

PHILIPS

sense **and** simplicity

European programmes for R&D and
innovation –

Philips' participations and perspectives

CEPS Task Force on SET Plan
Brussels, December 14, 2010

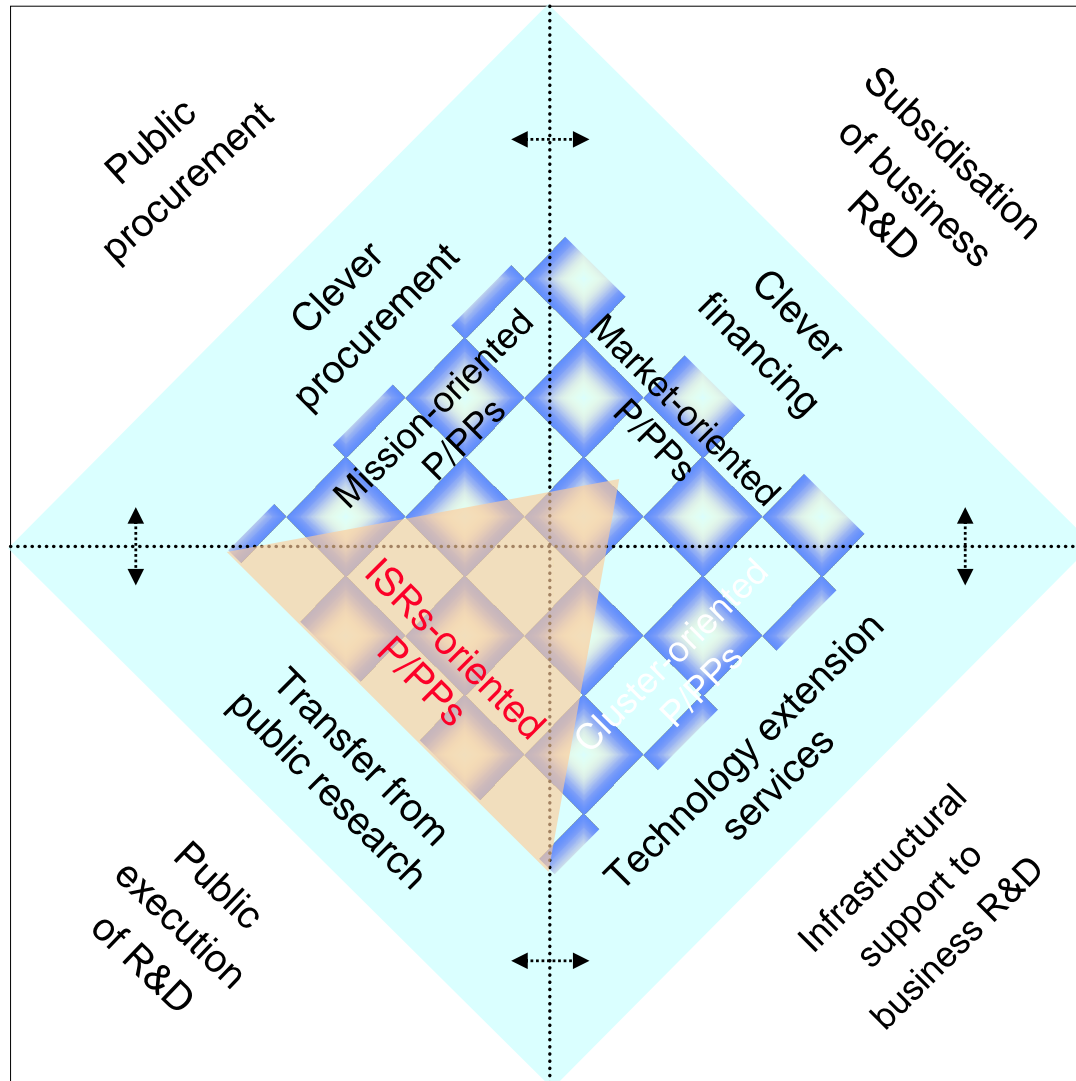
Dr Jan van den Biesen

Vice President Public R&D Programs, Philips Research

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1. Overview of Public-Private Partnerships for R&D&I in ERA
2. Philips' participations
3. Philips' perspectives on improving Europe's innovation system

