Finanziamenti Europei in materia di Sicurezza

(sintesi dell'intervento)

ZANASI
Alessandro SrL

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Roma TRE
27 Maggio 2010

Executive Summary

1. Dopo l'11/9 e' divenuto evidente che nuove minacce, con nuove risorse e nuove armi, sono apparse creando una nuova maniera di mettere a rischio, e garantire, la **sicurezza**

2. Anche l'Europa e' conscia di questo trend, fornendo linee guida e **finanziamenti** a questa nuova area di ricerca.

...ovvero...

*Come fare
Sicurezza ed Intelligence,
con tecnologia avanzata,
finanziati dall'Europa*

Agenda

1. Speaker Background

2. a. Lo scenario Europeo
   b. Protezione Infrastrutture critiche
   c. Funzioni, capacità, tecnologie

3. Esempi di progetti finanziati

1. Speaker Background

Speaker Background

- ## Tecnico-Scientifico:

- *Ingegnere Nucleare – Universita' di Bologna*
- *Specializzato in Financial Engineering and ALM – Paris University*
- *16 anni in IBM (Bologna, Parigi, San Jose'–California)*
- *Coordinator of KDD Center at CINECA (Italian Supercomputing Center)*
- *META Group Analyst (Business Intelligence)*
- *Docente Universita' di Modena–Data and Text Mining Courses*
- *Revisore e valutatore di progetti finanziati da Commissione Europea*
- *Fondatore di TEMIS SA, azienda di sviluppo SW per automatic intelligence/text mining.*

- ## Intelligence/Sicurezza:

- *Ufficiale dei Carabinieri (congedo), incaricato di intercettazioni telefoniche presso Centro Carabinieri Investigazioni Scientifiche*
- *Responsabile Market Intelligence di IBM in Sud Europa*
- *Frequente speaker e chairman in int'l conferenze dedicate ad intelligence (eg: Crete, Greece – Maggio 2009)*
- *Autore di oltre 100 tra articoli e libri dedicati a sicurezza e tecniche di intelligence.*
- *Advisor di aziende e governi su sviluppo di soluzioni di Intelligence e Security e finanza agevolata*
- *European Commission ESRIF Member (dopo esser stato membro ESRAB)*

ESRIF

European Security Research and Innovation Forum

- **64** membri (27 EC Stati Membri + 9 Associati, 4 italiani) + 600 collaboratori: strateghi ed esperti, indicati dai propri governi e nominati dall'EC, di aziende Europee di Sicurezza (*Thales, Finmeccanica, Eads, Saab, Sagem, Smiths …Zanasi*) e ministeri ed agenzie governative (*Europol, BKA, EDA…*). Dal 2007 al 2010

- **Missione**
  - identificare requirements per Security Research Europea
  - definire linee di finanziamento europeo per la sicurezza e
  - consigliare sulle partnership pubblico privato in materia di sicurezza

Presidente: Dragutin MATE (ex Min. Interno Slovenia)

ZANASI Alessandro SrL

ZANASI
Alessandro SrL

Missione

Advising in security research, intelligence e finanziamenti europei

Collaborazioni

Amministrazione Pubblica:

Commissione Europea →*DGs: Justice, Freedom and Security; Enterprise; OLAF-Ufficio Lotta AntiFrode; FRONTEX-Agenzia Sicurezza Frontiere…*

Governo Italiano →*Presidenza del Consiglio-CNIPA, Ministero Economia e Finanze,Ministero delle Comunicazioni,Consip…*

Governo Belga →*Federal Office for Technical Solutions, National Bank of Belgium, Federal Police*

Governo Rumeno
Governo Saudita
Governo Turco
Frontex

...

Organizzazioni Private:

Aerospaziale → *ESA-European Space Agency, CIRA-Centro Italiano Ricerche Aerospaziali,...*

