
PÖYRY

New and innovative infrastructure procurement models – the need for new financing models in Finland for social and economic infrastructure
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Presented byJaakko Leinonen

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R & D, Pöyry Project management services

- Improve the capability of Pöyry's services in large projects
- Develop new procurement models for the public sector together with other leading concultancy companies
- Develop new services for the wider scope

Public sector in trouble?

- Demographic change is huge:
  - Dependency ratio* 2008; 50,3%, 2016; 60,4% and 2026; 70,5%
  - Baby boomers will overtake the retirement age
- Economic recession will still affect the public sector economy many years
  - This phenomenon reflects directly to the finance of built environment
  - Municipalities are facing budget limitations and they have to take care of the statutory services (health care, services for aged population, education and other social services) despite the economic situation.

→ New financing models are needed

$$* \ (Total)\ Dependency\ ratio = \frac{(number\ of\ people\ aged\ 0\ to\ 14\ and\ those\ aged\ 65\ and\ over)}{number\ of\ people\ aged\ 15 \rightarrow\ 64} \times 100$$

The state of the built environment in Finland

- According to the ROTI reports that were published on April 2, 2009, the Finnish national infrastructure received a school grade B-
  - More information www.roti.fi
- Results of the evaluation of the Finnish Infrastructure
  - Transportation network:
  - Roads valued as 32 billion €
  - Accumulated deficit 2,5 billion €
  - Municipal and civil engineering:
  - Networks valued as 10-15 billion €
  - Accumulated deficit 1,5 billion €
  - Other assets in the built environment:
  - Buildings valued as 320 billion €
  - Accumulated deficit 30-50 billion €

Practical findings from the real estate investment in the portfolios of Finnish institutional investors

- Licentiate thesis: Real Estate Investments in the Portfolios of Institutional Investors – Development and Allocations of Direct and Indirect Property Investments in the Near Future. Leinonen Jaakko, 2009, Helsinki University of Technology, (Aalto University, School of Science and Technology 2010-)
- Objectives of the study were:

To describe the role of the real estate investments (direct and indirect) as part of the portfolio of the institutional investors and the development in the near future

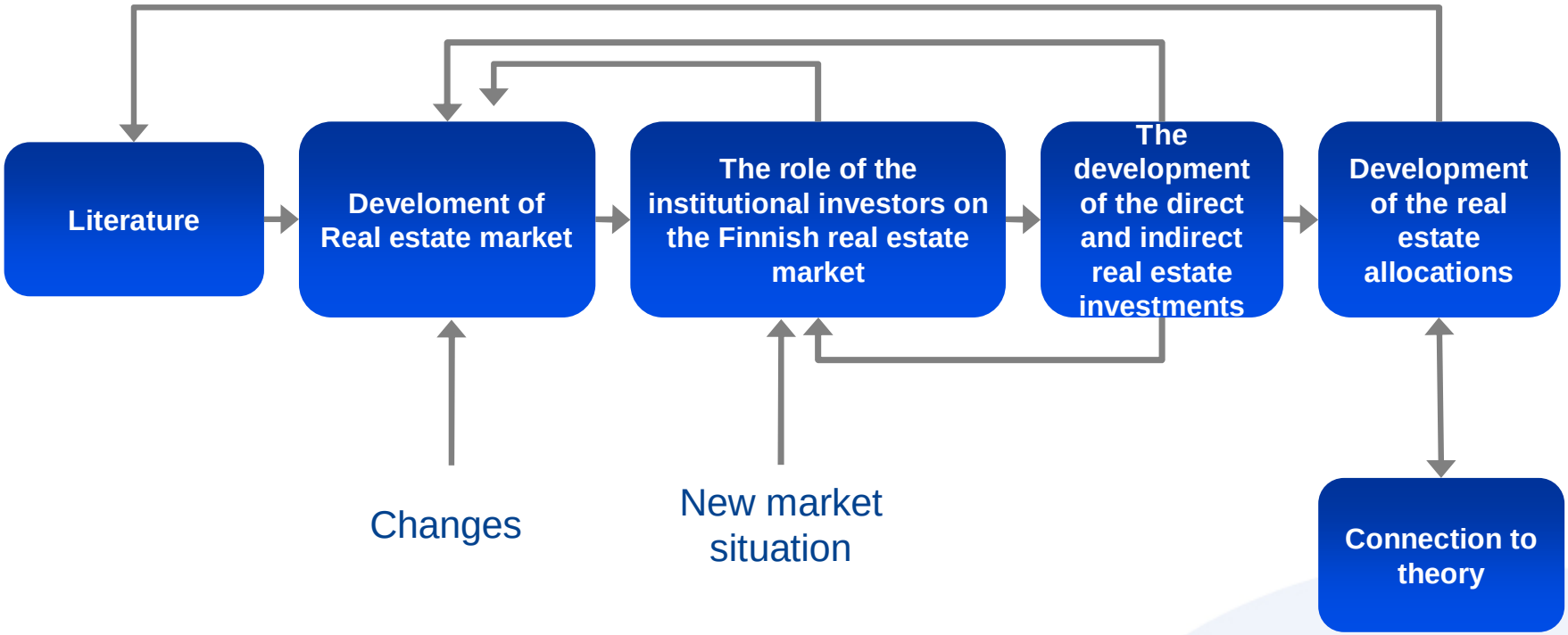
To explain the development of the real estate market

