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SMEs and
Integrated Projects
in FP6



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SMEs and Integrated Projects in FP6

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INTRODUCTION

SMEs in multi-partner research

In any industry, today's global market leaders were once small firms, and the engines of Europe's future prosperity are mostly small and medium-sized enterprises (SMEs) today. Especially in high-tech sectors, there are huge opportunities for SMEs to grow rapidly by developing innovative products and services based on the exploitation of new scientific knowledge. Meanwhile, European firms in traditional manufacturing sectors – the vast majority of them SMEs – must transform labour-intensive and capital-intensive business models into knowledge-intensive ones, in order to maintain comparative advantage in increasingly competitive global markets. It is for these strategic reasons that strong SME involvement in its Sixth Framework Programme for Research (FP6) is so important to the European Union.

SMEs are critical to Europe's success in reaching the ambitious goal set by European heads of state in Lisbon, in March 2000, of becoming by 2010 "the most competitive and dynamic knowledge-based economy in the world". The importance attached to the technological dynamism of the SME community is amply demonstrated by the scale of the resources allocated to SMEs in the FP6 budget – more than €2.1 billion. At least 15% of the overall budget for FP6's seven priority thematic areas will be devoted to SMEs, while a further €430 million is allocated for SME-specific Co-operative and Collective research projects. This makes FP6 one of the largest research and innovation support measures for SMEs anywhere in the world.

Early successes

This publication sets out to demonstrate the practical benefits of SME participation in FP6's Integrated Projects, both for SMEs themselves and for their research partners. It also considers some of the special requirements for securing wide, full and effective SME involvement.

At the time of writing, the first Integrated Projects selected for funding are only just beginning their work. However, it is not too soon to examine the particular advantages of including a significant proportion of SMEs in project consortia, the very diverse types of SME which can contribute and benefit, the wide range of roles they may take within a project, and the strategies being adopted to integrate small firms with academic and corporate partners in 'multi-institutional' research projects.

The brochure draws heavily on the experience of seven actual Integrated Projects which are presented as case studies. These were selected not for the numerical strength of the SMEs within their partnerships (one case study project involves as many as 18 SMEs, another only one) but because in each case SMEs play a central role. They exhibit characteristics which, by the end of FP6, may come to be seen as best practice in the integration of SMEs into large-scale EU-funded research.

What they also show is that – contrary to the fears of some SMEs – Integrated Projects are not only accessible but in fact offer even greater opportunities than previous funding mechanisms. Privileged access to Europe's best scientific and technological expertise is already helping several thousand SME participants to accelerate their business development and secure their long-term competitiveness. Many more can benefit in the same way.

RESEARCH AND SMEs – A WIN-WIN COMBINATION

1. Integrated Projects – challenge and opportunity for SMEs

6 Integrated Projects, introduced for the first time in FP6, are the ‘knowledge-production engines’ required to meet the research objectives of the programme’s priority thematic areas. They are designed to assemble the critical mass of expertise and resources necessary to achieve ambitious scientific and technological results that will have a positive impact at European level. The activities of an Integrated Project include not only research but also technological development, demonstration, knowledge management and transfer, promotion, and training – all carried out within a coherent management framework.

Integrated Projects normally run for between three and five years, and are naturally on a larger scale than earlier EU-funded research projects. Total project budgets of over €20 million are not uncommon, while consortia regularly include 20 or more partners. There was anxiety at the time FP6 was launched that SMEs would find it especially difficult to take advantage of the new funding instrument. It was thought that they might be daunted or confused by the scale and complexity of the projects, while academic scientists would lack the motivation and the experience to collaborate effectively with industrial partners. In short, there was concern that SMEs would at best find limited roles in Integrated Projects as junior partners in consortia dominated by universities and larger companies.

These fears are proving to be unfounded.

What is an SME?

For the purposes of FP6, an SME is defined as an enterprise employing fewer than 250 people, with an annual turnover under €40 million or assets of less than €27 million. From the start of 2005 the definition will change, with the limits rising to €50 million for turnover and €43 million for assets.

