



FoodTech Lab – Leveraging Technology and Entrepreneurship to tackle humanity food challenges

In times of overpopulation, stagnation of resources, and a lacking health system, it is our responsibility to rethink food production and consumption to help future generations. Bringing technology and innovation out of the Labs will help tackle the great food challenges to come.

This paper has the intention to highlight the above challenges, identify the key trends of the future to help solving such challenges and find ways to transform FoodTech ideas and ventures in viable business models.

Alignment with the UN Sustainable Development Goals

The Sustainable Development Goals from the UN Agenda 2030 are the blueprint to achieve a better and more sustainable future for everyone. They address the global challenges we face, including those related to **poverty, nutrition, environmental degradation, and prosperity**, among others. For the purpose of this paper, **6 goals** were chosen that are very much related to the topics of **food – in particular to Food Innovation and Sustainability**.



Investment in FoodTech Startup is relevant



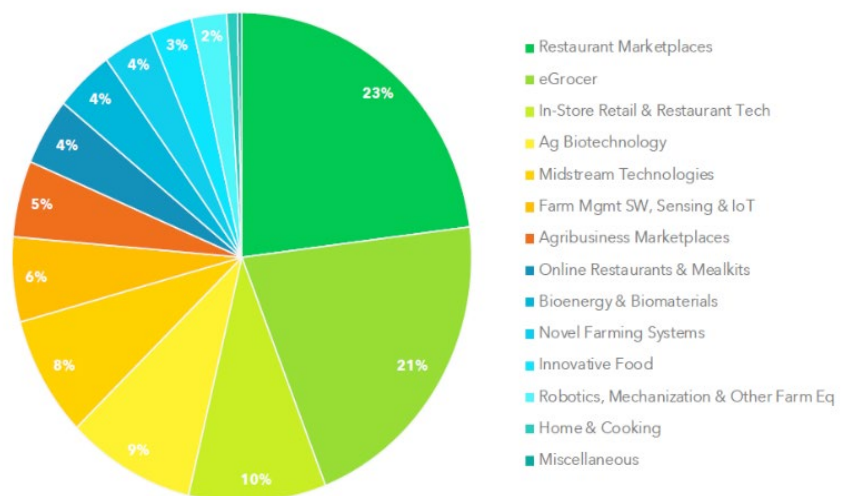
According to AgFunder (2018), technology plays a key role in the operation of the Food sector. As one of the largest industries with \$7.8 trillion revenue, it is responsible for feeding the planet and employing well over 40% of the global population.

Since 2016 to 2018 investments in FoodTech Startups constantly grew 43% year-over-year.

Identification of main FoodTech topics is key

There are many ways of categorizing the FoodTech sector, one way is to define it as upstream and downstream. Upstream refers to the material inputs needed for production, whereas downstream refers to the production and distribution of goods.

In 2018, more than 50% of the total investments in Food Tech startups were invested in downstream channels, including restaurants marketplaces, eGroceries, and InStore/Rest Tech. Only 28% were invested into upstream ventures, leaving the remainder for horizontal innovations and process efficiency improvements.



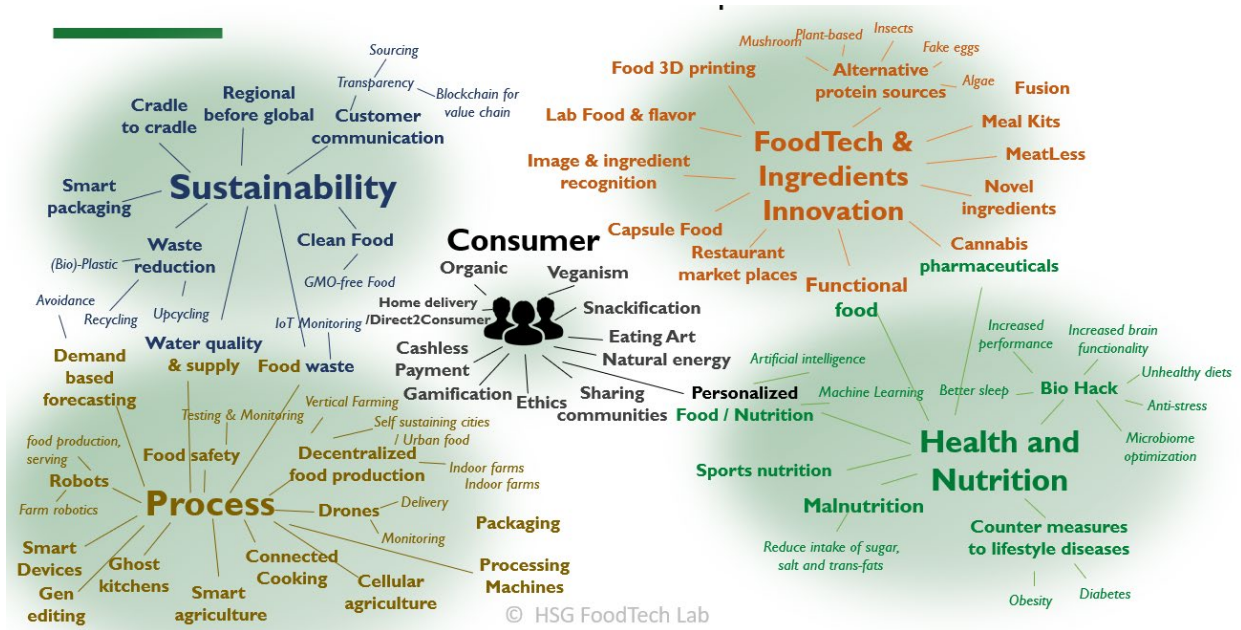
Five topics FoodTech is disrupting the food market

