

UNIVERSITY SPIN OUTS NOW ELIGIBLE FOR SYIF LOANS

Sheffield University Enterprises (SUEL) set to benefit from new source of finance

South Yorkshire Investment Fund, which has helped new and existing businesses across the region with financial support, could be helping Sheffield University Enterprises in the near future.

Until now the Fund could not back university spin outs because of a rule that said if more than 25% of a business was owned by a non SME then they were ineligible for funding. This has now been increased to a maximum of 50% share holding specifically for University spin out businesses.

Tony Goulbourn, Chief Executive of South Yorkshire Investment Fund Ltd, said: "This is good news for new and innovative companies that develop from academic research within Sheffield University."

The Fund can provide loans and equity investments ranging from £15k to £2.5m



to businesses in, or prepared to relocate to, South Yorkshire. The Fund has already invested over £6.3 million in 83 businesses.

It offers two key products, one of which is loans ranging from £15k to £100k with effective annual interest rates from as little as 2.4% per annum. Loans are unsecured for the majority of established profitable businesses with unsecured loans of up to £50k available for start-ups or early stage.

We can also provide mezzanine loans up to £1.5 million and equity of up to £1 million which means we can finance deals of £2.5 million in total. These investments are to complement existing

sources of finance and are intended to bridge any funding gap there may be in an expansion plan.

A unique feature of the way the Fund can help businesses is the Mentorbank project, which provides subsidised mentoring support to help management teams grow their business more profitably. South Yorkshire Investment Fund also run Capital Network a Business Angels introductory service for early stage businesses in South Yorkshire. Where appropriate Business Angel finance can also complement South Yorkshire Investment fund packages.

South Yorkshire Objective 1 is "Making Strong Progress"

7,150 Jobs Created So Far

"The Objective 1 Programme in South Yorkshire is making strong progress", concluded an independent evaluation undertaken by Leeds Metropolitan University's Policy Research Institute and Sheffield Hallam University's Centre for Regional Economic and Social Research.

The evaluation says the Programme is performing well and contributing to transformational change in South Yorkshire. It draws particular attention to the enhancement of the education system through e-learning and vocational education in South Yorkshire's schools as an exemplar for addressing educational attainment levels in the areas young people.

This strong performance means that South Yorkshire is now in line to receive extra funds from Europe in the spring.

Sylvia Yates, Objective 1 Programme Director explained: "These extra funds are known as the Performance Reserve. 4% of the Structural Fund budget is held in

reserve by the European Commission at the outset of each funding period to be used as a reward for those programmes that are judged to have performed well in the first three years at their mid-term review."

"The overall conclusion of the Objective 1 evaluation was that the Programme had performed extremely well in several key areas. At our review meeting in Brussels at the end of last year it was clear that the European Commission agreed with the evaluations assessment" said Sylvia.

In the first half of the Programme 3,049 South Yorkshire small and medium-sized enterprises had been assisted compared with a target of 1,272 of which 750 had received financial assistance. Support has led to a £280 million increase in sales

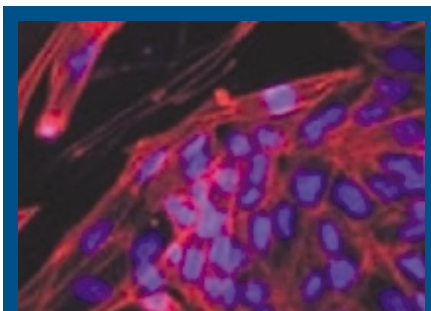
(compared with a target of £252 million). Unemployment in South Yorkshire has fallen from over 36,000 to 22,700 in the last three years. The Programme is now focusing increased attention on people that face multiple barriers to employment rather than simply being unemployed. Job creation is focused on higher skilled, better-paid jobs that will contribute more to GDP. The revised target of 24,431 jobs to be created is still greater than the numbers of people currently unemployed in South Yorkshire. The Programme has created over 7,000 jobs while in the same period unemployment in South Yorkshire has fallen by 14,000.

The Mid Term Evaluation report can be downloaded from the Objective 1 website at www.goyh.gov.uk/objective1/publications.htm



CENTRE FOR STEM CELL BIOLOGY

The Centre for Stem Cell Biology is based at the University of Sheffield and is a world class centre of excellence undertaking research and providing training in stem cell biology. Our commercial and academic partnerships are delivering stem cell technologies and resources vital for human healthcare.



