



Ministry of Economic Affairs

# the Dutch Top Sectors approach

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Innovations from Holland, Solutions for the World



# Outline

## Session 1: Public Private Interaction

1. Netherlands innovation performance + CSR
2. Enterprise policy and the top sector approach

## Session 2: Innovation Strategies

3. Implementation of top sector approach
4. Budgetary implications the new government Rutte II





## 1.1 The Netherlands' Innovation Performance

### ***The Netherlands is doing well...***

- nr.5 Competitiveness (World Economic Forum 2012)
- nr.5 Innovation Union Scoreboard 2013 (forthcoming)
- nr.5 Exports
- nr. 3 Scientific articles

### ***... but still room for improvement***

- Low private R&D investments (1,07% GDP, 2011)
- Commercialisation (*knowledge-ability-cash*)
- Connection between education and labour market
- 'Inflexible', rigid labour market
- Regulatory burden on business



## 1.2 Country Specific Recommendation Netherlands

Promote innovation, private R&D investment and closer science-business links, as well as foster industrial renewal by providing suitable incentives in the context of the enterprise policy, while safeguarding accessibility beyond the strict definition of top sectors and preserving fundamental research.



## 2.1 Enterprise policy and the top sector approach

### **Two tier:**

- 1) *Generic policies:* excellent climate for entrepreneurship and innovation
  - Financing, fiscal rules, smarter regulation, education (human capital), level playing field
- 2) *Topsector policies:* 9 top teams
  - Sectoral: 9 top sectors
  - Demand driven: business and researchers set the agenda
  - Integral: Innovation, Human Capital Agenda (HCA), regulatory burden, international trade, etc.
  - Cross-sectoral: ICT, biobased, nano; linked to societal challenges in EU-Horizon 2020



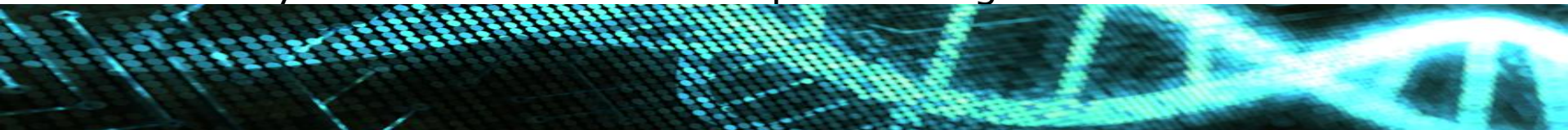


## 2.2 Ambition and Criteria for Top Sectors

- Top 5 position of knowledge economies by 2020 (GCI/WEF)
- Increase Dutch R&D efforts 2,5% R&D by 2020
- Establish top consortia for Knowledge and Innovation by 2015
  - public and private parties contribute €500 mln.
  - At least 40% of consortia financed by business sector

### Selection Criteria for Top Sectors:

- High knowledge intensity;
- Strong links between business sector and knowledge institutes;
- High international market exposure / strong export position;
- Potential contribution to societal challenges;
- Necessity for a sector oriented triple helix agenda





## 2.3 Top

## Sectors

### Sustainable Economic Growth

- ✓ Top 5 Knowledge Economies
- ✓ Increase R&D efforts to 2,5% of GNP by 2020
- ✓ Establish Top Consortia for Knowledge & Innovation by 2015

European Union	Finance	AgriFood	Horticulture	HighTech	Energy	Logistics	Creative Industry	Life Sciences & Health	Chemicals	Water
	Fiscal									
	Regulation									
	Education									
	ICT									
	Biobased									
	Energy									
	Infrastructure									

### Top Consortia for Knowledge & Innovation

Innovation Contracts
Human Capital Agenda
Internationalisation



## 2.4 Sector PPP's Will Solve Grand Challenges

In a nutshell:

