

Coexistence of Genetically Modified, Conventional and Organic Crops - Freedom of Choice

Vienna, 4 - 6 April 2006

„Coexistence – the Seed Industry’s views and experiences”



Garlich von Essen
Secretary General
ESA European Seed Association



ESA Mission Statement

ESA's mission is to work for:

- ✦ effective protection of intellectual property rights relating to plants and seeds;
- ✦ **fair and proportionate regulation** of the European seed industry;
- ✦ **freedom of choice for customers** (farmers, growers, industry, consumers) in supplying seeds as a result of innovative, diverse technologies and production methods.

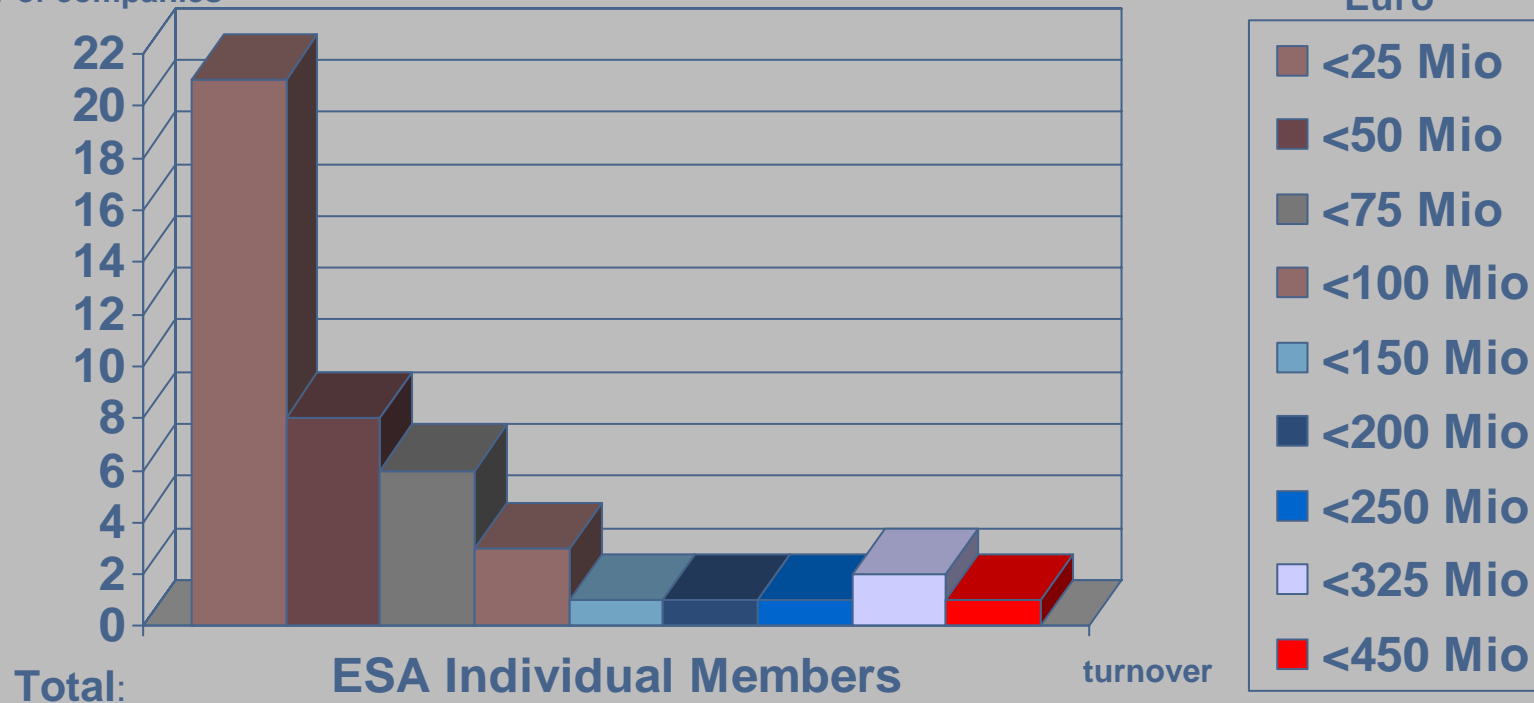


ESA's Membership - SMEs at the core: the structure of the European Seed Industry

33 National Association Members from 19 EU Member States
(> 400 companies in plant breeding, seed production and marketing)

