



...The international through life programme management organisation

OCCAR



**OCCAR
BROCHURE**



1 FOREWORD BY OCCAR-EA DIRECTOR



Dear reader,

I'm pleased to get the opportunity to present you the Organisation Conjointe de Coopération en matière d'Armement (OCCAR). OCCAR is a multinational organisation for the management of European Collaborative Defence programmes. It aims at being the centre of excellence and first choice in Europe in the field of the collaborative acquisition of defence equipment.

After 10 years of developing, implementing, improving and consolidating best practice and state of the art management tools in a lean and agile organisation, OCCAR-EA has reached the necessary level of maturity.

This brochure is established to give you a better understanding of OCCAR-EA's organisation and its main business and to give you an overview of the programmes that are actually managed by the organisation.

I invite you to read it through and to discover the different facets of this lean and flexible organisation. I'm convinced you'll find the content of this brochure more than interesting. If, after reading this booklet, you still want more detailed information on OCCAR-EA, don't hesitate to access our website under www.occar-ea.org.

A handwritten signature in black ink, appearing to read 'P. Bellouard', written in a cursive style.

Patrick Bellouard
OCCAR-EA Director

History

The Organisation Conjointe de Coopération en matière d'armement was established by an Administrative Arrangement on 12th November 1996 by the Defence Ministers of France, Germany, Italy and the UK. Its aim is to provide more effective and efficient arrangements for the through life management of collaborative armament programmes and technology demonstrator programmes.

The Defence Ministers of the four founding Nations went to sign a Treaty, the « OCCAR Convention », which was subsequently ratified and came into force on the 28th January 2001. The Convention gives OCCAR its legal status, allowing it to place and manage contracts and to employ own staff. Belgium and Spain joined OCCAR, respectively in 2003 and 2005. Finland, Luxembourg, the Netherlands, Poland, Sweden and Turkey are actually participating in a programme, without being members of the organisation.

- 1993 Franco-German Declaration
- 1995 Principles of Baden-Baden
- 1996 Franco-German precursor team
UK and Italy join precursor team
Administrative Arrangement
- 1997 Early Staffing of Central Office

1998 Signature of the OCCAR Convention

2001 OCCAR Legal Status

- 2003 Accession of Belgium
- 2004 Re-organisation of Central Office
- 2005 Accession of Spain



Mission

To facilitate and manage collaborative European armament Programmes and Technology Demonstrator Programmes, through their life cycle to the satisfactions of our customers

Vision

To be a centre of excellence, and the first choice in Europe, in the field of collaborative acquisition of defence equipment.

