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RÉPUBLIQUE FRANÇAISE

MINISTÈRE DE LA DÉFENSE

SCCOA



SCCOA program(s)

Meeting with NAO, March 2 2004

(2)



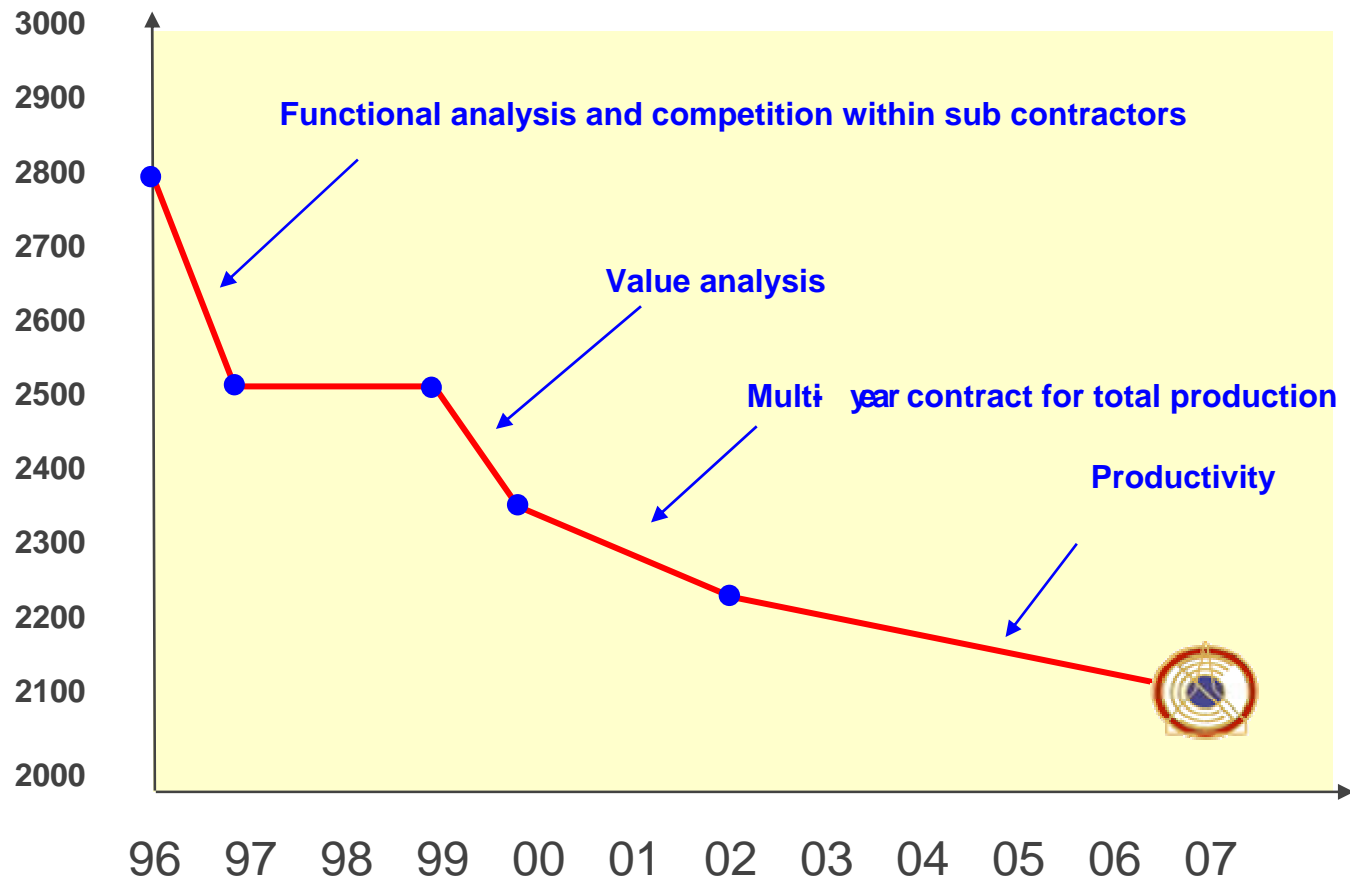
Summary



- What is SPAé ?
- What is the system SCCOA ?
- How do we manage this SCCOA complexity ?
- **What are our tools ?**
- How do we interface with contractors ?
- How do we report ?
- More questions ?

Objective: live cycle cost reduction

Cost reduction trajectory

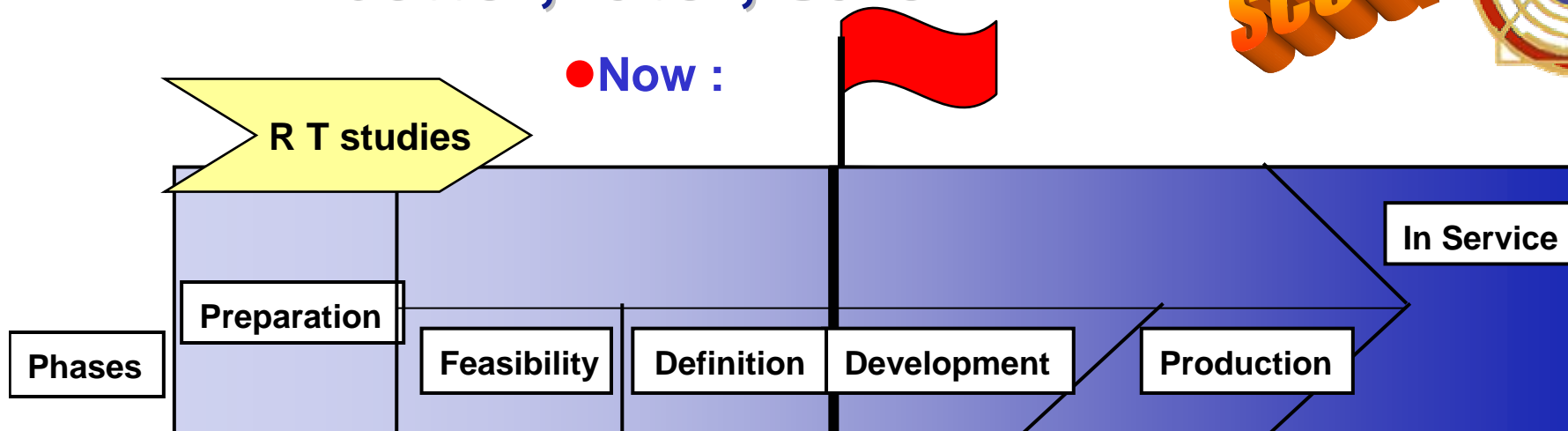


Reduction of development time

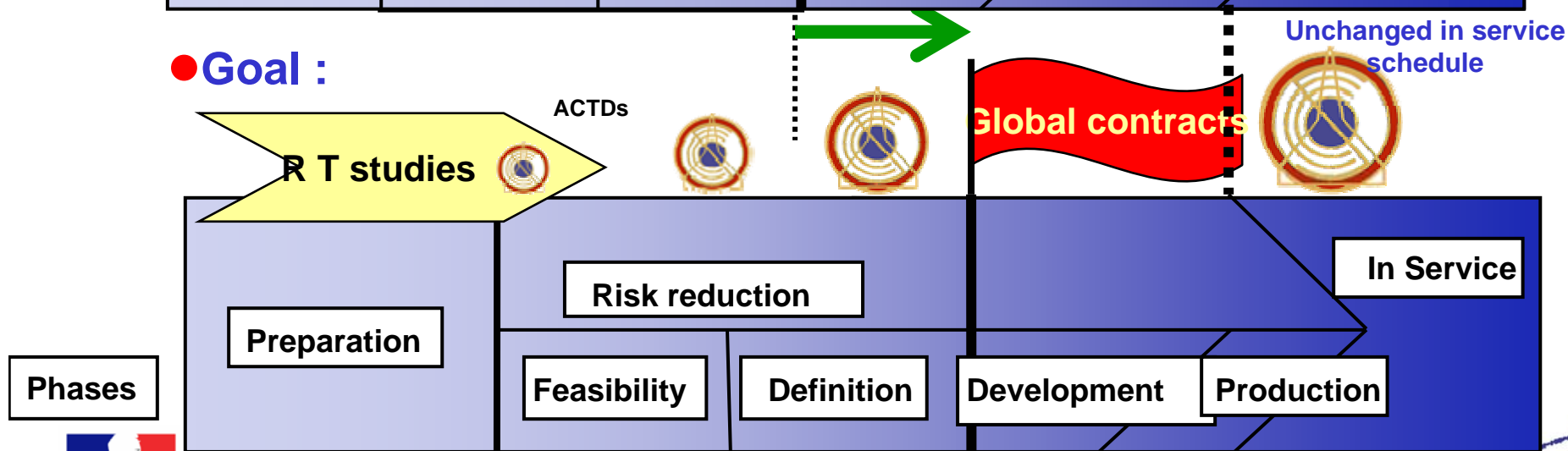
« better, later, safer »



