



European Commission



Information Society

TRUST AND SECURITY IN FP6: *AN OPPORTUNITY FOR SMEs*

Andrea SERVIDA

Head of Sector

European Commission
DG Information Society - Unit D/4
B-1049 BRUSSELS
andrea.servida@cec.eu.int



OUTLINE



- The Policy context and FP6
- IST: Ambient Intelligence & security
- Trust and security in FP6
- FP6 Instruments
- Special focus on SMEs
- Preparing Call 1: EoI and roadmap projects



Policy Context for the EU R&D



ERA: European Research Area

FP6, Eureka, COST, National RTD Programmes

... towards a Single Market for Research

Lisbon Strategy



"EU: Largest knowledge-based economy by 2010"

Enlargement

The candidate countries are full partners in FP5.

eEurope

Broadband access, e-business, e-government, **security**, skills, e-health, ...

Other policies

Single Market, Single Currency, Security of Europeans, Sustainable Development, ...



EU Activities on Information and Network Security



Regulatory Framework

- Electronic Signature Directive
- Data protection in electronic communications
- Council Resolution on Information & network security
- Council Resolution on EU approach to a culture of security
- Prop. Regulation of EP and Council establishing NISA
- Framework Decision on attacks against information systems
- Framework Decision on combating terrorism

R&D Activities

- **Trust & Security:**
75 R&D projects (~80 M€)
- **Dependability:**
 - 16 R&D projects (~28 M€)
 - Joint EU-US task force on R&D for CIP
- **R&D in information security key in FP6**

Policy

- **eEurope 2005**
 - Cybersecurity Task Force
 - 'Culture of security'
- **JAI initiative on secure VISA**
 - use of biometrics
 - smart travel documents
- **International Fora**
 - OECD
 - GBDe,
 - CoE,
 - G8
 - ...

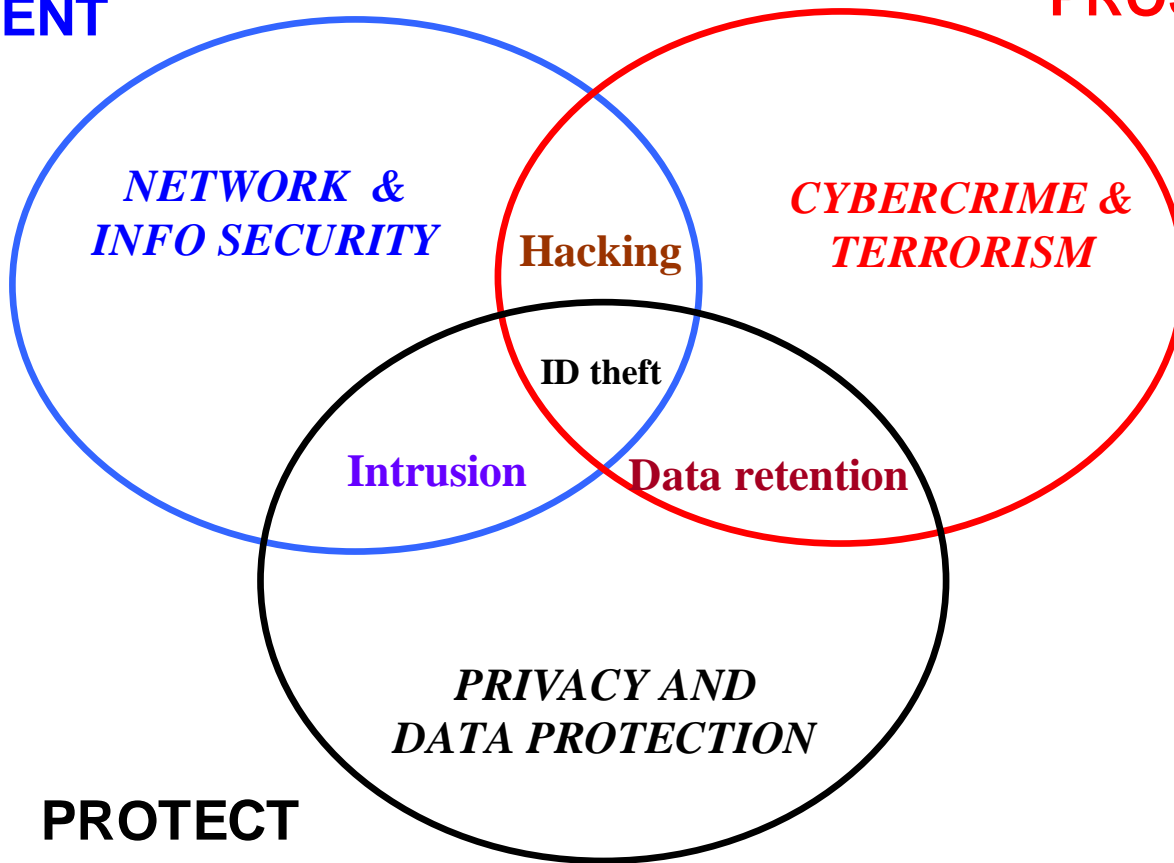


Three angles for actions on security Policy



PREVENT

PROSECUTE



PROTECT



The 6th Framework Programme



INTEGRATING EUROPEAN RESEARCH							
PRIORITY THEMATIC AREAS						ANTICIPATING S/T NEEDS	
Genomic and biotechnology for health	Information society technologies	Nanotechnologies, intelligent mat. new production processes	Aeronautics and space	Food safety and health risks	Sustainable development and global change	Citizens and governance in the knowledge society	Research for policy support
							Frontier research, unexpected developments
							Specific SME activities
							Specific international cooperation activities
							JRC activities

