



Harvesting and separating crop mixtures: yes we can!

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Redesigning European cropping systems based on species mixtures

Harvesting and separating crop mixtures yes we can!

Project start date: May 1st 2017

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A wide variety of species mixtures



Sown at
the same
time or
not



Harvested
at the
same time
or not



A sale
crop with
a service
plant



Grains
for food



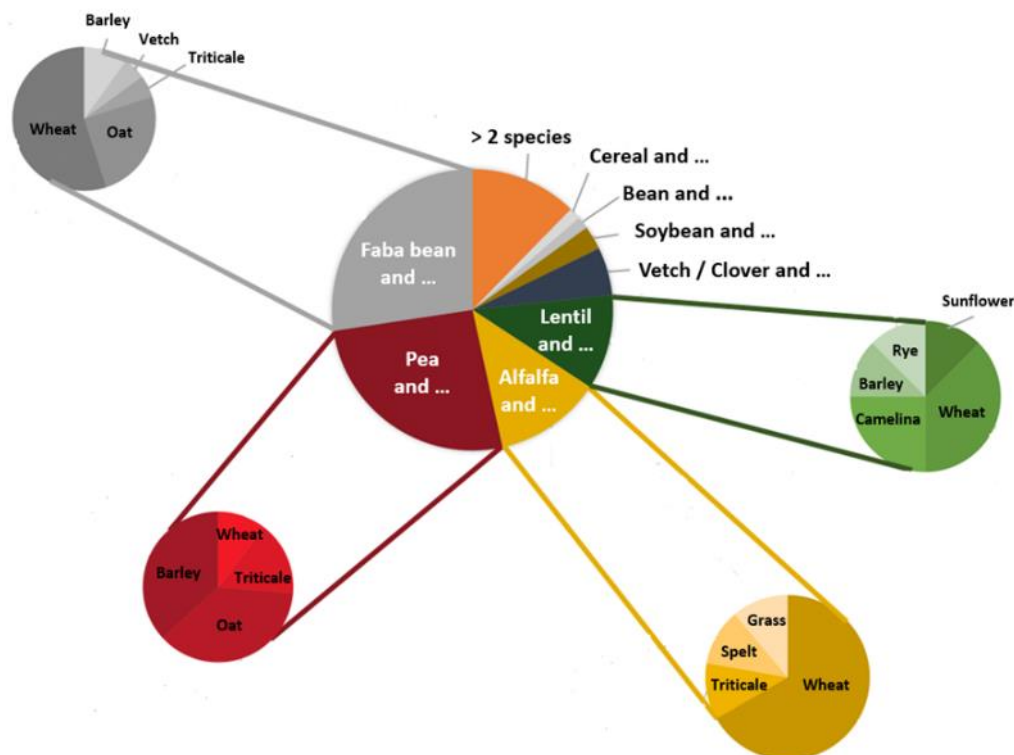
Grains
for feed



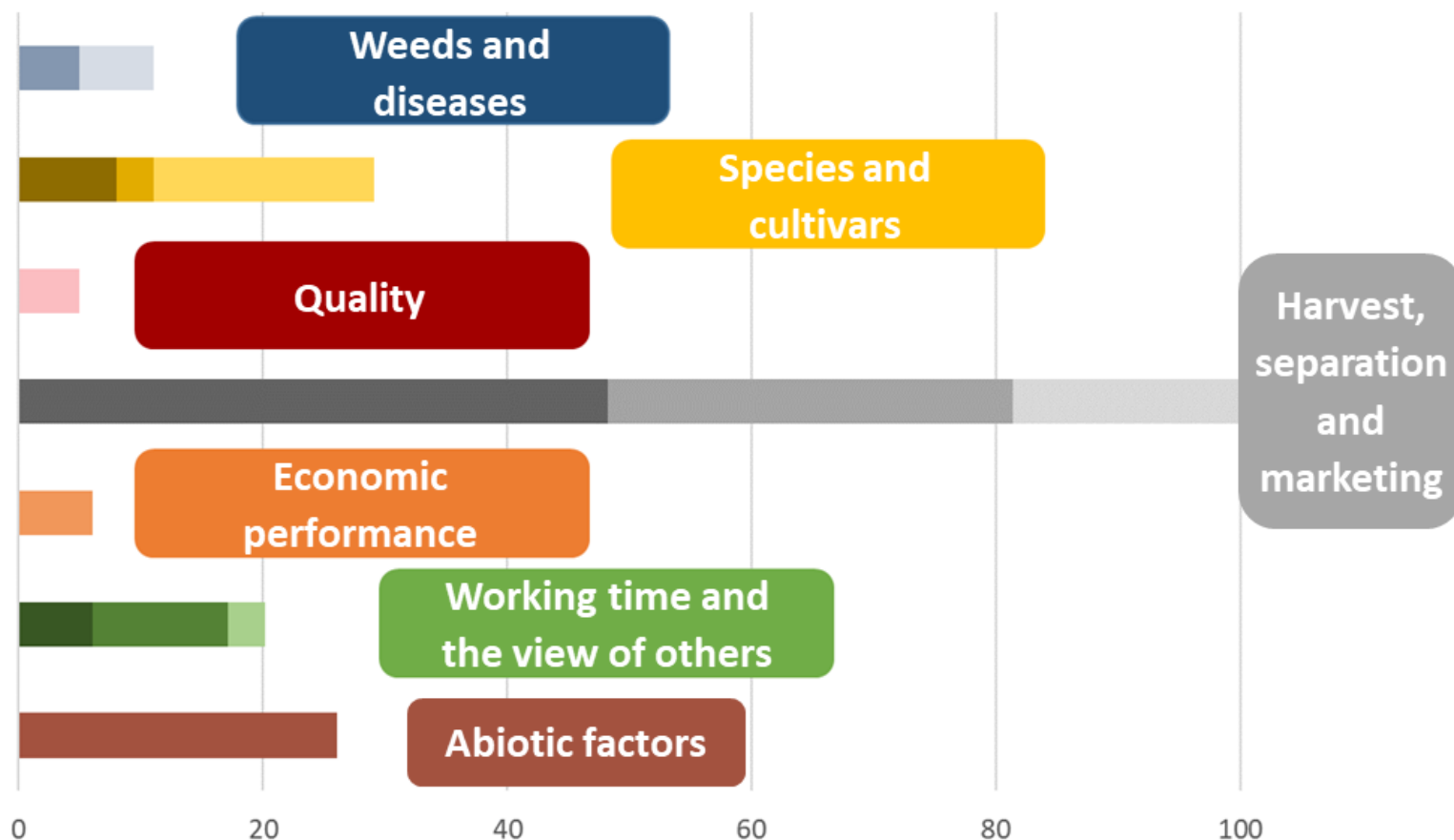
Fodder



