



# EDA R&T Priorities and Contracting Procedures

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## 3<sup>rd</sup> EUCASS Conference, Versailles

**08 July 2009**

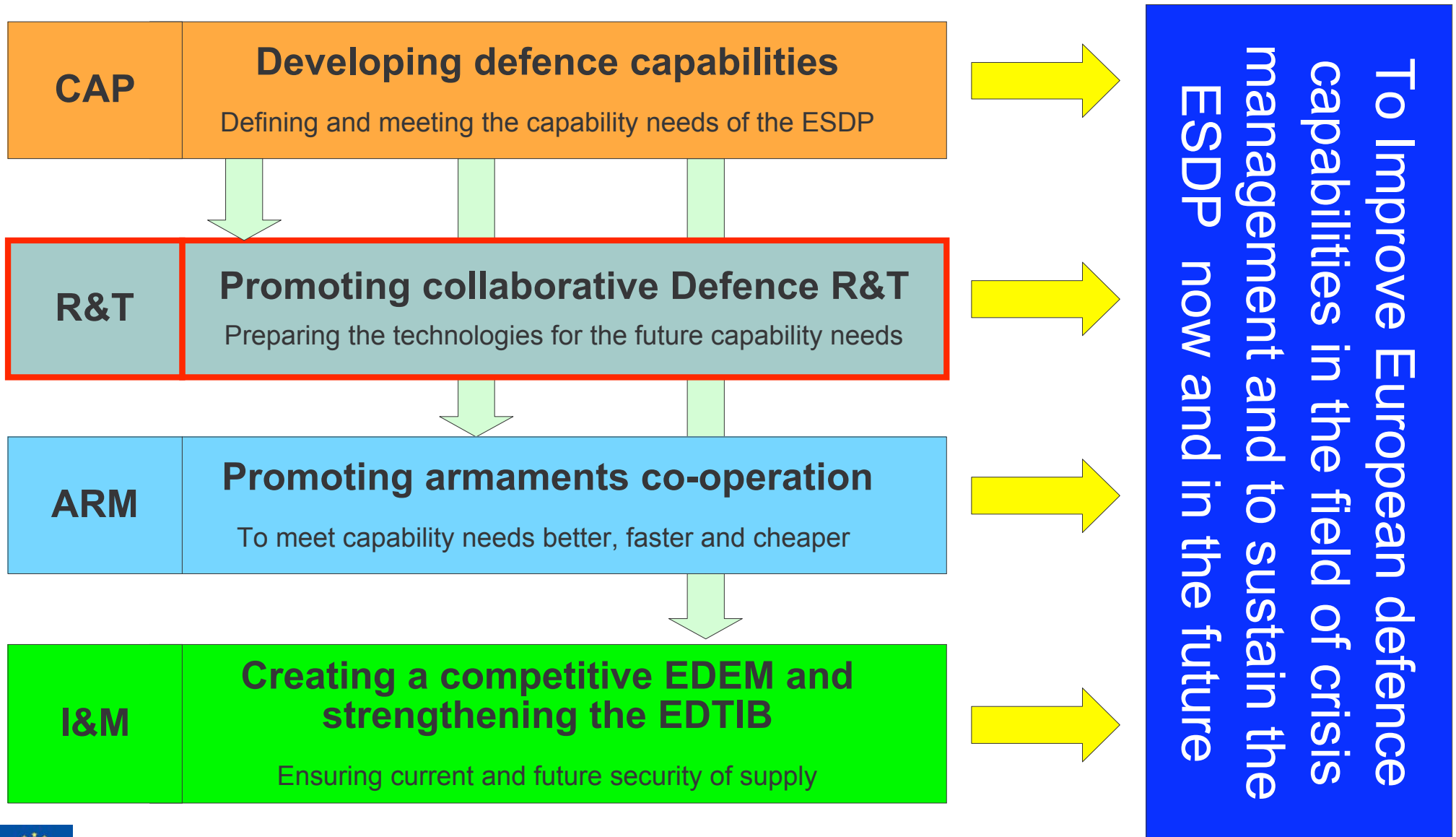
**Jérôme GARCIA**  
**R&T Directorate**

**European Defence Agency**

**Building Capabilities for a Secure Europe**



# European Defence Agency



# EDA – 12 technological areas

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- A CapTech is
  - ✓ A Capability-Technology area
  - ✓ A Network of experts from Member States, industry, research institutes and Academic Institutions
- 12 CapTechs in 3 major blocks reflecting Capabilities

**IAP = Information Acquisition & Processing**

----> ***Knowledge***

**GEM = Guidance, Energy & Materials**

----> ***Engagement***

**ESM = Environment, Systems and Modeling**

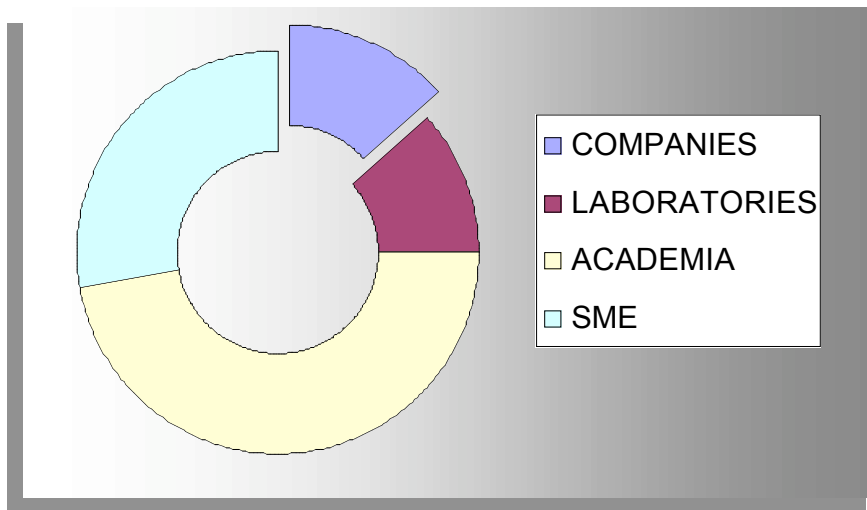
----> ***Manoeuvre***



# JIP ICET (Innovative Concepts and Emerging Technologies)

- Promote high risk R&T projects starting at **low TRL**
- Collect research themes from a broad base **SME & Academia**
- Budget of **15.6 M€**
- Scheduled to start in **Nov. 2008** and run for two years
- Technology areas
  - Improved Autonomy
  - New Solutions for Materials & Structures
  - Data Capture and Exploitation
- Incorporating lessons learned from JIP-FP
- More than 260 Potential Contractors

