

PSS Characterisation of Telecom Offerings

by

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Context of the study

Telecoms and PSS

- Motivation: the environment
- Telecom particularities
 - Dematerialisation
 - Mutualised networks
 - ICT* can be a lever for PSS implementation
- But also
 - Personal objects (EEE,...)
 - Fashion objects

“Are telecom offers matching with PSS strategies?”

*ICT Information and Communication Technologies

*EEE Electric and Electronic Equipment

Research Methodology

To help clarify the pertinence of PSS for telecom offers

1. Identify PSS Characteristics from literature
2. Develop a survey to characterise different offers
3. Apply the survey to a panel of offers
4. Analyse the results to understand the PSS perspectives for different offers

1. Identify PSS Characteristics from literature

Base for the study - different approaches

Authors	Year	Title of the article
Stahel	1997	The functional economy: cultural and organizational change.
Goedkoop et al.	1999	Product Service systems, Ecological and Economic Basics
Den Hertog	2000	Knowledge-Intensive Business Services as co-producers of Innovation
Mont	2002	Clarifying the concept of product-service system
Roth and Menor	2003	Insights into service operations management: a research agenda
Tukker	2004	Eight types of product-service system: eight ways to sustainability? Experiences from SusProNet
Baines et al.	2007	State-of-the-art in product service-systems.
Maussang et al.	2009	Product-service system design methodology: from the PSS architecture design to the products specifications
Gebauer et al.	2010	Match or Mismatch: Strategy-Structure Configurations in the Service Business of Manufacturing Companies
ISO	2010	ISO 26000 - environment part
Gokula et al.	2011	An Ontology for Product-Service Systems
Gokula et al	2012	A review of Product-Service Systems Design Methodologies
ADEME	2012	Économie circulaire: bénéfices socioéconomiques de l'écoconception et de l'écologie industrielle
Lelah et al.	2012	Clarifying Frontiers of PSS and Information and Communication Technologies
Belvedere et al.	2013	A quantitative investigation of the role of information and communication technologies in the implementation of a product-service system
Tukker	2013	Product services for a resource-efficient and circular economy - a review
Sidoli	2014	Économie de fonctionnalité : nature et propriétés
Gaiardelli	2014	A classification model for product-service offerings
Mylan	2014	Understanding the diffusion of Sustainable Product-Service Systems: Insights from the sociology of consumption and practice theory

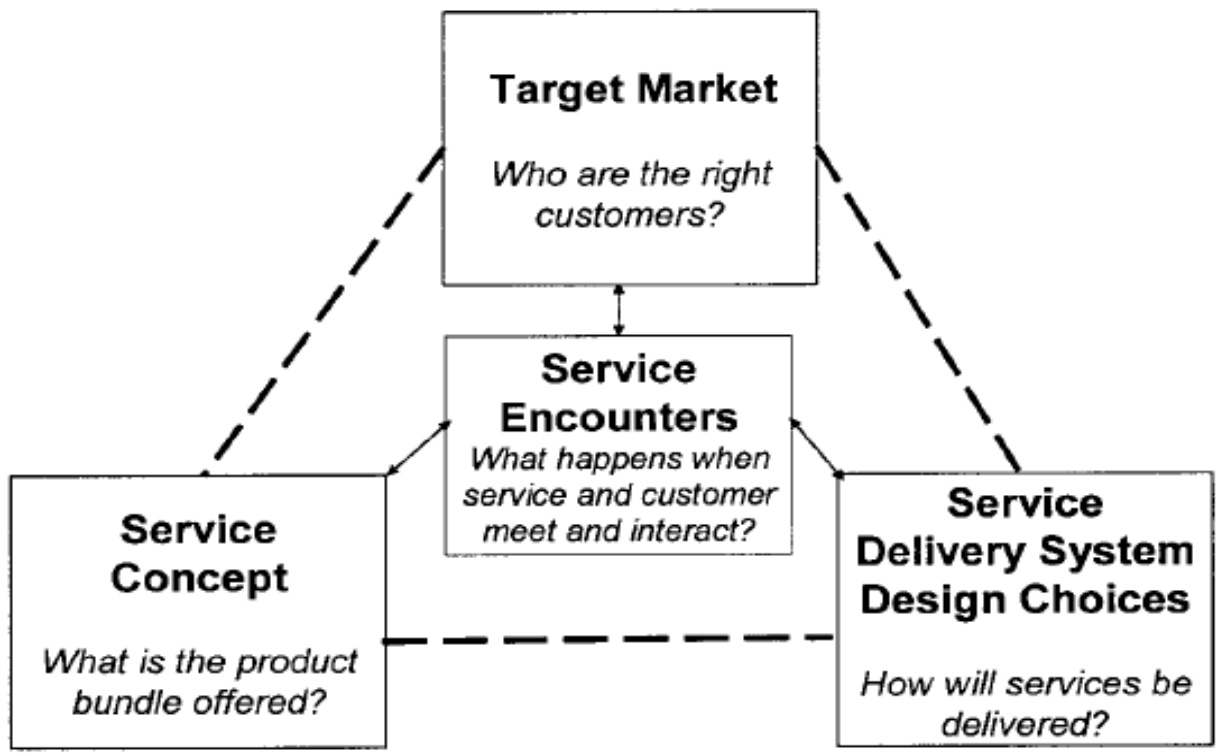
Literature review

Goedkoop (1999), Mont (2002), Tukker (2004)

