

SCIENCE | BUSINESS

Innovating for Growth

ESADEFORUM, Barcelona
20 November 2015



Hosted by

ESADE
Business School
Ramon Llull University

Innovating for Growth

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20 November 2015

Public conference - Live Webcast

- 09:00** Opening address by
Eugènia Bieto Caubet, Director General, ESADE Business & Law Schools
- 09:05** Introduction
Richard L. Hudson, CEO & Editor, Science|Business
- 09:10** Challenging the crisis: Successful policies for sustainable growth
Moderator: **Richard L. Hudson**, CEO & Editor, Science|Business
Tuula Teeri, President, Aalto University
Carlos Zorrinho, Member of the European Parliament
Mario Calderini, Full Professor, Politecnico di Milano; Senior Advisor to the Minister for Research and Innovation Policies
Dietmar Tourbier, Technology Leader, GE Global R&D
- 10:00** Launch of the conference declaration: Achieving sustainable growth through research and innovation
Daria Tataj, Founder and CEO, Tataj Innovation
Edit Herczog, Former Member of the European Parliament
- 10:15** New ideas for sustainable growth
15-minute inspiring talks introduced by **Anna Guillaumet**, Account Manager, SIGMA:

The future of urban mobility by **Josep Lluís Larriba Pey**, CEO, Sparsity Technologies
Debunking Monetisation: Surprising ways to help innovation and growth by **Marco Bertini**, Director and Associate Professor, Department of Marketing, ESADE Business School
- 10:45** Coffee & press conference

The 2015 Science|Business annual summit

Hosted by

Awards



Summit partners





Agenda

#Innovating4Growth

11:15 Breakout sessions

Session I: Data-driven innovation: International initiatives for growth

- **Sergio Bertolucci**, Director for Research and Computing, CERN
- **Adina Braha-Honciuc**, Government Affairs Manager - Accessibility, Sustainability and Environment Policy, EMEA, Microsoft
- **Vinny Pillay**, Minister Counsellor, Mission of South Africa to the EU, South African Department of Science & Technology
- **Marc Torrent**, Director, Big Data Centre of Excellence Barcelona

Moderated by **Richard L. Hudson**, CEO & Editor, Science|Business

Room: Platea 1

Session II: Breakthrough science and technology: The start of innovation

- **Lluís Torner**, Director, The Institute of Photonic Sciences; Member of the European Commission FET Advisory Board
- **Monica Dietl**, Director, The COST Association
- **Ramon Wyss**, Vice President International Affairs, Royal Institute of Technology (KTH)
- **Jordi Naval**, Director General, Fundació Bosch i Gimpera

Moderated by **Maryline Fiaschi**, Director, Science|Business

Room: Platea 2

Session III: The social impact of innovation

- **Helga Nowotny**, Member of the Austrian Council for Research and Technology Development; Former President European Research Council
- **Enric Banda**, Former Director of Science and Environment, 'la Caixa' Foundation; Member of the Barcelona Royal Academy of Sciences and Arts
- **Barbara Haering**, Chair of the Board of Directors, econcept Inc.; Lecturer, University of Lausanne
- **Charlotte Ahlgren Moritz**, Pro Vice-Chancellor, Malmö University

Moderated by **Richard Flaye**, Chairman of the Board, Science|Business

Room: Anfiteatro

12:15 Small companies, big plans: the key to the future?

3-minute 'elevator-pitch' session by the four finalists of the 2015 Academic Enterprise Awards – ACES followed by a Q&A with **Paul Van Dun**, General Manager, Leuven R&D and **Quentin Compton-Bishop**, CEO, Warwick Ventures Ltd.

12:45 Best approaches to stimulating university spin-outs

Moderator: **Maryline Fiaschi**, Director, Science|Business

Paul Van Dun, General Manager, Leuven R&D

Malene Jensen, Project Leader, Innovation Office, Karolinska Institutet

Luke Georghiou, Vice President for Research and Innovation, University of Manchester

13:15 Award ceremony

Award presented by **Jonathan Wareham**, Dean of Faculty & Research, ESADE Business & Law Schools

13:30 Networking lunch

Speakers



Charlotte Ahlgren Moritz

Pro Vice-Chancellor, Malmö University

Charlotte Ahlgren Moritz is pro vice-chancellor at Malmö University where she is responsible for collaborations with the private and public sectors. Charlotte has 20 years experience in the private sector as she held different executive positions in finances, marketing, business development and general management mainly in medical technology and ICT in Sweden, Denmark and Finland. Since 2003 she has worked in triple helix oriented organisations. As the CEO of Medeon Science Park, Sweden, she has been involved with issues such as innovation, tech transfer and start-ups and as the executive vice president of MVA, Denmark, she developed and implemented an international network for life science organisations. Charlotte is a board member of several organisations focusing on innovation and growth and she chairs the Forum for Social Innovation Sweden since 2014.



