MEGAPROJECT Case Study

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Basic Project Information

Project Title	Kraftwerk Moorburg (coal-burning power plant)
Location	Hamburg – Moorburg, Germany
Purpose	To deliver electrical power and to ensure electrical supply for the city of Hamburg and the surrounding region in the future
Scope	A coal-burning power plant with an output of 1.640 MW electrical power
Total Project Value	3,0 Billion EUR
Project Status (i.e.. initiation, planning, construction, operation, dismantling)	Construction / Operation
Contractual Framework (e.g. fixed price, cost-plus etc.)	Multi lot procurement with 60 lots, managed by Vattenfall
Relevant Physical Dimensions (e.g. height, width, volume, length)	1.640 MW electrical power, up to 650 MW long-distance heating, net degree of efficiency: 46,5 %

MEGAPROJECT Internal Stakeholder Identification

(Stakeholders with a direct legally sanctioned relationship with the project)

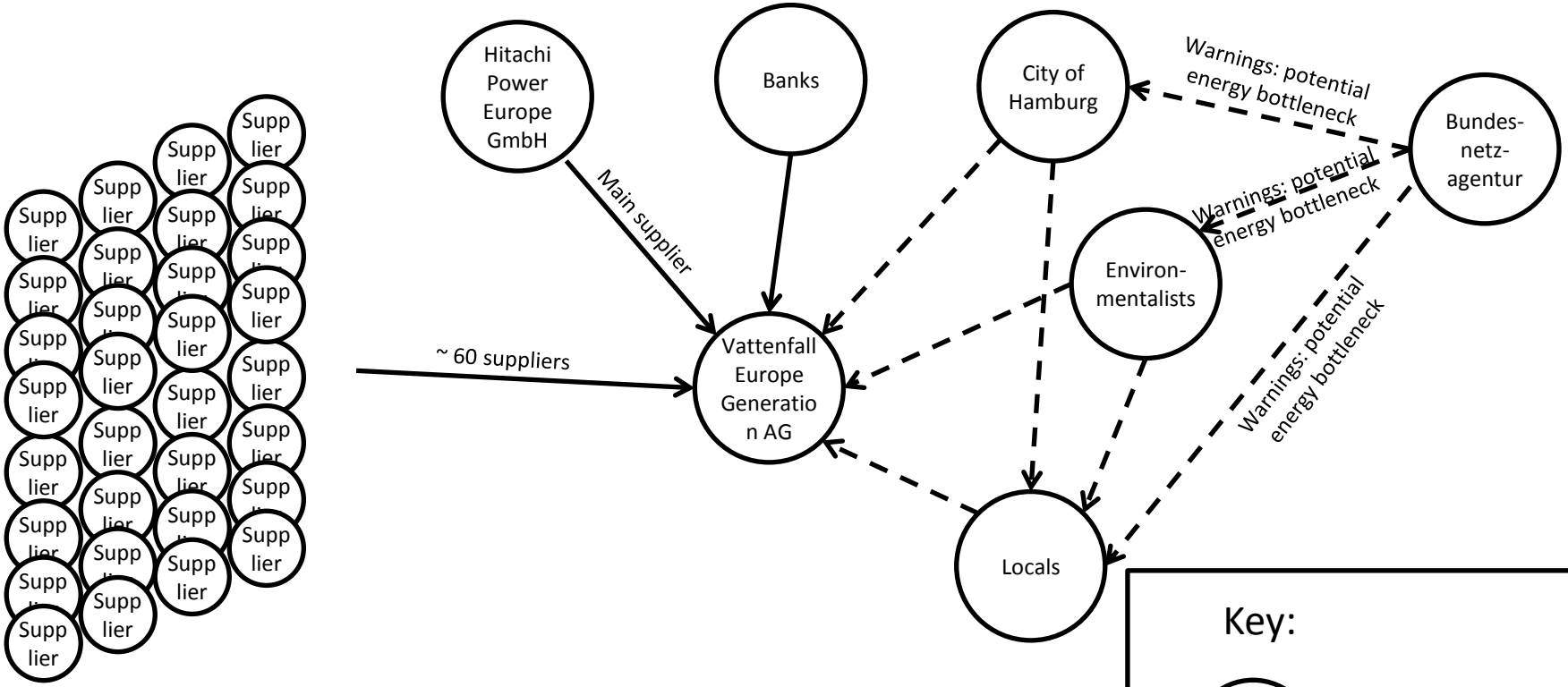
		Stakeholder Category	Case-Study		Comments (e.g. maturity, previous experiences of stakeholders, skills, influence on project)
Internal	Supply-Side	Client			
		Financiers	Vattenfall Europe Generation AG + several Banks		
		Sponsors	Vattenfall Europe Generation AG		
		Client's Customers	Citizens of Hamburg and the surrounding region		
		Client's Owners	Shareholders of Vattenfall Europe Generation AG		
		Other internal supply-side categories (please specify)	Category	Case-Study	
	Demand Side)	Principal Contractor	No principal contractor, project is split into 60 single contract batches		Mainly german companies
		First Tier Contractors	Hitachi Power Europe GmbH (two steam generators, value of ~ 600 Mio. EUR)		problems with high-tech steal T25, caused delay and cost overrun
			Alstom Power Generation AG		
			FL Smidth		
		Second Tier Consultants			
		Professional Services Providers			
		Other internal supply-side categories (please specify)	Category	Case-Study	

