

IRDAC

Industrial R&D Advisory Committee of the European Commission



Brussels - N° 13
Summer/Autumn 1997

BUILDING EUROPE'S VENTURE CAPITAL MARKET



Interview with Dr B.G. Smith
IRDAC Member and
Chairman of EACRO



One of the most insidious problems faced by small and medium-sized enterprises in Europe's high-tech sector is scraping together enough start-up cash to launch a worthwhile product.

But the difficulties can be overcome with a few simple measures, according to Dr Bruce Smith, who chaired the recent IRDAC round table on venture capital.

He readily admits that venture capital can be difficult to obtain, but he believes that clear lines of communication between investors and researchers could make a significant difference to the whole climate. "What I would like to see is greater visibility on both sides", he said. "As a venture capitalist I want to see what is going on, so that when bright ideas arise I can come along and be there with assistance, cash and help."

Little understanding

Dr Smith is still heavily involved in high tech, although he retired in June as chairman of Smith System Engineering, a firm with a £14 million turnover. He says that there is still poor understanding between the research and venture capital communities, even though they can obviously work together. "We need to improve contacts between the two communities", he said.

Although researchers often complain that investors are always pushing them to deliver instant commercial results, Dr Smith does not see a conflict of interest between the demands of academia and of venture capitalists. "I see them as entirely complementary", he said. But he

admitted that a lack of understanding has meant that venture capital operators often find it difficult and costly to assess the prospects of young companies.

"As far as the European Union is concerned, this means improving lines of communication within its research programmes", Dr Smith said. "For example, the EU can bring in venture capitalists to help when framing the programmes. But not in a formal way - like insisting that applicants contact venture capital firms when they apply for a research grant", he said.

Cresson's plans? Admirable!

He did praise EU Research Commissioner Edith Cresson's plans to integrate venture capital more into the EU's R&D programmes, saying they were "admirable" and "clearly the obvious thing to do". Now, each project proposal will have to contain an exploitation plan indicating amongst others, the future market potential for the RTD result. But Dr Smith rejected the idea that the European Commission should become more directly involved by creating its own venture capital fund: "that should be left to the private sector", he said.



The Commission proposes a budget of 16.3 billion ECU for the Fifth Framework Programme

Acting on the initiative of Edith Cresson, the Commissioner for research, education and training, the European Commission decided to allocate a budget of 16.3 billions of ECU for the 5th Framework Programme (1998-2002). The amount proposed is equivalent to a 3% increase in the proportion of GNP as compared with the percentage represented by the 4th Framework Programme (13.2 billion for the period 1994-1998). (See page 7)

Continued on page 2

Cultural barriers

The barriers faced by researchers in Europe are more than just administrative, though. "To a large extent this is a cultural problem", Dr Smith said. "It is to do with risk-taking. In California, for example, venture capitalists are part of the community. A virtuous circle has developed: people put money in businesses and then these businesses grow and generate money which can be invested in other emerging companies". Clearly, they have got something quite right. "European investors need to overcome their traditional resistance to new and smaller companies in sectors such as information technology", he said.

Dr Smith has a formidable background: he is currently the chairman of the Economic and Social Research Council in the UK, and the president of the European Association of Contract Research Organisations (EACRO). His other chairs include Industrial Technology Securities Limited, a venture capital company which invests in the early stages of high tech development, and the Smith Institute for Industrial Mathematics and System Engineering, which arranges links between university applied maths departments and manufacturing companies.

With such a wide range of experience, he is ideally placed to comment on the state of venture capital investments in the EU. He says the implications are serious for Europe's industrial competitiveness. "Over the last ten years, venture capital has been going preferentially to areas like management buy-outs, and this is a worrying trend", Dr Smith said. "It is not that European venture capitalists are reluctant to invest in high tech, it is just an insufficient fraction relative to the competition". ■

IRDAC Opinion on

"VENTURE CAPITAL"

The competitiveness of Europe's economy depends to a large extent on the creation and growth of dynamic companies, according to an IRDAC opinion delivered to European Research Commissioner Edith Cresson. Finance, in turn, is a key ingredient in the success of these companies - in particular venture capital, the opinion says.

