

Making Sense of Rich Pictures: Combining SSM and Oval Mapping

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Presentation to the OR46 conference

York, 7 September 2004



About C-SanD

- Creating, Sustaining and Disseminating Knowledge for Sustainable Construction: Tools, Methods and Architecture
- UK construction industry
- Project based
- Knowledge and sustainability, both are problematic and contested
- Sustainability is an arena for innovation



Using SSM for C-SanD

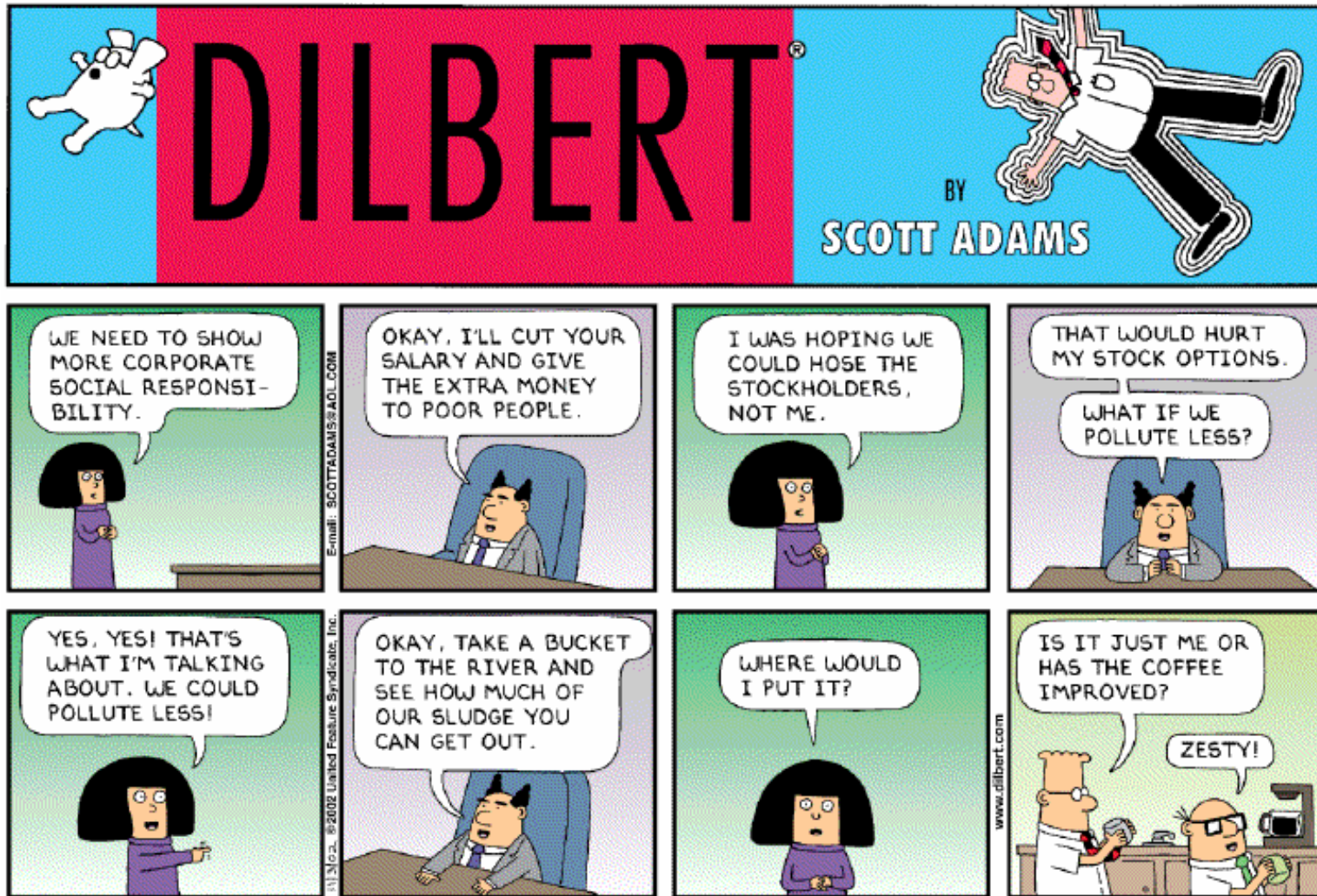
- SSM is normally applied as an Action-Research approach within a specific organizational environment (Checkland 1981, 1990)
- We needed to create a solution that is applicable across an industry in a variety of environments



Data to be combined

- 16 interviews
- from 10 organizations
- by four researchers
- from three universities.
- over 500 pages of interview transcripts.
- Produced 18 rich pictures (see <http://www.c-sand.org.uk/richpix/>)
- Each researcher drew pictures from transcripts of other researchers' interviews – not their own.

