

Current measures to improve strategic decisions and manage uncertainty upfront

- Project risk management to obtain project success***

Halvard S. Kilde



Agenda

- ◆ Introduction – one slide about Metier
- ◆ Project Risk Management
 - What is it and is it important?
 - And the project process
 - Experiences
- ◆ An example
- ◆ Benchmarks
- ◆ Summary

The Metier Group

- ◆ One of the leading providers of portfolio and project management services and solutions
- ◆ 22 years of experience
- ◆ Mission Statement: "Provide industry-leading portfolio and project management solutions and services that enable organisations to choose the right initiatives and execute them more effectively."
- ◆ Part of Artemis International with 48 offices in 23 countries. More than 2000 customers world wide
- ◆ Tag line:
 - Better decisions. Better results



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- ◆ **Project Risk Management**
 - **What is it and is it important?**
 - **And the project process**
 - **Experiences**
- ◆ **An example**
- ◆ **Benchmarks**
- ◆ **Measures to be taken**

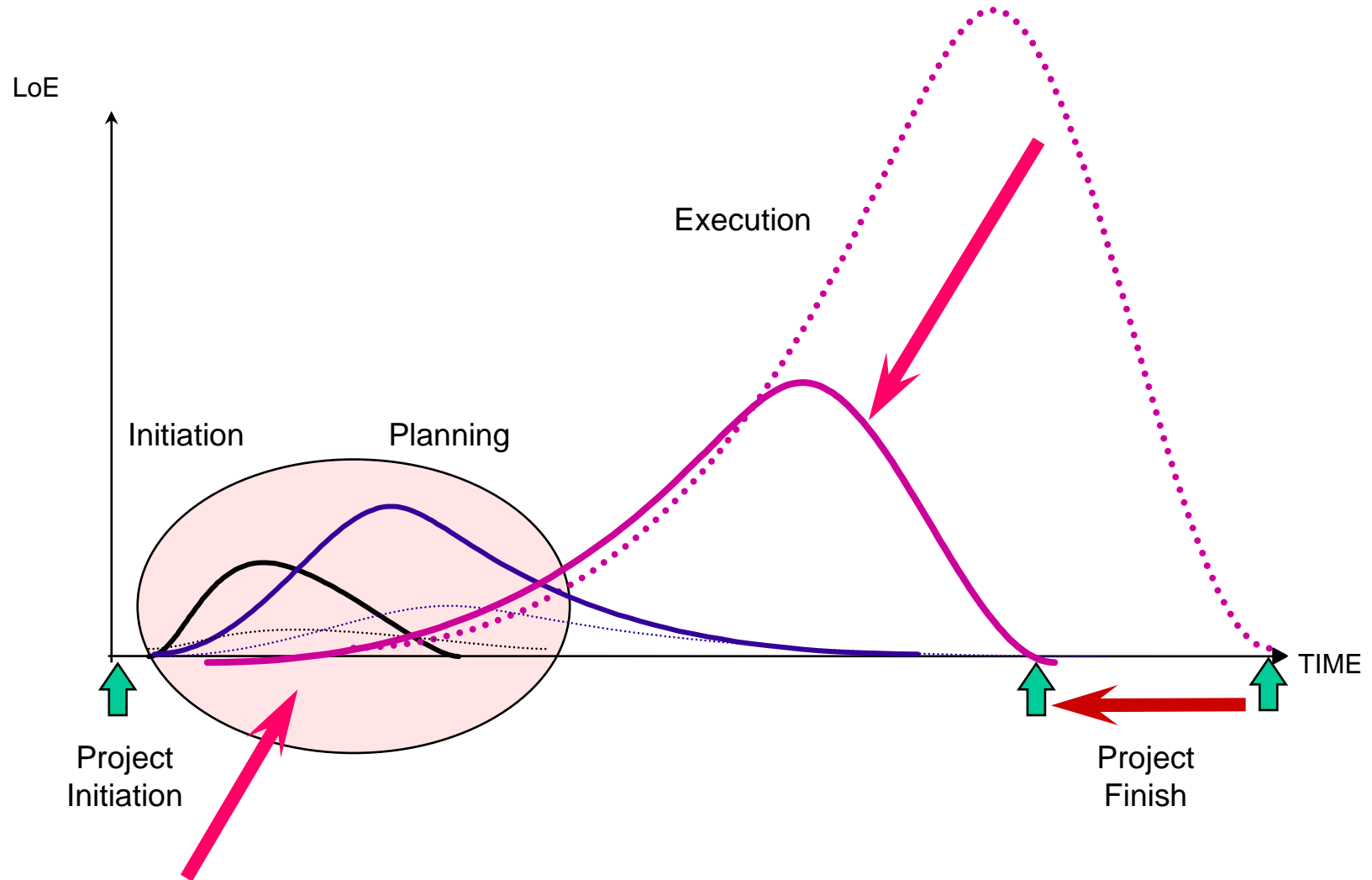
Project risk management

- ◆ **A systematic process of identifying, analysing and responding to project risk (the right actions)**
 - Risk is the difference between the information you need to make a secure decision and the information available (Project 2000, 1999).
 - Up-side and down-side potential – opportunities and risks
- ◆ **Risk analysis:**
 - Systematic approach to describe and/or calculate the project risk at a certain stage
- ◆ **A management tool for establishing consistent decision basis for**
 - Selecting the right project
 - Selecting the right concept
 - Efficient project execution
- ◆ **...but Risk is only one part of the decision basis**