Enric Banda

Former Director of Science and Environment, 'La Caixa' Foundation; Member of the Barcelona Royal Academy of Sciences and Arts

Enric Banda was until recently director of Science and Environment at "La Caixa" Foundation (2009-2015). From 2004 to 2007, he was director of the Catalan Foundation for Research and Innovation and of ICREA. He has been vice-president of the European Geophysical Society, editor-in-chief of Tectonophysics (Elsevier) and European editor of Geophysical Research Letters (American Geophysical Union) and a former president of Euroscience (2006-2012). Enric is a member of the Royal Astronomical Society and author of more than 160 scientific publications. He is a member of the Academia Europaea, and the Royal Academy of Science and Arts of Barcelona.



Marco Bertini

Associate Professor and Director, Department of Marketing, ESADE Business School

Marco Bertini is associate professor and director of the department of marketing at ESADE. He holds a DBA from Harvard Business School and a MBA from IESE Business School. In 2012, Marco was nominated for the Business Professor of the Year award, a global competition run by the Economist Intelligence Unit, and in 2013 he was recognised by the Marketing Science Institute as one of the most promising researchers in the discipline as part of its biennial Young Scholars programme. Marco is a frequent keynote speaker on monetisation issues and his clients have ranged from start-ups to Global Fortune 500 companies, not-for-profit organisations and government.



Sergio Bertolucci

Director of Research and Scientific Computing, CERN

A former Pisa scholar, Sergio Bertolucci has worked at DESY, Fermilab and Frascati. He was a member of the group that founded Fermilab's CDF experiment and has been involved in the design, construction and running of the CDF detector. Sergio has been technical coordinator of the team responsible for the design and construction of the KLOE detector at the DAFNE storage ring at the Frascati National Laboratories (LNF). He was appointed head of the LNF accelerator division and the DAFNE project, becoming director in 2002. Before taking over the Directorate for Research at CERN, Bertolucci was already chairing the LHC committee and was a member of DESY's physics research committee.



Eugènia Bieta Caubet

Director General, ESADE Business & Law Schools

Director general of ESADE and an associate professor in ESADE's Department of Strategy and General Management, Eugenia Bieta Caubet holds a PhD from ESADE-Ramon Llull University, a degree in Business and a Master in Business Administration from ESADE and the UPC Polytechnic of Catalonia. Among other positions held at ESADE, she was corporate deputy director general (2005-2010) and founder director of the ESADE Entrepreneurship Institute (1997-2008). She has collaborated with various companies and two Spanish regional administrations in developing an entrepreneurial business culture and setting up economic development and/or innovation programmes. She has written and co-authored various articles, papers and book chapters on entrepreneurship and innovation.

Speakers



Adina Braha-Honciuc

Government Affairs Manager – Accessibility, Sustainability and Environment Policy, EMEA, Microsoft

Adina Braha-Honciuc leads Microsoft's Accessibility, Sustainability and Environment Policy for Europe, Middle East and Africa. Prior to this, she worked on policy issues relating to cloud computing and the digital economy, and represented Microsoft on privacy matters in various trade associations. She also has experience in the field of corporate strategy within Procter & Gamble in Geneva and Beiersdorf in Hamburg. Adina holds an economics degree from Bucharest Academy of Economic Studies and a Master's degree in International Business from BI Norwegian Business School in Oslo.



Mario Calderini

Full Professor, Politecnico di Milano; Senior Advisor to the Minister for Research and Innovation Policies

Mario Calderini is full professor of Strategy and Innovation Management at Politecnico di Milano where he is also deputy director of Alta Scuola Politecnica. He is the senior advisor for Innovation Policies to the Minister of Education and Research and a consultant to OECD, European Commission and several Italian Regional Governments. He represented the Italian Government in the G8 Task Force for Social Impact Investment. He is an honorary research fellow at Manchester Business School and a Visiting Professor at Tongji University in Shanghai. Mario is the author of highly cited scientific papers in international scientific journals in the field of innovation management and policies.



Quentin Compton-Bishop

CEO, Warwick Ventures Ltd.

Quentin Compton-Bishop is responsible for research commercialisation and technology transfer at the University of Warwick and manages the University's spin-out equity portfolio. He is also the lead director of the Warwick Enterprise Partnership which supports and promotes enterprise amongst students, staff and the university community. Prior to Warwick Ventures, he was a co-founder and CEO of a number of technology start-ups, including P2i and RolaTube Technology, both materials-engineering businesses. His earlier career included software, telecommunications and renewable energy companies. He is a director or board observer of several Warwick spin-out companies and a trustee of the Sustainable Energy Academy and the Levantine Heritage Foundation.



Monica Dietl

Director, The COST Association

Monica Dietl was appointed director of the COST Association in June 2014. Before joining COST, she was twice representative and director of the Brussels office of the French National Research Centre (CNRS). Dietl is a biologist specialised in neuroscience. Her research experience includes: the Pierre et Marie Curie University, the Neurology Department at the Lainz Hospital in Vienna, Sandoz in Basel, and the Inserm Institute of Neurosciences. Previously, she worked as a policy officer at the European Commission's Directorate General for Research, where she was in charge of drafting the FP7 'Ideas' Specific Programme and contributed to the setting up of the European Research Council (ERC).



