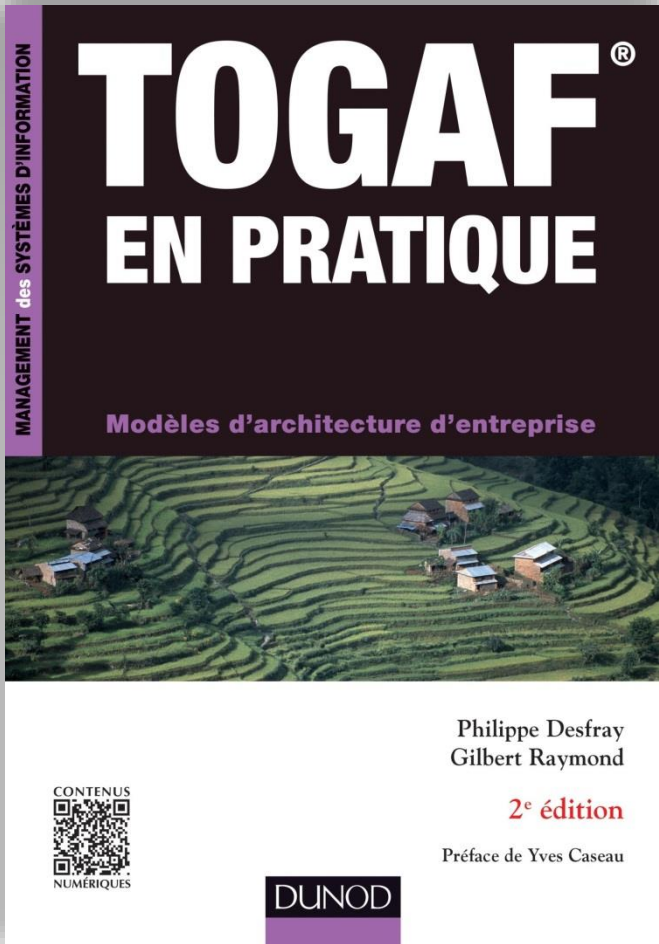


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# Who we are

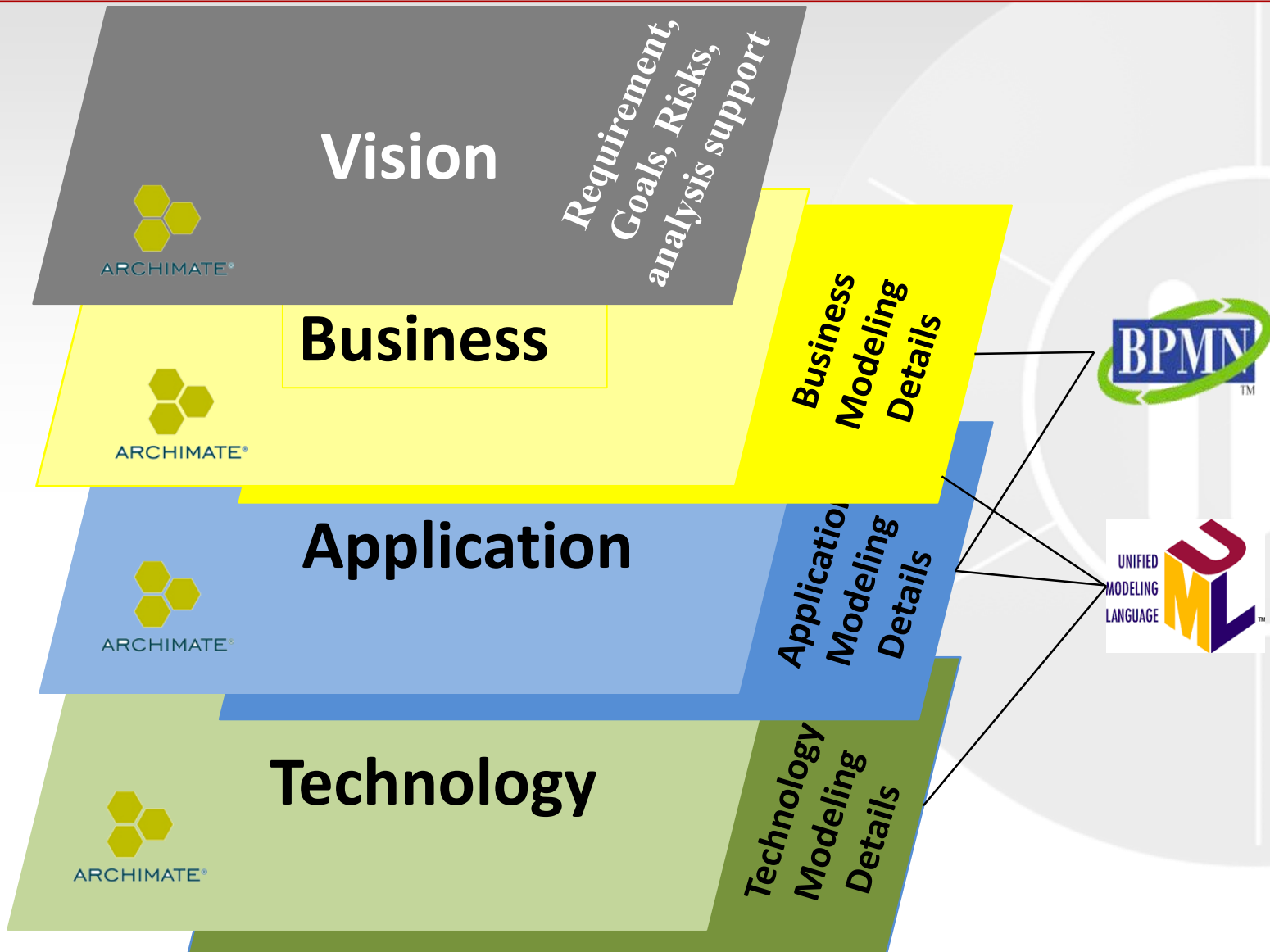
- Philippe Desfray
  - VP for R&D SOFTEAM, Modeliosoft
  - Contributor to the UML standard since the beginning
- SOFTEAM
  - Consulting company, 1000+ consultants
  - Provides TOGAF training & consulting
  - Since 1989
  - Open Group & OMG member
- Modeliosoft
  - Editor of Modelio (prev Objecteering – 1990)
  - Limitless modeling (Modeling scope, repository distribution, nb of users, model exploitations)

# Book on Enterprise Architecture modeling with TOGAF



Developed by the SOFTEAM consulting team

# Covering the entire Enterprise Architecture Scope



# Advantage of using Archimate + UML + BPMN

## Three widely used modeling standards

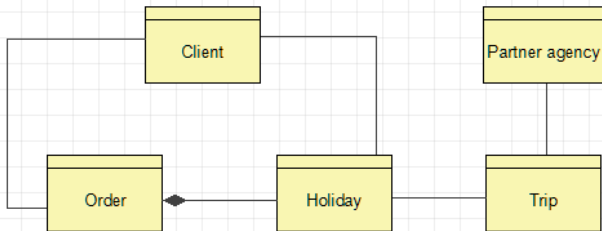
- **Archimate** is dedicated to Enterprise Architecture, Mature, at a coarse level of granularity, and flexible
- **UML** provides great level of detail, and additional modeling technique
  - Use Cases modeling
  - Detailed data modeling support
  - Detailed architectural modeling, link to software application modeling
- **BPMN** provides a complete business process modeling support

