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# A Longitudinal View of Adopting Project Alliancing: Case Finland

Longitudinal  
View of  
Adopting

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## Abstract

**Purpose** – The paper aims to describe the evolution and use of project alliancing in Finland: how the model was discovered, and then, little by little, became an established practice.

**Design/Methodology/Approach** – The paper is based on a long-term observation of the construction sector activities, involvement in their development and a review of related research and practice documents.

**Findings** – The paper illustrates how a major change may be laborious. It also reveals that the application of project alliancing seems to have been successful so far, but there are still threats on the horizon.

**Research Limitations/Implications** – The overview ignores many meaningful details and does not include a critical review of the positive experiences reported by the industry. There certainly is need for related research.

**Practical Implications** – The study offers a point of reference for evaluation of the smoothness of the progress of industry wide changes.

**Originality/Value** – This paper seems to be the first one providing a more comprehensive picture of the progress and use of alliancing in Finland, thus supplementing existing view- and project-specific examinations.

**Keywords** Project alliance, Alliancing, Project delivery systems, Value for money, Performance, Finland, History, Trends

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## 1. Introduction

Project alliance (PA) is a project delivery method in which the contracting parties assume joint responsibility for the design and construction of the project, implement it through a joint organisation and share both positive and negative risks related to the project in an attempt to combine versatile expertise, to harmonise the actors' interests with regard to reaching the aims of the project and, eventually, to improve the overall economy of the project (Lahdenperä, 2017). Therefore, it offers an alternative to the more common project delivery systems of design-bid-build, design-build and construction management.

The project alliance system evolved from the need to improve the implementation of demanding and risky investment projects, in which strict price competition, risk premiums and/or the adversarial behaviour characteristics of traditional contracting often lead to an uneconomical result.



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This paper presents a study on the transition to alliancing by the public owners in Finland. It sheds light on the discovery of the system and the preparation for its application in the 2000s. The narrative continues until the present and takes a look at the stock of alliance projects per type and the value for money generated. The paper also aims to recognise the key decisions and discuss their impact on the role and prospects of project alliancing in Finland.

## 2. Historical evolution and utilisation

### 2.1. Discovery

The first alliance-type construction projects were realised in Australia in the late '90s, following partnering applications and experiments in other industries (Lahdenperä, 2012b). A few years later, the delivery system came to the attention of Finnish infrastructure owners in connection with the reporting of an international survey and interviews on the procedures and performance of different road project delivery systems (Koppinen and Lahdenperä, 2004). The *Finnish Road Administration (Finnra)* and the *Finnish Rail Administration (RHK)* were the parties for which the survey was mainly made (although service providers were also involved), which later became key actors in the early adoption of alliancing in Finland.

The thing that finally set the wheels in motion was a subsequent study (Pakkala *et al.*, 2007) and a related fact-finding tour to Australia by a group of representatives of the former *Finnish Road Administration* in the beginning of 2007. At that time, a real breakthrough in the use of project alliance had occurred in Australia, and the number of cumulative experiences was already significant (*cf.* Department of Treasury and Finance, 2006; 2009). Except for very few social infrastructure projects, the projects have been civil engineering projects to build road, rail and water infrastructure.

### 2.2. Enthusiasm

The fact-finding tour led to the launch of a sort of feasibility study in late 2007 on the application of project alliance in Finland. At that time, another study was seeking ways to foster innovation in projects by means of procurement (Lahdenperä, 2007), and as that study also concluded that the so-called innovation catalysts (see Aminoff *et al.*, 2016) work best with project alliancing, the project was redirected to focus on alliancing. *Finnra* and *RHK* were among those involved in the study initially, and at the redirection stage, more parties were invited to co-operate in an extended project. Eventually, 20 or so design and construction company representatives participated in the joint development effort in addition to numerous *Finnra* and *RHK* representatives.