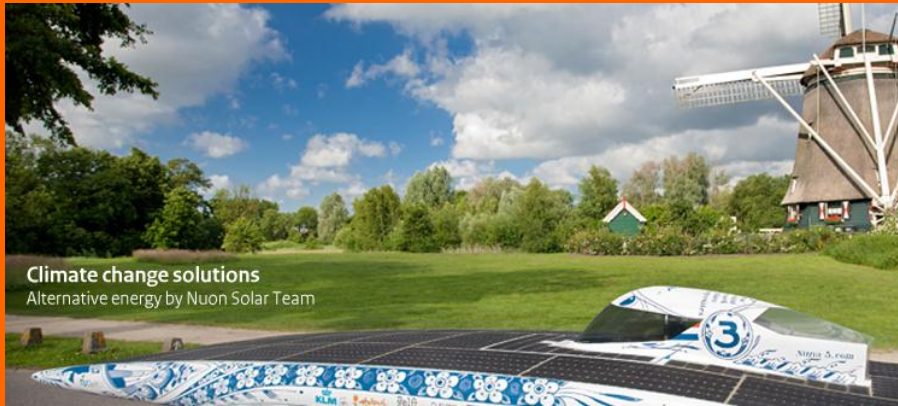
- an answer to societal and economic challenges
- by means of public-private partnerships
- based on comprehensive sectoral agenda's