Maryline Fiaschi

Director, Science|Business

Maryline Fiaschi is director at Science|Business. She is responsible for managing the Science|Business Network of leading research universities, the ACES - Academic Enterprise Award and EU-funded projects. She entered the media business in 2007 in Shanghai, where she worked as Business Development & Commercial Director at Shanghai Daily, the leading English-language newspaper in China. From 2009 to 2011, she worked as Public Affairs Manager at EurActiv.com in Brussels. From 2001 to 2006, Fiaschi worked for DG Education & Culture, European Commission. Today she is an external evaluator for EC's university-industry cooperation programmes. She holds degrees from Université La Sorbonne, Università di Bologna and Université catholique de Louvain.

Speakers



Richard Flaye

Chairman of the Board, Science|Business

Richard Flaye is a portfolio director, mentor, consultant, angel investor and trainer. He grew up in Uganda, read politics and parliamentary studies at Oxford, worked as an economist with the Swaziland Government and then got an MBA from Harvard. He spent four years with McKinsey and Co and then joined Reed Business Publishing. He is currently an investor in and chairman of Reds10, a Big Venture Challenge winner in 2011, which gains long term, skilled employment for disadvantaged young people in London through apprenticeships in the construction industry. He is actively involved with BuildAfrica, a charity which helps young people in East Africa.



Luke Georghiou

Vice President for Research and Innovation, University of Manchester

Luke Georghiou is vice-president for Research and Innovation at the University of Manchester where he is responsible for the University's research strategy and performance, business engagement and commercialisation activities. He holds the chair of Science and Technology Policy and Management in Manchester Business School. His research interests include evaluation of R&D and innovation policy (particularly in relation to the use of public procurement and other demand-side measures), foresight, national and international science policy, and management of innovation. He has chaired or been a member of several high profile committees including the Aho Group and the EC's Expert Group on ERA Rationales, and is currently a member of the RISE High Level Group.



Anna Guillaumet

Account Manager, SIGMA

Anna Guillaumet is a key account manager and consultant specialised in HE Research Information Systems (CRIS) at SIGMA AIE. Combining her training as a computer engineer and extensive experience in higher education, she works with the SIGMA consortium universities experts, equipping them with the best technological and innovative solutions to enhance both academic and, especially, research areas. Using the open innovation paradigm, Anna works closely with the best Spanish universities to promote and implement the latest trends in both education & research, helping universities succeed. Anna currently focuses mainly on latest trends like: open science, open research, social media, and the main European initiatives to enhance and promote research information systems and research data management.



Barbara Haering

Chair of the Board of Directors, econcept Inc; Lecturer, University of Lausanne

Barbara Haering has a doctorate in environmental sciences from ETH Zurich and received an honorary doctorate in political science from the University of Lausanne. She chairs the Board of Directors of econcept Inc., a private consultancy for research, strategic planning, and evaluation. Barbara is member of the European Research and Innovation Board (RISE) appointed by the European Commission and is also member of the boards of the Federal Institutes of Technology, the University of Geneva, TU Dresden and the Swiss Science Foundation. She also chairs the board of the Institute for Advanced Studies in Public Administration in Lausanne.



Edit Herczog

Former Member of the European Parliament

Edit Herczog is a managing director for Vision & Values SPRL located in Bruxelles, and works on several institutional legislative and budgetary issues, including innovation and research. She is also member of APCO worldwide International Advisory Board. Edit is one of the founders and President for FEDRA (Federation of Regional Actors in Europe) and member of the Board of TPN (Transatlantic Policy Network). Between 2004 and 2014 she was an MEP elected in Hungary, and working in the S&D group as a vice president. She was member of the ITRE, IMCO, BUDG and CONT committees and worked on many legislative issues as a rapporteur or shadow rapporteur in the field of Energy ICT, and Research.



Richard L. Hudson

CEO & Editor, Science|Business

Richard L. Hudson has been a leading science and technology journalist in Europe for more than 30 years. As managing editor of The Wall Street Journal Europe from 1997 to 2003, he helped lead a redesign of the title in 2000. He co-founded Science|Business in 2004. He is also co-author of book with Yale/IBM “fractal” mathematician Benoit Mandelbrot: “The (mis)Behavior of Markets: A fractal view of risk, ruin & reward”: Basic Books 2004. He is a graduate of Harvard, and a former Knight Fellow at MIT.



Malene Jensen

Project Leader, Innovation Office, Karolinska Institutet

Malene Jensen joined the Karolinska Institutet Innovation Office in January 2014, where she was initially responsible for setting up a national research school in drug discovery and development. Her current responsibilities include facilitation of academic–industry collaborations and innovation counselling with academic researchers. In parallel, she is a freelance consultant with expertise in project and program management, alliance management, and clinical development of pharmaceutical products and medical device. In 2006, she was recruited to AstraZeneca where she worked in several project lead roles in the design and conduct of clinical studies.



