

Indo - Dutch Co-Operation in the Potato Chain

- Consumer Driven Potato And Food Innovation -



Jan Hak, co - founder



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Potato Industry in The Netherlands, cooperation with India

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GMV

Association

Central platform for agri-food processing machinery

Potatoes, fruit, vegetables, feed, meat, fish, dairy, bio-based products, etc.



The Netherlands

Total surface: 3,7 million ha

Total surface

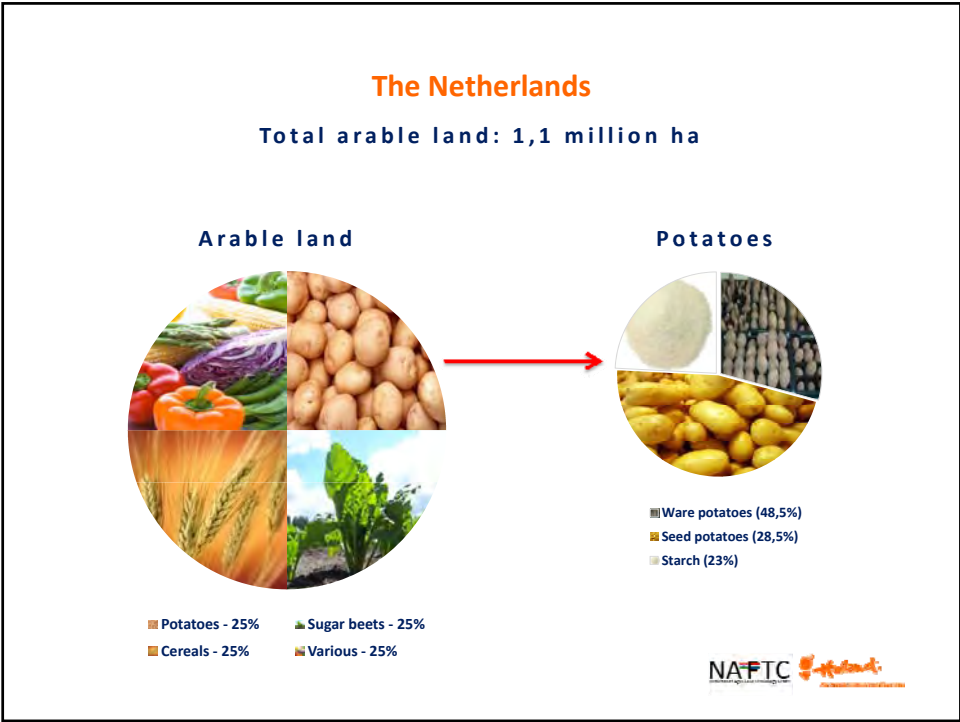


- Cities, villages, roads, etc. (48%)
- Farmland (52%)

Farmland



- Arable, horticulture (58%)
- Permanent grassland (44%)
- Permanent crops (2%)



The Netherlands as 'Food Valley'

Home country of World Leading Food companies

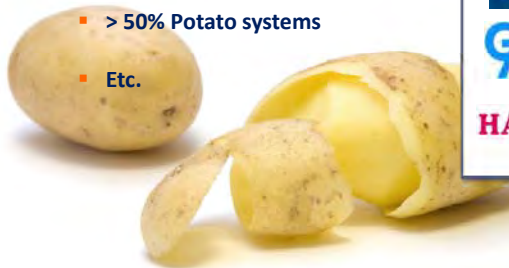
- EUR 68 billion turnover (2010) in agri-food products
- World leading country in food production
- 4.150 Companies - 137.000 staff (2008)
- One of every six employees works in the food-industry
- 80% Turnover comes from large companies
- An average business consists of 26 labour years and a turnover of EUR 13 million

The Netherlands as 'Food Technology Valley'

Home country of World Leading Food Technology companies

EUR 3,3 billion turn-over (2010) in processing equipment and research

- 80% Poultry systems
- 70% Cheese systems
- > 50% Potato systems
- Etc.



