NL Agency
Ministry of Economic Affairs, Agriculture and
Innovation

Energy Efficiency tools

ICT and the public sector

the Netherlands

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   innovation and international

ICT, a
Life changing experience

But also
… an inconveniant thruth

Known and Suspected Routes of e-waste Dumping

Policy Netherlands

- Neeap: no special reference to ICT

- Long term strategy (energy) based on:
    - Long term agreement with the sector (engagement!)
    - Road map 2030 (Energy)

- Public Procurement & management
    - Professionalism
        - Drastic reduction in procurement centres 350 ➔ 20
        - Category management
        - Guiding principles
    - Sustainable criteria (97% use in 2010)
    - Innovation & (new) ICT business models

Long term agreement with the ICT sector

1st 2008, 16 companies   **2nd** 2009-2012, 35 companies

EE Objective '09-'12: 5 PJ, >30%; realisation 9,7PJ ±50%

2012: Road map 2030
-Greening of ICT
-Greening by ICT

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Road map 2030

- Greening of ICT
    - Strategy: heading for CO_2 neutral ICT
    - Efficient use of ICT capacity
    - EE datacenters
    - EE ICT components
    - Green software

- Greening by ICT
    - Built environment
    - Smart grids
    - Traffic management

Vervolg van ICT Routekaart

Energiegebruik ICT Sector in 2012: 18 PJ per jaar

Energiegebruik ICT sector in 2030: 39 PJ per jaar (11,7 PJ lager dan bij ongewijzigd beleid)

Efficiëntere inzet van bestaande ICT-capaciteit.

- Virtualisatie
- Cloud computing
- Data deduplicatie
- Thin provisioning

Belangrijk, maar geen Actieplan. Wordt door de markt opgepakt.

Energie-efficiënter maken van datacenters.

- 'vrije' Koeling met behulp van buitenlucht
- Data Center Infrastructure Management (DCIM)
- Verhogen temperatuur in datacenters

Belangrijk, maar geen Actieplan. Wordt door de markt opgepakt.

- Hergebruik restwarmte datacenter

Actieplan ism Woningbouwcoöperaties en LTO: hergebruikrestwarmte datacenters voor bedrijven en huizen

- Koppeling datacenters aan Smart Grids

Actieplan ism Energie-Nederland: koppeling datacenters aan Smart Grids van Energieleveranciers

Energie-efficiënte ICT- en hardwarecomponenten.

- Gespecialiseerde processoren
- Gebruik van 3D-integratie

Belangrijk, maar geen Actieplan. Wordt door de markt opgepakt.

- Inzet van (intelligente) sensoren

Onderzoeksprogramma ism Topsector Hightech Materials & Systems

- Ontwikkeling energiezuinigere netwerken

Belangrijk, maar geen Actieplan. Wordt (internationaal) door de markt opgepakt

Energie-efficiënte software.

- Efficiënt programmeren software vooral op gebied van transport, bewerking en opslag data

Aansluiten bij initiatief Green Software: http://www.agentschapnl.nl/programmas-regelingen/knowledge-network-green-software-kngs

