Digital Technologies − Smart Data

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Digital Technologies – Smart Data

1. What is the agenda for digital technologies of BMWi?

2. What are the examples for using smart data?

3. What is the outlook for networking at global level?

1. What is the agenda for digital technologies of BMWi?

data driven services:
early warnings for travellers,
desaster risk managment,
self-organized city logistic,
multimodal public transport

platform based services:
assistance & trust anchor services,
data processed in cars & collected by cars,
self-organized rural areas,

Transport

SCHIENE · LUFT · STRASSE · OV · CROWD · DATEN

ICT for electric mobility:
smart grid, smart car,
smart traffic, smart commercial
e-vehicle, autonomous driving

IoT for logistic support:
end-to-end quality in agile supply chains,
modular special transportation facilities,
self-learning mobile autonomous platform

Currently, most of the funding is devoted to the following programs:

- **Smart Data:** to develop and test new technologies that enable big data to be used in both the private sector and by the public in a secure and legally compliant manner; 2014–2017, 13 projects, 30 m€

- **Smart Service Welt:** to connect digital user areas using a targeted, secure combination of open service platforms, data management technologies, and Internet of Things; 2015–2019, 16 projects, 50m€

- **"Digital technology for the economy – PAiCE"** in which pioneering technology fields such as product engineering, agile logistics, service robotics, industrial 3D applications and industrial communication as well as their interconnectivity are addressed, which are particularly relevant for the digitization of the economy; 2016–2020, 16 projects, 50 m€

- **ICT for Electric Mobility:** focusing on the key areas of logistics, mobility and energy infrastructure; Phase 3 (Commercial e-vehicles) 2015–2019, approx. 30 m€

A new BMWi research programme

- **Title:** Smart Data – Innovations from Data

- **Term:** 11/2014–11/2017

- **Funding:** 30 Mio. Euro funding（50%）for 12–16 projects

- **Objectives:**

  - Pilot R&D projects to prove & promote „smart data" solutions in selected application areas

  - Build Big Data ecosystems & partner networks (technology & analytics providers, service providers with research organisations and technology platforms)

  - Create open solutions & frameworks

  - Focus on SME (providers; users) to benefit from the program

Example BMWi-Projects „**Smart Data**" :

- itesa – early warnings in case of disaster (f.e. health, nature, traffic), services for companies

- sd-kama – real time data from people for flood protecting (Köln), services for public authorities