- Emergence of PSS
 - PSS must answer users needs
 - PSS are a mixture of products and services
 - PSS require close partners relationships
 - PSS should rely on a solid organisation
 - PSS show the potential of reduced environmental impacts

1. Identify PSS Characteristics from literature

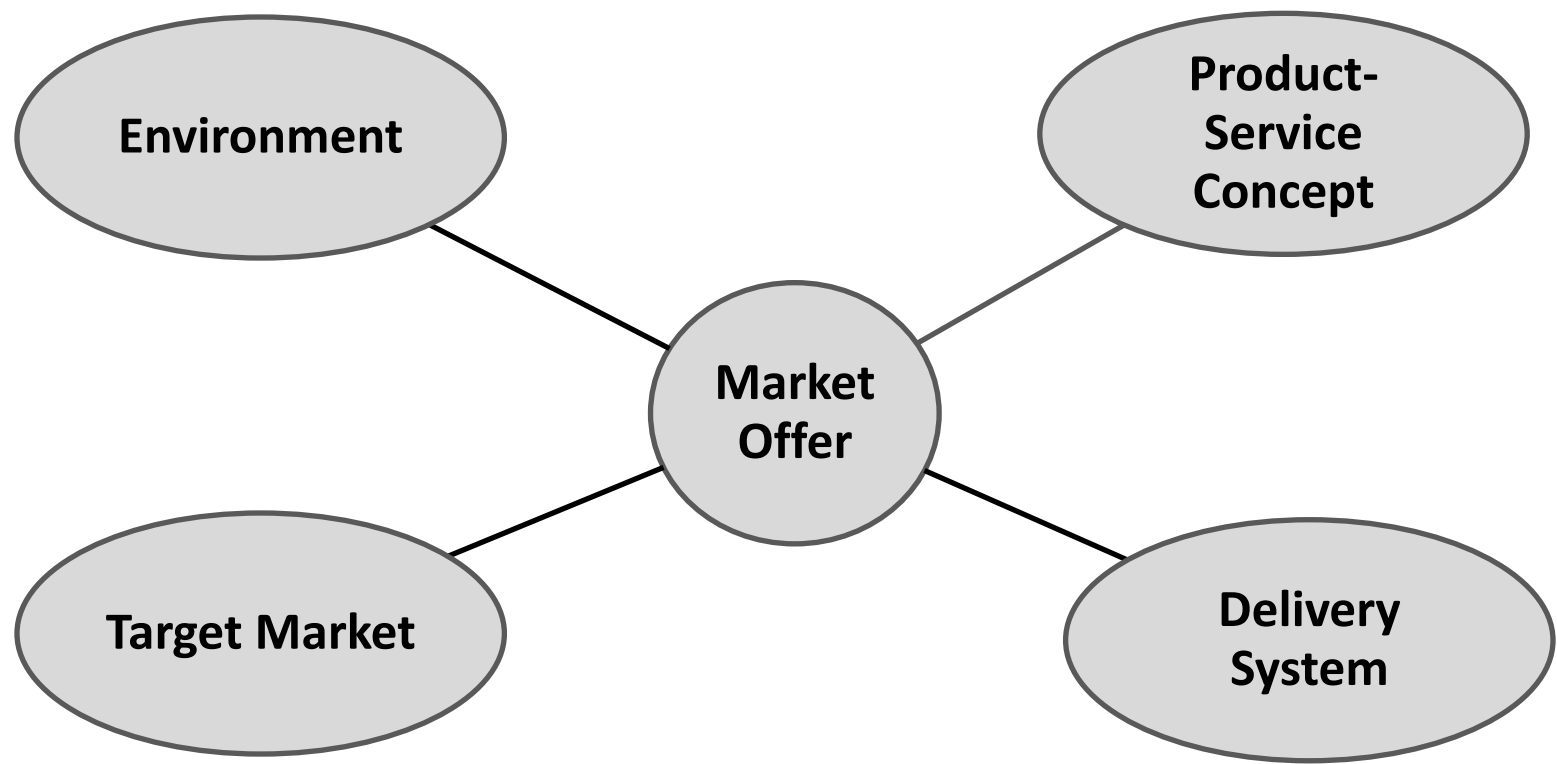
Roth and Menor, 2003



The Service Strategy Triad: Target Market, Service Concept and Service Delivery System Design Choices
Roth A. V. & Menor L. J., 2003

