



Approach for the First Public Sector Project Alliance in Europe

Harri Yli-Villamo, Finnish Transport Agency
Lauri Merikallio, Vakeva Oy

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Short bios

M.S (eng.) Harri Yli-Villamo, Finnish Transport Agency

- Director, Construction management
- Over 20 years experience in infrastructure industry

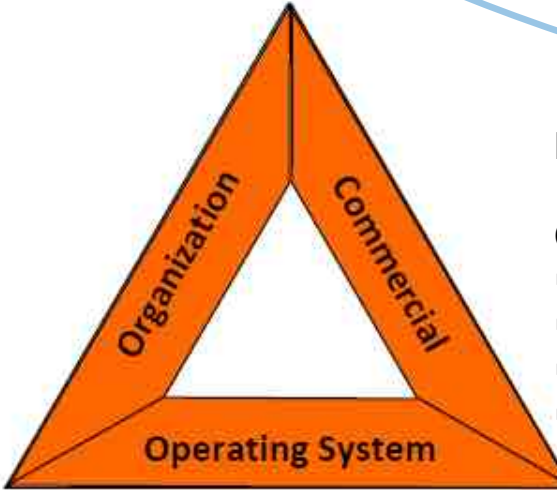
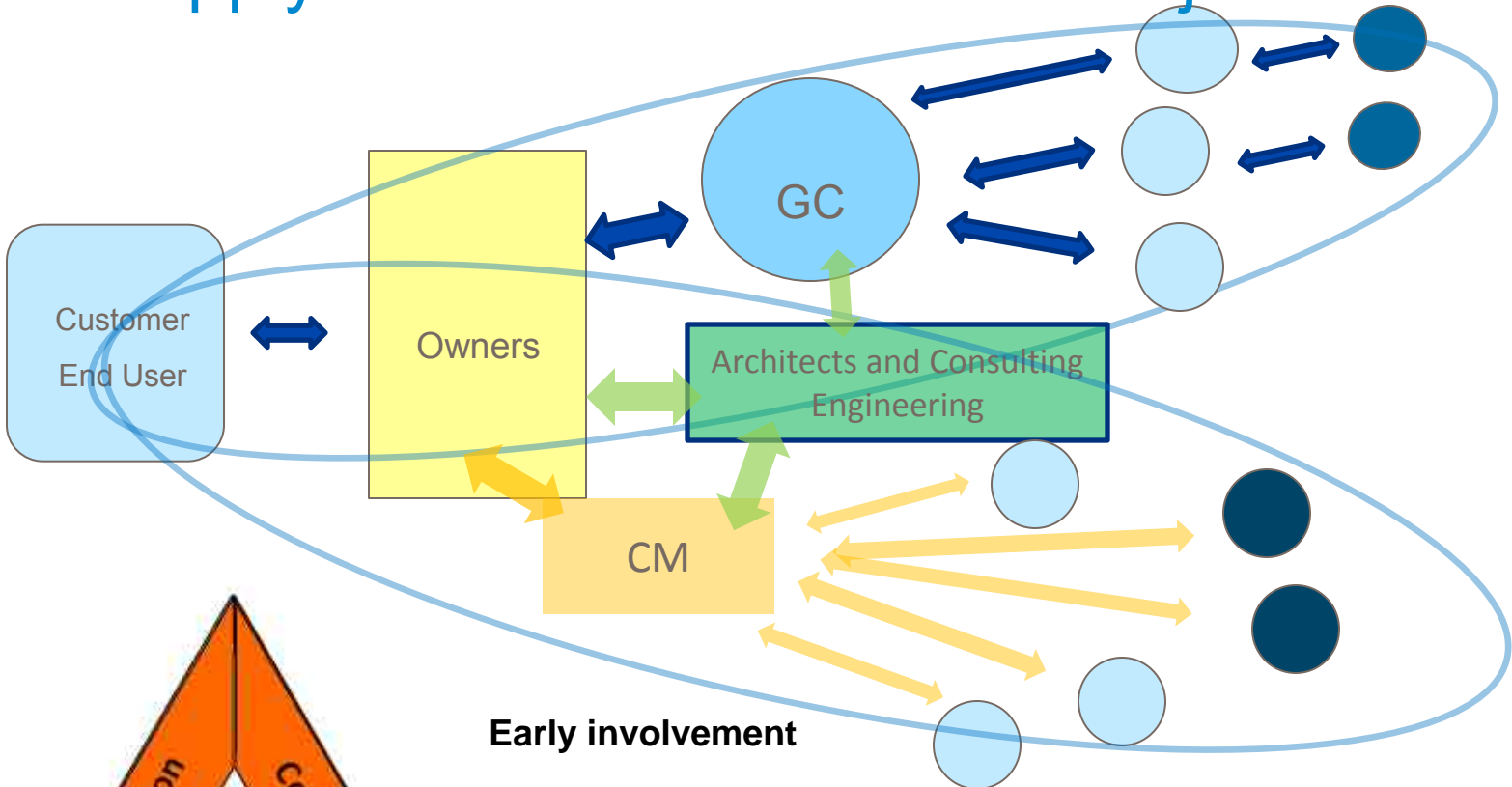


CEO, M.S (eng.) Lauri Merikallio, Vakeva Consulting Ltd

- Consultant and researcher 2008-
- Executive and project tasks for over 20 years in infrastructure industry
- Visitor scholar in UC Berkeley 2006/2007



Supply Chain in Public Sector Projects



Early involvement

Create a project environment where customer need could be achieved

- Better designs
- Better production plans
- Better reliability
- More productive project execution

Public Authorities

Background

Research project of the Project Alliance 2007/2008, no piloting

LCI comes to Finland 2008

- Lean principles, Integrated project deliveries and Lean Construction tools and methods started to achieve understanding

LIPS in Karlsruhe in Germany 2009, Jim Ross introduced the Project Alliance

- EU-legislation challenge in the public sector

LIPS in Washington DC 2010

- We might be able to challenge the EU-legislation

LIPPI in Brisbane Australia 2011

- First Project Alliance has been established, several others coming

The Finnish Transport Agency

- is a multidisciplinary expert organisation specialising in transport. It is responsible for the Finnish transport infrastructure and the overall development of Finland's transport system;
- enables smooth, efficient and safe travel and transport;
- promotes an effective transport system, traffic safety and a balanced and sustainable development of the regions;
- annually purchases maintenance, planning, surveying and other similar services for about 1.6 billion euros, which represents about one-third of Finland's infrastructure field;
- operates under the jurisdiction of the Ministry of Transport and Communications and employs 700 professionals. The nine regional Centres for Economic Development, Transport and the Environment employ about 600 professionals in the transport and infrastructure field;
- offers employment opportunities to approximately 12,000 persons a year.