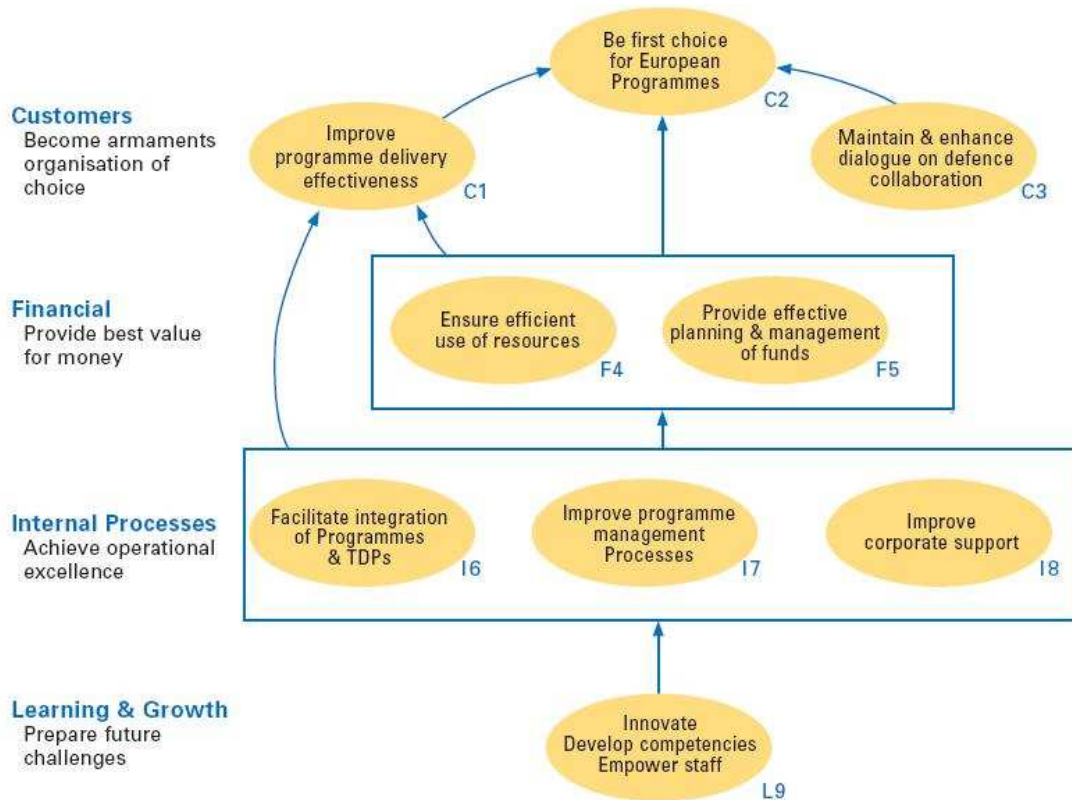
- **Customer relationship**
To excel in offering personalised service and building long-term relations with European defence stakeholders.
- **Best of class**
To excel in offering effective programme management services, in terms of cost, schedule and system performance

Values

- **Belief in Europe's future**
We are committed to OCCAR's fundamental role in establishing a customer focused European defence equipment acquisition capability.
- **Professionalism, teamwork and positive attitude towards change**
We believe that these are the essential values for the achievement of excellence.
- **Cultural diversity**
We recognise and use the different cultures, skills and experiences of our staff as drivers for innovation and continual improvement.
- **Integrity**
We are committed to the highest standards of integrity in dealing with Nations' financial resources, assets and weapon systems.

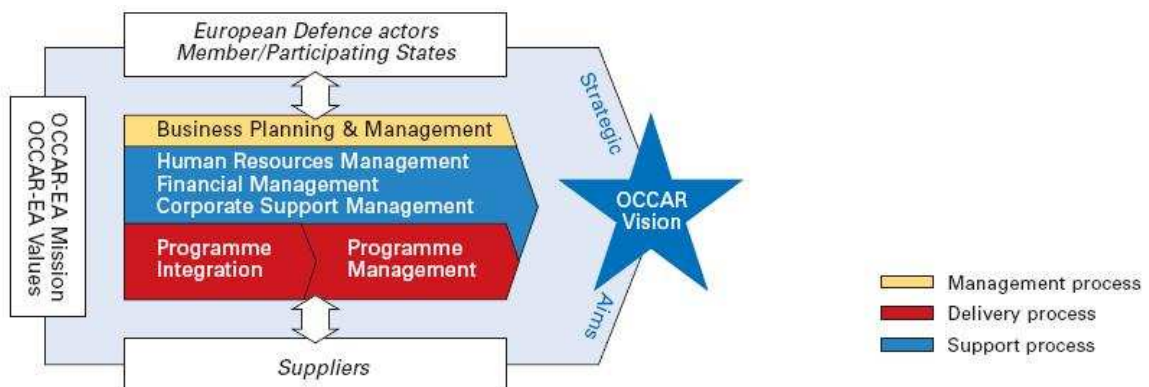
Strategic Aims

OCCAR has defined Strategic Aims, which translate its vision into concrete terms. The figure below shows the main cause-and-effect relationships between these Strategic Aims.