Although financial organisations have proved more generous and adventurous over the past ten years in offering venture capital, scraping together enough start-up cash is still one of the most insidious problems faced by small and medium-sized enterprises in Europe. As the IRDAC opinion states: "the provision of venture capital in Europe, particularly for innovation, is weaker than that in competing economic communities, notably, the USA and Japan". There is also a "geographical imbalance" of venture capital, with some 40% of the total EU portfolio going to projects in the United Kingdom.

Conflict of interests

IRDAC's opinion is based on the work of a round table chaired by Dr Bruce Smith, president of EACRO and Member of IRDAC. It says that European investors need to overcome their traditional resistance to new and smaller companies in sectors such as biomedicine or information technology. The problem stems partly from the business culture in Europe, based on avoiding risk: in the United States, banks and private investors are more prepared to take the plunge and provide capital for unseen products.

In recent years, public authorities in Europe have tried to bridge the gap between venture capital and the world of science and technology. They have also tried to couple venture capitalists and publicly funded RTD programmes. These efforts were not always effective. Part of the problem is linked to the conflict between the objectives of public research and technology on the one side and venture capitalists on the other side. In Europe, venture capital operators claim they find it difficult and costly to assess the prospects of young companies, because of the technology involved.

At the same time, venture capitalists often take part in the management of the companies in which they invest - and their desires for short term returns often clash with the companies' needs for a long grace period to generate the actual innovations.

Conflicting objectives?

Venture Capitalists	Public RTD Programmes
short term	long term
make money	create wealth and employment
ensure individual gains (exclusivity)	serve the public good (dissemination)

Changes necessary

IRDAC's opinion is that this conflict between private goals and public interest can be diminished, but a prerequisite for this is that public money for RTD becomes a risk reducing factor for venture capitalists. If the EU is to ensure a closer link between venture capital organisations and its RTD programmes, then some of the current practices need to be changed.

The forthcoming Fifth Framework Programme of EU research and technological development presents an excellent occasion for this, IRDAC says. "Apart from scientific excellence and novelty, each project proposal should contain an exploitation plan indicating amongst others, the future market potential for the RTD result", states the opinion. *Continued on page 7*

List of participants

IRDAC Round Table on Venture Capital

Dr B Smith (Chairman)	EACRO President
Mr L Anthony	Causeway Capital Limited
Mr J Barron	REAGECON Diagnostics
Mr J C Bisconte de Saint Julien	BIOCOM
Mr L Bouwer	TNO
Mr U Bundgaard-Jorgensen	Dansk Udviklingsfinansiering as
Mr H de Ronde	PHILIPS
Mr K Dunn	Royan Holdings Ltd
Mr P Herman	SINAPSE Graphics
Mr J Jacquin	Finovelec
Mr H Jouve	SILMAG
Mr P Kaleschke	Techno Venture Management
Mr J Mieskonen	Sitra
Mr J Mulet Melia	COTEC
Mr J Peeters	Capricorn Venture Capital
Dr W Stadler	Österreichische Investskredit AG

IRDAC Opinion

“LEGAL AND REGULATORY ENVIRONMENT FOR RTD AND INNOVATION”

Industrial competitiveness and economic growth in Europe can only be guaranteed if matched by a simple legal and regulatory environment, according to an IRDAC opinion.



David Ure,
Reuters Holding plc
Chairman of the Round Table

The European Commission's Green Paper on Innovation has already established that such an environment does not currently exist within the European Union. But in a recent Round Table, chaired by Mr Ure, Executive Director of Reuters Holding plc and member of IRDAC, experts discovered just how deep set the problem was. Industrial innovation in Europe is hampered by over-regulation, a lack of common standards and cumbersome administrative formalities, IRDAC found.

Regulate only when necessary

The Round Table looked at three case studies involving the Information Society, the chemical sector and the motor industry. The problems they faced are remarkably similar. The experts found that red tape and regulatory confusion has had a disastrous effect on innovation and emerging enterprises. Regulations set by public authorities, either at national or European level, should only be drawn up if there is a real need or added value, the experts said. "Furthermore, regulations at Community level should ensure that there is a level playing field with regard to the United States and Japan", they said.