## Advantages of a combined usage

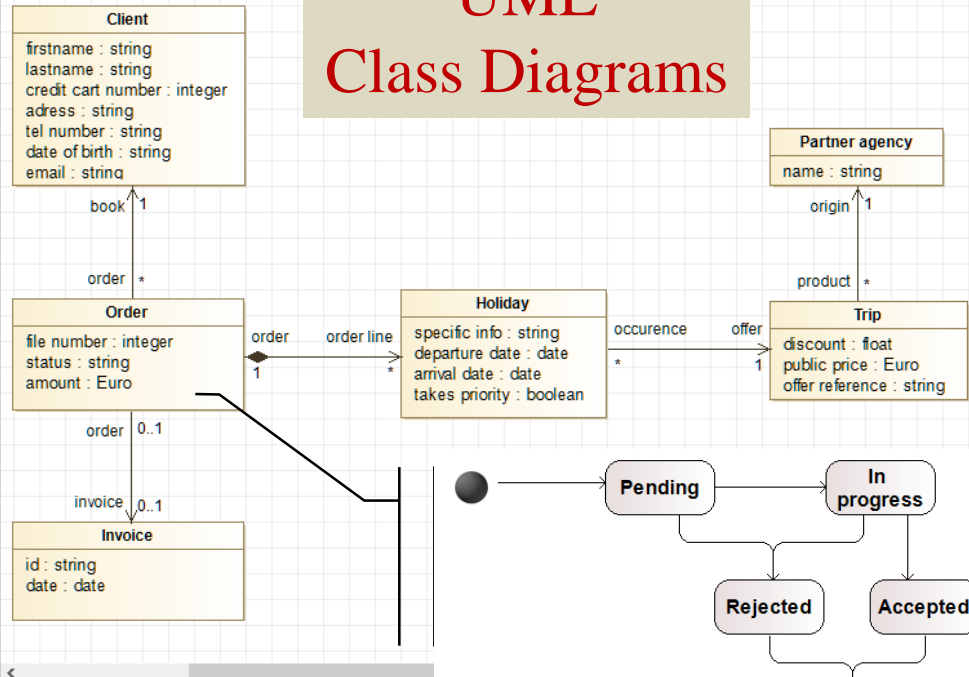
- Broad modeling scope, complete coverage of IT + EA
- Complete traceability and impact analysis support
- Comprehensive coherent EA repository : enabling Enterprise Continuum

