

# NTN Innovation Booster

## Databooster

Boosting data-based service innovation

NLP Expert Group Meeting  
January 13, 2021

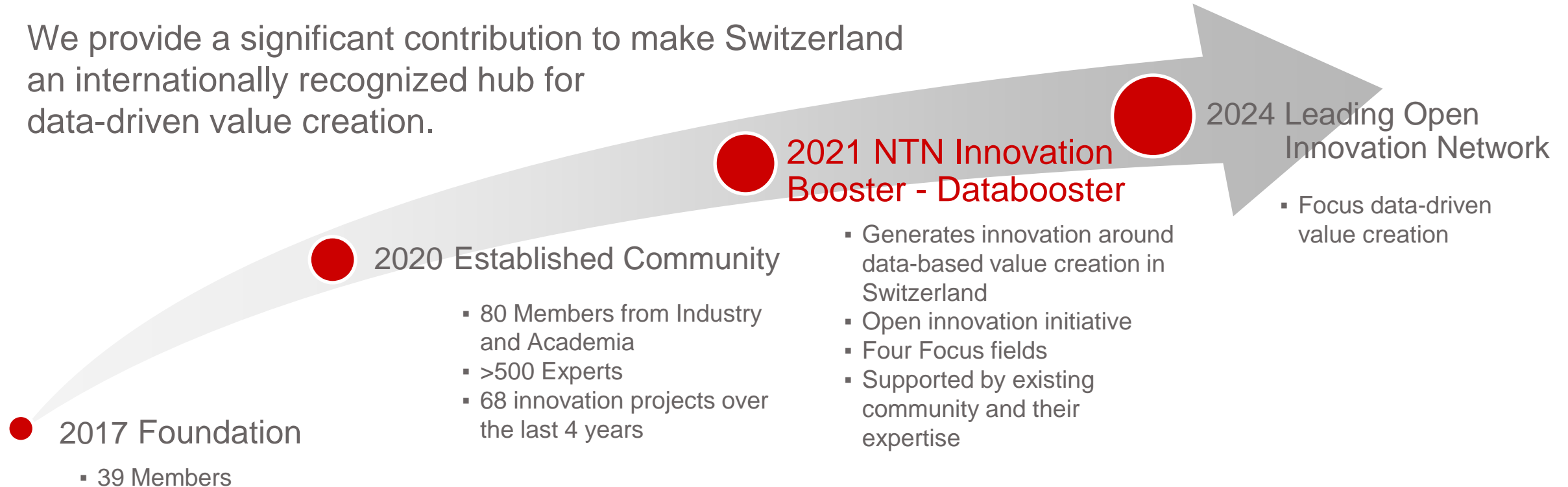
# What to expect

- **Databooster**: the new innovation programm of **data innovation alliance** (2021-2024)
  - How will it work?
  - What is in for me?
- Get to know the key persons
- Learn about the focus topics
  
- Christmas Lounge and Aperero

# Vision for Innovation Support

## Mission Statement:

We provide a significant contribution to make Switzerland an internationally recognized hub for data-driven value creation.



# NTN Innovation Booster - Databooster

Databooster is one out of 12 **Innosuisse-funded NTN Innovation Boosters**

The aim of Databooster is to generate **innovation around data-based value creation in Switzerland**

Databooster pushes innovation in data-based services for the manufacturing and service sector, combining new methods and technologies in Data Science with novel business and service concepts.

# Task of NTN Innovation Booster

Boosting innovation in Switzerland within and beyond our community  
(open innovation)

- **Identify innovation opportunities** for Swiss companies
  - Business potential & no solution available today
- Together with company: **Test** hypotheses, **shape** idea
- Kickstart **innovation projects**
  - Build winning team (typically company + university)
  - Get appropriate funding (typically Innosuisse funding)
  - Develop project plan for science-based innovation

# Databooster: What does it mean for the Alliance?

- Significantly increased Innosuisse funding
  - 300 → 500 kCHF, i. e. +66 %
- Strengthen our innovation activities and our impact (see our mission statement)
- Become the epicenter of data-based innovation in Switzerland
  - More opportunities for our members
- Strengthen our community

# Databooster in **data innovation alliance**

data innovation alliance		
Inspiration	Education	Innovation
<ul style="list-style-type: none"> <li>▪ Communities</li> <li>▪ SDS</li> <li>▪ Co-organized events</li> </ul>	<ul style="list-style-type: none"> <li>▪ CAS</li> <li>▪ DAS</li> <li>▪ MAS</li> <li>▪ Trainings</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Databooster</b></li> </ul>
Outreach Partners		
<ul style="list-style-type: none"> <li>▪ <b>Industrie 2025</b></li> <li>▪ <b>SKDV</b></li> <li>▪ KDV</li> <li>▪ ADMA</li> <li>▪ ASAP</li> <li>▪ Swiss Datacube</li> </ul>	<ul style="list-style-type: none"> <li>▪ SGPF</li> <li>▪ I4MS</li> <li>▪ KSRI</li> <li>▪ GeoSummit</li> <li>▪ SwissText community</li> <li>▪ Swiss NLP</li> </ul>	