Ecosystem
Services



Harvesting and sorting are the main obstacle for farmers (sowing to a lesser extent)



How to sow species mixtures? Marginal innovations but no real breakthrough

Mixing grains at sowing



Sowing in a developed crop



Structuring the stand



Sowing complex mixtures



How to harvest species mixtures?

All at once with low quality constraints



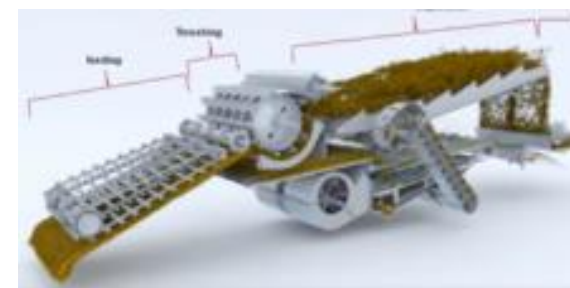
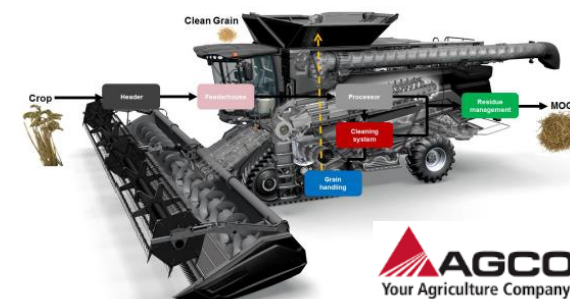
All at once with high quality constraints



In two stages



Adapting the existing
but not new machines



How to separate species mixtures?

