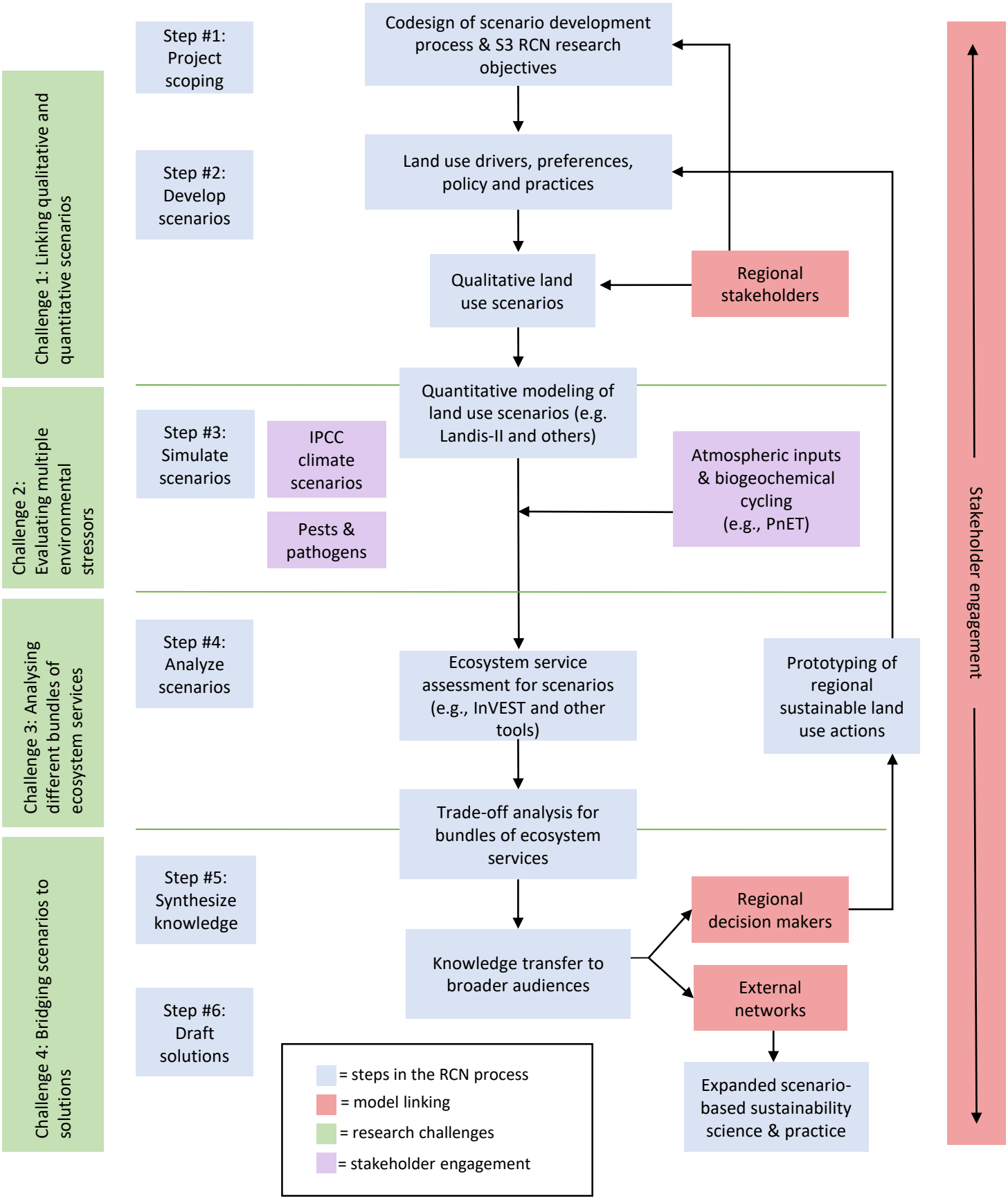## **Appendix 1.** S$^3$ RCN process