Information Technology → *Siemens AG, Temis SA, Bridge129...*

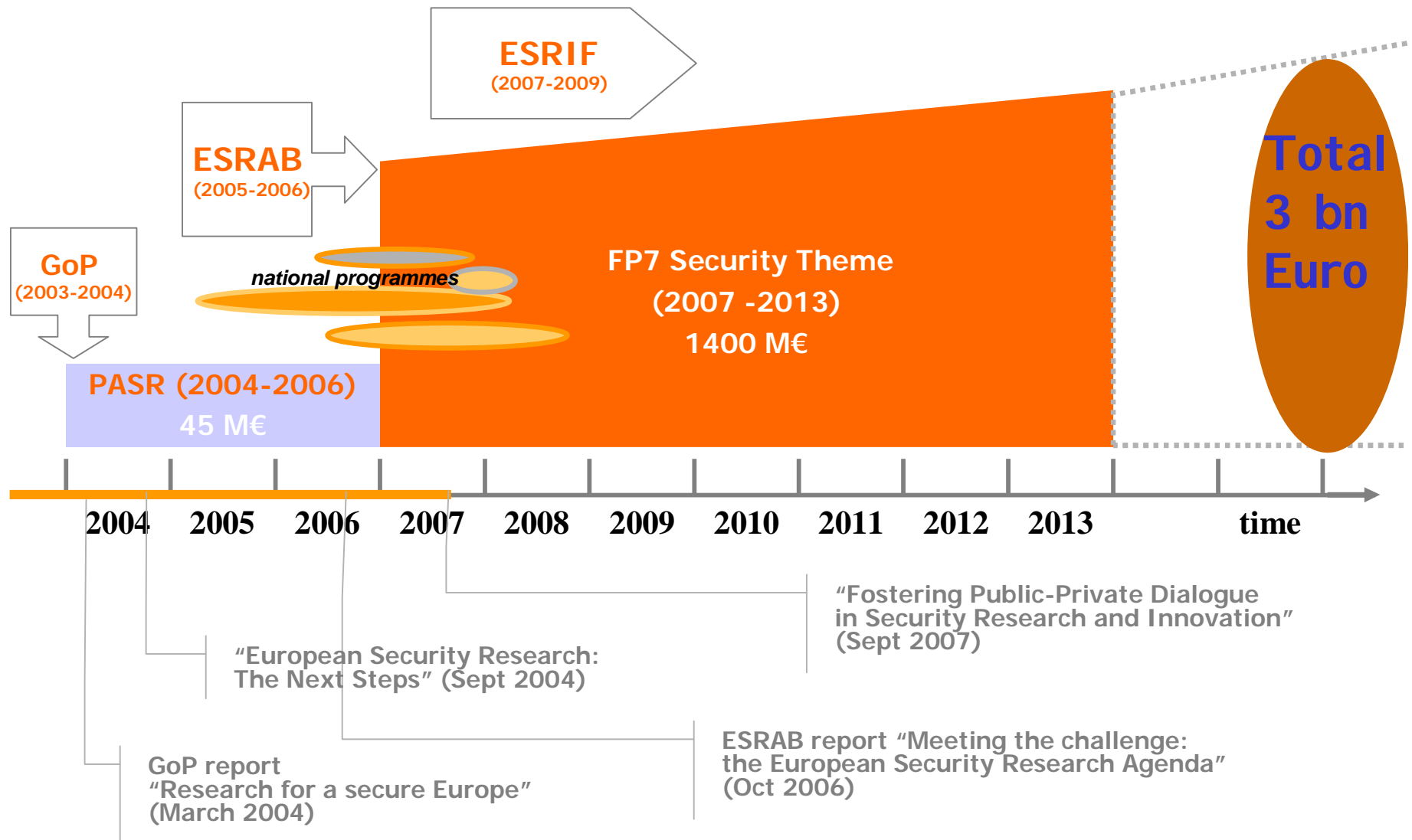*Consulenza* → *EURISPES, Booz&Co...*
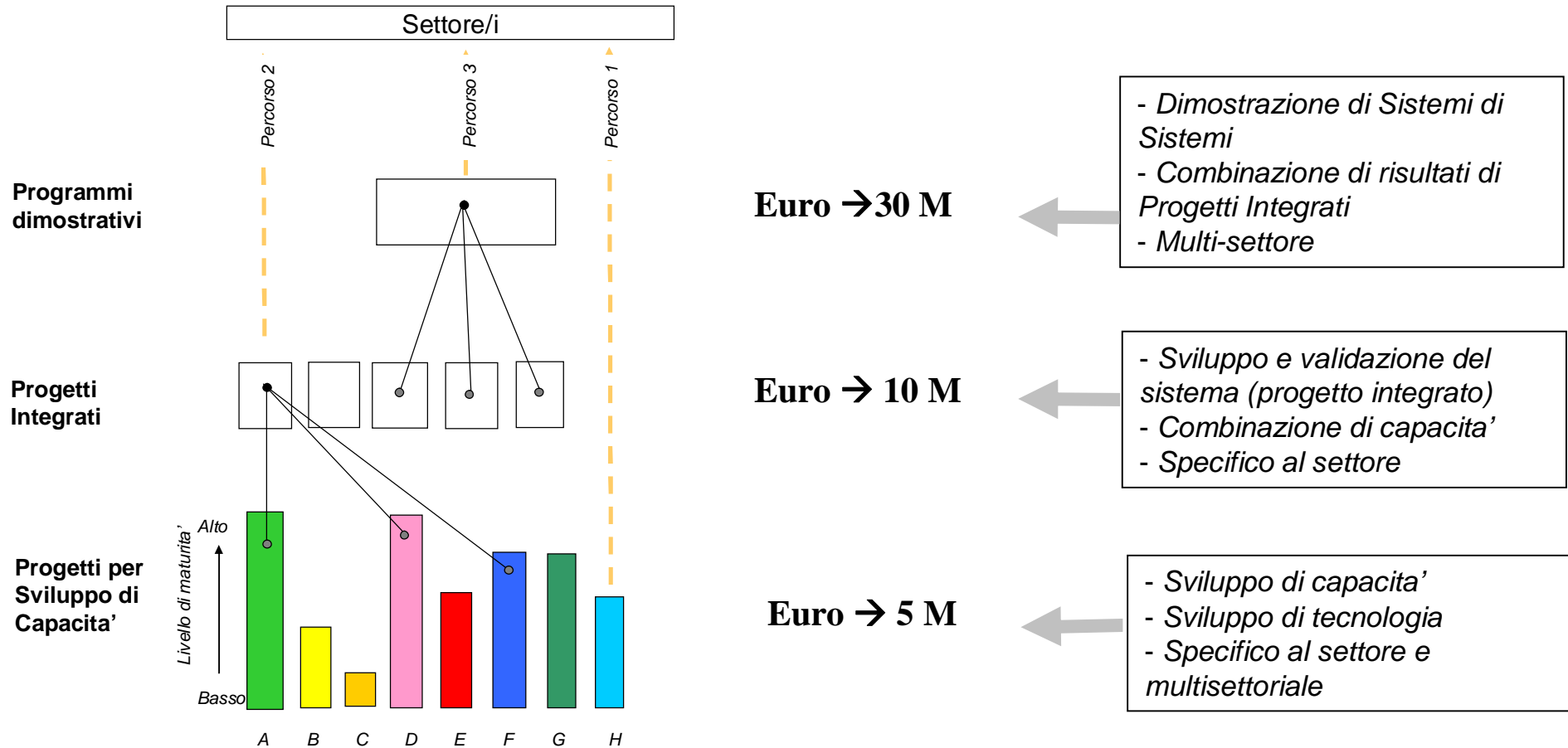
...