# Innovations from Holland – Solutions for the World



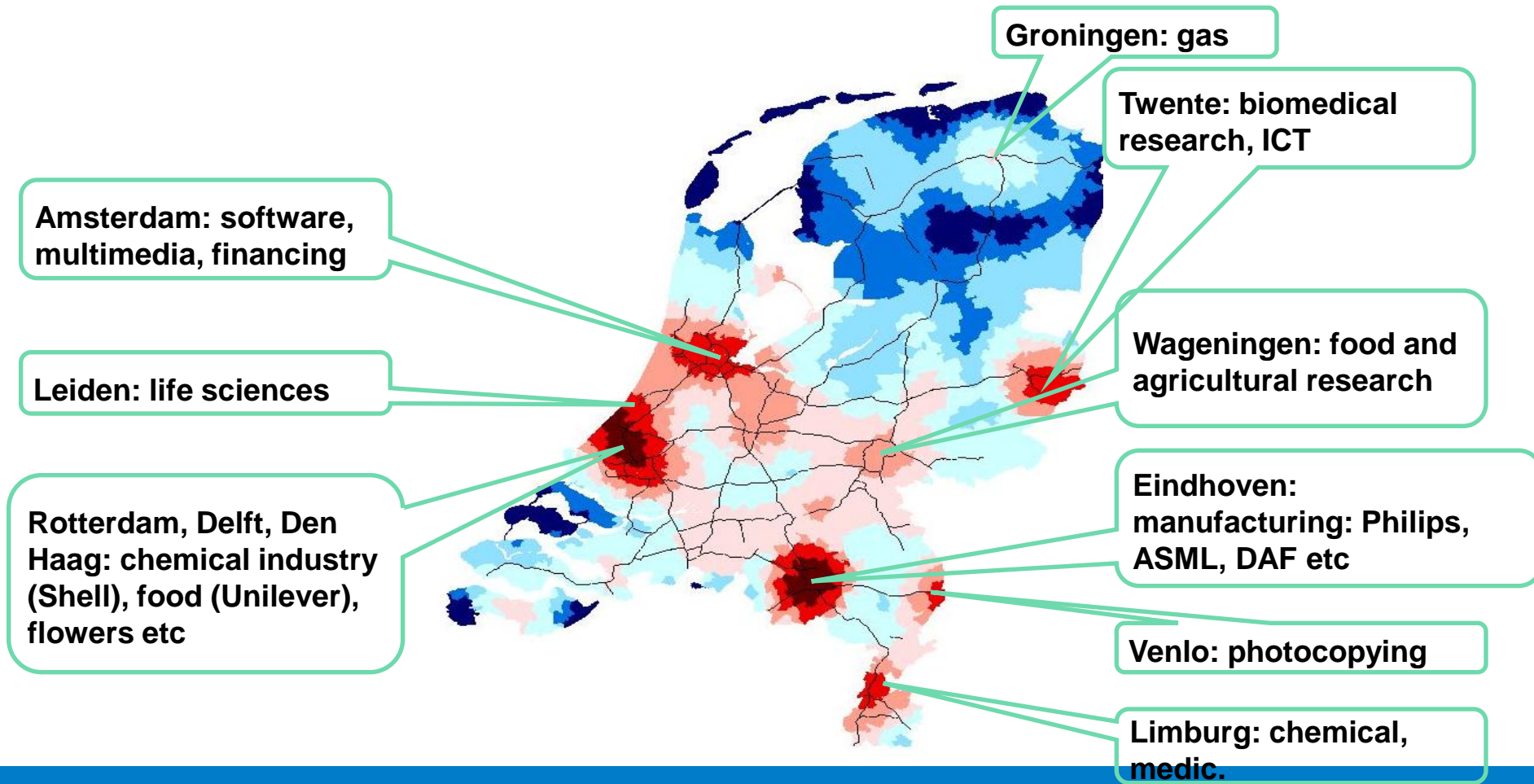


## 2.5 Top sectors account for 97% of NL R&D

	Production € bln	Employment X1,000 FTE	R&D-expenditures € mln
<b>AgriFood</b>			
Core	72.6	213	402
Chain	111.1	616	576
<b>Horticulture</b>	21.1	118	169
<b>HighTech</b>	94.9	444	2,578
<b>Energy</b>	55.0	47	645
<b>Logistics</b>	125.9	813	113
<b>Creative industry</b>	22.6	148	21
<b>Life sciences</b>	12.6	39	671
<b>Chemicals</b>	90.4	80	737
<b>Water</b>	25.4	87	468
Total Top sectors	469.9	1,766	5,044
Total Netherlands	1,140.2	6,718	5,218

