



Programs management & control

INTRODUCTION

CARACTERISTICS OF PROGRAMS

Programs :

- **are complex operations**
- **are driven simultaneously**
- **represent important funding**
- **need a long time**



**PROGRAM MANAGEMENT NEEDS
STRICT METHODOLOGY**

ACQUISITION ORGANIZATION

DGA and STAFF

Minister of Defense

STAFF

DGA

Military needs

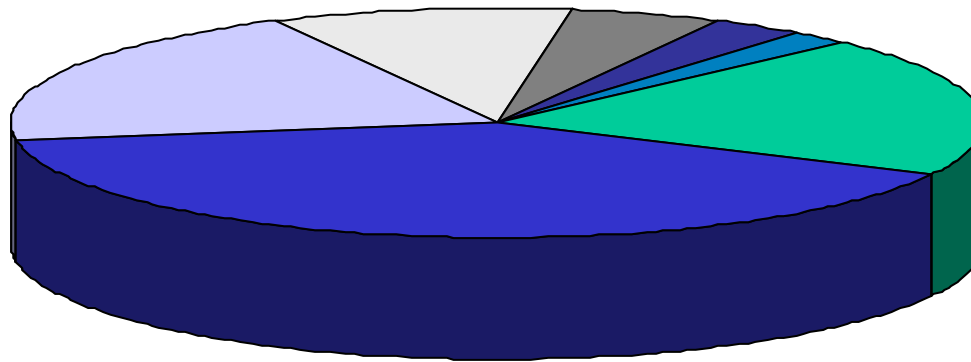
Engineering system and Acquisition processes



