

zürich

thar Thiele – Associate Vice President «Digital Transformation» – ETH Zurich

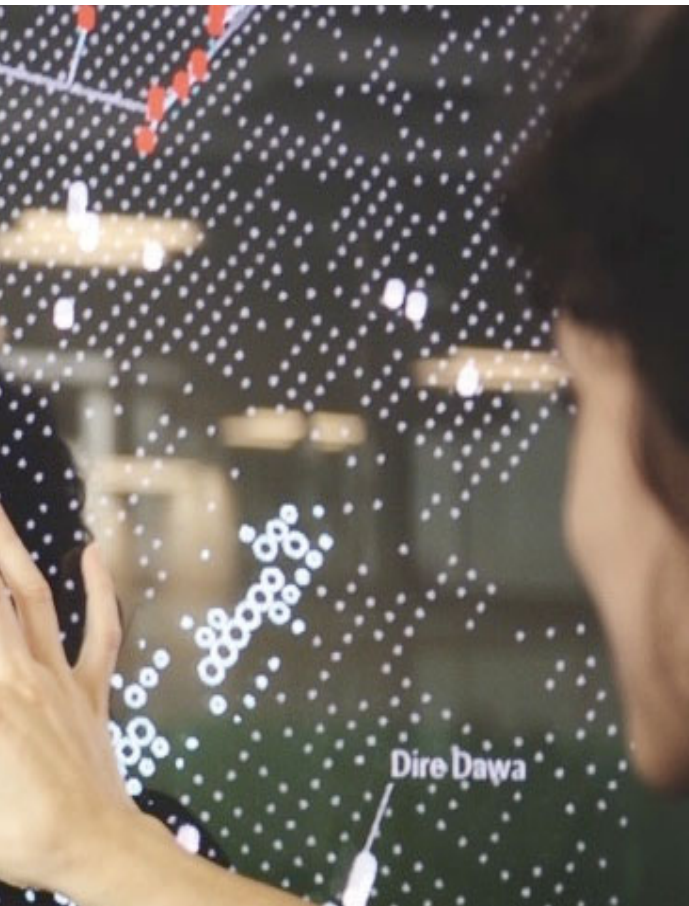
DECIPHERING BLOCKCHAIN - Opening



Societal Challenges and Opportunities



Main Topics at ETH Zurich



**Science &
Inter-Physical Systems**

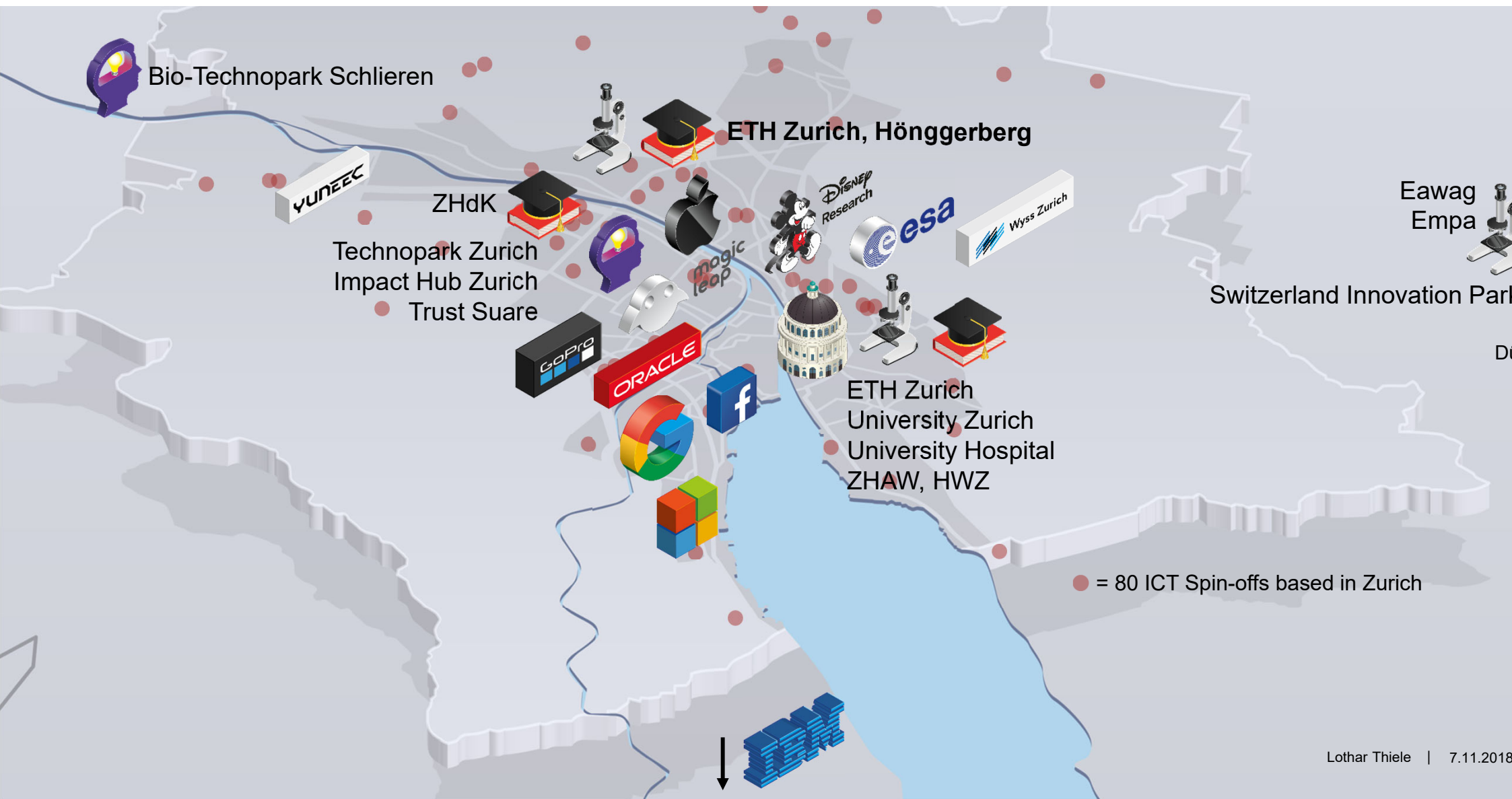


**Energy, Climate &
Ressources**



**Health Science &
Medicine**

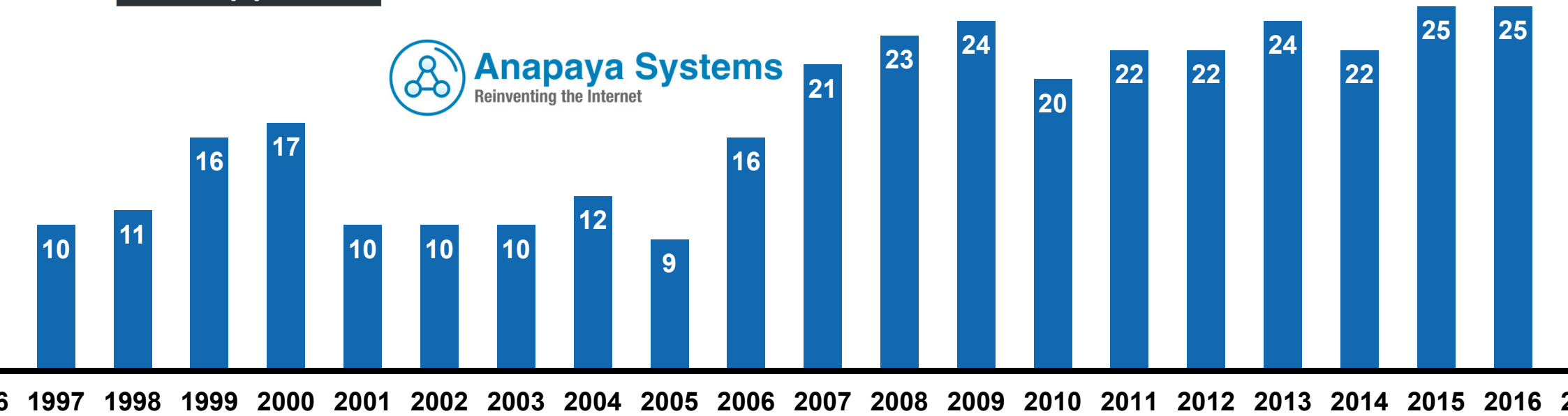
Innovation Ecosystem – Zurich



30 Spin-off-Companies



IPOs
> 2 Mrd.
CHF



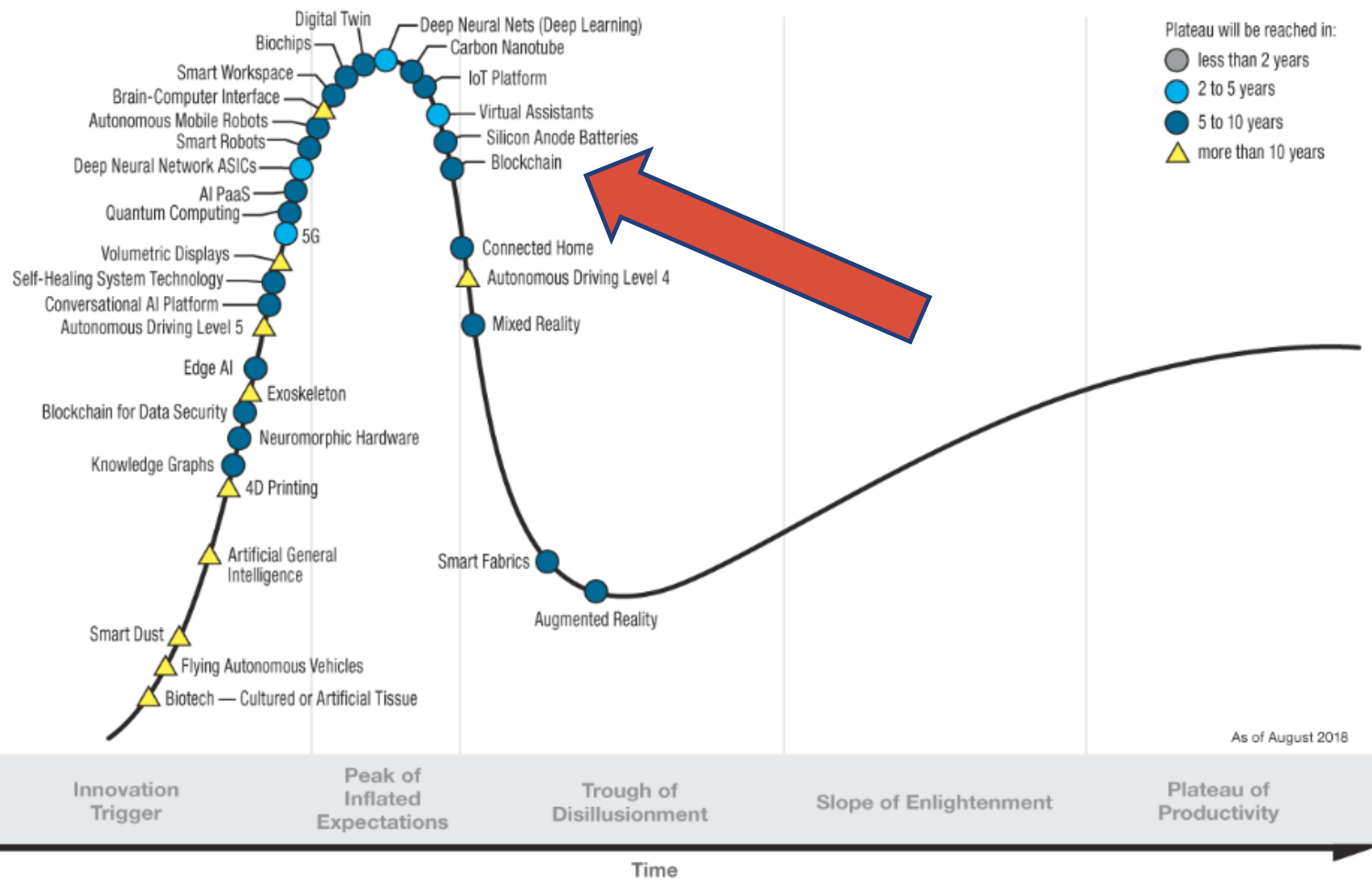
Blockchain and Distributed Ledger



Technology & Research

Industry & Society