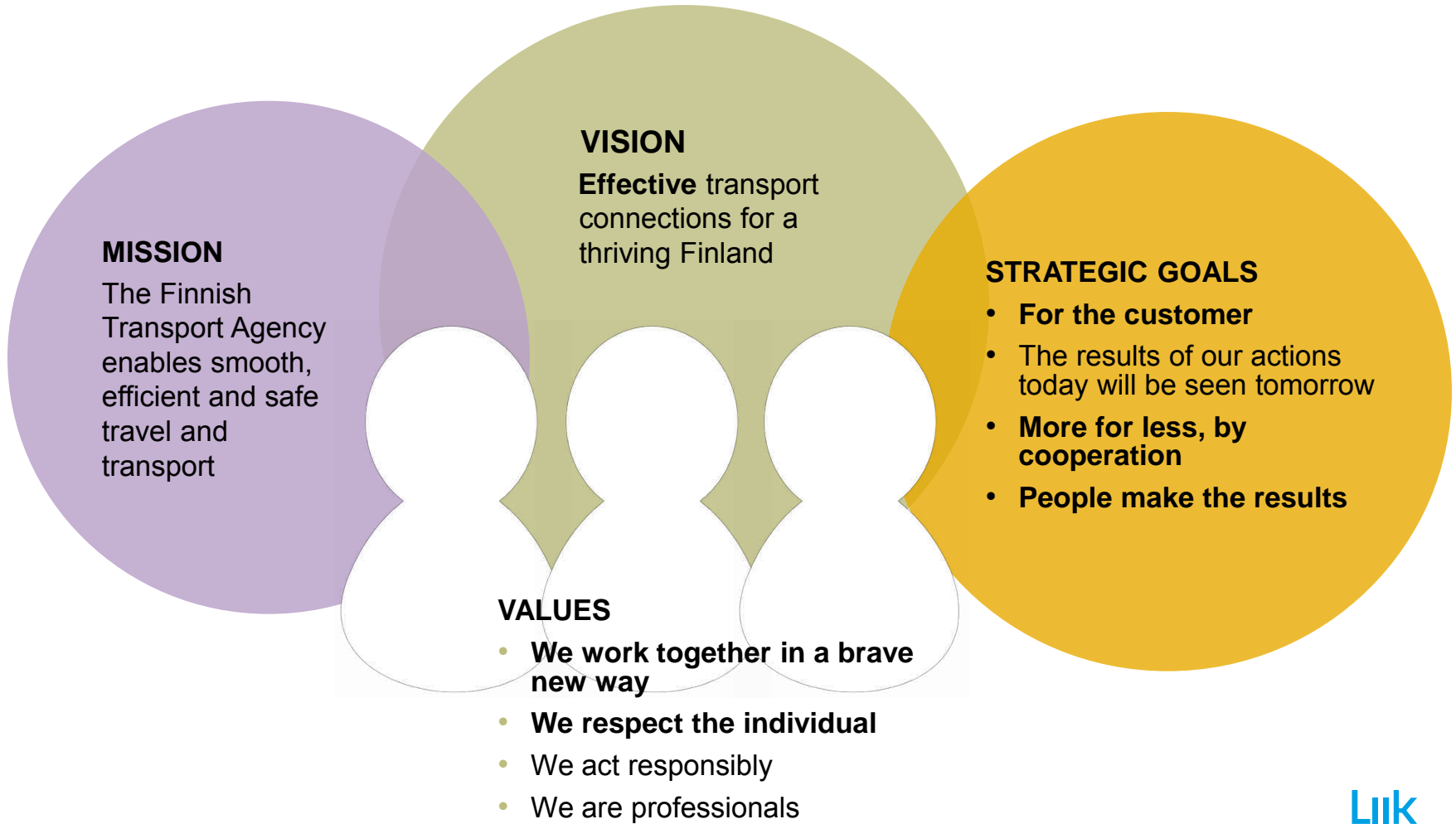


The Finnish Transport Agency

- controls the functioning of the transport system under extraordinary circumstances and during incidents
- is responsible for the planning, maintenance and building of railways and waterways
- grants subsidies for shipping and subsidies promoting the other transport modes
- maintains and develops the transport system in cooperation with other actors
- is responsible for the operational control of the Centres for Economic Development, Transport and the Environment in the transport and infrastructure field.
- responsible for the state-owned road and railway network and for the waterways under its administration and for the guiding and monitoring of waterways management
- handles and develops traffic management in the state-owned transport infrastructure and in shipping
- develops and promotes a functioning transport market

- is responsible for the implementation of major transport infrastructure projects
- guides the long-term, sustained development of public transport
- participates in the coordination of transport and land use
- develops the operating framework for public transport
- promotes productivity improvements in transport infrastructure management
- maintains and develops hydrographic operations and expertise
- provides the operating framework for winter navigation

The strategic foundation of the Finnish Transport Agency



FTAs strategic targets for using the Alliance-model and Lean

Background:

- Increase in productivity has been much lower in construction industry than in other industries
- Productivity potential has been recognized and a significant part of it is connected to the way of acquiring services and cooperating during the project
- FTA has been obliged to develop the industry in cooperation with Finnish infrastructure builders to be the most effective in Europe by 2015

Strategical targets for Alliance-model

- To improve productivity of the entire industry
- To change the culture into a more open and trusting way of working
- To improve the customer satisfaction for end products – faster, better quality and cheaper
- To develop innovativeness and knowledge

Approach for the first project alliance in Europe

1. We will modify tested models from Australia
 - Selection process
 - Selection criteria (EU legislation)
 - Commercial model
 - Project Alliance Agreement
2. We will communicate with the Industry
3. We will collaborate with universities and other research institutes
4. We will implement Lean philosophy, tools and methods

Alliancing versus European union procurement legislation

The Project Alliance model in Australia has two aspects, which are not in line with European Union legislation:

- There is no need to use price in comparison
- There is no need to write out verbal comparison about every comparison criteria

Alliancing versus European union procurement legislation

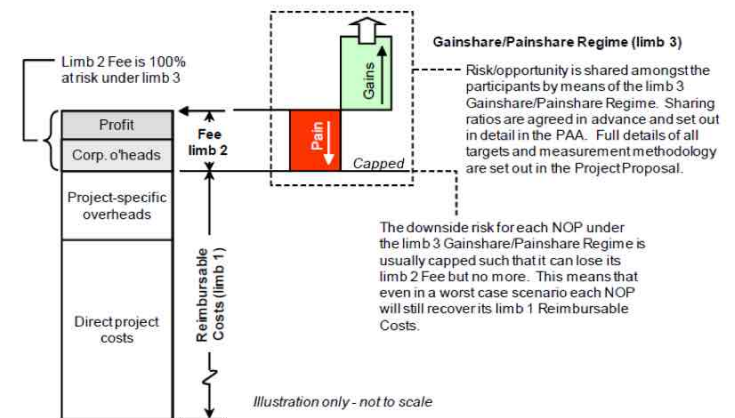
According to the EU directives and Finnish legislation

The price should be used, when contracting authority is making comparison of tenders

- Two possible selection criteria: The lowest price or the most economically advantageous tender (so-called quality and price)
- In our case, we used limb 2 as a price element.