Not all views of sustainability are compatible



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What is Sustainable Construction...?

The UK Government view

The UK strategy for more sustainable construction, *Building a better quality of life*, suggests key themes for action by the construction industry. These are:

- design for minimum waste
- lean construction (and minimise waste)
- minimise energy in construction & use
- do not pollute
- preserve and enhance biodiversity
- conserve water resources
- respect people and local environment
- set targets (i.e. monitor and report, in order to benchmark performance).

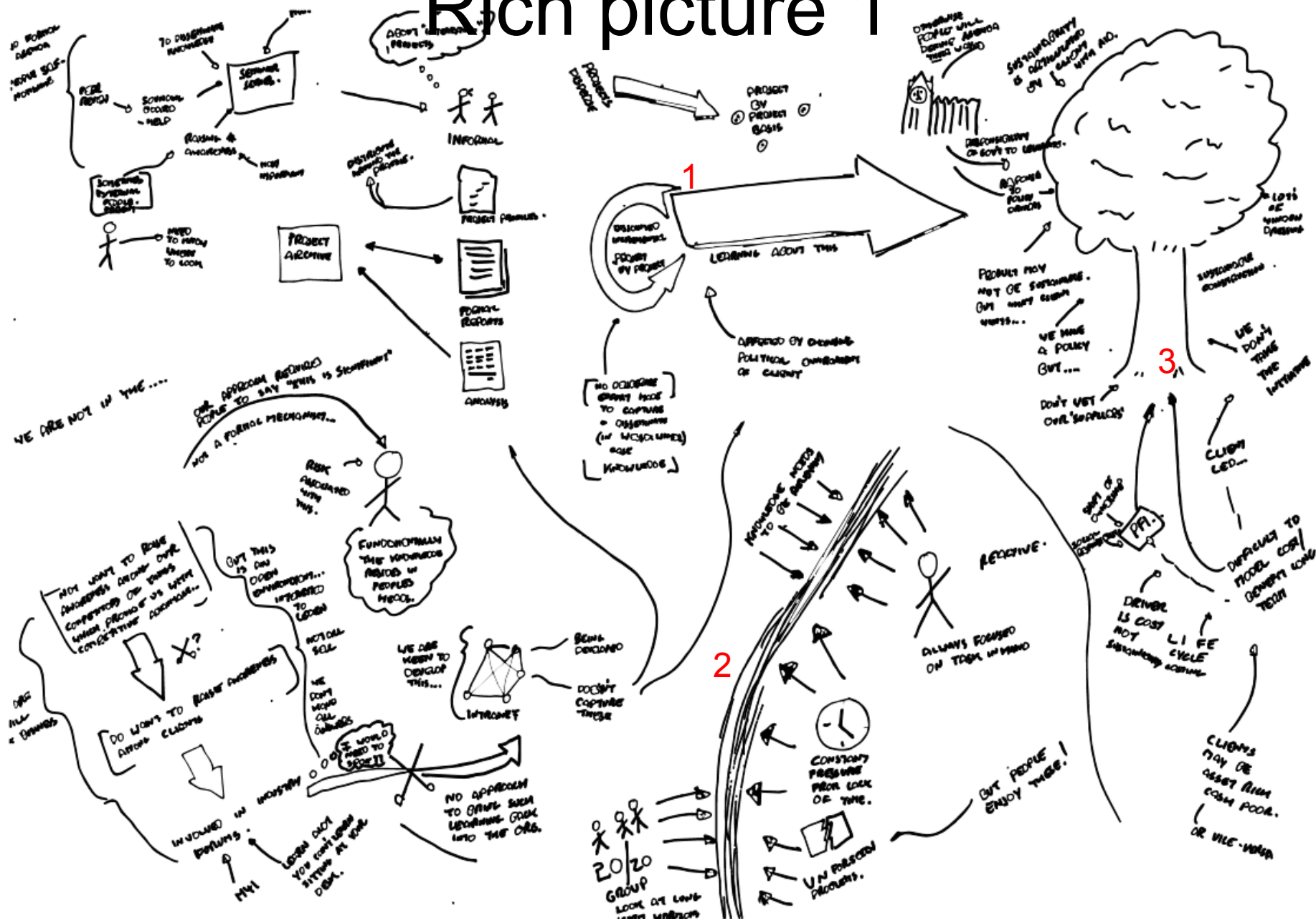
<http://www.dti.gov.uk/construction/sustain/index.htm#whatis>