# Archimate + UML Example

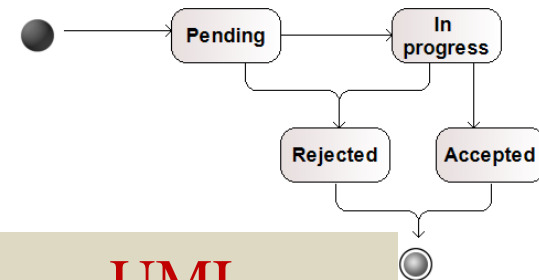
## Archimate Business Objects



## UML Class Diagrams

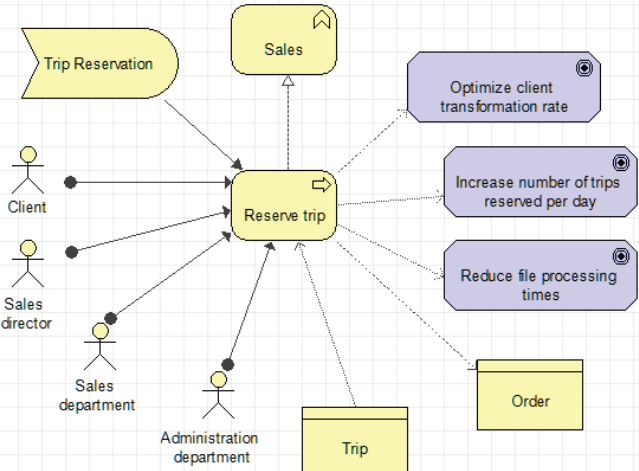


## UML State Machines

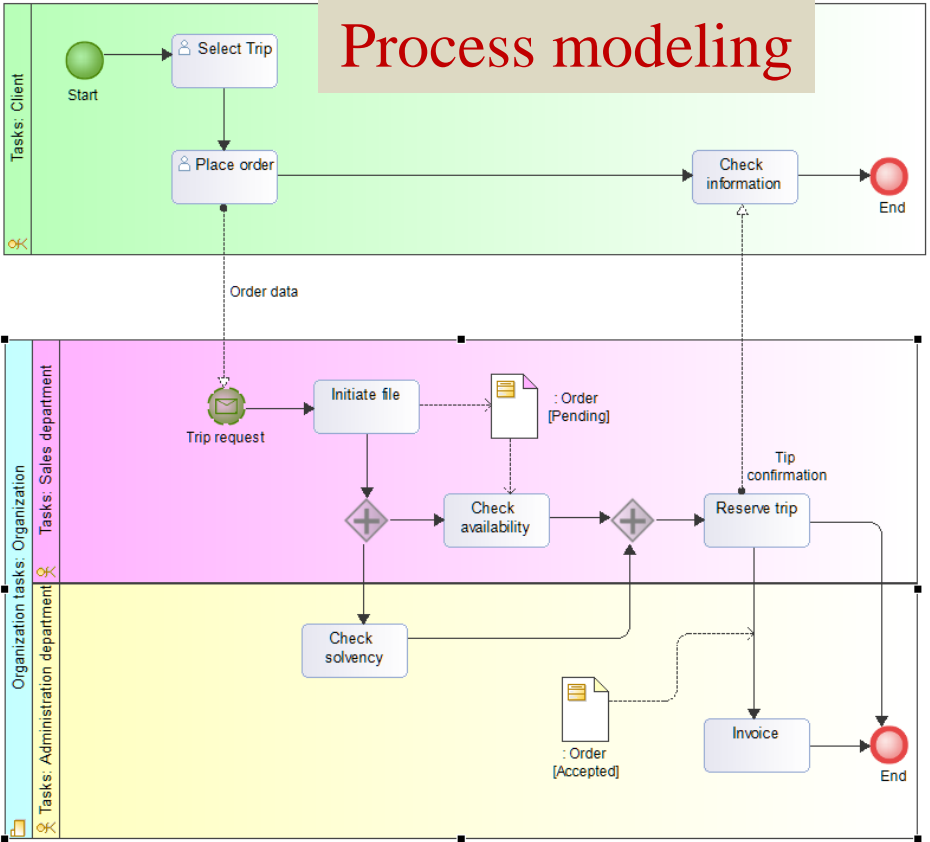


# ARCHIMATE + BPMN Example

## Archimate Business Process



## BPMN Process modeling



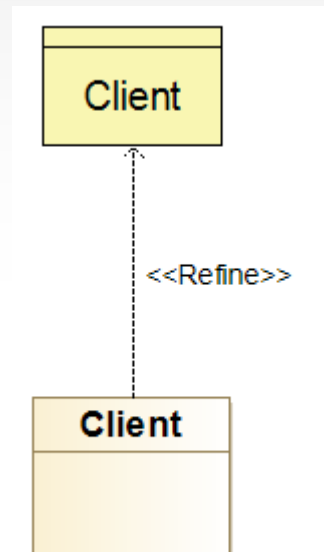
# Use Cases for Archimate + UML + BPMN

- Enterprise Architecture and technical Architecture
- Detailed Business Process Modeling
  - Archimate for a process map, BPMN for detailed BPM
- Data modeling (whatever level: Conceptual, Logical, Physical)
- Reverse engineering, and high level E/A modeling
  - Or starting from legacy models and moving to high level models
- Use Case modeling
  - Detailing Business collaborations
  - Modeling use cases for Application components
- State machine modeling
  - Example: specifying the different states of a business object



# Mapping through refinement

- Any model Element from Any metamodel (UML, BPMN, Archimate) can **refine** any other model Element



