

Metropolitan Food Security

2nd International Conference METROPOLITAN FOOD SECURITY

*Twice as Much Food
Twice the Quality
Half the Resources*

Jan Hak

*Vice-Chairman, Treasurer of the Board,
Head of Committee 'Emerging Markets'*



Metropolitan Food Security

Platform for sectors:

Water - Agri-Food - Horticulture (T + U)

Market driven, result oriented initiative

- **With:** Holistic approach on Consumer Acceptance
- **Involving:** Logistics, Cleantec, Pharma and Bio-based products
- **Enabled by:** ICT and Hi-Tech



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Characteristics:

- Innovative
- Bottom up
- Demand driven
- Chain approach (primary, secondary and tertiary sector)
- Technologies: Connecting sectors
- Cementing relationship agro-sector – industry
- Entrepreneurial approach North - South



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Dutch Base:

- Annual agri-food, primary and secondary products production:
EUR 68 billion of which 85 % exported. 2nd Largest exporter in the world.
- Annual Hi-Tech agri-food systems, tertiary products production:
EUR 10 billion of which 80 % exported.
- Representing worldwide: 80% of poultry (Applied Animal Protein) technology, 65% of cheese technology and > 50% of Potato Technology.
- Golden triangle:
Producers cooperating with Academia supported by Government.



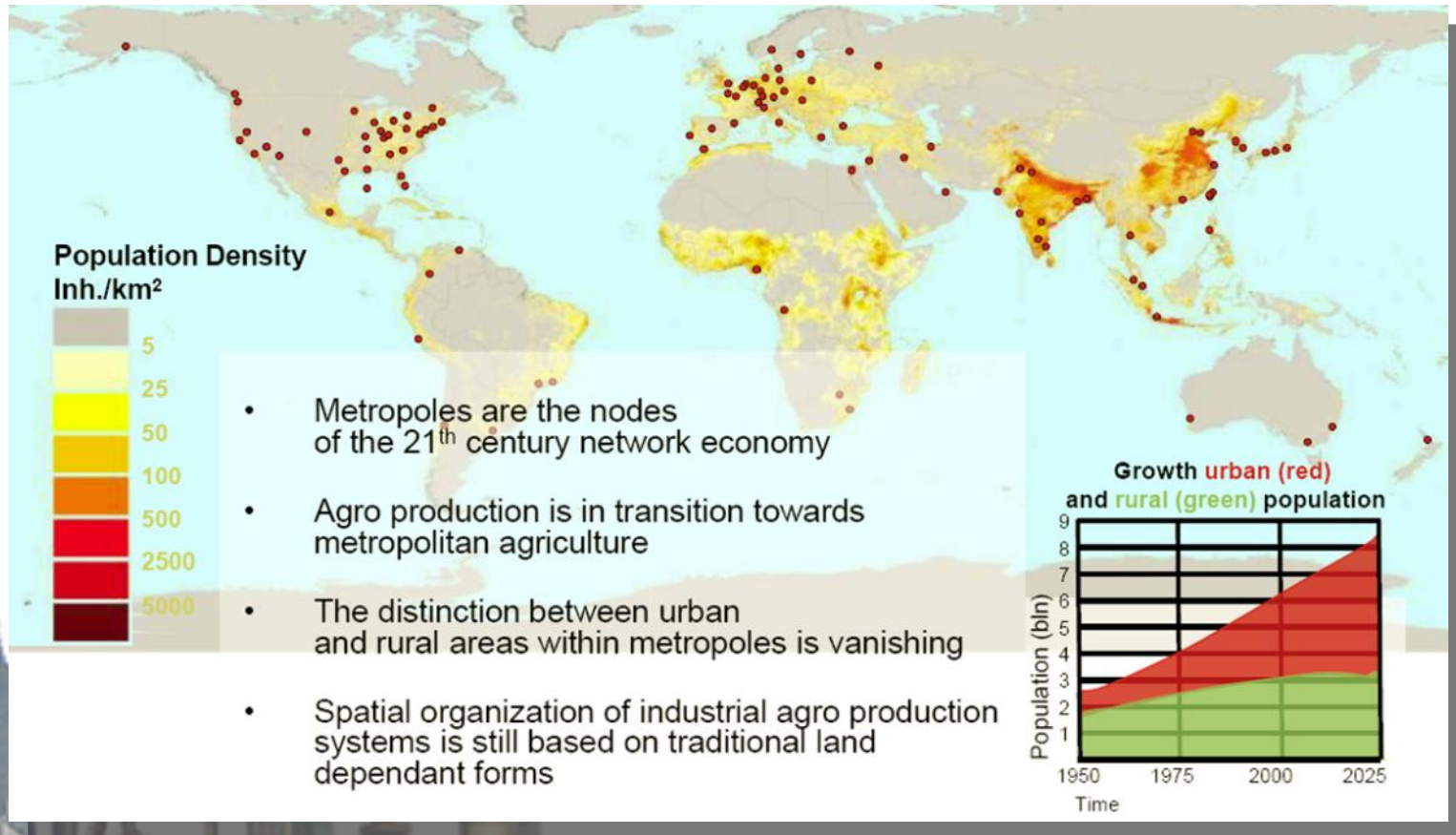
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Goals :