An enterprise is any person or organisation regularly engaged in economic activity, including the self-employed, family businesses, partnerships and associations.

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 dramatically increased in FP6. While FP5 had earmarked 10% of research funding including the budget of the SME-specific measures, FP6 raised this to a *minimum* of 15% *excluding* the SME-specific measures. And, in their joint decision 1513/2002/EC of 27 June 2002, the European Parliament and Council made this commitment a legal obligation for the first time. To the figure of €11 285 million for the thematic priorities, the decision adds the footnote “Of which at least 15% for SMEs.”

As this brochure explains (see page 14), the Commission has gone to considerable lengths to facilitate SME participation in Integrated Projects. Early evidence is that this effort is paying off, and that SMEs are succeeding in taking up the very considerable opportunities offered by Integrated Projects. In FP6’s nano-, materials and production technologies (NMP) priority area, for example, 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.

**“AS AN SME OURSELVES,
WE UNDERSTAND THEIR
COMMERCIAL AND
FINANCIAL DYNAMICS.”**

Small firms, small products, big impact

With a budget of €21.5 million, the four-year Masmicro project will develop and demonstrate an integrated production facility for the mass-manufacture of miniature and micro-products. It has assembled a critical mass of expertise and resources that will allow European industry to leapfrog over competitors in the US and Japan.

Of Masmicro's 36 partners, 18 are SMEs. TECAN Ltd will coordinate the project as a whole and manage the technology exploitation phase, while two of the eight sub-projects are also led by SMEs. "It was in small firms that we found the specialised expertise we needed," explains technical coordinator, Dr Yi Qin of Strathclyde University. "To recruit our SME partners we used existing contacts, the on-line CORDIS partners service, and the Europe-wide network of Innovation Relay Centres."

"SMEs often work in isolation," says TECAN's Michael Beesley. "Involvement in an Integrated Project is a tremendous networking opportunity. Gaining access to the specialised expertise of our partners will be incredibly valuable, enabling us to move our technology forward much more rapidly."

Beesley is confident that, with 120 people, TECAN has the capacity to handle the challenges of the coordination role. He himself has international technology transfer experience, and Masmicro's budget will enable him to appoint a full-time project manager. The other SMEs involved also have reason to be pleased, he believes. "As an SME ourselves, we understand their commercial and financial dynamics, and will be able to help them manage any practical difficulties that they encounter," he says.

The project plans to establish a 'virtual enterprise' giving the SME partners access to new business opportunities opened up by Masmicro's manufacturing systems. It will also devote significant resources to demonstration, training, and take-up activities as a means of transferring its knowledge and technologies to other European SMEs.

TECAN's cleanroom is a 200m² class 1000 facility with class 100 capability in the critical areas.



Putting colour back into a traditional sector

Sophied, one of the first 'SME Integrated Projects' (SME-IPs), addresses the technological needs of Europe's dyeing industries. This traditional sector faces both growing international competition and increasingly strict regulation of its environmental impacts. Using advanced biotechnologies, the project will develop new waste water detoxification systems, safer dye production processes, and new non-toxic dyes.

"The special SME-IP framework ensures that the project's entire research effort is focused on meeting real industrial needs," says coordinator Sophie Vanhulle of the Catholic University of Louvain. "In the first work package, all 18 SME partners will work together over a six-month period to define their precise requirements." The SMEs range from specialised technology suppliers to low-tech end-users. The latter will carry out demonstration activities and will benefit chiefly from the project's final outputs, but all will be closely involved from the outset in every aspect of the work.

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Wetlands Engineering, a fast-growing Belgian high-tech start-up company, takes the project leadership role, complementing the Catholic University of Louvain's administrative coordination. The company identified a core group of partners from among its existing contacts in Belgium and elsewhere. "Each then proposed additional partners from its own network. It was the degree of trust provided by these established links that enabled us to build such a large consortium so quickly," believes Christian-Marie Bols of Wetlands. Further partners with complementary expertise were found through an open call made via the network of National Contact Points.

