

DEMAND AND USER DRIVEN RDI FOR ECONOMIC RENEWAL

26TH OF AUGUST 2010

USER DRIVEN INNOVATION
AS A DRIVER FOR PRE-COMMERCIAL PROCUREMENT
IN THE HEALTHCARE SECTOR

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*User driven Innovation
as a driver for
Pre-commercial procurement
in the health care sector*

The presentation:

1. The research project
2. What is pre-commercial procurement ?
3. The research setup
4. Focus in the presentation
5. Case 1-3
6. Insights across the cases
7. Conclusions

Project:

PRE-CO

Enhancing Innovation in Pre-commercial Public Purchasing Processes

Funded by:

The 7th Framework Program of the European Commission

Objective:

The overall objective of PreCo is to support public authorities in undertaking pre-commercial procurement (PCP) actions

Project Duration:

Nov 2009 – Nov 2011

Development and adaptation of European wide models, frameworks and policy recommendations for pre-commercial procurement in the domains of eHealth and eEnergy.

THE RESEARCH PROJECT



Project partners:

Ten partners from seven different countries, including:

- Culminatum Innovation Oy Ltd (FI)
- Alfamicro-Sistemas de Computadores Lda (PT)
- Agentura Pro Evropske Projekty & Management (CZ)
- Fundacion Comunidad Valenciana-Region Europea (ES)
- Syddansk Universitet (DK)
- Kraj Vysočina (CZ)
- Aalto School of Economics (FI)
- Copenhagen Living Labs Aps (DK)
- Amsterdam Innovation Motor (NL)
- Unione Regionale Delle Camere di Commercio (IT)



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What is Pre-Commercial Procurement of Innovation?

- *Pre-commercial procurement focuses on products and services which are not yet available on the market, for which a certain amount of development and/or research work is still needed.*
- *Pre-commercial procurement is about stimulating supplier product development from the demand side so that from the outset it fits perfectly the needs of the public authority interested in deploying the service commercially.*

[timeshighereducation.co.uk, 2010]

Approach to the study:

1. Identify cases of pre-commercial procurement or cases having elements that are included in pre-commercial procurement (at least three pr. country)
2. Conduct interviews with the project-managers.