EU legislation: a time-consuming process

Proposal for a directive on the legal protection of biotechnological inventions		EU Novel Food Regulation	
1988	Proposal to the Commission to Council	1985	White Paper of the Commission (CEC) - 11 pre-drafts
1989	Approval by ECOSOC	1992	1st draft by CEC
1992	First reading in the European Parliament	1993	1st reading in the European Parliament
1994	Common proposal by Council and the Commission	1994	2nd draft by CEC "Greek compromise" proposed
1994	Second reading in the EP	1995	Common position of Council
1995	Compromise in conciliation committee (23.1.95)	1996	2nd reading in EP (planned) (approval of conciliation committee)
1995	EP votes against the compromise (1.3.95) (240/188; only 428 of 626 MEPs present)	1996/	Regulation shall be enforced on 15 May 1997
1996	New proposal for the Commission sent to the EP		
1997	First reading of the new proposal in the EP		

New regulations at European level should state clear objectives to be reached, preferably in the form of numeric targets. They should contain a cost-benefit analysis and be accompanied by a clear, reliable timetable, along the lines of the

EU's Telecommunications Directive. One immediate measure the experts recommend was the creation within the European Commission of a small unit to act as an innovation watchdog, to carry out cost-benefit analyses of new regulations.

Another problem with the regulations is that they often reflect the political imperatives of the Member States at the time. According to IRDAC they should be based on sound scientific advice, and not merely the result of political compromise. "There is a need for pre-normative research, which may be a means of creating greater transparency in the work on developing regulations", states the IRDAC opinion. In turn, this means that regulations will increasingly have to be updated as a result of technological progress.

Incentives

Regulations which cover uncharted technology territory in terms of their scope, should be accompanied by incentives, giving the target

group a motive to accept them. This means special attention should be given to the "sales" dimension during the drafting of the new guidelines.

The experts at the IRDAC Round Table said that in fact, Europe's industry is perfectly capable of setting its own rules and working methods through a system of self-regulation. However, this is more appropriate to the newer industrial activities like those related to the information society than the more established ones like the chemical sector. But all sectors need strong regulation to support the protection of intellectual property rights. For the information technology sector, this was particularly the case since the new services available make it so much easier to copy information privately and to transit digital data. One way to ensure protection is to make patent registration procedure much simpler and quicker. ■

List of participants

IRDAC Round Table on a Legal and Regulatory Environment for RTD and Innovation

Mr D Ure (Chairman)	REUTERS
Mr K-H Büchel	formerly BAYER
Mr J Heymans	CECIMO
Mr E Hoffmann-Petersen	FLS MILJO
Mr H König	CEPIC
Mr P Knox-Peebles	ORGALIME
Mr B Post	VOLKSWAGEN
Mrs G Schofield	CBI
Mr E Sleccks	CRIF
Mr J Stephens	REUTERS
Mr M Unger	HOECHST
Mr W Wittke	CECIMO

"TOWARDS A EUROPEAN INDUSTRIAL HOST FELLOWSHIP SCHEME"

*Rostrup Nielsen
Haldor Topsoe A/S
Chairman of the
Round Table*



Fostering future competitiveness through fellowships

If innovation is one of the keys to industrial competitiveness, then European industry needs to have access to the latest technological developments and know-how.

For IRDAC, this means that networks and contacts need to be set up between companies, universities and centres of excellence at an international level.

The proposed European Industrial Host Fellowship (EIHF) scheme would be an ideal way to match these demands, fulfilling the mutual needs of industry and academia for closer collaboration, IRDAC says in an opinion based on the results from a Round Table held last June, which gathered senior industrialists and experts, and was chaired by Mr Rostrup Nielsen (Director of R&D at Haldor Topsoe A/S and IRDAC Member).

