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SMEs in STREPs under FP6

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Luxembourg: Office for Official Publications of the European Communities, 2006

ISBN 92-894-9933-8

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Printed in Belgium

PRINTED ON WHITE CHLORINE-FREE PAPER

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Introduction

SMEs in research – building companies, building competitiveness



This publication sets out the benefits to small and medium-sized enterprises (SMEs) of participating in the European Commission's Framework Programmes (FP) for Research and Technological Development. In particular, it covers SME participation in STREPs – Specific Targeted Research Projects – that have particular advantages for SMEs. Actual examples of STREPs are presented to show the many positive experiences and tangible benefits that SMEs gain through their participation in such projects .

Considering that many of Europe's large companies started life from small business activities, often family-run, the importance EU policy-makers give to today's small and medium-sized companies is unsurprising. Among Europe's 25 million SMEs are the seeds of future world-market leaders that will carry the results of European research and know-how towards the global economy. Some of these potential market leaders will grow into large firms with mass markets; other will stay small or medium-sized occupying niche markets in cutting-edge technologies and services. Whether large or small, they will all compete in the global knowledge economy, taking the best of European technology and innovation to customers worldwide.

For this to happen, European SMEs must accommodate innovative business models more suited to the knowledge economy – models built on continuous innovation and renewal that accept the generation and exploitation of new scientific knowledge as a core business competence. While there are some SMEs implementing long-term research strategies, by far the majority have shorter time horizons. This short-term perspective is not because of a lack of vision – rather it reflects the resource constraints and the incremental approach that SME managers must often take to ensure survival in a highly competitive world.

However, the long-term survival and success of SMEs depend on new products, processes and markets being created – and this requires continuous research and development initiatives. This need is a critical activity for all SMEs irrespective of whether they are in hi-tech markets or university spin-offs or are conventional SMEs in traditional manufacturing and service sectors that may not have much research capacity, but can certainly benefit from research outputs.

The European Commission's Framework Programmes for Research and Technological Development specifically encourage European SMEs to participate in collaborative research projects, by supporting them in their transformation towards knowledge-intensive enterprises, and by helping them benefit from the advantages of shared research activities that reduce risk, and enhance networking and the sharing of best practice. In this respect, the current FP6 programme endeavours to achieve a 15% SME participation rate in the priority thematic areas.

FOCUSED COLLABORATIVE RESEARCH AND SMES

Specific Targeted Research Projects – short, sharp and focused

While new Framework Programmes usually bring new funding instruments with snappy acronyms, it is certainly not a case of 'out with the old and in with the new'. The design of FP6 builds on the accumulated experience of earlier Framework Programmes. This is seen both in new instruments, such as Integrated Projects (IP) and Networks of Excellence (NoE) that offer new ways of meeting research challenges, as well as in upgraded 'traditional instruments' that have proved their worth, time and again.

The Specific Targeted Research Project (STREP) is one such 'traditional instrument' that developed out of the similar 'shared cost actions' in FP5. STREPs are collaborative RTD projects dealing with objective-driven research. They may deal with a research and technological development activity, a demonstration, or a combination of both. A consortium of partners drawn from enterprises, universities and research institutes carries out these activities. Experience shows that for STREPs, consortia are comprised of between six and 15 participants with an EU funding typically from €0.8 to €3 million and project duration between 18 and 36 months.

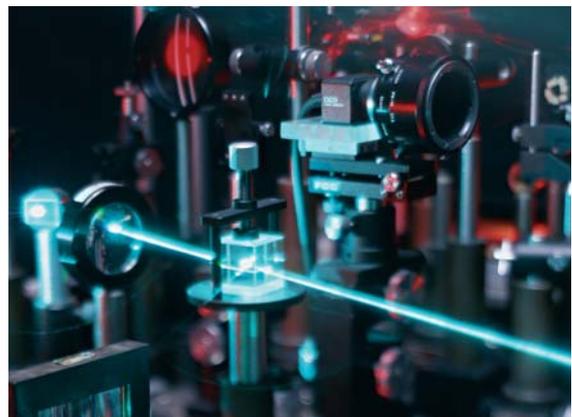
Compared to IPs and NoEs, STREPs normally have fewer partners, smaller budgets and shorter duration. STREPs focus on specific research objectives with clear and exploitable outputs that can be brought to market quickly. It is no surprise that this type of instrument is particularly popular with SMEs, as its features present a good match to the strategies, resources and time horizons of small and medium-sized enterprises. Therefore, the EU actively supports SMEs to participate in its FP6 RTD activities.

