

# Dutch Expertise for Indian Requirements



**Jan Hak, President**

**President GMV / FME, CEO QuaTerNes**

**Vice President, Head Emerging Markets MetropolitanFood Security**

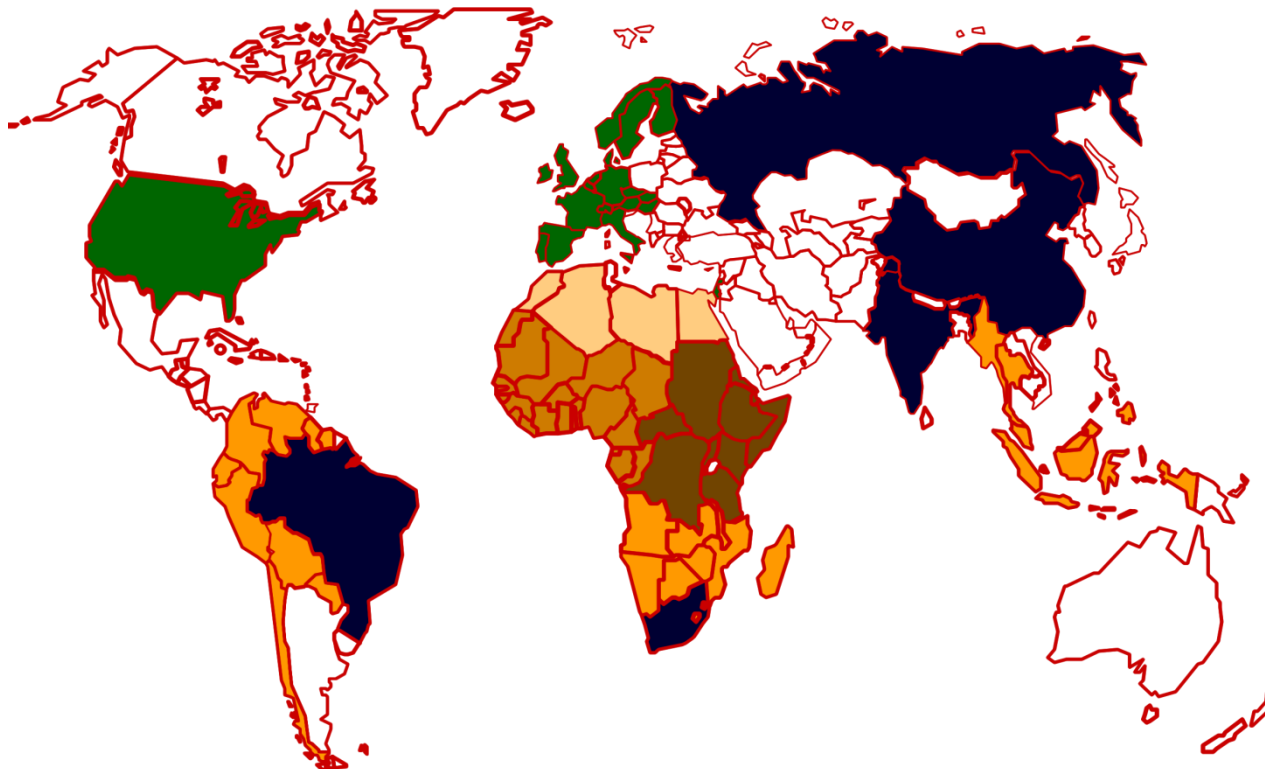
**Mumbai, 16 January 2013**



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## NAFTC worldwide



### Markets:

- **Emerging:** Brazil, Russia, India, China, Southern Africa
- **Frontier:** Northern, Eastern, Western Africa, South East Asia, South America
- **Innovation:** Western Europe, USA, Israel

