**Objectives**

Understand to what extent and why do farmers’ choices of agroecological practices differ between their crops.

**Steps to follow**

1. **Calculation of a technical score at crop level**

   The "technical score" (TS) is an indicator of crop ecologization:
   - **generic**: adapted to all crop productions
   - **inclusive**: covering the gradient from all-chemical to all-organic
   - **simple**: compatible with qualitative historical data from surveys

   Technical Score = \((A - S)\) Protection + \((A - S)\) Fertilization + \((A - S)\) Weed management

   \(A = 1\) if at least one alternative practice is implemented, 0 if not.
   \(S = 1\) if at least one synthetic input is used, 0 if not.

2. **Calculation of the variability of crop technical scores at farm level**

   The variability of ecologization on a farm is estimated with the gap between the maximum and the minimum crops technical scores.

3. **Dynamic analysis of crop technical scores at farm level**

   The technical scores are recalculated on each date corresponding to a change in practice throughout the farmer’s career.

4. **Contextualization of crop technical scores with factors on and off the farm**

   Land allocation and marketing channels are surveyed to understand the respective weights of crops in farm revenue (Dupré et al., 2017).
   Cropping constraints are deduced from labour force organization, equipment and specifications.
   Technical support and input availability are also explanatory factors.

**Conclusions**

- On a diversified farm, crops can follow diverse ecologization dynamics.
- The contextualized static and dynamic comparisons of crop technical scores on a farm succeeded in explaining these gradual transitions.
- Levers and barriers to agroecological transitions can be deduced from this method and improve political and technical support.

**Illustration with a case study**

**Farm dynamic**

- Adoption of organic fertilization
- Conversion to organic farming

**Understanding farm dynamic**

- Technical support on Christophine
- Development of the organic christophine market

**Internal factors**

- **High revenue**:
  - 60 000 €/ha
  - Long-term effect but high cost
  - 12,0 €/Nitrogen Unit
- **Low revenue**:
  - 7 200 €/ha
  - Low cost but short-term effect
  - 0,1 €/Nitrogen Unit

**External factors**

- e.g. Understanding fertilizer choice
- Imported organic fertilizers
- Local blood and bone meals

**Figures and Tables**

- [Figure 1](#): Diverse ecologization variability
- [Figure 2](#): Farm dynamic
- [Figure 3](#): Understanding farm dynamic
- [Figure 4](#): Internal and external factors

**References**