"SMEs always appreciate and capitalise on the technical benefits they get from their involvement in a project"

Unprecedented level of funding

In accordance with the European Charter for Small Enterprises, in which EU leaders committed themselves to "strengthening the technological capacity of small enterprises", the share of the Framework Programme budget dedicated to SMEs has been significantly increased in FP6. While FP5 had earmarked 10% of research funding specifically for SMEs, including the budget for the SME-specific measures, under FP6 a 15% target was established for SME participation in the priority thematic areas, in addition to the funds allocated for the SME specific measures of co-operative and collective research.

The Commission is going to considerable lengths to facilitate SME participation in the priority thematic areas. Early evidence suggests that this effort is paying off, and that SMEs are actively taking up the various opportunities on offer, with STREPs proving to be the instrument of choice. As an example, in FP6's nano-, materials and production technologies priority thematic area SMEs received as much as 22.6% of the overall budget for 2003, and are expected to increase this share to over 28% in 2004.



What is an SME under FP6?

For any SME participating in FP6 the definition set out in the Commission Recommendation 2003/361/EC, as published in the *Official Journal of the European Union* L 124, p.36 of May 2003 and entering into force on 1 January 2005, applies.

Attracting SMEs to a project

To qualify as an SME, a firm has to meet four requirements. It must

- be an organisation or enterprise engaged in economic activity;
- have fewer than 250 employees;
- have an annual turnover of €50 million or less, or have a balance sheet not exceeding €43 million; and
- be autonomous in terms of managerial independence and the ownership of its equity.

The last of these requirements – autonomy – entails several conditions. A SME is autonomous if:

- it owns no shares in other enterprises, and vice versa, or
- it owns less than 25% stake in other enterprises (and vice versa) as long as they are not linked to each other, or
- it owns in total less than 25% of shares of linked enterprises (and vice versa).

Other enterprises can each own between 25-50% of an SME's shares, provided they are not linked to the SME. These shareholders are restricted to certain kinds of entities, namely:

- Public investment corporations, venture capital companies or individual venture capitalists with stakes of less than €1.25 million;
- Universities and non-profit research centres;
- Institutional investors; and
- Autonomous local authorities with annual budgets of less than €10 million and fewer than 5 000 inhabitants.

Full details of the EU definition can be found at:

http://europa.eu.int/comm/enterprise/enterprise_policy/sme_definition/index_en.htm

There is also a user guide with practical examples.

An enterprise which is not autonomous may still qualify as an SME, but must take into account the effect of outside shareholdings.

The FP6-funded Bio-Pro project has a strategic green goal: to develop new burner technologies for low-grade biofuels as a source of clean energy for bio-refinery activities. This is the kind of targeted research that requires large-scale laboratories and test facilities. Not surprisingly, Bio-Pro's participants are dominated by universities and technical institutes which share the project's total cost of €3 629 814, including 60% EU-funding. Yet there are two SMEs – from Sweden and Germany – that are partners in the project. But getting them on-board took time, patience and a helping hand with the project's administration and paperwork.

Roland Berger, head of Stuttgart University's Decentralised Energy Conversion Department and Bio-Pro's project manager explained: "If you want to involve SMEs in such a project, you have to guide them through the application forms. They may need your help in showing them how to check and track their costs according to EU requirements." Having had some experience in previous Framework projects, Bio-Pro's two small players ...were already accustomed to EU procedures, so they knew what was coming," said Berger. "But if you have a new SME, then there's definitely a learning curve. As coordinator, you have to spend the time and effort to work with them. It has its rewards, though. I've been involved in other EU projects and my experience is that SMEs always appreciate and capitalise on the technical benefits they get from their involvement in a project."

In this case, the benefit to the two SMEs will come with the project's third phase when Bio-Pro's two prototype burners move out of the lab and on to an industrial site for real-time operation and testing. "This is when the technology-transfer and intellectual property rights benefits come into play. At that point, I expect our SMEs to strike off on their own with commercialisation of the technology in mind," concluded Berger.

Managing scarce resources

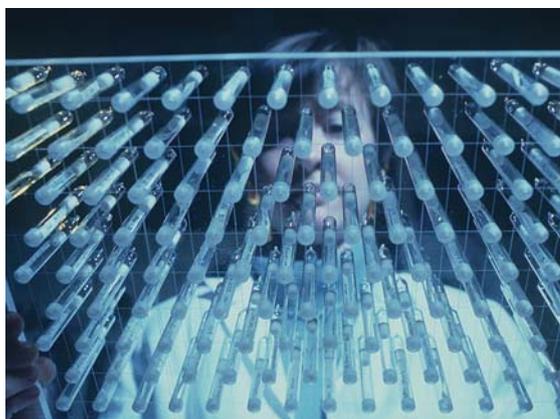
Water resources worldwide are under increasing pressure from the growing demand for good quality water. The need to manage existing water resources effectively in an integrated way, taking account of both economic and ecological aspects, is becoming more and more urgent. With some €2.4 million in EU funding, the Rivertwin project is developing and testing an integrated model for the strategic planning of water resource management in river basins in Europe, Africa and the New Independent States (NIS).