- Sustainable rural environment
- Securing Food in and for Urbanized Areas
- Entrepreneurship, new Opportunities
- Cooperation Business and Academia
- Sharing Know-How, Education
- Innovations in Science and Technology



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M of Metropolitan

Over 50% of the world population lives in cities now.
In 2050 this will be over 70% (7 billion).

The “endless city”: Mega Cities will merge into mega regions and urban corridors (over 100 million people).



Mega Regions:

Hong Kong-Shenzhen-Guangzhou region (120 million), China Nagoya-Osaka-Kyoto-Kobe Region (60 million by 2015), Japan Rio de Janeiro – Sao Paulo (43 million), Brazil

Urban Corridors:

in India: from Mumbai to Delhi, in West-Africa: Nigeria, Benin, Togo and Ghana and in east Asia: from Beijing to Tokyo via Pyongyang and Seoul

(Un State of the World Cities report, 2010)



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FS of Food Security

The cities of the developing world are spectacularly ill-prepared for the explosion in urban living (Van Ginkel, H., 2008 in FAO, 2009)



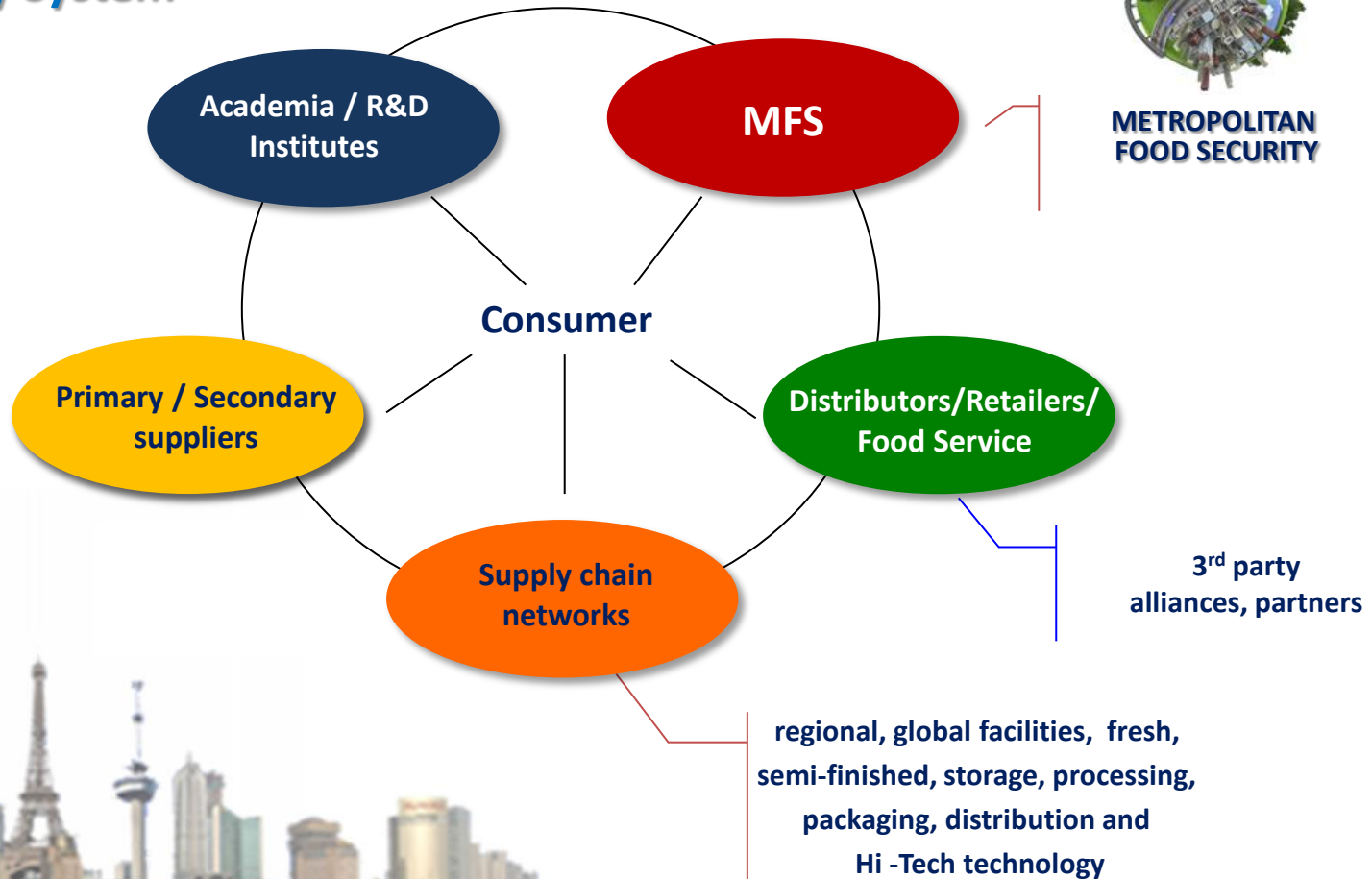
- **Metropolises' thirst for water:** has to come from far places > pressures distant ecosystems, increases amount of dry zones in soils > increase migration to cities.
- **Agriculture:** prime agricultural land converted into residential or industrial areas.
- **Logistics:** more and more food will have to be transported to and distributed within urban areas > infrastructure insufficient > stable supply can be jeopardized. (FAO, 2009)

