

# Technology Transfer from Academia to Industry

## - How the Tech Transfer Offices can assist you

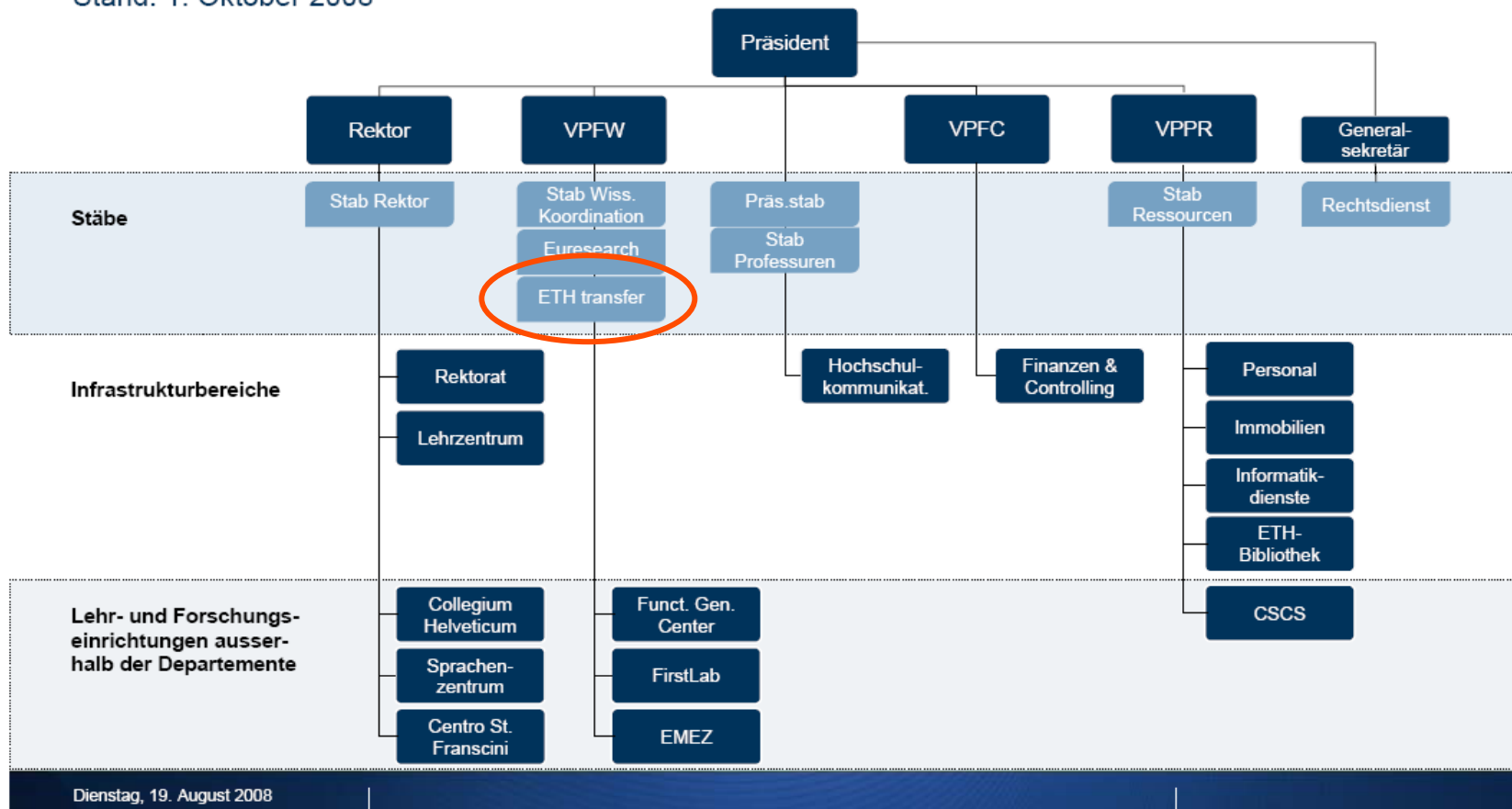
Dr. Silvio Bonaccio, Head of ETH transfer



# ETH transfer - Embedment In ETH Zurich

## Organigramm der ETH Zürich: Schulleitung und Zentrale Organe sowie Lehr- und Forschungseinrichtungen ausserhalb der Departemente

