



Business Informatics Group

# Business Informatics

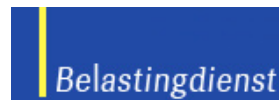
From practice to theory, and back; again and again

Henderik A. Proper





Radboud University Nijmegen



# Agenda

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Business Informatics

Practice and Theory

ArchiMate

GEA

Reflections

# Agenda

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## ▶ Business Informatics

Practice and Theory

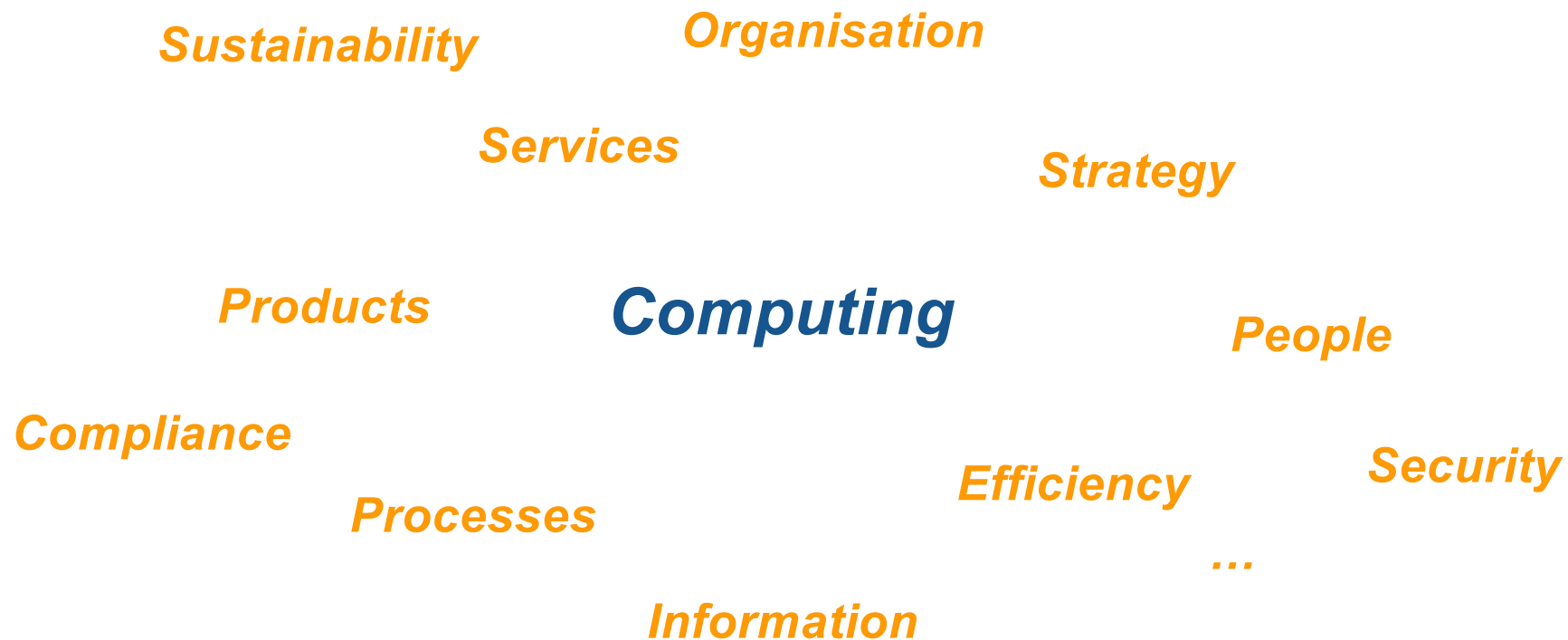
ArchiMate

GEA

Reflections

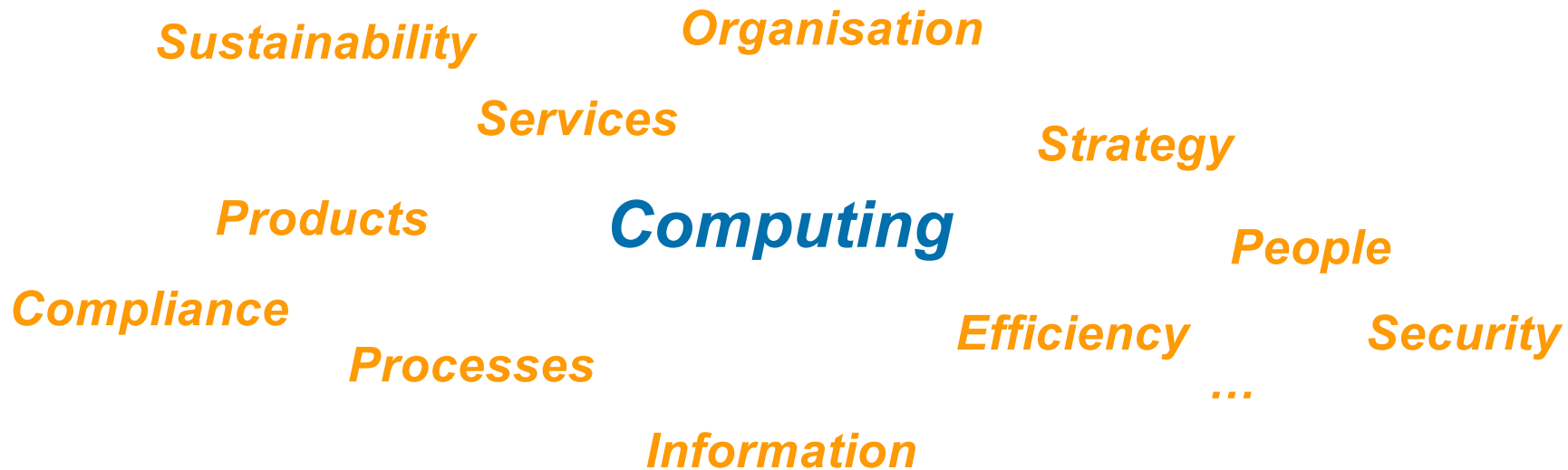
# Business Informatics; Computing in context

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# Business Informatics; *Computing in context*

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A need to study, analyse, explain, define, design, ...

