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

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This paper describes the challenges in public financing of essential infrastructure investments. Infrastructure is, after all, the key issue in the global competition between different countries and locations. Infrastructure allocations are relatively low compared to real-estate allocations of institutional investors in Europe. According to OECD's report Pension Fund Investment in Infrastructure, OECD Working Papers on Insurance and Private Pensions No. 32, Jan. 2009, it will be important to open new investment opportunities in infrastructure projects for institutional investors. Public authorities and decision makers play a key role in opening the public infrastructure market for private investors.

This paper describes two actual cases in Finland, which are realized as part of a program for innovative procurement in the public sector. The program is partly funded by TEKES (the Finnish Funding Agency for Technology and Innovation). This paper clarifies the process of public procurement in Finland, the challenges of fitting in the needs of both investors and public authorities, and summarizes some findings from the literature. This paper also describes the relative importance of a more complex urban development infrastructure financing.

Introduction

This paper and results are based on development project "Practical Partnership models". In this development project Pöyry CM Oy is the technical consultant and is responsible for the risk valuation and pricing, definitions of the life cycle services (including premises and the services) and valuation of the residual value.

Public sector will meet huge challenges during the large demographic change in Finland where age structure will meet dramatic change in following years. As a result, the

dependency ratio will rise steeply. It was 50,3 in the end of 2008. It will raise to 60,4 during the 2016 and to 70,5 during the year 2026. (Statistics Finland, 2009)

During the next decade the baby boomer generation will overtake the retirement age and Finnish structure will have new challenges. Economic recession is still affecting the Finnish economy, especially the public sector. 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.

Infrastructure is the key element in the long term in competitiveness of the society. Therefore, the weathering infrastructure will need re investment for upkeep and maintenance, as well as, investments for new infrastructure development. New procurement models in Finland are under development. During the last years different committees and working groups have focused on the challenge of implementing new procurement models for public sector (See references).

Background

According to the ROTI reports that were published on April 2, 2009, the Finnish national infrastructure received a school grade 8- or perhaps more internationally applicably with a B- (ROTI, 2009). After the first Finnish report was published in the spring 2007, it led into several further investigations on the alleged weaknesses, thus actively participating in the policy change e.g. on national investments to infrastructure rehabilitation. The effect of the 2009 ROTI reporting is thought have even more distinguishable results mainly due to the global financial crisis and its effects on the availability of budgetary funds for infrastructure maintenance and investments. However the grading system could be said to be somewhat misleading since the figures for infrastructure value and deficit propose an even more drastic view on the state of the Finnish infrastructure.

- Transportation network:
  - Roads valued to be 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 320 billion €
  - Accumulated deficit 30-50 billion €

The above mentioned deficits pooled together with financial markets' meltdowns experienced on a global scale has also changed the Finnish governments view on the funding policies in infrastructure. These policies were based on a report published in 2007 by Raimo Sailas, Permanent Secretary of State, when he acted as a rapporteur examining issues related to transport financing and development of new financing models for trans-

port investments (Sailas, 2007). The aim of the report was to focus on the following aspects: use of private cash investments (pension funds, trusts), reform of spending limits and budget authority procedures for the purpose of making long-term decisions about the transport infrastructure, development of Public-Private Partnership (PPP), road and transport funds of different types (comprising of road user charges, for example) as well as other possible financing models. However, the rapporteur reached a conclusion that there are very little grounds for establishing new transport fund models. Mainly the views were that additional funding mechanisms would not increase states' revenue or that any other instance could provide a better financing solution to the states' current budgetary model. Since the report was published the situation could be said to be drastically changed due to the global financial crisis. Which has lead the current Minister of Transport Anu Vehviläinen to steer the focus into more advanced and more complex funding mechanisms to assist the traditional dedicated funding based on the states budgetary funds (Vehviläinen, 2009).

Private funding can be regarded as one of the key change drivers from the view point of knowledge-intensive business service development in infrastructure construction asset management. Private funding mechanisms require not only the traditional indicators of road and railway quality and condition, but also they propose new indicator in the form of a more rigid view on the return of the capital invested. These pooled together with the environmental issues that are needed to be tackled in the transportation planning, a setting is created where planning between different forms of traffic are bound to have trade-off decisions to be made between the asset classes. Thus new forms of decision making support vehicles could also be said to be needed. An important role will also be played by the different ways asset data is reviewed, visualized and communicated on strategic, tactical and operational levels in the different administrative bodies. This together with current merger of the road, railway and navigation administrations in Finland will form a new transportation administrative body could have a major effect on parliamentary decision-making in the future. The plausible growth in the need for comparable data will also present itself by asserting more emphasis upon the life cycle of an asset in question and its market value or attractiveness in relation to its substitutes i.e. when plausible road investments are compared to railway investments. Hence transparency in asset data collection and in its interpretation could be said to be one of the most critical factors in arm-wrestling the opportunistic behavior in infrastructure construction asset allocation as proposed in the agent theory (Jensen, 1976). Transparent information would lessen the opportunity for parliamentary decision-making to be made without allowing the trade-offs be visible to a wider audience of stakeholders. Regarding to OECD's report pension funds should invest more assets in infrastructure (Inderst, 2009). On European level infrastructure allocations are relatively low. On the long term they should be increased considerably.

