

How the EU can fund your company

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The path may not always be clear, but government money to support biotech startups is there for the asking. You just need to know where to look.

Europe-based biotech firms can take advantage of a variety of programs and initiatives, both at the EU and the national level, that fund innovative research and stimulate industrial growth and competitiveness. At the EU level, the key schemes are 7th Framework Programme for Research and Development (Framework 7) and the Competitiveness and Innovation Programme (CIP), both of which run from 2007–2014.

In addition to EU-level funding, biotech small and medium-sized enterprises (SMEs) can find a plethora of opportunities on the national level. The numbers and details of programs vary widely between member states, ranging from the UK and Ireland, which have extensive schemes, to many new member states, such as Hungary, which have none. Of the new member states, Estonia and Malta have two of the most comprehensive support systems.

This article presents a road map to the various avenues of EU and national level funding.

Finding the way

Navigating through the Framework Program can be a daunting task even for the seasoned professional (see **Box 1**). Getting in contact with your national contact point, which can be found on the SMEs Go LifeSciences website, is a good starting point. SMEs Go LifeSciences—a European Commission-funded clearinghouse for information on the Framework—offers free and confidential advice on how to apply. According to those familiar with the program, it's important to keep in mind that Framework 7 is a means of expanding your organization's R&D activities rather than a source of money. "Companies that do this, progress better than those that do not," says Tim Allsopp, CSO of Stem Cell Sciences, a UK-based SME. "Look



Rich pickings: Funding opportunities for R&D are plentiful in old EU member states, but for biotechs in many member states, finding support can be harder.

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your project partners before calls for proposals open. Always carefully read the work program for the call in which you are interested. In some cases a draft work program may be available before a call opens.

Allsopp, who has spent some time evaluating proposals to the Framework Program, says when companies get down to writing proposals, budgets and delivering value for money should be carefully considered. "Budgets are a key issue. When you set a budget, don't put in a miscellaneous column. You must be able to fully justify your budget," he says. Proposals should address all the evaluation criteria, and keep in mind the value and impact your project could have at an EU level.

Nuts and bolts of Framework 7

Within Framework 7, several programs will be of interest to biotech SMEs. Note that the budget figures given here are provisional and subject to agreement between the European Commission, the European Parliament and member states at the European Council. Documents pertaining to Framework 7 can be found at http://ec.europa.eu/research/future/documents_en.cfm.

Capacities. This program, which aims to develop Europe's research capacity and potential, contains activities specifically for SMEs. The Research for the Benefit of SMEs initiative has a budget of around €1.228 billion and has two lines of action. The first, "research for SMEs," is mainly for low-to-medium technology SMEs with little or no research capacity, but is also for research-intensive SMEs that need to outsource research. The scheme will support small groups of innovative SMEs to help them solve common technological problems. The second line of activity is "research for SME associations." Funding will be awarded to projects developing technical solutions to problems common to a large number of SMEs,

upon the Framework Program as an opportunity to grow as a company and add to the breadth and depth of your R&D activities. It could also help companies to grow an international profile and give you the opportunity to influence policy setting," he says. But companies should also be realistic, he says. "It will cost you [in time, money and effort] to be a partner in a Framework project and you must be prepared to accept losses."

Competition for funding is fierce, so preparation is key, says Claire Horton, the UK's national contact for the life sciences. In the run-up to Framework 7, consider whether the research goals and strategy of your company are in line with the objectives of the work that the EU wishes to fund, she says. You should begin preparing your proposal and getting to know

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Box 1 Ten tips for negotiating Framework 7

1. Regard the Framework Program as a means of expanding your organization's R&D rather than as a source of money.
2. In the run up to Framework 7, consider whether there is coherence between the research strategy and goals of your company and the objectives of the work the EU wants to fund.
3. Be prepared to accept losses.
4. Proposal preparation and consortium development should begin before calls open.
5. Build the project consortium from existing networks and relationships. This helps to create trust.
6. Ensure that the consortium has a first-rate coordinator, with a strong scientific reputation, proven organization and project management skills.
7. Read the work program for the call you are interested in carefully.
8. Address all the evaluation criteria and tailor your proposal to what those people assessing your proposals will be looking for.
9. Aim to deliver value for money with a realistic requested budget.
10. Seek advice from your national contact point.

for example, to develop or help conform to EU norms and standards or to meet regulatory requirements in areas such as health, safety and environmental protection. Projects must last several years.