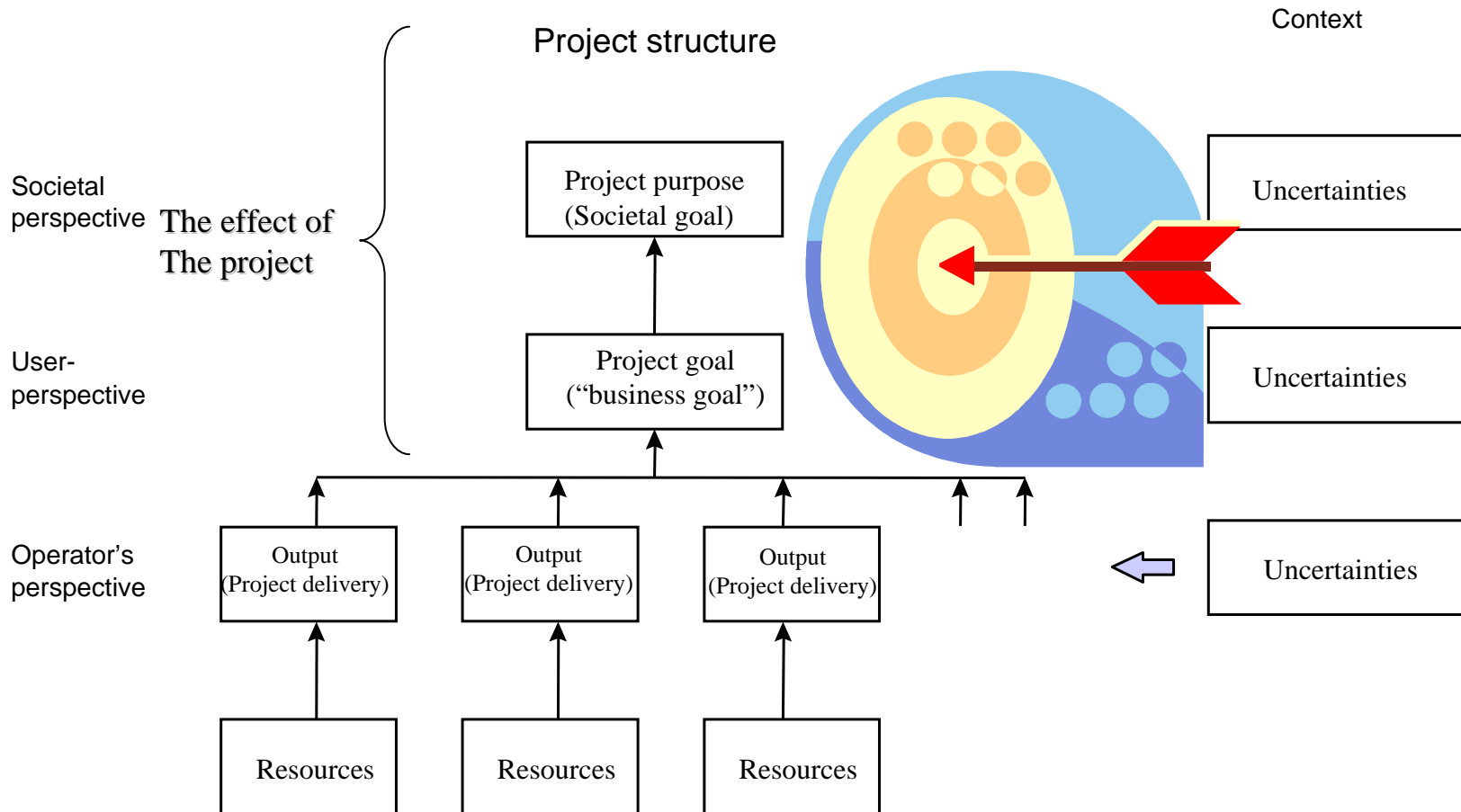
From IMEC (and Project 2000)

- ◆ **Main Research question**: What are the factors influencing the success or failure of large complex engineering projects ?
 - **A lot of experience data and empiricism**
- ◆ **The Benchmarking-study underlined the importance of a systematic and proactive risk management process**
- ◆ **Challenge:**
 - **How do we implement proactive risk management the right way - to secure project investments and to obtain project success**
 - **Which measures must be taken to improve strategic decisions and manage uncertainty up-front**

To little emphasis on Front – End management

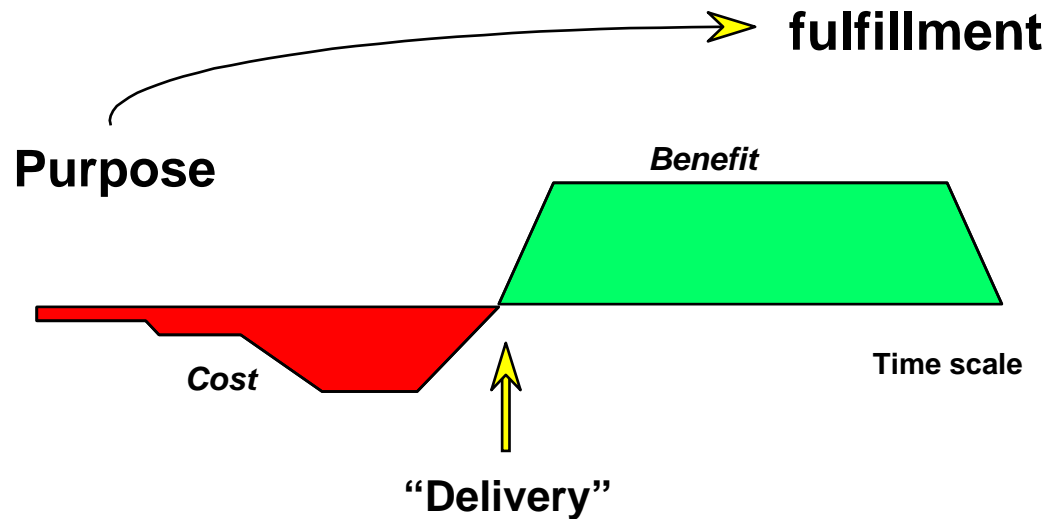


What defines project success?



