

Navigating **AGILE** Software Development in **HYBRID** Work Environment



• Fateme Broomandi
• fateme.broomandi@lut.fi



• Maria Paasivaara (Supervisor)
• maria.paasivaara@lut.fi



ABSTRACT

Our research investigates agile software development in hybrid work environments using a mixed-methods approach that includes interviews, surveys, and workshops. This study examines the adaptation of agile practices and work organization in hybrid settings, focusing on the implications for job satisfaction and perceived productivity. We are developing a model to assist companies in effectively organizing teams and their work. This model will serve as a guideline for enhancing overall productivity and employee well-being in hybrid environments.

PROBLEM STATEMENT

- Pre-pandemic agile relied on collocated, face-to-face teams [1].
- Remote work during the pandemic challenged productivity and communication [2].
- Many developers now prefer remote or hybrid flexibility [2,3].
- Some developers may leave if forced back to the office full-time [4].
- A hybrid agile model is needed to align company goals with developer preferences.

METHODOLOGY

Target Companies	Ericsson, Kempower, Solita These companies are chosen for their active agile practices, need for hybrid work solutions, and readiness to implement study findings.
Data Collection, Analysis, and Pilot Implementation	<ul style="list-style-type: none">• Conduct 40-60 semi-structured <u>interviews</u> for qualitative insights.• Collect 300-3,000 <u>survey</u> answers to quantify productivity and well-being.• Hold <u>workshops</u> with company reps to refine the hybrid work model.• Test and refine the model through <u>pilot implementations</u> and feedback.

EXPECTED OUTCOME

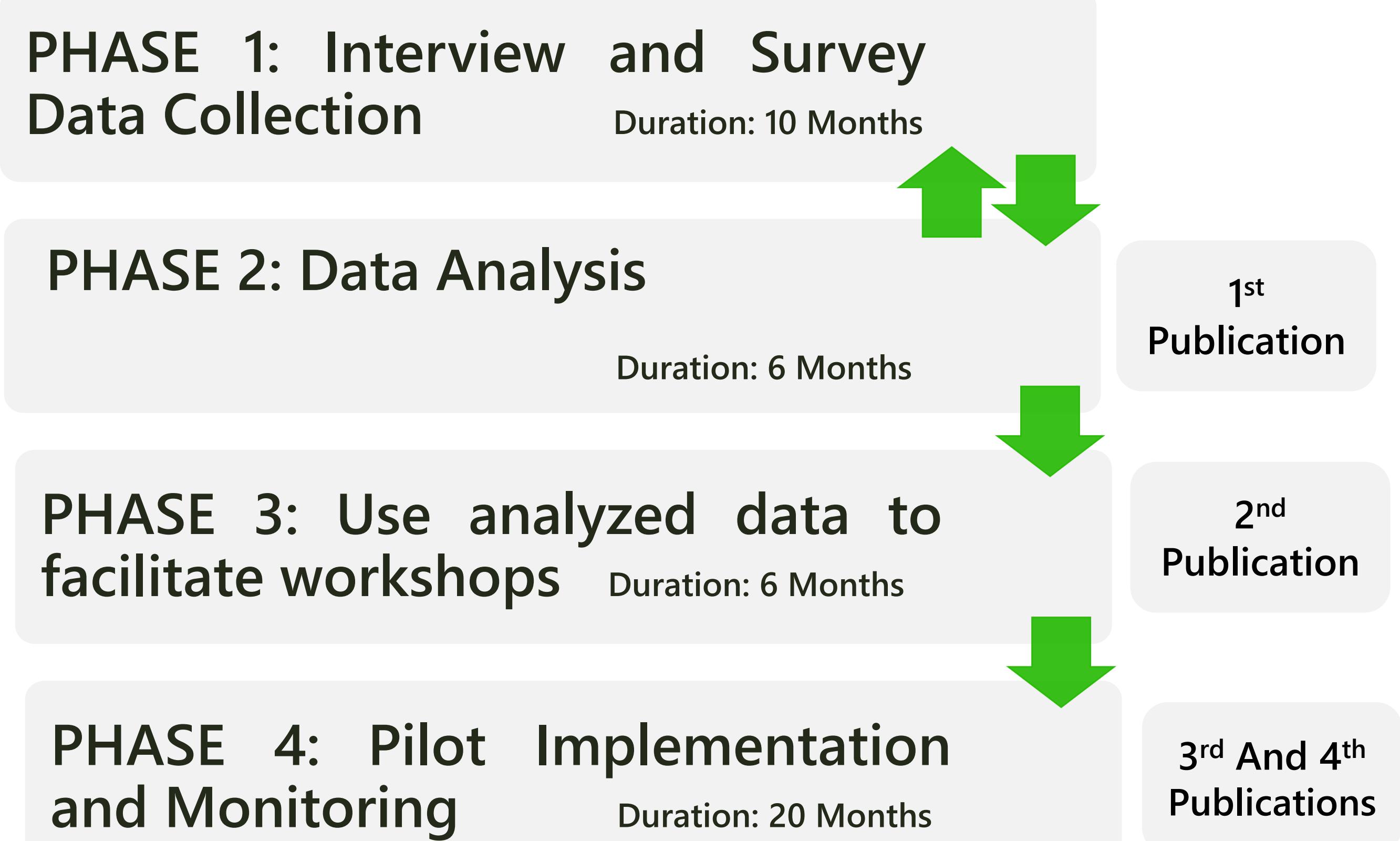
We expect to develop a validated model for organizing agile software development in hybrid work environments. This model will:

- Enhance Productivity: Provide strategies that maximize productivity while accommodating the flexibility of hybrid settings.
- Improve Well-being: Offer guidelines that promote better job satisfaction and well-being among software developers.
- Inform Practice: Serve as a blueprint for companies seeking to optimize hybrid agile practices effectively.

OBJECTIVES

- 1 Examining well-being and job satisfaction of software developers in hybrid work, both individually and as teams
- 2 Analyzing productivity impacts at individual, team, and project levels to identify performance drivers
- 3 Creating guidelines for organizing hybrid agile work
- 4 Developing a scalable model to optimize hybrid work practices for productivity and employee satisfaction

PLAN



[1] Sporse T, Moe NB. Coordination strategies when working from anywhere: A case study of two agile teams. In International Conference on Agile Software Development 2022 Jun 9 (pp. 52-61). Cham: Springer International Publishing.
[2] Kemell, K.K. and Saarikallio, M., 2023. Hybrid Work Practices and Strategies in Software Engineering—Emerging Software Developer Experiences. IEEE Access.
[3] Jaspan, C. and Green, C., 2023. Developer productivity for humans, part 2: Hybrid productivity. IEEE Software, 40(02), pp.13-18.
[4] Smite, D., Moe, N.B., Tkalich, A., Hanssen, G.K., Nydal, K., Sandbæk, J.N., Aamo, H.W., Hagaseth, A.O., Bekke, S.A. and Holte, M., 2022, November. Half-empty offices in flexible work arrangements: Why are employees not returning?. In International Conference on Product-Focused Software Process Improvement (pp. 252-261). Cham: Springer International Publishing.