Funding will also be available for an 'Article 169 initiative' to help launch and implement a transnational R&D program led by SMEs performing research. Such initiatives, set up under Article 169 of the European Treaty, are aimed at enabling the EU to participate in research programs jointly undertaken by several member states.

Cooperation. This program aims to strengthen the EU's research through cooperation between industry and academia in transnational projects and networks. The program will likely have an overall budget of around €32 billion. At the time of writing no deal had yet been struck on

whether to include the current Framework Program 6 target of awarding 15% of the program's funds to SMEs.

There are several research themes in this program that will be of interest to biotech SMEs, including the health theme, and food, agriculture and biotech themes. The health theme will have a budget of around €5.9 million and will fund research for improving the health of EU citizens and increasing the competitiveness of the EU healthcare and biomedical industries. Activities include the translation of basic discoveries into clinical applications, the development and validation of new therapies, and the development of methods for health promotion and disease prevention. The food, agriculture and biotech theme will have a budget of around €1.9 million and will fund research with the aim of building the EU bio-economy and addressing issues including the growing demand for safer,

healthier food and the sustainable production and use of renewable bio-resources.

Biotech SMEs may also be interested in participating in the Cooperation Program's technology platforms in the areas of plant genomics and biotech, and aquaculture and industrial biotech. Technology platforms provide a framework for stakeholders, led by industry, to define R&D priorities and develop action plans for future R&D activities.

The Commission also plans to fund a few Joint Technology Initiatives (JTIs) under the Cooperation Program. JTIs are public-private partnerships set up to implement the research action plans drawn up through the technology platforms. SME participation will be strongly encouraged. Final decisions on which JTIs will get funding are yet to be made, but at the current state of play, the Innovative Medicines Initiative looks likely to get the go-ahead. This JTI plans to carry out activities including developing tools and methods to better predict the suitability and safety of medicines, and attempt to provide the education and skills needed to translate research into benefits for patients.

Biotech SMEs might also find some funding opportunities in the information and communication technology themes and the nanotech theme, where interdisciplinary research, which draws on disciplines such as biotech, is encouraged.

People. This program aims to strengthen career prospects and mobility for researchers and will have a budget of around €4.57 billion. Funding is available for researchers' career development. Through its Marie Curie initiative, the program supports partnerships between academia and SMEs from at least two different member states. Activities funded include the temporary hosting

Table 1 EU member states' SME initiatives

Member state	Agencies	Available support	SME budget
Austria	Austrian Research Promotion Agency (FFG) http://www.ffg.at	General programs fund industry R&D	€128M, of which 15% went to biotech in 2005
Belgium	Institute for the Encouragement of Scientific Research and Innovation of Brussels http://www.irsib.irisnet.be/index_en.htm Gateway to Research and Technologies in Wallonia http://recherche-technologie.wallonie.be Institute for the Promotion of Innovation by Science and Technology in Flanders (IWT) http://www.iwt.be/iwt_engels	Regional: subsidies for research, feasibility studies, filing patents, precompetitive development Federal: tax credits	Varies
Cyprus	Research Promotion Foundation (RPF) http://www.research.org.cy	Funds collaborations between industry and academia; follow-up funding for completed projects	€5M invested in 101 biotech projects between 2002–2005
Denmark	Danish Research Council for Technology and Production Sciences http://www.fist.dk Danish Council for Strategic Research http://forsk.dk/portal/page/pr04/FIST Danish National Advanced Technology Foundation http://www.hoejteknologifonden.dk?id=29	Fund big and small companies and research organizations	€30M for biotech between 2003–2005

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Table 1 (continued)

