



**Coordinator(s):** Ane Kirstine Aare & Henrik Hauggaard-Nielsen  
**Institute :** Roskilde University (RUC; Partner 3)  
**Location :** Sorø, Fjenneslev, Knudstrupgård (55°24'51.4"N; 11°37'08.2"E)  
**Climate :** Rainfall 550 mm; air temp. 8°C with 16°C July and -1°C February.  
**Soil and practices:** Sandy loam - comparing 3 conventional farming cases:  
 i) direct sowing, ii) reduced tillage and iii) traditional plowing. **Date of 1st implantation:** autumn 2017



## 1. The MAP context:

The Danish MAP is initiated through a national project ([www.GMSR.dk](http://www.GMSR.dk)) focusing on diversified catch cropping mixtures. RUC is focusing the work according to three main activities:

1. **Demonstration** trials; classical knowledge dissemination from advisors to farmers
2. **Satellite farmers** experimenting with mixed catch crops in own fields with joint evaluation together with RUC (interviews) and local farmers day-to-day knowledge sharing
3. **Farmers group** who exchange knowledge on the use of species mixtures through different 'tools' (games, SoMe, workshops etc.)



## 2. Partners in co-designing

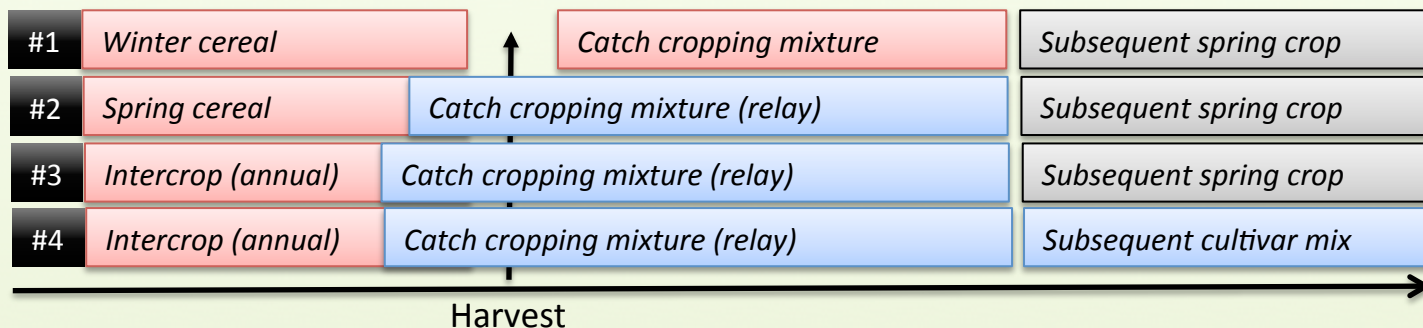
Main actors involved :	Farmers :	Other stakeholders :
<ul style="list-style-type: none"> <li>- Advisors (Agrovi)</li> <li>- Farmers</li> <li>- Satellite farmers</li> <li>- RUC</li> <li>- Other actors</li> </ul>	<ul style="list-style-type: none"> <li>- Dominated by customers of Agrovi. Interested or practicing reduced tillage. Expected different levels of experience on crop mixtures</li> <li>- 10 satellite farmers (1st and 2nd 'wave') recruited at the first MAP event; on-farm catch crop mixture uses and local knowledge sharing</li> <li>- Facilitating interactions among experienced crop mixture farmers</li> </ul>	<ul style="list-style-type: none"> <li>- Seed suppliers</li> <li>- Machine manufacturer</li> <li>- Other advisors</li> <li>- Policy makers</li> <li>- Journalists</li> </ul>

- At the classical demonstrations local and regional farmers meet and interact with both colleagues and advisors discussing demo examples, own practices and other less associated topics. RUC will document this classical knowledge sharing model.
- Both the satellites and the farmers group is facilitated by RUC without the presents of advisors following farmers traditions, rules and norms for crop mixture adaptation – including possibilities and barriers for increased use.

## 3. The crop mixtures in the MAP

- **Demonstration:** Catch crop species (oilseed, vetch, oat) are mixed and sown in a randomized field plot design on three farms. Subsequent crop effects are monitored. According to advisor/farmer suggestions additional strips are added.
- **Satellites:** A mixture of 6 species (pea, clover, serradella, phacelia, grass and vetch) is used to challenge farmers perceptions

**Crop mixture:** Spring barley undersown (relay intercropping seeded mid May) with GMSR catch crop mixture before harvest (Early August). The strategy is based upon three main principles: i) minimum tillage and soil disturbance, ii) permanent soil cover and iii) crop diversification. Catch cropping regulations focus on nitrate leaching prevention but some farmers realize the biological tillage ability combined with nutrient conservation and carbon sequestration as other services.



**4. Next steps:** 1st interview with the satellite farmers. Establishment of a farmers group on species mixtures. MAP demonstrations on relay intercropping seeding and on-demand. Follow-up satellite farmers. First farmer group workshop.

