



House of Lab Science

White Paper

ABSTRACT

The "House of Lab Science" is set up to provide the laboratory technology sector in Switzerland with an innovation cluster where large companies, SMEs, industry associations, startups and the best talents can be found under one roof. Collaborations between all those stakeholders are quickly and easily established and implemented in concrete projects.



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INTRODUCTION

Laboratory technology is the key to the growth markets of the life sciences sector. Triggered by the Human Genome Project completed in 2003, which sequenced the entire human genome for the first time in history, the automation disruption in the bio, chemical and medical technologies is only comparable to the Internet revolution of the 1990s. Laboratory technologies are thus becoming the decisive factor for the pace of innovation in research and development in all life science disciplines.

Switzerland plays a leading role worldwide in this key technology. With around 25,000 employees, the national laboratory technology manufacturers today generate estimated sales of CHF 5 billion. 95 % of their products are being exported (Toolpoint, 2020).

The "House of Lab Science" is set up to provide the laboratory technology sector in Switzerland with an innovation cluster in which collaborations between manufacturers, university research centers, startups as well as incumbents are quickly and easily established and implemented in concrete projects.

On top of that, the "House of Lab Science" is not limited to research and product development, but serves as a hub and community, both physically and online, for life science professionals, enthusiasts or newcomers, across all ages and walks of life. With consulting services for start-ups, platforms for exchange, events for the public and activities for students, pupils and young professionals choosing a career, the laboratory technology sector is to be promoted in its entire breadth.

This community and hub will thus offer each participant opportunities for professional exchange as well as for information gathering and information distribution.

Moreover, the bundling of activities in one location will release additional network synergies in the Swiss laboratory technology cluster and thus help consolidate and further expand Switzerland's strong position in this large and further growing market.



Figure 1: Vision meets reality: A collage of existing (row 1) and possible (row 2 and 3) impressions from the future “House of Lab Science” in Hombrechtikon, Switzerland.

VISION

The “House of Lab Science” is to become the place of innovation in the Lab Science industries, making laboratory technology worldwide visible. A place where industry, research and universities meet, develop and implement new ideas alone, in pairs/groups or together. Through the possibility of spatial separation, innovations can be separated in any way desired to protect their privacy. Software developers, research centers, developers of measurement or precision technologies, analysts or start-ups together with universities and colleges form strong symbioses which will take the Lab Science industries to the next level.

The Four Pillars of the “House of Lab Science”

Creating Physical & Virtual Communities	Fostering Innovation & Collaboration	Start-up Support	Developing Talent
<p><u>In House</u></p> <ul style="list-style-type: none"> • Coworking / individual / meeting / collaboration rooms • Laboratory infrastructure • Designated events for industry experts & specialists to meet • Events which, individually or in combination, lead to the public being informed about the workplaces and fields of activity related to laboratory technology • Afterwork events <p><u>Online</u></p> <ul style="list-style-type: none"> • Digital work & networking • Community Platform on www.hols.world 	<ul style="list-style-type: none"> • Innovation in laboratory technology • Making automation visible in the laboratory sector • Linking chemical and/or biological applications with laboratory automation • Inter-company cooperation • Running PoCs • Open innovation 	<ul style="list-style-type: none"> • Start-up foundation • Start-up support • European Lab Science Champions League of Start-ups (Start-up Competition) • Complementary services, e.g. trainings in the areas of quality management (QM), regulatory assessment (RA), intellectual property (IP) and human resources (HR). Etc. • Regional development by collaboration with ZHAW Wädenswil and Biotech-Park Schlieren • Connections with relevant companies which can be suppliers or customers • Market access 	<ul style="list-style-type: none"> • Laboratory specific training • Posting attractive jobs and careers for young talents • Workshops/events for external parties, adapted to each age group/level, e.g.: <ul style="list-style-type: none"> - igniting curiosity of young pupils towards laboratory technology - familiarizing young adults, who are about to choose a career, with possible professions related to laboratory technology - young adults who are undergoing vocational training or have passed their school-leaving exams can deepen their knowledge of laboratory technology - engineers in training get to know the engineering work of laboratory technology - students who are about to decide on a job can see what is going on in the laboratory technology industry and which jobs are offered - helping people who wish to change careers explore the opportunities that exist in the laboratory technology environment

REALIZATION

An innovation campus for the Swiss laboratory technology sector is to be created by the "House of Lab Science" – a physical and virtual place to be.