Sustainable Public Procurement

Freedom in solutions
Innovation

Procurement
Process
Specifying

**Level 1: criteria
minimum standards**

Office IT, Imaging equipment, Audio Visual, networks & datacenters,

Objectives

System, services

Product Product Product Product

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Best practice 2
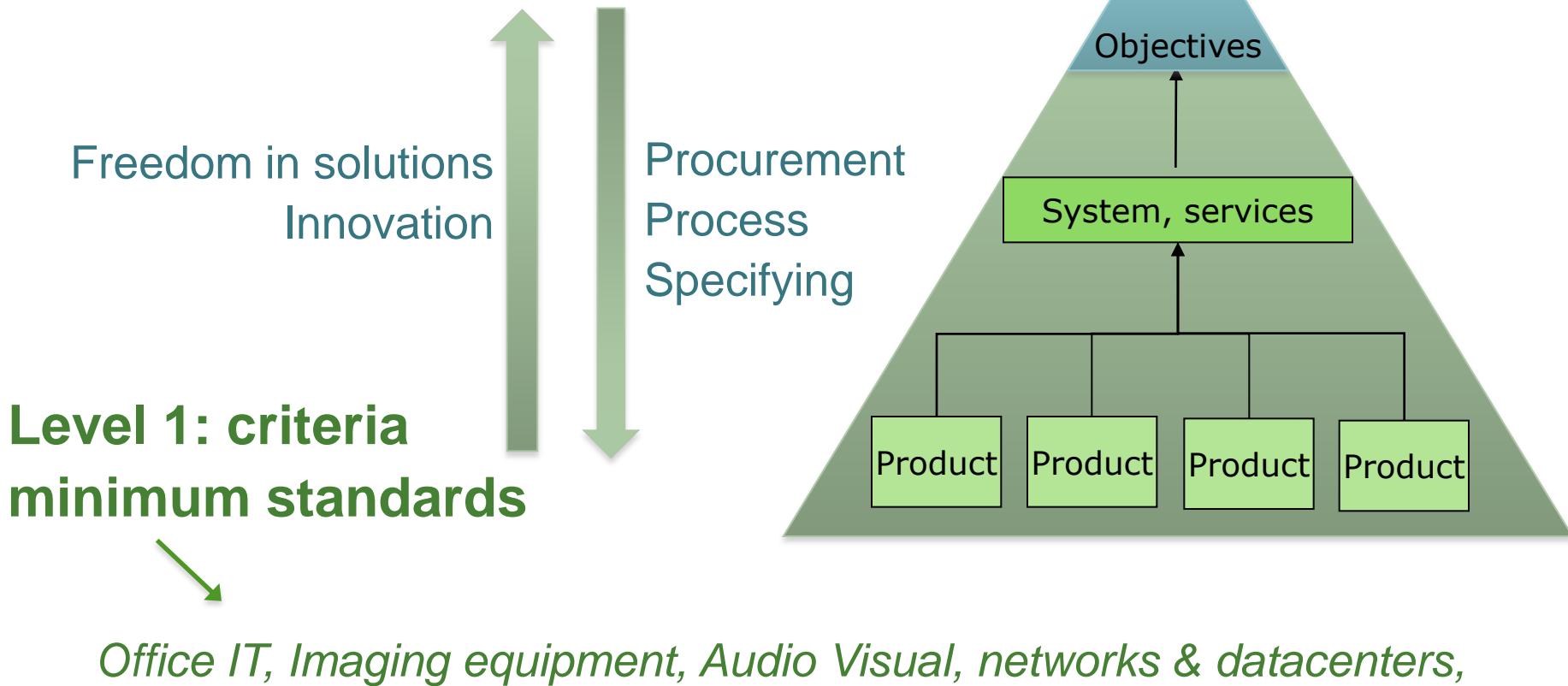
Professional use of procurement techniques

Datacenters, integrated services

Innovative Procurement, functional, best value procurement

Market involvement

Innovative procurement

	Technical requirements	Functional requirements
Tender	Detailed specifications	Description functions and performances
Assessment	Majority procurement on lowest price	Offers on quality ánd price
Outcome	You get what you want, no surprises	Innovation, Sustainable & cheaper

