

Design Management Working Group

Chair

Tony Whitehead Defence Estates

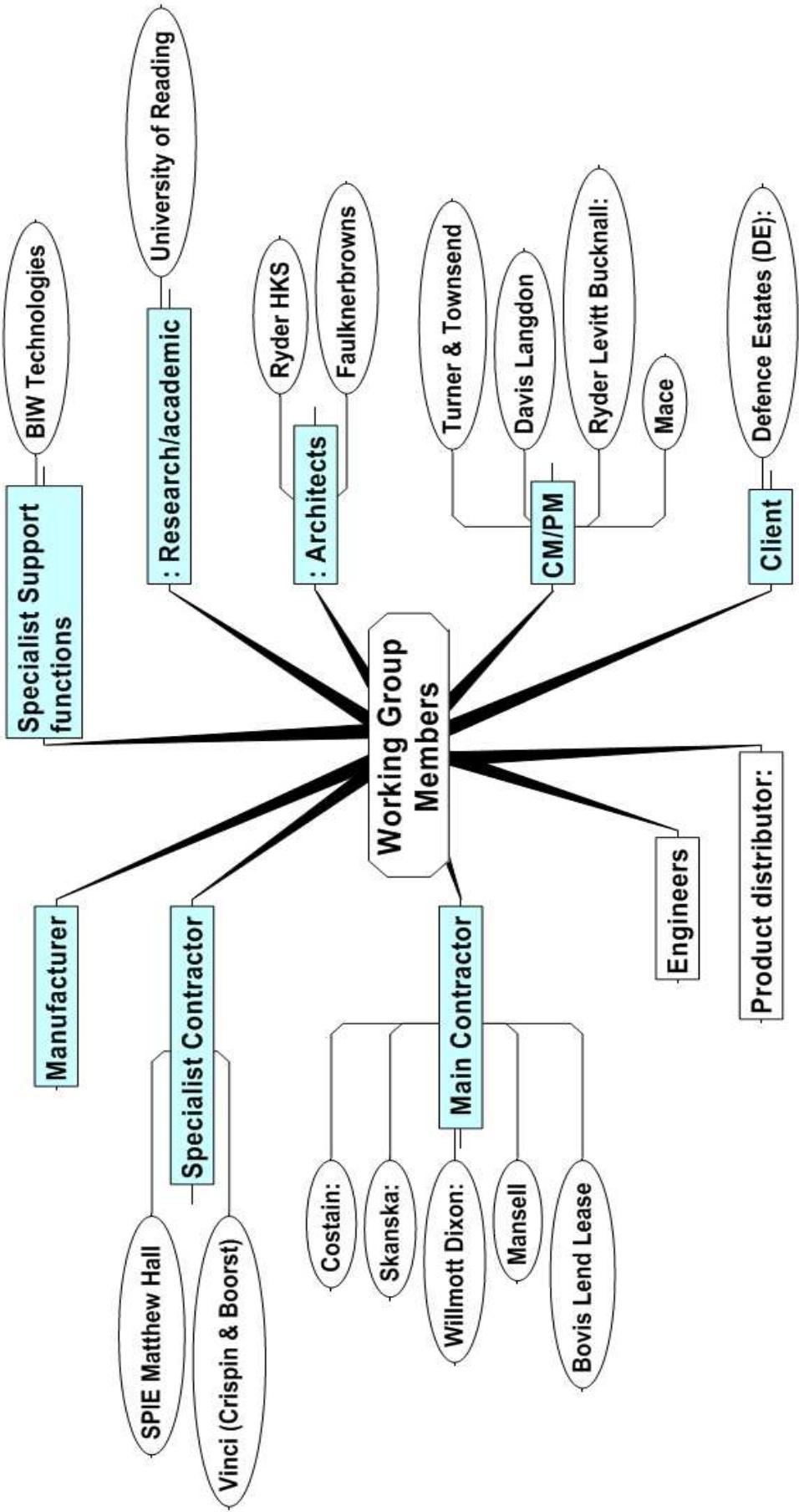


The challenge

“To produce a report entitled Design Management as a key to unlocking value from the supply chain”



