



# Welcome to the ETH Zurich Innovation & Entrepreneurship Lab

Dr. Tomas Brenner, Head ieLab

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# ETH Zurich at a Glance

## Founded 1855

Swiss public technical University  
Driving force of industrialization in  
Switzerland

## ETH Zurich in numbers

- ~ 20'000 students
- ~ 500 professors
- ~ 25'000 people from
- ~ 110 nationalities

## Annual Budget

CHF 1.7 Billion  
THE largest in the world for a public  
University!

## Rankings

**University Ranking** from the Times  
Higher Education (THE)

- **No. 1** in continental Europe
- **No. 9** in the world (2015)

**Academic Ranking of World  
Universities** from Shanghai Jiao Tong  
University

- **No. 20** in the world (2015)

**Innovation Ranking** Universities from  
the Times Higher Education (THE)

- **No. 13** in the Europe (2015)

# Missions of the ETH Swiss ETH Law 1991

- Education
- Research

➤ Key Task of more than  
500 ETH Professors

## Swiss Federal Law on the Swiss Federal Institutes of Technology (Bundesgesetz über die Eidgenössischen Technischen Hochschulen) ETH Law

of 4 October 1991 (Status as of 1 August 2008)

*The Federal Assembly of the Swiss Confederation,*  
with due regard to Articles 27 and 27<sup>\*\*\*</sup> of the Federal Constitution<sup>1 2</sup> and the Message of the Swiss Federal Council of 14 December 1987<sup>3</sup>,

*resolves:*

### Chapter I: General provisions

#### Art. 1 Scope

<sup>1</sup> This law shall apply to the Domain of the Swiss Federal Institutes of Technology (ETH Domain) comprising the following:

- a. Swiss Federal Institute of Technology Zurich (ETHZ);
- b. Swiss Federal Institute of Technology Lausanne (ETHL);
- c. <sup>4</sup> Research Institutes

<sup>2</sup> These institutions come under the Confederation.

#### Art. 2 Purpose

<sup>1</sup> The role of the Swiss Federal Institutes of Technology (ETHs) and the Research Institutes shall be:

- a. to educate students and specialists in scientific and technical fields and ensure continuing education;
- b. to expand scientific knowledge through research;
- c. to foster junior scientific staff;
- d. to provide scientific and technical services;
- e. <sup>5</sup> to ensure a dialogue with the public;
- f. <sup>6</sup> to exploit their research findings.

# 21 Nobel Laureates

1912	Chemistry	<b>Alfred Werner</b>
1915	Chemistry	<b>Richard Willstätter</b>
1918	Chemistry	<b>Fritz Haber</b>
1920	Physics	<b>Charles-Edouard Guillaume</b>
1921	Physics	<b>Albert Einstein</b>
1936	Chemistry	<b>Peter Debye</b>
1938	Chemistry	<b>Richard Kuhn</b>
1939	Chemistry	<b>Leopold Ruzicka</b>
1943	Physics	<b>Otto Stern</b>
1945	Physics	<b>Wolfgang Pauli</b>
1950	Medicine	<b>Tadeusz Reichstein</b>
1952	Physics	<b>Felix Bloch</b>
1953	Chemistry	<b>Hermann Staudinger</b>
1975	Chemistry	<b>Vladimir Prelog</b>
1978	Medicine	<b>Werner Arber</b>
1986	Physics	<b>Heinrich Rohrer</b>
1987	Physics	<b>Georg Bednorz / Alexander Müller</b>
1991	Chemistry	<b>Richard Ernst</b>
2002	Chemistry	<b>Kurt Wüthrich</b>



**Albert  
Einstein**



**Leopold  
Ruzicka**



**Wolfgang  
Pauli**



**Vladimir  
Prelog**



**Richard  
Ernst**



**Kurt  
Wüthrich**

# Missions of the ETH

## Swiss ETH Law 1991

- Exploit research findings

➤ Key Task of ETH Transfer

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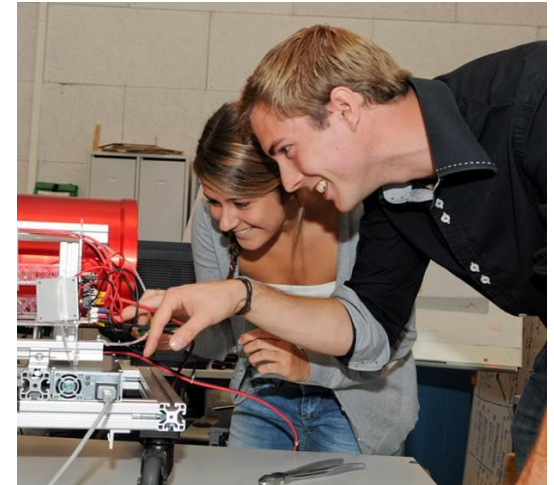
# Living a Culture of Innovation & Entrepreneurship at ETH Zurich