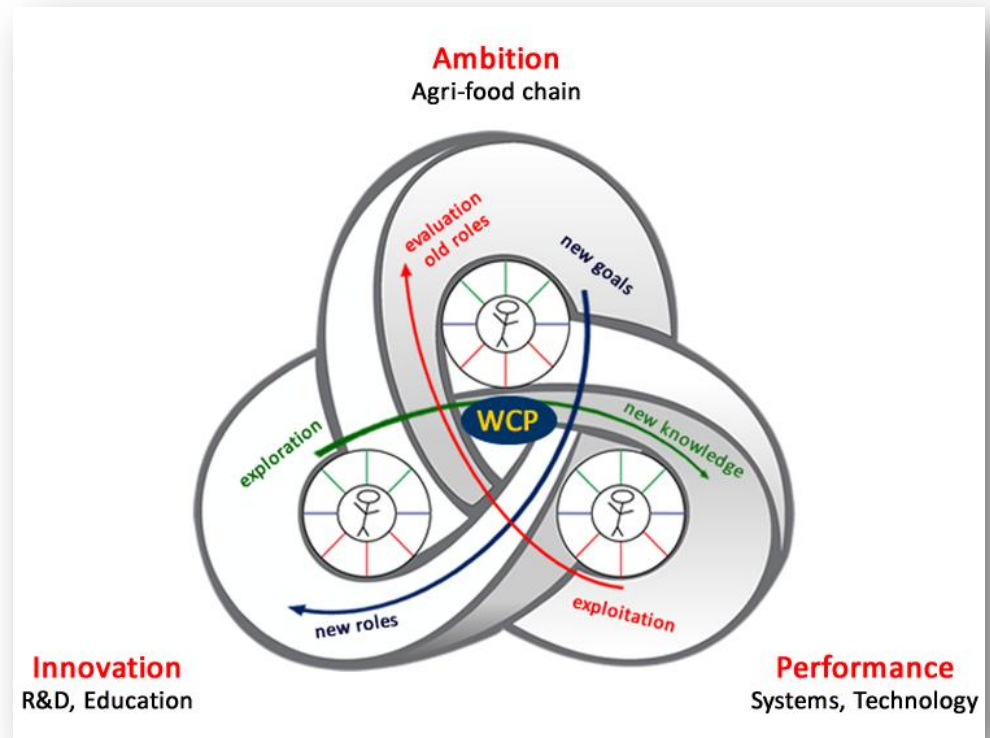
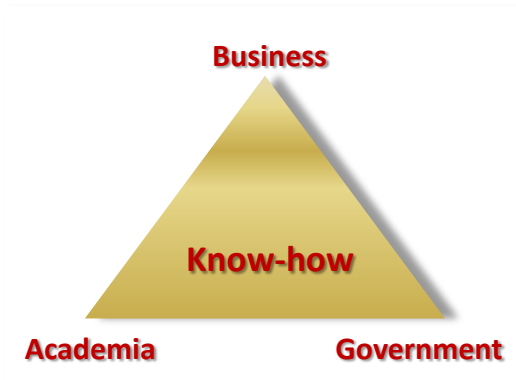


# NAFTC



## Mission:

- Dutch Hi-Tech Agro, Food and Technology Products for sustainable developments in agriculture and food
- Supporting our members and partners world wide
- Cooperation in Dutch Golden Triangle





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## GMV

Facilitating Food

### Dutch Association of Manufacturers of Food Processing, Packaging and Bio-Based Systems

Facilitating food:

Fruits, vegetables, feed, meat, fish, dairy and bio-based products

Member of:

- **FPME** (Food Processing Machinery Europe)
- **Europama** (European Committee of the National Associations of Packaging Machinery Manufacturers)
- **Copama** (International Confederation of Packaging Machinery Associations)





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## The Netherlands:

### High-Tech in Agriculture, Food, Horticulture and Water'

#### *World Leading Technology Companies*

Turn-over 2012: EUR 11,4 billion in high tech systems, 42% outside the EU  
(80% poultry, 70% cheese and > 50% potato processing systems)

## Food Valley

#### *World Leading Food Companies*

Turnover 2011: EUR 70 billion in agri-food products;  
Staff 2011: 10% of labour force is dedicated to the Agro & Food Section

