



Universal Machine Monitoring

***Warum digital shadows grundlegend die Art
verändern werden, wie wir Maschinen benutzen.***

Stephan Noller, CEO Ubirch



Ubirch

IoT Cyber Security & Data Integrity

Protects data at the source

Lightest IoT Blockchain Client (runs on a SIM-Card)



BCW19



A wide-angle photograph of a large industrial manufacturing facility. The scene is filled with complex machinery, including conveyor belts, robotic arms, and structural frames. The lighting is bright, and the overall atmosphere is one of a busy, modern factory environment. The text is overlaid on a black rectangular background in the upper portion of the image.

MONITORING MACHINES

WHY SHOULD WE?

WHY IS IT SO HARD?

WHY SHOULD WE?

A background image of a large industrial factory with complex machinery, conveyor belts, and structural beams.

ONCE YOU'RE MONITORING YOUR MACHINE,
YOU CAN DO:

Productivity
Optimization

Data driven
Production

MaaS

Predictive
Maintenance

Get better Insurance

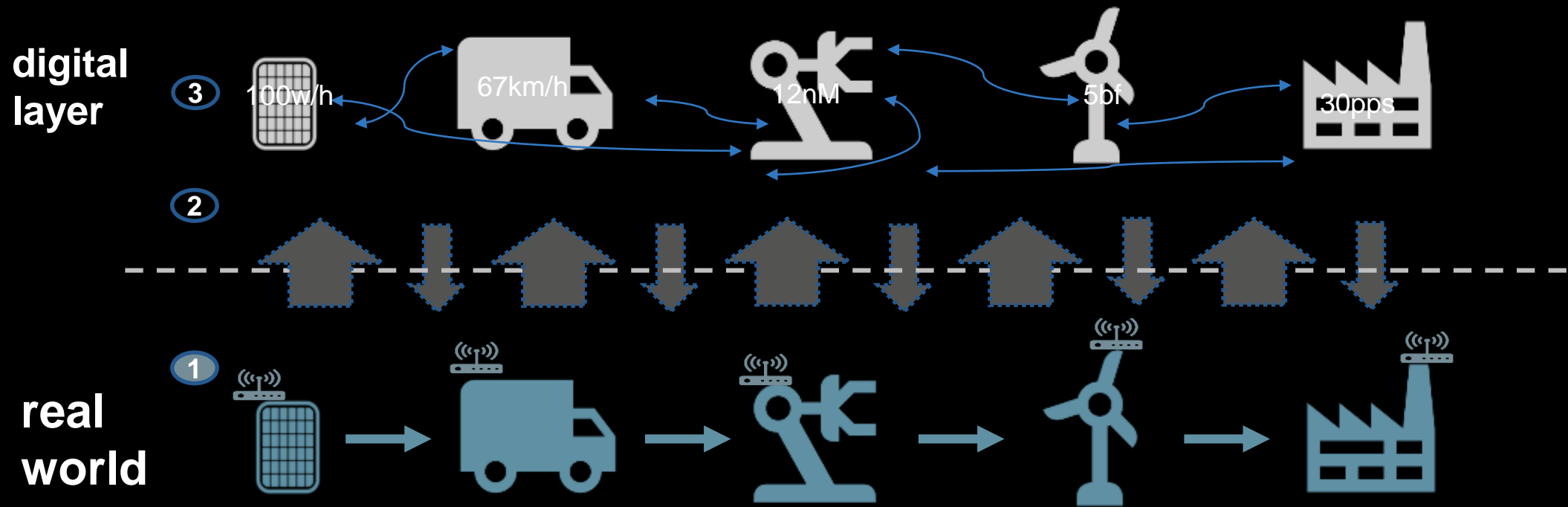
digital twins... →

A still from the movie 'The Truman Show' featuring two identical young girls standing side-by-side in a room with patterned wallpaper. They are both wearing light blue dresses with white bows at the waist and have identical brown hair and facial features. A black rectangular box with white text is overlaid on the image.