Europe's toolbox for PPPs for R&D & innovation - 1



Europe's toolbox for PPP

EU 7th Framework Programme (FP7) - Cooperation

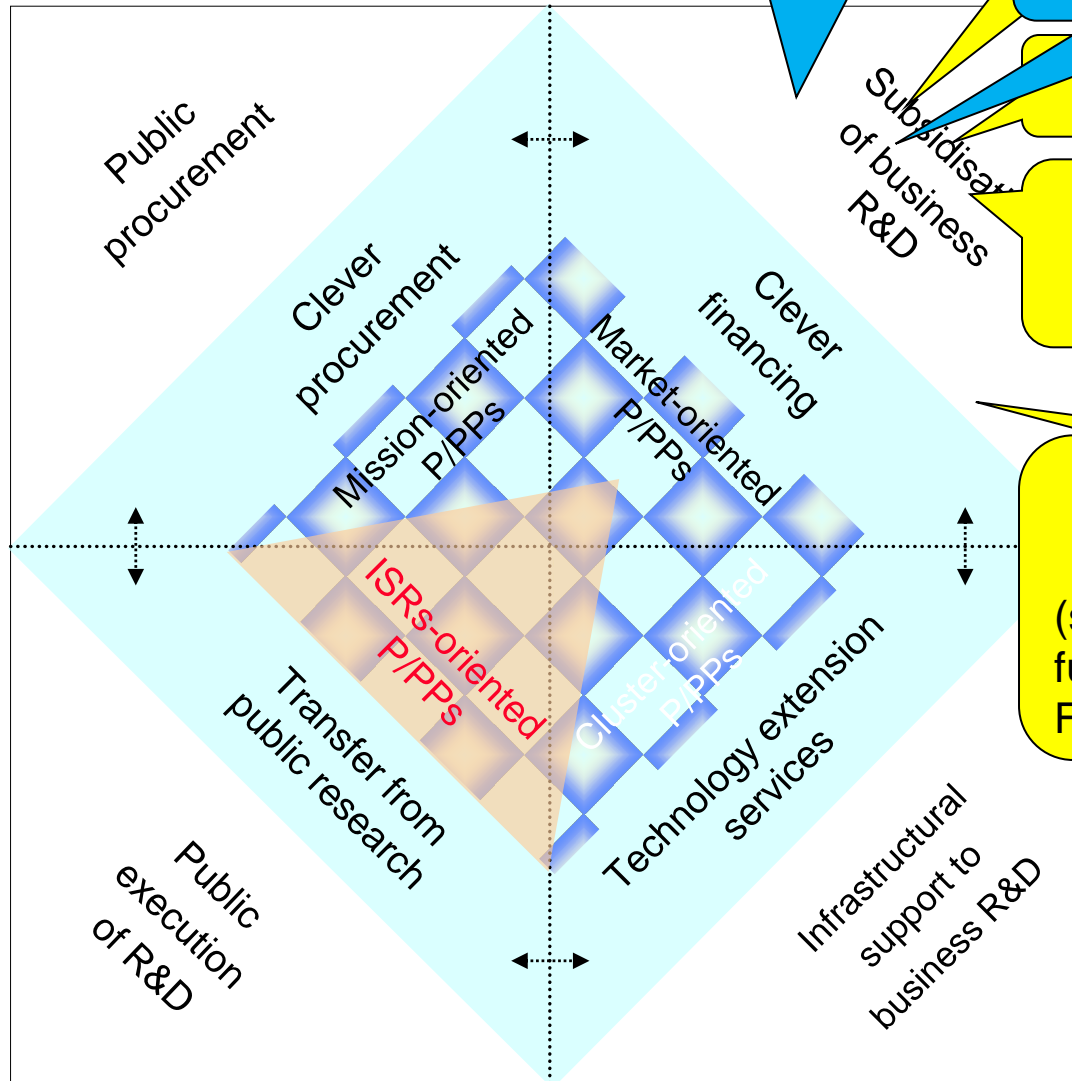
Reimbursable loans

RSFF Loans (EIB + EC/FP7)

