

ESA LAUNCHES A NEW “SPACE FOR HEALTH” WEBSITE

If you are an organisation or health institute working on health applications, you are often deluged by large amounts of information, but have difficulty homing in on what you need. This is also true for the all-important theme of health-related activities at ESA, which, by its very nature requires the support of diverse sources across the Agency's wide range of space assets in general.

The new European Space Agency's Integrated Applications Promotion (IAP) initiative announces the launch of a new central portal embracing ESA's health-related activities across all directorates of the Agency, and spanning all types of work and projects included within this wide theme: "Space for Health". This will be particularly useful for business enterprises and institutions since it provides an overview of health-related applications, covering recently completed and on-going projects. As Didier Schmitt, Integrated Applications Health Expert of ESA's Inter-Directorate Task Force, succinctly explained: "The daily health-related projects

and challenges encountered by the health industry and health providers can usually only be solved by an integrated approach, where the expertise and assets of very diverse bodies must be brought together".

The editor of the website, James Kass, a member of the Telemedicine Alliance, said that he is constantly receiving queries from stakeholders in the health industry, health institutions, government and international organizations, who are seeking for information, expertise and collaboration from the Agency: He said "I realized that a central point of information would better serve the Agency's stakeholders and European industry, and now, for the first time, it is a simple matter to view the entire scale of ESA's health-related activities at a glance, in context, and to know where to go to find more information".

Any user can now search at one portal for a particular domain of health applications and see in the blink of an eye what kind of

health-related activities and projects are or have been carried out by the Agency. The interested parties can also easily see which of the Agency's diverse assets can be used for health applications, such as: Earth observation, Satellite communications, Satellite positioning and navigation, Human space-flight, Technology R&D, Operations and infrastructures. Additionally, the user will find information of funding and partnership programmes.

There are many organisations which have already shown interest in working with the Agency to develop dual-purpose technologies and applications, i.e. having space and terrestrial synergies. For further enquiries, you are invited to contact the following IAP email: health@esa.int, and for more information, please go directly to the website:

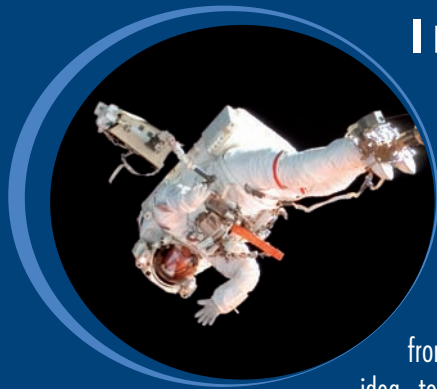
WWW.ESA.INT/HEALTH

SPACE FOR BUSINESS

ESA'S NEWSLETTER OF THE HUMAN EXPLORATION PROMOTION DIVISION
AND THE TECHNOLOGY TRANSFER PROGRAMME OFFICE

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INVESTING IN SPACE TECH ON EARTH



It is a tough challenge to move from initial idea to actually

developing a successful and viable start-up company. The ESA Space Incubator supports the creation of start-up companies whose business idea derives from space technologies companies up to an early state of their development. This includes assistance in operation and business development, giving them access to ESA expertise and a full network of support sources including a small amount of initial funding.

The most difficult thing for those start-up companies is making the leap from fledgling firm to fully-fledged, financially viable company, which of course requires funding. This kind of early stage funding is essential to make the grade. That is why ESA's Technology Transfer Programme Office organises the ESA Investment Forum 2008 at ESA's Technology and Research Centre ESTEC in Noordwijk, the Netherlands the 15 April.

ESA INVESTMENT FORUM TO BRING TOGETHER START-UPS AND VENTURE CAPITALISTS

The ESA Investment Forum is a yearly event bringing together investors and start-up companies that employ space technology or services in a non-space related business concept.

According to Frank M. Salzgeber, Head of the Technology Transfer Programme Office at ESA, it is crucial to introduce to Venture Capitalists the sheer endless opportunities of space technology derived start-up companies – which up to now seems to be a well kept and potentially highly profitable secret. "Space technology transfers touch virtually every aspect of our every-day life", says Salzgeber. "From intelligent textiles to car safety features, from medical applications innovations to novel engineering solutions, from gaming technology to high-tech environmental control systems – we are surrounded by technology that once originated in the space business and is now generating profits in businesses in multitude of market sectors." All the more surprising that space-tech-based fledgling companies went largely unnoticed by Investors for years.

But due to ESA's efforts, things are changing, which is impressively documented by the results of ESA's first Investment Forum last year. One of the start-up companies, iOpener, real-time gaming developer using space technology, received an investment of 4.1 Million Euro by Venture Capitalist Triangle: a match made during the IEF 2007.

To further boost the development of those newly founded enterprises, ESA is organizing the second consecutive Investment Forum this year, with plans to make it an annual affair.

"For ESA, the Investment Forum 2008 is yet another step of its space incubation pro-



gramme", says Salzgeber. "We support start-up companies do feasibility studies and prototypes, and incubate their business to a certain maturity stage. The Investment Forum picks it up from there and assists the start-ups in becoming a successful business by providing the early stage funding necessary to grow into a self-standing, financially viable business."

ON-OF-A-KIND OPPORTUNITIES FOR INVESTORS

The Investment Forum 2008 opens up exceptional prospects for Venture Capitalists. Space does not only spawn the world's most innovative and most intricate technologies, but also the most thoroughly tested and thus safest. A lot of those technologies found their way back to Earth. This represents a one-of-a-kind chance for forward-looking investors: These space technology spin-offs are a new and promising investment opportunity as it constitutes an almost endless source of potential for profitable future business in >>

CONTACT:
European Space Agency

Human Exploration Promotion Division
Technology Transfer Programme Office

www.esa.int/issbusiness
www.esa.int/ttp

issbusiness@esa.int
ttp@esa.int

>> a time of total technology immersion into our daily routine and ever rising demands for new high-tech solutions in every field of life.