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Supply System



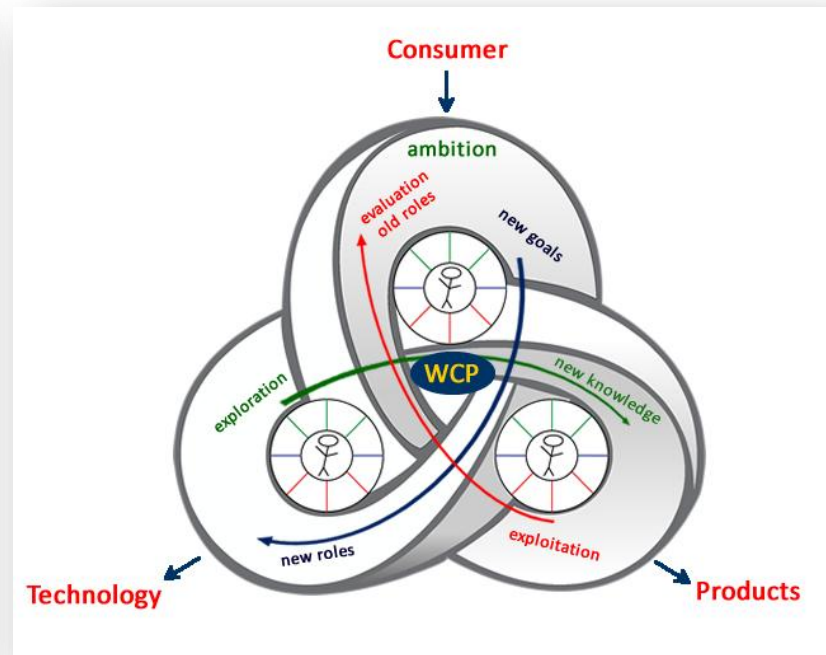
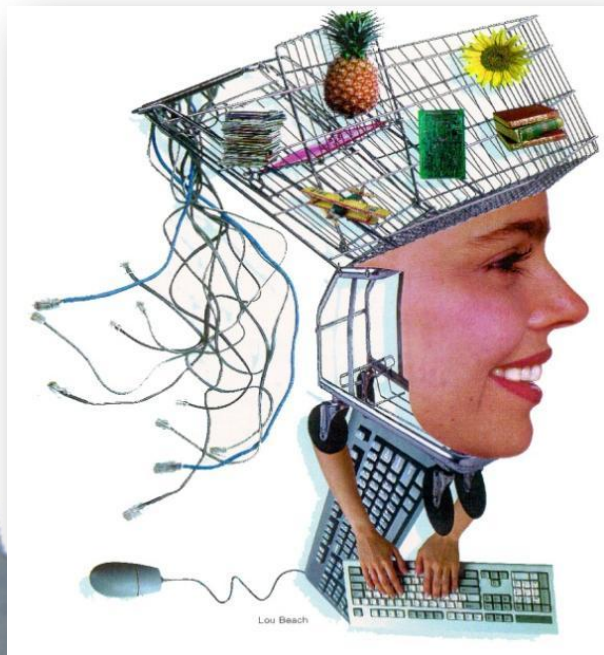
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FOOD SECURITY**