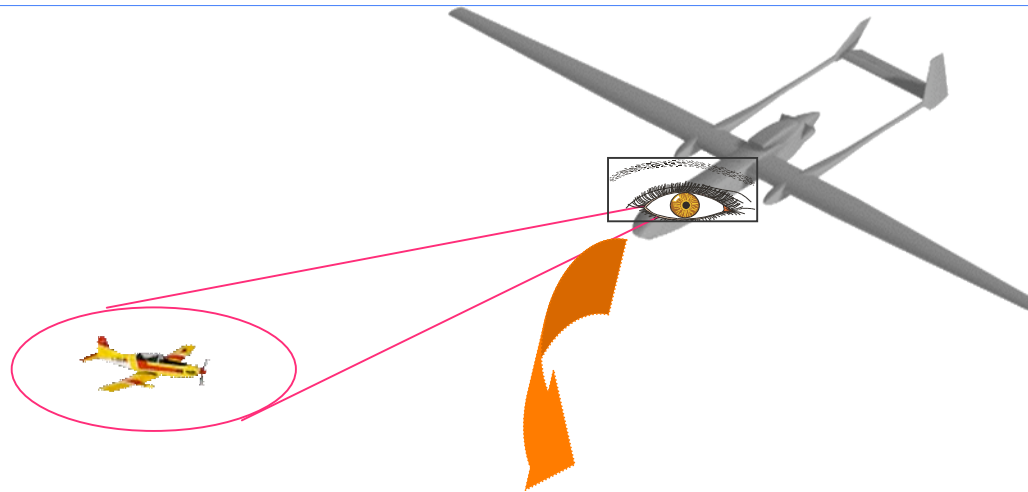
pMS contribution	M€
Cyprus	0.18
France	5.00
Germany	3.00
Greece	1.00
Hungary	0.18
Italy	1.50
Poland	0.72
Slovakia	1.00
Slovenia	0.50
Spain	2.00
Norway	0.50
<b>TOTAL pMS + Norway</b>	<b>15.58</b>



**Signed on 10 Nov. 2008**  
**Call 1 on 17 Nov. 2008**  
**Selection in May 2009**  
**Call 2 on 10 Jun. 2009**



# MIDCAS demonstrator (Mid-air Collision Avoidance System)



- EDA performs the MIDCAS project on behalf of 6 nations (DE, ES, FR, IT & SE)
- Sense & Avoid is key for inserting UAS into General Air Traffic
- To **demonstrate a Sense & Avoid capability** by flying an UAS in segregated air space
- Ambition to demonstrate this capability by flying UAS in non segregated air space
- Acceptable by the manned aviation community - supported by a safety case
- 50 M€ budget spread out on 48 months
- PA and **contract signed at the Paris Air Show** June 2009

# 2007, 2008 and 2009 EDA R&T projects

## ■ 2007 - Realised

- 10 projects PA/TA signed for 55M€
- JIP Force Protection 3 contracts for 13M€

**13 projects for a total value of 68 M€**

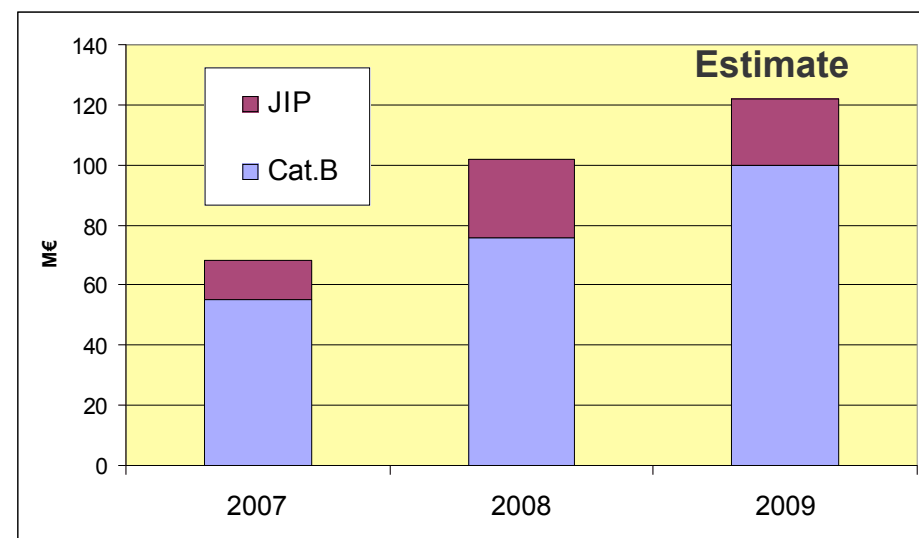
## ■ 2008 - Realised

- 11 projects PA/TA signed for 76 M€
- JIP Force Protection 5 contracts for 26M€
- ESSOR (Software Defined Radio) for 100 M€

**17 projects for a total value of 202 M€ (including ESSOR)**

## ■ 2009 – Forecast as updated on 29 April 2009

- 37 projects identified as potential candidates for in 2009 for 150 M€
- Estimation of 20 to 25 TA/PA signed for more than 100 M€ (**including MIDCAS**)
- 5 contracts to be signed in Force Protection and 6 more in ICET for 22 M€



# EDRT Strategy approved by MoD SB on 10 Nov. 2008

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## An EDRT Strategy with:

- **VISION** : To enhance and develop more effective research collaboration in science, technology and demonstrators to deliver in time the right technologies in support of military capabilities for short, medium and long term needs
- **ENDS** : What are the Key Technologies to invest in ? What are the R&T goals ? Which balance between Capability driven and Technology push ?
- **MEANS** : Effectiveness of R&T collaboration ? Promotion of innovation, Industrial base and SME, Research Centres, ...
- **WAYS** : Integrated Roadmaps to implement EDRT Strategy including coherence with CDP, EDTIB and ARM-Coop Strategy

# EDRT Strategy on ENDS– Key Technologies to develop

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## How to select the R&T goals to achieve