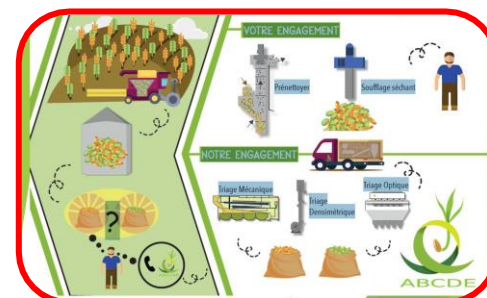
Low constraints
and low added value



High constraints
and high added value

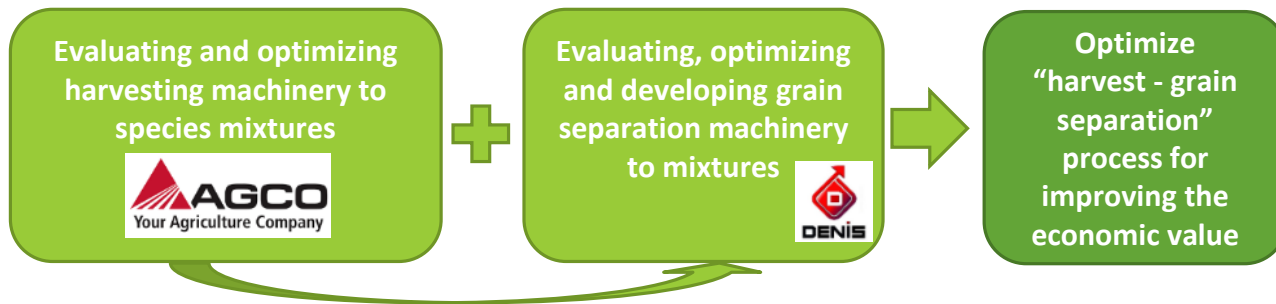


High constraints
and moderate added value



No expected revolution in methods
(we know how to separated everything...all is a question of cost)

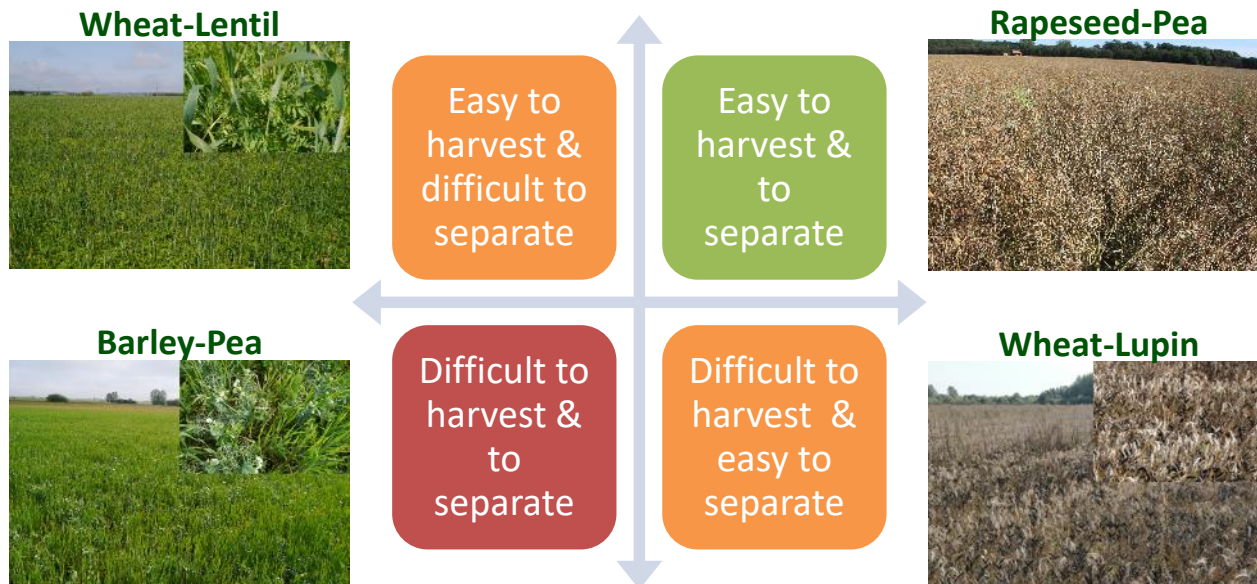
Test existing harvest and separation machinery to improve the value



