



Access and Benefit Sharing Regime considerations seed industry

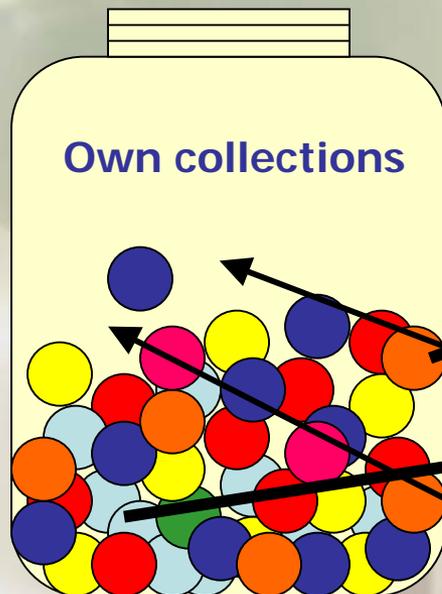
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Benefit Sharing not without Access

Plant breeding and genetic resources

- Varieties of other seed companies
 - Plant material from own collection
 - Plants, seeds, etc. from genebanks, botanical gardens seed collectors
 - Seeds and plants from local market
 - Gifts from farmers
- 90-95%
- 5-10%



Public domaine

Spread of plant material over the world

- Free exchange over time
- Free exchange over countries
- Continuous recombination/intermingling of genes
- Material spread over the world
 - In the wild
 - Gene banks
 - Farmers
 - Universities
 - Research institutes
 - Breeding companies