"This is definitely not just an academic research exercise," Bols promises. "As an SME itself, Wetlands will do its utmost to help all the partners to bring new commercial products to market as quickly as possible. For us, Sophied is a chance to establish close links with companies in ten other countries, and to become an international player."

Many kinds of SME can benefit

SME participants in EU-funded research are not all high-tech start-ups. A very much larger group of SMEs – technology-oriented, but not necessarily science-based – can contribute to Integrated Projects, and benefit from them. Indeed, within a single project it is not unusual to find a number of low-tech SME end-users alongside an SME research performer and/or provider of core technology (see, for example, *Putting colour back into a traditional sector*).

In addition to basic research, at different stages many Integrated Projects also require product development, prototype testing, technology transfer management, training, feasibility studies, information technology services and a host of other functions for which SMEs are often the most suitable suppliers. Frequently, it is not at the start of a project but in the later phases, when the partners are preparing for the exploitation or dissemination of its results, that SMEs can most easily contribute – for example, as multipliers, finding ways to apply technological results in new fields.

**"THIS IS DEFINITELY NOT
JUST AN ACADEMIC
RESEARCH EXERCISE."**



A pilot-scale bioreactor at Wetlands Engineering.

Bringing a high-tech start-up to life

PACE will establish the technical and organisational basis for the creation of programmable artificial cells – nano-scale chemical systems with the potential to revolutionise large sections of information and production technology. Norman Packard of Protolife, an Italian start-up whose initial business is closely linked to the project, describes the goal as being to create the conditions in which life can emerge. “In the same way,” he says, “the consortium has been designed to allow interactions between partners to evolve spontaneously.”

Project coordinator Professor John McCaskill says that there is a natural synergy between the 14 research groups involved and their two industrial partners. “Protolife needs close links to the research community to reach its commercial goals, and at the same time provides a platform for advanced scientific work by steering it towards useful, functional systems. Both sides benefit from the overlap between the project’s objectives and the SME’s business strategy.”

Protolife will undertake the industrial scale-up of procedures for identifying the chemical components of the artificial cells, and develop intellectual property related to their implementation and exploitation. “To fulfil our role in the project, and to take full advantage of the opportunity it offers us, we will have to raise significant amounts of venture capital,” Packard explains. “Our access to the know-how of our university partners – and, as the company grows, to their qualified staff – should help us to find investors.”

McCaskill is aware that, as an EU-funded project, PACE has some unusual features. But he gives much of the credit to FP6 itself. “We are intensely aware of the need to go beyond traditional institutional and disciplinary boundaries, if we are to make new breakthrough technologies work,” he explains. “As researchers we warmly welcome the considerable flexibility that Integrated Projects offer for new forms of collaboration between companies and research institutions.”

2. SMEs – essential partners for Integrated Projects

The participation of SMEs can offer Integrated Projects a number of advantages, of which both scientific institutes and large companies are becoming increasingly aware. One SME may bring proprietary technical know-how that is essential to the project. Another may have different specialised expertise which is not widely available – for example, as a potential end-user of the project’s results. A third may offer a channel through which those results can reach a wider audience of potential users by exploiting its close geographical or sectoral networks.

The key to innovation

Technology-oriented SMEs have long been recognised as a modern economy’s most innovative component. Whether they are suppliers or users of technology, their size, flexibility and entrepreneurial attitudes give such SMEs a crucial role in spreading new technologies within their target sectors, and in adapting them to new applications and to the needs of new markets. Compact and highly motivated by the intense competitive pressures which they face, they are often able to provide more efficient and pragmatic inputs to a project than larger organisations.

“INTEGRATED PROJECTS OFFER CONSIDERABLE FLEXIBILITY FOR NEW FORMS OF COLLABORATION BETWEEN COMPANIES AND RESEARCH INSTITUTIONS.”