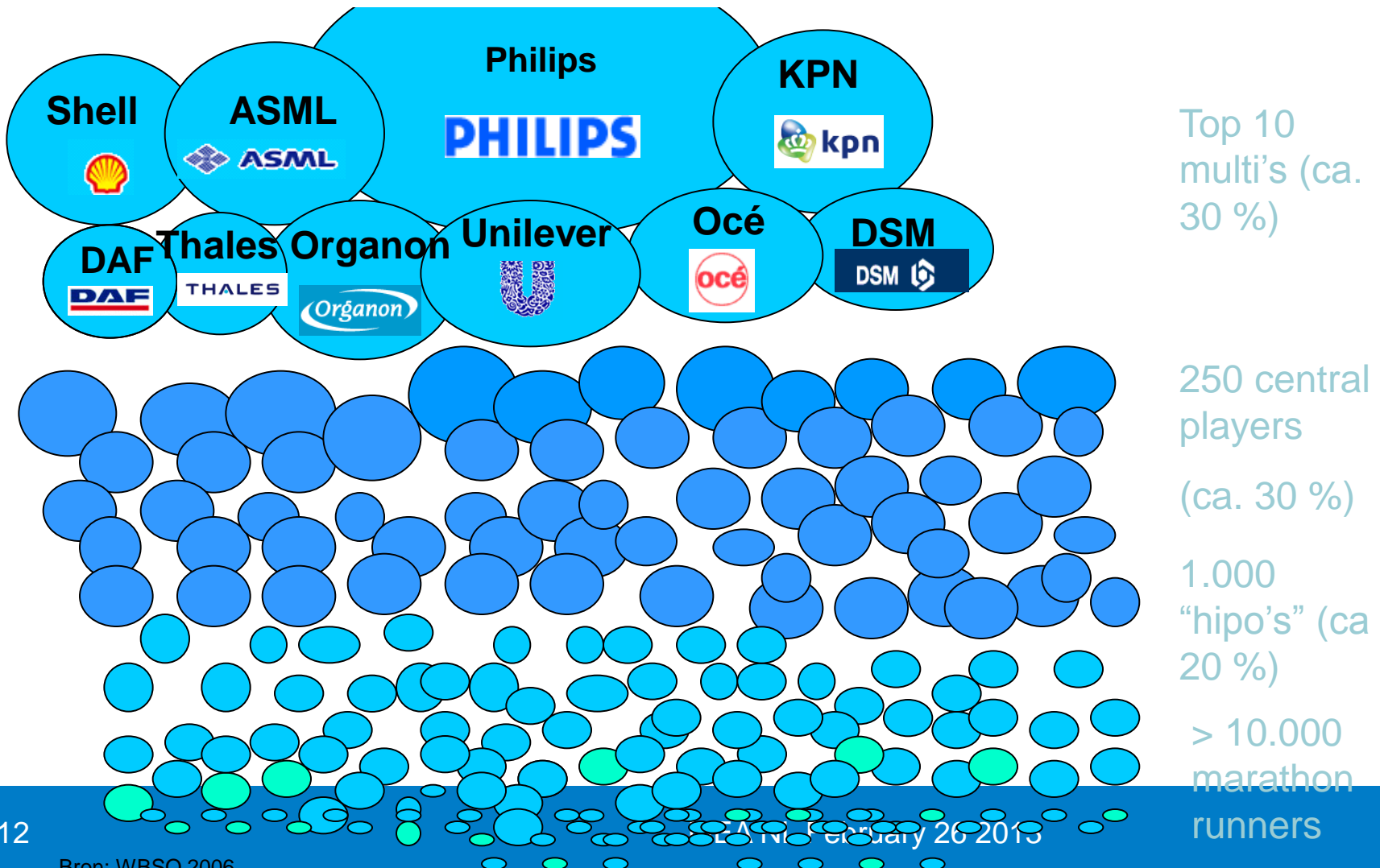


## 2.6 Our high tech areas: business R&D





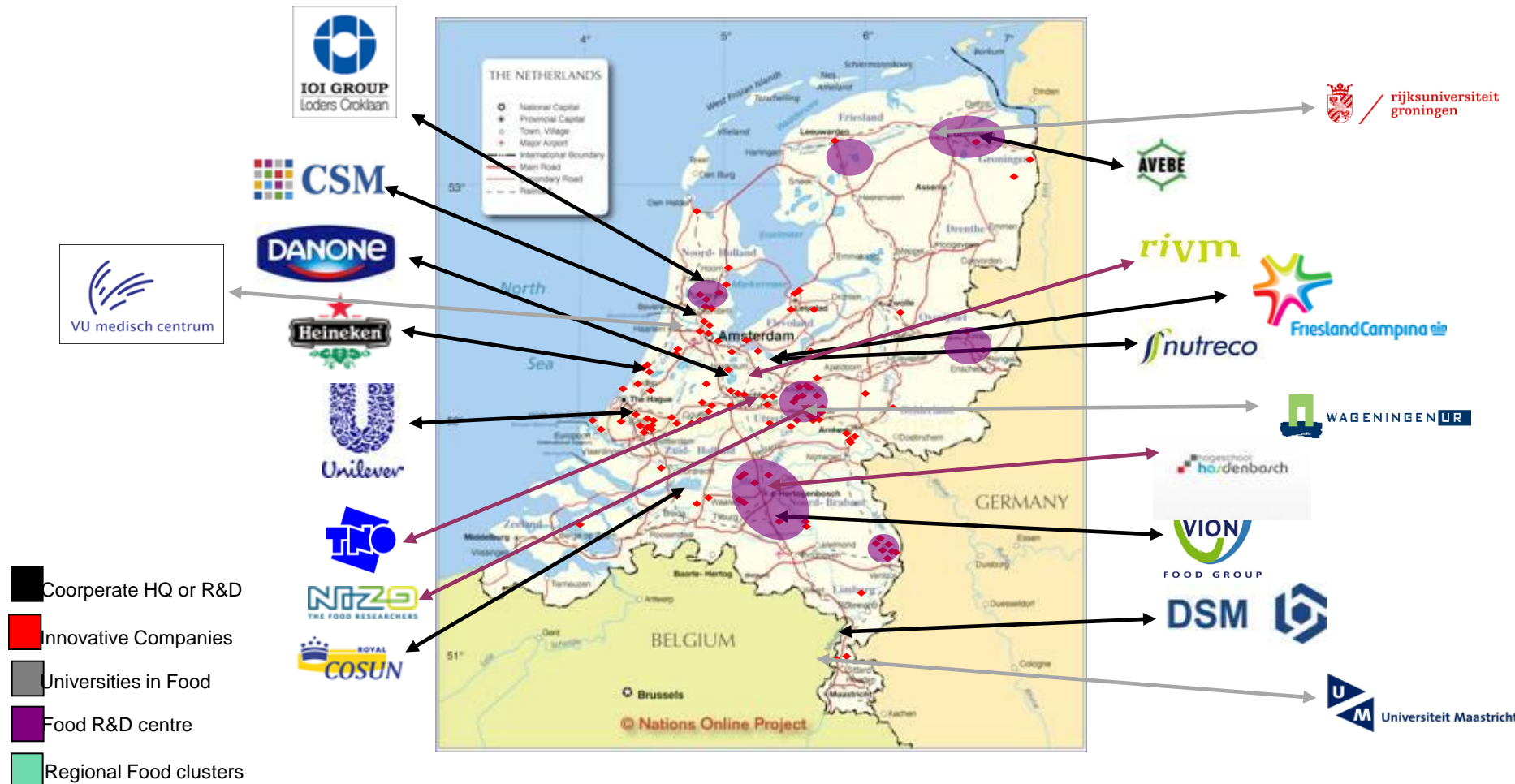