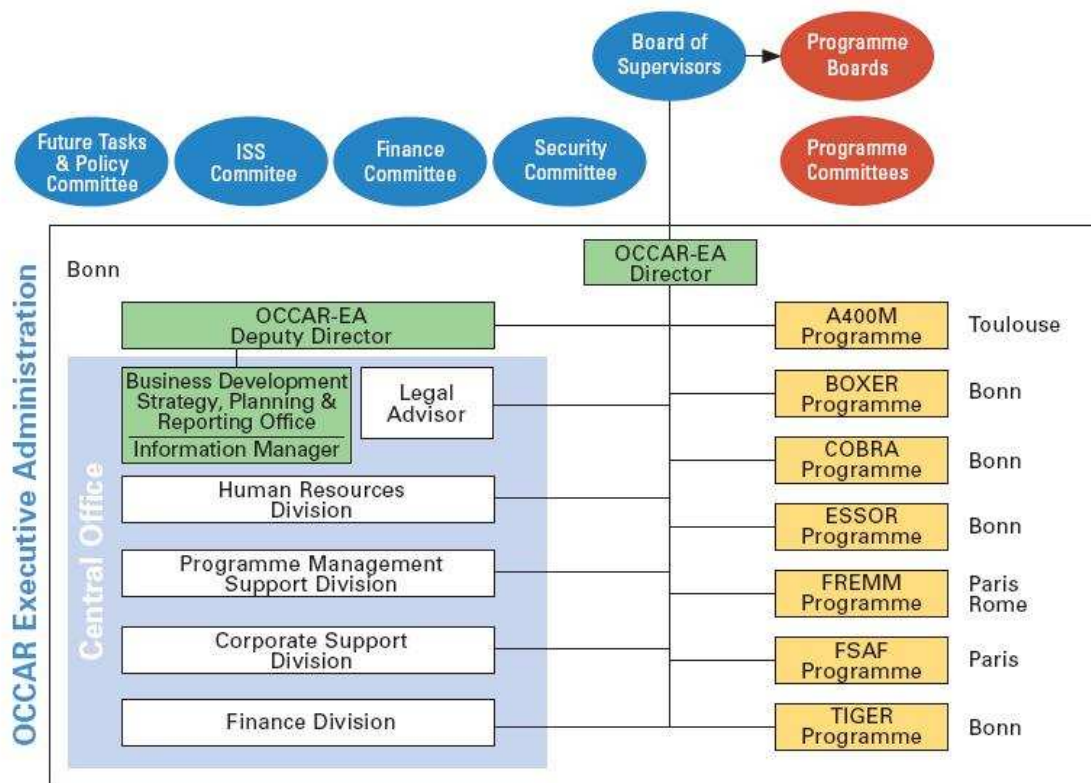


Business Model

OCCAR-EA processes are primarily those related to the management of Programmes for the procurement of defence products. A cartography of OCCAR-EA main processes is shown below. The OCCAR-EA QMS is certified against the requirements of ISO 9001.



OCCAR Organisation in 2009



The **Board of Supervisors** (BoS) is the highest decision-making level within OCCAR. It directs and supervises OCCAR-EA and all associated committees and decides all matters concerning the implementation of the Occar Convention.

The **Programme Board**, whose members consist of BoS members from the Participating States (or equivalent for a Non-Member State) is the highest decision-making level for matters specific to an OCCAR Programme.

The **Future Tasks and Policy Committee** (FTPC) advises and assists the BoS in the achievement of its functions with regard to business, management, contractual policy and prospective programmes.

The **Finance Committee** (FC) monitors on behalf of the BoS the operation and effectiveness of OCCAR-EA's financial management, makes recommendations to the BoS on the documents dealing with the regularity of this financial management and proposes to the BoS the general policies on OCCAR financial matters.

The **ISS Committee** (ISSC) advises and assists the BoS in the achievement of its functions with regard to Trough Life and in Service Support strategy, services, policy, procedures and guidelines.

