Product Service-Systems:

Design, Make and Serve: seeing, thinking & doing the whole

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Why businesses have begun to use or explore a Product-Service System (PSS)

Some observations from our collaborators & other organisations

Example PSSs

Why some businesses have begun to use or explore a PSS

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What they are trying to achieve by using a PSS

….return custom/loyalty is not enough….

Context:

Majority of income from use stage
Have lots of technical or customer knowledge
Currently sell product at low margin and support at high margin

Motives:

Desire to access use stage value and income
Fear of 'Dis-intermediation'
Desire for customer 'Lock-in'

Catalyst:

Customer or Competitor action (reactive)
Strategic exploration (proactive)

What types of PSS are there?

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Product-oriented:

Sell product then sell through life services	(e.g. military)
Financing	(GE engine finance)
Selling consultancy services	(fleet management, building services)

Use oriented:

Pay-per-use	(laundry, photocopying)
Leasing	(photocopier)
Renting	(car hire)
Sharing	(large farm equipment)

Result oriented:

Sell Activity	(document management, vehicle painting)
Sell Function	('warmth/coolth')

Adapted from: New business for old Europe. Tukker & Tischner.

These PSS 'types' have some commonalities:

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Attempting to use the superior knowledge of the product designer/manufacturer

- **By lengthening the relationship with the customer/user**
- **By bringing externalities into the system**

Changing the offering to the customer

Involving more parts of the business directly with customers

- **In negotiation stage & In use stage**

…Better, Cheaper, Longer…

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What have we learnt?

IMRC Innovative Manufacturing Research Centres

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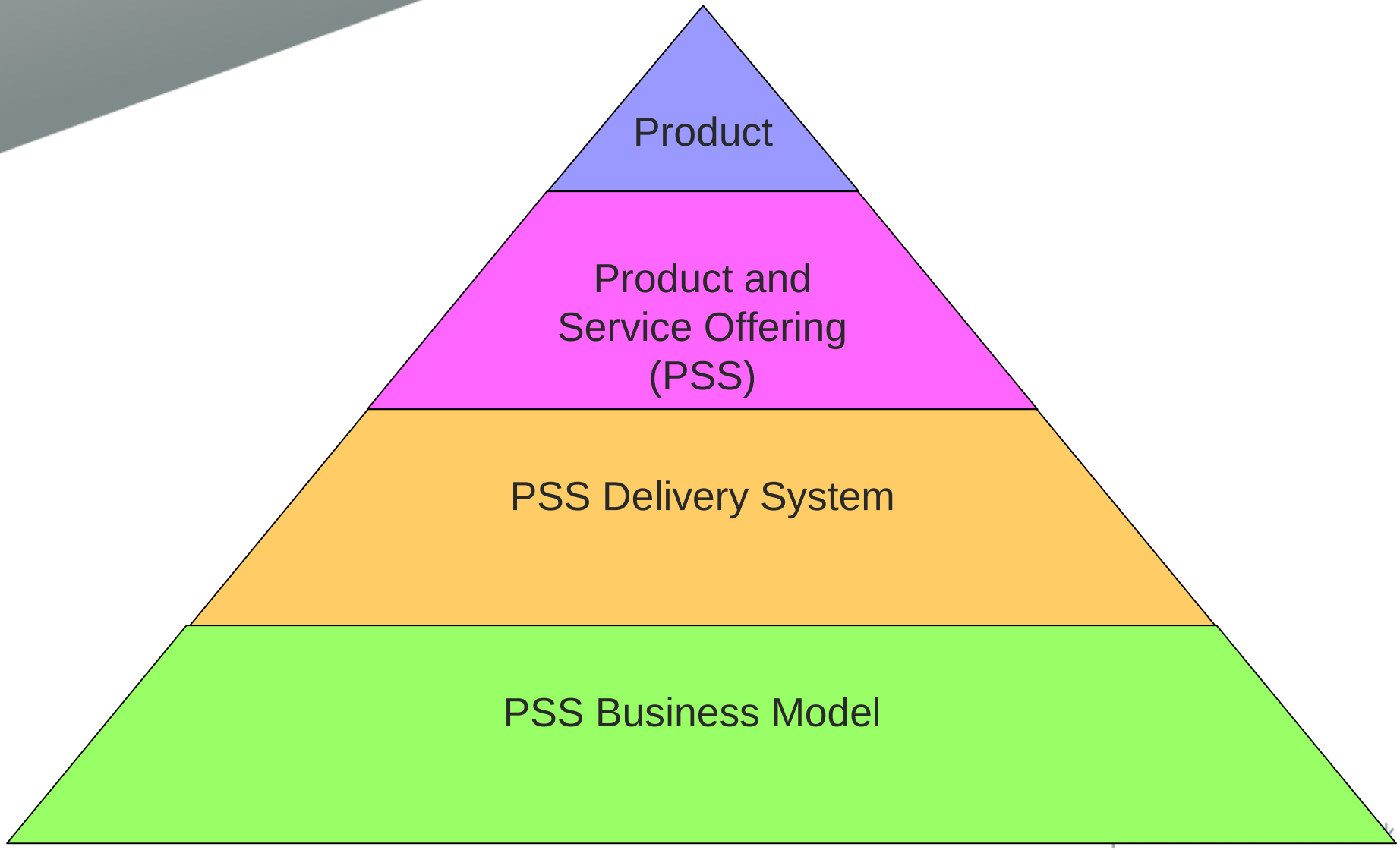

What have we learnt?

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Value

- Understanding Value is central
- Customer Value changes, with increasing intangible & emotional content
- Activity is often moved off the customer site, affecting perception of value
- More parts of the organisation are touching the customer
- Structures, processes & metrics are not well aligned with service offering
- Customers expectations are driving relationships
    - Not service level agreements or contracts

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Value Challenges

- Understanding value from customer perspective
- Measuring & monitoring value
- Pricing vs value (& hence profit)
- Memory of relationship during crisis is highly valued
- Avoiding crises is less valued

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Design Challenges

- Scope-risk-value-profit interact in new ways
- Offering, delivery system, business model
  - all need designing (together)
- Win-win vs lose-lose models

- Many parts of the OEM are touching the customer
- Importance of **personal experience** for many
- Sharing knowledge across silo's

- Service businesses **make money over time**
- Design is happening during negotiations

Needs new design thinking & new design skills & tools

What have we learnt?

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Transformation

- Importance of personal experience for many

- Organisations are experimenting and rapidly maturing

- JDI promise-scramble-effective-efficient as the system of learning.

- Companies can usually become Effective

but

a formal learning system to increase Efficiency is missing.

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Transformation Challenges

Historically:

- Traditional manufacturing, Focus on technology
- Silo's

Significant change, such that Now:

- More customer touch, More service orientation

- Some measures, processes & structures in place

- Increase efficiency of service delivery, consistently

- Develop scalability – benefits of scale are more difficult with services.

What have we learnt?

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Joined up Thinking

- Lack of a Common Language inhibits Joined up Thinking
- Boundaries between companies are changing & need managing
- Measures inside the business may not be appropriate for a service business model
- Different departments act in ways that are sub-optimal, there is a lack of alignment
- Staff do not meet the customer very often, nor rotate around own business

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Joined up Thinking Challenges

- Scope-risk-value-profit now inter-act in new ways

- Technology development is increasingly broad in scope, involving service delivery elements and experiential elements.

- Life cycle thinking is held back by lack of tools and management systems.

- We do not know how to innovate the business model

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Where does our knowledge offer advantage?

What do our customers value?

Thank You

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