- **Capability-driven** for short and medium terms needs
    - Force Protection, Software Defined Radio (ESSOR), MIDCAS, MMCM, Bio-EDEP, ... **CAP & ARM**
  - **Industrial analysis** to master technologies for long term needs
    - Future Air Systems (ETAP, follow on of NeuroN ?, etc. ), Ammunitions, ... **I&M**
  - **Technology-driven** to take care of technical (r)evolutions, ...
    - Mainly R&T Cat. B projects generated in CapTechs, JIP ICET, ... **R&T**
- CapTech networks to develop strategic research agendas and technology roadmaps
- pMS to detail their R&T projects through the CapTechs for 2010-2012



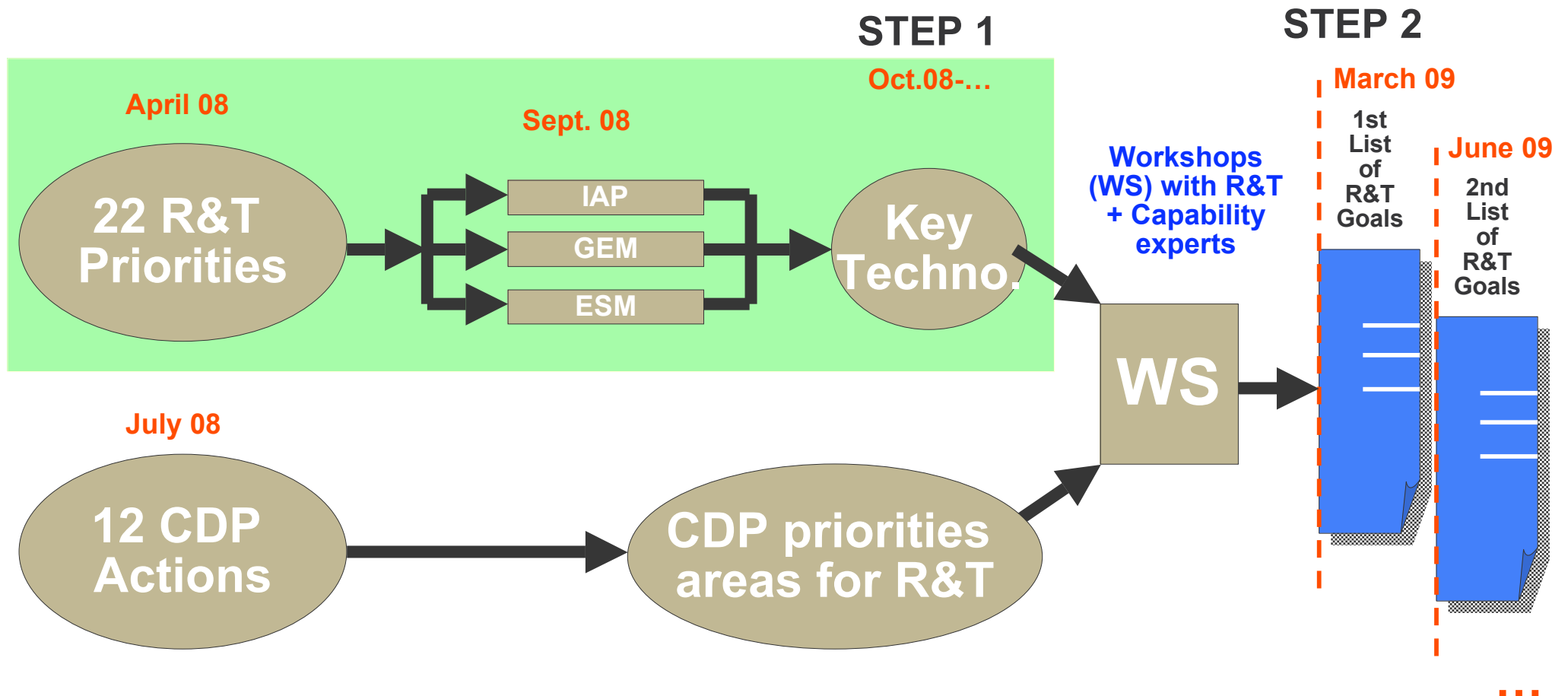
# Action Plan on the MEANS: Promote Technology Roadmaps

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- **Improve the shared R&T watch mechanism**
  - **2009:** EDA to develop a pilot case and confirm the GEM area for 2010
  - **2010:** EDA to produce a technology review dedicated to the GEM area
- **Promote awareness of civil technologies for defence purpose**
  - **Continuous:** to intensify cooperation with European bodies, mainly European Commission and ESA (ex. critical space technologies)
- **Develop technology roadmaps to pave the R&T goals**
  - **2010:** to develop in each CapTech, technology roadmaps and when relevant more integrated roadmaps, like for MMCM or CBRN

# How to develop the capability driven approach ?

## The R&T workstrand



# The 12 capability priority actions for R&T projects

- **Counter Man Portable Air Defence Systems** → 1 workshop in June 09
- Computer Network Operations
- **Mine Counter-Measures in littoral sea areas** → 4 workshops in 1<sup>st</sup> semester 09
- Comprehensive Approach - military implications
- Military Human Intelligence and Cultural / Language Training
- Intelligence, Surveillance, Target Acquisition and Reconnaissance Architecture
- Medical Support
- **CBRN** → 2 workshops in 1<sup>st</sup> semester 09
- Third Party Logistic Support
- **Counter-Improvised Explosive Device** → 1 workshop on 1-3 Jul 09
- Increased availability of helicopters
- Network Enabled Capability

## 4 CDP selected actions for R&T projects opportunities

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- **MMCM** – Maritime Mine Counter Measures  
(1 combined CAP-ARM-R&T and 2 specific R&T workshops)
  - CatB to prepare a first mine warfare operational capacity for 2018
  - R&T projects to prepare next generation for 2022-25: unmanned maritime systems
- **CBRN** (2 combined CAP-R&T workshops, Feb. and June)
  - Stand-off detection, testing methods, decontamination, B&C containment technologies, personal bio-dosimeters, ...
- **Counter-MANPADS** (1 combined CAP-R&T workshop, in June)
  - Information gathering of national R&T activities, Helicopter domain identified as first priority, and next generation of DE-FR DIRCM (capacity under dev.)
- **Counter-IED** (1 combined CAP-R&T workshop, on 1-2-3 July)
  - Areas of interest: Predict, Prevent, Detect, Protect, Neutralise and Exploit
  - Already activities on TeraHertz technologies

