

Aargau innovative – opportunity for SME's



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Leader of Technology and Innovation Experts
September 9th 2016

INNOVATION CONSULTANCY

NANO TECHNOLOGY

ENERGY

Agenda



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As an Electrical Engineer with a degree in Business & Economics Mr. Franchetto consults SME's in innovation.



- 1. Introduction of the HIGHTECH ZENTRUM AARGAU AG
- 2. examples of innovation projects
- 3. two farming project in more details

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Leader in innovation

- Global Innovation Index

2014:    2015:   

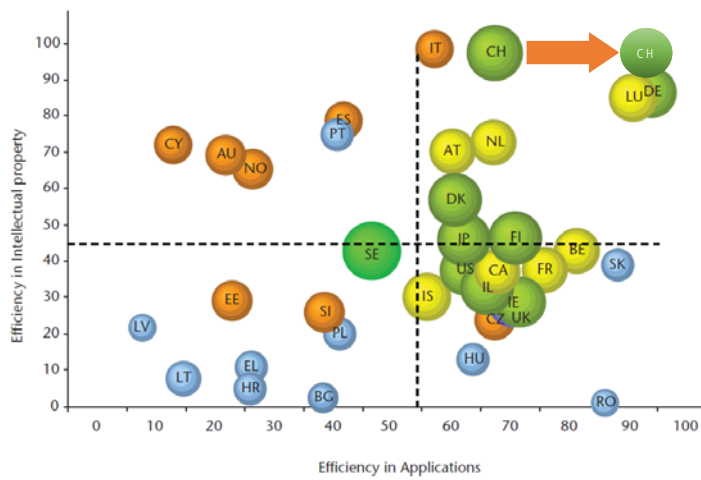
- European Innovation Union Scoreboard

2014:    2015:   

- The Global Competitiveness Index

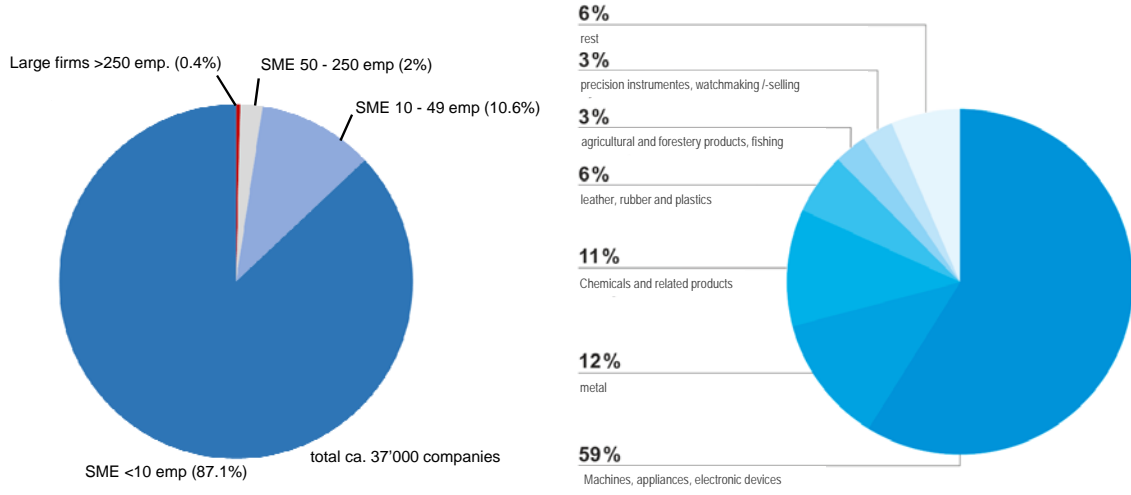
2014:    2015:   

Potential for improvement by knowledge transfer



Quelle: European Innovation Scoreboard

SME structure in the canton of Aargau



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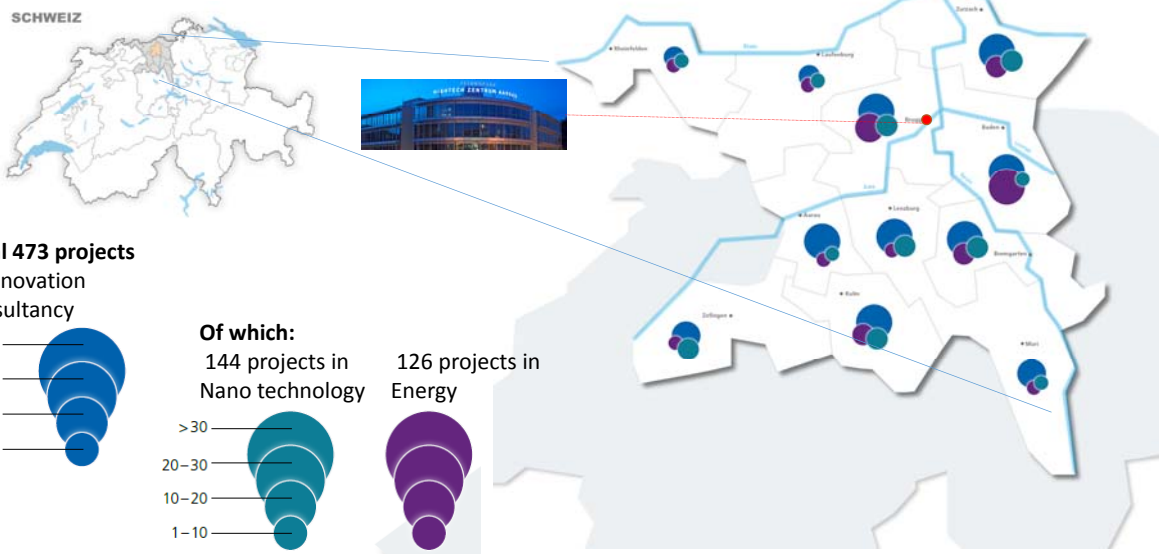
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Aargau – the industry canton of Switzerland