More contacts

IRDAC says that European industry should be able to dip regularly into a pool of skilled workers, including qualified researchers. At the same time, universities need to be in greater contact with industry, not only for financial reasons, but also so their research and training subjects remain relevant. "Industry should be recognised as a valid, high-quality place for training". IRDAC has long advocated the idea of an EIHF scheme, urging the Commission to include it in its proposal for the Framework V research programme. The Commission duly followed this advice in its April proposal, suggesting the development under the Fifth Framework Programme, of "Industrial host fellowships awarded to enterprises - including SMEs - for the training of young researchers."

According to IRDAC, the EIHF scheme should be co-funded by the Commission and industry, and should be open to all enterprises as well as researchers from all the relevant disciplines. This should mainly be engineering, natural sciences, health, law and business administration. The

researcher should be funded for a period of up to two years - or three if the fellow is registered for a PhD - to work in a company not located in his own Member State. For IRDAC, the only condition should be that the enterprise should have a research and development environment large and effective enough to provide adequate facilities for the researcher.

IRDAC believes that the researcher's project must be an integrated part of the 'in-house' strategy of the host enterprise and its content must be related to science or innovation. As well as solving concrete scientific or technological problems, the project should aim to provide other benefits to the company, like helping to develop a new method of production.

Confidentiality problem.

One specific problem mentioned by IRDAC was that of confidentiality. There is an obvious gap between the cultures of industry and academia in dealing with the knowledge gleaned from research: industry tends to be wary of sharing information, citing its intellectual property rights, but the academic world is more concerned with publishing its results to as wide as possible an audience. IRDAC decided that in these cases, researchers will have to comply with the confidentiality rules of the host company, only publishing papers on subjects after the company has given its consent.

According to IRDAC the scheme needs to fulfil **three crucial conditions to be successful:**

- it has to **radiate quality**, which will ensure that the scheme provides prestige to both the participating researcher and the host company;
- it should be **relevant to industry needs**. Industry should play a leading role, both by identifying the areas to be covered, and by selecting the fellows;
- it should have **flexibility** to ensure that fellows at different levels can participate in the scheme, and that the EIHF is managed smoothly with the minimum of bureaucracy. ■

List of participants

IRDAC Round Table on a European Industrial Host Fellowship scheme

Mr Rostrup-Nielsen	HALDOR TOPSOE A/S
Mr F. Alderweireldt	AllChemE
Mr F. Ballet	RHONE-POULENC RORER
Mrs S. Ben Tahar	GROUPE LIMAGRAIN
Mr T. Brugha	QUEST Ltd
Mr Agustin Del Pino	GRUPO DRAGADOS
Mr G. Harper	SMITHKLINE BEECHAM
Mr T. Loontjens	DSM RESEARCH SV
Mr J. Leslie	UNILEVER
Mr H. Mangold	DAIMLER-BENZ Forschung und Technik
Mr G. Martens	UNICE
Mr W. Martin	WELL SERVICE TECHNOLOGY AS
Mr H. J. Schaefer	VOLKSWAGEN
Mr I. Strausz	PHILIPS INTERNATIONAL B.V.
Mrs V. Zeuthen	ATV

IRDAC Opinion on the

“FIRST ACTION PLAN FOR INNOVATION IN EUROPE”



James Cochrane
Glaxo Wellcome plc
Chairman of the Round Table



If the European Union's plans to stimulate innovation are to work, then the Commission has to take its responsibilities on promoting a legal, regulatory and financial framework conducive to innovation.

In an opinion on the European Commission's First Action Plan for Innovation, IRDAC maintains that if the Commission's role is important in what refers to enforcing legislation, exchanging information and best practices, and co-ordinating at the EU level, still, innovation is decentralised by nature, and that the implementation of innovative measures is primarily the responsibility of individuals, companies and national and regional authorities.

IRDAC has often expressed the need for an integrated approach to innovation and welcomes the Commission's efforts to foster innovation through the development of an innovation culture and the creation of an environment appropriate for innovative projects to flourish.

The IRDAC opinion is based on the results of a Round Table involving 19 senior industry representatives, and chaired by Mr James Cochrane, the Executive Director of Glaxo Wellcome, and member of IRDAC.

