

# Future of Potato Processing in China



Dutch Manufacturers of Machinery for  
Food Processing and Packaging

Jan Hak, president



2<sup>nd</sup> Potato Show, Beijing - China  
- 21 April 2011 -

## Today is ...

- 450 years ago:  
Introduction of the potato during  
the Ming Dynasty
- 25 years ago:  
1<sup>st</sup> Dutch Potato Technology Mission

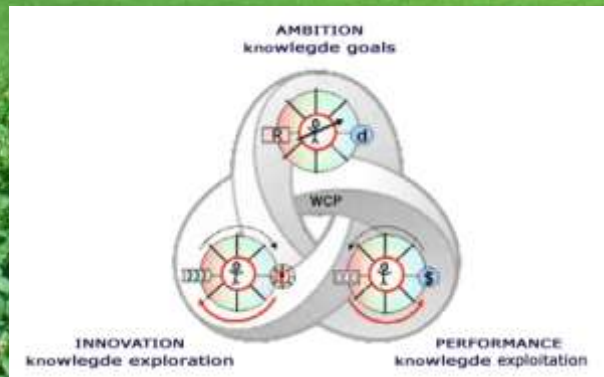


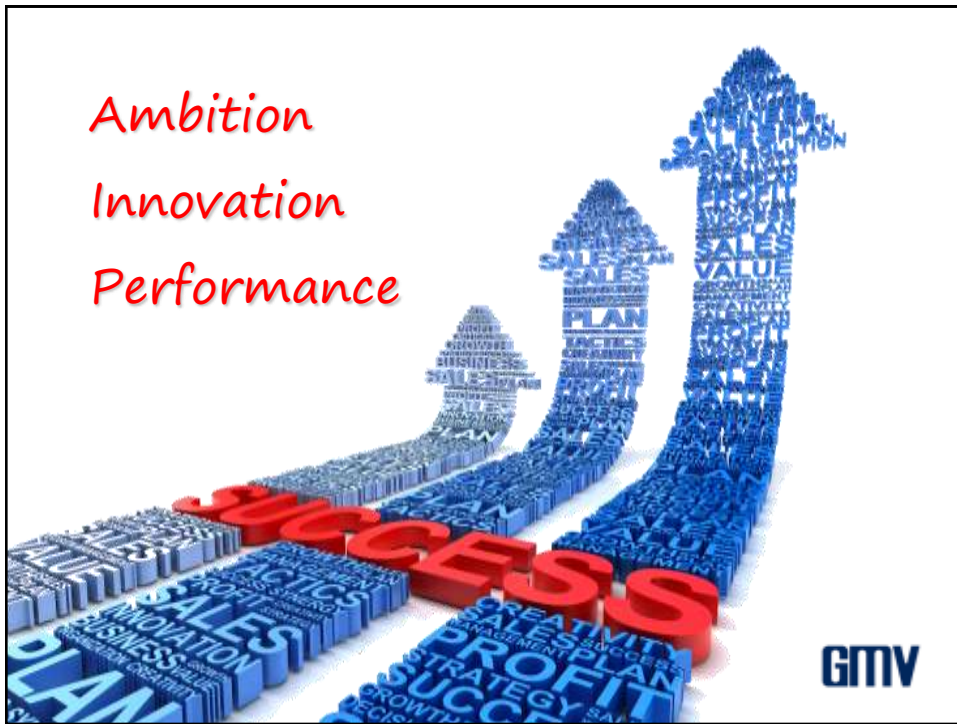
*1<sup>st</sup> Dutch Potato Technology Mission*  
 25 years joint focus



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*Potato Capabilities in China*





### *Food Safety and security*

*According to 2008 - Dongyu Qu & Kaiyun Xie*

- Quantity and Quality
- Nutrition value and medicinal functions
- Poverty elimination and crop rotation
- Energy security (alcohol)
- Natural disaster relief

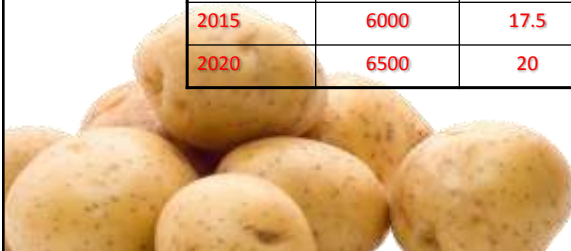


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## Ambition

### Potatoes

Year	Ha (*1000)	Yield (Tons/ha)	Production (tons*1million)
1970	2000	10	20
1980	2300	11	25.3
1990	2850	12	34.2
2000	4700	13	61.1
2005	5000	14.5	72.5
2010	5500	15	82.5
2015	6000	17.5	
2020	6500	20	



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## Ambition

### Constrains

- Huge area, low yield.
- Breeding and extension of new varieties.
- Seeds supply systems.
- Lack of chain quality control and management.
- Logistics and supply chain management.
- Added value creation.



