



Science For A Better Life

# Bayer CropScience

## Increase of productivity in Agriculture

Dr. F. Zurmühlen

Frankfurt | 16.7.2014



**114,928 employees**

**Full year sales: €40.2 billion**

**289 subsidiaries**

**R&D expenditures: €3.2 billion**

As of December 31, 2013 / Employees: March 31, 2014

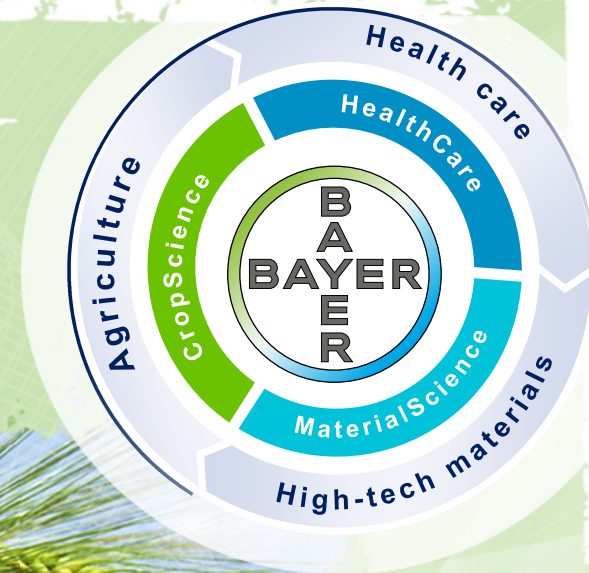


At Bayer CropScience, we serve agriculture

22,400 employees

Full year sales: € 8,819m

> 120 countries



As of December 31, 2013

# We offer innovative agricultural solutions in three business segments



## Seeds

- Vegetable seeds
- Seeds for agricultural crops (e.g. cotton, canola, rice, wheat, soybean)
- Traits

## Crop Protection\*

- Insecticides
- Fungicides
- Herbicides
- SeedGrowth

## Environmental Science

- Products for professional users (pest and vegetation management)
- Products for consumers (home and garden use)