A computer-controlled biomolecular processing module which PACE will adapt for the control of artificial cell evolution. Courtesy: P. Wagler, U. Tangen, T. Maeke et. al. BioMIP, Fraunhofer Gesellschaft

Tooling-up for SME competitiveness

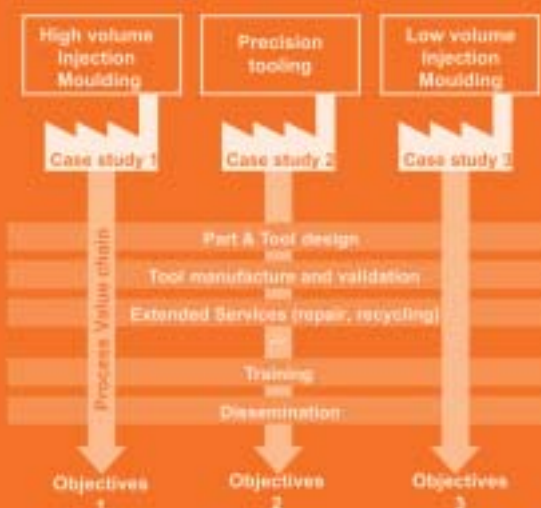
Eurotooling 21 is an SME Integrated Project (SME-IP) which will equip the many small companies of Europe's tooling industry to reposition themselves as high added-value engineering service providers in the automotive, consumer electronics, optics and other sectors. Its 33 partners include nine SME toolmakers, four of their large manufacturing customers, four industrial associations, 11 research institutes and universities, and five SME technology suppliers.

"What is special about Eurotooling 21 is its bottom-up integration of the complete value-chain," says Rui Tocha of Portugal's Technological Centre for the Mouldmaking, Special Tooling and Plastic Industries (CENTIMFE), who coordinates the project. "Research activities will be selected in direct response to the needs of the SMEs, oriented to real customer demand."

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The SMEs will be actively involved in defining development requirements and in the research itself, and will integrate and test the resulting technologies in the context of commercial contracts. "Ultimately," says Tocha, "it is they and their industry association, ISTMA Europe, that determine the project's strategic direction and supervision." Their businesses will benefit both immediately and in the longer term, as enhanced technological capabilities improve their competitiveness and their ability to meet the most demanding market requirements with effective and innovative solutions.

But Eurotooling 21's objective is to transform the European toolmaking industry as a whole – replacing a resource-driven process with a knowledge-driven one – and its results will by no means benefit only these nine companies. "Training and dissemination are integral elements of the work plan," Tocha confirms. "The direct involvement of industrial associations will facilitate the widespread take-up of innovative technologies. But we will reach many other SMEs through trade fairs, conferences, publications and brokerage events."



The Eurotooling 21 project approach.

In fact, as commercial organisations, SMEs complement universities and research institutions in a particularly valuable way. Academic researchers rightly focus on scientific objectives. But FP6 is intended to address major economic and societal needs, and the projects it supports are expected to have an impact in the real world, if not today then in the future. A project's innovative potential – the likelihood that its scientific and technological advances will be exploited to create new products and services – is a key criterion in the selection of proposals for funding. SMEs are ideally positioned to help scientific consortia deliver exploitable results, both by aligning the definition of research tasks with industry's actual requirements, and by developing and testing prototypes and pilot services. As one academic project coordinator put it: "It is extremely important that research on advanced technology is coupled to applications and to feedback from users. So for a university it is essential to have industrial partners which are close to users and to the market."

Wider industrial take-up

SME partners may be especially valuable for an Integrated Project's take-up activities. These are not necessarily limited to the project's final months, of course, but must be thoroughly integrated into the workplan as a whole if rapid and widespread exploitation of industrially valuable

**"IT IS THE SMEs AND THEIR
INDUSTRY ASSOCIATION
THAT DETERMINE THE
PROJECT'S STRATEGIC
DIRECTION AND
SUPERVISION."**

SMEs and multinationals grow together

technologies is to be achieved. SMEs can play a key role in the assessment, testing and demonstration of such technologies. Whether as pilot users, marketers, training or communication experts, or as technology transfer service providers, they may be recruited either at the outset, when the project is being planned and launched, or at some later point, after the contract has already been signed and work is under way (see page 16).