(SW Company)

- Founded in **2000** by me with (Italian, French, German, US) ex-<u>IBM</u> text mining experts, joined in July **2003** by ex-<u>Xerox</u> team.
- **Direct** Offices **in Italy, France, Germany, UK, USA**; **partners in Australia, Brazil, Greece, Holland, Spain.**
- **Twelve (European) + 5 (Nordic) + Arabic, Chinese, Korean, Japanese** languages are supported.

- **Italy**: **IBM, TIM-Telecom Italia Mobile, Trenitalia, Telcal (TelecomItalia+Finsiel), SMD-Stato Maggiore Difesa, University of Bologna, Area Science Park,Allaxia, Edilintelligence, FederImprese, Firenze Tecnologia, Ministero Interno, Synthema...**
- **European Union:** **Three European Commission funded projects, European Parlement, Europol, OLAF...**
- **France**: **EADS, France Telecom, Renault, @Carrefour, TotalFina, Credit Lyonnais, Peugeot, Xerox...**
- **Germany**: **G+J (Bertelsmann), ABB, Dresdner Bank,Fraunhofer Institute, HASE, Lion...**
- **Holland:** **BCT**
- **Switzerland**: **Novartis, LightObjects, Roche...**
- **USA**: **Pfizer, Conoco, AskMe...**
- **Universities**: **Italy→Politecnico Milano, Modena, Calabria, Malta, Germany→Dortmund, France→Marseille, Brazil→Rio de Janeiro**
- **...and some other, confidential ones.**

2a. Lo Scenario Europeo ed i relativi finanziamenti

2°.Evoluzione della Ricerca Europea in materia di Sicurezza

ESRIF
(2007-2009)

ESRAB
(2005-2006)

GoP
(2003-2004)

national programmes

FP7 Security Theme
(2007 -2013)
1400 M€

**Total
3 bn
Euro**

PASR (2004-2006)
45 M€

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013   time

"Fostering Public-Private Dialogue
in Security Research and Innovation"
(Sept 2007)

"European Security Research:
The Next Steps" (Sept 2004)

ESRAB report "Meeting the challenge:
the European Security Research Agenda"
(Oct 2006)

GoP report
"Research for a secure Europe"
(March 2004)

Come si finanzia

Cosa si finanzia?