## 2.7 Private R&D in the Netherlands







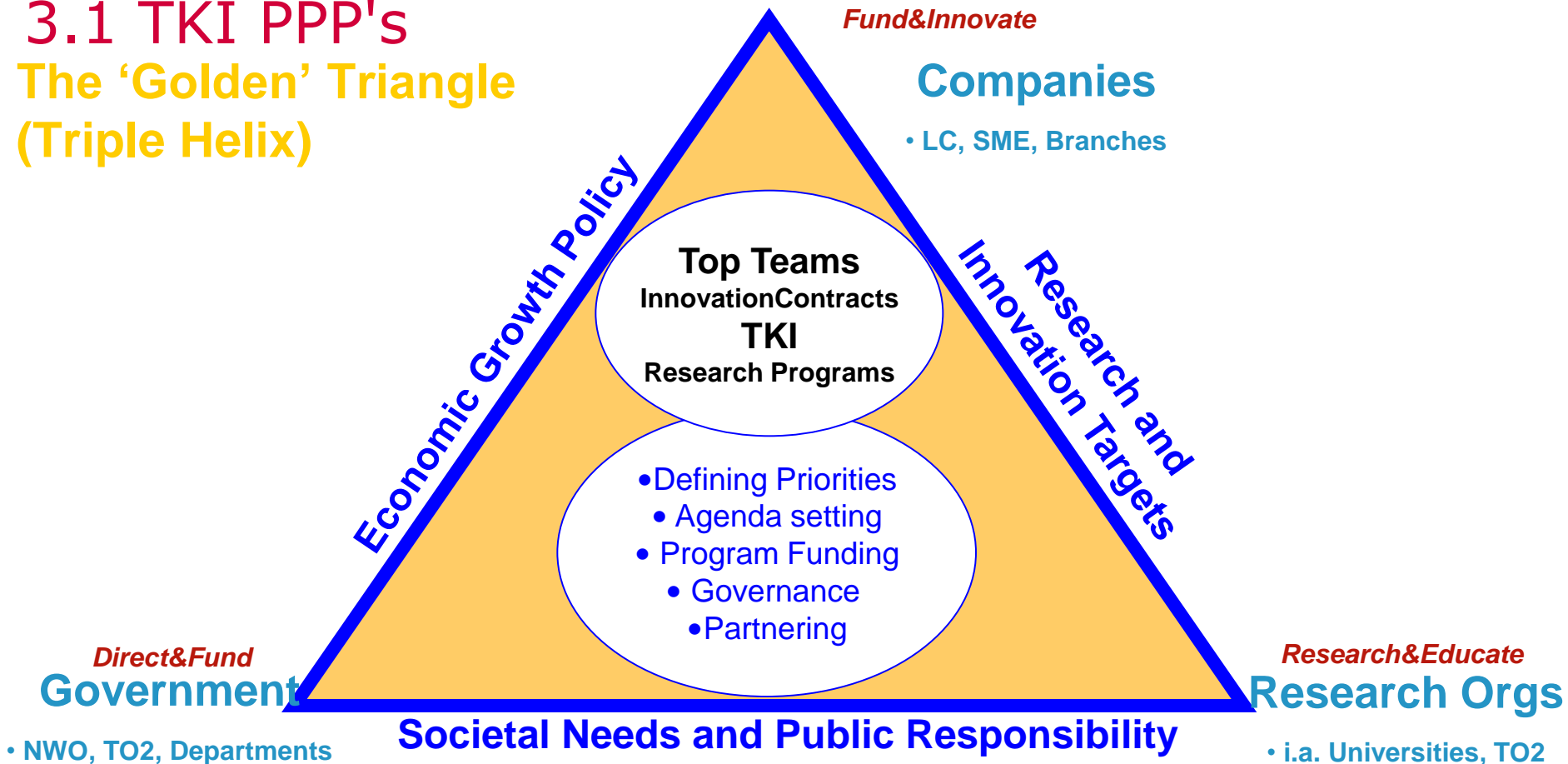
## 2.8 Example: Food Landscape in the Netherlands