Although universities and research organisations, including the Centre for World Food Studies, lead the project, two German SMEs are making important contributions to the development and testing process. Schneider & Jorde Ecological Engineering from Stuttgart are involved in developing a new mesoscale module of the habitat model system CASiMiR which will assist in determining the suitability of river stretches as a habitat for fish. Participation in the project will enable them to develop their product more quickly and confidently – with invaluable support in the testing and validation phases.

The second SME, Terra Fusca, is involved in testing the EPIC sub-model (crop production and solute transport) for selected sites in the Neckar river basin in Germany and the Oueme river basin in Benin, Africa. Their research results are being fed into a soil landscape database. Both SMEs were already working closely with universities in the consortium prior to the project. As young and small companies, they see participation in European research as a chance to build valuable experience and contacts.

“By participating in an international research programme, we expect to increase our level of knowledge and build important new contacts,” says Frank-Michael Lange of Terra Fusca. “This can only help us in our goal of building a successful consultancy practice in the field of agricultural and water management research.”

Matthias Schneider of Schneider & Jorde points out, however, that it can be quite hard for very small enterprises to manage the required 50% financial contribution. “This rule may suit large companies with their own research department, but where the project output is not a commercial product, as in this case, SMEs’ motivation to participate has to be based on their idealism and on a long-term vision.”



Europe needs more innovative SMEs

SMEs may be small, but they account for close to two-thirds of employment and GDP within the EU – so their commercial success and growth is vital for the economic and social well-being of European citizens, many of whom are employed by SMEs. If Europe wants to keep its position as lead player in a globalised world, European SMEs must become more innovative. This requires SMEs to become more cost-effective, market orientated and a global player on the world stage.

Becoming more innovative also means getting more involved in research and development activities to create new knowledge, whether for products, processes or ways of doing business.

“This can only help us in our goal of building a successful consultancy practice in the field of agricultural and water management research.”



SMEs crossing new frontiers

The three-year EU Digital Passport project is speeding up and supporting the smooth introduction of the new generation of biometrics-enabled, machine-readable European Union digital passports. With an overall budget of over €5 million, and an EU contribution of €2.7 million, this STREP will make a significant contribution to bringing border control into the digital age. The main impetus for the project came from the Swedish SME, Smarticware AB. Omid Aval, CEO of Smarticware, approached the main partners and put together the proposal for EU funding which, he believes, gave the project the impetus it needed to get going. “We knew it could be done, and needed to be done, but getting EU support gave us the credibility and profile necessary to really put our ideas into action.” Showing that size is not necessarily an obstacle when small companies have big ideas, Aval built a partnership of large companies (Infineon and Siemens), SMEs and a major national research centre (CNRS, France).

Within this consortium, whose overall coordination is ensured by Infineon, SMEs have key roles to play with each partner focusing on their specific area of expertise. Covering development, validation and standardisation, the project is relatively complex and addresses issues relating to privacy, security, global interoperability, quality and reliability. For Smarticware, the project is a valuable opportunity to establish themselves as a major player in the provision of consultancy services in relation to PKI networks and the implementation of digital security systems and solutions.

For other SMEs in the project, the opportunity to be at the forefront of technological developments in this area is a prime incentive – particularly in light of the potential EU-wide, and perhaps even global, impact of the project results. German SME, Emsquares AG, for example, is developing the special inlays needed to support the microchip and antenna within the passport itself, whilst Microdatec mbH is working on the terminals to read and process a passport holder’s personal and biometric data from a distance, including automatic biometric face recognition. For these companies, working closely with other European partners to validate their developments within a recognised framework is extremely valuable.

FP6 – what’s in it for SMEs?

The European Commission’s Framework Programmes for Research, Technological Development and Demonstration (RTD) offer important research opportunities to SMEs that want to leverage their research activities, to make them go further and do more while spreading or reducing the risk of failure. This leverage comes from the collaborative nature of EU-funded research, which brings together universities, research organisations and enterprises of all sizes as partners to work on research challenges together. In this way, as well as receiving funding to support research activities, an SME gains access to the necessary leading edge research resources that can offer opportunities for innovation of a scope and scale that would not be available otherwise.

