Sustainability performance of grass-based beef production systems in the Bourbonnais area of France

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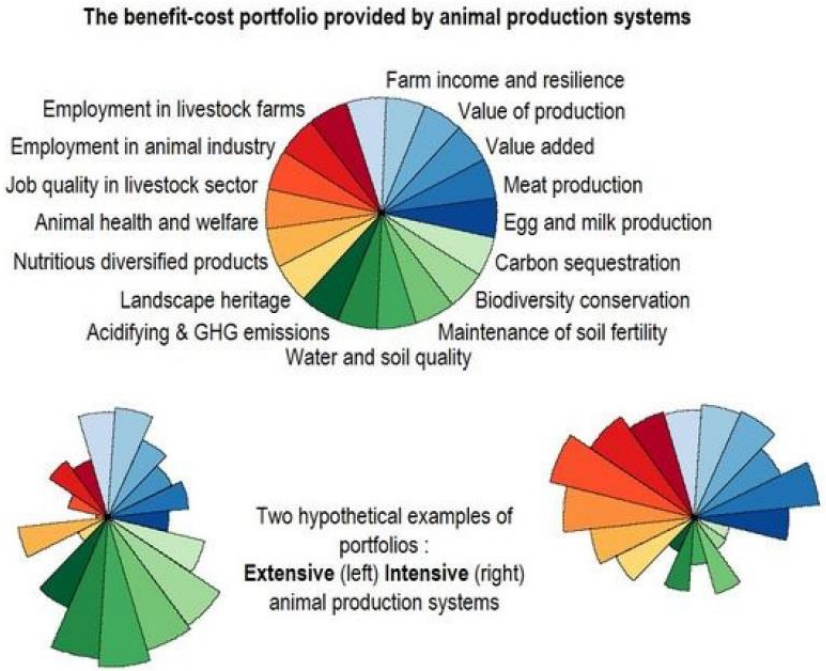
Introduction

- Assessing sustainability performance of farms
  - Benefits
  - Costs

  } Benefit-cost portfolio



Source: Project proposal Animal Future

Introduction

- Assessing sustainability performance of farms
  - Benefits
  - Costs

  } Benefit-cost portfolio
- What are consequences of interventions?
  - Synergies
  - Trade-offs

Source: Project proposal Animal Future

Introduction

Case study: beef production systems, Bourbonnais area

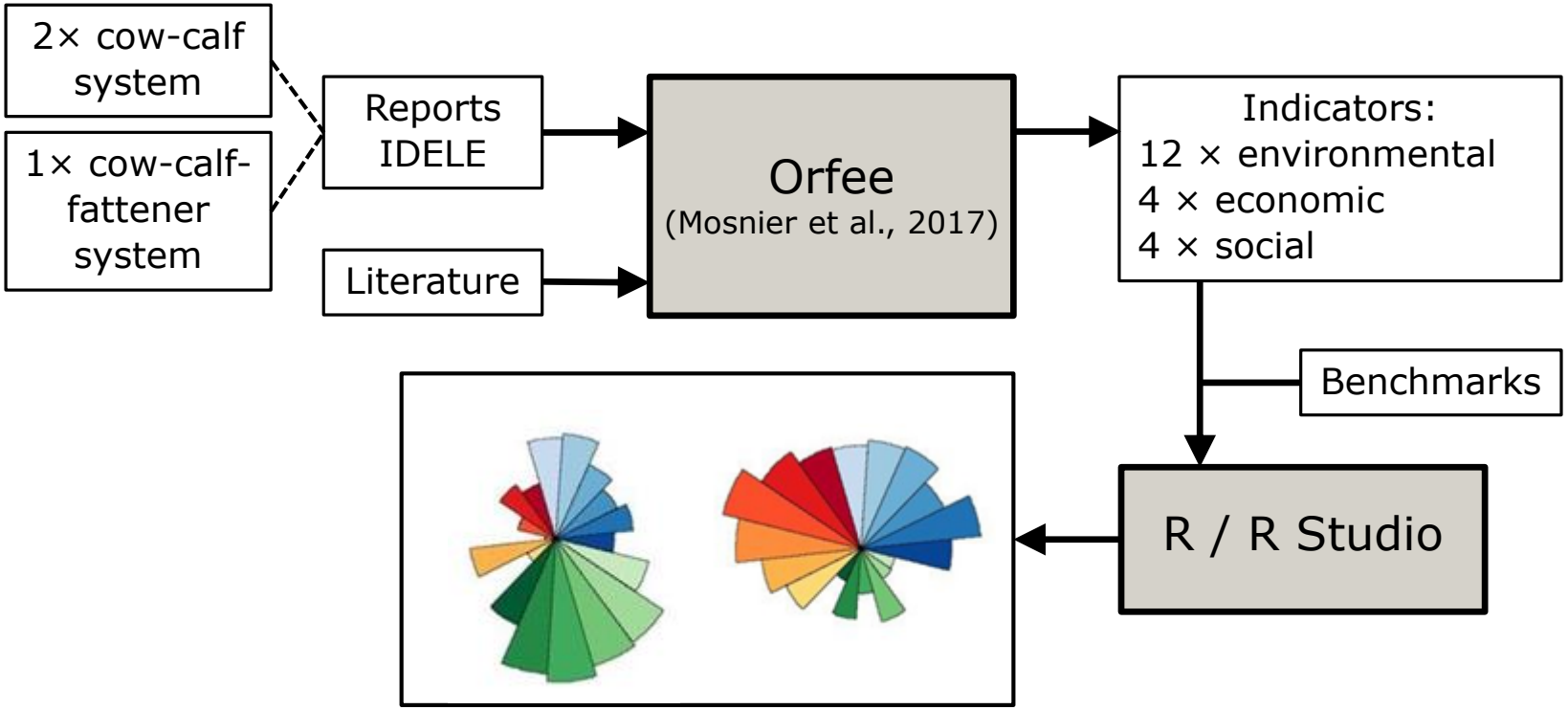
- Charolais cattle
- Grass-based beef production
    - Cow-calf farms
    - Cow-calf-fattener farms
- Economic challenges