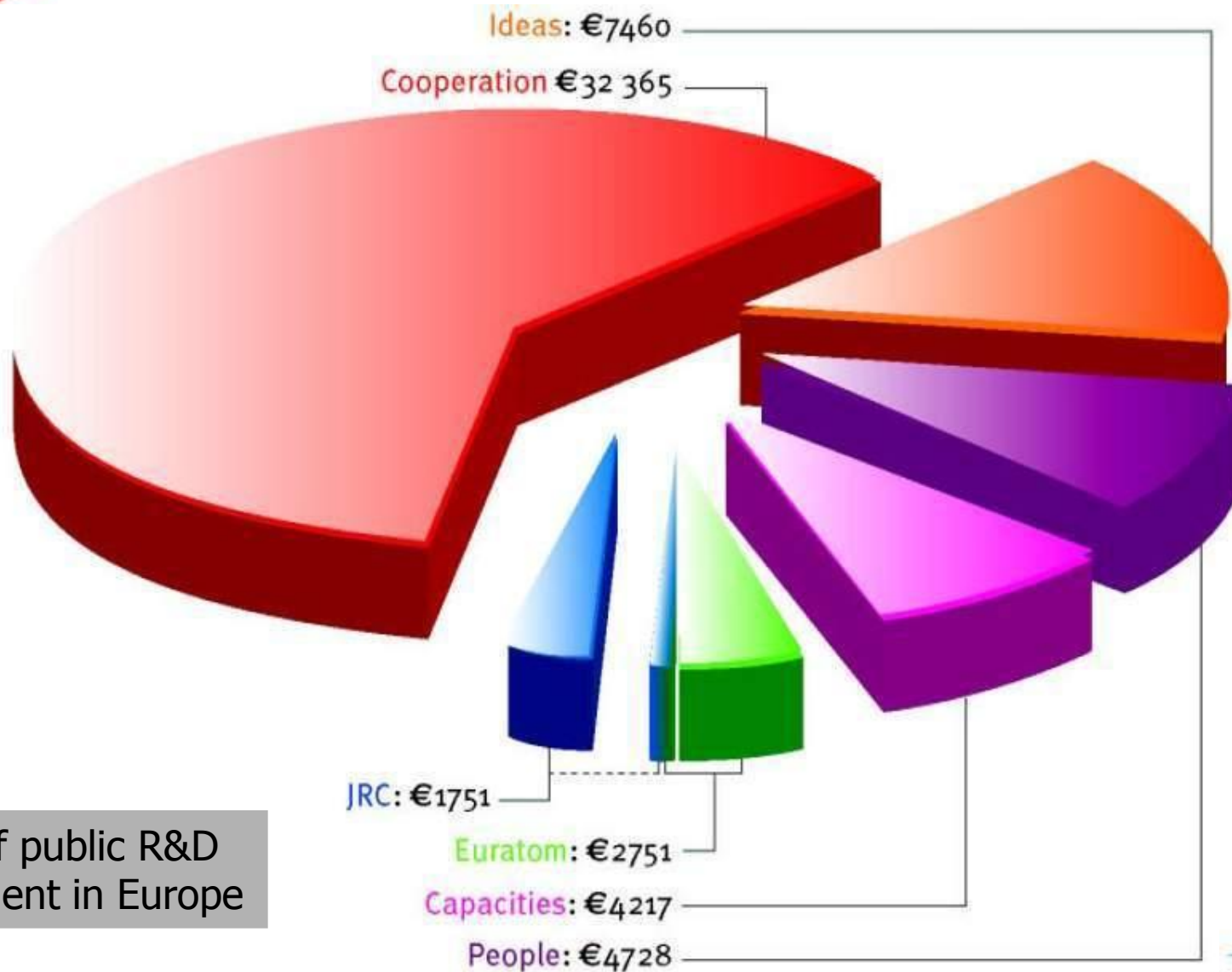
Tax incentives

National R&D programmes

Regional R&D programmes (some with EU co-funding via Structural Funds)