DIGITAL TWINS

HOW MACHINES GET A 2nd LIFE
NOWADAYS

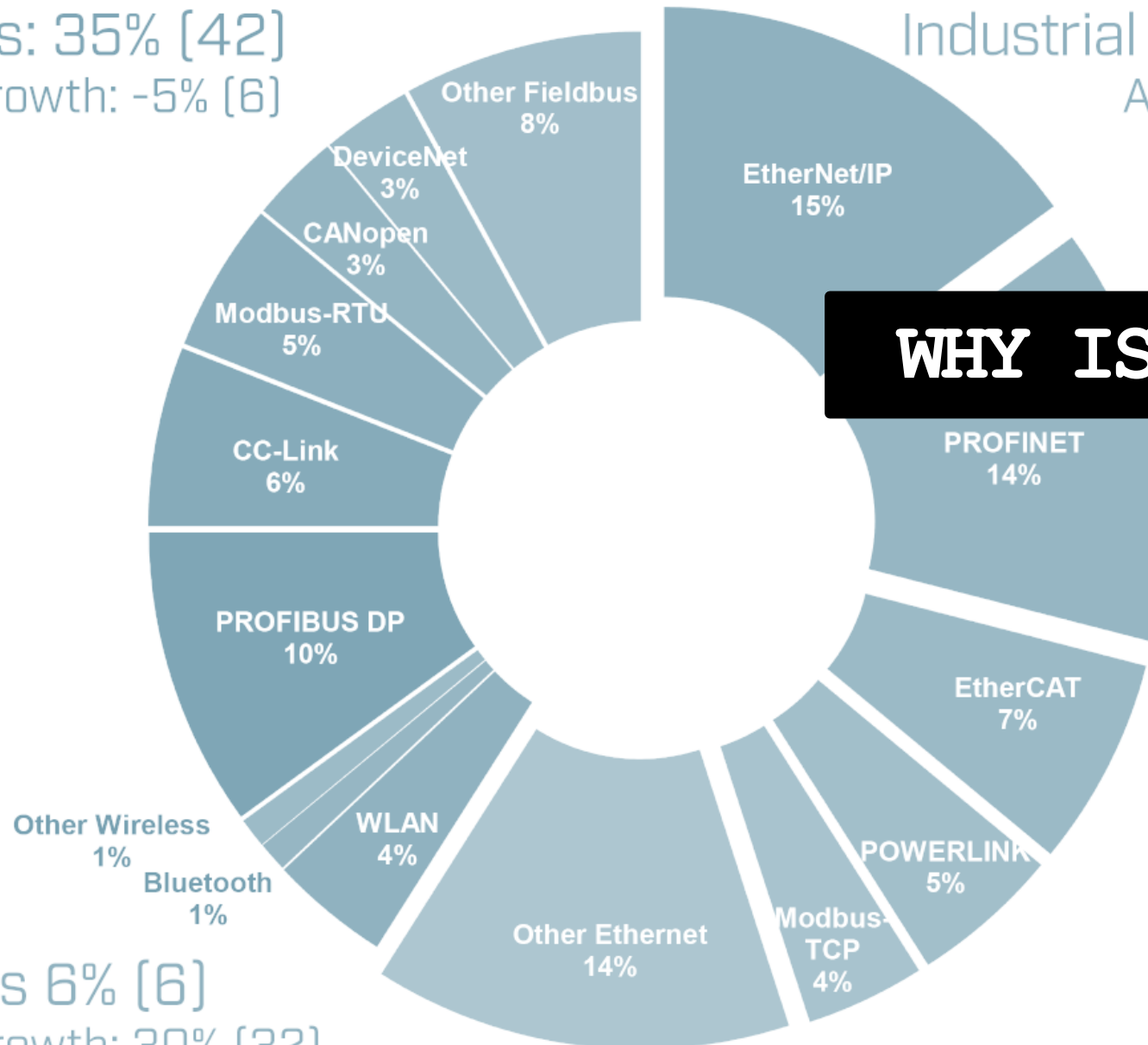
A DIGITAL TWIN IS BORN



WHY IS IT SO HARD?

Fieldbus: 35% [42]
Annual growth: -5% [6]

Industrial Ethernet: 59% [52]
Annual growth: 20% [22]



WHY IS IT SO HARD?

Wireless 6% [6]
Annual growth: 30% [32]



another reason – some
of your machines are
like **this**...



