EPFL Innogrants & Support to Start-Ups

THE INNOVATION DILEMMA

“I read occasionally about attempts to set up "technology parks" in other places, as if the active ingredient of Silicon Valley were the office space. An article about Sophia Antipolis bragged that companies there included Cisco, Compaq, IBM, NCR, and Nortel. Don't the French realize these aren't startups?”
Paul Graham

“How to be Silicon Valley?”
Few startups happen in Miami, for example, because although it's full of rich people, it has few nerds. It's not the kind of place nerds like. Whereas Pittsburgh has the opposite problem: plenty of nerds, but no rich people.
How not to be Sophia Antipolis?

Ingredients of tech clusters...

- Universities and research centers of a very high caliber.
- An industry of venture capital (i.e. financial institutions and private investors).
- Experienced professionals in high tech.
- Service providers such as lawyers, head hunters, public relations and marketing specialists, auditors, etc.

Last but not least, an intangible yet critical component: a pioneering spirit which encourages an entrepreneurial culture.

Source: M. Kenney “Understanding Silicon Valley, the Anatomy of an Entrepreneurial Region”, in chapter: “A Flexible Recycling” by S. Evans and H. Bahrami
AGENDA

INNOVATION AND TECH. TRANSFER

THE INNOGRANTS

ROLE MODELS

ABOUT SOME INNOGRANTS
EPFL Today

Campus (2016)
10,536 students, of whom 2,124 PhD students
346 faculty
3,755 staff (scientific & technical)

Spending (2016)
CHF 674M from State budget
CHF 267M other funding (EU, SNSF, private...)
Total: CHF 941M
EARLY AND CONTINUOUS COMMITMENT OF EPFL

.... 2017 Focus on student entrepreneurs, Xgrants
2016 VPIV transformed as VPI with TTO joining VPR
2015 New Start-up Guidelines
2015 China Hardware Innovation Camp
2014: The Eurotech Venture Program (EVP)
2013: La Forge
2011: VPIV moves to Innovation Park
2010: EPFL Innovation Park
2009 : the Garage
2008 : seed fund
2007 : revised TT regulations & overhead policy
2006 : new partnerships : endowed chairs, indus. Incubators
2005 : centers, programs, Innogrants, TT Alliance
2004 : vice-presidency for innovation and tech. transfer (VPIV)
2003 : legal framework adapted for efficient TT
2000 : first equity deals
1999 : rules for remuneration of inventors and labs
1999 : entrepreneurship courses
1998 : technology transfer : creation of the TT office (SRI)
1997 : coaching for early stage start-up projects
1995 : pre-seed money for start-up projects : foundation FIT
1993 : IP strategy / licensing
1991 : science park created : foundation PSE
1988 : policy for research contracts & partnerships
1986 : two first major strategic industrial partnerships
1986 : industrial liaison program : Cast / association APLE

Innovation &Tech. Transfer — A strong commitment
VPI - A FACILITATOR BETWEEN TWO WORLDS

VPR

Transdisciplinary Centers & Discovery Projects
Technology Transfer Office (TTO)
Contracts / Licenses / PoC (Enable)

VPE

Bachelors / Masters

VPI

Strategic Partnerships
Innovation Park
Alliance - relationships / collaborations with SMEs
Entrepreneurship
Innogrants xgrants

EPFL Community
(Professors, Researchers, Students)

CORPORATES
SMEs START-UPS

vpi.epfl.ch
What’s are Start-ups? What do they need?

In the USA, “a start-up is a temporary organization designed to search for a repeatable and scalable business model.”

*Steve Blank*

At EPFL, resources include:

- **Advice** (training, coaches, mentoring)
- **Funding** (grants, prizes, investments)
- **Office space** (co-working spaces, incubators, accelerators, science parks)
- **Exposure** (events, networking, role models, pitching of ideas)
- **Internationalization** (trips, bus. dev., foreign offices)
FUNDING: SURVIVING THE VALLEY OF DEATH AT EPFL
IT’S NOT ABOUT MONEY ONLY: A RICH AND DENSE ECOSYSTEM

Advice/Training:

Exposure/networks:

Housing:

Research Grants
Development Grants
Preseed Grants
Friends, Family & Fools
Business Angels, Seed VCs
Early Stage VCs, Corp. Partners
Late Stage VCs (… M&A / IPO)

Basic Research
Applied Research
Proof of Concept / Business Case
Prototype Founders
Prototype Founders
Product Development
Company Fast Growth (Revenues, Employees)

A rich ecosystem
More than funding

Start-Up foundation

“Valley of Death”
A Rich Ecosystem

An exhaustive description is available online

http://short.epfl.ch/ecosystem

https://vpi.epfl.ch/resources-for-startups
**Close Support: The EPFL Innovation Park**

- The Innovation Park: 13 buildings for companies partnering & collaborating with EPFL
  [epfl-innovationpark.ch](http://epfl-innovationpark.ch)

- Including 6 buildings for start-ups, offering a variety of value-added services (coaching, training, funding,…)

- The Garage (opened in 2008) for very early stage ventures.

- A co-working open-space for early projects
"During the 1970s and 1980s, many of the top engineers from Fairchild, National and other companies would meet there to drink and talk about the problems they faced in manufacturing and selling semiconductors. It was an important meeting place where even the fiercest competitors gathered and exchanged ideas."

“If there is a single point I wish to make here today, it is that as a discipline, both in industry and in academia, we are just not taking enough risks today.”

Richard Newton (1951-2007)
Any Start-up Project Takes Time

Pedro Bados (Nexthink) is a just one but clear illustration that even a friendly ecosystem will not avoid a long maturation.