# EDA involvement in Helicopters

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- Looking to increase the availability of helicopters, outcome of EDA annual conference on 10 March 2009: Helicopters - key to mobility
  - Launch European-level training to adapt the skills of helicopter pilots
  - Look at options for upgrading existing assets (focus on Mi upgrades first)
  - Launch a project study for a Future Transport Helicopter
- Workshop on helicopters within the CapTech ESM 02 looking for cooperation opportunities in two areas
  - Helicopters structural health monitoring
  - Helicopters self-protection
- Future Transport Helicopter (New EDA project since 18 May 09)
  - Prepare options for a programme/programmes to meet a harmonised capability requirement
  - options for follow-on work
    - Transatlantic cooperation (off the shelf or customised CH-47 and/or CH-53)
    - Cooperation with the Russian federation (off the shelf or customised Mi-26)

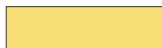


# Shortlist of the 22 common R&T priority areas

R&T Priority Area	R&T Priority Area
RF generic (components, processing, systems, integration) and multifunction RF technologies.	Environment definition (Oceanographic & hydro. techniques and analysis)
EO Systems & Integration	Energetics & Energetic Materials
Network Management in NEC operations (Fault, Configuration, Administration, Performance & Security management)	Soldiers Systems (incl. integration into Systems of Systems and NEC)
Structural Modelling Design & Through Life Support	Counter-mine, gap-crossing and counter-mobility systems
Networked sensor control, management and cueing	Power source and supply technologies
Command and control technologies (shared situational understanding, data fusion / mining / reduction, image exploitation, innovative Sensors for Urban Warfare, ..., including acoustic and seismic sensors)	Ground Platform technologies (structure, mobility...) and mounted platform systems
HF, VHF & UHF Communication Technologies	Uninhabited systems
Technologies for secure and robust information management, information exchange and communications	Aerial platform technologies (airframes, propulsion, aerodynamics, structures, ... - incl. Helicopters, UAVs)
Electronics Hardware	Concepts, design, integration, simulation & modelling
Human integration and interoperability	Uninhabited systems, especially underwater systems
Waveform design, spectrum and bandwidth management	Physical protection



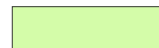
IAP:



GEM:



ESM:



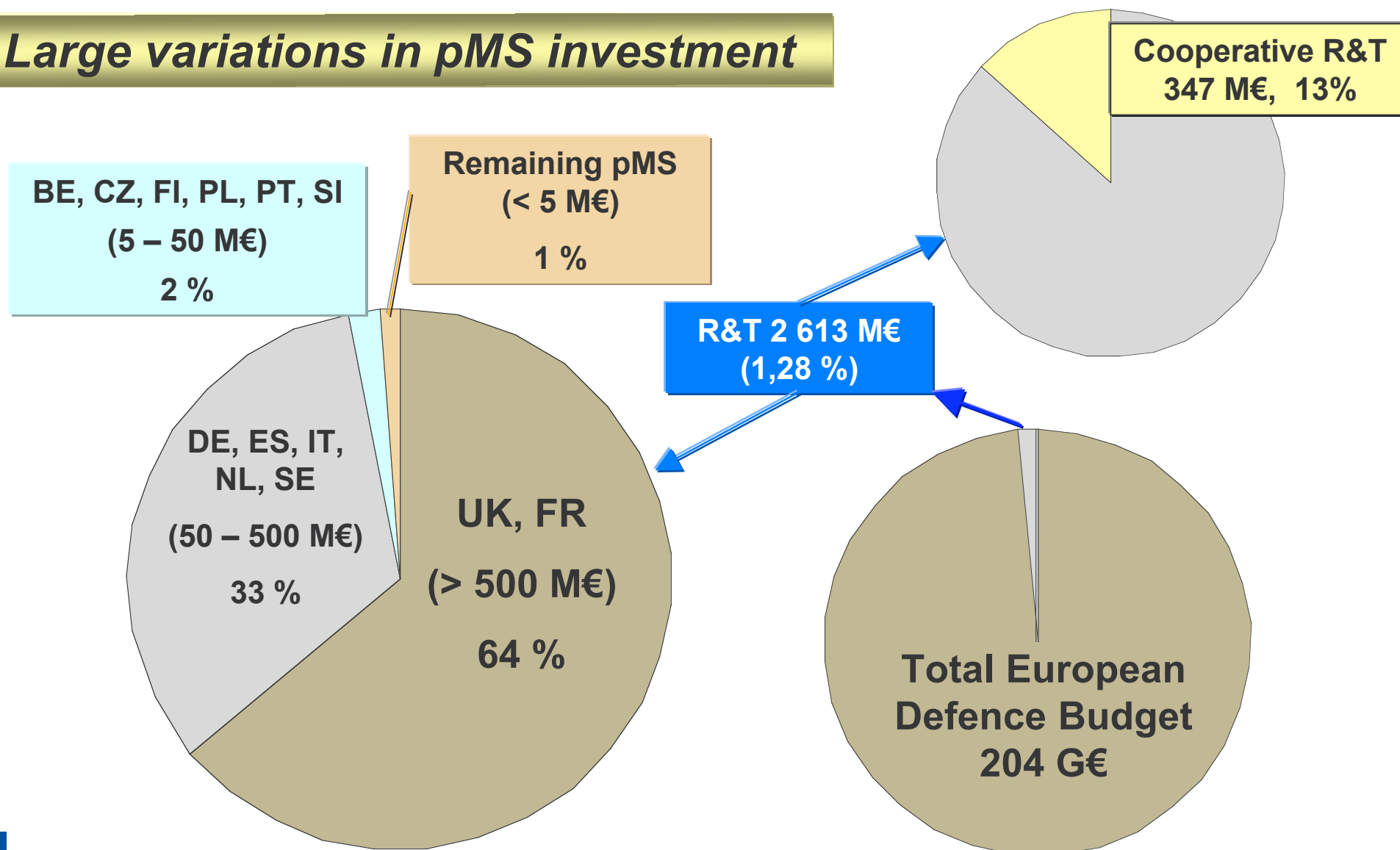
# EDA Operational Budget Studies 2010-2012

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- 50% are directly linked with Capability activities
  - IED detection (2010), Signatures of IED (2010), IED Forensic analysis and intelligence for better exploitation of IED (2012)
  - Technical challenge of NEC implementation (2011)
  - Directed energy technologies to stop and disable vehicles and vessels (2011)
  - Dependence on conventional fuels (2012)
  - High power Microwave multipurpose grenades and bombs (2012)
- 50% are more transverse multipurpose technologies studies
  - Adaptative, self-learning and anticipating radar (2010)
  - Comprehensive technology analysis for future air combat systems (2010)
  - Electrical drive (2011), Defence applications of plasma techniques (2011)
  - Future evolution and development for cognitive radio (2011)
  - New ballistic design and integration on platforms and weapon systems (2012)
  - Miniature radar systems (2012), Conformal antennas for UAS radars (2012)

