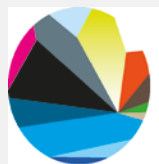




Norwegian-Ukrainian Chamber of Commerce  
Oslo, 23.08.2018

Olga Iermolenko  
Researcher, PhD



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Project Assistant  
2009-2011

Research Assistant  
2011-2014

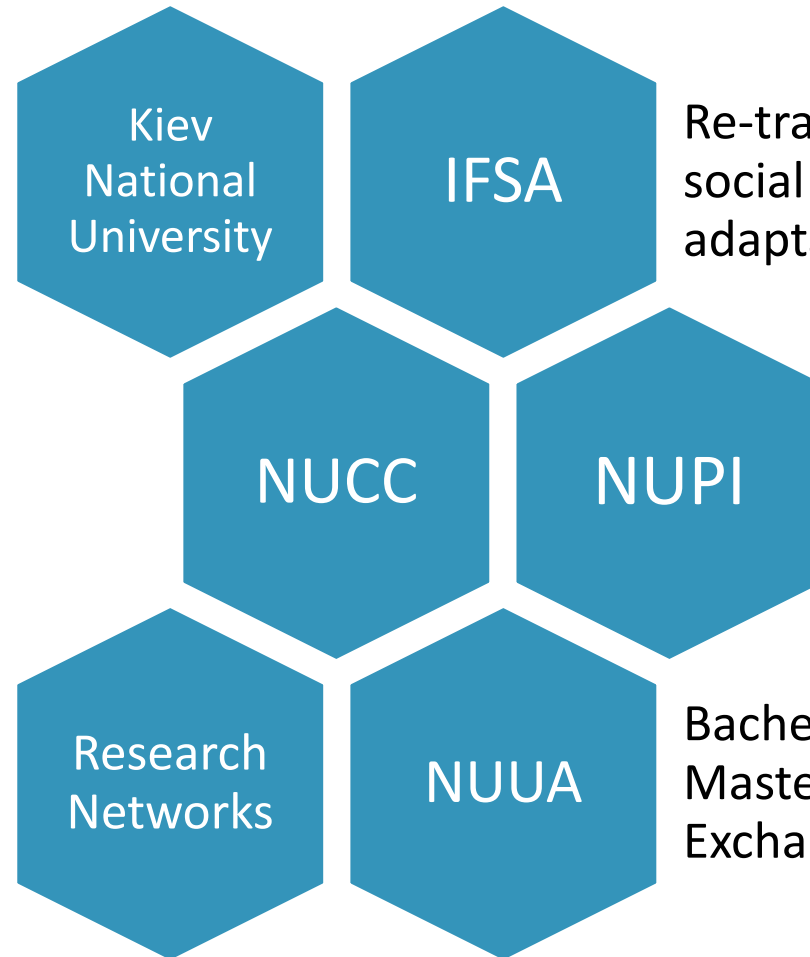
Stipendiat  
2014-2017

Researcher  
2018

## Cooperation and research



NUPSEE  
NUPRE  
COSO internal  
control



Re-training and  
social  
adaptation

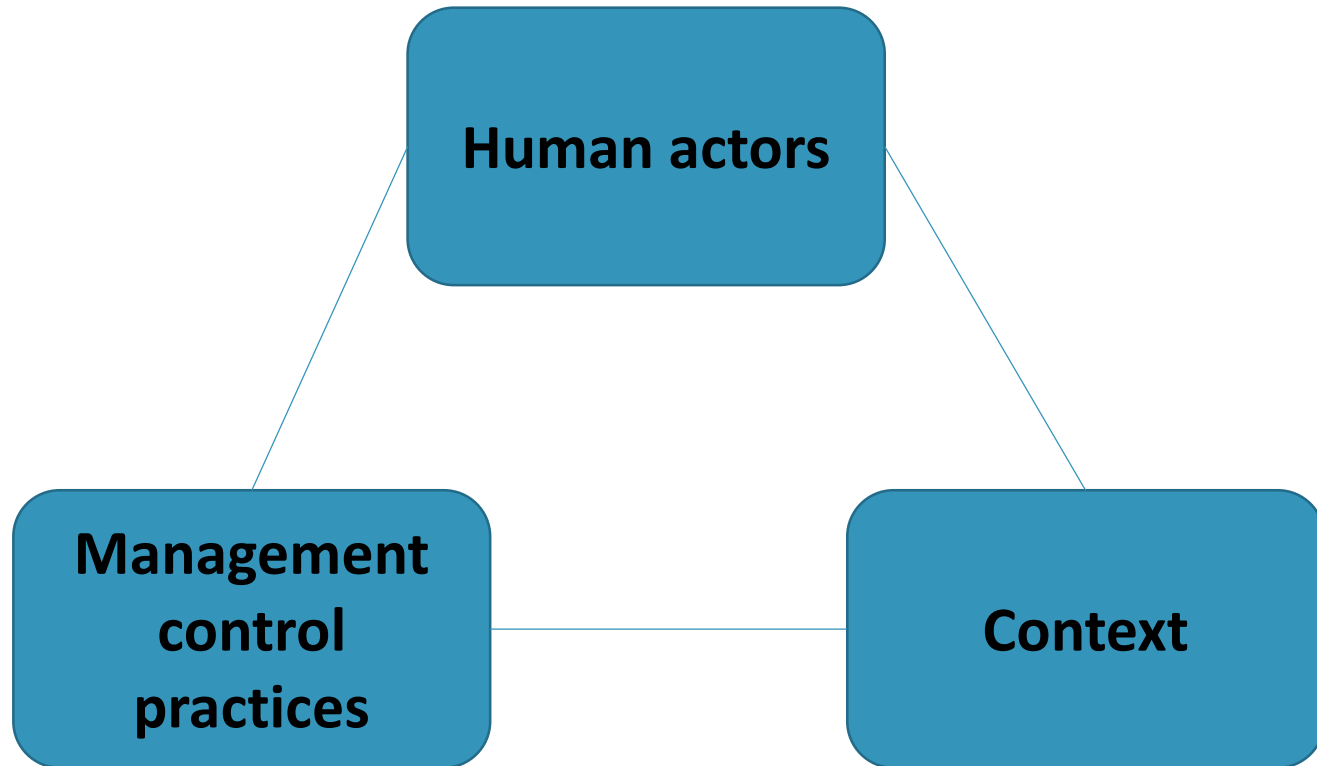


Olga fra Bodø ga Erna Ukraina-råd

<https://www.an.no/nyheter/olga-fra-bodo-ga-erna-ukraina-rad/s/1-33-7698964>



Bachelor,  
Master &  
Exchange



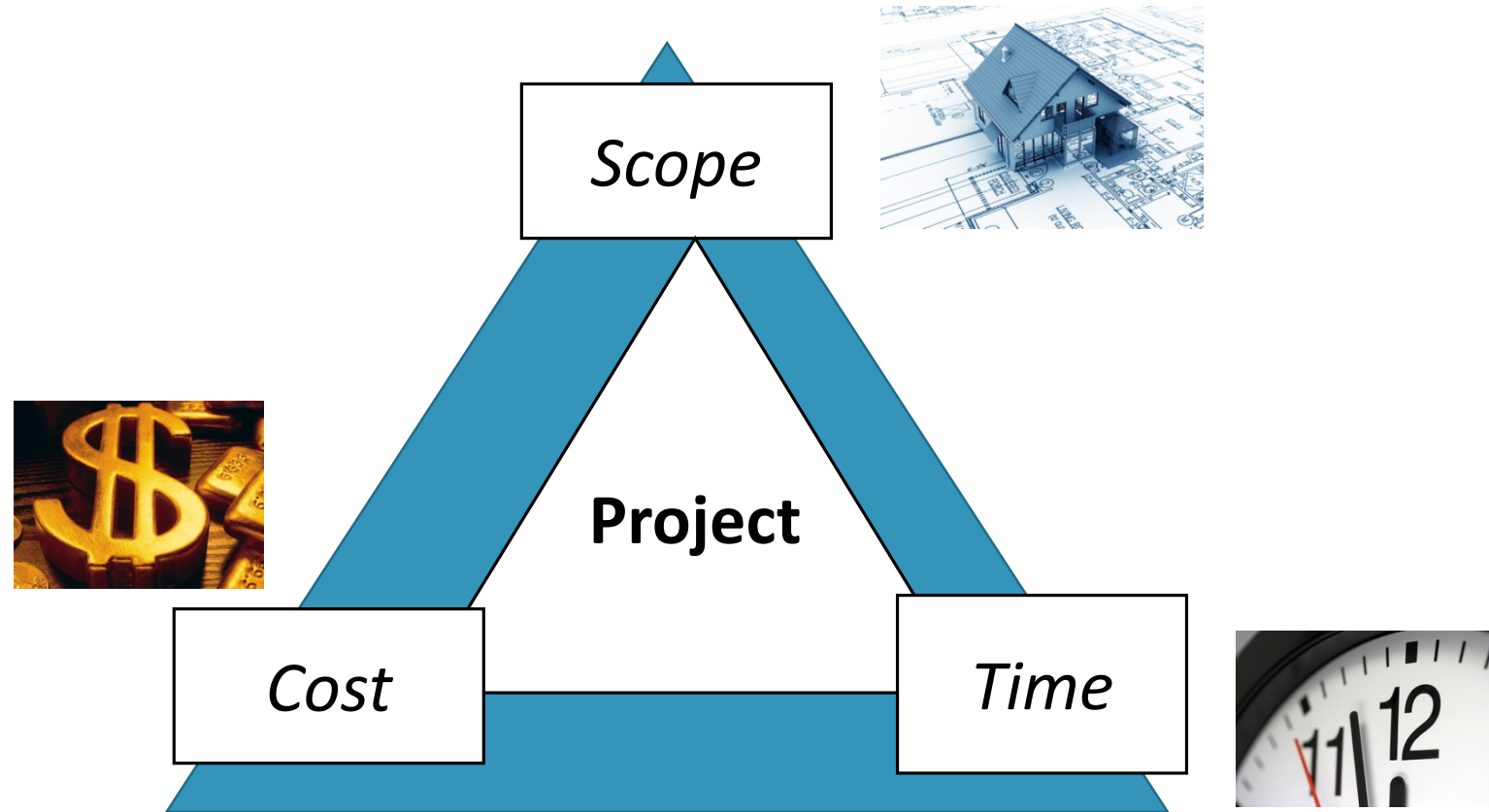
Elements	Paper 1	Paper 2	Paper 3	Paper 4
Type of paper	Literature review	Research paper	Research paper	Research paper
Research design	Literature review	Longitudinal case study	Interpretive case study	Longitudinal study
Context	Post-socialist countries	Ukraine	Norway & Ukraine	Ukraine
Research methods	Analysis of articles in peer-reviewed journals, factual data	Interviews Documents Observations	Interviews Secondary data	Interviews Documents Shadowing
Studied period	1991–2016	(2005) 2012–2016	(2007) 2011–2012	(1999) 2013–2017
Agents in focus	Internal and external agents	Different levels of organizational participants	Small groups of individuals (projects' key persons)	An individual actor (Institutional Entrepreneur)

<sup>[1]</sup> The years in parenthesis indicate the start of the retrospection.