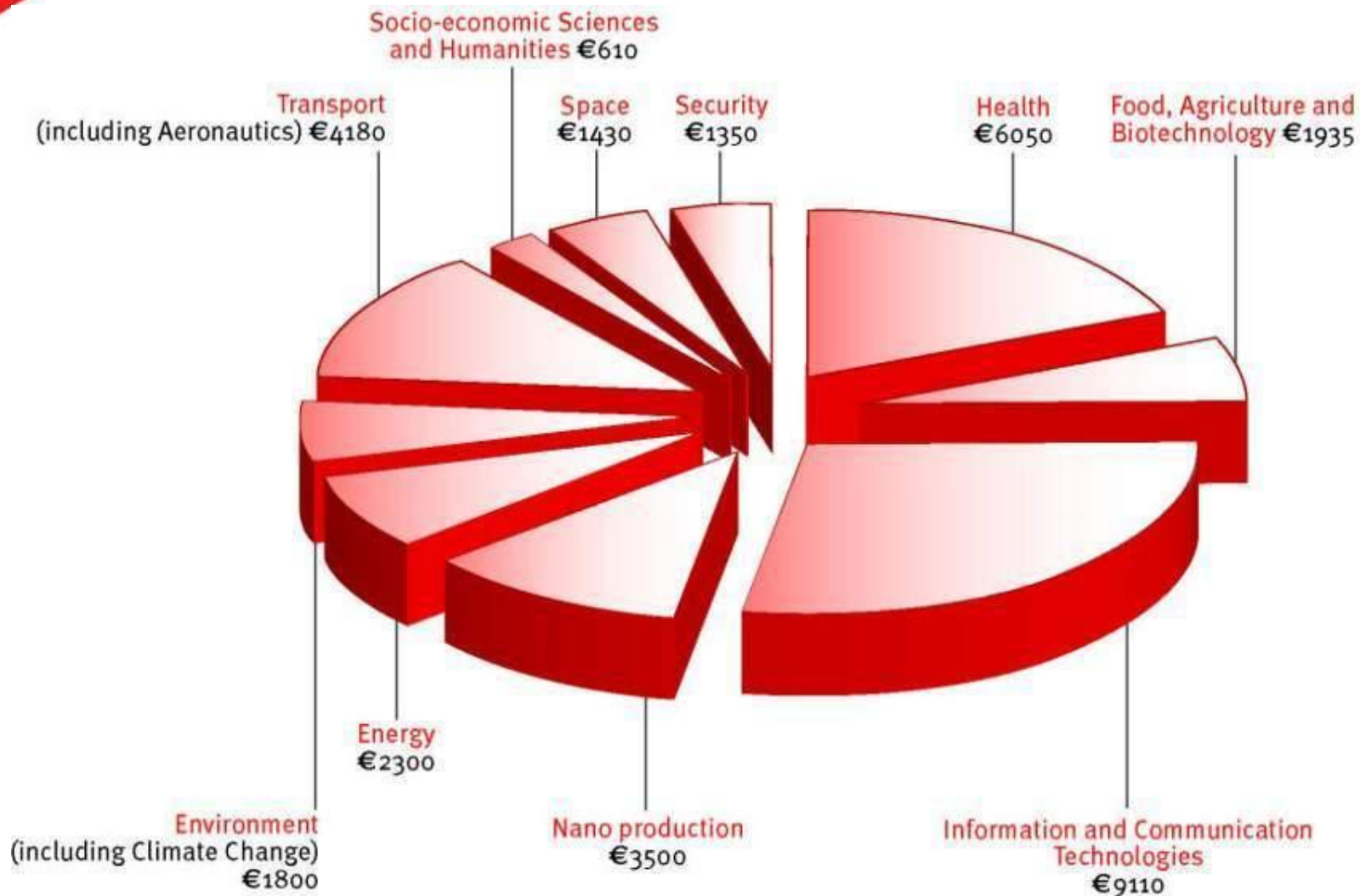


FP7 budget (2007-2013): €55 billion



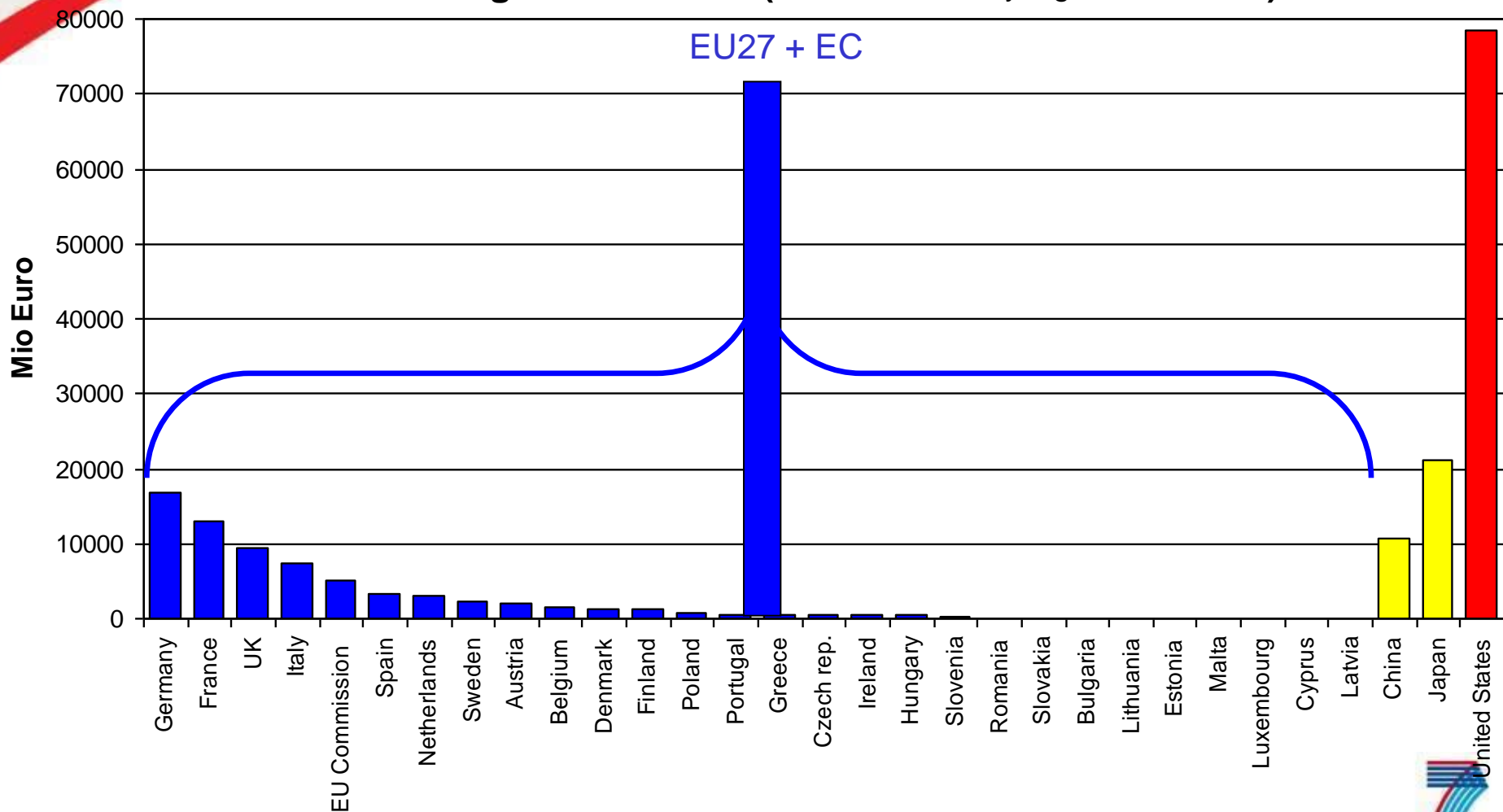
= ~6% of public R&D investment in Europe