*(2<sup>nd</sup> Largest world exporter)*

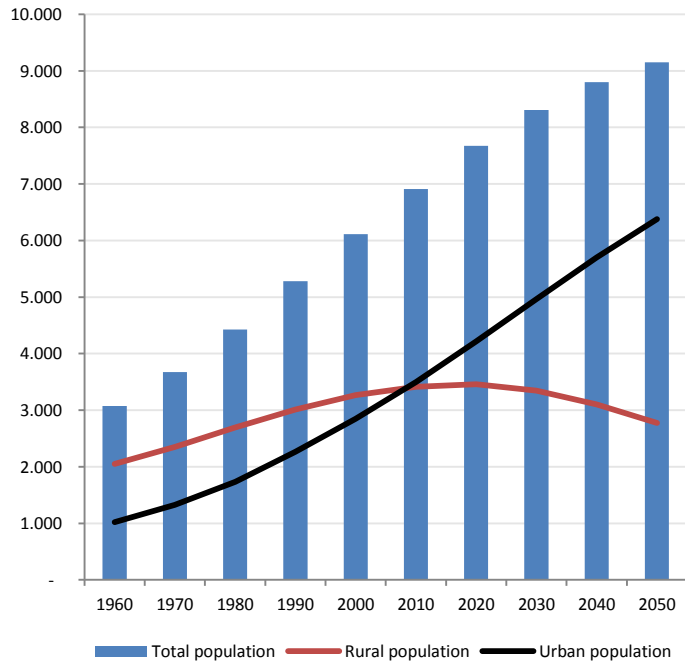


**NAFTC**

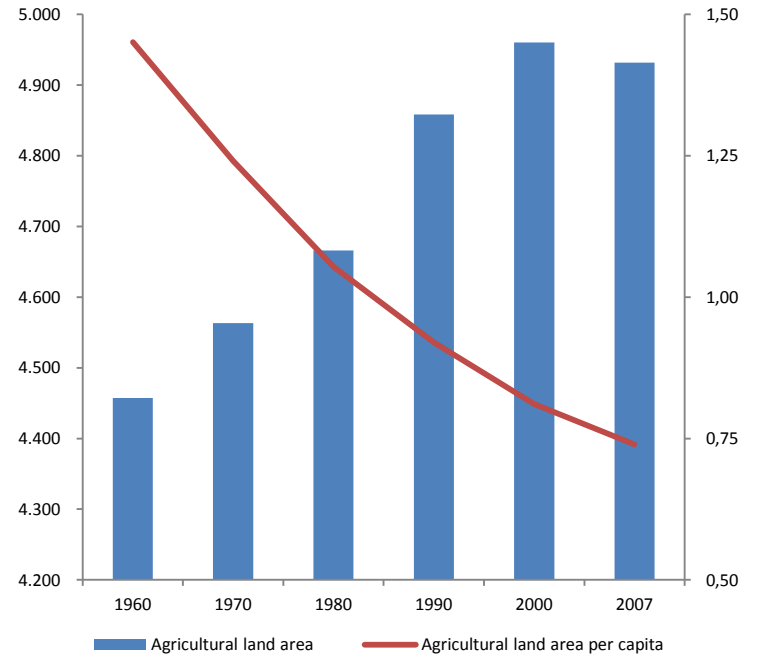


## More people, Less land

**Global population (in millions)**



**Agricultural land (1,000 ha)**



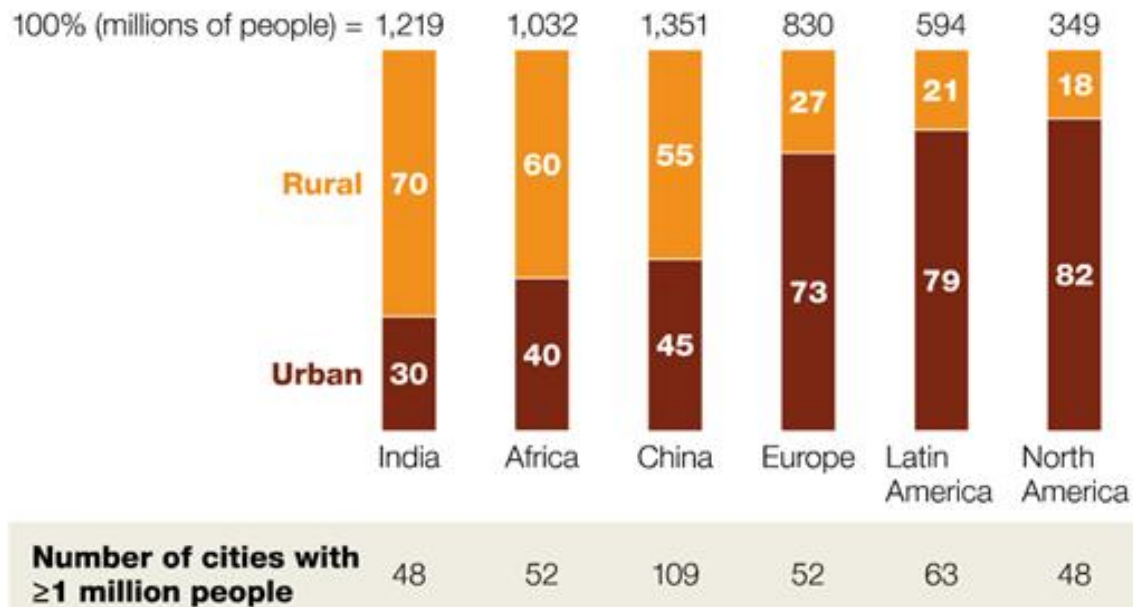
Source: FAO Stat, Rabobank



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Share of population by region, 2010, %



Source: United Nations; McKinsey Global Institute analysis



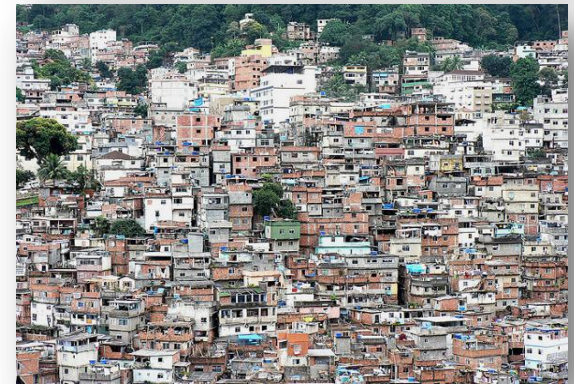
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## Five states are likely to be more than 50 percent urbanized

State	Urbanization rate, 2008 %, total population	Urban population Million	Urbanization rate, 2030 %, total population	Urban population Million
Tamil Nadu	53	35.4	67	53.4
Gujarat	44	25.2	66	48.0
Maharashtra	44	47.9	58	78.1
Karnataka	37	21.6	57	39.6
Punjab	36	10.0	52	19.0
Haryana	31	7.5	45	15.2
West Bengal	29	25.8	40	41.5
Kerala	28	9.7	41	15.8
Andhra Pradesh	28	23.4	46	45.5
Madhya Pradesh	25	17.2	32	29.9
Jharkhand	25	7.6	31	12.0
Rajasthan	24	15.5	33	29.5
Chhattisgarh	24	5.8	40	11.7
Uttar Pradesh	21	39.2	26	68.9
Orissa	18	7.0	24	11.0
Himachal Pradesh	12	0.8	20	1.8
Bihar	9	8.9	17	21.3