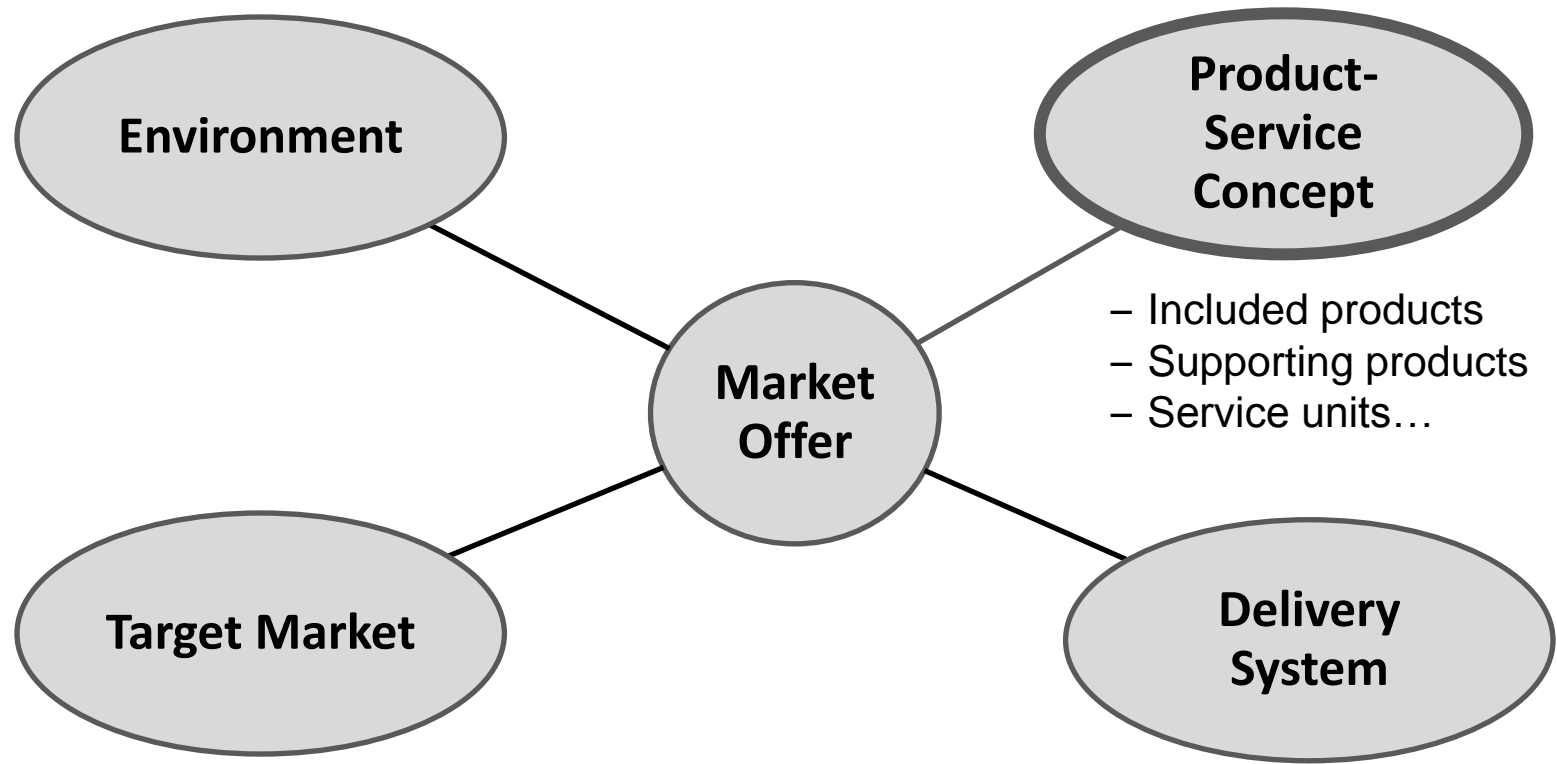
1. Identify PSS Characteristics from literature