Investment budget

Smaller projects: 20 %

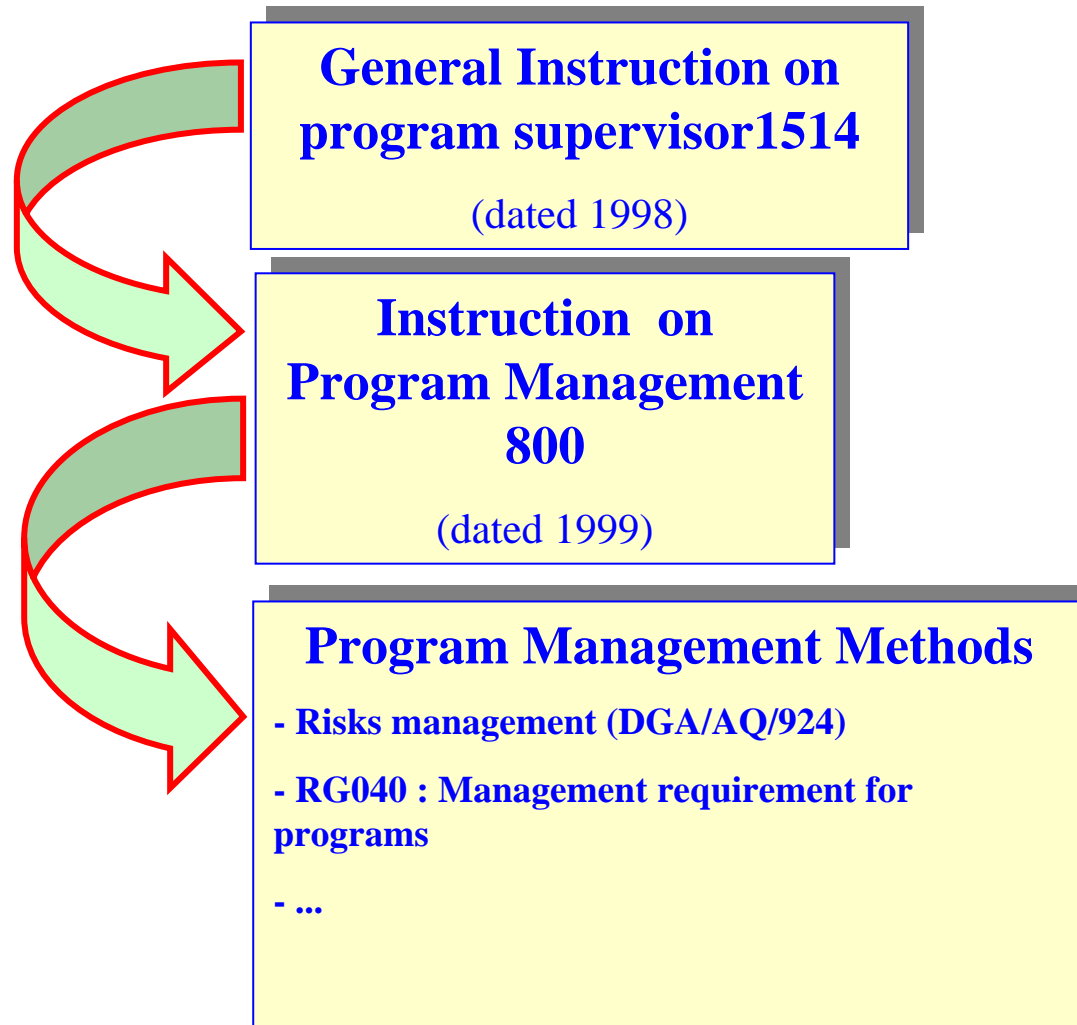
Others : 40 %



programs : 40 %






- maintenance
- programs
- operations
- infrastructure
- R&T
- EPP
- ammunition

INSTRUCTIONS & MANAGEMENT METHODS



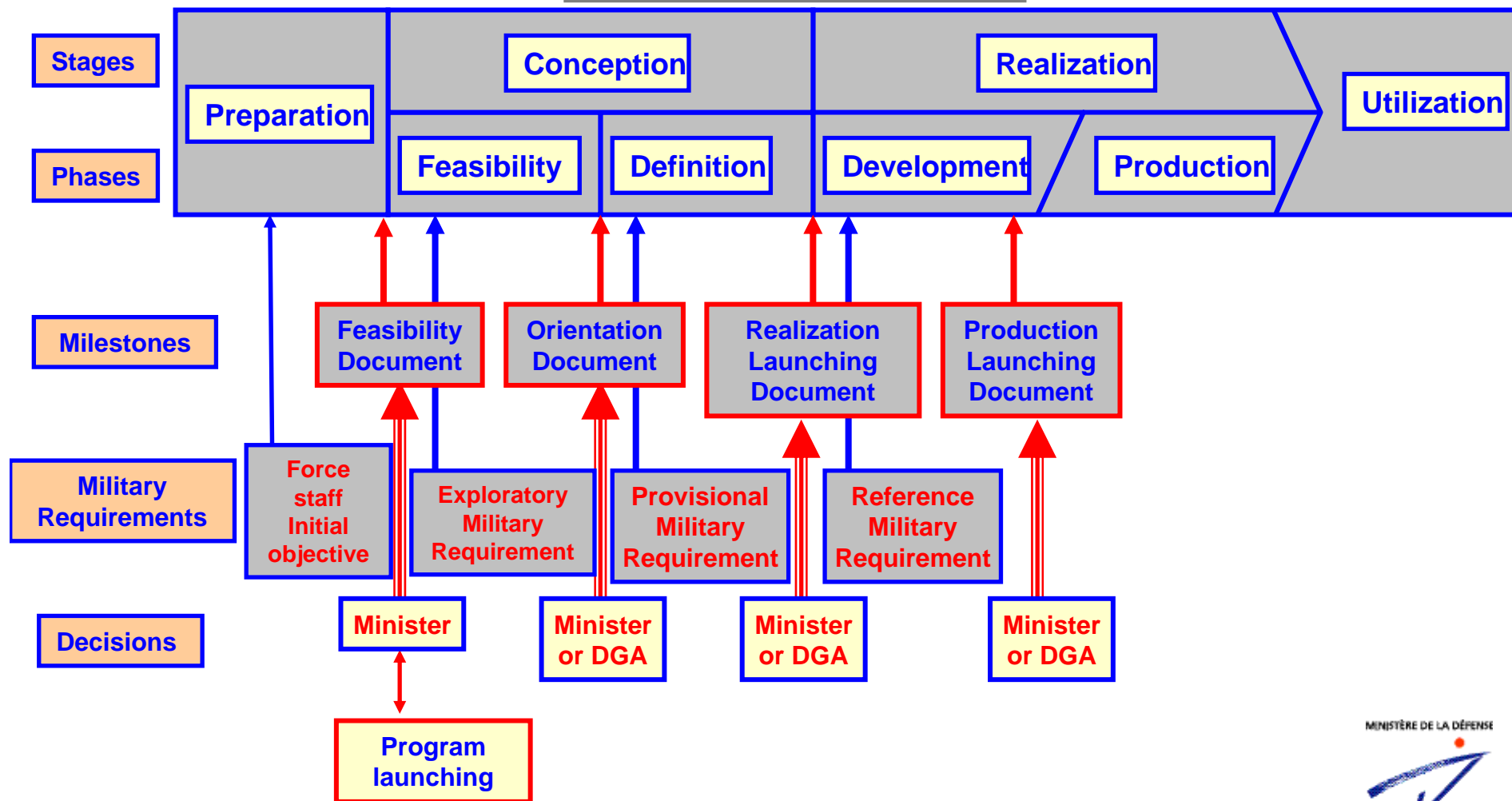
PROGRAMS - GENERALITIES & PRINCIPLES

PRINCIPLES

- A clear decisional process  phases, milestones
- Consistent forces systems  importance of initial phases
- Actors :
 - that consult each other  { Steering Committees
Executive Committees
 - work together  { ASF/OCO-OCM
IPT
- Cost and schedule are in the core of the process  { Objectives
Cost control
Schedule control

STEPS & GLOBAL PROCESS

GLOBAL PROCESS



STEPS & GLOBAL PROCESS

MILESTONES BETWEEN STAGES AND PHASES

- To pass from one phase to another means an explicit and clear approach
- decided by a high authority (DGA or minister)
- based on a document jointly written by OCO and FSA, or PO and PM
- with a justification paper