Contracting entities should write out justifications for every comparison criteria

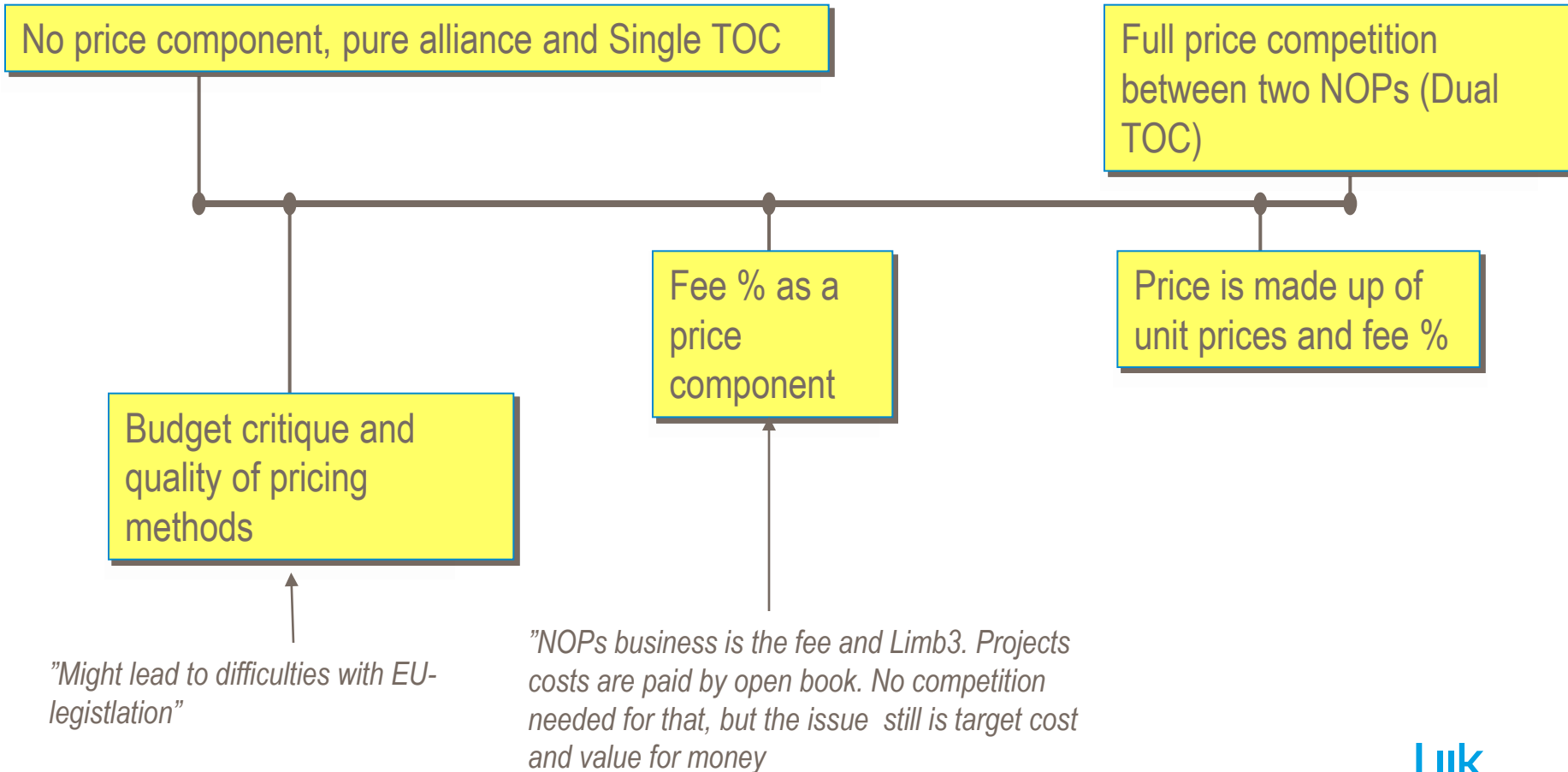
The “3-limb” NOP compensation model



Choices to use Price component

"Could be the best choice but would lead to difficulties with EU-legislation"

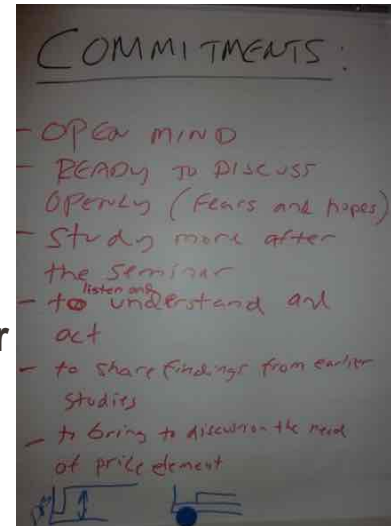
"Massive and laborious model"



Changing culture is the issue - Building trust, trust, trust

Dialogue inside the owners side

- ❑ Started in May 2010
- ❑ Core team started to develop the Finnish approach for Alliancing in June 2010
- ❑ Wider coaching in two workshops in November 2010
- ❑ More coaching during the selection process

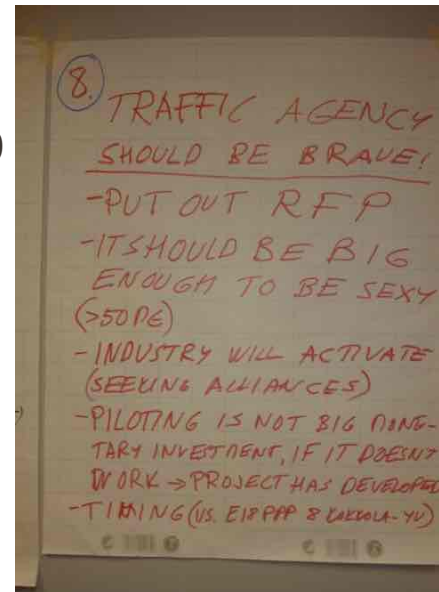


Changing culture is the issue

- Building trust, trust, trust

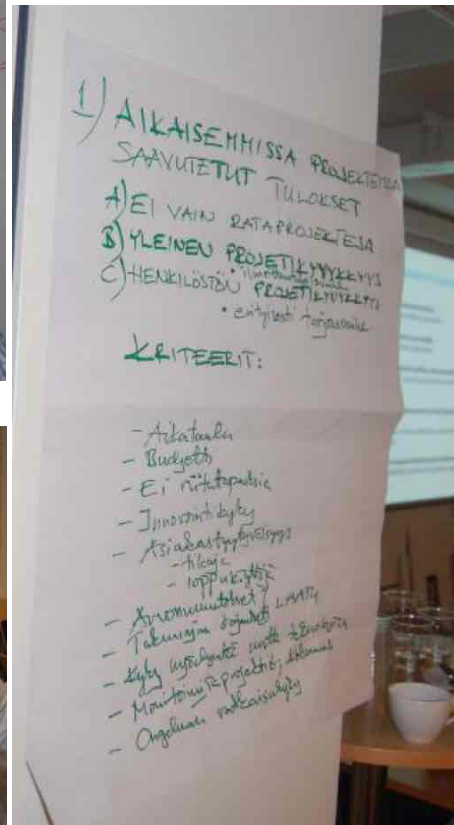
Dialogue with the industry

- ❑ Started in May 2010 (1-day workshop)
- ❑ General Information of the pilot projects in September 2010
- ❑ Workshop with the industry in November 2010
Focus on commercial framework and selection criteria
- ❑ More workshops during the selection process



Changing culture is the issue - Building trust, trust, trust

Dialogue with the industry



The Pilot Projects

□ The rail renovation project (91 M€)

Why Alliance?