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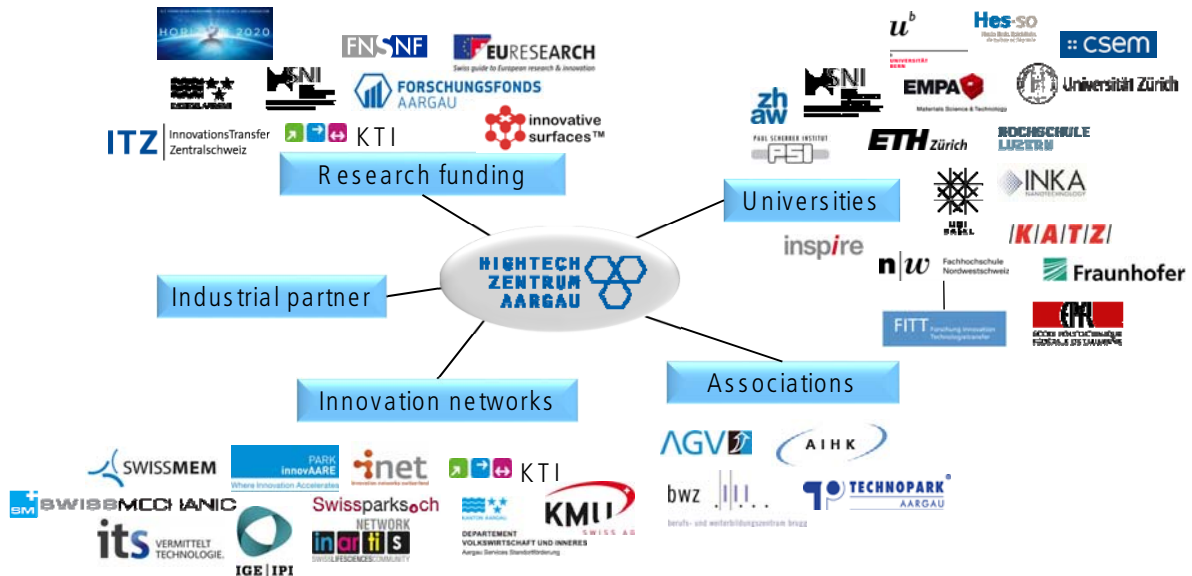
Added value and effect



- Competent **innovation partner** and **challenger**
- Wide national and international **network**
- **Bridge builder** between SME's and universities (CH & international)
- Active support in **project planning** and **access to public funds** (FFA, CTI, s.o.)
- Interdisciplinary **think tank** (cross-innovation)
- Show potential of new **key technologies**



A strong partner network



Our services to SME

▪ **Innovation consultancy** for all companies:

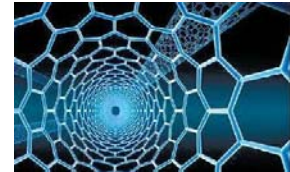
1. Innovation analysis
2. Research for best solution
3. Support with implementation

for all
technology fields



▪ Main focus **nano- and material technologies**

- Take advantage of new material properties



▪ Main focus **power technology and resource efficiency**

- Power transmission
- Renewable energies and power efficiency



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Typical project flow



- Information First meeting
- Innovation hotline
- Initial consultation

- Assistance in setting up innovation projects
- Technology clarifications
- Search and mediation of partner
- IP research (patents / freedom to operate)

- Support/research project funding
- Feasibility study
- Assistance during project

- Customer service
- Situational support if needed / desired
- Success stories

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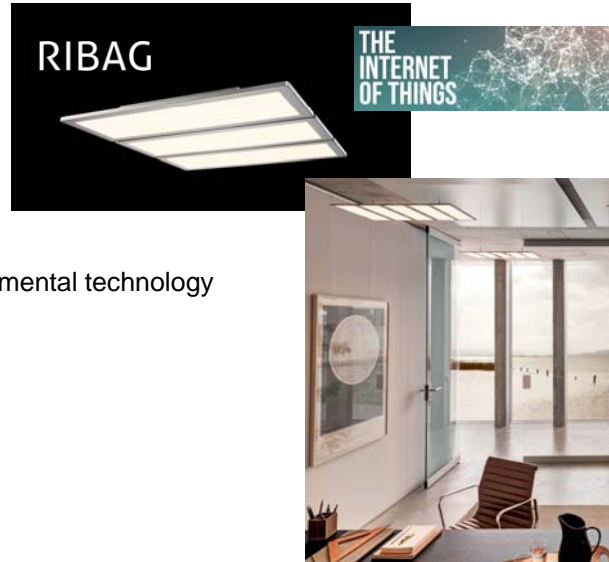
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Internet of Things (IoT) in the lighting industry