ESRAB

Technology Group

Enablers Group

Intelligence !

Border Security

Infrastructure Utilities

Crisis Management

Anti-Terrorism Crime

Inter-operability

Implementat[n] Rules

Security & Society

Co-ordination

Innovation link

2b.Protezione infrastrutture critiche: un'overview

Mission : Critical Infrastructure Protection

MISSION

Critical infrastructure protection
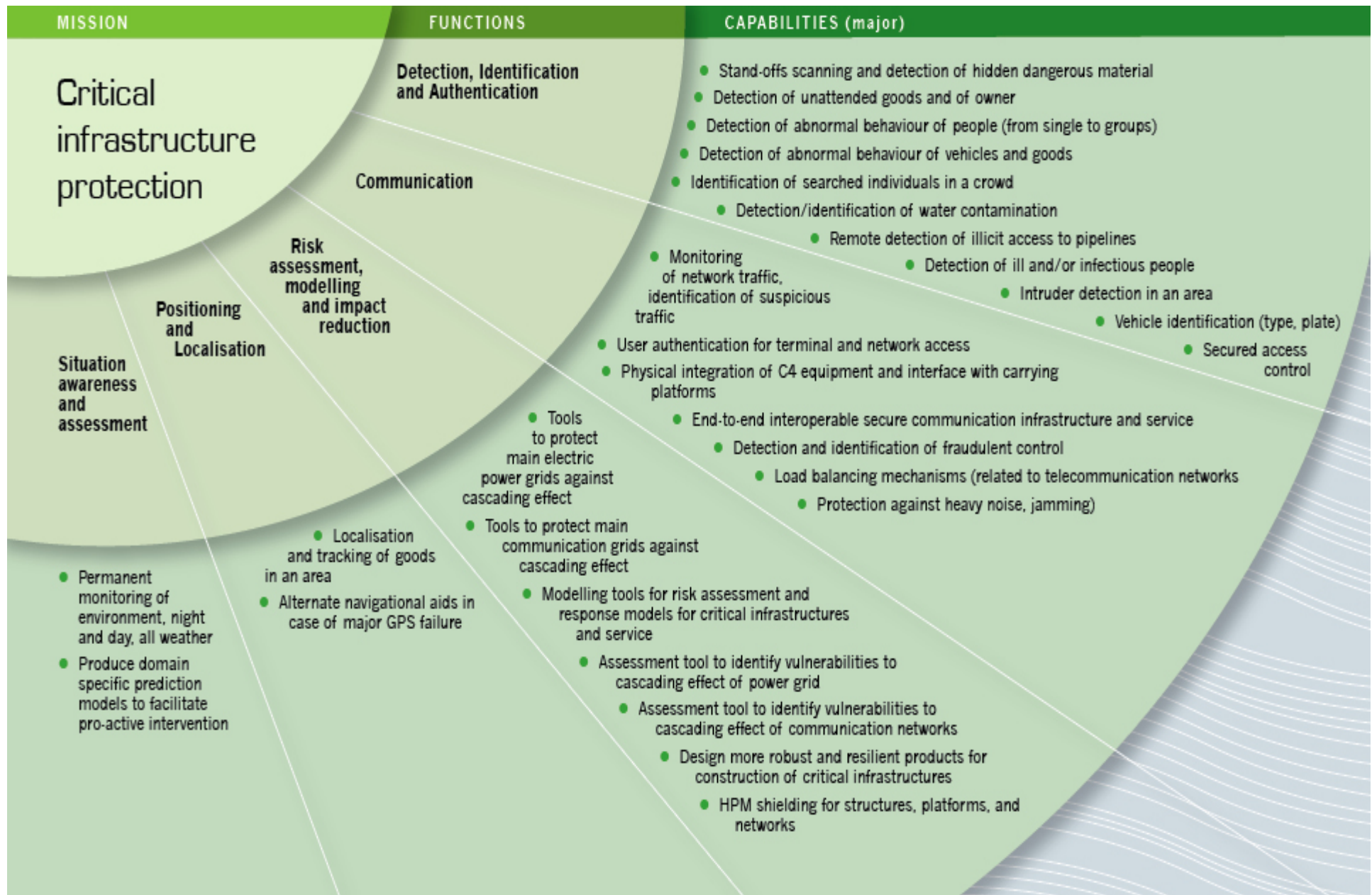
Situation awareness and assessment

- Permanent monitoring of environment, night and day, all weather
- Produce domain specific prediction models to facilitate pro-active intervention