Conclusions from literature - Model



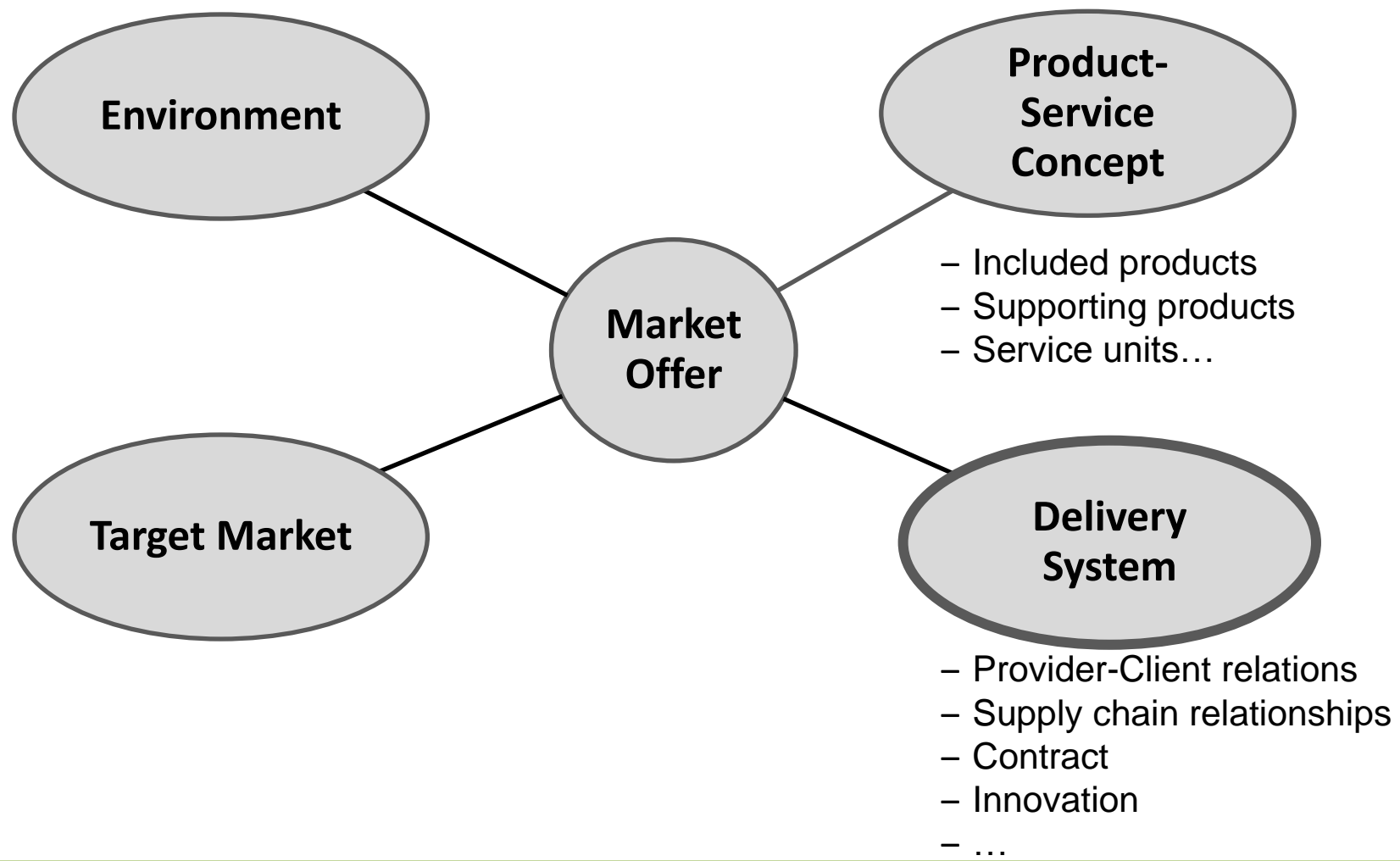
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Conclusions from literature - Model



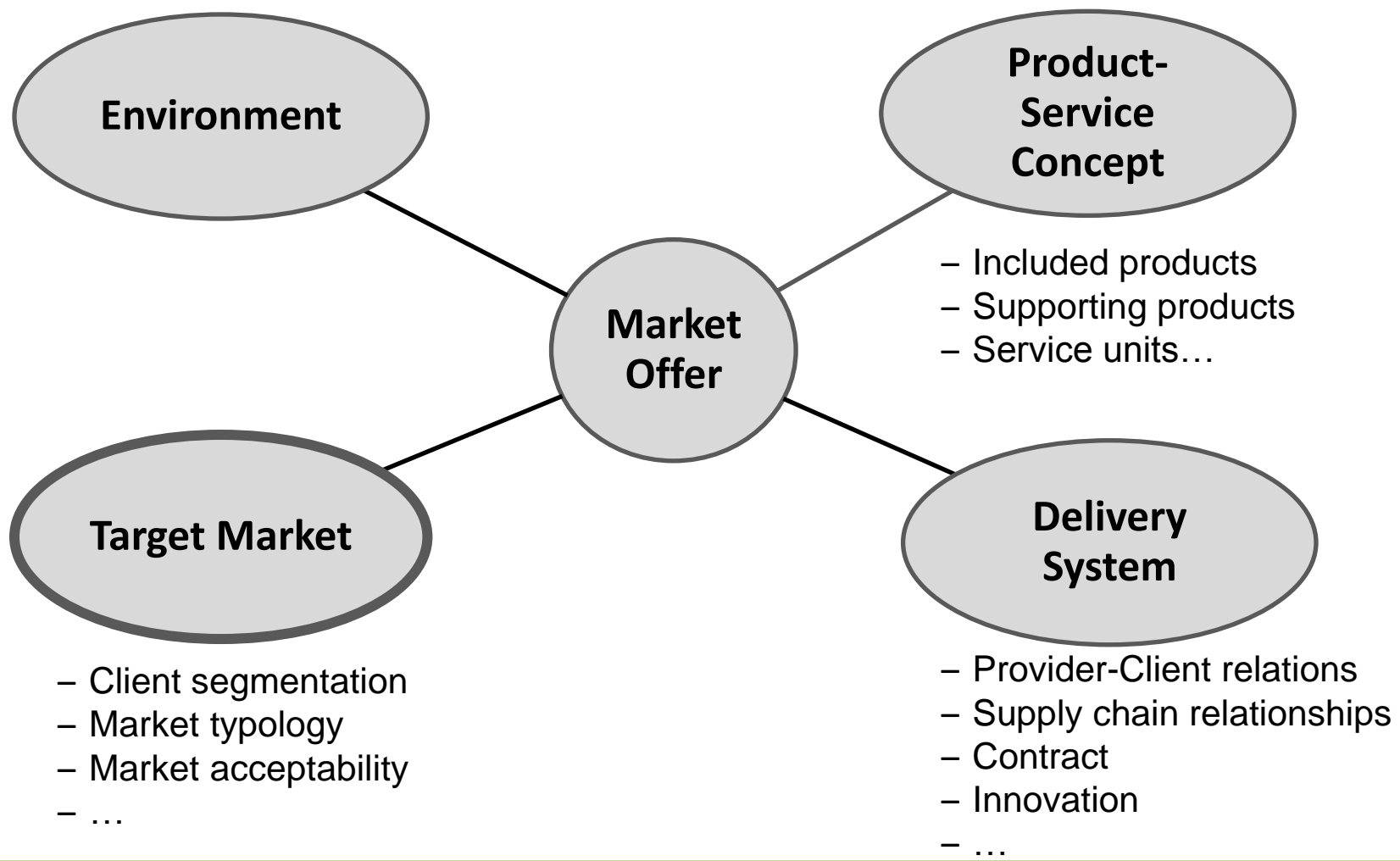
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Conclusions from literature - Model