Of course, a sectoral community of SMEs is frequently the main target of an Integrated Project's efforts to promote industrial take-up. Here, European industrial associations or other enterprise groupings may play an important role, as trusted intermediaries between a large research project which has developed a new technology and the thousands of small companies in a particular industry which might benefit from its application. FP6 opens EU-funded research to industrial associations for the first time. SME associations – legal entities primarily composed of SME members, and representing their interests – may undertake the simple dissemination of technical information or, more actively, the development of generic business models, the organisation of training, and the diffusion of good practice. If they are involved at the proposal stage, such associations can also help to ensure that research will address real industrial demand, conducting surveys and technology audits, and identifying potential pilot users.

Euroxy is a five-year, multidisciplinary research project, undertaking the preclinical development of an innovative approach to the diagnosis and treatment of cancer based on cell responses to oxygen deficiency. It brings together 14 academic research institutes, three large pharmaceutical companies, and five SMEs – two small drug companies and three equipment manufacturers.

"Small firms tend to be better at identifying new markets with growth potential," says Euroxy coordinator, Professor Peter Ebbesen of the Laboratory for Stem Cell Research at Aalborg University. "All five SMEs contribute essential technology and know-how that the project would otherwise have lacked."

Ebbesen even persuaded the large drug companies to forego EU project funding in order to devote more resources to the project's SME partners. But establishing a firm basis for collaboration has been a challenge. "The large companies are clearly the leading partners on the drug development side. They needed the specialised input of the two SMEs, but have been understandably cautious in their approach to the issue of intellectual property rights," says Ebbesen.

Euroxy will also develop a new technical platform to identify promising molecular targets for a new class of anti-cancer drugs. Here, agreement has been easier, because the three SMEs involved are not competitors. In fact, they have complementary technologies which they will be able to integrate into a commercial package at the end of the project.

"Between academics and private firms, trust is essential," Ebbesen believes. "For me, it was important that each SME was already known by someone in our existing scientific network. And on their side, they wanted to be sure that the project would repay their efforts with commercially valuable results. SMEs lack the resources to keep up with the latest scientific research. Taking part in an Integrated Project like this gives them privileged access to discoveries which will open up new markets."

"TAKING PART IN AN INTEGRATED PROJECT GIVES SMEs PRIVILEGED ACCESS TO DISCOVERIES WHICH WILL OPEN UP NEW MARKETS."

3. Integrated Projects – platforms for SME growth

For high-tech SMEs, involved in project consortia as research performers with their own specialised technology or know-how, Integrated Projects will often provide a leaping-off point for the launch of new products or services, or for the internationalisation of their market presence. For them participation is a means to accelerate their progress along an established technical and commercial trajectory, and a platform for growth.

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Access to networks

A company with 200 employees may be an SME, but it usually has an established product range and customer base, the revenues to finance growth, and the management resources to plan strategically. But high-tech SMEs are often very young and very small indeed, only just embarking on a path of rapid growth which will require further significant injections of external capital, and whose success will depend on entering new markets and securing deals with key customers. Frequently, they lack the resources to build and maintain relationships with the partners they need, or even to keep up with the latest developments in the technological field in which they are active.

For such micro-businesses in particular, taking part in an Integrated Project can be a massive boost, helping them to break out of the isolation which constrains their progress. A research contract provides co-financing for the further development of their technology, of course. Often, however, the networks to which the project gives access are even more important. Because Integrated Projects aim to assemble the best available expertise from around Europe, a participating SME can quickly establish direct links with the scientists and commercial collaborators that are most relevant to its own work, which may be the source of real competitive advantage. For the duration of the project, it will gain privileged access to the latest scientific developments in a field of advanced research, enabling it to identify emerging technical possibilities with commercial potential. Instead of developing its technology in isolation, it may have the chance to integrate this with the complementary technologies of other partners, to develop working prototypes and receive feedback from real users, and to enter markets outside its home country. In short, many high-tech SMEs are already finding that participation in an Integrated Project enables them to develop and grow far faster than they could have hoped to do if they had not taken part.

