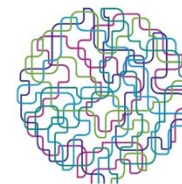


MCS Data Labs GmbH
Simon HOHBERG
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This presentation is for

- Workshop 1** Big Data
- Workshop 3** Photonics and Micro-and-Nanoelectronics
- Workshop 2** Robotics
- Workshop 4** internet of Things

Description of MCS Data Labs



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MCS Datalabs was incorporated as a limited company in 2012 under German law.

Research and innovation driven: VoIP, emergency communications, IoT (sensors and apps), (Big Data Analytics)

WiBack

EMYNOS

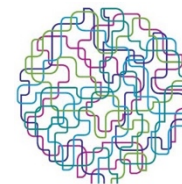
SmarKo

(Big Data)

Located in Berlin (Germany), 9 staff

**Consortium member of H2020 EMYNOS project
(nExt generation eMergencY commuNicatiOnS)**

MCS research interests



Research Interests

Big Data, eHealth/ environment, next generation 112, internet in remote areas, IoT (smart wearables),

Research Team

Emilio CUBA

Simon Hohberg

Prof. Dr. Karl JONAS

Kai KRUSCHEL

Prof. Dr. rer. nat. Adrian PASCHKE

Prof. Dr. Raúl ROJAS

Prof. Dr. rer. nat. habil. Bernd-Holger SCHLINGLOFF

Web & backend development

Next generation 112, Big Data, Deep Learning

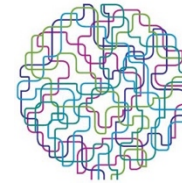
Information Technology/ Multimedia Communications
Hochschule Bonn-Rhein-Sieg, St. Augustin (Germany)

Embedded software development
Smart wearable devices

Mathematics
Freie Universität Berlin (Germany)

Computer Sciences (Artificial Intelligence)
Freie Universität Berlin (Germany)

Information Technology
Humboldt-Universität Berlin (Germany)



- **Goal: design and implementation of a Next Generation 122 (NG112) platform**
- Next generation: all-IP calling
- New opportunities like video calling, instant messaging and **transmission of sensor data → next generation eCall**
- **Next generation eCall**
 - Sending of arbitrary sensor data
 - Live streaming of sensor data
 - Misc. end-devices (IoT)



SmarKo Health

– Smart Wearable & eHealth Platform



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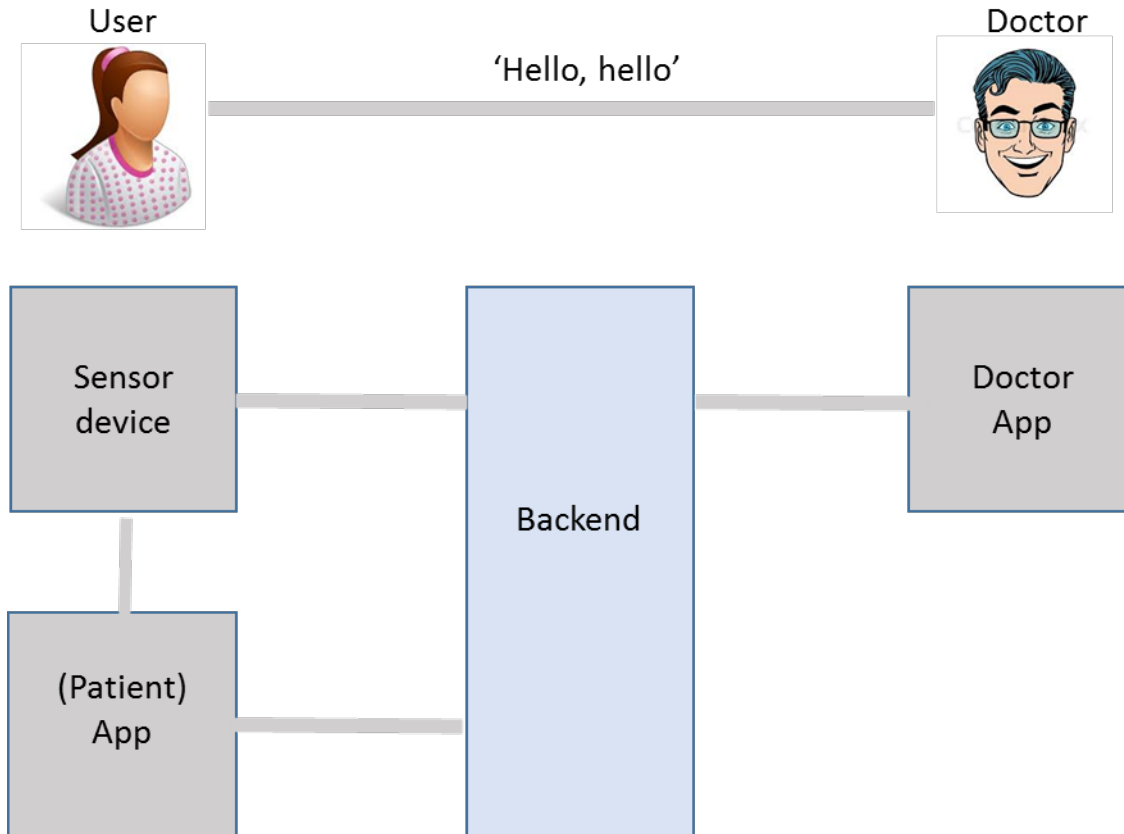
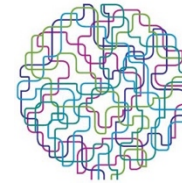
- MCS' SmarKo is a wearable device that allows to collect vital data (heart rate, body temperature, blood oxygen saturation)
- The SmarKo platform connects patients and doctors (vital data and RTC)



SMARKO[®]
health

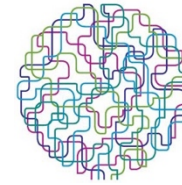
SmarKo Health

– Smart Wearable & eHealth Platform



IoT-03-2017 (RIA) R&I on IoT integration ...

Common eHealth platform for medical devices

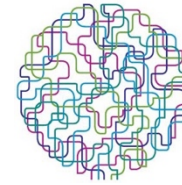


- Objectives:
 - To further develop MCS' SmarKo platform using sensor data for smart behaviour/ integrate actuators using the sensor data
 - Implement high security/ data privacy standards
- Expected results
 - Usage of sensor data for smart behavior
 - End-to-end encryption of sensor data

Consortium - required partners



No	Expertise	Type	Country	Role in the project
01	Big Data Analytics	RTD		Performing Data Analytics
02	Legal advisors, consulting firms	SME		Legislative environment/ data security
03	Health care providers	IND		Needs' assessment
04	Medical experts/ experts of other sectors			Needs' assessment; content provision; testing
05	Patient and Professionals' research			Test market readiness
06	Hardware developers			Sensor data technology
07				
08				



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