OCO : Operational Consistency Officer

FSA : Force System Architect

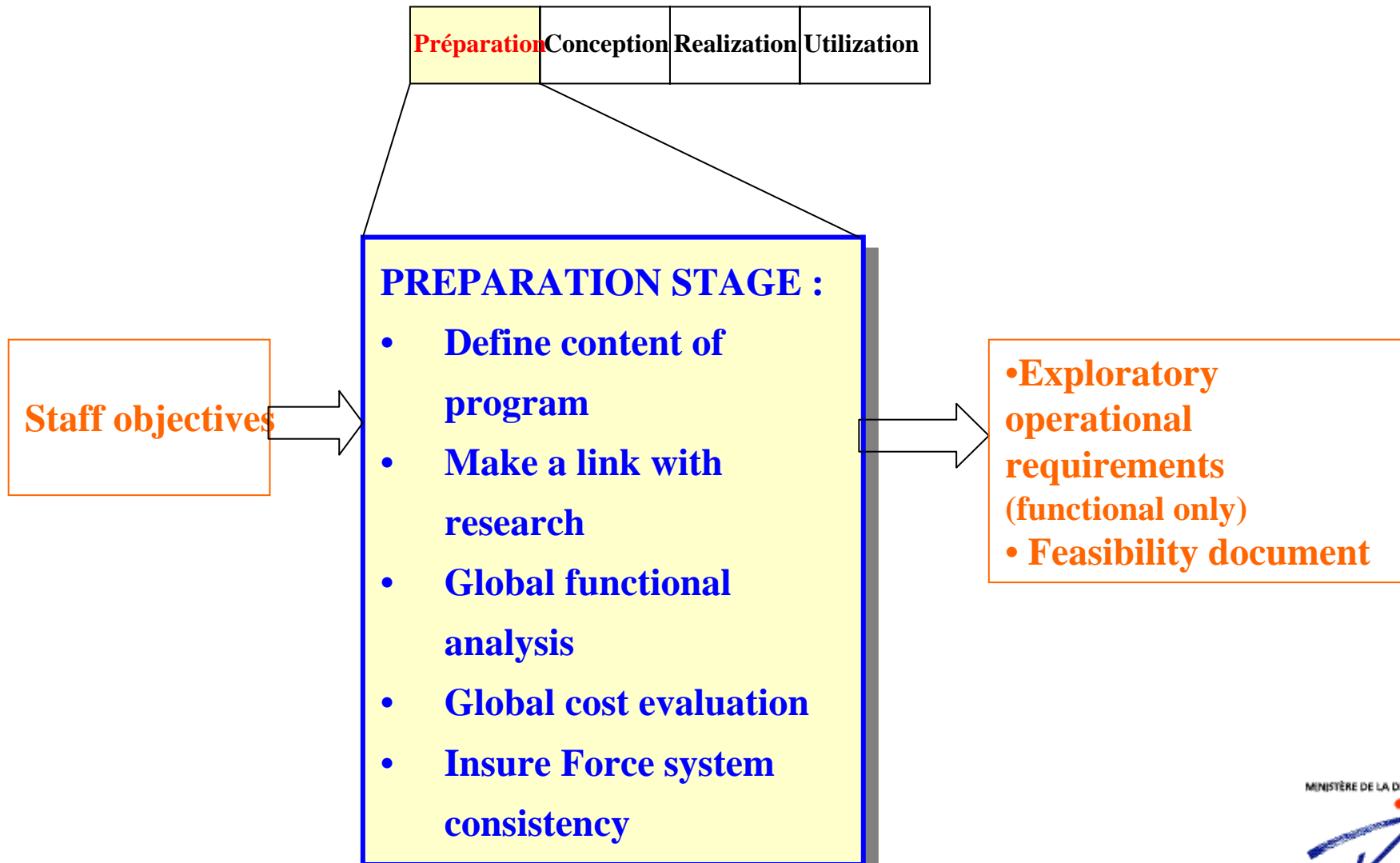
PO : Program Officer

PM : Program Manager

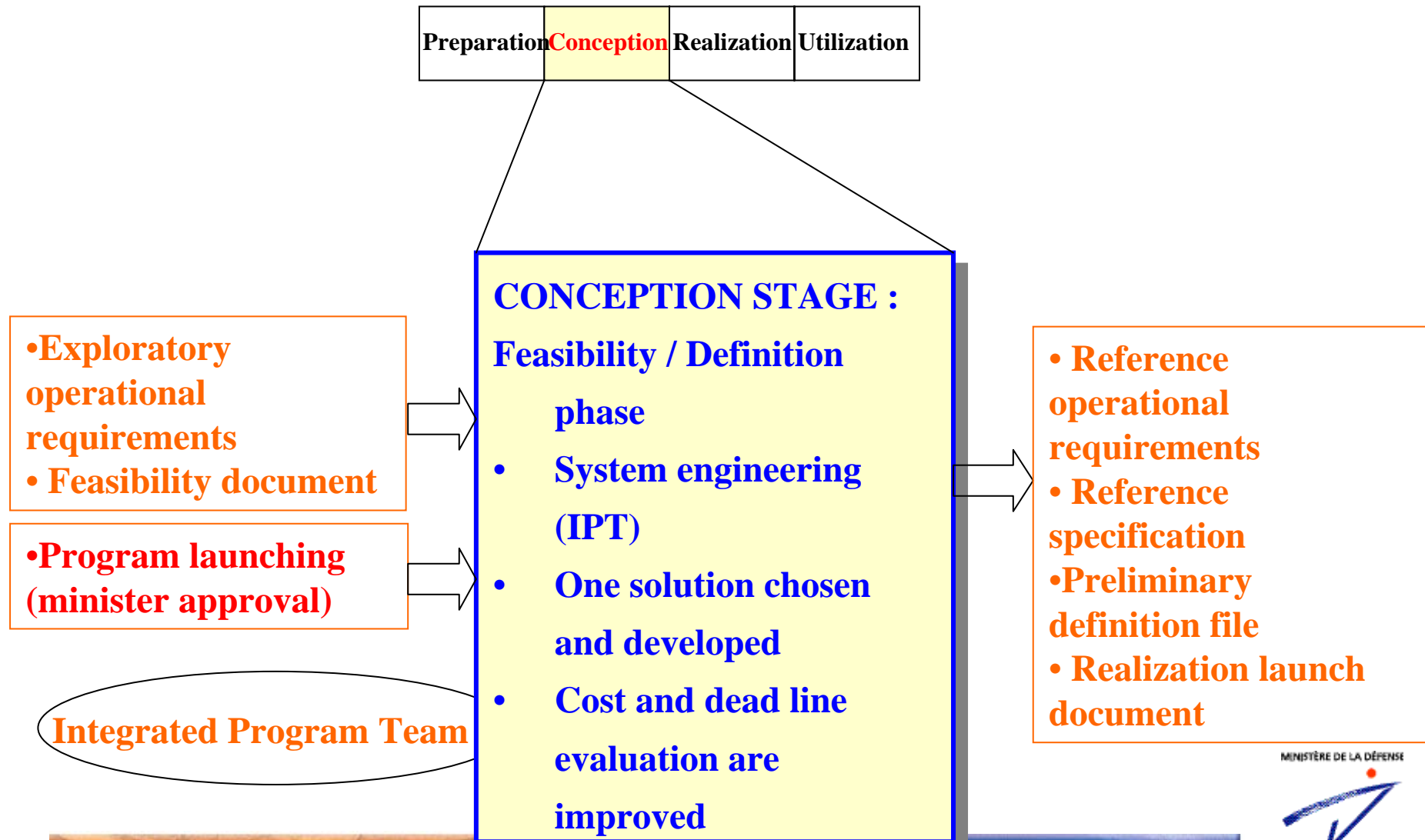
MINISTÈRE DE LA DÉFENSE



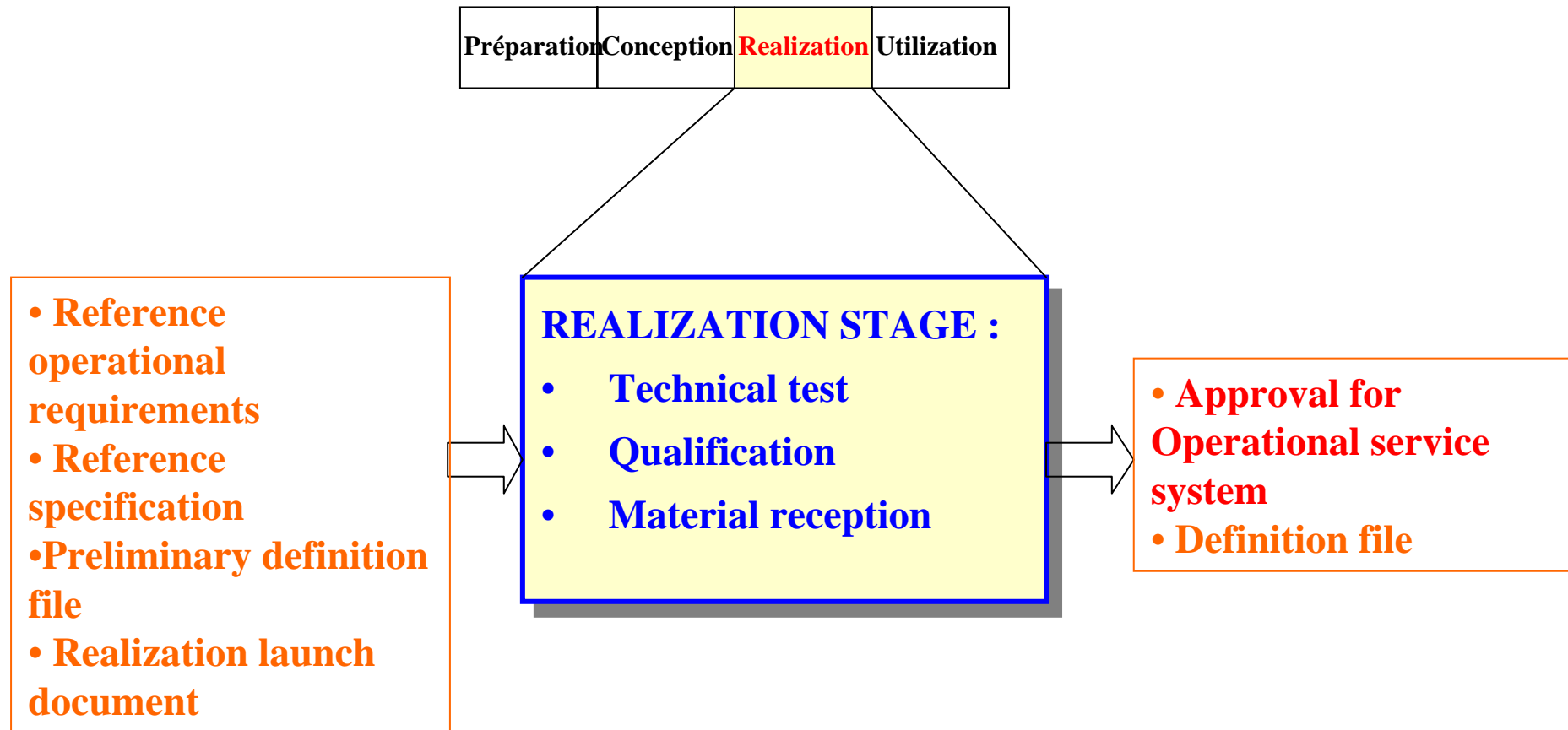
INSTRUCTIONS & MANAGEMENT METHODS



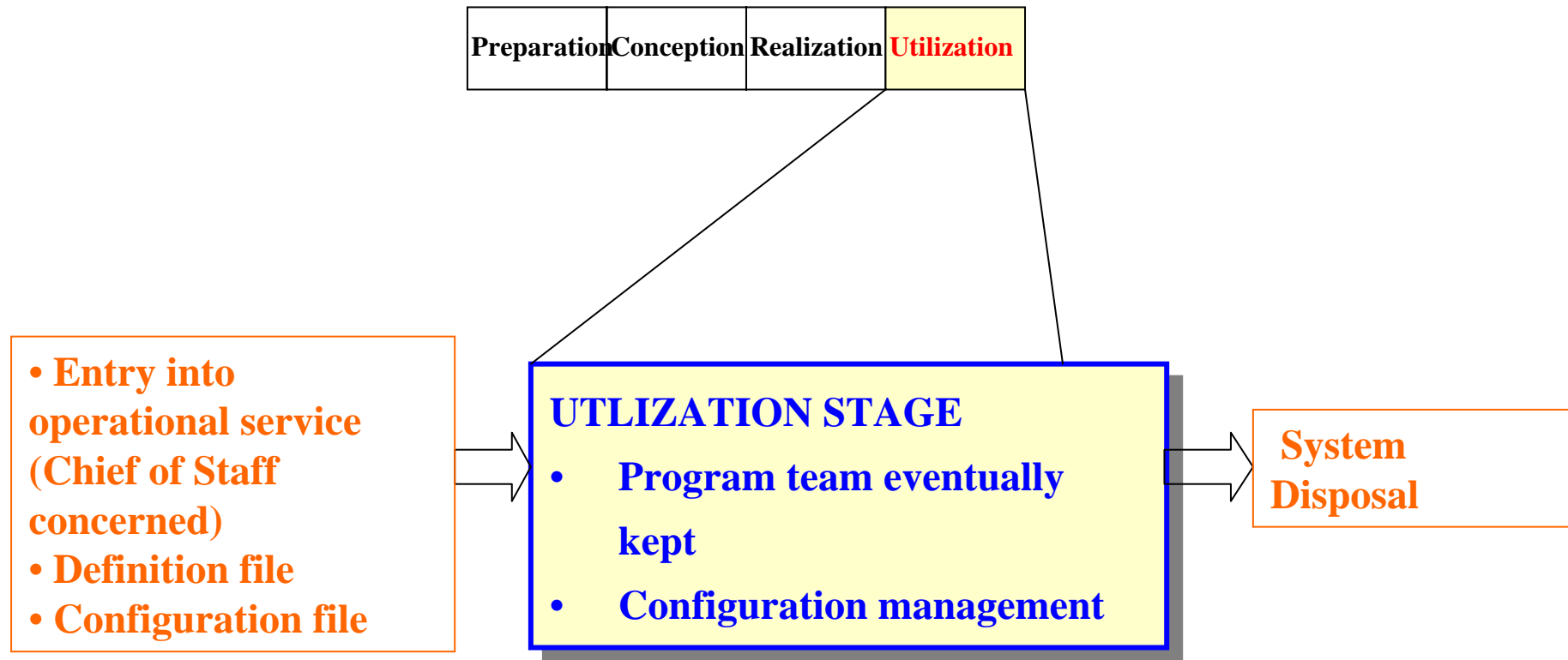
INSTRUCTIONS & MANAGEMENT METHODS