- Market analysis IoT today
 - Existing solutions
 - Customer needs
 - Outlook
-
- Student project department energy & environmental technology (3rd semester)



Wind of Change

- **Wind turbine** with segmented generator
- High availability
- Cost efficient maintenance



- In cooperation with:



Independent power supply

- Intelligent power cubes for emerging and developing countries
 - Project consultancy
 - Interdisciplinary creative-workshop



- In cooperation with:
FHSG, industrial partner



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Future protein resource

Topic: „organic waste“ → Solution: „Hermetia illucens“ larva



- IP and technology support
- Assistance with organizational issues
- Support in design and marketing issues
- Feasibility study to minimize risk of new production and product concepts

Hermetia illucens Fly



Hermetia illucens Larva



Start-Up and settlement support:

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Case study project "TAGORA"

THE NATURE ALWAYS CREATES,
OF WHAT IS POSSIBLE, THE BEST.

TAGORA

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Saffron Market Switzerland

- **Market size:** 200 ton/year
 - 91% are produced in Iran
 - Tagora: 2015: 2 kg/year (200'000 bulbs)
2020: 5 kg/year (500'000 bulbs)
2025: 10 kg/year (1'000'000 bulbs)
- Saffron is one of the most expensive spices
- Saffron often in inferior quality or even forged:
 - Saffron threads are mixed with **pomegranate flowers** or **sandalwood chips**
 - Saffron powders are mixed with **brick-dust, starch** or **curcuma**



TAGORA

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Project Description

- **Saffron of Switzerland: Top quality**
 - Sustainable production
 - bio & according to ISO-Norm 3632
 - In balance with human, animals and environment
 - manual cultivation and processing
 - employment and training of local employees
 - Risks & chances
 - direct competition with low-income countries
 - varying production volume based on climate conditions
 - legal regulations for end product like liqueur, syrup, cosmetics



TAGORA

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Saffron products & sales channels

- Products
 - **soul food:** saffron threads, liqueur, syrup, crème de saffron, saffron mousse, saffron-cake, saffron-rice
 - **health food:** saffron-chocolate
 - **cosmetics:** moisturizing day cream
- Sales/Marketing
 - culinary events, direct sales, eshop
 - cooperation, media



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Contribution Hightech Zentrum Aargau



- Management
 - strategic, organizational and implementation support
- Technology consultancy
 - finding research partners
 - IP questions
- Marketing
 - Advice in marketing strategy
 - topic „Swissness“



TAGORA

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Case study project "SWISSHRIMP"



SWISSHRIMP⁺

freshly caught shrimps
in Switzerland



SWISSHRIMP

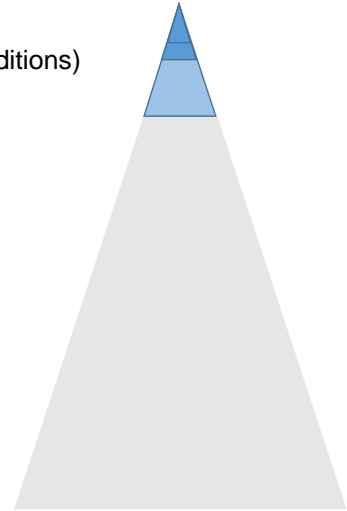
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Shrimp Market Switzerland

- **Market size:** 9'000 ton/year, of which 450 to in premium segment
 - 99.5% imported from Asia (mostly intransparent production conditions)
 - **Production planned by Swiss Shrimp**
 - 2019: 60 ton/year, 0.7% market share
 - 2023: 150 ton/year, 1.7% market share
 - **Present production capacity in swiss premium segment**
 - approx. 4 ton/year
- ➔ **Huge market potential for sustainable produced shrimps**



SWISSSHRIMP

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Project Description

- **Shrimps of Switzerland: Fresh and Tasty**
 - Species-appropriate production
 - certified feeding
 - no artificial additives
 - no antibiotics
 - Energy efficiency
 - exploitation of waste heat of near salt production
 - avoidance of transports
 - Closes resource loop
 - recovery and further use of chitin and betacarotin



SWISSSHRIMP

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Owners/Founders

- **Founders**
 - Thomas Tschirren, initiator
 - Rafael Waber, CEO
 - Michael Siragusa, CTO
 - Daniel Gfeller, CFO
- **President of the Board**
 - Jean-Claude Cattin



SWISSHRIMP

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Contribution Hightech Zentrum Aargau

- **Project Financing Support**
 - guarantee by «Technologiefonds des Bundes»
- **Project Development**
 - controlled lighting for a healthy animal growth
 - controlled feeding depending on biomass
 - automated water quality analysis
 - use of filter waste



SWISSHRIMP

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At your disposition



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