I - Introduction

Budget austerity and impact on defence R&T investment

Because of the economic crisis and budget austerity plans across Europe, defence budgets face a critical challenge. EU Member States have collectively reduced their defence expenditure between 2007 and 2011 from €205 to €190 billion.

The data show two main trends:

» Budget restrictions in Europe have significantly impacted R&D and R&T expenditure, which have decreased respectively by more than 18% and 20% in the last five years;

» 75% of equipment procurement is still conducted on a national basis and cooperation in R&T is decreasing, representing in 2011 not more than 12% of R&T investment

According to projections, this would put further pressure on the availability of resources for equipment and R&T.

A driver for growth and jobs

In 2012 aerospace and defence industries generated 750,000 direct and indirect jobs across Europe, most of them highly qualified, and a turnover of €186 billion (source: ASD Europe). Investment in defence is of overall benefit to the economy at large. At EU level, defence investment has a multiplier effect of 1.6 across a range of activities and sectors, such as equipment, scientific research, construction.

SMEs and dual use technology

Since technology is increasingly dual in nature, there is considerable potential for synergies between civil and defence research.

European SMEs or subsidiaries of the major defence producers (prime contractors and sub-contractors) often offer dual-use goods or services in a wide range of industries: energy, telecom and ICT, automotive, material, chemical, aeronautics and space etc. Innovation in the supply chain depends massively on SMEs, which are a key enabler for future industrial competitiveness. In this perspective, SMEs providing dual-use technologies are driving a strong impact on regional economic, social and environmental development in EU Member States.

ERDF - an opportunity for R&T projects

The European Regional Development Funds (ERDF) competitiveness objective aims at fostering initiatives leveraging value creation in European regions. With €347 billion for the current financial period 2007 – 2013 and more than €379 billion for the new programming period 2014 - 2020, EDRF is the main European financial programme in terms of budget as well as economic and social impact to support R&T and industrial capabilities reinforcement.

In this regard, European Structural Funds may be used by Member States to co-fund dual-use activities in research and innovation, as part of a national or regional smart specialisation strategy. EDA supports Member States to access available EU resources for research and innovation, with a focus on technological and industrial priorities identified at EU level.
II - EDA support

Objectives

The main objectives of EDA’s work on ESF are to:

> Raise awareness among Ministries of Defence and defence industry as regards the use of ESF;
> Identify and support eligible pilot projects in R&T and industrial capabilities for the European Structural Funds;
> Develop a methodology to be used by the Ministries of Defence to increase eligibility for future projects.

Raising the awareness among Ministries of Defence

Four full day seminars were organised by EDA with a strong ownership of Ministries of Defence (MoD) and the support of the European Commission. These events took place in four countries:

> Portugal (Lisbon);
> Bulgaria (Sofia);
> Poland (Warsaw);
> Ireland (Cork).

More than 500 key experts, SMEs, universities, federal and regional administrations in charge of structural funds, innovation, defence and security, technology attended those seminars. The outcomes of these seminars were:

> A first positive dialogue between MoDs and the Ministries managing Structural Funds to support dual tech projects and to integrate the MoDs experts in the Smart Specialisation Strategy process, given the strong impact of dual-use technology on national economies and regional development;
> A knowledge transfer to the military and civilian R&T community about the process and the technical specificities required to prepare an ERDF project;
> Creation of good contacts with operational stakeholders in charge of the coordination of Cohesion Policy and ERDF programmes;
> Initiate a new mind set and cooperation spirit regarding dual use tech projects.

Support to projects

Among 72 potential projects submitted from twelve countries:

> EDA provided guidance and advice on 44 projects, on how project holders could improve their eligibility to obtain ESF funding;
> Six pilot projects have been selected according to technical eligibility criteria and R&T priorities identified by Member States in the framework of EDA, to be supported by EDA and its consultant Ernst & Young contracted for the purpose of developing the application folders. One more project has been added to the list on the way, due to high potential of eligibility to be funded in the current programming period. List of projects as follows:

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<tr>
<th>Country</th>
<th>Project Description</th>
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<tr>
<td>Bulgaria</td>
<td>Improvement of the Urban Security and Defence through the Implementation of Advance Detection Sensors’ System</td>
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<tr>
<td>Poland</td>
<td>Intruder detection and collision avoidance system for flight aircraft</td>
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<tr>
<td>Germany</td>
<td>Adaptation of SWIR technology for high resolution hyperspectral and imaging applications</td>
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<tr>
<td>Portugal</td>
<td>Turtle - increase sustainability of operations in the sea bottom by developing key technologies</td>
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<tr>
<td>France</td>
<td>European Icing Testing Platform for Aeronautics</td>
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<tr>
<td>UK</td>
<td>Microwave Epitaxial</td>
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<tr>
<td>Spain</td>
<td>Underwater signature monitoring and analysis (USMA) Centre</td>
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For each of the seven projects, a single methodology for analyzing and developing them was elaborated, following four steps:

> Kick-off with the project holder
> First meeting with the Managing Authority
> Preparation of the Application Form
> Final validation by all actors

A key step consisted in analysing the Operational Programmes (OPs) of the Regions where the project should be developed to identify the appropriate funding measure and the conditions of eligibility of the projects.

Out of the selected projects, two applications have been successfully submitted by the project holders to the national managing authorities for co-funding, while the rest will be submitted during the current or the next financial framework 2014-2020.
III- Next steps

ESF has the potential to become an additional source of funding research and innovation dual-use projects in the field of security and defence.

After an experimental phase in 2013, EDA will promote a more systematic approach in support of Member States, taking advantage of the programming period 2014-2020.

This action is contained in the EDA’s SME Action Plan, consisting of a series of measures to support defence SMEs.

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<td>At the meeting of the Steering Board on 23 April 2013, Defence Ministers endorsed EDA’s Action Plan for SMEs. Some of the measures included in the plan are:</td>
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<td>» Increasing interaction with the work of the European Commission including facilitating access to European Structural Funds for SMEs involved in dual-use research;</td>
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<td>» Improving information sharing about business opportunities through the creation of the web based Procurement Gateway;</td>
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<td>» Supporting innovation through enhancing SME access to defence related research and technology;</td>
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<td>» Enhancing defence SME market conditions through developing further guidelines and best practice;</td>
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<td>» Facilitating efficient use of subcontracting provisions promoting the role of defence-related SMEs).</td>
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On the grounds of the experience gained so far, EDA will develop a more systematic approach as regards the use of European Structural Funds in the new programming period. It will:

» Further support projects, with special focus on EDA identified technological and industrial priorities but addressing as well the potential the ESF provide for cross-border regional cooperation.

» Organise additional seminars in the Member States, in order to familiarise and mobilise key stakeholders at national or regional level, and to influence better use of European Structural Funds for dual application projects in the field of defence and security.

This action should enable government and defence industry stakeholders to exploit existing EU resources for dual-use projects promoting research and industry innovation.