



Managing Projects In An Uncertain World: Engaging Stakeholders, And Building A Systemic View Of Risk

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Introduction

- The case: the NINES project
- The approach: 'FIRM'
- The Risk Workshops
- Benefits to the client
- Limitations and Next steps

The case: the NINES project

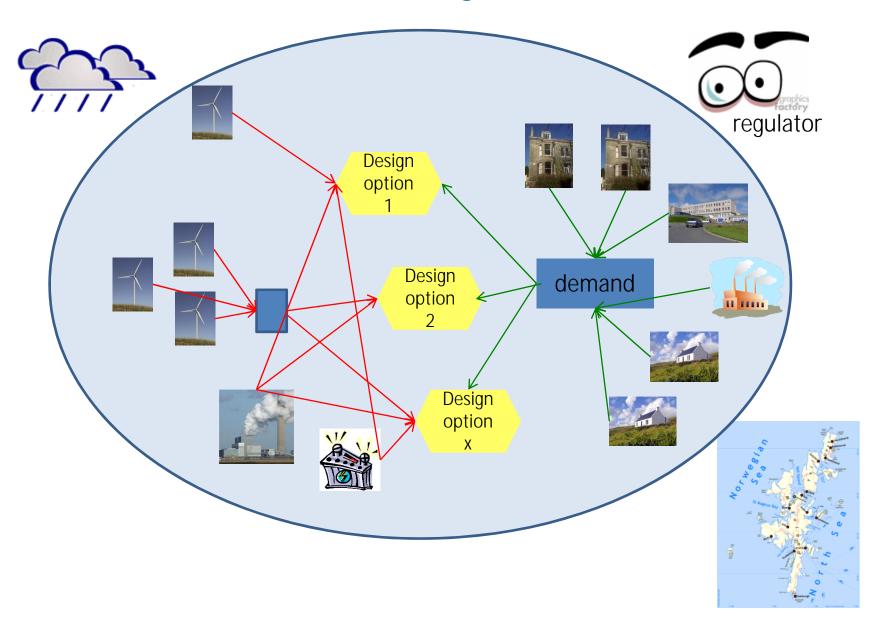
- Powering Shetland
 - Shetland's power station at the end of its life
 - New design encompassing
 - An analysis of Shetland's energy requirements
 - An investigation of other generation options (particularly interest in renewables)
 - Cope with high cost of oil
 - Smart grid innovation (as constrained by existing grid)
- SHEPD designed NINES to trial range of smart grid innovations



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Risks are everywhere!



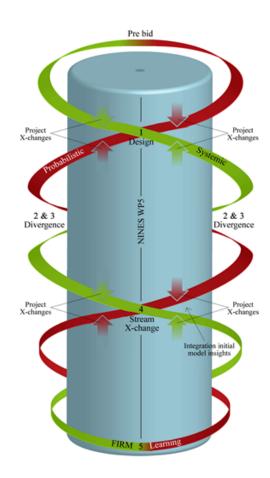
FIRM: Framework for Integrated Risk Management

The **strategic view** which

- considers a comprehensive consideration of risks affecting the organisation and its stakeholders,
- aiming to exploit the dependencies between these risks to inform effective management solutions

The **operational aspects** of risk

 paying close attention to the design options and hence those technical risks that may be more directly controllable by engineering decisions



FIRM Project Stages

- <u>Stage 1:</u> three risk workshops to identify a comprehensive set of risks, their impacts on one another and from this, identify themes and priorities.
- <u>Stage 2:</u> Undertake group workshops and series of interviews to elicit quantitative risk assessments
- <u>Stage 3:</u> Carry out 2nd series of risk workshops exploring the prioritised risk areas (identified above) and how they have changed over time.
- <u>Stage 4:</u> In depth analysis to integrate detailed material/data/expert judgements between Stage 2 and 3 to inform design optimisation (choice of design options).
- <u>Stage 5: Integration of Stages 1–4 to produce the Framework for Integrated Risk Management (FIRM) to support risk informed decision making & management.</u>

Risk Management Workshops

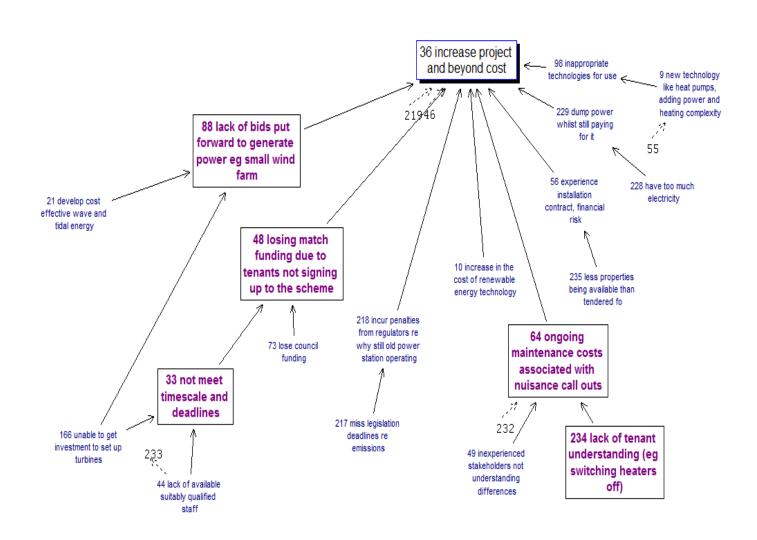
- 3 groups (NINES team, Shetland community and Scottish and Southern Energy)
- Using Group Support System (Group Explorer) and causal mapping
- Adopted process
 - Elicitation of risks
 - Structuring and linking of risks
 - Prioritisation of risks
- Followed by
 - Creation of 'workbooks'
 - Interviews to elaborate workshop material



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Example of the map



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Benefits to the client (1)

- Comprehensive: "Covered lots of potential risks that we hadn't thought about before."
- Interaction between risks: "Given the diversity of group, I was impressed how some of the risks tied into each other in both the same and other areas. The cross-links were interesting. I was interested in links that come into my area."
- Inclusive: "I was very impressed it got the views of a lot of people and was structured"
- Holistic: "Got the big picture... rather than looking only at your own area of responsibility."
- Improvement on traditional methods: "The traditional method almost tries to get to answers first, as risks are based on experience and previous knowledge.... However the workshop approach takes a different view by focussing on links and thus picked up on a number of things behind (traditional) risks that wouldn't have been thought about. We wouldn't have seen these links in the traditional method as you 'go where you know'. Also it is like-minded/similar people that prepare the risk assessment each time. However with workshop a wider group of people involved and thus takes you in a different direction."

Benefits to client (2)

- Broad **comprehensive** coverage (508 risk statements and 637 links) which is analysable
 - Analysis of the material revealed
 - Identification of common risk themes around
 - stakeholder acceptance,
 - sufficient depth and breadth re skills,
 - management of energy demand,
 - cost and time overruns,
 - reputation/brand
- Against the business risk register it takes a 'bottom up' rather than top down (or generic) generation process
- 30 participants so well embedded richer understanding and wider stakeholder buy in

Limitations and Next steps

Limitations

- Opacity of 'maps' if not at the workshop
- Risk of missing perspectives (although 30 views)
- Potential imbalance between elicitation and linking
- Difficult in getting completion of workbooks

Next steps

- Tranche 2 workshops to capture dynamic nature of risks and to include quantification insights
- Changing nature of remit