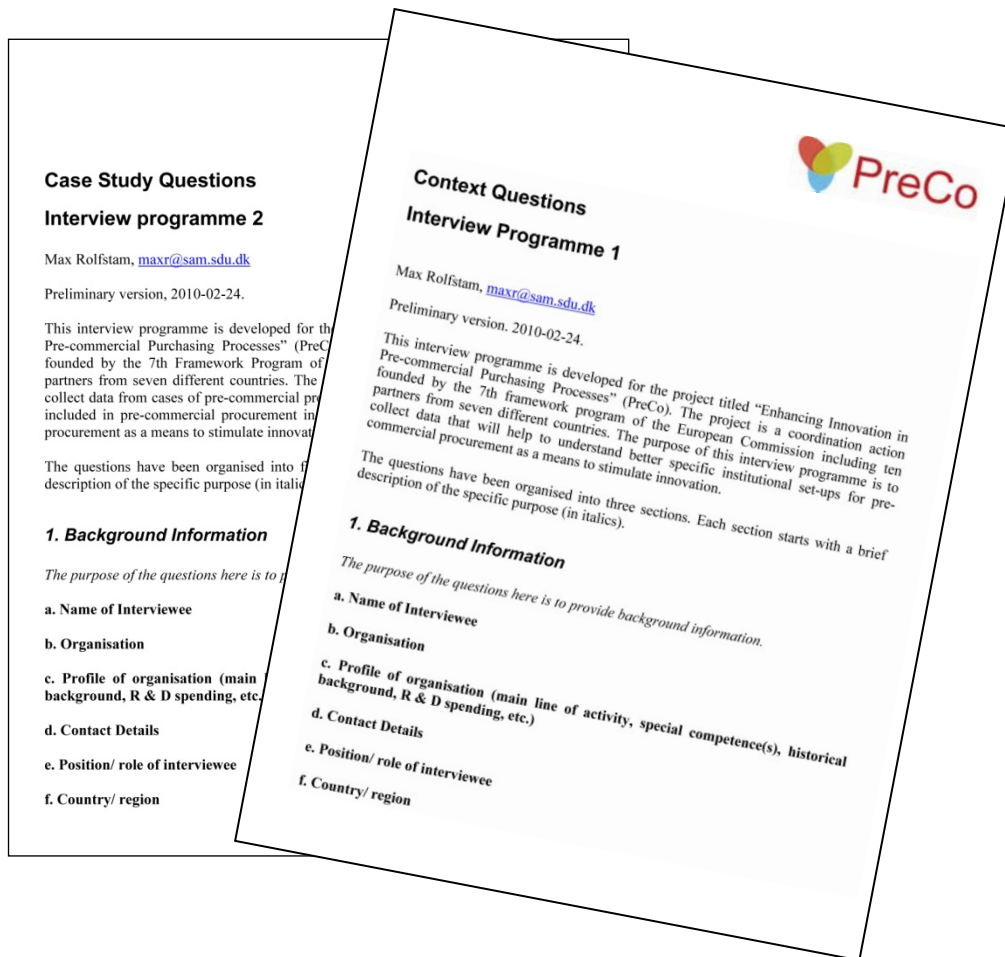
Case interviews

Parallel with this:

1. Identify public authorities or institutions with insight into or influence on pre-commercial procurement.
2. Conduct interviews with relevant personnel as a help to understand better specific institutional set-ups for pre-commercial procurement in the given country.

Context interviews

THE RESEARCH SETUP



1. Shared interview program across the seven countries.
2. Preliminary conclusions country wise.
3. Comparison of the conclusions from the different countries.
4. Development and adaptation of European wide models, frameworks and policy recommendations.

Presentation focus:

- **ehealth** (pre-commercial procurement in the health care sector)
- Preliminary conclusions from the **Danish** part of the research project based on 3 case-interviews and 2 context-interviews

THE DANISH CASES



The idea-clinic
Case: The urine-flask project



icph

**Innovation Center
Copenhagen**
*Case: Welfare technology
neighborhood*



MidtLab
*Case:
Hospital bed of the future*



THE DANISH CASES

Elements of pre-commercial procurement
(or attempts to do pre-commercial procurement)

Pre-commercial procurement



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Innovation Center
Copenhagen
*Case: Welfare technology
neighborhood*

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KLINIKKEN

The idea-clinic
Case: The urine-flask project

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MidtLab

MidtLab
Case: Hospitalbed of the future

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Innovation Center Copenhagen

Case: Welfare technology neighborhood

The 'Welfare technology neighborhood' project is a collaboration between the Copenhagen Municipality – the Department for Health and Care and Innovation Center Copenhagen (ICPH).

The project was based on a wish from the Municipality to impact the development of welfare technology products and services for elderly people.

Project objective was to use welfare-technology in the municipal home-care in such a way that it would:

- Enhance the citizen's self-sustainability
- Enhance the employee's working conditions
- Municipal time is released

icph

Innovation Center Copenhagen
Case: Welfare technology neighborhood



Testing welfare-technologies:

- The elderly people's wish to keep their home clean and neat => a robotic vacuum cleaner.



- The elderly peoples wish to get quick help in case of an emergency (and thereby enhancing the feeling of being safe in their own home) => an electronic key

icph

Innovation Center Copenhagen *Case: Welfare technology neighborhood*

Benefits from the project:



- **A number of aha-experiences**
i.e. that elderly peoples' homes are filled with carpets on carpets which is a challenge for a robotic vacuum cleaner



- **Clear priority of the product attributes**
i.e. the elderly people would like to control the robotic vacuum cleaner – so that it enabled them to clean the house themselves

- **A significant understanding of the services, systems and situations surrounding the product**
i.e. the difficulty in finding the regular keys in case of an emergency call.