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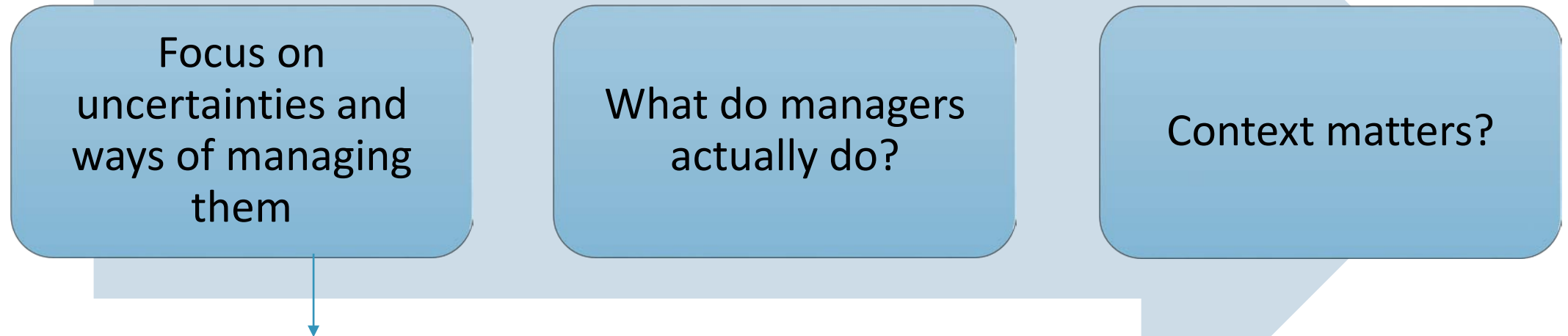
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# Beyond the “Iron triangle” of scope, time & costs: Control aspects of dealing with project uncertainties



Iron Triangle (Atkinson, 1999)

## Beyond the “Iron triangle” of scope, time & costs: Control aspects of dealing with project uncertainties



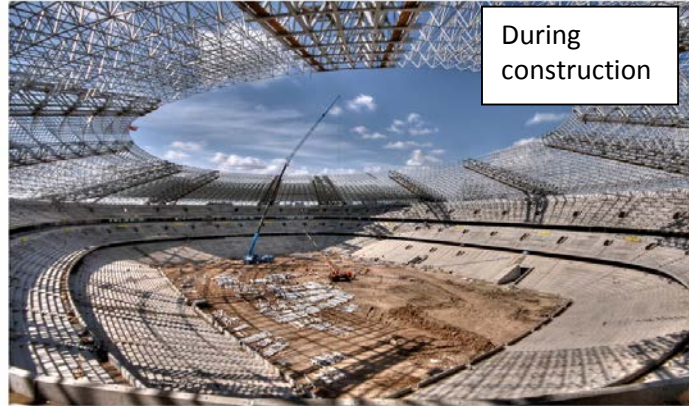
### **The key areas of uncertainties:**

- Uncertainty in estimates
- Uncertainty associated with project parties
- Uncertainties associated with the stages in the project life cycle