Stand: 1. Oktober 2008



# Technology transfer support at ETH Zurich



**Dr. Donald Tillman**  
Director



**Dr. Urs Zuber**  
Industrial Relations Officer



**Dr. Silvio Bonaccio**  
Head ETH transfer

## Fundraising



**Corinna Adler**  
Director Strategic Partnerships



**Nathalie Fontana**  
Director Strategic Partnerships



**Franziska Juch**  
Alumni Fundraising



**Lioudmila Thalmann**  
Finance & Organisation



Vacant



**Dr. Niklaus Bühler**  
Honorary Counsel ETHZ  
Senior Industrial Relations Officer



**Dr. Daniel Auerbach**  
As of Sept. 1, 2013

## Industry Relations



**Dr. Peter Seitz**  
I&E Lab Coordination

## ieLabs

## Research Agreements



**Dr. Andreas Klöti**  
Head Group,  
Industry Partnerships  
D-BSSE, D-CHAB, D-MATL



**Dr. Alexa Mundy**  
D-BIOL, D-HEST, D-MAVT



**Mira Krämer, RA**  
Legal Counsel ETH transfer  
D-ARCH, D-BAUG,  
D-ERDW, D-INFK,



**Christoph Neubauer, RA**  
Legal Counsel ETH transfer  
D-GESS, D-ITET, D-MATH,  
D-MTEC



**Hannah Greiner, RA**  
Legal Counsel ETH transfer  
D-MAVT, D-PHYS, D-USYS



**Yvonne Andreoli, RA**  
Legal Counsel ETH transfer  
General



**Dr. Silke Meyens**  
Head Group,  
D-CHAB, D-ERDW,  
D-HEST



**Dr. Matthias Hölling**  
D-INFK., D-ITET, D-MATH  
Software Licenses



**Dr. Marjan Kraak**  
Technology  
Commercialization



**Stefan Lux**  
D-ARCH, D-BAUG,  
D-MATL, D-MAVT,  
D-MTEC, D-PHYS, D-HEST



**Dr. Christina Dittrich**  
D-BIOL, D-BSSE, D-CHAB,  
D-GESS, D-USYS



**Emanuel Weber**  
As of June 1, 2013

## Spin-off Support



**Dr. Matthias Hölling**  
Head Group



**Dr. Marjan Kraak**  
Spin-offs Life Science



**Dr. RA lic.iur LL.M. Daniel Ronzani**  
Legal Counsel



**Dr. Bernhard Hostettler**  
Patents & Licenses

## Temporary Support

## Backoffice



**Elisabeth Schlegel**  
Research Agreements



**Patricia Huber**  
Research Agreements



**Patrizia Zuppinger**  
Patent & Licenses  
Administration

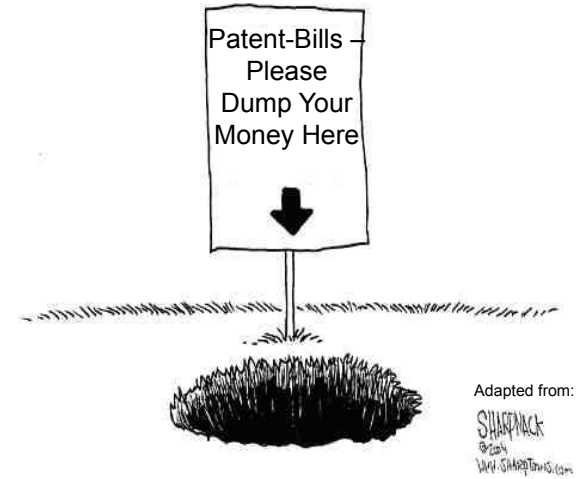
# Research Collaboration with Industry

## - Prerequisites

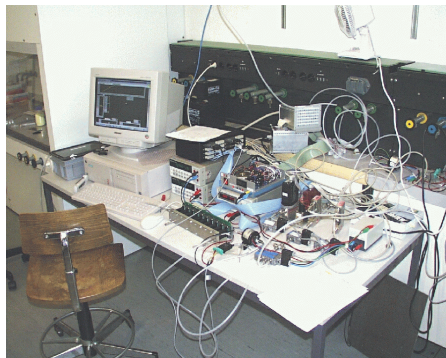
- Project is scientifically or technically relevant.
- Results can be used afterwards freely for further research and educational purposes.
- Publication rights are granted to ETH Zürich (Secrecy ?!).
- Reasonable agreement with regard to ownership of IP and rights for commercial use:
  - IP ownership with industrial partner, restricted to partner's field of main interest: Overhead-Cost of 45%
  - IP ownership with ETH Zürich, industrial partner has an option to an exclusive license against payment: Overhead-Cost 10%, later: acc. to additional license agreement
- Freedom with regard to future collaborations with other third parties.