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*What are our mission critical applications?*

*What applications do/shall we have?*

*How do/will applications support our processes?*

*Are we GDPR compliant?*

*How can we improve our performance?*

*What are our resources at risk?*

*What is the meaning of all that data?*

*....?*



# Business Informatics; *Computing in context*

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A need to study, analyse, explain, define, design, ...



# Business Informatics; *Computing in context*

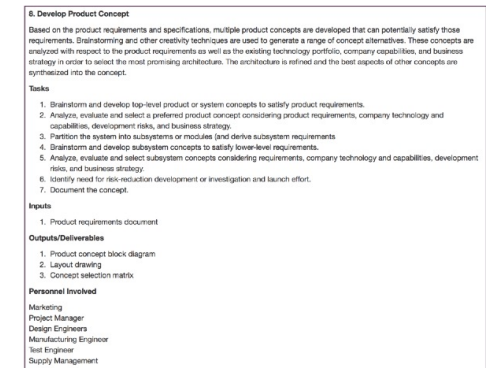
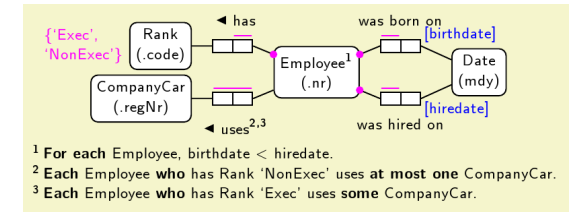
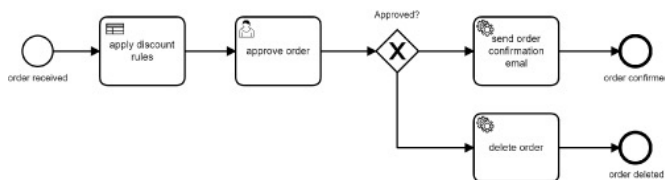
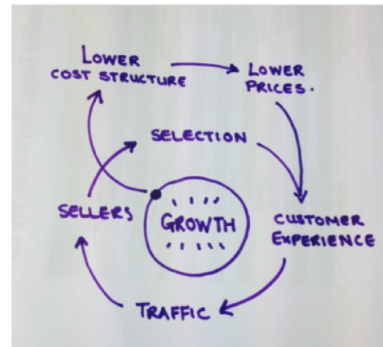
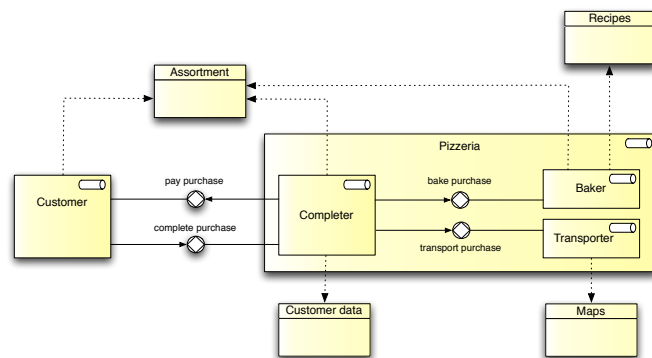
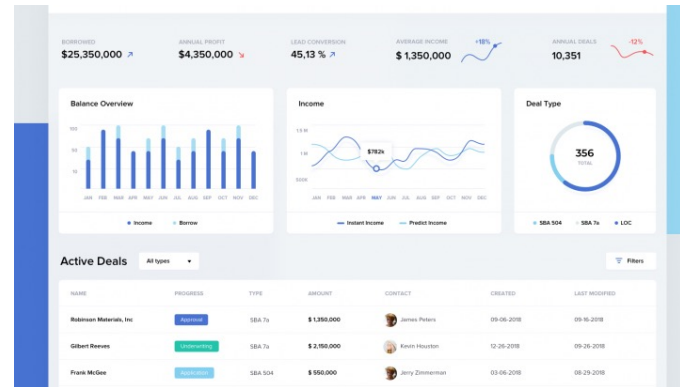
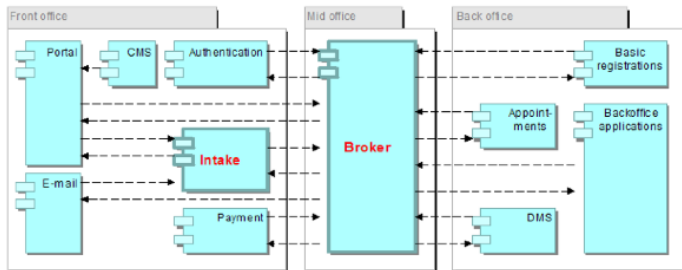
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A need to study, analyse, explain, define, design, ...

*A need for models!*



### E.2.2.2.3 Rule Set -- Charging / Billing / Payment Rules

It is permitted that a rental is open only if an estimated rental charge is provisionally charged to a credit card of the renter that is responsible for the rental.

Guidance Type: operative business rule

Description: While a renter has possession of a car, there is a provisional charge to EU-Rent against his credit card. This will be replaced by an actual charge at the end of the rental

Enforcement Level: Strict

Supporting fact types: rental has rental charge  
estimated rental charge is provisionally charged to credit card  
renter has credit card  
rental has driver



# Business Informatics; *Computing in context*

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A need to study, analyse, explain, define, design, ...

*A need for models!*

*Languages, semantics, capabilities, ...*

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# Practice and Theory; A spectrum?

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*Practice-oriented*



# Practice and Theory; A spectrum?

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# Practice and Theory; A spectrum?