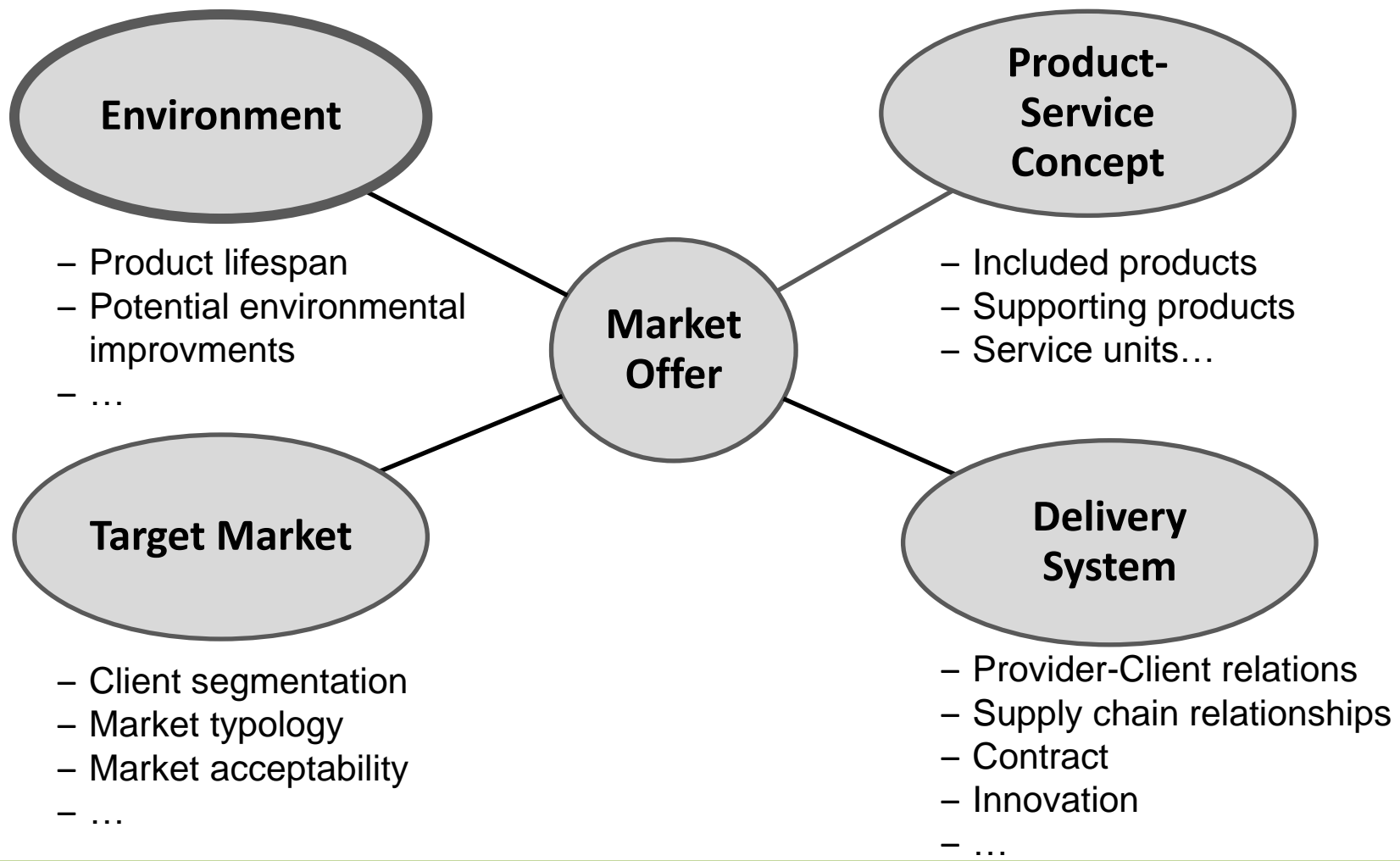
1. Identify PSS Characteristics from literature