Source: Wikipedia

Objective

Assess the consequences of interventions on the sustainability performance of beef production systems in the Bourbonnais area

Materials and methods



Materials and methods

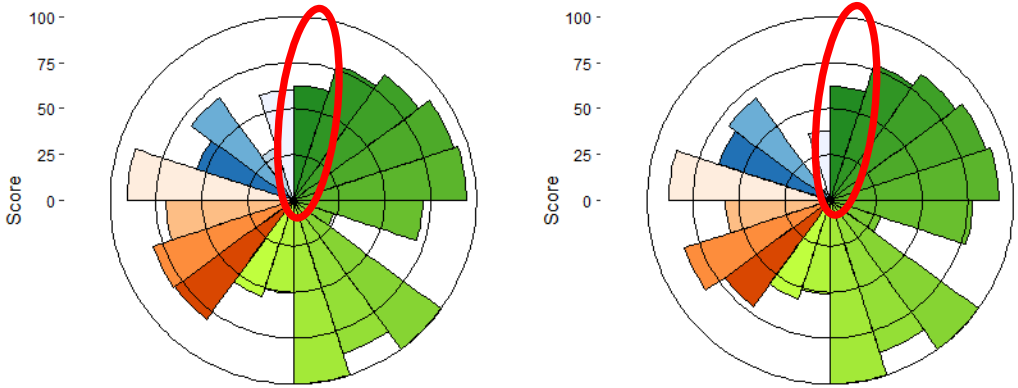
Interventions

- Cultivating protein crops (10 ha)
- Replacing Charolais cattle with Aubrac cattle (25% and 50% herd)
- Increasing area for grass silage (20 ha, 1 cut per year)
- Increasing farm area (20 and 50 ha permanent pasture)