Josep Lluís Larriba Pey

CEO, Sparsity Technologies

Josep Lluís Larriba Pey is professor at Universitat Politècnica de Catalunya and founder of Sparsity Technologies. He has been working on technologies around the use of graphs for modeling different aspects of life that translate into applications like Social Network Analytics, Mobility in Cities, Knowledge Management and Fashion Trend Discovery. Josep Lluís works in collaboration with the University Research groups and the Technology Transfer agents to provide added value to both companies of the local ecosystem and large international corporations like Oracle, IBM and CA Technologies.



Jordi Naval

Director General, Fundació Bosch i Gimpera

For the last 18 years, Jordi Naval has built a number of start-ups, successfully creating and developing new business concepts in the biopharmaceutical industry. He is also involved in philanthropic and educational ventures. In his current position at Fundació Bosch i Gimpera (the Tech Transfer Office of the University of Barcelona) his mission is to transform the world-class research at the University of Barcelona into projects that benefit society as a whole.



Helga Nowotny

*Member of the Austrian Council for Research and Technology Development;
Former President European Research Council*

Helga Nowotny is professor emerita of Social Studies of Science at ETH Zurich and former president of the European Research Council. She is member of the Austrian Council for Research and Technology Development. Helga is also foreign member of the Royal Swedish Academy of Sciences and continues to serve on many international advisory boards throughout Europe. She received doctorates honoris causa from several European universities and a Ph.D. honoris causa from the Weizmann Institute of Science, Israel. Helga Nowotny has published widely in science and technology studies and on social time.

Speakers



Vinny Pillay

Minister Counsellor, Mission of South Africa to the EU, South African Department of Science & Technology

Vineela Pillay is currently employed by the South African Department of Science & Technology, as the senior science and technology representative to the EU. She has acquired experience in international relations, the science and technology sector as well as the environmental sector. She previously managed the portfolio of science and technology bilateral cooperation with countries in Europe & the Gulf as well as in the Americas & Asia regions at the Department of Science & Technology. Vinny has also been involved in environmental and sustainable development issues through various roles, including as senior policy advisor in International Sustainable Development and Trade Co-operation at the South African National Department of Environmental Affairs.



Daria Tataj

Founder and CEO, Tataj innovation

Daria Tataj is the author of a recent book 'Innovation and Entrepreneurship. A Growth Model for Europe Beyond the Crisis' with a Preface by Manuel Castells (2015). Daria is a former founding Executive Board Member of the EIT - European Institute of Innovation and Technology, an expert to the World Economic Forum and alumna of the Forum's Global Agenda Council.



Tuula Teeri

President, Aalto University

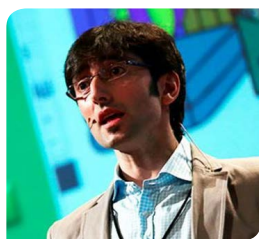
Tuula Teeri was appointed the first president of Aalto University in April 2009. Under her leadership, Aalto University has implemented the tenure track career system for professors, renewed its educational offering and developed multidisciplinary research and educational initiatives. The innovation ecosystem around the university has grown into a major hub for student-driven entrepreneurship. During her scientific career, Tuula was a pioneer of forest industrial biotechnology and the development of biomimetic materials. She is a member of the Royal Swedish Academy of Sciences, Royal Swedish Academy of Engineering Sciences, and Technology Academy Finland.



Lluís Torner

Director, the Institute of Photonic Sciences (ICFO); Member of European Commission FET Advisory Board

Lluís Torner is the founding director of the Institute of Photonic Sciences (ICFO) based in Barcelona and professor at the Universitat Politècnica de Catalunya. He is also former president of the Association of Research Institution of Catalunya. Lluís is the chair of the European Centers for Outreach in Photonics Alliance and member of the Board of Stakeholders of the European Technology Platform Photonics21. In 2011, he received the Leadership Award of the Optical Society of America. He is also a member of the European Commission's Future and Emerging Technologies (FET) Advisory Group.



Marc Torrent

Director, Big Data Centre of Excellence Barcelona

Marc Torrent is director of the Big Data Analytics unit at Eurecat and director of the Big Data Centre of Excellence Barcelona, promoting the culture of data and providing innovative solutions for the market. Torrent has a degree in Telecommunications Engineering from the Polytechnic University of Catalonia, a PhD in Computer Science from Karlsruhe University and an Executive MBA from the ESADE Business School. Before joining Eurecat, he participated since 2000 in different research projects in various ICT fields with different companies and universities in Europe and the United States such as British Telecom UK, NEC Deutschland, Mercedes-Benz R&D USA, the University of California in Berkeley and Ficos International. Torrent has contributed to over 30 publications, has submitted five patent applications and is a member of the technical programme and reviews of many scientific activities.