INSTRUCTIONS & MANAGEMENT METHODS

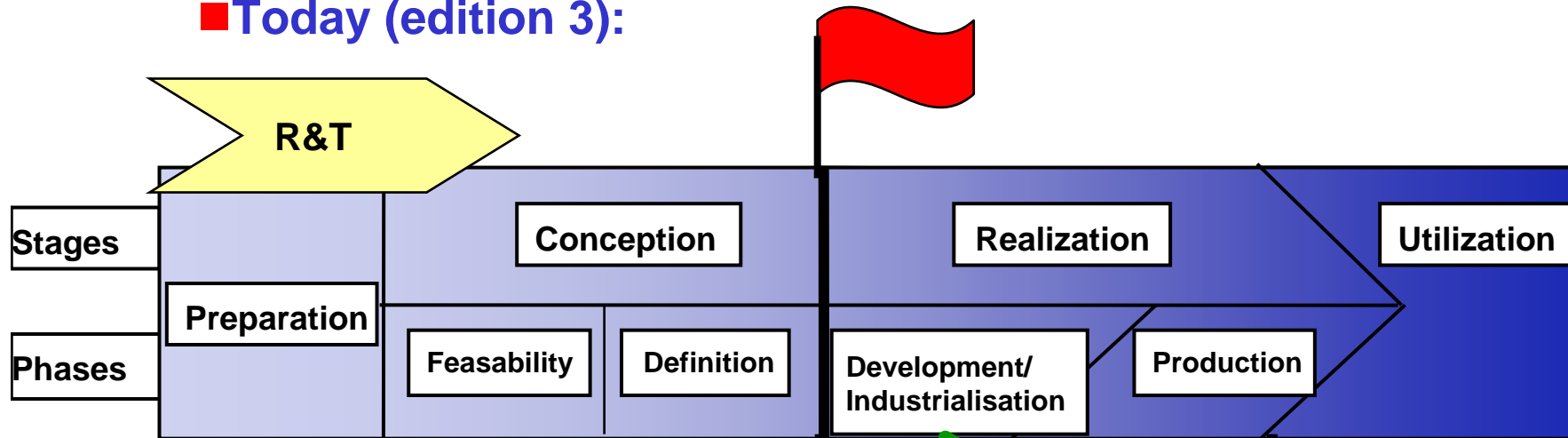


INSTRUCTIONS & MANAGEMENT METHODS

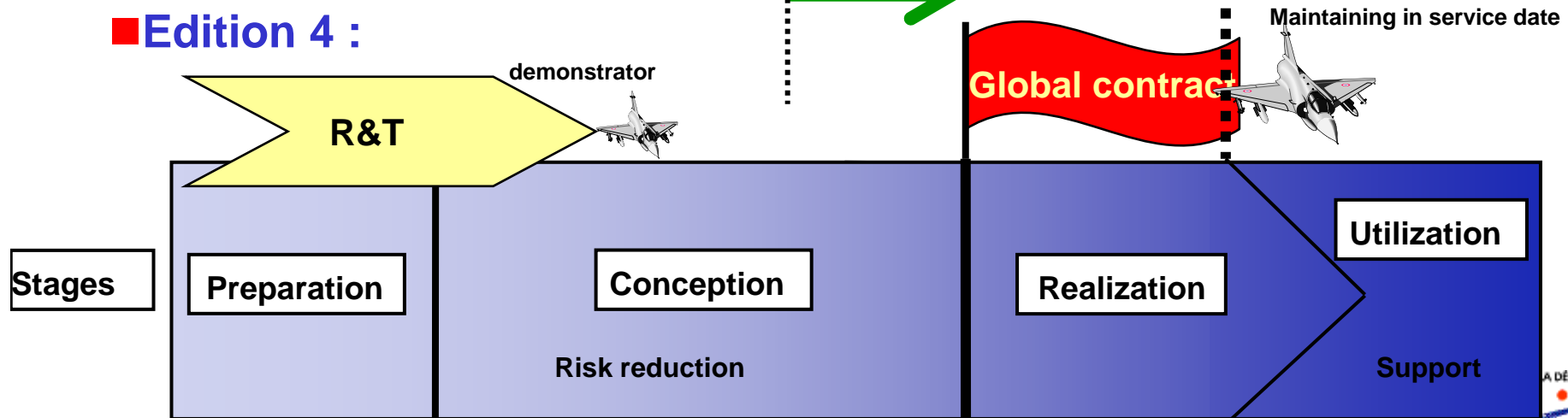


Instruction 1514

■ Today (edition 3):



■ Edition 4 :



INTEGRATED PROGRAM TEAM

Before : Several sequences ...



Now: IPT & iterative sequence ...



INTEGRATED PROGRAM TEAM

WORKING WITH THE FORCE(S) STAFF(S)