— = information

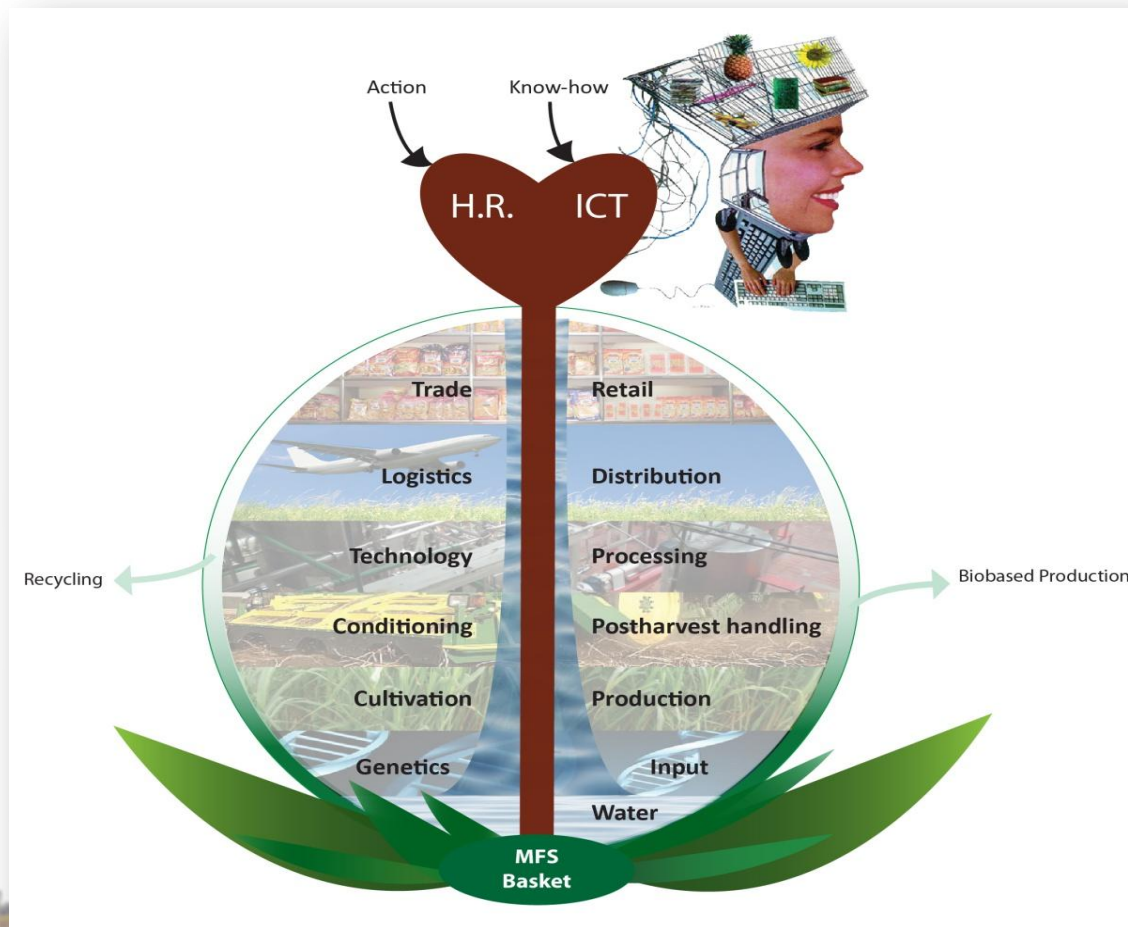
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Market-led Approach