FP7 Cooperation programme thematic areas (€32.4 billion)



Restructuring a fragmented European Research Area (ERA)

Public Funding for Research (Source : ERA Key Figures 2005, EC)



Joint Technology Initiatives

- Innovative Medicines
- Clean Sky
- Fuel Cells & Hydrogen
- ARTEMIS* (embedded systems)
- ENIAC* (nanoelectronics)

*co-funded by 20+ MS

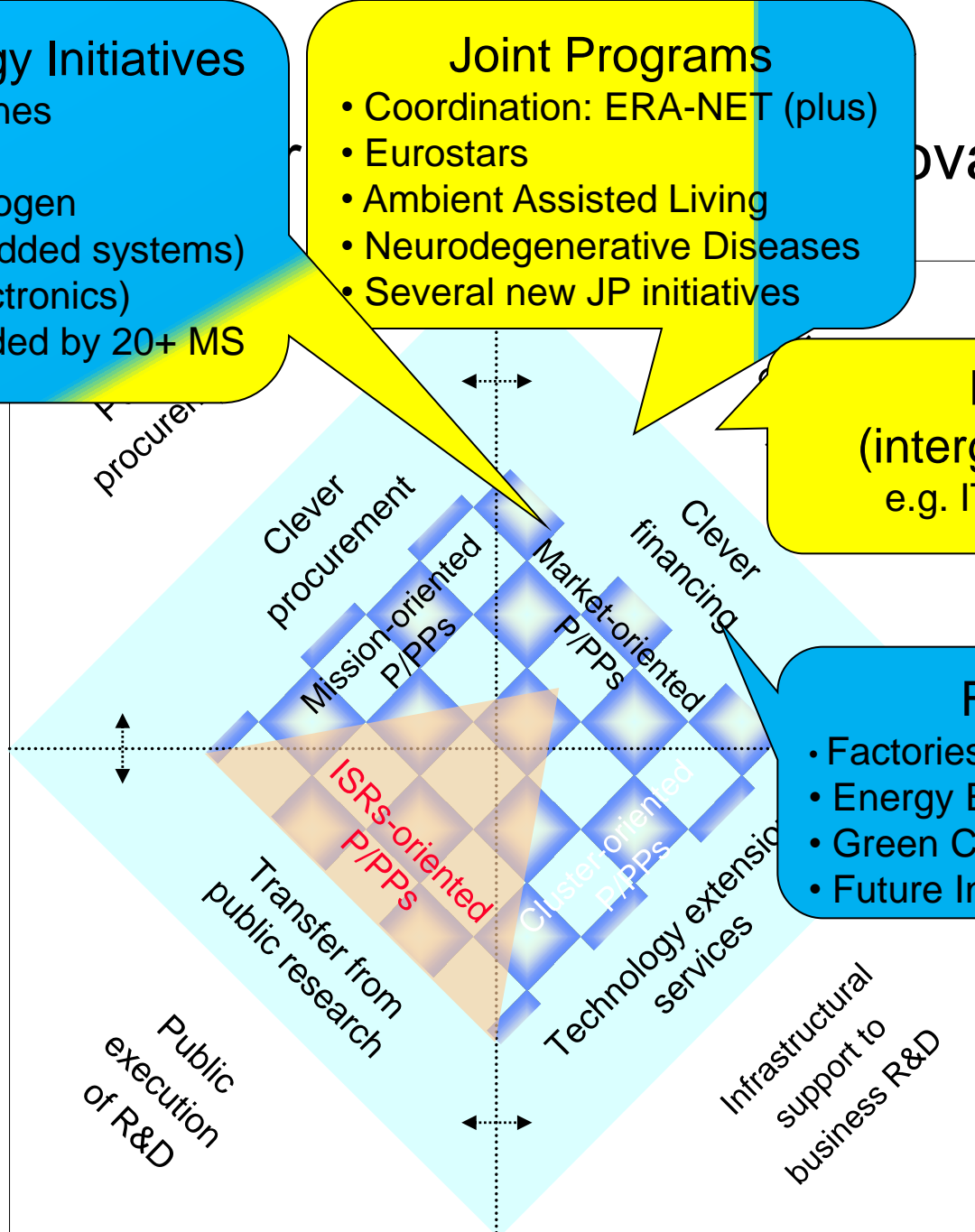
Joint Programs

- Coordination: ERA-NET (plus)
- Eurostars
- Ambient Assisted Living
- Neurodegenerative Diseases
- Several new JP initiatives