\*with both chemical and biological modes of action

# GLOBAL TRENDS IN AGRICULTURE

## GLOBAL FOOD PRODUCTION

By 2050



+60%

Need for a sustainable productivity increase

## POPULATION GROWTH

7 billion people on the planet today



9.6 billion people in 2050

## CHANGING CONSUMPTION PATTERNS



Increasing demand for protein

## HUNGER



1 in 8 goes hungry today

## WEATHER FLUCTUATIONS

-322 kg rice per hectare



+1°C



Yields under pressure

## HECTARES OF FARMLAND PER CAPITA

1950 : 0.52  
2010 : 0.20

2050 : 0.15



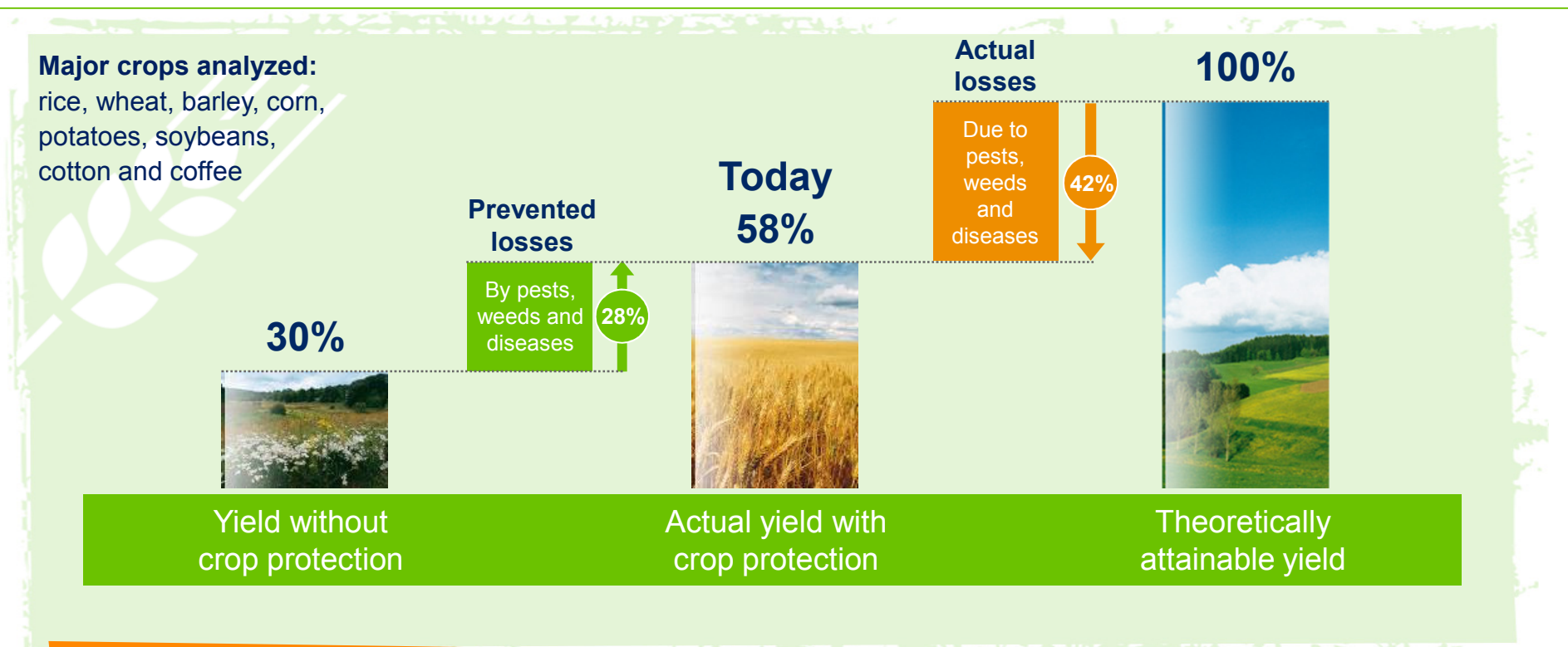
## INSUFFICIENT STORAGE



Up to 40% of fruit and vegetables lost in India

Equivalent to the annual consumption in UK

# Innovation in Crop Protection is vital to safeguard harvests and secure food supply...



**Without crop protection, nearly half of the current harvest would be lost**

**Through innovations and adequate use of crop protection solutions, total yield could be almost doubled**

Source: Oerke et al., Crop Production and Crop Protection, Elsevier, Amsterdam, 1994

# Serving the interconnected needs of the food value chain



- Proactive approach to meet increasing demand for **sustainably produced food**
- Connecting the partners across the value chain and facilitating mutually beneficial business relationships for all involved – **creating win-win situations**
- More than 240 business initiatives in about 30 countries and 40 crops worldwide – **proven concept since 2007**

# Working together for sustainable agriculture: examples of Food Chain Partnerships



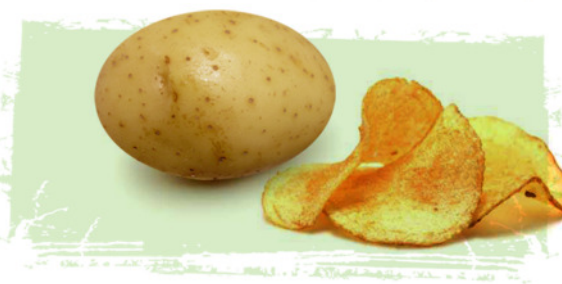
## Teaming up with UNIVEG and partners

Creating a grower-to-grocer sustainability trail, increasing the export potential for table grapes, e.g. from India and Brazil



## Global collaboration with PepsiCo

Focusing on sustainable production and traceability of high-quality crops for PepsiCo and its contract farmers