Hype Cycle for Emerging Technologies, 2018



Blockchain and the Greater Zurich Area



**TRUST
SQUARE**

**BLOCKCHAIN
SWISS
MADE**



**IBM Research
Blockchain**



**University of
Zurich** ^{UZH}

Blockchain Center UZH
Digital Society Initiative
Swiss FinTech Innovation Lab

ETH zürich

ICE center@ **ETH**
ETH RISK CENTER

ZISC | Zurich
Information
Security & Privacy
Center

ETH Blockchain Initiative

ETH Blockchain Initiative

David Basin



Srdjan Capkun



Markus Dapp



Hans Gersbach



Ueli Maurer



Peter Müllner



Christian Perrig



Petar Tsankov



Martin Vechev



Laurent Vanbever



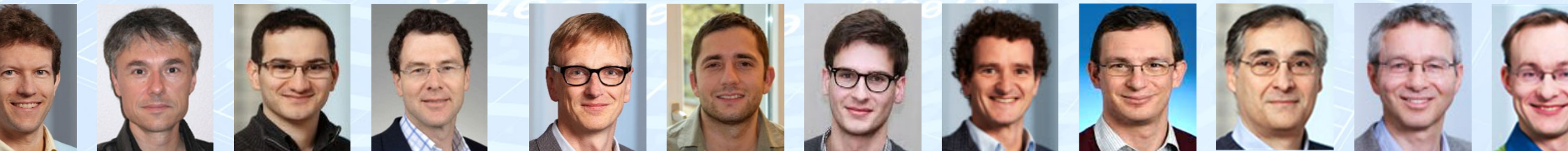
Roger Wattenhofer

Zürich Information Security & Privacy Center (ZISC)



and linked professorships

more than 60 faculty/PhD students/postdoc



ICE center@ETH

initiative to **secure blockchains**, focusing on fundamental research with key infrastructure providers, such as the **Ethereum** and **Web3** foundations



End-to-end security for blockchains



Joint projects on securing smart contracts and validating Ethereum compilers



Joint project on designing and verifying next-generation consensus protocols

ETH RISK CENTER

Competence Center of ETH Zurich founded in June 2011 to

Understand the increasing complexity and dynamic interdependence of social and human-engineered systems

Overcome fragmentation in risk research and risk management

A step further: to push the transition from the pure understanding, modelling, prevention of systemic risk in the direction to the concept of resilience.

Interface with partners, industry, government and society

Activities of the Risk Center:

Research:

Cross Disciplinary Research Projects
(PhD and PostDoc)
Excellent Research Guests
Allow for Collaboration with Industry
Large Scale Project: Singapore Future
Resilient Systems

