

Importance of plant variety protection for technology transfer in the seed sector

› *The case of Uruguay – with focus on forage crops*



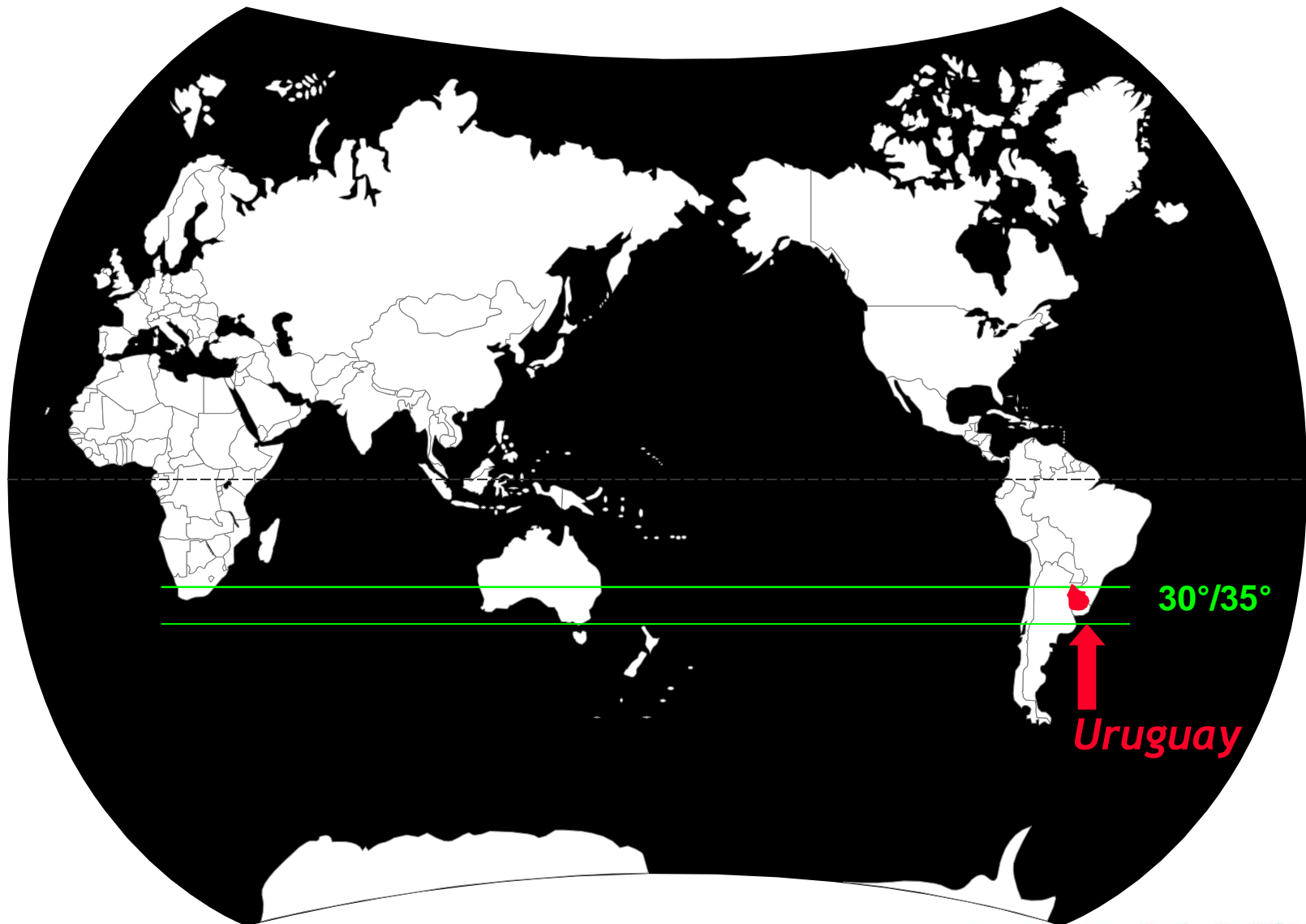
Diego Risso

UPOV Seminar

April, 2011



Location in the world



30°/35°
Uruguay

Uruguay, at a glance

Population: 3.3 millions

Total Surface: 17.3 million Ha

Productive Surface: 15.7 million Ha (90%)

Number of Farms: 50.000

Density: 5.5 ha/person

Main production goods:

- ✓ Beef
- ✓ Dairy
- ✓ Grains
- ✓ Wool



Legal Framework & Seed Regulations



Origin and development of PPR

UPOV – '78 Act	1994
TRIPs / GATT - (WTO)	1995
Seed Act	Since 1981 16.811 / 97 18.345 / 09
Regulatory Decree	438 / 04 385/09

Institutions involved in the seed sector:

- › National Seed Institute (INASE)
 - › National Research Institute for Agriculture (INIA)
 - › Uruguayan Seed Chamber (CUS)
 - › Seed Producers Association (ANAPROSE)
 - › Uruguayan Breeders Association (URUPOV)
- 

At an international level Uy is member of:

- › UPOV
- › OECD
- › ISTA
- › IPPC

- › ISF
- › SAA

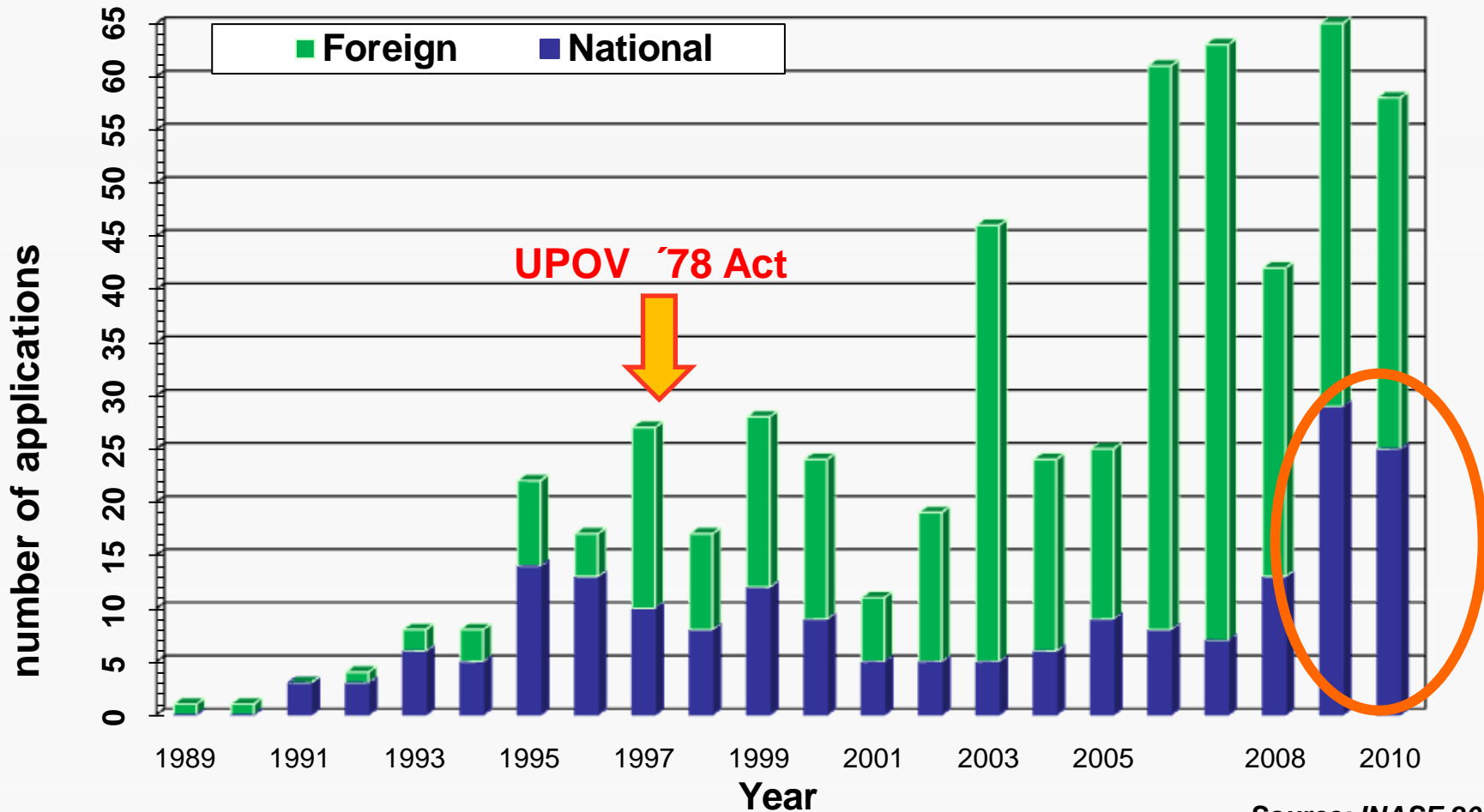
URUPOV: Who we are ?

- › Founded in 1994
- › Association with 33 members
- › Main activities:
 - › Collect royalties
 - › Enforcement
 - › Communication
 - › Advise and support to members