The "House of Lab Science" aims to attract large companies, SMEs, industry associations, startups and the best talents under one roof. Discipline-wise, it primarily connects biotechnology, nanotechnology, information technology, microtechnology, and mechatronics by offering an interface and direct link to all companies, research institutions in those fields and universities located in the region. Physically, the "House of Lab Science" is given by the connected office buildings at Garstligweg 6 and 8 in Hombrechtikon which provide ideal conditions for research and development as well as for networking and public relations activities. For decades, they were the home base of well-known laboratory technology companies such as Tecan, Rosys and Qiagen Instruments; but "ideal" also in the sense that there is, perhaps with the only exception of the greater area of Boston, no other place in the world with so many stakeholders in the immediate vicinity that can benefit from a lab science innovation park.¹

On the premises of Garstligweg 6 and 8, approximately 1800 square meters of laboratory rooms are to be built on three floors. The space concept is modular, i.e. the tenant can decide which classification the laboratory should have and which infrastructure should be available. The various laboratory rooms range from 30 to 65 square meters. There are also office spaces, meeting rooms and additional services for laboratory operations, which can be rented or purchased separately.

As a project initiative of the association Toolpoint for Lab Science and in cooperation with Varioserv AG, the landlord of the property, the "House of Lab Science" has developed a concept which offers the following facilities and opportunities in a thriving ecosystem with a high degree of flexibility:

- Innovation rooms, lab rooms and test rooms to carry out research and development work
- Collaboration rooms to enable innovation teams to develop new mechatronic devices
- Small offices, individual workstations and meeting rooms for start-ups to rent their own office space to lay the foundation for further growth
- Lab Science academy where high school and university students, professionals, but also the broader public are invited to become involved and to attend courses and events.

¹ For example, the Basel region is connected to the large pharmaceutical and chemical companies such as Roche and Novartis, large users of lab tech in the world. Switzerland's universities and universities of applied sciences are among the best in the world. Schlieren's growing biotech park counts more and more start-ups turning into mature players.