Innovation Center Copenhagen

Case: Welfare technology neighborhood

The project was on purpose set up as a development project and not as a pre-commercial procurement project – because:

- The public system were very hesitant to make a pre-commercial procurement contract, because they were afraid to make a distortion of competition – and thereby to break the law.
- The project managers wanted the companies/suppliers to be part of the project, because they wanted to use the insights and tests from the project for further development and adaption of their products. And that they did not just participate in order to secure a large contract.



Innovation Center Copenhagen
Case: Welfare technology neighborhood

However:

During the project and at the end of the project, the companies involved expressed a wish for a pre-commercial procurement contract, which would ensure their investment and show the public healthcare system's willingness to take risks (as well).

For up-coming projects this will definitely be investigated further

CASE 2



The idea-clinic

Case: The urine-flask project

1. The idea-clinic is an internal tech-trans and commercialization unit within Aalborg Hospital.
2. The objective of the 'idea-clinic' is to support patients, relatives and employees at the hospital in the commercialization of product, service and process ideas.



The idea-clinic

Case: The urine-flask project



The urine flask project was initiated by a nurse in Aalborg Hospital. The nurse identified a number of problems with the present urine-flasks – and decides to create a new design:

1. The new design was more ergonomic and introduced a more comfortable material.
2. The new design also made possible to do direct sampling of the urine.



The idea-clinic

Case: The urine-flask project

The intention with the urine flask project was initially to develop it through pre-commercial procurement (as a part of the hospitals' procurement strategy).

However after a number of attempts this was strategy was abandoned – mainly because:

- The rules and regulations for pre-commercial procurement was very unclear/incomprehensible.
- The dialog with the procurement-department was very dissatisfactory. It was clear that they were afraid of making mistakes and they showed no interest in the project.



The idea-clinic

Case: The urine-flask project

Further, the idea-clinic found that:

- The procurement departments are very traditional in their approach to procurement. They work with paradigms such as lowest price or recommendations from the focus-groups, and are not ready to implement strategies in relation to pre-commercial procurement.



The idea-clinic

Case: The urine-flask project

- As a reaction to this situation the idea-clinic made some organizational changes. Rather than being a tech-tans-unit with mainly commercial employees, they are now also a development-unit with engineers and designers employed.
- The urine-flask project was further developed and today it includes a number patents and design protections – which can be licensed.
- Presently, the idea-clinic is trying to establish a strategic partnership with a flask company in order to set the urine-flask into production.



The idea-clinic

Case: The urine-flask project

However the idea-clinic still has an ambition to do pre-commercial procurement:

Presently, one of the idea-clinic's attorneys are looking into the rules for public procurement, in order to come up with a strategy for including pre-commercial procurement in their future projects.

CASE 3



MidtLab

Case: Hospital bed of the future

Midtlab – an internal innovation-hub in the Region Midtjylland (*a public institution, which main responsibility is the healthcare sector, including hospitals, practitioners etc.*)

Midtlabs main objective is to contribute to innovation in the public sector and motivate social entrepreneurship.

Their special competences are to create and support cross-sectional partnerships (both public-public partnerships, and public-private partnerships).

CASE 3



MidtLab

Case: Hospital bed of the future



- The project: ‘Hospital bed of the future’ is part of a larger project named: “More time to the patient”, which includes both focus on care and equipment.
- The project is a pre-commercial project, which should create the basis of procurement of hospital beds to Randers Regional Hospital (*who procures 100 beds a year, which is equal to an investment of 3.000.000 DKK a year*).
- And ideally serve as a basis of procurement of hospitals beds to the whole region including both hospitals, nursing homes etc. (*which lies in the area of 600 beds a year – at the cost of roughly 18.000.000 DKK a year*)