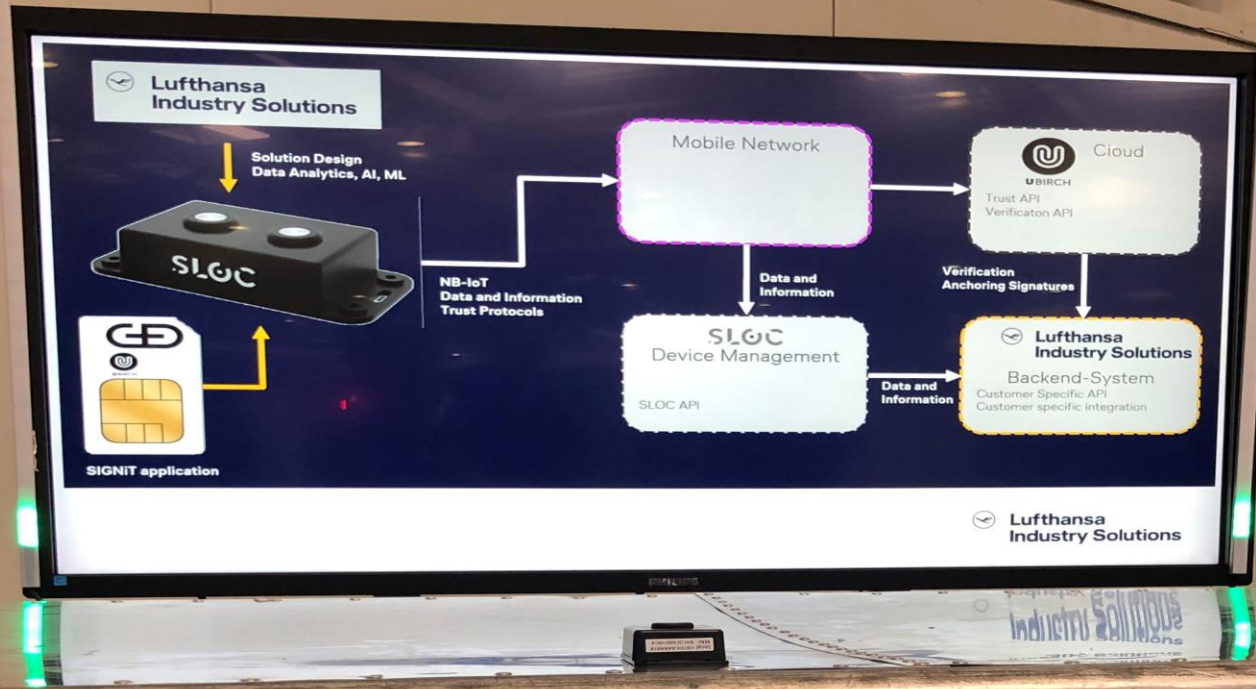
Holtz

Modell
Gebr. Claas



Reo
Bar

HELP IS
COMING

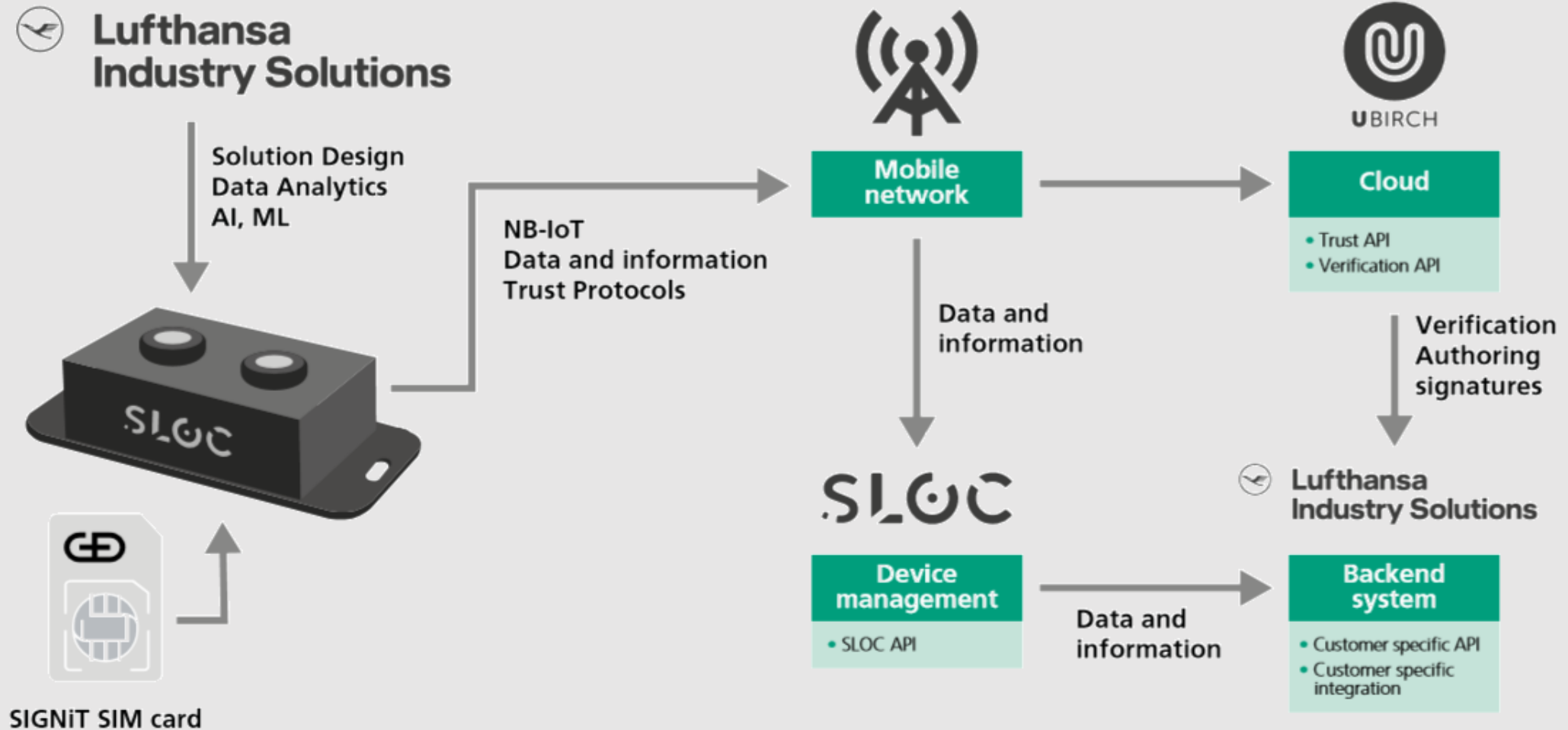


Lufthansa

AKH X X X LH

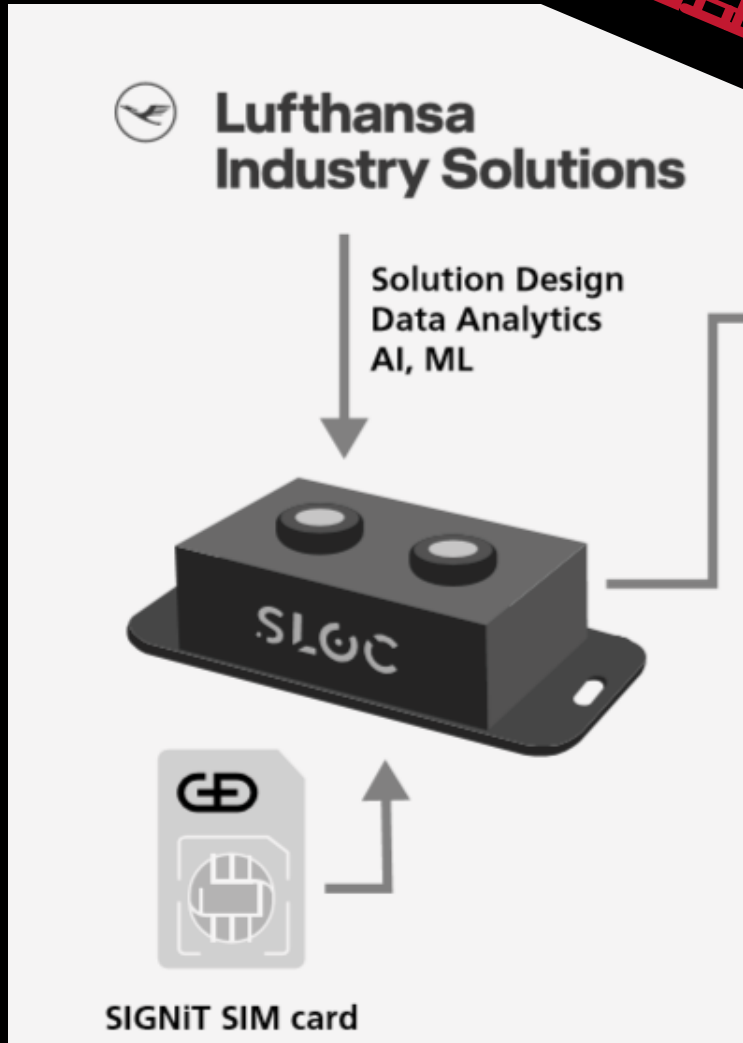


UNIVERSAL **EDGE** MONITORING SOLUTION



IT IS MACHINE
AGNOSTIC

FIELD BUS



MACHINE AGNOSTIC

**MONITORS THROUGH VIBRATION
+ EDGE AI**

HAS IT'S OWN CONNECTIVITY

**MACHINE IDENTITY AND
CRYPTO-LOGGING TO THE
BLOCKCHAIN**

**YET, ONLY ONE
THING IS MISSING...**



Without Cyber-Security, it won't fly



Business

Mechanical engineering group: KraussMaffei heavy hacker attack affected

By zeit - 7 December 2018

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CNN BUSINESS Markets Tech Media Success Perspectives Video