To define the real estate allocation

To define the factors which affect to the changes of the real estate allocation

clarify the changes of the real estate investments of the Finnish institutional investors

Framework of the study



Key results

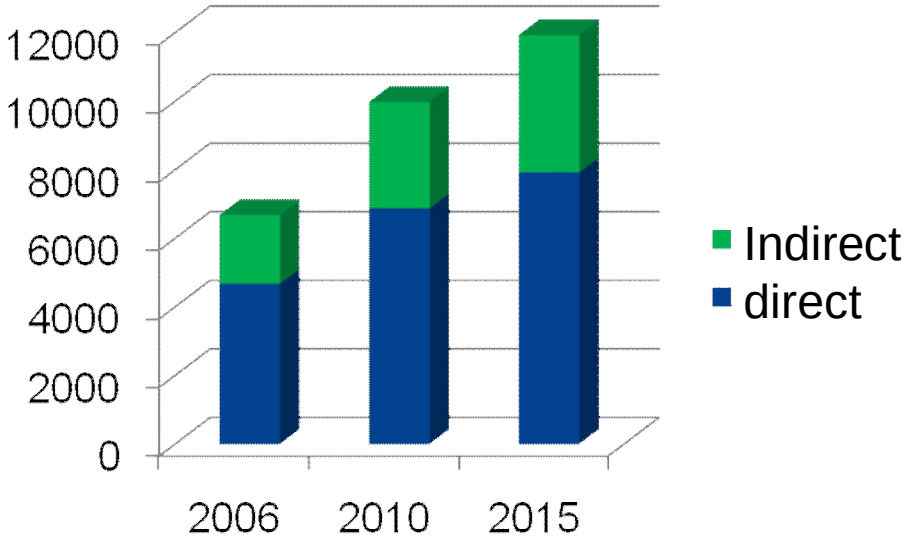
Finnish institutional investors will increase their real estate investments in the future because real estate allocations will be kept in the same level in the future and the pension funds will increase from 15 to 20 years.

The increase of the real estate investment portfolio will be done mostly via indirect real estate investment instruments.