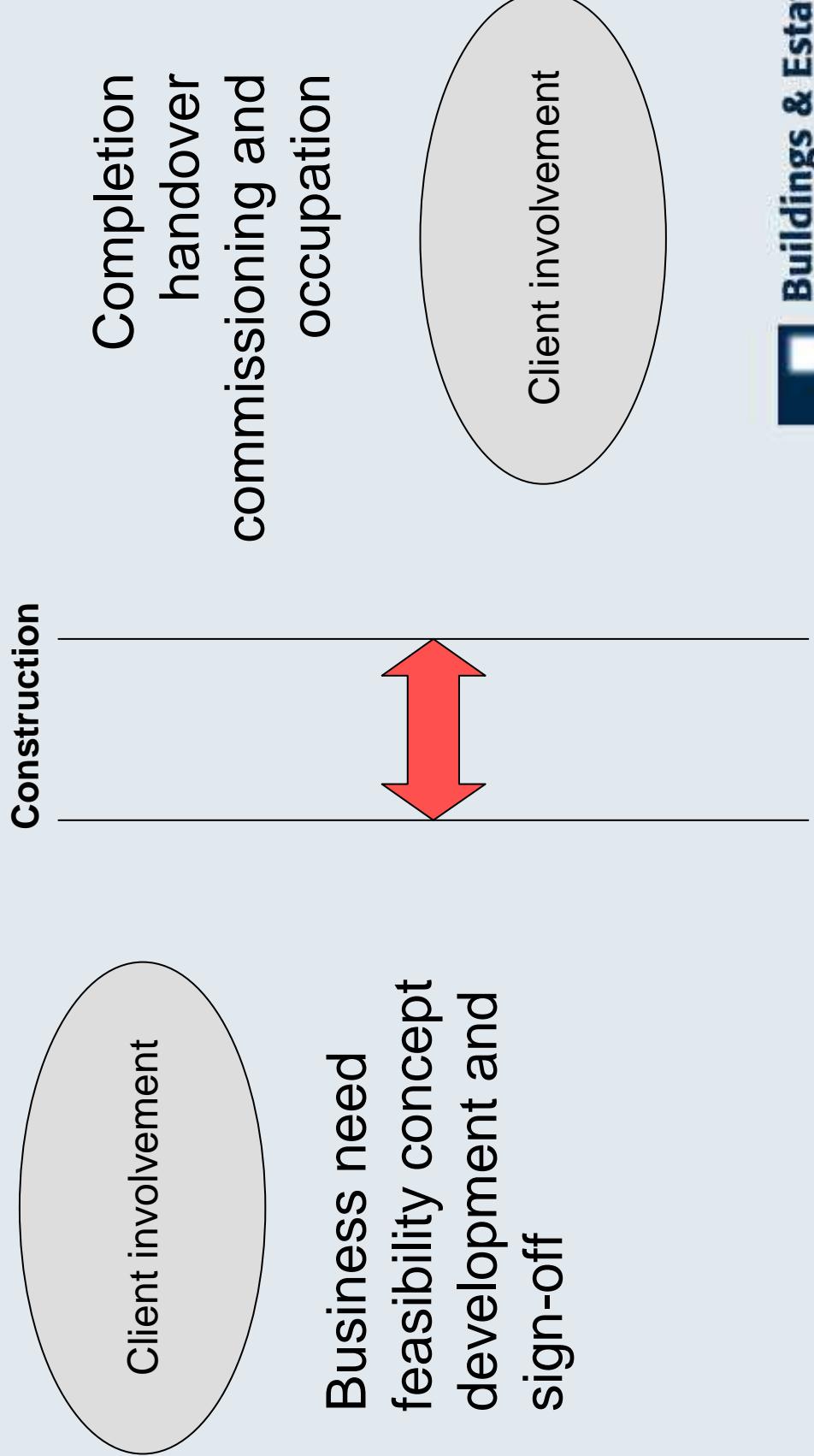
The Team



Design management issues

- What is the best way to manage the DM process?
- What qualities and attributes do DMs need?
- Status of DM as a profession? Accreditation?
- Do requirements change through the DM process?
- What tools processes and techniques are required to incrementally improve DM?