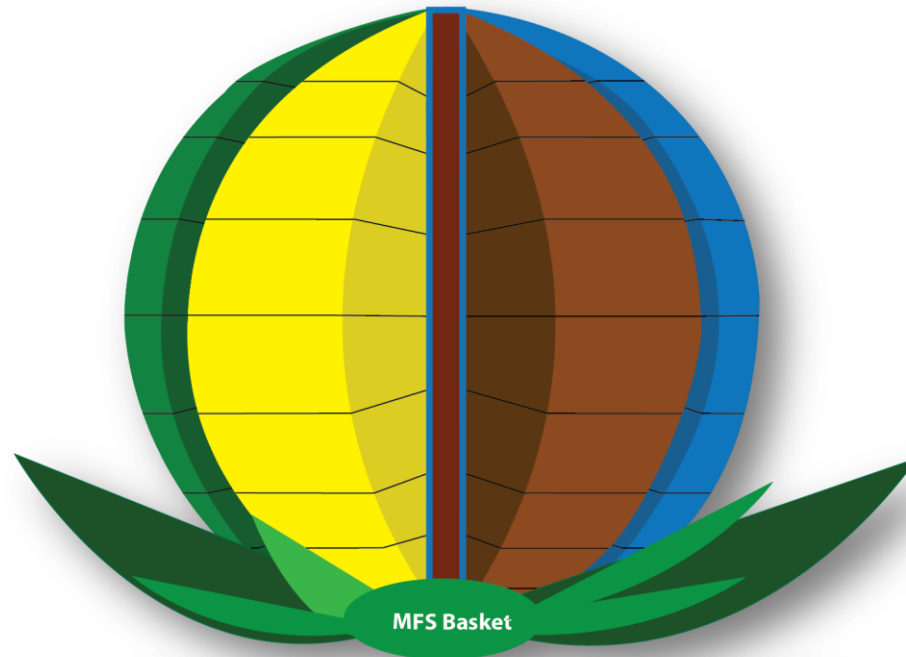
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Technology Approach



