Table 1 shows the theoretical parallels between the viable system model and portfolio management in agile contexts.

| **VSM Concepts / Component** | **Portfolio management practices in agile contexts** |
| --- | --- |
| Viability | Viable portfolios cope with their changing internal/external dynamics and continue to meet their objectives. Agile portfolios need to focus on sensing and responding to internal/external events impacting portfolio performance. |
| Variety | Agile portfolios should match their internal variety to address external threats and opportunities by adapting their practices to enable agility. |
| Recursion | Agile portfolios can be modeled as a hierarchy of sub-portfolios, value streams, or products. Lower-level instances inherit portfolio objectives from higher levels. |
| Transduction | Agile methods advocate close interaction among stakeholders. Shared processes and languages will help ensure strong alignment. |
| System 1 | Functions like portfolio selection, portfolio decision-making, and portfolio reporting (Müller et al. 2008) ensure the portfolio’s purpose. |
| System 2 | The consistent use of agreed agile practices (or method frameworks) could support coordination within and across agile efforts within the portfolio. |
| System 3 and 3\* | Agile portfolio management tackles dependencies across teams at higher abstractions (like products, value streams, solutions, or the enterprise) and aligns resourcing to product or value stream priorities. System demos and customer feedback reflect internal performance parameters while outcome KPIs validate the business value. |
| System 4 | Agile portfolios sense external threats and opportunities, determine the impact on the portfolio objectives, and rapidly frame options to respond to such events and enable IT agility. They balance business and technology options across the exploration and exploitation objectives to achieve homeostasis. |
| System 5 | At its highest abstraction level, the corporate board or executive committee provides governance and strategic direction to the agile portfolio and monitors the balance across the current and future perspectives of the portfolio. |
| Table 1 - VSM theory mapped to agile portfolio management | |