- Sept 03: Invention disclosure
- March 04: Option for License
- April 04: Patent filing
- Janv. 04: contact with an IT expert
- May 04: publication in Dialogue newsletter
- Mar 04-Jun 04: coaching PSE financed by EPFL
- Déc. 04: Winner of the “startup competition”
- Avril-Sept 04: Further coaching
- Sept 04: foundation of NEXThink SA
- Jun 04: Loan of CHF100k
- July 07: 2nd round CHF 6M
- April 06: 1st round CHF 1.6M
- Jan 05: 1st pilots with customers
- Dec 04: contacts with VCs
- As of 2016, more than 65M in funding, more than 200 employees, www.nexthink.com

Generate

Develop

Launch

Grow

A 2-3 year initial phase
All EPFL start-ups on [https://vpi.epfl.ch/EPFL_Spin-offs](https://vpi.epfl.ch/EPFL_Spin-offs)
### High-Growth Start-ups

*: sold companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Founded</th>
<th>VCs</th>
<th>Amount raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snaketech*</td>
<td>1997</td>
<td>Auriga, Innovacom, Sudinnova</td>
<td>CHF 3M</td>
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<tr>
<td>Cytion*</td>
<td>1997</td>
<td>Banexi</td>
<td>CHF 5M</td>
</tr>
<tr>
<td>Endoart*</td>
<td>1998</td>
<td>Sofinnova, VI, Vinci</td>
<td>CHF 31M</td>
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<tr>
<td>Dartfish</td>
<td>1998</td>
<td>Vinci, Intel</td>
<td>CHF 20M</td>
</tr>
<tr>
<td>BeamExpress</td>
<td>2001</td>
<td>Index, Oak, i-source, Polytech</td>
<td>CHF 30M</td>
</tr>
<tr>
<td>Innovative Silicon</td>
<td>2002</td>
<td>Index, Austin, Highland, Auriga, Wellington</td>
<td>CHF 60M</td>
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<tr>
<td>Sensimed</td>
<td>2003</td>
<td>Wellington, Vinci</td>
<td>CHF 57M</td>
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<tr>
<td>HPL*</td>
<td>2004</td>
<td>VI, DFJ ePlanet, BankInvest</td>
<td>CHF 8M</td>
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<tr>
<td>Nexthink</td>
<td>2004</td>
<td>VI, Auriga, Highland Europe, Waypoint</td>
<td>CHF 65M</td>
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<td>Biocartis</td>
<td>2007</td>
<td>Advent, KBC, Aescap</td>
<td>CHF 330M</td>
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<tr>
<td>Aleva Neurotherapeutics</td>
<td>2008</td>
<td>Biomed Inv., BB Biotech, Defi Gestion, Banexi</td>
<td>CHF 44M</td>
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<tr>
<td>Bicycle Therapeutics Ltd</td>
<td>2009</td>
<td>Novartis Venture, Atlas, SR-One, Vertex</td>
<td>CHF 95M</td>
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<td>Anokion</td>
<td>2010</td>
<td>Versant, Novartis, Novo</td>
<td>CHF 33M</td>
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<td>Lightbend</td>
<td>2010</td>
<td>Greylock, Shasta, Polytech, Intel, IBM</td>
<td>CHF 52M</td>
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<td>Abionic</td>
<td>2010</td>
<td>Polytech, Blue Ocean, Medholdings</td>
<td>CHF 13M</td>
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<td>Kandou Bus</td>
<td>2011</td>
<td>Bessemer</td>
<td>CHF 25M</td>
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<tr>
<td>Mindmaze</td>
<td>2012</td>
<td>Hinduja Group, Buss angels (inc. Leonardo DiCaprio)</td>
<td>CHF 100M</td>
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<tr>
<td>L.E.S.S.</td>
<td>2012</td>
<td>VI Partners</td>
<td>CHF 3M</td>
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<td>Quartet Medicine</td>
<td>2013</td>
<td>Atlas, Novartis, Pfizer</td>
<td>CHF 23M</td>
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<tr>
<td>G-therapeutics</td>
<td>2014</td>
<td>Gimv, Wellington Partners, LSP, Inkef Capital</td>
<td>CHF 30M</td>
</tr>
<tr>
<td>BestMile</td>
<td>2014</td>
<td>Partech, Serena, Airbus</td>
<td>CHF 5M</td>
</tr>
<tr>
<td>Inpher</td>
<td>2015</td>
<td>Polytech, Bowery, Crosslink</td>
<td>CHF 4M</td>
</tr>
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</table>
Many companies attracted by the EPFL Innovation Park and the dynamic local economy

<table>
<thead>
<tr>
<th>Company</th>
<th>Founded</th>
<th>Amount raised</th>
<th>IPO</th>
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<tbody>
<tr>
<td>AC Immune</td>
<td>2003</td>
<td>CHF 125M</td>
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<tr>
<td>Ab2Bio</td>
<td>2010</td>
<td>CHF 41M</td>
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<tr>
<td>Sophia Genetics</td>
<td>2011</td>
<td>CHF 58M</td>
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<tr>
<td>Leman Micro Devices</td>
<td>2012</td>
<td>Undisclosed</td>
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</tr>
<tr>
<td>Asceneuron</td>
<td>2012</td>
<td>CHF 36M</td>
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</table>
High-Growth Start-ups

- More than CHF1B raised by EPFL spin-offs with venture capital and business angels

- In addition, many entrepreneurial alumni & academics
EPFL Spin-off Recent Exits

- **BIOCARTIS**
  - IPO in April 2015 in Brussels

- **Lemoptix**
  - Acquired by

- **senseFly**
  - a Parrot company
  - Acquired by

- **PIX4D**

- **Jilion**
  - Acquired by

- **Parrot**
  - Bought by Cisco for $3.5B in Jan. 2017

- **aimago**
  - Acquired by

- **bugbuster**
  - Acquired by

- **SENSIMA technology sa**
  - Acquired by

- **facehift**
  - Undisclosed acquirer rumored to be Apple

- **NOVADAQ**
  - Acquired by

- **AppDynamics**

- **MPS**

**Start-ups**

**Exits**
EPFL Spin-off 2017 Exits

Acquired by

KB✓MEDICAL

Acquired by

PIX4D

Acquired by

Parrot

Acquired by

Gaitup

Now Part of MindMaze

Acquired by

Mimotec

Acquired by

Acrotec Group
As a Summary

Start-ups at EPFL

A 16-page report published in June 2017 analyzing 312 EPFL spin-offs (165 since 2007) with a focus on
- Fund raising: CHF1.2B overall
- Job creation: about 2’000 today in 200 firms
- Migrants: from 25% in the 90’s to 70% today

http://short.epfl.ch/startup-report
AGENDA

INNOVATION AND TECH. TRANSFER

THE INNOGRANTS

ROLE MODELS

ABOUT SOME INNOGRANTS
The Innograndts were created in February 2005 by EPFL with the support of Lombard Odier to:

- award grants that would encourage idea creation and help ideas to be developed,

- organize events facilitating the evolution of the innovation and entrepreneurial culture.

https://vpi.epfl.ch/innograndts
Sept premiers projets dans le giron de l’Innovation Network de l’EPFL

Un fonds pour transférer plus vite les nouveautés de l’EPFL vers l’économie

Discovery: un parcours semé d’embûches
Facts & Figures

About 760 requests
111 grants (CHF10.7M)
68 companies created
CHF 32M in new grants
CHF 305M in equity
7 exits (M&As)

Innogrant origin

Innogrant vs. Immigrant

College Contacts % Grants %
STI 195 26% 43 39%
IC 116 15% 29 26%
SB 70.5 9% 14.5 13%
SV 54 7% 12.5 11%
ENAC 32.5 4% 1 1%
CDM/CDH 21.5 3%
Students 81 11% 4 4%
External 188.5 25% 7 6%

Total 759 111

STI (Engineering); IC (Computer Science Communications); SV (Life Sciences); ENAC (Environment & Architecture); SB (Basic Sciences); CDM (College of Management of Technology)
THE SNF SPIN FUNDS

Similar to the Innogants in the IT field, managed by EPFL, Swiss-wide; ended in 2012.