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Supply Chain Approach



AAPT: Applied Animal Protein Technology



AVPT: Applied Vegetable Protein Technology



AWT: Applied Water Technology



ACT: Applied Carbohydrate Technology



AVT: Applied Vitamine Technology

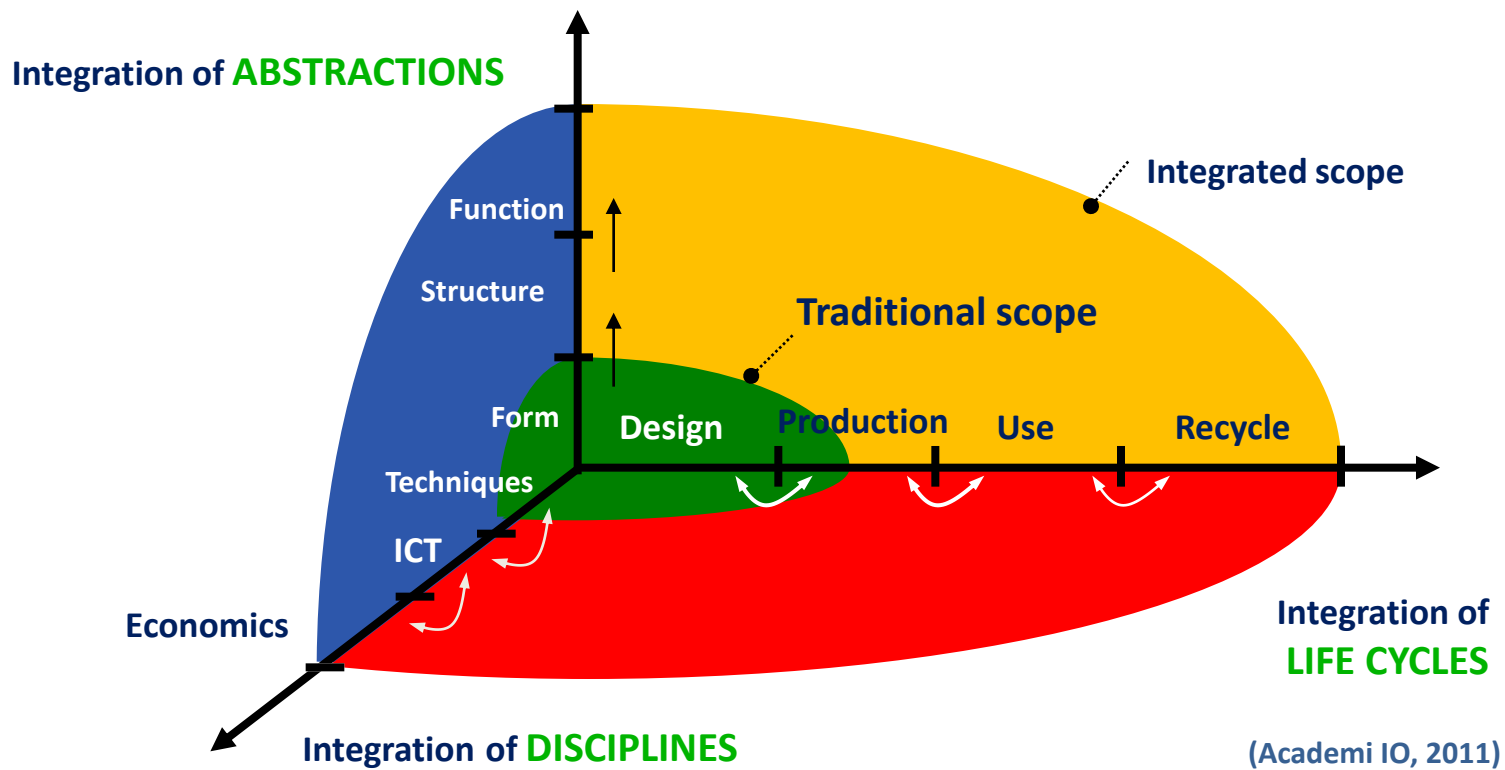


AIT: Applied Ingredient Technology



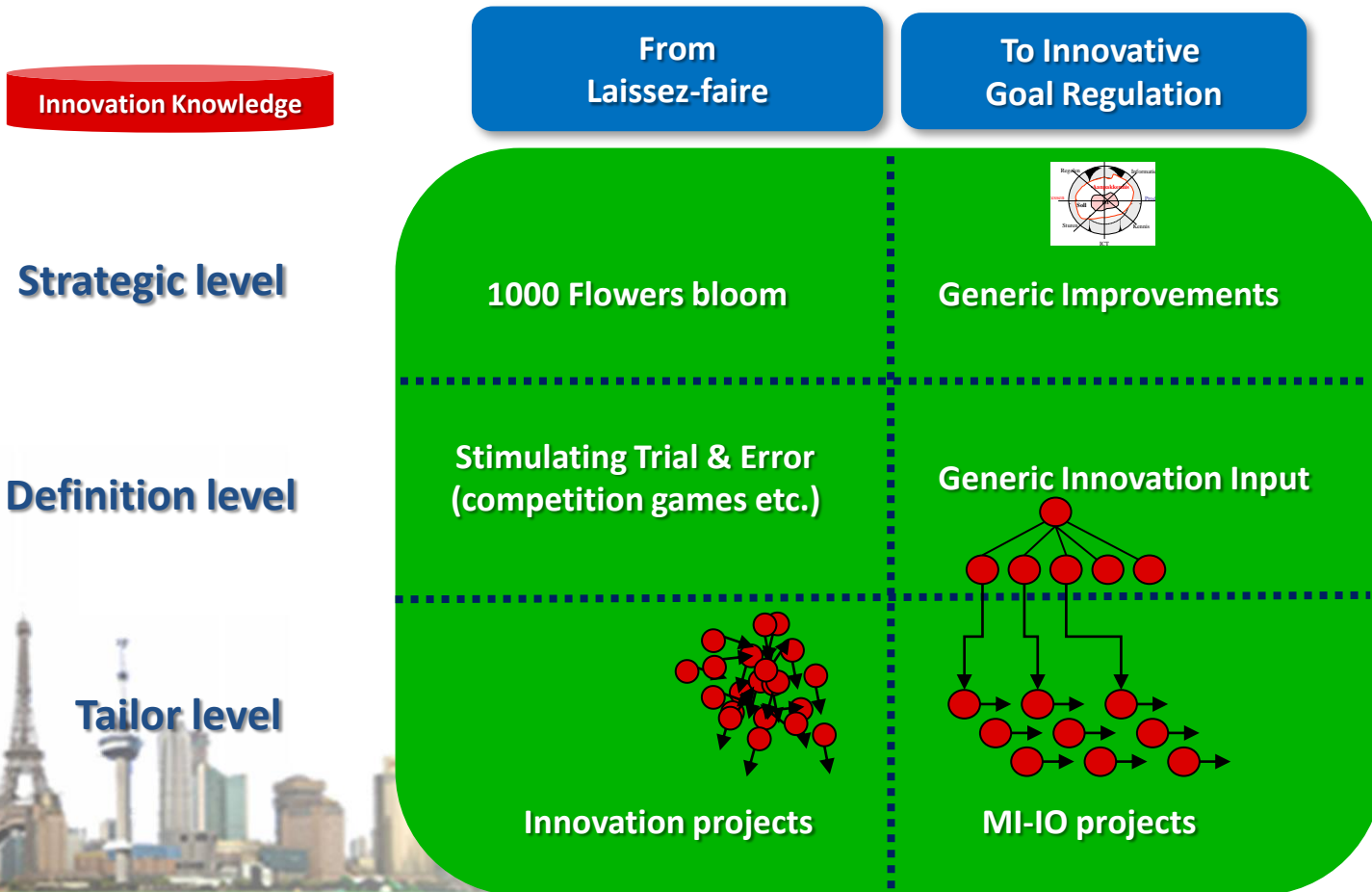
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Innovation Approach