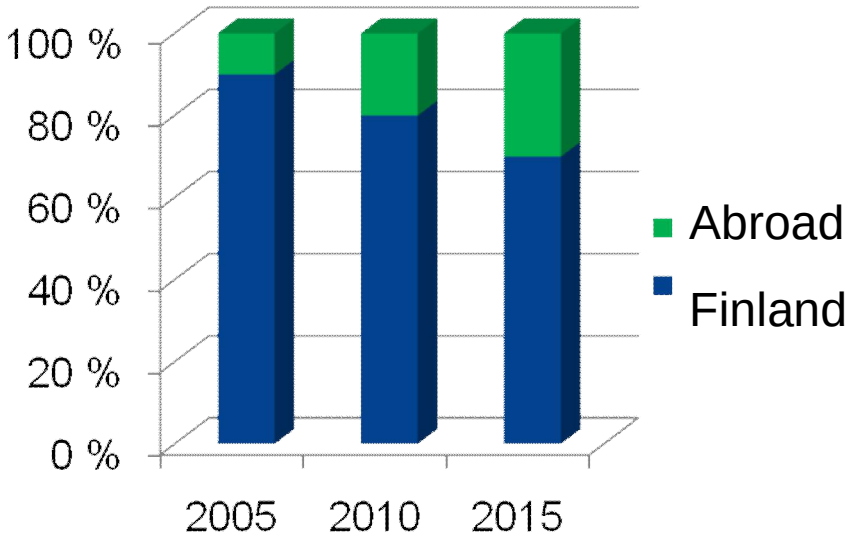
Approximately 30-50 % will be invested to Finland and 50-70 % to abroad

The real estate portfolios of the Finnish institutional investors will be approximately double sized during the following 15 to 20 years

The development of the real estate portfolios



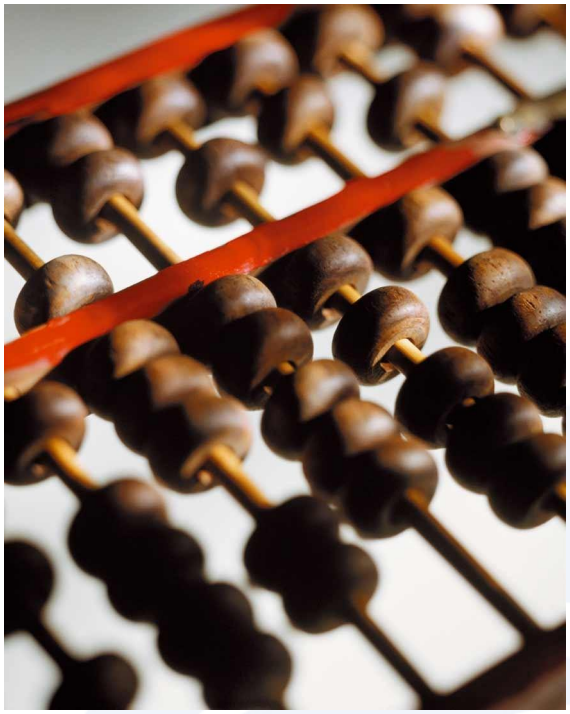
The development of the direct and indirect real estate investments of the Finnish institutional investors



Real estate allocations: Abroad vs. Finland

Development project: Practical Partnership models

- The aim of the development project is to develop the implementation process of the partnership models and to reconcile the economic and technical demands.
- And to create the standardized model for the procurement of the partnership models and create the documentation for the public authorities.
- Project tasks
  - Financing models
  - Risk valuation,
  - Risk pricing
  - Taxation
  - Contracts



Case a: Espoo, Puolarmetsä, Hospital

- **The hospital centre comprises of rehabilitation facilities for 240 people and a regional healthcare centre for 35 000 citizens.**
- **The senior centre comprises of housing and social facilities for 160 patients.**
  - Also, all the required supporting functions and associated facilities are accommodated in the development including a parking garage, loading area, personnel social areas, logistic centre, archives, chapel and maintenance related spaces. The scope of the project is 67 050 m2 and 304 000 m3.
- As a result of thorough economical studies it was concluded that partnership model based on a project company was the best approach for this project.