# How to Achieve the Biggest Impact for Society?

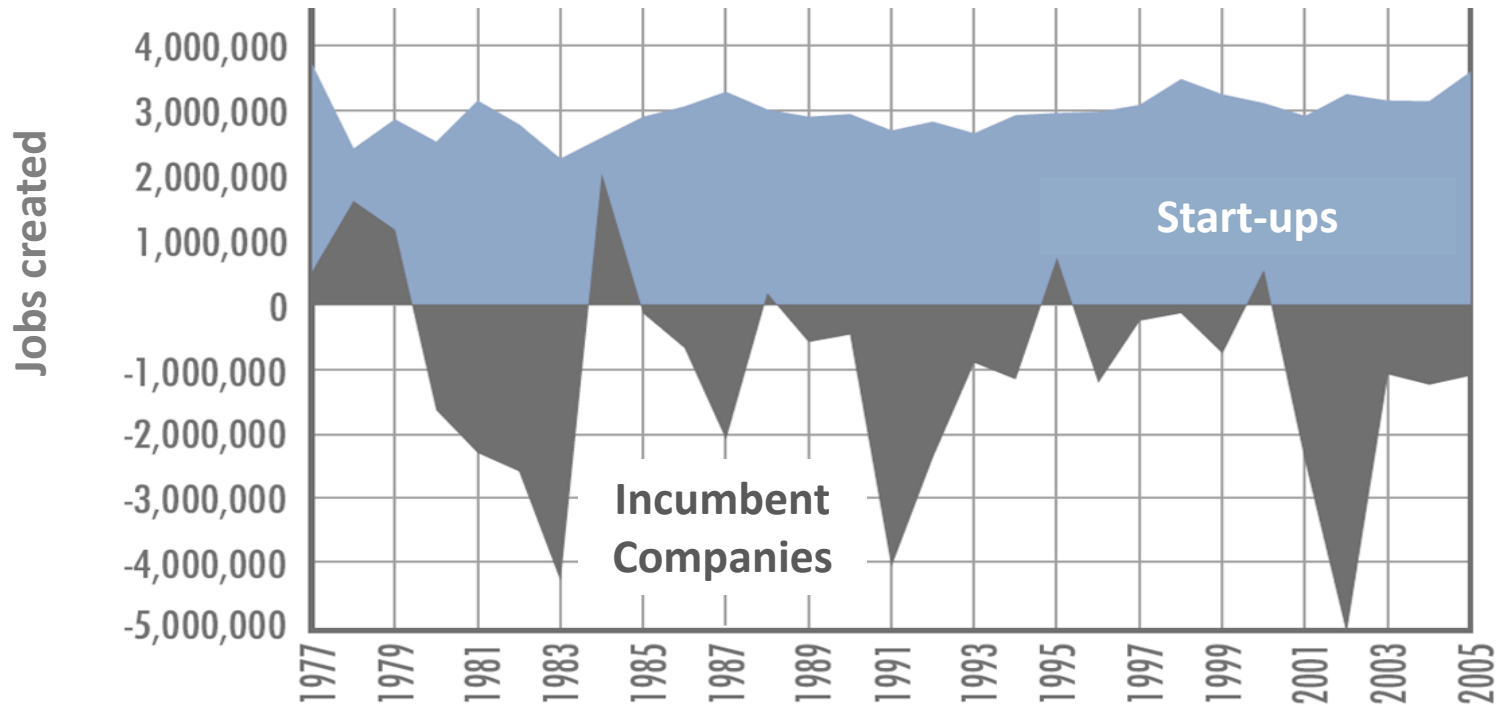


## Large companies



## Start-ups

# Start-ups Create New Jobs (USA Data)



Data: Kauffman Foundation, USA

**Every BIG company starts SMALL !**



# Entrepreneurship is an Integral Part of the ETH Culture



University

Industry



Focus Projects  
Student Projects

Pioneer  
Fellows

Spin-Offs  
Entrepreneurs

Company  
Executives



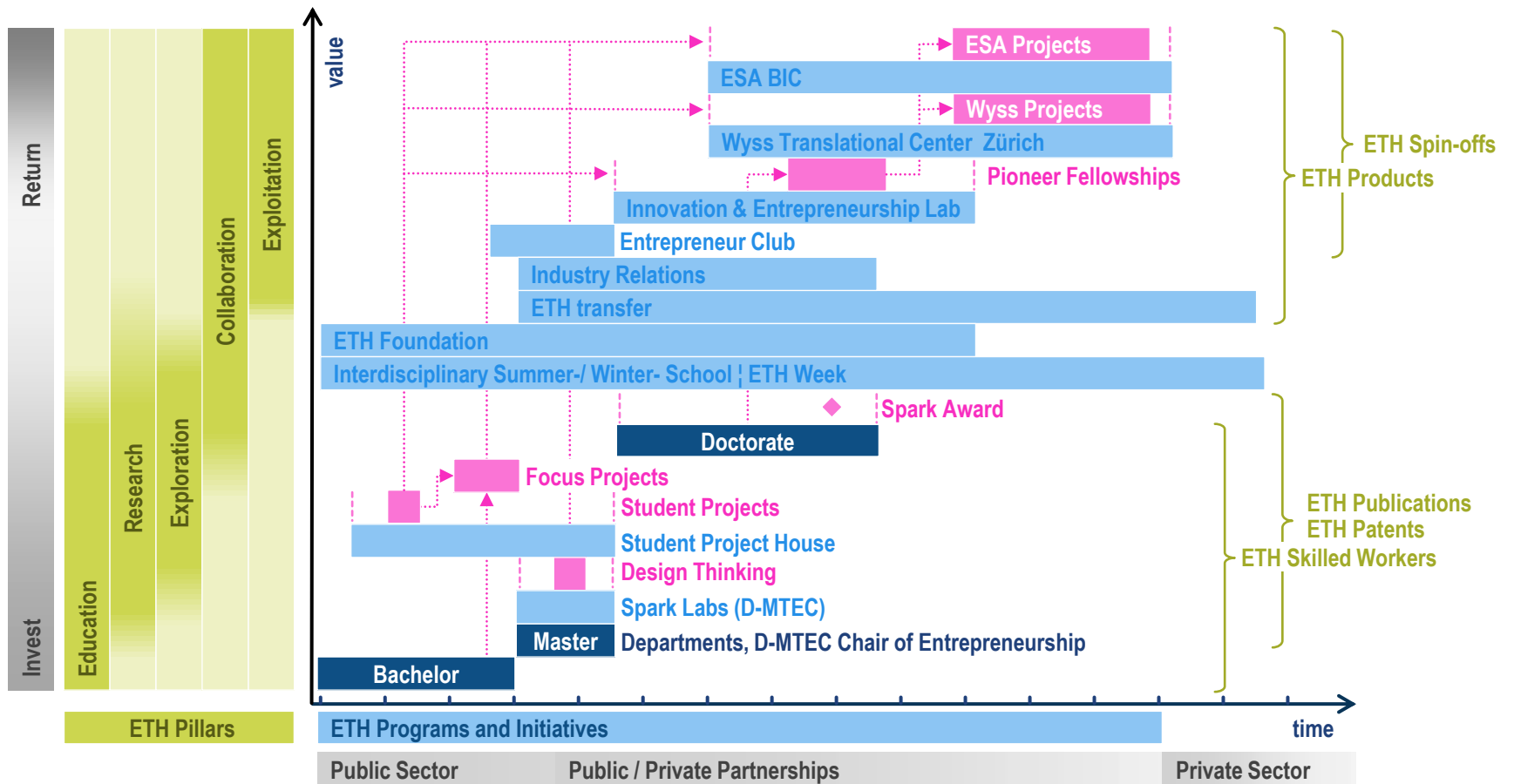
Departments

ieLab

Wyss Zentrum  
Technopark

Corporate  
World

# ETH's Value Chain



# Goals for ETH's Spin-off Companies

- better
- larger
- more valuable
- more sustainable



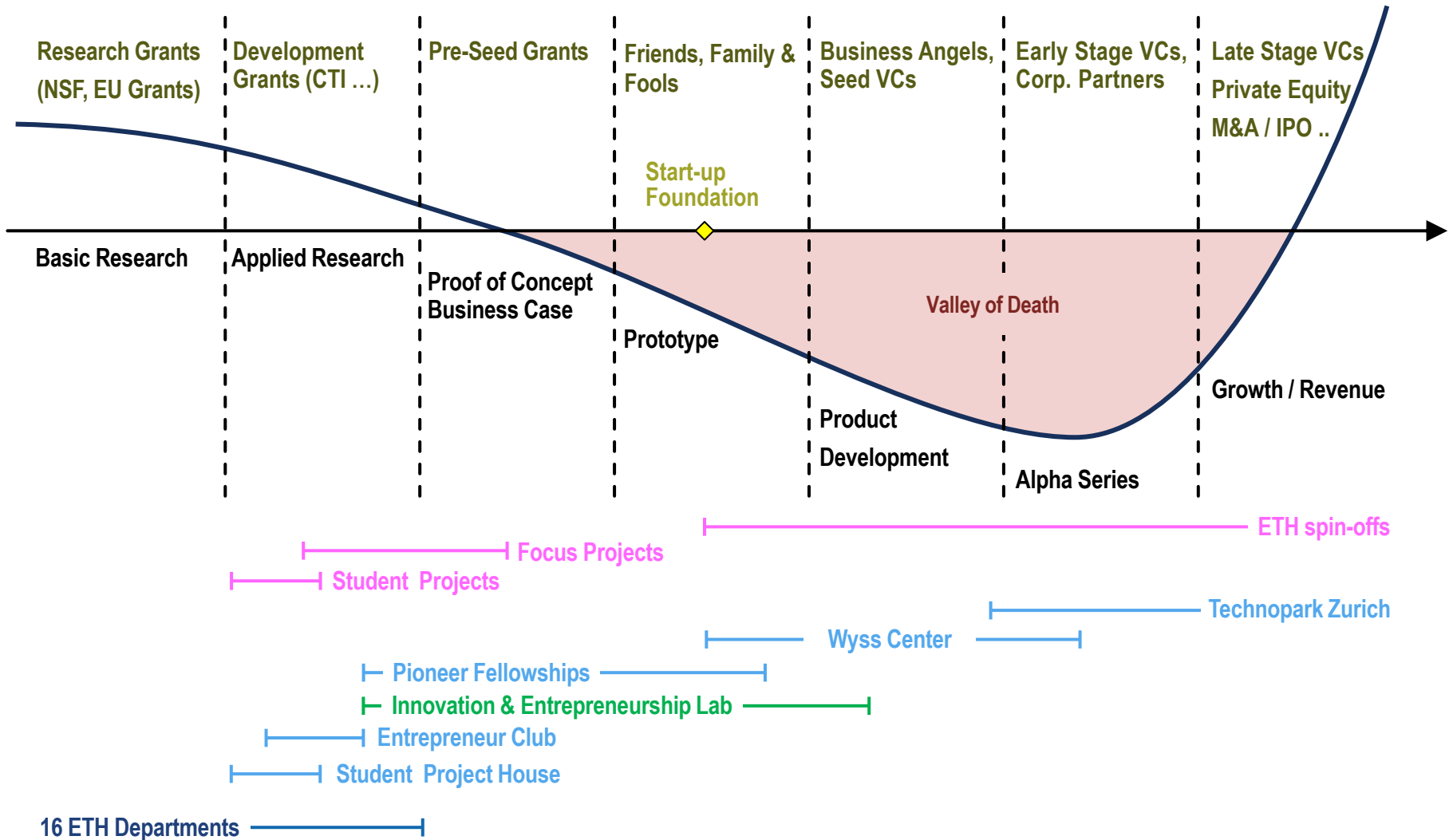
Ask successful entrepreneurs of  
ETH spin-off :

**“What would have made a major  
difference in the early phases of  
your young start-up?”**