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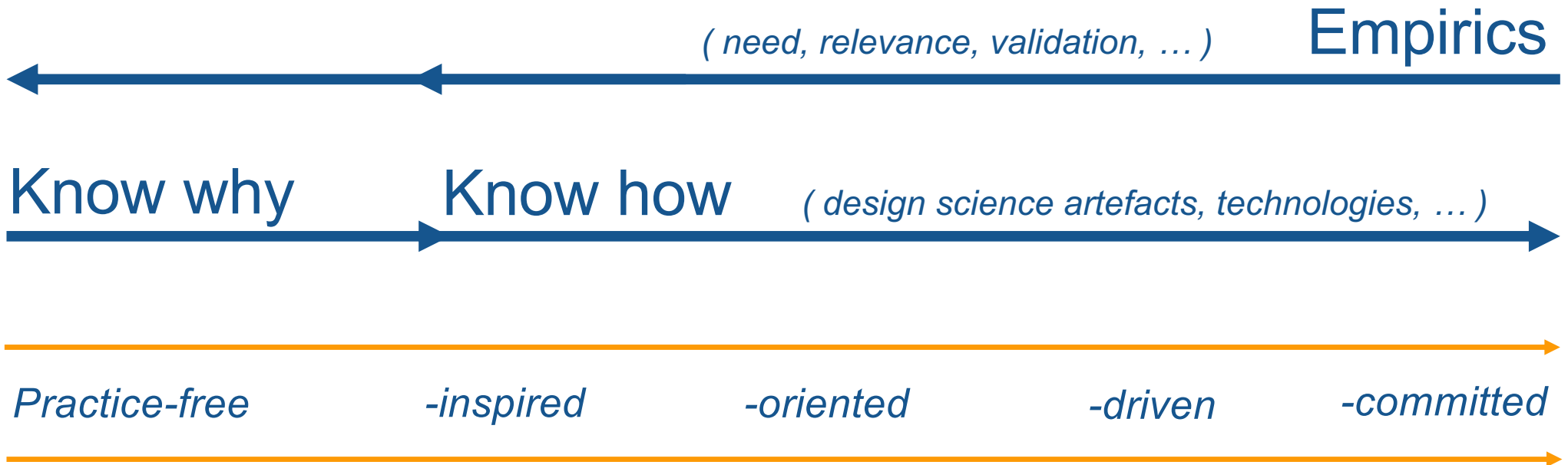
# Practice and Theory; A spectrum?

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# Practice and Theory; A spectrum?



Sciences of *how-to*

# Agenda

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# ArchiMate in a nutshell

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Graphical modelling language for EA

Result of a multi-party 4M€ research project

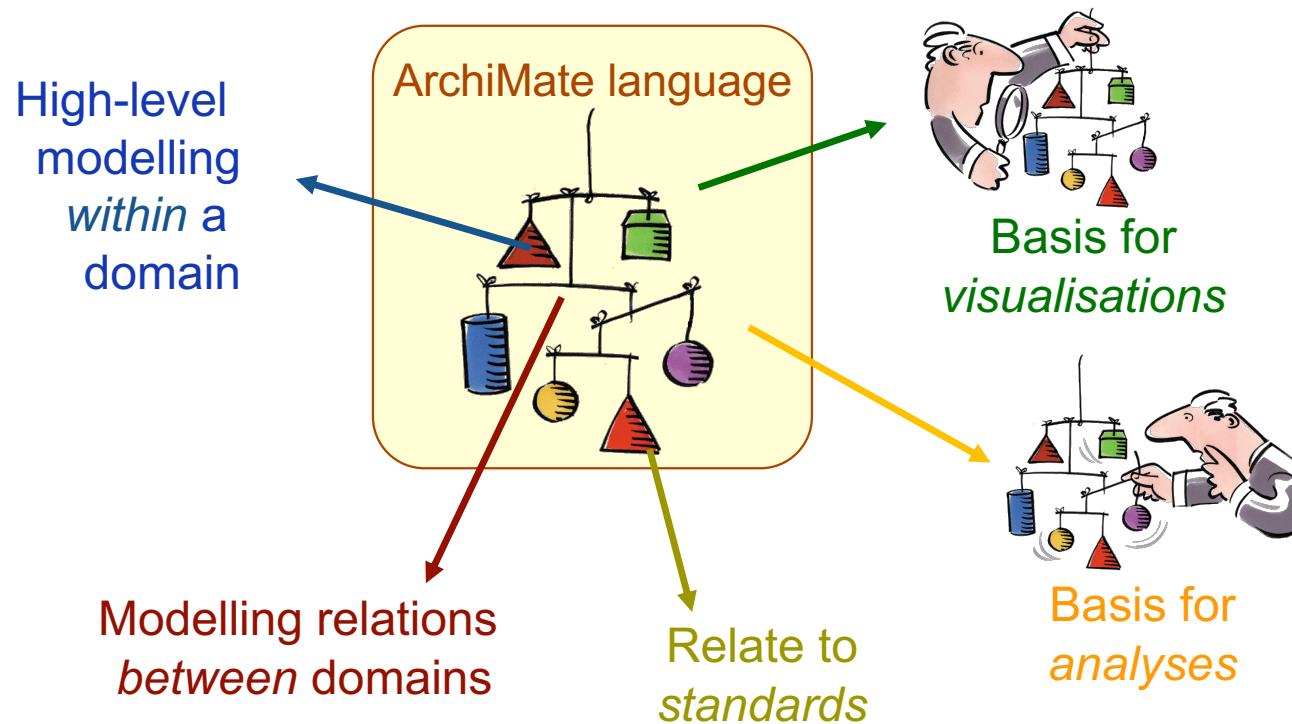
Now a standard of The Open Group next to TOGAF