# The two construction projects

*Donbass Arena (Ukraine)*

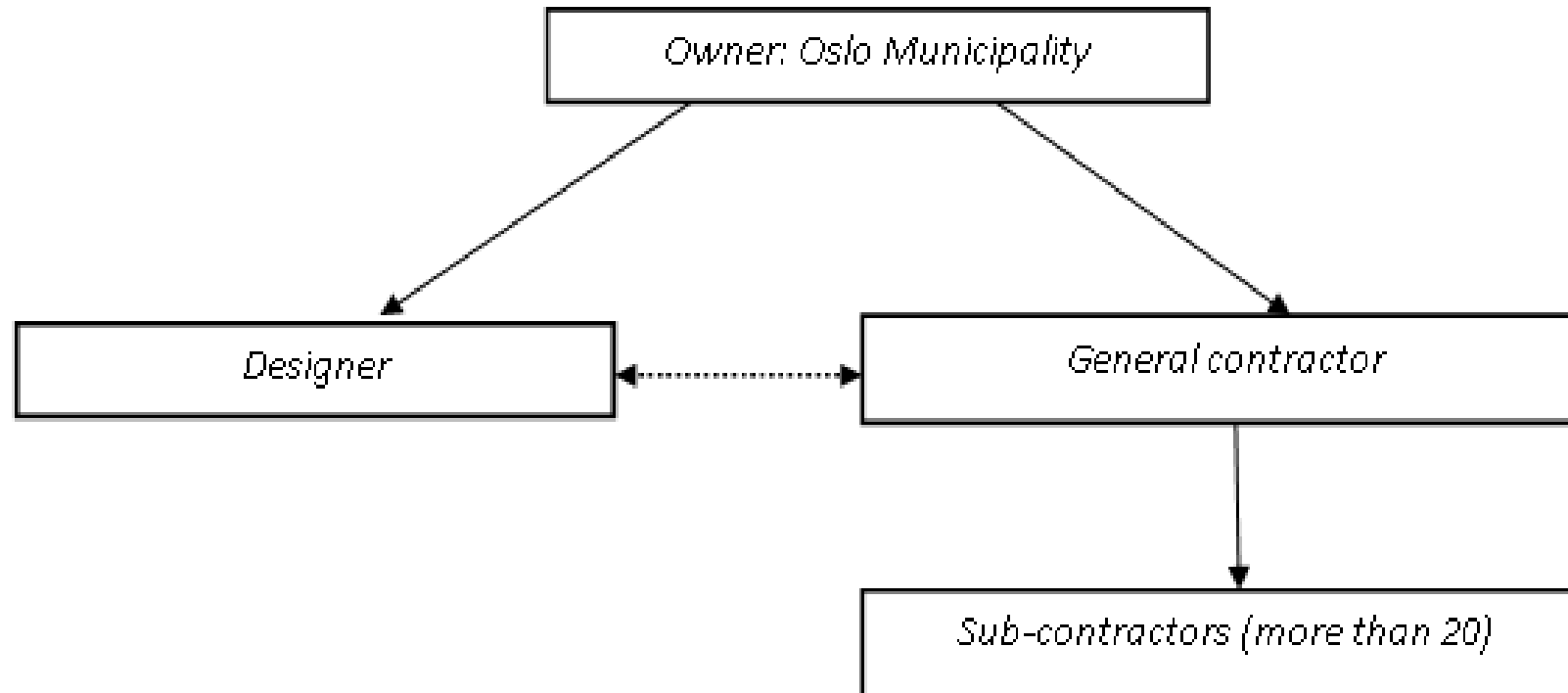


*Holmenkollen (Norway)*

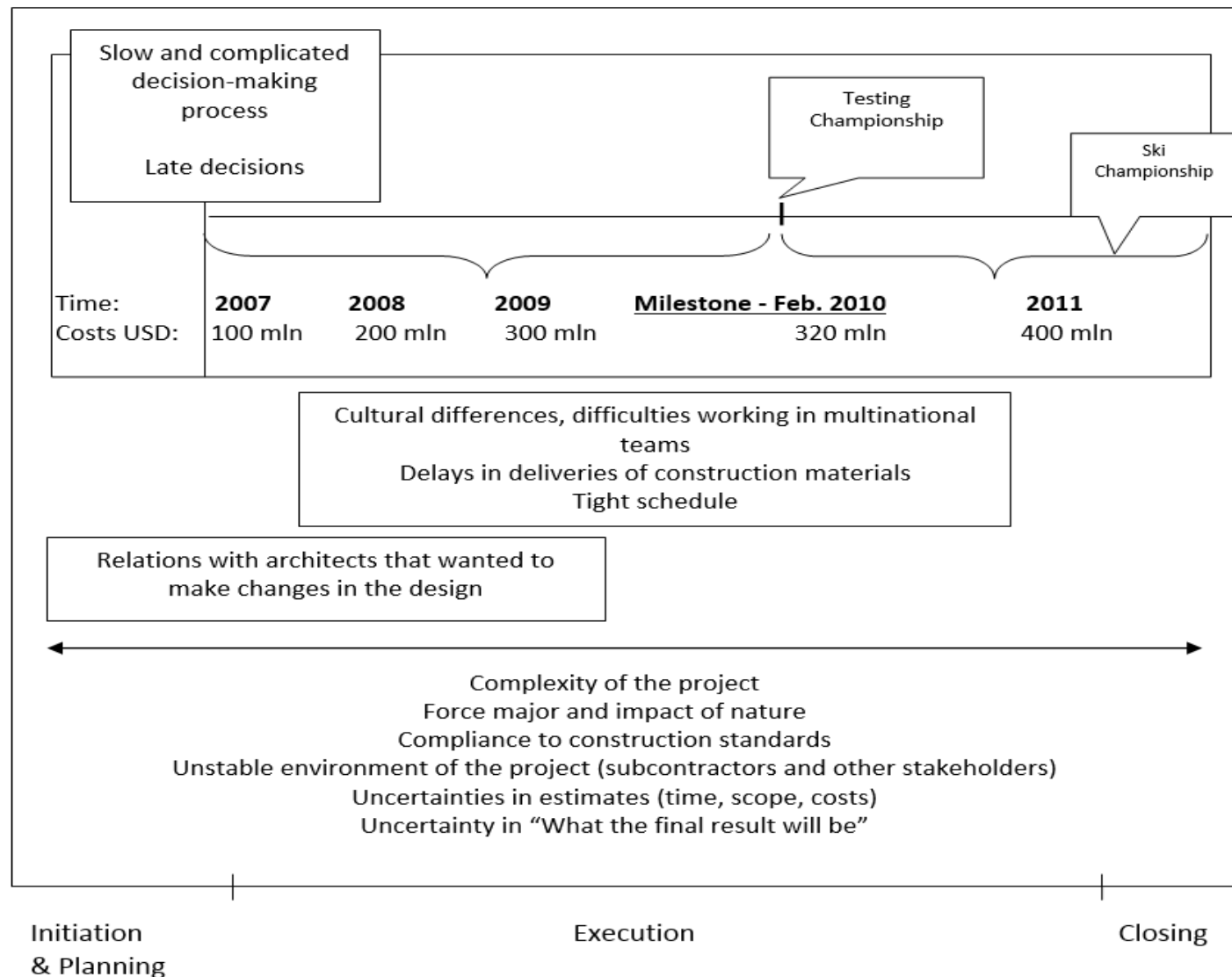


Factors	Holmenkollen	Donbass Arena
Industry	Sport	
Contactors	More than 20	Around 15
Final costs	USD 400 mln	
Initial plans	USD 125 mln	USD 185 mln
Budget overruns (final costs compared to initial plans)	320%	216%
Terms of realization	Around 3 years	
Initiation of the project	2005 – 2006	2004 – 2005
Factual start-completion of the project	2008 – 2011	2006 – 2009
Time overruns	2 years	1 year
Main architecture	JDS Architects (Denmark)	Arup Sport (UK)