**Program manager
with his specialists
(DGA)**

+

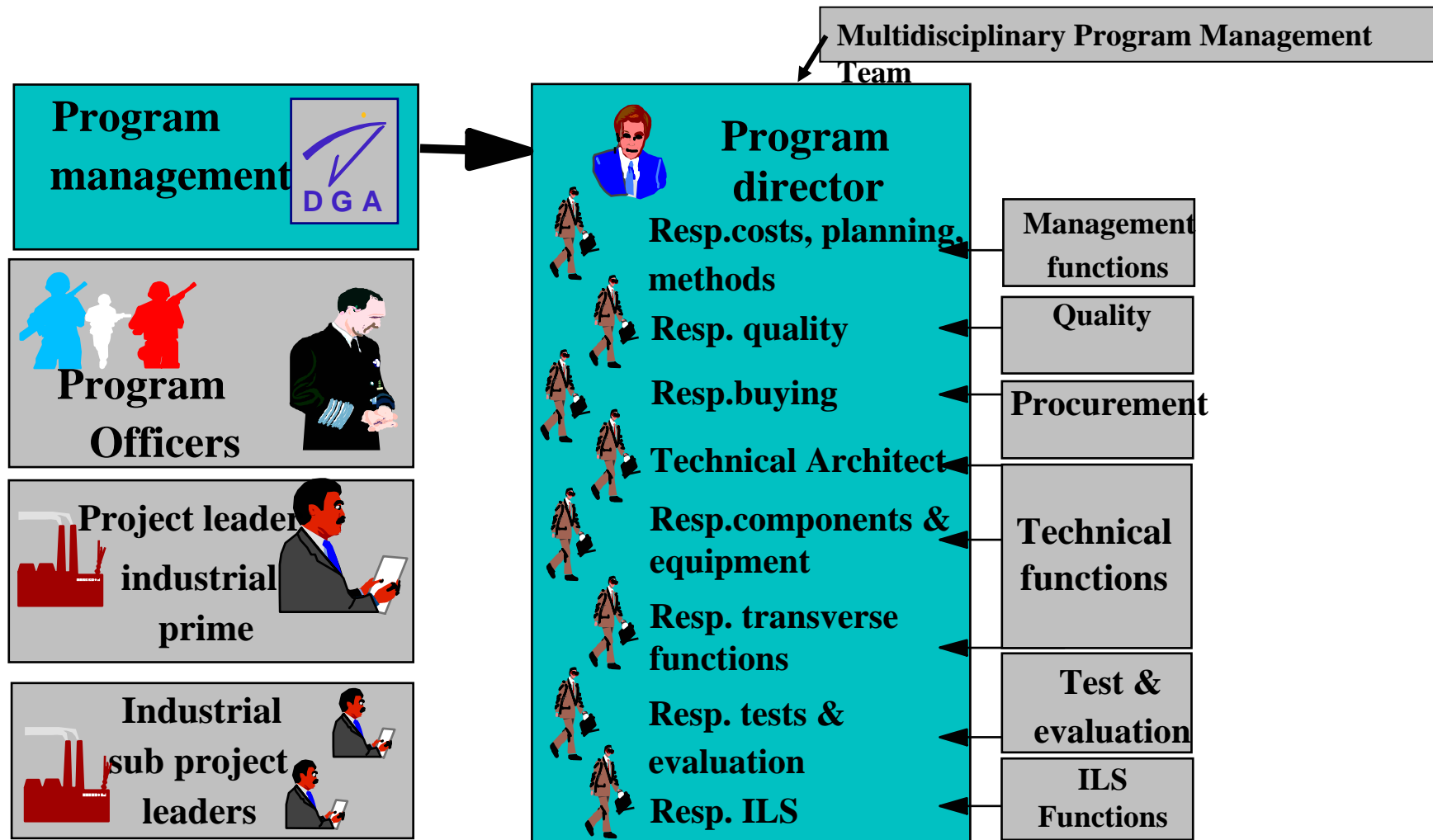
**Program Officer
with his specialists
(Force(s)-staff(s))**

- common objectives
- optimize program cost/efficiency
- maintain a cost reduction portfolio

INTEGRATED PROGRAM TEAM

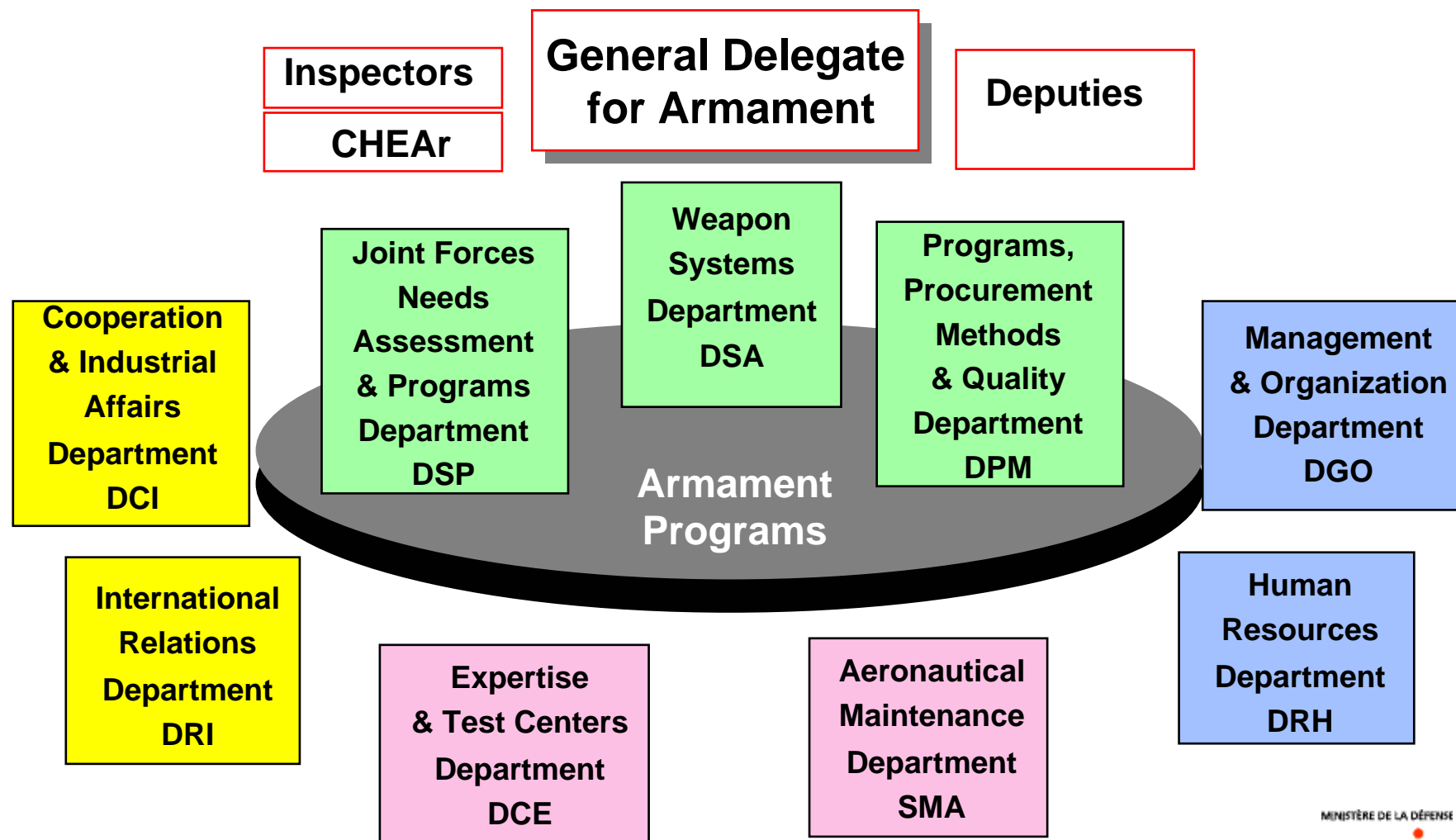
Integrated Program Team	
STAFF	DGA
<ul style="list-style-type: none">• Program officer• Operational representative	<ul style="list-style-type: none">• Program manager• Functional specialist<ul style="list-style-type: none">ManagementPurchaseQuality• Technical specialist<ul style="list-style-type: none">architecttest...

INTEGRATED PROGRAM TEAM



THE INTEGRATED PROGRAM TEAM

DGA organization chart



INTEGRATED PROGRAM TEAM

THE RENEWAL OF PROCUREMENT POLICY

The matrix organization of the directorate for programs

	Program 1	Program 2	Program 3
	Program Manager	Program Manager	Program Manager
Management Function	Management	Management	Management
Quality Function	Quality	Quality	Quality
Purchase Function	Purchase	Purchase	Purchase
	Technical Architect	Technical Architect	Technical Architect
	Equipment	Equipment	Equipment
	Transversal function	Transversal function	Transversal function
Tests Function	Test & Evaluation	Test & Evaluation	Test & Evaluation
ILS Function	ILS	ILS	ILS

