A view to the future
Innovation at Siemens

Press and Analyst Event | December 8, 2015
Joe Kaeser and Siegfried Russwurm

siemens.com/innovation
Notes and forward-looking statements

This document contains statements related to our future business and financial performance and future events or developments involving Siemens that may constitute forward-looking statements. These statements may be identified by words such as “expect,” “look forward to,” “anticipate” “intend,” “plan,” “believe,” “seek,” “estimate,” “will,” “project” or words of similar meaning. We may also make forward-looking statements in other reports, in presentations, in material delivered to shareholders and in press releases. In addition, our representatives may from time to time make oral forward-looking statements. Such statements are based on the current expectations and certain assumptions of Siemens’ management, of which many are beyond Siemens’ control. These are subject to a number of risks, uncertainties and factors, including, but not limited to those described in disclosures, in particular in the chapter Risks in the Annual Report. Should one or more of these risks or uncertainties materialize, or should underlying expectations not occur or assumptions prove incorrect, actual results, performance or achievements of Siemens may (negatively or positively) vary materially from those described explicitly or implicitly in the relevant forward-looking statement. Siemens neither intends, nor assumes any obligation, to update or revise these forward-looking statements in light of developments which differ from those anticipated.

This document includes – in IFRS not clearly defined – supplemental financial measures that are or may be non-GAAP financial measures. These supplemental financial measures should not be viewed in isolation or as alternatives to measures of Siemens’ net assets and financial positions or results of operations as presented in accordance with IFRS in its Consolidated Financial Statements. Other companies that report or describe similarly titled financial measures may calculate them differently.

Due to rounding, numbers presented throughout this and other documents may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.
From pointer telegraph and dynamo to offshore windpower and Salytics

Yesterday

- 1816-1892
  - Company founder, visionary and inventor
  - Werner von Siemens

- 1866
  - Dynamo

Today

- 2012
  - World's largest offshore rotor

Siemens innovations over 168 years

- 1847
  - Pointer telegraph

- 2015
  - Salytics
Vision 2020 – Innovation drives growth

Drive performance

Strengthen core

Scale up

Foster ownership culture and leadership based on common values

Strategic direction
Operational consolidation
Optimization
Accelerated growth and outperformance
Investment in R&D is increasing

R&D expenses in billions of €
in % of revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>FY 2014</th>
<th>FY 2015</th>
<th>FY 2016 (forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D expenses in</td>
<td>4.0</td>
<td>4.5</td>
<td>~4.8</td>
</tr>
<tr>
<td>billions of €</td>
<td>5.6%</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>in % of revenue</td>
<td></td>
<td></td>
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</tbody>
</table>
R&D focus on growth areas

R&D expenses (FY 2015)

- Sinalytics platform
- Innovation AG
- Other
- MO
- EM
- PD
- PG
- DF
- HC

Profit Industrial Business

~90%

~85%

R&D growth

Focus on selected businesses

- Automation and digitalization of mobility
- Next-generation vehicle platforms
- Decentralized electrification for prosumers
- Strengthen automation platform for Digital Grid
- SINAMICS drive platform for LV/MV
- Control system for key process industries
- Turbine efficiency
- Optimize SIE, RR, DR product range
- Data-based and Digital Service models
- Integrated software platform for the Digital Enterprise from PLM to automation
- TIA portal
- Next-generation diagnostics
- Combined multi-modal applications

1 Values for Dresser-Rand on comparable basis

Estimated R&D growth FY 2015 – FY 2016 (subject to FX development)

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Strong, profitable growth of digital businesses

<table>
<thead>
<tr>
<th>Mobile IT</th>
<th>Vertical software</th>
<th>Digital services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart data and analytics</td>
<td>Revenue FY 2015: €3.1 bn</td>
<td>Revenue growth: +16%</td>
</tr>
<tr>
<td>Cloud technologies</td>
<td>Profitability: ++</td>
<td>Profitability: +++</td>
</tr>
<tr>
<td>Connectivity and Web of Systems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Our most successful businesses are innovation leaders

SIMATIC PLC
1982 to 2015

Cumulated R&D
~ €3 bn

Cumulated revenue
>€35 bn

Global trend setter
Digital Factory
Our most successful businesses are innovation leaders