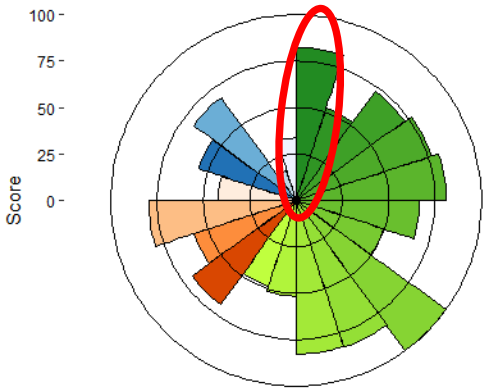
Results and discussion

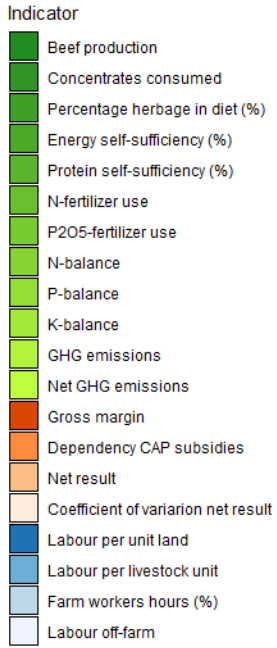
Benefit-cost portfolios

Cow-calf systems



Cow-calf-fattener system





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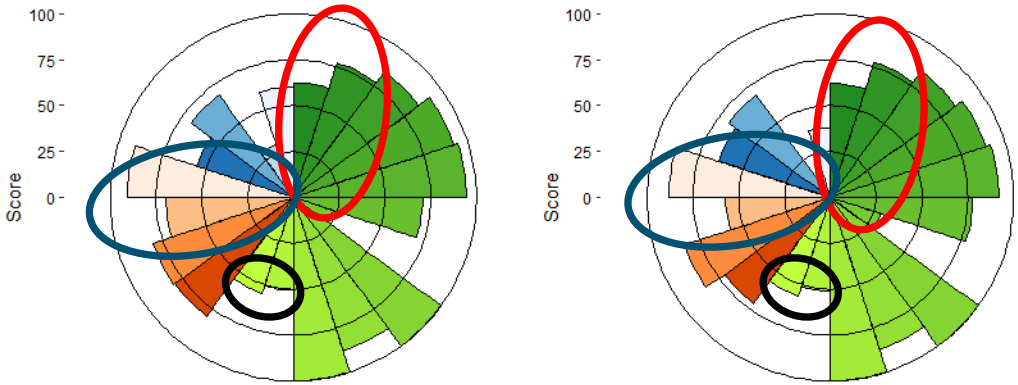

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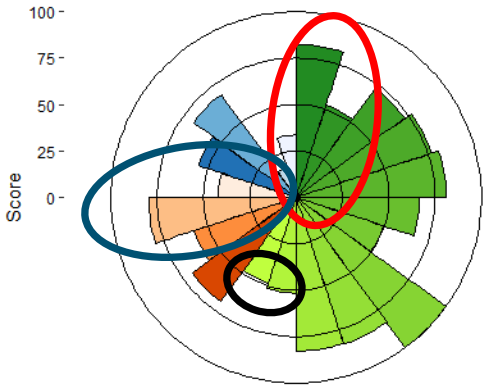
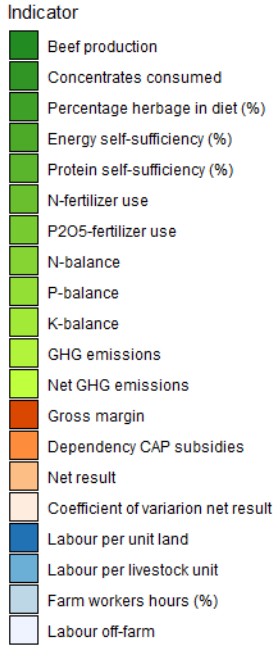