# What ETH Entrepreneurs Would Have Wanted ...

- Seed Capital** Initial funding to bridge the “**valley of death**” from scientific findings to a early stage start-up
- Peer Home** A second home (“a biotope”) for like-minded young ETH scientists with entrepreneurial aspirations: **Peer support and peer pressure**
- Coaching** Supervision and support by experienced, successful entrepreneurs with a similar background: **Compelling role models**
- Networking** Access to the **complete ETH network**, including its Professors, services, industry liaisons and more than **330 ETH spin-offs**. Access to the **start-up scene** in CH and international investors, founders, organizations

# Valley of Death



# Pioneer Fellowship Program - Moving Ideas to the Market



**18 month duration, 150 KCHF seed funding** financed by donations (via ETH foundation)



**Promote ETH students** who want to pursue an entrepreneurial career



Move **research results** to the market



Access to all services of **the Innovation & Entrepreneurship Lab**

## Benefits for program partners

- Interaction with tomorrow's entrepreneurs
- Early insight into groundbreaking technologies
- Participation in public & private events
- Visibility of partnership with ETH Zurich



# ieLab & Pioneer Fellowship Program (2010 – 06/2016)



**Total granted: 64**

**Currently @ ieLab: 17**



**Total founded: 35**

**Currently @ ieLab: 6**

**Spin off / PF ratio: 2/3**

# The Innovation & Entrepreneurship Lab (1/2)

The ieLab is ETH's venture incubator with two-fold mission

- **Promote ETH students** with entrepreneurial aspirations
- **Move research** results to the market

**48 co-working spaces** at **2 locations** for close interactions between young entrepreneurs: Peer support and peer pressure!