FUNCTIONS

Detection, Identification and Authentication

Communication

Risk assessment, modelling and impact reduction

Positioning and Localisation

- Localisation and tracking of goods in an area
- Alternate navigational aids in case of major GPS failure

- Tools to protect main electric power grids against cascading effect
- Tools to protect main communication grids against cascading effect
- Modelling tools for risk assessment and response models for critical infrastructures and service
- Assessment tool to identify vulnerabilities to cascading effect of power grid
- Assessment tool to identify vulnerabilities to cascading effect of communication networks
- Design more robust and resilient products for construction of critical infrastructures
- HPM shielding for structures, platforms, and networks

CAPABILITIES (major)

- Stand-offs scanning and detection of hidden dangerous material
- Detection of unattended goods and of owner
- Detection of abnormal behaviour of people (from single to groups)
- Detection of abnormal behaviour of vehicles and goods
- Identification of searched individuals in a crowd
- Detection/identification of water contamination
- Remote detection of illicit access to pipelines
- Detection of ill and/or infectious people
- Monitoring of network traffic, identification of suspicious traffic
- Intruder detection in an area
- Vehicle identification (type, plate)
- User authentication for terminal and network access
- Secured access control
- Physical integration of C4 equipment and interface with carrying platforms
- End-to-end interoperable secure communication infrastructure and service
- Detection and identification of fraudulent control
- Load balancing mechanisms (related to telecommunication networks
- Protection against heavy noise, jamming)

Critical Infrastructure Protection→ Demonstration Pgm Funding

- **Demonstration Programmes :**
  - **Systems of systems** achieving multi-mission objectives.
  - Provide a **federative frame** to coalesce research in areas of significant European interest
  - Rely on the development of required "**building blocks**" (capability projects and integrated projects)

    => *5 demonstration programmes identified*

(Assegnati in due fasi)
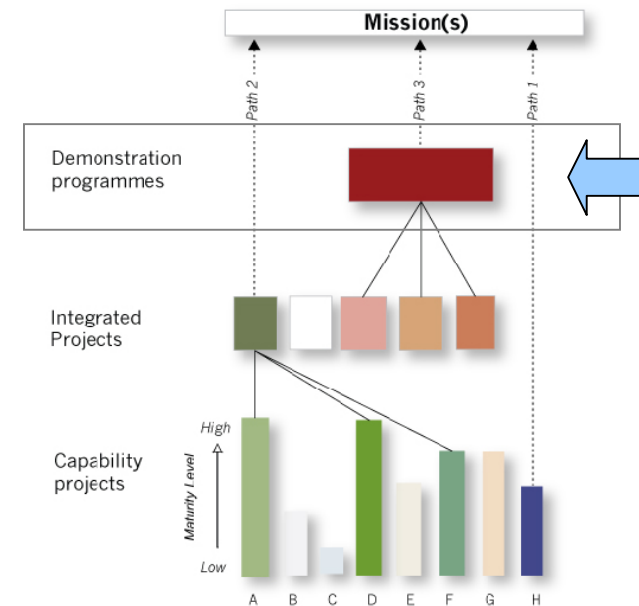
1) Aftermath Crisis management system

Integrated and scaleable crisis management system capable of providing comprehensive situational awareness to decision makers to ensure a timely, coordinated and effective response to large scale disasters both inside and outside the EU.

1• Phase just Assigned (2• in 2013?)

...in cui la prima fase è stata assegnata a

CRiSiS – Critical Response in Security and Safety Emergencies

Participant no.	Participant organisation name	Abbreviation	Country
1	European Organisation for Security	EOS	BE
2	EDISOFT–Empresa de Serviços e Desenvolvimento de Software, S.A.	EDI	PT
3	Center for Security Studies, KEMEA	KEMEA	GR
4	National Center for Scientific Research "Demokritos"	NCSR	GR
5	ALTRAN BV Netherlands	ALT	NL
6	International Association of Fire and Rescue Services, CTIF	CTIF	GE
7	Teletron Euroricerche	TLT	IT
8	Compania Nationale de Transport al Energiei Electrice ,TRANSELECTRICA	TRA	RO
9	Société Française de Medicine de Catastrophe- SFMC	SFMC	FR
10	THALES Security Solutions and Services	THA	FR
11	INDRA Sistemas	IND	ES
12	Istituto Affari Internazionali, IAI	IAI	IT
13	University Central of Lancashire	UCLI	UK
14	Finnish Ministry of the Interior, Department of Rescue Services	FMOI	FI
15	Zanasi Alessandro SRL	ZAN	IT

Critical Infrastructure Protection→ Demonstration Pgm Funding

2) European-wide integrated border control system

Comprehensive and integrated border management system capable of providing concentric layers of protection from pre-entry control measures through to co-operation inside, and between member States. Innovative business models.