- New way to look at co-operative between operator(s), owner and non owner participants
- Simply enough to create the model for alliancing in Finland

□ The Tampere onshore road (185 M€)

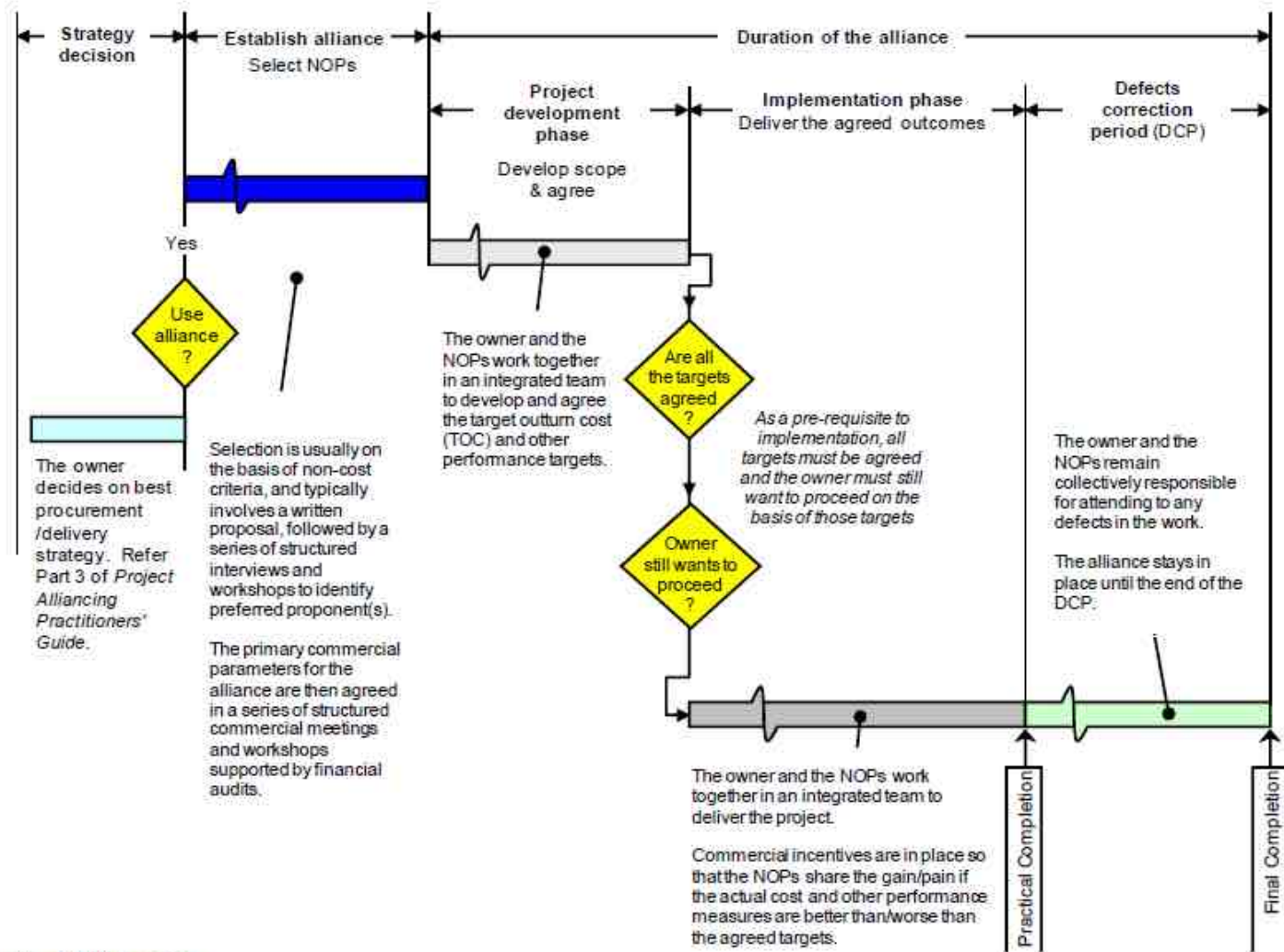
Why alliance?

- Two owners, lot of third parties, technical challenges, critical lead time, in the middle of the city

Lielahi – Kokemäki renovation project in short

- Lielahi – Kokemäki railway renovation project, 89,6 km
- Project budget 91 M€ (material 20-30 M€)
- Goal for the renovation is to:
 - Improve safety for railway section and reduce maintenance costs by renewing and repairing constructions (railway sleepers, rails, ballast, culverts, bridges, drainage, build new and tear down old platforms)
 - Reinforce surface and bench structures of the railway track so that it is possible to operate on 250 kN in 80-100 km/h.
- Besides the renovation there are improvement needs, such as:
 - Changes in bench width
 - Removal of railway level crossings