41 Individual Members:

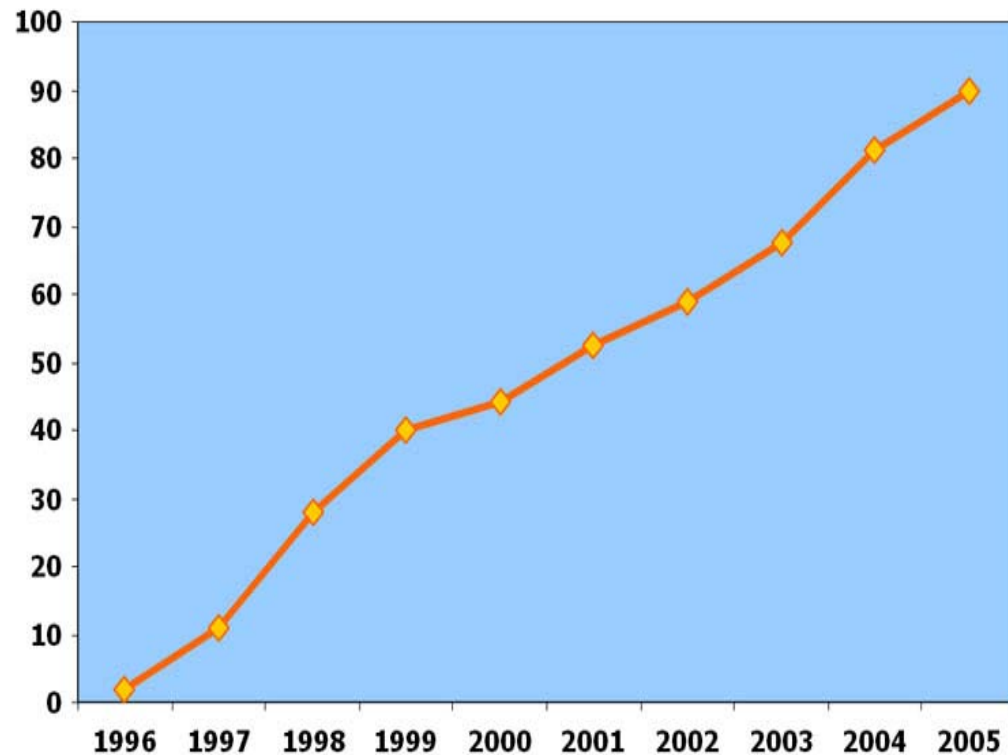
Number of companies





Coexistence in today's crop production

Global Area (Million Hectares)
of Biotech Crops,
1996 to 2005



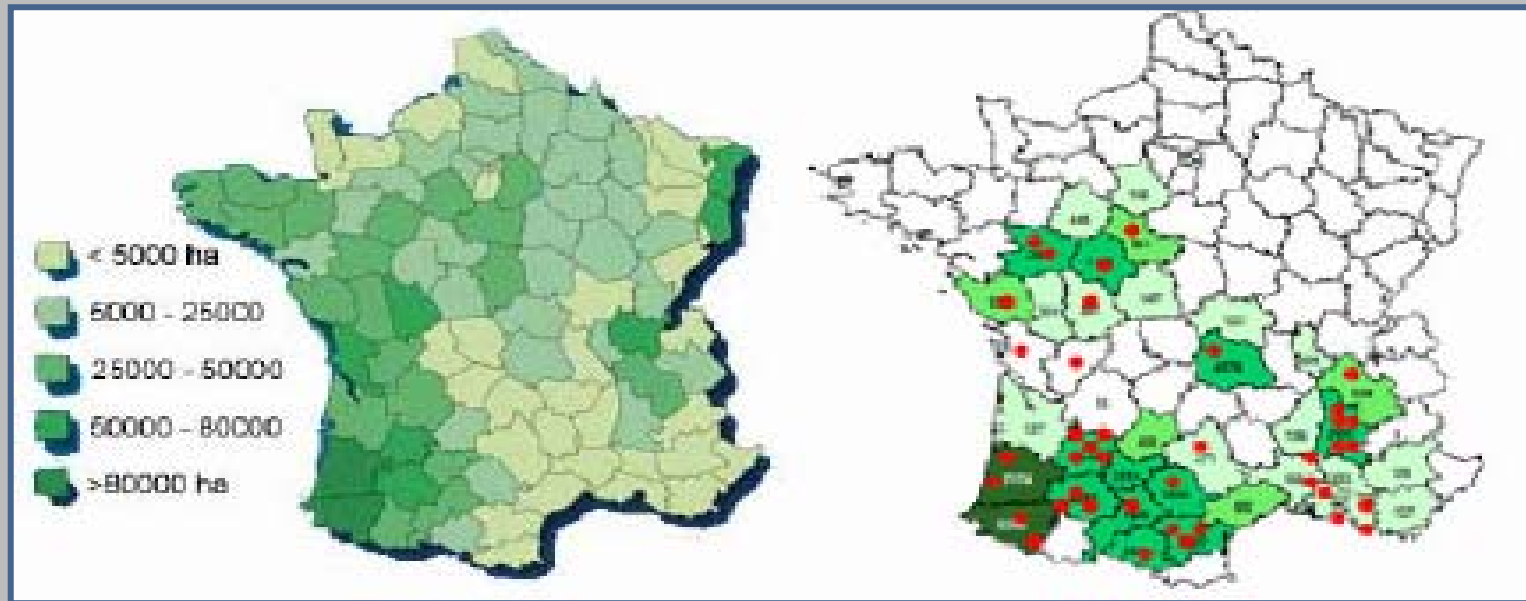
Source: Clive James, 2005

Countries with GM crop plantings 2005

USA	Argentina
Brazil	Canada
China	Paraguay
India	South Afr.