Minding the gap



Definition of Design Management

- DM delivers the bit in the middle

- A working definition of design management is:
 - “A design manager co-ordinates the design tasks of all project team members, to ensure that information of the appropriate quality is delivered to an agreed timescale that meets the needs of the design, procurement and construction processes”.

Types of DM



- So useful for DM to differentiate between concept and detailed design disciplines and stages

Offsite



- Level 0: Materials
- Level 1: Components Sub-Assembly
- Level 2: Non Volumetric Sub-Assembly
- Level 3: Low Volumetric Pre-Assembly
- 4 Modular Building

Key Suppliers
Component Criticality
Object Modelling
Compatibility

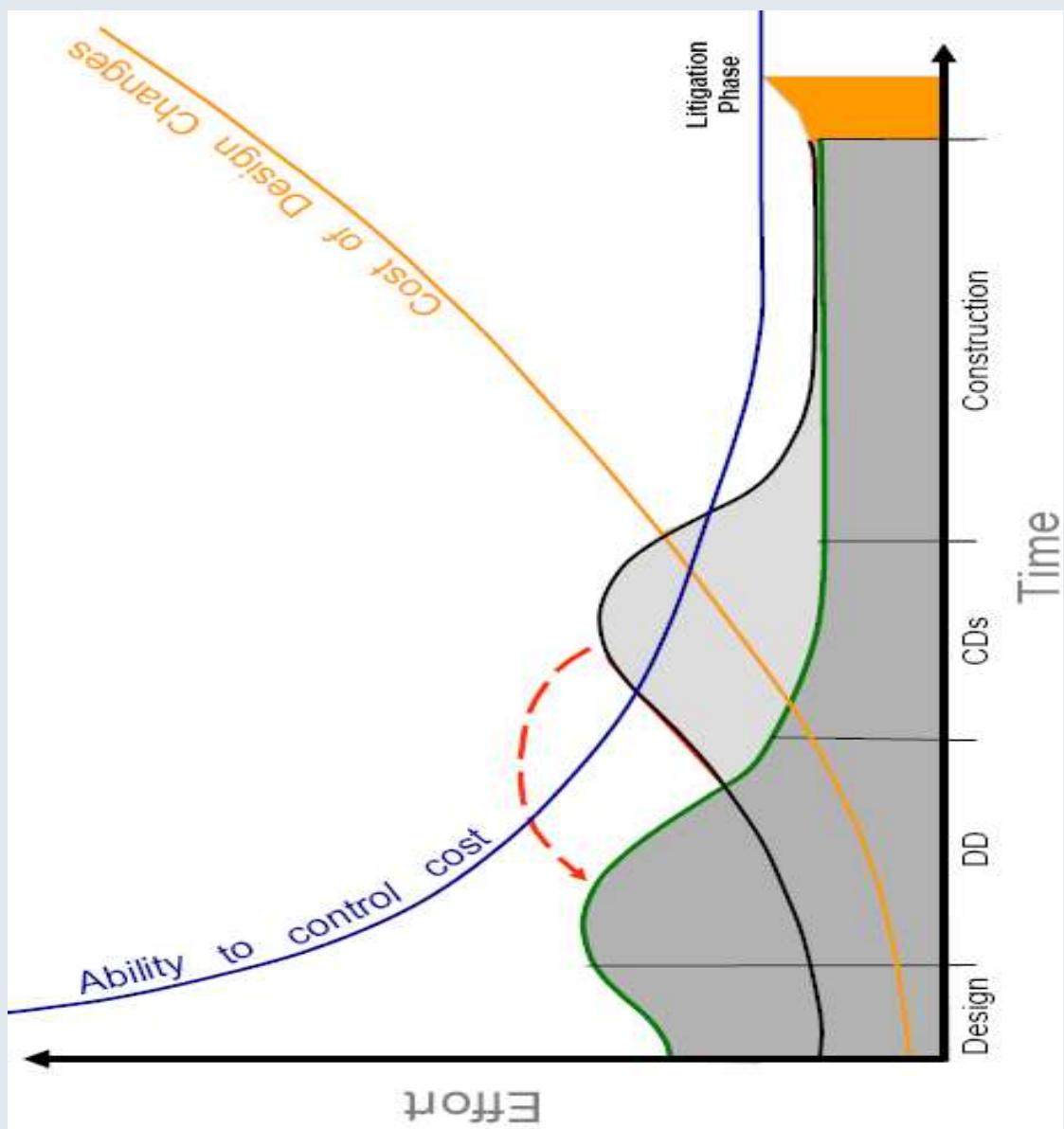
Offsite tempts clients with a quick-win Plug & Play approach . . .