1• and 2• Phases Already Assigned

3) Logistic and Supply chain Security

Efficient, reliable, resilient and secure network of supply chains that guarantees the security of the goods produced and transported whilst having minimal impact, in terms of cost and time, on commercial operators and enterprises. *1• Phase Already Assigned (2• in 2012 ?)*

4) Security of mass transportation

Consistent and integrated suite of mass transportation security systems (transport networks, nodes and platforms) taking into account the specific requirements for each sector and the particular cross-border dimension of mass transport. Interoperability requirements will drive standardization in this area.

1• and 2• Phases Already Assigned

5) CBRNE

Consistent portfolio of counter measures for CBRNE along the phases from prevention to response and recovery. Interoperable and mobile solutions will significantly lower unit cost whilst international cooperation, and multiple domain application, offer strong multipliers for success.

1• Phase Already Assigned (2• in 2012 ?)

Critical Infrastructures → Integrated Projects Funding

Mission(s)

- **Integrated Projects:**

  – **Abnormal behaviour detection**
    - Signature of specific abnormal behaviour and advanced integrated technology for the detection of abnormal behaviour. Roadmap for additional research

  – **Open spaces security**
    - Set of integrated tools for a total surveillance of an open space.
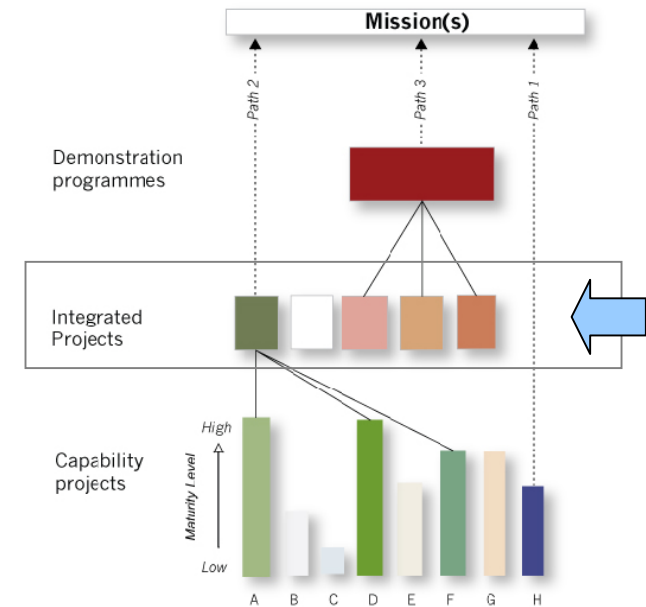
  – **Built infrastructure protection**
    - Suite of protection portfolios for new and existing buildings that are operationally viable, infrastructure specific and affordable.

  – **Water distribution surveillance**
    - Better prevention of water distribution, with a methodology to identify new contaminants, and better protection, with tools to identify and neutralise an attack.

  – **Protection of rail transportation** Better protection and homogeneity of the European rail transportation systems.

Critical Infrastructures→ Capabilities Funding

- **Mission scope:**
  - Protection of critical infrastructures that can be damaged, destroyed or disrupted by deliberate acts of terrorism, natural disasters, negligence, accidents, computer hacking, criminal activity and malicious behaviour.

- **Work focussed on:**
  - A diverse and wide number of physical, logical and organisational systems
  - Risk assessment
  - Interdependencies
  - Trans-national impact

- **Functions:**
  - Detection, identification and authentication
  - Risk assessment, modelling and impact reduction
  - Positioning and localization
  - Situation awareness and assessment
  - Command and control
  - Communication
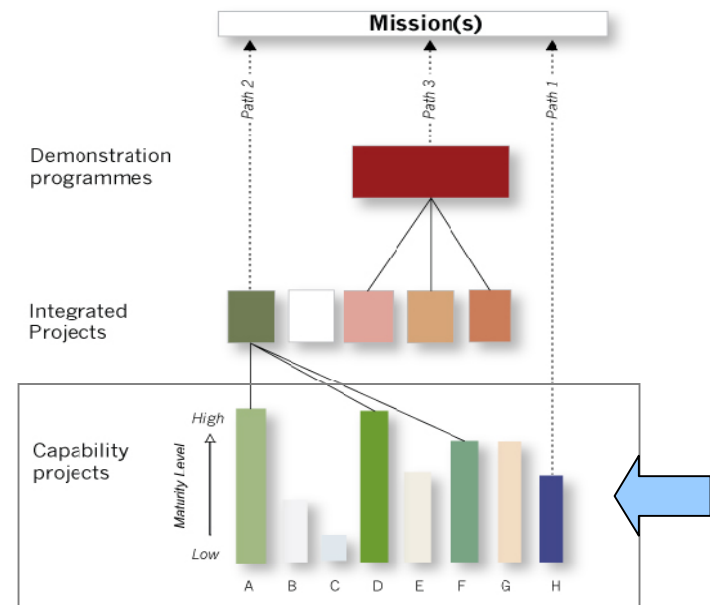
...ma anche...

