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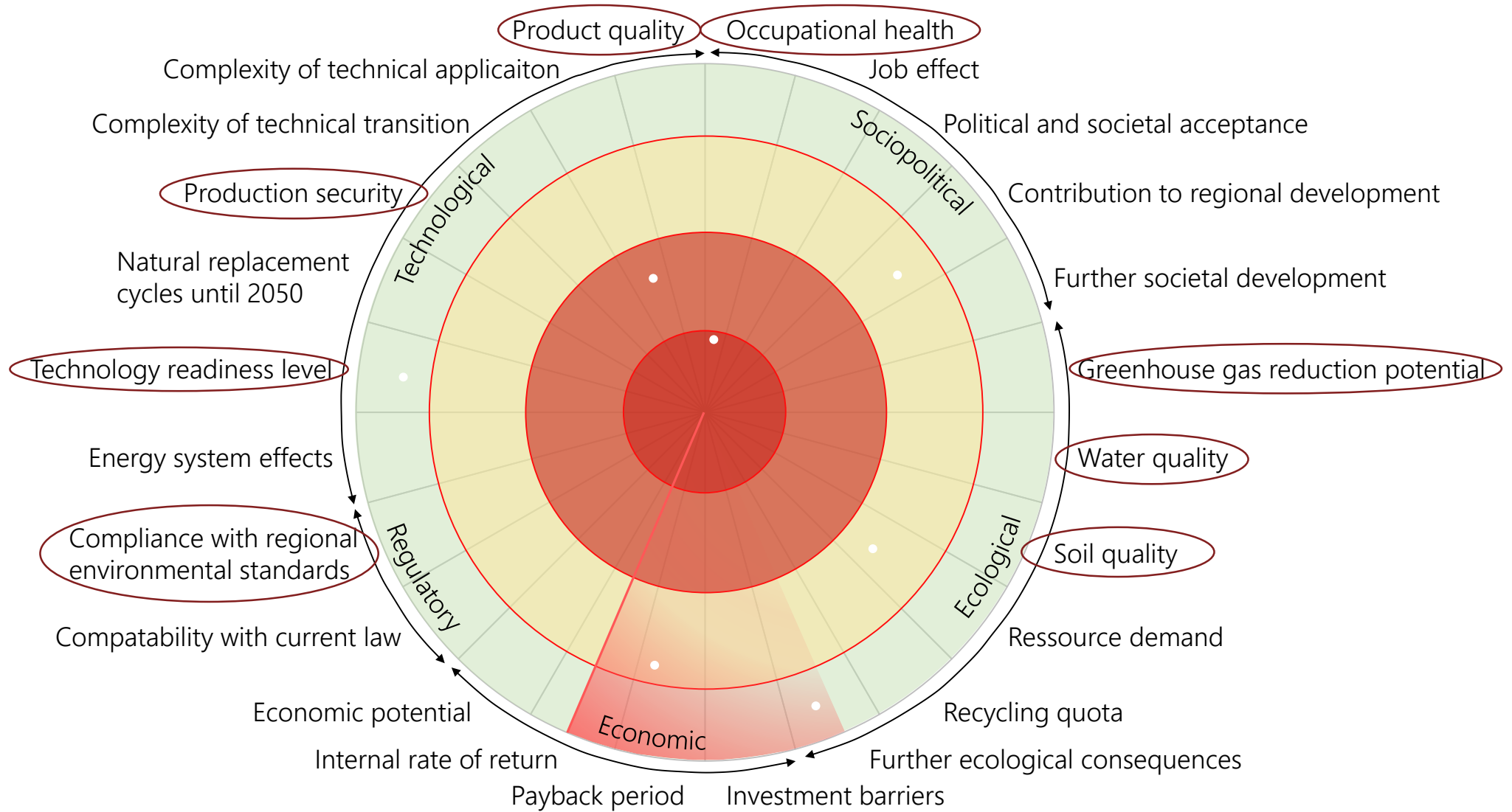
**Holistic evaluation scheme for industrial greenhouse gas abatement measures – bringing together research and practice**

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# Radar for the holistic evaluation of GHG emission reduction measures in the industry



# To derive the evaluation radar, we followed 5 of the typical steps for constructing a multi-criteria-decision-analysis tool (MCDA)

| Steps for creating a MCDA tool   | Characterization of each step for the evaluation radar                                       |
|--|--|
| 1. Context definition – definition of the decision problem and the main decision maker | Evaluation of industrial GHG abatement measures through industry, politics and science       |
| 2. Definition of alternatives for evaluation   | Industrial abatement measures  |
| 3. Definition of criteria and scoring methodology                                      | 24 Criteria in 5 clusters  |
| 4. Normalization of scoring methodology  | Traffic light system   |
| 5. Weighting of criteria   | Definition of showstopper criteria – no weighting  |
| 6. Calculation of total score and ranking of alternatives                              | Goal is the evaluation of single measures or measure pairs, not a merit-order of measures    |
| 7. Evaluation and analysis of results  | Focus is the analysis of implementation barriers and determination of alleviation strategies |
| 8. Sensitivity analysis – Effect of different criteria weightings and scores           | Not applicable due to lack of criteria weighting   |



# Conclusion

- The evaluation radar is a multi-criteria-decision-analysis tool which can be valuable both to practitioners and researchers
- The radar structures a complex decision problem and provided a guideline for criteria evaluation
- From a practitioners perspective criteria weightings and scores are not as relevant as showstopper criteria

# Outlook

| Steps for creating a MCDA tool   | Characterization of each step for the evaluation radar                                    |
|--|---|
| 5. Weighting of criteria   | Definition of showstopper criteria – no weighting   |
| 6. Calculation of total score and ranking of alternatives                    | Goal is the evaluation of single measures or measure pairs, not a merit-order of measures |
| 8. Sensitivity analysis – Effect of different criteria weightings and scores | Not applicable due to lack of criteria weighting  |

- Further validation of criteria through expert interviews with practitioners
- Weighting of criteria is performed in online questionnaire



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