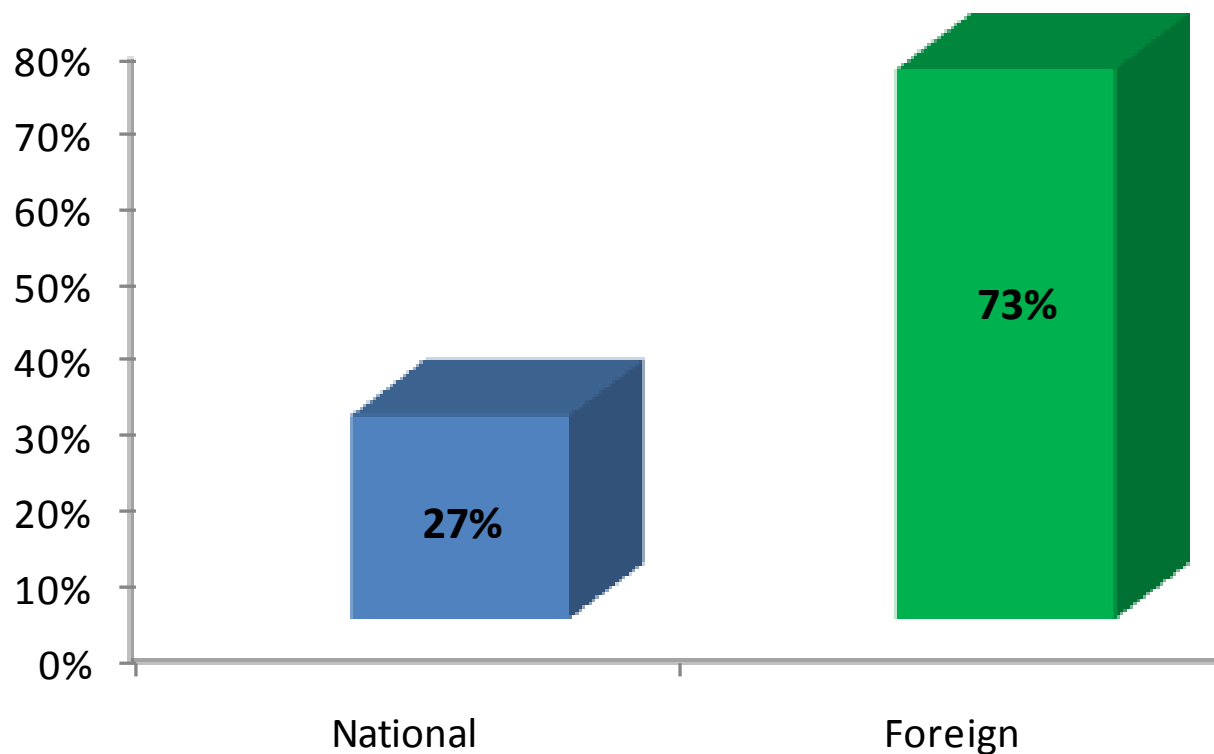
of applications evolution

National and Foreign varieties



Source: INASE 2010

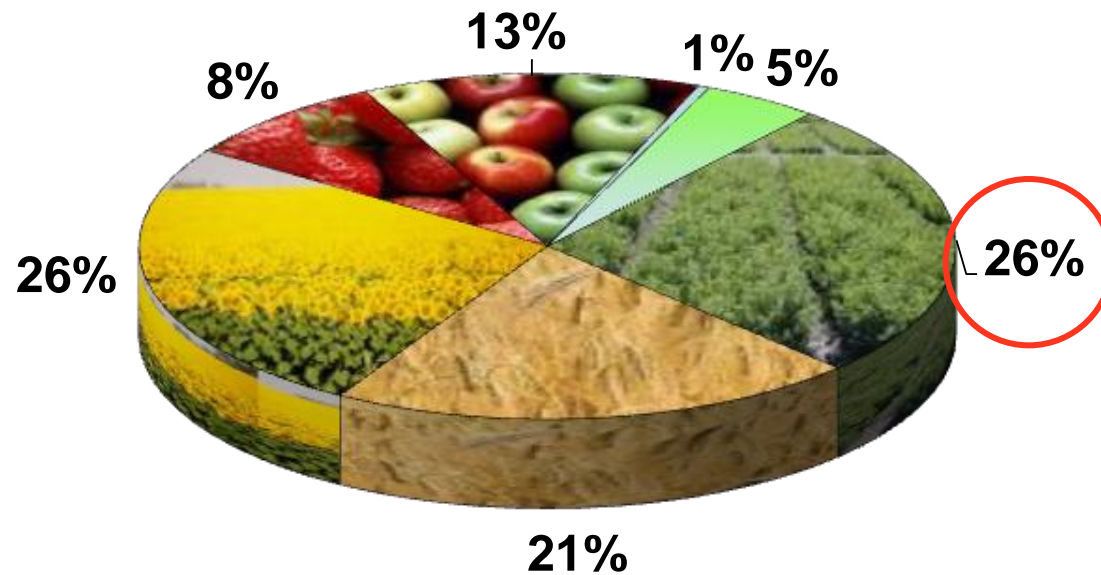
Protected varieties by origin



of Seed Co. same %

Base 100% = 454
Source: INASE 2010

Protected varieties by group of species



Forages Crops
 Cereals
 Oil crops
 Vegetables
 Fruit
 Other
 Forestry

Source: INASE 2010

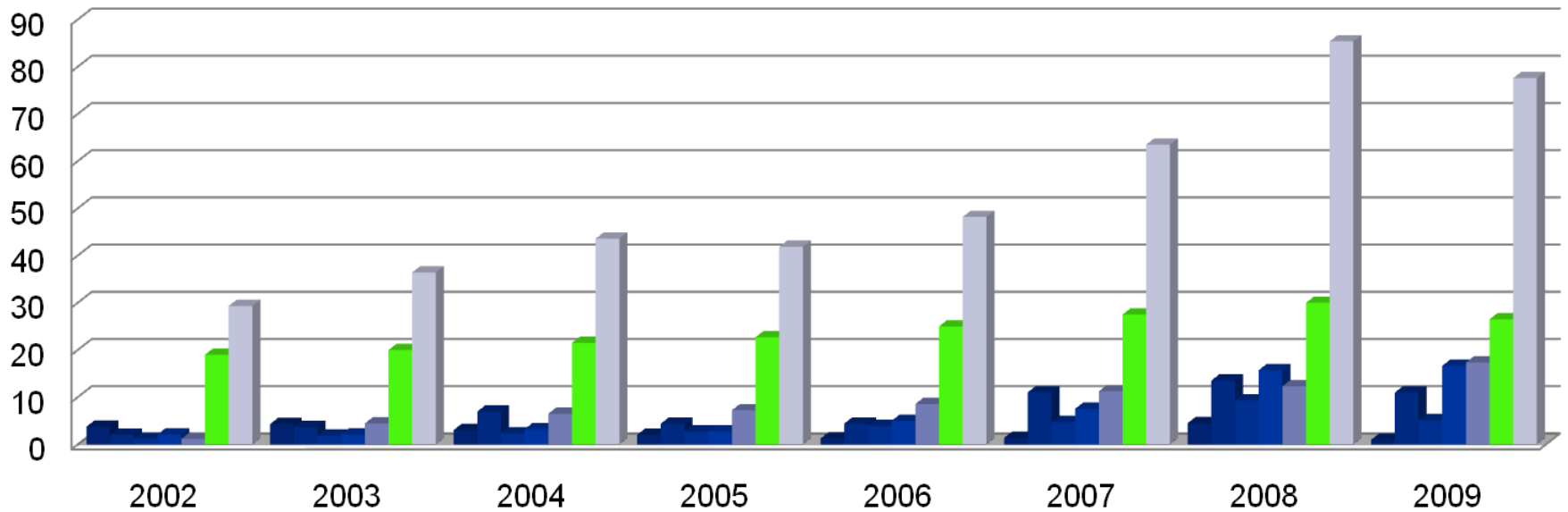
**If our main export product is
natural beef...**