Archimate Business Object

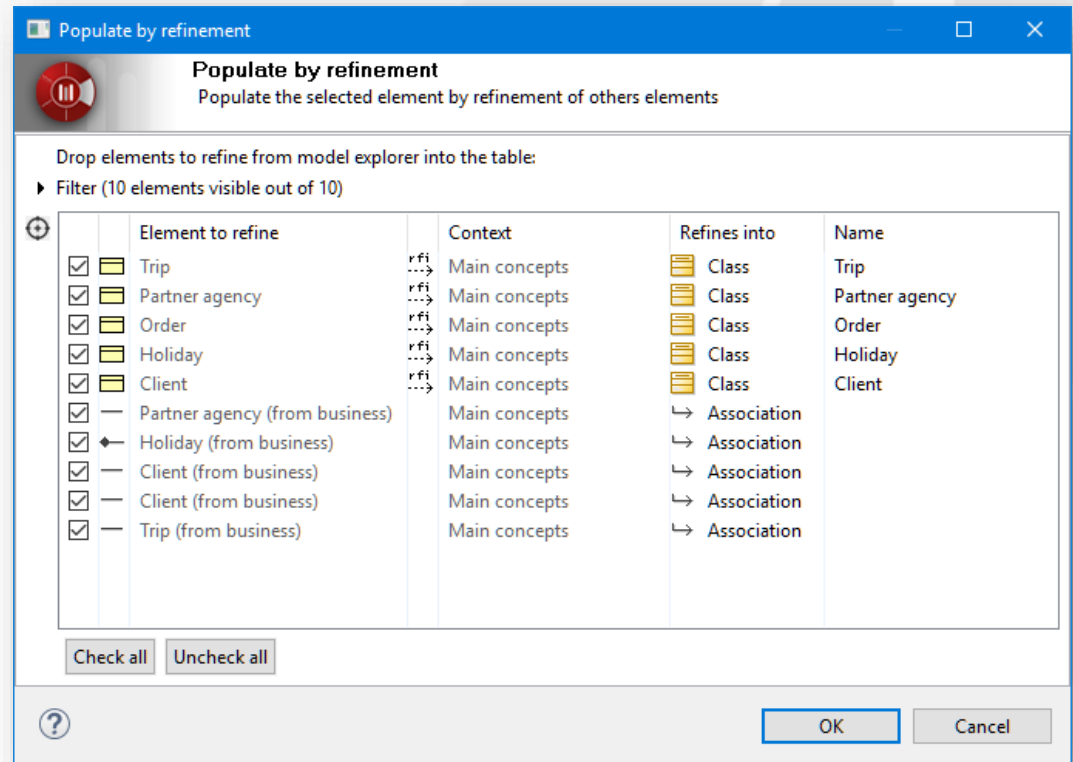
UML Class

# Mapping support

- What can be mapped?
  - Obvious mappings: Ex Actor / Actor ; Business Object / Class
  - User defined mappings: Ex Business Collaboration / Use Cases
  - No mapping: Ex Capacity