2. What are the examples for using Smart Data?

Publicly funded Research Project Embedded in Smart Data Programme

Smart Data
Gefördert durch:
Bundesministerium für Wirtschaft und Energie
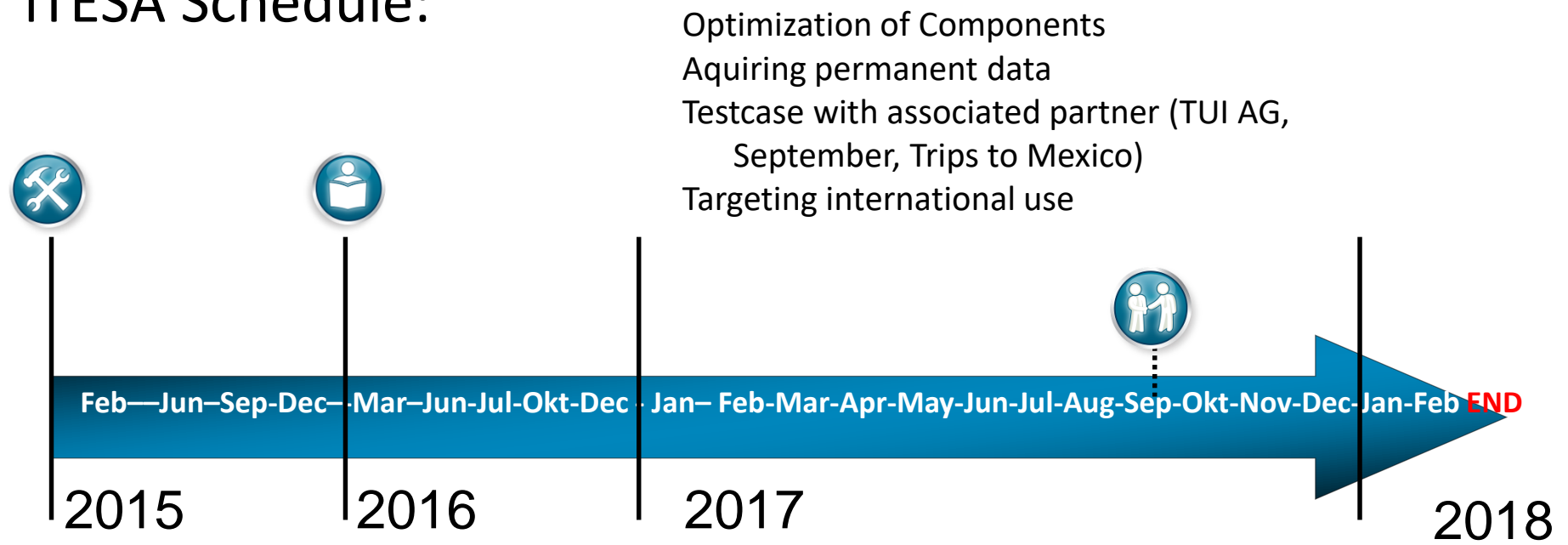aufgrund eines Beschlusses des Deutschen Bundestages

Target: Development of a fully automated near real-time system that alerts Travellers`

iTESA
intelligent Traveller Early Situation Awareness

travelbasys

ULD
Unabhängiges Landeszentrum für Datenschutz Schleswig-Holstein

software AG

Fraunhofer
IVI

INQUENCE

| travel experts, consortia leadership & user platform | privacy-by-design, Support in privacy protection | Technology provider, APAMA, TERRACOTTA | Research Institute, Dynamic Semantic Data Mining and Fuzzy Association Rule Mining | IT specialist for web crawling and information classification |

2. What are the examples for using Smart Data?

iTESA

iTESA Schedule:

Optimization of Components
Aquiring permanent data
Testcase with associated partner (TUI AG,
  September, Trips to Mexico)
Targeting international use

Feb—Jun–Sep-Dec– Mar–Jun-Jul-Okt-Dec Jan– Feb-Mar-Apr-May-Jun-Jul-Aug-Sep-Okt-Nov-Dec-Jan-Feb END

2015   2016   2017   2018

In February 2018 a prototype is available – customer acceptance evaluation included

TOKYO 2020

Further plans : Established use for Olympic
Summer Games 2020

DOSB

2. What are the examples for using Smart Data?

Partner:

geomer
GEOINTELLIGENCE AND BEYOND

GeoIntelligence-Solutions with main focus in disaster risk management

software AG

Big Data platform (data source adapters, streaming analytics, predictions, notifications and alerts to dashboard)

StEB

User:
Flood management und -prevention; requirement definiftion, validation

Fraunhofer
Heinrich Hertz Institute

Capture and dispatch of picture data and video data as well as interpretation dependent on situation and evaluation