we need to feed cattle with pastures



Seeds Market

U\$D million

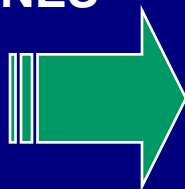


■ Sunflower
 ■ Maize
 ■ Sorghum
 ■ Wheat
 ■ Soybean
 ■ Forages
 ■ TOTAL

A “simple” system where PBR management and Technology Transfer are needed

INPUTS

- GERMPLASM
- GENES



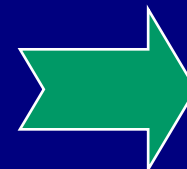
PROCESSES



BREEDING PROGRAMS

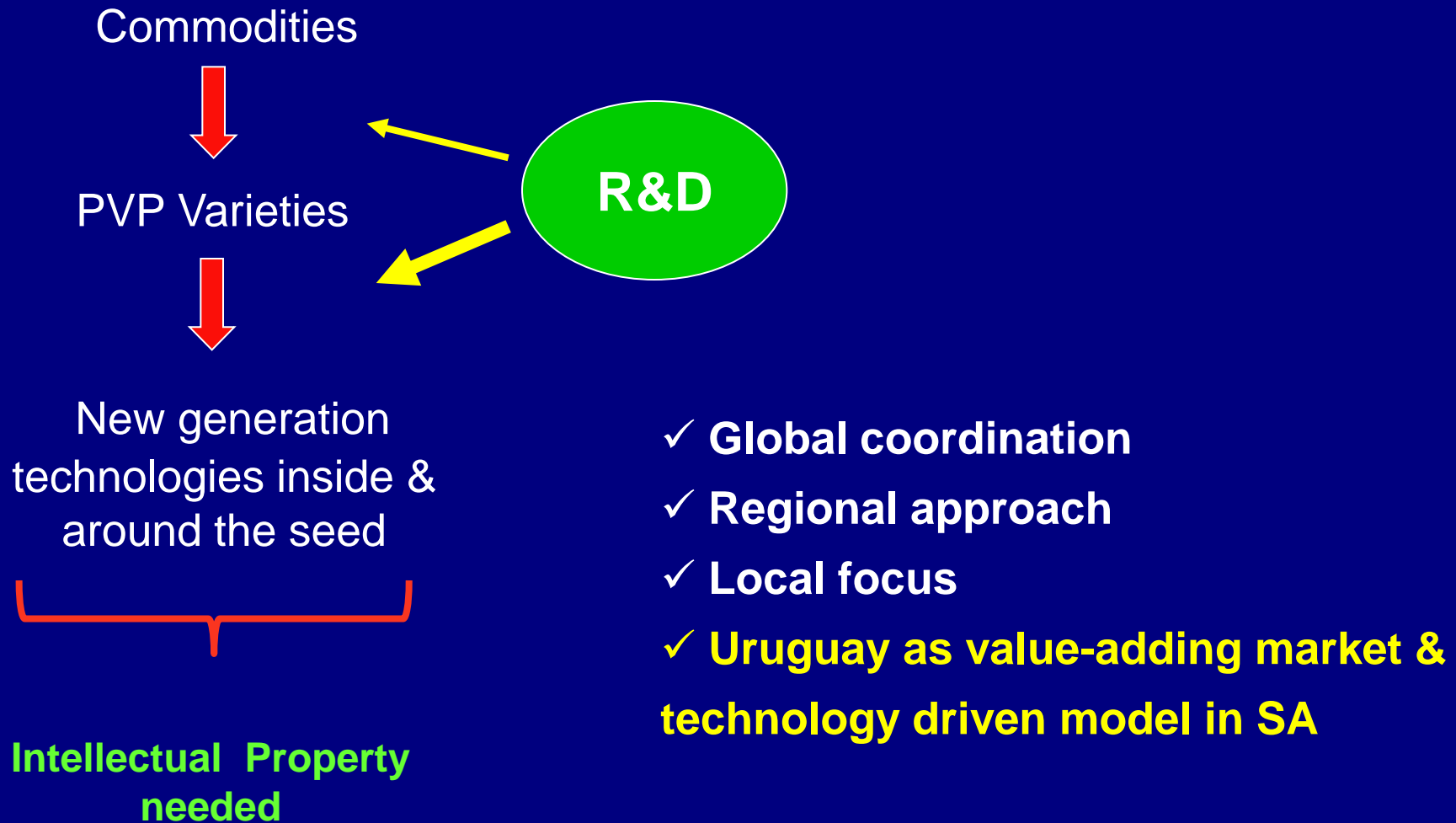


RESULTS



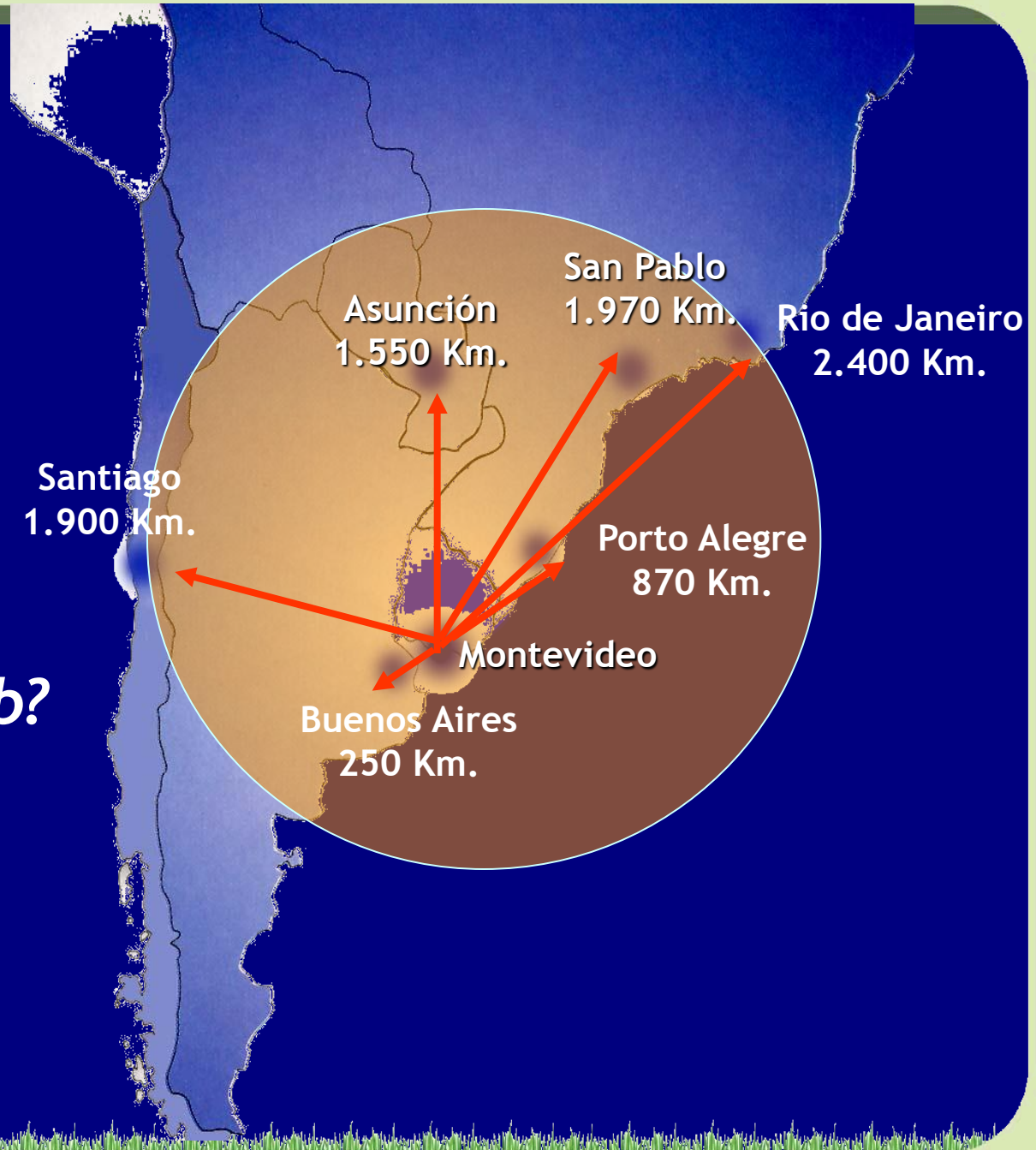
NEW VARIETIES

R&D Strategy for Market Development



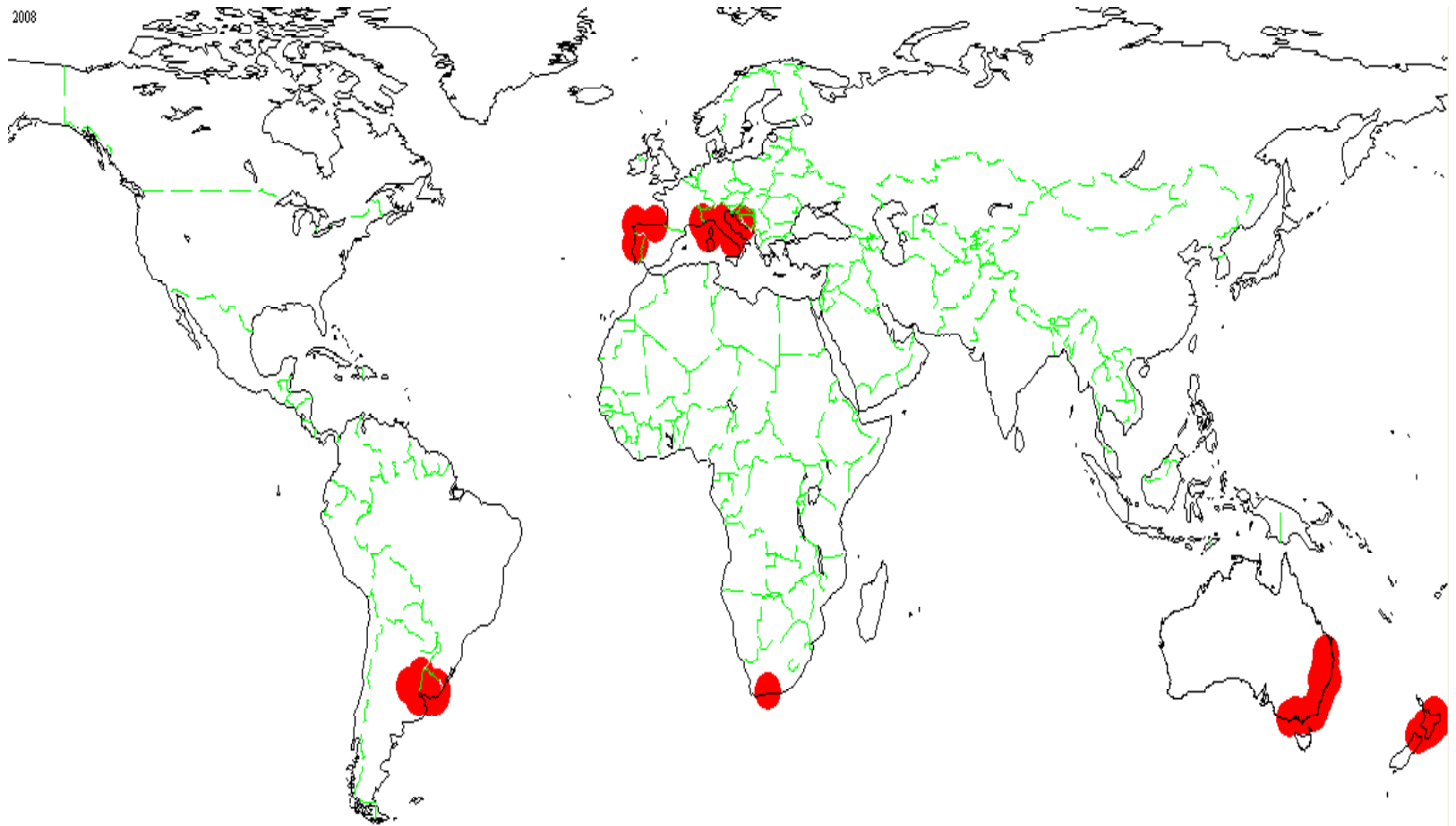
Strategic Location

Uruguay as a hub?