ES cells stained with red fluorochrome, counterstained to show nucleus in blue

The Centre has extensive experience in the culture, characterisation and biology of human embryonic stem (ES) cells and malignant embryonal carcinoma (EC) cells.

We have access to a range of immunological and molecular markers and techniques such as flow cytometry and real time fluorescence imaging. The Centre has significant expertise in proteomics, molecular techniques and methodologies for manipulating gene expression. We are currently deriving new stem cell lines and creating a dedicated GMP facility.

This world renowned expertise is available to business and industry through, collaborative R & D partnerships, contract research services and consultancy.

CSCB MAJOR EVENTS IN 2004

A Four-day Practical Workshop, in Stem Cell Biology & for Academic Scientists, 5th- 8th July

The training provided in both our academic and industrial practical courses enables participants to translate the techniques back into their own laboratories. The four day practical workshops have a particular emphasis on human embryonic cells, their differentiation, derivation and maintenance.

The courses are supplemented by a series of lectures familiarising students with the underlying theory and concepts of current

work with human ES cells, as well as providing an appreciation of the current legal and ethical issues governing this research area.

Attendees will have ample opportunity to exchange views and share

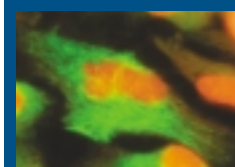
An Exclusive Four-day Practical Training Course or Business and Industry, 27th- 30th Sept experience with the internationally renowned scientists who will provide one-to-one tutoring during the courses.

Techniques to be covered in both the academic and industrial courses includes:

- Differentiation studies of human ES cells
- Culture and maintenance of ES cell lines
- Analytical techniques (FACS and flow cytometry)
- Passage, freezing and thawing of human ES cells
- Preparation of medium, substrates and feeder cells

An International Symposium "Progress towards cell therapies", 9th July

With the increasing popularity of these annual events, the CSCB continues to provide a platform where the latest developments in stem cell biology are presented. The Symposium will include an international programme of speakers.



Green fluorescent stained trophoblast cells, counterstained to show nucleus in orange.

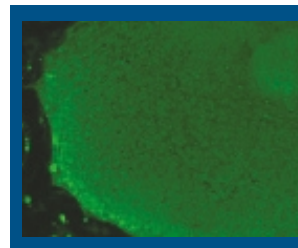
Previous speakers at this annual event have included:

- Prof Roger Pederson (Cambridge)
- Prof Nico Hein (Göteborg)
- Prof Stephen Minger (UCL)
- Prof Su-chun Zhang (Wisconsin)

A Modular Programme of Theoretical Stem Cell Training for Business & Industry, 26th May, 16th June, 9th July and 1st Oct. These modules have been designed to provide participants with a sound understanding of both the fundamental scientific issues as well as the ethical, regulatory and IP matters which are so important to businesses developing stem cell technologies commercially.

Module content will include:

- Basic stem cell biology
- UK/worldwide ethical/regulatory issues
- Stem cell IP issues
- Quality control systems
- Screening & Toxicology



TRA - 1-60 fluorescent stained ES cell

The CSCB is committed to supporting business and industry through the application of its world-class research expertise.

A wide range of research and testing services can be accessed through the Centre and we are particularly keen to participate through funding schemes (e.g. LINK, KTP, Industrial Case) which specifically enable business and industry to access the Centre's R & D resources.

The CSCB has been accredited as a Centre of Industrial Collaboration (CIC) by the regional development agency Yorkshire Forward. The CIC status is recognition of our commitment to knowledge transfer from the academic base to the commercial world. We are committed to supporting the development of stem cell medicine in the UK and to provide resources to business and industry which will underpin their ongoing commercial developments.

The primary contact for the CSCB is through the central coordinating office and the Centre manager, Dr Julian Sorrell. All enquiries are welcome and will be dealt with on an impartial and confidential basis.

**Email: stemcell@sheffield.ac.uk
Tel: +44 (0)114 226 8523
Fax: +44 (0)114 226 8538**

Full details relating to the CSCB 2004 programme of events and collaborative opportunities will be posted on our website in early 2004.

www.cscb.sheffield.ac.uk



THE UNIVERSITY
OF SHEFFIELD



Centre for infrastructure management

Whether it is metropolis-like city developments, coastal reconstruction, UK-wide transport networks, commercial / industrial sites or community-built environments, managing and maintaining all the infrastructure is a mammoth task. South Yorkshire alone has over 1,000 highway bridges which need to be kept safe, secure and operational year after year. The lifetime cost of maintenance, repair and redevelopment of civil structures can be enormous without proper management, diagnostic inspections and remedial technologies.