Comparison calculations results:

Source: Inspira and Pöyry

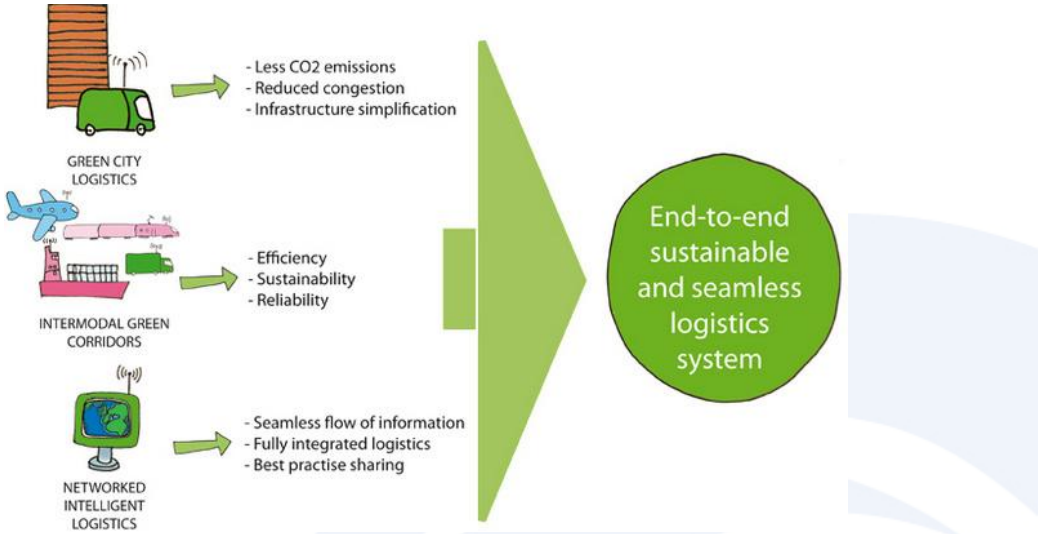
Case b: Kastelli house, Oulu

- City of Oulu is developing educational facilities in Kontinkangas area that will accommodate comprehensive school, upper secondary school, special education, daycare and youth work services.
- The underlying idea of the project is to replace smaller and older educational facilities in the area that would otherwise require extensive renovation investments.
- The educational complex is designed for about 2100 people including all support functions, students and staff. The scope of the project is about 23 000 m2, and it is expected to be operational in 2015

Source: City of Oulu

Case c: A new regional logistics integrator (4PL)

- A new regional logistics integrator (4PL) is being developed by Tredea the council of Tampere region.
- The project is in conceptual stage, a new vision has been created which relies on three focus areas: green city logistics, intermodal green corridors and networked intelligent logistics.
- Logiera will show that conserving natural resources is entirely compatible with winning and maintaining customer value and trust in logistics systems.
- The project will renew the whole concept of logistics in the Tampere region by making cargo transportation more sustainable and comprehensive. The new logistics system will start a new era in logistics.