Healthcare Imaging and Therapy Systems

Innovation

Global market share 38%

Profitability

>60,000 systems worldwide

for both equipment and service
Technologies for the future

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Energiewende 2.0 – Siemens is conducting research into energy systems of the future, developing technologies of tomorrow already today

- Offshore grid connection with DC technology
- HVDC full-bridge technology for power transmission
- Electrolysis as an energy storage option
- New approaches to power electronics
New direct current transmission technology makes offshore wind energy competitive

- 20% lower transmission losses
- 20% shorter installation time
- 30% lower specific costs
- 30% higher transmission capacities
- 80% less volume
To transmit power, Amprion and TransnetBW rely on Siemens and facilitate the Energy Transition’s breakthrough with our HVDC technology.

- Ultranet represents a decisive step in the execution of the Energy Transition in Germany.
- Thanks to Siemens' HVDC full-bridge technology, large amounts of power can be transmitted from north to south for the very first time.

**ULTRANET**

+ HVDC technology from Siemens

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**Converter systems**

Connections with the highest stability levels

- 2,000 MW at a voltage of +/- 380 kV
- 3 restarts in 450 ms possible
Industrie 4.0 triggers a paradigm shift, which we are actively shaping today

1.0
1784
based on the introduction of mechanical production equipment driven by water and steam power

2.0
1870
based on mass production through assembly lines and the use of electrical energy

3.0
1969
based on the use of electronics and IT to further automate production

4.0
Tomorrow
based on the use of cyber-physical systems
Productivity, speed and flexibility remain the biggest challenges for production industries …

Increased competitiveness

- **Quality**: Closed-loop control and comprehensive traceability become quality characteristics
- **Productivity**: Energy efficiency and resource efficiency are critical competitive factors
- **Speed**: Shorter innovation cycles for ever more complex products
- **Flexibility**: Individualized mass production in increasingly volatile markets

… but the focal points of these requirements are changing in the wake of digitalization
Siemens is the only company in the world to cover the entire value chain of Additive Manufacturing (AM)

- Design software with specific AM functions
- Research into high-performance AM materials
- Automation of AM machinery and processes
- Use of AM in our own production
With the Web of Systems, Siemens presents its concept for the industrial application of the Internet of Things

- Siemens believes the Internet of Things has tremendous potential
- In critical infrastructures customers have much higher requirements regarding reliability, persistance and data protection
- For this reason, devices connected to the Web of Systems process their data locally instead of transmitting them to the cloud. This ensures that the know-how and the intellectual property of our customers remain protected
- Siemens is already using this technology in many projects today
Digital services powered by Sinalytics – our new platform for data-based service offerings

- In FY 2015, Siemens generated revenue of €16 billion with traditional and digital services
- In the future, all required technologies will be combined on a single new platform: Sinalytics
- This comprises proven and the latest technologies for data analysis, connectivity and cyber-security

300,000 connected devices – 17 terabytes of data per month
An example from our Mobility Division shows one thing: Our digital services significantly improve stability and increase customer satisfaction.

Remote diagnosis facilitates predictive maintenance.

Shift from corrective to preventive measures.

Increased availability and avoidance of unplanned downtimes.

99.9% availability
High-speed train service Barcelona – Madrid
Full reimbursement of ticket prices for passengers when a train is >15 minutes late
Only ONE of 2,300 trips is really late.
New innovation models

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Combination of “What“ and the “How“ determines our success
One in ten Siemens employees works in R&D

32,100 employees worldwide in Research and Development

17,500 software engineers

646 Siemens inventions by nine “Inventors of the Year”
Siemens Technology and Innovation Council: thought leaders of the world advise

Innovation Fund for employees: up to €100 million over 3 years for grass root innovation ideas

Werner von Siemens Award for outstanding achievements
Networks as success factor

Crowdsourcing  R&D platforms  Universities and research institutes  Start-ups
Our start-up strategy

- €800 million invested in 180 start-ups
- 12 start-ups founded
- Cooperation with >1,000 start-ups worldwide
- > €800 million invested in 180 start-ups

"Innovation AG" concept

- Unlimited start-up environment
- Independent funding
- Reports directly to Managing Board (CTO)
- Addresses new business fields and transformation of existing businesses
- Combines Siemens competences with start-up creativity
SIEMENS
Ingenuity for life
He might have called it a spirit of invention.
We call it “Ingenuity for life”.

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