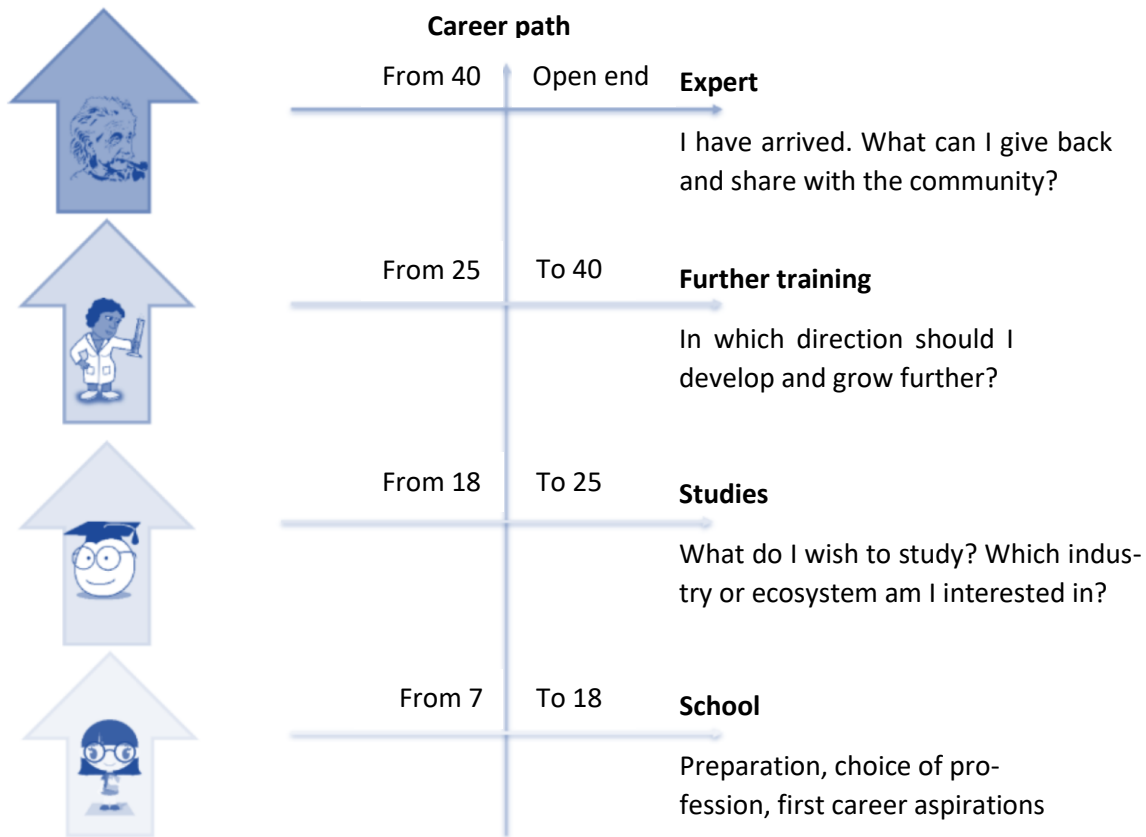


Figure 2: The House of Lab Science does not discriminate and is open to all ages.

Supplementary services for the laboratory operation are:

- Cleaning service in the laboratories
- Operation of the infrastructure
- Access Management
- Sale of laboratory consumables
- Hire of specialized equipment and infrastructure
- Operation of the laundry rooms
- Storage facilities for biological substances such as refrigerators and freezers



- ICT Services
- Logistics support (incoming and outgoing goods)
- Compliant waste disposal
- Renting of meeting rooms
- Advisory services (QM, RA, IP, HR, Finance, Legal, Sales & Marketing, etc.)

The "House of Lab Science" is already beyond the idea stage, and thus in the making. An S2 laboratory is currently in operation, cooperation agreements with large companies and the innovation park in Dübendorf as well as with the biotech park in Schlieren are in place. In addition, 80 workstations and, thus, 3'000 out of 8'000 square meters are already occupied (at the time of writing, i.e. mid June 2020). Further indications of interest (LOIs) from many more parties exist and the reasons for this commitment are clear:

- New business models emerge
- New contacts are made within the supply chain
- Higher productivity and thus economic growth are generated
- Costs and time savings
- Business excellence is increased
- The right talents are found
- A thriving ecosystem is established
- The transfer of knowledge and resources between companies, universities and research institutions is to be increased
- ...

TEAM

The core team behind the “House of Lab Science” consists of three members.



Dr. Christian Hugo Hoffmann

CEO, Co-Founder

- **Deputy Director of the Swiss Fintech Innovation Lab, UZH**
- Co-founded three ICT startups
- **Former Head of Finance at Verity Studios AG**, led financing round of CHF 18M
- Startup Grind Director Geneva



Oana Monica Vrabie

Growth, Co-Founder

- **Marketing and Communications Manager, MassChallenge Switzerland**
- **Project Manager, EIT Food Acceleration Network (Lausanne Hub)**
- Startup Grind Co-Director Geneva