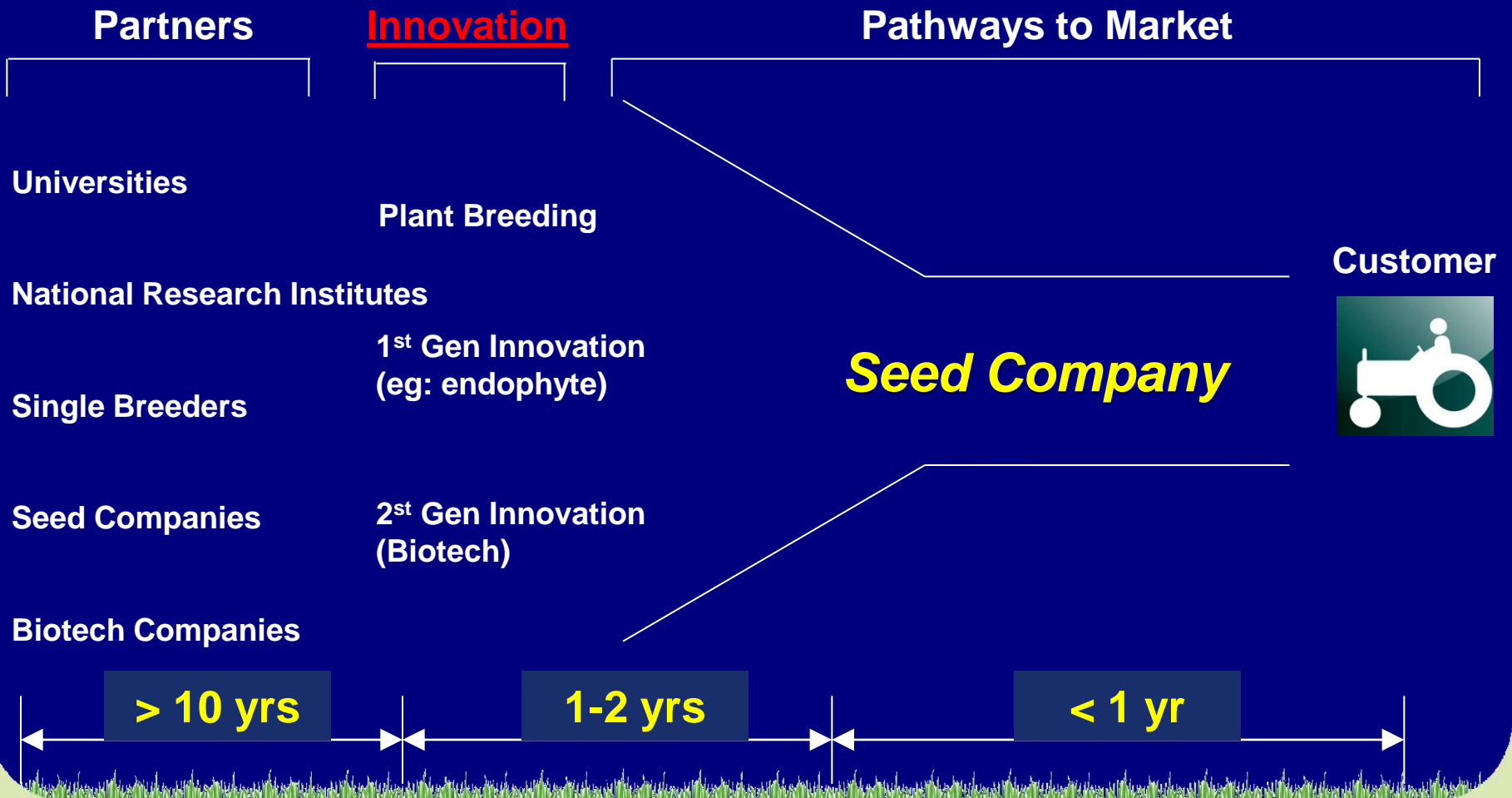


Climate Homologues Uruguay (for temperate pastures)

2008

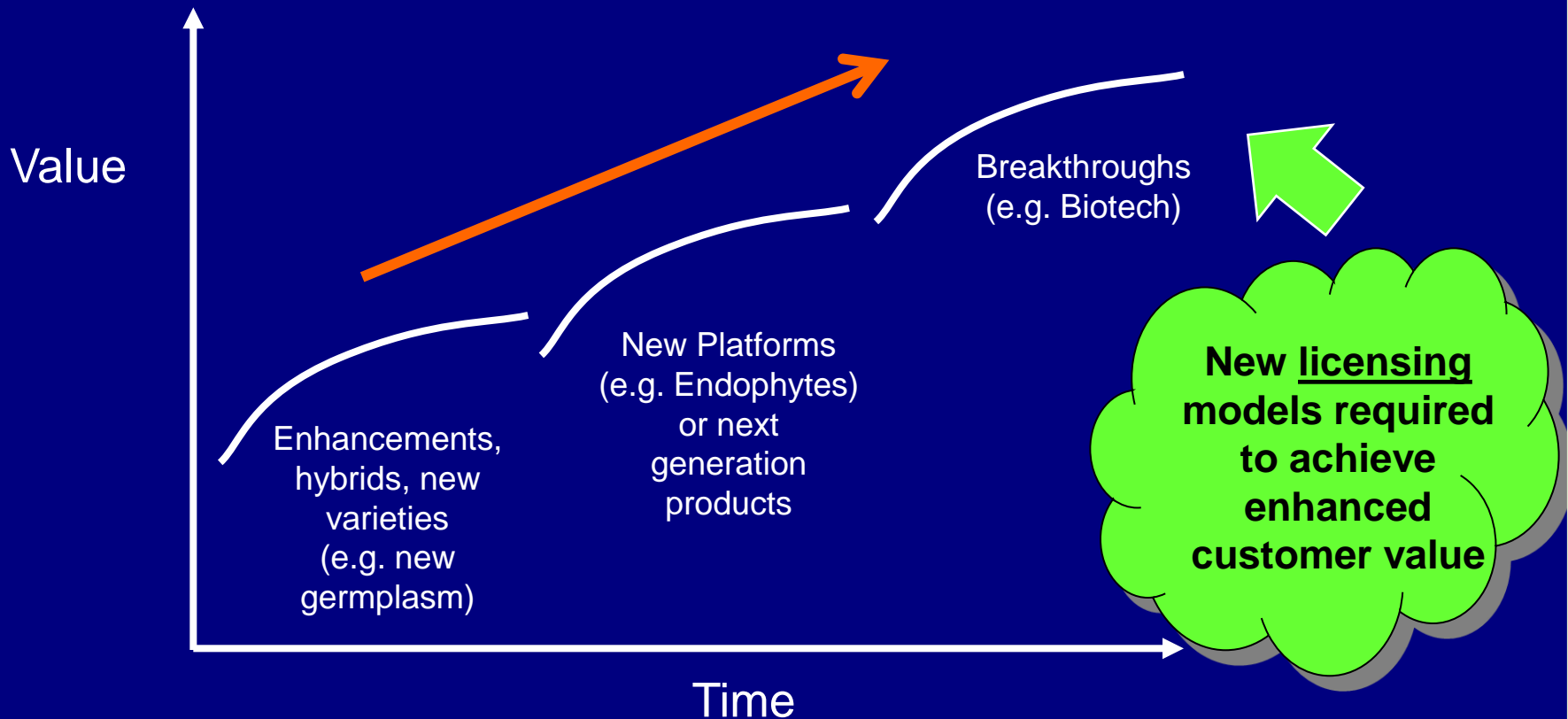


Creating Pathways to Markets



Long term investments are required to develop breakthrough technologies

Illustrative model



*To transfer technology is necessary to
manage PBR and use Licenses*

Key concepts for PBR Management and Technology Transfer

PVP application when the cultivar has a
potential for marketing

MANAGEMENT OF ALLIANCES

In public/private alliances (actors with different interests) the distribution of the benefits may be one of the main issues in the negotiation

In alliances, agreements may be considered in:

- technical issues
- economic issues
- political issues

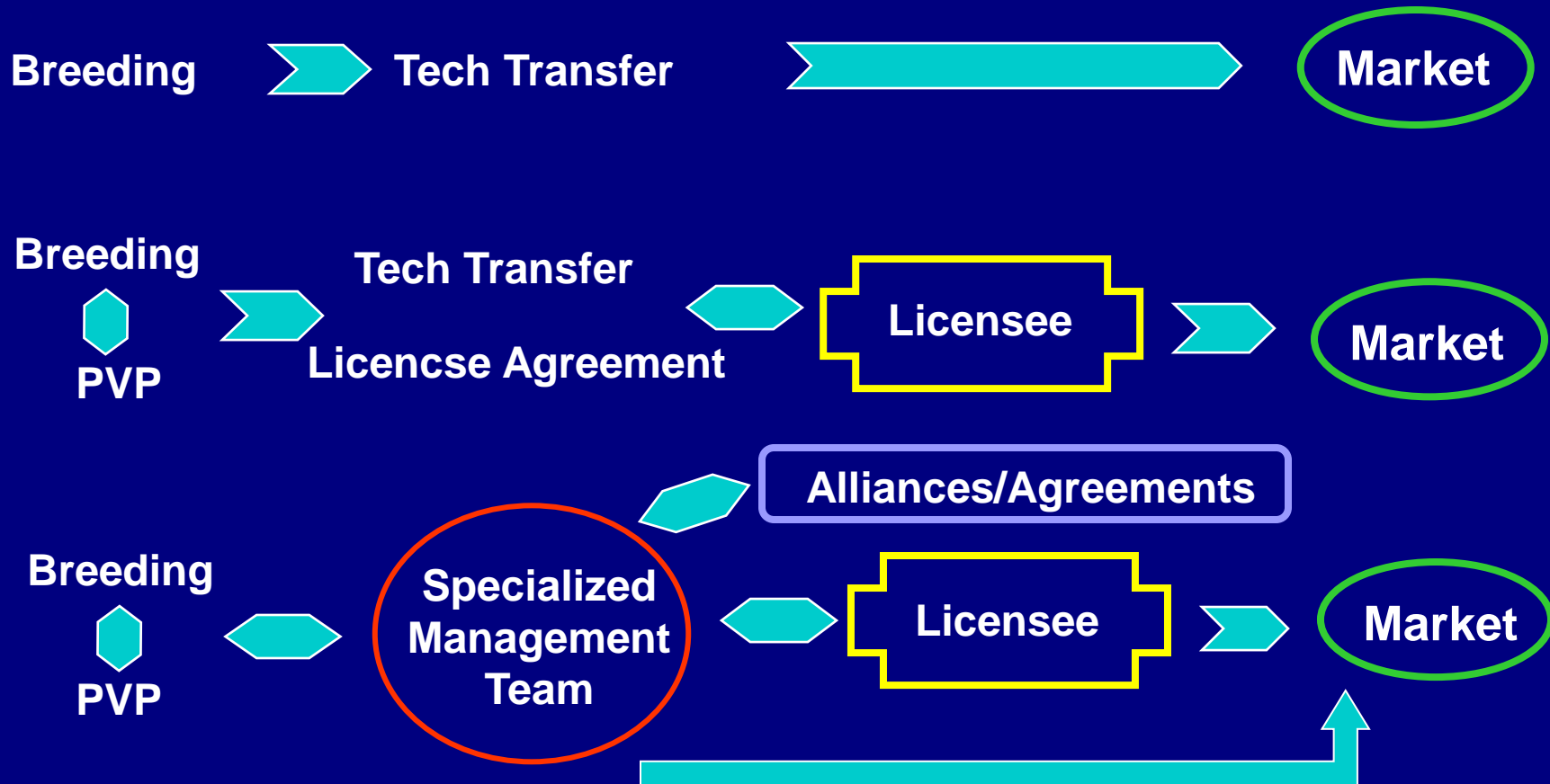
Key concepts for PBR Management and Technology Transfer

Management of PBR helps
strengthen
Technology Transfer

Enforcement of the PBR
is also key to strengthening
Technology Transfer

PBR Management and Technology Transfer

EVOLUTION →



PBR MANAGEMENT AT **INIA** URUGUAY

- **Key Questions** -



- ✓ What kind of invention is (either: product, process)?
 - ✓ Is it possible to protect? how?
 - ✓ Is there a potential for marketing of the invention?
 - ✓ What is the applicable national legal framework?
 - ✓ **How to transfer the invention from a public institution perspective?**
 - ✓ How the transfer of the invention is administered and managed and by Whom?
 - ✓ What is done with economic benefits?
 - ✓ **How to contribute to the ultimate goal of achieving innovation, rural welfare and overall socioeconomic development?**
- › Board of Directors
 - › Finance

Procedure for market release of new varieties

- » Technical Analysis
- » Market Opportunities
- » **PVP Application**
- » Release Decision
- » **License Terms**
- » Public Call for seed companies
- » Analysis of Formal Offers
- » Adjudication Decision
- » **License Agreement**
- » **Marketing**



Licensing:

Examples in Uruguay



EXAMPLES:

Forage Crops

- ✓ Domestic market
- ✓ International

Soybean

Wheat

Barley and Rice

Universities

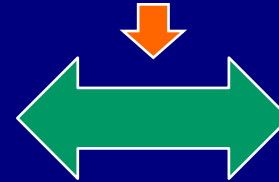
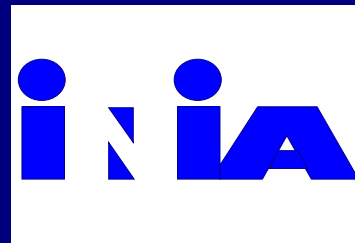
National Research Institutes

Single Breeders

Seed Companies

Biotech Companies

Seed
Company



- ✓ Breeding
- ✓ Screening
- ✓ Testing
- ✓ Licensing - Representing
- ✓ Marketing (not the case in Uy)