**Databooster**

- Massively more innovation projects
- Foster open innovation initiative → effective beyond our membership base
- Benefit for all Swiss SMEs
- Benefit for our members
- Supports continuous growth of our community

# Databooster: How it works

Scouting



Call for participation



Shaping



Reshaping



Deep Dive

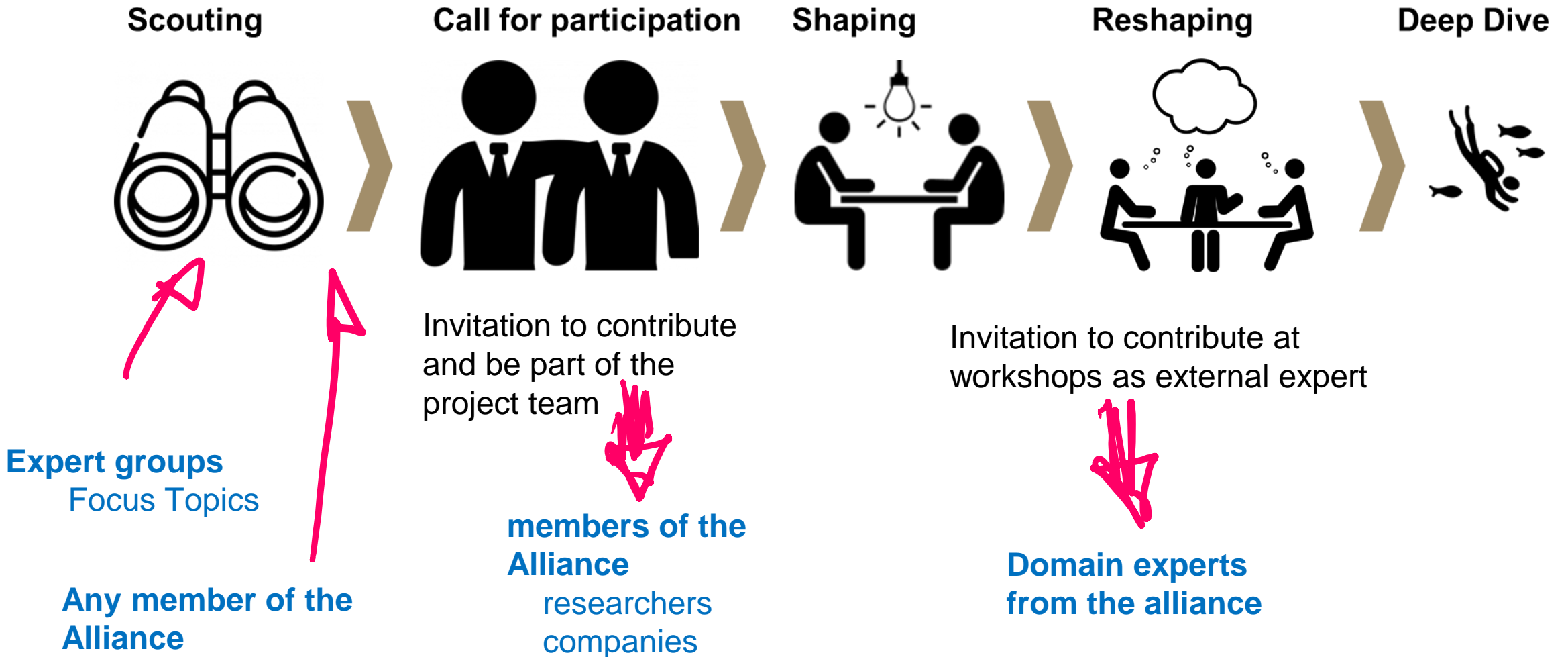


**Innovation projects (research proposals, Innocheques, directly funded projects)**

**Not pursued challenges**



# Databooster: What is in for you?



# Databooster: What is in for Swiss companies?

- **Explore your challenges** (ideas or problems) with experts of the Alliance
  - Market potential, innovation challenges, feasibility
- Professional support in **shaping your innovation idea**
  - Moderated Design-Thinking workshops, additional experts
- Help in building a **suitable team**
  - Include researchers from Swiss universities
  - Find other industrial partners
- Support for getting **additional funding** for your innovation project
  - Up to 500 kCHF - or more

# Databooster: What is in for registered researchers?

- **Opportunities** for exciting innovation projects with Swiss companies
  - Call-for-participation, workshop participation
- **Boost your project ideas** and get additional support
  - Increase success probability of your project proposals
  - Create more value for industrial partners
  - Make your project better: Additional expertise via call-for-participation
- **Become visible as domain expert**
  - Typically as member of an Expert Group
- Be part of highly visible program NTN Innovation Booster