Duplication

Flow of tomato TSWV resistant germplasm around the world



Multiple origins - Multilateral structure

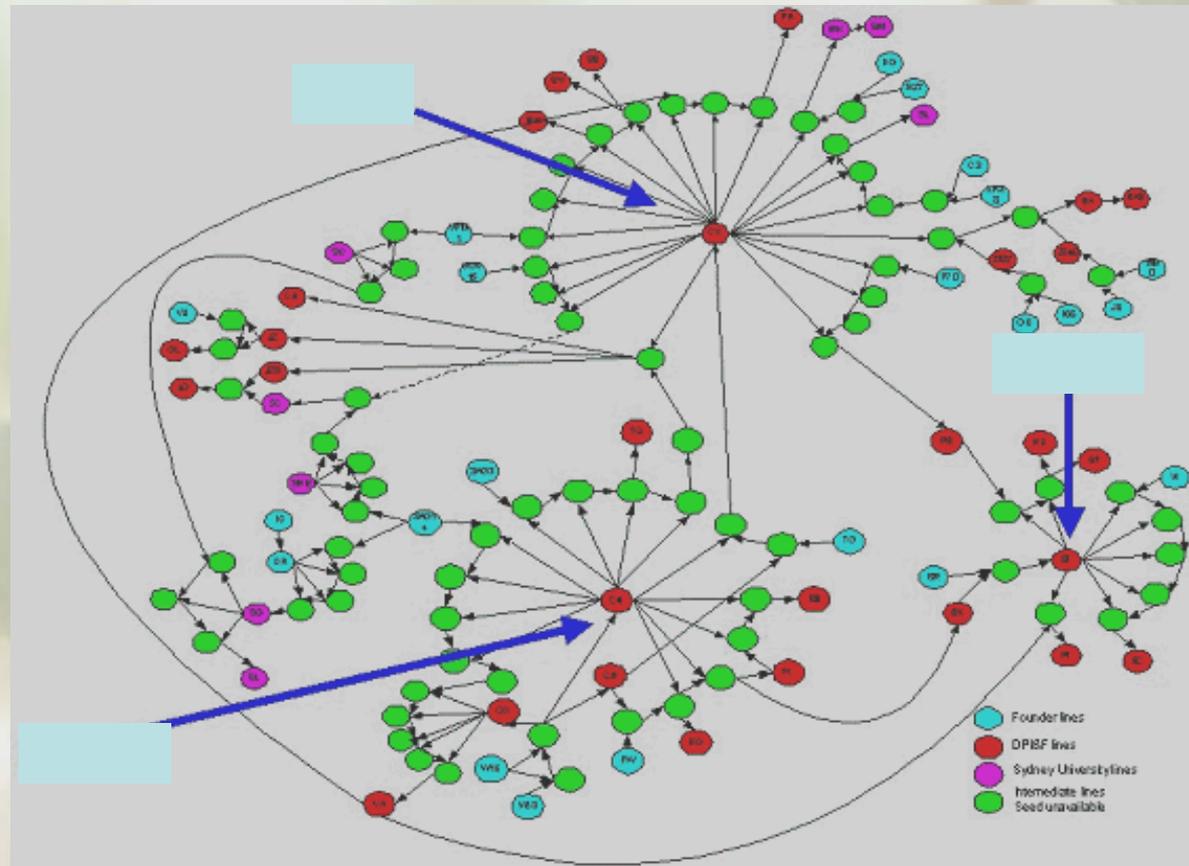


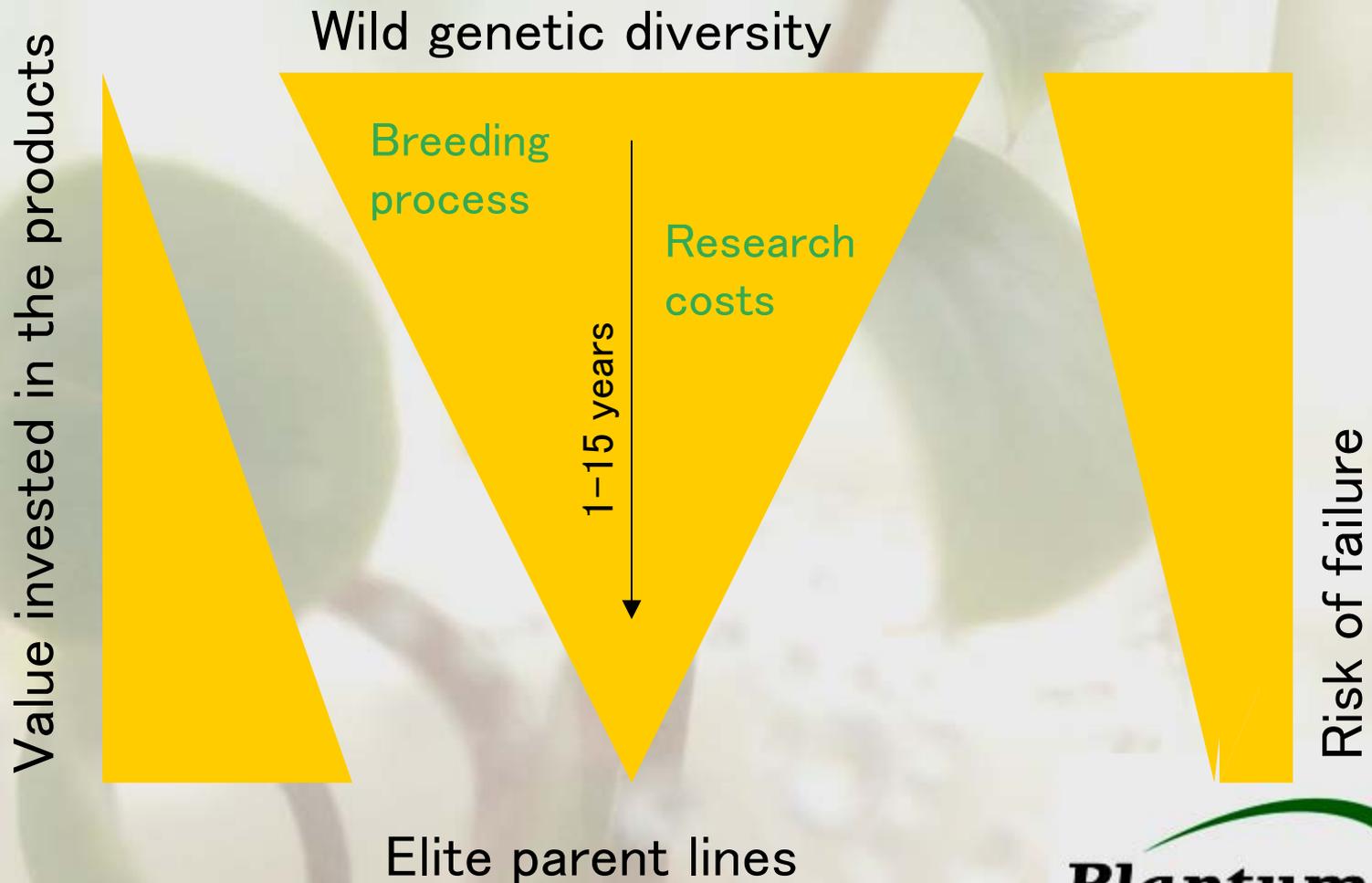
Diagram from: http://www.cropsscience.org.au/icsc2004/poster/3/4/1/1422_eisemannb.htm