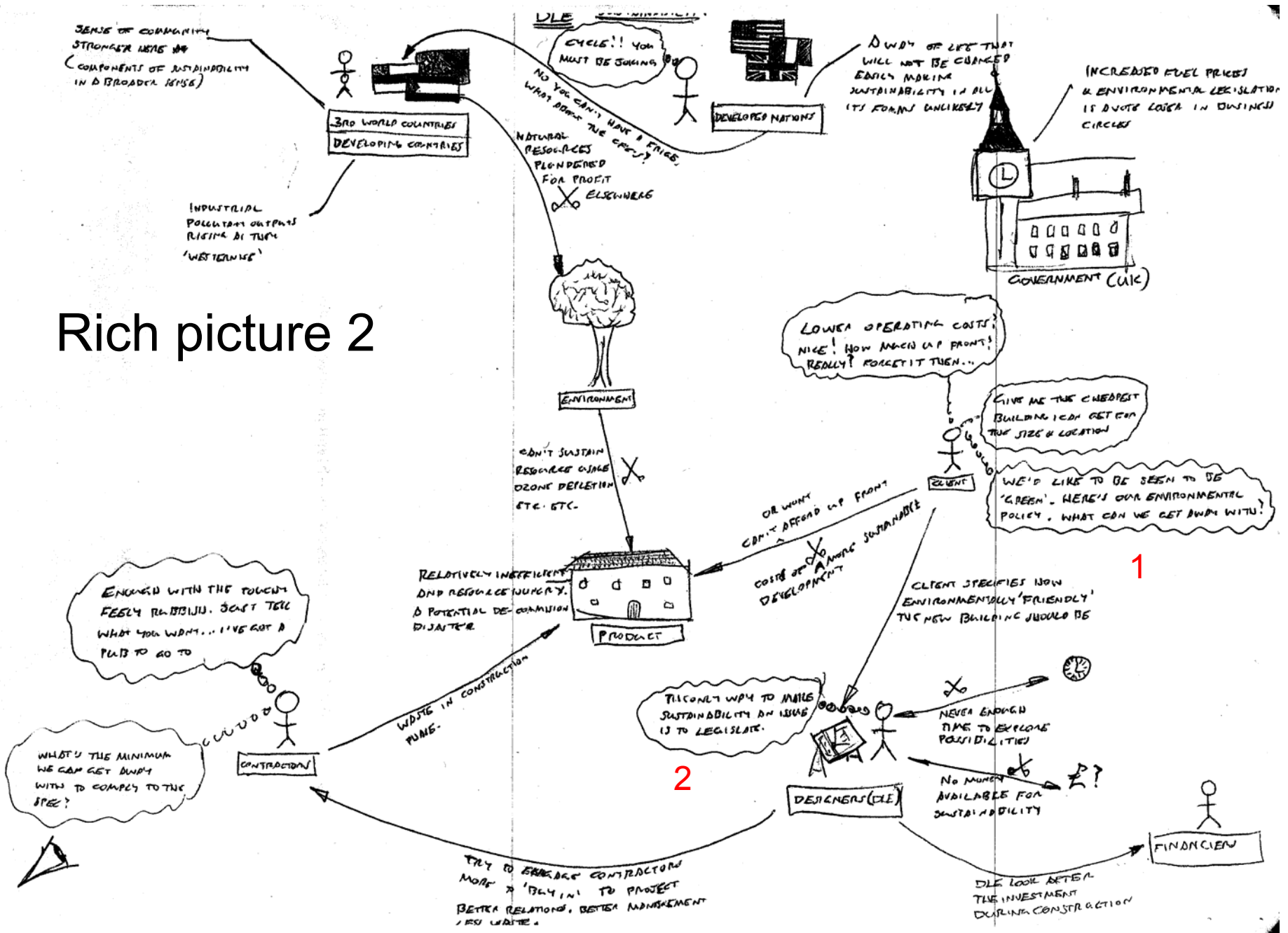
But what is sustainability to individuals in the construction industry?