# The 3 problems with the IPR owned by universities

1. How to avoid missing the big opportunity ?
2. So many patents – what now ?
3. Who pays the Bill?



AND:

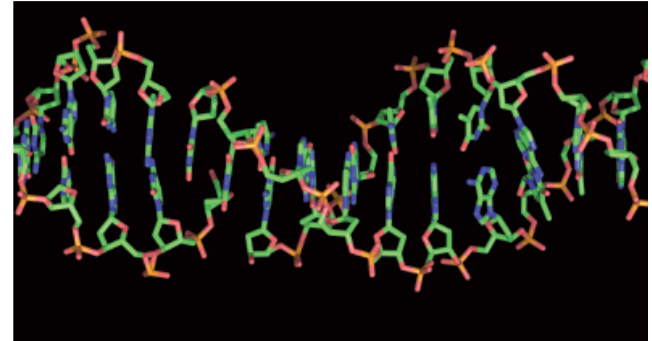


**... it still can take a long time from basic science to products (5 - 40 yrs)**



# Patenting and Licensing of Intellectual Property

- **The Technology Transfer Office supports the researchers with:**
  - Evaluation of ETH Zurich inventions
  - Advice on patentability
  - Support with patent applications (incl. funding) and related strategy
  - Technology Marketing (Presentations, Fact Sheets for industry, Fairs, Tech Alerts, etc.)
  - Identification and selection of licensees
  - Negotiation of licensing agreements
  - Controlling and revenue distribution.



**SPARK – Award for the best Invention of the Year!**



# Patent Guidelines at ETH Zurich (1/5)

- **ALL inventions / filed patents MUST be communicated to ETH transfer**
  - *Inventions made at work and at home (if ETH resources were used in between).*
- **Inventions / Patents must ALWAYS be filed in the name of ETH Zürich**
  - *Institutes or professors are no legal entities.*
- **Applications are financed 100% by the VP Research**
  - *If ETH Zurich finds the technology interesting, potential licensees and markets are available, and the strategy is aligned with ETH transfer.*

# Patent Guidelines at ETH Zurich (2/5)

- **Distribution of revenues**
  - *After deduction of all external cost (mainly legal fees):  
1/3 inventor, 1/3 research group, 1/3 global budget ETH Zurich.*
- **Assignment to inventors possible**
  - *If ETH Zurich AND the research group have no interest.*
- **Software**
  - *Regulated since Jan. 1st, 2002 (OR).*
  - *Valorization / commercialization analogous to inventions.*



# Patent Guidelines at ETH Zurich (3/5)

## ■ **Tasks of the inventors:**

- *Disclose invention to ETH transfer using the Disclosure Form.*
- *Perform a preliminary search in patent data bases.*
- *Prepare “technical part” of the patent.*
- *DO NOT PUBLISH IN ANY WAY!*
- *Publication possible immediately after securing IPR.*

## ■ **Role of the technology transfer office**

- *Clarifies the legal situation (e.g. ownership - Contracts with third parties, private inventions).*
- *Estimates market potential.*
- *Performs short research in patent data bases.*
- *Connects to suitable patent attorney.*