CASE 3



MidtLab

Case: Hospital bed of the future



- The budget for the project' is 2.000.000 DKK.
- The small budget is seen as an advantage, because it separates the pre-commercial development project from regular procurement *(Even though the idea is that the same partners will be involved in both)*
- The budget in the pre-commercial procurement project will be spent on the creation of prototypes.
- Besides the project funding Randers Regional Hospital will also provide participation in prototype-testing responding to 2.000.000 DKK in man-year



MidtLab

Case: Hospital bed of the future



- The tender call(s) and contract award took place in 2009.
- Competitive dialogue was used as the procurement procedure.
- The selected providers were: Design Partners (design consultancy); Cetrea (IT developer), Linak (IT developer); Danish technological institute; KR beds (bed manufacture).
- Further a partnering agreement was set up. It includes all the 5 providers and Randers Regional Hospital – as the 6th partner.
- The partners (in the partnering agreement) is committed to hand in a prototype for real-life testing every three months.



MidtLab

Case: Hospital bed of the future



Experiences on pre-commercial procurement from the project:

- Procurement agreements are time-consuming to develop. It takes a lot of time to find out what kind of tender to use and how to use it – as well as what kind of contract/agreement to set up.
- The procurement departments are not initiating any pre-commercial projects, and are therefore of no help in relation to projects like this.
- Procurement departments are driven by old paradigms like for instance: larger number = more discount. (*Sometimes this means that solutions, becomes expensive in the long run – because they lack flexibility*)



MidtLab

Case: Hospital bed of the future



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ACROSS THE CASES

User-driven-innovation
(was used as a driver in the projects)

The logo for Innovation Center Copenhagen (icph) consists of the lowercase letters 'icph' in a bold, black, sans-serif font.

Innovation Center Copenhagen

*Case: Welfare technology
neighborhood*

Ethnographic studies
and real-life testing



The idea-clinic

Case: The urine-flask project

Lead-User Approach



MidtLab

Case: Hospital bed of the future

User-observation and
real-life testing

User-driven-innovation also makes good sense, if we look at the characteristics of products, which are mainly procured in the health care sector.

The products are often low tech or mature technologies, which needs adjustment to the context of the products, as well as the 'service system' surrounding them.

⇒ Here a user-driven-approach is very suitable, because it is:

1. focused on the individual user
(time, place, needs, wishes etc.)
2. focused on the whole
(system, interactions, services etc.)



User-driven-innovation also makes good sense,
as an alternative input to the way public institutions are
procuring products in Denmark today

Today most public procurement mainly happens through:
The government and the municipalities' procurement service
– also called: *National Procurement Ltd. (in Danish: SKI)*

SKI's way of procuring is based on:

1. Framework agreements – with 100 or more product lines
– lasting 4 years at the time.
(which created very few openings for new providers)
2. Traditional product categories/specifications
(which means that new types of products often does not fit in)
3. Traditional paradigms like: more units more discount
*(which leaves little room for customization and evaluation of the
total cost of the products)*

A User-Driven-Innovation approach could enable SKI to identify the effect needed (for instance in the area of welfare technology) and invite tenders for this :

