Collaborative Discussion 1: Project Failures

## **Summary**

Over the past few weeks, consideration was given to the reasons behind software failures. The top three most significant reasons lie with causes related to project initiation, management, and organizational leadership (Stretton, 2018), with other authors identifying cost estimates (Jones, 2006), or size, complexity, technology, and user participation (McLeod and MacDonnell, 2011). Another consideration contributing to project failure are internal factors such as team members, processes, managers, while external factors include various too many stakeholders and possibly conflicting requirements (Lu et al., 2010). From the literature, there is no single cause for project failure but rather an almost innumerable number of variables that together may disrupt a project's success. However, underlying all the variables, the single common factor remains the *human* input.

Therefore, improving project success is equivalent to successfully managing individuals who deliver the project, address the project and ultimately request the project. Lu et al. (2010) state that "The project manager's 'soft capacity' is much more important than the project manager's 'hard capacity'," implying the importance of project managers to have good people skills. In this regard, requirements management and governance can be seen as the most critical factor of concern (Akbar et al., 2019), even more critical given the global nature of modern-day projects. Verifying those requirements are delivered and met is one method organizations may leverage to ensure they deliver on project requirements (Coppola, 2022).

Requirements are the motivation of any project, without which there is no reason for a project's existence. However, writing precise, well-thought requirements is not easy, and often delivery teams must contend with customers who possess vague ideas about what their end product should do. ISO 29148:2018(E) defines well-formed requirements as addressing a concern, is measurable, bounded by constraints, defining performance characteristics, and can be verified (ISO/IEC/IEEE, 2018). Following the ISO guidelines, I think that taking a human-centric view of requirements by focusing on the needs of users or customers better helps to describe project requirements, which minimizes missing the mark for project delivery.

Overall, projects do fail even though they—theoretically—should not. And while (poor) requirements play a vital role in project success, so too does communication and interactions between all stakeholders. Therefore, I consider project managers (even though Baumgartner et al., 2021 view the project manager role in decline) responsible for facilitating stakeholder

communication (especially within global teams) and integrating sound requirements management into each team's chosen software development lifecycle. However, in today's agile self-organizing teams, this responsibility lies closer with team members than ever before.

## References

- Akbar, M.A., Sang, J., Khan, A.A., Mahmood, S., Qadri, S.F., Hu, H. & Xiang, H. (2019). Success factors influencing requirements change management process in global software development. Journal of Computer Languages, 51:112-130.
- Baumgartner, M., Klonk, M., Mastnak, C., Pichler, H., Seidl, R. &Tanczos, S., (2021). Role of Testers in Agile Projects. In Agile Testing:79-111. Springer, Switzerland.
- Coppola, G. (2022). Collaborative Discussion 1: Project Failures Study: Summary Post. Available from: https://www.my-course.co.uk/mod/hsuforum/discuss.php?d=302488 [Accessed 28 Mar. 2022].
- ISO/IEC/IEEE (2018). Systems and software engineering—Life cycle processes— Requirements engineering.
- Hehn, J., Uebernickel, F. & Fernandez, D.M. (2018). DT4RE: design thinking for requirements engineering: a tutorial on human-centered and structured requirements elicitation. IEEE 26th International Requirements Engineering Conference (RE):504-505.
- Jones, C. (2006). Social and technical reasons for software project failures. Crosstalk. The Journal of Defense Software Engineering, (1):4-9.
- Lu, X., Liu, H. & Ye, W., (2010). Analysis failure factors for small & medium software projects based on PLS method. 2nd IEEE International Conference on Information Management and Engineering:676-680.
- McLeod, L. & MacDonell, S.G. (2011). Factors that affect software systems development project outcomes: A survey of research. ACM Computing Surveys (CSUR), 43(4):1-56.
- Stretton, A. (2018). Relating causes of project failure to an organizational strategic business framework. PM World Journal, 7(1):1-10.