2 OCCAR AT A GLANCE

The **Security Committee** (SC) supports the BoS in its decision-making process and considers all aspects of security of classified information related to OCCAR.

The **Programme Committees** (PCs) oversee the running of the Programmes for the Member States and non-Member States participating in a Programme.

The **Executive Administration** is the standing executive body responsible for the implementation of the decisions of the BoS. It consists of a **Central Office**, which is responsible for strategy, governance and corporate support and **Programme Divisions**, which are the operational units in charge of the management of the OCCAR Programmes



The Programmes and TDPs managed by OCCAR in 2011

A400M - A Tactical and Strategic Airlifter

The A400M meets the need for an efficient, all-terrain transport aircraft for today's military operations. It is capable of operating in all weathers, by day and by night, and from unprepared runways. It can transport troops and heavy, large volume loads and act as a tanker for both fast-jets and helicopters.



A400M

Today's armed forces require a flexible and cost effective means of deploying rapidly their manpower and equipment whether it be in support of military operations or in support of humanitarian disaster relief missions. This need was reflected in a joint European Staff Requirement that was endorsed in 1997 by eight European nations, all of them members of NATO. Following an assessment of a number of proposals to meet this requirement, the nations announced on 27 July 2000 that their choice was in favour of the Airbus A400M proposal.

A400M is a new design tailored to meet the customers' needs, and is at the forefront of developments in new technology for a large transport aircraft. The aircraft also offers the possibility of greater interoperability, as well as multi-national training and support packages with the potential to offer major through-life savings.

The programme was officially launched and integrated into OCCAR in May 2003; the first flight took place on 11th December 2009. Malaysia is the first export customer.

OCCAR-EA is undertaking a range of preparatory activities for the A400M In Service Support Phase.

Phases

Development, Production and Initial Support

Overall Timescale

Development, Production and Initial Support: 2003 - 2024

Participating States



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BOXER – The Next Generation of Multi Role Armoured Vehicles

The BOXER is a heavily armoured 8x8 all terrain support and transport vehicle that is being produced in four variants for Germany and six variants for The Netherlands.



BOXER

BOXER provides balanced capabilities of transport-capacity, mobility, protection, survivability, growth potential and efficient life cycle costs. BOXER can operate in high intensity conflicts, in rapid reaction peace support and in humanitarian operations worldwide, offering improved capabilities and higher levels of performance and protection than other vehicles on the market. The concept of a drive module and an exchangeable mission module makes it a flexible military vehicle, thus ensuring a maximum strategic and tactical deployability in a wide range of operational scenarios. The unique modular concept of the BOXER offers major opportunities for developing new vehicle variants.

ARTEC GmbH - a consortium formed by KraussMaffeiWegmann (KMW) (DE), Rheinmetall MAN Military Vehicles (RMMV) (DE) and Rheinmetall Nederland (NL) is in charge of the development and series production of the BOXER.

The Programme represents a major bi-national cooperation between Germany and The Netherlands, which will bring great operational benefits including interoperability between the armies, as well as financial savings. Sharing of development costs, technologies and economies of scale in production are just three of the major attractions and benefits of this cooperation.

Deliveries of vehicles to Germany started in Q4 2009 and are ongoing. Production for the Netherlands will start in Q4 2011. The BOXER is designed for an in service lifetime of some 30 years.

Phases

Development and
Production

Overall Timescale

Development: 1999 - 2013
Vehicle deliveries: 2009 - 2016

Participating States



COBRA - The World's Most Advanced Weapon Locating System

Location of weapon systems, registration and adjustment of friendly firings, creation of battlefield data, communication with battle forces: COBRA is a singularly effective force on the battlefield, performing rapidly and accurately.