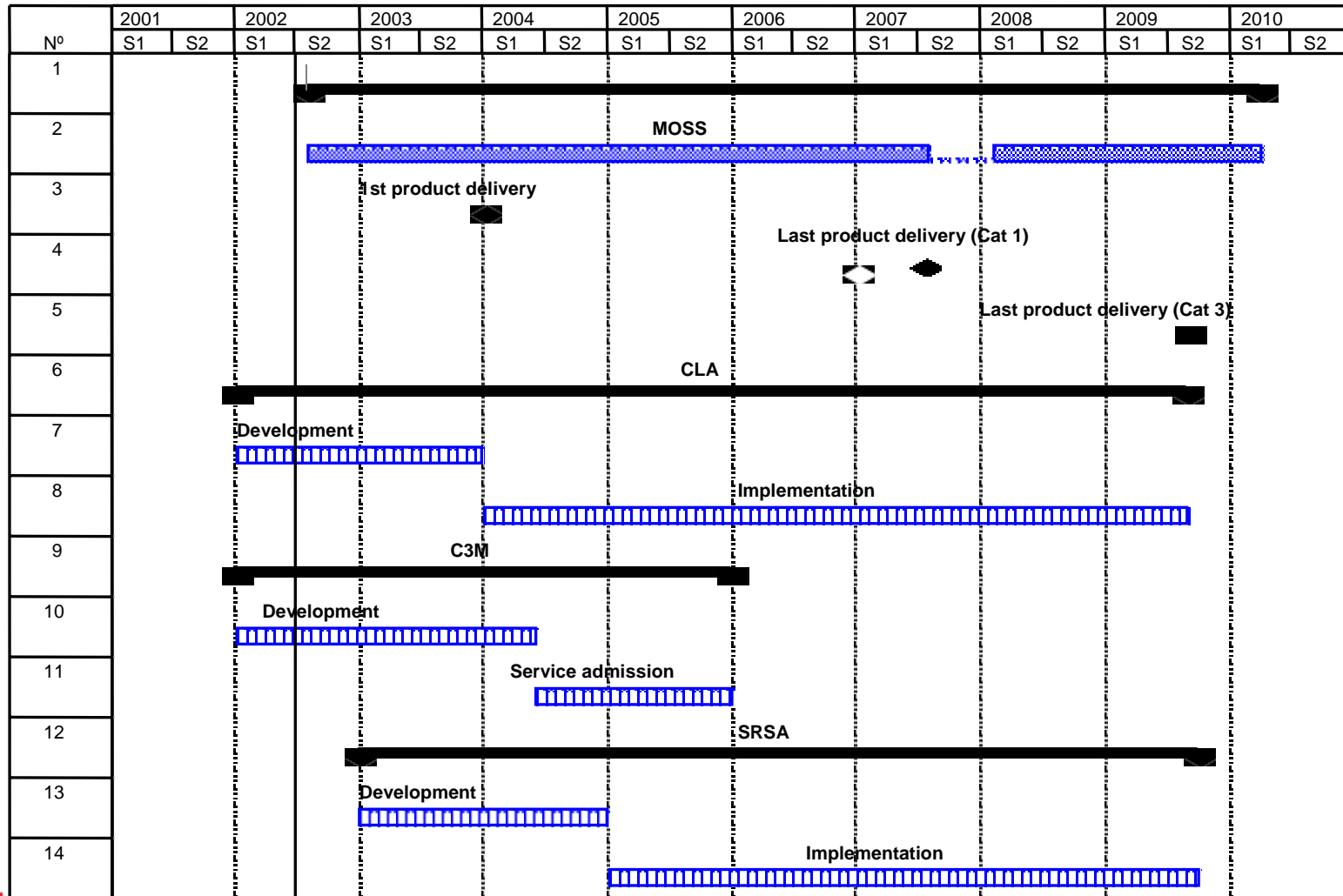
● Now :



● Goal :



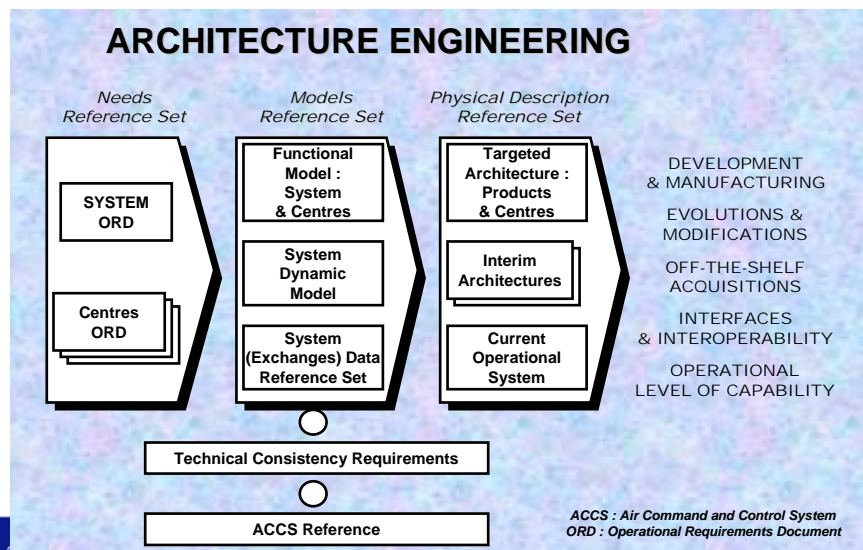
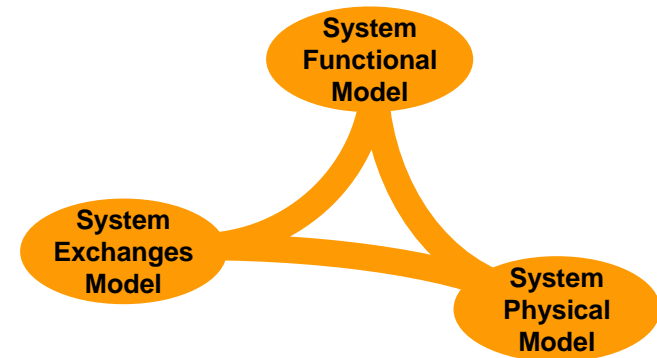
General planning of SCCOA 3



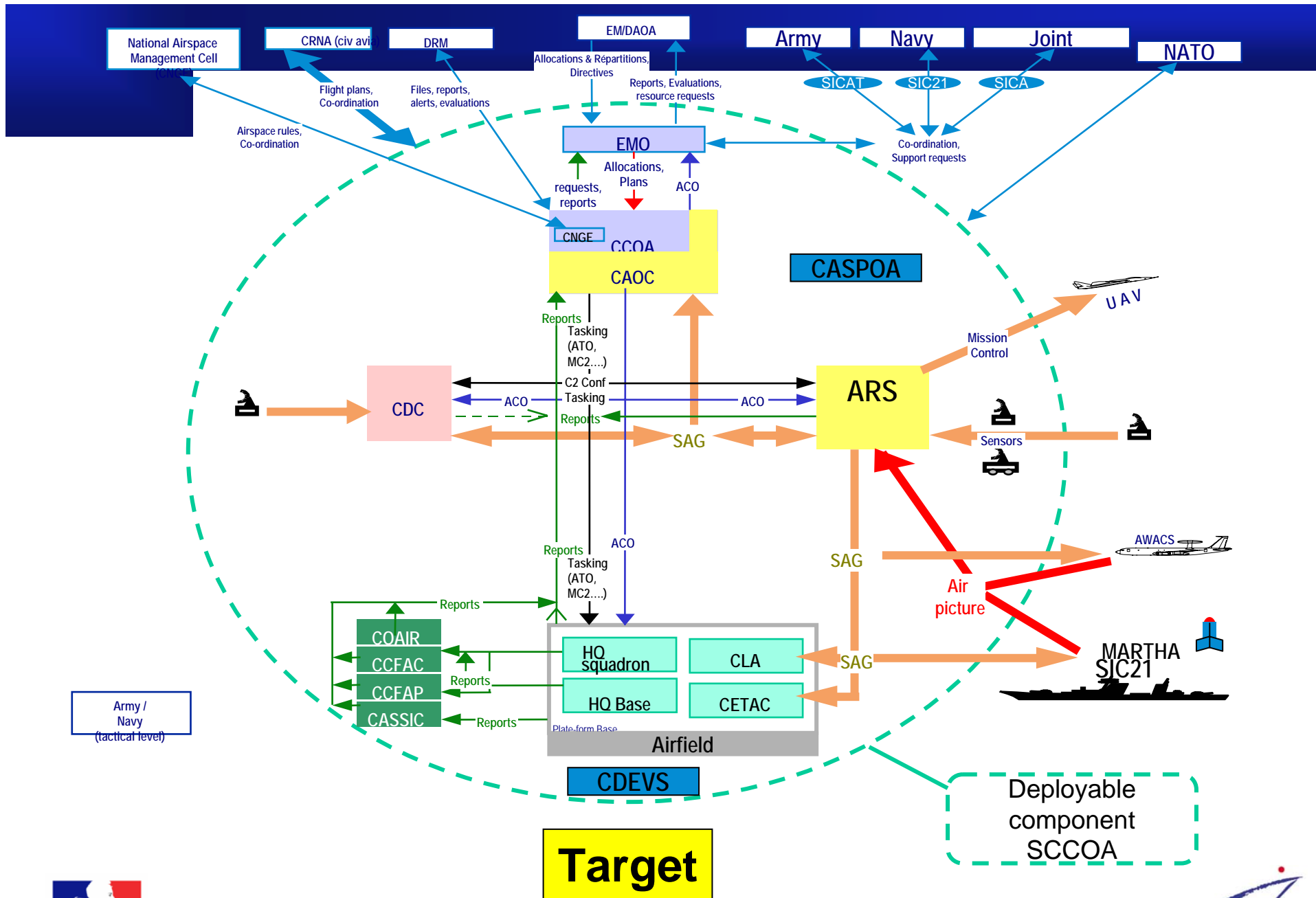
System Architecture Engineering

The creation of the needed « Complex Systems » Engineering Methodology

- mixing classical « Weapon Systems » design methodology
- with « Comms & Information Systems » design methodology
- taking into account the existence of legacy systems
- preparing a target that evolves in permanence