STRUCTURING THE ERA			
Research and innovation	Human resources & mobility	Research infrastructures	Science and society

STRENGTHENING THE FOUNDATIONS OF ERA	
Coordination of research activities	Development of research/innovation policies



FP6 Budget breakdown



- **Focussing and Integrating**

- Genomics 2255 M€
- **Information Society Technologies 3625 M€** → ~100M€ for GEANT/GRID
- Nanotechnologies, int.. 1300 M€
- Aeronautics and space 1075 M€
- Food quality and safety 685 M€
- Sustainable development 2120 M€
- Citizens and governance .. 225 M€
- Anticipation of S&T needs
 - Anticipating needs 555 M€
 - SMEs 430 M€
 - Specific INCO 315 M€

- **Strengthening ERA foundations 320M€**

- **Structuring ERA**

- Research and Innovation 290 M€
- Human resources 1580 M€
- **Research Infrastructures 655 M€** → ~200M€ for GEANT/GRID
- Science/Society 80 M€

- **Joint Research Centre 760M€**

16270 M€



The vision: *Ambient intelligence*

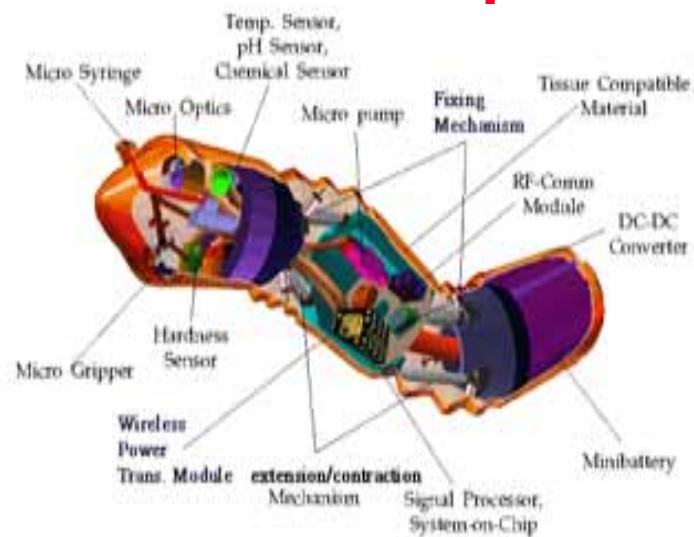


Around us ...



**Products and equipment
at the service of individuals**

**Micro-
capsule**



... inside us ?