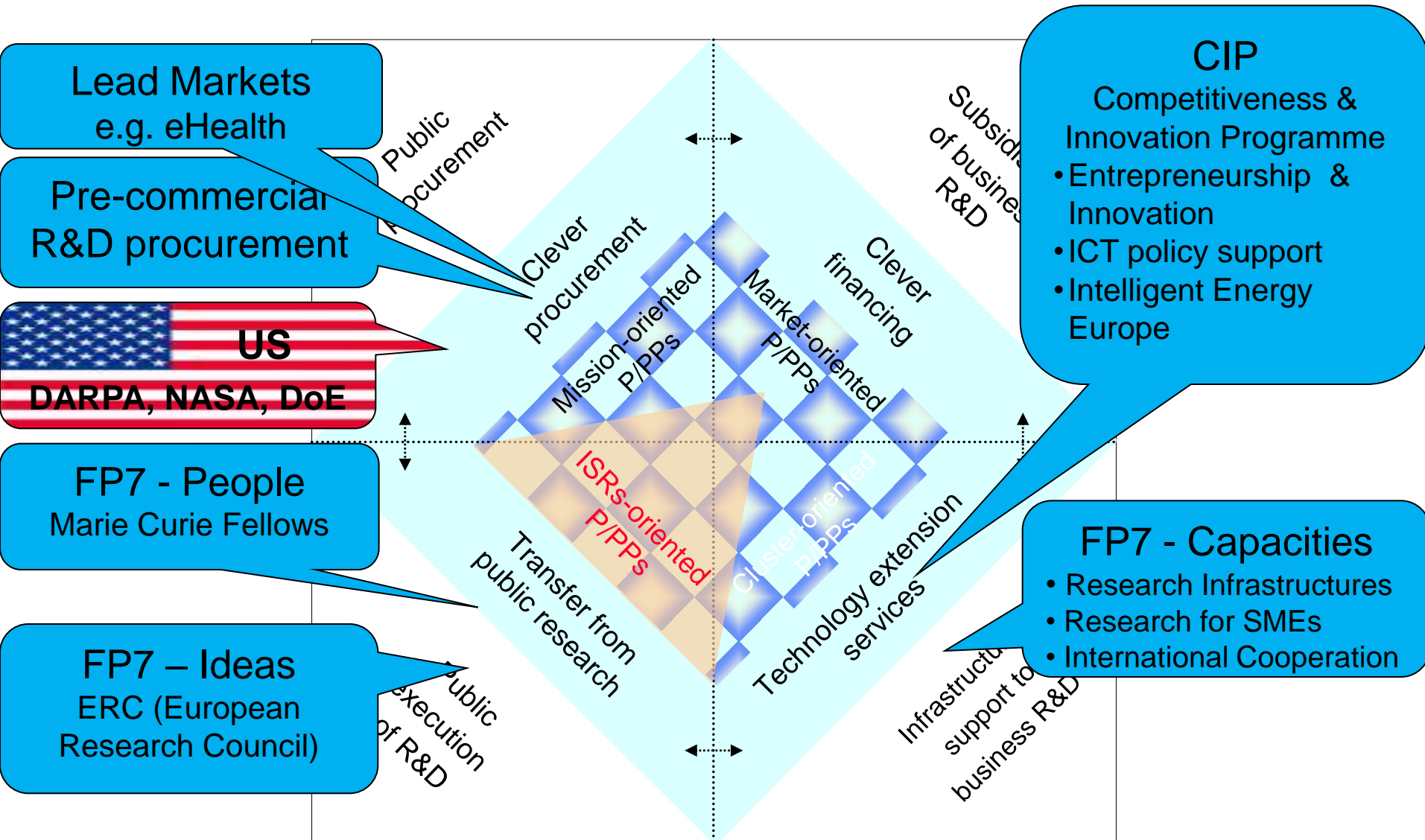
EUREKA
(intergovernmental)
e.g. ITEA, CATRENE