Member state	Agencies	Available support	SME budget
Estonia	Enterprise Estonia (EE) http://www.eas.ee	Funds startups Funds feasibility studies, product development	Up to €3,000 Up to €12,000
Finland	Tekes http://www.tekes.fi/eng Drug 2002 Programme http://www.tekes.fi/laake2000	Funds industrial, public research with emphasis on SME participation Funds biomedical research drug development	Grants for up to 50% of costs, loans up to 60–70% of costs €20M
France	OSEO http://www.oseo.fr SME development bank	Funds key stages of SMEs, technology transfer and innovation technologies Guarantees loans and invests capital in SMEs	€33M between 2005–2006
Germany	Project Management Organization Jülich (PTJ) http://www.fz-juelich.de/ptj/home	BiochancePLUS: covers 65% of project costs BioProfile: strengthen cooperation among biotech regions	€100M over three years €51M for three bioregions
Greece	General Secretariat for Research and Technology (GSRT), Encouragement of Industrial Research Program (PAVE) http://www.gsrt.gr	Supports industrial research at SMEs and research consortia involving SMEs	Matching funds from industry required
Ireland	Enterprise Ireland's Biotechnology Directorate http://www.biotechnologyireland.com Commercialization of Research and Development (CORD) http://www.enterprise-ireland.com/ResearchInnovate/Research+Commercialisation/Campus_Enterprise.htm	Funds SMEs at all stages EI's Commercialization Fund EI's Patent Fund Small grants to start a company or to investigate products and markets	€30M annually €30M annually Up to €50,000 per patent and 50–70 patents per year Up to €1M in venture capital, 50% costs or €38,000 in loans
Italy	Ministry of Research http://www.miur.it Ministry of Industry http://www.ipi.it	Fund for Basic Research (FIBR) Fund for Applied and Industrial Research (FAR) Fund for Technical Innovation (FTI)	€59M (2004–2006) €40M (2004–2006) €335M (2004–2006)
Luxembourg	Innovation loan http://www.innovation.public.lu/html/portal	Loans for R&D R&D incentive scheme	25% project costs 75% basic, 50% industrial, 25% pre-competitive development
Malta	Malta Enterprise: Enterprise Support Division, Start and Start ^{Plus} http://www.maltaenterprise.com	Tax and employee incentives; support for startups	Access to capital during initial 18 months
Portugal	Portuguese Innovation Agency (AdI) http://www.adi.pt	IDEIA program: funds applied R&D DEMTE program: funds pilot projects	€40M (2003) €6M (2003)
Spain	Center for the Development of Industrial Technology (CDTI) http://www.cdti.es	Finances industry-led research	€240,000–900,000/project
Sweden	Agency for Innovation Systems http://www.vinnova.se	Forsak & Väx (Research and Grow): funds R&D, feasibility studies and identifies R&D priorities	€10.8M
The Netherlands	Ministry of Economic Affairs	Technopartner program Guarantees bank loans (BBMBK scheme) Tax credit program (WBSO)	€425M €2,500–7,500
UK	Technology Program (TP) and TP Life Sciences http://www.dti.gov.uk Small Firm Loan Guarantees (SFLG) http://www.businesslink.gov.uk Regional R&D http://www.dti.gov.uk/innovation Enterprise Capital Fund (ECF) http://www.sbs.gov.uk Regional Venture Capital Funds (RVCFs) http://www.sbs.gov.uk/sbsgov/action/layer?topicId=7000000156	Collaborative R&D Knowledge Transfer Networks For SMEs that don't qualify for loans due to lack of security To help individuals and SMEs develop innovative products and technologies Invests in SMEs with equity of up to £2M For SMEs with growth potential	£535M (2005–2009) 75% of costs or up to £361,000 Up to £500,000 £72,000 average Up to £722,000

Box 2 Practice makes perfect

Asper Biotech is Estonia's biggest biotech exporter. It was launched in 1999 with 4 employees and has now grown to 30. Over the past four years Asper Biotech has been involved in 26 applications to the Framework Program, six of which have been successful. Indrek Kask, head of business development at Asper Biotech, has advice for bioentrepreneurs.

- The best way to get involved is by putting your company's profile on the SME Go LifeSciences database or the Cordis database, describing your areas of interest and expertise and which projects you would like to get involved in. On the websites you can also browse through proposals where project coordinators are looking for specific partners.
- Choose an experienced coordinator for the project.