Today issues

Pervasiveness, interdependencies
and intrusiveness

Influencing factors

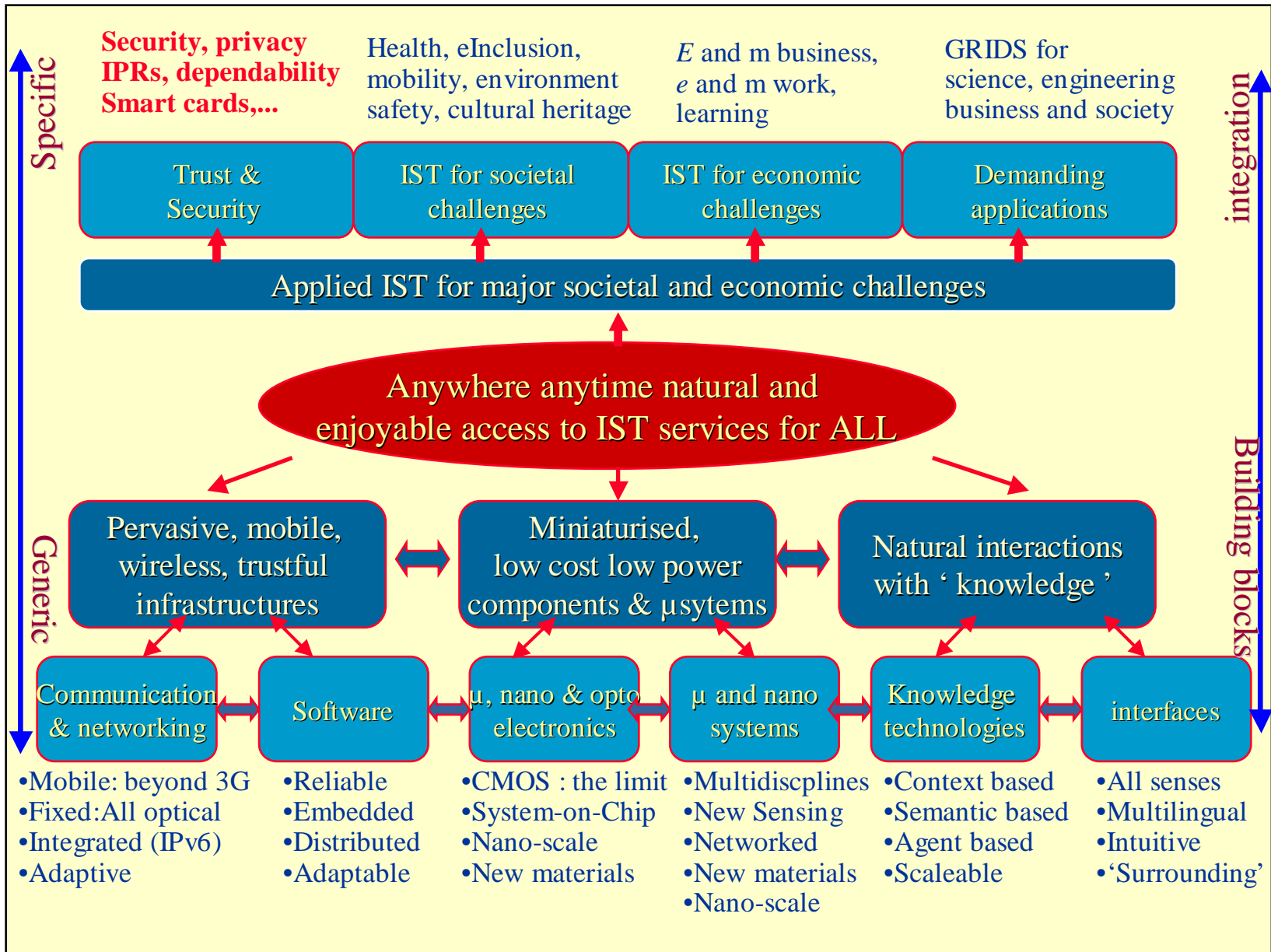
- **Little attention to compatibility between** technology and human systems
- **Little thinking in terms of** privacy respecting Society
- **Little co-ordinated effort to address** dependability of **information and communication infrastructures**
- **Unforeseeable R&D development**