### 3.1 TKI PPP's

## The 'Golden' Triangle (Triple Helix)



Framework conditions (European Union/WTO)



## 3.2 Top sectors implementation

### *Public-private cooperation*

- 1. Innovation contracts (€ 2,8 mld.)
- 2. Human Capital Agenda/Masterplan Bèta and Technique
- 3. International
- 4. Regulatory burden
- 5. Regional involvement

### *The government of the Netherlands contributes through:*

- Research funding via TNO, DLO, GTI's, NWO
- TKI allowance (TKI= top consortia for knowledge and Innovation)
- Economic diplomacy and development aid instruments
- Budgets of various ministries involved
- Centers of Expertise en Innovative Craftmanship





## 3.3 Innovation contracts

### **Innovation contracts**

- Bridging knowledge infrastructure gap to fill needs of top sectors
- Public-Private Partnership programming and commitment
- Growth perspective and rolling agenda's

### **Topconsortia for Knowledge en Innovation (TKI's)**

- Batting power and synergy
- Open, international character, building on existing strenghts
- 19 TKI's established during 2012
- recieve 90-200 mln. TKI allowance for research and valorisation







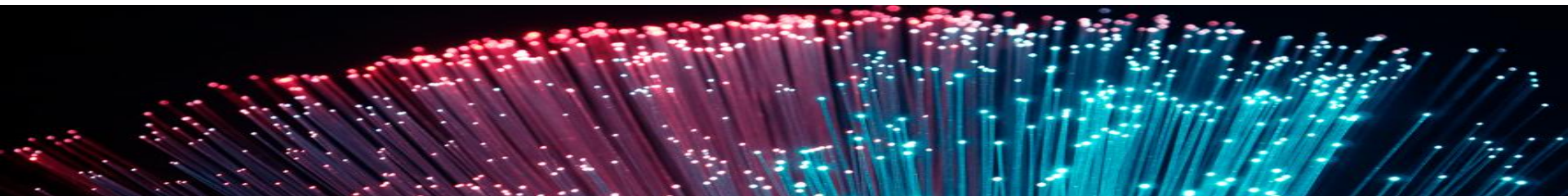
## 3.4 Policy program

### - Specific: Top sectors / innovation

Focus knowledge and R&D on top sectors:

- Demand-driven public research; joint agenda's
- Gearing fundamental research funds and applied research more towards top sector theme's (institutes like NWO/KNAW, TNO, DLO, ECN)
- TKI-allowance: incentive for private financial commitment

Note: Fundamental research will not receive less funding than before the recession, but approx. 10% will be oriented towards theme's, including EU Grand Challenges.





## 3.5 Human capital (agenda's)

- Centers for innovative craftsmanship and Centers of expertise
- Action against the shortage of bèta's en technical employees in the workforce

## 3.6 Internationalisation

- Strong participation in Horizon 2020 for Societal Challenges
- Organisation of trade missions
- Branding of sectors abroad
- Attracting foreign direct investment
- Cohesion





## 4.1 Financial agreements Rutte II

- Continuation of top sector approach
- Extra funds
  - Fundamental research € 150 mln
  - TKI allowance € 110 mln (added to € 90 mln Rutte I)
  - Applied research growing to € 250 mln per 2016 (TNO,DLO & GTI's)
  - Cofinancing & matching EU € tens of millions
- Restructuring / fiscal consolidation
  - Abolishment subsidies € 60 mln
  - Fiscal R&D stimulation € 160 mln
- 2013 budget for research and innovation: € 6.8 bln (3.8 bln research)



## 4.2 Agreements coalition Rutte II

- Improved link top sectors with Netherlands regions and SMEs
- More focus on “Green Growth”
- Development aid – revolving fund of € 750 mln
- Technique pact: Public-Private Partnership to support education in technical disciplines
- 15 ICT breakthrough projects
- Regulatory burden reduction