In use with many end-user organizations

Supported by different tools vendors and consultancy firms

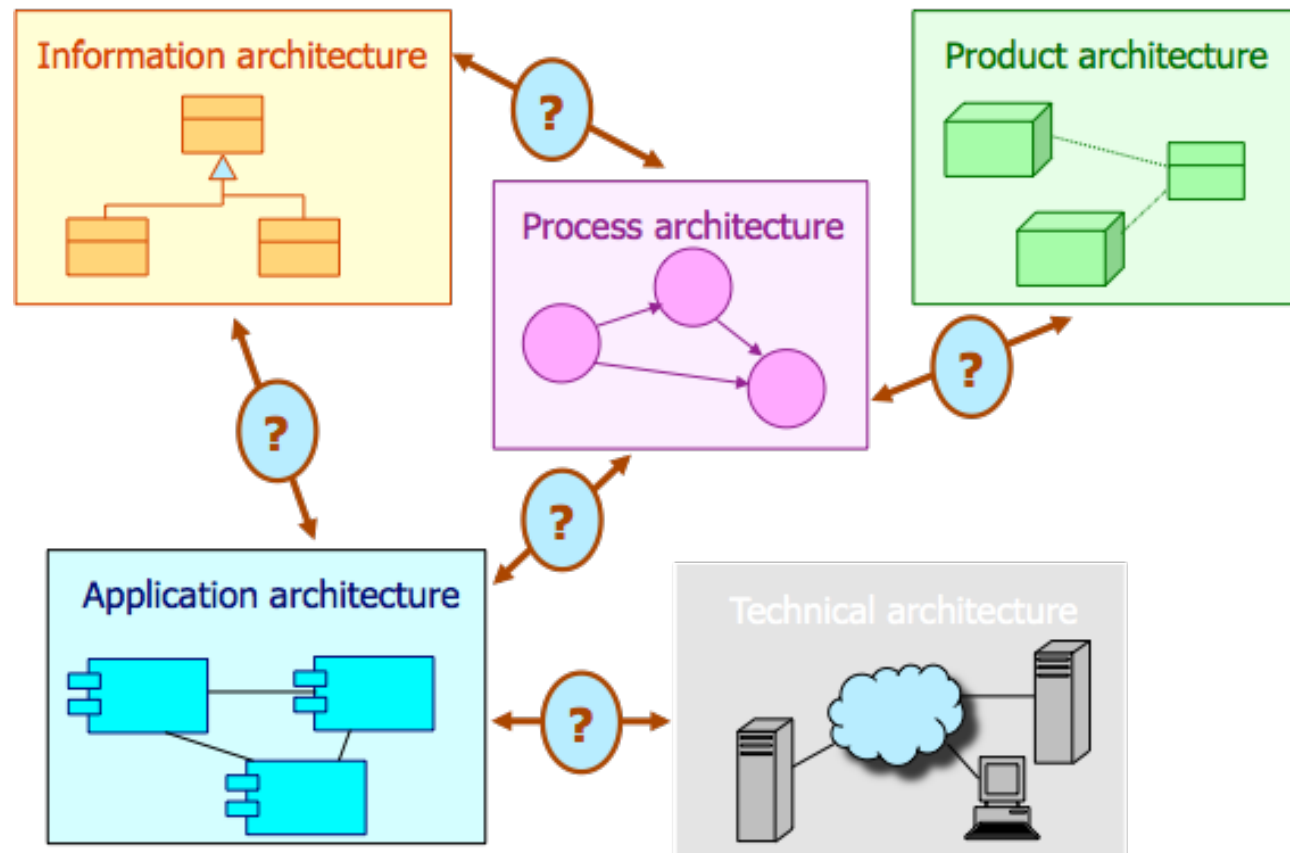
# ArchiMate in a nutshell

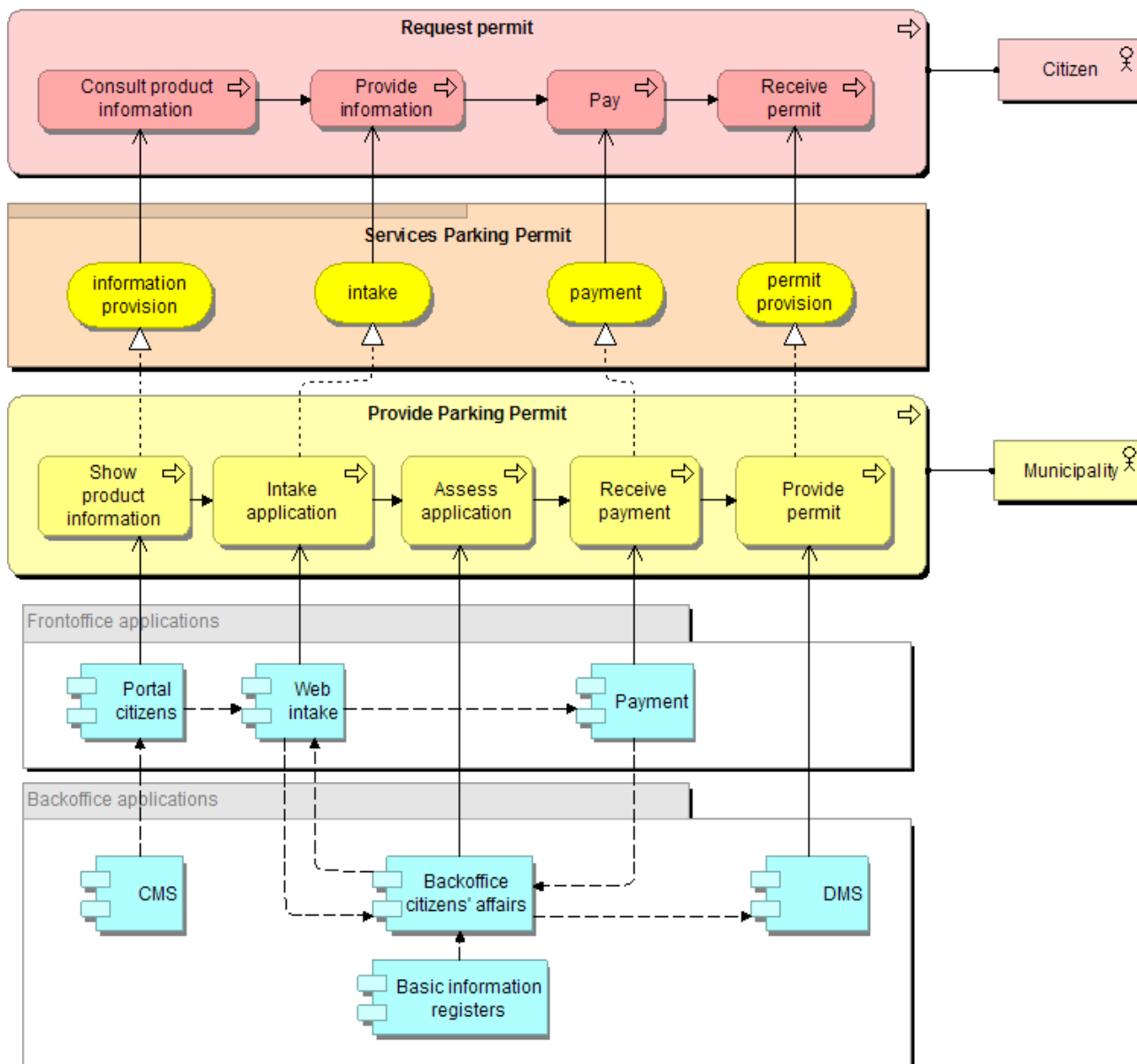
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# Capturing coherence