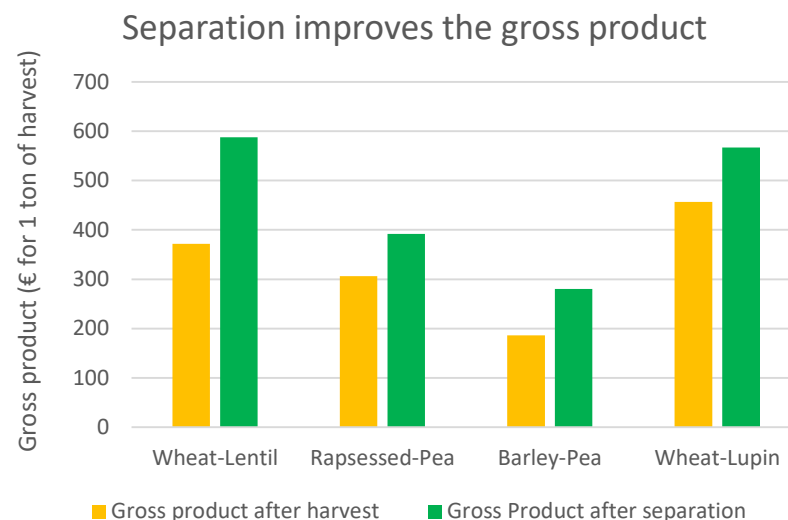
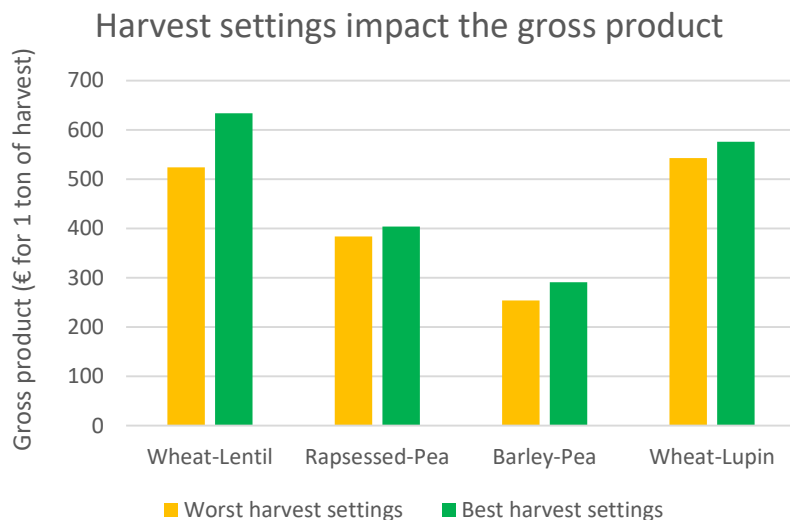
Make the separation easier

"What is easy to separate is often hard to harvest"

Need for a compromise



Optimizing harvest and separation improve the economic value



Policy recommendations

- **No need for an immediate revolution**
 - Training farmers for a better use of these machines
 - Support development and purchase of grain separators
 - small-scale size for use at the farm
 - large-scale for grain buyers
- **Need for a multi-actor approach**
 - Support farmer's collective
 - Support collectors to reorganising their logistic
 - Redesign agrifoodchain and requirements for “purity”





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