Future objectives

Develop a “respectful”, **productive, innovative and secure IS**

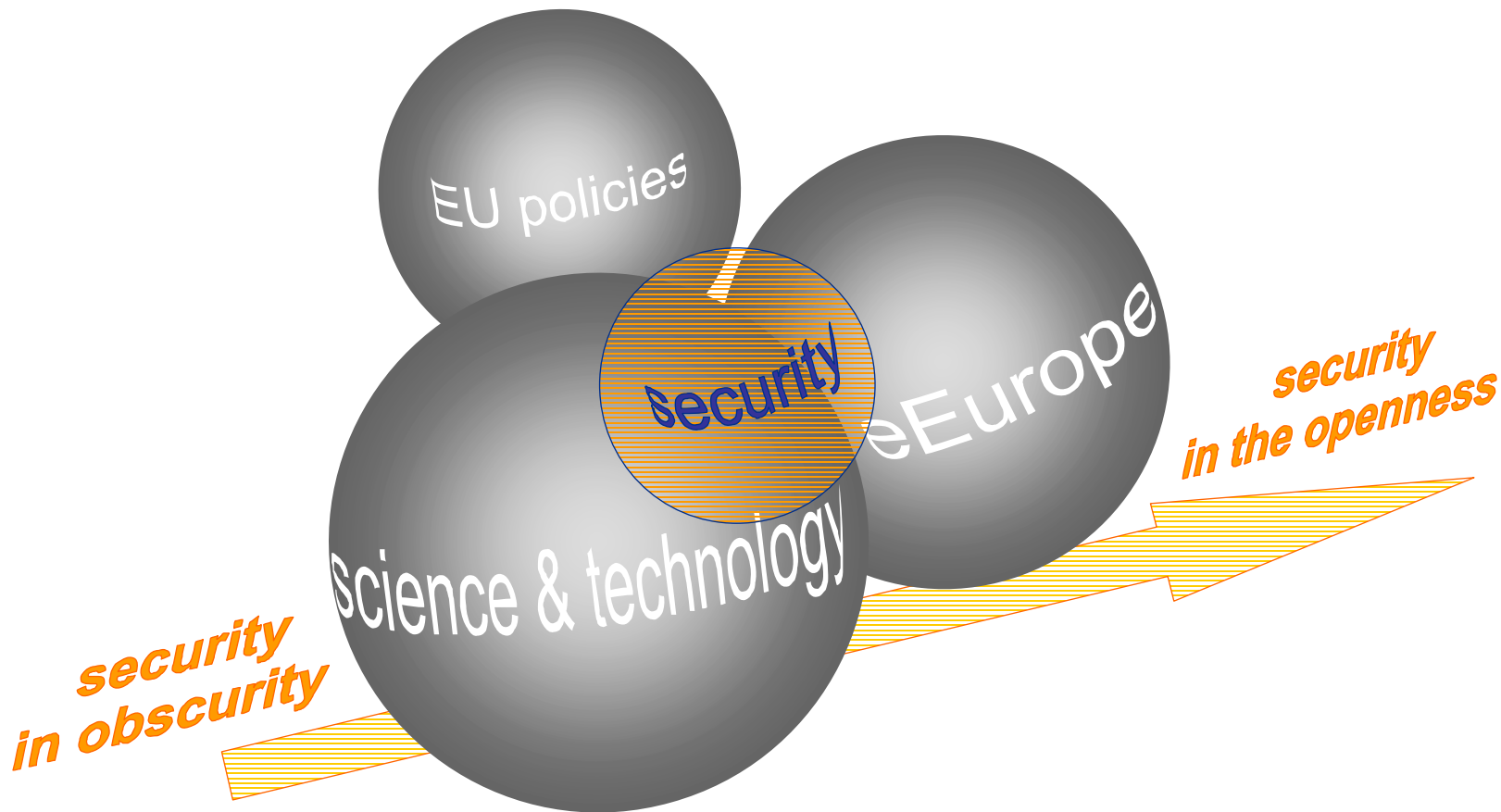
How to go about it

- **Foster a global dialogue on an IS respecting** the personal sphere, safeguarding resilience **of systems & infrastructures**, encouraging innovation, **enabling productivity**
- **Promote the** understanding of interdependencies
- **Share vision on** how to depend on technology
- **Innovative R&D**