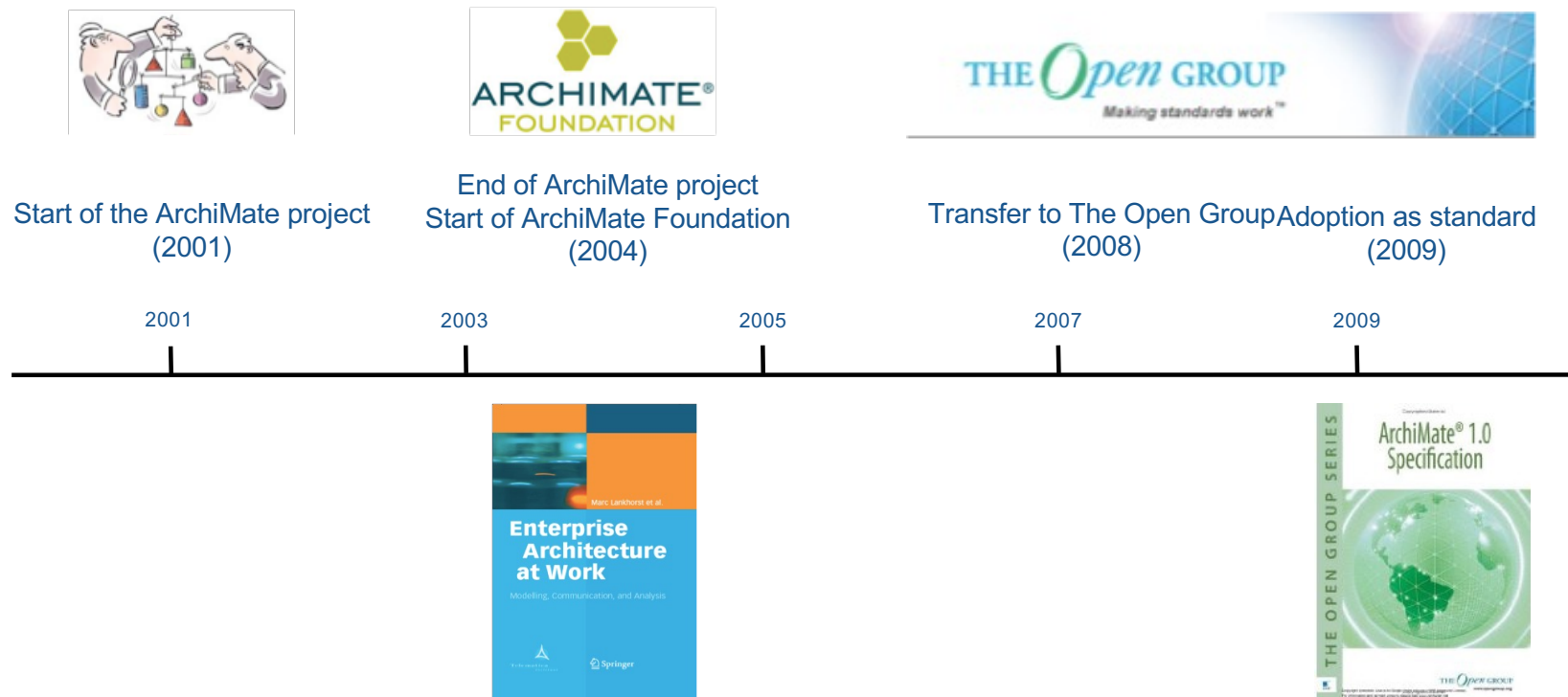
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# ArchiMate's timeline

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# Life as a standard

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From information processing factories to real factories

TOGAF-wide support

Evolution driven by real-world needs; also helped by science

Hampered by backward compatibility ...

Commercial interests?