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## Ambition

### 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 including:

- ✓ *Obesity*
- ✓ *Cardiovascular diseases*
- ✓ *Hypertension*
- ✓ *Diabetes mellitus*
- ✓ *Certain cancers*



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## Ambition

### 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

#### A wealth of choice

- Primary production: year around, global supply
- Food industry: preserved, frozen, chilled, fresh
- Roles of retail and food service



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# Ambition

## 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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## Ambition

### Mega trends in society

*According to 2011 - W. Lageweg*

#### Needing social cohesion (and safety)

- Especially older generation.
- In more individualistic world.

#### Increasing suspicion (decreasing authority)

- Especially young generation.
- Towards: institutions, banks, large corporations.



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## Ambition

### Mega trends in society

*According to 2011 - W. Lageweg*

#### Needing "Roots and Wings" (and origin)

- Especially cultural "creatives", self determination.
- Regional identify, interest in origin and process.

#### Stressing sustainability

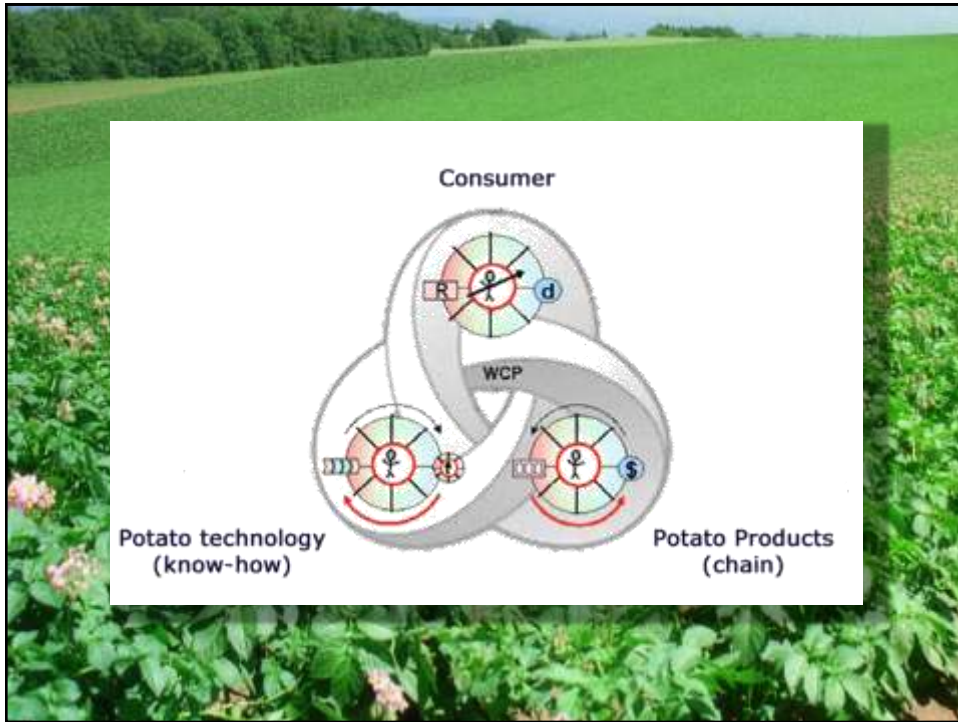
- Especially awareness of scarcity.

#### Increasing transparency

- Especially sharing knowledge.
- Pressure on media, social media.