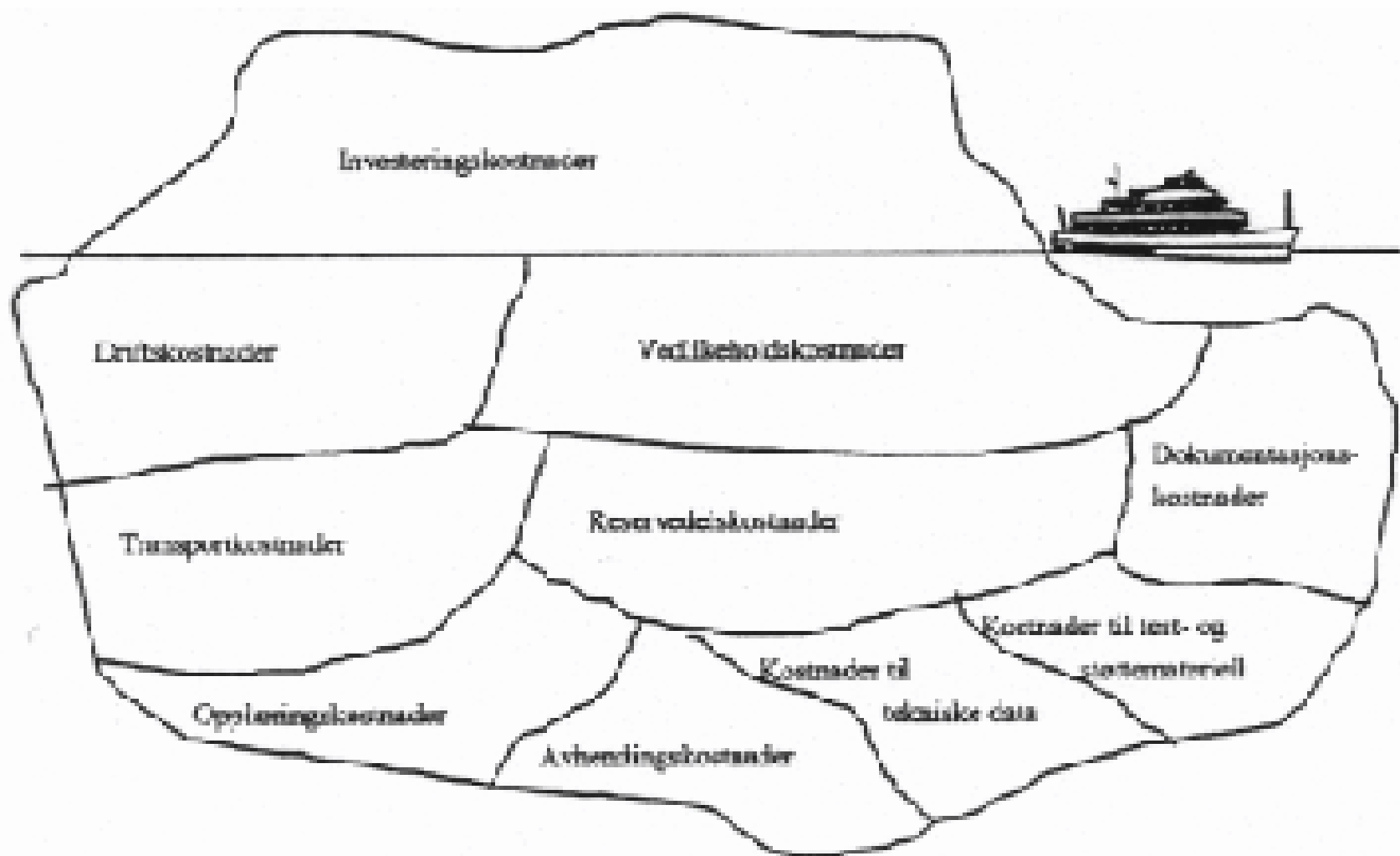
(Prosjektvurdering i tidligfasen, Samset, Knut, 2001)

