Private Sector's Vision on the future of global agribusiness

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Background

9 billion world population by 2050

Dietary changes to meat, bio-fuel production

Limited arable land resources

Forecasted change in rainfall patterns with climatic change

Maintain long term productivity of agro-ecosystems

Productivity increase - what to improve ?

Land use efficiency

Financial input: seed, fertilizer, crop protection, labor

Water use efficiency

Energy use efficiency: Carbon dioxide emission

Innovation is a must to improve agricultural production,
But not the sole solution to the problem

Technology Platforms – which path forward ?

Modern varieties	**yield potential - genetics**
Synthetic fertilizer	**yield potential - nutrition**
Mechanization	**labor productivity, soil productivity**
Agrochemicals	**weed, insect, disease control**
Biotechnology	**Insect Resistance, Herbicide Tolerance Stress tolerance, Yield potential Water use efficiency, Nutrient use efficiency**

Impact on breeding and chemistry platforms

Private Sector Efforts – annual spending

	Innovation Platform	Innovation Roll-out
Private sector spending*	**~ € 2 bn** for chemistry **~ € 2 bn** for biotechnology and breeding	**~ € 7 bn** for global marketing and sales effort

* simplified estimate based on industry standard cost

Private Sector Domain

	Innovation Platform	Driver	Innovation Roll-out
Developed countries **Fast developing countries**	• Biotechnology • Breeding • Chemistry Public / Private Partnership	Intellectual properties • Patents • PVP's • Trade secr.	Education and promotion by private sector companies
Slow or not developing countries	Market system not functional, lack of education, financing, …… different approach required		

Public / Private Partnership – requires clarity on IP

	Innovation Platform	Driver	Innovation Roll-out
Developed countries **Fast developing countries**	**Public / Private Partnership for global technology development**	Intellectual properties • Patents • PVP's • Trade secr.	Education and promotion by private sector companies
Slow or not developing countries		**Stewardship Deregulation**	

Public / Private Partnership – technology deployment

	Innovation Platform	Driver	Innovation Roll-out
Developed countries **Fast developing countries**	• Biotechnology • Breeding • Chemistry Public / Private Partnership	Intellectual properties • Patents • PVP's • Trade secr.	Education and promotion by private sector companies
Slow or not developing countries	**Cooperate with private sectors companies for adapted products to improve farming communities' situation**		