# ArchiMate in hindsight

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Solved a practical need

Not fully satisfactory from a scientific perspective

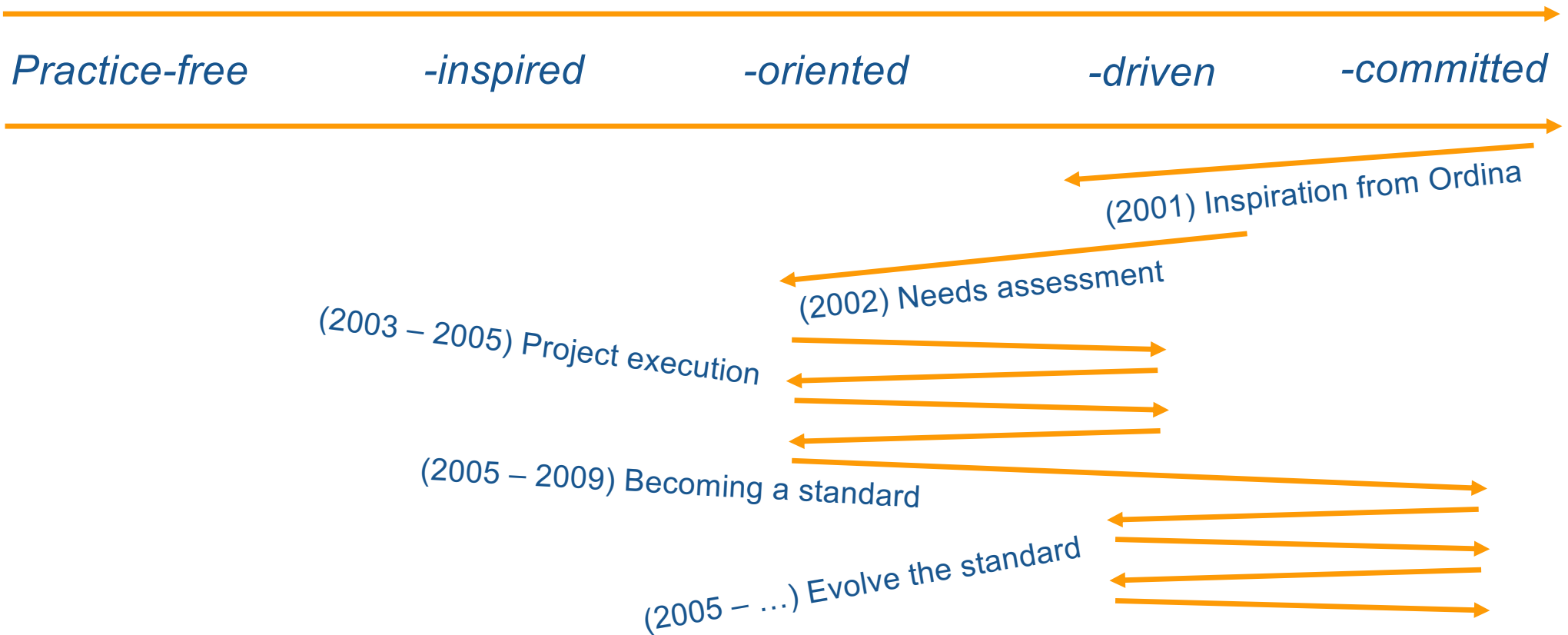
Nice for our *h*-indexes though

Tension between:

- Standardization
- Integration of new concerns & aspects
- Simplicity of language
- Domain specificity



# ArchiMate



# Agenda

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# History of GEA



2004 – Enterprise architecture; more to be aligned than:

- Business/IT
- (VP-to-)Business-(to-IS-)to-IT stack



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# History of GEA

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2004 – Enterprise architecture; more to be aligned than:

- Business/IT
- (VP-to-)Business-(to-IS-)to-IT stack

2005 – Enterprise coherence governance!



*the extent to which all relevant aspects of an enterprise are interconnected*



# History of GEA

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2005 – Enterprise coherence governance!



# History of GEA

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2005 – Enterprise coherence governance!

2006 – General Enterprise Architecting (GEA) programme

ABN-AMRO Bank; ANWB; Achmea; Belastingdienst — Centrum voor ICT; ICTU;  
ING; Kappa Holding;  
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties; Ministerie van Defensie;  
Ministerie van Justitie — Dienst Justitiële Inrichtingen;  
Ministerie van Landbouw, Natuur en Voedselkwaliteit — Dienst Regelingen;  
Nederlandse Spoorwegen; PGGM; Politie Nederland; Prorail; Provincie Flevoland;  
Rabobank; Rijkswaterstaat; UWV; Wehkamp