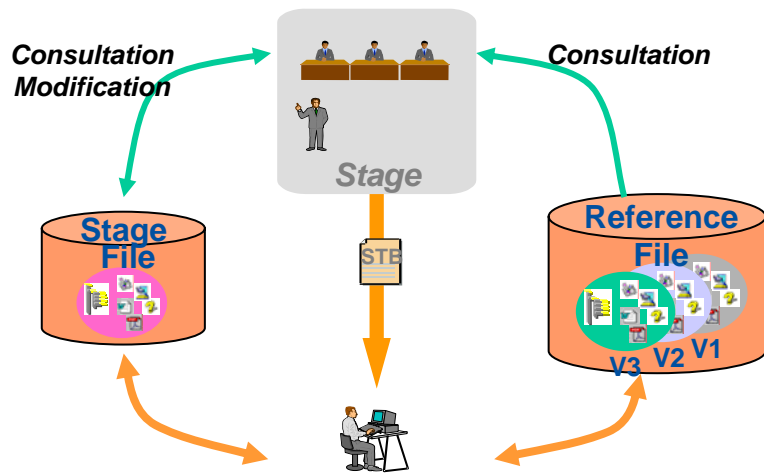
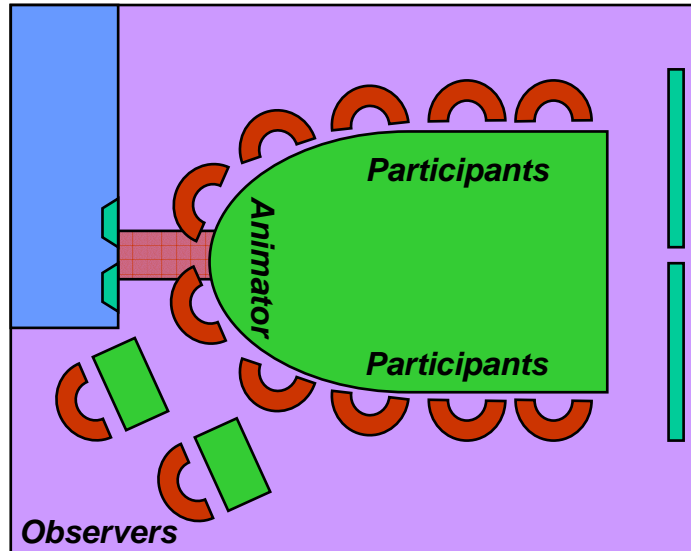
- The establishment of a global model of SCCOA System (existing system and target),
- now the basis for a full control of further evolutions of each subsystem,
- and new systems definition.



Army / Navy
(tactical level)

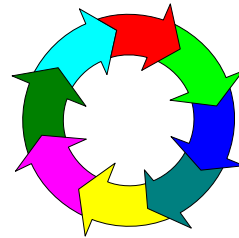
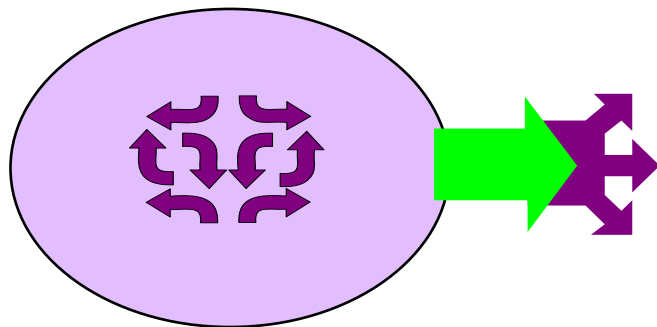
Deployable component
SCCOA

The use of GroupWare stages



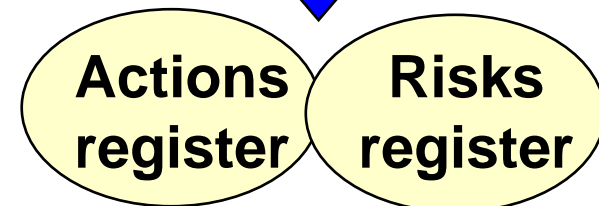
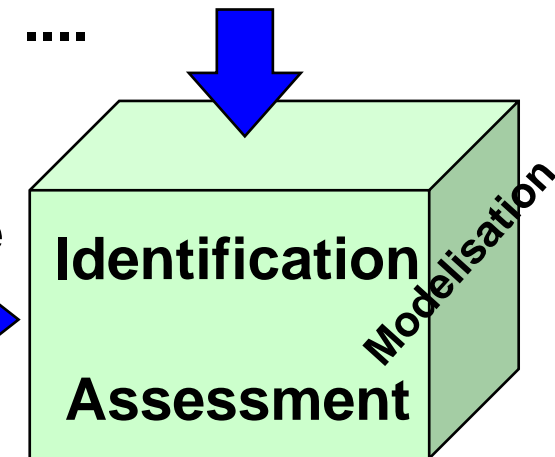
Risks management - methods

functional analysis



functional architecture
physical arch.
WBS
OBS
CBS
Schedule
....

Interviews, check lists, brain storming
....



WBS : Work Breakdown Structure
OBS : Organisation Breakdown Structure
CBS : Cost Breakdown Structure



Risk form register

ri s k n °	risk title	risk description	impact description	proba b i l i t y	impac t c o s t (M€)	impact time (m)	imp act per f o r m a n c e	Actions	asso ciate d task (sche dule)
1	availability, reliability & maintainability inadaquacy	inability to meet ARM requirements	system accepted with no demo of reliability in first instance	10% (1)	1 (1)	0 (0)	 (1)	A B C	35
2	inability of industry to manage contract	management of a large multi-national consortia accross national boundaries will be difficult for prime contractor	schedule impact and possible performance impact due to compromise in develoment program	30% (2)	0 (0)	18 m (3)	 (1)	D	7
3	equipment obsolescence	obsolescence of existing equipment and non availability of parts	*cost for possible lifetime buy *new part development cost and timescale * increased logistic cost	20% (1)	0,3 (1)	10 m (2)	 (0)	E F	15



RÉPUBLIQUE FRANÇAISE

Risks reduction

Risks
register

Risk database	Mitigation actions	Risk Manager	Delay	Cost
R1	A1	DUPONT	dd/mm/yy	x kF
R2	A2	DURAND	dd/mm/yy	y kF
R3	A3	DUPONT	dd/mm/yy	w kF
R4	A4	DURAND	dd/mm/yy	z kF

Risk mitigation planning & risk mitigation activities

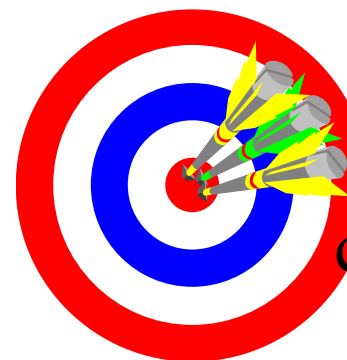
Management tools & methods

What we obtain:

- an aid to projects & contracts
- an aid for making decisions
- a saving of time
- a cost reduction
- ...



*Must be adapted
to SCCOA just
necessary ...*



better
faster
cheaper

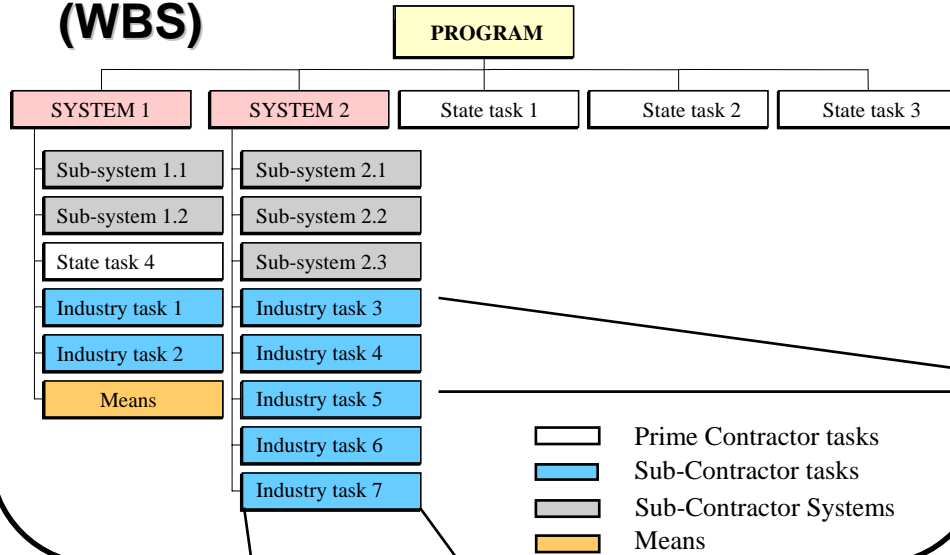
Summary



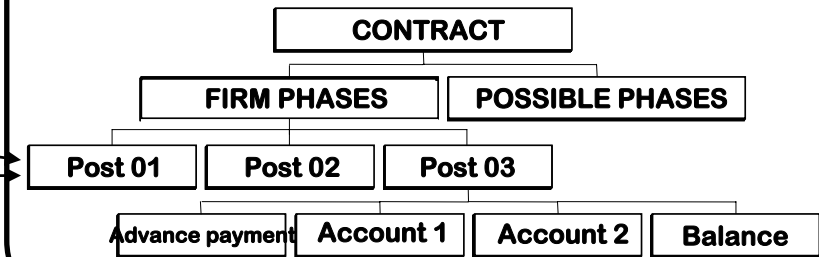
- What is SPAé ?
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- More questions ?