- *“if the client says they want something suddenly to look a bit different, or to be sustainable, we will find a way of trying to articulate...what they mean by that, in a way that we can respond to it.”*
- *“Those of us...who’ve thought about sustainability, are beginning to kind of, you know, pay lip service to...sustainable construction; whatever we might take that to mean.”*
- It is a contested, changing issue – not a *priori* facts to be catalogued in a database system!

Rich picture 1

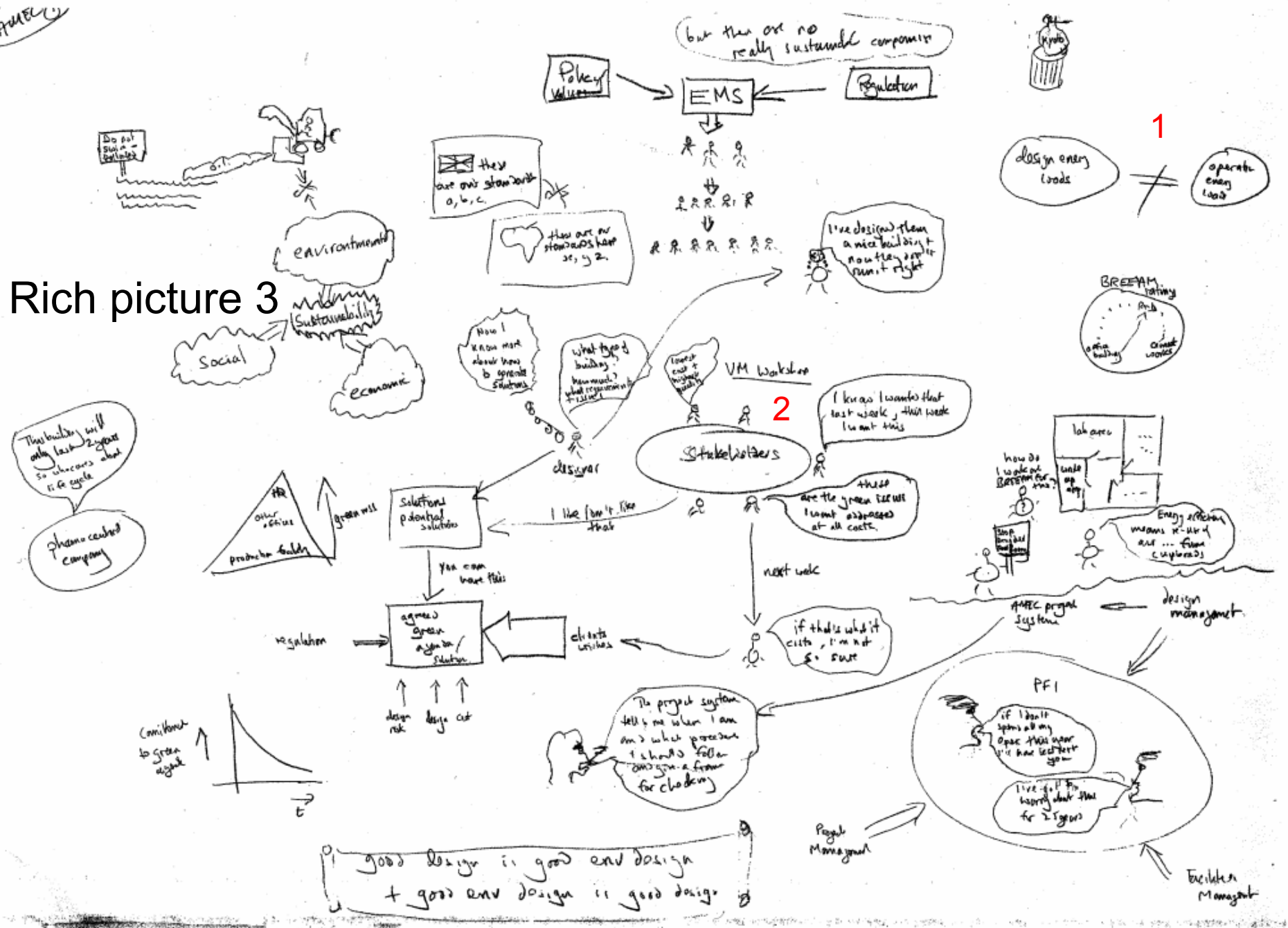


Rich picture 2



AMEC

Rich picture 3



good design is good end design
 + good env design is good design

Our options for combining understandings

- Coding of transcripts (Strauss and Corbin, 1998)
 - Content analysis/coding fails to emphasise the centrality of the interpretive process.
 - Coding tends to reflect frequency of occurrence and under-emphasise the context of the use of words (Bauer 2000)