Dietmar Tourbier

Technology Leader, GE Global Research

Since February 2011, Dietmar Tourbier is responsible for leading the Electrical Systems Organisation team at GE Global Research in Europe. The team's focus is on electric power conversion applications for various GE businesses, including GE Energy Management, GE Power & Water, GE Transportation, GE Aviation, and GE Oil & Gas. Tourbier joined GE in 2002 as a member of the Solid Oxide Fuel Cell Technology team at GE Hybrid Power Generation Systems (HPGS) in Torrance, California. In 2007, he moved to GE Global Research in Europe as manager of the High Power Electronics team. Dietmar received his Master's degree in Aerospace Engineering from the University of Stuttgart and his Ph.D. degree in Aerospace Engineering from The University of Arizona.



Paul Van Dun

General Manager, KU Leuven Research & Development

Paul is general manager of KU Leuven Research & Development, the technology transfer unit of KU Leuven, and coordinates the activities in contract research, patenting, licensing, spinoff creation and regional development. He is also managing director of the venture fund of the university (Gemma Frisius), board member of the Fondation Fournier-Majoie pour l'Innovation (cancer biomarkers), chairman of the Center for Drug Design and Discovery (CD3), and board member or president of several high tech companies. From 2006 – 2010 he was elected vice-president of ASTP, the European association of technology transfer professionals.



Jonathan Wareham

Dean of Faculty and Research, ESADE Business & Law Schools

Jonathan Wareham is dean of Faculty & Research for the ESADE Business & Law Schools, and professor of Information Systems at ESADE Business School. Wareham's research has been published in over 80 refereed journals and proceedings such as Organization Science, Decision Sciences, Decision Support Systems, IEEE Transactions on Engineering Management, IEEE Computer, Journal of Medical Internet Research, Journal of the American Society for Information Science and Technology, International Journal of Medical Informatics and numerous others. He serves as Senior Editor of MIS Quarterly, and has held/holds editorial positions with Information Systems Research, Journal of Information Technology, Journal of the Association for Information Systems, Information & Organization. Jonathan sits on the advisory boards for a number of academic institutions, NGOs and social entrepreneurs.



Ramon Wyss

Vice President International Affairs, Royal Institute of Technology (KTH)

Ramon Wyss is an associate professor in theoretical nuclear physics and the vice-rector for International Programmes at the KTH Royal Institute of Technology. He previously served as vice president of KTH in charge of international education from 2002 to 2007 and from 2009 onwards. He has also been instrumental for setting up the Knowledge and Innovation Community (KIC) InnoEnergy consortium, the leading innovation facility of the European Union within the sustainable energy sector and was serving as board member of KIC InnoEnergy SE from 2010-2013.



Carlos Zorrinho

Member, European Parliament

Following the 2014 European elections, Carlos Zorrinho was elected member of the European Parliament, where he is head of the Portuguese socialist delegation, vice-chair of the Delegation for the External Relations of the European Parliament to Brazil, member of the ITRE Committee, EUROLAT and the ACP-EU Joint Parliamentary Assembly. He is also a substitute member of the ENVI Committee and the Delegation for the External Relations of the European Parliament to the MERCOSUR. Before being elected leader of the Socialist Party's Parliamentary Group in 2011, Carlos served as secretary of state for Energy and Innovation from 2009 to 2011, within the Ministry of Economy, Innovation and Development of the XVII Constitutional Government.



ACES 2015 finalists

Fast start

4

Finalists

1

Winner





The 2015

Academic Enterprise Awards

ACES Awards

The ACES, launched in 2008, are the only pan-European awards for spin-outs from universities and public research institutes, aiming to recognise the best academic entrepreneurs from across all technology disciplines. Every year, they have drawn nominations from all sectors and disciplines and countries in Europe; and have been judged upon key criteria by the Science|Business Innovation Board, a not-for-profit association created to improve the climate for innovation in Europe.

'Fast start' Award

In their 7th edition, the ACES 2015 are open to individuals who have created a promising spin-out based on ideas developed at European universities, formed after 1 June 2013. Each member of the Science|Business Network was invited to nominate two candidates.

The jury

The Science|Business Innovation Board brings together Europe's leading innovators in industry, academia and policy to improve the climate for innovation. It was founded in 2009 by INSEAD, ESADE and Science|Business with support from Microsoft and BP, and later joined by Imperial College London, Aalto University, Sanofi, CERN, GE and some key innovation experts. The Board commissions original innovation policy research from its university members, organises high-level roundtables and conferences on innovation topics, and formulates recommendations for policy action. It also supports Europe's best university spin-outs with the annual Academic Enterprise Award (ACES) competition.

