

ICEIS'07

« INTERNATIONAL CONFERENCE ON ENTERPRISE  
INFORMATION SYSTEMS »

## A Framework for Analysing Business / IS alignment requirements

Islem Gmati<sup>1</sup> et Selmin Nurcan<sup>1, 2</sup>

<sup>1</sup>Centre de Recherche en Informatique

<sup>2</sup>IAE de Paris

Université Paris 1 Panthéon - Sorbonne



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## Motivation

The strategic alignment is the harmonization  
of the business processes and the IS with the  
strategy of the company

**Purpose :** Strengthen the use value of the IS  
to make an asset for the company

- The existing approaches treat:
  - The strategy / business alignment
  - The business / IS alignment
- Absence of complete alignment  
approaches (strategy / business / IS)
- Absence of an alignment approaches  
evaluation tool

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## Proposition

- Analysis framework based on the « four worlds » framework (Jarkes, 1990), (Rolland, 1998) evaluating the alignment approaches
- Positioning of some alignment approaches in this framework

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## Plan

1. Presentation of the « four worlds » reference framework
  - Meta – model of the reference framework
2. Presentation of the analysis framework
3. Discussion
4. Conclusion
5. Perspectives

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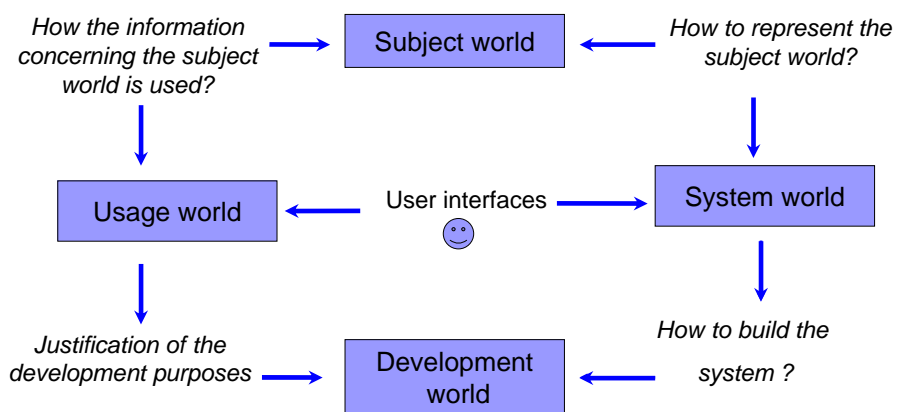
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## The « four worlds » reference framework

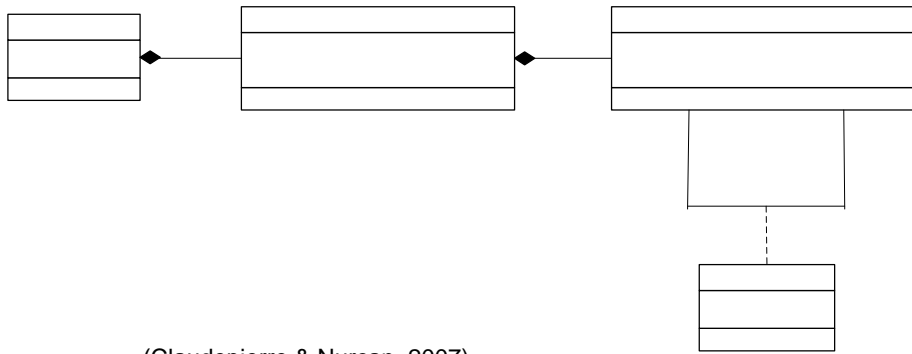


(Jarkes, 1990)

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## « Four worlds » reference framework Meta – model



(Claudepierre & Nurcan, 2007)