**42 Bio-safety lab benches** with shared resources

Individual coaching by experienced **ETH sherpas**, **industry experts** and **successful entrepreneurs**.

Effective access to the enormous **entrepreneur network** of the ETH and the various ETH services through the ieLab team



# The Innovation & Entrepreneurship Lab (2/2)

## Entrepreneurship Trainings

weekly lunch seminars  
round tables  
canvas challenges  
immersion trainings

## Networking Events

spin-off dinner  
thanksgiving dinner  
3 Pi competition  
Pioneer Pi Pitch  
award ceremony

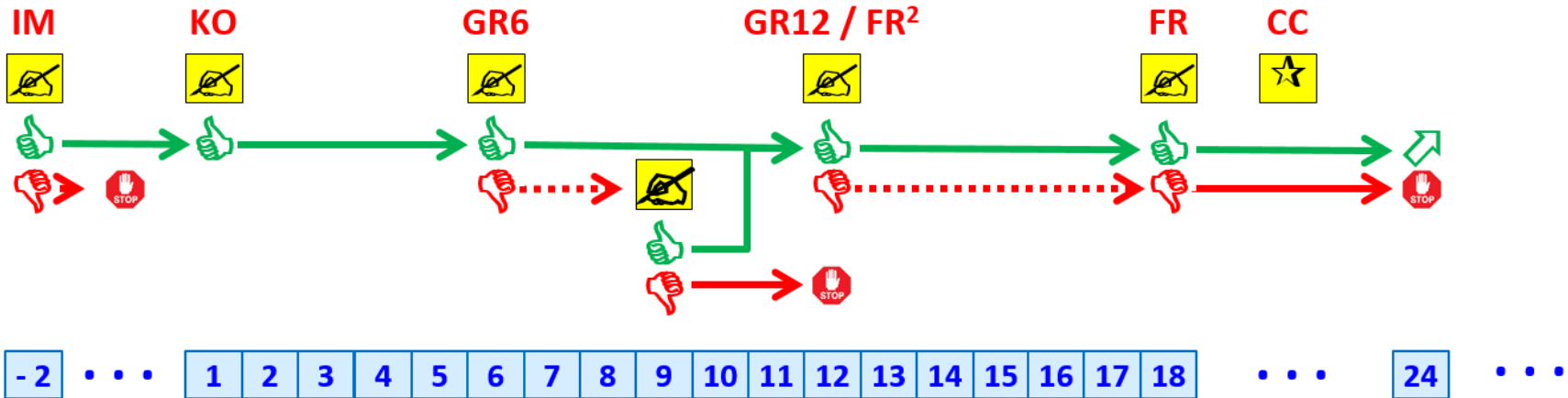









## Social Media

Beekeeper - ETH founders community

# The Pioneer Fellowship Lifecycle

## Supervision of PF projects by Stage Gate Process

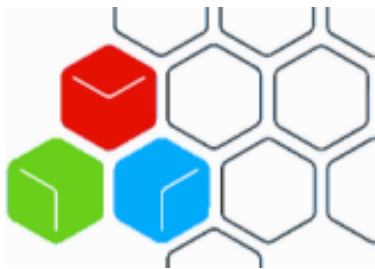


-  **IM** Interview Meeting
-  **KO** Kick-Off Meeting
-  **GR** Gate Review
-  **FR** Final Review
-  **CC** Certificate Ceremony
-  Go / NoGo
-  Spin-off
-  Stopp

