National Thematic Network (NTN)

Swiss Alliance for
Data-Intensive Services

August 22, 2016

What is data+service?

- A Swiss-wide network of competence for innovative companies and universities

- "**From data to business: Creating new services and products based on digital data**"

- Goal: Driving innovation in Switzerland

- Competencies:
  - › Data science: technology & analytics
  - › Service Science: business & human factors

- Focus: (a) industrial services; (b) digital and mobile services for humans

Mission Statement

Mission: Swiss Alliance for Data-Intensive Services provides a significant contribution to make Switzerland an internationally recognized hub for data-driven value creation.

For this goal NTN focuses on three main areas:

- <u>Innovation</u>: Catalyse scientific innovation into data-driven products, services and business models
- <u>Education</u>: Provide training on both technical and business-related topics around data-driven value creation
- <u>Inspiration</u>: Make achievements visible and thus inspire innovation and entrepreneurship

The application pillars

- **Industrial services** around Industrie 4.0 / Internet-of-Things
  - › New services around data from physical things (production machines, technical equipment etc.)
    - • services based on condition and usage data of the installed basis, e.g. predictive maintenance and remote services for machines and plants
  - › Manufacturers
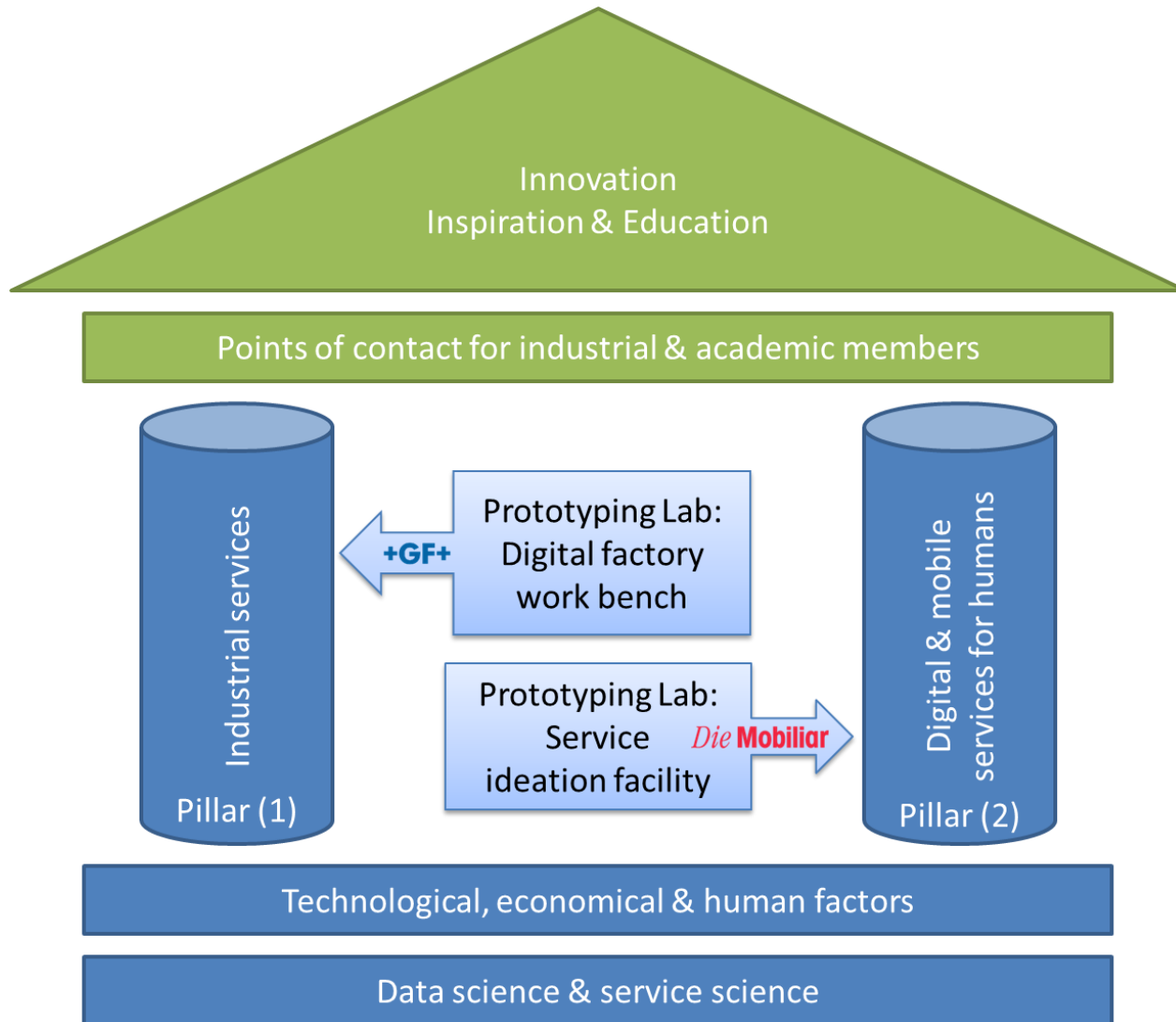 - › new independent service providers focused on exploiting data