**“WORKING WITH OTHERS
WILL ENABLE THE SMEs TO
DEVELOP THEIR INDIVIDUAL
TECHNOLOGIES MUCH MORE
QUICKLY AND
CONFIDENTLY.”**

SMEs extend their networks

First-mover advantage

For SMEs which are technology users, or whose business strategies rely on new technologies that they do not have the capacity to develop in-house, Integrated Projects offer a slightly different set of benefits.

Participating SMEs from many manufacturing and service sectors can expect to gain early-mover advantage by being among the first in their industry to install new equipment or to adopt a business model that exploits new technological possibilities. Such advantage may take the form of cost reductions, productivity gains, or an enhanced ability to implement the innovative solutions necessary to meet changing market requirements. Participation usually provides them with close links to relevant third-party technical expertise, and often to potential commercial partners in other EU countries. In some cases, experience gained in an Integrated Project may contribute to the establishment of in-house research and development competence.

Enthroné applies a 'Quality of Service' approach to the end-to-end management of multimedia content. The project will use the new MPEG-21 standard – to whose development it will contribute – as a framework for the transparent and scalable generation, protection, distribution and use of multimedia resources from any type of client terminal or network.

Alongside academic and larger industrial partners, two high-tech SMEs are contributing core technologies. "We had an established relationship with Expway as a specialist technology supplier. Bsoft is a new partner, but has previously taken part in a number of FPS projects, and has the experience we needed in the terminal implementation of MPEG-21," explains coordinator Olimpiu Negru of the French company, Thales Broadcast and Multimedia. A French SME, Akela, manages the standardisation activity.

For Expway and Bsoft, participation in Enthroné will bring a range of benefits. "We have already started to develop a business model for the commercialisation of the project results," says Vassiliki Apostolopoulou of Temagon Technology, which leads work packages dealing with dissemination and exploitation and with training. "The potential for technology-based growth is especially significant for the SME partners." Expway and Bsoft will also benefit from support for their own research and the establishment of close links with other partners. "No single company could cover the whole distribution chain from server to terminal," Negru explains. "Working with others will enable them to develop their individual technologies much more quickly and confidently."

The partners expect to have MPEG-21 tools for end-to-end multimedia content management ready by the end of 2005. Thales, France Telecom and other project partners will themselves make use of these tools, including those supplied by Expway and Bsoft. Meanwhile, the business model proposed by Temagon will offer all the partners an optimised platform for wider exploitation of their results, either individually or together.





4. Extra effort on behalf of SMEs

Its legal obligation to ensure that SMEs account for at least 15% of the overall budget for FP6's seven priority thematic areas (see page 6) has led the Commission to make special efforts to facilitate SME participation in Integrated Projects.

First and foremost, the **Integrated Project instrument** itself uses an open consortium architecture, flexible enough to accommodate a very wide variety of partnership configurations, to which many different types of SME can contribute at various stages, in ways adapted to their capacities, needs and business plans.

In particular, the rules for participation allow consortia to modify their membership, allowing additional SME partners to join existing FP6 contracts. Projects may set aside a special budget for the recruitment of new SME partners. Similarly, the Commission itself may allocate **additional funding** to running projects to organise calls for participation in new SME-specific work packages.

Certain **evaluation criteria** used to select proposals for funding favour SME participation. Appropriate SME involvement can contribute to a proposal's score for 'potential impact and quality of consortium', while the extent to which opportunities for involving SMEs have been adequately addressed is also taken into account.

“INTEGRATED PROJECTS OFFER SMEs A WAY TO COLLABORATE WITH LARGE MULTINATIONALS UNDER CONDITIONS OF FAIRNESS.”

Palpable benefits for high-tech start-ups

Successful innovations often result from partnerships between small companies with revolutionary technologies and larger ones with the resources to develop, manufacture and market these as new products or services. Frequently, the larger firm simply buys up the smaller one.

“An EU-funded research project offers SMEs another way to collaborate with large multinationals under conditions of fairness,” believes Professor Morten Kyng of Aarhus University. He coordinates PalCom (Palpable Computing), an Integrated Project which brings together Siemens, one of the world’s largest electronics companies, and two high-tech start-ups – OOVm and Whitestein Technologies – as well as eight academic partners. With total project funding of 13 million, the partners hope to extend ‘ambient computing’ by focusing system design on human control and choice rather than automation. “Both SMEs have core technologies that are essential to our vision of palpable computing,” Kyng explains.