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Process



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MFS – Back Office, The Netherlands

Provision of input, know-how and network access by:

Industries

Primary, Secondary and
Tertiary Sector Organizations

Academia and Education

Universities, Research
Institutions, Schools

Government

Ministry of Economic Affairs,
Agriculture & Innovation,
Ministry of Foreign Affairs,
Ministry of Education

Thematic

NGO's and Development
Cooperation Agencies

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International Organisation

*Provision of input, know how and network access also locally by counterparts:
Industries, Academia & Education system, Governments and Thematic organisations*

Working Groups



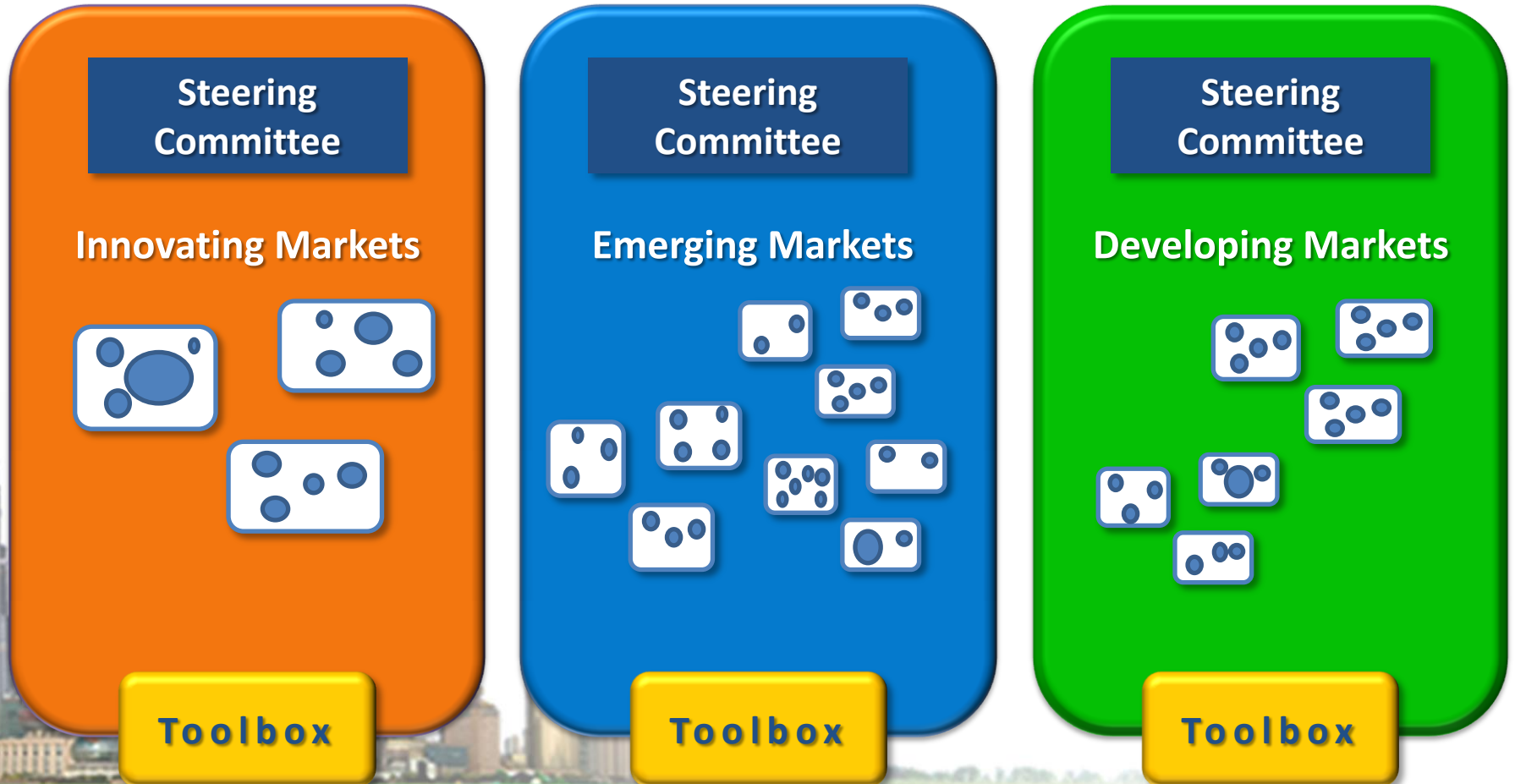
Innovating Markets
(Israel, US, EU)