Innovation as a separate objective

IRDAC is particularly pleased that innovation has been considered as a specific objective for "all Community instruments", as it is already clear within the Commission's proposal for the Fifth Framework EU research programme. The group urges the Commission to help set up innovation support centres with a clear business orientation. The time and cost involved in setting up a new company should be reduced, so it is therefore essential that the EU should adopt the Commission's proposals for a European company statute. Research centres should provide integrated models and become incubators for innovative projects and help to bring together academics and industry.

As for the projects included in the Fifth Framework programme, they should be more concentrated on those which are more innovative in terms of science and technology, and those

which are more user-oriented. The selection criteria should be clear and exhaustive, but at the same time, the selection procedures should be simplified and speeded up.

On a wider level, IRDAC says that the efforts on education and training of researchers and engineers are essential for innovation. "It is crucial to stimulate creativity and a spirit of entrepreneurship from the earliest age," the opinion says. "Students must be attracted to science and technology areas, but should also be given the background they need in areas such as management or administration." Although the EU's Member States are responsible for most aspects of education, the Commission still has an important role to play in suggesting additional measures (e.g. mobility of young researchers and engineers in industry), and making sure that relevant information is available to the widest possible audience, IRDAC says. Innovation is also very much about adapting existing knowledge and technologies to new situations.

Legal and regulatory environment

One of the most important roles for the Commission is to adapt and simplify the legal and regulatory environment. "It should be given a strong priority as it is a prerequisite to any policy in favour of innovation," the opinion says. Further action is required to simplify the administrative procedures for the mobility of researchers, and for access to capital, in particular venture capital, and the European patent system needs to be more efficient, cheaper, and more accessible. The research community, investors and small and medium-sized enterprises should be aware of intellectual property rights issues, and the necessary instruments to arbitrate and counsel in the event of legal disputes will be of great importance. As it stated in the IRDAC opinion "It is essential to harmonise and complete the legislation on intellectual property rights, dismantle hampering and unnecessary legislation and favour innovation financing." ■

List of participants

IRDAC Round Table on the Innovation Action Plan

Mr J.T. Cochrane	GLAXO WELLCOME PLC
Mr J d'Autume	AEROSPATIALE
Mr G. Acres	JOHNSON & MATHEY
Mr Roar Andersen	STATOIL
Mr J M Beternier	COMPAGNIE DES SIGNAUX
Mr. Augusto Barroso	ICAT - Instituto de Ciência Aplicada e Tecnologia
Mr W. Buschak	ETUC
Mr C. Dambriane	ANRT
Mr M. Elves	GLAXO WELLCOME PLC
Mr J. Hinterberger	VOEST Alpine Industrieanlagenbau GmbH
Mr M. Ilmari	ABB Oy Group
Mr G. Marten	UNICE
Mr. M Mannerkoski	VTT
Mr J. Mulet Melia	COTEC
Mr. J. Rostrup-Nielsen	Haldor Topsoe A/S
Mr J. Ruiz	SOCINTEC
Mr A. Tsoukalis	MICREL Ltd.
Mr Luc Wagner	CLT - UFA
Mrs Vibeke Zeuthen	ATV



UNICE AND ITS LINK TO IRDAC

by Dr G. Martens

The Director General of DG XII, Mr Routti, the Chairman of IRDAC, Mr List and the Chairman of UNICE's RTD Working Group, Mr Martens, share optimistic views on the future of European RTD.

UNICE, the Union of Industrial and Employers' Confederations of Europe, describes itself as the voice of all businesses active in Europe vis-à-vis the institutions of the European Union. It represents companies of all sizes, from every sector of European business except agriculture and is composed of 33 central industry and employers' federations from 25 European countries. UNICE is represented on IRDAC by the President of its RTD group, Dr G. Martens.

UNICE's missions are:

- to promote continued improvement of the competitiveness of European business, the key to future economic growth and employment
- to ensure that the legitimate and common interests of European business are heard, understood and supported.

How does UNICE work ?