E. JLS (1/2)

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 1.9.2006
COM(2006) 474 final

GREEN PAPER

on detection technologies in the work of law enforcement, customs and other security authorities

E. JLS (2/2)

3.   USE OF DATA- AND TEXT-MINING TOOLS

National and European security authorities are facing a constant increase in the volume of documentation and information they have to process. To address this challenge more efficiently, modern software tools for data and text mining exist. This technology can help to extract relevant information from huge numbers of documents. For example it is possible to intelligently filter text and documents to aid navigation (clustering of documents), for auto-categorisation (channelling and prioritising document flow within investigation teams) and code utilisation validity checking. The objectives are:

- fast overview of key entities in document collections;

- pre-processing for targeted document search;

- content-based classification of documents to help focus further analyses;

- automated information analysis across various sources.

The potential of these modern tools is not sufficiently exploited across the Member States. However, while promoting use of these technologies, it has to be very carefully considered that their use in certain applications, for example monitoring of e-mails, is in itself an intrusion of citizens' fundamental right to privacy. E-mails are correspondence and, as such, they are covered by the right to confidentiality of communication laid down in the European Convention on Human Rights. The use of any techniques for data and text mining must therefore be in accordance with the law, be necessary in a democratic society to protect an

Chi puo' richiedere i finanziamenti?

1. Aziende
2. Governi centrali e locali
3. Centri di ricerca pubblici e privati

Chi li ottiene?

1. Aziende...anche piccole (ex: Temis SA, Zanasi Srl)
2. Ministeri...anche non Difesa o Interno (ex: MEF, Interno Olanda e Bulgaria)
3. Ricercatori...anche non blasonati (ex: Univ.Modena)

3. Progetti Finanziati

Progetti che garantiscano…

1

…Cooperazione Int'l in EU ma anche fuori EU…
(CH e NO ma anche USA, Israele ma anche Arabia Saudita)

realizzando…

...lotta contro Criminalità Finanziaria...

COMIFIN - Communication Middleware for Monitoring Financial Critical Infrastructure

Participant no. *	Participant organisation name	Part. short name	Country
1 (Coordinator)	ElsagDatamat S.p.A.	ED	Italy
2	Università di Roma	UoR	Italy
3	Technical Universitat of Darmstadt	TUD	Germany
4	IBM	IBM	Israel
5	Waterford Institute of Technology/TSSG	WIT	Ireland
6	Ministry of Economics and Finance	MEF	Italy
7	OptXware	OPT	Hungary
8	KreditTilsynet	KRD	Norway
9	University of Modena	UoM	Italy

Partners: 7 from EU...
             2 extra EU

...Intelligence non da fonti chiuse ma aperte...

Theme 10: Security
Topic FP7-SEC-2009-1

Proposal full title: Versatile InfoRmation Toolkit for end-Users oriented Open-Sources explOitation

Proposal acronym: **VIRTUOSO**

VIRTUOSO – Versatile Information Toolkit for End Users Oriented Open Sources Explotation

Partners:

9 EU...

...1 extraEU

Participant no.	Participant organization name	Participant organization name	Country
	Members of the project team		
1 (Coordinator)	Commissariat à l'Energie Atomique	CEA	FR
2	EADS Defence and Security Systems	EADS	FR
3	ATOS ORIGIN SAE	ATOS	SP
4	MONDECA	MON	FR
5	Newstin a.s.	NWT	CZ
6	SAIL LABS TechnologyAG	SAILLABS	AU
7	Aalborg Universitet	AAU	DN
8	THALES Communications S.A.	THALES	FR
9	Bertin Technologies	BERTIN	FR
10	Stichting Katholieke Universiteit Brabant	TILT	NL
11	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek	TNO	NL
12	Ingeniera de Sistemas para la defensa de Espana	ISDEFE	SP
13	EUROSINT Forum ASBL	EUROSINT	BE
14	Hawk Associates Limited	HAWK	UK
15	ETH Zurich	ETHZ	CH
16	Compagnie Européenne d'Intelligence Stratégique	CEIS	FR
17	Università di Modena e Reggio Emilia	CRIS/UOM	IT
18	Columba Global Systems Ltd	COLUMBA	IE

2

…lotta contro la criminalità e la radicalizzazone con attenzione ad obiettivi sociali (Percezioni dei cittadini, privacy, coesione sociale vs radicalizzazione, partecipazione della società civile)

realizzando…

... video monitoring intelligente...