16 projects (CHF 1.9M)
7 start-ups, 35M equity

http://www.mics.org/spinfund

http://www.nccr-robotics.ch/tech-transfer/startups/spinfund

Established in July 2013
4 projects
A Bet on People

with the support of

[Logos of various sponsors]
The Outputs

All EPFL start-ups on https://vpi.epfl.ch/EPFL_Spin-offs
AGENDA

INNOVATION AND TECH. TRANSFER

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ABOUT SOME INNOGRANTS
Not Always Rational

“Launching a start-up is not a rational act. Success only comes from those who are foolish enough to think unreasonably. Entrepreneurs need to stretch themselves beyond convention and constraint to reach something extraordinary.” Vinod Khosla

“The difference is in psychology: everybody in Silicon Valley knows somebody that is doing very well in high-tech small companies, start-ups; so they say to themselves “I am smarter than Joe. If he could make millions, I can make a billion”. So they do and they think they will succeed and by thinking they can succeed, they have a good shot at succeeding. That psychology does not exist so much elsewhere.” Tom Perkins
IT’S ALSO ABOUT ROLE MODELS
It’s also about Role Models
ventures ideas @ EPFL
Swiss ways of building start-ups

Thursday, April 21st, 2011
from 13:45 to 16:30 (door opening 13:15)
Rolex Learning Center, Forum, EPFL

Mandatory registration: www.venturelab.ch (venture ideas)

ventures ideas@EPFL
Sharing an entrepreneur’s path

Tuesday, May 8, 2012
from 10:00 to 11:30 (door opening 09:50)
CM1 121, EPFL

Dr. Craig H. Barrett joined Qualcomm in May 2011 as President of Qualcomm
Athenos, Inc. He served as president and
chief executive officer of Athenos, and a
director on the company’s board from
2003 until its 2011 acquisition by Qual-
comm.

Dr. Barrett previously served as Athe-
non’s vice president of technology from 2002
and 2003. He holds Ph.D. and Master of
Science degrees from Stanford Univer-
sity, as well as a Bachelor of Electrical
Engineering degree and Bachelor of
Science degrees in pure mathematics
and physics from Sydney University in
Australia. Dr. Barrett has also served 28
patents in a variety of wireless and
related technologies.

ventures ideas@EPFL
Swiss ways of building start-ups

Friday, November 4, 2011
from 13:50 to 16:30 (door opening 13:30)
Auditorium CE 2, EPFL

https://vpi.epfl.ch/startup_champions
Thursday, April 21st, 2016
from 14:00 – 17:00 (doors open 13h30)
Rolex Learning Center Forum, EPFL

Registration free but mandatory: www.venturelab.ch/SC
TRYING

http://lausanne.startupweekend.org
Drink Local, Think Global

So let me just add my translation of a quote by Daniel Borel, co-founder of Logitech and one of the infrarouge guests, that is extracted from an interview to magazine Trajectoire published on November 16, 2009. I think that it is consistent with what I usually publish here:

“The only answer that I may provide is the cultural difference between the USA and Switzerland. When we founded Logitech, as Swiss entrepreneurs, we had to enter very soon the international scene. The technology was Swiss but the USA, and later the world, defined our market, whereas production quickly moved to Asia. I would not like to look too affirmative because many things change and many good things are done in Switzerland. But I feel that in the USA, people are more opened. When you receive funds from venture capitalists, you automatically accept an external shareholder who will help you in managing your company and who may even fire you. In Switzerland is not very well accepted. One prefers a small pie that is fully controled to a big pie that one only controls at 10%, and this may be a limiting factor”.

Tags: Switzerland

Tags
Age Biotech Boston
Business Angels China Cluster
Crisis Créateurs Culture
EDA
Entrepreneur
Entrepreneurship
EPFL Equity
Europe Facebook
Failure Finland
Founder Gazelles
Google Growth Immigrant
Innovation
Intellectual Property IPO
Kleiner Perkins Obama
Steve Jobs about why Silicon Valley “[There are] two or three reasons. You have to go back a little in history. I mean this is where the beatnik happened in San Francisco. It is a pretty interesting thing…You’ve also had Stanford and Berkeley, two awesome universities drawing smart people from all over the world and depositing them in this clean, sunny, nice place where there's a whole bunch of other smart people and pretty good food. And at times a lot of drugs and all of that. So they stayed… I think it’s just a very unique place”