Conclusions from literature - Model



1. Identify PSS Characteristics from literature

Conclusions from literature - Model



2. Develop a survey to characterise different offers

- Questions covering the different issues
 - 21 criteria
 - Over 200 questions

2. Develop a survey to characterise different offers

- Questions covering the different issues
- Example of criterion defining the PSS

Contract (1)

2. Develop a survey to characterise different offers

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Contract (1)

Duration (0.5)

- \emptyset 0
- Short-term 0.2
- Middle-term 0.3
- Long-term 0.5

2. Develop a survey to characterise different offers

- Questions covering the different issues
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Contract (1)

Duration (0.5)

- ∅ 0
- Short-term 0.2
- Middle-term 0.3
- Long-term 0.5

Type (0.5)

- Cash 0.1
- Use 0.3
- Result 0.5

2. Develop a survey to characterise different offers

- Questions covering the different issues
- Example of criterion defining the PSS

Contract (0.4)

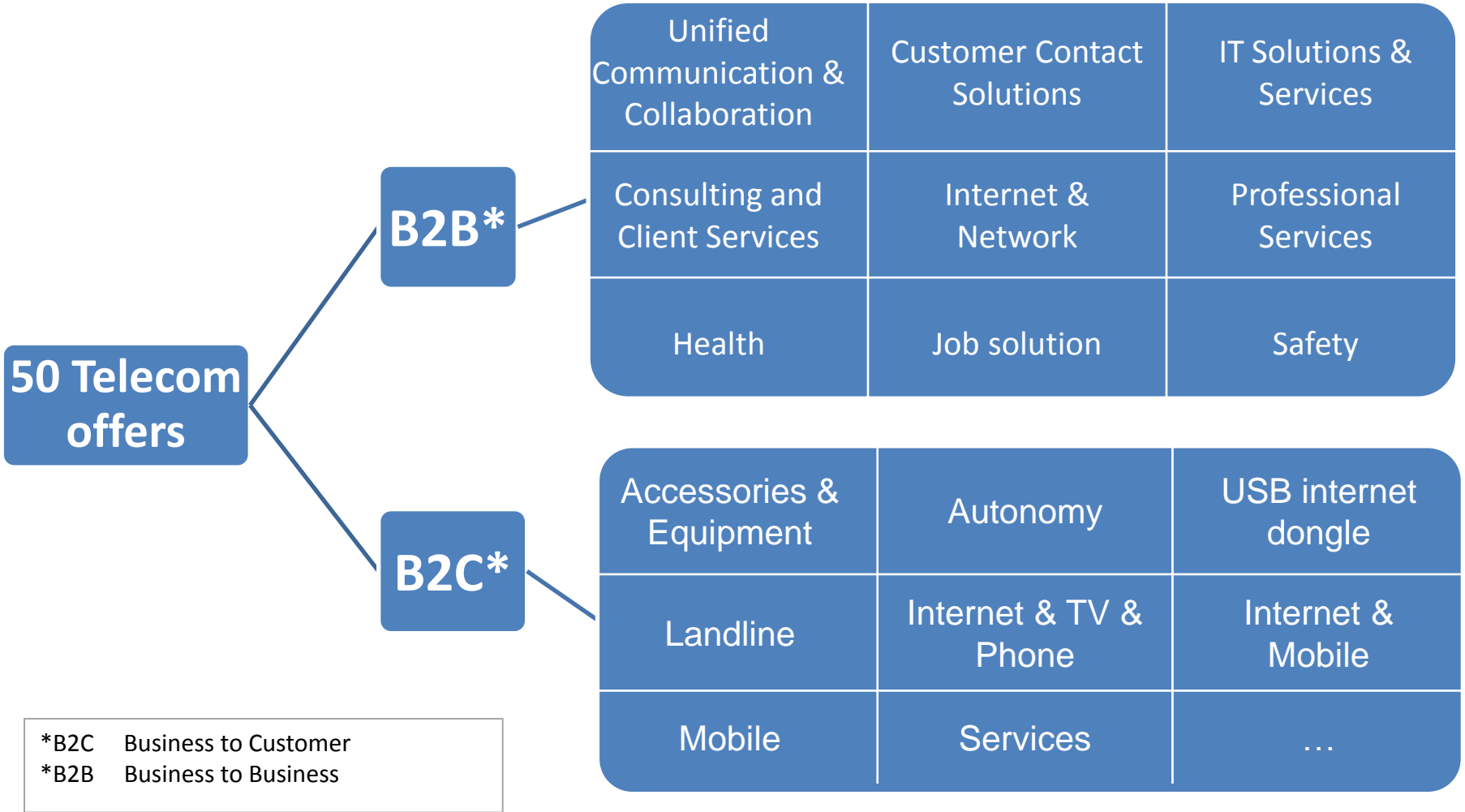
Duration (0.1)

- ∅ 0
- Short-term 0.1
- Middle-term 0.3
- Long-term 0.5

Type (0.3)