The same overall process as in Australia

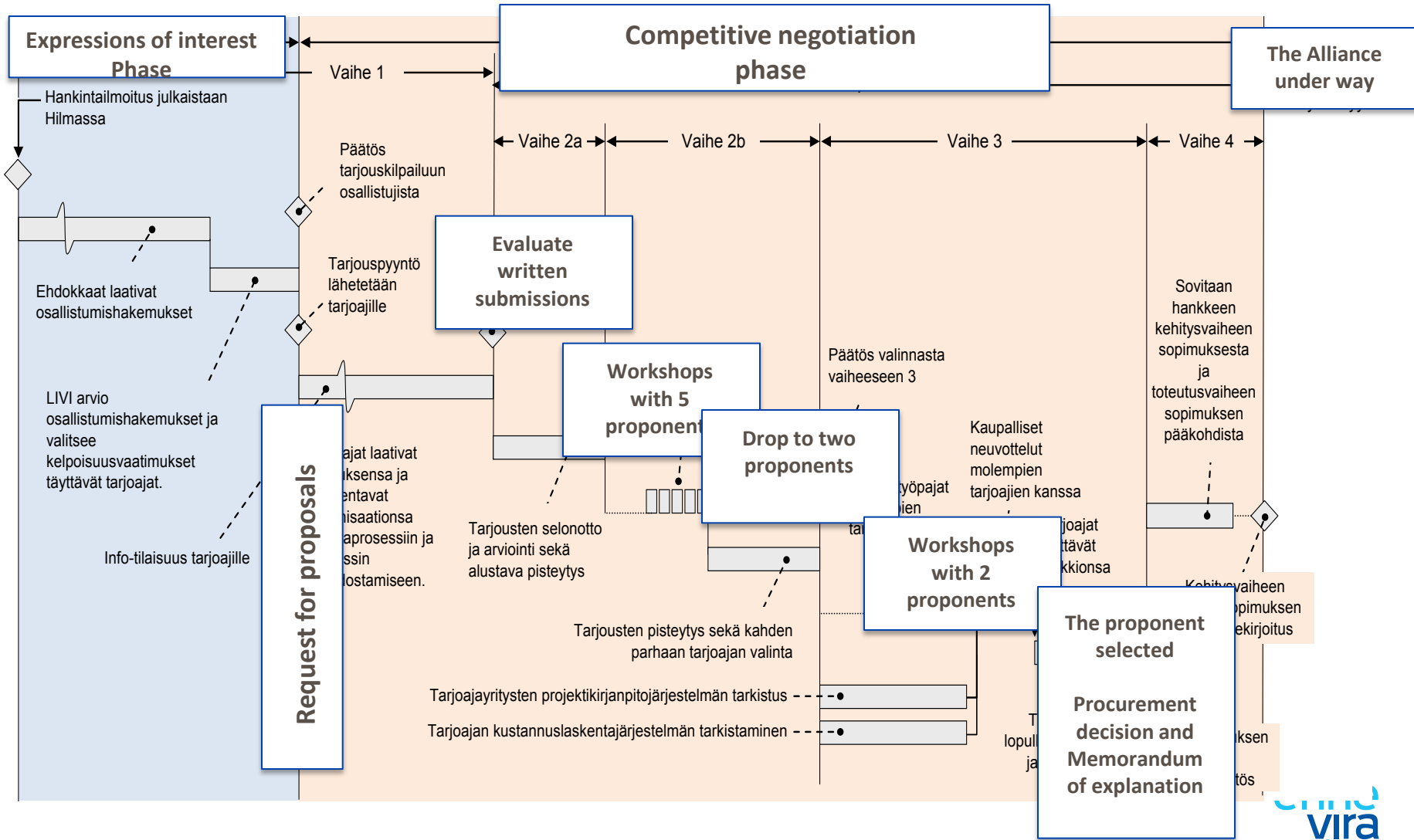


Project Alliancing

Building on the Australian experience – May 2010 Helsinki

Slide 17

Establish the alliance/ selecting the NOPs



Selection criteria

Evaluation criterion		Weight			
		Stage2		Stage3	
		total	sub	total	sub
A.	Capability	100,00 %		75,00 %	
A1.	Track Record	20 %			
	A1.1 Track record in Key Result Areas		10,00 %		no evaluate
	A1.2 Demonstrated succesful technical solutions and innovations		5,00 %		no evaluate
	A1.3 Learning from mistakes		5,00 %		no evaluate
A2.	Organisation	20 %		15,00 %	
	A.2.1 Organisation		5,00 %		no evaluate
	A2.2 Key persons		15,00 %		15,00 %
A3.	Value for Money	25 %		20,00 %	
	A3.1 Value for money strategy		15,00 %		10,00 %
	A3.2 Cost analysis, risks and opportunities		10,00 %		10,00 %
A4.	Project control systems	30 %			
	A4.1 Project control		15,00 %		no evaluate
	A4.2 Safety management		10,00 %		no evaluate
	A4.3 Risk management		5,00 %		no evaluate
A5.	Alliance ability and leadership	5 %		40,00 %	
	A5.1 Alliance understanding and feedback from compensation framework, iPAA and PAA		5,00 %		20,00 %
	A5.2 Demonstrated leadership capabilities		no evaluate		20,00 %
B	Price			25,00 %	
B1	Fee %		no evaluate		25,00 %
	A+B Total	100,00 %		100,00 %	

LIEKKI-Project Key Result Areas

KRA	Alliance Objectives
Safety	Zero harm in traffic and work safety on good level, open reporting culture
Schedule	Meet all milestone dates and project commissioned and handed over on agreed date
Operations	Zero reliability incidents, including no late return of track possessions
Usability	Use of railway track on agreed speed level

Characteristics of performance target levels

Performance target level	Characteristic
Breakthrough	<ul style="list-style-type: none"> Aspirational target not achieved before in the rail industry in Finland Can't be done using past practices – requires new ways of thinking Don't know how to do it, but nonetheless Liekki-Alliance believe it can be done and the Alliance is 100 % committed to achieve it
Stretch	<ul style="list-style-type: none"> Has been done before, but rarely Liekki-Alliance can see a way to do it, the Alliance can use previous practices, but will have to stretch resources/people to the limit to achieve it Does not require new ways of thinking
Minimum Conditions of Satisfaction	<ul style="list-style-type: none"> Significantly better than has been consistently achieved by the individual participants working in other projects Consistent with the performance that would be expected of best-in-class resources working in an integrated team
Fail	<ul style="list-style-type: none"> Unacceptable levels of performance that fail to achieve the MCOS standards nominated by the FTA

Development workshops in Finland



Feedback survey

Target group consisted of the actors involved in the team selection process for the project

- nominees to the leadership and management teams (owners, tenderers), other key personnel
- owners selection panel (members and experts), commercial group, procurement advisors/facilitators/consultants

Implementation in the Web

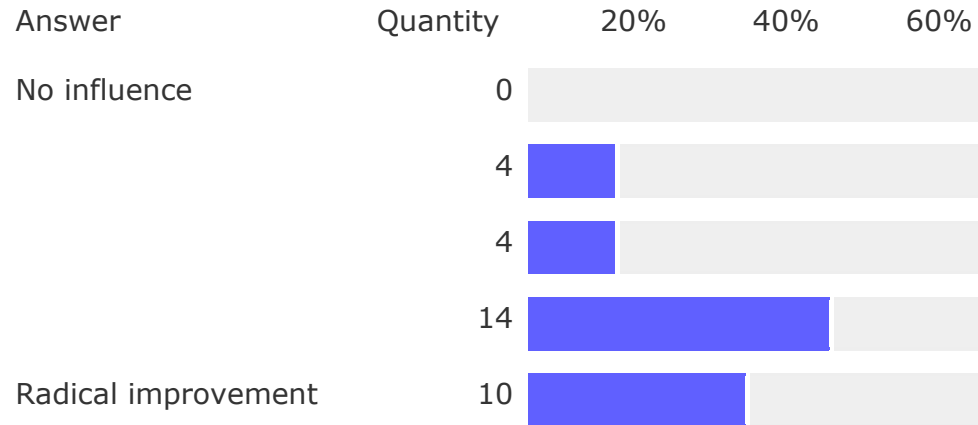
- VTT Technical Research Centre (as part of Patina project)
- questionnaire open from Sep 13 to Oct 3, 2011
- response rate ~43 % (32/75), lots of comments given

Themes of the survey, e.g.