# Patent Guidelines at ETH Zurich (4/5)

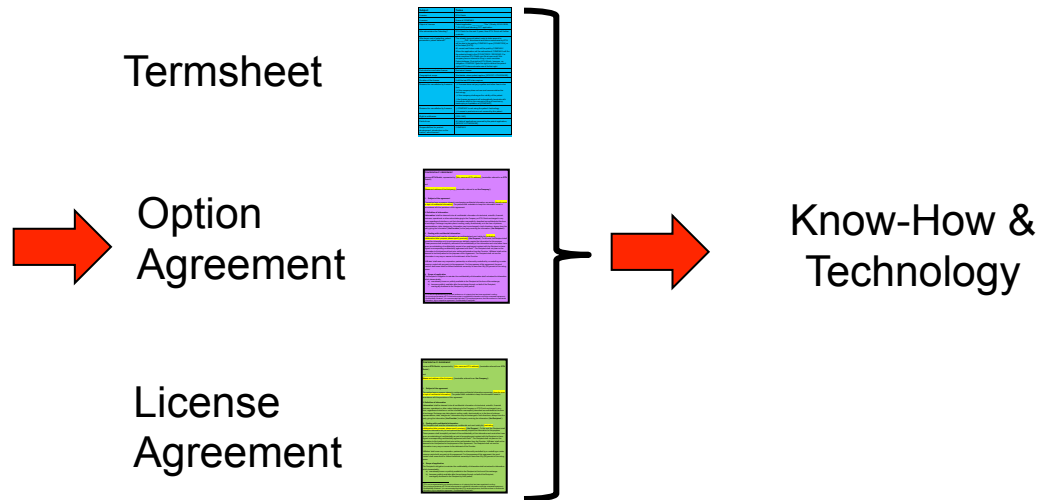
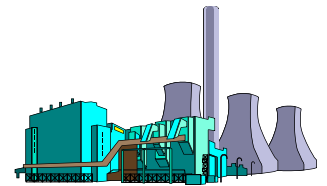
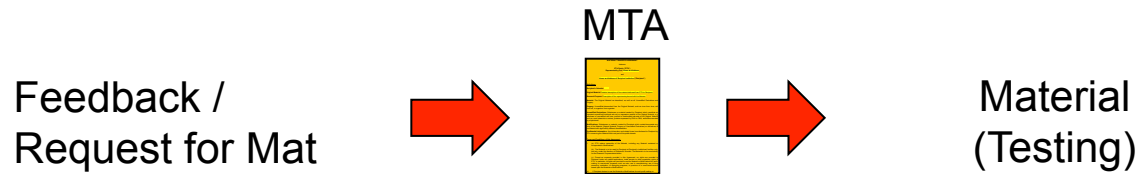
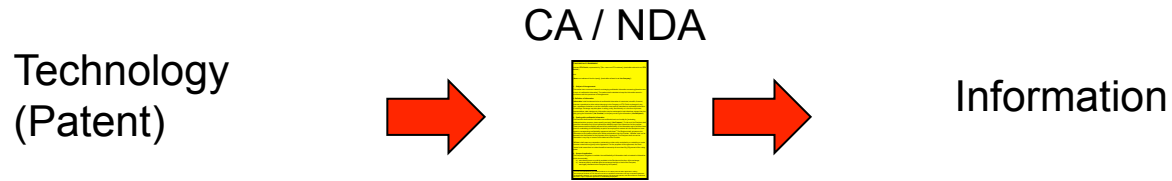
## ■ Filing Patents at ETH Zurich:

- *Decision by ETH transfer in consultancy with inventors, whether and how to file a patent.*
- *If a patent is filed: administration and costs are dealt with by ETH transfer.*
- *If ETH transfer decides not to file a patent, the professor may do so at own cost.*
- *If the professor also declines, rights can be assigned to inventors (as private individuals), if requested.*
- *If no licensee/buyer is found, patent may be permitted to lapse or will be transferred/assigned to inventors.*

# Patent Guidelines at ETH Zurich (5/5)

- **Filing strategy:**
  - *Primary target: Commercial use*
  - *Basically new technologies*
  - *No small improvements*
  - *No defensive patents*
  - *Support from inventors granted*

# Licensing process



# Spin-Off Definition

- **Conditions for ETH Spin-Off:**
  - ETH technology, Know-how or SW
  - Founders are ETH students, employees, or alumni
- **... and**
  - The business idea and plan are sound and sustainable
  - The team demonstrates entrepreneurial skills



**A private company of ETH employees or graduates  
that commercializes products or services based on  
technologies developed at ETH Zurich**