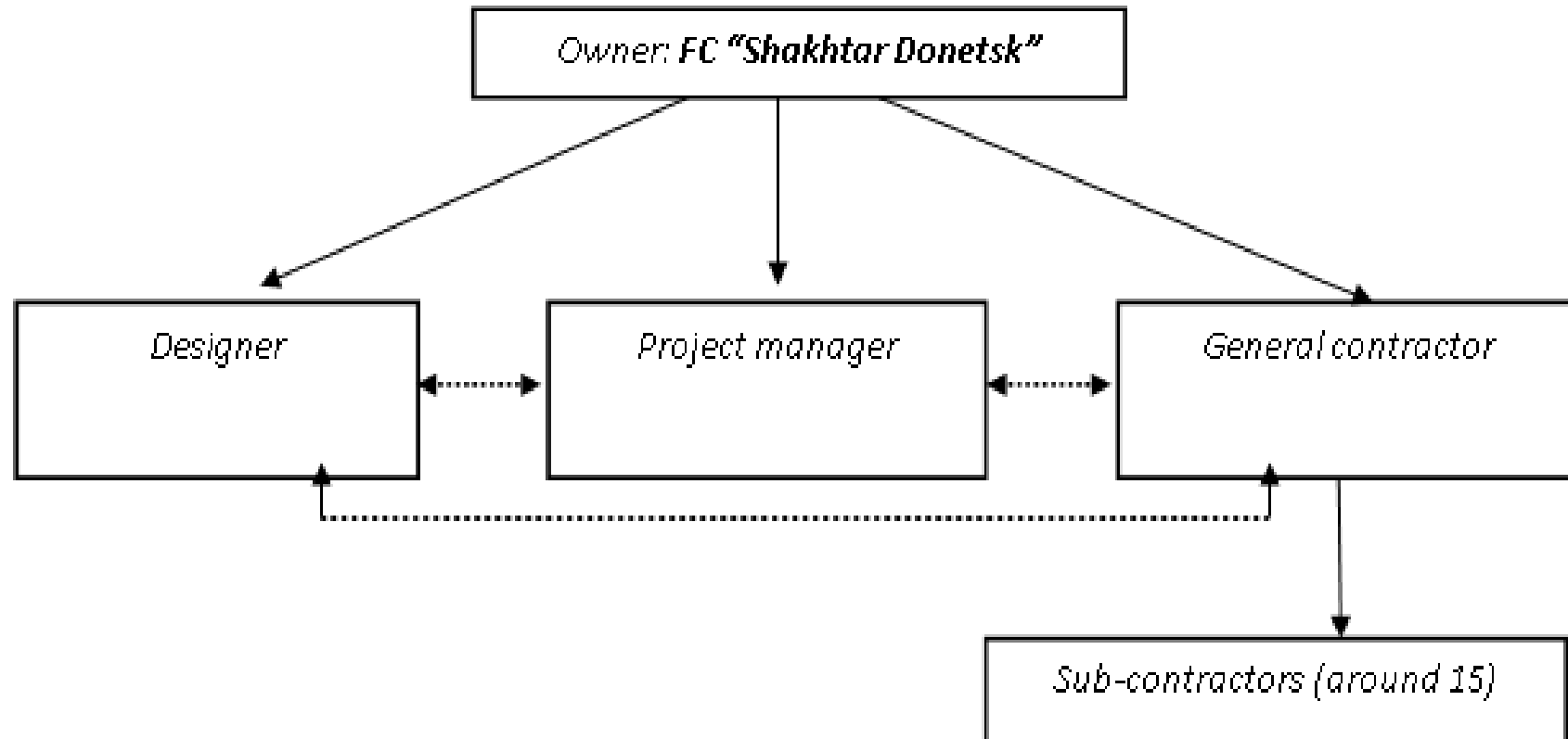
# Holmenkollen project



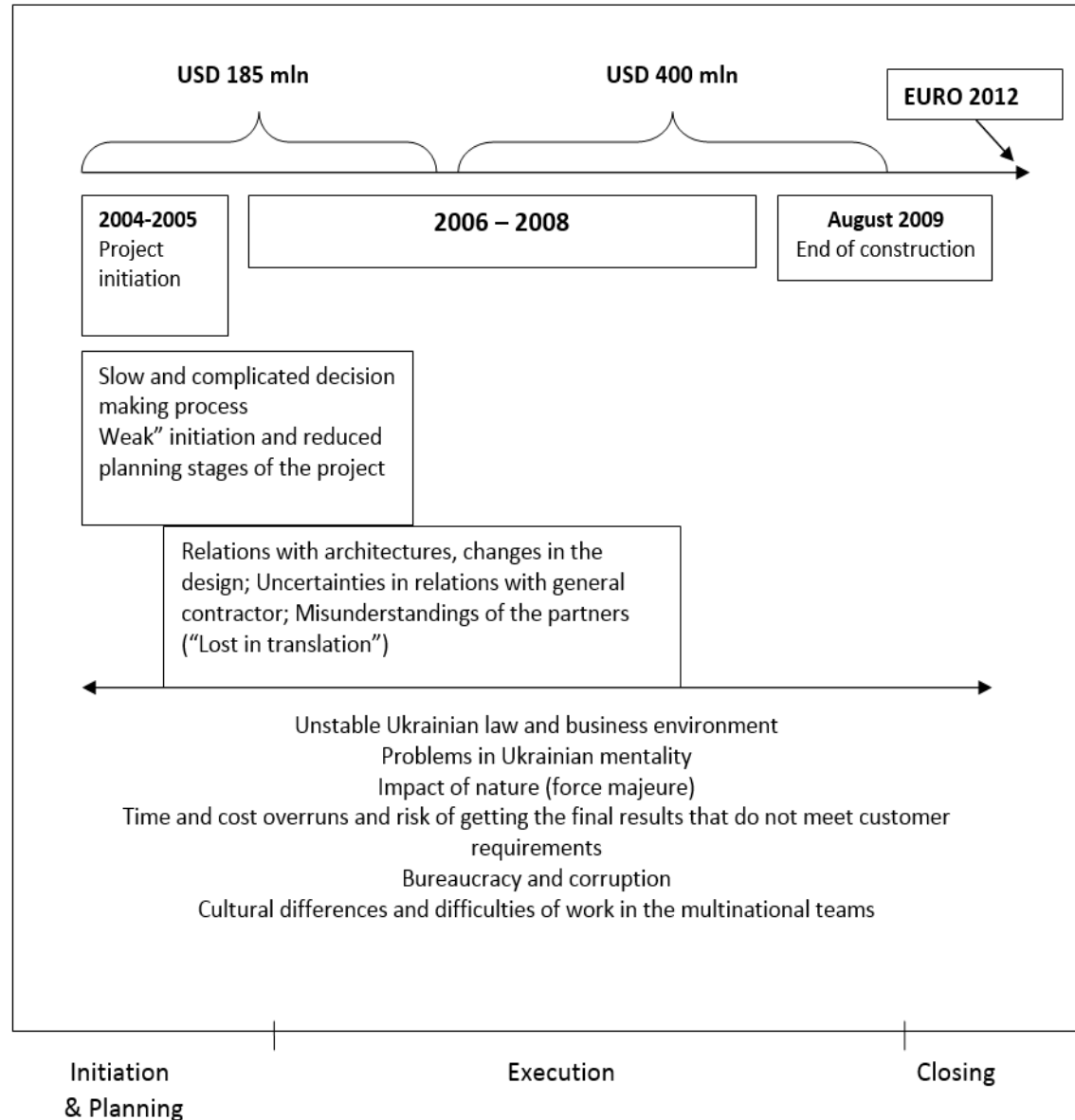
# Holmenkollen: Projects estimates and costs escalation