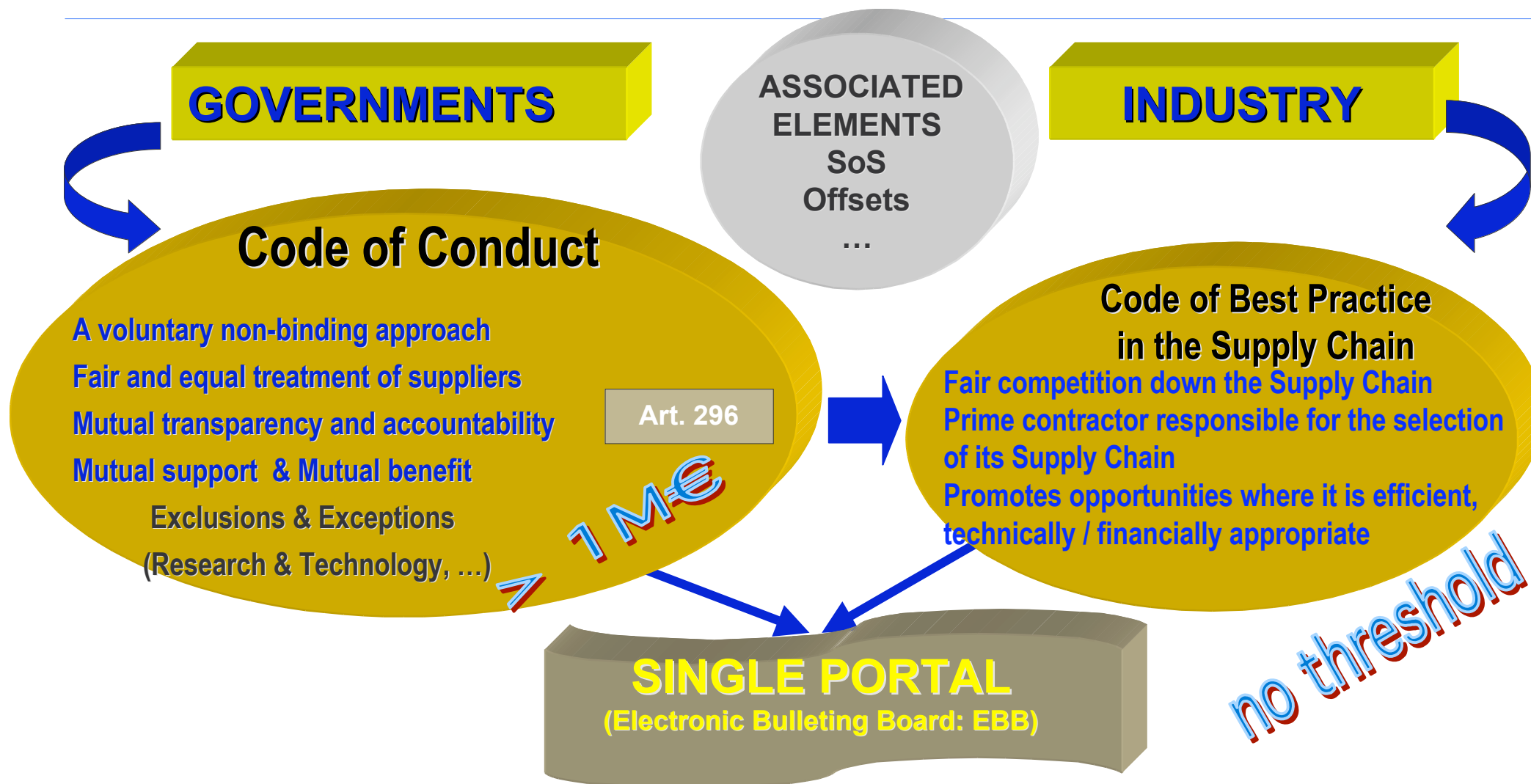
# European Defence R&T Budget in 2007

## *Large variations in pMS investment*





# Intergovernmental Regime on Defence Procurement



# Code of Conduct on Offsets

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- **Adopted by SB on 24 Oct 08 in order to:**
  - ✓ gradually reduce reliance on offsets
  - ✓ increase transparency
  - ✓ evolve towards use of offsets that help shape the EDTIB
- **Integral part of the Regime on Defence Procurement**
- **Applies to all compensation practices**
- **Enters into force on 1 July 09**

# Code of Conduct - Electronic Bulletin Board – Government Contracts

European Defence Agency

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### GOVERNMENT CONTRACT OPPORTUNITIES: RSS

Extended Search

All Notices	Information Requested RFI	Future contracts PIN	Active Contracts CN	Awarded Contracts CAN	
Reference	Expire on	Type	Title	Country	Publication date
EDA-2088		CAN	Purchase of type JP-8 Aviation Fuel	ITALY	05/11/2008
EDA-2125	02/01/2009 12:00 CN	CN	Future Battlefield Explosive Engineer Systems (FBEEES)	UNITED KINGDOM	05/11/2008
EDA-2120	01/12/2008 12:00 CN	CN	Armoured Wheeled Vehicle	SWEDEN	31/10/2008
EDA-2116		CAN	Delivery of SHF satellite terminal	POLAND	29/10/2008
EDA-1897	Amended 04/12/2008 02:00 CN	CN	Procurement of Simulation System for the Naval Maritime Interdiction Operational Training Center (NMOTC)	GREECE	28/10/2008
EDA-2109		CAN	Repair of aircraft's parts.	POLAND	27/10/2008
EDA-2063		CAN	Réalisation de grandes visites (GV) des hélicoptères Puma de l'Etat. (Conduct of major maintenance reviews of state's h...	FRANCE	27/10/2008
EDA-2105		CAN	Delivery of spare parts for C-295M	POLAND	27/10/2008
EDA-2104	10/11/2008 10:25 CN	CN	Procurement of one Deployable Air Operations Centre (AOC) and related equipments	SPAIN	24/10/2008
EDA-1901	Amended 27/11/2008 12:00 CN	CN	Procurement, installation and coherent inspection of six (6) full systems LINK-11 for hellenic navy's ships and procurem...	GREECE	23/10/2008

1 2 3 4 5 6 7 8 9 10 ...