MINISTÈRE DE LA DÉFENSE



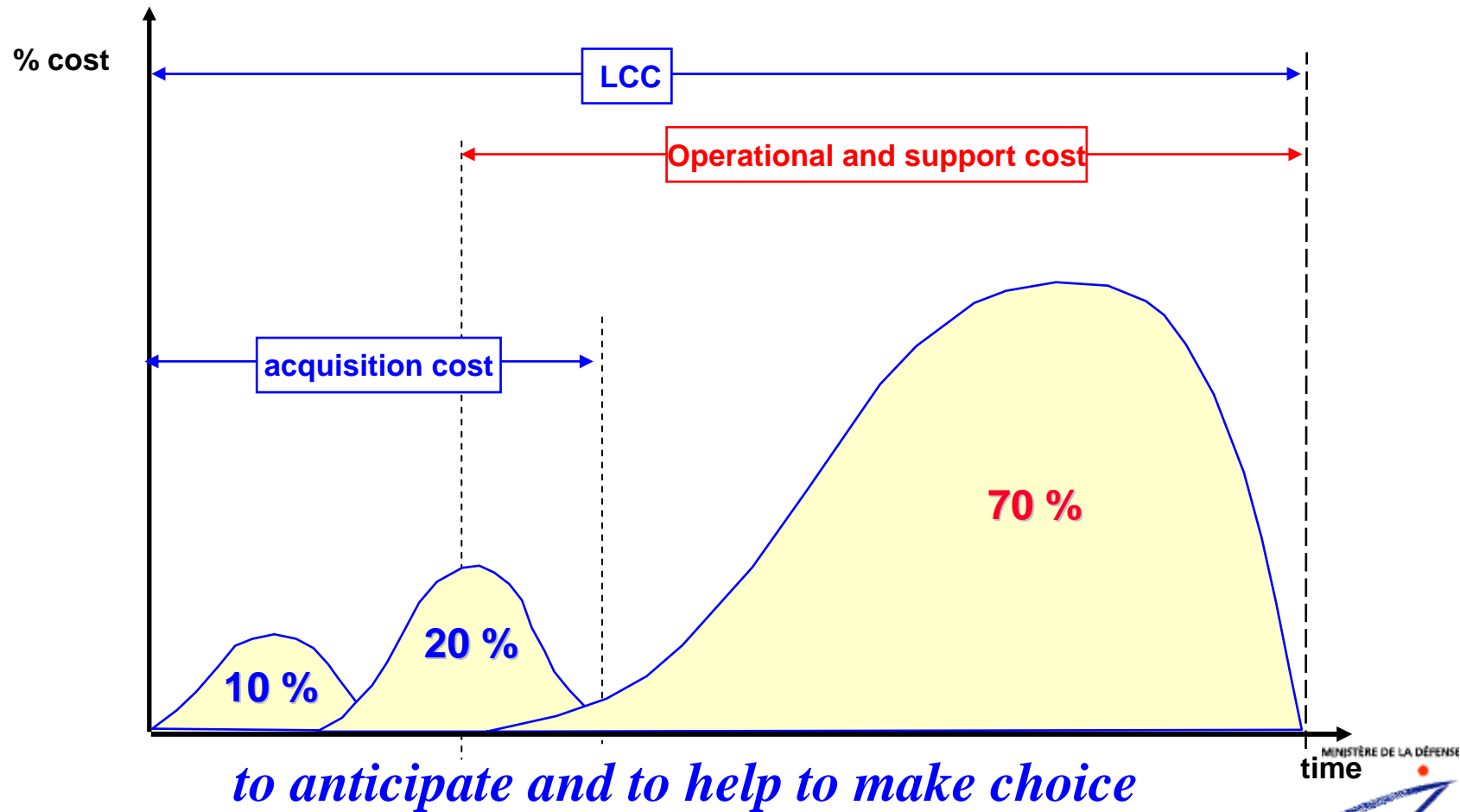
INSTRUCTIONS & MANAGEMENT METHODS

MANAGEMENT METHODS

- **Concurrent engineering**
- **Integrated Logistic Support**
- **Life Cycle Cost**
- **Systems engineering**
- **Need statement**
- **Project management**
- **Risk management**

INSTRUCTIONS & MANAGEMENT METHODS

MANAGEMENT METHODS - LIFE CYCLE COST - (LCC)



INSTRUCTIONS & MANAGEMENT METHODS

MANAGEMENT METHODS - SYSTEM ENGINEERING

- **enabling organized transition from needs to system specifications**
- **a system approach in our programs and organization**
- **a way of thinking**
- **a way of doing business**

INSTRUCTIONS & MANAGEMENT METHODS

MANAGEMENT METHODS - PROJECT MANAGEMENT

- **WBS : the heart of the project management**
 - to organize the project
 - to allocate responsibilities
 - to consolidate information
 - to control the program
- **Schedule & Planning**

INSTRUCTIONS & MANAGEMENT METHODS

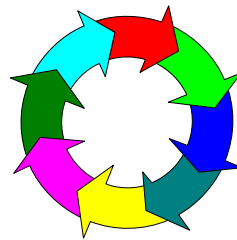
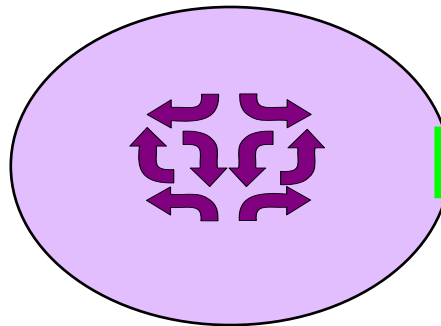
MANAGEMENT METHODS - RISK MANAGEMENT

- an integral part of the systems engineering and program management processes
- a cyclical process which consists of four basic components : identification, assessment, mitigation and follow up.

INSTRUCTIONS & MANAGEMENT METHODS

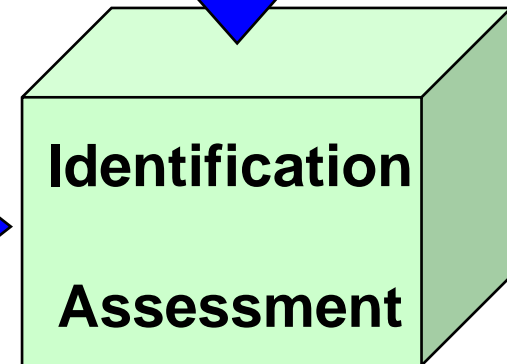
MANAGEMENT METHODS - RISK MANAGEMENT

functional analysis



functional arch.
physical arch.
WBS
OBS
CBS

Interviews, check lists, brain storming
....



risks register

....

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

INSTRUCTIONS & MANAGEMENT METHODS

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

objective of cost control

- **To increase the importance of cost in decision making process**
- **To fight against natural tendency for program managers to ask for more money than they really need and to maintain provisions and margins**
- **To carry out current programs and satisfy new operational needs within decreasing budget**

cost control principles

For each program :