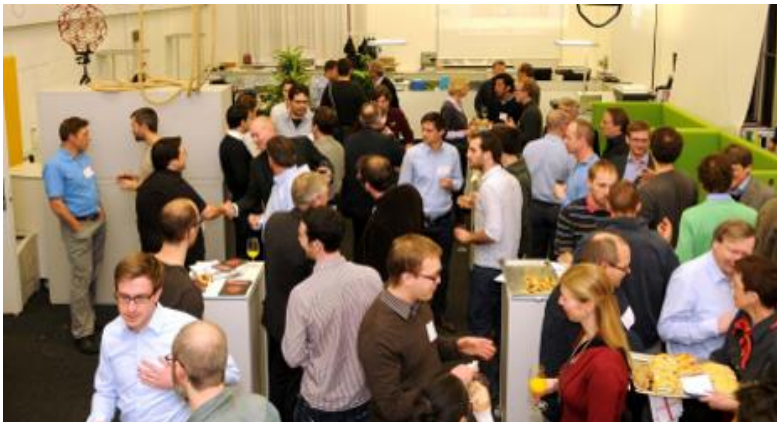
<sup>2</sup> Dual Pioneer Fellows

# Impressions of the ieLab

ieLab LEO @ ETH Center  
ICT & Engineering



ieLab HPL @ ETH Höggerberg  
Life Sciences



# ETH Spin-off Highlights 2015



> 80 Mio. CHF Investments



## Skybotix

**Skybotix AG**, in Zürich, CHE-114.755.772, Aktiengesellschaft (SHAB Nr. 148 vom 04.08.2015, Publ. 2304329). Statutenänderung: 19.08.2015. Firma neu: **GoPro Switzerland**. Uebersetzungen der Firma neu: (**GoPro Switzerland Ltd**) (**GoPro Switzerland SA**). Zweck neu: Die Gesellschaft bezweckt die Forschung und Entwicklung von Technologien für vielseitig einsetzbare Aufnahmegeräte.



## Koubachi

Husqvarna Group Acquires Koubachi  
<http://www.koubachi.com/press/press-releases/>



## Logitech kauft Zürcher Video-Startup

Das Westschweizer Technologieunternehmen Logitech hat vor kurzem das Zürcher Startup Upicto übernommen. Das mehrfach ausgezeichnete Spin-off der ETH Zürich hat einen Algorithmus entwickelt, der Inhalte von Videos analysiert, die relevanten Augenblicke auswählt und zugänglich macht, die Software lernt selbst wichtige Momente zu erkennen. Das ist etwa für Anbieter aus dem Bereich der Videoüberwachung interessant - also für Logitech.