Project success = LCB

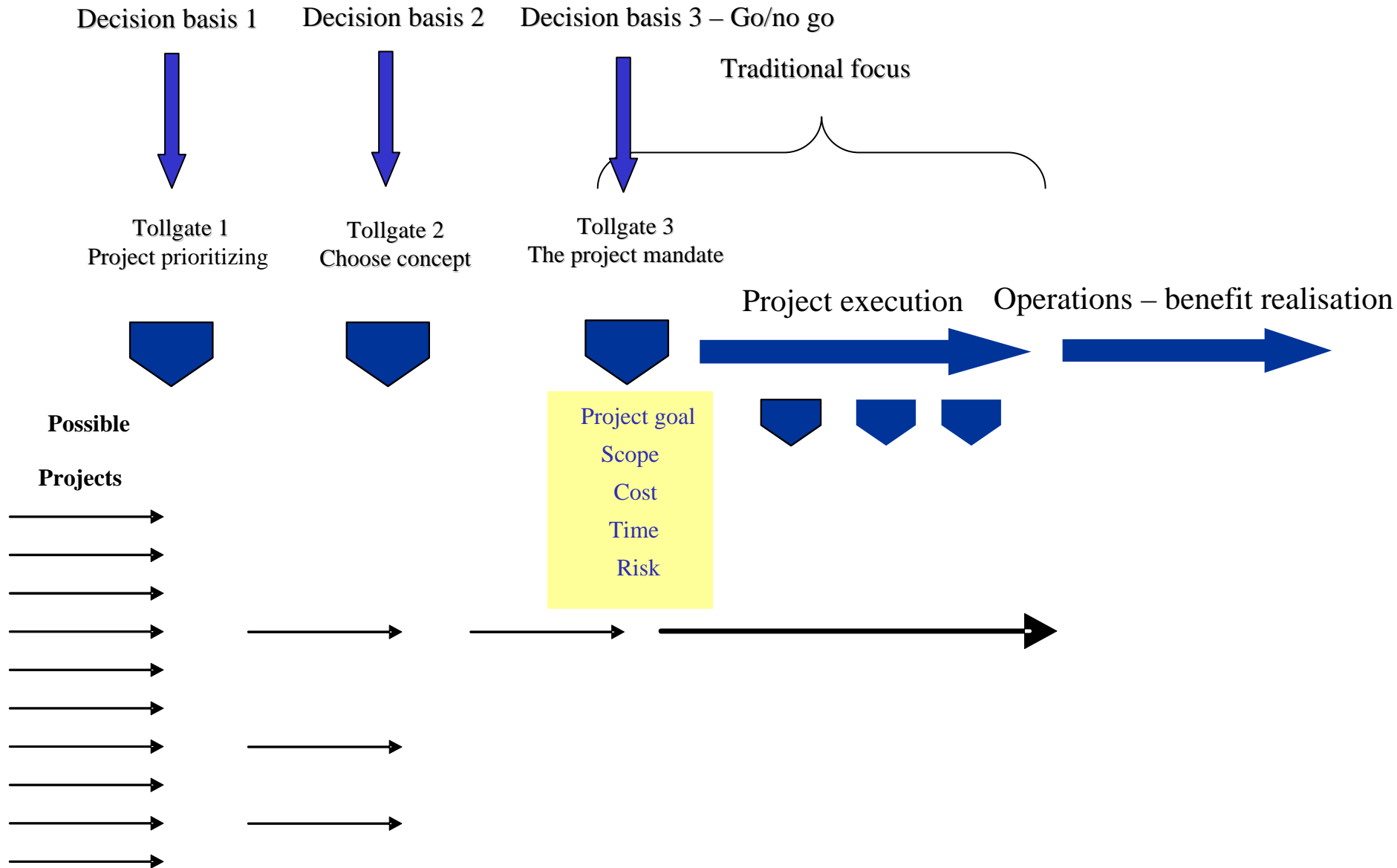


- ◆ The decision-making process (DCP) must be related to the life-cycle (LCC and LCB)
- ◆ Defined tollgates where the decision basis is related to the project purpose and the business objective (project goal).

LCC a part of the LCB – a complex matter



The importance of a defined project process



Decision basis - part summary

- ◆ **Tollgate 1**
 - **Align investment spend and “business” objectives**
 - **Ensure that capacity exists in the executing unit to complete selected investment**
 - **Management capacity (Corporate Governance)**
- ◆ **Tollgate 2**
 - **The actual need for the project**
 - **Evaluation of different alternatives**
 - **Cost/Benefit analysis – LCC/LCB for each alternative. Alternative 0 is an alternative.**
- ◆ **Tollgate 3**
 - **Project mandate; project deliverables, scope, time schedule, cost estimate, uncertainty**
 - **A clear business case for the project**
 - **A defined contract strategy**
 - **Go/no go**

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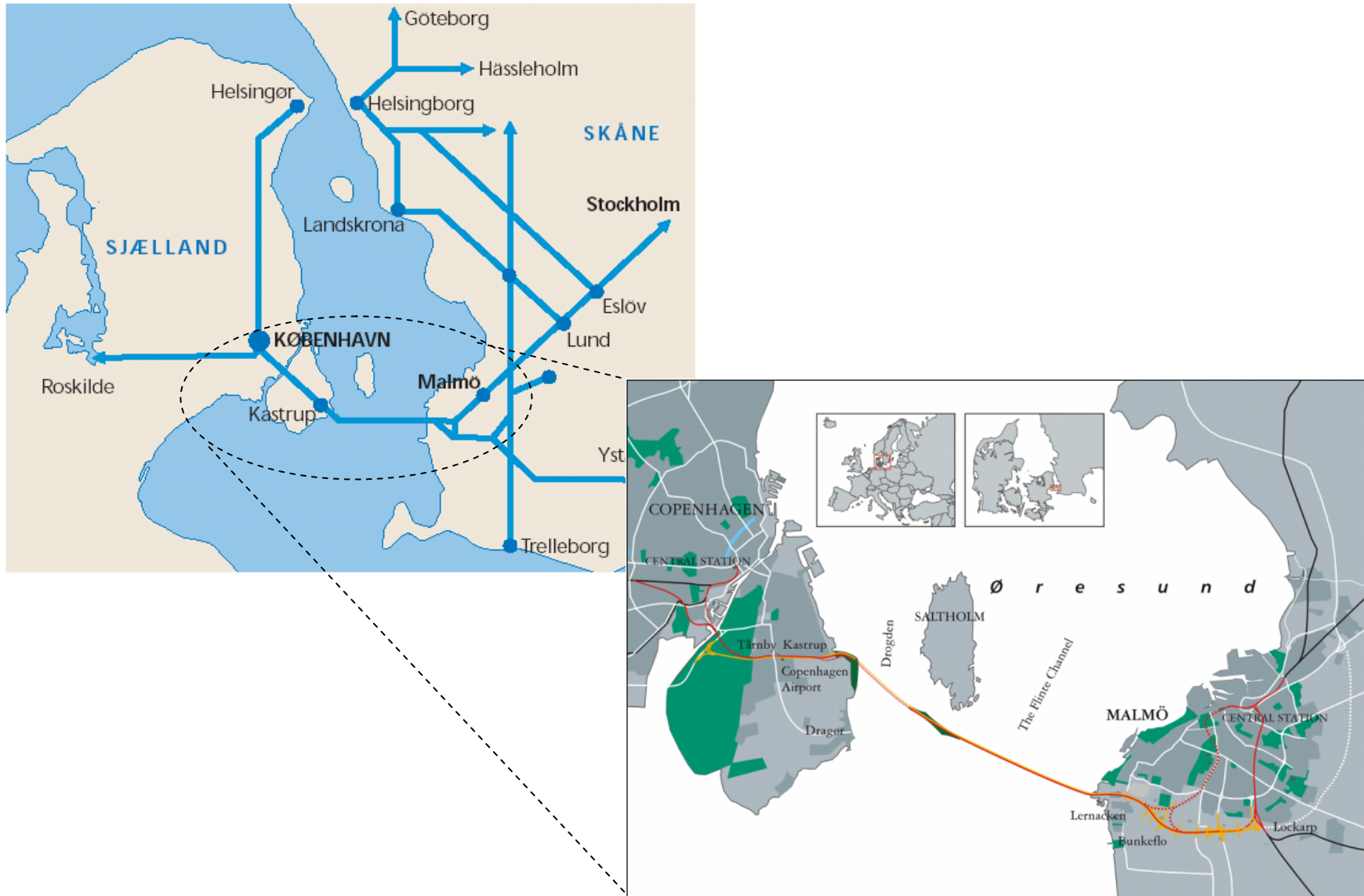
The Øresund Bridge



