

Immer eine zündende Idee.

# Industrie 4.0

„Wir wissen, dass wir in Europa in einigen Bereichen zurückgefallen sind - von der Fähigkeit, Chips herzustellen, bis zur Fähigkeit, große Internet-Suchmaschinen durchzusetzen - und deshalb aufholen müssen. Es ist auch der richtige Zeitpunkt, an dem Europa aufholen kann. Denn jetzt verschmilzt die reale Industriewelt mit der digitalen Welt.“

-- Angela Merkel 2014

*„Industrie 4.0 ist die Schicksalsfrage der deutschen Industrie, die sie aber global beantworten muss“*

*-- Joe Kaeser (Siemens Chef 2013)*

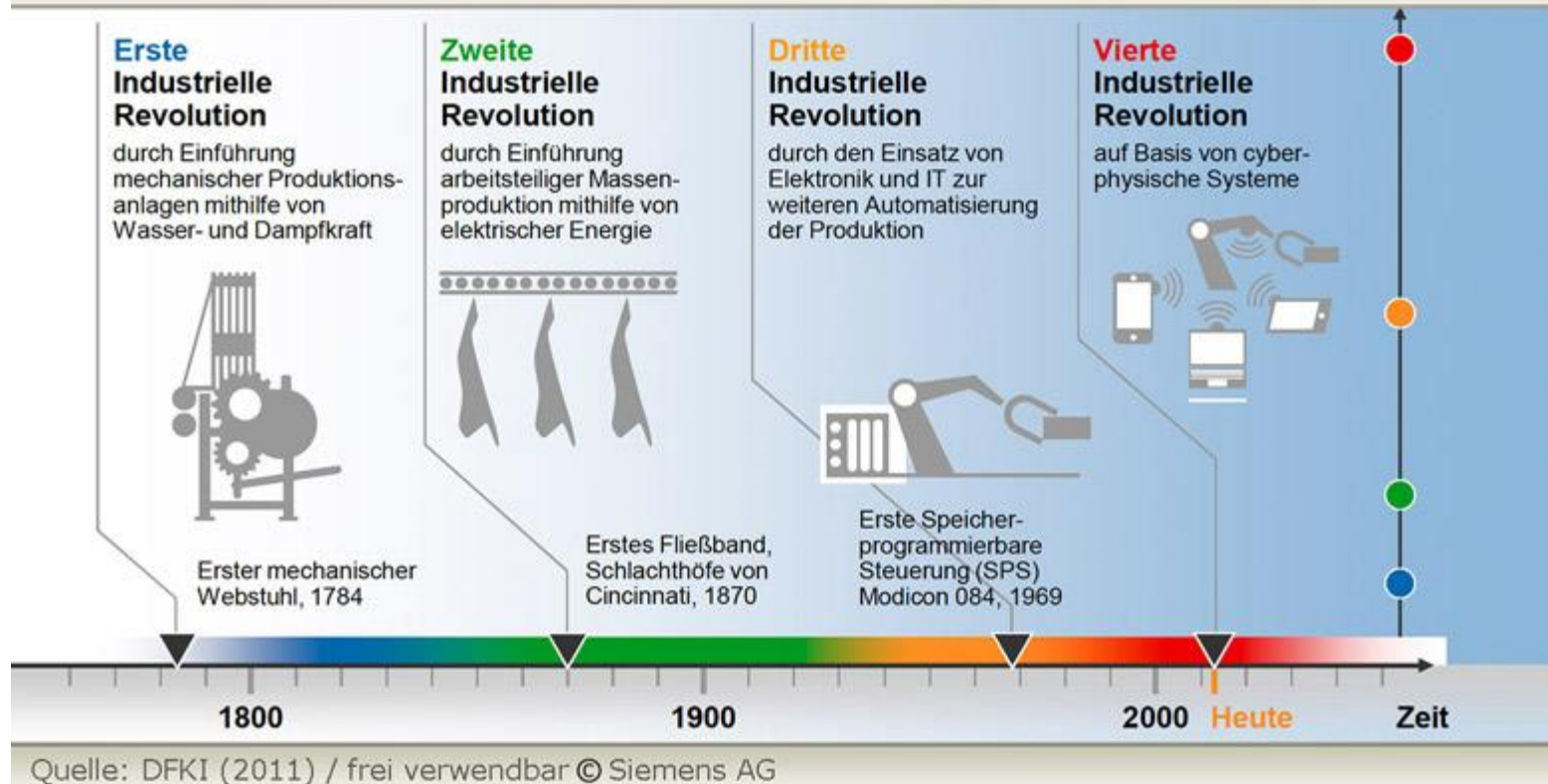
## A

Fortgelaufener Amerikanischer  
Urwald Legastheniker Hippie  
Kind ohne vernünftiger  
Ausbildung der so dermaßen  
schlechte Deutsch-Kenntnisse  
hat das er noch nicht  
einmal ein Satz richtig  
schreiben kann ohne dass es so  
aussieht als hätte  
Thomas Mann ein Haufen  
Kommas vergessen.

## B

Autodidakt  
C++ Spezialist  
Embedded Spezialist  
Startup 2001 gegründet  
Autor:  
- Kvasir C++ embedded library  
- electronic design  
Contributor:  
- Brigand  
(schnellste TMP-Sortieralgorithmus)  
- ISO C++ working group SG14  
Speaker auf diversen conferences  
(meeting C++, ADC++ ...)

## Die Evolution zu Industrie 4.0 in der Produktion



*“We realized that the true problem, the true difficulty, and where the greatest potential is - is building the machine that makes the machine. In other words, it’s building the factory. I’m really thinking of the factory like a product.”*

*-- Elon Musk*