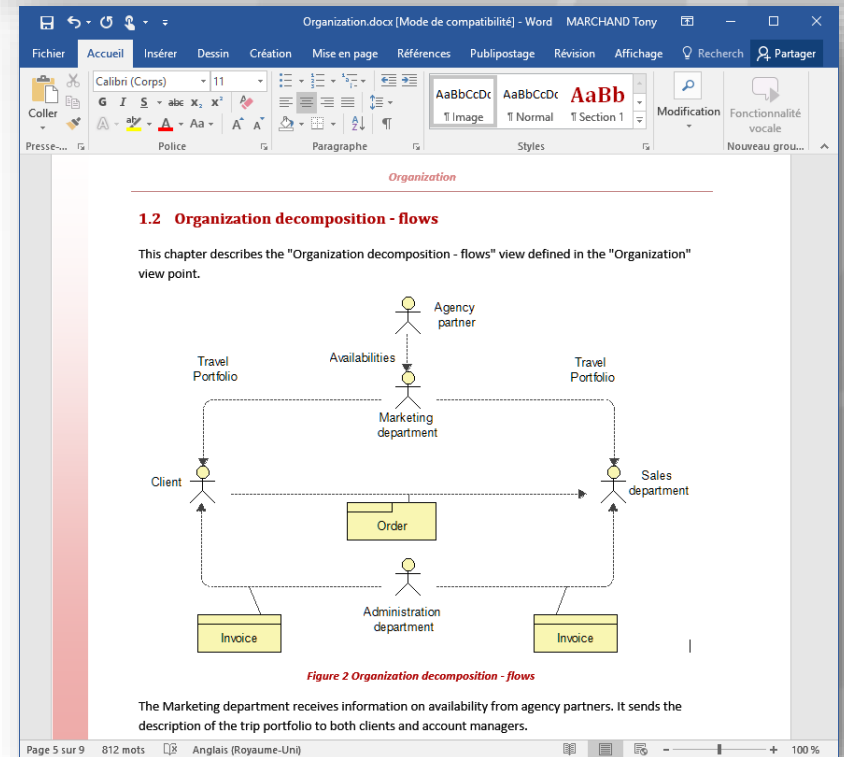
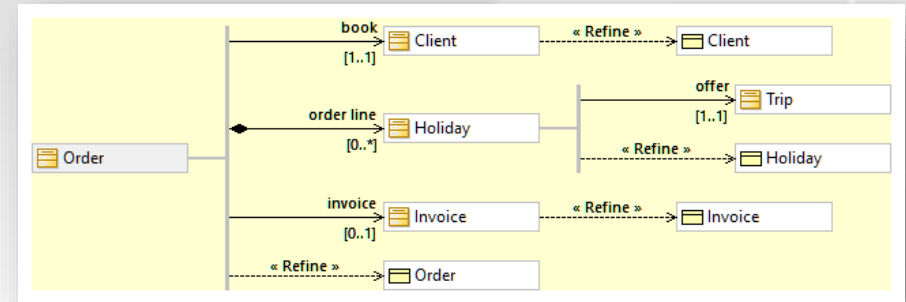
- Wizards

- Automating obvious mappings
- Helping User defined mappings



# Mapping exploitation

- Traceability management
  - Traceability editors
  - Traceability reports
  - Matrixes
- Impact Analysis
- Combined documentation generation