Three years after the Bridge Project
was completed...
...were the objectives met?

Per Juel Christensen, Man. Dir.
Metier Scandinavia A/S Denmark

Overview of the Øresund Region



The objectives on which the decision was based were many...

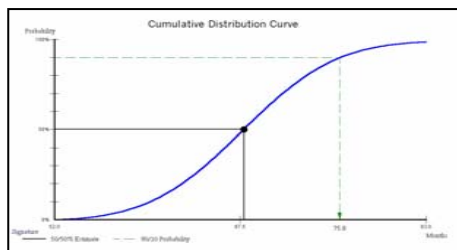
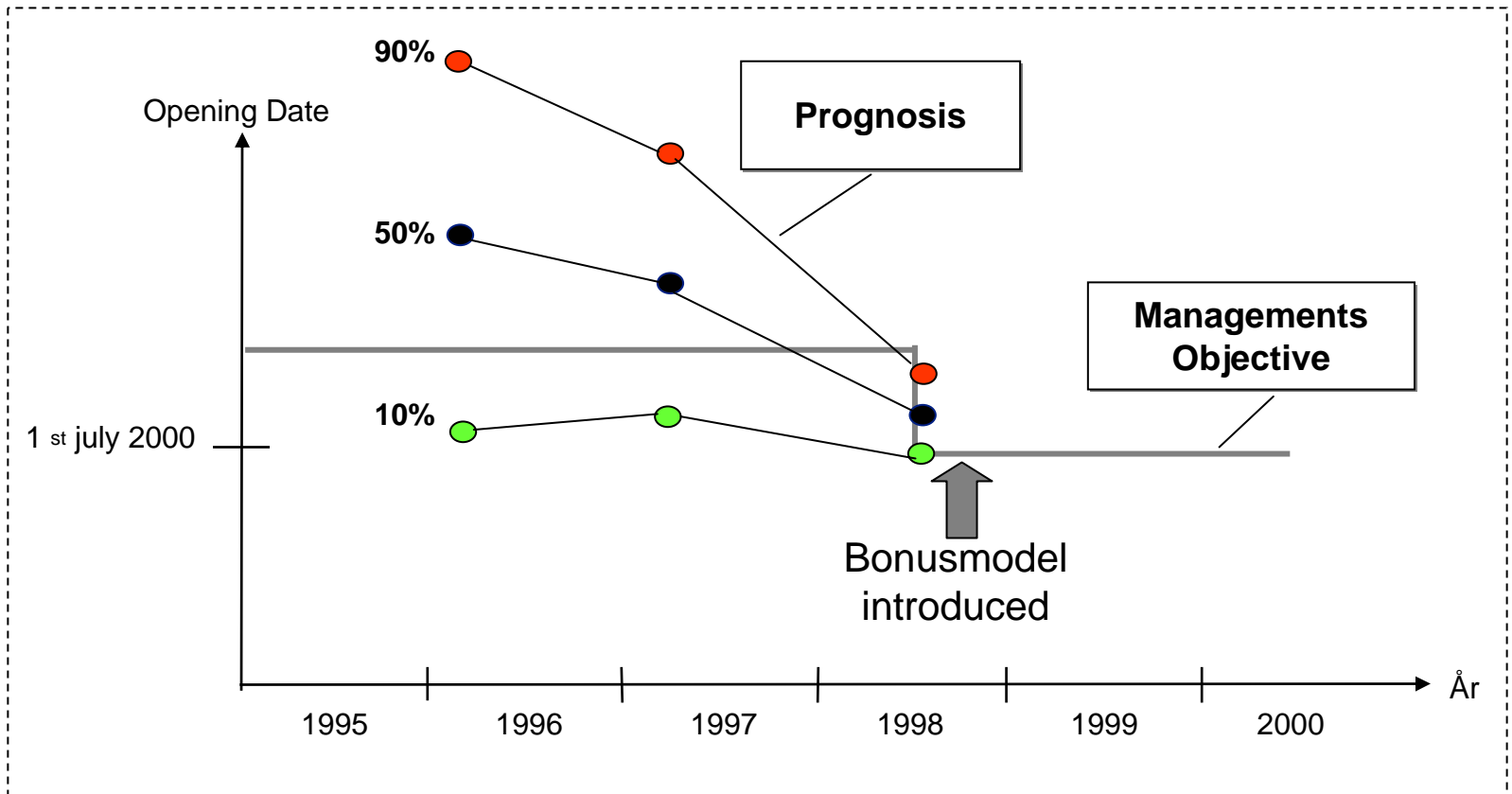
Objectives