FP7 PPPs

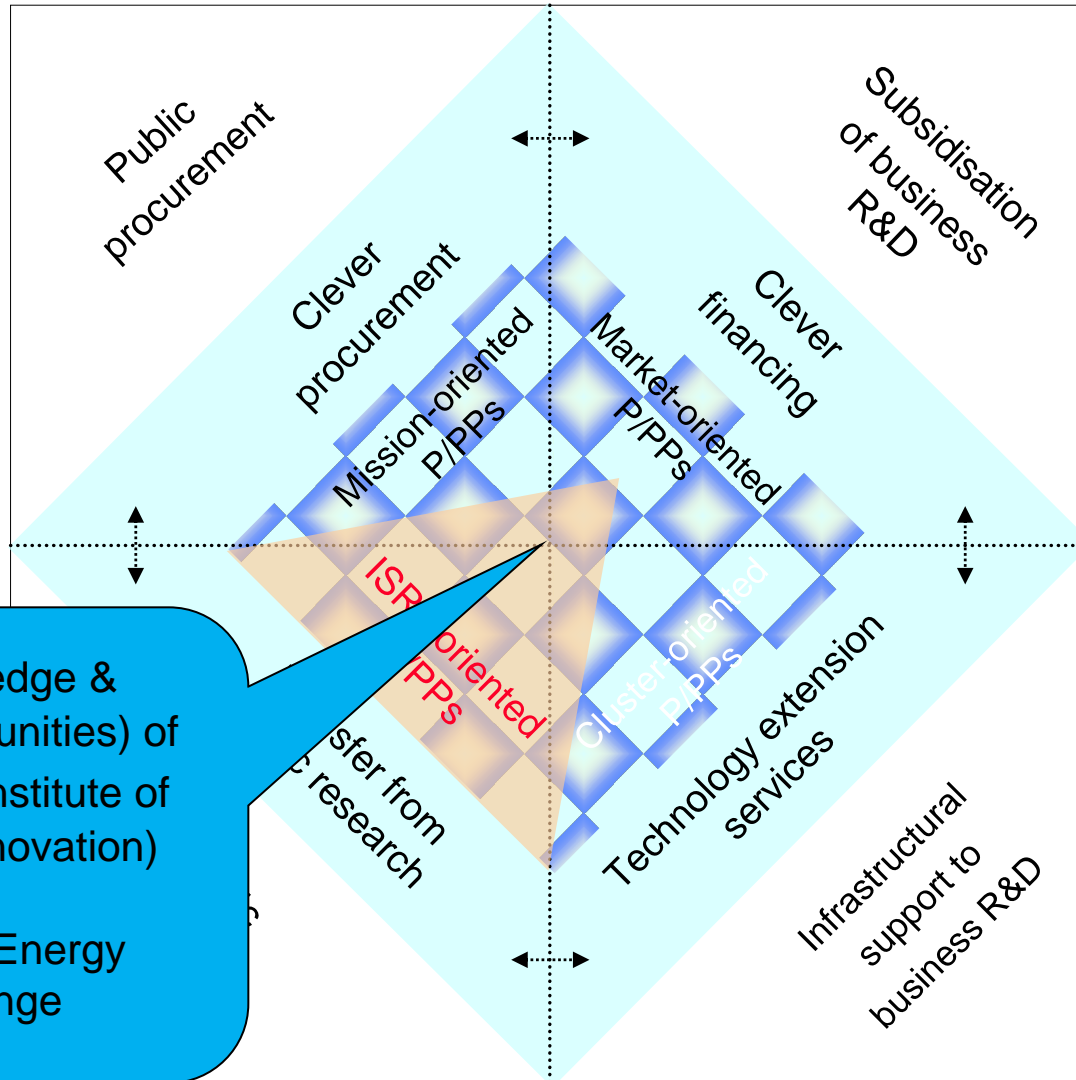
- Factories of the Future
- Energy Efficient Buildings
- Green Cars
- Future Internet



Overview of Public-Private R&D Partnerships - 3



Overview of Public-Private R&D Partnerships - 4



KICs (Knowledge & Innovation Communities) of EIT (European Institute of Technology & Innovation)

- ICT
- Sustainable Energy
- Climate Change

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25+ years fruitful Philips participation in EU FP





- Amongst 12 ICT firms involved in 1984 launch of FP1
- About 1,000 projects since FP1
- 139 projects in FP6 (2002 – 2006)
 - #1 industrial participant in ICT
 - #1 industrial participant in NL
- 95 projects so far in FP7 (2007-2013)
 - #2 industrial participant (consolidated)
- Also involved in several other EU programmes for R&D&I
 - 17 projects in Joint Technology Initiatives (ARTEMIS, ENIAC, IMI)
 - 3 projects in Ambient Assisted Living (AAL)
 - 2 projects in Competitiveness & Innovation Programme (CIP)
 - 2 EIT Knowledge & Innovation Communities (KICs ICT and Energy)
 - 1 EIB loan through Risk-Sharing Finance Facility (RSFF)





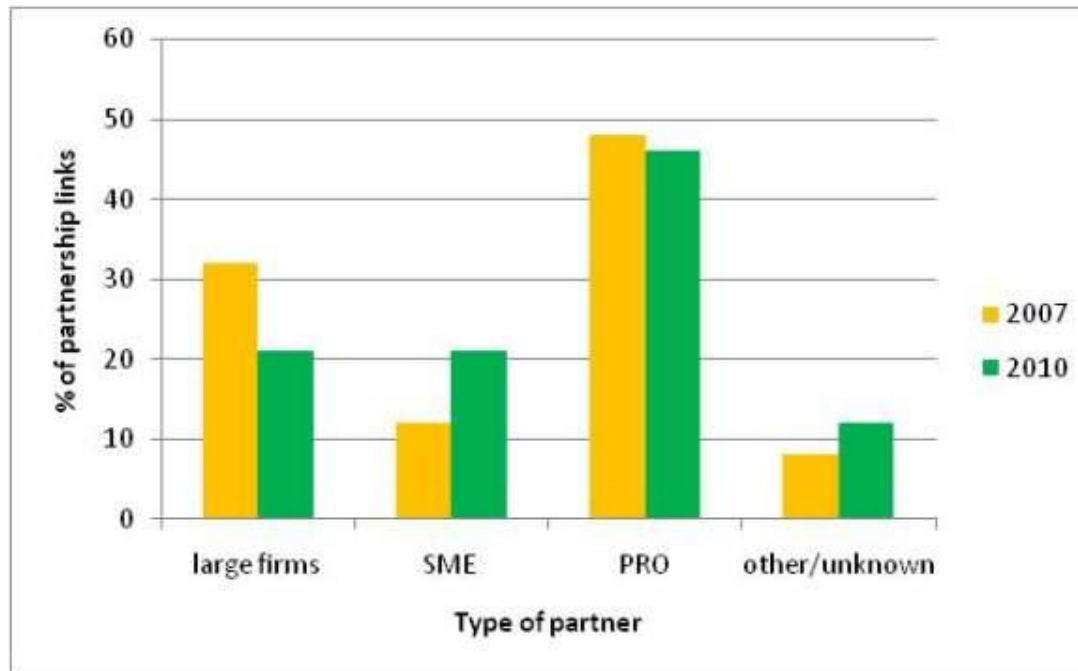
25 years of fruitful Philips participation in EUREKA