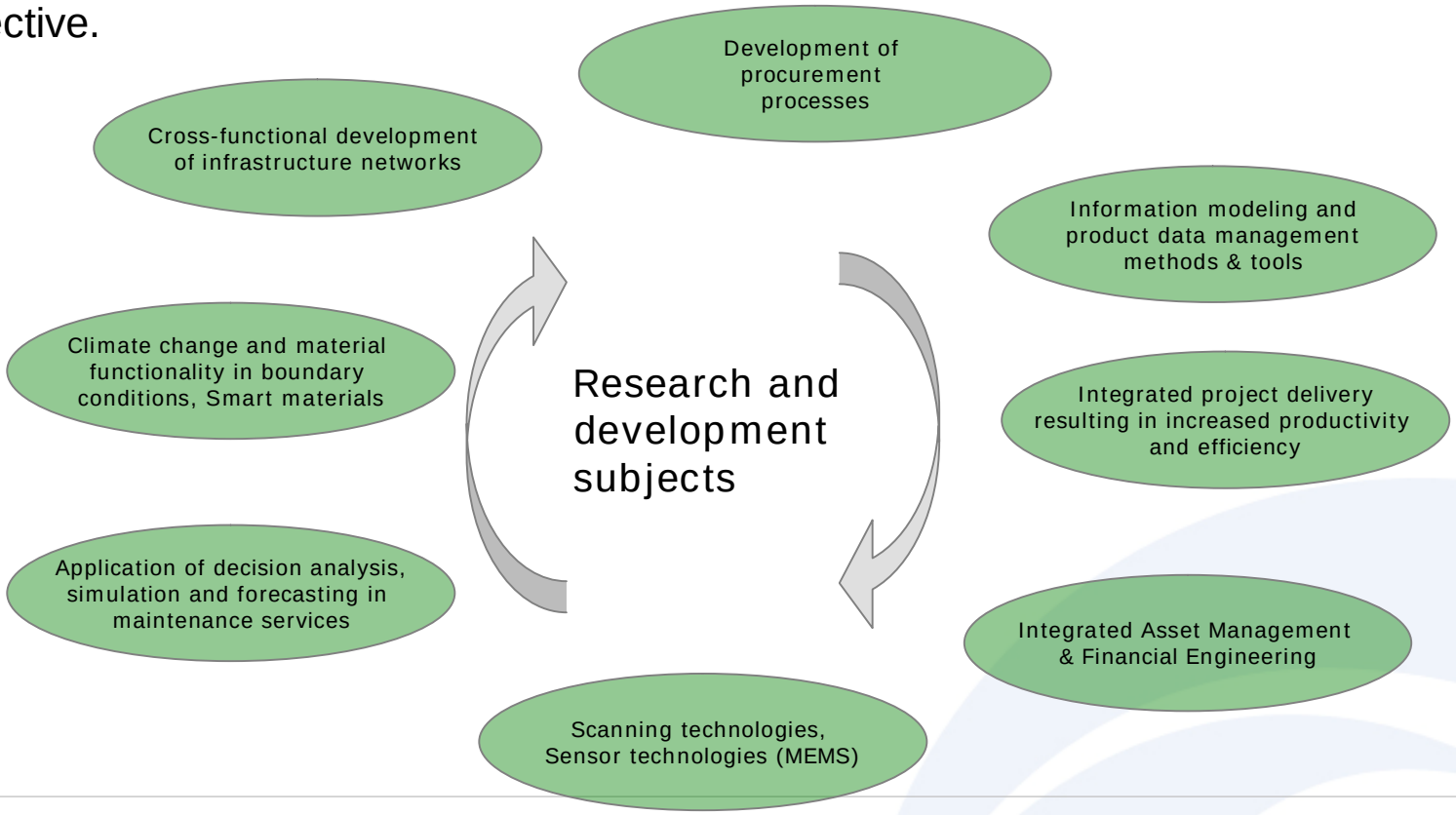
Source: Tampere Region Economic Development Agency Tredea company and Logiera

Conclusion

- This leads us to an interesting question, could the real estate financial mechanism be used in either economic infrastructure or even in a more complex surroundings as presented in an urban development PPP cases.
  - Long-term approach to transport infrastructure management
    - The time span of policy guidelines for transport infrastructure should therefore be extended to 10–15 years. The role of Parliament in decision making should be strengthened.
  - This new procedure provides significant savings:
    - Resources for infrastructure construction and planning can be balanced better. Projects can be planned and implemented as more extensive entities, which leads to more efficient use of resources and enhanced possibilities for innovations.
    - Need for plans can be anticipated and the production of plans becomes more efficient.
  - The current budget process is based on operating expense budgeting. In this case investments are only considered as operating expenses.

Further studies

- The first step towards long-term financing is to verify the credibility of the cost estimates of the investment projects not merely as operating expenses, but is this in the best interest of the public financing models used at the moment?
- This leads us to identify several research areas to be investigated further in order to gain a better understanding of the underlying phenomena affecting the investment and governance risks and opportunities (figure 1.) from either the public or private perspective.




Thank You!
Discussion and questions?
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