# **European Technology Platform**"Plants for the Future"

#### Wilhelm Gruissem

President
European Plant Science Organization
www.epsoweb.org

Moscow 22<sup>nd</sup> February 2007



# **Contribution to society**

### **European Technology Platform "Plants for the Future"**

Vision and Strategic Research Agenda (SRA) identify four challenges for society to which this Technology Platform can contribute:

- 1: Healthy, safe and sufficient food supply
- 2: Sustainable agriculture, forestry and landscape
- 3: Green products
- 4: Competitiveness, consumer choice and good governance



# **Major stakeholders**

## **European Technology Platform "Plants for the Future"**

Industry EuropaBio, ESA

Academia EPSO

Farmers CopaCogeca









#### Challenge 1: Healthy, safe and sufficient food supply

#### Goals:

- Production of safe, high quality, sufficient and sustainable food (storage compounds; nutritional, sensory & processing characters; less deleterious to quality)
- Foods for specific consumer groups and needs (carotenoids, polyunsaturated fatty acids, allergenicity, cancer prevention)
- Production of safe, high quality, sufficient and sustainable feed (less mycotoxins & heavy metals; optimize macro-& micronutrients, protein source, digestibility, appetite)



#### Challenge 2: Sustainable agriculture, forestry and landscape

#### Goals:

- Securing sustainability of agriculture by improving plants productivity and quality potential (Yield stability, tolerance to non-biotic factors)
- Reduce and optimize the environmental impact of agriculture (better use of water / reduced use of crop protection chemicals)
- Enhance biodiversity

   (use natural diversity for crops,
   domesticate new species)
- Viable and pleasant landscape (ornamentals, landscape management)



#### **Challenge 3: Green Products**

#### Goals:

Develop advanced plant-based raw materials and pharmaceuticals

(new & improved functionalities; recombinant and natural pharmaceuticals; enabling technologies)

- Plants as energy production systems (bio-fuels; economically competitive energy production; enabling technologies for biomass production)
- Convert plants into production factories (production & extraction)

# Challenge 4: Competitiveness, consumer choice and good governance

#### Goals:

- Vibrant basic research
   (genome sequences & biodiversity inventory; systems biology; genomics tools; genetic systems for crop improvement)
- Human resources, infrastructure and networking (Virtual Institute of Plant Science)
- Public / consumer involvement (knowledge, trust, fun)
- Ethics, safety, legal and financial environment (choice; co-existence; supportive environment)



# **European Knowledge-Based BioEconomy**

# **European Technology Platform "Plants for the Future"**

 TP "Plants for the Future" is a strategic component of the European KBBE