Five main Policy Committees (economic and financial affairs, external relations, social, industrial and company affairs) decide on UNICE position papers which are prepared by some 60 working groups. Over 1,500 experts, from member federations as well as from a large number of companies from all sectors of European business, take part in this preparation.

Working groups on "vocational training", "intellectual property" and especially "research and technological development" share largely their centres of interest with IRDAC where UNICE is represented by the chairman of its R&TD Working Group.

Some recent position papers relevant to research and education.

UNICE reacts, pro-actively when possible, to the European policies in the fields of R&TD and education and pleads for a continuous consultation procedure with all stakeholders.

Even though some nuances can be found, its positions, elaborated as a consensus between opinions of the participating national federations, are generally in the same directions as those expressed by IRDAC.

A list of recent relevant position papers are given below:

- UNICE opinion for a balanced public policy in favour of basic and applied research (January 1996)
- UNICE's comments on the Green Paper on Innovation (May 1996)
- For a better research and technological development policy in favour of small and medium sized enterprises (June 1996)
- UNICE position paper on the White Paper on Education and Training, Teaching and Learning: towards the Learning Society (September 1996)
- UNICE opinion on the working paper of the European Commission "Towards the 5th RTD Framework Programme 1998-2002" (October 1996)
- UNICE opinion on the EUREKA Medium-term plan 1996-2000 (April 1997)
- UNICE opinion on the second working paper of the European Commission "Towards the 5th Framework Programme: scientific and technological objectives" (March 1997)
- UNICE position paper on "The Green Paper Education, Training, Research: the obstacles to transnational mobility" (June 1997)

UNICE and the 5th Framework Programme

UNICE has expressed its views on the 5th FP in the above mentioned position papers as well as in different letters to the Commission, MEPs and the Council.

Some have considered these positions as rather tough; the intention is not to be negatively critical but constructive. While agreeing on the general philosophy of the 5th FP, provided the competitiveness of the enterprises continues to be its major objective, and acknowledging the expressed willingness of concentration and flexibility, UNICE is however concerned with the proposed architecture which, under the apparent concentration into 3 thematic programmes, might lead in practice to a dispersion of the resources into many small and subcritical key actions and activities for the development of generic technologies and basic research!

UNICE and IRDAC have proposed independently different but compatible structures for the programme based respectively on 5 and 6 themes.



Commission proposal for Fifth Framework Programme Budget: 16.3 billion ECU

The willingness for a constructive approach of UNICE can also be found in its proposal to create "advisory panels" with the real actors of R&D for the different programmes; this proposal has been positively taken into consideration by the Commission.

A personal point of view

If I had to make a personal selection of UNICE's recent opinions and recommendations in the field of RTD and education, I should probably select:

- the importance of encouraging "quality and relevance" in education as expressed in a very successful IRDAC document
- well balanced public policies in favour of basic and applied research in order to keep to-day's competitiveness of our enterprises while preparing their future
- a better identification of the different needs of the very heterogenous family of SMEs and a better adaptation of the RTD policies to the variety of these needs, including an improved accessibility to modern but already demonstrated technologies
- a more integrated innovation policy "from the idea to the market" using all available instruments including a closer collaboration between Framework Programmes, national programmes, EUREKA and potential sources of venture capital for emerging innovative initiatives.
- building on the strengths of the Commission initiatives. The administrative burden, the complexity of access to the programmes and the unanimity-based system of decision are still unacceptable, but, as most industrialists, I am ready to admit that the EU Framework Programmes have played a prominent role in creating a real European research network involving universities, research centres and industries. The next step further is to take advantage of it. ■

For further information:
UNICE
RTD Working Group
Rue Joseph II, 40, box 4
B-1000 Brussels
Tel. +32 2 237 65 11
Fax +32 2 231 14 45