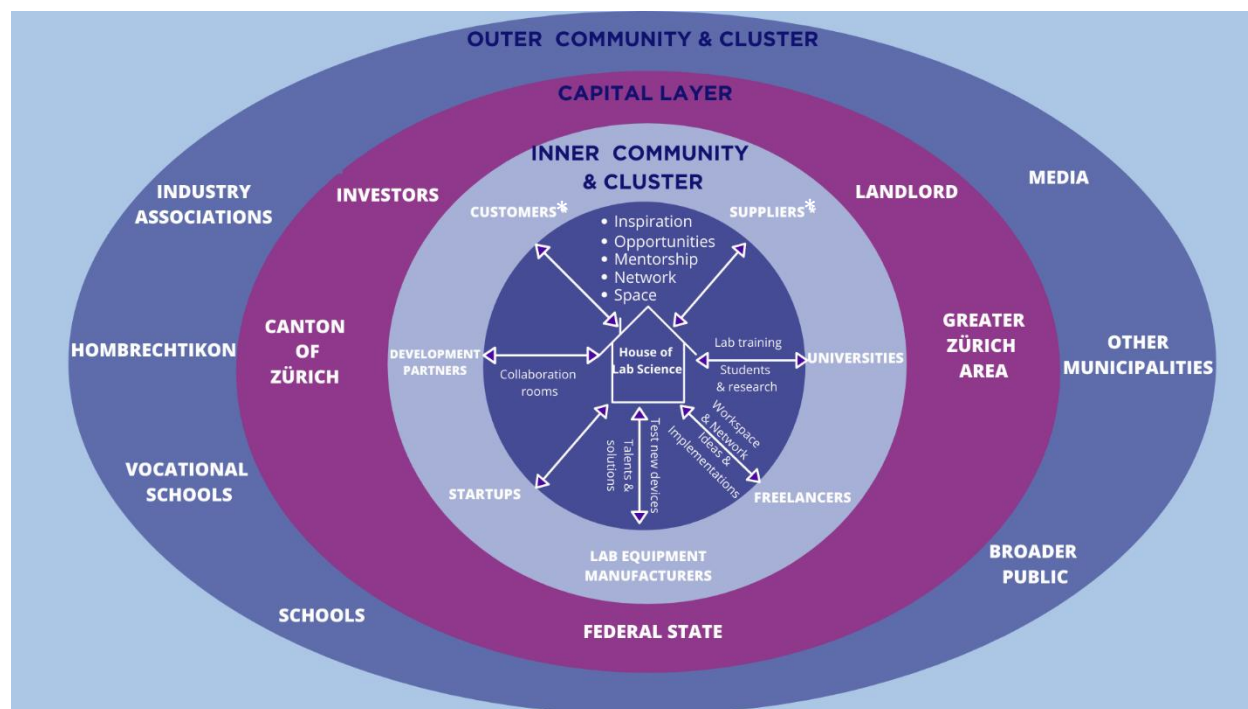
Hans Noser

Initiator & Founder

- **Serial entrepreneur & clusterpreneur, innovation expert**
- Managing Director **Toolpoint**
- Chairman of the Board, **HSE AG**

CONCLUSION & KEY TAKEAWAYS

At the brink of the digital transformation, the “House of Lab Science” is an institution that boosts cross-disciplinary solutions and innovations around the laboratory industries: real as a house, but also virtual as a collaboration platform, bringing together local companies and global users. The opportunity to realize such a vision with a focus on innovation in the here and now is certainly unique. The “House of Lab Science” is to combine the strengths of Swiss industries, the economy, universities and research in a truly systemic manner.



*Figure 3: The House of Lab Science’s stakeholder landscape from a systemic angle. * along the supply chain of the laboratory technology cluster. Some captions for the arrows were left out to enhance readability.*

Key takeaways

- #1 For established Companies: access to innovation, trends & talent by connecting with startups and young professionals;
- #2 For startups: access to lab infrastructure, community, support services, markets, connection with potential partners, customers & young academic talent;
- #3 For pupils / students / researchers and talent: they can deepen their knowledge of laboratory technology and explore career opportunities
- #4 **House of Labs** becomes the interface of all these and more stakeholders with the goal of making laboratory technology globally visible by fostering collaborations (which will lead to innovation breakthroughs and job creation) and educating the larger public on the importance of science put in use to making our lives and planet better.

Are you interested?

Further information such as prices, rental, configuration of the premises, as well as existing services are available either on the homepage www.toolpoint.ch or at hans.noser@toolpoint.ch and janet.waespi@toolpoint.ch.

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