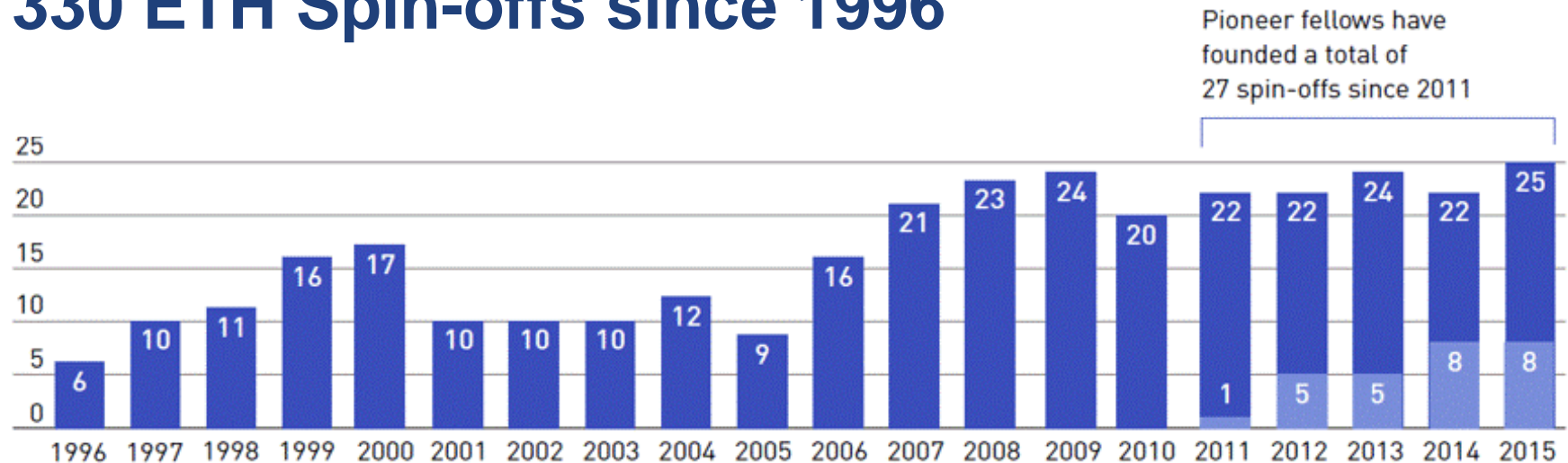
**SOLD!**  
 to GSK for > 212 Mio. USD

# 13 ETH Spin-Off Companies are placed in the TOP 100



## TOP 100 - The Best Swiss Startups 2015

# 330 ETH Spin-offs since 1996



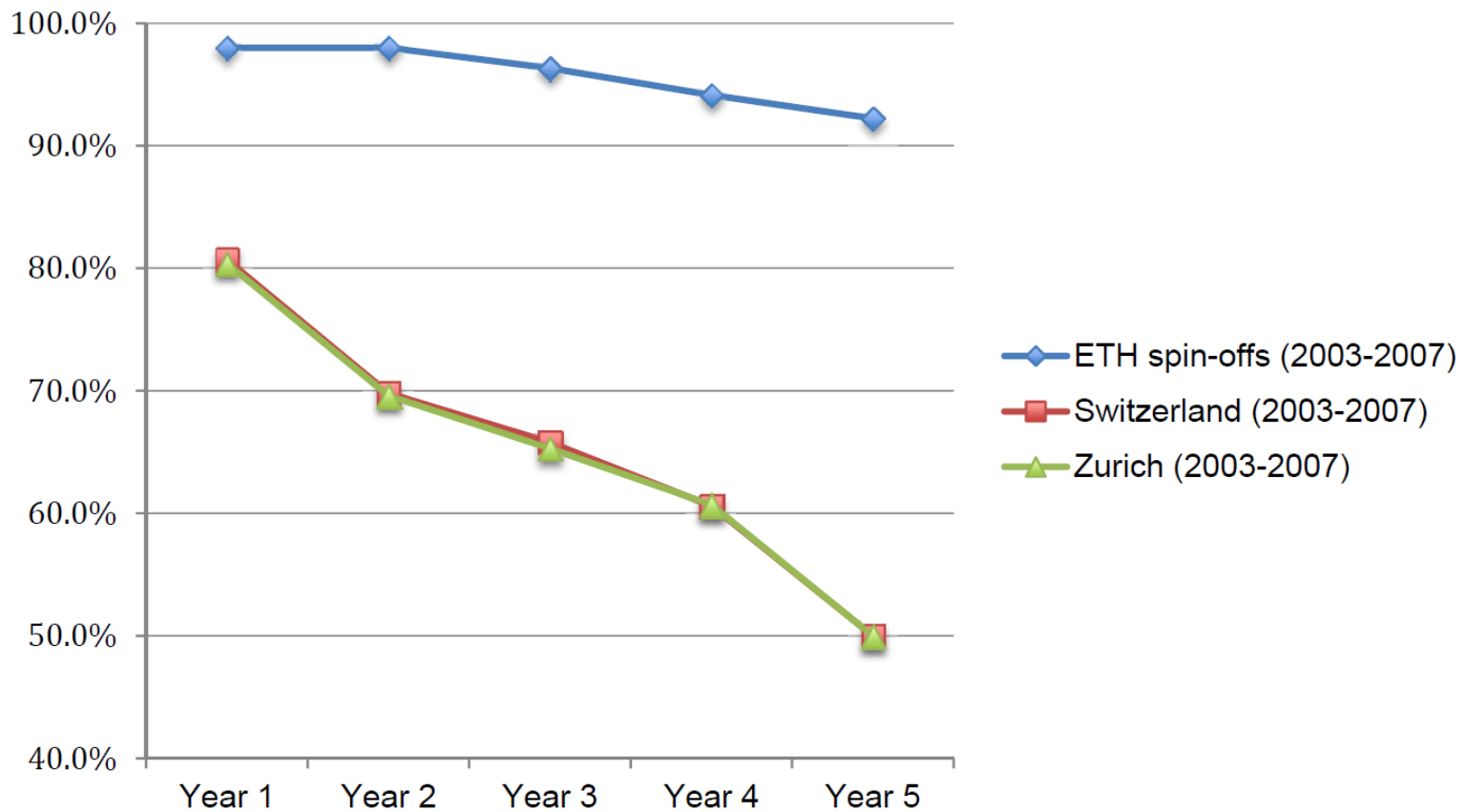
## ■ Since 1996

- Incorporated **330 ETH spin-offs**
- 5 years survival rate is **92%** (rolling average)
- **1/3** Life Science, **1/3** ICT and **1/3** Engineering