- One large rich picture
 - Threatened to produce and overwhelming complexity we could not resolve
- Capture of significant ideas as meaningful phrases
 - Issue of how to show inter-relation of ideas

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Moving forward

- Serendipity - pads of oval post-its available and experience of OMT (Eden and Ackermann, 1998)
- Two/Three people (interviewer(s) and picture drawer) could enter deeply into each map and others could comment
- Required a rich symbolic representation of the complex social structures being described – both OMT and rich pictures provide this.

Outputs

- First stage – a wall of post- its



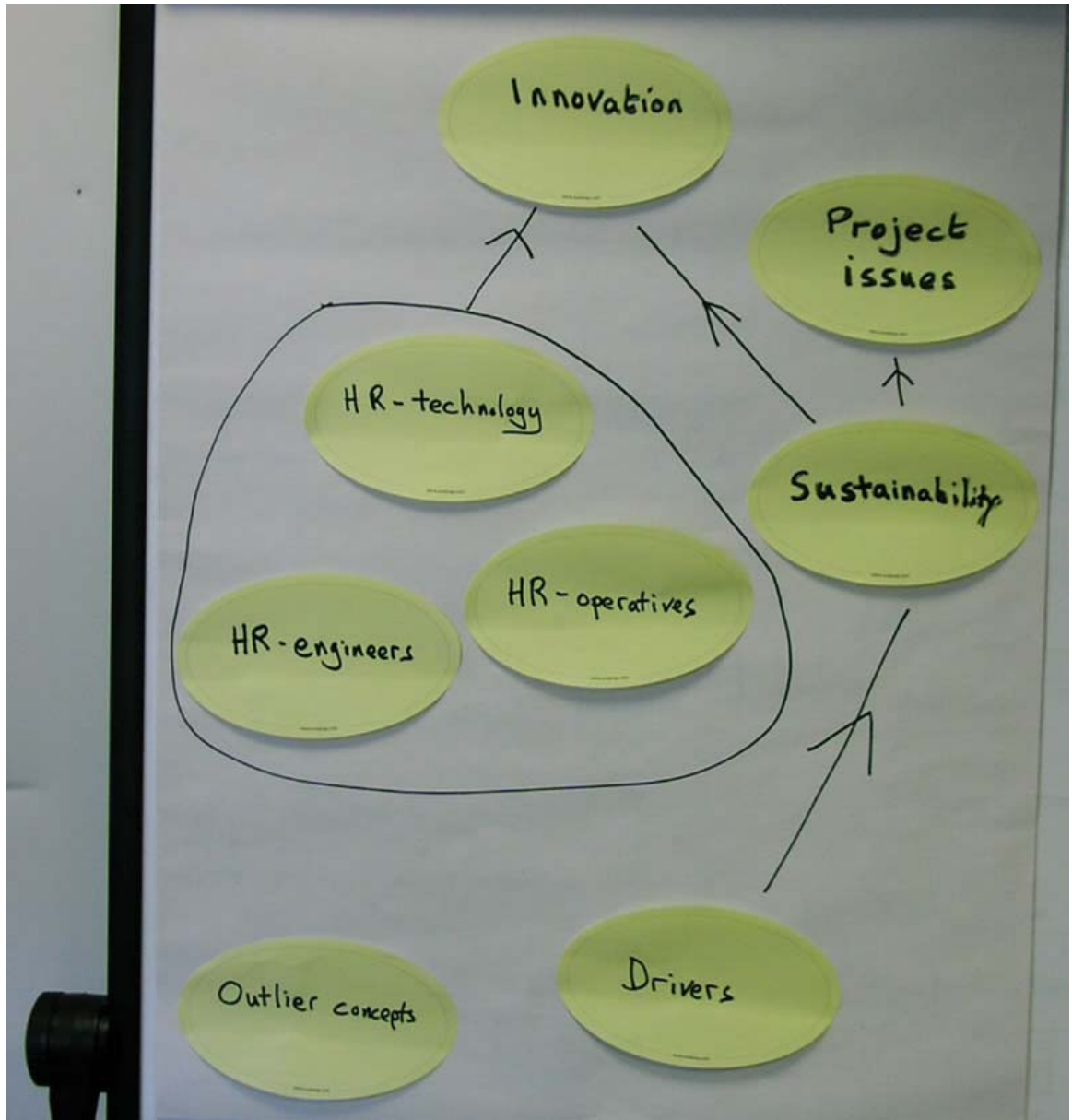
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- First stage – a wall of post- its
- Second stage – seven clusters and three outlier concepts