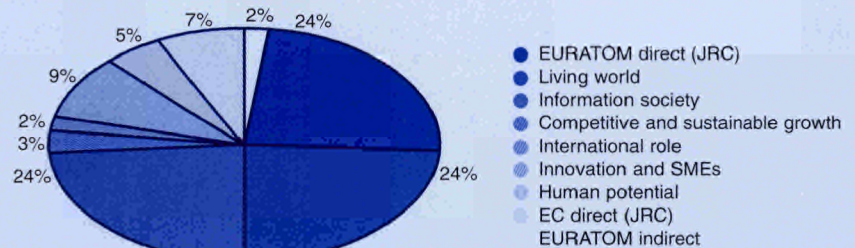
The proposed increase in the budget (3% in the proportion of Community GNP allocated to research, in comparison to the budget of the 4th Framework Programme), reflects the importance of research and development in contributing to the priorities set by "Agenda 2000" to build a knowledge based society and create employment. In this Commission's policy guideline, adopted on 15 July, research is mentioned as one area where "allocations may be increased faster than GNP growth for certain programmes which have been given priority because of the value-added they derive from Community-level action, for example in terms of growth, employment and the development and dissemination of new technologies". Within the total of ECU 16.3 billion, 14.833 billion ECU will go to research under the EC Framework Programme, with the remaining ECU 1.467 billion going to research in the nuclear field under the Euratom Framework Programme.

Breakdown of funding for indirect actions (shared cost actions, training fellowships, support for networks, concerted actions and accompanying measures):

(pie chart) voir versions papier ci-joint
Support for direct actions (research activities undertaken by the Joint Research Centre) within the Programme amount to ECU 1.141 million, of which ECU 326 million would be devoted to Euratom research.

The proposal by the Commission completes the formal proposal for the 5th Framework Programme, allowing the Parliament and Council to proceed with its examination and adoption. The figures stated are thus not definitive but represent the maximum available funding. The annual budget for the Framework Programme would be adopted each year within these limits.

5th Framework Programme Proposed Budget Breakdown



IRDAC OPINION ON VENTURE CAPITAL

continued from page 2

Furthermore, venture capital investors should already become involved at an early stage of these RTD projects, either as evaluators or as "sounding boards", IRDAC says.

IRDAC adds that special attention should be paid to the current rules related to intellectual property rights. In general, venture capitalist are reluctant to invest on projects which contain a "non-exclusivity" clause as far as ownership rights are concerned.

To make the EU's venture capital structures more efficient in general, IRDAC suggests lifting restrictions on how large institutional investors, like pension funds, can invest. IRDAC also says that more exit mechanisms should be created, like the EASDAQ, Europe's hi-tech stock market (European Association of Securities Dealers Automated Quotation), where fast growing companies with international aspirations can raise capital from interested investors. ■

Update Fourth Framework Programme

Calls for proposals published* in the Official Journal

Programme	Call	Date of publication
Information technologies (ESPRIT)	Single-step evaluation scheme: software technologies; multimedia systems; long-term research; open microprocessors systems initiative; integration in manufacturing	16.9.97
Agriculture & Fisheries (FAIR)	- Targeted call in area 3: generic science & advanced technologies for nutritious food - Area 4: Agriculture, forestry & rural development - Area 5: Fisheries and aquaculture	15.9.97 (expected)
Non-Nuclear Energy (THERMIE component) demonstration projects	Call for targeted type A demonstration projects (rational use of energy, renewable energies, fossil fuels)	15.9.97
Targeted Socio-Economic Research	Science & technology policy options; research into education & training; research into social integration & exclusion (only in certain areas)	16.9.97
Dissemination & Exploitation of Results	European networks & services Regional actions Increasing public awareness (transfer of best practices)	15.9.97 15.9.97 15.9.97
Training & Mobility of Researchers	Marie Curie Research Training Grants (post-graduate, post doctoral & return grants) Euroconferences, summer schools & practical training courses	16.9.97 15.12.97
Measures for SMEs CRAFT	Open Call	

*Several of these programmes have continuously open calls for support and accompanying measures, thematic networks, training grants, technology stimulation measures for SMEs (final submission deadline: end 1997/begin 1998).

