

Innovation for environmental sustainability requires firms to engage with external stakeholders to access expertise, solve complex problems, and gain social legitimacy. In this open innovation context, stakeholder engagement is construed as a dynamic capability that can harness differences between external stakeholders to augment their respective resource bases. An integrative systematic review of evidence from 88 scientific articles finds that engaging stakeholders in environmental innovation requires three distinct levels of capability: specific operational capabilities; first-order dynamic capabilities to manage the engagement (engagement management capabilities); and second-order dynamic capabilities to make use of contrasting ways of seeing the world to reframe problems, combine competencies in new ways, and co-create innovative solutions (value framing), and to learn from stakeholder engagement activities (systematized learning). These findings enhance understanding of how firms can effectively incorporate stakeholder perspectives for environmental innovation, and provide an organizing framework for further research into open innovation and co-creation more broadly. Wider contributions to the dynamic capabilities literature are to (i) offer a departure point for further research into the relationship between first-order and second-order dynamic capabilities, (ii) suggest that institutional theory can help explain the dynamic capability of value framing, (iii) build on evidence that inter-institutional learning is contingent on not only the similarity but also the differences between organizational value frames, and (iv) suggest that operating capabilities impact the effectiveness of dynamic capabilities, rather than only the other way around, as is usually assumed. A methodological contribution is made through the application of quality assessment criteria scores and intercoder reliability statistics to the selection of articles included in the systematic review.

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