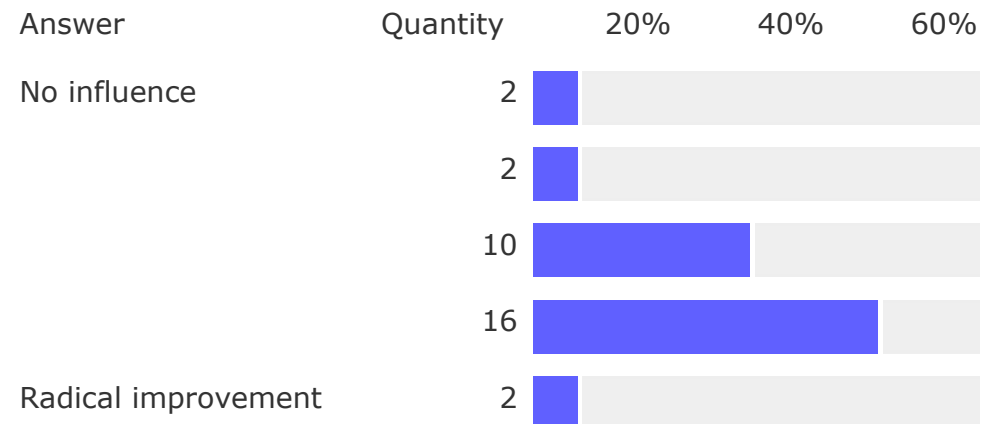
- Selection criteria
 - tender requirements
 - evaluation methods
 - criteria weights
 - grading / scaling
- Process and procedures
 - timing, work load
 - joint meetings, workshops
 - information needs
 - number of tenderers
 - auditing
 - objectivity
- Collaboration experiences

Expectations

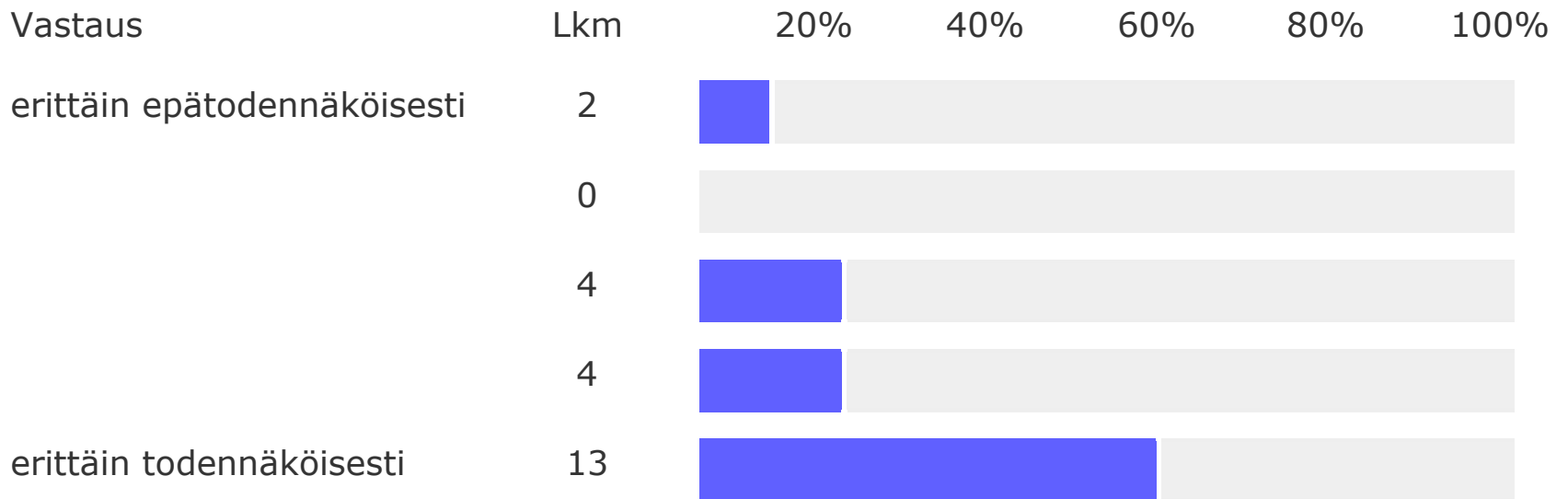
How the introduction of Project Alliance will increase value for money in projects, which are suitable to be delivered by using the method?



How the introduction of Project Alliance will increase value for money in projects, which are delivered by using other methods (i.e. long-term industry development)?

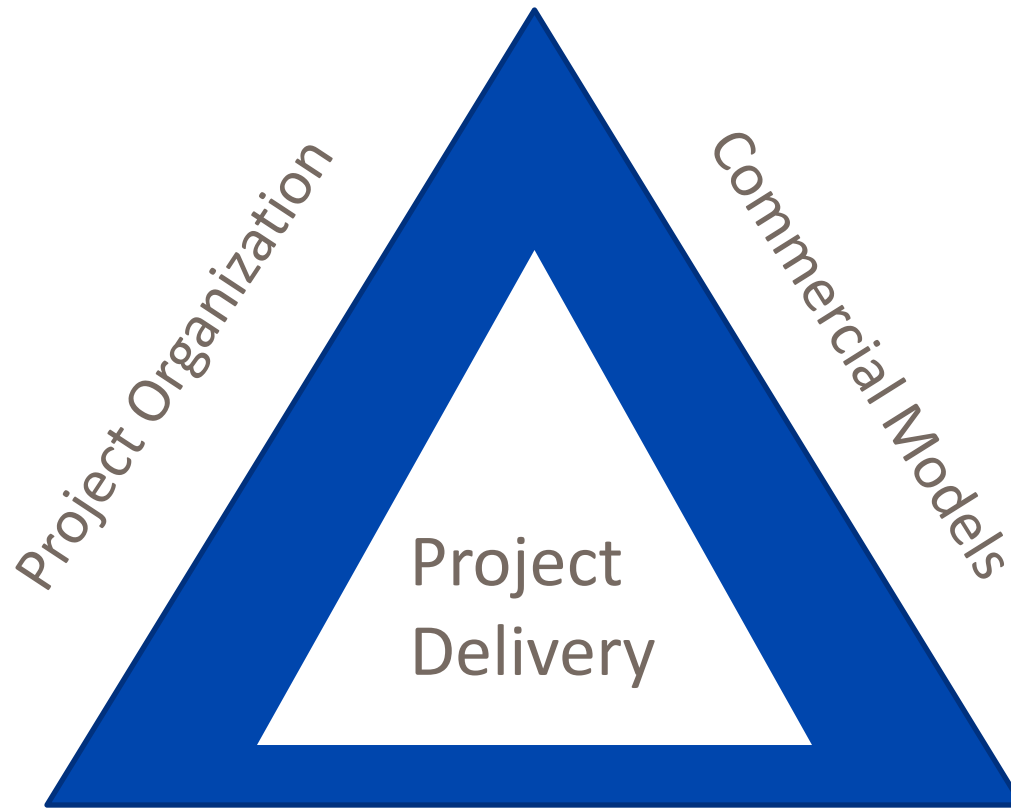


How likely your company will participate to future Project Alliance competitions?



