



Australian Government

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D&D Strategies for Dismantling

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Contents

- Three possible implementation strategies
- Benefits and advantages of each
- Selecting the right option

Strategies for Dismantling

- Three possible strategies:
 - In-house using own expertise
 - Entirely outsourced
 - Mixed arrangement

In-house Implementation

- Do it yourself
- Pursued by some organisations??
- Only achievable if in-house resources or expertise are available

Outsourced Implementation

- Outsource the expertise, resources and risk to external specialists
- Often pursued for larger projects, with greater risk and/or where there is lack of internal expertise and/or resources*
- [*Often used for RRs in countries where a mature D&D industry exists esp US e.g. Iowa State Uni and Washington State Uni]

Mixed Implementation

- Combined effort
- Implementation can be staged, where parts are executed by in-house resources and others by external groups
 - For example:
 - In-house preparation of facility
 - External group brought in to decommission remainder
 - In-house finalisation
- External efforts can be directed to areas or tasks where there is no or little in-house capability
- *This was the strategy used for Ansto's Moata Dismantle*

In-house Implementation Benefits

- Full control of the implementation
 - Budget
 - Schedule
 - Stakeholders
 - Technical
- Organisation gains experience across entire range of activities

In-house Implementation Disadvantages

- Project will consume organisation resources
- Heightened risk if there is insufficient expertise
- Project success entirely dependent on in-house project management ability
- Can be considered to be a waste of training and effort if the experience gained is not utilised for repeated efforts
- Expensive equipment may be difficult to redeploy or recover costs of purchase

Outsourced Implementation Benefits

- Pass on much of (not all) risks (and stress!) to others
- Frees organisation to other projects
- Organisation keeps to “core competencies”
- Beneficial if the organisation does not have a need for the implementation expertise in future

Mixed Implementation Benefits

- Can be best of both worlds (*can* be an optimal solution)
- In-house expertise can be utilised to advantage to save cost and time
- External expertise can be focused on areas where required
- Reduced contract amounts – reduced risk transfer
- Allows for strong control

Mixed Implementation Disadvantages

- Can be worst of both worlds
- Requires effort to ensure interfacing of contractor work with site procedures and circumstances (as opposed to granting site possession and having a ‘turnkey’ project)
- Potential for conflict between in-house and external groups
- Regulatory approval requires knowledge of contractor implementation – which won’t be known until contractor is engaged

What is best?

- What is your organisation's capabilities?
 - Good radiation protection?
 - Good waste management?
 - Good planning?
 - Good engineering?
 - Good skilled trades with tools?
 - Good technical knowledge?

What is best?

- What is your organisation's drivers?
 - Desire to build organisational knowledge
 - Desire to export skill?
 - Desire to minimise cost?
 - Desire to maximise safety?
 - Desire to minimise impact to resources and operations?

What is best?

- Is the job a “one-off” or will it be repeated again?
- Need to strike the right balance!
- Generally *some* input is required by the reactor organisation
- Ensure you don’t turn the project into a research topic unless that is what is expressly sought

Lessons Learnt - Outsourcing

- Educate the contractor in order to correctly communicate and interpret risk
 - This will lead to correct pricing of risk
 - This will lead to common understand of project goals
- Must be two way
 - Organisation learns from contractor (methods and concerns)