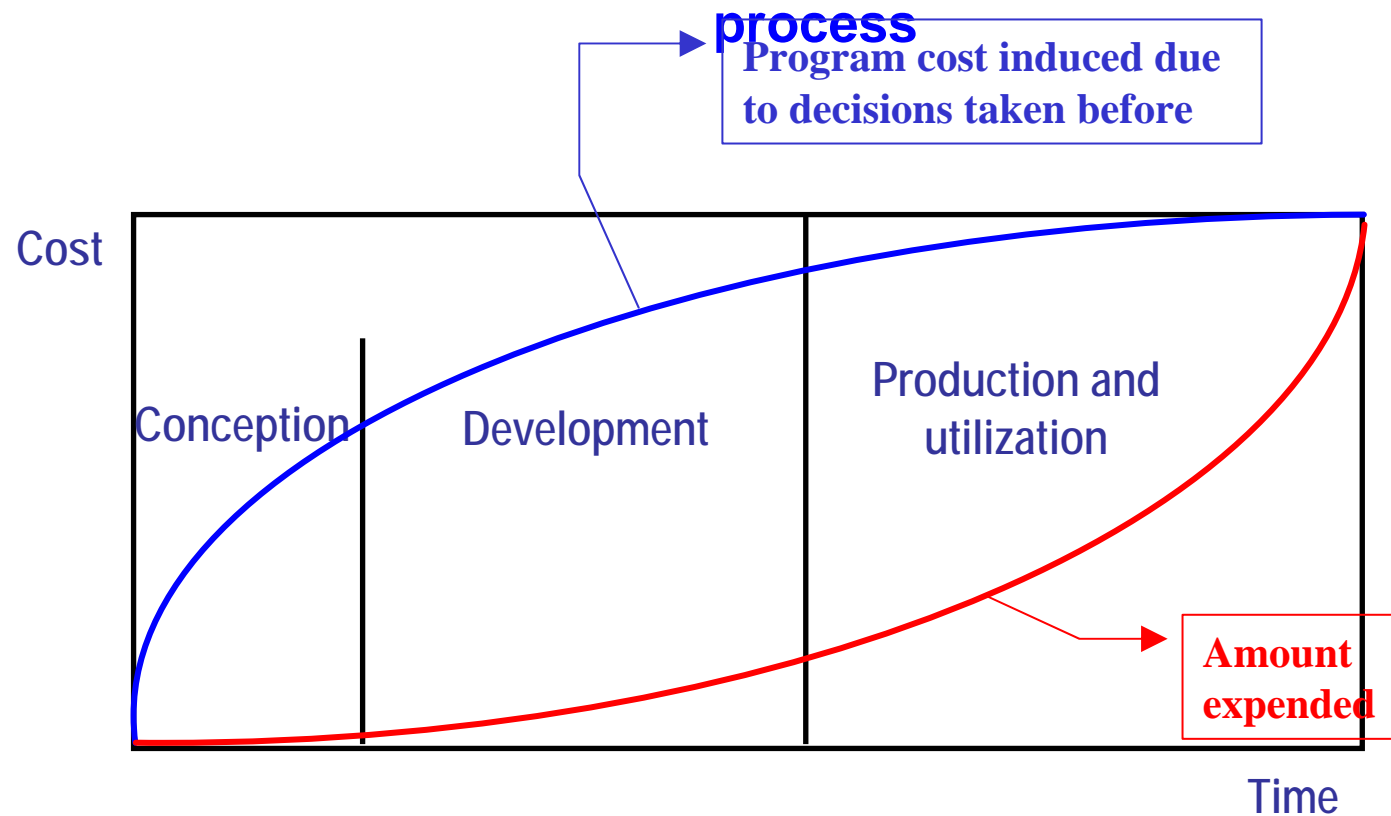
- **cost reduction portfolio**
- **cost reduction objective**
- **monthly updating of estimated cost**

For all programs :

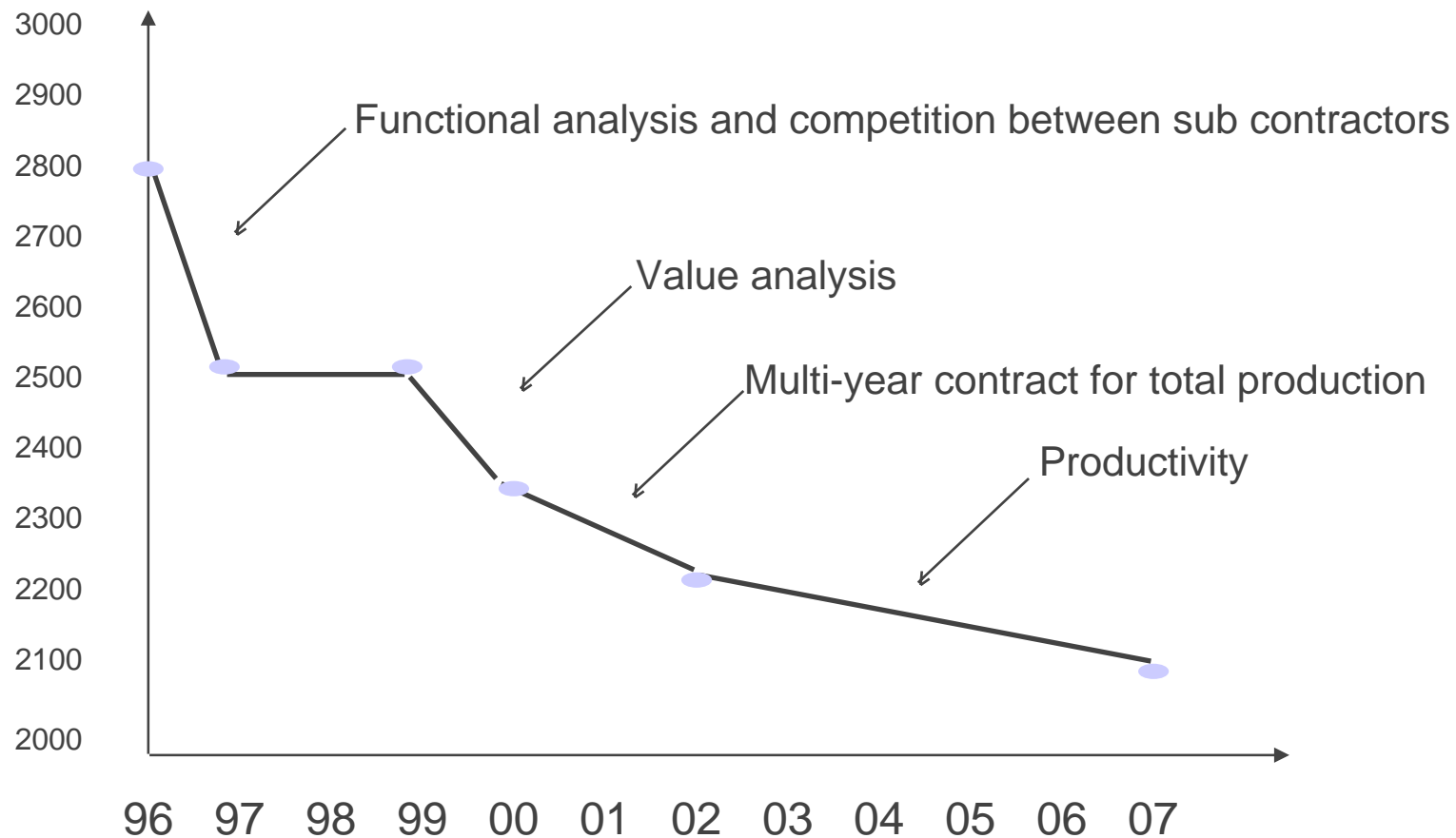
- **monthly reporting on cost reduction and financial needs (year-phased)**