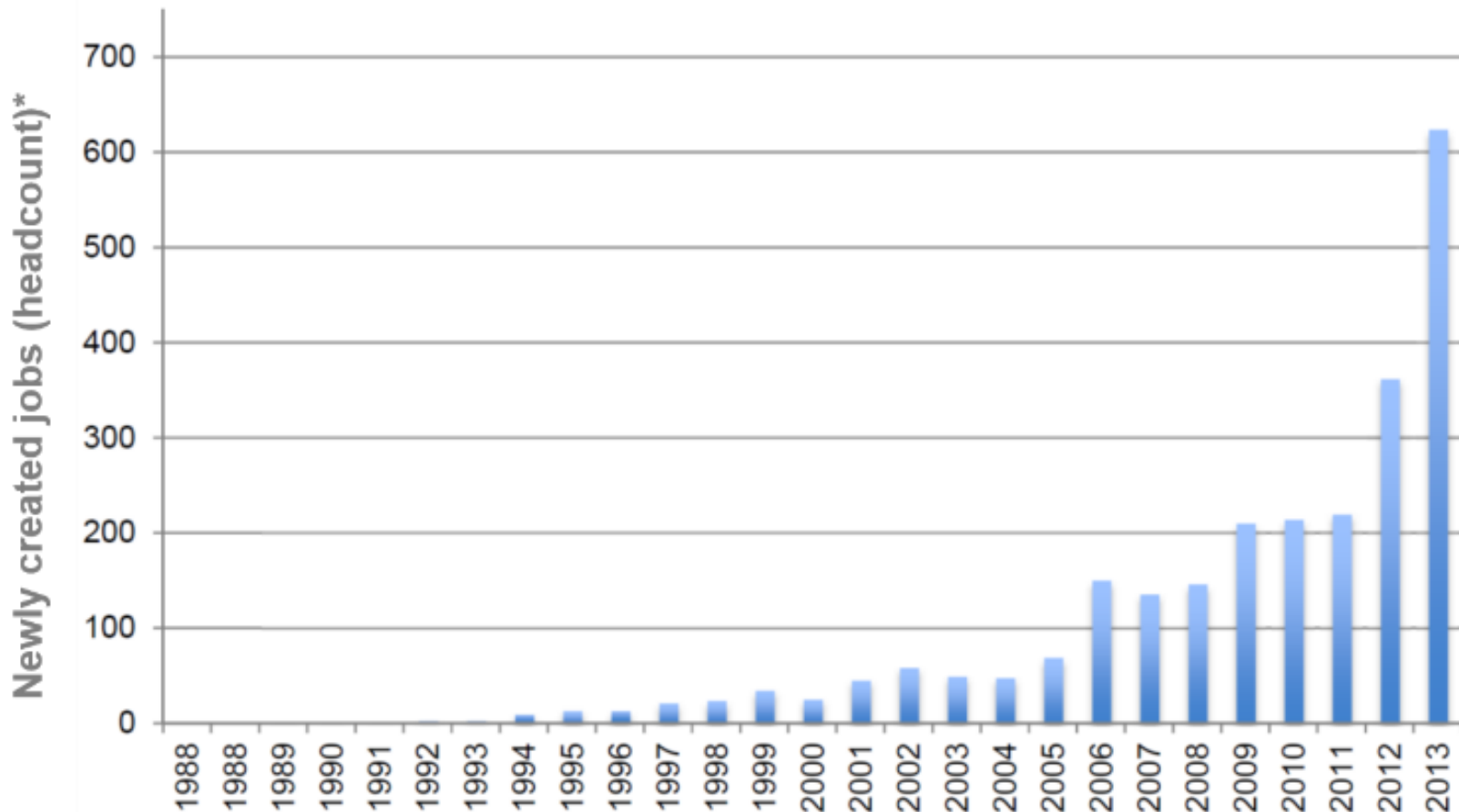
## ■ In 2015:

- **25** ETH spin-offs
- **1/3** of the ETH spin-off were founded by Pioneer Fellows

# 92% Survival Rate of ETH Spin-Offs vs. Swiss Start-Ups



# Jobs Created by ETH Spin-Offs



\* 125 Spin-off companies polled



# The ieLab ETH in a Nutshell



## Entrepreneurship:

## Just do it !!

.. and the ieLab provides what's missing

The company will engage in research, development, and manufacture and sales of integrated electronic structures to fulfill the needs of electronic systems manufacturers. This will include thin films, thick films, semiconductor devices, and other solid state components used in hybrid and monolithic integrated structures.

Products may include diodes, transistors, field effect devices, and subsystems commonly referred to by the phrase "large scale integration". Principal customers for these products are expected to be the manufacturers of advanced electronic systems for communications, radar, control and data processing. It is anticipated that many of these customers will be located outside California.



**Dr. Tomas Brenner**  
Head of the ieLab ETH

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