IRDAC NEWS on the Web! <http://europa.eu.int/en/comm/dg12/irdac.html>

IRDAC Members

Prof Dr H List
IRDAC CHAIRMAN
Chairman & CEO
AVL List GmbH
Kleiststraße 48
A-8020 GRAZ

Dr J Viana Baptista
IRDAC Vice Chairman
Chairman
ICAT - Instituto de Ciencia Aplicada e Tecnologia
Campo Grande
PT-1700 LISBOA

Mr Roar Andersen
Senior Vice President
Statoil
Statoil's Research Centre
N-7004 TRONDHEIM

Prof Dr K-H Büchel
formerly of Bayer AG
Dabringhausener Str. 42
D-51399 BURSCHEID

Mr F Carrubba
Executive Vice President
Chief Technical Officer
Philips International BV
Building VP
Postbus 218
NL-5600 MD
EINDHOVEN

Mr J T Cochrane
Executive Director
Europe, Middle East and Africa
Glaxo Wellcome plc
Lansdowne House
Berkeley Square
GB-LONDON W1X 6BQ

Mr M Ilmari
President & CEO
ABB Oy Group
P O Box 210
FIN-00381 HELSINKI

Mr Y Michot
Directeur général délégué
Aérospatiale
38 Bvd de Montmorency
F-75781
PARIS Cedex 16

Mr J Mulet Melia
Director General
COTEC
C/Marques de Urquijo
26-1°C/I
E-28008 MADRID

Dr E Papadofragakis
General Manager
Intracom
29.5 km Marco Polo Ave
GR-19002 PANIA

Mr R Perissich
Director Public & Economic Affairs
Pirelli
viale Sarca 222
I-20126 MILANO

Prof Dr J Rostrup-Nielsen
Director Research & Development
Haldor Topsoe A/S
Nymollevvej 5
DK-2800 LYNGBY

Mr Y Sabeg
Président Directeur Général
Compagnie des Signaux
Immeuble Le Banville
153, rue de Courcelles
F-75817
PARIS CEDEX 17

Mr Gaston Thorn
Président
Compagnie
Luxembourgeoise de
Telediffusion
45, bd Pierre Frieden
L-1543 LUXEMBOURG

Mr David Ure
Executive Director
Reuter Holdings plc
85 Fleet St
UK-LONDON EC4P 4AJ

Mr M Walsh
Managing Director
Waterford Foods plc
Main Street
DUNGARVAN
IRL-CO WATERFORD

Dr M Winterkorn
Member of the Board of Management
Volkswagen Division and
Executive Vice President
Volkswagen AG
D-38436 WOLFSBURG

Dr A Wittlöv
President & CEO
Volvo Aero Corporation
S-46181 TROLLHÄTTAN

Mr W Buschak
Confederal Secretary-ETUC
Bvd Emile Jacqmain 155
B-1210 BRUXELLES

Prof Dr G Herziger
ECPE
Mitglied des Vorstandes der
DLR
Linder Höhe
D-51147 KÖLN

Mr J Kamminga
President
UEAPME
P O Box 9090
NL-6800 GX ARNHEM

Dr G Martens
President of Research & Technological Working Group
UNICE
Solvay sa
Rue de Ransbeek 310
B-1120 BRUXELLES

Dr B G Smith
President
EACRO
53 avenue des Arts
B-1040 BRUXELLES

IRDAC Calendar

ROUND TABLES

Model Contract 20 November 1997
21 January 1998
18 February 1998
23 April 1998

Management of Community
RTD actions 19 February 1998

Joint Research Centre 27 January 1998

Dual use technologies 6 March 1998

IRDAC STEERING

16 December 1997

IRDAC PLENUM

19 March 1998

IRDAC SEMINAR

19, 20 June 1998

Editorial board IRDAC News:

G. Martens, R. Bryssinck,
C. Hérinckx, A. Klamminger,
C. Porter, A. Garrigo, R.J. Smits,
M.R. Queiró

More information on IRDAC News or on IRDAC in general can be obtained at the IRDAC secretariat. Fax: +32 2 295 43 61

Information in this newsletter may be reproduced without permission provided credit is given.

Articles represent the views of the authors and do not necessarily reflect the official position of the European Commission.

Design & production by
POPLAR, Brussels
Printed by Drukkerij Ceuterick