Putting the Pieces Together

Lean approach



Project Production System

Source: MHA 2009



LCI-FINLAND

www.liikennevirasto.fi

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LAST PLANNER SYSTEM

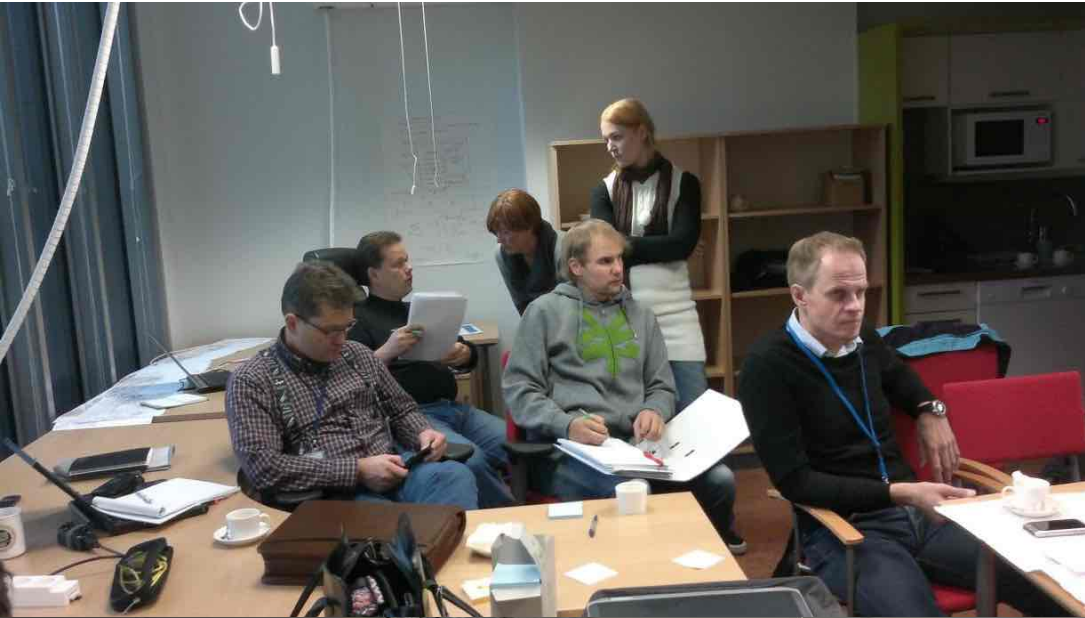


Pull scheduling session

	Yksikkö		Edeltävä tehtävä	7	materiaali/hankinnat
	Projekti		Suunnitelmat	8	Tekniset dokumentit
	Projektinumero		Luvat	9	Valvojan hyväksyntä
	Vastuuhenkilö		Kalusto/sovellukset	10	
Esitteen #	Aikataulu tehtävä	Mikä estää?	Vastuuhenkilö	pvm havaittu	pvm luvattu
23	SUUNNITTELUPERUSTEET (1. versio)	hyväksyntä puuttuu	Mikko Heiskanen	13.9.2011	7.10.2011
27	RATASUUNNITELMA- JA TOIMITUKSET-PROSESSIN SELVITYSTYÖN KUVAUS		Mikko Heiskanen	13.9.2011	7.10.2011
32	KUVAUS VAADITTAVISTA PÄTEVYYKSISTÄ JA KOULUTUKSISTA		Ari Loukkalahti	30.9.2011	7.10.2011
33	TIEDOTUSSUUNNITELMA	ei saatu VR Tracki:a osallistumaan	Pasi Kaattila	13.9.2011	10.10.2011
34	TRACK VIEW KUVAUS	saatava	Pia Weissman-Kaunismäki	13.9.2011	10.-12.10.2011
35	MOBIILILASERKEILAUUS	saatava	Pia Weissman-Kaunismäki	22.9.2011	10.-14.10.2011
36	MITTAUSPERUSTAN RAKENTAMINEN KOKO HANKE	ravaustyö	Pasi Kráknás	13.9.2011	10.-28.10.2011
37	SAHKORAKENTEIDEN JA LIITYMIEN KARTOITUS		Mikko Korpela	22.9.2011	12.10.2011
38	ALLIANSSI BAROMETRIN KÄYTTÖONOTTO			5.10.2011	13.10.2011
39	TYÖJÄRJESTYS (1. versio)		Mikko Heiskanen	5.10.2011	13.10.2011
40	KUNNOSSAPITOSUUNNITELMA & SOPIMUSPOHJAT	kunnossapitoa ei ole saatu palaveriin	Mika Tepsa	13.9.2011	13.10.2011
41	PÄÄTÖTEUTTAJAN/TURVALLISUUSKOORDINAATTORIN VASTUUNJAKO	kuulokappale ei ole saatu palaveriin	Maija Sirkkanen	13.9.2011	13.10.2011
42	MITTAUSOHJELMAN LAADINTA		Sami Jaakkola	5.10.2011	13.10.2011
43	SAHKO REM-LISTA	ei tiedossa työn sisältöä	Jorma Sillanpää	5.10.2011	13.10.2011
44	KIINTEISTÖJAOITUS JA OMISTAJATIEDOT	Omistajatiedot tilattu mmlaitokselta, voi kestää	Jukka Hackman	22.9.2011	14.10.2011
45	MITTAPAALUJEN ASENNUKSEN JÄNNITEKATKOJEN TILAUS	suunnitella paalujen paikkoja	Pia Weissman-Kaunismäki	13.9.2011	14.10.2011
46	MAASTOKÄYNTI	Järjestelyt & kalusto	Pia Weissman-Kaunismäki	13.9.2011	14.10.2011
49	RATASUUNNITELUN KÄYNNISTÄMINEN	raiteen ja ratarakenteiden kartoitustiedot	Jukka Hackman	22.9.2011	14.10.2011
50	TUTKIMUSTARVE & TUTKIMUSOHJELMAT RAKENTAMISEN SUUNNITTELUUN		Auli Vanhoja	30.9.2011	14.10.2011
51	SUUNNITTELUUN LIIKENNEPAIKKOJEN HENKILÖ- JA TAVARINLIIKERAITEIDEN, KUORMAUSRAITEIDEN, LAITUREIDEN SÄÄTÄMÄLLE MITOITUSPITUUDET SEKÄ MÄÄRÄTARPEET		Jukka Hackman	30.9.2011	14.10.2011
52	JÄRJESTELMÄMÄÄRITYS (määrittely ja järjestelmä)		Janne Peltonen	30.9.2011	14.10.2011
53	NOUDATETTAVAT MÄÄRÄYKSET (suunnitelma)		Janne Peltonen	30.9.2011	14.10.2011
54	GEOMETRIASUUNNITELUN KÄYNNISTYS	raiteen ja ratarakenteiden kartoitustiedot	Jukka Hackman	13.9.2011	15.10.2011
55	SUUNNITTELUPERUSTEIDEN KÄYNNISTYS		Jukka Hackman/Mikko Kor	5.10.2011	15.10.2011
56	JONOMITTAUS & RATARAKENTEIDEN KARTOITUS		Sami Jaakkola	5.10.2011	17.10.-11.11.2011
57	GPS-RUNKOMITTAUS		Sami Jaakkola	5.10.2011	17.10.-18.11.2011
58	JOHTO- JA LAITESIIRTOJEN SELVITYS		Jukka Hackman	13.9.2011	18.10.2011
59	RAKENTAMISEEN LIITYVÄT LUVAT		Ari Loukkalahti/Mikko Nyhä	30.9.2011	18.10.2011
60	KARITAPALAUJEJÄRJESTELMÄN SELVITYS		Otso Kärkkäinen	22.9.2011	21.10.2011
61	SIDOSRYHMIEN INFOKOKOUS	Osallistujien vahvistaminen	Anna Miettinen		21.10.2011
62	SUUNNITELMIEN HYVÄKSYMISEN TARKASTUS		Kalle Toropainen	5.10.2011	21.10.2011
63	ROUTALEVY- JA POHJATUTKIMUSTEN ALOITUS	Emma-ajo 18.10.	Matti Marola	13.9.2011	24.10.2011
64	ROUTASUOJAUSUUNNITELUN ALOITUS	tutkimukset	Auli Vanhoja	22.9.2011	24.10.2011
65	TERÄSPUTKIPAALUJEN ASENNUS	Hankinta, paikat => asennus, jännitekatko	Pasi Kráknás	13.9.2011	24.10.-18.11.2011
66	SUUNNITELMA HANKKEESTA TRAFILLE	hankkeen sisällön määrittely puuttuu	Maija Sirkkanen/Janne Pelt	13.9.2011	25.10.2011