From program methods to contracts

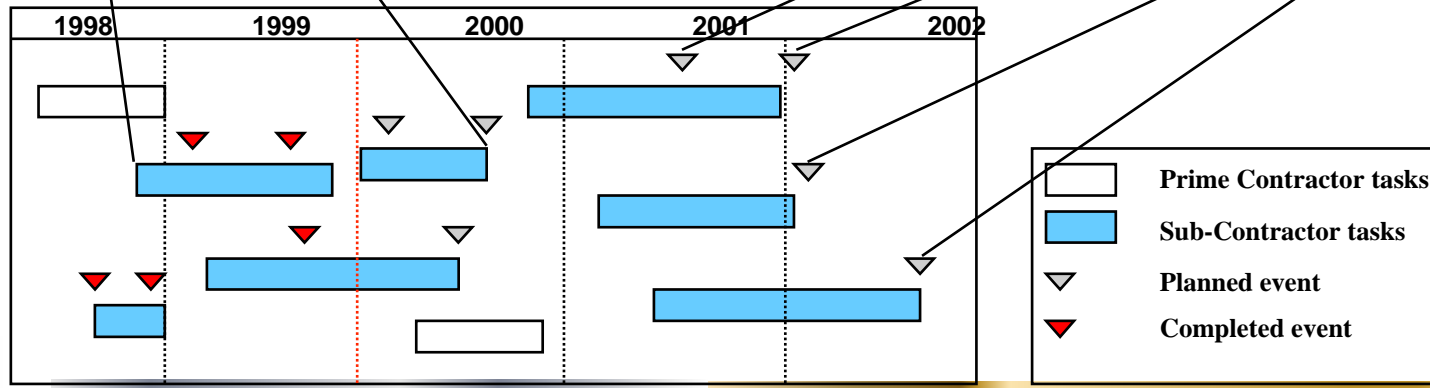
WORK BREAKDOWN STRUCTURE (WBS)



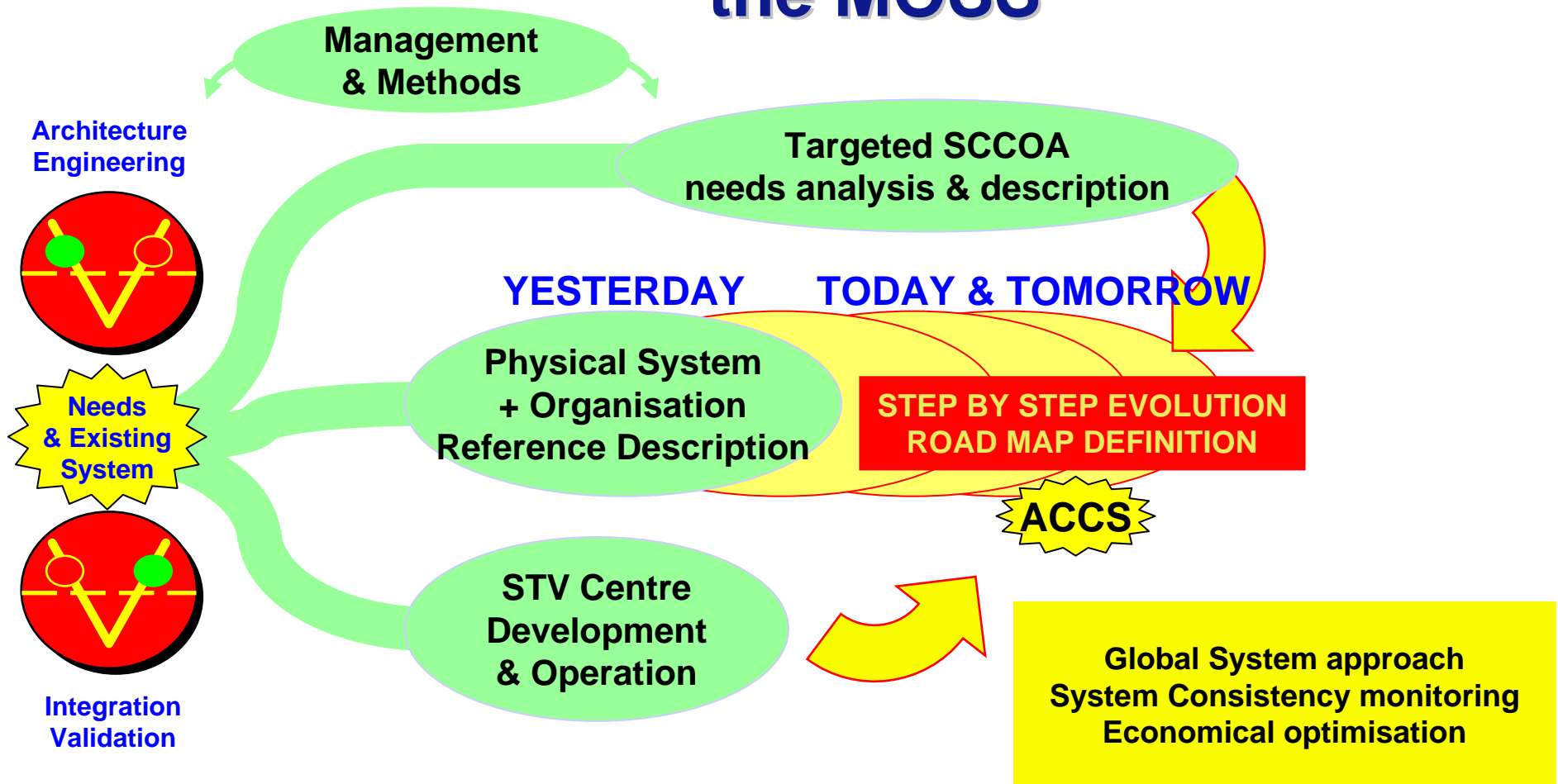
CONTRACT FINANCIAL SCHEDULE



PLANNING SCHEDULE



Setting up a global SCCOA 3 contractor: the MOSS



Roles in a « MOSS » structure

<i>Responsibilities according to sub-systems categories</i>	MOSS	Contracting Authority
Need characterisation		X
Functional analysis		X
System engineering	Categories 1 & 2	
Management, studies	X	
Contract management	Categories 1	Categories 2 & 3
Integration to SCCOA	X	
Qualification, evaluation		X

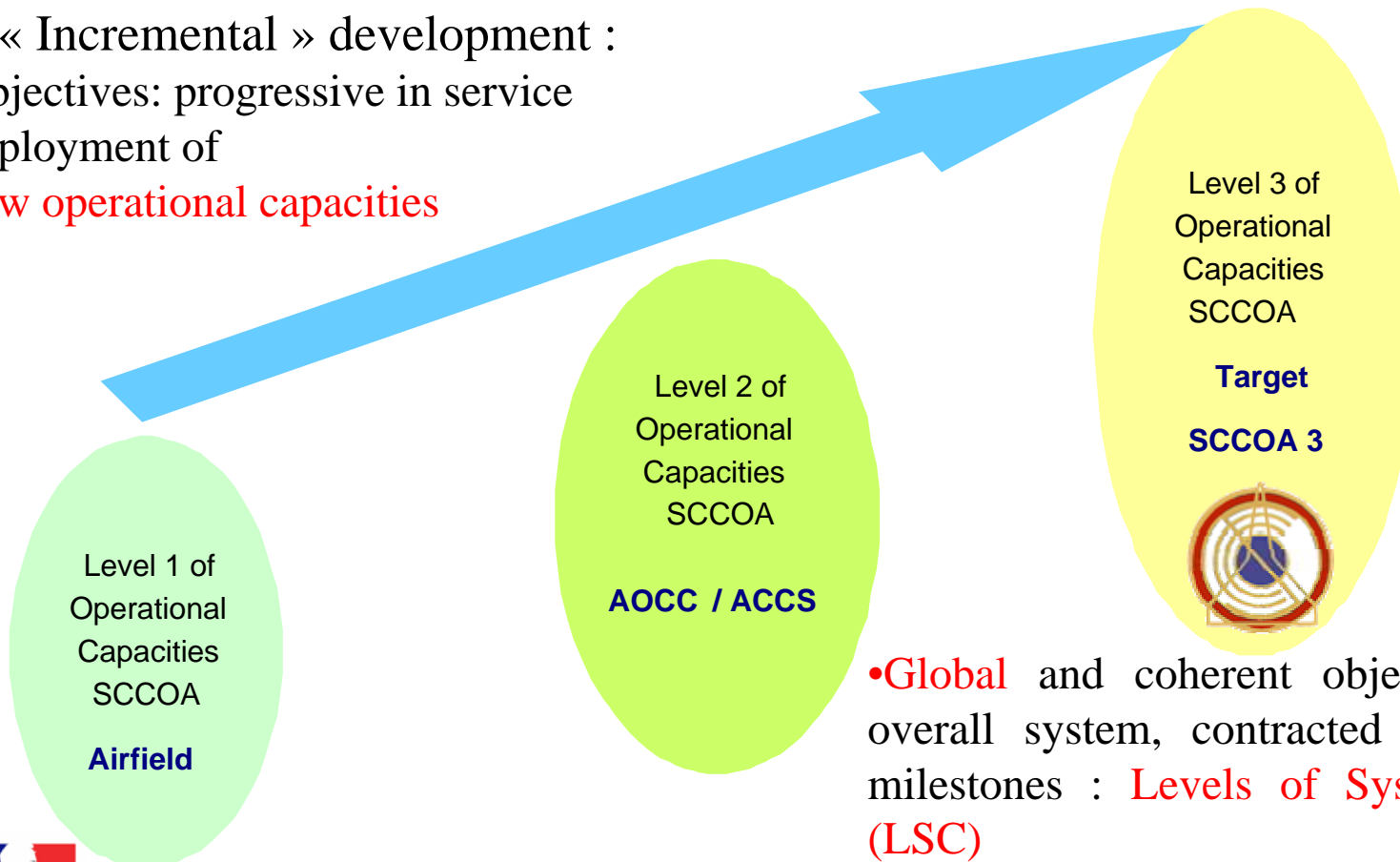
Clarification between state and industry roles