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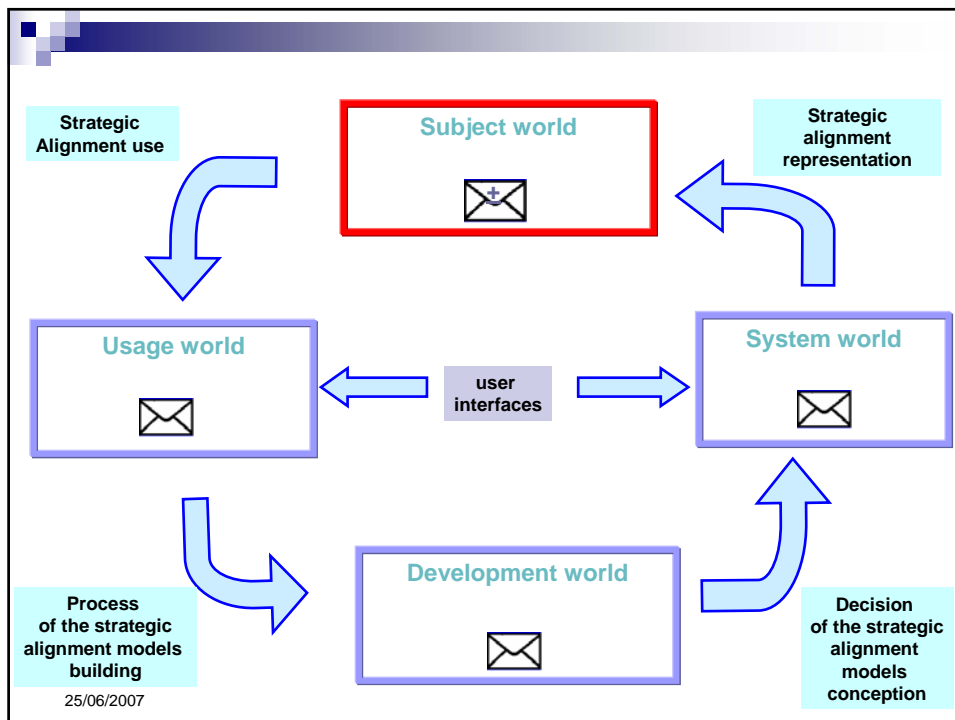
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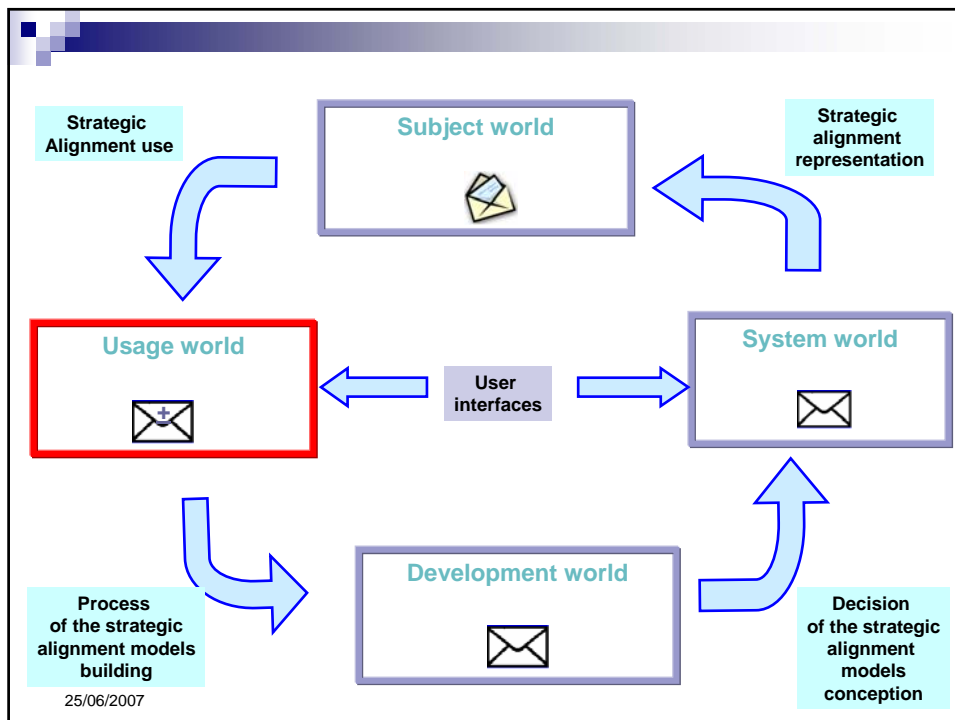