Universities

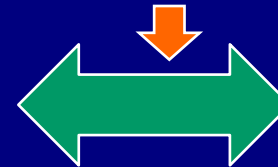
National Research Institutes

Single Breeders

Seed Companies

Biotech Companies

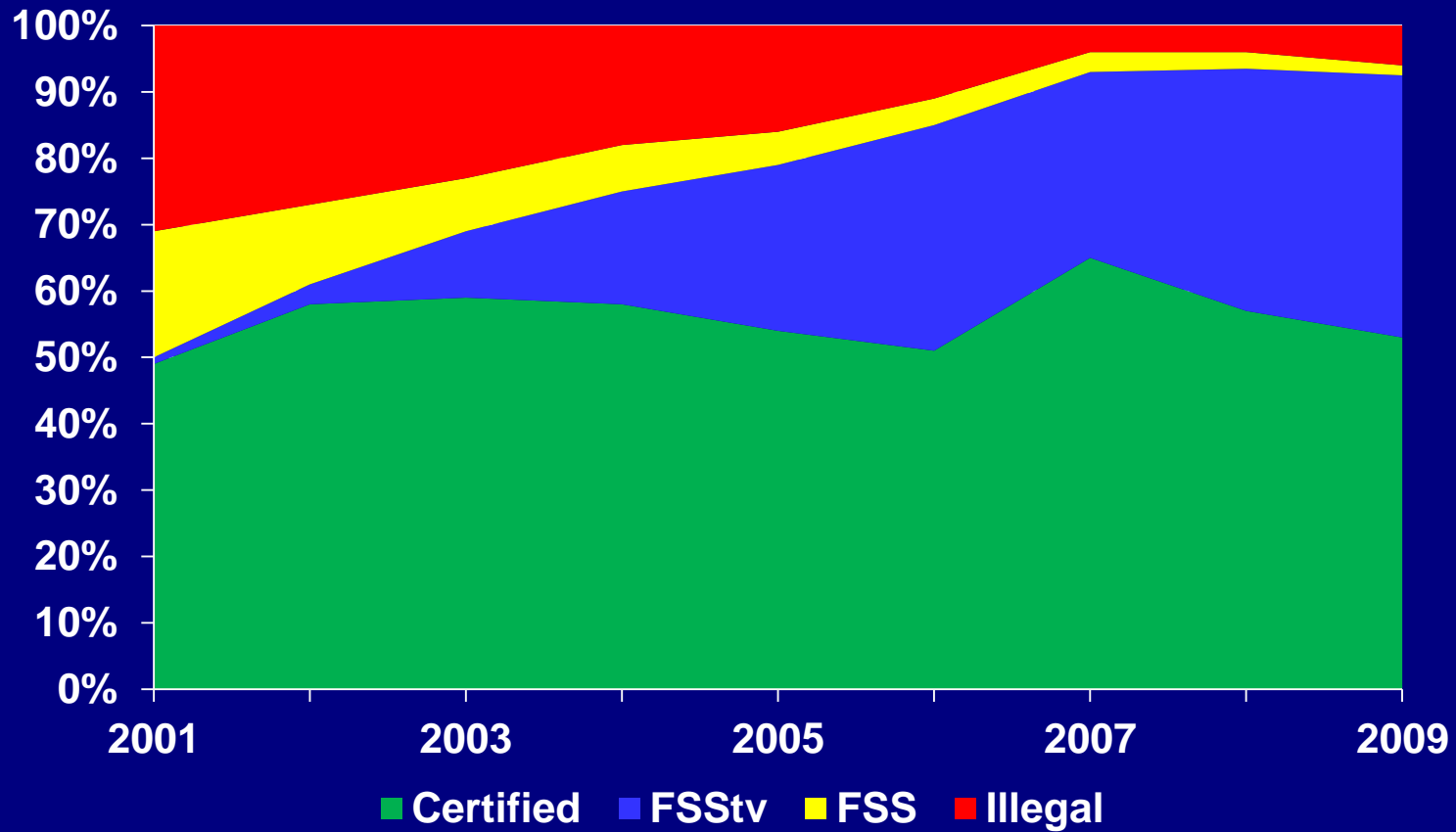
Seed
Company



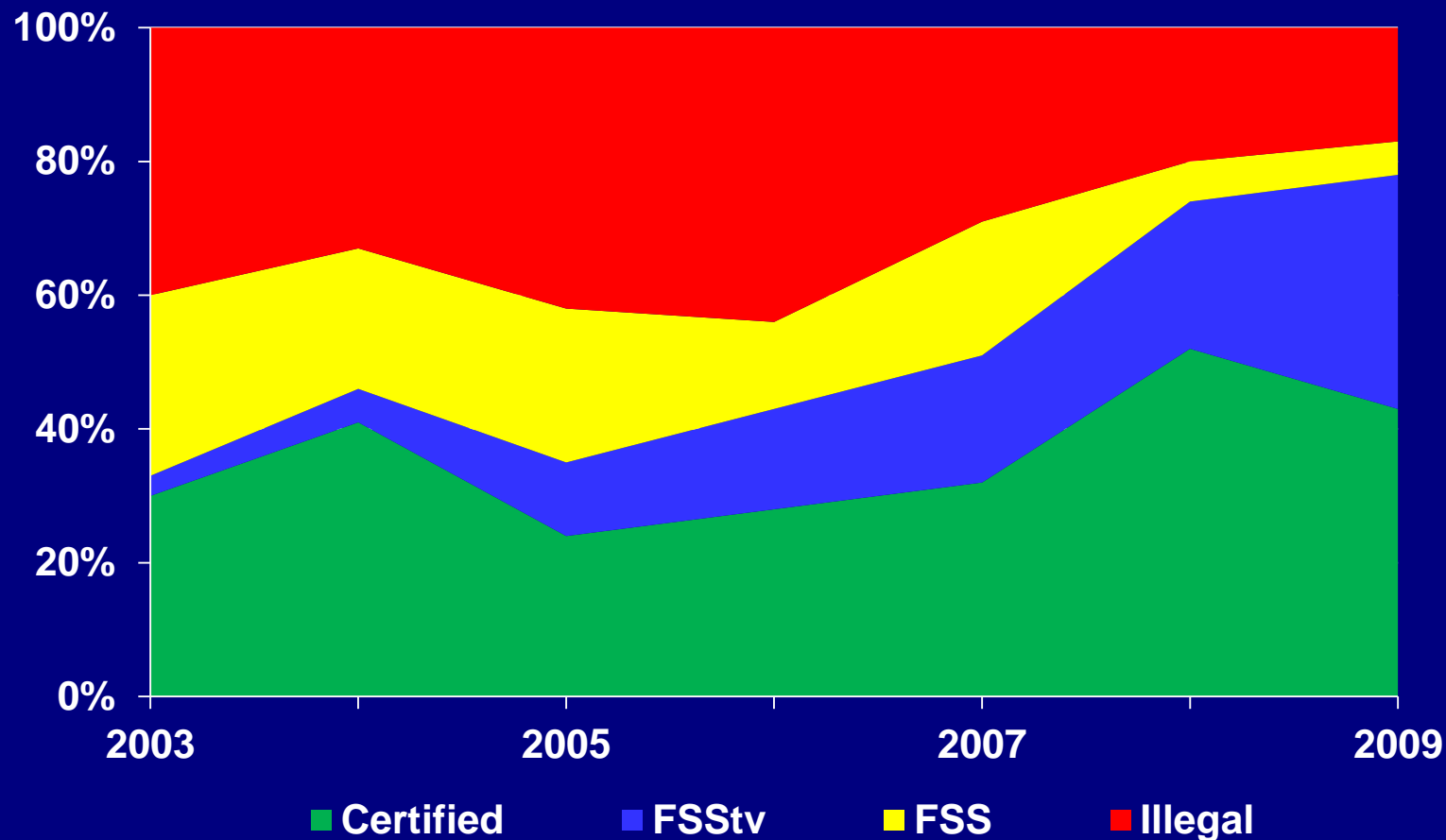
“Coexistence”



Soybean: Seed sowed by origin



Wheat: Seed sowed by origin



Acknowledgements

- › **UPOV**
- › **National Seed Institute (INASE)**
- › **National Research Institute (INIA)**
- › **Uruguayan Chamber of Seeds**
- › **URUPOV Members – Forages companies**

THANK YOU !

A decorative border of green grass blades runs horizontally across the bottom of the slide.



Thank you all !

www.urupov.org.uy