- **Digital and mobile services for humans**
  - › New services for individuals which are enabled by data and are not conceivable without them (e.g. decision support or recommendation systems).
  - › Newly established service providers (start-ups) with business ideas living in the digital world
  - › Established service providers (e.g. insurances, banks) that have to transform their business due to digitalization

Members and partners

Swiss Alliance for Data-Intensive Services

Industrial services

+GF+ GEORG FISCHER

TRUMPF

GE

Metrohm

BW-TEC

F&P Personal Robotics

record

HIGHTECH ZENTRUM AARGAU

Mechmine data science technologies

Solution providers

D|ONE WE MAKE SENSE.

gateB

pwc

zühlke empowering ideas

bsi

leanBI

SCIGILITY AG SOLUTIONS FOR BIG DATA

CALLISTA GROUP

zazuko

CALYPS DATA INTELLIGENCE

Digital & mobile services

die Mobiliar

Zürcher Kantonalbank

MIGROS Migros-Genossenschafts-Bund

Swiss Re

Google

RAIFFEISEN

UCOB ventures

ÖKK

suva

Academic members

Zurich University of Applied Sciences
zh aw

n|w University of Applied Sciences and Arts Northwestern Switzerland

Bern University of Applied Sciences

Hes·so VALAIS WALLIS
Σ π ≈ &

Lucerne University of Applied Sciences and Arts
HOCHSCHULE LUZERN
FH Zentralschweiz

Institute of Technology Management
University of St.Gallen

ETH zürich
data analytics lab

EPFL ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

UNI FR UNIVERSITÉ DE FRIBOURG UNIVERSITÄT FREIBURG
eXascale Infolab

Università della Svizzera italiana

InterDisciplinary Institute of Data Science IDIDS

UNIVERSITÉ DE GENÈVE
CENTRE UNIVERSITAIRE D'INFORMATIQUE
ISS INSTITUTE OF SERVICES SCIENCE

National & international partners

INDUSTRIE 2025 INDUSTRIA INDUSTRY

Open Data .ch

DER SERVICE-VERBAND

The International Society of Service Innovation Professionals

eclt

A! Aalto University School of Business

Academic partners

		Data science			Service science					Data science
		Big data infrastructure	Algorithms & analytics	Software & systems	Service design	Service management	Business models	Marketing	Human behavior	Security & privacy	Data ethics & open data
Basic research	Uni Fribourg eXascale Infolab	■									
	USI IDIDs		■								
	ETH Zurich Data Analytics Lab		■	■							
	Uni St.Gallen ITEM				■	■	■				
	Uni Geneva ISS				■				■		
Applied research	ZHAW Datalab	■	■	■						■	■
	ZHAW IDP				■	■					
	HSLU IDS Datenwelten					■					
	ZHAW IMM							■			
	FHNW APS								■		
	BFH EGI										■