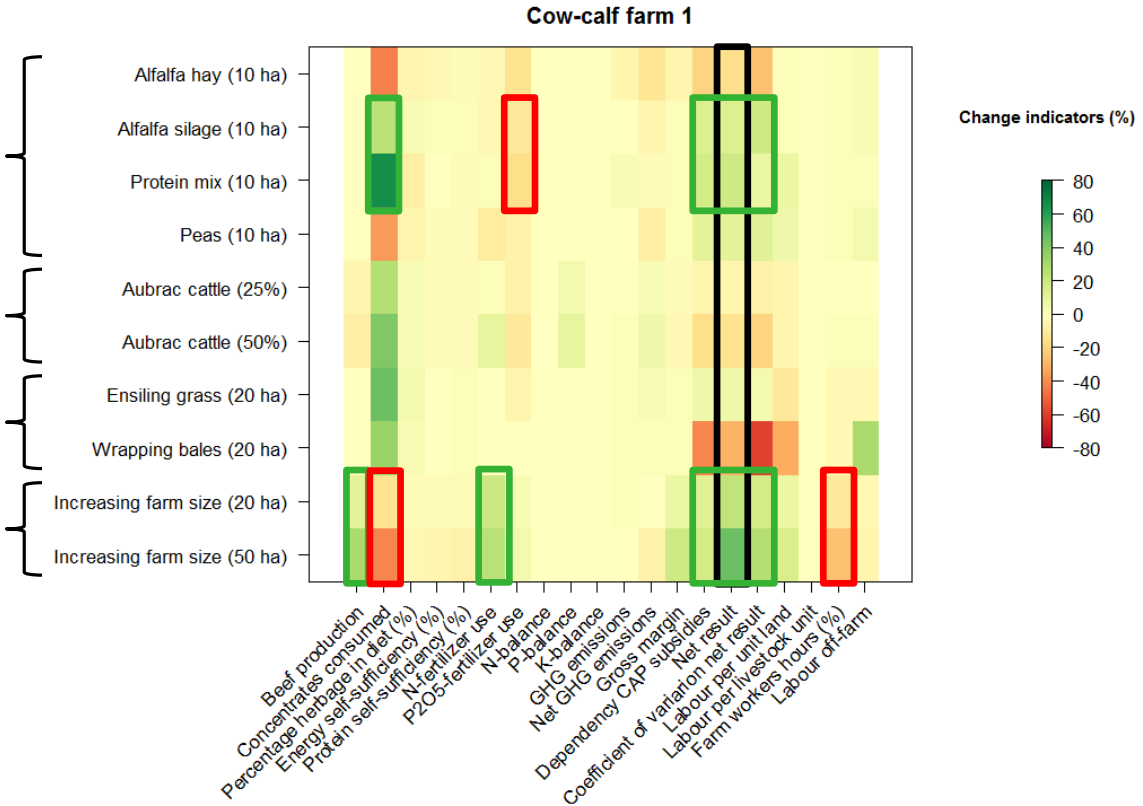
Results and discussion

Cultivating protein crops

Aubrac cattle breed

Making (more) silage

Increasing farm size



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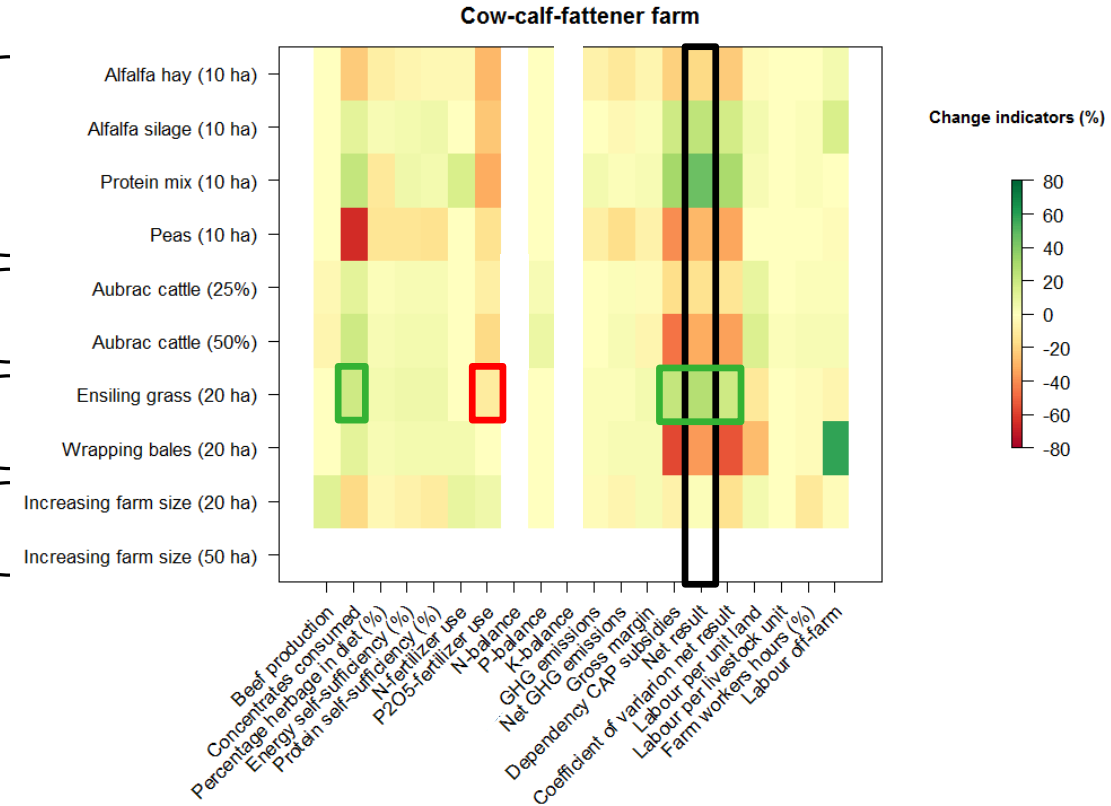

Conclusions

- Benefit-cost portfolios successfully applied to beef production

- Most promising interventions:
  - Cultivating alfalfa for silage
  - Cultivating protein mix
  - Ensiling (more) grass
  - Increasing farm size (mind labour constraints!)

Thank you for your attention!

More information:

www.animalfuture.eu

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