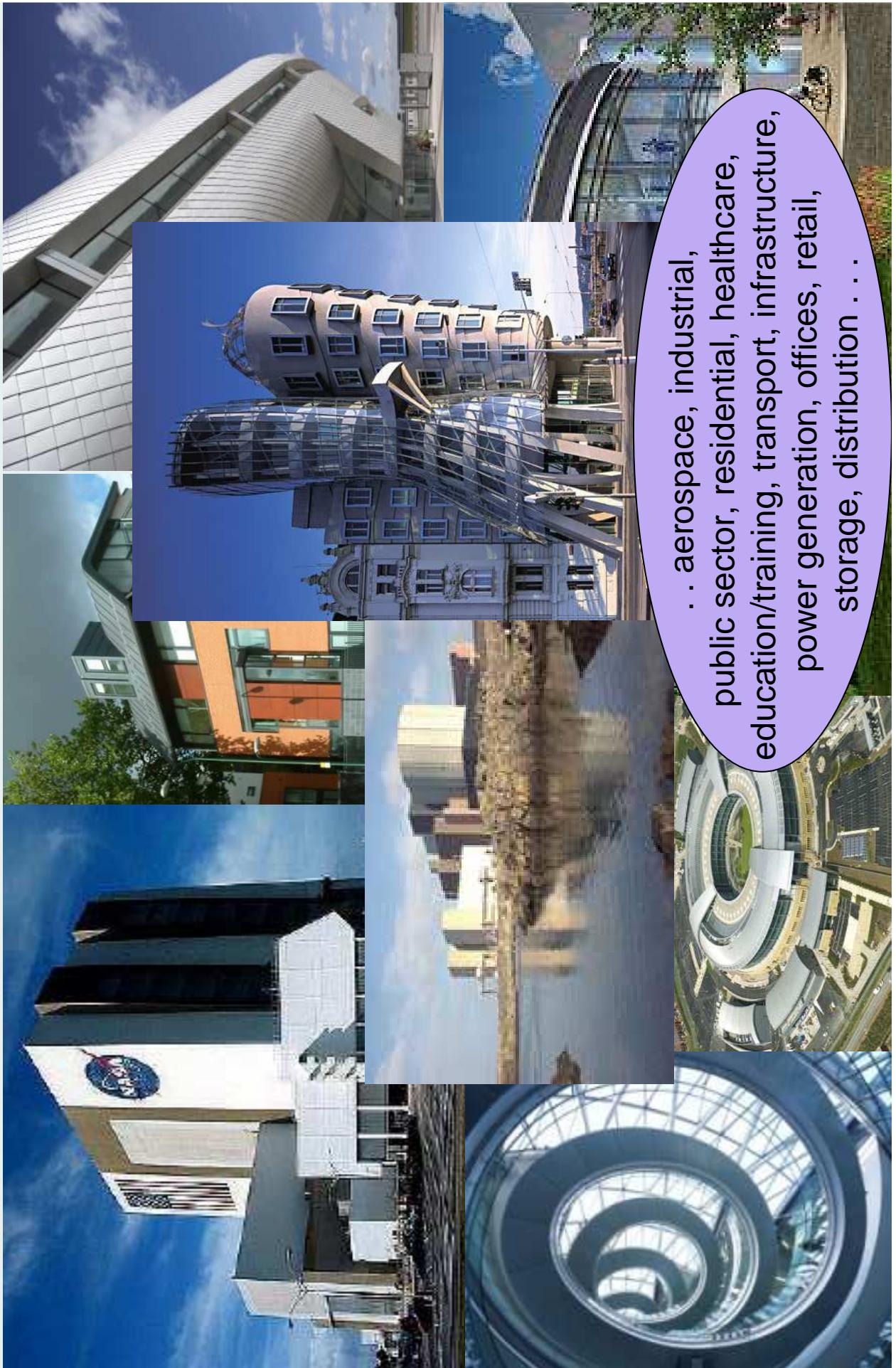


Interoperability

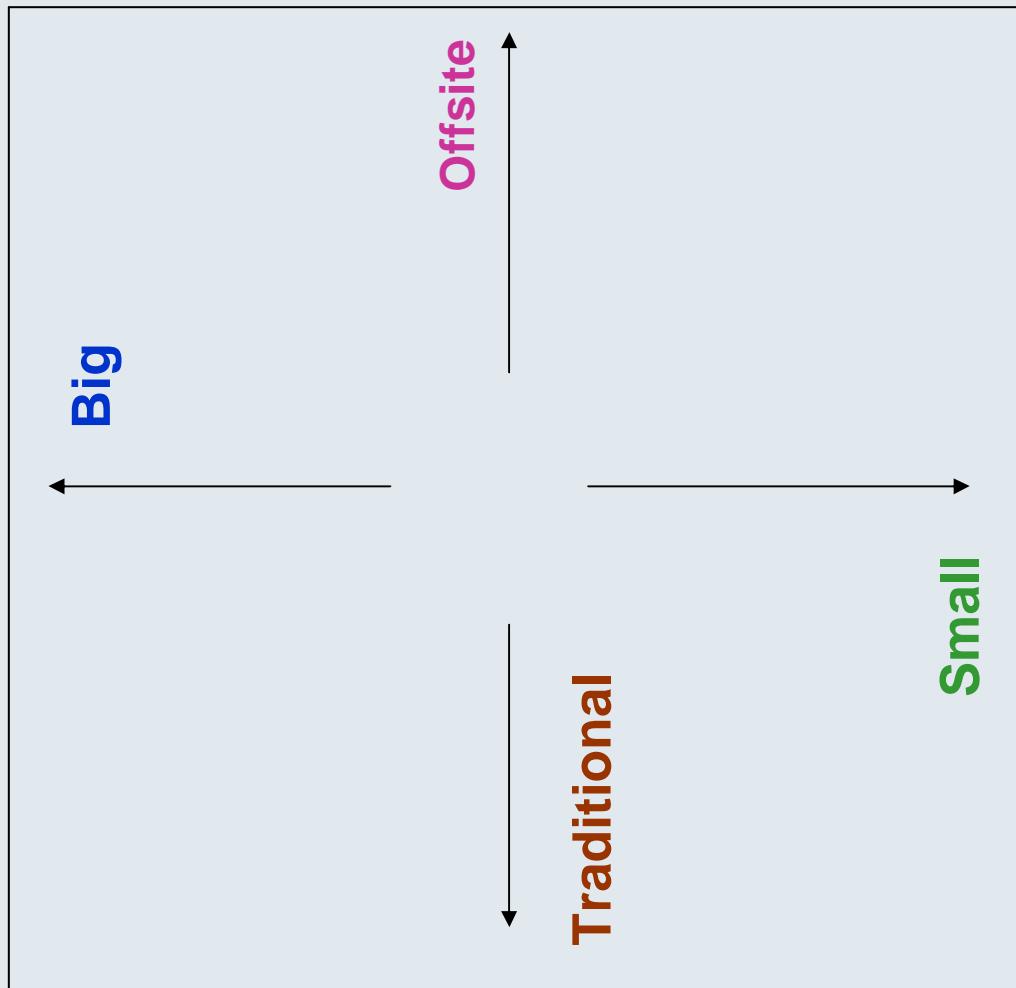
- Interoperability helps pull the design phase up the programme
- This eases client agreements & sign off.
- AVANTI is another useful tool.