FDA confirms that St. Jude's cardiac devices can be hacked

by Selena Larson @selenalarson

SMART ENERGY INTERNATIONAL



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Puerto Rico smart meters believed to have been hacked – and such hacks likely to spread

April 11, 2012 · 0



Washington, DC and San Francisco, CA, U.S.A. --- (METERING.COM) --- April 11, 2012 - A Puerto Rico utility is believed to have lost hundreds of millions of dollars over several years as a result of the company's smart meters having been hacked, according to the KrebsOnSecurity blog.

Author **Brian Krebs**, referencing a 27 May 2010 FBI cyber intelligence bulletin, wrote that sometime in 2009, a Puerto Rico electric utility – believed to be the Puerto Rican Electric Power Authority (PREPA) – asked the FBI to help investigate widespread incidents of power thefts that it believed was related to its smart meter deployment. Citing confidential sources, the FBI said it believes former



Elizabeth Ireland, VP Marketing, nCircle

MOST READ



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...literally





How can we create **trustworthy machine data?**





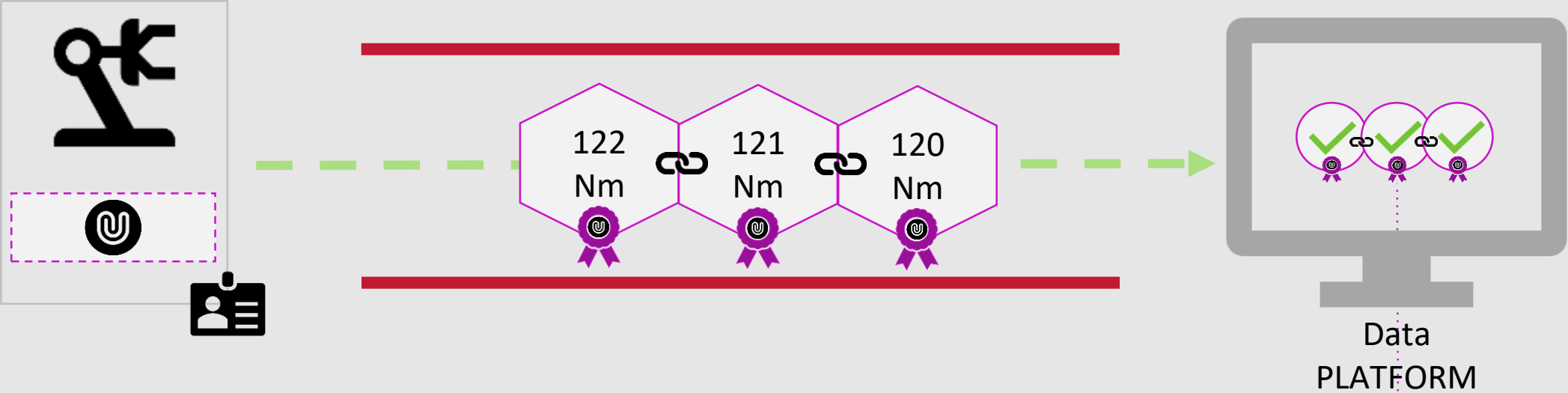
A radical new approach to Data integrity

Building a Chain of Trust from the Edge...

SEAL DATA

(Not the tunnels!)

VERIFY DATA



Data
PLATFORM



Public
Blockchain



Worried that it is hard to secure (many) machines?

It comes on a Sim-Card...



The Ubirch Nano-Client can be integrated on Micro-Controllers and Industrial Devices (PLC etc.) – but it is also **available on standard Sim-Cards** through our Partner G&D and numerous Telco-Providers. It's the first Blockchain Client that runs on a Sim-Card in the World.



Selected Partners

gerua



grandcentrix





NOW, YOU CAN DO...

**Productivity
Optimization**

**Data driven
Production**

MaaS

**Predictive
Maintenance**

Get better Insurance

Thank you!



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