The general challenge was to evaluate the feasibility of the application of project alliancing in Finnish (and European) culture and business and legal environment (e.g. Directive 2004) and, particularly, to develop project processes, procedures and ground rules to support the use in that application environment. The biggest difference to the model prevailing then in Australia [i.e. single target outturn cost (TOC) method (Department of Treasury and Finance, 2006), or non-price selection more recently (Department of Infrastructure and Regional Development (2015))] was that the overall tender quote estimate was considered necessary (but dual/multiple TOC or full-price selection was considered too laborious). This is why the price was thought to be made up of unit prices and overhead rates while cost estimates common to all competitors are used selectively for comparison calculations (Lahdenperä, 2009). The result represented the joint view of the sector on how project alliance should be applied in Finland.

*Finnra* had committed to using the operational model and the target project was a replacement investment for a road section through an embankment surrounded by water in Kuopio in Central Finland (Nurmi *et al.*, 2014). In autumn 2008, the global financial crisis (GFC), however, hit and eventually torpedoed the plan. There was the need to immediately expedite the project (in addition to some other major projects) as a part of the financial stimulus package launched by the government in the supplementary budget in early 2009 aimed to diminish the adverse effects of the GFC. Thus, there was no time for the preparatory work that the first project of its kind would have required, and the project delivery system changed to design-build. An additional challenge was posed by the reorganisation of the key owner bodies, which got the key actors attention: *Finnra* and *RHK* were merged into the *Finnish Transport Agency (FTA)* from the beginning of 2010. [Furthermore, from the beginning of 2019 the main entity of *FTA* in charge of major projects and asset management has been known as the *Finnish Transport Infrastructure Agency (FTIA)*.]

### 2.3. Experimentation

Yet, interest towards the application of alliancing survived over the challenging period. A key moment in the reactivation was a conference, in which a few key members involved and educated in the feasibility study phase, mostly from *FTA*, followed a presentation by an Australian consultant (Ross, 2009). He was the main author of a contemporary Australian guide (Department of Treasury and Finance, 2006) and became involved in the preparation of the first Finnish alliance project procedures. His influence was apparent especially in further education offered to stakeholders and interest groups in a few workshops (e.g. Ross and Merikallio, 2010), which also paved the way for the establishment of a leading alliance consultancy in Finland.

The delayed application led to reconsideration of the previously finalised alliancing procedures (i.e. Lahdenperä, 2009) despite the fact that they were carefully studied by the industry at the time of development. This resulted in changes in the planned team selection practice. For instance, more extensive shortlisting was applied to lighten the total effort required for the selection (see Lahdenperä, 2012a) although it was earlier considered inappropriate under the legal praxis. The modified practice resembled the one mostly used in Australia in the early years of the adoption of project alliance (although the situation there is not quite the same any more, cf. Department of Infrastructure and Regional Development, 2015).

Another major change was to give up most of the component quotes so that team selection, as regards price, was made on the basis of the team fee only while owner's cost estimate for the sum of direct costs was used for all tenderers in the selection phase comparison (see Lahdenperä, 2015). Although lawyers were involved in the initial development, only more recent legal consultations with leading public procurement experts encouraged *FTA* to depart from the use of the complex tender price estimate as a selection criterion. Yet, a calculative price is still included, but in extremely simplified form compared to initially intended practice.

The modified practice was first followed in the first two alliance projects launched by *FTA*, i.e. the *Lielähti–Kokemäki rail section* and the *Tampere lakeshore road (tunnel)*. As concerns the rail project, procurement of service providers for the development and implementation of the project started in December 2010 by the publication of a procurement notice, which led to a development contract in mid-2011 and, subsequently, to implementation. The road project followed a year behind. Yet, the first completed public alliance project (in December 2013) was an apartment renovation including an addition by *Helsinki University (HY)*.