- The Bridge shall create integration between the areas
- The Bridge shall be paid by the users (mainly vehicles)
- Keep the prices on a comparable level with the ferry Helsingør - Helsingborg
- Promote Rail traffic
- Environmental consideration



The objectives were not aligned

Project Risk Management



Were the objectives met?



Financial Direct

- Income from Vehicle Traffic considerably lower than forecasted in 1991
- Traffic Volume app. as budgeted (10.000 Vehicles pr day)
- Unit price only 50% of budget

Financial Indirect

- Copenhagen Airport has gained on the project
- All stakeholders on Amager and Malmø area has and will see their value increase considerably

Strategic

- Massive Private Investment in the area has been made
- The environment in the area has already improved considerably
- Cross Border integration is still to come

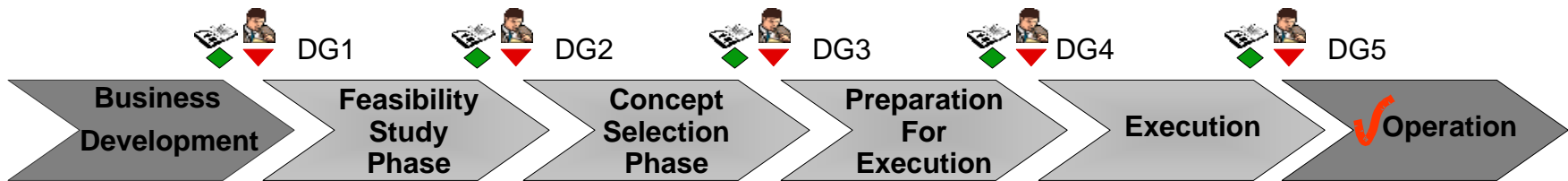
So what did we learn from The Øresund Project?

- ◆ **Too little focus Front-End on the Strategic value of the Project**
 - **Probably in the range of 50 - 100 Bill DKK (still to be unlocked)**
- ◆ **Too much focus on traffic prognosis**
 - **Difference between a positive and a conservative Vehicle Traffic forecast is only 2.5 Bill DKR (5% of strategic value)**
- ◆ **“3 bridges” should have been “built” in parallel**
 - **One Physical**
 - **An administrative**
 - **A Cultural**
- ◆ **Efficient Project Implementation has made the project more robust**

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Norsk Hydros Capital Value Process



Decision Gates

are Pre-defined events in a project, at which a formal decision is made by the Project Owner/Corporate Management having assessed the project from the following major objective business criteria:

- Business reality and strategical alignment
- Use of resources
- Project status

Decision Gate Support Package


is prepared by the Project Team. The decisions, the rationale behind them and any uncertainties are captured in the documentation. The package contains deliverables from the Project Processes

Gatekeeper

Is responsible and accountable for the decision made at the end of each phase and securing resources for the next phase. (Project Owner/Corporate Management)

Decision Gate Reviews

Prior to Decision Gate resolution, provide the degree of quality assurance required by the Gatekeeper. The reviews are an opportunity to introduce external, constructive and holistic challenges to the project team.

 Evaluation of project after one year of operation

Decision Gates

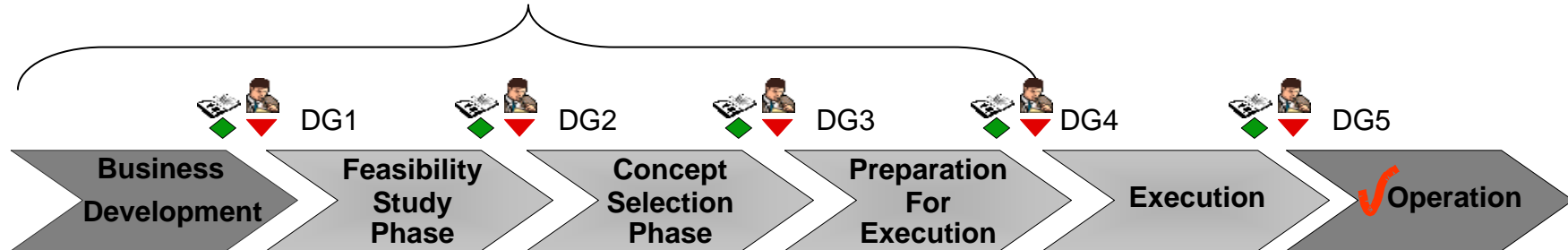
- **DG1** Approval to start feasibility study
- **DG2** Approval to start concept selection
- **DG3** Concept Approval
- **DG4** Final Capital Expenditure Approval
- **DG5** Acceptance by Operations

Hydro Best Practices

Corporate Directive NHC-K4, rev 04, Deployment of Capital, sets requirements to the Capital expenditures process and the use of Hydro Best Practices.