Coordinators are responsible for selecting good partners, giving guidance on how to prepare project material and working out the budget. So, do your research, check out the coordinator and find out what experience he or she has.

- Participating in the framework has other advantages besides funding. You can get access to the top people in specific research areas and to their knowledge. When the project partners meet to discuss your project, you get to know them and vice versa. They may also go on to become your clients, so it's a good method of business development.
- Most of all, don't give up on your ideas. If the project is important to you and the company's development, then you need to find new ways of getting money to that project.

in both academia and industry of experienced researchers, and the organization and hosting of workshops and conferences. Funding is also available for SMEs to contribute to the cost of small equipment related to their participation in the partnership.

The Framework Program is often seen as a bit of a monster to negotiate through with overcomplicated application procedures. The European Commission has tried to simplify the process so SMEs are not put off from applying, and will highlight topics of particular interest to SMEs in Framework 7's work program and call for proposals.

Competitiveness and innovation. This program, which will have a budget of approximately €3.6 billion, is aimed at implementing the Lisbon Strategy—a program adopted by the European Council in Lisbon in 2000 to deal with low productivity and stagnation of economic growth in the EU. Key areas of interest to biotech are two of the CIP's financial instruments in its program for entrepreneurship and innovation. The instruments are designed to help SMEs gain access to financing for R&D, and will be operated by the European Investment Fund (EIF) on behalf of the European Commission. The EIF plans to launch a new user-friendly website for these financial instruments shortly.

Through the first instrument, the High Growth and Innovative SME facility, the EIF will invest EU funds in very young and expanding R&D-intensive SMEs through venture capital and risk capital funds. A list of participating financial organizations can be found at <http://www.eif.org/venture/vinter>.

The second instrument is the SME Guarantee Facility (SMEG). This will provide coun-

ter-guarantees or co-guarantees to national or regional level bank loans and guarantee schemes for SMEs' R&D and innovation activities. The EIF takes on part of the risk of lending money to SMEs, to make it easier for them to secure financing. The SMEG will also make grants available to financial institutions providing small loans to research intensive SMEs to offset some of the administrative costs inherent in microfinancing. The idea is that this will in turn reduce the borrowing costs to the SME. A list of participating organizations can be found at <http://www.eif.org/portfolio/pinter>.

Other EU funding opportunities

Biotech SMEs can also get involved in the EUROTRANS-BIO initiative (<http://www.eurotransbio.net>)—one of the European Commission's European Research Area (ERA-NET) schemes—aimed at strengthening cooperation and coordination of national and regional research programs for biotech companies, and SMEs in particular. Through EUROTRANS-BIO, the participating countries and regions launch joint calls for industry-driven collaborative R&D projects. The initiative's objective is to create an integrated funding program within the next four years. Current participants include Austria, Spain's Basque region, Finland, France, Germany, The Netherlands, Brussels' Flanders region, Ireland, Italy and Sweden.

There is also a Eureka initiative in the area of medicine and biotech (<http://www.eureka.be>). Eureka is a pan-European network for market-oriented industrial R&D, of which SMEs play a large part. There are currently 162 projects being funded under Eureka's medicine and biotech theme, with a budget of €356 million.

Member states

Member states offer a potpourri of programs (see **Table 1**), some dedicated to biotech, like Enterprise Ireland's Biotechnology Directorate, others to startups, such as Enterprise Estonia. Several programs aim to foster collaborations between industry and academia (Cyprus and Denmark) or between countries (UK). The funding can take a variety of forms, from grants to loans to tax incentives and credits. Definitions of SMEs vary between member states, so be sure to check whether you qualify. A more complete description of member state initiatives and goals can be found in **Supplementary Data** online.

Conclusions

Even where national funding is absent, there is no shortage of opportunities for bioentrepreneurs at the EU level. It will take time and some patience to become familiar with the eccentricities of the various funding programs, not to mention a skilled hand at writing proposals. But with various sources of help at hand, practice will make perfect (see **Box 2**). In the competitive environment in which biotech companies operate, in the end it boils down to what Paul Roben, director of Enterprise Ireland's Biotechnology Directorate, says: "If you can't start a company with all that money, you just can't start a company."

Note: Supplementary information is available on the Bioentrepreneur web portal.

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