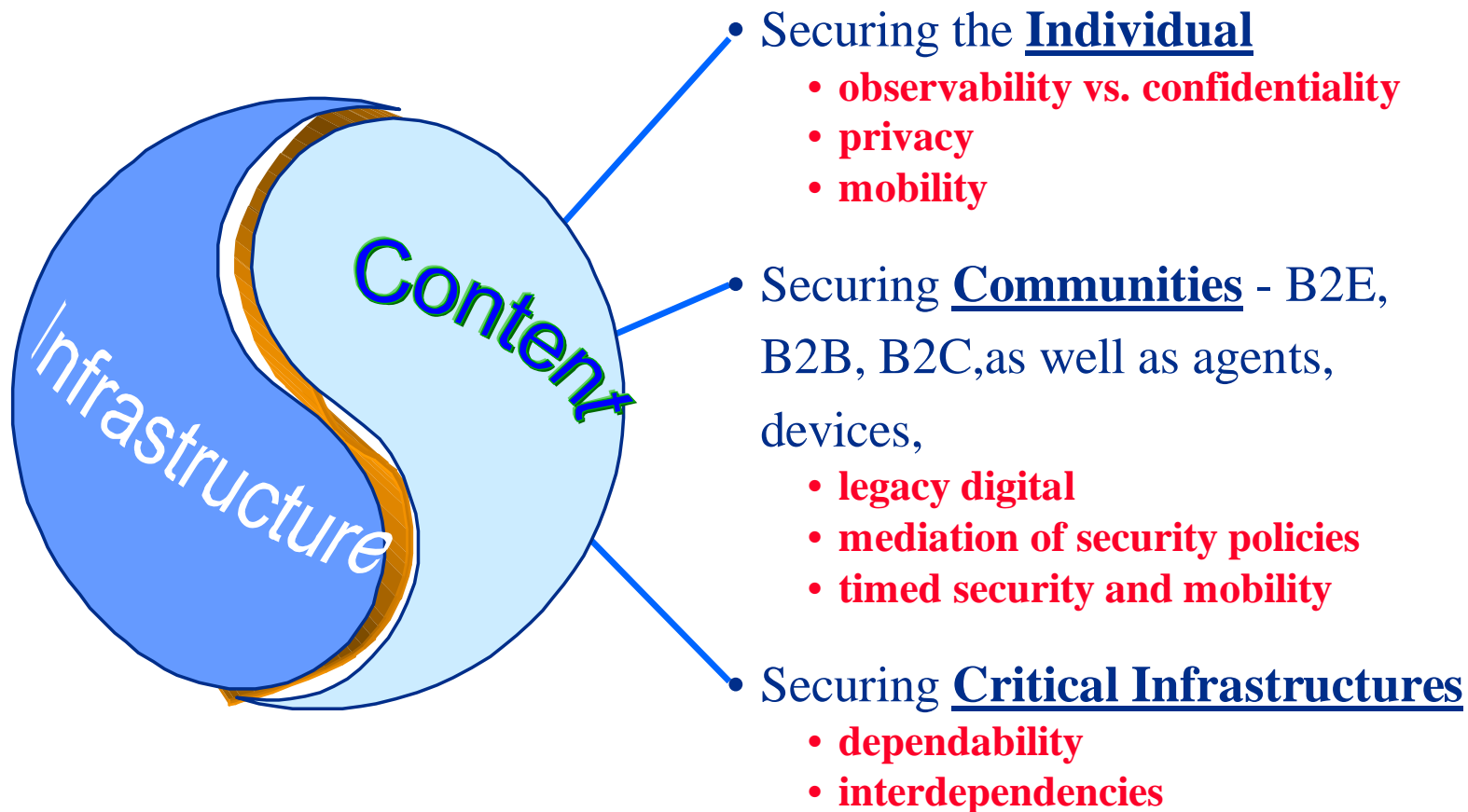


Changing the paradigm for security





Security and dependability R&D





2.3.1.5 Towards a global dependability and security framework



Objective: To **strengthen security and enhance dependability of information and communication systems and infrastructures** and to ensure trust and confidence in the use of IST by addressing **new security and dependability challenges**. These are resulting from **higher complexity, ubiquity of computing and communications, mobility, and increased dynamicity of content**. **Integrated and comprehensive approaches** involving all relevant stakeholders of the value chain should address security and dependability **at different levels and from different perspectives**.



2.3.1.5 Towards a global dependability and security framework



- **Focus is on:**
 - Development of integrated approaches, architectures and technologies for **security and mobility, virtual identity management, privacy enhancing both at application level and at infrastructure level.** Aspects of usability as well as socio-economic and regulatory issues would have to be taken into account.
 - Development of integrated **interdisciplinary approaches and ensuing technologies for the provision of dependable network and information systems that underpin our economy and our society**
 - Development of modelling-, and **simulation-based management decision support tools for critical infrastructure protection** addressing ICT-related interdependencies of critical infrastructures and aiming at prevention of threats and reduction of vulnerabilities



2.3.1.5 Towards a global dependability and security framework



- Development, testing and verification of underlying and novel **crypto technologies** for a wide spectrum of applications. Development, testing and verification of technologies for protecting, securing and trustable distribution of digital assets. Due consideration should be given to implementation and standardisation issues and to security policy development and consensus building among the relevant key players
- Research, development, testing and certification on **next generation secure smart devices (e.g. smart cards) and their components**. This includes design, production and automated verification of smart devices.
- Multidisciplinary research on **biometrics** and its applications with due consideration also of the social and operational issues. Strengthening European competence on security certification leading to mutual recognition as well as **network and computing forensic technologies to combat cyber-crime**

Work should link to Member State research initiatives and policies. Related to **dependability and critical infrastructure protection, targeted international collaboration** with complementary research communities and programmes should be fostered



INSTRUMENTS



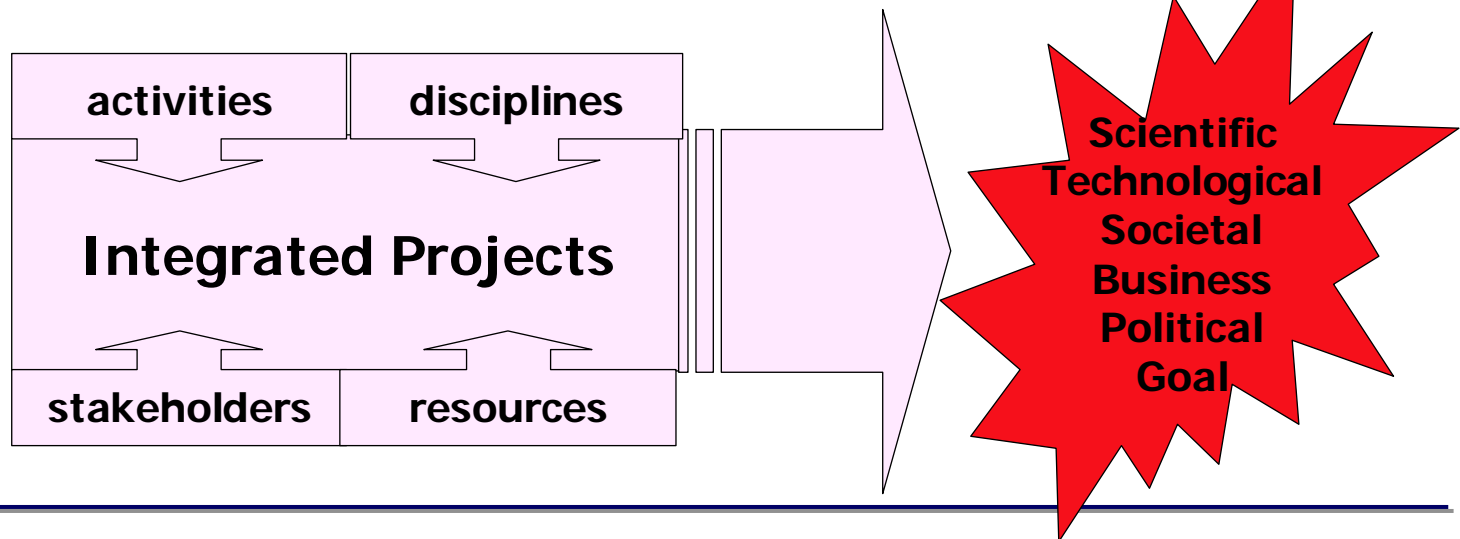
- **Integrated Projects (IP)**
- **Networks of Excellence (NoE)**
- Specific Targeted Research Projects (STREPS)
- Co-ordination Actions (CAs)
- Specific Support Measures (SSAs)