“We knew it could be done, and needed to be done, but getting EU support gave us the credibility and profile necessary to really put our ideas into action.”

Who is the target audience?

While any legal entity can join a STREP, the most typical participants are research-oriented enterprises of all sizes, research institutes and universities of which many are SMEs. Other groups that have participated in STREPs include organisations which possess specific competences in the management, dissemination and transfer of knowledge, and potential users and other stakeholders with an interest in the project’s research objectives.



Calculating the costs – and benefits

'External cost assessment' is an important tool in the field of environmental studies – 'external costs' being the damage to the environment, health or society that are often not included in prices. A clear understanding of these costs is needed to help policy-makers establish priorities for environmental action and allow progress towards internalisation. The Methodex project is developing methods for the adaptation of already well developed external-cost assessment tools in the transport and energy sectors to the agricultural, waste and industrial sectors.

Including research organisations and universities from across Europe, Methodex relies on the expertise of three SMEs: E-CO Tech from Norway, EMRC from the UK and the Italian company, ISIS. Recruited for their specialist knowledge and experience, these SMEs play a key role in achieving the project's objectives. They also gain considerably from the network of contacts and the access to cutting-edge knowledge.

"External-costs research in Europe is a bit of a 'niche' subject," says Mike Holland of EMRC. "Participating in EU research has helped me remain at the leading edge in my particular field". Another major attraction for EMRC is the range of contacts they have developed across Europe through participation in Methodex. Holland warns, however, that SMEs need to make sure they remain focused and that research is closely targeted to business objectives.

Jan Liodden from E-CO Tech, consultants in environmental economics, agrees: "SMEs need to be particularly clear about the service or product they can provide. Being small means that you need to find a niche and communicate your expertise in this niche well."

For E-CO Tech, the main attraction of EU-funded research is the access it gives to a wide network of experts which has helped them stay at the cutting-edge and building the company's reputation both nationally and internationally. "As a service rather than a product provider, we need to ensure that we are constantly updating our knowledge. The EU project has helped us to do this."

Evidence from the Framework Programmes indicates that the optimum size of a STREP is between six and 15 participants. However, its size also depends on its research focus and the priority thematic area it falls under. Smaller-sized STREPs are not unknown, particularly for FP6's priority thematic area 7, which concerns citizens and governance in a knowledge-based society.

How is it managed and funded?

Most STREPs receive between €0.8 million to €3 million of EU funding – the actual average amount varies according to the different characteristics of the thematic priority areas. On average, a STREP receives approximately €1.9 million in funding. This funding comes in the form of a 'grant to the budget', which creates a ceiling for the EU's contribution to each STREP. With regard to project oversight, one special requirement for STREPs is that they have, from the outset, an agreed detailed work plan for the whole duration of their contract. This plan can be modified, but only with the agreement of the Commission. Any changes to the plan should not affect the STREP's overall objectives and principal deliverables. The same rules apply to changing the number of participants in a STREP. The consortium must get the Commission's approval to either replace a participant who has withdrawn from the project or to increase the number of participants above the figure originally agreed.

Putting STREPs in context

The funding instruments of FP6 are classified into three groups. The first group, consisting of Integrated Projects (IP) and STREPs, aim at generating and demonstrating new knowledge. They share certain similarities, but they differ in their scale and scope. The second group covers only Networks of Excellence (NoE) that aim at the durable integration of participants' research activities within the European Research Area (ERA). The third group consists of instruments that fund collaboration, coordination and other supporting activities. It comprises Co-ordination Actions and Specific Support Actions.

STREPS – how do they work in practice?

Most STREPs focus on one, clearly defined research objective, in contrast to the multi-objective and more multi-disciplinary approach of larger Integrated Projects. This narrower scope makes it easier for SMEs, with their limited resources, to manage their participation in a STREP. Further, with an average EU contribution of €1.9 million, a STREP's budget is usually smaller than that of an IP, and its duration is limited to a maximum of three years. Both of these features are more in line with the needs and resource of most SMEs.

A typical STREP consortium comprises universities, research organisations and enterprises of all sizes, including SMEs. The partners undertake the project according to an agreed work plan where each partner contributes to one or more activities. The project work plan is based on the project goal and the complementary abilities and resources of each partner. Importantly, the critical mass, defined by the quantity and quality of the partners, must be adequate to achieve the project's goal.

In contrast to an IP, a STREP has a specific RTD objective. This can be a research and technological development (RTD) activity, such as developing a new innovative product; or a demonstration or innovation activity, such as demonstrating a greener industrial process; or a combination of both – for example, a new and innovative product that makes an industrial process more environmentally friendly. The activities and outputs of a STREP must be measurable and, although the research is pre-competitive, it should have the potential for exploitation by one or more of the project partners or by others.