- Cash 0.1
- Use 0.3
- Result 0.5

3. Apply the survey to a panel of offer



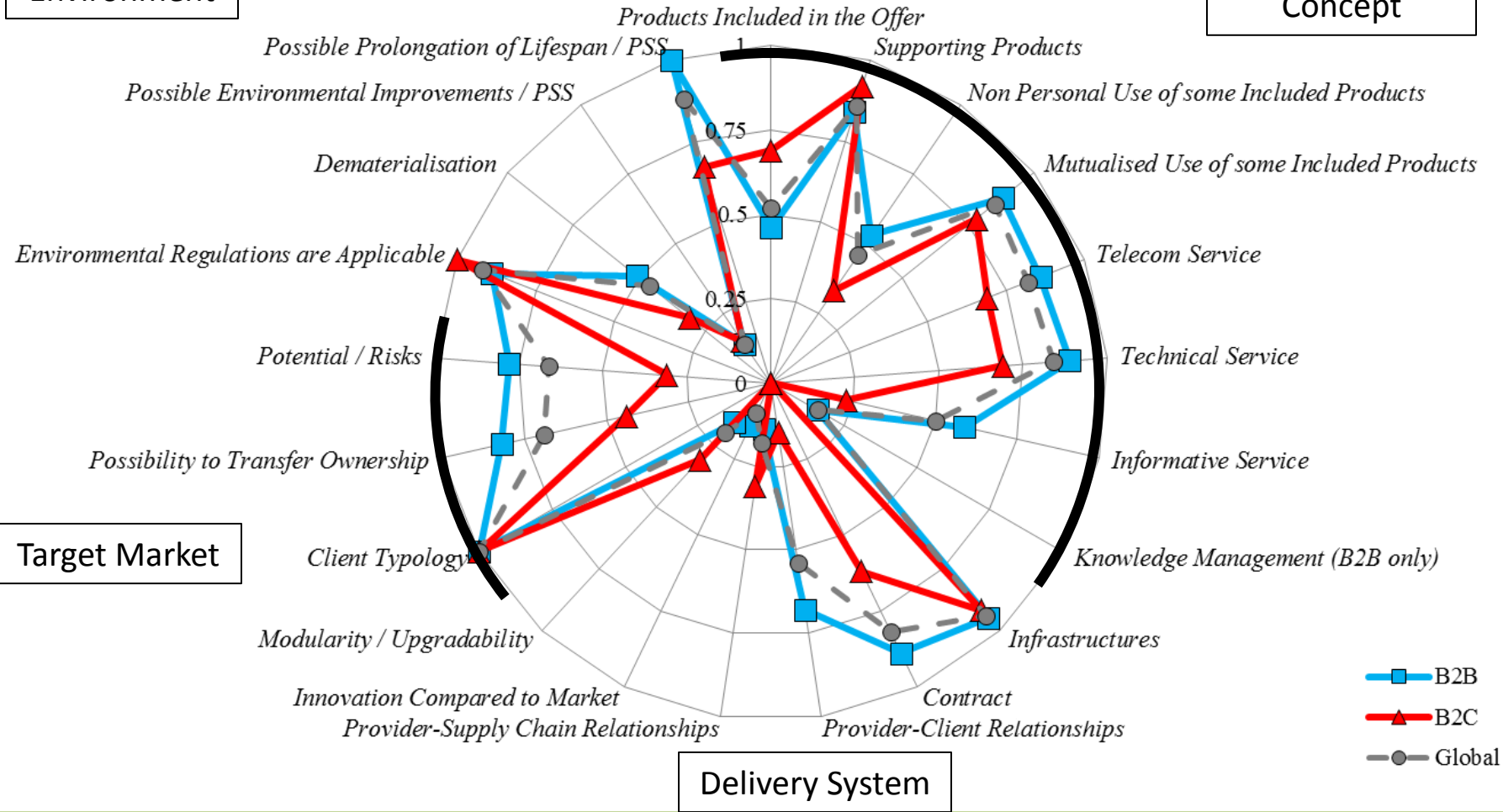
*B2C Business to Customer
 *B2B Business to Business