Don Valentine on Founders: “Founders are genetically impossible by choice.” “There are only two true visionaries in the history of Silicon Valley. Jobs and Noyce. Their vision was to build great companies…Steve was twenty, un-degreed, some people said unwashed, and he looked like Ho Chi Min. But he was a bright person then, and is a brighter man now... Phenomenal achievement done by somebody in his very early twenties… Bob was one of those people who could maintain perspective because he was inordinately bright. Steve could not. He was very, very passionate, highly competitive.”
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INNOVATION AND TECH. TRANSFER
THE INNOGRANTS
ROLE MODELS
ABOUT SOME INNOGRANTS
<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LABORATORY (SCHOOL)</th>
<th>PEOPLE</th>
</tr>
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<tbody>
<tr>
<td>Mimosys</td>
<td>Processor Architecture Laboratory (IC/LAP)</td>
<td>Paolo Ienne / Jason Brown</td>
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<tr>
<td>Production of proteins</td>
<td>Cellular Biotechnology Laboratory (External &amp; SV/LBTC)</td>
<td>Peter Bromley / Florian Wurm</td>
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<tr>
<td>Cytomec</td>
<td>Orthopaedic Research Division (STI)</td>
<td>Tom Quinn</td>
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<td>DAAV technologies</td>
<td>Distributed Information Systems Laboratory (IC/LSIR)</td>
<td>Jie Wu</td>
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<td>Opt.im</td>
<td>Artificial Intelligence Laboratory (IC/LIA)</td>
<td>Ion Constantinescu</td>
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<td>Cooling techniques of microprocessors</td>
<td>Heat and Mass Transfer Laboratory (STI/LTCM)</td>
<td>James DeRose</td>
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<td>Anokion</td>
<td>Merck Serono Chair in Drug Delivery (SV/LMRP)</td>
<td>Jeff Hubbell</td>
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<td>PROJECT</td>
<td>LABORATORY (SCHOOL)</td>
<td>PEOPLE</td>
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<td>Fastree 3D</td>
<td>Processor Architecture Laboratory (IC/LAP)</td>
<td>Cristiano Niclass</td>
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<td>Medical Imaging System</td>
<td>Biomedical Optics Laboratory (STI/LOB)</td>
<td>Alexandre Serov</td>
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<td>Biocomposites</td>
<td>Laboratory of Composite and Polymer Technology (STI/LTC)</td>
<td>Laurence Mathieu</td>
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<td>Molecule Modelisation</td>
<td>Processor Architecture Laboratory (External &amp; IC/LAP)</td>
<td>Payal Kapor</td>
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<td>Attolight</td>
<td>Laboratory of Quantum Optoelectronics (SB/LOEQ)</td>
<td>Samuel Sonderreger</td>
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<td>Jilion</td>
<td>Algorithmics Laboratory (IC/ALGO)</td>
<td>Zeno Crivelli</td>
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<td>Inocs</td>
<td>Integrated Systems Laboratory(STI/IC)</td>
<td>Srinivasan Murali</td>
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<td>RouteRANK</td>
<td>Laboratory for Computer Communications and Applications (IC/LSA2)</td>
<td>Jochen Mundinger</td>
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# Innogrants - 2007

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<td>Prediggo</td>
<td>Artificial Intelligence Laboratory (IC/LIA)</td>
<td>Vincent Schickel</td>
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<td>Enairys</td>
<td>Industrial Electronics Laboratory (STI/LEI)</td>
<td>Sylvain Lemofouet</td>
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<td>Gliapharm</td>
<td>Laboratory of Neuroenergetics and Cellular Dynamics</td>
<td>Luc Pélerin</td>
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<td>(SV/LNDC)</td>
<td>(SV/LNDC)</td>
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<td>Optimax (logistics and the internet)</td>
<td>Artificial Intelligence Laboratory (IC/LIA)</td>
<td>Adrian Petcu</td>
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<td>Gaiasens</td>
<td>Environmental Fluid Mechanics Laboratory (ENAC/EFLUM)</td>
<td>Olivier Couach</td>
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<td>Lemoptix</td>
<td>Microsystems Laboratory (STI/LMIS4)</td>
<td>Nicolas Abele</td>
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<td>Stereotools</td>
<td>Signal Processing Laboratory 5 (STI/LTS5)</td>
<td>Jean-Philippe Thiran</td>
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![Prediggo Logo](prediggo.png)
![Enairys Logo](enairys.png)
![Gliapharm Logo](gliapharm.png)
![Gaiasens Logo](gaiasens.png)
![Lemoptix Logo](lemoptix.png)
![Stereotools Logo](stereotools.png)
# Innogrants - 2008

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<tr>
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<td>Database Laboratory (IC/LBD)</td>
<td>David Portabella</td>
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<td>Social Web Browsing</td>
<td>Operating Systems Laboratory (IC/LABOS)</td>
<td>Rodrigo Schmidt</td>
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<tr>
<td>Novagan</td>
<td>Laboratory of Advanced Semiconductors for Photonics and Electronics (SB/LASPE)</td>
<td>Eric Feltin</td>
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<td>ExCellness</td>
<td>Laboratory of Cell Biophysics (SB/LCB)</td>
<td>Pierre-Jean Wipff</td>
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<td>Aimago</td>
<td>Laboratory of Biomedical Optics (STI/LOB)</td>
<td>Michael Friedrich</td>
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<tr>
<td>Aleva Neurotherapeutics</td>
<td>Microsystems Laboratory (STI/LMIS4)</td>
<td>Andre Mercanzini</td>
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<td>Antispam and filtering methods</td>
<td>Laboratory for Computer Communications and Applications (IC/LSA2)</td>
<td>Slavisa Sarafijanovic</td>
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<td>Madeinlocal</td>
<td>Institute of Core Computing Science (IC/CGC)</td>
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## Innogrants - 2009

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<td>Distributed Systems Laborator (IC/LSR)</td>
<td>Barbara Yersin / Jonathan Maim</td>
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<td>Ozwe</td>
<td>Pedagogical Research and Support (CRAFT)</td>
<td>Frédéric Kaplan</td>
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<tr>
<td>Wippso</td>
<td>Institute of Electrical Engineering (STI/IEL)</td>
<td>Marco Mattavelli</td>
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<tr>
<td>Anti-tumour Agents</td>
<td>Laboratory of Glycochemistry and Asymmetric Synthesis (SB/LGSA)</td>
<td>Claudia Bello</td>
</tr>
<tr>
<td>Imina</td>
<td>Robotic Systems Laboratory 2 (STI/LSRO2)</td>
<td>Guillaume Boetsch / Benoit Dagon / Christophe Canales</td>
</tr>
</tbody>
</table>
# Innogrants - 2010

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
<th>PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoldenMMA</td>
<td>Microsystems Laboratory 1 (STI/LMIS1)</td>
<td>Bastien Rachet</td>
</tr>
<tr>
<td>Lake Mind Cloud Management</td>
<td>Operating Systems Laboratory (IC/LABOS)</td>
<td>Jean-Philippe Martin Flatin</td>
</tr>
<tr>
<td>Abionic</td>
<td>Microsystems Laboratory 4 (STI/LMIS4)</td>
<td>Nicolas Durand</td>
</tr>
<tr>
<td>Samantree</td>
<td>Laboratory of Physical Chemistry of Polymers and Membranes (SB/LCPPM)</td>
<td>Davor Kosanic</td>
</tr>
<tr>
<td>BugBuster</td>
<td>Operating Systems Laboratory (IC/LABOS)</td>
<td>Olivier Crameri / John Renault</td>
</tr>
</tbody>
</table>
## Innogrants - 2011