## Facets and attributes of the subject world

- Nature of alignment:
  - Strategy / business alignment
  - Business / IS alignment
  - Business strategy / IT strategy alignment
  - IT strategy / IS alignment
- Nature of change :
  - Nature: ad hoc, evolutionary, corrective
  - Origin: internal, external

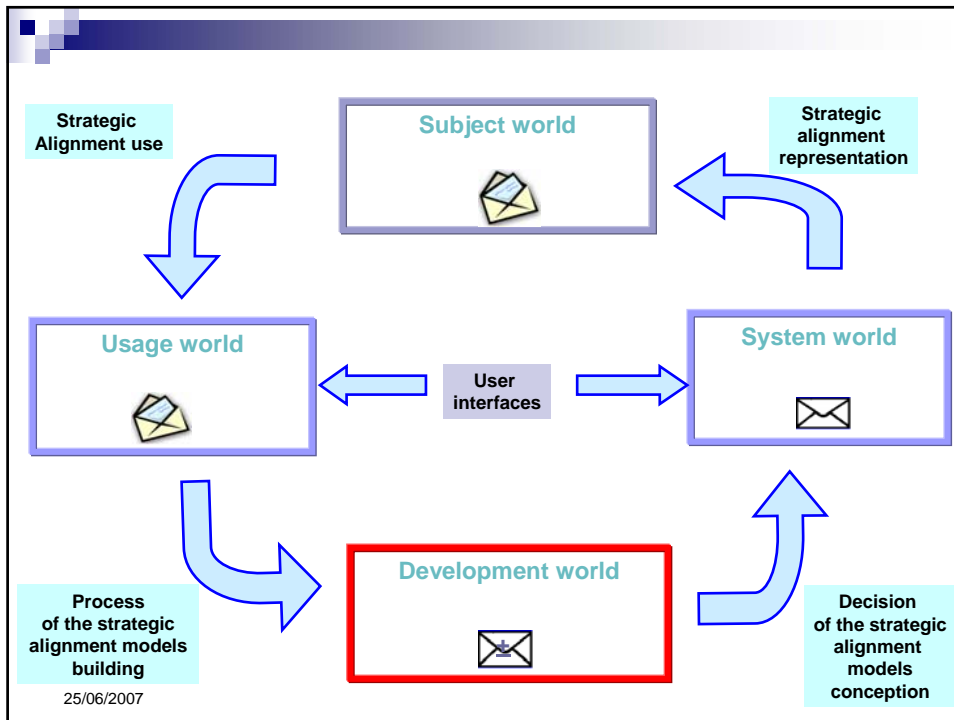
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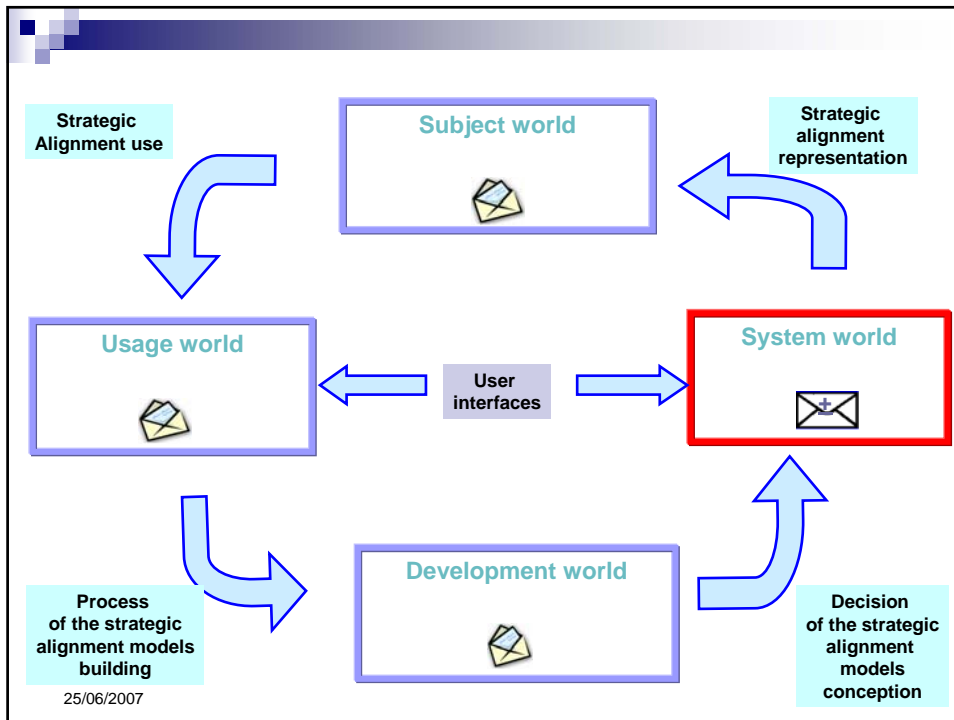
### Facets and attributes of the usage world