The Centre for Infrastructure Management (CIM) was formed and has been successfully operating now for just over a year. The aim is to make independent expert advice available to those in the professions involved in infrastructure management and development. This includes, amongst other things:

- minimising asset management costs by adopting best practice
- providing effective remedial solutions for structural corrosion & degradation
- developing new materials, particularly from recycling environmental waste
- raising practice and management skills via professional training

Links have been formed with blue chip and international organisations such as Scott Wilson, Mott MacDonald, the RMC Group, MG Gleeson Plc, Blue Circle, and various local authority departments.

A number of projects have already been successfully completed. These include a corrosion remediation study of Sheffield Central Library, evaluation of sprinkler systems in schools, independent investigations for PFI ventures and ongoing conservation projects with English Heritage.

New advanced recycled materials, pipe systems and heating materials are currently being developed while the latest asset management software is now available through suppliers Research Engineers (Europe) Ltd.

The first module "Inspection & Repair of Reinforced Concrete" of a new professional development programme is being offered this May. It will be particularly suitable for those involved in the maintenance of the built environment to update their knowledge on reinforced concrete structures, but may also be of relevance to asset managers, architects

and others who lack practical knowledge of the latest approaches to repair and enhancement.

Latest on People at CIM

CIM has been fortunate in obtaining the recent appointment of the Royal Society Industrial Fellow to the Centre.

Dr Paul Lambert from Mott Macdonald has been granted Royal Society funding to research the remediation of corrosion in steel-framed heritage structures.

David Catley, on a placement with Inditherm plc, has helped to develop a unique carbon based polymer heating system for application in the built environment sector. In addition, he has scooped up a top business award from the DTI Knowledge Transfer Partnership Scheme.

Paul Bennison, who developed Flexcrete Ltd into a multi-million pound business, has joined the Centre to manage the commercialisation of the emerging advanced materials for infrastructure management which have been developed through the European funded EnviroMat project.

Will Thomas has developed the BMX bridge management expert system which is now being launched commercially for use by local authorities and bridge owners.

Further information and brochure is available from the website www.shu.ac.uk/cim, or from Prof. Pal Mangat, Tel 0114 225 3339 e-mail p.s.mangat@shu.ac.uk

FOCUS ON: Self-employment and enterprise

The Enterprise Centre at Sheffield Hallam University offers support and guidance to students and graduates who are considering setting up in business, through a range of workshops and events. Our aim is to support a wider agenda of enterprise and entrepreneurship throughout the curriculum and beyond to encourage self-employment and innovation.

A series of workshops have already been

delivered, as part of the 2004 Enterprise Challenge competition, giving information on a variety of topics ranging from "Being an Entrepreneur", to "Funding, Creativity and Goal Setting". There is still time to participate in the final workshops, details are as follows:

- Monday 19th April How to manage your business website, Tony Vickerman, SiteMaster Webs
- Tuesday 27th April Company Formation, Kath Ludditt, Goodband Viner Taylor
- Tuesday 4th May Intellectual Property Rights, Carmelina Nicastro, Eversheds

Full details and a workshop registration form are available at

<http://extra.shu.ac.uk/enterprise/workshops.html>

Our Surgery sessions allow a half hour, one-to-one session with a range of business advisors so that individuals can discuss their plans in more detail and receive specific advice according to where they are up to with their idea.

More information is available at

<http://extra.shu.ac.uk/enterprise/surgeries.html>

Beta Technology Ltd and Inova Consultancy will be running a mentoring briefing session on 19th May 2004 for Enterprise Challenge 2004 entrants and potential business mentors. Any business people interested in becoming mentors for students and graduates who have entered the competition should contact Sheila Quairney or Liz Gillott at the Enterprise Centre on 0114 225 5000 or email enterprise@shu.ac.uk

The 2004 Enterprise South Yorkshire Summer School is sponsored by Business Link South Yorkshire and co-ordinated and delivered by the Enterprise Centre. It focuses on providing individuals with the skills they will need if they are considering self-employment.