INTEGRATED PROJECT



- integrate together critical mass of
 - activities, stakeholders, disciplines and resources
- to achieve
 - an ambitious scientific, technological, societal, business and/or political goal

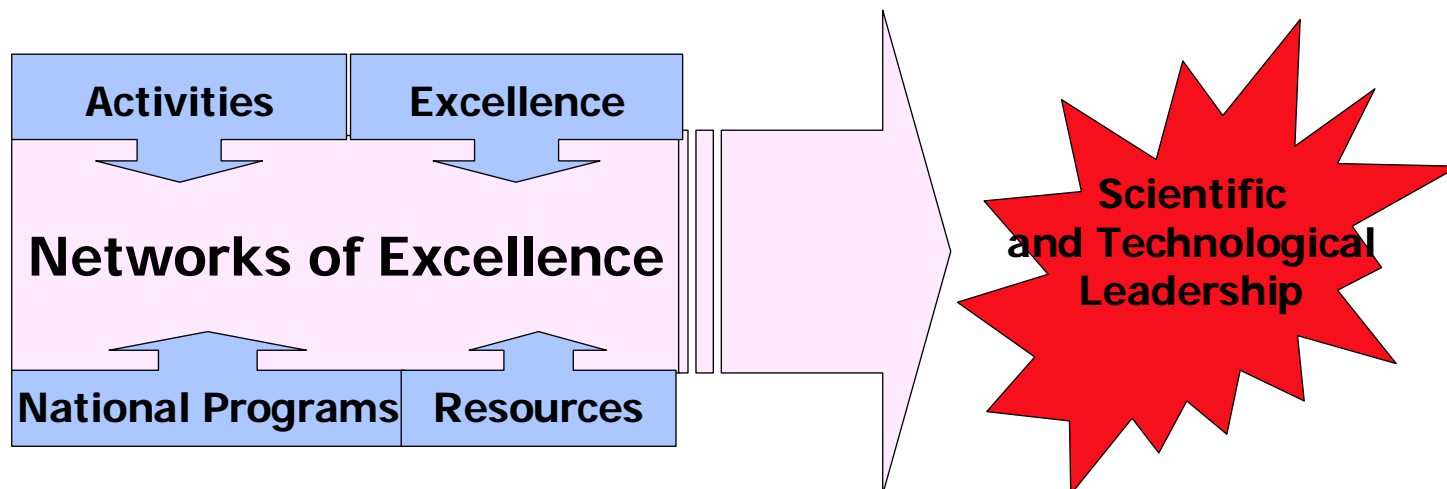




NETWORKS OF EXCELLENCE



- strengthen Europe's excellence on a particular topic
 - by integrating **critical mass** of expertise and resources
- to achieve
 - **leadership** and be a world force
 - **integration and shaping of European research**





OTHER POINTS



- SME - 15% of the overall budget
- Consortium Agreement - **Mandatory before the contract**
- Contract - Co-ordinator signature allows to start the project
- Payment - Rolling payment with 85% advance payment of the first 18 months
- Accession countries and international cooperation
- ERA building



Encouraging SMEs to participate in FP6



1

Specific measures taken to involve the SMEs in the 7 thematic priorities (Integrated Projects, Networks of Excellence, STRP)

2

Specific schemes in the form of actions on collective and cooperative research on any area

3

Appropriate information and assistance to potential SME participants



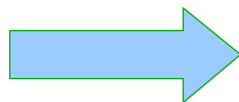
SPECIAL FOCUS ON SMEs



1

Specific measures taken in Integrated Projects,
Networks of Excellence and STRP (7 thematic priorities)

Objective = to allocate at least 15%
of the 7 thematic priorities budget to SMEs



Special measures to encourage
SMEs Participation
in the new types of projects



1

Specific measures taken in Integrated Projects, Networks of Excellence and STRP (7 thematic priorities)

- Participation of SME groupings
- Evaluation criteria related to SMEs
- Targeting of calls in areas relevant for SMEs
- Pre-allocated budget for take-up measures
- Possibility to extend contracts to include new SMEs



Participation of SME Groupings in FP6 new instruments (particularly IP)

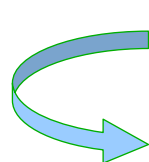


- SME groupings involved in management
- RTD performers / technology suppliers
- Beneficiaries of TAKE UP MEASURES:
 - ⇔ Assessment/trial/validation of promising technologies
 - ↑ Easier access to/transfer of best practices for early use & exploitation of technologies
- Training of SMEs executives / technical staff
- Dissemination of results



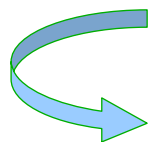
2

Specific schemes in the form of actions
on Collective and Cooperative Research (any topic)



Individual SME

Cooperative Research (CRAFT)