“Participating in EU research has helped me remain at the leading edge in my particular field”

OpTag – acquiring new technologies and business opportunities

The ever-increasing air passenger traffic and the arrival of super-sized aircraft pose great challenges for the security and logistics of moving people quickly on and off aircraft. Tagging and tracking lost or suspicious luggage and passengers is an increasingly urgent need at Europe's airports. The OpTag STREP is addressing these challenges with new surveillance systems based on cheap chip-and-battery technologies that can be integrated into paper airline tickets for long-distance tracking of passengers throughout an airport. A 36-month project, OpTag's total budget is €2 212 971, including the EU's contribution of €1 647 928.

OpTag's SME – a 40-employee Innovision Research & Technology plc, based in Wokingham Berks, UK – plays a pivotal role as project coordinator and is responsible for developing the system's crucial chip technology. Innovision joined the project because of its previous experience. “We had gained a lot of technical expertise working with toy manufacturers in producing cheap chips that are effective over short distances,” says Bob Lloyd, Innovision's coordinator for OpTag. “The challenge with airport surveillance is to develop ‘tagging’ or tracking devices that work over longer distances, and OpTag offers us a golden opportunity to get into this field of technology.”

His company also has its eye on another of OpTag's research goals: advanced batteries. “To track a ticket-holder over long distances you need a power source embedded in the ticket – a flat battery – and this is something we're keen to learn about because its range of applications would be vast,” says Lloyd. “As a team, all the participants are working together very well and we at Innovision expect to see concrete results to show to each other in the coming months. And that's exciting.”



What does a STREP offer an SME?

Evidently an SME will only participate in a research project if the outputs serve the company's strategy. In this important but limited sense, the direct benefit to an SME partner is in the new knowledge generated by the project that can be exploited for commercial advantage. This can be a new product or process, or a new business method which, under the rules of FP6, can be exploited by all partners, even if the intellectual property belongs to one of them alone, as specified in a consortium agreement. This new knowledge, or part of it, is often the main reason for an SME to participate.

However, SMEs can also enjoy important 'side-benefits' by participating. These include the wider network of business and research contacts; the acquired experience of working with others, in particular partners from academia and industry; and the knowledge they gain of the latest developments in their technological field through exposure to their partners' research expertise. The networking benefits mentioned time and again by SME project partners, resulting from the multi-partner collaborative projects, have contributed to a durable improvement in employee skills and company performance. Often it is the new capabilities and confidence that individual SMEs have gained from participating in a STREP that encourage them to seek the wider networking benefits of IPs and NoEs.



The many roles that SMEs can play

A STREP is more than a scientific research project. As well as performing research activities, a project should also demonstrate that the technology is applicable, preferably in an industrial setting. Demonstration activities require access to potential users, and sometimes the involvement of the whole sector supply chain. Furthermore, emphasis is also placed on exploitation plans for the outputs of the project. Such plans require access to specific market knowledge and market- and technology-watch activities. These activities go beyond the research element in the project and demand partners that are close to the end-users of the technology and who have access to, or a presence in the sectors, clusters or industries which the new knowledge targets. These considerations show that a STREP project covers a range of quite different activities within the research and innovation supply chain – opening opportunities for a wide variety of participants.

SMEs can, and often do take the role of project coordinators in STREPs. While the administrative side of the project coordinator role may discourage many, key knowledge or the particular emphasis of a given project often makes it logical for an SME to take the lead and coordinate the work of other SMEs, universities and large companies.

A variety of SME actors

Research-led start-up and established research-intensive SMEs form one group of active participants in STREPs. They contribute, partly or fully, to the core technology development activities, often bringing their own intellectual property to the project. However, SMEs also fill many other roles in STREPs.

More conventional SMEs, which are potential end-users of the new knowledge the project aims to generate, play important roles as well – both in the design phase by providing critical inputs on what the new knowledge must achieve in operation; as well as demonstrating, validating and piloting new technologies in their own facilities.

SMEs, particularly the very small ones, are often very close to their own technologies and markets with detailed knowledge of the interplay of technological and market factors in their sectors – knowledge that is frequently inaccessible to others. This closeness makes them a trusted player in their own industrial or related sectors, enabling them to gain access to potential users from outside the project. Such market-specific knowledge and standing can be critical to the project's success, through guiding the correct technology choices as well as obtaining co-operation from sector players who may have concerns about confidentiality or may be averse to new technology.