# Databooster: Key Persons

## Topic Leaders

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Industry 4.0



Patricia Deflorin



Philipp Schmid



Smart Service Concepts



Jürg Meierhofer



Shaun West



Philipp Schenkel



Language-based human-machine interaction



Mark Cieliebak



Natalia Kor-chagina



Philipp Thomann



Spatial Data Analytics



Nicolas Lenz



Reik Leiterer



Stefan Keller

## Partners

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Robert Rudolph



Roger Berliat

## Booster Manager

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Gundula Heinatz  
Bürki



Melanie Geiger



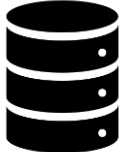
## Representative Romandie

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Nabil Abdennadher

# Databooster: Focus Topics

	Details	Partners
	<b>Industry 4.0</b> Significant efforts are needed to replace human controlled processes with seamlessly integrated digital solutions.	Industrie 2025
	<b>Smart Service Concepts</b> Development of new services based on smart data usage is one of the large untapped potentials. This holds for both the service and manufacturing sector.	Industrie 2025, SKDV, KVD, ADMA, ASAP, I4MS, KSRI
	<b>Language-based human-machine interaction</b> Potential for innovation in process automation (e.g. voice bots), information distilling (fact extraction) and making information available (e.g. voice interfaces).	SwissText community, Swiss NLP
	<b>Spatial Data Analytics</b> Spatial data is of vital importance for many sectors, but still under-exploited. Innovation is needed in data creation as well as its exploitation in the different sectors.	GeoSummit, Swiss Data Cube, SGPF

# Focus Topic «Industry 4.0»

*Innovations through applied connectivity and digitalization*

## Industry 4.0 - Topics

- Quality and Process Control
- Predictive Maintenance
- Agility (production and organization)

## Industry 4.0 – Possible challenges

### Digitalization

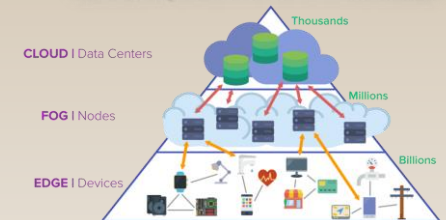
- Environment recognition
- Data (annotation, privacy, security)

### Connectivity

- Hardware, protocol
- Processing Level (edge <-> cloud)

### Innovation

- Organizational challenges (i.e. roll-out)



## Planned activities in 2021

- 6. F&E-Konferenz zu Industrie 4.0 (03.02.2020)
- European Conference on Artificial Intelligence in Finance and Industry (Sept. 2021)
- Contribution series in fmp-service

# Focus Topic «Smart Service Concepts»

## Topic Description

Development of new services based on smart data usage is one of the large untapped potentials. This holds for both the service and manufacturing sector.

## Challenges

- How to scout and shape for smart service problems?
- How to enable actors to use data to innovate new solutions?
- How to transform new solutions into business models?

## Planned activities in 2021

- 4 to 8 Expert Group meetings with a call for participation
- Annual Smart Services Summit with proceedings and call for participation
- Events organized by group members, e.g., Konferenz Perspektiven mit Industrie 4.0, ZHAW (June 2, 2021)
- Service Session at SDS21
- Publications

# Focus Topic «Language-based Human-Machine Interaction»

## Topic Description

Automatic processing of audio and text documents with the goal to extract valuable information.

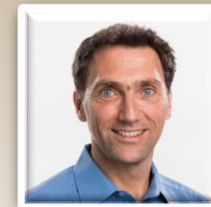
## Challenges

- Swiss German
- Speech-to-Text
- Anonymization Connectivity
- Federated Machine Learning
- Exploration of Huge Document Sets

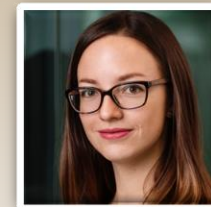
## Planned activities in 2021

- 3 Meetings of NLP Expert Group
- Workshops at SDS and SwissText
- Presentation of Databooster in relevant Meetups
- 2 open calls for NLP products/services

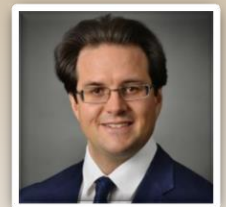
## Focus group leaders



Mark Cieliebak



Natalia Korchagina



Philipp Thomann



# Focus Topic «Spatial Data Analytics»

## Topic Description

Untapping the potential of spatial data: from data collection, processing and analysis to data governance and value-adding services

## Challenges

Rapid increase in data volume with increasingly complex data structures requires new approaches of data handling, data analysis, and data-driven services

## Planned activities in 2021

- several meetings, workshops and events (co-)organized by the focus group
- topic-specific CfPs

# What's next - How can I contribute?



data**booster**

an initiative of  powered by Innovise

**doi**  
data innovation alliance

***Together  
We  
Move  
Faster!***

- If you have questions or a challenge contact
  - the Expert Group Leaders
  - The Focus Topic Leaders
  - The Booster Manager

<https://databooster.ch/>