# ETH Spin-Off Support Program

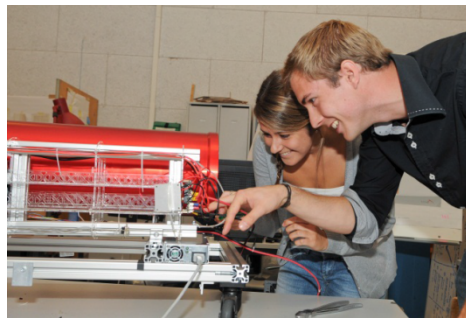
- Review of business idea / plan and help with incorporation
- Pioneer's Fellowship
  - ✓ “proof of concept” funding for prospective founders
- Licensing of intellectual property (IP): patents, software, know-how, etc.
  - ✓ Preferred licensee
- Renting of rooms and infrastructure / ieLab
  - ✓ under preferred conditions
  - ✓ up to 2 (+1) years (if available)
- Consulting & Coaching
  - ✓ Business Plan, Business Management, Sales, Negotiation, etc.
- Label „Spin-off Unternehmen der ETH Zürich“
- Contacts to training, coaching, media, PR, etc.
- Link to seed money, BA's and VC's
  - ✓ Venture Incubator, others

# Focusing on developing the entrepreneurial thinking

Focus Project Students



Pioneer Fellows



Young Entrepreneurs



Institutes / Departments

ieLab

Technopark etc.

ETH transfer

Industry Relation / ETH Zürich Foundation

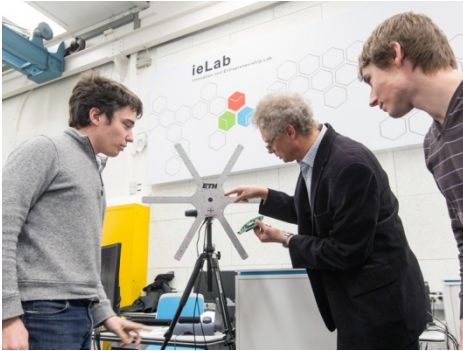
# Proof-of-Concept Funds: The Pioneer Fellowship

- Seed money: CHF 150'000 over 18 months
- Workplace in one of the ieLabs (offices, labs, workshop,...)
- ICT infrastructure and communication tools
- Access to databases
- Coffee corner (microwave kitchen)
- Coaching by successful serial entrepreneurs  
<http://www.systemsx.ch/community/entrepreneur-in-residence-eir/>
- Access to all services of ETH transfer
- Use of the ETH network for finding alliance partners
- Use of the ETH Foundation network for finding investors
- Support by the host professor
- Networking events (meet the pioneers, startup-dinner,...)