### INDUSTRY CONTRACT OPPORTUNITIES: RSS

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All Notices	Future contracts SPIN	Active Contracts SCN	Awarded Contracts SCAN		
Reference	Expire on	Type	Title	Contractor	Publication date
EDA-S-526	26/12/2008 12:00 SCN	SCN	Aerodynamic dome	Diehl BGT Defence GmbH & Co. KG	07/10/2008
EDA-S-525	Expired 06/10/2008 12:00 SCN	SCN	TRANSPORT CASES FOR EQUIPMENTS	INDRA	01/10/2008
EDA-S-523		SPIN	Procurement process for Iridium's next-generation satellite constellation (Iridium NEXT)	Thales Alenia Space France	24/09/2008
EDA-S-483	Cancelled Expired 16/07/2008 12:00 SCN	SCN	Delivery of 3 pcf of car radiotelephone	Military Electronics Works Joint Stock Company	28/08/2008
EDA-S-217	Amended Cancelled	SPIN	1m Ka Fixed Antennas	Thales Alenia Space France	27/08/2008
EDA-S-521		SPIN	Off-road 4x4 truck-trailer for transportation of military shelters and hardware.	Thales Alenia Space France	28/08/2008
EDA-S-520		SCAN	Delivery of 3 of power-generator units	Military Electronics Works Joint Stock Company	27/08/2008
EDA-S-519		SCAN	Delivery of 3 pcf of radio station UKF	Military Electronics Works Joint Stock Company	27/08/2008
EDA-S-518	Expired 22/08/2008 12:00 SCN	SCN	Supply of spare parts for polish MoD helicopters	NAVITEC sp. z o. o.	19/08/2008
EDA-S-512		SCAN	Delivery 3 pcs.of electronic reconnaissance systems	MAW TELECOM Intl S.A	18/08/2008

1 2 3 4 5 6 7 8 9 10 ...

435 Contracts Opportunities

223 Contracts awarded under competition for 3.5 bn €

374 Contracts awarded without competition for 13 bn €

Data as of 26 June 09

# European Defence Agency

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## Two Categories of Budget:

- EDA General Budget from **participating** Member States  
(Functional, Operational and Earmarked revenue)
- Project-based budget from **contributing** Member States

## Three Categories of Projects:

- Common (EDA funded) Activities
- Ad Hoc Category A (opt out) – R&T Projects
- Ad Hoc Category B (opt in) – Mainly R&T Projects up to now, but more capability driven projects now on

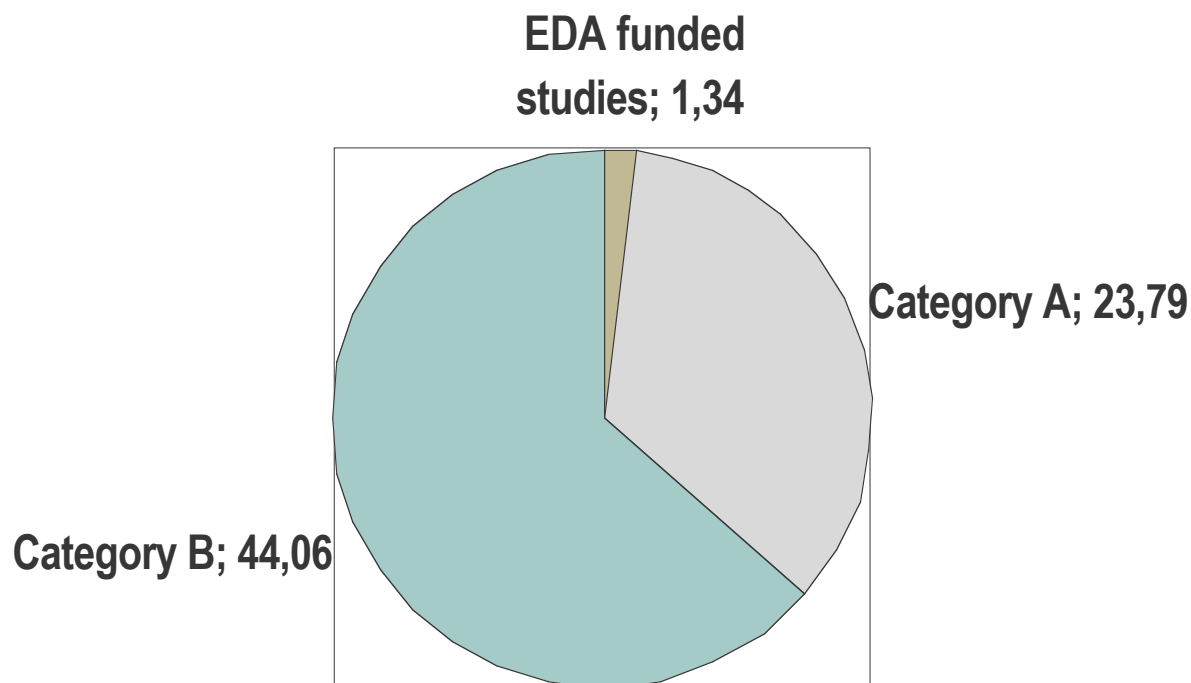
## A specific Ad Hoc Programme

- Joint Investment Programme - JIP



## EDA R&T contracts placed in 2008 (M€)

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Total of contracts commitments for OB studies, and category A and B projects

➤ 69.19 M€ committed for new contracts

New Category B Arrangements

➤ 76.24 M€ committed for 11 new Programme/Technical Arrangements

# IPR Regimes - General Conditions (GCs) for Projects

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- GCs have some ‘universal’ IPR provisions (e.g. primacy of national regulation, marking of information), but the majority of provisions remain variable project by project.
- GCs offer ‘default models’ of IPR regimes to assist project managers preparing PAs. Two models for Cat B projects will be supplemented by two models designed for JIPs. (Projects with a joint budget under EDA management)
- General Conditions (GCs) for Projects or Programmes to be amended in 2010
- Therefore new GC will contain 4 models in all:
  - Fully funded\* “classic” Cat B (no joint funding, no competition)
  - Jointly funded\*\* “classic” Cat B (jointly funded, no competition)
  - Fully funded\* JIP
  - Jointly funded\*\* JIP