To further explore these opportunities, ESA supports the London-based fund manager E-Synergy in setting up a 40 Million Euro fund dedicated to early investments in start-ups that use space-tech in non-space applications. This fund will further advance the commercialization of space technology and the

strengthening of Europe's innovative industrial power.

The Investment Forum 2008 is organized jointly with the European Innova projects INVESaT (managed by EBN), FinanceSpace (managed by ESA) and the European Special Applications Fund (managed by E-Synergy).

The Forum is open to start-up companies that utilize space technologies

or services for non-space applications. To apply, please go to <http://www.congrex.nl/08c04/> to register. The 20 best companies will be selected to present their products.



COLUMBUS: THE EUROPEAN RESEARCH LABORATORY IN EARTH ORBIT

OPPORTUNITY ALSO FOR INDUSTRY-DRIVEN EXPERIMENTS IN SPACE

The Columbus laboratory will be launched in early February 2008 and is the cornerstone of ESA's contribution to the International Space Station (ISS). It is the first European laboratory dedicated to long-term research in space. Columbus will give an enormous boost to the research under space conditions and will significantly enhance the research capabilities of the ISS, for the benefit of European scientists and industry.

Columbus will be launched with several dedicated research facilities to study in particular the effect of weightlessness: The Biolab supports experiments on micro-organisms, cell and tissue cultures, and small plants; the Fluid

Science Laboratory investigates the complex behaviour of fluids; the European Physiology Module supports human physiology experiments (investigating the influence of weightlessness on muscles and bones, the cardiovascular system, respiratory system, or the immune system). This research is relevant to better understand the functioning of the human body and therefore also to cure related diseases on Earth. The European Drawer Rack provides a flexible experiment carrier for a large variety of scientific disciplines.

Also two external payloads will be installed: the European Technology Exposure Facility (EuTEF), which hosts a range of experiments which need exposure to space, and the SOLAR observatory, which will carry out a spectral study of the Sun for at least 18 months.

The research facilities have been designed to allow for a largely automatic operation. They are furthermore controllable from ground stations in order to minimise the crew time necessary to supervise the experiments. Furthermore, ESA is developing new technologies for onboard analysis of experiments so that the return of samples back to Earth can be limited. Such technologies are also interesting for Earth applications and future exploration missions.

Columbus will be able to deliver science from the very start, immediately supporting a full European experiment programme. Some 100 experiments will be carried out in the first year of operation of the laboratory, which more than triples the annual amount of ESA experiments carried out aboard the ISS in the pre-Columbus period.



MICROGRAVITY: A TOOL FOR INDUSTRIAL RESEARCH

The weightlessness and other space conditions on the International Space Station also provide a unique environment for application-oriented and industrial research. Be it biotechnology, material science or fluid physics, the facilities and resources available on board of Columbus not only allow scientists to carry out their research, but also offer companies the opportunity for developing and testing new products and innovative technologies.

If you want to know more about how your company could conduct research or technology demonstration on the ISS and on Columbus,

please contact us under issbusiness@esa.int or look at our website www.esa.int/issbusiness. There you will find also a permanent "open call" which allows potential customers to present their R&D or technology demonstration ideas related to the ISS at any time. ESA has established all that is necessary to guide and support you starting from the initial project idea through to its actual implementation, including the protection and exploitation of any IPRs that may result.

SPACE TECHNOLOGIES FOR EARTHLY SOLUTIONS

Werner Dupont, Managing Director of MST Aerospace, explains the role of the newly relaunched Technology Forum website www.technology-forum.com for space technology transfer in Europe. On behalf of ESA's Technology Transfer Programme Office, MST Aerospace is leading ESA's Technology Transfer Network, a consortium of five European companies dedicated to transferring space technology to more earthly applications, as well as coordinating ESA's National Technology Transfer Initiative comprising nine more European countries.



What's the purpose of the Technology Forum website?

The Technology Forum website is a catalyst for space companies that want to transfer their technologies to other business areas and vice versa for non-space companies who are looking for high-tech solutions for technological problems they are facing. On the website, we offer technologies from the space sector to the user community, which is coming from very different industry sectors, in order to start the exploitation of space technology in other industrial sectors.

What can those companies find in the database?

www.technology-forum.com currently features some 350 European space technologies and some 450 requests of non-space companies for technological problem solutions. We have

one dozen categories of technologies, ranging from Health and Life Sciences to Materials or Computer Science. We are also describing successful technology transfers that were achieved in the past by the Technology Transfer Network; right now it features ten stories from the previous two years.

Who can get access?

Everyone can get access to the information of the technology-forum website. The target user groups are technology-oriented companies and institutes that are searching for solutions from the space sector for technology challenges they face.

In addition, we have dedicated sectors on the website for special user groups, which are only accessible for registered users. These users can perform searches on the experts database of the portal, they can contact the

experts and they can also apply to become a registered expert on the technology-forum website.

Whom does it benefit?

It clearly benefits the space companies, as it helps them offer their technologies to the non-space sector and ultimately to find customers. And of course it also benefits the companies who are looking for solutions for technical problems. They can express their request on the website and thus get in touch with companies who might have a space tech solution to their problem. Both categories of companies – the offering and the searching – can be contacted through the MST network: they can send us their request or technology offers and we will match them to the right industrial counterpart.

WWW.TECHNOLOGY-FORUM.COM

CONTACT:

European Space Agency

Human Exploration Promotion Division
Technology Transfer Programme Office

www.esa.int/issbusiness
www.esa.int/ttp

issbusiness@esa.int
ttp@esa.int