

Public Funding Opportunities

FHNW Brugg-Windisch, Wednesday, 4. December 2019



Dr. Christian Bosshard

Manager Swissphotronics, Vice-President Center Muttenz, CSEM SA, 4132 Muttenz BL
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Dr. Christian Bosshard received his degree in Physics (1986) and his doctorate (1991, Silver medal award) from ETH. Christian Bosshard is a Fellow of the Optical Society of America (OSA), coordinator for CSEM in the Heterogeneous Technology Alliance (HTA), Managing Director and board member of Swissphotronics NTN.

Welcome from Swissphotronics



Robert Lüdi

Lüdi Consulting R+D, 8132 Egg Zürich
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Since 1992 engaged with public R+D programs, thereof 8 years as a national contact for EU programs, located through 2000 at the industrial association Swissmem, 3 years as technology manager at SIG Holding & manager of a technology park in Neuhausen (50% each) and in the last 20 years as an independent consultant. Focus is on industry relevant programs and projects.

Overview Public Funding Programs, Lüdi Consulting R+D

18 R+D umbrella programs with public means of 2'700 million CHF exist for Swiss participants, whereby 80% are used to finance public organizations. An overview of the developments and future risks is shown for the 8 programs relevant for the Swiss industry, respectively participants from the private sector, which in fact finances all public programs.



Dr. Francesco Kienzle

Swiss National Contact Point NCP, Euresearch, 3008 Bern
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Francesco Kienzle is the Swiss advisor (aka NCP) for the Horizon 2020 programmes Information and Communication Technologies as well as Future and Emerging Technologies. After a PhD in astrophysics at the University of Geneva he worked ten years as IT application manager for PostFinance. Since 2014 he is NCP at Euresearch.

Horizon 2020 Funding for Companies

2020 is the last year of Horizon 2020, distributing 14 billion €, the highest budget ever in the history of European Framework Programme. Photonics is one of the *Key Enabling Technologies* supported by Horizon 2020 funding projects ranging from photonics applications to more early technology development or fundamental research. The presentation will focus on opportunities for companies.



Janique Siffert

EUREKA Project Officer, Innosuisse – Swiss Innovation Agency, 3003 Bern
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Education: Commercial Training with further studies in Business Administration and International Management. Professional position: 2013 – 2019: EUREKA Project Officer Switzerland at the Innosuisse – Swiss Innovation Agency and State Secretariat for Education, Research and Innovation, Bern (2013 – 2018) Responsibilities: Support of Swiss Eurostars project participants and Administration of Swiss Eurostars projects.

Eurostars

Innosuisse is the Swiss Innovation Promotion Agency. Innosuisse's role is to promote science-based innovation in the interests of industry and society in Switzerland.



Dr. Hanspeter Bär

Innovation Mentor, Innosuisse, 3003 Bern
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Hanspeter Bär spent his business life in two international Swiss companies, Zellweger Uster AG, and Huber+Suhner AG, in different positions, e.g. research&development manager, sales&marketing manager, and division manager. Since his retirement, he is acting part time as Innovation Mentor, accredited by Innosuisse.

Innosuisse Mentoring

The presentation will cover the key Innosuisse instruments for supporting and funding joint innovation projects between Swiss companies and Swiss research institutes.



Prof. Dr. Peter Seitz

Scientific advisory board, Werner Siemens Foundation, 6300 Zug
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Peter Seitz is a member of the scientific advisory board of the Werner Siemens Foundation, he is Senior Technologist Europe of Hamamatsu Photonics, he is adjunct professor of optoelectronics at EPFL, he is a member of the executive board of the ETP Photonics21, and he is a member of the executive committee of SATW, the Swiss Academy of Engineering Sciences.

Werner Siemens Foundation

The Werner Siemens Foundation provides generous (multi-million) seed funding to outstanding, innovative projects in technical fields and the natural sciences—with the goal that, in a few years, the projects can be run independently or that the results find industrial application. The projects must address relevant scientific, technical or socio-economic problems or challenges of our times.