Uruguay	Australia
Mexico	Romania
Philippines	Spain
Colombia	Iran
Honduras	Portugal
Germany	France



Coexistene in today's seed production



maize crop production intensity

maize seed production intensity

● seed production facilities

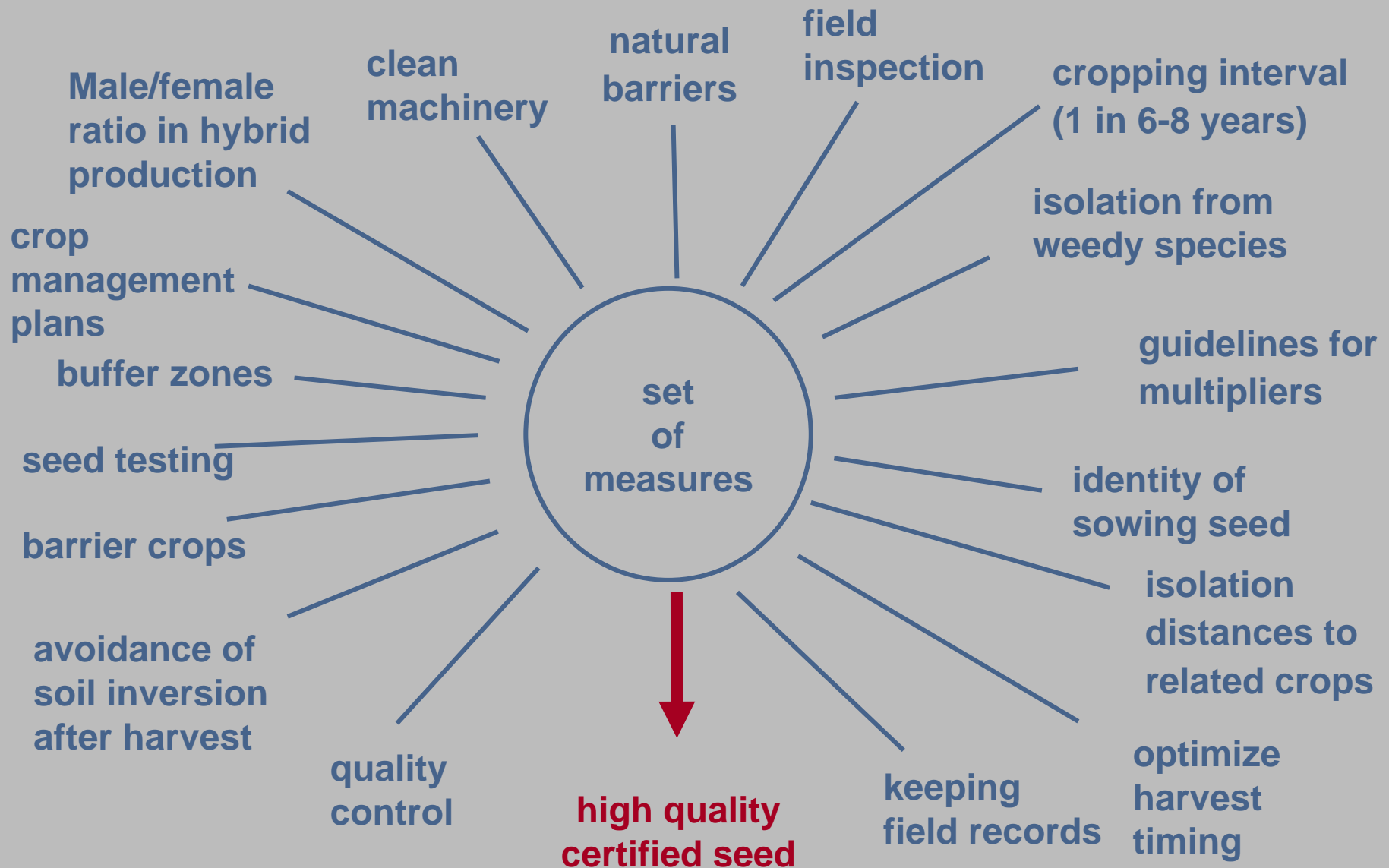
source: Kalaitzandonakes, N., Univ. of Missouri, 2005
(publication in preparation)