\*Fully funded: i.e. 100% of the project cost paid by Contributing Members

\*\*Jointly funded: i.e. up to 50% of the project cost financed by Contractors



# Launching an Ad Hoc Category B project

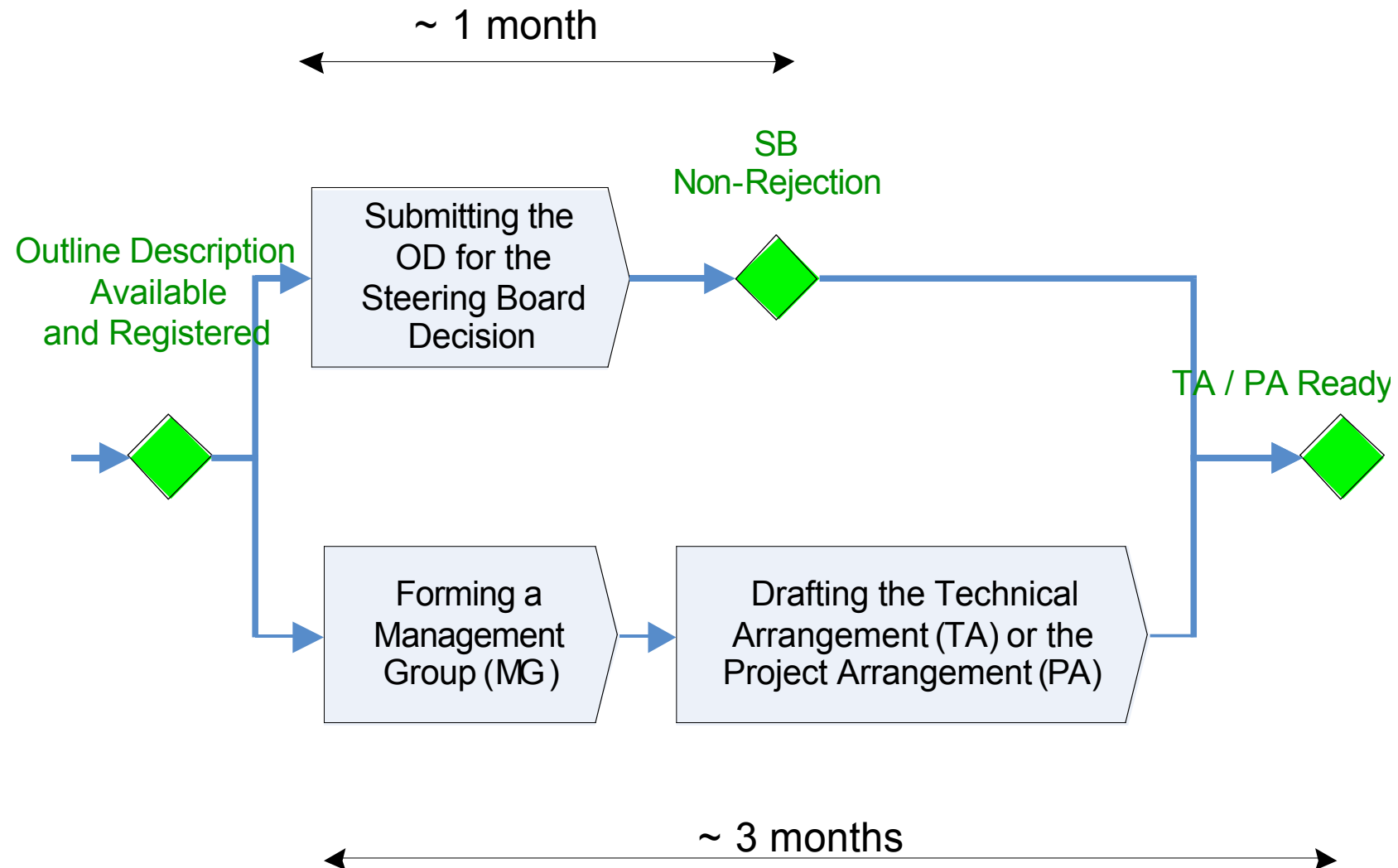
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- The management group has to prepare
  - the **Outline Description** (also called 'SoW' Statement of Work)
  - the classification level
  - the maximum Govt. costs, the industry level of contribution expected and the % of contribution per Nation
  - the **financial regime**
    - ✓ payment by EDA or
    - ✓ payments to national industry 'not crossing the frontier'
  - the **IPR regime** chosen (EDA General Conditions/ ERG1/ or other)
  - the management issues
  - the potential contractors for each Nations and whether a Request For Proposals will be issued.
  
- Then EDA can start internal Steering Board 'non rejection' process, under a 1 month silence procedure.