Dr. Pierre-Yves Fonjallaz

Programm Manager Research, EPFL, 1015 Lausanne VD
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Pierre-Yves Fonjallaz obtained his PhD in Physics at EPFL in 1995. He then spent 23 years in Sweden working at Royal Institute of Technologie KTH and for the Research Institute of Sweden RISE in different positions. He founded and led the national platform PhotonicSweden from 2011 to 2018. He is presently working with collaborative projects at the research office of EPFL and for Swissphotonics NTN.

Photonics-related EU projects at EPFL: Portfolio and learnings

EPFL has a strong activity in Photonics, which is also visible from the large proportion of EU projects owned by EPFL in that field. We will give an overview of these EU projects and an analysis in terms of applications, type of programmes and type of projects. We will also discuss the benefits of having EPFL as a driving actor for companies in its ecosystem.



Dr. Stefan Lux

Technology and Licensing Manager, ETH, 8092 Zürich
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Stefan Lux studied mechanical engineering at RWTH Aachen, Germany. After obtaining his PhD. (1997) in the field of gear manufacturing technologies he worked 11 years in a Swiss company (production and distribution of cutting tools) as head of product development (board member from 2004). In 2008 he obtained an *Executive MBA*-degree from University of St. Gallen HSG. Stefan joined ETH transfer in 2009 and is member of the board of Swiss Technology Transfer Association swITT.

ETH Transfer

ETH Zurich has internal structures providing support for fostering SMEs with innovations based on (publicly funded) development projects.

The *Industry Relations* team helps to find the right partner (professorship, laboratory, institute) whereas *ETH transfer* handles all important questions with respect to Intellectual Property Rights IPR relevant for these projects. In addition, we offer licenses to already filed patent applications and patents.



Dr. Rudolf Fryček

CEO, Amires Sàrl, 2000 Neuchâtel
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Rudolf Fryček has more than 15 years' experience in the European project management and consultancy. He was a consultant to several SMEs in the field of production, innovation and company development, including preparation of project for governmental incentive and for several business-oriented bank loans. In 2006, he was nominated as a Seconded National Expert to the European Commission, Directorate General for Industrial Technologies, Unit Nanosciences and Nanotechnologies. He has been active in the policy structuring for exploitation and commercialization of EU framework projects and he contributed to analyze the overall nanotechnology unit project portfolio in terms of generated IPR. He was a programme advisor at several EU wide events like EuroNanoForum, Industrial Technologies, Reindustrialization of European Union etc. Since 2011, he is an accredited coach of Swiss Innovation Platform – PLATINN, which provides hands-on coaching to SMEs. Rudolf is a cooperation coach - helping companies (by 2019 > 50 companies) to increase their innovation capacity by new partnerships. Rudolf is a founder and CEO of AMIRES company.

Support for Applications

AMIRES provides business coaching for every proposal requesting public funding for R&D. The innovation part is what makes the consulting process successful on the European scale. The presentation will include description of industrial-like pilot lines and associated services for accelerated development and market entry of new photonics components and systems.



Panagiotis Georgiadis

Head of Business Development, Alpes Lasers SA, 2072 Saint-Blaise NE
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Mr. Panagiotis Georgiadis, is head of business development at Alpes Lasers. He holds an MPhil in Micro & Nanotechnology Enterprise from Cambridge University and a BEng in Materials Science and Engineering. He has served as an evaluation expert for the EU in FP7 & H2020 calls for proposals, and has been involved in more than 30 successful EU projects.

Success Story 1

Alpes Lasers is a Swiss SME, considered to be a leading expert in mid-infrared photonics. Alpes Lasers is today the leading Swiss private organisation in number of EU-funded research projects. This has proven invaluable for its R&D activities in developing new products, as well as for developing new business collaborations and tapping into new markets.