SOURCE: India Urbanization Econometric Model; McKinsey Global Institute analysis





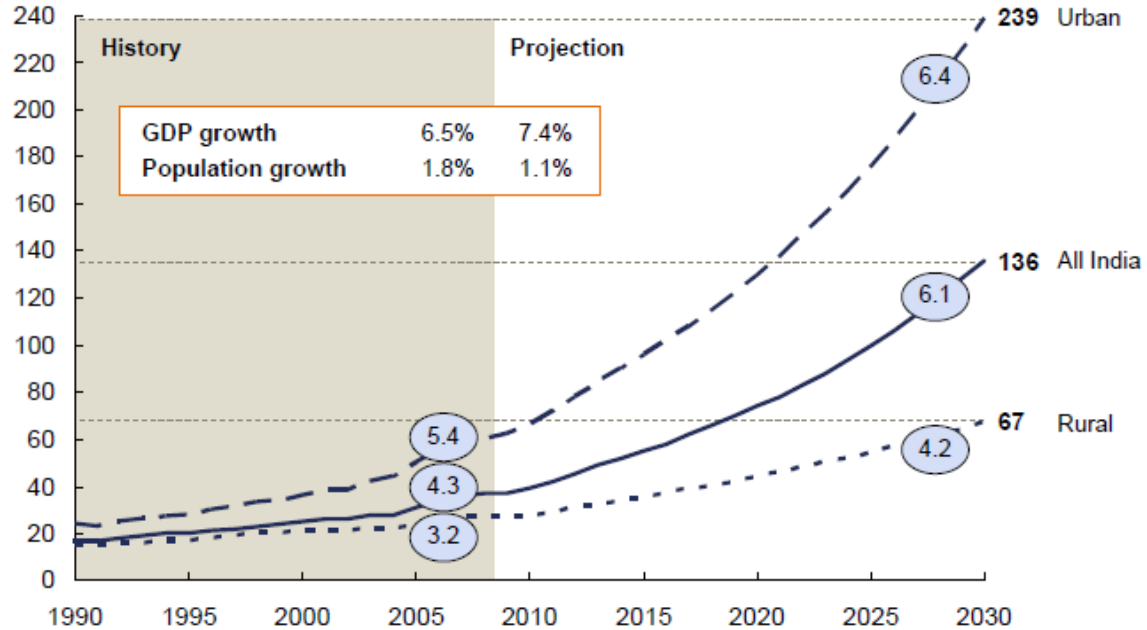


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## Urban India will drive a near fourfold increase in average national income