The range of activities within a STREP offers roles for many different types of SMEs: small research-led start-ups, medium-sized research-intensive enterprises, production-led companies with specific manufacturing experience, and market-oriented SMEs that blend specific technical know-how with intimate knowledge of, and access to their supply chains. The history of the Framework Programmes shows SMEs playing all these roles and making critical contributions to the success of their projects by bringing the specific competencies that larger enterprises, universities and research organisations often cannot supply.



Giving solar technology the beauty treatment

Photovoltaic (PV) cells, also known as solar cells, are already widely used in our everyday lives in small calculators, wristwatches and also in larger systems such as solar panels on the roofs of buildings where they harness the energy of the sun to provide electricity and heat. The BIPV-CIS project, supported by €2.3 million in EU funding, aims to improve the integration of PV systems in existing buildings, using thin-film modules based on copper indium diselenide (CIS) technology.

One of the challenges faced in promoting the wider take-up of solar energy is the integration of solar panels into existing, and sometimes historical, buildings. Whilst the window-like panels most commonly available blend in quite well with modern constructions, their design limitations can make them unsuitable for older architectural structures. In order to support wider use of solar energy, BIPV-CIS is developing more aesthetic modules, which would look less out of place in older buildings.

The project brings together 11 partners from five countries, including very large companies, such as Shell and Saint Gobain, and academic research centres working in this field. Within the consortium, one of the two SME partners, Swiss Solar Systems (3S), is working on the development of PV roof tiles, aiming to produce a complete roof tile system with thin-film cells adapted to the visual appearance of conventional roof tiles, which would blend in better with established profiles.

One of several approaches being pursued, the roof tile option chosen is an area in which 3S already have some experience. Recruited for this reason, the company sees the project as a valuable opportunity to develop a new product with both the technical support of project partners and financial support from the EU. "Despite a considerable amount of time spent in coordination and administration, we expect the benefits, in terms of access to the technical and marketing skills of our partners and the opportunity to expand our business contacts across Europe, to outweigh the costs," says Tamás Szacsvey of 3S.

THE PRIORITY THEMATIC AREAS

Core research for core interests...

Funding from FP6 covers projects in seven priority thematic areas (PTAs):

- PTA 1: Life sciences, genomics and biotechnology for health
- PTA 2: Information society technologies
- PTA 3: Nanotechnologies and nanosciences, knowledge-based multifunctional materials and new production processes and devices
- PTA 4: Aeronautics and Space
- PTA 5: Food quality and safety
- PTA 6: Sustainable development, global change and ecosystems
- PTA 7: Citizens and governance in a knowledge-based society

All seven PTAs are open to SME involvement. Experience shows that the intensity and nature of SME participation in a given PTA varies according to the work programmes and specifics of the industrial sectors concerned. For example:

FP6 projects in energy and environmental research, part of priority thematic area 6, attract many SMEs because this sector is characterised by many research-led SMEs which have been much quicker than larger players to exploit the results of EU-funded research. In the same PTA, renewable energy projects, directed at topics such as biomass and wind power, are similarly packed with SMEs which entered the field early on. As early movers in a nascent, high-technology sector, some of these SMEs are now entering the 'large enterprise' group.

"...we expect the benefits, in terms of access to the technical and marketing skills of our partners and the opportunity to expand our business contacts across Europe, to outweigh the costs"

In safe hands – helping SMEs fly higher

... and for core business

In aeronautics, which is part of priority thematic area 4, SME participation is lower because of the nature of this industry. Large, prime suppliers, which can meet the required production volumes in a safety critical field, serve a single European manufacturer (Airbus). SMEs are mainly confined to roles as sub-suppliers, a long way up the supply chain from the end-user. However, that does not discourage some ambitious SMEs; SME participation is currently around 9% and rising. They benefit from the close relationships they are establishing with large manufacturers through their activities with them.

The ambitious, high-budget priority thematic area 3 covering nanotechnology, materials and manufacturing, is proving a magnet for Europe's research-led SMEs which are carving out leading roles in many projects, as well as conventional SMEs. The close link to industrial manufacturing is catching their attention, because it bridges the gap to commercialisation. Their involvement ranges from cutting-edge nanoscience involving research-led SMEs, to more traditional SMEs in projects that are re-engineering the textile-sector or forestry-products supply chains, to improve their competitiveness on global markets.

These examples contain a key message for Europe's SMEs. In FP6, STREPs are available across a wide range of research and technology initiatives within the seven priority thematic areas of relevance to SMEs. Furthermore, there are many roles within a STREP that are of relevance to the core business of SMEs. Europe's SMEs are not only important customers of European RTD; they also take the initiative in shaping, performing and applying European RTD and act as champions bringing the results of this research to global markets.