The Framework for public procurement in Finland

Public contracts are supply, service or public works contracts, into which the state, municipalities or federations of municipalities, state enterprises and other contracting authorities, as defined in the purchasing legislation, enter with external suppliers. Public

contracts are established through means stipulated in the procurement legislation. The purpose of this regulation is to increase the efficiency of the use of public funds. (Ministry of Employment and the Economy, 2010)

The fundamental principles of the public procurement regulation include transparent and efficient tendering and equality and non-discriminatory treatment of participants. For example, the principle of transparency requires that the public contracts are sufficiently publicized, while the principle of equality and non-discrimination means that the tenderers are treated equally, following the criteria described prior to the reward of the contract. The awarded contract shall be either the most financially advantageous tender or the lowest price. If the contract is awarded on the basis of the most financially advantageous tender, tenders are compared against the criteria described in the request for tender. (Ministry of Employment and the Economy, 2010)

A further aim of the EU regulation on public procurement is to enhance the competitiveness of European businesses – including Finnish businesses. The regulation strives to secure free movement of goods, services, capital and labour. These are the fundamental freedoms laid down in the Treaty establishing the European Union. Transparent and equal tendering procedures open up opportunities for companies and service providers to offer their products and services to the public sector to an ever greater extent. In addition to the national legislation and the EU directives, Finnish contracting authorities adhere to the World Trade Organisation Agreement on Government Procurement (GPA). (Ministry of Employment and the Economy, 2010)

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

The following is based on Jaakko Leinonen's licentiate thesis Real Estate Investments in the Portfolios of Institutional Investors – Development and Allocations of Direct and Indirect Property Investments in the Near Future, 2009, Helsinki University of Technology.

The background of the study consists of the development of the indirect real estate investment. Main objective of the study was 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. Sub goals were to explain the development of the real estate market, define the factors which affect to the changes of the real estate allocation and clarify the changes of the real estate investments of the Finnish institutional investors. The applied research methods were Semi-structured interviews, questionnaires and literature. Study was more inductive than deductive research and it might be clarified as the explorative study. Results included following. International real estate market has been developing rapidly during last years. This phenomenon has also influenced Finnish property market. Finnish institutional investors have been important group in the Finnish property market despite of the several new international investors in Finland. Real estate investment is an asset class which provides stable return and stabilizes the portfolio.

Conclusions of the study included that 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. Practical contribution of the study is that it has described the development of the real estate market, how these changes might affect to different players in the real estate business and which factors are important in the investment process of the real estate funds.

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. One part of the development project is to create the standardized model for the procurement of the partnership models and create the documentation for the public authorities. During the project we are aiming to decrease the cost of the partnership procurement for the public authorities and make it in the shorter time period than earlier. One goal of the project is to encourage the public authorities to use the partnership models in the future.

Case a: Puolarmetsä hospital, Espoo

City of Espoo is developing a new hospital in Puolarmetsä area that will provide basic healthcare services, as well as, specialized services for elderly people. The hospital centre is planned to create an active and humane campus area where patients are surrounded by everyday life activities in a comfortable environment with many recreational possibilities and services.

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.

Espoo has set targets for the development in relation to the project procurement practices. These targets include realization of investments and services by utilization of partnerships, and a service contract including a usability component and a flat rate component. Also, in case the contract partner dissolves the contract City of Espoo is entitled to continue the rent contract with original conditions without the maintenance and other related services, or alternatively reclaim the building.

Based on these targets and project properties, three procurement models were chosen for closer examination. These models include real estate company approach, partnership approach with a project company and partnership approach with collateral security. In the

real estate model Espoo procures all the services through a real estate company that is capitalized with a loan that City of Espoo will secure, thus enabling more affordable interest rates. In the partnership approach that is based on establishing a project company, all the services and construction activities are managed by the project company. The project company based approach utilizes bound capital as an effective risk transfer mechanism and motivation for efficient service production. The third model is a partnership approach that is based on collateral security. This model utilizes securities set by the service provider and funding arrangements based on a lease to transfer risks.