Members of the jury:

Sergio Bertolucci, Director of Research and Scientific Computing, CERN
Adina Braha-Honciuc, Government Affairs Manager – Accessibility, Sustainability and Environment Policy, EMEA, Microsoft
Tuula Teeri, President, Aalto University
Dietmar Tourbier, Technology Leader, GE Global R&D
Eric Vacaresse, Director for Scientific Relations (Europe), Sanofi R&D
Jonathan Wareham, Dean of Faculty & Research, ESADE Business School
Peter Wrobel, Founding Director, Science|Business

Members of the Selection Committee:

Luisa Alemany Gil, Director, ESADE Entrepreneurship Institute, ESADE Business School
Quentin Compton-Bishop, CEO, Warwick Ventures Ltd
Richard Cowburn, Corporate Relations, Innovation Office, Karolinska Institutet
Rudi Cuyvers, Innovation Manager, KU Leuven R&D
Lisa Ericsson, Head of KTH Innovation, Royal Institute of Technology (KTH)
Alessandro Grandi, Professor of Management, University of Bologna
Tony Hickson, Managing Director of the Technology Transfer team, Imperial Innovations
Rudy Koopmans, R&D Fellow EMEA, Dow Europe GmbH
Sigmar Lampe, Technology Transfer Officer, University of Luxembourg
Sivasegaram Manimaaran, Head of Brussels Office, Innovate UK

The 2015 Science|Business annual summit

Hosted by

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ACUP CATALAN ASSOCIATION OF PUBLIC UNIVERSITIES

Summit partners

ESASTAP plus
Strengthening Technology, Research and Innovation
Cooperation between Europe and South Africa

SIGMA
helping universities succeed

Generalitat de Catalunya

SCIENCE|BUSINESS NETWORK

BUSINESS ANGELS WEEK
EUROPE | MIDDLE EAST | AFRICA



'Fast start' Award



Company: CAILabs

Nominees: Jean-François Morizur

Founded: 2013

Institution: Université Pierre et Marie Curie, France



Based on a new optical technology derived from quantum optics research, CAILabs develops, produces and sells innovative telecommunication equipment, including a component able to multiply by 400 the capacity of existing LAN fibres.

The problem: Our ever-rising use of the Internet is putting pressure on optical networks, with demand for bandwidth growing at 20 to 90 per cent a year. For cloud applications to grow, we need new ways to get more data down optical fibres.

The answer: CAILabs uses 'multi-plane light conversion' technologies, protected by three patent families, to design optical components that manipulate the shape of coherent light, allowing optical fibres using the technology to carry more data. With its technology, CAILabs helped Japan's KDDI, the country's second biggest telecoms firm, break the world record for fibre capacity, as reported this year.

The company: The two-year-old French company is a 14-person start-up currently selling optical components to the R&D labs of major phone companies. It is preparing to expand its reach with the launch of a local area network solution for wider use. CAILabs raised €1.1 million in a first-round of venture capital funding in late 2013, and a further €450,000 at the start of 2015. Another round is planned later this year. The CEO is founder-inventor Jean-François Morizur.

1. In what way is your company innovative?

CAILabs is innovative on two different levels. First and foremost, its products are innovative. By controlling and leveraging the shape of the light in an optical fibre, CAILabs brings a much needed 400-fold capacity increase in conventional LAN fibres. With CAILabs, links that are normally limited to 100Mbps can transmit up to 40Gbps. This allows companies and institutions to enjoy fully the benefits of an increasingly connected world without the need to replace their fibres. And for the long term, it is with CAILabs' products that Japan's KDDI, the country's second biggest telecoms firm, demonstrated this year a world record in fibre capacity for the core network, the backbone of the internet.

Secondly, CAILabs is also innovative for the importance 'quantitative concepts' take in business operations. The quantitative expertise required to implement CAILabs' core technology, originally invented for quantum computing within optical beams, has penetrated the whole business.

2. What triggered the launch of your company?

The core technology was invented in 2009, but it was only in 2012 that Alcatel-Lucent's interest in the technology for telecommunication allowed us to identify a clear market. The company was founded afterwards, in 2013.

3. What has been your best mistake?

A very early collaboration which did not work and delayed our development by three months. It taught us the value of keeping all critical functions in-house, and to delegate / externalise as much of the rest as possible.

4. Who has been your best ally in the development of your company?

A company is a chain and every link counts. The founders (both the persons and the institutions), the investors, the early employees... everyone needs to be committed to enable the launch and the development of the company. I really cannot single out one person.

5. What is your biggest fear?

My biggest business-related fear is that I somehow fail in my role as CEO of the company.

6. Where do you see yourself in 10 years?

I do not see that far. What I learnt in the last two years is that things move fast, and that you need to jump on the opportunities as they arise.

7. Who is your favourite entrepreneur?

Difficult question. Maybe Ferdinand Magellan.

8. What book would you recommend to your team?

Any book they like, as long as it is not work related.

9. In one sentence, what advice would you give to a researcher looking to set up a company?

Setting up a start-up is all about sharing responsibilities, expertise and financial outcomes between you, your team, your clients and your investors.