# Donbass Arena Project

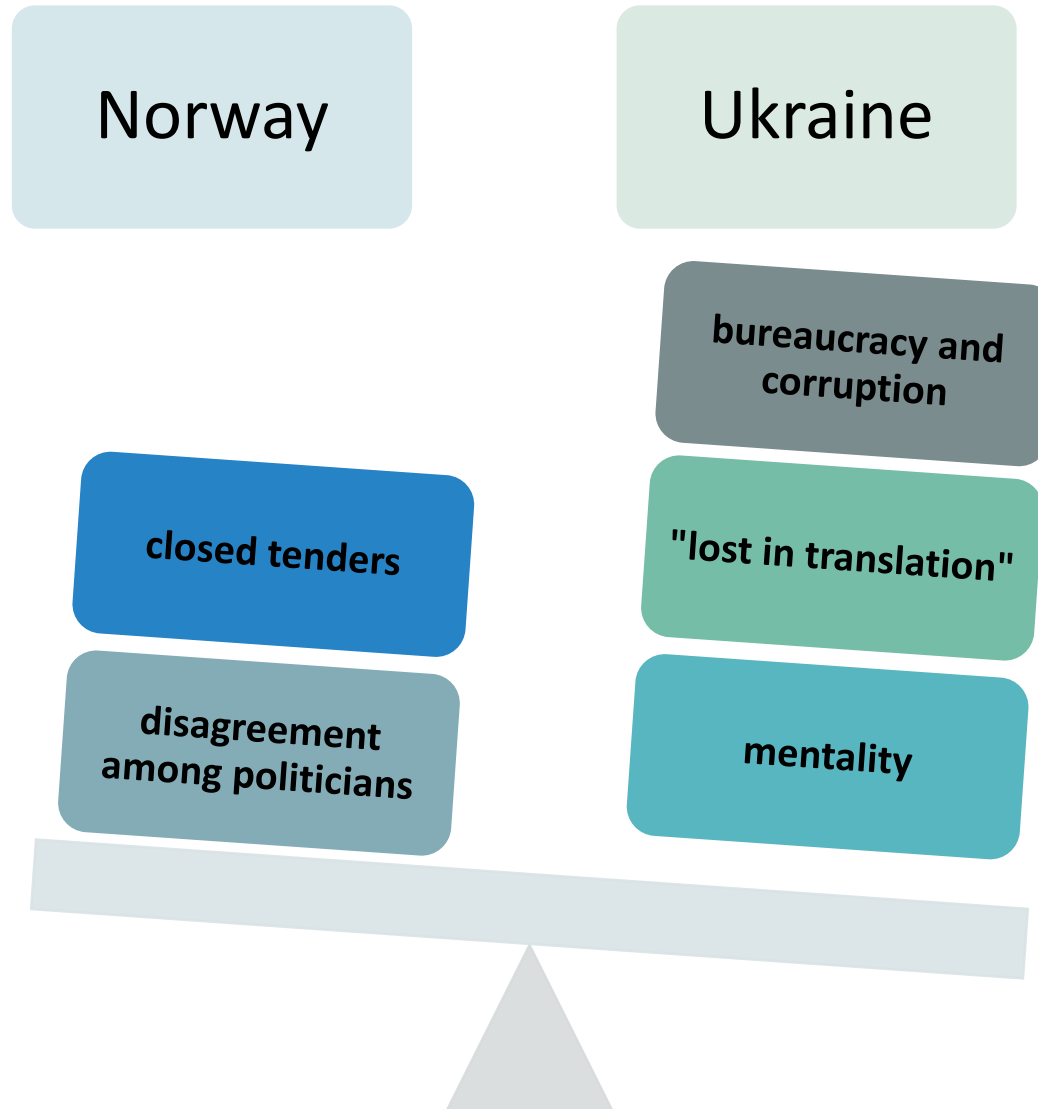


# Donbass Arena: Projects estimates and costs escalation



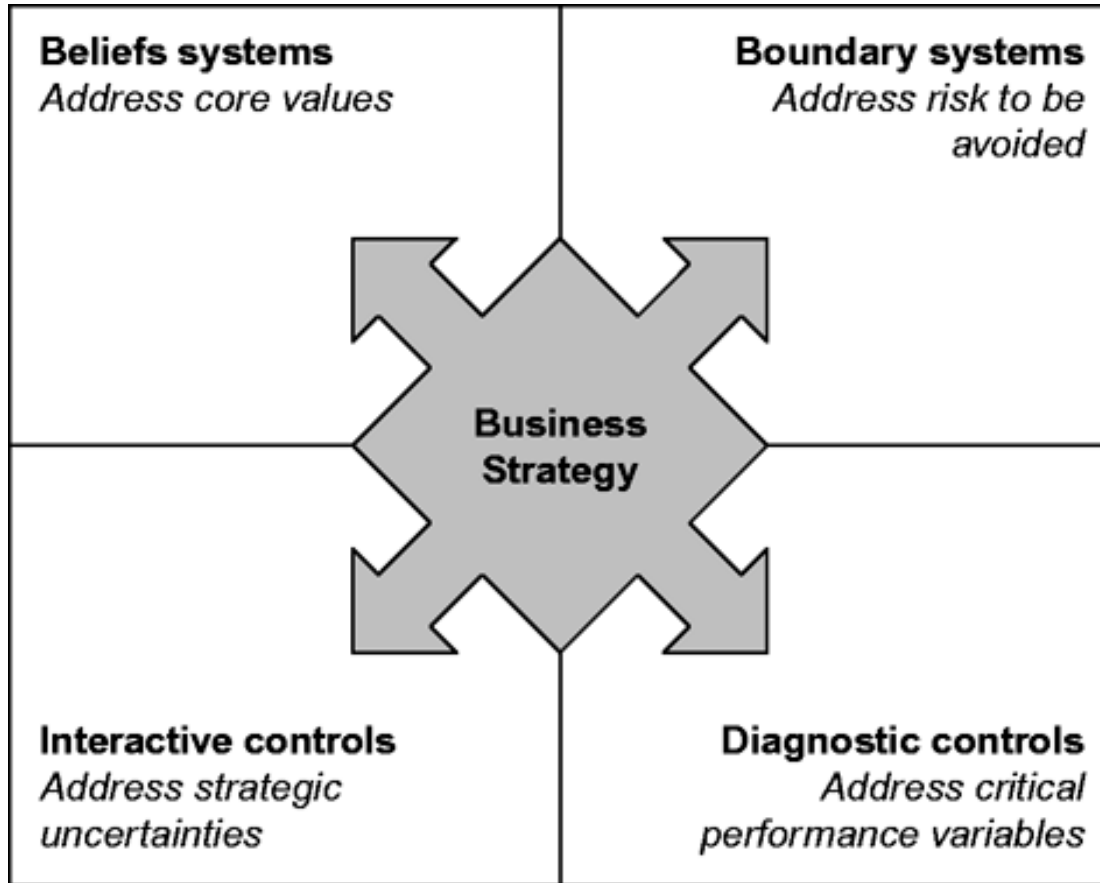
Criteria	Holmenkollen	Donbass Arena
Type of contacts	Two sides contact	Three sides contract
HR policy	Involve experienced people	Hire young people
Government regulation and construction norms	Stable	Changing
Motivation	No formalized motivation systems	Combination of financial and nonfinancial incentives
Approach to reporting	Monthly reports	Frequent reports (half-years, monthly, weekly and daily reports if needed)
Meetings	Monthly, 2 weeks	Daily
Trust	Gain trust	Trust nobody
Structure	Independent structure of contractor organization	Duplicate system of contractor and client organization
Software	OPERA Project	Spider project and MS Project