"... research activities are conducted with a clear path to industrial exploitation"

The Helisafe TA project focuses on research and development to improve the protection of helicopter occupants in the event of a crash. Passenger safety standards for helicopters and fixed wing aircraft are lagging some 15 to 20 years behind the state of the art for automobiles and it is estimated that 30% to 50% of fatalities in helicopters could be avoided simply by improving safety equipment. Helisafe TA is making extensive use of existing automotive safety technology, as well as independent research, to enhance helicopter safety significantly.

The project brings together 12 partners from seven Member States, including major research organisations and companies in both the aeronautics and automobile sectors. The initiative for the project, however, came from the smallest member of the consortium, Autoflug GmbH – a German SME and supplier of safety equipment. "The consortium is well balanced between research and industry so that research activities are conducted with a clear path to industrial exploitation," notes project coordinator Uwe Hessmer. The advantages of participating in a European research project are clear to Autoflug: "None of the partners, particularly us, would be able to develop this technology alone. In addition, today, it is important that SMEs target an international market, so it makes sense for us to co-operate internationally."

The type of co-operation set up within a European research project also helps to shift the dynamics of the relationships between SMEs and larger partners. Hessmer points out that these relationships are usually on a customer/supplier basis. "Collective research, such as that supported by STREPs, offers SMEs the opportunity to work together with larger entities on a partnership basis, which leads to the creation of real business networks." This helps to build the profile and reputation of the company, and provides important business contacts at an international level.



HOW TO GET INVOLVED

Initiating a research proposal

STEP 1 There is nothing to prevent an SME or a group of SMEs with shared innovation needs from initiating a research proposal. In this case, the first task is to identify a research theme in the work programme of one of FP6's **seven priority thematic areas** which is relevant to these needs, and to ascertain when a **call for proposals** covering that theme will be published and closed.

STEP 2 Next, the proposer must identify and recruit partners to form a consortium capable of carrying out all the elements of the planned project. More commonly, an SME will seek to join an existing consortium. Since mutual understanding and trust based on previous collaboration is highly valued, partners are frequently identified through existing scientific and commercial networks. However, the Commission operates an on-line **Partner search** service to help consortia find new partners, and potential partners to identify suitable consortia.

Direct assistance with all aspects of making a proposal – including dedicated help for SMEs – is available from **National Contact Points (NCPs)** in each Member and Associated State.

SMEs as project coordinators or leaders

STREPs may also be coordinated by SMEs. Indeed, there is much evidence that project proposals with SME coordinators have considerably greater success in recruiting and retaining SME partners. So, where a project requires a significant level of participation from SMEs, having an SME leading the consortium may offer distinct advantages.

Potential SME coordinators must have adequate management resources and systems to handle the administrative workload alongside their technical contribution to the project and their regular business activities. In some cases, the functions of technical coordination and consortium leadership can be split.

Choosing your partners

An SME will derive the greatest benefit from participation in a STREP if its planned contribution fits easily into its existing business strategy. There should be a close match between the SME's own interests and those of the consortium as a whole.

Getting the right documentation

STEP 3 The Commission publishes a separate information package for each call for proposals, including a comprehensive Guide for Proposers. In addition to the necessary forms, the Guide offers practical advice on how to prepare and submit a proposal. Information packages are available on the call-specific page on the **CORDIS FP6 service**.

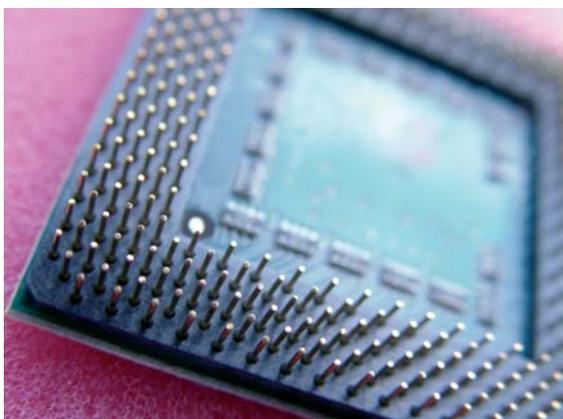


Preparing the proposal

STEP 4 The Commission encourages proposers to use its **Electronic Proposal Submission System (EPSS)**, a web-based application providing a secure on-line workspace for consortium members to prepare and submit a joint proposal.

Assistance with completing the proposal is available from the relevant **National Contact Point (NCP)**, while queries related to the particular call can be directed to the relevant **priority thematic area helpdesk**.