“PalCom gives us the chance to mature our technology much faster than we could otherwise have done, by testing it in a range of prototype applications that will generate feedback from real users,” says Lars Bak of OOVm. “In addition, we are establishing business relationships that will move our technology towards mass market products.”

Kyng is convinced that Integrated Projects offer tremendous opportunities for high-tech SMEs, but cautions that their contribution must be closely linked to their existing business plans. “OOVm had to consider very carefully whether its involvement in PalCom was consistent with our product development timetable,” Bak agrees.

The project’s consortium agreement had to set a fair price for the SMEs’ intellectual property while protecting Siemens’ right to exploit the results commercially. “Negotiations were tough,” reports Kyng. “But all parties now see PalCom as a key element of their business and product development plans, and are equally keen to bring its results to market.”

Special **SME Integrated Projects (SME-IPs)** are led by SMEs, with SMEs making up at least half their consortia, and are designed to support packages of research, demonstration, training and dissemination activities completely devoted to rapid modernisation in traditional, SME-intensive industries. SME-IPs were developed as a special measure by the priority thematic area ‘Nanotechnologies and nano-sciences, knowledge-based multifunctional materials and new production processes and devices’, which earmarked €40 million of its first call for them. They proved so successful that the allocation was doubled to €80 million for the second call.

Economic and Technological Intelligence (ETI) projects (see page 19) encourage participation by SMEs and SME groupings in particular industrial sectors or technology areas, as do **Specific support actions** undertaken by individual priority thematic areas.

An **SME Task Force** sets specific participation targets for individual priority thematic areas, undertakes detailed analysis of actual SME involvement, and identifies and spreads best practice. It has recommended that all priority thematic areas identify areas of their work programmes that are especially relevant for SMEs and, where appropriate, adopt the SME-IP model.

Coordinator Morten Kyng (right) and programmer Jesper Olsen discuss the design for a prototype of a wearable display.



HOW TO GET INVOLVED

Note: Contact details for **highlighted services** are given in the 'Assistance and further information' section.

Joining a new Integrated Project consortium

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 will close.

16 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

Integrated Projects may be coordinated by SMEs. Indeed, there is good evidence that projects 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. Specifically, SME-IPs (see page 15) must be led by an SME with its own well-established research and development capacity.

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 an Integrated Project 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 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, the scale of its potential impacts, its scientific excellence, 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 two to three 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 six to eight months after the call deadline.