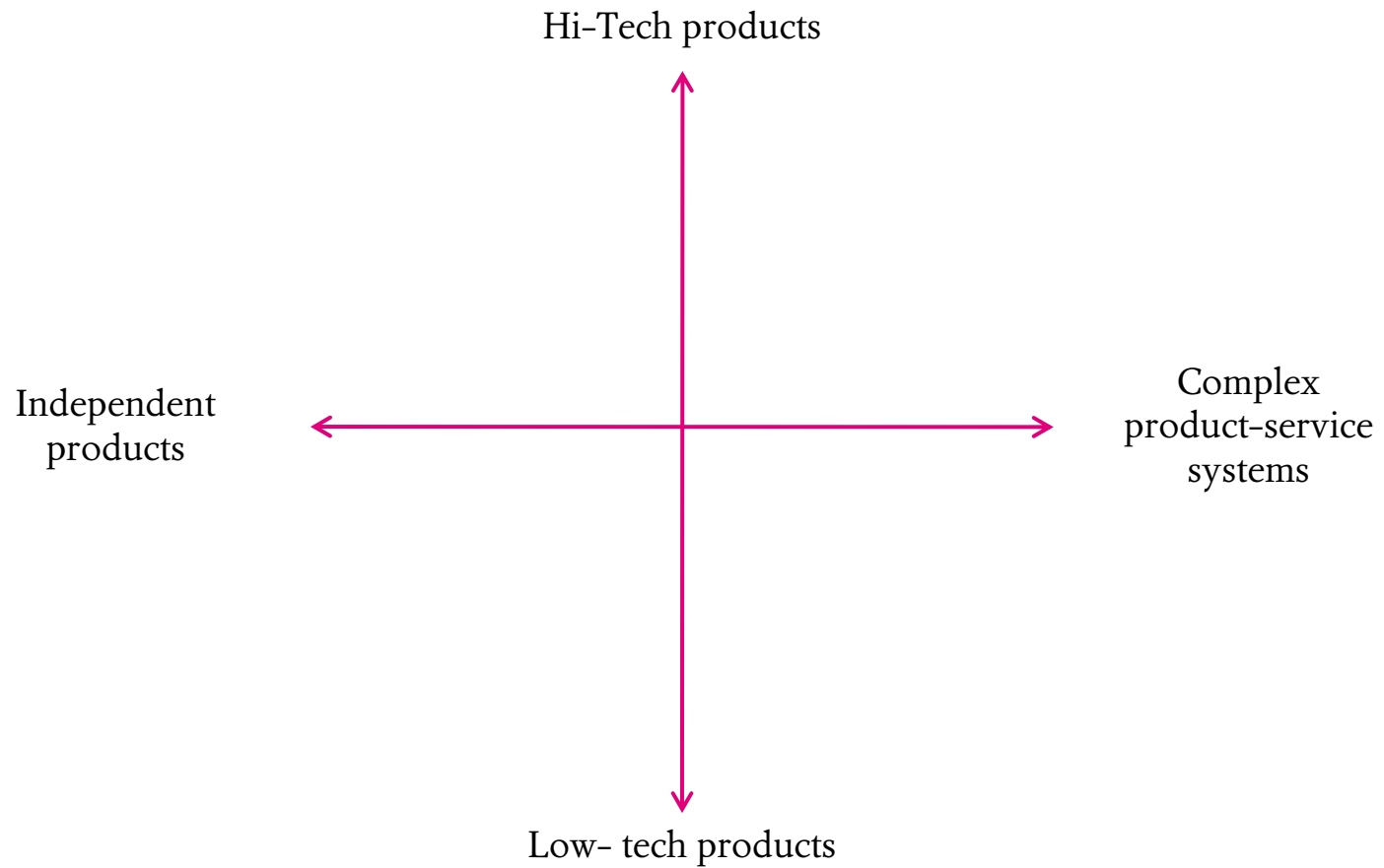
1. Rather than traditional categories/specifications
They could set up demands to the total delivery
– including the total economy of the product.