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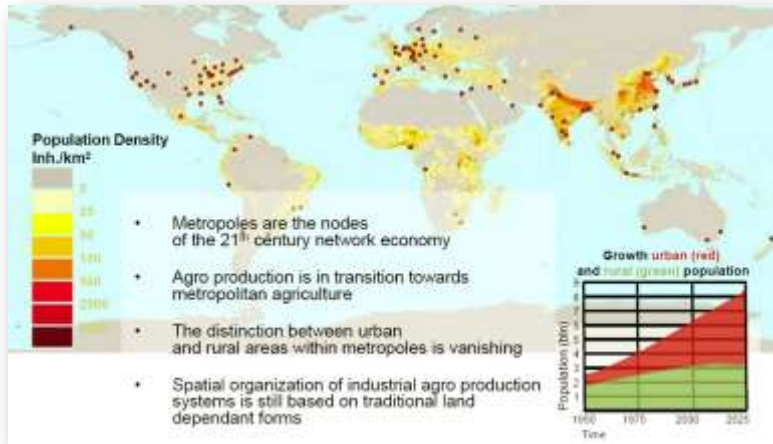
## *Development Trend for Metropolitan Agriculture*



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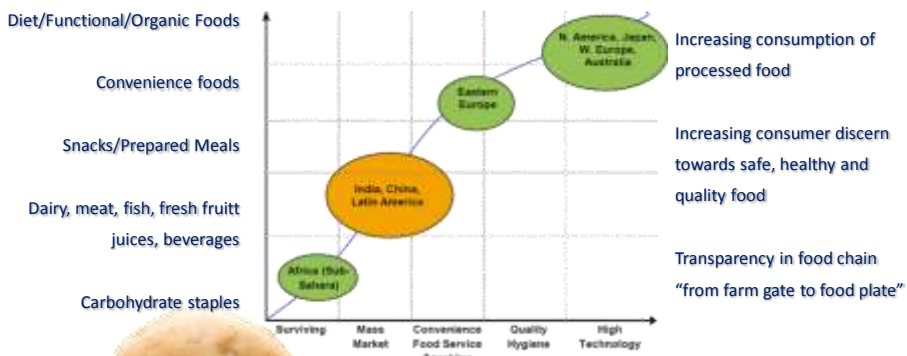


## The world is urbanising



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## Urban people have more purchasing power: shift in consumption basket



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## Diversification of demand in Metropolises: from food to fashion to pharmaceuticals



**Energy and building**  
*Fuel, fibers*

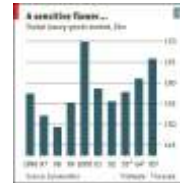


**Food**  
*Fodder, food crops, vegetables, fruits*

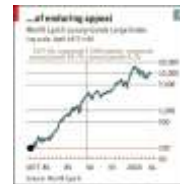


**Fashion**  
*Flowers, flavors, fragrances*

**Pharmaceuticals**  
*Functional foods, pharmaceuticals*



World spending on luxury goods in 2005: US\$ 165 bln

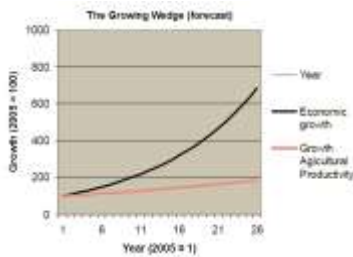


Which is a 100-fold increase between 1977 and 2005

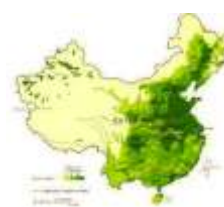


## The growing wedge:

China's agricultural growth lags behind on economic growth



Population density



Suitability for agricultural production

- 0 - 10
- 10 - 20
- 20 - 30

Total area suitable for agricultural production: 11%

Jump in agricultural productivity is necessary to meet growing demand of middle class. Still, there will be growing import of agricultural products.



## Conclusion

- Increase of demand for diverse, convenient and high quality (fresh) food
- Lack of fertile land and water (urbanized, desert)
- Environmental pressures
- Veterinary risks
- High-tech developments



Metropolitan Agriculture  
Food Cluster Development



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## Vision

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



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## Innovation

### Short presentation

- **Seed Potatoes**  
*Clean room technology - e.g. Broere*
- **Cultivating**  
*Drip irrigation, crop rotation in (semi) arid areas - e.g. Clootwijk Estate , incl. Dacom*
- **Harvesting**  
*Low damage lifting - e.g. Ploeger, Broekema*  
*Low damage handling - e.g. Oldenhuis Prinsen*
- **Storage**  
*Optimal storage, conditioning - e.g. Mooij, Tolsma*
- **Processing**  
*Processing for starch - e.g. Nivoba*  
*Multi-purpose processing - e.g. Royal GMF, Kiremko*
- **Education, training**  
*World wide - e.g. Academi IO, Hak&Partners*
- **Management , investments**  
*World wide - e.g. Agriplan*



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## “Creating Better Food” - Strategies for Success



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*Thank you !*

For more information, please visit our website:

[www.gmv-fme.nl](http://www.gmv-fme.nl)



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