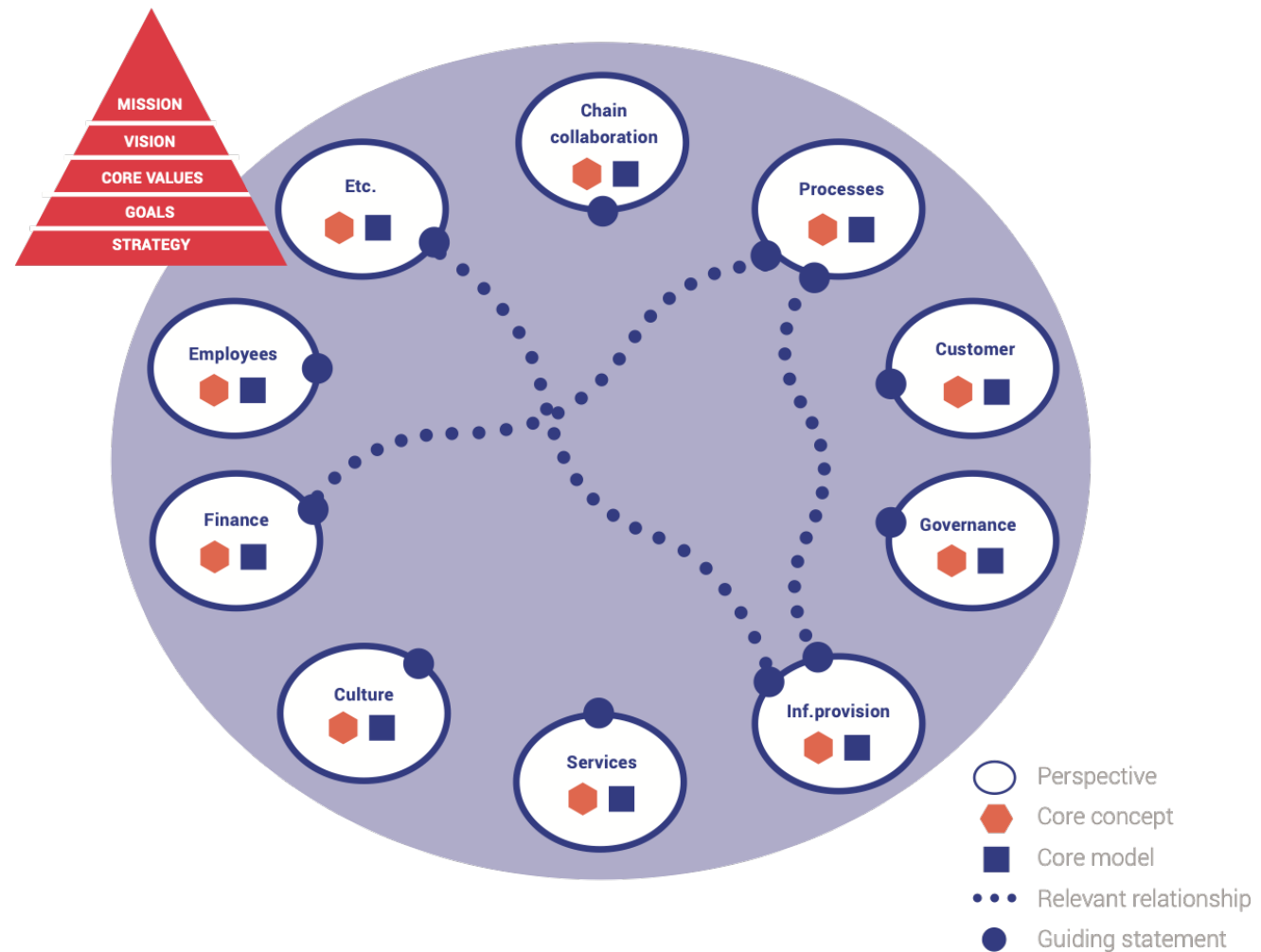
# Main elements

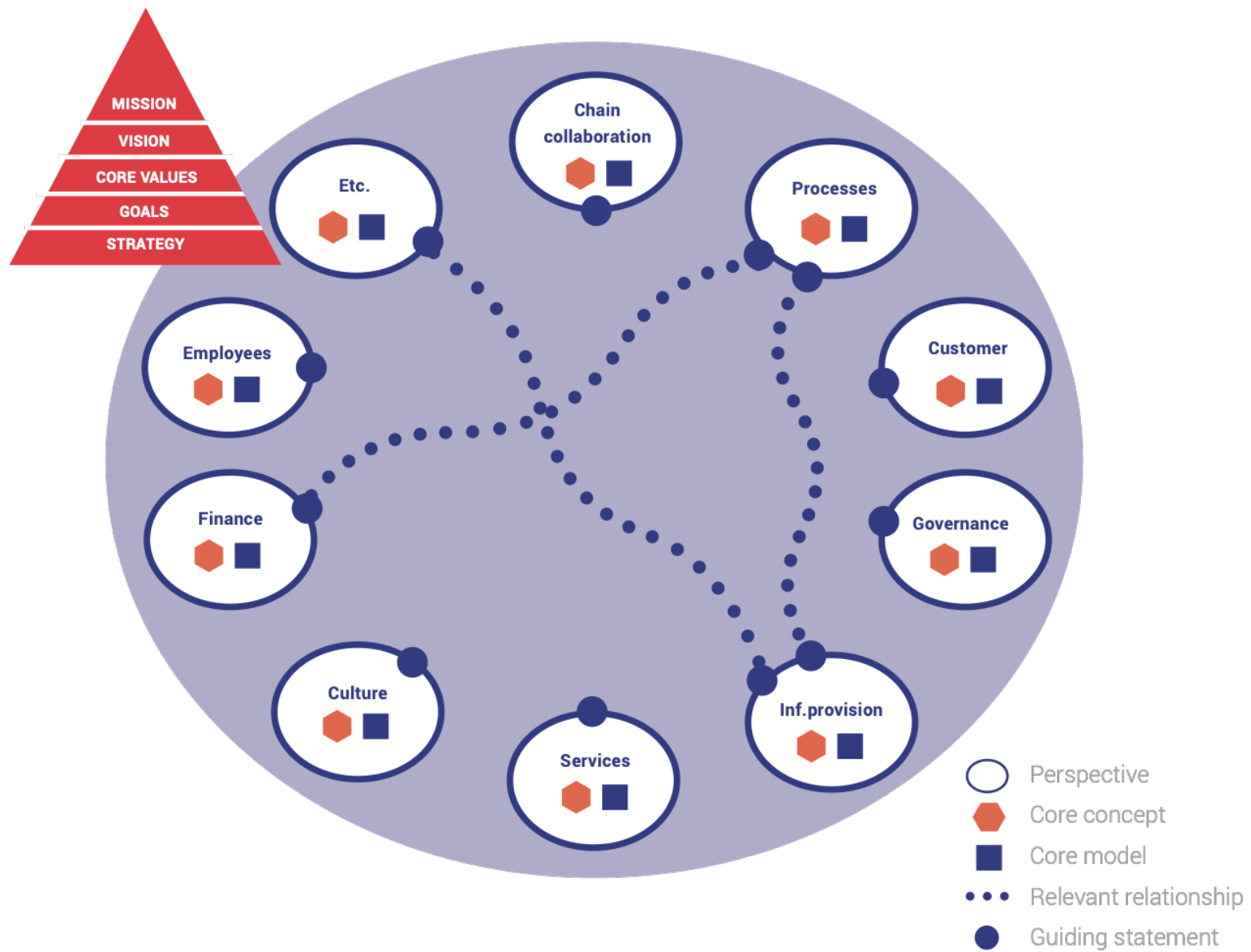
Enterprise issue

Roadmap

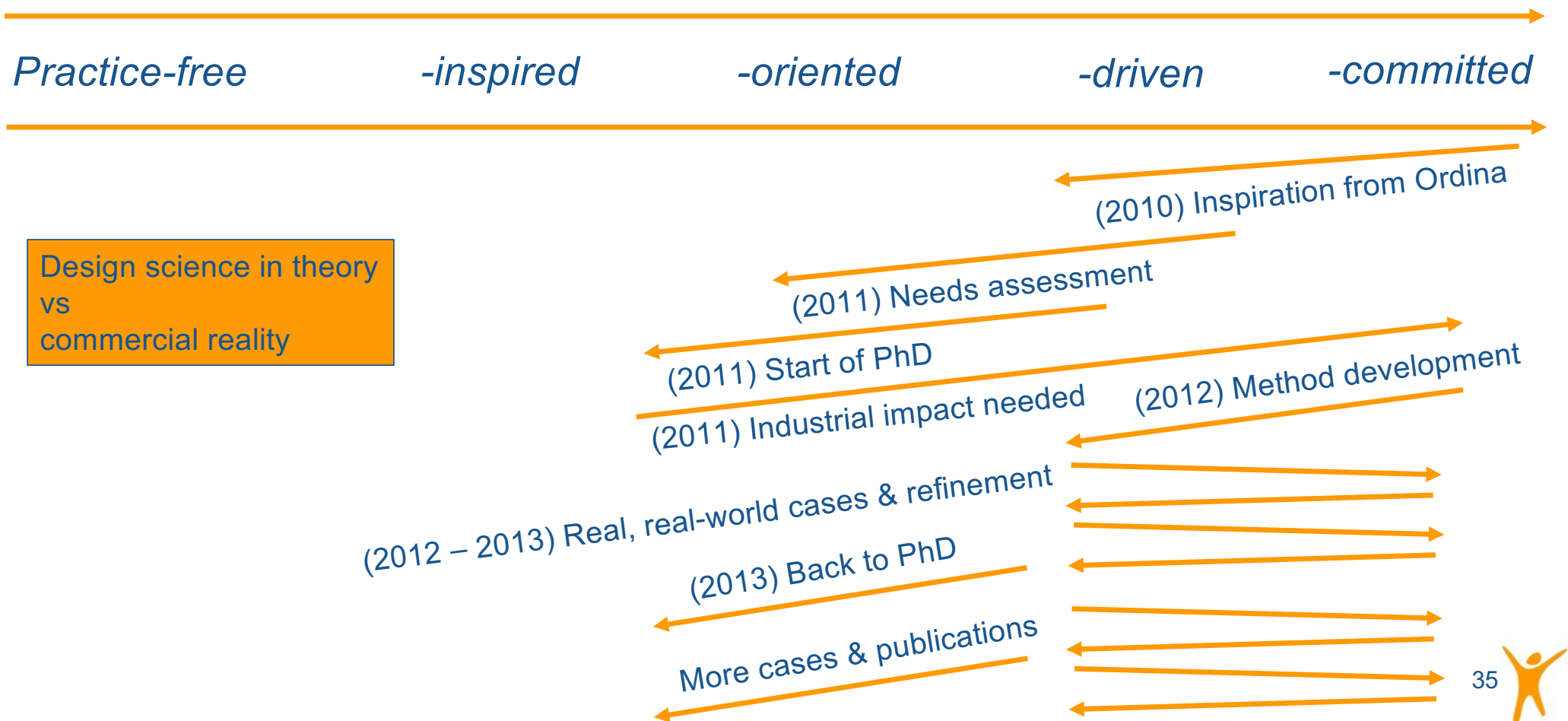
Level of purpose

Level of design





# GEA programme