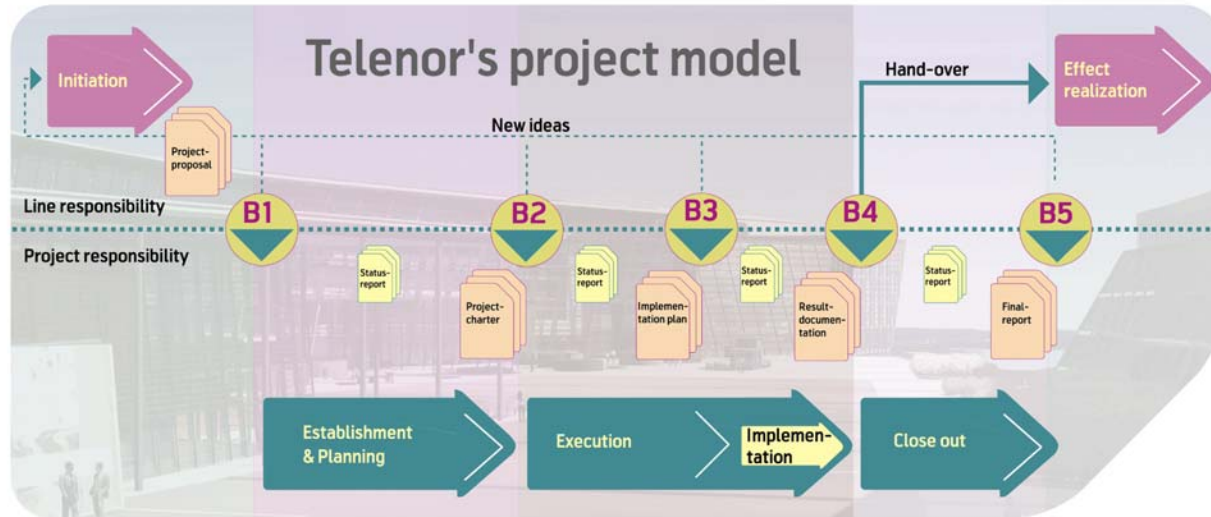
4 phases = Front-End



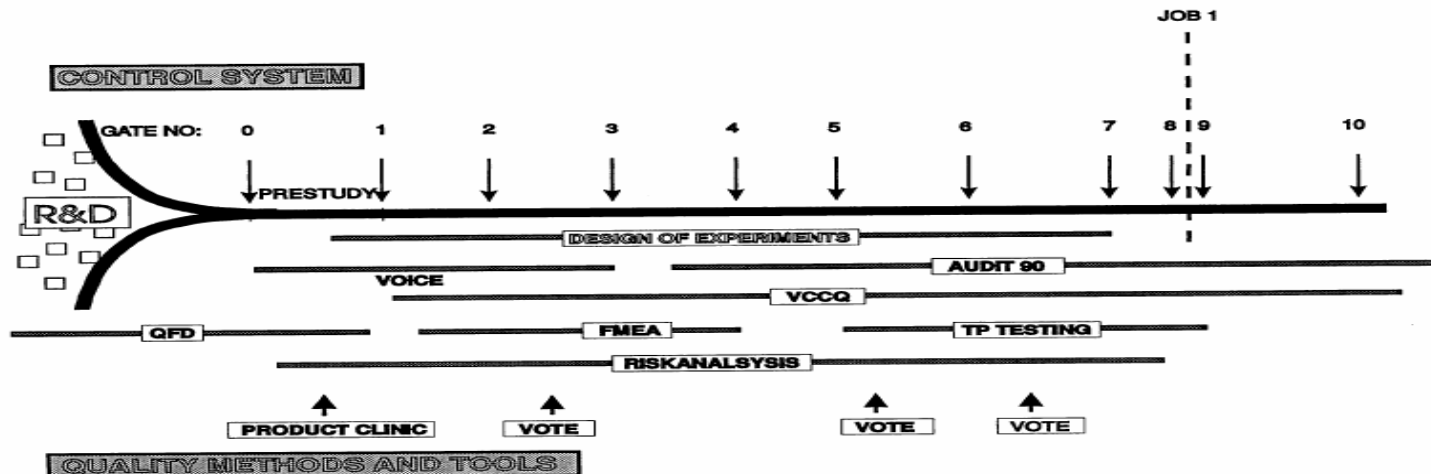
- ◆ **Improve quality in decision making**
- ◆ **Transforms requirement set forward in corporate Deployment of Capital directive into an implementation mode.**
- ◆ **Connect Hydro through common objectives terminology and communication arenas.**
- ◆ **Early identification of drivers that add value!**