Number of accessions

- OECD scheme for certification lists 37000 varieties of crop species from 191 species
- Vegetables and ornamentals
- Breeding material

- Between 10 million and 100 million samples shipped a year

Plant breeding process



Plant breeding and figures

- 25\$ billion turnover private sector
- 2,5\$ billion research and development, excluding life science R&D
- 10% of R&D budget available for testing, development and collecting of basic germplasm = 250 million US \$
- 90% of the R& D budget is necessary for development into varieties on a commercial level + local testing + variety registration



Summary

Plant breeding and use genetic resources

- Limited use
- Wide spread of species/varieties all over the world
- Duplication of materials
- Huge number of accessions transported
- Maximum of 250 million US\$ for high quality material available for 50 crops

Plant breeding and ABS environment

- Access reduced
- National legislation often does not exist
- Obtaining access complicated
- Small development projects decreased
- Shopping
- Increase of legal uncertainty

Small companies

Certificate of origin/source legal provenance

- Objective not clear yet/ Focus one sided on tracking system
- Identification of the material is complex, if not impossible
- Overlap in material
- Pre-CBD material
- Volume of certificates
- Cost/benefit
- Enforcement

Standard Material Transfer Agreement advantages

- Can be used everywhere (limited number of crops)
- Only one origin; Multilateral System
- No time issue
- Not based on single accession
- Simple and effective
- **Recognition of the value of breeders' rights**

Considerations for new regime (cntd.)

Bring expectations of stakeholders together

- Economic reality of the seed sector and expectations of the regime may not be in line
- Trust building
- Focus on main issues and not on side issues such as certificate of compliance with national law
- Cost-benefit analysis of options for a regime

Considerations for new regime

- Obtain information on experiences with ABS
- Evaluate implementation of Bonn guidelines
 - Evaluate development and implementation national ABS legislation
 - **Evaluate practical experiences (plant breeding, pharmaceutical industry etc.); both successes and failures**

Considerations for new regime (cntd.)

Combine multilateral and bilateral approach

- Identify species spread around the world
→ multilateral approach
- Identify species that are unique to a Country of Origin → multilateral or bilateral approach
- Consider usage of genetic resource
- Consider crop specific approach

Concluding remarks

- Study the possibilities of a multilateral approach for widely spread species
- Recognize the importance of a continuous availability of germplasm as a benefit
- Define realistic expectations and clear objectives of an ABS regime
- Base regime on experiences and if possible existing instruments
- Keep focus and don't frustrate the process with side issues; introduction of certificate in parallel to ABS regime will delay the development of the ABS regime



No Access – No Benefit Sharing

No conservation of biodiversity