THIS-Transport Hub Intelligent video System

The project addresses **automatic behavioral analysis** through video processing, focused on crowded scenarios, for transportation hubs. New **video surveillance** systems provide moving object detection and people tracking (e.g. for abandoned pack detection) but the monitoring task is all in charge of human inspectors. A system performing human behavioral analysis, detaching what is usual from what is not, would fill the gap and provide a reactive, and hopefully pro-active control task, **preventing terroristic attacks** or crime situations in public places.

	Name of the Partner Organisation	Country (official ISO 2 code) 2	City
0	Applicant/Co-ordinator: CRIS	IT	Modena
	Partners/Co-beneficiaries of the grant:		
1	Hungarian Academy of Sciences (MTA-SZTAKI)	HU	Budapest
2	Technical University of Catalunya (UPC)	ES	Barcelona
3	Bridge 129 (BRIDGE)	IT	Reggio Emilia
4	Vitrociset (VITROCISET)	IT	Roma
5	Zanasi s.r.l. (ZANASI)	IT	Modena
6	Research and Education Laboratory in Information Tech. (AIT)	GR	Athens

...understanding factors that cause feeling of insecurity...

CPSI -Changing Perceptions of Security and Interventions

Participant no.	Participant organization name	Country
Members of the project team		
1 (Coordinator)	Netherlands Organization for Applied Scientific Research TNO	NL
2	Swedish Defence Research Agency FOI	SE
3	University of Kent	UK
4	Sogeti Europe	FR
5	TEMIS SA	FR
6	European Commission – Joint Research Centre, Institute for the Protection and Security of the Citizen	IT
7	Endowed Centre for European Security Studies	AT
8	Social and Cultural Planning Office	NL
Members of the Advisory Board		
9	Ministry of the Interior and Kingdom Relations	NL
10	Austrian Ministry of the Interior	AT
11	KBM (SEMA – Swedish Emergency Management Agency)	SE
12	Data-Warehouse GmbH	DE
13	Gendarmerie Nationale	FR
14	Bulgarian Ministry of the Interior	BU
15	Italian Ministry of Economics and Finance	IT

... understanding of Radicalization and its drivers...

SAFIRE: **Scientific Approach to Fighting Radical Extremism**

Participant no.	Participant organization name	Country
Members of the project team		
1 (Coordinator)	Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek TNO	NL
2	Universidade de Coimbra	P
3	ISCA	IL
4	Bridge129	IT
5	CEIS	FR
6	Rand Europe	UK
7	FORUM	NL
8	Universiteit van Amsterdam	NL
9	FRS	FR
Members of the advisory board		
9	Ministry of the Interior and Kingdom Relations	NL
10	Netherlands Police Academy	NL
11	Technical University of Delft	NL
12	Anne Frank House	NL
13	Ministry of the Interior	Bulgaria
14	University of Southampton	UK
15	University of Maryland	USA

...with 2 extra EU partners

Includendo aziende private ed istituzioni pubbliche ma anche ricerca e società civile

CRiSiS – Critical Response in Security and Safety Emergencies

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1	European Organisation for Security	EOS	BE
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7	Teletron Euroricerche	TLT	IT
8	Compania Nationale de Transport al Energiei Electrice ,TRANSELECTRICA	TRA	RO
9	Société Française de Medicine de Catastrophe- SFMC	SFMC	FR
10	THALES Security Solutions and Services	THA	FR
11	INDRA Sistemas	IND	ES
12	Istituto Affari Internazionali, IAI	IAI	IT
13	University Central of Lancashire	UCLI	UK
14	Finnish Ministry of the Interior, Department of Rescue Services	FMOI	FI
15	Zanasi Alessandro SRL	ZAN	IT

Il prossimo bando → più di 60 topics!

DRAFT WORK PROGRAMME 2011

COOPERATION

THEME 10

SECURITY

Pubblicazione tra Luglio e Settembre 2010 !

Quindi….

se siete interessati a richiedere finanziamenti Europei per la ricerca in materia di sicurezza…
lasciate la vostra *carta da visita !*

OSINT Inc.

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Tokio

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