2. Rather than getting more discount
They could focus on getting more customized solutions
to the specific situations.

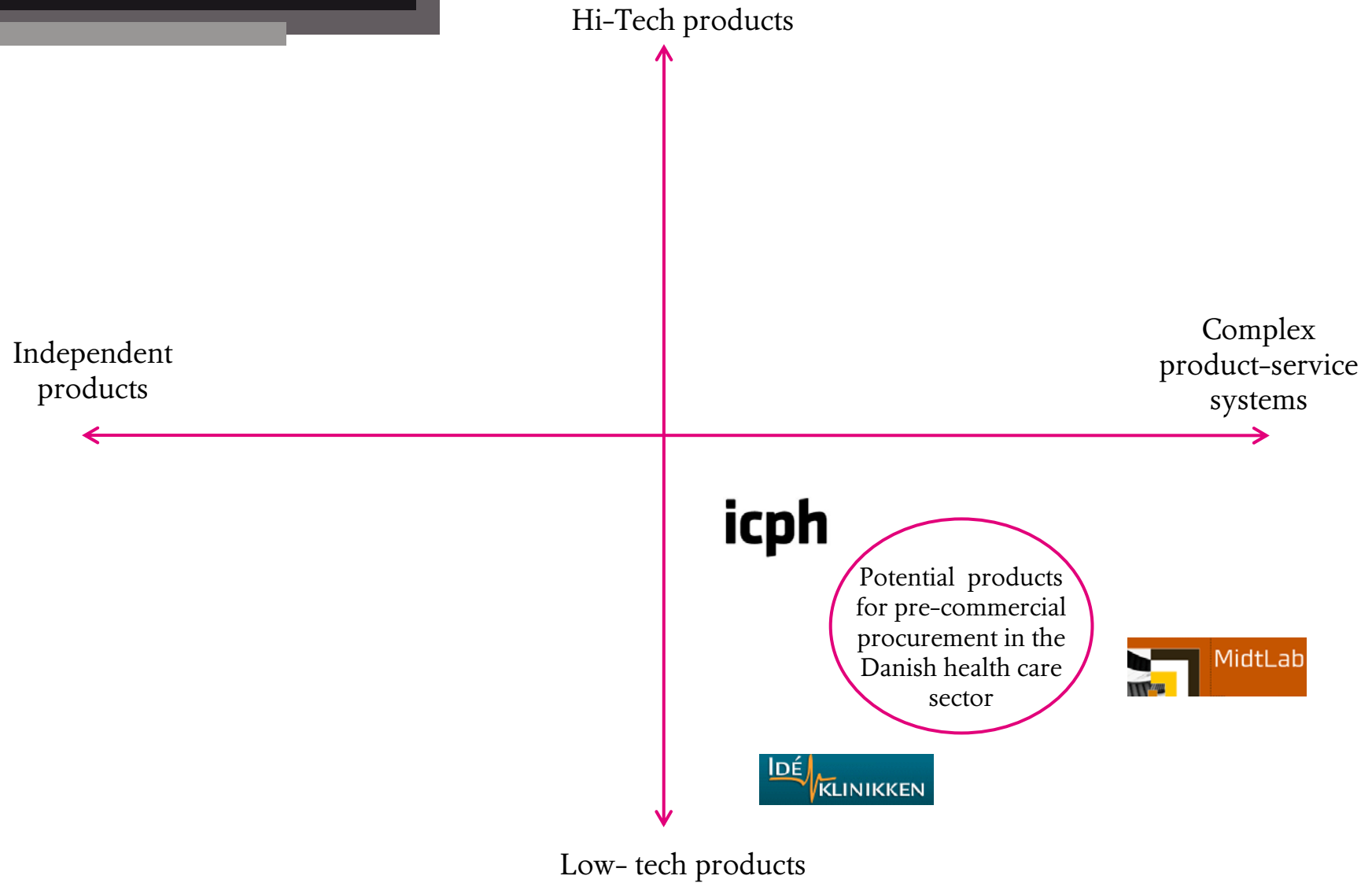
User-driven-innovation also makes good sense, as a way to overcome some of the present barriers for pre-commercial procurement identified in relation to the procurement departments.

Procurement departments use of old paradigms such as lowest price or recommendations from the focus-groups, could be replaced with insights from user-driven-innovation projects and thereby ensure the flexibility of the products and adjustment to the 'larger' system.