Potato Area in The Netherlands

Total 175.000 ha

Ware Potatoes
85.000 ha (48,5%)



Seed Potatoes
40.000 ha (28,5%)



Starch Potatoes
50.000 ha (23,0%)



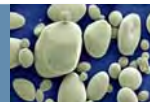
Potato Production in The Netherlands

Every year: 8.000.000 ton

Fresh potatoes
1.000.000 (ware)



Ingredients for industry
2.500.000



Processed consumer products
4.500.000



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Potato Quality in The Netherlands

Excellent due to:

- Strict quality inspections
- Presence of first-rate knowledge, in various research institutions and hundreds of 'growers' study clubs
- Innovation!



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- Experiences, some examples -

Orange Projects, together with GMV and Agentschap NL (EVD)

Orange Potato Project

“Chain” Innovations from The Netherlands

Seed Potatoes, genomics
Clean room systems, gen technology



Cultivating
Drip irrigation, crop rotation, management



Harvesting
Low damage lifting and handling



“Chain” Innovations from The Netherlands

Storage

Storage climate control, conditioning



Processing

Energy, efficiency, by-products, waste



Packaging, distribution

CO² footprint, cross docking, MFS



Focus Points for “Innovation” from The Netherlands

World leader in R&D and Training

- Economically and efficiently production of sufficient, safe and nutritious food
- Sustain and enhance natural resources
- Maintain viable farming enterprises and contribute to sustainable communities
- Meet cultural and social demands of society



Focus Points for "Innovation" from The Netherlands

World leader in R&D and Training

Precision agriculture



Potato genomics



Advanced processing and logistics



WUR DRONTEN
CHRISTELIJKE AGRARISCHE HOOGESCHOOL

hogeschool
hardenborch

AcadeMie - IO

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Focus Points for "Innovation" from The Netherlands

World leader in R&D and Training

Nutrition and health



Sensory and structure



Bio ingredients and functionality



WAGENINGEN UR
For quality of life

NIZO
YOUR FOOD RESEARCHERS

TNO

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The Netherlands as "Seed Source"

Home country of World Leading Companies
for seed potato export

The Netherlands exports to
countries world-wide



Strategic outlook

Shift of power to retailers and food
service sectors:

- Closest to the consumer
- Multi-channel strategy
- Vital marketing information
- 70 - 80% Buying decisions at P.O.P.
- Co-marketing

Supply management

- Continuous replenishment / flow through
- Changing logistics systems
- Cross docking, bar coding, consumer focused P.R.
- Business to Business, biggest opportunity
- Cutting out middle-man
- Market led approaches
- Food supply chain
- Intelligent automation



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Strategic outlook

World

Growing Population, Food Shortages, Water Shortages



Society

Ageing population, growing high(er) income population, a wealth of choice, change in lifestyle and dietary patterns have increased the incidence of chronic non-communicable diseases



Strategic outlook

The function of food is changing

- **WHAT** Calories → "experience" → nutrition & health, variety
- **WHEN** Regular → grazing and snacking
- **WHERE** In-home → out-of-home
- **WITH WHOM** Social → individual
- **HOW PREPARED** From scratch → ready-to-eat, heat and eat



Key Trends

- Product diversification
- Health and Nutrition
- Energy and Environment
- Globalization



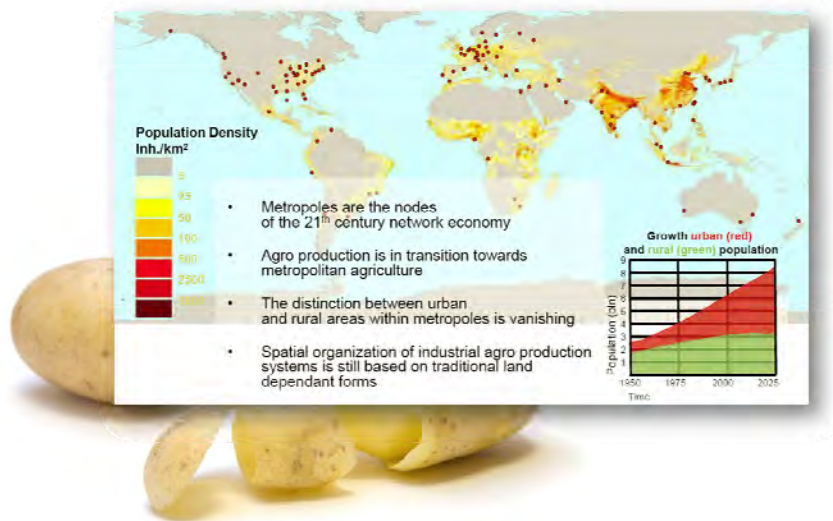
Energy and Environment

- Supply chain integration
- Low carbon footprint
- Local sourcing of Potatoes
- “Controlled” potato cultivation
- Reduction in use of pesticides
- Organic potato products
- New varieties (resistance)