Per capita disposable income  
Rupees thousand, real 2008



SOURCE: India Urbanization Econometric Model; McKinsey Global Institute analysis



## Function of Food

- **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**

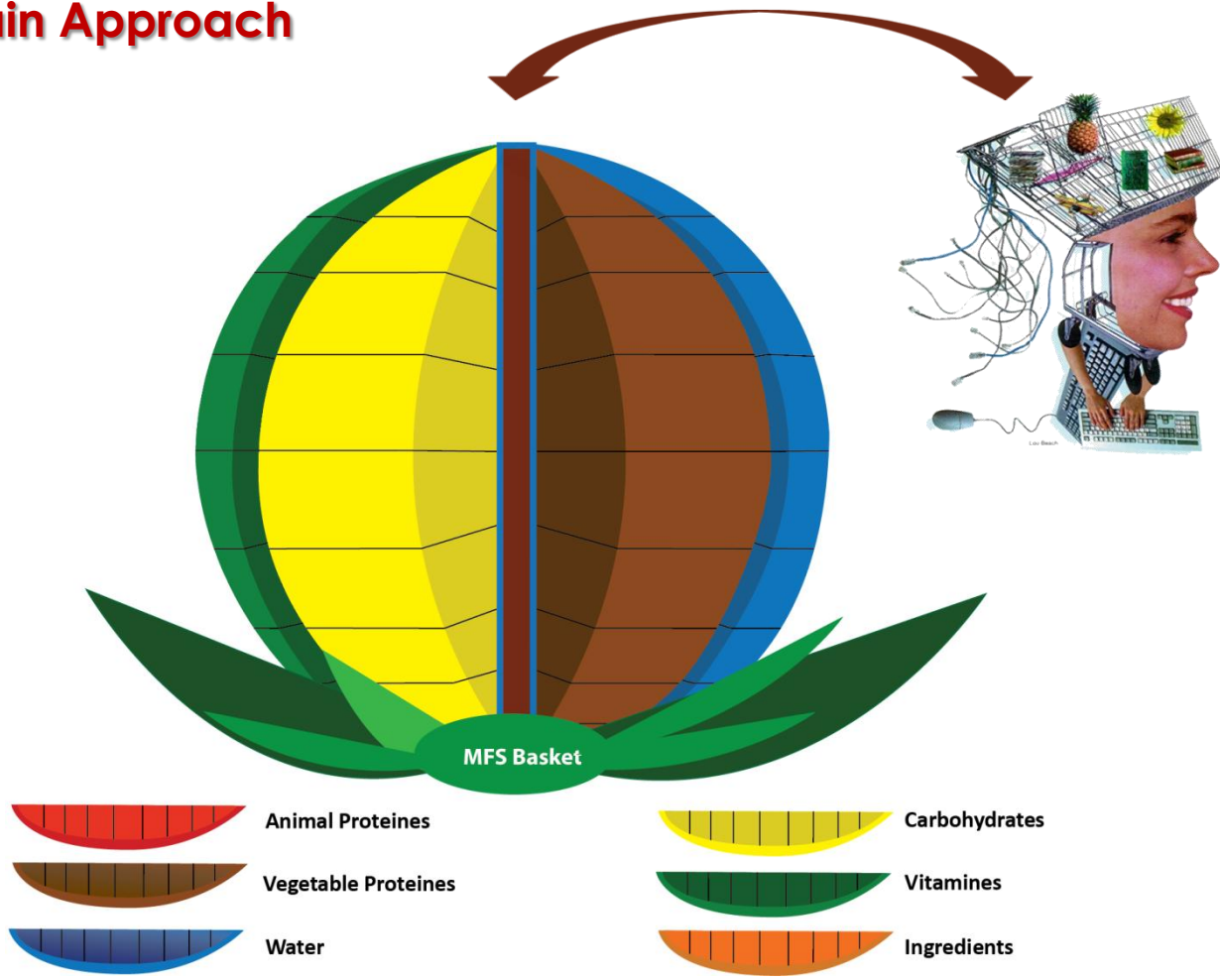




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## Supply Chain Approach

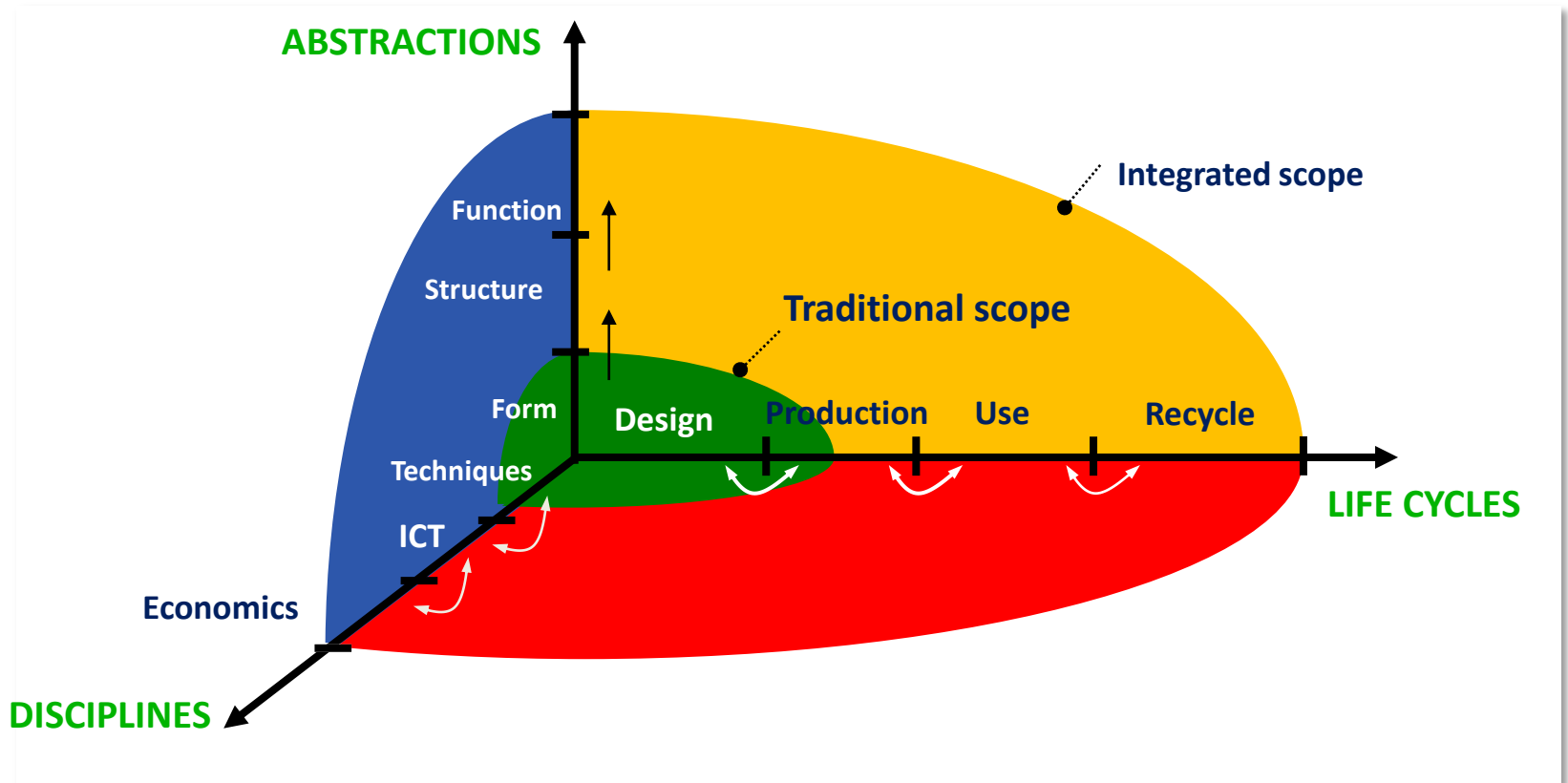




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## Integrated Approach of product and process development





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## Market/Chain

**Pressure**

**Requirements**

Purchasing power of Retailers and Food Service  
Very short lead times  
High service levels  
7 day supply  
Quality / food standards  
Competition

Increased use of EDI  
Support wide range of products  
Shorter shelf life products  
Reduction in additives  
Bio & Green and Emotion  
Product traceability

## Operations/Packaging

**Pressure**

**Requirements**

Integrated systems structure  
Variable batch sizes  
Effluent / waste reduction  
Lowest cost production  
Just in time operation

Forecasts of requirements  
Reduced dependency on people  
Plant flexibility  
High speed changeovers  
Scheduling production and maintenance  
Product recovery systems  
Detailed records of operations



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Hardware	Orgware	Software
Contextual relationships	Implementation and operation	Knowledge management
Infrastructure	Business planning	R&D