Tiling 3 levels of operational capacities

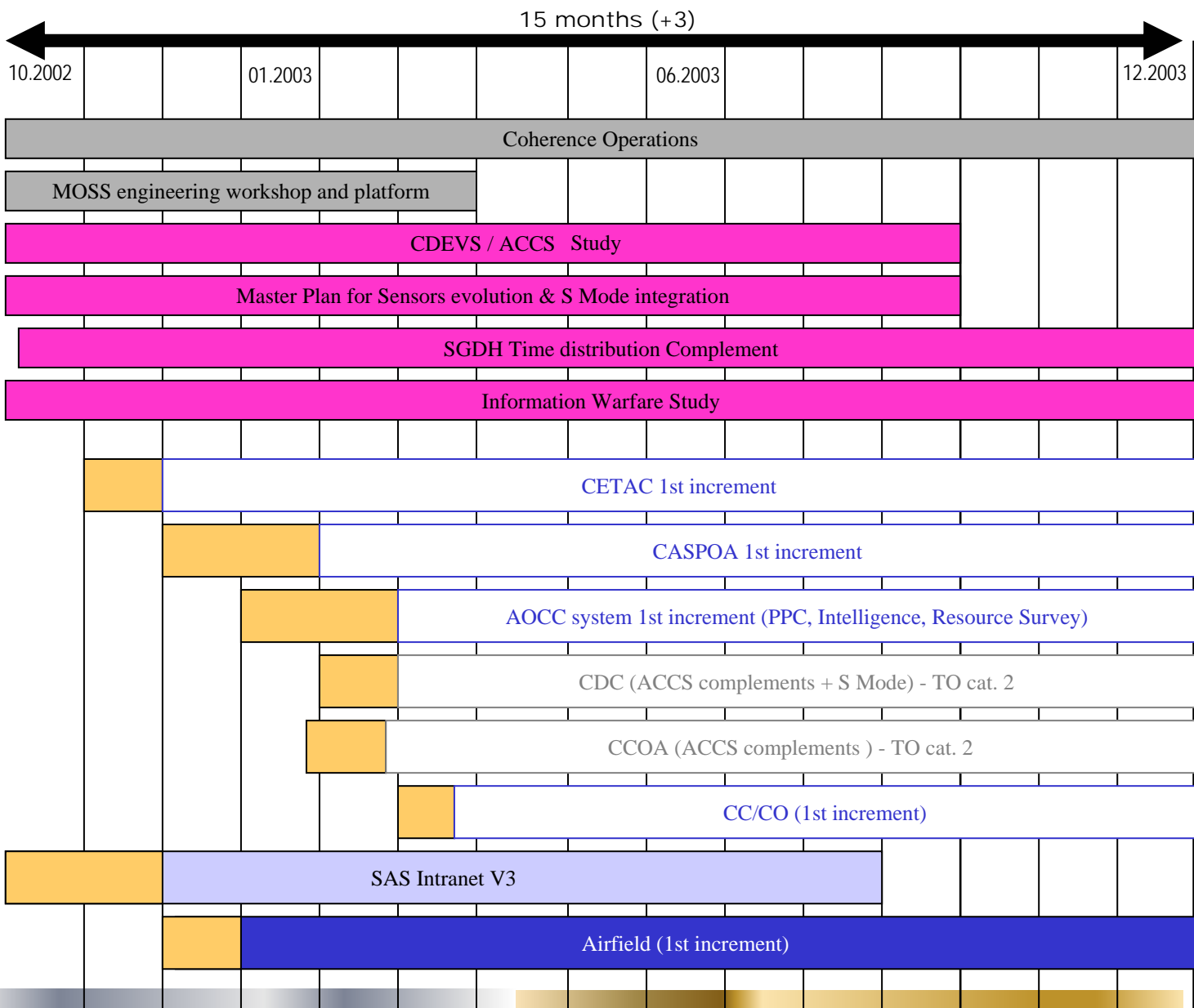
SCCOA Objectives - Step 3

- « Incremental » development :
Objectives: progressive in service
deployment of
new operational capacities

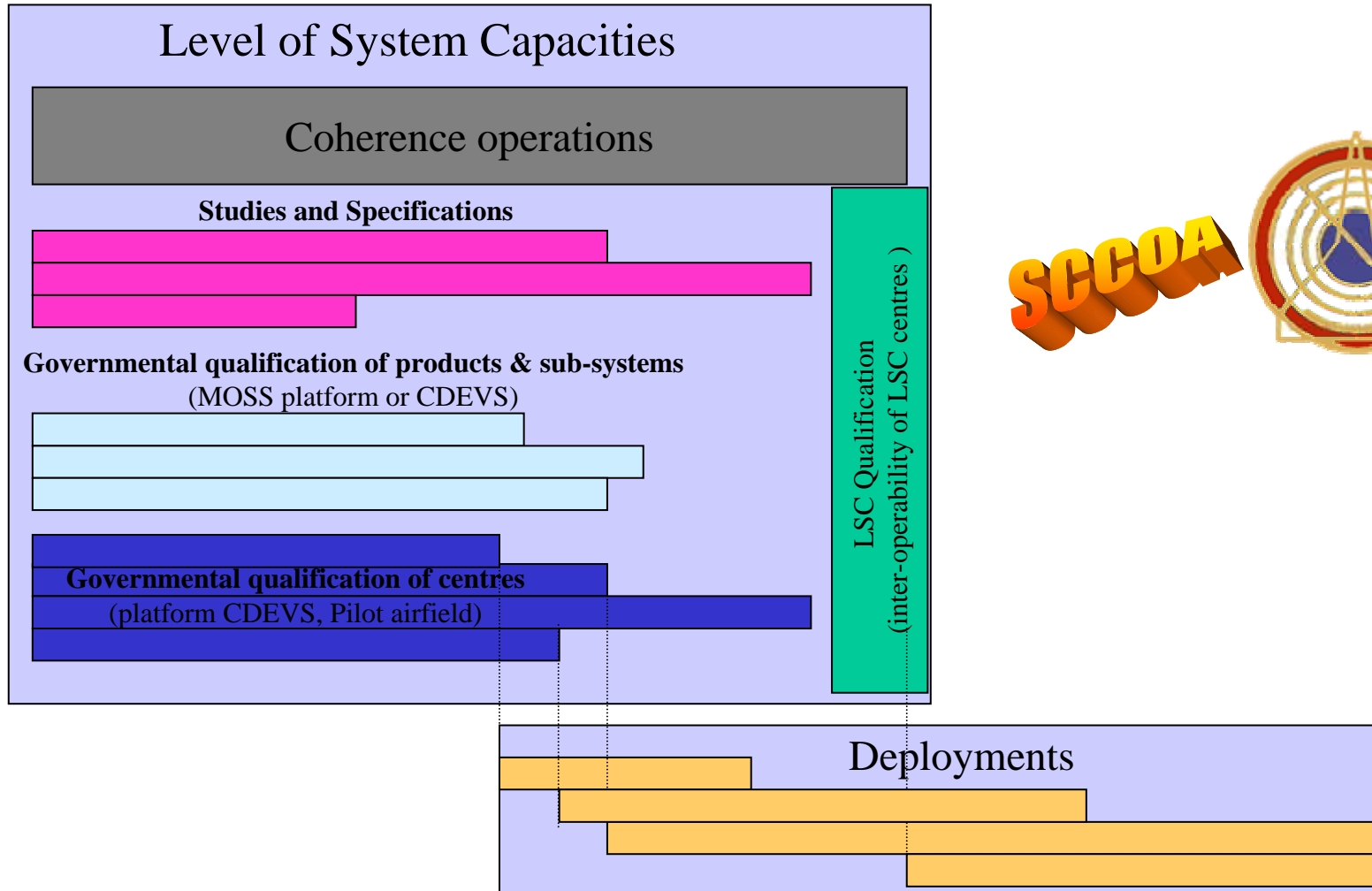


- **Global** and coherent objectives on the overall system, contracted with external milestones : **Levels of System Capacity (LSC)**