The partners must also conclude a consortium agreement. Often, the most significant issues relate to intellectual property rights. SMEs will usually retain rights both to their own existing intellectual property and to any new knowledge which they themselves generate in the course of the project. They may also be granted privileged access allowing them to exploit certain intellectual property belonging to other partners.



Submitting the proposal

STEP 5 Every call has a strict deadline, clearly stated on the first page of the Guide for Proposers. Submissions that are not received by the Commission before the deadline are ineligible.

Evaluation

STEP 6 Proposals are evaluated using a peer-review approach based on principles of transparency, fairness and impartiality. Evaluation is based on assessment of the proposal's relevance to the objectives of the work programme, its scientific excellence, the scale of its potential impacts, the quality of the consortium and its management, and its critical mass. Selected proposals may be subject to an ethical review.

Contract negotiation

STEP 7 Contract negotiations for selected proposals start three to four months after the call deadline. At this stage, the Commission may suggest changes to the project based on the outcome of the evaluation, or propose grouping or combining it with others. Negotiations may cover the budget, as well as technical, financial and legal aspects. Once they are completed, the Commission will send a contract to the coordinator.

Contract signature

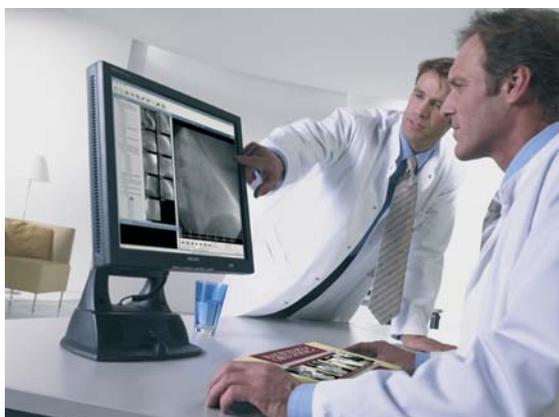
STEP 8 Contracts are usually signed eight to 12 months after the call deadline.

Launching the project

STEP 9 Work can begin as soon as the contract is signed.

Joining a running STREP

STEP 10 Running STREPs can recruit new partners during project implementation with the approval of the Commission (see appropriate links below).



Assistance and further information

- General information about FP6, its objectives, activities and results is available at <http://www.europa.eu.int/comm/research/fp6/>
- For participants and would-be participants, comprehensive practical assistance and advice, including all the background documentation and forms required to prepare a project proposal, are provided by the CORDIS FP6 service at <http://www.cordis.lu/fp6/>
- The CORDIS FP6 service includes a useful step-by-step guide for proposers and participants at <http://www.cordis.lu/fp6/stepbystep/home.html>
- The CORDIS FP6 call service at <http://fp6.cordis.lu/fp6/calls.cfm> offers an overview of all open calls for proposals. Would-be participants can register to receive e-mail notifications of new calls relevant to their area of interest.
- A partner search service at <http://fp6.cordis.lu/fp6/partners.cfm> allows would-be participants to submit profiles of their own research interests and capabilities, and to search the profiles posted by others in order to identify suitable partners.
- An introduction to the Electronic Proposal Submission System (EPSS) can be found at <http://fp6.cordis.lu/fp6/subprop.cfm>
- Enquiries related to particular priority thematic areas can be directed to the appropriate helpdesk. The e-mail addresses of all the helpdesks, together with the URLs of each priority area's web pages, can be found at <http://www.cordis.lu/fp6/infodesks.htm>
- Local assistance, including a personal partner search service, is available from National Contact Points (NCPs) in each EU Member State and Associated State, for each of FP6's priority thematic areas and other programmes. A searchable database of contact details is provided at <http://www.cordis.lu/fp6/ncp.htm>

Help specifically for SMEs

- SME TechWeb, a dedicated website for SME participants, is at <http://sme.cordis.lu/>
- There is also a special SME helpdesk. Enquiries can be posted at http://sme.cordis.lu/assistance/sme_helpline.cfm or sent to research-sme@cec.eu.int
- SME National Contact Points (SME-NCPs) in each EU Member State and Associated State are tailored to the special requirements of SMEs. Contact details for each SME-NCP can be found at <http://sme.cordis.lu/assistance/NCPs.cfm>
- Economic and Technological Intelligence (ETI) projects are designed to help SMEs understand and take part in FP6's new instruments as a way of improving their competitiveness. Information is available at http://sme.cordis.lu/economic/eti_projects.cfm



European Commission

SMEs in STREPs under FP6

Luxembourg: Office for Official Publications of the European Communities

2006 – 18 pp. – 21.0 x 29.7 cm

ISBN 92-894-9933-8

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ISBN 92-894-9933-8