Sustainability at Siemens

Alison Taylor, March 2016

www.siemens.com/sustainability

Five Megatrends shaping our world of tomorrow

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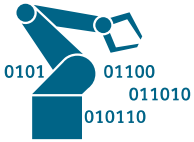


Digitalization

By 2020, the digital universe will reach **44 zettabytes**[1] – a 10-fold increase from 2013

Demographic change

The earth‘s population will increase from 7.3 billion people today to **9.6 billion** in 2050. Average life expectancy will then be 83 years

Climate change

According to scientists, in the summer of 2015, Earth's atmosphere had the **highest CO_2 concentration** in 800,000 years

Urbanization

By 2050, **70 percent of the world’s population** will live in cities (2014: 54 percent)

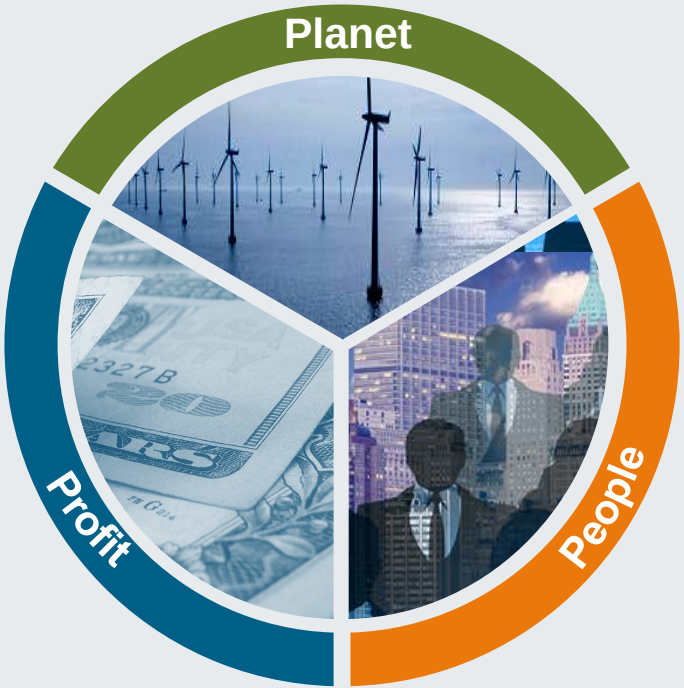
Globalization

The **volume of world trade** nearly **doubled** between **2000 and 2014**

Sources: IDC, United Nations, UNCTAD Statistics

1 One zettabyte (ZB) is equivalent to 1000^7 bytes or 1billion terabytes

Sustainability at Siemens aims to optimize the impact of our business activities on a global level



Sustainable development is the means to achieve profitable and long-term growth.

At Siemens we have a clear commitment to think and act in the interest of future generations, balancing **People, Planet** and **Profit.**

“Taking action is not just prudent – it’s profitable.”

Joe Kaeser, NYT Op-Ed, Sept. 22, 2015

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Urgent Need: Why are we involved?

To effectively mitigate climate change and to reduce global warming by 2˚C, **80% of all carbon emissions worldwide must be reduced by 2050**.[1]

The **calls for action from experts**, politicians, and various other figureheads, including Pope Francis, are becoming louder and louder.

It takes global efforts to mitigate climate risks. Business plays a major role both through its actions and through the innovations and technologies it can provide to combat climate change.

Business Case: Why does climate neutrality make sense?

Once we fully implement the measures to reduce our carbon footprint to zero, we will attain **sustainable annual savings of more than €20 million.**