COBRA

COBRA (COunter Battery RAdar) is a collaborative long-range battlefield radar programme between Germany, France and the United Kingdom. COBRA radar systems have been in service since 2005, the delivery of systems to the Participating States was completed in May 2007. Common support in the In Service Phase has been implemented and arrangements have been made for Turkey to be included in that phase as they have acquired two COBRA systems from Germany. COBRA is considered to be the world's most advanced land based weapon locating system, comprising a high performance radar, advanced processing and an integrated, flexible command, control and communication system. The design includes state-of-the-art digital processing and an advanced active, solid-state phased array antenna comprising several thousand transmit/receive modules.

The COBRA mission is to locate mortars, rocket launchers and artillery batteries and to provide information for countering their effectiveness. It is also able to monitor breaches of cease-fire when deployed in a peacekeeping role.

For the In Service Phase a COBRA Post Design Services (PDS) contract is in place with the COBRA PDS Alliance consisting of EADS Deutschland, Thales Air Systems FR and Thales UK. OCCAR-EA has also negotiated a Service Level Agreement with NAMSA for a range of logistic support services. These two contracts, managed by OCCAR-EA, are delivering support to COBRA systems either located within the Participating States or deployed in operational theatres.

Phases

Industrialisation & Production
In Service

Overall Timescale

Industrialisation & Production: 1998 - 2010
In Service: 2004 - 2012

Participating States



2 OCCAR AT A GLANCE

ESSOR – The European Secure Software Defined Radio

ESSOR, the European Secure Software Defined Radio Programme, will secure the capability of European industry to develop the next generation of interoperable Software Defined Radio (SDR) systems in the timeframe 2010-2015.



ESSOR

The ESSOR Programme is a collaborative venture between Finland, France, Italy, Poland, Spain and Sweden in the EDA framework as an ad hoc category B programme. The ESSOR Programme Decision was signed on 18 December 2008 and the ESSOR contract awarded between OCCAR and a4ESSOR SAS on 19 December 2009. a4ESSOR SAS was established by industrial companies of the six Participating States.

The aims of the ESSOR Programme are design, development and production of referential system architecture for ESSOR shared at European level and a new High Data Rate (HDR) waveform (WF), which may be promoted as a new standard.

The programme shall use national radio Platforms (PTF) as the basis for the application of the ESSOR architecture to which the HDR Base WF shall be ported. The results shall be 6 national target HDR WF developed from a common HDR Base WF running on 6 different national radio PTF with a common ESSOR architecture. The radios shall be interoperable when using the HDR WF.

In addition, as an EDA Cat B programme, the aim of the ESSOR Programme is to provide the basis for development and production of SDR products in Europe to meet the requirement for fielding such equipment in Europe, through the EDA activities.

Phases

Definition, Development and Proof of Concept Demonstration

Overall Timescale

Main Contract: 2009 - 2013

Participating States



FREMM - The Future Multi-Mission Frigates

The FREMM Programme is the most ambitious and innovative European naval defence project. These multi-role Frigates, designed to meet the through life requirements of the French and Italian navies in a changing environment, will set new standards for design and build costs.



FREMM

Phase 2 of the Programme comprises the definition, development, production and in service support of 21 ships: 11 for France, 10 for Italy.

The FREMM will be built in Anti-Submarine Warfare (ASM/ASW), Anti-Air Warfare (FREDA) and General Purpose (GP) versions.

The objective of contractual delivery is 2012 for the first ASM frigate, and 2022 for the whole 21 frigates.

The programme was officially integrated into OCCAR in November 2005. The main contract was signed in November 2005 to launch the development and production of the French frigates, amended in May 2006 to integrate the development and production of the Italian frigates, and amended for France in 2009 to reduce the number of frigates of the Programme but to firmly order 11 frigates and to introduce the FREDA version.

Phases

Development and
Production

Overall Timescale

Development and Production:
2006 - 2022

Participating States



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FSAF and Munitions for the PAAMS – The Next Generation of Surface-to-Air Anti-Missile Systems

The FSAF is a family of SAAM systems, meeting the demands of naval or army defence operations.