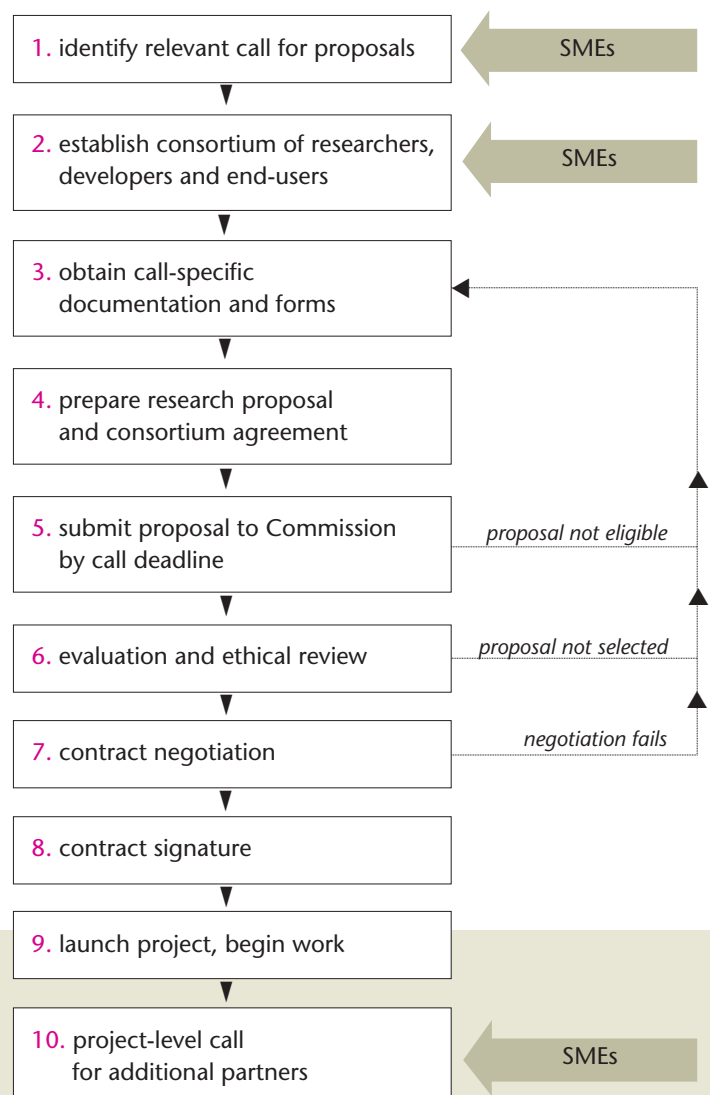
Launching the project

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

Joining a running Integrated Project

STEP 10 Running Integrated Projects are free to recruit new partners on the basis of open calls, using either resources set aside for this purpose in the project's original budget or additional funding offered by the Commission (see page 14). This facility allows the original consortium to pick the most suitable partners at a time when the tasks to be carried out have been well defined, and enables SMEs to benefit in return for a more limited contribution of time and resources.

SME participation in FP6 Integrated Projects, step by step



ASSISTANCE

AND FURTHER INFORMATION



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- **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 email 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 email 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>

“NEW TECHNOLOGIES AND NEW MATERIALS ARE CREATING HUGE OPPORTUNITIES IN TRADITIONAL SECTORS.”

Integrated Projects – the latest fashion

- 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

Economic and Technological Intelligence (ETI) projects are designed to help SMEs take part in FP6's Integrated Projects as a way of improving their competitiveness. Two linked ETI projects target the SME-intensive clothing and shoe sectors.

Both started with some anxieties about the capacity of SMEs from traditional sectors to benefit from Integrated Projects. "They are certainly more complex than Co-operative research or the collaborative projects of FP5," says Silvia Grandi, coordinator of Fashion Net. "Innovation in the fashion industry is normally based on creativity rather than on technology, while Integrated Projects are oriented towards fundamental technological transformation."

On the other hand, both recognise that their targeted sectors must embrace radical change to cope with increasing global competition. "New technologies and new materials are creating huge opportunities," says Shoes5000 coordinator Enrique Montiel. "SMEs in the shoe sector are very open to any source of competitive advantage. Our job is to explain the benefits of Integrated Projects in language they can understand."

Grandi wants to raise awareness of the need for innovation and transnational co-operation. Both projects will use websites, brochures and newsletters, and existing networks to reach as many SMEs as possible and bring them together at conferences, seminars and transnational twinning sessions. They will help SMEs to identify new or running projects which they can join as pilot end-users – and, in some cases, to develop their own research proposals.

"Working together, we can have a greater impact with the same resources," explains Montiel. "The two sectors are obviously complementary, and are structured in a similar way." The projects will share communication tools and employ a common methodology for technology audits – the first step in identifying the needs of the target companies. In addition, they hope that interaction between SMEs in the two sectors will lead to direct commercial spin-off benefits.

New materials have created market opportunities for SMEs in the traditional clothing sector.



European Commission

SMEs and Integrated Projects in FP6

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This publication demonstrates the practical benefits of SME participation in FP6's Integrated Projects, both for SMEs themselves and for their research partners. It also considers some of the special requirements for securing wide, full and effective SME involvement. The brochure draws heavily on the experience of seven actual Integrated Projects, which are presented as case studies. They show that Integrated Projects are not only accessible to SMEs but in fact offer them even greater opportunities than previous funding mechanisms.



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