L S C 1



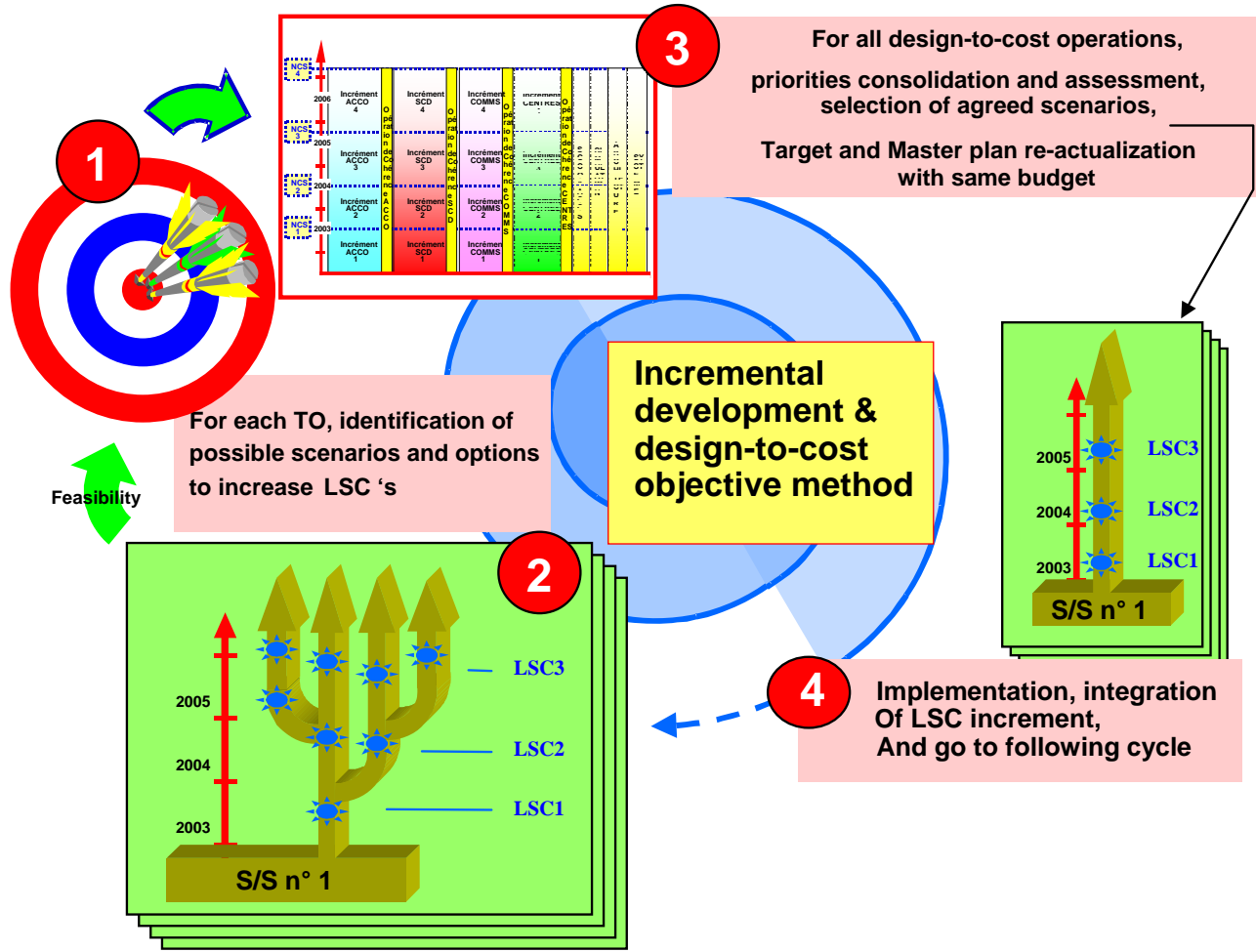
MOSS global responsibility on LSC 's



Permanent Stage for SCCOA Target

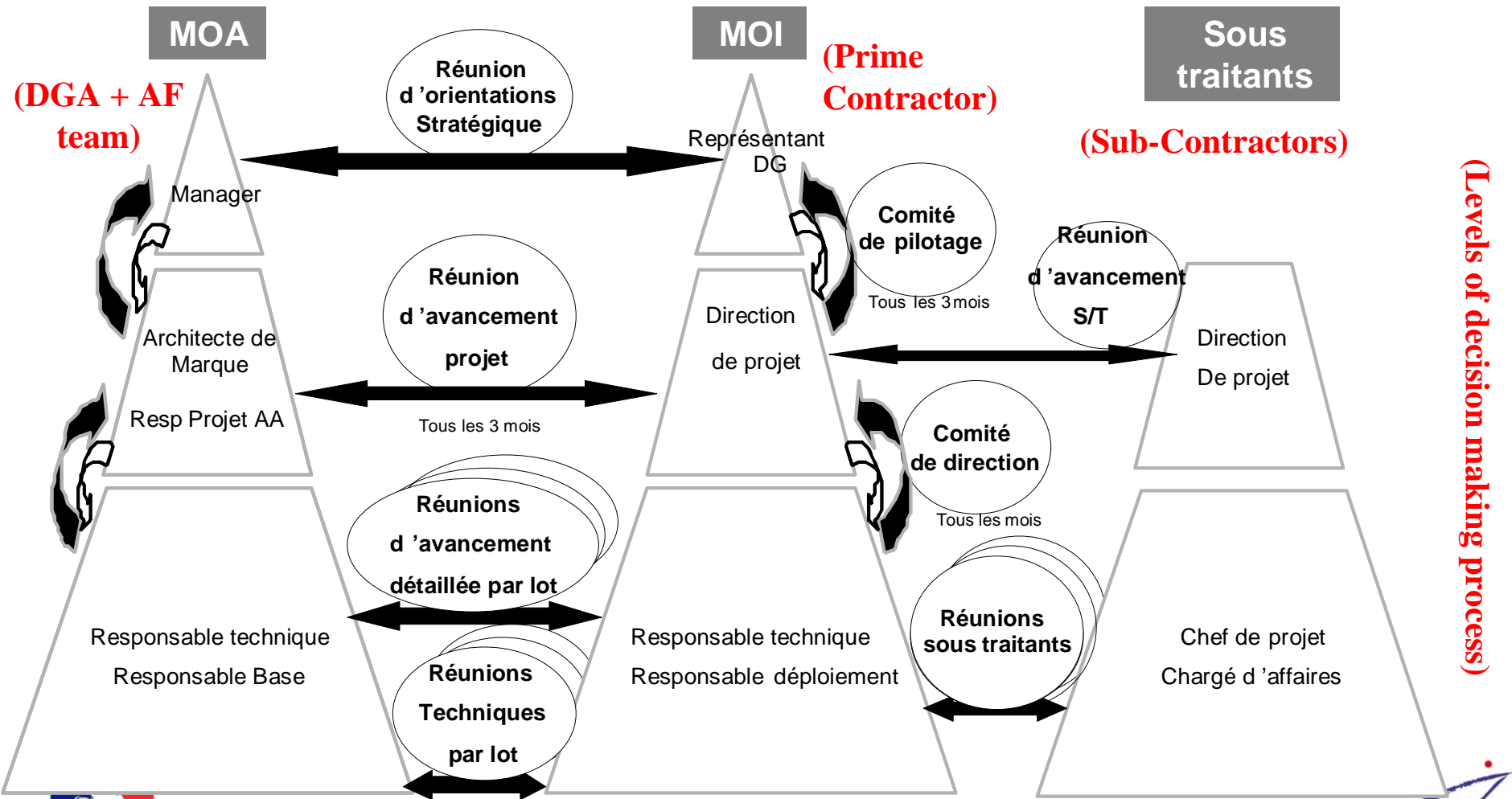
Planification
l a t e a u
Programmation
r e m a n e t
Conduite
i b i l e
SCCOA
C C O A

- 1 Planning
- 2 } Tasking
- 3 }
- 4 } Management Execution



To define everyone 's role

Architecture du pilotage du projet CLA 2000 (**Management architecture**)



To implicate team members and hierarchy

Example of a contract management plan.