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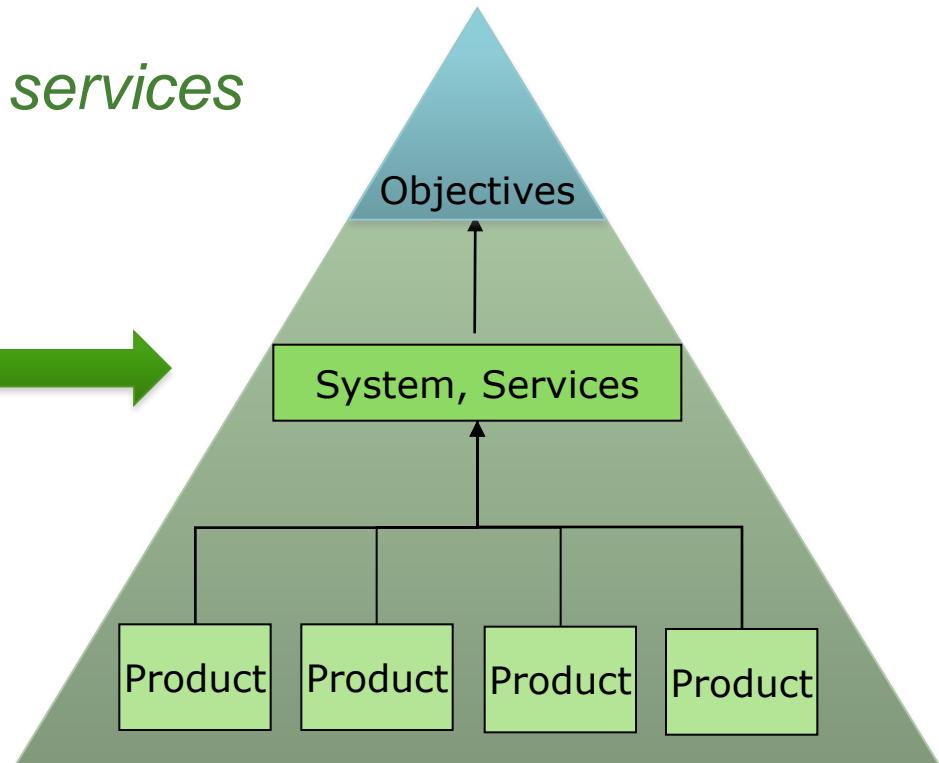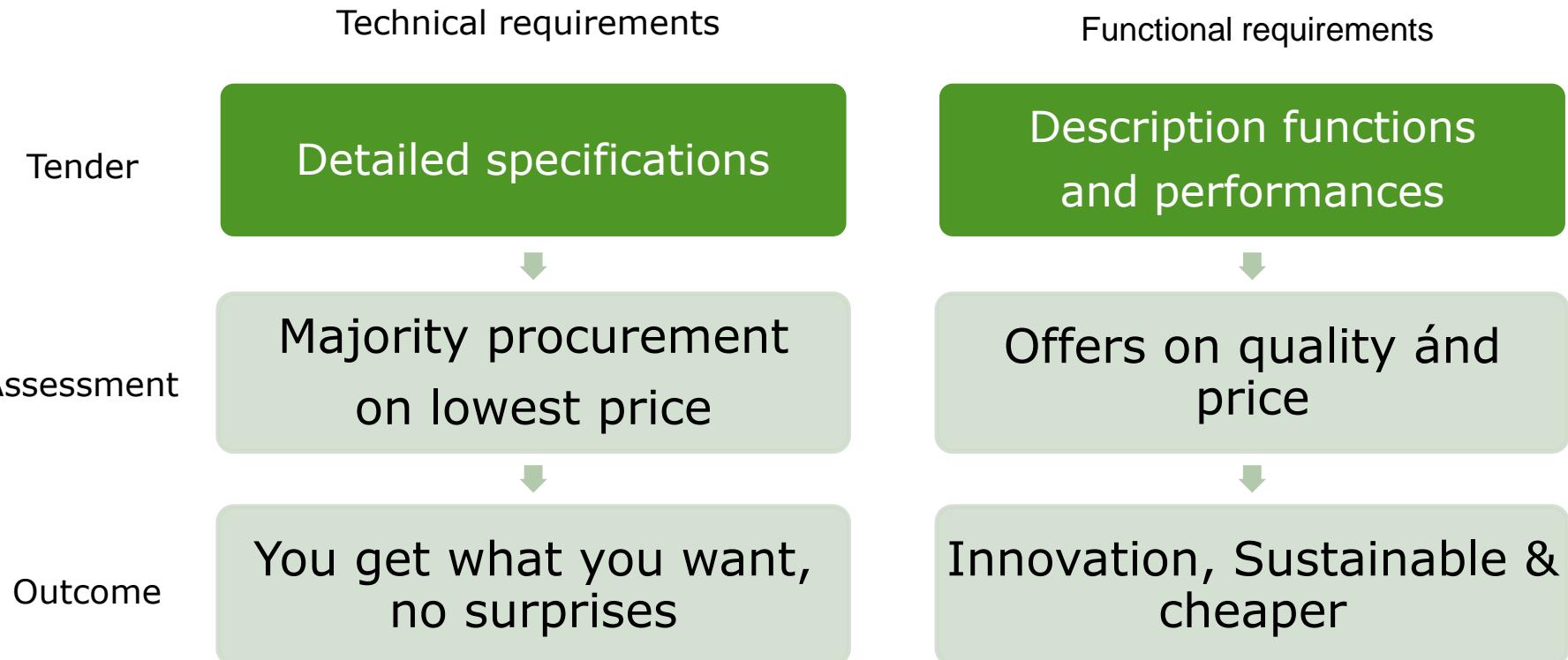
Example: office interior design