2.4. Diffusion

The first three alliance projects presented have been followed by at least tens of others. That is surely the result of the success of the early projects as well as the publicity they received. For instance, the *FTA* rail project won the Construction Project of the Year award (Anon., 2012). The road project, again, was disputed on the political level even at the time of its development phase (cf. Vainio, 2015), which maintained wide public interest towards the project. It was also largely based on the experiences from this project that the investigator nominated by the prime minister recommended that project alliance should be the primary option for demanding government construction projects (Virtanen, 2017.) The road project also won a global project excellence award in the mega project series (IPMA, 2018).

Alliancing has also been applied in the construction of an intermodal travel centre, university facilities, airport infrastructure and terminal, several schools and a power plant, the last one being another winner of the Construction Project of the Year award (Tompuri, 2016). The group includes also an underwater maintenance tunnel to an island, which was nominated the Project Act of the Year by a national project management association (PRY, 2018). Housing forms another application area as do health centres and hospitals: several projects of both types have already been launched. Tramlines, churches, multi-purpose buildings and other rail and road projects are also among the applications. Moreover, project alliance is applied not only in new construction and renovation, but also in the daily maintenance of both railway networks and urban areas.

The use of project alliancing has also extended beyond the built environment applications. The owners of the *Tampere lakeshore road* project, *FTA* and the *City of Tampere*, are examples. The former has entered in two separate alliance contracts for the development of information systems. The latter is seeking partners for an alliance-type operation contract for a tramway system that is under construction as an alliance project. The city also provides public healthcare and well-being services through an alliance with a private company. As a result, there are tentative plans to also apply alliancing in some other fields of public administration.

A company, which has its roots deep in the 2010 workshops referred to above, has reported of the existence of over 50 pure alliance projects (based on, e.g. the start of procurement) and a dozen service alliances so far (Saarinen, 2018), as presented in Figure 1

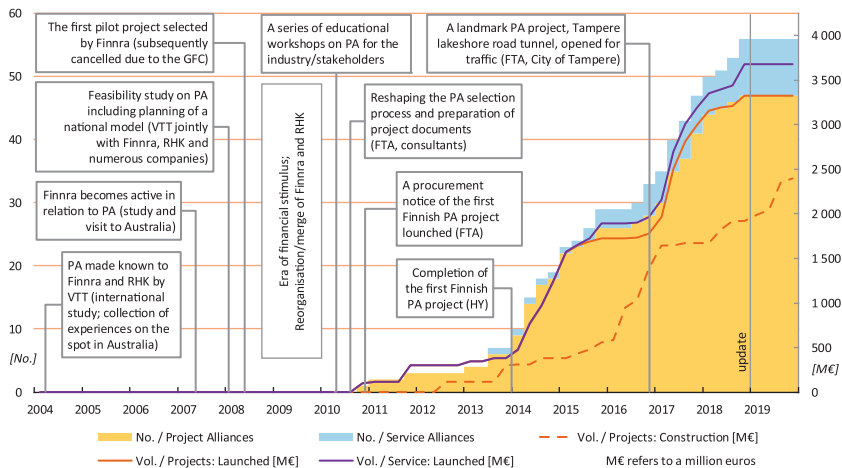


Figure 1.  
Temporal View on  
the Introduction and  
Use of Project  
Alliancing in Finland

(filtered from the data; using mainly *FTA*-type procedures). That is likely a low estimate as another source ([RPT Docu, 2018](#)) reports many times more launched alliance projects, but their authenticity has not been proven. While the focus of [Saarinen \(2018\)](#) is on public procurement, [RPT Docu \(2018\)](#) includes much more private projects, especially business premises. The latter also reports an increasing number of intentions to apply project alliancing in forthcoming projects.

The step that is likely to finally establish the position of project alliancing is a set of model documents for alliance projects to be made part of the de facto national standard of the construction sector, i.e. the RT File ([Building Information Foundation, 2018](#)). The set under preparation is expected to include general guidelines, call-for-tender documents and contract forms, etc. and provide project alliancing support comparable to what its alternatives receive.