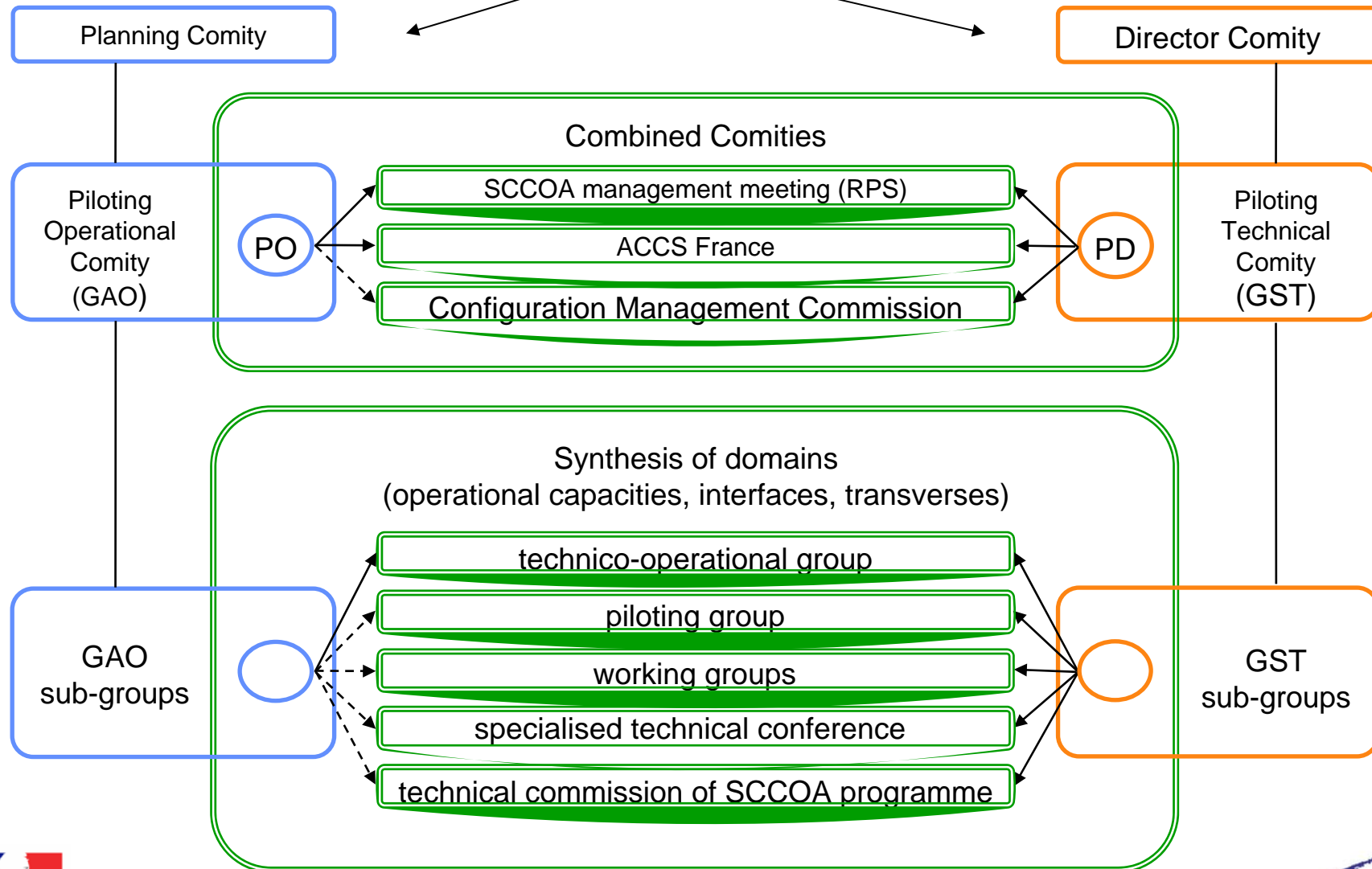


Summary

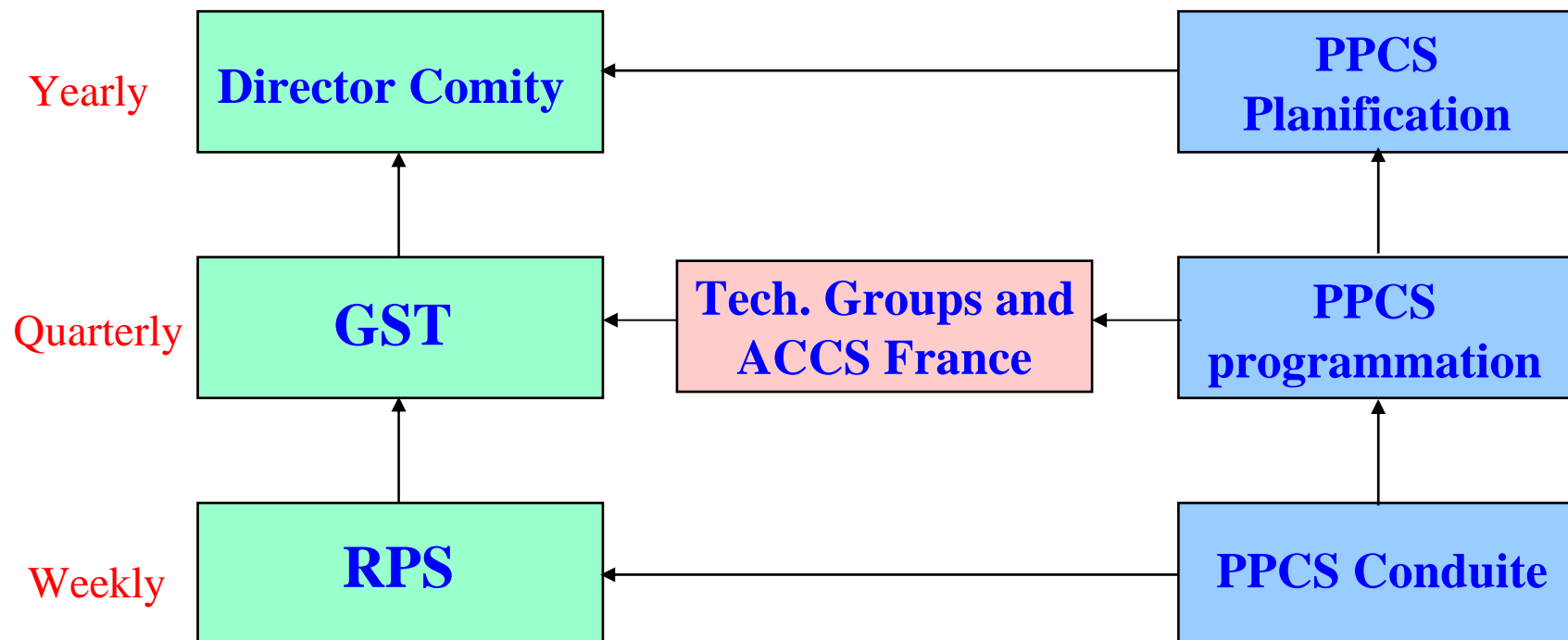


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Mirroring Airforce & DGA organisations



Contracting Authority/MOSS Structure

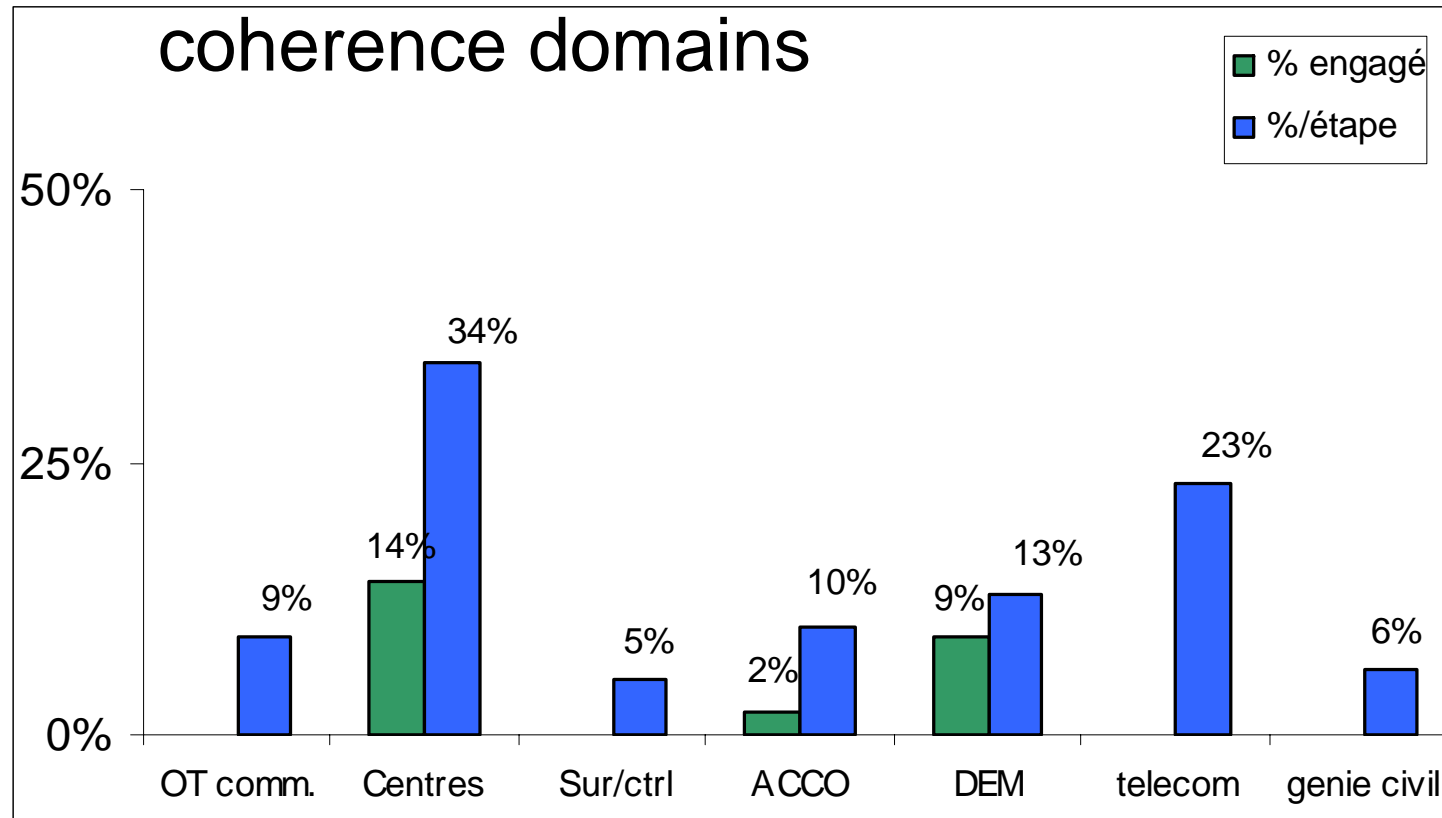


PPCS: Permanent Stage for SCCOA Target



Step 3 Progress Report in quarterly GST

- Percentage of contracted works by coherence domains



Annual Report of the Program Director

SCCOA 3 – 04/1b
Page 1



DÉLÉGATION GÉNÉRALE
POUR L'ARMEMENT

Service
des Programmes
Aéronautiques

DOCUMENT DE SUIVI DU PROGRAMME SCCOA
(système de commandement et de conduite des opérations aériennes)

Etape 3

Année 2004

Visa du directeur de programme

ICA Antoine

Edition 04/1b
Octobre 2003

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Pages modifiées version 1b : 1, 3, 11, 30, 34, annexe 4 - 1/2, annexe 4 - 2/2, annexe 6 - 5/5, annexe 7 - 5/5.



