

Approach to establish relevant sustainability assessment parameters in product development

Aim

The aim of this research project is to assess product sustainability during material development towards a more sustainable incontinence diaper and compare that with a reference diaper used today. This calls for a way to establish relevant product sustainability assessment parameters.

Complications

- ‘sustainable development’ is not an academic concept *i.e.* not clearly defined
- in product development many characteristics of the resulting product system are not specified
- sustainability assessment signifies a future-oriented assessment and the future is unknown yet needs to be envisaged

Approaches for environmental improvements in product development focus primarily on optimisation of the present product system, *e.g.* on replacing parts or processes representing large environmental impacts. Such approaches will result in marginal improvements compared to the present situation, and cannot fully take advantage of truly innovative ideas that are based on completely

different solutions or the fact that a more sustainable future society might put very different demands on products compared to the strictest environmental requirements of today.

New approach

The process described in Figure 1 refers to how team learning can be achieved in guiding the team in innovating towards a more sustainable product, eventually also resulting in a final holistic product sustainability assessment. The iterative way of developing the product system, the assessment parameters and the performance results of the system is illustrated in Figure 2.

Conclusion

A procedure for guiding product development towards more sustainable products through team learning is proposed.

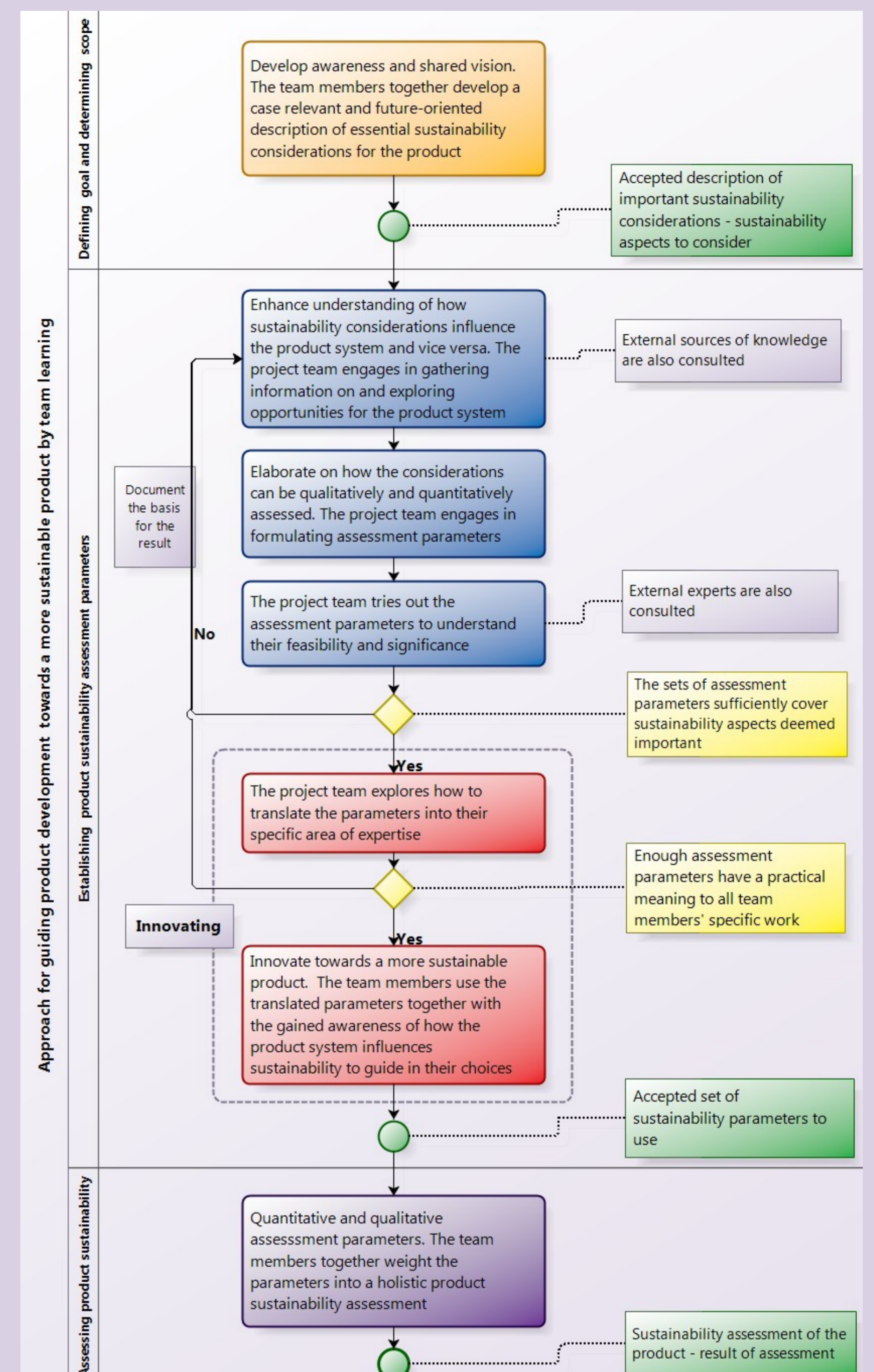


Figure 1. Proposed process for guiding and team learning. The procedure also provides input to a final holistic product sustainability assessment.

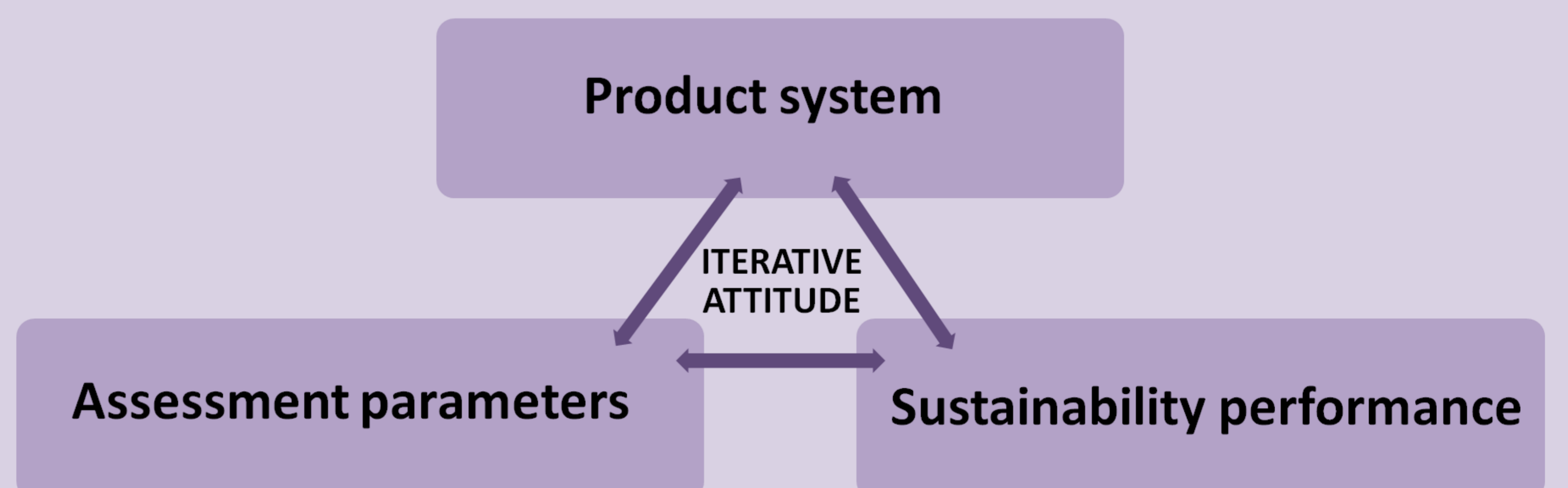


Figure 2. Iterative procedure necessary for the suggested process



The WooDi project - the Wood based Diaper, is a research collaboration between industry and university.