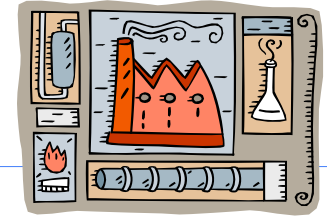


# Submission of an Ad Hoc Category B project





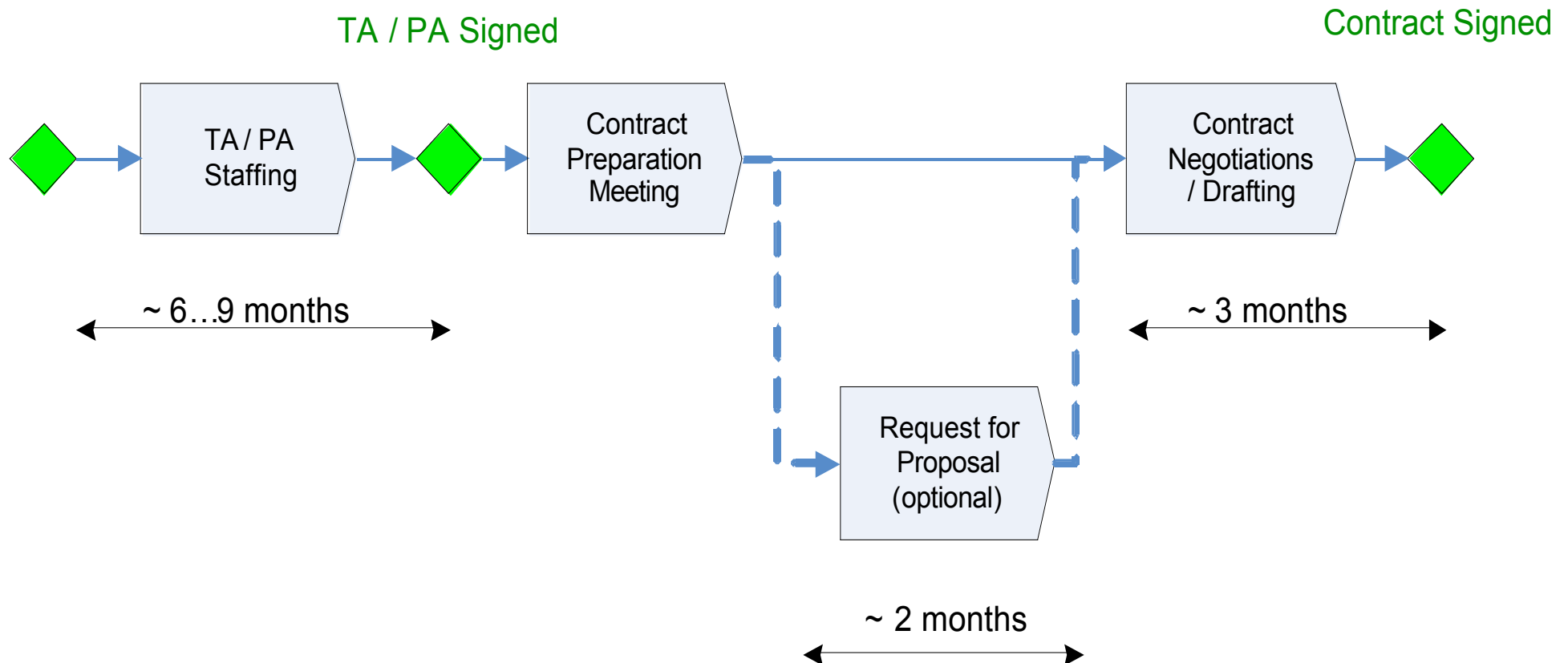
# IPR Regime and industrial/competition policy



- **EDA GC / ERG-1 IPR** or other already agreed regime is strongly advised to avoid negotiation delays. Choice of instrument at this stage is final since it will be referenced in the contract.
- Industrial policy solutions: each nation decides whether:
  - it will use pre-selected 'national' contractors only (= 1 consortium)
  - it will select from a larger set of potential contractors & have some kind of competition to choose the final consortium.
- **EDA can:**
  - Run a full **open competition** on behalf of Contributing Members – this must be done according to EU rules & EDA finance/procurement regulations.
  - Issue **Requests for Proposals** (RFP) to selected consortia to allow a 'competition of ideas'
  - Issue a **single RFP** to one selected consortium to improve the content of the proposal

Evaluation of responses will be made by the Management Group.

# Staffing an Ad Hoc Category B project



## Last steps to contract award

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- EDA negotiates final contract and IPR with industry.
- If necessary, Contributing Members sign a Letter of Acceptance of the contract (LoAC) to AED.
- If necessary, Contributing Members sign a Letter of Acceptance of Encryption Devices (LoAEncD).
- Industry signs contract.
- EDA signs contract.
- Contract will usually start at project Kick-off meeting

# EDA Procurement Procedure for contracts to be let under Operational Budget

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- Duration varies according to the price and milestones that may include
  - Preparing invitation to tender
  - Preparing contract notice
  - Assessment of offers
  - Finalization of contract
- Several options to award contracts
  - **Negotiated procedure** with selected candidates
  - **Restricted procedure** (RfP issued after initial selection)
  - **Open procedure** (RfP distributed from start)

# Contracting procedures under Operational Budget

Price (k€)	Procedure	Duration (weeks)
< 5	Negotiated procedure with a single tenderer selected by Operational Directorates	4
5-60	Negotiated procedure with at least three candidates selected by Operational Directorates	9-10
5-60	Negotiated procedure with at least three candidates which have to be selected after publication of a contract notice on EDA website	15-18
60-137	Negotiated procedure with at least five candidates to whom EDA sends tendering specifications to (NB: the candidates have been identified either following a call for expressions of interest or by Operational Directorates)	9-10
60-137	Negotiated procedure with at least five candidates which have to be selected after publication of a contract notice on EDA website	15-18
> 137	Open procedure after publication of contract notice on the OJEU website and the EDA website	15
> 137	Restricted procedure after publication of contract notice on the OJEU website and the EDA website	21
Defence related	Negotiated or Restricted procedure amongst candidates selected following calls for expressions of interest	9-10

# EDA – Research and Technology

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## Recall of Objectives

- To fulfil medium to long term **European defence capability needs**
- To master **key technologies** for defence systems
- To establish agreed **European R&T priorities**
- To foster **cooperation** between Member States
- To **manage or coordinate R&T projects**, on behalf of Member States
- To promote **less dependence** on critical key technologies
- To contribute to build a **competitive European Technological and Industrial Base (EDTIB)**, including SMEs and Research Centers
- To increase synergies, in co-ordination with the **European Commission** (defence and security research), **ESA** (critical space technologies), ...





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Intergovernmental Regime on  
Defence Procurement

Defence Procurement  
Opportunities (EBB)

## Dealing with EDA

Procurement

Vacancies

CapTech Experts

## Business with Others

Crisis Management

**JIP-ICET**  
2<sup>nd</sup> Call now Open

Joint Investment R&T Joint Investment  
Programme for Integrated Capability  
and Emerging Technologies

The European Defence Agency has been created to help EU Member States develop their defence capabilities for crisis-management operations under the European Security and Defence Policy. [Read more >>](#)

## Latest News

**04/05/2009**

[25 EU Member States and Norway to Take Part in the Code of Conduct on Offsets](#)

**06/04/2009**

[EDA Signed a Contract on Studies for Integrated Multifunction Compact Lightweight Airborne Radars and Systems](#)

**03/04/2009**

[Software Defined Radio Projects Presented at EDA](#)

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**Javier Solana**, High Representative and Head of European Defence Agency

“ The need to bolster Europe's military capabilities to match our aspirations is more urgent than ever. And so, too, is the need for us to respond better to the challenges facing our defence industries. This Agency can make a huge difference. ”

## Latest Documents

**07/05/2009**

[ADVANCED TECHNIQUES FOR LASER BEAM STEERING \(ATLAS\)](#)

**21/03/2009**

[09-CAP-005 - EU ISR Architecture Design Study - Q&A - 2](#)

**13/02/2009**

[European Defence Research & Technology Strategy](#)

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