



18th LEIBNIZ CONFERENCE OF ADVANCED SCIENCE

– Sensorsysteme 2014 –
16 - 17. Oktober 2014, Lichtenwalde

Bernd Junghans

**Welcome to the 18th Leibniz Conference
Sensorsysteme 2014**



LEIBNIZ-INSTITUT für interdisziplinäre Studien e.V. (LIFIS)

First Leibniz Conference about sensor systems in 2006

since then:

- **exponential growth in sensor quantity:**

growth of sensors in consumer products

2007 – 10 million

2013 – 10 billion

2024 – 1 trillion (expected)

- **tremendous growth in sensor importance:**

crucial part of the „Second Machine Age“



The Second Machine Age

“The Industrial Revolution ushered in humanity’s first machine age – and it was the most profound time of transformation our world has ever seen“.

The driving force was the (steam) engine allowing to overcome the limitations of muscle power, human and animal.

“Computers and other digital advances are doing for mental power – the ability to use our brains to understand and shape our environment – what the steam engine and its descendants did for muscle power”

In the second machine age artefacts of the first machine age are complemented by the ability to gather, process and communicate information (IoT).

Source: E. Brynjolfsson, A. McAfee **“The Second Machine Age“**



Sensor systems everywhere

The vast variety of topics of our conference reflexes the penetration of sensor systems into almost every sphere of our living and working:

- Smart sensor systems in cities, infrastructure, transportation
- Sensor systems in medical applications
- Sensor systems in production facilities
- Sensor systems for environmental protection
- Sensor systems for monitoring of buildings
- Sensor systems for entertainment
- Sensor systems for communication