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
<th>PEOPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindmaze</td>
<td>Laboratory of Cognitive Neuroscience (SV/LNCO)</td>
<td>Tej Tadi</td>
</tr>
<tr>
<td>Therapeutics for ALS</td>
<td>Polymers Laboratory (STI/LP)</td>
<td>Harm-Anton Klok</td>
</tr>
<tr>
<td>L.E.S.S. - Nanofiber illuminator</td>
<td>STI Scientists Group(STI/GR-STI)</td>
<td>Yann Tissot &amp; Simon Rivier</td>
</tr>
<tr>
<td>Swiss to 12</td>
<td>Laboratory of the Physics of Nanostructured Materials(SB/LPMN)</td>
<td>Alessandro Macor &amp; Emile de Rijk</td>
</tr>
<tr>
<td>KB Medical</td>
<td>Robotic Systems Laboratory 2 (STI/LSRO2)</td>
<td>Philippe Bérard &amp; Szymon Kostrzewski</td>
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<tr>
<td>Azbooka</td>
<td>Ceramics Laboratory (STI/LC)</td>
<td>Evgeny Miljutin</td>
</tr>
</tbody>
</table>

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**About some Innogrants 2011**
## Innogrants - 2012

<table>
<thead>
<tr>
<th>Project</th>
<th>Laboratory (Faculty)</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distalmotion</td>
<td>Robotic Systems Laboratory 1 (STI/LSRO1)</td>
<td>Ricardo Beira</td>
</tr>
<tr>
<td>Cellestia Biotech</td>
<td>Prof. Radtke’s Unit (SV/UPRAD)</td>
<td>Rajwinder Lehal</td>
</tr>
<tr>
<td>Osmobluue</td>
<td>Microsystems Laboratory 4 (STI/LMIS4)</td>
<td>Elodie Dahan</td>
</tr>
<tr>
<td>Faceshift</td>
<td>Computer Graphics and Geometry Laboratory (IC/LGG)</td>
<td>Thibaut Weise</td>
</tr>
<tr>
<td>Nanolive - super-resolution microscopy</td>
<td>Group Depeursinge (STI/GR)</td>
<td>Yann Cotte</td>
</tr>
<tr>
<td>Morphotonix</td>
<td>Microsystems Laboratory 1 (STI/LMIS1)</td>
<td>Shenqi Xie &amp; Vaida Auzelyte</td>
</tr>
<tr>
<td>Nanoga- DNA Watch</td>
<td>Laboratory of Advanced Semiconductors for Photonics and Electronics (SB/LASPE)</td>
<td>Nasser Hefyene</td>
</tr>
<tr>
<td>SmartCardia</td>
<td>Embedded Systems Lab. (STI/ESL)</td>
<td>Srini Murali</td>
</tr>
<tr>
<td>Shoelace Wireless</td>
<td>Laboratory of Algorithmic Research on Networked Information (IC/ARNI)</td>
<td>Lorenzo Keller</td>
</tr>
</tbody>
</table>
## Innogrants - 2013

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
<th>PEOPLE</th>
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</thead>
<tbody>
<tr>
<td>Playfulvision</td>
<td>Computer Vision Laboratory (IC/CVLAB)</td>
<td>Horesh Ben Shitrit</td>
</tr>
<tr>
<td>Makur</td>
<td>L'IDIAP Laboratory (STI/LIDIAP)</td>
<td>Joan Isaac Biel</td>
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<tr>
<td>Lunaphore</td>
<td>Microsystems Laboratory 2 (STI/LMIS2)</td>
<td>Ata Tuna Ciftlik</td>
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<tr>
<td>Imperix</td>
<td>Industrial Electronics Laboratory (STI/LEI)</td>
<td>Simon Delalay &amp; Nicolas Cherix</td>
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<tr>
<td>Code Tickler</td>
<td>Dependable Systems Lab (IC/DSLAB)</td>
<td>Cristian Zamfir</td>
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<tr>
<td>G-Therapeutics</td>
<td>Brain &amp; Mind Institute (SV/BMI)</td>
<td>Vincent Delattre</td>
</tr>
<tr>
<td>Bright Sensors</td>
<td>Microtechnics Production Lab. (STI/LPM)</td>
<td>Gael Farine &amp; Conor Slater</td>
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<tr>
<td>Rovenso</td>
<td>Biorobotics Laboratory (STI/BIOROB)</td>
<td>Thomas Estier</td>
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<tr>
<td>Anemomind</td>
<td>Computer Vision Laboratory (IC/CVLAB)</td>
<td>Julien Pilet</td>
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<tr>
<td>Oncoeffective</td>
<td>Microsystems Laboratory 4 (STI/LMIS4)</td>
<td>Robert Meissner</td>
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</table>
## Innogrants - 2014

<table>
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<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
<th>PEOPLE</th>
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<tbody>
<tr>
<td>Xsensio</td>
<td>Nanoelectronic Devices Lab (STI/NANOLAB)</td>
<td>Esmeralda Magally</td>
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<tr>
<td>RAW</td>
<td>Data-Intensive Applications and Systems Lab. (IC/DIAS)</td>
<td>Miguel Branco</td>
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<tr>
<td>Cloud Storage</td>
<td>Image and Visual Representation Laboratory (IC/IVRG)</td>
<td>T. Lochmatter, R. Achanta</td>
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<tr>
<td>Biosemic</td>
<td>Laboratory of the Physics of Living Matter (SB/LPMV)</td>
<td>Wiktor Lisowksi</td>
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<tr>
<td>Lucentix</td>
<td>Laboratory of Protein Engineering (SB/LIP)</td>
<td>Rudolf Griss &amp; Alberto Schena</td>
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<tr>
<td>Intento</td>
<td>Chair in Non-invasive Brain-machine Interface (STI/CNBI)</td>
<td>Andrea Maesani &amp; Andrea Biasiucci</td>
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<tr>
<td>SensArs Neuroprosthetics</td>
<td>Translational Neural Engineering Laboratory (STI/TNE)</td>
<td>F. Petrini, S. Raspopovic, M. Capogrosso</td>
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<tr>
<td>Sun Biosciences</td>
<td>Laboratory of Stem Cell Bioengineering (SV/LSCB)</td>
<td>Sylke Hoehnel &amp; Nathalie Bradenberg</td>
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<tr>
<td>Graspeo</td>
<td>Real-Time Coordination &amp; Dist. Interact. Syst. (STI/REACT)</td>
<td>Andrii Vozniuk</td>
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<tr>
<td>Nowy</td>
<td>Dependable Systems Laboratory (IC/DSLAB)</td>
<td>L. Gardiol, A. Chamseddine &amp; S. Andrica</td>
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<tr>
<td>ObViz</td>
<td>Artificial Intelligence Laboratory (IC/LIA)</td>
<td>Claudiu Musat</td>
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<tr>
<td>EAR</td>
<td>Audiovisual Communications Lab (IC/LCAV)</td>
<td>Juri Ranieri &amp; Ivan Dokmanic</td>
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## Innogrants - 2015