MINISTÈRE DE LA DÉFENSE

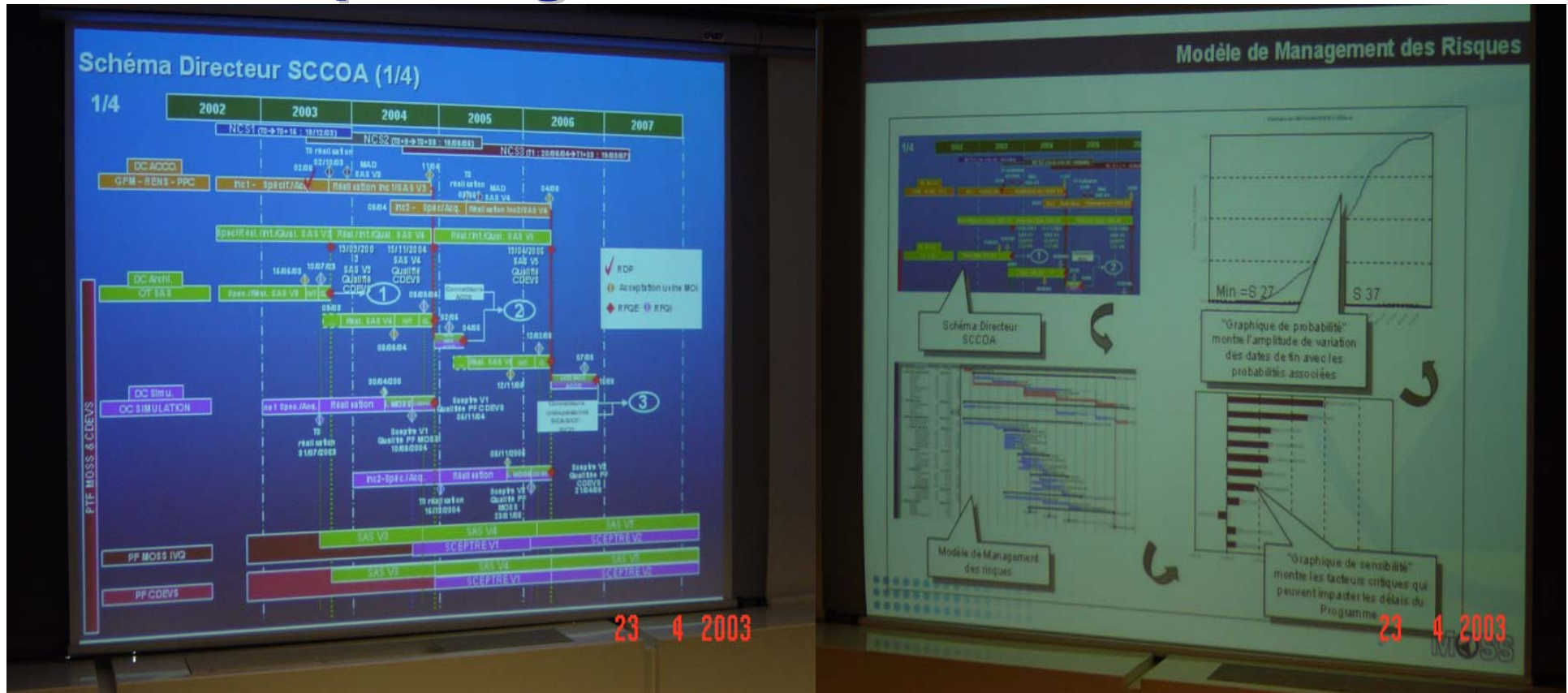
SPAé

02/03/2004

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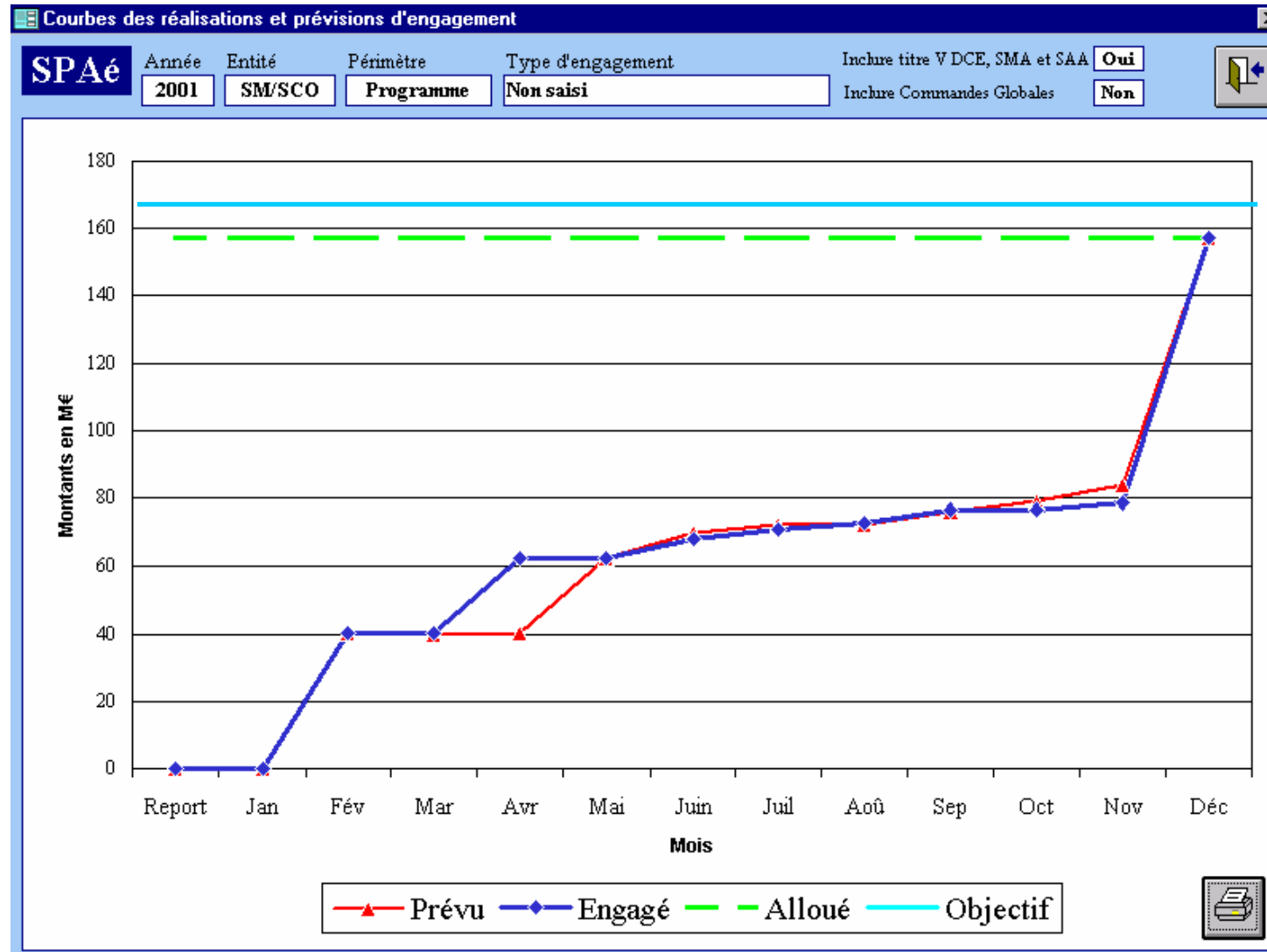
Reporting tools



- To decide preventive actions according to operation planing



Tracing the progress of financial objective



The AGORA GroupWare

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	Titre	Date
	Présentation des projets SCO/M1	29/0
	Présentation GABA au GST 51	02/0
	▼ 04_CR EPDP	
★	Compte rendu EPDP du 06/12/01	05/1
★	CR REUNION EPDP du 9/05/01	09/0
	▼ 05_EPDP	
★	Tableau récapitulatif des réunions d'EPDP	29/0
	▼ 1-CLA	
	CLA en-soi ou pour-soi ?	21/0
	Debriefing aux perdants	30/1
	Fiche de synthèse sur CLA 2000	25/0
★	LOGO CLA 2000	10/0
	Plan de conduite CLA 2000	17/0
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★	▶ 11_documents techniques	
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	▶ 13_messages	
★	▶ 2-SICOPSBASES	

Bureau

Démarrer Agora Base aérien... Intranet du SPAé - Mic... Explorateur - D:\Arras Microsoft PowerPoint - ... 11:37



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Conclusion



- The approach over the 12 last years on SCCOA Programme make it now mature enough for its further steps: the enforcement of a unique industrial Prime Contractor, assuming it in a global commitment ...
- What has been done on SCCOA Programme paves the way for other / similar systems: the ability to master the integration of more and more complex and numerous systems in Global CIS becomes the challenge of each military service...
- But let's keep realistic and modest: all of this is a tremendous work and we can still improve our results in some fundamental areas (like system performance assessment & breakdown) ...