'Fast start' Award

neosense
technologies

Company:

Neosense Technologies

Nominees: Kenneth Danehorn

Founded: 2014

Institution: KTH Royal Institute of Technology, Sweden



Neosense Technologies develops a sensor with monitoring systems that senses blood oxygen tension and temperature of preterm infants. Oxygen treatment based on oxygen tension can reduce complications for extremely preterm babies. Our system can reduce mortality and morbidity and lifelong disorders for preterm babies due to impaired oxygen therapy.

The problem: Extremely pre-term babies have underdeveloped organs and a weak immune system and need intensive care. Because they cannot breathe properly, these babies need an additional oxygen supply and ventilation support. But the supply needs to be tightly controlled: if oxygen levels are too high there is a risk of eye damage, even blindness, if too low there is a risk of permanent damage to the brain and other organs.

The answer: Neosense Technologies has developed a sensor with monitoring systems that keeps tabs on the blood oxygen levels and temperature of preterm infants. The company claims its system can reduce mortality and morbidity for pre-term babies at risk of developing lifelong disorders due to impaired oxygen therapy. The developers estimate a market of 50,000 patients across Europe and calculate that a reduction of minor and major disabilities by 10 per cent would save health systems €4 billion a year. In the longer term, the company says the sensor could be used for adults in intensive care and in cardiac and vascular surgery.

The company: Neosense's patented monitoring system is based on a sensor developed by Nils Holmström as part of his PhD work at Stockholm's Royal Institute of Technology. He formed the company with Kenneth Danehorn and Lars Åke Brodin, a professor of medical engineering at KTH. Neosense has attracted a number of backers. Sweden's innovation agency, Vinnova, funded the company with €175,000. Stockholm County Council, SLL Innovation Fund will support the company with €40,000 this year. Stockholm Innovation and Growth has provided business coaching and has a 5 per cent option agreement in the company. KTH Holding invested €25,000 for a 5 per cent holding in the company. There is also an innovation loan of €30,000 from the Swedish government-backed innovation group Almi. KTH Innovation has supported and funded the company with €5,000. Flemingsberg Science Foundation has put in €2,500 and provided free legal support. A clinical evaluation has successfully completed and the company hopes to see its sensor launched in Europe and Asia in five years' time.

1. In what way is your company innovative?

Our company utilises a novel invention to measure entities in the blood. The innovation is to combine this invention with an application in medicine, which has a high need to monitor these entities continuously. There is no method today available on the market.

2. What triggered the launch of your company?

We can offer a unique method that has a great possibility to reduce morbidity and mortality for premature infants worldwide. Also, the market is scalable to other larger disciplines within healthcare.

3. What has been your best mistake?

From the start we had limited understanding about the complexity of the techniques. We changed several things at the same time and had trouble in figuring out why it didn't work. During the error analysis we learned facts that were essential for understanding our system.

4. Who has been your best ally in the development of your company?

The contact network that we got through STING (Stockholm Innovation and Growth) and KTH Innovation was important to find resources for helping us forward.

5. What is your biggest fear?

Not finding the funding to take us to a safe and sellable product.

6. Where do you see yourself in 10 years?

Neosense Technologies will be a well-known and profitable company selling products for intensive care monitoring worldwide.

7. Who is your favourite entrepreneur?

Radi Medical Systems developed a pressure sensing wire for detecting occlusions in coronary arteries. To finance development of this expensive and complex system they also invented a disposable arterial port that generated great continuous income.

8. What book would you recommend to your team?

'Venture Deals' by Brad Feld and Jason Mendelson.

9. In one sentence, what advice would you give to a researcher looking to set up a company?

Find a partner who complements you with his or her knowledge and skills and with a buffer of money on the bank account.



'Fast start' Award



Company: PEP-Therapy

Nominees: Antoine Prestat

Founded: 2014

Institution: Université Pierre et Marie Curie, France



PEP-Therapy is a biotechnology company, which develops targeted therapies for severe diseases, with an initial focus on cancer. It develops 'Cell Penetrating & Interfering Peptides' technology. These innovative molecules penetrate cells, then specifically block relevant targets, thus inhibiting key pathological mechanisms.

The problem: Despite many advances in the treatment of cancer, it remains a significant cause of mortality and morbidity.

The answer: PEP-Therapy is developing drugs based on peptides - protein fragments that are small enough to get through the cell wall and lock onto intracellular targets, blocking the effects of cancer-promoting enzymes. It calls these 'Cell Penetrating & Interfering Peptides'. The first product, DPT-PEP1, targets the caspase-9/PP2 pathway, which is implicated in the development of breast, lung and ovary cancers. DPT-PEP1 consists of two sequences, a shuttle to deliver the drug into cancer cells and a second to block the target protein. Preclinical results support the initial clinical development of DPT-PEP1 in triple-negative breast, lung and ovary cancers, uveal melanoma (orphan disease) and chronic lymphocytic leukemia. Two further products are in preclinical development.