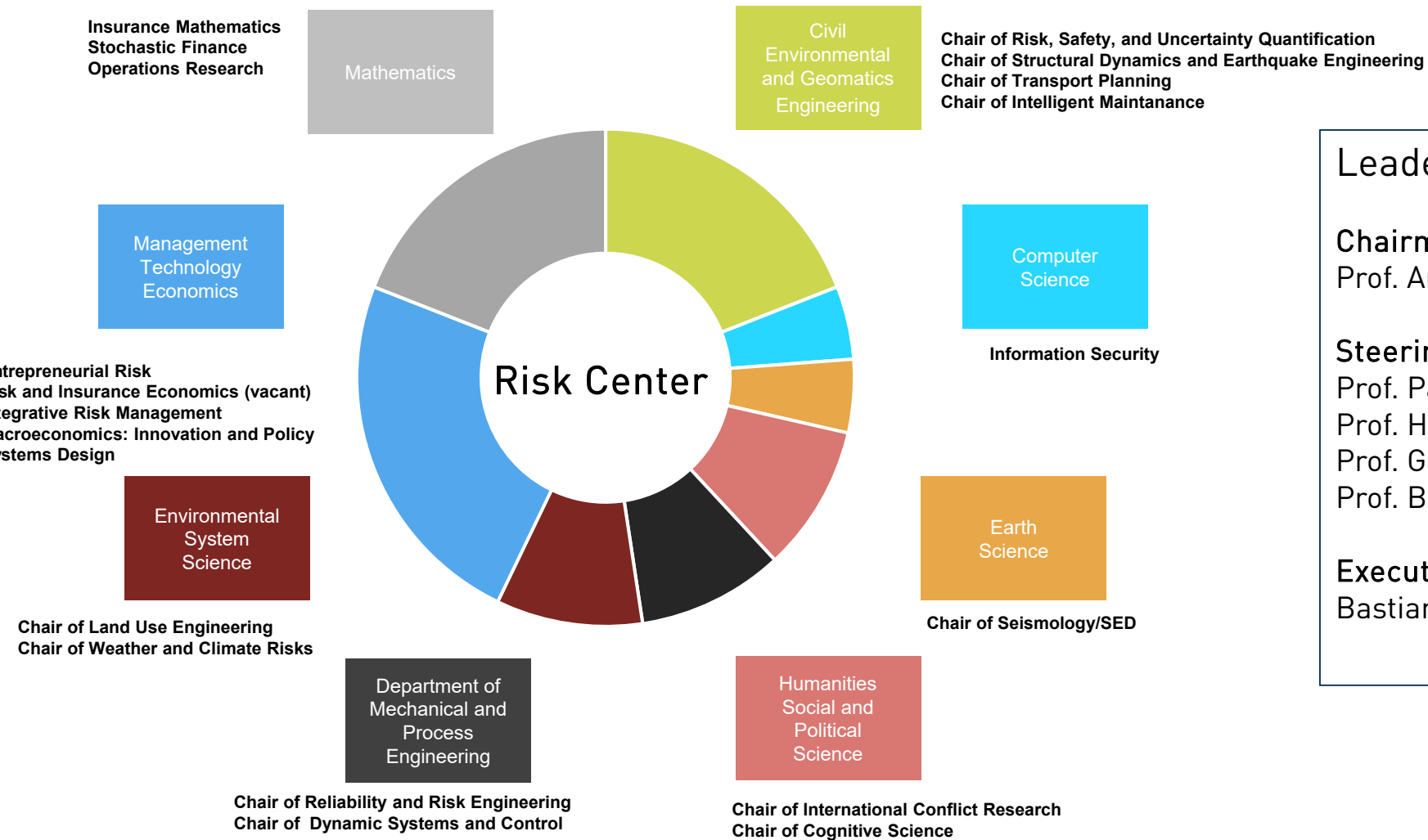
Outreach:

- Workshops and Conferences
- ETH-wide Seminar Series
- Interactions with Partners
 - Partnership Council
 - Advisory Board
- «Risk Industry» Community

Education:

- Master Level: “Risk Studies Certificate”
- Risk Case Study Challenge
- Risk-related Lectures at ETH
- Design of a CAS on “Risk”

Interdisciplinary Pool of Expertise – 20 Members from 8 Departments



Leadership of the Center

Chairman
Prof. Antoine Bommier

Steering Committee
Prof. Patrick Cheridito (MATH)
Prof. Hans Rudolf Heinimann (USYS)
Prof. Giovanni Sansavini (MAVT)
Prof. Bozidar Stojadinovic (BAUG)

Executive Director
Bastian Bergmann

Programme

Monday, 1 Feb. 2019, 13:15 – 18:00, HG E7, ETH Zurich

Opening Remarks

Prof. Lothar Thiele, Associate Vice President for Digital Transformation, ETH Zurich

Blockchain Basics and Examples: eCHF and eVoting

Prof. Roger Wattenhofer, Distributed Computing Group, ETH Zurich

Blockchains - From Technology to Use Cases

Björn Tackmann, IBM Research Zurich

Distributed Ledger Technology for Clearing and Settlement

Silvan Villiger, Senior Product Architect, Digital Asset

Simon Meier, Director of Engineering, Digital Asset

Coffee Break - Experience Blockchain with ETH Start-ups

15:30 **Blockchain@SBB: The Beauty of a Common Immutable Truth**

Vitus Ammann, Digitalization & Strategy, SBB AG

16:00 **Distributed Ledger in Renewable Energy Transactions**

Robert Schwarz, Principal, Pöyry Energy Consulting

16:30 **How Much Should we Trust and how Much Should we Distribute Blockchains, TEEs and More**

Prof. Srdjan Capkun, System Security Group, ETH Zurich

17:00 **Blockchain, Contracts and Super-Property**

Prof. Stefan Bechtold, Center for Law and Economics, ETH Zurich

17:30 **Impact of ETH Research and Startups to Blockchains**

Petar Tsankov, ICE center, ETH Zurich

18:00 **Aperitif - Experience Blockchain with ETH Start-ups**