Run on an annual basis, this year's summer school will be held between 14th-18th June 2004 at Stephenson Hall, University of Sheffield and is aimed at students, recent graduates and staff from any university who are considering setting up in business in South Yorkshire at some time in the future.

More details from:

http://students.shu.ac.uk/services/enterprise/s_school.html

Further information on all our enterprise activities is available from the Enterprise Centre on 0114 225 5000 or email enterprise@shu.ac.uk

Intellectual Capital harnessing Knowledge Institutions for economic prosperity

Mark Mawhinney, looks at how the strength of our knowledge institutions can be harnessed for long-term economic prosperity...

Sheffield's universities are a favourite with students from around the country and, indeed, the world. The skills they bring to the city are essential to its development and the rich pool of knowledge they provide benefits companies large and small.

But dependence on its universities cannot be the ultimate goal of an ambitious city. We must make the most of our other knowledge assets.

Sheffield First Partnership's economic strategy highlights three ways of addressing this - mapping the research base to identify commercial opportunities, spinning out new businesses based on intellectual capital and developing a systematic graduate retention strategy.

So far, promotion and support have been achieved through cluster development plans and the formation of looser marketing vehicles, such as Science City York, which was viewed as a successful role model by many in the region.

The spinout businesses have, again, concentrated heavily on the universities, with 18 new companies being created to date. Both institutions have undergone a process of re-structuring in order to commercialise their research and other activities and the prospects in the pipeline are excellent. However, there are still significant barriers to overcome and the conversion of these prospects to new companies and jobs has slowed for a number of reasons:

- Continued pressure on the universities to see other things as more important (their core business is, after all, teaching and research)
- A realisation that initial estimates of the time involved were optimistic
- The need to market and develop local sources of finance and other support
- External factors, i.e. tax and incentives for universities to commit to the process.

I am pleased to say that these issues are being resolved by stretching existing networks or contacts and developing proposals to activate new players in the field. We have had recent visits from the USA, London and Cambridge as investors seek new companies to support and where backers are not available, the

university teams are creating other forms of alliance.

But who will staff these new companies? A recent survey of Sheffield graduates showed that although the city's retention rate is high, it is much lower in the industries that relate to the target clusters - creative and digital, advanced manufacturing and professional services. We need to transform Sheffield's economy so there are jobs in cutting-edge occupations and make sure new graduates are aware of the opportunities that already exist locally.

There is still much to do and we have to extend the work beyond the universities - we are currently talking to the NHS about possibilities. The Lambert Report identifies the 'demand' for national research and development as a problem and this is reflected in Sheffield. We need to work at aligning the targets of various organisations and making ourselves more efficient and effective.

Whilst transformation still eludes us, we have made progress, but it is slow, long-term progress that cannot be bound by complacency.

SHEFFIELD'S economic renaissance

As featured in the last Partners in Progress magazine, published by Sheffield First Partnership, it was reported that...

Sheffield's economic renaissance has never looked better, as more market leading companies invest in the area and indigenous businesses continue to grow.

Investors are recognising Sheffield's reputation for quality and excellence in innovation and realising the city has a great deal to offer, from good transport links and competitive property prices to an availability of qualified educated staff.

Recent statistics show:

- Sheffield's economy is the third fastest growing in the region after York and Leeds
- It is creating over 4,500 extra jobs each year - well above the national average growth rate
- The number of residents in work is growing at an even faster rate - 6,000 more people are in employment each year
- Average hourly earnings have risen by over 4% a year
- Unemployment in Sheffield stands at 3.3%, less than one percentage point above the national rate

City Environment Strategy

Sheffield's long awaited Environment Strategy has now been published following the launch of the draft strategy and consultation period last year.

The strategy concentrates on six key environmental challenges:

- Recycling and renewable energy
- Environmental impact of travel and transportation
- Clean attractive streets and neighbourhoods
- Enhancing and safe guarding environmental assets
- High quality sustainable urban design and construction
- Engaging Sheffield's business community

Gary McGrogan, director of Sheffield First for Environment, said: "Sheffield now has a city-wide Environment Strategy that will focus on specific key challenges over the next three years. The strategy will encourage organisations from the public, private, community and voluntary sectors to come together to underpin the environmental development of the city. It will sit alongside the social and economic development frameworks and influence decision making for sustainable development".

Sheffield First for Environment includes representatives from both Universities in the city.



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