

# Pre-competitive Research on Gene bank material in the Netherlands



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European Plant Genetic Resources Conference 2011, Wageningen



# Cooperation between the plant breeding industry and the Centre for Genetic Resources in the Netherlands



- Financial support for building up collections (collection missions etc.)
- Contributions to collections in the form of company breeding products
- Sharing of technical know-how in crop advisory groups
- Multiplication of accessions
- **Pre-competitive Research:  
Collaborations to evaluate gene bank material**



# Genetic Resources: Pre-competitive Research

New germplasm is needed because new traits are desired:

- by consumers (taste, convenience etc.)
- by the processing industry (shelf life, commodity market, new processing techniques etc.)
- by the grower (new growing techniques, new pest resistances, demands for lower input etc.)



# Genetic Resources: NEW TRAITS

## Convenience food for consumers



**intense**

World's first  
**non-leaking  
tomatoes**



# Genetic Resources: NEW TRAITS

## New processing techniques



**multileaf**®



when every leaf counts

# Genetic Resources: NEW TRAITS

## New growing techniques

### Compact Generation



# Genetic Resources: Pre-competitive Research

Reasons to join forces in a collaboration:

- Traits with a complex genetic background (e.g. chemical composition in tomato, digestibility in feed crops)
- Traits that are difficult to measure (e.g. taste in tomato, Nasonovia-resistance in lettuce)



# Genetic Resources: Pre-competitive Research

Reasons to join forces in a collaboration:

- Traits that are rare (e.g. new resistances against Peronospera in spinach)
- Traits that are urgently needed (e.g. CGMMV resistance in cucumber, Bremia-resistance in lettuce)





# Genetic Resources: Pre-competitive Research



## Advantages:

- Bigger collections can be screened
- More reliable results by duplicate tests
- Cost sharing for complex and expensive research
- More efficient use of the seed stocks



# Genetic Resources: Pre-competitive Research

## Results:

- Improved chances of finding a new trait
- Improved speed to market, for the benefit of the grower

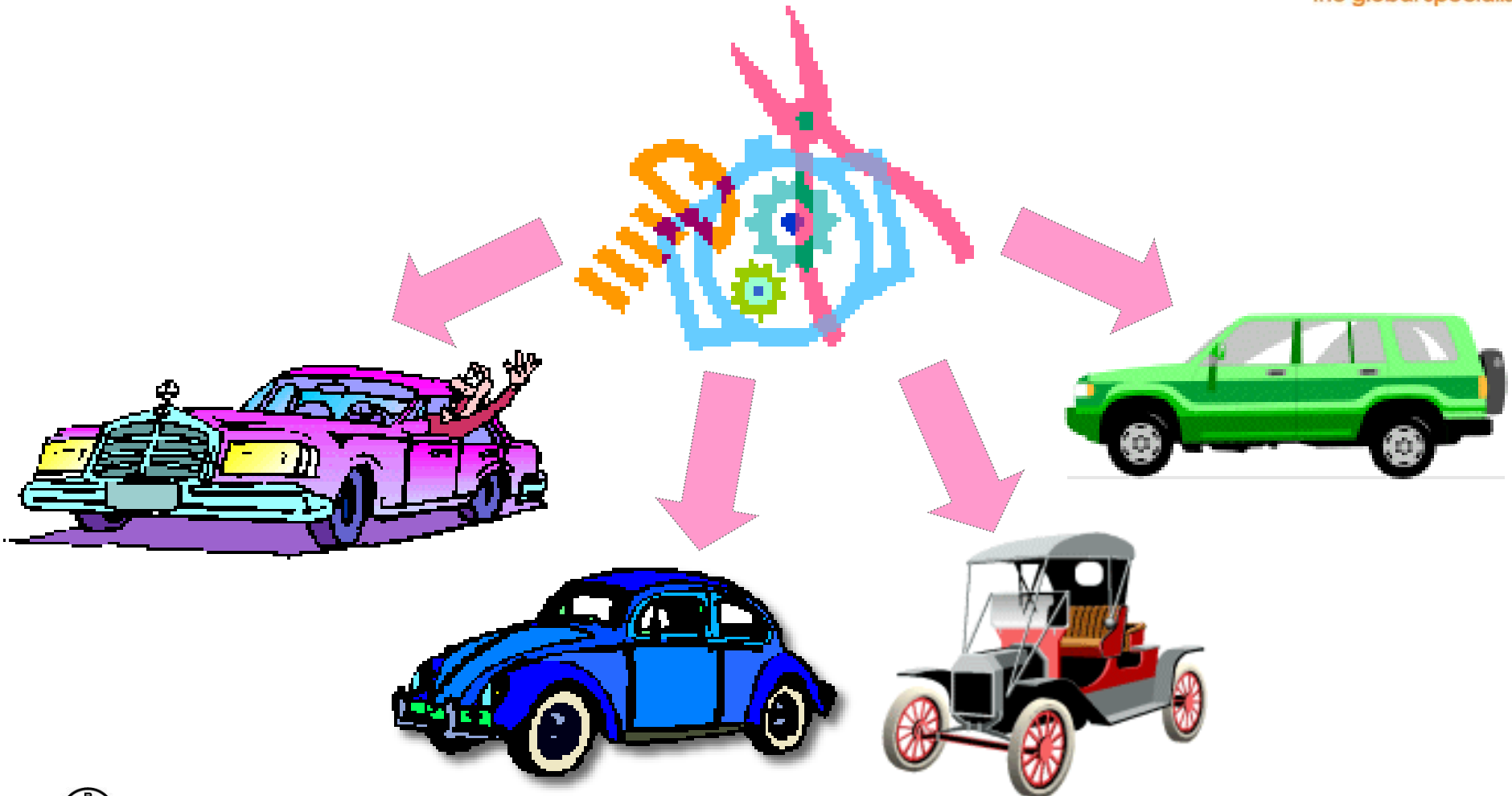


# Genetic Resources: Pre-competitive Research

## Organization:

- Coordination by Plantum:
  - Contracts
  - Administration
- CGN:
  - Supply of accessions (cultivated and wild)
  - Definition of test protocols
  - Collection and sharing of evaluation data
- Seed companies:
  - Input to define the most important targets
  - Input of technical knowledge to define the test protocols
  - Execution of the tests

# Genetic Resources: joined efforts to find new traits



Thank you very much  
for your attention.