- Purpose of alignment: Adapt, build, improve, maintain
- Alignment perspectives : Strategy execution, Technology transformation, competitive potential, Service level (Henderson & Venkatraman, 1987)
- Communication: boolean
- Understanding of the user: boolean



### Facets and attributes of the development world

- Development approach:
  - Nature of the development process: ad hoc, systematic
  - Paradigm of modellig: context, decision, intention, activity, product
  - Knowledge capitalization: boolean
- Execution support:
  - Software support: automatic, manual, mixed
  - Execution infrastructure: generic, inter operable
- Guidance:
  - Existence: boolean
  - Granularity: macro, micro



## Facets and attributes of the system world

- Cover: product, activity, decision, context, intention
- Refinement: intentional, organisational, SI, technological
- Traceability: boolean
- Flexibility:
  - Modularization: boolean
  - Re-use: boolean
  - Capture of the change: none, trigger, other

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## Plan

1. Présentation du cadre de référence des quatre mondes
2. Présentation du cadre d'analyse
3. Discussion
4. Conclusion
5. Perspectives

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## Discussion (1/4)

- Two criteria:
  - Characteristics of IS engineering approaches
    - IS flexibility requirements
  - Alignment process requirements
    - Communication
    - Understanding of the strategy of the company
    - Link between the business and the IT worlds

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## Discussion 2/4

### IS flexibility

Report	Comments
<ul style="list-style-type: none"> <li>Majority use of activity oriented models (Scheer &amp; Nuttgens, 2000), (Longepe, 2004), (Papazoglou &amp; Van den Heuvel, 2000) and (Wegman, 2003)</li> </ul>	<ul style="list-style-type: none"> <li>Necessity of <b>oriented context models</b> to adapt the system to variable situations (Barrios &amp; Nurcan, 2004)</li> </ul>
<ul style="list-style-type: none"> <li>Negligence of the <b>re-use</b> of the existing components (Scheer, 2000), (Wegman, 2003), (Henderson &amp; Venkatraman, 1989), (Nurcan &amp; Barrios, 2003), (Bleistein, 2005)</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate the work of the designers to adapt the system to the environment changes</li> </ul>
<ul style="list-style-type: none"> <li><b>Modularization</b> of the software components (Papazoglou &amp; Van den Heuvel, 2000), (Longepe, 2004), (Scheer &amp; Nuttgens, 2000),</li> </ul>	<ul style="list-style-type: none"> <li>Easier adaptation to the evolutions</li> <li>Facilitate the re-use</li> </ul>
<ul style="list-style-type: none"> <li><b>The capture of the change</b> is almost absent in the studied frameworks</li> </ul>	<ul style="list-style-type: none"> <li>How a system can be adapted to the change if nothing is foreseen to capture it?</li> </ul>

