Informed Governance of **Enterprise Transformations**

Henderik A. Proper





Erik Proper – Fact sheet

Official name: Henderik A. Proper

Yes

Born: 22.05.1967, NL

Married:

After work: cycling, photography, home automation

Languages: Dutch, English, German

Lived in: NL, AU, DE, LU

Works at: Luxembourg Institute of Science and Technology

Career: Science & practice

LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY





Erik Proper – Fact sheet

Research: Domain modelling (in an enterprise context) Co-initiator of ArchiMate

Universities: Radboud University

University of Queensland

Queensland University of Technology

University of Luxembourg

Chairs: 2001 – 2018 Radboud University 2017 – present University of Luxembourg

Consultancy: Origin, Ordina & Capgemini Key clients: Postbank.nl, Dutch Tax Administration, ING.nl





LIST

ENVIRONMENTAL RESEARCH AND INNOVATION (ERIN)

- Water security and safety
- Plant Science and biotechnologies
- Life cycle sustainability and risk assessment
- Analysis and visualization of environmental scientific data

MATERIALS RESEARCH AND TECHNOLOGY (MRT)

 Nanomaterials and nanotechnologies Composite materials

IT FOR INNOVATIVE SERVICES (ITIS)

- Decisional knowledge dynamics Trusted service systems
- Service engineering with impact



Agenda

- EA examples
- Change in enterprises
- Steering change with EA
- Role of models

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EA examples

- Change in enterprises
- Steering change with EA
- Role of models















A.29 Application functionality is available through an enterprise portal

Type of information: application

Quality attributes: usability

Rationale:

- A portal provides functionality that is targeted at the role and personal preferences of the user, optimally supporting users in their work.
- A portal provides a single point of access, and integration of functionality at the glass, relieving users from manually finding and integrating functionality.
- A portal can provide single sign-on to users.

Implications:

- There is an Enterprise Portal that provides access to all application functionality.
- All applications are portal-enabled, exposing their functionality as portlets/web parts.



| | Passive structure | Behavior | Active structure | |
|-------------------|-------------------|----------|---------------------|--|
| Business Layer | | | | |
| Application Layer | | | | |
| | | | | |
| Technology Layer | | | | |
| | | | | |

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Change drivers

- Compliance
- Security
- New markets
- (De)regulation
- Globalisation
- Cost reduction
- Aging population

- Servitization
- Value co-creation
- Mobile technology
- Nano technology
- Bio technology
- •

Change drivers

Lead enterprises to change

Changes initiated from different angles:

• Top-down, bottom-up, ...

Using different rhythms:

- Stipulated, self-organising, ...
- Pre-meditated, spontaneous, ...
- Directive, participative, ...
- Pro-active, re-active, ...

Change in enterprises

- Service innovation
- Business innovation
- Business transformation
- Technology transformation
- Service innovation

- Process improvement
- Mergers & acquisitions
- Splitting & outsourcing
- Organisational drift

Generalised to: Change in enterprises

Change in enterprises

"Life is what happens to us while we are making other plans."

Allen Saunders in Reader's Digest

Enterprises are in motion

The motion of an enterprise does not wait until we are finished engineering, architecting or planning changes

It moves while we are:

- Planning changes
- Conducting the changes



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Steering changes

- Management
- Governance
- Control
- Influence
- Guiding

Generalised to: Steering change

Steering change?

- Do we want to steer change?
- Who wants to steer?
- Why do they want to steer?
- At what level of intensity?
- Benefits of steering?
- Costs of steering?
- RoSE: Return on Steering Effort

Steering change

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Steering change

Control theory



Rhythm based on the Deming cycle



Capabilities of a steering system

Sense:

- Steering goals
- Current affairs of subject and its environment
- Effects of earlier intervention plans

Think:

- SWOT on goals vs. current affairs
- Design intervention plan when needed (RoSE)
 Act:
- Conduct the intervention plan

Capabilities of a steering system

Sense:

Steering goals

 \rightarrow enterprise strategy

- Current affairs of subject and its environment
- Effects of earlier intervention plans

Think:

- SWOT on goals vs. current affairs \rightarrow different qualities
- Design intervention plan when needed (RoSE)
 Act:
- Conduct the intervention plan



Principle: One CRM only

Discussion ...

Principle: One CRM only

Challenge:

- New business opportunity
- Time to market is critical
- Off-the-shelf IT solution enables a quick time to market
- But has its own CRM system



Architecture

Those properties of an artifact that are necessary and sufficient to meet its essential requirements

Enterprise architecture

The architecture of an enterprise

- Purpose of EA:
 - Steering change in enterprises
- Meaning of EA to senior management:
 - Making sense of past, present & future
- Meaning of EA towards change efforts:
 - Reduction of design freedom
 - Reduction of design stress

Levels of architecture



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Capabilities of a steering system

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 \rightarrow models

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- Current affairs of subject and its environment \rightarrow models
- Effects of earlier intervention plans

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- SWOT on goals vs. current affairs \rightarrow models
- Design intervention plan when needed (RoSE) \rightarrow models Act:
- Conduct the intervention plan

 \rightarrow models

Extensional orientation:

• Explicitly include constructional elements in the models, such actors, processes, services, etc.

Intensional orientation:

• Focus on policies, regulations, constraints, etc

Sliding scale; no sharp border

Examples of models with an extensional orientation:





Examples of models with an intensional orientation:

A.34 Only in response to business needs are changes to IT systems made

Type of information: application, technology

Quality attributes: efficiency

Rationale:

- This will foster an atmosphere where the information environment changes in response to the needs of the business, rather than having the business change in response to IT changes.
- · This is to ensure that the purpose of the information support is the basis for any
- proposed change.
- · Unintended effects on business due to IT changes will be minimized.

Implications:

- Changes in implementation will follow full examination of the proposed changes using the enterprise architecture.
- We do not fund a technical improvement or system development unless a documented business need exists.
- Change management processes confor ming to this principle will be developed and implemented.

- A.29 Application functionality is available through an enterprise portal
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Different uses:

- Analyse current affairs
- Define the target state of a specific project
- Analyse the design of a future scenario
- Desired direction of a large transformation
- Description of longer term enterprise strategy

Different uses:

- Analyse current affairs
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 \rightarrow int. \rightarrow int.

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