Demo facilities	Investment in infrastructure	Team development
Trade facilities	Types of consortia	Management of emotions
Production facilities	Stakeholder network	Communication
Processing facilities	External relations	Marketing
Industrial ecology	Policy and Politics	Branding
Energy management	Procedures and protocols	Quality management
Landscape and nature	Licences and approval	HRM
Routing	Supply chain management	Education
Design	Project management	Capacity building
<b>What can be held</b>	<b>What can be organised</b>	<b>What can be thought and felt</b>



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## Strength – Weakness Matrix

Flow / Know-how	Input	Production	Processing	Logistics	Trade	Consumer
Hardware						
Software						
Org. ware						

IN = India / NL = The Netherlands



## **Metropolitan Food Security**

### **Challenges:**

- **Water, genetics and primary sector development ("2x more, with 2x less")**
- **Hi-tech systems, remote sensing - crop management**
- **Post harvest handling, processing and logistics**
- **Integrated solutions for food security in rapidly growing urban areas**







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## **Metropolitan Food Security**

### **Centers of Excellence:**

- **Entrepreneurship:** Key to development and food security
- **Own experience:** Learning, building a sustainable knowledge base
- **Lead:** Private sector
- **Trust:** Power of Entrepreneurs
- **Concern:** Impact on small holders