Scale cost novelty and complexity

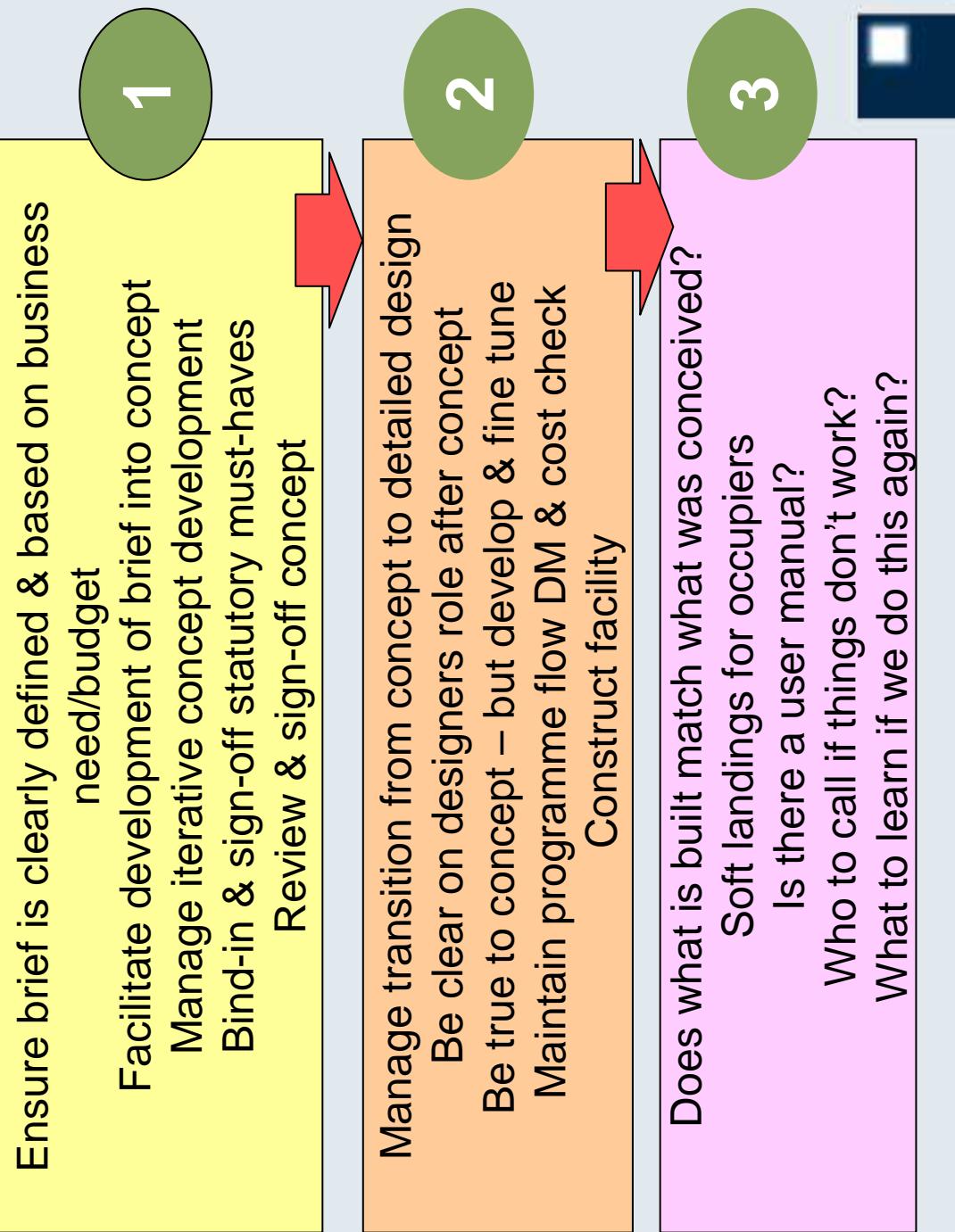


Scale cost novelty and complexity



- DM will be a big risk for complex projects (hospitals for example)
- Less so for smaller domestic scale projects
- Clients can help scope and reduce risks

DM: Stages



DM: Products

- Clearer usable definition of DM
- Clearer professional standards and competencies
- Stages – interfaces – handovers
- Unique Business Ideas (UBI) – shared experience
- Practical tools and processes that can be applied on the job
- Where to go for information
- DM Case Studies

Case Study

Ministry of Defence Project Case Study Glencorse Barracks Penicuik, Midlothian



Glencorse Barracks: Project Details

- Design/build Development a few miles south of Edinburgh
- Demolition and redevelopment to house a Light Infantry Battalion (Royal Highland Fusiliers)
- Contract Value – Circa £38m
- Design/Construction Period – 18 months Sept 03-Feb 05)



Glencorse Barracks: Project Planning

- Tender delivery strategy developed & agreed in advance
- Balance between Market Testing and Cost Planning agreed
- Assigned responsibilities & objectives minimised wasted effort
- Specialist Supply Chain engaged at the earliest opportunity
- Definition of Short Term Programme & list of deliverables
- Opportunities identified (design efficiency)
- Regular Forward Planning meetings



Glencorse Barracks: Tender Period

- Design team single point of responsibility (Bid Manager)
- Design resources focused on areas of concern &/or maximum impact
- Procurement strategy planned in advance of contract award
- Realistic & achievable design, procurement and construction programme