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## Discussion 3/4

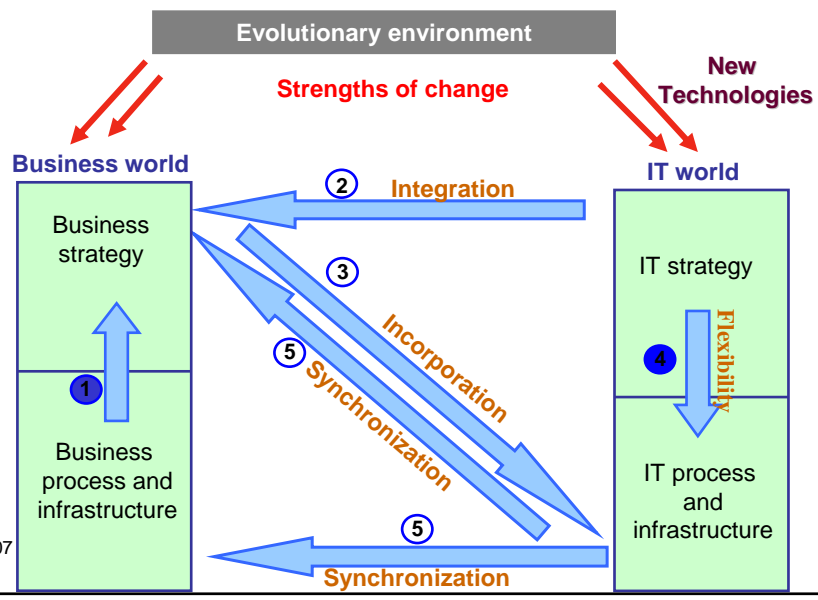
### Alignment process requirements

Constat	Commentaires
<ul style="list-style-type: none"> <li>Several frameworks granted certain importance with communication and understanding of the strategy by the collaborators (Wegman, 2003), (Nurcan &amp; Barrios, 2003), (CIGREF, 2003), (Bleistein, 2005), (Kaplan &amp; Norton, 1996)</li> </ul>	<ul style="list-style-type: none"> <li>The communication is the major activator of alignment (Luftman, 1996)</li> <li>The use and the sharing of information are the source of a competitive advantage (Maes, 1999)</li> <li>Knowledge propagation                             <ul style="list-style-type: none"> <li>→ Understanding of the strategy of the company</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>The link between the business and the IT worlds was treated only by the framework of Henderson (Henderson &amp; Venkatraman, 1987)</li> </ul>	<ul style="list-style-type: none"> <li>Incorporation of the business strategy understanding in the IS development</li> <li>The importance of the IT component integration in the business strategy</li> </ul>

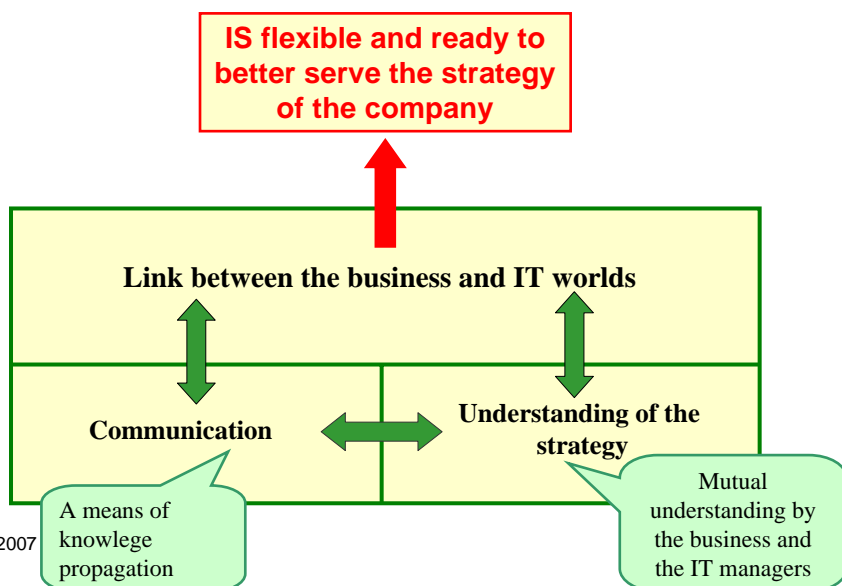
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**Importance of link between the business and IT worlds:**



**Conclusion**



# Perspectives

## ■ Futur research focus:

- Improving IS engineering methods to anticipate the Business / IS alignment requirements
  - Integration of the IT component in the business strategy
  - IS more flexible to support the strategy of the company
  
- Studying relationships between business / IT alignment and IT governance

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*Thank you ...*

*Questions ?*

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