Varietal choice – a proof of coexistence:

24th edition of EU Common Catalogue: **3.500** maize varieties



Seed industry's practice of Coexistence

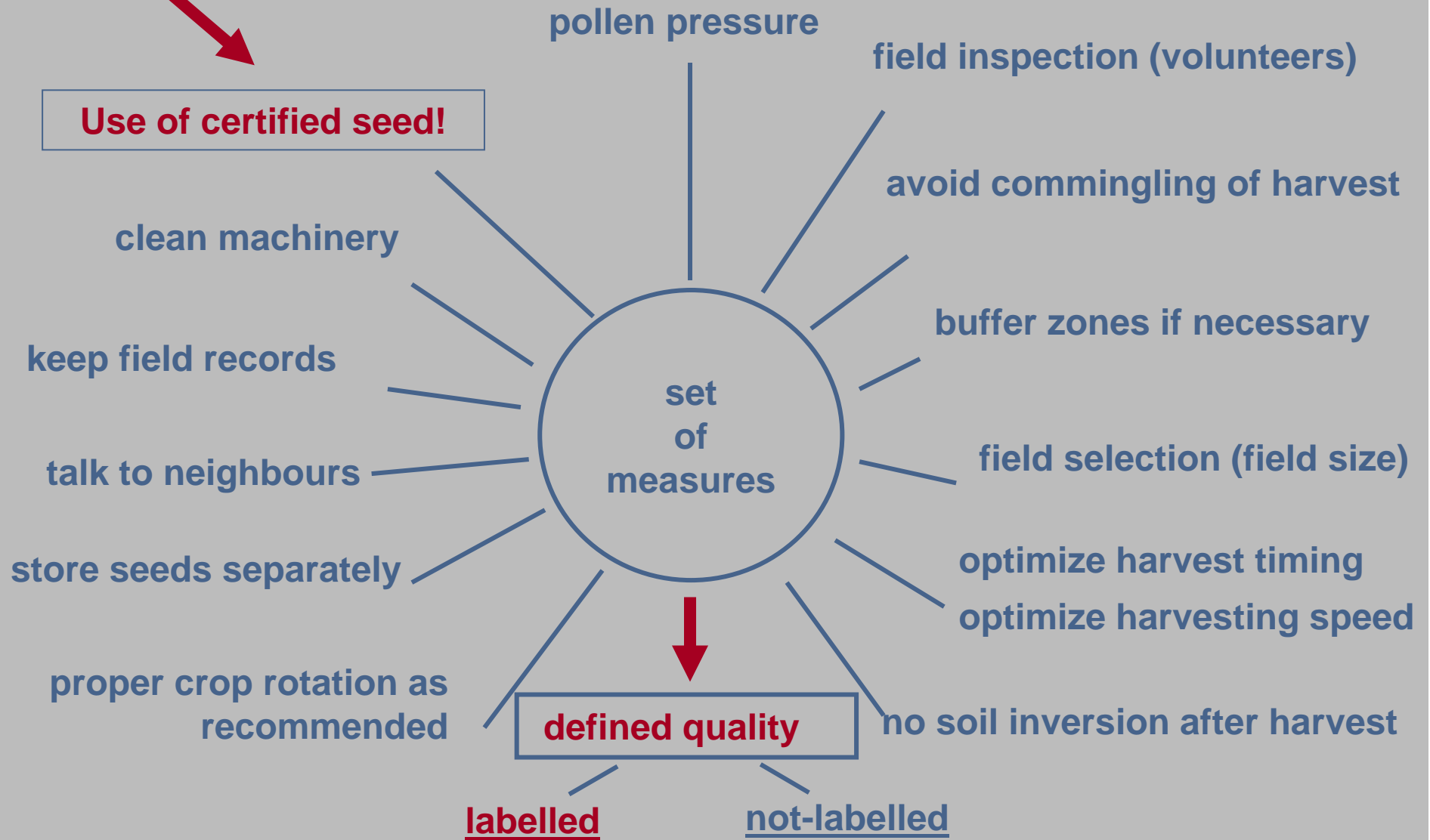




Assuring Coexistence in Crop Production



Use of certified seed!