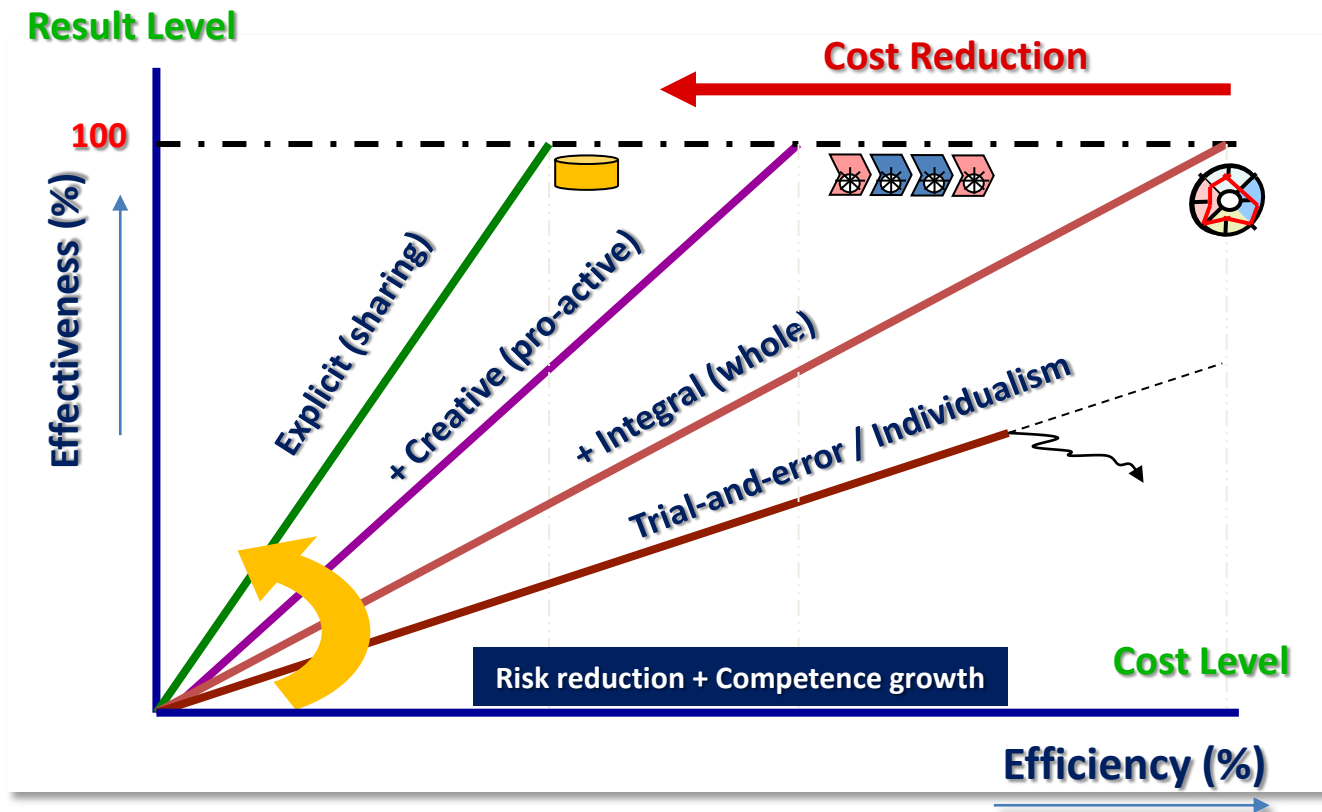




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## Result Orientation





**NAFTC**



**MoU:**  
**NAFTC Netherlands**



**With:**  
**Maharashtra State**  
**Supported by:**  
**MFS and GMV/FME**





# Thank you !

**More information:**

[www.naftc-india.com](http://www.naftc-india.com)

[www.metropolitanfoodsecurity.nl](http://www.metropolitanfoodsecurity.nl)

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