4. Analysis of the results

Global average

Environment

Product-Service
 Concept



Target Market

■ B2B
 ▲ B2C
 ● Global

4. Analysis of the results

Global average

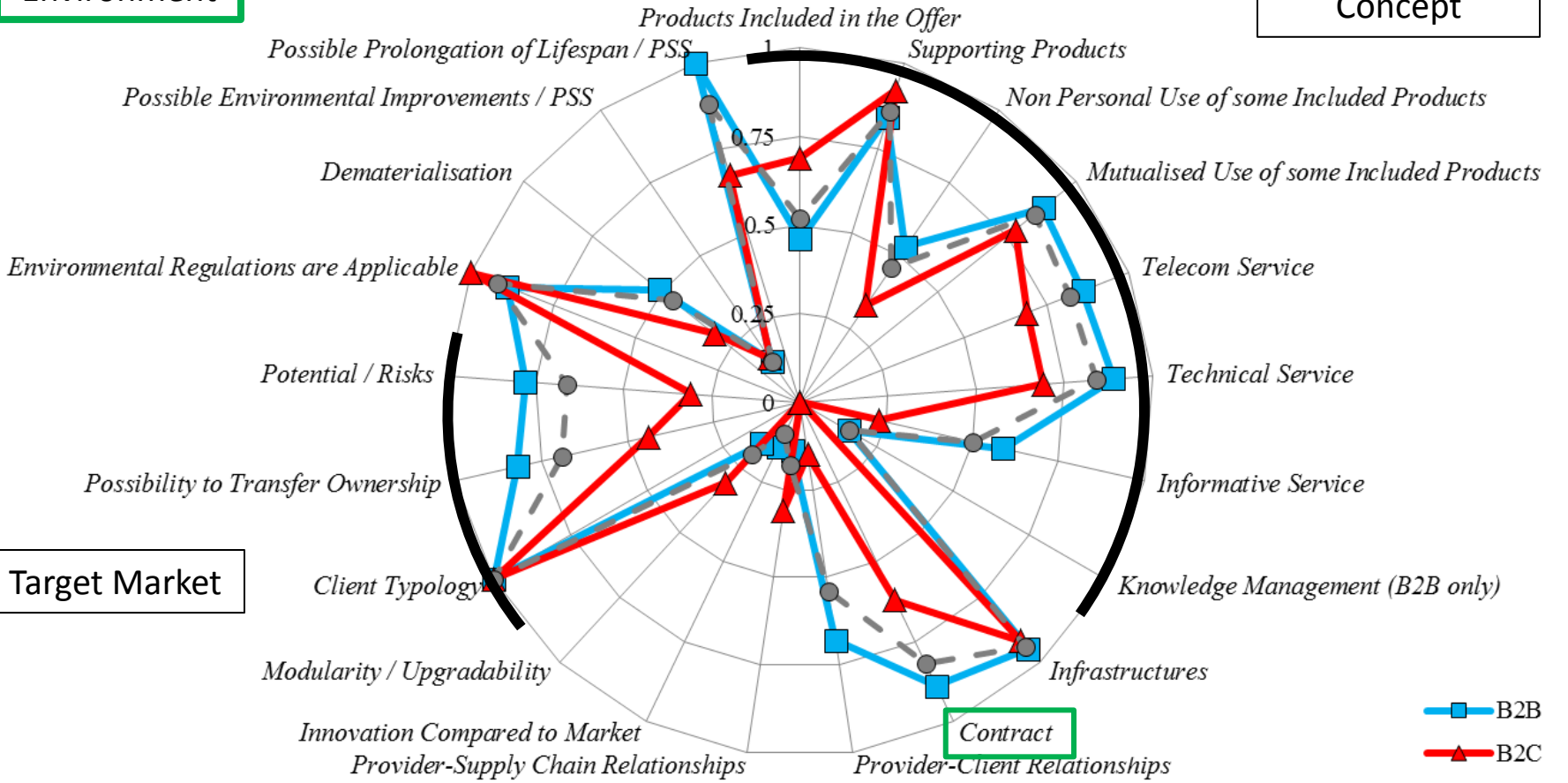
Environment

Product-Service
 Concept

Target Market

Contract

Delivery System



■ B2B
 ▲ B2C
 ● Global

4. Analysis of the results

Points in favour of PSS

- Product-Service Concept
 - Some mutualised products
 - Some offers are Knowledge Intensive
- Delivery System
 - Organisational Structure in place
 - Often Pay by Use (or result)
 - Offers require Reactivity
- Client Typology
 - Sector + Client typology correctly identified
 - Few risks in B2B
- Environment
 - PSS may improve product life spans
 - PSS may lead to potential environmental gains

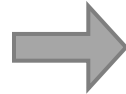
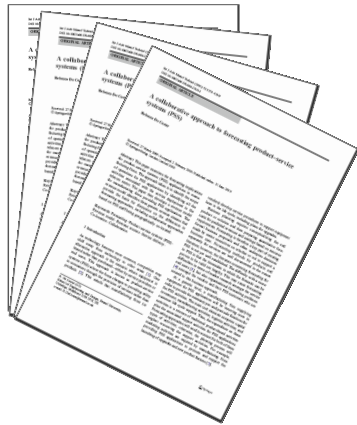
4. Analysis of the results

Some difficulties to apply PSS

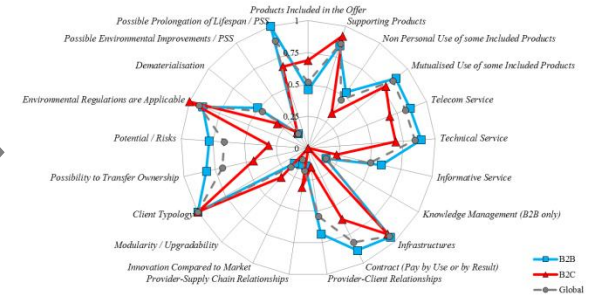
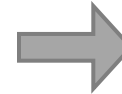
- Short term contracts (< 1 yr in 50%)
- Personal products
- Fashion products (B2C)
- Little modularity and upgradability
- Loss of ownership (B2C)
- Robustness (B2C)

Conclusion and Perspectives

- Already many PSS characteristics
- Key issues left
 - Contract
 - Current ownership
- Web tool (browse: G-SCOP softwares CPP)
 - Transfer to Orange Technocentre (B2B offers) and Orange Business Service (B2C offers)
 - Extension to other sectors of application
 - Educational tool to explore PSS



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G-SCOP softwares CPP

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THANK YOU