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. This model performs best in fulfilling the owner's qualitative targets, whereas the financial differences between different models remained rather small. The model takes advantage of risk transfer in a very effective way by utilizing the bound capital assets for this purpose. Additionally, the financing components received from the external investors add an element of control to the project execution and the City is able to adjust the amount of risk transfer they wish to utilize. It was also important factor for Espoo that they have an option for using the facilities after the service contract period has expired. The project is entering the competitive bidding process during 2011 where the service provider is selected, and the decisions regarding construction and other services are expected in early 2012.

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 facilities are complemented with support functions and related facilities. These include meal service, cleaning service, maintenance service, janitor service, IT service, library and other associated services. 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.

Oulu has set targets in relation to the development in relation to the procurement methods and these include utilization of partnerships, the applied financing and delivery practices must enable innovations for cost effectiveness, cost and schedule firmness, investment funding must be external to City's budget, development of a usability guarantee practices and enabling external financing sources for maintenance costs.

Based on the targets set by the City of Oulu and discussion between City officials and different experts in was concluded that three procurement models will be likely chosen for closer review. These include real estate company approach, partnership approach with a project company and partnership approach based on leasing with collateral securities. The expert analysis revealed that the real estate company approach was most vulnerable for price fluctuations related to project risks. In other words, if only few risks with little

economical impact realized the real estate model could end up being the least expensive one, whereas, in case more substantial risks realized the model would be most expensive approach. This effect was traced back to the fact that a real estate company carries more risks than a project company in a partnership model, and the risks associated with the real estate company tend to be risks with biggest cost range.

After thorough economical studies and analysis the experts concluded that the partnership approach based on a project company is the recommended procurement model for this project. The security structure and related motivational factor provide the biggest advantages for this particular approach. However, it was noted that cost differences between different models were found to be relatively small (less than 2 % difference between the cheapest and most expensive model), and the recommendation is mainly based the fact that partnership approach with a project company fulfills City of Oulu's qualitative project targets the best.

Implications for further studies

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. In the government transport policy report to the Finnish Parliament some of the plausible ways to influence into the future were identified and reported as transport policy guidelines as part of the network investment and financing programme until 2020. In this report three key issues were identified:

- 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. The preparation of a Report on Transport Policy at the beginning of electoral periods should be made a permanent practice.
- 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.

However the novelty value of these points could be put under intensive scrutiny. If the identified key issues that are interconnected relate to agency or political risk, it could also be said that 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 is one of the

main hurdles to be crossed, if profit or yield structures or goals are to be discussed further. The two cases illustrated before also bring to light similar issues from the real estate business area. 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.

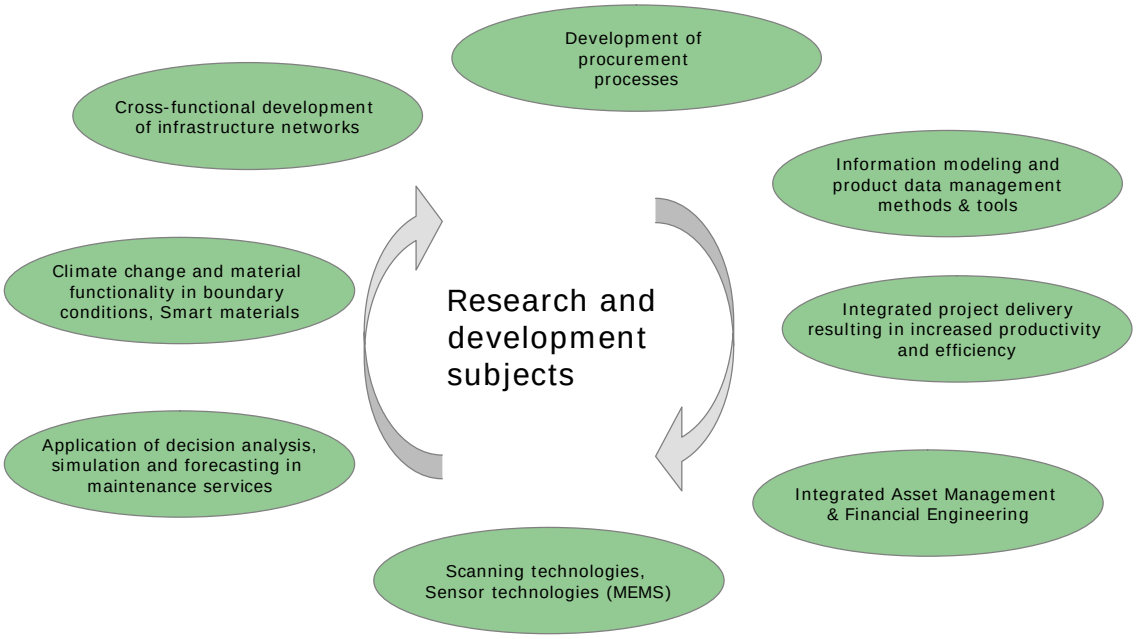

Figure 1. Research and development subjects or topics to be studied further

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