<table>
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<tr>
<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
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<tbody>
<tr>
<td>Twenty Green</td>
<td>Electronics and Signal Processing Laboratory (STI/ESPLAB)</td>
<td>Mario Zaiss &amp; Duncan Sutherland</td>
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<tr>
<td>Sthar</td>
<td>Laboratory of Theoretical Physical Chemistry (SB/LCPT)</td>
<td>Alberto Hernando de Castro, Miroslav Sluc, Marius Wehrle &amp; Eduardo Zambrano</td>
</tr>
<tr>
<td>Swiss Sonic Production</td>
<td>Laboratory of Microengineering for Manufacturing (STI/LPM)</td>
<td>Csaba Laurenczy</td>
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<tr>
<td>Notch Enhancers</td>
<td>Laboratory of Synthesis and Natural Products (SB/LSPN) &amp; Radtke Group (SV/UPRAD)</td>
<td>Viktoria Reinmüller</td>
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<tr>
<td>Volumina</td>
<td>Microsystems Laboratory 4 (STI/LMIS4)</td>
<td>Amélie Béduer &amp; Thomas Braschler</td>
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<tr>
<td>Cellphmed</td>
<td>Laboratory of Virology and Genetics (SV/LVG)</td>
<td>Marc Friedli</td>
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<td>Technis</td>
<td>Microsystems Laboratory 4 (STI/LMIS4)</td>
<td>Naïk Londono, Martin Hofmann &amp; Wiktor Bourée</td>
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<tr>
<td>TasteHit</td>
<td>Unit of prof. Salathé (SV/UPSALATHE)</td>
<td>Alexei Kounine &amp; Christopher Burger</td>
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<tr>
<td>ArtMYN</td>
<td>Audiovisual Communications Lab (IC/LCAV)</td>
<td>Loïc Baboulaz, Alexandre Catsicas, Julien Lalande, Mathieu Rudelle</td>
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<tr>
<td>Daphne</td>
<td>Swiss Plasma Center (SB/SPC)</td>
<td>Mario Michan</td>
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<tr>
<td>Insolight</td>
<td>Laboratory of Applied Photonics Devices (STI/LAPD)</td>
<td>Laurent Coulot, Mathieu Ackerman, Florian Gerlich</td>
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## Innogrants – 2016

<table>
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<tr>
<th>PROJECT</th>
<th>LABORATORY (FACULTY)</th>
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<tr>
<td>FXII Inhibitor</td>
<td>Laboratory of Therapeutic Proteins and Peptides (SB/LPPT)</td>
<td>Christian Heinis, Andres McAllister</td>
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<tr>
<td>Active Wearables</td>
<td>Robotic Systems Laboratory (STI/LSRO)</td>
<td>Simon Gallo, Giulio Rognini</td>
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<tr>
<td>Chef’s Road</td>
<td>Operating Systems Laboratory (IC/LABOS)</td>
<td>Youssef El Houti, Abdelkoudouss Badou</td>
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<tr>
<td>Vizir</td>
<td>Image and Visual Representation Laboratory (IC/IVRL)</td>
<td>Martijn Bosch &amp; Adrien Bierbaumer</td>
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<tr>
<td>Dispencell</td>
<td>Stem Cell Dynamics Laboratory (SV/LDCS)</td>
<td>Georges Muller &amp; David Bonzon</td>
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<tr>
<td>Thinkee</td>
<td>Group Kayal (STI/GR_KA)</td>
<td>Nastaran Asadi Zanjani, Johann Bigler &amp; Jean-Charles Fosse</td>
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<tr>
<td>Lironix</td>
<td>Laboratory of Macromolecular and Organic Materials (STI/LMOM)</td>
<td>Giuseppe Sforazzini</td>
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<tr>
<td>MiraEx</td>
<td>Group Villanueva (STI/GR_LVT)</td>
<td>Clément Javerzac-Galy &amp; Nicolas Piro</td>
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<tr>
<td>TWIICE</td>
<td>Laboratoire de Systèmes Robotiques (STI/LSRO)</td>
<td>Marek Jancik &amp; Tristan Vouga</td>
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<tr>
<td>EEG buds</td>
<td>Defitech foundation chair in Brain-Machine interface (STI/CNBI)</td>
<td>Naik Londono</td>
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<td>Lumigbo</td>
<td>Laboratory of Biomedical Orthopedics (STI/LBO)</td>
<td>Andreas Schmocker, Azadeh Khoushabi</td>
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<tr>
<td>GRZ Technologies</td>
<td>Laboratory of Materials for Renewable Energy (SB/LMER)</td>
<td>Noris Gallandat, Claudio Ruch</td>
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INTERNET AND SOFTWARE

ELECTRONICS

OTHER HARDWARE (ROBOTICS, MECHANICS, SENSORS)

ENERGY & ENVIRONMENT

MEDICAL DEVICES & BIOTECHNOLOGY
Travel Planning

routeRANK

From: A city, airport or train station in Europe
To: A city, airport or train station in Europe
Date: 06-03-2009
Time: 08:00

Want to see how it works?
Click here to get an example search result from Bern to Berlin.

Planning your travel is easy as 1,2,3
routeRANK integrates road, rail and air travel within Europe!
Flight information is also available for all major airports world-wide.

1. Search
   Start typing a name and choose from a list of available locations.

2. Select
   Sort the results according to what is most important to you – travel means, travel time, price, and CO2 emissions.

3. Buy
   Follow the links to travel providers’ websites where you can purchase your tickets or find more information.

Travel Green
Sort your results by CO2 emissions to find the most ecological way of travelling.
Recommendation Solution

Patented Technology
- Profile Targeting
- Catalog Modeling
- Marketer Tools

Intelligent Cross Selling

Smarter Search

Dynamic Merchandising

1 to 1 Marketing

prediggo Solutions

Boost Online Sales!
« Our online conversion rate went up 50% »
Moevenpick AG.

Vincent Schickel

About some Innogrants
Internet
A Social Network
Additionner deux nombres
Faites la soustraction
Multiplier deux nombres
d'autres vont suivre!

Nous développons un enseignement virtuel de mathématiques pour aider les enfants à faire leurs devoirs en animant pas à pas les leçons (comme montré sur cette page). Nous nous efforçons de le mettre à disposition des enseignants et des élèves à un prix abordable pour tous.