MEGAPROJECT External Stakeholder Identification

(Stakeholders with a direct interest in the project but with no legal contract)

		Stakeholder Category	Case-Study		Comments (e.g. maturity, previous experiences of stakeholders, skills, influence on project)
External	Public	Regulatory Agencies	Federal State of Hamburg		
		Local Government	City council of Hamburg		Caused delays: because of a dispute on several legal issues (e.g. water, etc.); because of extended proposal test; because of additional requirements
		National Government			
		Other internal supply-side categories (please specify)	Category	Case-study	
	Private	Local residents	Massive protests		
		Local Landowners			
		Environmentalists	Massive protests, which had high influence on public; planting of trees on power plant ground		
		Conservationists			
		Archaeologists			
		Other External Private stakeholders (please specify)	Category	Case study	

MEGAPROJECT Stakeholder Relationship Maps



Key:

Name of Actor - Project Actor

Description of relationship → - Project relationship with a contractual basis

Description of relationship - - - → - Non-contractual project relationship

Repeat this map for as many project phases as you require

MEGAPROJECT External Stakeholder Attitude Analysis

External Stakeholder	External Stakeholder's Attitude to this Project	External Stakeholder's Influence on project	Impact of Project on External Stakeholder	Phase of Project of Greatest Interest (initiation, planning, construction, operation, dismantling)
Hitachi Power Europe GmbH	Positive	Negative: cost overrun and delay because of technical problems		Construction, operation
City council of Hamburg	Negative, later neutral	Negative: additional cost and delay by additional requirements and long approval processes	New power plant will ensure energy supply of Hamburg – which becomes very critical after Germany's turn around to sustainable energy	Initiation, planning
Environmentalists	Negative	Negative: delays and additional costs, negative image		Initiation, planning

MEGAPROJECT Project Management

Project Organisation

Client Project Team Size & Structure	Vattenfall: Detail planning: ~ 100 man; Quality and Contract Management: ~ 60 man; Site Management: ~ 100 man => total: ~260 (not all the time)
Contractor Project Team Size and Structure	Hitachi: in total: ~ 100 man
Sub-Contractor Project Team Involvement	

Project Tools and Techniques

Please √ if present, x if absent , leave blank if unknown

Life-Cycle Costing Approaches: yes

Stakeholder Involvement: yes

Building Information Modelling (BIM): yes

Project Management Software: yes

Relationship Management Tools: yes

Project Knowledge Management Tools: no

Lessons Learnt Transfers: yes

Team Building Tools: yes

Competency framework: yes

Other Tools and Techniques or More Information

Project Processes

Risk Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis
HR Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis, supplied by the headquarter
Procurement Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis
Integration Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done – especially in initiation and planning
Scope Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis
Time Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis – detailed and divers plans for different levels
Cost Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis
Quality management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis – including claims management and HSE (Health, Safety, Environment)
Communications Management Processes	Present (*describe below*) □Not Present □ No Information □ Yes, is being done on a regular basis – coordinated and supported by the headquarter

MEGAPROJECT Project Performance

Aspects of Performance Concerned with Doing the Project Right

	Original Targets and changes to targets	Actual Achievements Against Targets
Performance relating to **time**	Originally: ~ 50 Months; changed to ~ 75 Months. (~12 Month lost in approval process and ~12 Month lost because of technical problems in construction phase)	The power plant will start full operation in March / April 2014
Performance relating to **cost**	Originally: ~ 1,8 Billion EUR; changed to ~ 3,0 Billion EUR (because of additional requirements: additional hybrid cooling tower; and because of technical problems)	
Performance related to achieving **specification**	No changes to original specifications (except: additional requirements from authorities)	

Aspects of Performance Concerned with Doing the Right Project

Stakeholder or Stakeholder Grouping	Original Aims of Project Involvement and Changes to these Aims	Achievement of these Aims
Authorities	Among others: plant without hybrid cooling tower	Hybrid cooling tower is built

MEGAPROJECT Project Environment

Legal and Regulatory Environment

Legal and Regulatory Project Environment (regionally, nationally and Europe wide)	Local authorities have the power to decide on project's approval and to decide which additional requirements are to be hold – the national authorities only provide a framework and some guidelines
Specific Legal and Regulatory events impacting on the project	

Political Environment

Political Project Environment	Turnaround in German energy politics (2011/2012): exit from nuclear power; this could lead to electricity shortages in future, as many nuclear power plants are cut-off. This changed the negative positions of many politicians into a neutral one.
Specific Political Events impacting on the project	During project: two elections in Hamburg: Political climate changed from a neutral position to a negative position as the Green party won the elections.

MEGAPROJECT Project Environment

Economic Environment

Economic Project Environment	
Specific Economic Events impacting on the project	

MEGAPROJECT Project Key Events and Activities Timeline