The above data shows that the growth rate of FoodTech ventures has been exponential in the last years. This momentum requires our attention in order to efficiently manage resources. Our approach to cope with the fast-paced development of the FoodTech sector, is to group the field

Five hot topics in the FoodTech sector

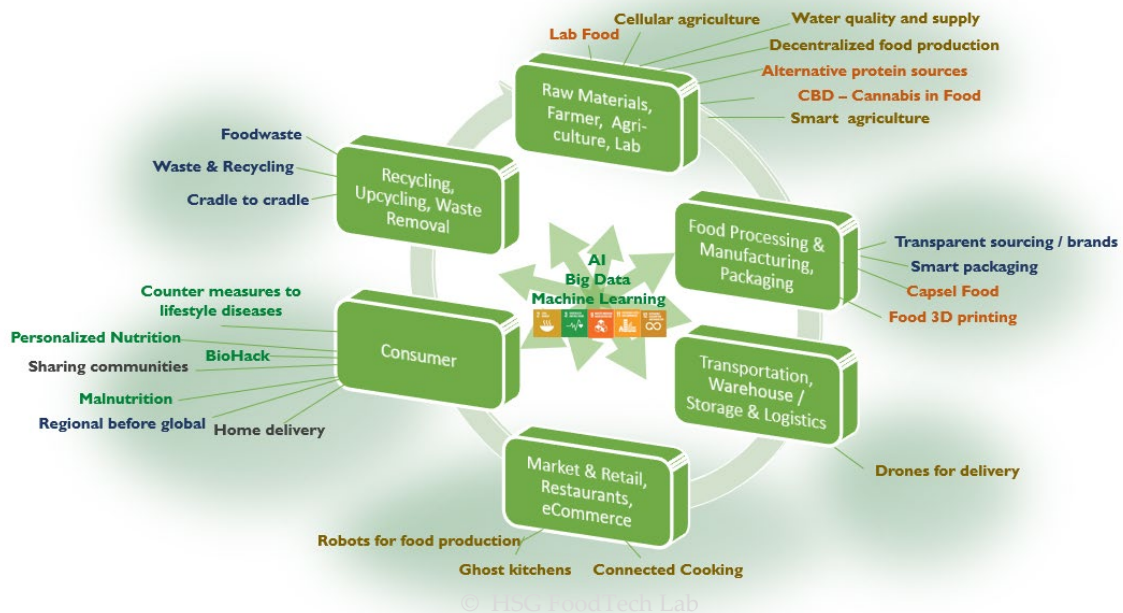
- **Sustainability**
- **Foodtech ingredients and innovations**
- **Health and nutrition**
- **Process**
- **Consumer**

into 5 major categories, namely: sustainability, FoodTech ingredients and innovations, health and nutrition, process and consumer.



Key trends implemented into the FoodTech Supply Circle

Traditionally, the supply chain is the network of all the individuals, organizations, resources, activities and technology which are involved in the creation and sale of a product. This reaches from the delivery of source materials from the supplier to the manufacturer, to the eventual delivery of the produced good to the end user.



The above figure displays the Food Tech Value Circle in which the development of new ventures disrupts the traditional food supply chain and demand for redesigning established business models.