Si vous êtes intéressé laissez-nous vos coordonnées et nous vous contacterons dès que le produit sera en vente.
Local Information

Manuel Acevedo
Chef’s Road

Food supply chain

farmer → storage → shop → consumer

Transport

Youssef El Houti, Abdelkoudouss Badou
Web Testing

Load Web Application

Extract source code

Read and understand code

Check for bug

Trigger user action

Report results

Continue

Acquired by

AppDynamics

Renault John  Olivier Crameri

About some Innogrants  Internet
About some Innogrants

Internet
Cloud Management

- End-User Organizations
- SaaS Providers
- PaaS Providers
- IaaS Providers
- Data Centers + Networks

Value chain in public clouds

- Datacenters
- IaaS
- PaaS
- SaaS
- End-Users

About some Innogrants

Internet

EPFL Innogrants | 2017
Internet and Mobile Apps

Soon to be released!
SublimeVideo®
HTML5 Video Player

Acquired by
Zeno Crivelli
Network Technologies for Mobile

Graphical Use Interface for Microcast prototype for video streaming

About some Innogrants
Software Applications

Complete signage solution at your fingertips

Use your content or customize our templates

Our Website

LCD Display
42” In

6 ft

At Your Locations

LCD Frame
10”, 15” In

COMING SOON
[preview access]
Motion Capture

realtime markerless motion capture at every desk

what is faceshift

- faceshift is accurate, effortless, and affordable markerless facial performance capture.
- faceshift uses depth cameras such as Microsoft's Kinect to animate rigs in real time.
- faceshift works seamlessly for fast facial expressions, head motions, and difficult environments.

Undisclosed acquirer rumored to be Apple
Video Tracking

About some Innogrants

Software

Acquired by Second Spectrum

Horesh Ben Shitrit
Vision & Sailing

Advanced data processing algorithms and devices to help sailors win races.

1. Grab your anemobox
2. Go sailing
3. Get real-time performance diagnostic
4. Share and visualize
Makur

**Figure 1:** Video screening job candidates explained in four steps.

**step 1.** Recruiter prepares interview questions

**step 2.** Recruiter sends questionnaire to candidates

**step 3.** Candidates record video with answers

**step 4.** Recruiter watches videos and takes a decision
Efficient access to RAW data
Cloud Storage

Today’s cloud services

untrusted
international networks

untrusted cloud storage provider

untrusted
WLAN

DSL
untrusted

untrusted

← download →

upload →

your laptop

GCHQ

NSA

Radhakrishna Achanta,
Thomas Lochmatter
Graspeo

Share Knowledge **Privately**

Hello Graspeo!

**Graspeo Server**

- Filename
- Time
- Owner

**Syncing with Peer-to-Peer**

Hello Graspeo!
Nowy

Nowy

Nowy Friends

Know when your friends are nearby

Powered by Nowy

https://nowyapp.com/

Loïc Gardiol, Amer Chamseddine & Silvi Andrica
We want to create a bridge between enhanced hearing, wearables and augmented reality. Our vision is to allow everyone, with or without hearing losses, to design and augment their auditory experience. Our technology would process the sounds recorded by microphones and video from a camera to locate sound sources, amplify what we like, silence what annoys us, and inform us about what we hear. These features require innovative signal processing that cannot be implemented on traditional HAs, which provides tools and data to augment the auditory reality of the user; they also require innovation in human-computer interfaces.
Recent advances in Artificial Intelligence, including the mixture of machine learning with Human Computation, open possibilities that were unthinkable a few short years ago. We leverage these technological gains to achieve a good accuracy in automatically extracting relevant aspects and opinions from texts. We then use this wealth of data to make quality recommendations.
Demographic dynamics and population flows:
Personnalisez votre boutique en ligne avec des recommandations personnalisées

Télécharger GRATUITEMENT
Loïc Baboulaz, Alexandre Catsicas, Julien Lalande, Mathieu Rudelle
INTERNET AND SOFTWARE

ELECTRONICS

OTHER HARDWARE (ROBOTICS, MECHANICS, SENSORS)

ENERGY & ENVIRONMENT

MEDICAL DEVICES & BIOTECHNOLOGY
Micro-Display Technologies
Edge-Lighting Devices

Light shaping by nano-structured waveguides

... as thin as a human hair

Cadmium free
Mercury free
20 um

for energy efficient distributed illumination

About some Innogrants
Electronics
A New Computer Interface

L’ordinateur sans clavier ni souris est suisse

The Museum of Modern Art, New York
Spads – 3D Imaging

depth imaging

SPAD  CMOS  Time-of-Flight

About some Innogrants  Electronics

EPFL Innogrants | 2017
Vizir

Martijn Bosch & Adrien Bierbaumer

About some Innogrants

Electronics
Predictive maintenance in harsh environments?

Optical fiber sensors + smart analytics
Nanophotonics Spectroscopy

Samuel Sonderegger
Jean Berney
Lasers & Diodes Materials

Laser Products

Processing

Characterizations

AllInN HEMT at High temperature
New Chip Architecture
Automated Chip Design
INTERNET AND SOFTWARE
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ENERGY & ENVIRONMENT
MEDICAL DEVICES & BIOTECHNOLOGY
New Vehicle

Robots to preserve life

Every day heroes are risking their lives to help others getting safe. These are firefighters and rescuers operating in natural or industrial disasters. But no one should ever be exposed to hazardous environments.

This simple and natural statement is the root of rovenso’s motivation to build robots than can take care of dangerous tasks when the job needs to get done. Earthquakes, landslides, hurricanes, fires or explosions create complex environments which are usually cluttered with rubbles and sometimes contaminated with chemicals or radiations. Manipulating or moving heavy stuff under these conditions is dangerous for humans but is also extremely challenging for automated systems.

Tomorrow, fully autonomous robots will handle these hazardous tasks for us.

http://www.rovenso.com
Micro-Robots

Benoit Dagon
Christophe Canales
Guillaume Boetsch
Photonics via Moulding

- Healthy
- Innovative
- Personalized

Photonic™ chocolate
- A colourful technology to taste

Photonic™ plastic
- Colours without additives

✓ Additive-free
✓ On 3D surfaces
✓ Mouldable articles

About some Innogrants

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Xsensio

CUTTING EDGE TECHNOLOGY

LOW POWER WIRELESS SENSING AND ENERGY HARVESTING

About some Innogrants

Electronics
Anti-Counterfeiting for Watches
Evaluation Kit

The Quantitative Energy Wobbe Index Measurement System (WIMS) can accurately measure the energy content of any Natural Gas or Biogas.