## Peculiar characteristics of projects in terms of sources of uncertainties



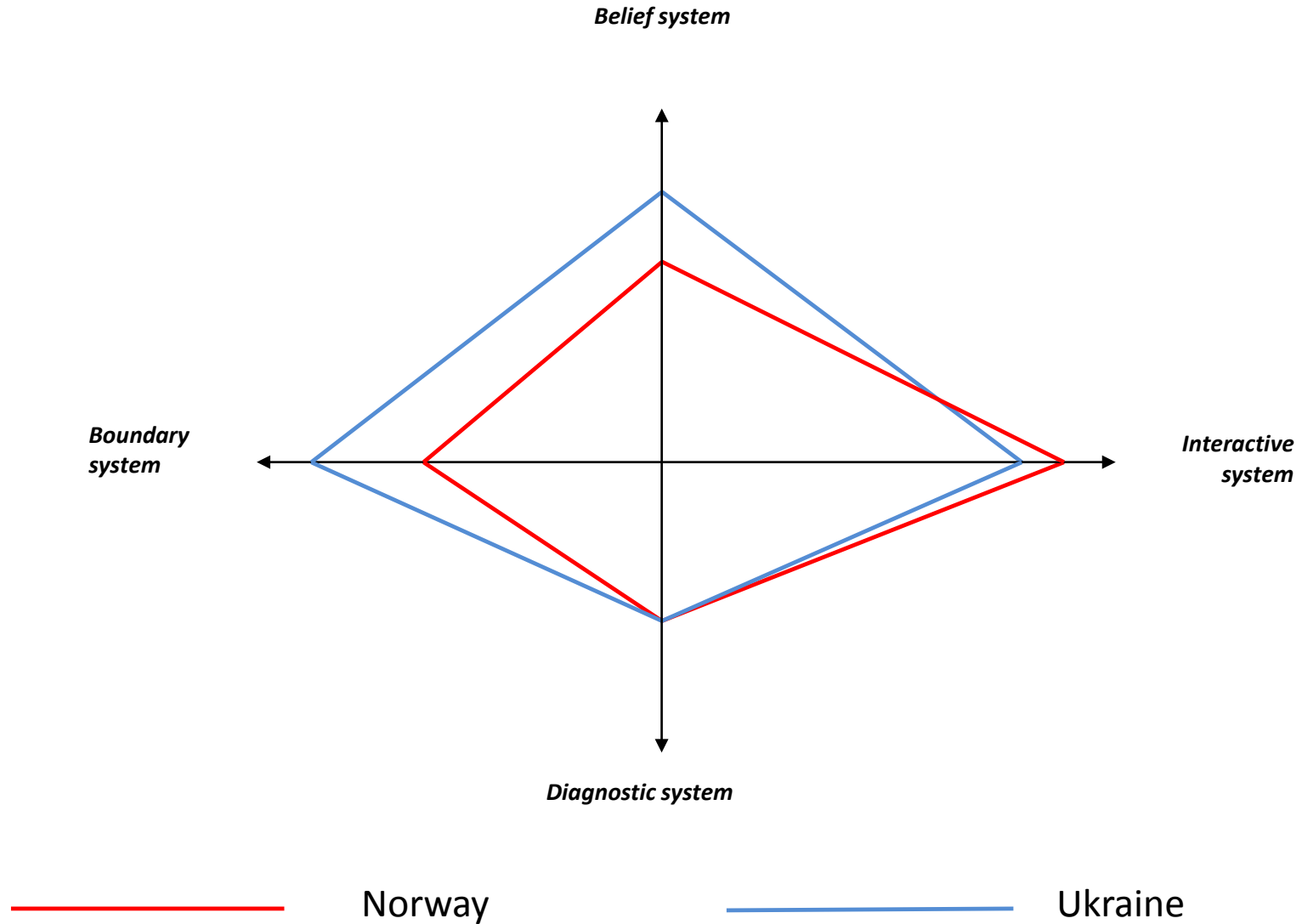


# Levers of control



**Source:** Adapted from Simons (1995)





## What do managers actually do?

- Transform projects from the **“fog” stage**, when main stakeholders are not only unclear about how things need to be done, but are also not totally sure about what the end result should be
- **Balanced use of levers of control** for handling uncertainties of the project: belief, boundary, interactive and diagnostic controls

## Context matters?

- Project managers have to be prepared to **handle different cultures** as well as other tasks of the projects
- **Internationalization and globalization** of economy seem to have impacted construction industry, and the choice of tools and MCS used for handling uncertainties in international construction projects



**“Iron triangle” is not an adequate measure of project’s success**

- There are many factors which are not taken into account while making initial calculations
- A helpful tool in big projects – *limits of responsibilities*
- No fixed management control systems provide solutions to uncertainties – *emergent MCS*
- As for other stakeholders, there should be *a constructive dialogue* between all the parts of big projects in order to avoid misunderstandings and implementing changes on the latest stages, which are very costly

Thank you for your  
attention!



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