Das Telephon, erfunden von Capitaın John Taylor.

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“Manufacturers need a cultural revolution. They need to think of themselves more like software firms.”

-- Mark Muro (Brookings Institution)

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

1. Individuals and interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan

-- Agile Manifesto 2001



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-- Eric Clayberg (Googler - HBR December 2013)

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„They must find it difficult, those who have taken authority as truth, rather than truth as authority.“

-- Gerald Massey

„Man muss etwas Neues machen um Neues zu sehen.“

-- Georg Christoph Lichtenberg

„It is not easy to be a pioneer - but oh, it is fascinating! I would not trade one moment, even the worst moment, for all the riches in the world.“

-- Elisabeth Blackwell



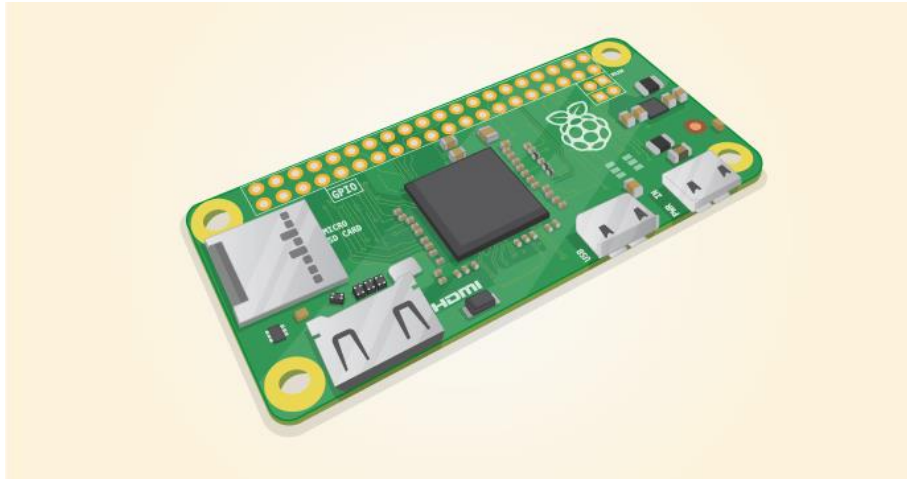
Funding and participation from the Berlin-based company has secured German involvement in the international standardization of C++, which was once in question as the DIN planned to dissolve its corresponding working group for financial reasons and retire to the role of an observer.

#GermanEngineeringDown

# Industrie 3.0

- Umfassende ERP
- spekulative Wartung
- Betriebskostensparnis
- Umrüstkostensparnis
- Flexibilität
- Kurze Entwicklungszyklen





Raspberry pi zero  
65mm x 30mm  
30 mA sleep  
\$ 5



MKL03XX  
2.305mm x 1.7mm  
1uA sleep  
\$ 0.80









VO