Globalization

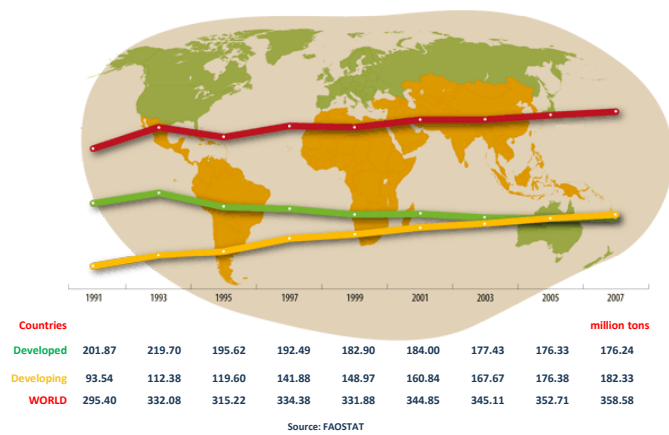
The world is urbanizing



Globalization

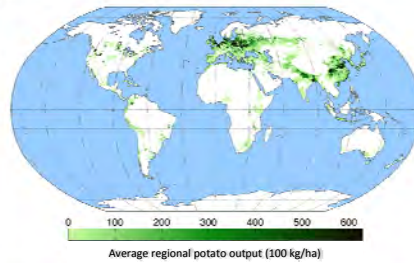
Potatoes, the 4th largest food crop
155 Countries - 18.75 million ha – 0,32 billion tons

Production, 1991-2007



Globalization

- Growing importance of India and China, South America (demand outside Europe doubled in 10 years)
- Global shift in consumption of potato and potato products
- Impact of new countries on potato supply and demand
- Equipment manufacturers and system integrators, acting global
- Increased competition: buying power major retail and QSR chains
- Outsourcing

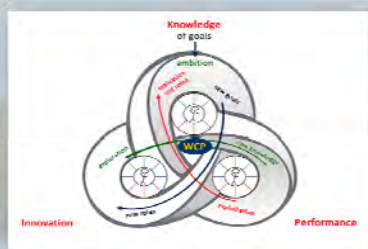


NATFC 

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Ambition - Potato Production

World-Class Performance (WCP)



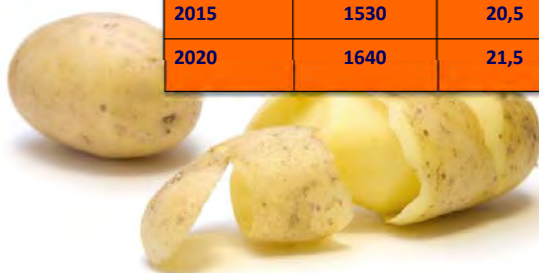
Road to Success:

Ambition + Innovation + Performance



Ambition - Potato Production

Year	Ha (*1000)	Yield (Tons/ha)	Production (tons*1million)
1995	1136	16,9	19,19
2000	1222	18,4	22,48
2005	1319	17,9	23,61
2010	1420	19,5	27,69
2015	1530	20,5	31,36
2020	1640	21,5	35,26



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Performance "Our (sweet) Potato"

- World class showcases in sustainable development (efficiency of land, energy, water and material utilization)
- Driver for economic development through innovative food production
- Maximizing synergies between rural and urban development
- Lead the way for long term food security



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7 P's to:



SUCCESS

1. **People**
2. **Professionals**
3. **Plan**
4. **Pro-active**
5. **Performance**
6. **Planet**
7. **Prosperity**



Thank you !

For more information, please visit our websites:

NAFTC
Netherlands Agro Food Technology Centre

www.naftc-india.com

GMV

www.gmv-fme.nl

Metropolitan
Food Security

www.metropolitanfoodsecurity.nl



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