PROGRAM COST REDUCTION

Design phases costs consequences in this global



cost reduction path

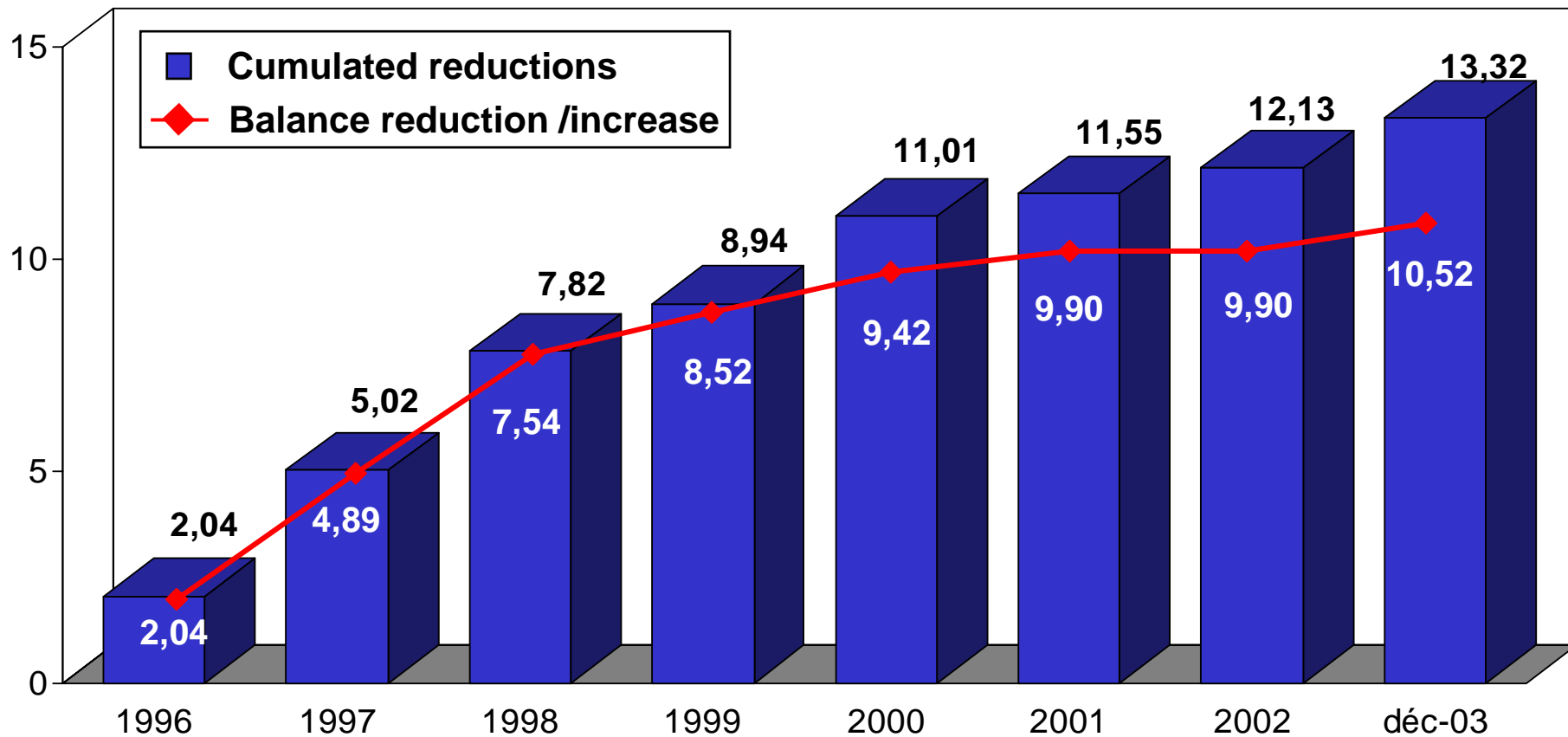


cost control implementation

- metrics :
 - actual cost
 - estimated cost at the end of the year
 - cost trajectory
 - budget needs (actual and if cost objective is reached)
 - influence of cost reduction measures on budget needs
- reports :
 - executive committee : monthly reports on cost reduction and budget needs for programmes on every programme
 - annual presentation to DGA for every programme

Cost control - status dec 03

In B€



B€ economic conditions jan 2002

REPORTING ON PROGRAMS

- Mission -program outline
- Performance monitoring
- Schedule monitoring
- Cost monitoring (portfolio and trajectory)
- Industrial and technical risks monitoring
- Treatment of events with potential consequences on perf/time/cost
- Financial data sheet

IMPROVEMENT OF REPORTING

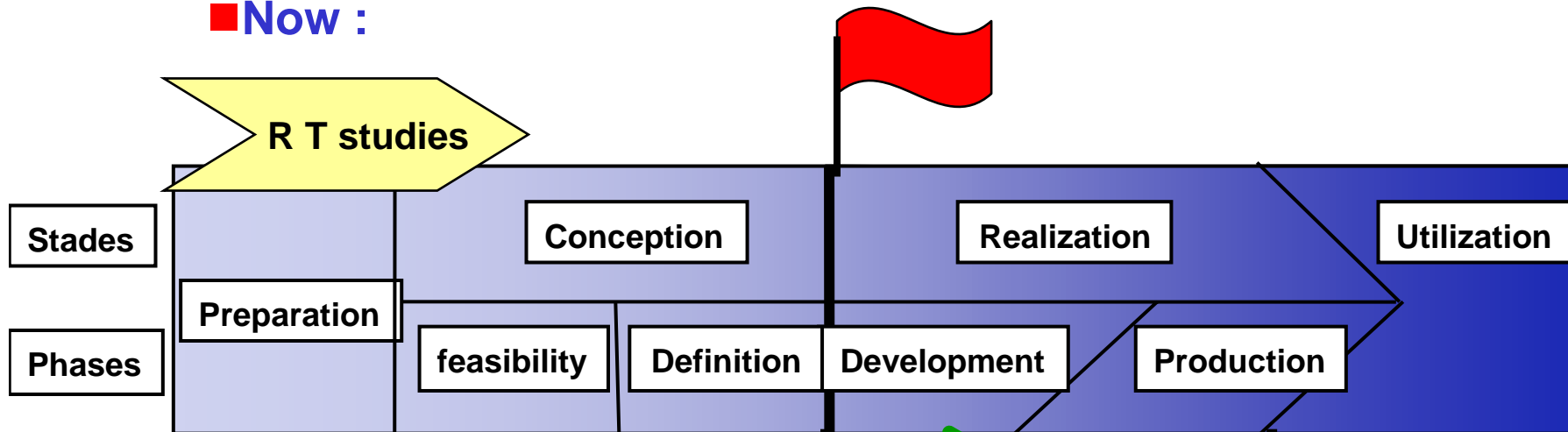
- Extension to operations other than programs :
 - small programs
 - elements of support
- Extension of indicators to schedule and performances

schedule control

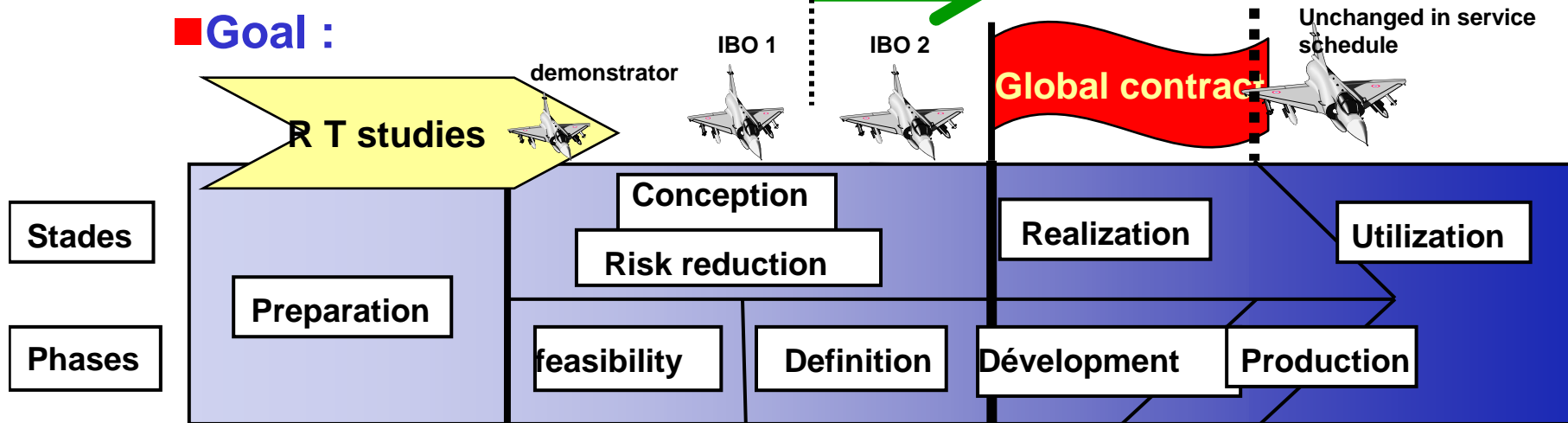
- **Conception stage :**
reduction of realization duration
maintaining in-service dates

reduction of development time

■ Now :



■ Goal :



schedule control

- **Conception stage :**
reduction of realization duration
maintaining in-service dates
- **Realization stage :**
maintaining key milestones & in-service dates