CONSTRAIN LOG

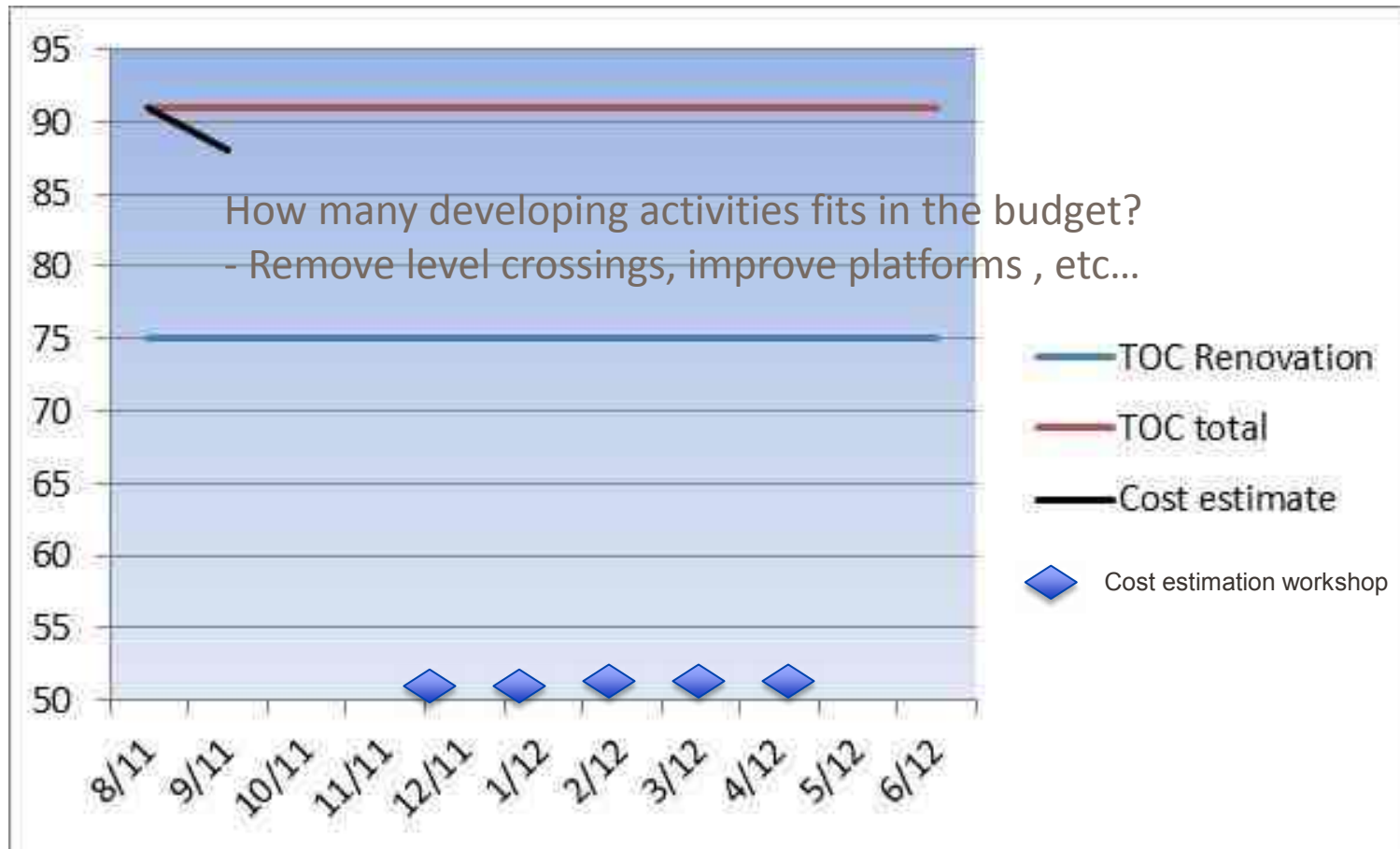
Working in the “big room”



- Engineers and constructors working together
- Coaching sessions
- Pull scheduling
- Project management team meetings and weekly LPS meetings (partly virtual)
- Other team meetings



Target Value Design approach



Summary

- The used selection process works well, and issues to develop is identified
 - Selection criteria need to be more concrete to measure value for money
 - Commercial model has to be discussed earlier
 - Stage 2 interviews has to be developed to be more Alliance spirit
- Stage 3 was very positive and built trust between owner and NOP´s
- The feedback of NOP´s has been positive. The industry wants more Alliance projects
- Common information and development workshops are very important for the owners and NOP´s
- Consortiums are ready for next pilot project although the selection process has not been started yet
- Value for money discussion has to be started

THANK YOU

Questions!

Harri.yli-villamo@liikennevirasto.fi

Lauri.merikallio@vakeva.fi

www.liikennevirasto.fi

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AAA2011 Annual Convention

Vuoden 2011 Convention keskittyi erityisesti muutamaan teemaan.

- Value for Money - arvoa rahalle, on tämän päivän haaste Australiassa. Tarkastusvirastot (Treasury) painostavat tilaajia käyttämään toteutusmuotoja, jossa palvelutuottajat antavat kiinteitä hintoja riskeineen kilpailutilanteessa.
- Mitä muita yhteistoimintaa tukevia toteutusmuotoja voidaan käyttää
- Allianssin projektipäälliköt ovat onnistuneen allianssin takaaja. Millaisia osaamisprofiileja on olemassa ja mitä osaamista allianssin projektipäälliköt tarvitsevat?

Integroitujen tiimien valintaprosessi

- Miten tilaajan tulee ottaa avainhenkilöiden osaamistasot huomioon valinta- ja arviointiperusteissa?
- Miten palvelutuottajat lähestyvät avainhenkilöiden kehittämistä ja valmentamista? Miten ko. avainhenkilöt itse lähestyvät omaa tiimiänsä valmentajina ja ihmistenkehittäjinä?
- Miten tutkijat ottavat ihmiset huomioon tämän hetken allianssitutkimuksissa?

AAA2011 Annual Convention

”Tutkimuskysymyksiä”

- Onko arvoa asiakkaille = arvoa rahalle julkisissa investoinneissa ja palveluissa?
- Tuottaako nykyinen vallitseva käytäntö (hintakilpailutus ja riskien siirto) parempaa arvoa rahalle kuin integroida osaamista mahdollisimman aikaiseen vaiheeseen ja yhdistää siihen lean filosofiaa sekä sen työkaluja ja metodeja?
- Millaisia malleja julkisen sektorin tulisi käyttää suunnitellessaan projektin tuotantosysteemiä, jotta se maksimoisi arvoa asiakkaalle ja arvoa rahalle?