Swiss Alliance for Data Intensive Services

Activities

- Community: Create innovation ecosystem
  - Conferences and workshops
  - Internet platform, magazine
  - Integration in international networks and communities
- Practice
  - Expert groups (thematically focused, 2-4 meetings/a, < 20 members)
  - Award programs (best practice award, young professional award)
- Innovation & Research
  - Promoting research projects
  - Innovation bootcamps
  - Research studies (one per year)
  - Labs: Service Design Lab / Smart Factory
- Education
  - Channeling existing CAS/DAS/MAS
  - Thematically focused seminars at member's sites
  - Webinars (6 per year)

Innovation
Inspiration & Education

Points of contact for industrial & academic members

Pillar (1) — Industrial services

Pillar (2) — Digital & mobile services for humans

Prototyping Lab:
Digital factory
work bench
+GF+

Prototyping Lab:
Service
ideation facility
Die **Mobiliar**

Technological, economical & human factors

Data science & service science

Swiss Alliance for Data Intensive Services

Membership fees

☐ Principle: Benefit AND contribution

☐ Annual contribution:

Level	Fee (kCHF/a)
Academic	4
Industry S	7.9
Industry M	19.8
Industry L	50

Industrial membership model

- ☐ Contribution is split into
  - › Monetary contribution
  - › In-kind conbribution (Eigenleistung)

  (individually negotiated)

- ☐ 60% of the monetary contribution is „Flex Budget" and can be used for retrieving network services
  - › Fees for conferences, workshops, expert groups
  - › Sponsoring of conferences
  - › Innovation bootcamps
  - › Financial support to initiate research projects
  - › On-site seminars
  - › Educational courses e.g. CAS/DAS/MAS

Organisation

Executive Board	Office • Executive manager • Administrations

Steering Committee
- L-members
- Officers with specific responsabilities (leader expert groups, head of conferences, …)