Emerging Markets
BRIC, CIVETS

Developing Markets
Africa, South-America,
Middle East

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● Working Groups □ Country



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In this room are present:

- Back Office Arthur Vernooij
- Frontier Markets Bob van den Bijl
- Emerging Markets Jan Hak
- Innovation and International Academic Cooperation Raoul Bino
- MFS Office - China Fulco Wijdooge
- MFS Office - India Marijn Leijten
- MFS Office - Israel José Hak



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Strength – Weakness Matrix

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

IL = Israel / NL = Netherlands

Smeets, 2011

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Working Groups:

- 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

Haim Rabinowitz

Yossi Inbar

Raoul Bino

Bob van der Bijl



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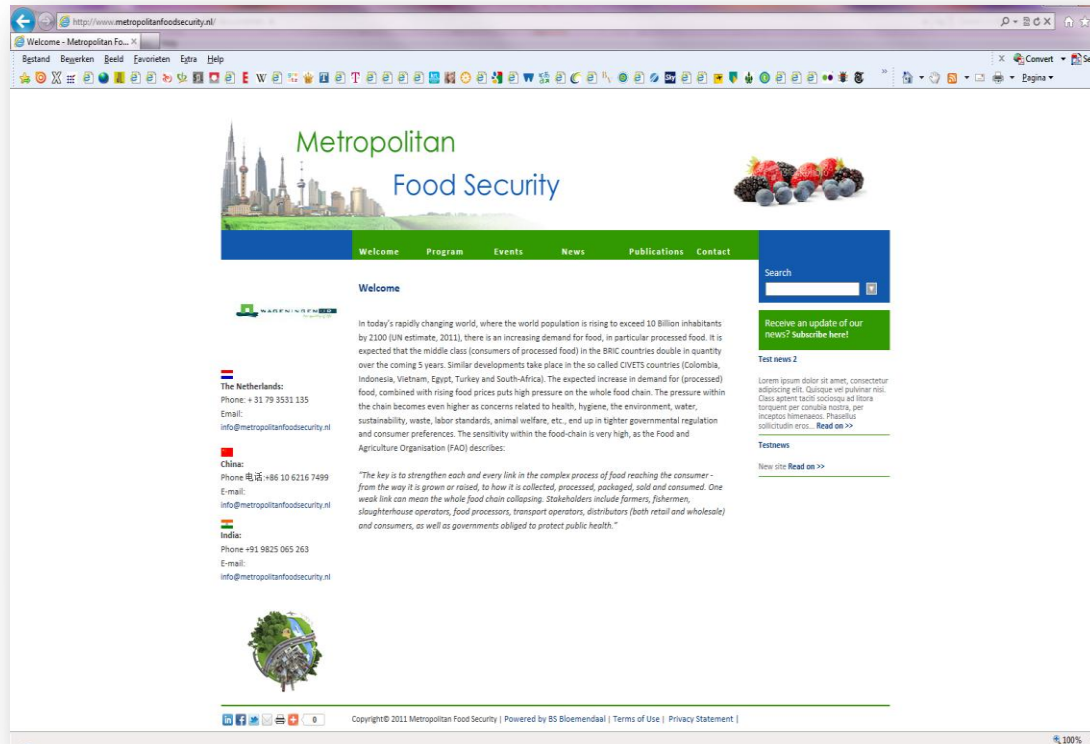
7 P's for:



People
Professional
Pro-active
Plan
Performance
Planet
Prosperity



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