Industrial associations or industry groupings

Collective Research



Co-operative Research FP6

General Aspects



- Definition** → **limited number of SMEs from different countries assign research and innovation activities to research performers**
- Scope** → **any subject across the whole range of science and technology**
- Scale** → **CRAFT budget = ~300 M€
individual CRAFT projects between 0.5 and 2 M€**
- Duration of projects** → **1-2 years**



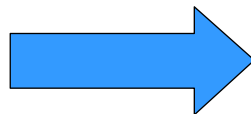
CRAFT-Activities and EC contribution



Activities

EC contribution

**Research and
innovation**



Up to 50%

**Consortium
management**



Up to 100%



COLLECTIVE RESEARCH



**Research carried out by research performers
on behalf of industrial associations / groupings
on themes of interest to large sectors and
communities of SMEs**

- Typically between 2 to 5 M€ and a duration of 2 to 3 years.
- Indicative budget: ~100 M€



COLLECTIVE RESEARCH



Can address any subject across the whole field of Science & Technology

- Addressing common problems/ challenges (e.g. environmental/safety issues)
- Pre-normative research
- Reinforcing technological basis of entire sector(s)
- Development of “technological” tools (e.g. diagnosis, safety equipment)



COLLECTIVE RESEARCH



EC Contribution:

- Research and Innovation - up to 50%
- Training - up to 100%
- Consortium Management - up to 100%



3

Appropriate information and assistance to potential SME participants

- SME National Contact Points (NCP)
- SME website and helpdesk
- Economic and Technological Intelligence
- Specific Support Actions (7 thematic priorities)



Call 1



<u>1-Strategic Objectives</u>	Budget
<i>Pushing the limits of CMOS, preparing for post-CMOS</i>	75
<i>Micro and nano systems</i>	85
<i>Broadband for all</i>	60
<i>Mobile and wireless systems beyond 3G</i>	90
<i>Towards a global dependability and security framework</i>	55
<i>Multimodal Interfaces</i>	65
<i>Semantic-based knowledge systems</i>	55
<i>Networked audio-visual systems and home platforms</i>	60
<i>Networked businesses and governments</i>	75
<i>eSafety of road and air transport</i>	65
<i>eHealth</i>	70
<i>Technology-enhanced learning and access to cultural heritage</i>	65
<u>2- Future and emerging Technologies</u>	
<i>Proactive initiatives: (i) Beyond robotics (ii) Complex systems, (iii) Disappearing Computer</i>	40
<u>3- General accompanying actions</u>	8



EoI - Research priorities



Description	#EoI	IP	NoE
Information and service security infrastructures, security technologies, crypto	34	26	8
Trusted components/ devices, smart card	10	8	2
Information security management systems, security frameworks, security policies and ontologies	5	3	2
Privacy enhancing technologies, identity management, privacy	11	8	3
Electronic signatures, authentication, non repudiation technologies	7	7	-
Biometrics	14	12	2
Digital asset management, multimedia content protection, smart document and media, DRM	14	8	6
Security and mobility, mobile communication, secure ubiquitous networking, GRID	12	9	3
Cybercrime, high tech crime, forensics	4	2	2
Others (i.e. quantum cryptography, legal, etc.)	2	2	-
Dependability, Critical Infrastructure Protection, distributed Intrusion detection system	18	11	7 (+2)

131 EoIs: 96 IP's and 35 NoE

51 EoIs fitting better STRPs



Roadmap Projects Supporting the Transition to FP6



<p><u>DDSI</u> Dependability policy support</p>	<p><u>WG-ALPINE</u> Active Loss Prevention</p>
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<p><u>AMSD : Overall Dependability</u></p>			
e-business	embedded	CIP	privacy

<p><u>PAMPAS</u> <u>mobile</u> <u>privacy &</u> <u>security</u></p>
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<p><u>AMSD</u> dependable embedded systems</p>

<p><u>ACIP</u> <u>critical</u> <u>infrastruct.</u> <u>protection</u></p>

<p><u>RAPID</u> <u>Privacy /</u> <u>Identity</u> <u>Mgmt</u></p>

<p><u>RESET</u> <u>Smart</u> <u>Cards</u></p>
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<p><u>BVN</u> <u>Biometrics</u></p>
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<p><u>STORK</u> <u>Crypto</u></p>
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Identify stakeholders & derive Research Roadmap

