

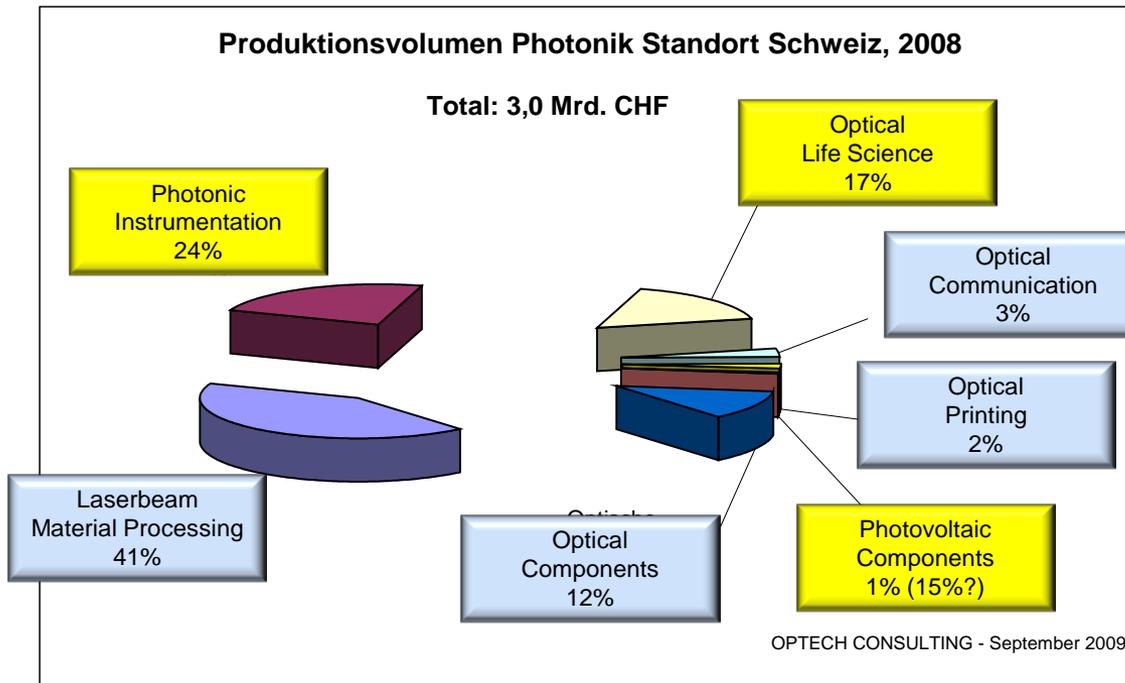
NCCR MUST/SLN

Photonic Instrumentation Workshop

Christoph Harder, HPP

Nov. 24, 2011

Swiss Photonics Industry



- 3'000 Mio/year revenue
 - Switzerland is number 2 in Europe photonic revenue/capita
- NCCR MUST Markets
 1. **Photonic Instrumentation**
 2. **Photovoltaic Components**
 3. **Optical Life Science**

MUST Markets:

- NCCR MUST is dedicated to basic research
 - challenging gap to technology transfer
 - Concentrate on three markets
- MUST experiments are limited by measurement equipment and also pushing instrumentation:
 - **Market: Sophisticated photonic instrumentation**
- MUST is dedicated to the understanding of chemical reactions of oxygen, carbon and hydrogen
 - **Market: Solar energy based fuels/power and chemical storage.**
- MUST aims at understanding complex molecules
 - **Market: Pharmaceutical markets (Personalized medications)**
- Other potential markets
 - **Material processing, time standard technology**

Program

13:30-15:05 Research: Using instruments and providing technology for new instruments

- Rafael Abela, PSI
 - The SwissFEL X-Ray Laser Project: Challenges and Opportunities
- Jean-Pierre Wolf, Uni GE
 - Label Free Imaging and Bioassays
- Thomas Feurer, Uni BE
 - Electro-Optic THz Near-Field Imaging
- Peter Hamm, Uni ZH
 - 2D-IR Spectroscopy

15:05-15:35 Networking break

Program

15:35-16:35 Industry: Selling instruments and bringing new technology to the market

- Carolina Medrano, Rainbow Photonics AG, 8048 Zürich
 - THz Equipment: State of the Art and Requirements for Next Generation Devices
- Sadik Hafizovic, CEO Zurich Instruments AG, 8005 Zürich
 - Dynamic Signal Analysis for Academic and Industrial Applications
- Patrick Lambelet, CTO Heliotis AG, 6039 Root LU
 - High-speed Lock-IN CMOS camera with pixel-level signal processing

Program

16:45-17:30 Workshops

- Swiss built instruments for MUST (room Fortran, 2nd floor): R. Sigg
- MUST technology for Swiss instruments (room Pascal, 3rd floor): Ch. Harder

17:30-17:40 Wrap-up

17:40- 19:00 Apero riche

Program 1

13:30-13:45	Dr. Christoph S. Harder: Nationalfonds: Technology Transfer
13:45-14:05	Dr. Rafael Abela: Instruments required for SwissFEL at PSI
14:05-14:25	Prof. Dr. Jean-Pierre Wolf: Label Free Imaging and Bioassays
14:25-14:45	Prof. Dr. Thomas Feurer: Electro-Optic THz Near-Field Imaging
14:45-15:05	Prof. Dr. Peter Hamm: 2D-IR Spectroscopy
15:05-15:35	Networking Break (room Modula, 2nd floor)
15:35-15:55	Dr. Carolina Medrano: THz Equipment: State of the Art and Requirements for Next Generation Devices
15:55-16:15	Dr. Sadik Hafizovic: Dynamic Signal Analysis for Academic and Industrial Applications
16:15-16:35	Dr. Patrick Lambelet, High-speed Lock-IN CMOS camera with pixel-level signal processing

MUST TT Activities

Details for NCCR MUST TT support

- MUST Industrial Project Program (75'000Fr/project, total 0.2Mio/year)
 - Regular call for projects by Rainer Sigg
 - NCCR TT Special program (200'000Fr/project, total 10Mio)
 - Submit proposals to Rainer Sigg by December 15
 - CTI (total 100Mio/year+100Mio)
 - Competitive (500 in queue to be evaluated)
- Website: http://www.nccr-must.ch/technology_transfer.html