### 3. Experiences

The presentation of a comprehensive picture of alliances' effectiveness is hard as most owners either do not prepare value-for-money (VfM) reports or make them public. *FTA* seems to be the only organisation, which does so (e.g. [FTA, 2015](#); [FTA, 2018](#); [Tuokko et al., 2018](#)).

The performance information presented demonstrates success. This concerns especially the schedule performance. The same was true with disturbances to passing traffic and stakeholder management. Safety results varied but were also better than usual on average. Actualised costs were mostly close to the target outturn cost (TOC), but the (development phase) VfM reports reveal the savings attained in the development phase prior to the setting of the TOC.

These projects have also been subject to numerous studies, which are not dealt with here owing to the word limit. It may suffice to say that it has a laudatory tone in general.

### 4. Discussion

The first alliance projects reported good results. Although the self-reporting may well have distorted the picture, the relatively thorough VfM reporting is a means of bringing the project performance under public criticism. It helps uphold the probity of the team in addition to carrying out other key measures such as the use of third party evaluation of the tentative TOC, systematically tightening the budget, conducting cost audits, etc. (*cf.* [Lahdenperä, 2014b](#)). Thus, there is no easy way to deny the presented success, especially as the research, awards and third party reviews support it. Yet, it is clear that systematic research on generated value-for-money is needed industry wide to complement the project-specific view that has prevailed so far.

While the request for VfM review is an important decision made as part of the application, it is even more so in the connection of the used capability-oriented or "fee-inclusive non-cost selection", which offers only limited means to ensure efficiency by means of price competition. The appropriateness of various selection methods is actually a topic of continuous debate (see e.g. [Lahdenperä, 2014a](#)), and there may not be a definitive answer to the question. The success of the realised projects, however, supports the applied capability-and-fee selection. This, again, reconnects the discussion to the long history of introducing alliancing in Finland.

In addition to the initial confidence in non-price selection, another key reason to avoid the alternative "dual TOC selection" was its laboriousness. Yet, owing to legal interpretation, the price was initially intended to consist of component prices and overhead rates. The initiation period was time-consuming owing to the challenges of designing an appropriate

selection approach as well as the further delay caused by the GFC. At first, the delay seemed to be a setback, but owing to the more recent changes to the approach, it may well have served the later success of the alliance application.

Firstly, without the more extensive shortlisting, the selection phase would have been too laborious. Secondly, the price component selection may well have made the parties stick to traditional attitudes despite all the talk on collaboration. That may have impeded the success. Thirdly, faster progress would not have allowed the same time for the establishment of the right ethos for alliancing. Alliancing requires a different culture than that which prevailed in the industry owing to the transactional practices followed previously. Such a cultural change does not happen overnight. Naturally, much time had to be invested in education also in the early projects, but the situation has eased a lot since then.

## 5. Conclusions

Taking the long route was worthwhile, enabling applying a collaborative approach. Alliancing offers a new tool for the procurement of challenging capital investment projects and, potentially, also of services. That is the good news, but the change is also likely to have harmful side effects. The hundreds of reported and planned “alliances” are likely to include numerous hybrids, if not fakes, and lead to confusion in many cases: there is an urgent need for industry-wide rules and model documents to limit gimmickry. Yet, some hybrids may well be alternative project delivery systems that just assume certain useful features of alliancing. That offers another opportunity.

As concerns the threats, even if the hybrids are ignored, also in the case of a pure alliance, all future owners may not be willing to and smaller projects may not be able to, make a reasonable investment in team formation and transparency, which become relatively even more important when a bigger share of the various market actors are involved in collaborative projects. This increases the likelihood of future failures as the formal model alone does not guarantee success. The use of alliancing in a variety of project-types and services also introduces new challenges. The journey still continues, and there is work to do to avoid the many pitfalls.

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