OPEN discussion

Dissemination



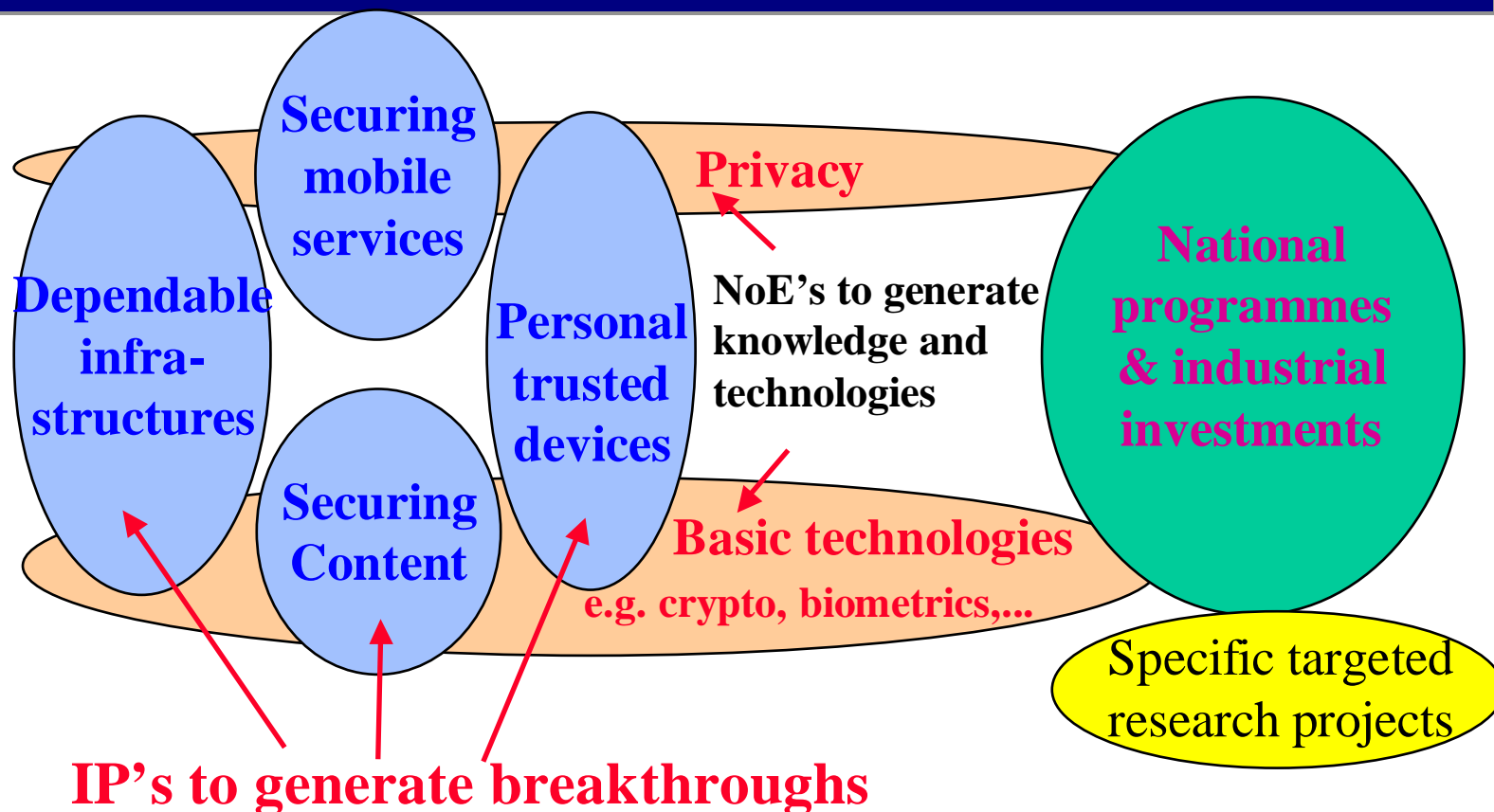
April 2002
Closure
Call 1-FP6

1 June 2002

1 Jan. 2003



Example of potential co-ordinated actions in security





INFORMATION DAY ON THE DOMAIN *TRUST AND SECURITY*



**— 12th March 2003, at the Charlemagne
building, room S3, 170 rue de la Loi,
Brussels**

Objective:

- present the scope of “2.3.1.5 Towards a global dependability and security framework”
- gather potential proposers
- present and discuss proposal’s ideas

For further information, please contact:

Ms. Nadia VERTOMMEN (Nadia.Vertommen@cec.eu.int)



WEB sites



www.cordis.lu
www.cordis.lu/ist
www.cordis.lu/rtd2002



IST helpdesk
Fax : +32 2 296 83 88
E-Mail : ist@cec.eu.int

Instruments: <http://www.cordis.lu/rtd2002/fp-activities/instruments.htm>
EoI: <http://www.cordis.lu/fp6/eoi-instruments/>

IRG Workshop on T&S <http://www.cordis.lu/ist/events/workshops.htm>
ISTAG papers: ftp://ftp.cordis.lu/pub/ist/docs/istag_kk4402464encfull.pdf
Roadmap projects: <http://www.cordis.lu/ist/ka2/rmapsecurity.html>
T&S Workshops: <http://www.cordis.lu/ist/ka2/rptspolicyconf.htm>



SMEs Web page



- **SME-Helpdesk**

European Commission
Research Directorate General
Rue de la Loi, 200
1049 Brussels, Belgium

Telephone: +(32-2)2984160
Telefax: +(32-2)2957110
E-Mail: research-sme@cec.eu.int
Website: www.cordis.lu/sme



- **SME National Contact Points**

Complete list: sme.cordis.lu/assistance/NCPs.cfm