- Among first four companies supporting 1985 launch of EUREKA
- Probably #1 participant
- Involved in 40+ past projects, e.g. HDTV, DAB, JESSI
- Currently engaged in 2 ICT clusters

<ul style="list-style-type: none"> – ITEA 2 	<p>2006-2013</p>	<p>software-intensive systems & services</p>	
<ul style="list-style-type: none"> – CATRENE 	<p>2008-2011</p>	<p>nanoelectronics</p>	

Philips' partnership links in public R&D programs

EU, EUREKA, NL, GER programs	2007	2010
Running projects	100	190
Partnership links	900	1,800
Different partners	550	1,100
Public Research Organisations (PROs) in top-10 partners	4	7



Why participate in public programmes for R&D&I?

- Leveraging own R&D efforts with external resources
 - Partners
 - Facilities
 - Knowledge
 - Temporary staff
 - Contracts from public and private customers
 - Public funding
- Benefiting from trusted regulatory frameworks for Open Innovation

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EU2020: Raising R&D investments to 3% of GDP

- Company investments are driven by expected returns
- Low private R&D investments in EU reflect unfavourable framework conditions for innovation
- Wide range of policy measures across EU innovation system are needed to boost private R&D and innovation
 - Input: more public investments in Knowledge Triangle
 - Throughput: more efficiency & effectiveness
 - Output: more market demand for innovative products & services



Philips' health and well-being offer leverages critical global trends

Ageing population

- The number of people aged over 60 will double from 500 million today to 1 billion by 2015

Emerging markets

- 99% of future population growth will be in emerging markets; Emerging economies are expected to account for 2/3rd of global GDP by 2016

Empowered consumers

- Consumers are increasingly focused on their Health and Well-being and look for products that fit their lifestyle

Climate change and sustainable development

- 19% of global electricity consumption is used for lighting; Energy efficient lighting can save 40%...or 600 power stations worth of energy



Invest more in Knowledge Triangle

- Shift direction of investments towards societal challenges in common interest of society, public sector and private sector
 - Sustainability
 - Energy efficiency
 - Clean water
 - Personal well-being
 - Ageing population
 - Homecare, independent living
 - Better healthcare for all, at lower cost
- Gear EU budget more towards future knowledge-based economy
 - Increase budget of FP, CIP, EIT, LLL, R&D&I activities in SF

Improve efficiency & effectiveness - 1

- Simplify Framework Programme
 - Industry participation down from 39% in FP4 to 25% in FP7
 - Most EC proposals for simplification make sense
 - Only transition to output/results-based financing causes major concern
- Cut red tape by implementing risk-tolerant & trust-based approach
 - NL High Trust approach is good example
 - EC proposal for Higher Tolerable Rate of Error for R&D is welcomed
 - Personal liability for Staff officers should be eased

Improve efficiency & effectiveness - 2

- Turn Joint Technology Initiatives into true and lean PPPs
 - Current regulatory straightjacket of Community body is unsuitable for PPPs
 - EC proposal for more flexible PPPs in Financial Regulation should be adopted
- Develop smarter ERA instrument for pooling national funding in e.g.

JTIs and JPIs, also in context of EIPs

- To synchronize national project funding between countries
- To cope with unbalance in available national budgets
- To combine national and common interests in joint selection of proposals

Meaningful innovations in energy-efficient lighting



Boost demand for innovative products and services

- Stimulate market demand by innovation-friendly regulation, standardisation and public procurement
 - Without market demand, companies have little reason to invest in R&D
- Complete Single Market and remove national barriers
 - E.g. in tendering processes for healthcare systems, privacy legislation regarding patient data, reimbursement models for healthcare costs
- Unleash power of public procurement to promote innovation
 - Total public procurement in EU amounts to over 2 trillion euro per year
 - Mainstream Pre-Commercial Procurement (PCP) of R&D and clarify that no State aid is involved and no explicit compensation for retained IPR is required if tendering is competitive, open and transparent
 - Provide EU co-funding via Structural Funds as incentive for procurers