FSAF

Famille des systèmes Surface-Air Futurs – Famiglia dei sistemi Superficie-Aria Futuri. On 26 October 1988, French and Italian Defence Ministers signed the Memorandum of understanding of a bilateral cooperation for the development of a surface to air anti missile system family – FSAF.

Phase 2, launched in 1997 (French DGA contract for complementary qualifications and industrialisation), has been completed for the SAAM systems and is still ongoing for the SAMP/T.



Phase 3 (OCCAR contract) launched in 2003, covers SAMP/T production/complementary developments (ATBM, link 16, IFF mode 5) and FSAF/PAAMS Aster munition production.

PAAMS Munitions

Principal Anti Air Missile Systems are based on common elements developed in the frame of the FSAF programme. It is intended to provide "self defence", "local area" and "naval area" defence capabilities for the frigates of the navies: the FR/IT Horizon frigate and the UK Type 45 destroyer.

In Service Support

With an Integration Decision, adopted by the BoS in 2008, OCCAR was tasked to set up the management of Common In Service Support Phase of the FSAF-PAAMS systems. This Phase will be effectively launched in 2011 with the signature of a new Programme Decision and the related contract/s. In the meantime Interim ISS initiatives have been launched in order to support the delivered systems.

Phases Development and Production		Overall Timescale Phase 3: 2003 - 2016 I ISS Phase (1 st step): 2011 - 2016
Participating States	  FSAF	   PAAMS Munitions

¹ According to the current Programme arrangements. These figures may be updated in 2011 in order to take into account the I-ISS Phase costs.

TIGER – A New Generation of Helicopters

The TIGER Programme is a new generation attack helicopter, which is able to perform a wide range of demanding helicopter missions. Multiple fighting tasks, day and night, operations in all conditions mean that both crew and machine could be pushed to the limit.



TIGER

In 1988, France and Germany launched the full-scale development of the TIGER helicopter programme. Two versions of the helicopter have been qualified in December 2008: The UHT (Unterstützungshubschrauber TIGER) for Germany and the HAP (Hélicoptère d'Appui Protection) for France. A production contract for the first batch of 160 aircraft was placed with EUROCOPTER in 1999.

Following the signature of the trilateral administrative arrangement (March 2004), Spain has also joined the programme and the development and production of a new version of the Helicopter (HAD – Hélicoptère d'Appui et Destruction – Helicóptero de Apoyo y Destrucción) for Spanish and French needs has been contracted. In total 184 helicopters will be produced: 80 UHT for Germany, 40 HAP for France, 40 HAD for France, 24 HAD for Spain including 6 HAP, which will be retrofitted in HAD version.

Deliveries of first UHT and HAP helicopters, initial logistic support including training means have allowed the start of operations in early 2005. The first HAP in its final serial version was delivered to regiments in 2008, while the first UHT in its final serial version was delivered in July 2010. French HAPs started in OPEX Theatre in August 2009.

A programme decision was signed in February 2007 by Germany and France for a common support in the In Service Phase. The Trilateral ISS MoU came into force end of July 2009; the related ISS TProgD was signed end of August 2009 to implement Spain in the In Service Phase. Australia, as an export customer of the TIGER Helicopter, has been integrated within the TIGER community. The observer status was granted by the BoS mid July 2009.

Phases		Overall Timescale	
Development and Production		Development:	1988 - 2009 (HAP/UHT) 2005 - 2013 (HAD)
In Service Support		Production:	1997 - 2015 (HAP/UHT) 2007 - 2016 (HAD)
		In Service Support:	2007 - 2015 ²
Participating States			

² Under the current TIGER ISS Programme Decision (1st amendment).

MUSIS - Federating Activities

MUSIS (Multinational Space Imaging System) is a next generation of space-based imagery system for surveillance, reconnaissance and observation missions to replace current systems (Helios II, SAR-Lupe, COSMO SkyMed).