Dr. Felix Betschon

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masters degree in electrical engineering at ETH Zurich in 1996; then research assistant at ETHZ, PhD in 2001; 2001 – 2007 different positions within R&D of Oerlikon ESEC incl. Head of R&D; 2007 – 2008 responsible for the Electronics R&D of Presta ThyssenKrupp in Budapest; 2008 joined Varioprint AG where he spun-off photonic activities into the vario-optics ag; since then CEO.

Success Story 2:
EU Projects boost vario-optics Integrated Planar Micro Optics

In the first part of the talk an introduction into the company vario-optics will be given. Then it will be shown how vario-optics as industrial company was able to benefit from the participation in two EU projects. At the end, the experiences and findings from the perspective of vario-optics will be summarized.



Dr. Christian Vélez

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Christian Velez is Founder and CEO of Exalos. He received his diploma degree in physics at ETH Zurich in 1998 and graduated in 2001 with a PhD thesis at the Micro- and Optoelectronics laboratory at ETH Zurich. He gained several years of working experience in the optoelectronic industry working for Opto Speed in Switzerland before he founded his own company Exalos AG in 2003.

Success Story 3
Examples of public funding received at Exalos, what was critical to get them, did they helped, was it worth all the efforts at the end?



Dr. Christoph S. Harder

President Swissphotonics NTN, 8832 Wollerau SZ
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Dr. Christoph S. Harder received the ETH Diploma in 1979 and the Master and PhD in EE in 1980 and 1983 from Caltech, Pasadena, USA. He is cofounder of the IBM Zurich Laser Diode Enterprise which pioneered the first 980nm high power pump laser for telecom optical amplifiers and laser diodes for industrial and consumer applications with ultrahigh reliability. He is the recipient of a Fulbright scholarship and the OSA Fellow recognition. Christoph is now heading a consulting company and is cofounder of Swissphotonics and has been its president for the last few years. He has published more than 100 papers and 20 patents and has held a variety of staff and management positions at ETH, Caltech, IBM, Uniphase, JDS Uniphase, Nortel and Bookham and has volunteered on society boards and committees.

Conclusion



Fabio Manzini

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Master Electrical Engineering EPFL. Postgrad studies in Industrial Expert Systems at EPFL. Head of a joint research project (EPFL, Uni Neuchâtel, IDSIA Lugano) in Robotics and AI. International Marketing - IMD Lausanne. Project manager in Robotic Simulators at Atlas Copco European Research Center. 19 year international career in Industrial Automation, Energy and Transport at Alstom Ltd. Commercial Director Alstom Switzerland, Greece, Egypt. Managing Director Alstom Schweiz AG Transport. Director of European affairs for Alstom Transport in Brussels. CEO and Owner of GMP SA. Investor in multiple startups in the field of: surgery, ophthalmology, robotics, fintech. Member of the Swiss Business Angels association. Golden Alumni EPFL. Alumni IMD. Member of IEEE Photonics. Member of SPIE.

Moderator of the GMP Photonics Prize ceremony



Prof. em. Dr. René Salathé

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René Paul Salathé received the MS, PhD, and Habilitation (Privatdozent) degrees in Physics at the University of Bern. He worked in the Telecom Industry before he became a full professor of Applied Optics at EPFL in 1989. His research activities included biomedical optics, medical laser applications, fiber sensor applications, and assembly technologies for miniaturized optical systems. At EPFL he directed the Center for Laser Applications, the Institute of Applied Optics, and the Micro-Engineering Department.

Presently, he works as a technology consultant on the Board of a private owned SME. He is senior partner of ExpertInova AG, a Swiss company providing scientific, technical, and financial advice. He also serves as member of the Board of Trustees of the Essential Medical Devices Foundation.

Laudation GMP Photonics Prize

Our next stops:

Swiss Lighting Forum 2020

Thursday, 30. January 2020
Congress Center Basel
Messeplatz 21
4057 Basel

Apéro SPIE Photonics West 2020

Wednesday, 5. February 2020
South Hall, Booth #763 of
FISBA AG, Switzerland
The Moscone Center
747 Howard Street, San Francisco, CA 94103 USA



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