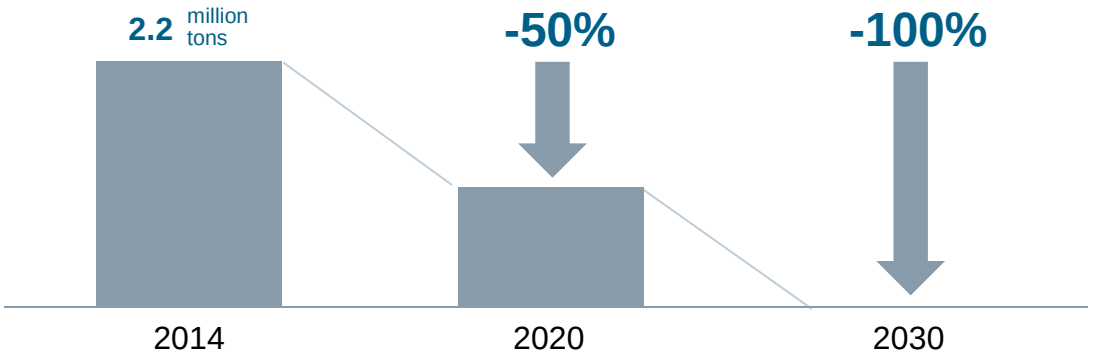
Through this commitment, we can **showcase innovations applied in our own operations** – e.g. low carbon-power generation technologies, distributed energy systems, and energy efficient applications such as drives and building technologies.

Leadership for our customers, employees, and society.

This is an example of **Walk the Talk**, demonstrating Siemens’ ownership culture and helps motivate and engage employees.

[1] *Presidential Climate Action Project*

Our path to CO2-neutral operations



Four levers

- Drive energy efficiency program at our own sites
- Leverage distributed energy systems at our own sites
- Improve the fuel efficiency of our vehicle fleet
- Purchase green electricity

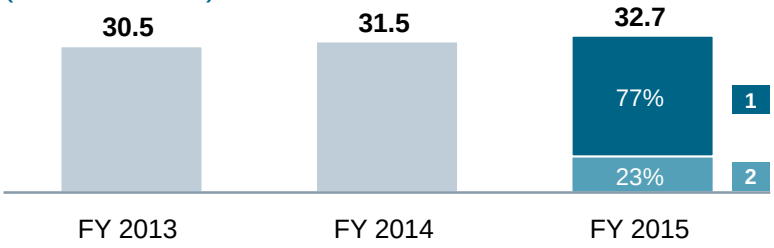
Siemens path to carbon neutrality

- Positive overall business case: ROI <5 years
- Showcase our own Siemens technologies
- Supporting global efforts on climate change mitigation
- Engagement of employees

Environmental Portfolio – Highlights

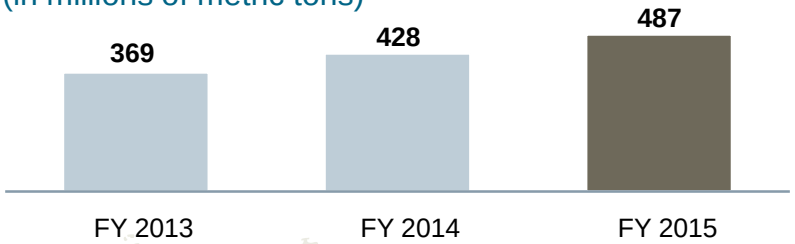
Environmental Portfolio revenue

(in billions of €)[1]



Environmental Portfolio CO_2 abatement

(in millions of metric tons)[1]



487 million metric tons – equal to more than half of Germany's total annual CO_2 emissions

1 Without Rolls-Royce and Dresser-Rand business, on a comparable basis

Sustainability in Cities

The Challenges of Cities Today

- Urbanization, climate change and demographic change will shape the future of cities – and the world.
- Economic competitiveness, quality of life, and environmental protection are the fundamental goals of cities.
- Urban residents want a good quality of life, reliable electricity, accessible healthcare, and capable mobility

Future City Life

- Buildings represent enormous potential for energy savings and are key to sustainable city development.
- City residences will not just consume electricity: they will also generate and store it.
- Intelligent, intermodal transportation will ensure seamless travel.

Siemens City Performance Tool (CyPT)

*"The CyPT provides city governments with customized predictions of how a plethora of **transportation, building efficiency, and energy supply** technologies could help them to meet their greenhouse gas emission and air quality targets while adding 21st century jobs to the local economy. The tool can act as a catalyst for change, providing decision makers with customized impact and cost comparisons for various technologies."*

-Dr. Christoph Reinhart, Sustainable Design Lab, MIT