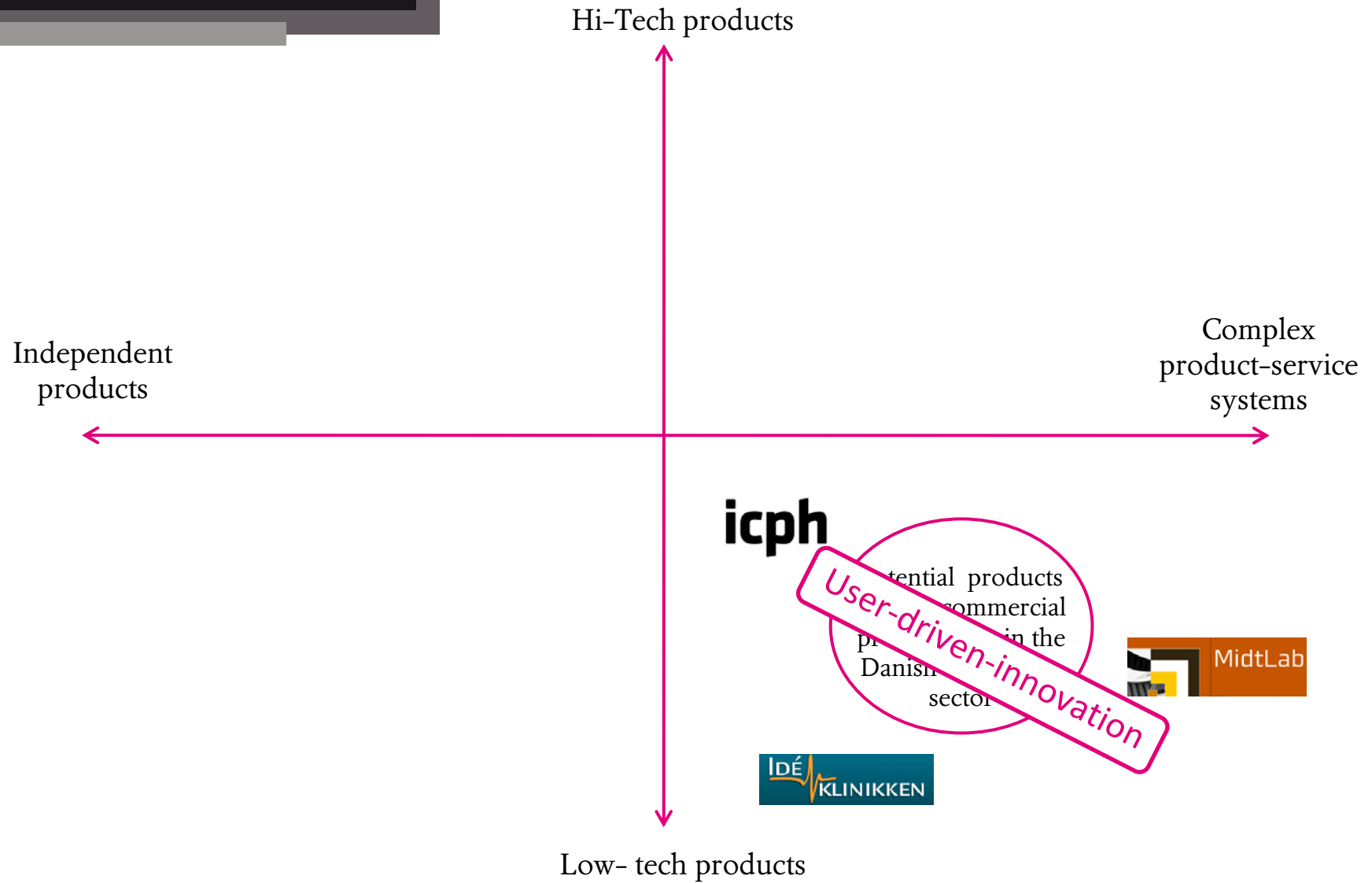
IN CONCLUSION



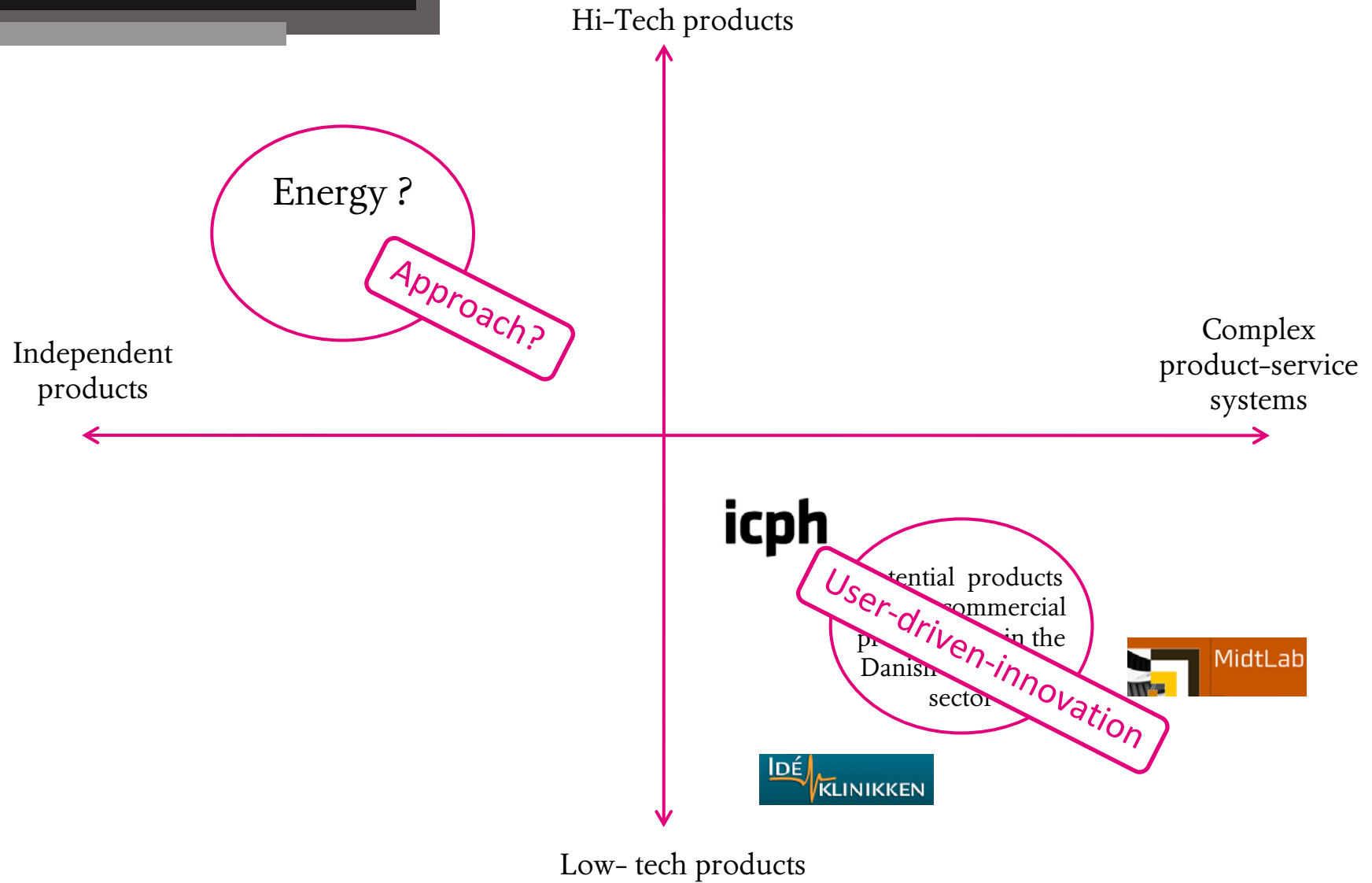
IN CONCLUSION



IN CONCLUSION



IN CONCLUSION



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