DLR

Supply of remote sensing data (TerraSAR-X und TanDEM-X) as well as data analysis

» Goal: bring adaquate and relevant information to different stakeholders

- before,
- during,
- after

   … crisis situations

» Real on near real time web based visualization tools

» Consider data privacy regulations

» Development of a web-based demonstration platform

- With modern tools
- API based access

www.sd-kama.de
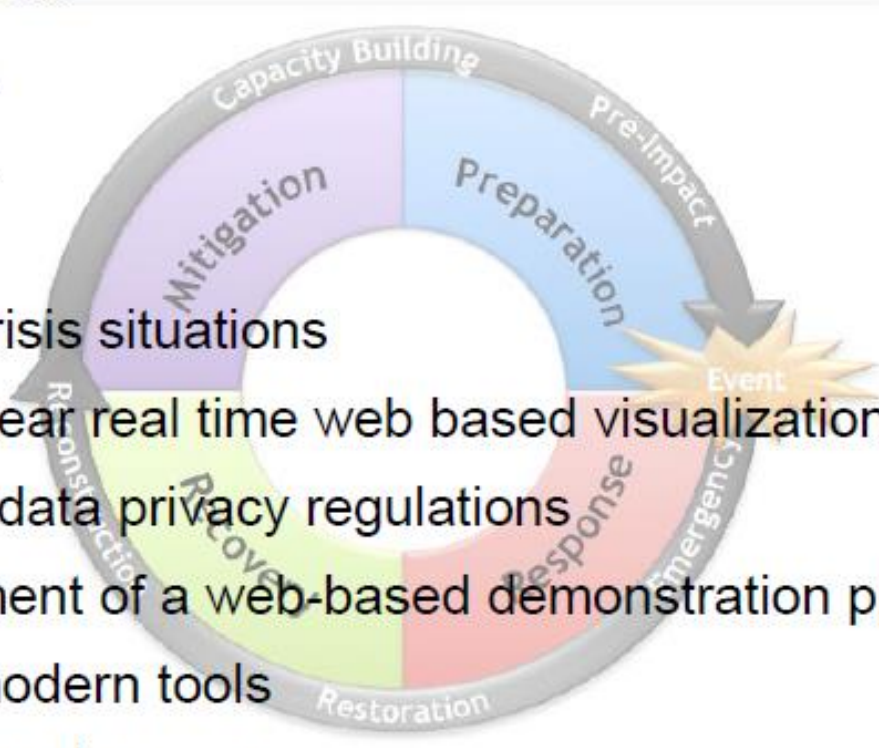
Approach:

» Wearable sensors provide information on physical conditions of groups of field staff

» Processed Image and video materials provide detailed insight in near real time (**rEcht**zeitig)

» Processing of satellite imagery provides derived information overviews and data about exposed population and infrastructure

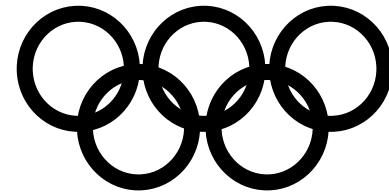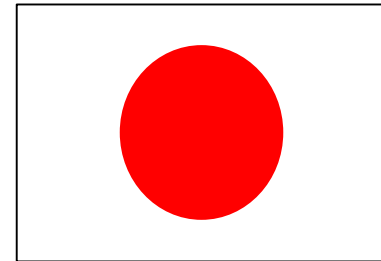» Web based mapping platform integrates data streams and analysis tools
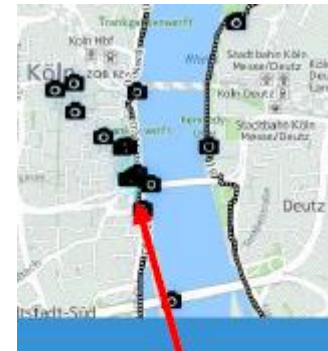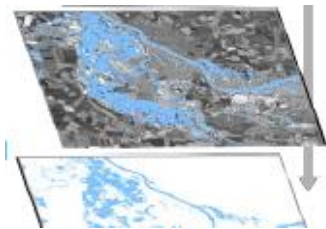
3. What is the outlook for networking at global level?

Possible cooperation between Japan and Germany at our level at division „Development of digital Technologies":

Project in travelling:

- idea exchange
- partnering approaches (science & industry)
- investigation regarding opportunities to cooperate or partner between ministries, their programmes,
- identifying potential for iTESA-usage within the Olympic Games 2020

Thanks for your Attention!

More info and examples:

Federal Ministry
for Economic Affairs
and Energy

Development of digital technologies

Digitisation – the future of our economy

Bundesministerium
für Wirtschaft
und Energie

Back up

Back up

Back up