Eight focus groups were held across the UK, Germany, Switzerland and Malaysia between November 2019 and December 2021, with the aim to develop an innovative project delivery model that can be applied across different industries informed by lean and agile based approaches. Experienced (minimum of five years) project managers participated from IT, Technology, Engineering, Construction, Estates & Facilities Management, Oil and Gas, Pharmaceutical and Nuclear industries. Focus Groups took place face to face and online and participants discussed the extent to which three initial factors (Knowledge, Experience & Skills, Project Environment, Culture & Behaviours) might influence their decision to implement specific delivery approaches. Each focus group also outlined any specific methods, tools and techniques for specific factors, or specific delivery approaches based on their experience.



Figure 1: Proposed Delivery Model for lean and agile project management

The above delivery model illustrates the final five factors which influence the decision to implement a lean or agile approach. Findings also indicate that project managers select any one or more of the four delivery approaches. Lean or agile approaches are often combined, as a hybrid approach. Lean and/or agile approaches are also selected either in place of or combined with a traditional project management approach.

Focus Group transcripts were coded and analysed to find patterns and themes relating to the decisions made for the five factors, and cross-matched to indicate preference (or otherwise) for a specific lean or agile approach.

Factor	Lean	Agile	Hybrid	Traditional
Culture & Behaviour	19	18	1	5
Knowledge & Experience	5	6	1	2
Project Delivery	5	6	5	1
Project Environment	4	7	0	1
Skills & People	3	6	0	1
Total factors coded to each approach	36	41	7	10



Culture & Behaviour

Analysis demonstrates that although the lean and agile approaches are preferable, the decisions surrounding the factors differ slightly. In terms of **Culture & Behaviour**, 21 sub-factors were found:

- 1. Ability to see benefits of the project delivery approach
- 2. Adaptability of teams to implement project delivery approach
- 3. Client driven project delivery approach
- 4. Client opposition to project delivery approach
- 5. Individual Mindset
- 6. Level of acceptance of specific tools, techniques and methods of approach
- 7. Level of collaboration and co-operation
- 8. Level of commitment
- 9. Level of communication between stakeholders
- 10. Level of leadership from senior managers
- 11.Level of motivation
- 12.Level of support from senior managers
- 13. Level of vision
- 14.Level of willingness to change
- 15.Level of willingness to make mistakes
- 16. Management-driven project delivery approach
- 17.Negative perception of project delivery approach
- 18. Personal familiarity with project delivery approach
- 19. Prevailing practice
- 20. Problem-solving abilities of individuals, teams
- 21. Team-driven project delivery approach

All approaches indicated that the **ability to see benefits of the project delivery approach** was important. Of the 21 sub-factors, 18 were prevalent for both agile and lean, with 1 additional sub-factor of importance to lean.

Knowledge & Experience



Lean requires less knowledge and experience prior to project delivery that can be developed as the approach is implemented, whereas if there is no prior experience of Agile, project managers are less likely to select this approach for delivery. This is particularly prevalent for time-critical projects, where a traditional approach may be chosen. Where there is uncertainty or early stages of design, Agile is more likely to be chosen over traditional or lean. Further, project manager's perception of the likelihood of sharing knowledge and experience suggests that less well-established members of project teams appear to be more willing to share new and existing knowledge and experience rather than those who are more experienced. Similarly, project managers and their teams appear to be willing to devote time and effort to learning about lean prior to and during implementation of projects. Agile delivery approaches prefer to use existing knowledge and experience prior to project delivery.

Project Delivery



Project Environment



Skills & People