	Technical requirements	Functional requirements
Tender	Chairs Tables, ICT	Flexible working place, stimulating efficient and effective work TCO, service
Outcome	1000 chairs & tables Product requirements	Desk sharing - 600 workplaces Flexible office design Lease concept, shared responsibility 48% CO_2 reduction

Investment € 1,5 million
Savings € 1,2 million/yr
Payback in 1,25 years

- Long term agreement documents + road maps

- Certification system data centres (Breeam)

- Measuring tool for green software

- Green procurement criteria

- **Datacentres**, the no. 1 priority, enormous potential in EE
- New challenge: green software

- Implementing **professional procurement**
    - Innovative procurement
    - Integrating economic, green / energy & social
    - Shifting to services
    - **Knowledge & Capacity**

- Ipad, paperless office
- New business models
- E-waste, resource efficiency
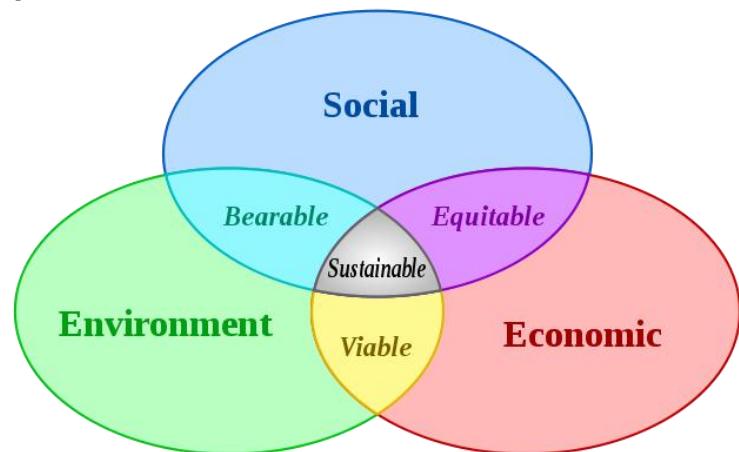
Inviting: *joining forces to deal with Microsoft, Apple, Google,…*

Links

Neeap: http://ec.europa.eu/energy/efficiency/end-use_en.htm

Long term agreement (English):
http://www.agentschapnl.nl/sites/default/files/bijlagen/LTA3 convenanttekst - 13 juni 2008.pdf

And http://www.agentschapnl.nl/sites/default/files/bijlagen/2MJAP1169 LTA and LEEresults 2010.pdf

Road map 2030 ICT (Dutch):
http://www.ictoffice.nl/Files/TER/Routekaart_ICT_2030.pdf

Green public procurement:

http://www.agentschapnl.nl/en/onderwerp/criteria

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Long term thinking,
 short term actions

Thank you!

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