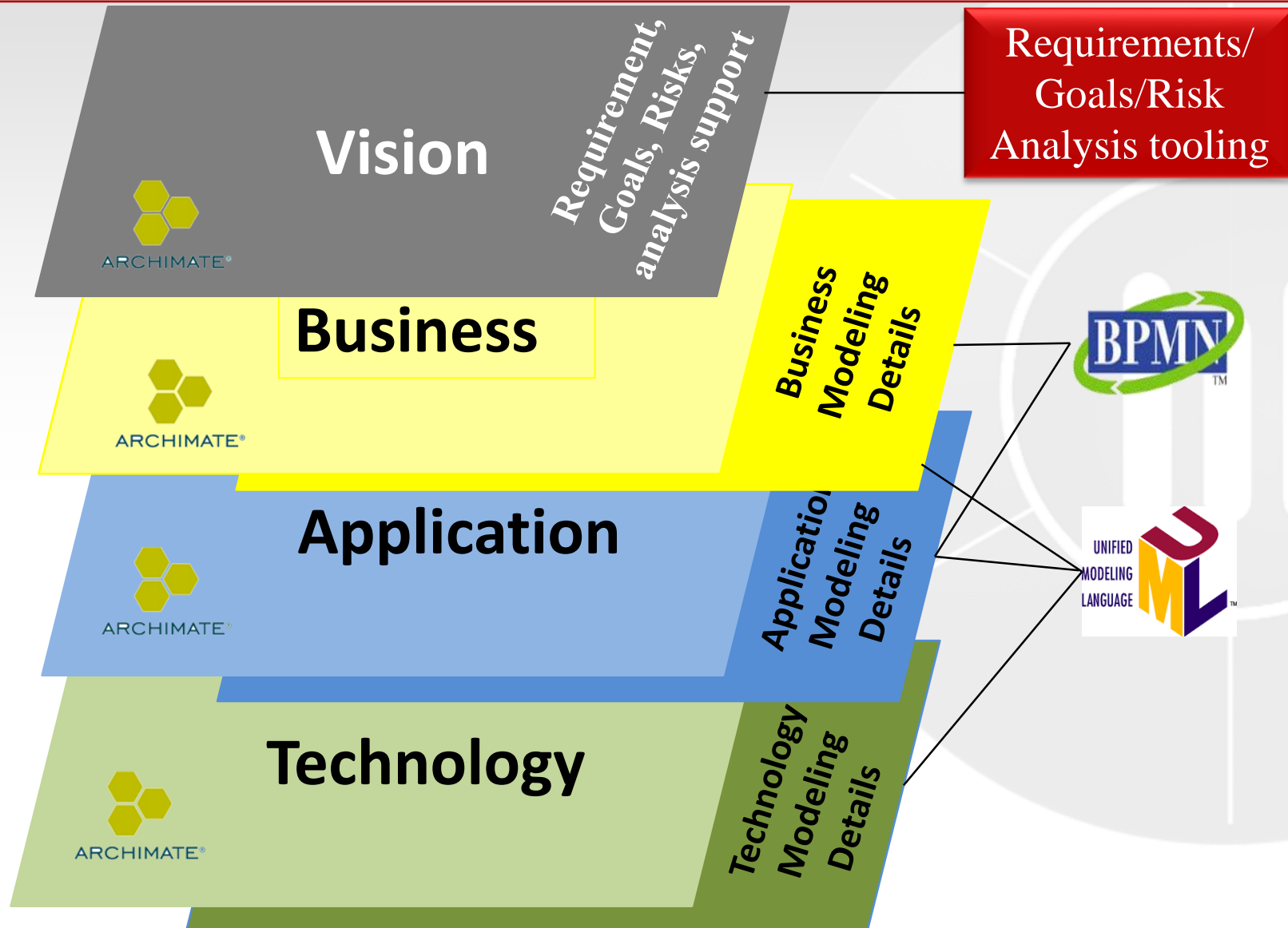
# Customizing the modeling approach

- Need for an adapted EA modeling metamodel
  - Classical approach for traditional EA modeling tools (generic support)
  - Adapting the EA approach to the Enterprise's context, expertise and norms
    - A large number of EA projects have their own EA modeling metamodel.
- Take the opportunity of Standard modeling languages
  - Do not reinvent the wheel
  - Build your specificities by reusing off the shelf elements
- **Profile** is a UML/Archimate shared extension mechanism
  - Mechanism for extending standard metaclasses
  - Lightweight, Flexible and Dynamic