From trends to models

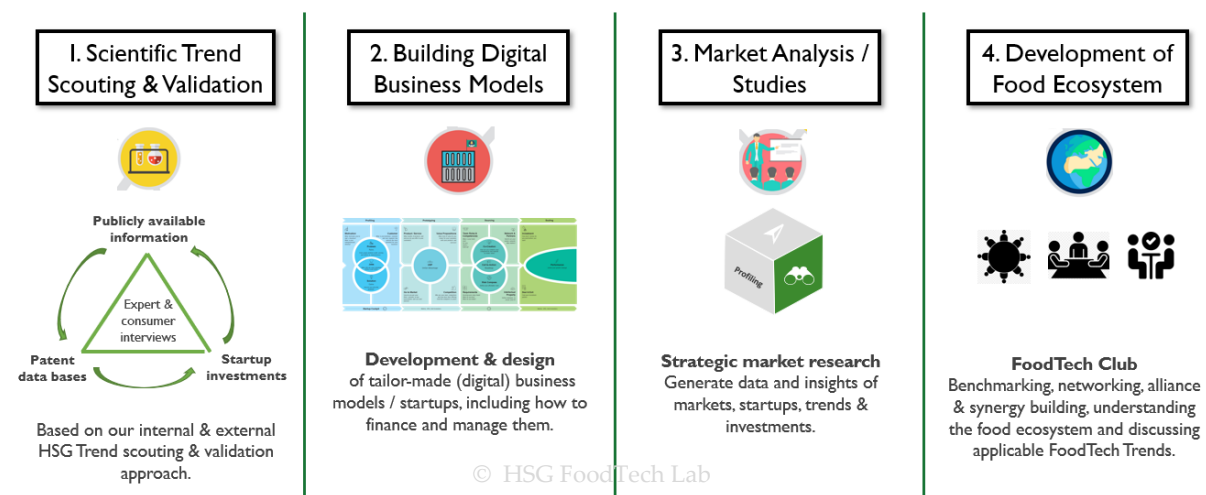
Our vision for the FoodTech Lab is to build a **leading institution** in evidence-based entrepreneurship research and best practice application in the startup and venturing sector with the **focus on the FoodTech sector**, by considering **topics** of the **entire food value chain**

The FoodTech Lab transforms Food Tech trends into viable human-centric food venture models

that are **in line** with the **United Nation's Sustainable Development Goals** and targets for the **2030 agenda**.

Core Services

The FoodTech Lab consists of 3 working methodologies with different outcomes, but a common goal to transform food trends into viable human-centric food venture models.



Value Added - Why

To build the FoodTech Ecosystem, the active participation of key players of the Swiss food environment around the value chain is needed. The motivation for an intensive exchange is to:

- **challenge food trends**
- **realize the impact of trends into the different business settings and**
- **transform impact into venture models.**

FoodTech Lab - Team

Meet the FoodTech team of the Center for Entrepreneurship from the University of St Gallen:



Prof. Dr. Dietmar Grichnik

Dietmar is Director at the HSG FoodTech Lab and a leading researcher in the field of entrepreneurship, innovation, and finance. He is also Director of the Institute of Technology Management at the University of St. Gallen (HSG), where he leads the Chair for Entrepreneurship. His research is published in leading field journals and he is also author of the “Startup Navigator” and „Entrepreneurial Living“.



Maria Luisa Fuchs

Maria Luisa is Project Manager at the HSG FoodTech Lab and responsible for a series of initiatives to inspire, enlighten and accelerate entrepreneurship at the HSG. She is also board member by startups and SMEs focusing mainly on scaling business. Maria Luisa has a MBA from the EAP-ESCP School in Paris and has been engaged for the last 20 years in marketing strategies and grown initiatives for small, medium and big corporations.



Eduard Müller

Eduard is Project Manager at the HSG FoodTech Lab and Research Associate at the Chair for Entrepreneurship. His research related to his dissertation focuses on the identification and forecasting of Food Trends. He also works as a startup coach, mentor and lecturer for students and entrepreneurs, especially in building (digital) business models in the FoodTech industry. He is a former Chef, Hotel- and Project Manager for digitalization projects.



Robert Schreiber

Robert is a Research Associate, PhD student, and Project Manager at the Chair for Entrepreneurship of the University of St.Gallen. He supervises bachelor and master courses in Entrepreneurship as a Teaching Assistant. In his research, he uses diverse neuroscientific and behavioral approaches to study human decision-making on a neural level. Robert is a food entrepreneur and advises young entrepreneurs at Startup@HSG.

For more information on how to participate in the round-tables, workshops, and lecture requests contact us at: Center for Entrepreneurship, University of St Gallen, Dufourstrasse 40a CH-9000 St Gallen. E: eduard.mueller@unisg.ch and marialuisa.fuchs@unisg.ch or visit us: <https://www.foodtechlab.ch/>