Making Coexistence work

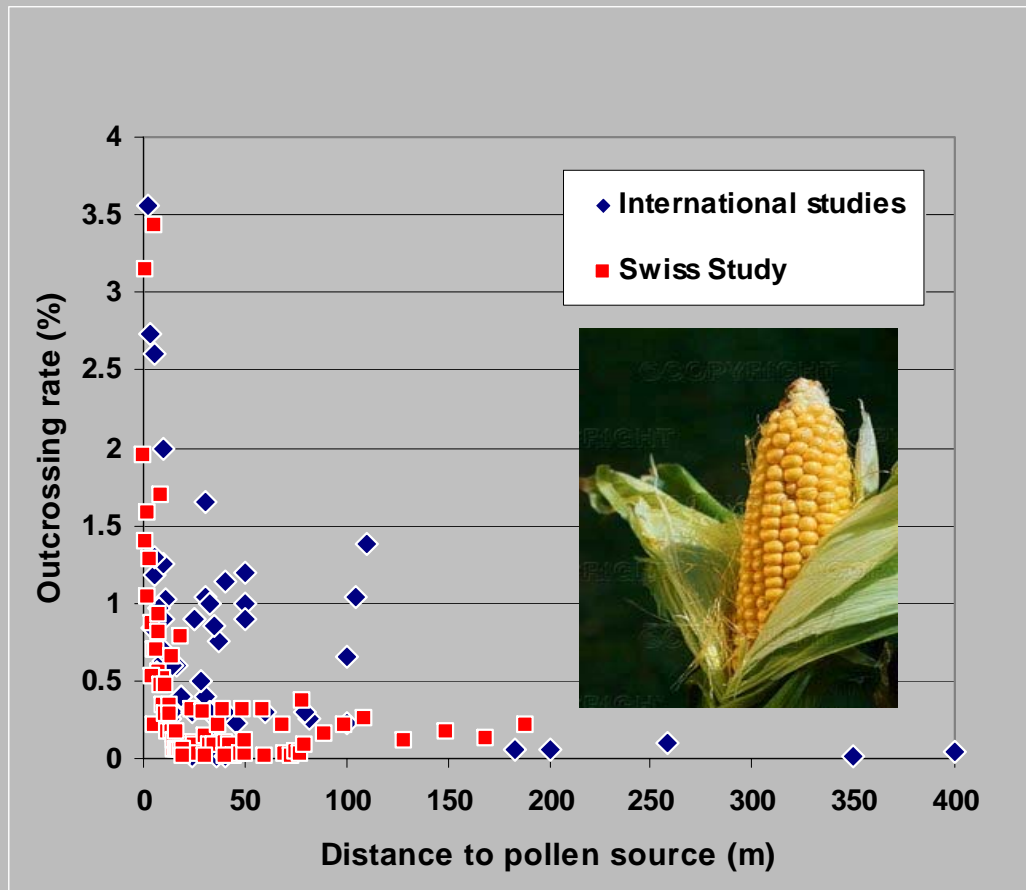
The European Seed Industry demands:

- ▶ Access to and use of modern biotechnology in plant breeding and variety development
- ▶ Economically competitive and biologically practical GM thresholds for seed production
- ▶ Access to approved GM varieties for all farmers who wish to use them
- ▶ Non-discriminatory policy of Coexistence
- ▶ **Thresholds are a key to workable Coexistence!**



Pollen dispersal, outcrossing, isolation distances

Analysis of available gene flow data in maize:



Source of data:

Twelve recent international studies plus unpublished data from a Swiss study:

APROSE & IRTA - Spain

BBA & Erprobungsanbau – Germany

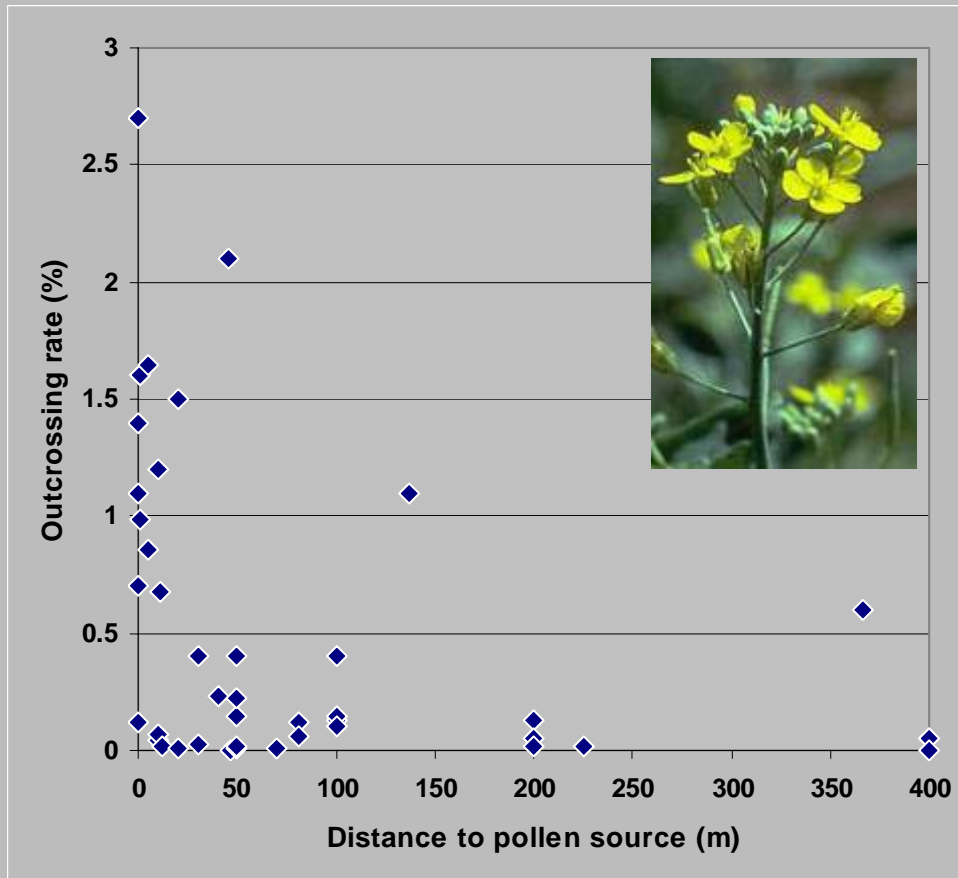
POECB - France

Farm Scale Evaluations - UK



Pollen dispersal, outcrossing, isolation distances

Analysis of available gene flow data in fertile oilseed rape:



Source of data:

Eleven recent international studies

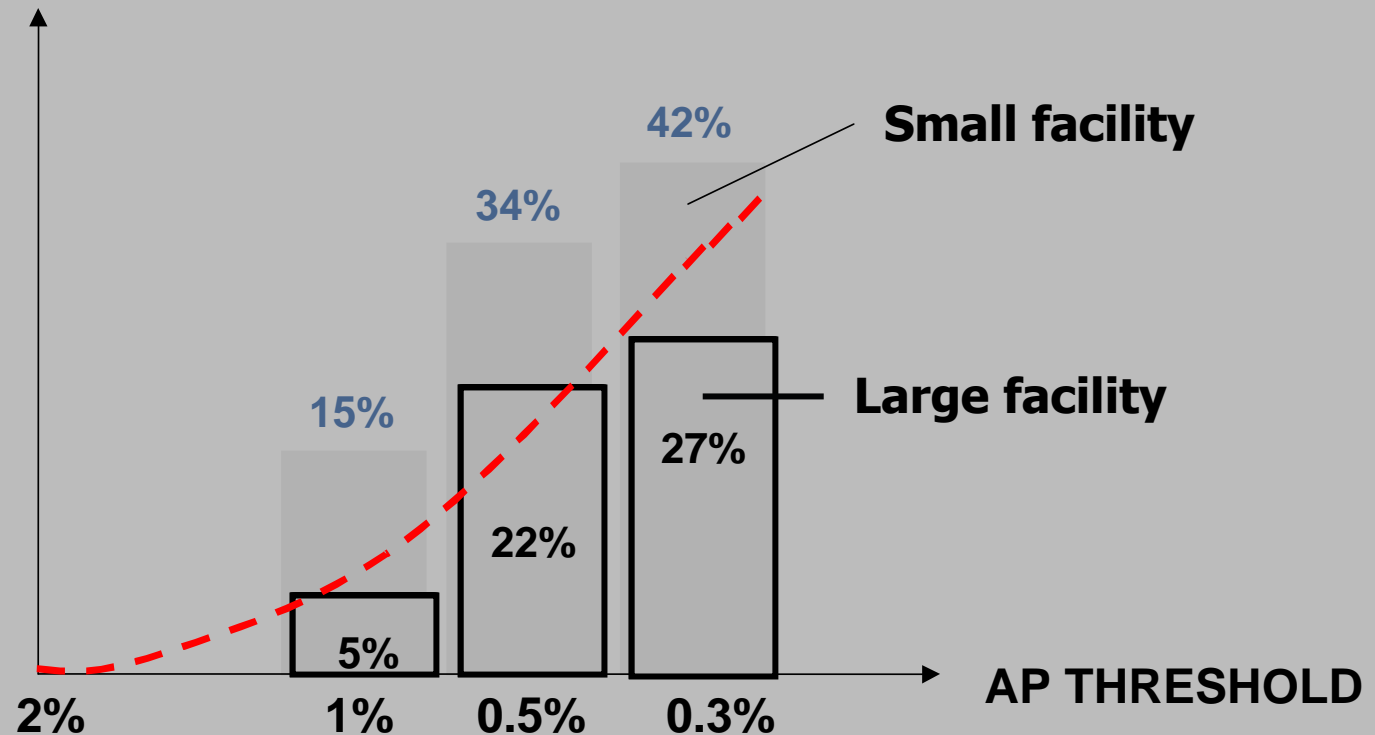
Result:

Beyond 50 metres, the AP rate is below 0.5 % at the field border



Costs of Thresholds for Seed - Results from a study in the **US**

**INCREMENTAL
COSTS**
(% increase
over baseline)

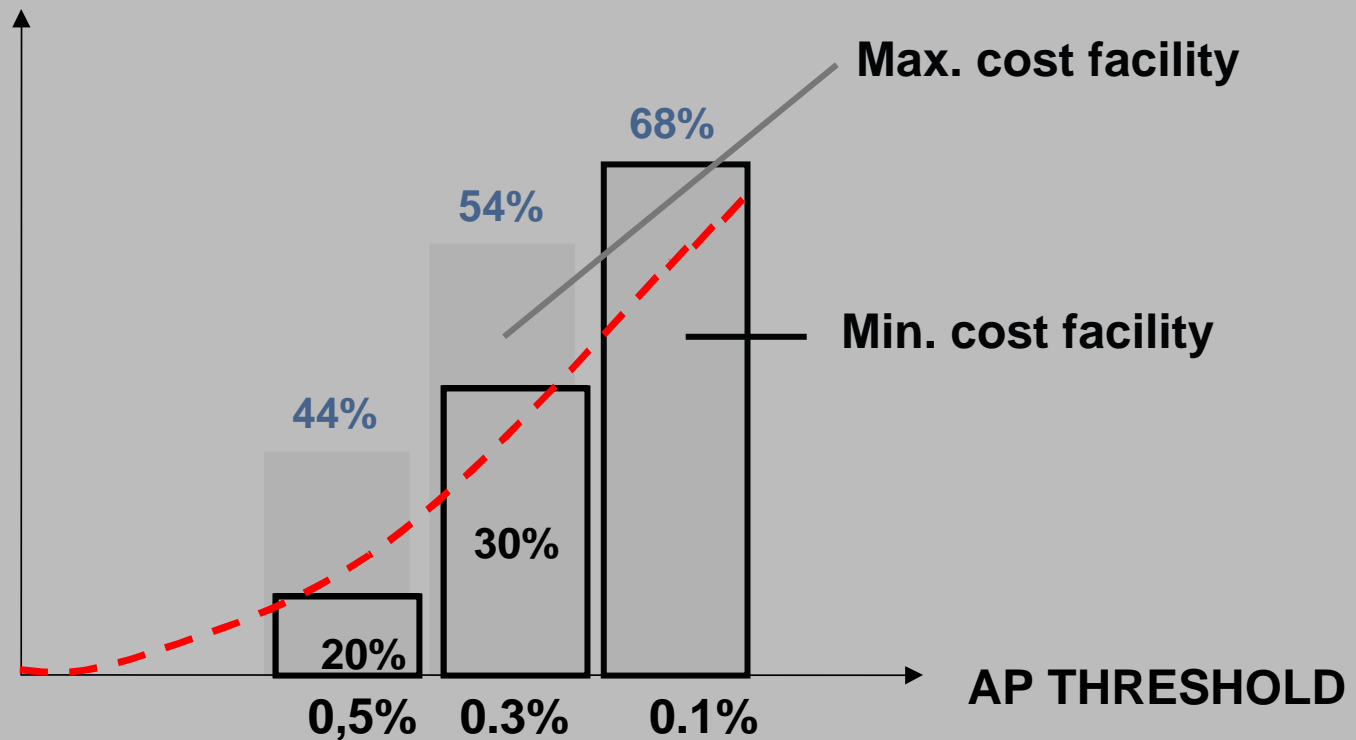


**Incremental costs for various AP thresholds (maize):
The case of two representative facilities in the Midwest**



Costs of Thresholds for Seed - Results from a study in the EU

**INCREMENTAL
COSTS
(% increase
over baseline)**

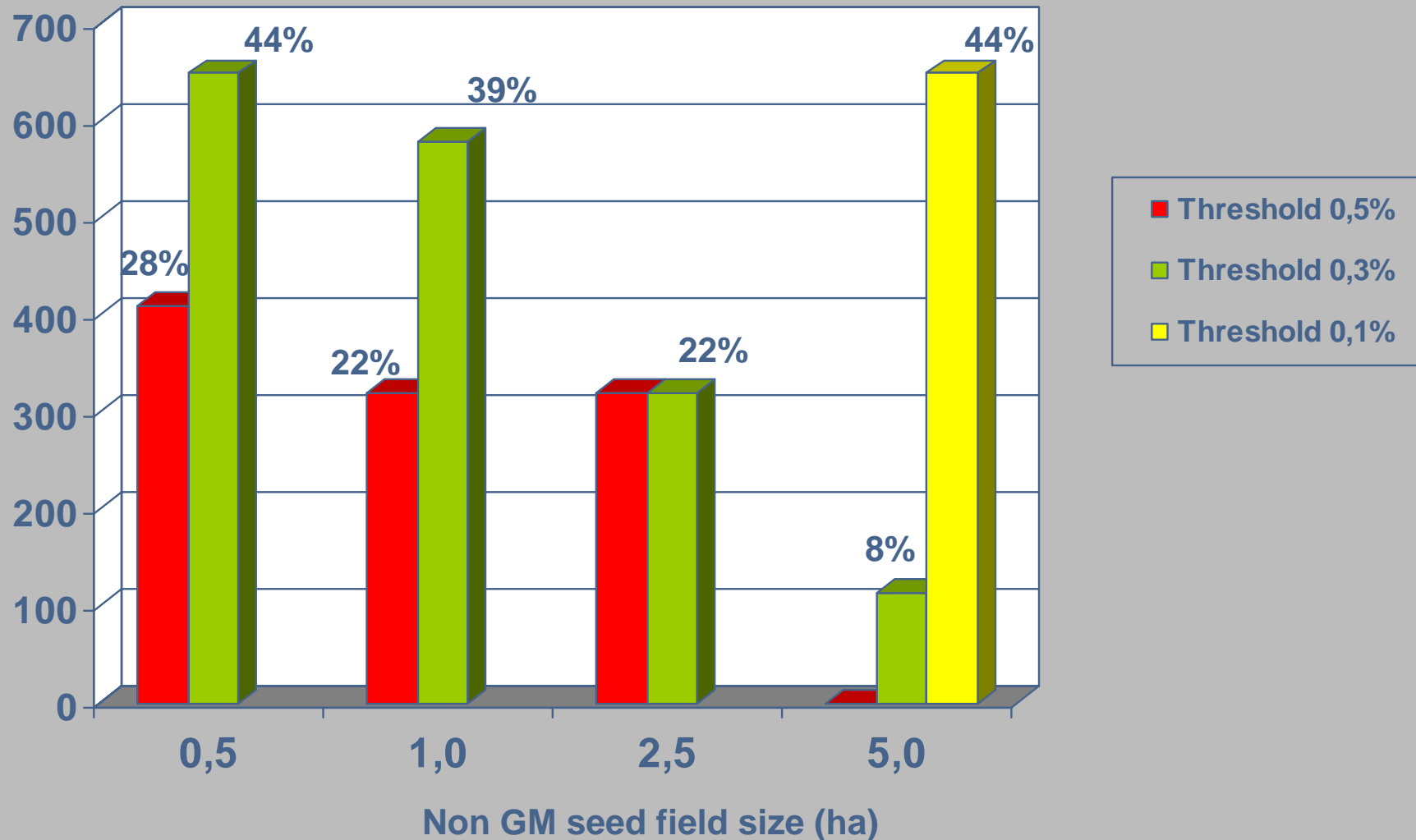


**Incremental costs for various AP thresholds (maize):
Empirical results from the EU**



Gross Margin Losses for different Thresholds and Field Sizes in Maize Seed Production (downwind)

Gross Margin Losses (€/ha)





Conclusions

- ▶ **Thresholds for seed are required as an integral part of Coexistence policy**

- ▶ **Any seed threshold level results in higher seed costs**

- ▶ **Threshold levels and isolation distances other than required to comply with the 0.9% labelling threshold are**
 - ▶ **discriminatory and disproportionate**
 - ▶ **an unnecessary competitive disadvantage**



ESA's view:

Coexistence is feasible.

Let's start – **now!**