# Alternative Approaches to the combined standards support

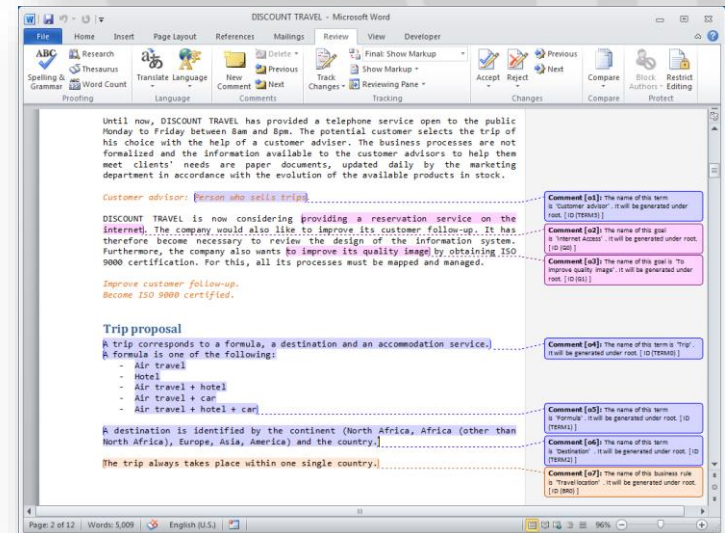
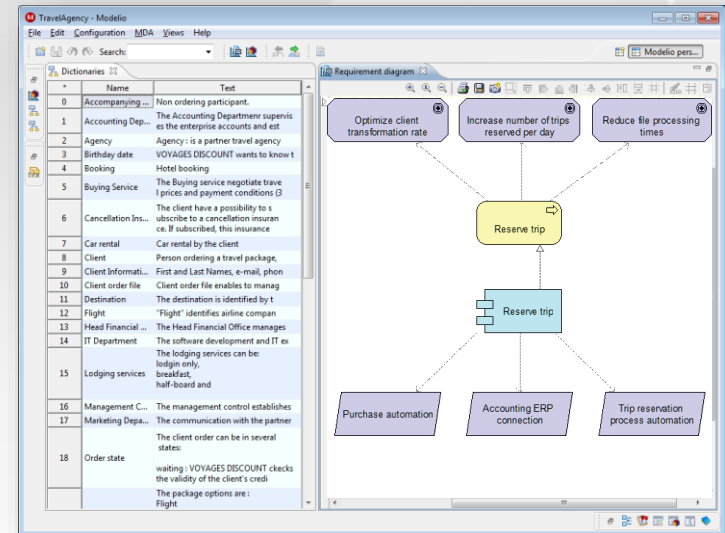
- UML profile for Archimate (OMG standard)
  - Enable Archimate support by UML tools
  - Do not provide a good graphical support of Archimate
  - Do not provide a complete support (ex « grouping »)
  - Do not provide a semantic accurate support
  - Need a dedicated support of wizards & traceability
- UML profile for TOGAF + BPMN
  - As in the book « Modeling EA with TOGAF »
  - Provides an integrated consistent support equivalent to Archimate + UML + BPMN
  - Complete & Accurate TOGAF support, No mapping needed
  - But it is not Archimate

# Complete coverage - What is missing : Vision detailed support



# Requirement, Risk and Goal Analysis... ...integrated into models

- Support of vision and requirements definition integrated into the tool
  - Goals, Requirements, Terms, Business rules, Risks
- Graphical, spreadsheet editors and forms
- Integration into models: UML, BPMN, ARCHIMATE.
- Traceability and impact analysis
- Extraction from Word or OpenOffice documents
- Coupling with Excel and external tools
- Documentation generation
- Property settings



# Modelio Archimate Architect : Extraordinary Capacities



## Usual

- ✓ ArchiMate Modeling
- ✓ Document Generation
- ✓ Model exchange (ArchiMate XML)
- ✓ Customization



## High End

- ✓ Spreadsheets & matrices editors
- ✓ Methodological support (viewpoints, process map, application maps,...)
- ✓ Customized document generation
- ✓ Traceability management
- ✓ Work Group support \*
- ✓ Version Management \*



## Exclusives

- ✓ Integrated Native ArchiMate & UML & BPMN models
- ✓ ArchiMate/UML & BPMN mapping management
- ✓ Integrated Requirement analysis support
- ✓ Comprehensive traceability & impact analysis
- ✓ Multi-Projects, Organizations Federations \*\*
- ✓ Portfolio management \*\*
- ✓ Centralized Web tool administration \*\*
- ✓ Web based requirement analysis support \*\*\*



**Open source distribution**

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**The only open source modeling tool supporting  
ARCHIMATE + UML + BPMN**

[www.modelio.org](http://www.modelio.org)

# Modeliosoft Solution : Modelio BA - Archimate

- Enterprise solution for Enterprise Modeling with standards
  - Workgroup support,
  - Vision support : Requirement analysis, Goals, Risks, ...
  - Documentation generation
  - Matrixes editors
  - Process map, application map, flow maps support
  - Archimate/UML/BPMN mapping management
  - Multi projects, roles, distributed repositories, portfolio management
  - Modelio Studio to define Modeling extensions & customizations

[www.modeliosoft.com](http://www.modeliosoft.com)

Thank you for your attention

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Any question?