- Submission of competitive compliant tender
- Value Engineering opportunities identified in the submission
- Design Management plan for the mobilisation Period
- Completion of detailed design team resource forecast



Glencorse Barracks: Tender Evaluation

- Forward planning meetings & maintained team focus
- Kick start workshop with the client & new Project Manager;
- Design team briefings to give the wider design team an overview
- Identify any gaps in design resources (a senior professional with site experience was recruited to take over as design team leader on site from the TPS bid manager)
- Assess hardware & software requirements for site based design team.



Glencorse Barracks: Site Mobilisation

- Regular integrated team meetings including the client/customer
 - Realistic design programme agreed in advance so no surprises on contract award
 - Weekly review of deliverables
 - Unambiguous procurement strategy
- Designers located on site as part of Integrated Project Team



Glencorse Barracks: Lessons Learned

- Continuous forward look – proactive rather than reactive
- Realistic programme & targets – do not promise something which is not achievable
- Focussing on key issues rather than trivia
- Stability through the process – avoid radically changing programme or strategy
- Commit to early supply chain engagement (accepting this can be difficult commercially)
- Collocation & continuity of integrated project team (client/PM/design/construction)



Glencorse Barracks: thanks to -

- Ken Davie Architect TPS Consult
- Army Infrastructure Organisation AIO)
- AIO Project Sponsor Team Robbie Reeve, John Barker and Tony Roberts
- Project Managers White Young Green and Scott Wilson