General Assembly
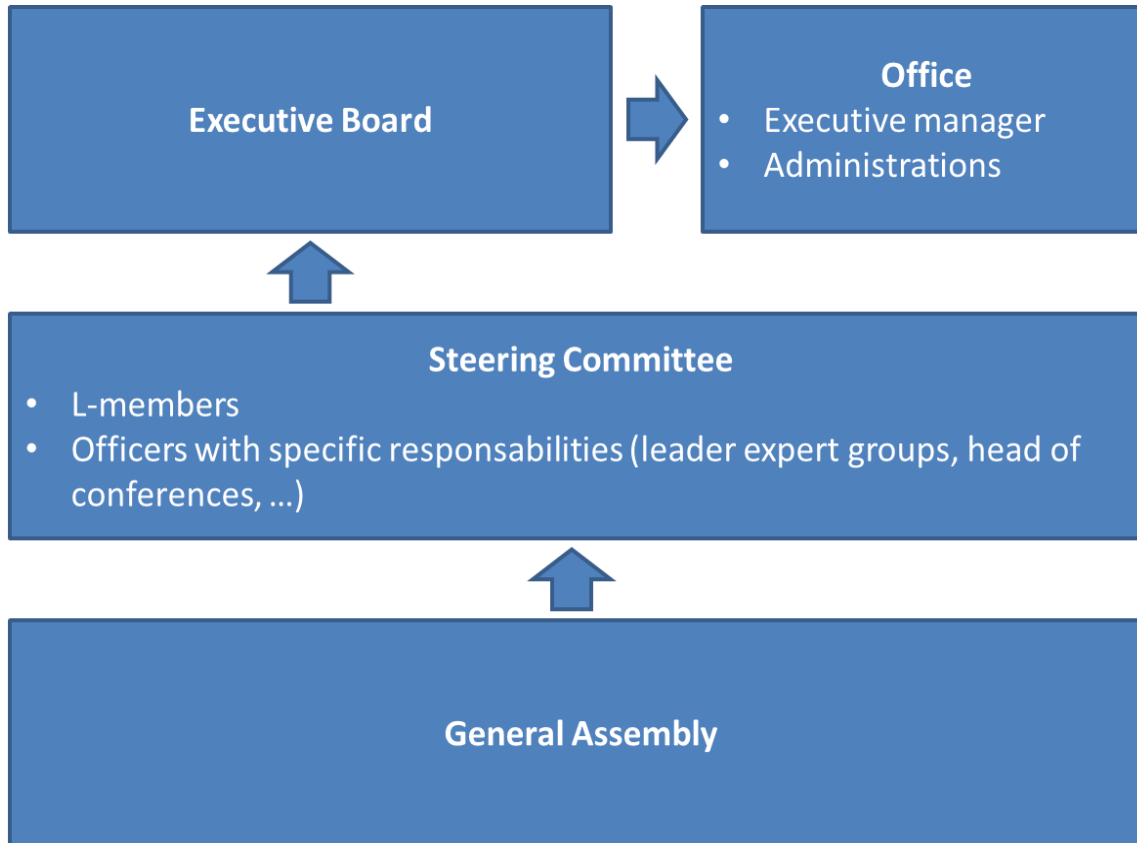
Expert groups

› Industrial Services, Industrie 4.0

› Condition monitoring, Predictive Maintenance

› Machine Learning in industrial practice

› Software and tools (open source)

› Analytical Marketing

› Context-aware services

› Integration of data-intensive services in company IT systems

› Ethics of Data Usage

› Services for individuals (consumers and citizens)

› Data architecture and big data infrastructure

Labs

☐ Service Design Lab

  › 1-2 days in Schloss Thun

  › Professional coaching

  › Provided by Mobiliar

☐ Smart Factory Lab

  › Smart factory showcase

  › Featuring Swiss technology

  › Culmination point for research

  › Provided by Georg Fischer
    Machining Solutions

National and international partners

- Int. Society for Service Innovation Professionals (ISSIP)
- European Center for Living Technologies
- Opendata.ch
- Kundendienstverband Deutschland (KVD)
- Swiss Association for Analytics
- Industrie2025
- Karlsruhe Service Research Institute (KIT)
- Aalto University, School of Business

Management team

Hans Peter Gränicher
D1 Solutions
Providers / SMEs

Dr. Gundula Heinatz
Mobiliar
Digital & mobile services

Dr. Roberto Perez
Georg Fischer Machining Solution
Industrial services / Industrie 4.0

**Prof. Dr. Christoph Heitz**
ZHAW
Service Science

Prof. Dr. G. di Marzo Serugendo
Univ. of Genève
Information and Services

Dr. Thilo Stadelmann
ZHAW
Data Science

Upcoming events in 2016

- March 15: Big data seminar of HSLU
- April 8-9: Hackdays zum Thema Energie (HSLU)
- June 8: SwissText 2016
- June 15: Workshop: Leveraging Big Data in Industrial Service Business
  - Data driven services in manufacturing: Case study from Finland
  - With Prof. Taija Turunen, and entrepreneurs from Finland
- July 7: Swiss Workshop on Asset Management in industry, logistics and transport
  - Data driven management of physical assets
  - Sponsored by Molinari Rail Group, SMART POINT S.A.
- Sept 16: 3rd Swiss Conference on Data Science
  - Pre-conference workshop: SDS machine learning day

3rd Swiss Conference on Data Science
SDS|2016
16th of September 2016, Winterthur
Pre-Conference Program (15.09.): SDS Deep Learning Day
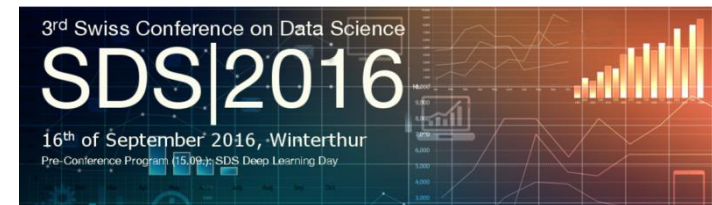
Next steps

2016:

☐ Starting operations – April 2016

    › Funding case-to-case

☐ Website

☐ Install first expert groups

☐ First events

2017:

☐ Full range of activities