The BoS Integration Decision was officially signed in June 2009 and, as a Non-OCCAR Member State, Greece signed the Letter of Acceptance of OCCAR Rules and Procedures in July 2009. As a practical step, FR and IT launched in 2010 a bi-national initiative called Federating Activities B1 Phase in order to study the federation of the future space components; other MUSIS Participating States may consider joining the subsequent B2 phase which is planned for 2012.

The Invitation to Tender for the B1 Phase was issued in February 2011 for a contract to be let by mid 2011. The corresponding Technical Arrangement and the Programme Decision are expected to be signed during the first quarter of 2011.

The management of the B1 phase will be performed by OCCAR-EA with resources available in Central Office/PMSD and relying on technical expertise from the involved Nations.

Phases
Definition

Overall Timescale
Definition: 2011 - 2012

Participating States



OCCAR current Programme opportunities

As directed by the Member States, the Executive Administration is actively involved in the development of the following Programmes, which may be integrated in OCCAR in the near future.

DIRCM

The DIRCM (Directed Infrared Counter Measures) programme will provide the A400M and other transport aircraft with a DIRCM system. The programme consists of a risk reduction phase and a development-production phase. Both phases will probably be entrusted to OCCAR.

Potential Participating States



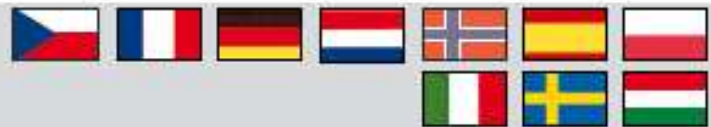
BIO EDEP

The BIO EDEP (Biological Equipment Development and Enhancement Programme) covers the development of a set of biological detection and identification equipment. The programme consists of 8 interlinked projects of various duration and cost, with Project 8 covering the integration of the 7 other projects.

The complete set of projects is expected to have a 5 years duration at an initial estimated total cost of 105 M€. It is being facilitated jointly by the EDA Capabilities, R&T and Armaments Directorates, with OCCAR-EA being invited to attend the meetings according to the EDA Guide to the Preparation Phase of a Programme. This implies that the Programme is still an "EDA Ad Hoc Project". The National staffing process of Common Staff Requirements (CSRs) is ongoing and will end in June 2011.

The Business Case is drafted with a strong involvement of OCCAR-EA in the Life Cycle Cost estimation. Based on these elements Nations will be decided by mid 2011 if they will start the development of a system demonstrator. Based on the outcome of that decision, OCCAR will be entrusted with the management of the development and production of the system demonstrator in the 2012-2016 timeframe.

Potential Participating States



Advanced European Jet Pilot Trainer (AEJPT)

The aim of the Advanced European Jet Pilot Training System (AEJPT) Category B project is to develop a common Integrated Training System (ITS) to train future fighter pilots. This system will comprise not only the aircraft but also the basing infrastructure including Ground Based Training, Academic Training, Mission Planning/Debriefing Systems and the logistics to support the full system. The AEJPT will initially be implemented on one permanent airbase in the South of Europe with the possibility to deploy a temporary operational base in North Europe.

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The AEJPT was adopted by EDA as a Cat B Project in February 2009; it is currently in a pre-contract phase. The MoU for this pre-contract phase will expire in April 2012 and will probably be replaced by a MoU covering the remaining preparation phase, the development, production and initial In Service Phase. OCCAR is invited to attend the meetings of all working groups. A decision on the integration into OCCAR might be expected in 2011. The start of the development phase is planned from 2013 with an Initial Operational Capability from 2018.

Potential Participating States



The French – British initiative on Mine Counter Measures

Building further on the work already undertaken in France (Espadon demonstrator and the preparation phase in EDA) and that conducted in the UK (FAST and System of Systems), France and the UK have agreed to conduct a joint Mine Counter Measures phase for the realisation of the follow-on studies and work.