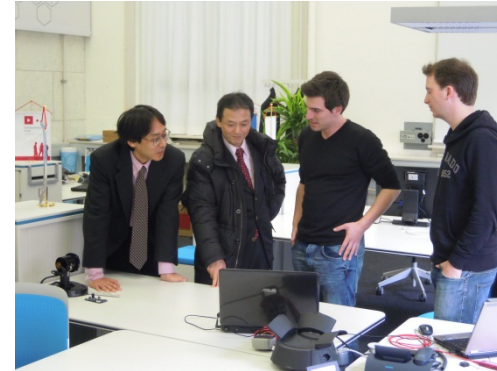




# Locations for Entrepreneurial Spirits - ieLab in action!



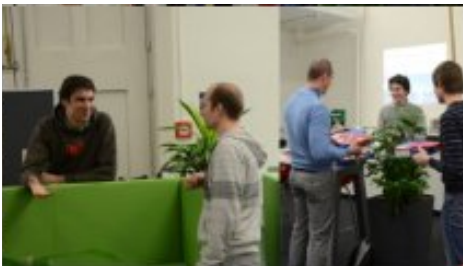
**Intense coaching  
by professionals**



**Close encounter  
with industry**



**Lunch Seminars by  
those who have done it**



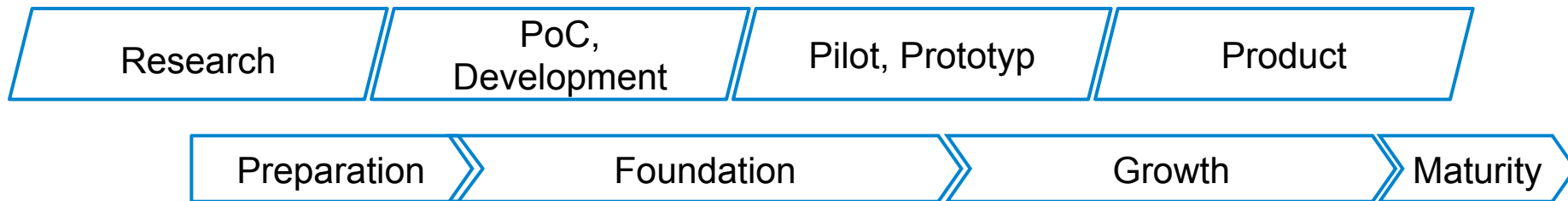
**Peer-to-Peer  
Exchange**



**Celebration!**



# The Spin-Off Innovation Value Chain



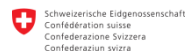
## Internal Support



## Stimulation / Training / Coaching / Collaboration



zkb pionierpreis technopark



Kommission für Technologie und Innovation KTI

## Infrastructure



## Financing



S•E•C•A  
Swiss Private Equity & Corporate Finance

# A word on Conflict of Interest – The Allrounder's curse

- As a professor you may suddenly be wearing several hats:
  - Researcher
  - Coach
  - Responsible for infrastructure
  - Research manager

And perhaps also:

- Consultant
  - Founder
  - Company owner / Shareholder
  - Member of the Board of Directors
  - Opinionleader
  - Etc.
- That can lead to situations of direct or indirect conflict of interests that can be detrimental to your own image and to the reputation of your institution. It sometimes can also lead to financial damage.



# How to avoid Conflict of Interests

- ➔ Recognize potential conflict of interests
- ➔ Maximise transparency and lay open any personal interests regarding activities with third parties related to your work at your institution
- ➔ Observe confidentiality

**The correct behaviour and the avoidance of misconduct is very important to avoid the call for more regulation and controlling!**

# Regulations, Regulations, Regulations ...

- Internal Guidelines:
  - For research collaboration
  - For IPR exploitation
  - For spin-off support
  - For ethical behaviour
  - Etc.
- Legal issues:
  - *«I'm using a patented / proprietary technology which i have developed at another institution in the US ...»*
  - *«During the work that lead to this invention a master student was involved too ...»*
  - *«Oh, to this software many people actually contributed and we used some open source pieces too ...»*

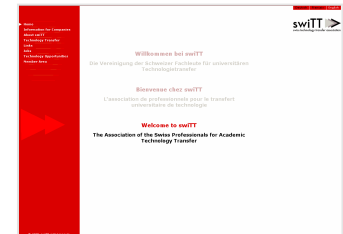
**We are at your disposal**

**Please contact us early !**

# Who is responsible for me?

- **ETH Zurich**  
=> ETH transfer - [www.transfer.ethz.ch](http://www.transfer.ethz.ch)
- **University of Zurich, Bern & Basel**  
=> Unitectra - [www.unitectra.ch](http://www.unitectra.ch)
- **EPF Lausanne**  
=> SRI - [www.sri.epfl.ch](http://www.sri.epfl.ch)
- **University of Fribourg**  
=> TT-Fribourg - [www.tt-fr.ch](http://www.tt-fr.ch)
- **University of Geneva**  
=> Unitec - [www.unige.ch/unitec/presentation.html](http://www.unige.ch/unitec/presentation.html)
- **University of Lausanne**  
=> PACCT - [www.pactt.ch](http://www.pactt.ch)
- **University of Neuchâtel**  
=> TTO - [www2.unine.ch/unine/recherche/tt](http://www2.unine.ch/unine/recherche/tt)
- **Paul Scherrer Institute**  
=> TTO - [www.psi.ch/industry](http://www.psi.ch/industry)

www.switt.ch



# Contact Information

## ETH transfer

[www.transfer.ethz.ch](http://www.transfer.ethz.ch)

ETH HG E48.2

Rämistr. 101

CH-8092 Zurich

Tel +41-(0)44-632 29 63

Fax +41-(0)44-632 11 84

mail [transfer@sl.ethz.ch](mailto:transfer@sl.ethz.ch)

## Vice President Research & Corporate Relations

[www.vpf.ethz.ch](http://www.vpf.ethz.ch)

Prof. Dr. Roland Yves Siegwart

Tel +41 (0)44 632 54 52