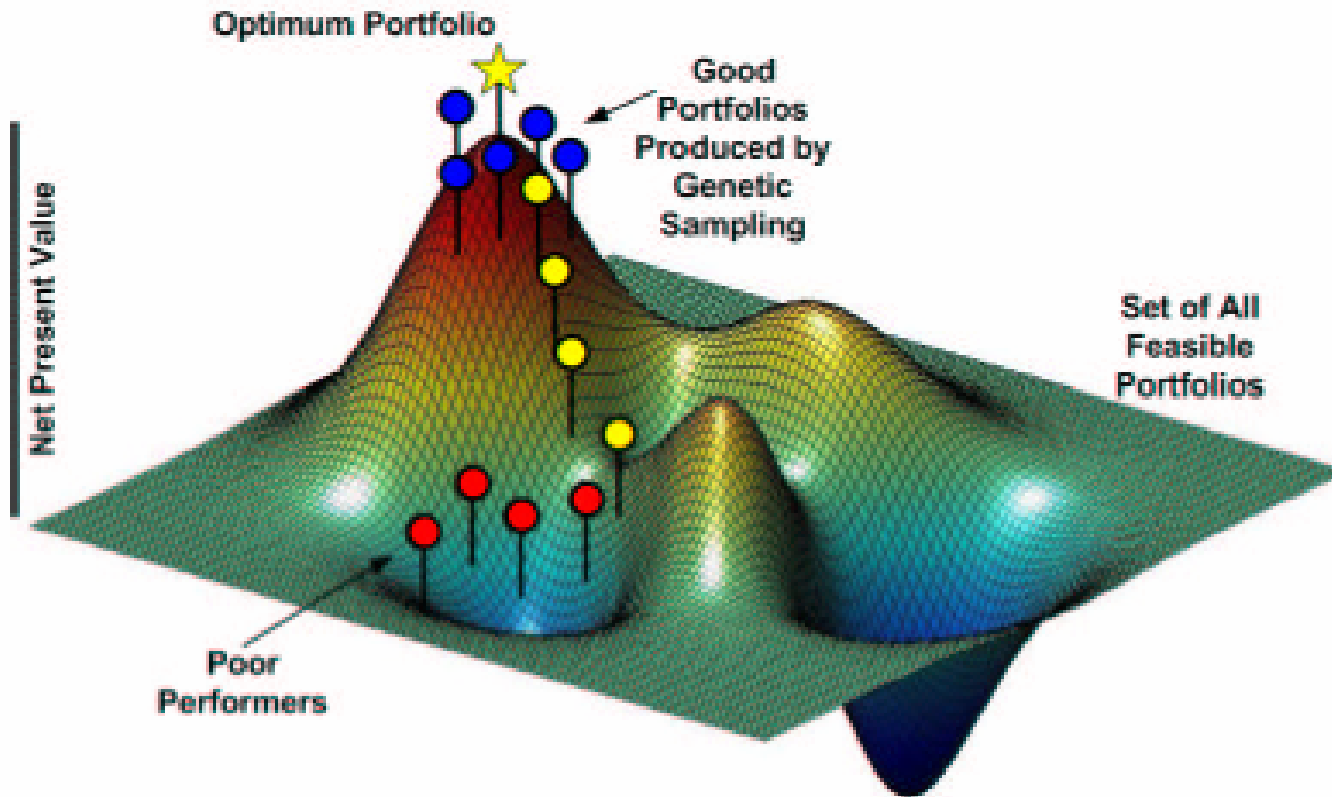
Some benchmarks



VCC. Quality Assurance in pre-production



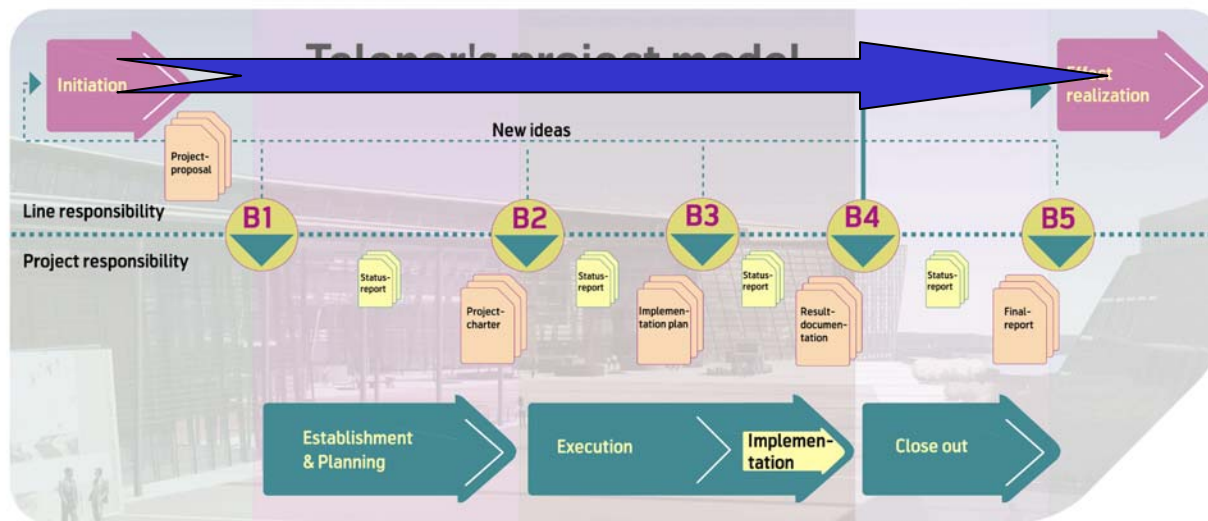
Schlumberger – composition of a project portfolio



Proactive governance – best practice

◆ Proactive governance

- A top-down steering model reflecting the project portfolio
- Defined decision basis
- Active participation in steering committees
- External Project Audits as a tool for securing the project investment



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Summary

- ◆ **Implementation of a tollgate process (Project model)**
 - Ensure quality through the project process
 - Structure projects according to a defined number of phases and tollgates
 - Required decision basis in each tollgate, proactive risk management
- ◆ **Active governance**
 - A top-down steering model reflecting the project portfolio
 - Active participation in steering committees
 - Project revisions as a tool for securing the project investment
- ◆ **A defined process to build and follow-up the business case (LCB)**
 - A clear vision of projects with a defined potential
 - Focus on the life cycle of projects
 - Cost/benefit estimates, not just cost estimates related to investment cost

Attitude related to risk

- ◆ **Yes! We have thought out all the angles. We've done this type of project several times.**
- ◆ **We know what we're doing, its what we've been trained to do.**
- ◆ **Nothing could possibly go wrong, right ?**

Think Again...



We have ancient experience

*“If people begin with certainties they will end with doubts
But if they are content to begin with doubts they shall end in certainty”*
**Francis Bacon
(1561-1626)**

Thank you for your attention - any questions or comments?