Variations in the energy content of a gas (the Wobbe Index) can lead to a mismatch in the air fuel ratio. This is the main cause of poor performance in terms of ignition, efficiency, emissions, reliability and safety of any appliance that uses the gas.

Our instrument is compact enough to be installed in most gas appliances where it can measure the Wobbe Index before the gas is burnt allowing the air fuel ratio to be adjusted correctly.
Terahertz Transmission

New sources
- from 300 kg to less than 1 kg
- from 500k CHF to 50k CHF
- but, from 100 W to 1mW (!)

Nowadays while several options can be found for sources and detectors... key point: there’s a lack of technical solution for efficient wave-guiding (!)

This is where SWISSto12 wants to play a major role
Swiss Sonic Production

About some Innogrants

Software

Csaba Laurenczy

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FIELDS

INTERNET AND SOFTWARE
ELECTRONICS
OTHER HARDWARE (ROBOTICS, MECHANICS, SENSORS)
ENERGY & ENVIRONMENT
MEDICAL DEVICES & BIOTECHNOLOGY
Energy Storage via Air Compression

- Sunny or Windy times: STORAGE = Air Compression
- Sunless & Windless times: DISCHARGE = Air Expansion

Clean Energy... From time to time
Clean Conversion & Storage Based on Compressed Air
Clean Energy... All the time

and/or

(HyPES System)

Daytime
Night time

Win a 10-day entrepreneurship training in Boston

About some Innigrants
Energy Generation & Osmosis

Elodie Dahan
Upcoming changes in the electricity production structure

Future situation: better grid quality and stability is achieved through the use of power converters and appropriate control strategies (smart-grid approach)
Daphne Technology

Daphne Technology
Marine Air Pollution Control Opportunity
DISRUPTIVE INNOVATION IN OPTICS FOR SOLAR ENERGY
Thinkee

Knowledge base
Consumption Monitoring

Home

Apartment

Source

Actuators
iLoads
Environment informations

Source

Actuators
iLoads
Environment informations

About some Innogrants
Electronics

Nastaran Asadi Zanjani, Johann Bigler & Jean-Charles Fosse
Lironix

Smart Windows
For Building Integrated Photovoltaics (BIPVs)

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GRZ Technologies

About some Innogrants

Energy

Claudio Ruch & Noris Gallandat
FIELDS

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ENERGY & ENVIRONMENT
MEDICAL DEVICES & BIOTECHNOLOGY
Microelectrodes for Neuro-Diseases

A size comparison between an existing lead and Aleva’s technology
Tools for Neurosurgery
Mechanical Robot for Surgery

DistalDriver®

External Positioner

Control Interface

DistalArms®

Win a 10-day entrepreneurship training in Boston

Ricardo Beira
Haptic Robot for Surgeries

About some Innogrants

Medtech

Acquired by

Szymon Kostrzewski
Philippe Bérard
G-Therapeutics

Helping paraplegic patients walk again

Vincent Delattre
Intento

Movement controller (knob)

Allows all patients to benefit from CIMT
SensArs Neuroprosthetics

Amputee Feels in Real-Time with Bionic Hand

05.02.14 - Dennis Aabo Sørensen is the first amputee in the world to feel sensory rich information – in realtime – with a prosthetic hand wired to nerves in his upper arm. Sørensen could grasp objects intuitively and identify what he was touching while blindfolded.

TWIICE

About some Innogrants

Medtech
Remote Cardiac Monitoring

About some Innogrants

Medtech
EEG Buds

NEUROLOGICAL DISORDERS
A global disease burden

50 MILLION
PEOPLE
SUFFER FROM
EPILEPSY

62 MILLION
PEOPLE
SUFFER FROM
CEREBROVASCULAR
DISEASE

326 MILLION
SUFFER FROM
MIGRAINE

244 MILLION
SUFFER FROM
ALZHEIMER
DISEASE AND OTHER
DEMENTIAS.

Naik Londono
Leonardo DiCaprio Invests in Emotion-Capture Startup MindMaze

Switzerland-based human-computer interface startup MindMaze has attracted an investment from none other than Leonardo DiCaprio, who is also joining the company’s board of advisors. The investment is being made as part of a new round of funding that has closed, and the amount of money DiCaprio is investing wasn’t revealed as part of the announcement.

Health and Imaging

About some Innogrants

Medtech
Medical Imaging System

FluxExplorer™
Microvascular imaging

before occlusion  during occlusion  after occlusion

Laser Doppler Perfusion
LOW  HIGH
Medical Imaging System

Visualizing Microcirculation

Acquired by NOVADAQ

About some Innogrants

Medtech
Active Wearables

About some Innogrants

Medtech
Optics for Endoscopy

Davor Kosanic
EPFL, Laboratory of Physical Chemistry of Polymers and Membranes

Bastien Rachet
Davor Kosanic
Super-Resolution Microscopy

Angular beam scanning holographic microscopy

Yann Cotte
Fatih Toy

Microfluidics & Allergies
Fig. 1. Design of the Microfluidic Tissue Processor

Fig. 2. Photographs of the device and the assembled system.
Lumigbo

Andreas Schmocker
Azadeh Khoushabi
Oriane Poupard
Biosemic

New screening diagnostic tools based on micro engineering used to develop personalized healthcare.
Handheld optical reader for diagnostic test strips
Dispencell

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Cell Culture Platform

Sylke Hoehnel & Nathalie Bradenberg

About some Innogranats

Medtech
Personalized medicine
Volumina

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Medtech
Cell Culture Dish Technology

Pierre-Jean Wipff

About some Inngrants Medtech

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Notch Inhibitors for Cancer Therapy

Cancer cells need Notch signaling to proliferate and metastasize

- T-ALL
- Breast Cancer
- GSI are currently used in clinical phase
- Colorectal Cancer?
- Prostate Cancer
- Glioblastoma
- Medulloblastoma
- Tumor Angiogenesis
Notch Enhancers

Notch Receptor

Ligand

Viktoria Reinmüller
Twenty Green

We sell a **bioactive** animal feed supplement for **sustainable**, **ecofriendly**, **respectful** animal farming, as well as expert consultancy for ad-hoc product formulations.
FXII Inhibitor

Coagulation Cascade

Intrinsic Pathway
(surface contact)

Extrinsic Pathway
(tissue factor)

XIIa
XIIa

XIIa

VIIa

VIIa

Heparin (LMWH)

Xa

Xa

Thrombin (IIa)

Thrombin-Fibrin Clot

Hirudin/Hirulog

aPTT

PT

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Christian Heinis, Andres McAllister