## Cooperation with Walmart and partners

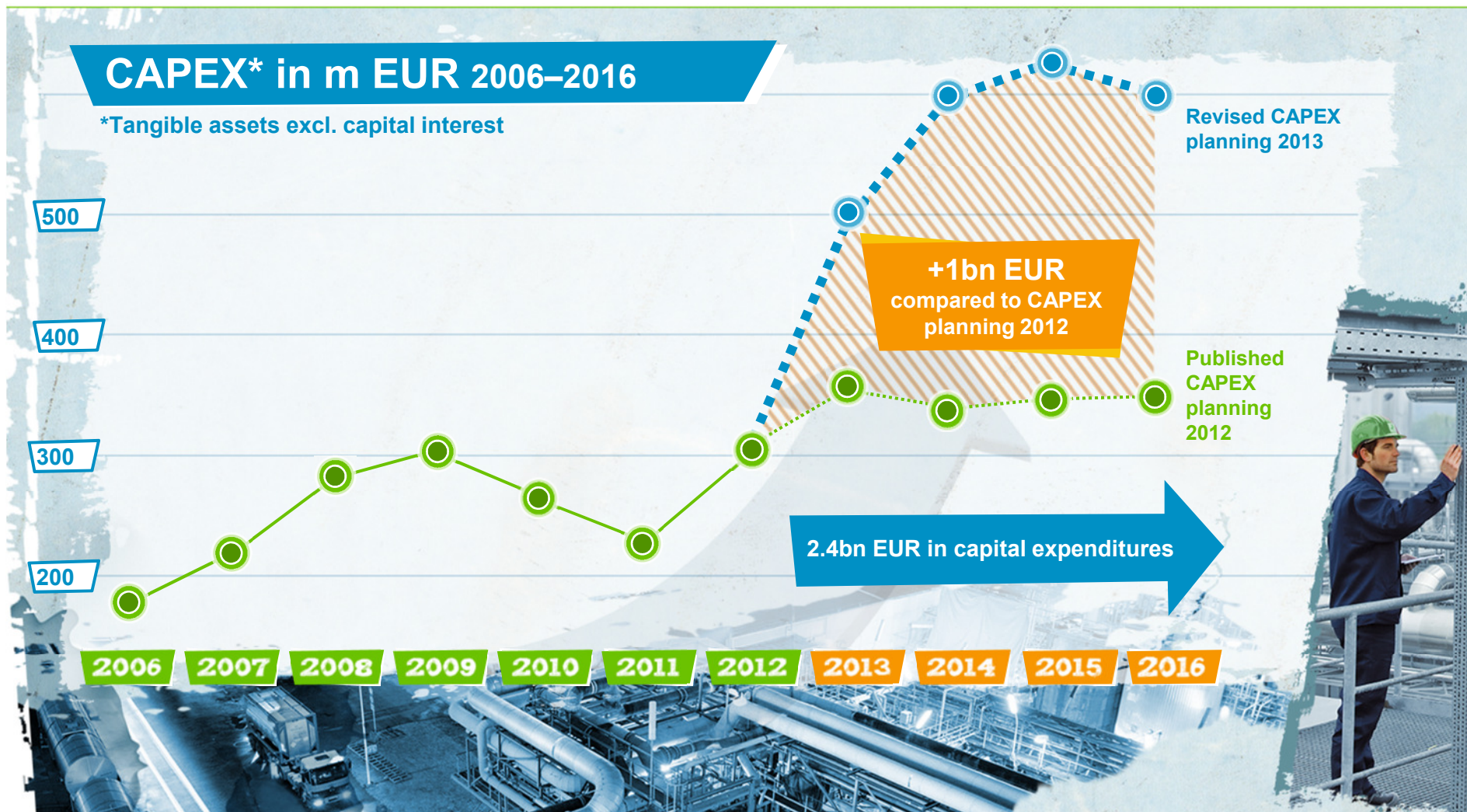
Working together to enhance quality and safety as well as trace-ability of vegetables in Chile







# 2.4 billion Euros earmarked for capacity expansion program from 2013 to 2016



Our plan to further expand supply capacities reflects strong demand for our products



**We are lifting our supply chain capacity to a higher level**



**Thank  
you**