<http://www.c-sand.org.uk/omt/>

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Outputs

- First stage – a wall of post- its
- Second stage – seven clusters and three outlier concepts
- Third stage – a map of the clusters
- Fourth stage – after the workshop, development of a set of (23) root definitions and associated CATWOEs and vignettes for discussion with interviewees and for system building.

Building a community of practice

- Our research was looking at communities of practice (Wenger, 1998) among construction professionals
- Similarly we had to establish the research team as a community of practice
- The rich pictures and OMT clusters functioned as boundary objects (Star and Griesemer, 1989)

Knowledge about sustainable construction

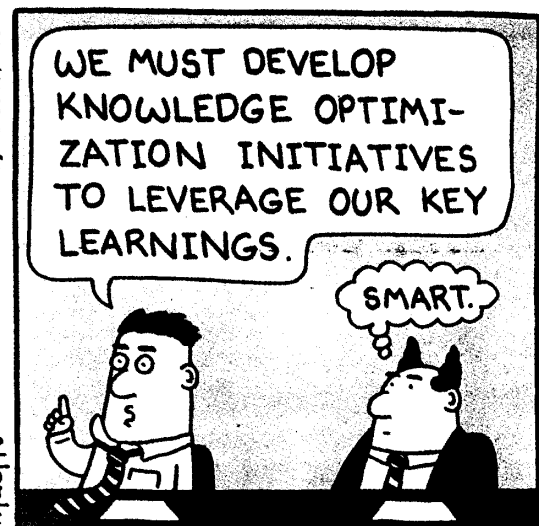
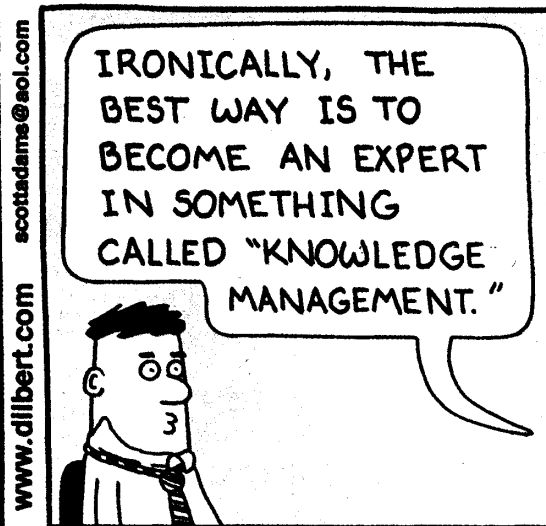
- Weak structures of meaning
 - Under-defined concepts
 - Un-sedimented concepts
- Poor inter-organizational communication
 - Very formal – risk allocation dominates
 - Almost non-existent project review processes (often absent even inside organizations)

Role of technology

- Communication and identification of communities
- As well as (if not more than) global indexes of codified resources.

Finally - a thought for OR46

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