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# Practice and Theory; A spectrum?

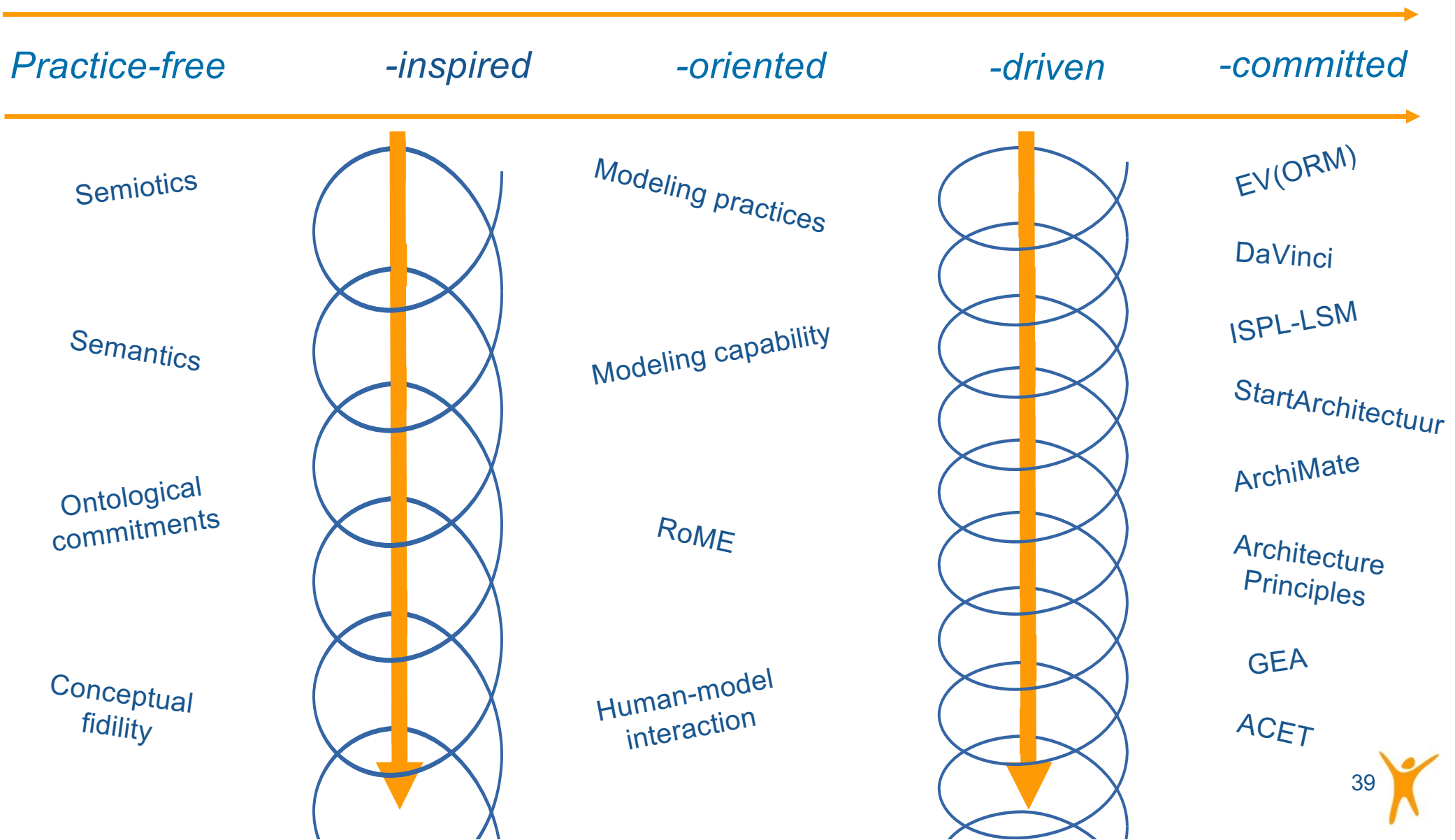
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# Practice and Theory; Two helixes!

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