The company: PEP-Therapy Chief Executive Officer Antoine Prestat co-founded the company in 2014 with Angelita Rebollo, Didier Decaudin and Fariba Némati. The company builds on research carried out at Pierre & Marie Curie University, Inserm and Institut Curie. It plans to perform early clinical trials then outlicense its drugs to pharma and biotech companies for final clinical development and commercialization. PEP-Therapy and European partners have been awarded a €6 million grant from the EU's Horizon 2020 research programme, for a study on the treatment of uveal melanoma, a rare disease. The company raised €1 million in venture capital and €300,000 from a business angel in 2015.

1. In what way is your company innovative?

Our contribution is helping to overcome one of the challenges of healthcare, to give the right and efficient treatment to the right people. PEP-Therapy addresses severe diseases, especially cancers, by developing:

- safer and efficient treatments, thanks to the targeted action, at a molecular level, of its innovative technology (which we call 'Cell Penetrating and Interfering Peptides')
- personalised medicines, based on predictive biomarkers.

2. What triggered the launch of your company?

Developing a versatile disruptive technology first and foremost. And also establishing a confident relationship and mutual understanding between scientists, physicians and the managers of the team.

3. What has been your best mistake?

A slight underestimation of the time to do things.

4. Who has been your best ally in the development of your company?

My partners and my team.

5. What is your biggest fear?

To lose a bit of my energy.

6. Where do you see yourself in 10 years?

As the serial developer of innovative biotechnologies for better personalised and targeted medicines and sustainable growth.

7. Who is your favourite entrepreneur?

Sylvester in the 'Tweety and Sylvester' cartoon. He never gives up chasing his prey nor stops dreaming of gobbling up the Tweety bird.

8. What book would you recommend to your team?

"La créativité ou la novatique" from Isidore Isou, founder of the "Hyper-crétisme" movement. This book is a kind of historical assessment of innovations and discoveries.

9. In one sentence, what advice would you give to a researcher looking to set up a company?

Be open-minded, passionate and forward-looking... but above all, be persistent.



'Fast start' Award



Company: Seram Coatings

Nominees: Gisle Østereng

Founded: 2014

Institution: Norwegian University of Science and Technology (NTNU)



The company is the first in the world to offer a revolutionising anti-corrosion and wear resistance coating based on silicon carbide, one of the world's hardest materials. Seram Coatings has a lot of international potential customers, investors and partners lined up for further development.

The problem: Gas turbines, jet engines and heat exchangers all need surface protection against rust. There are many coatings on the market today – but they are not wear-resistant enough, do not have enough hardness and/or are not providing sufficient anti-corrosion properties.

The answer: Seram Coatings claims it is the first in the world to have developed an anti-corrosion and wear-resistant coating based on silicon carbide, one of the world's hardest compounds. Because this material has no melting point, it has not previously been possible to use it for coating. The company expects its spray, which should be able to withstand fierce heat or high doses of radiation, will replace coatings made of chrome and tungsten carbide.

The company: Seram will test the coating with manufacturing companies including Scania, FMC, MAN diesel and turbo. The chief executive Gisle Østereng has already run two successful start-ups from the Norwegian University of Science and Technology.

1. In what way is your company innovative?

We are the first in the world to make a thermal spray coating based on one of the world's hardest materials: silicon carbide. Many, many have tried but failed – until now.

2. What triggered the launch of your company?

Nuria Espallargas (from Barcelona) had been thinking about this technical challenge for a long time. When her PhD-student Fahmi Mubarak started working on his degree at NTNU (Trondheim, Norway), they decided to together focus on overcoming the challenge.

3. What has been your best mistake?

I am not sure that the mistake was ours, but suddenly in early 2015 the university's ventilation system stopped working and needed a long time to be repaired. We had no choice but to move out. This has proven to be very smart and has given us a more robust manufacturing chain, and we are in a much better position now.

4. Who has been your best ally in the development of your company?

NTNU Technology Transfer has been our best ally so far. They have funded the project and brought in additional money for the company, secured intellectual property rights and are doing a great job on the board of directors.

5. What is your biggest fear?

In any company working with chemicals, health and safety is top of the agenda. Always. Our biggest fear is an accident. We work hard every day to avoid accidents and all employees are told to stop working if they don't feel something is 100 per cent safe. Building a strong health and safety culture internally is the most important thing we do.

6. Where do you see yourself in 10 years?

As a rather fast-growing company, ready to leave the medium-sized company bracket to become really big.

7. Who is your favourite entrepreneur?

Ken Morse, ex-managing director of MIT's Entrepreneurship Lab.

8. What book would you recommend to your team?

'Disciplined Entrepreneurship' by Bill Aulet.

9. In one sentence, what advice would you give to a researcher looking to set up a company?

Go for it. Get in touch with your tech transfer office and build a strong team with experienced entrepreneurs and just do it! Oh, and remember: great companies are built based on answering customers' needs.



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