The scope of this joint phase will cover the development, production and testing of a prototype for a Stand off mine counter measures system. The Stand off concept is based on off-board capabilities aiming at keeping personnel outside of the minefields whenever possible.

Results from the joint phase will allow the launch of the development and production phase which might also be conducted on a bilateral basis or might include additional partners.

The project preparations will start from mid-2011 in order to have the joint phase contract placed by mid-2012. OCCAR-EA was asked to support the preparation activities and it is expected that OCCAR will also be entrusted with the management of the joint phase contract.

Potential Participating States



3 CUSTOMER PERSPECTIVE

Main Programmes' Activities in the 2010 – 2014 Period

Programme	Main activities
A400M	<ul style="list-style-type: none">• Qualification/Certification (including Standard Aircraft Operating Clearance and maintainability demonstration)• Preparation of In Service (including first order and deliveries of ILS services and products)• First Aircraft deliveries to Participating States
BOXER	<ul style="list-style-type: none">• Completion of trials and qualifications of the drive module• Completion of development of mission module versions• Completion of trials and qualifications of the mission module versions• Production and deliveries of BOXER vehicles to both customers• Organise the supportability of the vehicles
COBRA	<ul style="list-style-type: none">• Supporting deployed Systems in theatre• Managing the In Service Phase including Post Design activities• Full integration of Turkey as Participating State• Preparation and implementation of future In Service Support Arrangements beyond 2012
ESSOR	<ul style="list-style-type: none">• Definition and development of a High Data Rate operational coalition Waveform, implementation on National platforms and validation• Definition, implementation and validation of an ESSOR Architecture (Software Communication Architecture)
FREMM	<ul style="list-style-type: none">• Build of first and second FR ASM Frigates• Build of first IT ASW and GP Frigates (FOCs)• Build of first IT ASW FOS• Qualification and contractual acceptance process• Delivery of FR ASM FOC• Delivery of FR ASM FOS• Delivery of IT GP FOC• Delivery of IT ASW FOC
FSAF	<ul style="list-style-type: none">• Achievement of Initial Operational Capability for SAMP/T (with & w/o Block 1)• SAAM/IT system firings from Conte di Cavour• Munitions deliveries for SAMP/T, SAAM/FR, SAAM/IT and PAAMS• SAMP/T Systems production and delivery• I-ISS activities for FSAF and PAAMS systems
TIGER	<ul style="list-style-type: none">• HAD-qualification and delivery of 1st helicopters• HAP & UHT production and delivery and associated support of helicopters• In Service Phase including German, French and Spanish needs



ANNEX – Glossary of Terms

BDSPRO	Business Development Strategy, Planning & Reporting Office
BoS	Board of Supervisors
COTS	Commercial-Off-The-Shelf
CSD	Corporate Support Division
EC	Economic Conditions
EDA	European Defence Agency
FC	Finance Committee
FD	Finance Division
FTPC	Future Tasks and Policy Committee
HLO	High Level Objective
HRD	Human Resources Division
ILS	Integrated Logistic Support
ISO	International Standard Organisation
ISS	In Service Support
KPI	Key Performance Indicator
LCC	Life Cycle Cost(ing)
MOTS	Military-Off-The-Shelf
MoD	Ministry of Defence
NAMSA	NATO Maintenance and Supply Agency
PB	Programme Board
PC	Programme Committee
PFI	Private Financing Initiative
PMSD	Programme Management Support Division
PPP	Public-Private Partnership
ProgD	Programme Decision
SC	Security Committee
TDP	Technology Demonstrator Programme
TLM	Through Life Management





OCCAR-EA

Godesberger Allee 140

53175 Bonn

Germany

☎ +49 (0) 228 5502-0

☎ +49 (0) 228 5502-100

@ info@occar.int

www.occar-ea.org