



LCA / Eco-design at STMicroelectronics

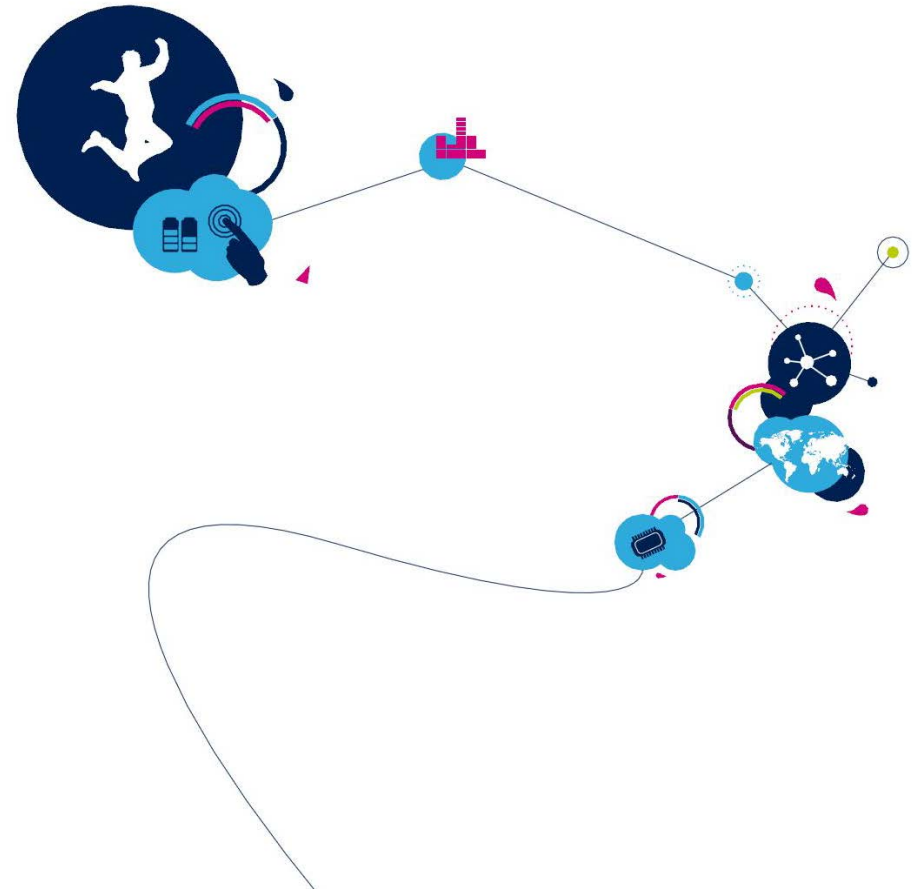
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Corporate Sustainable Development Group

STMicroelectronics

Lausanne, June 25th 2013

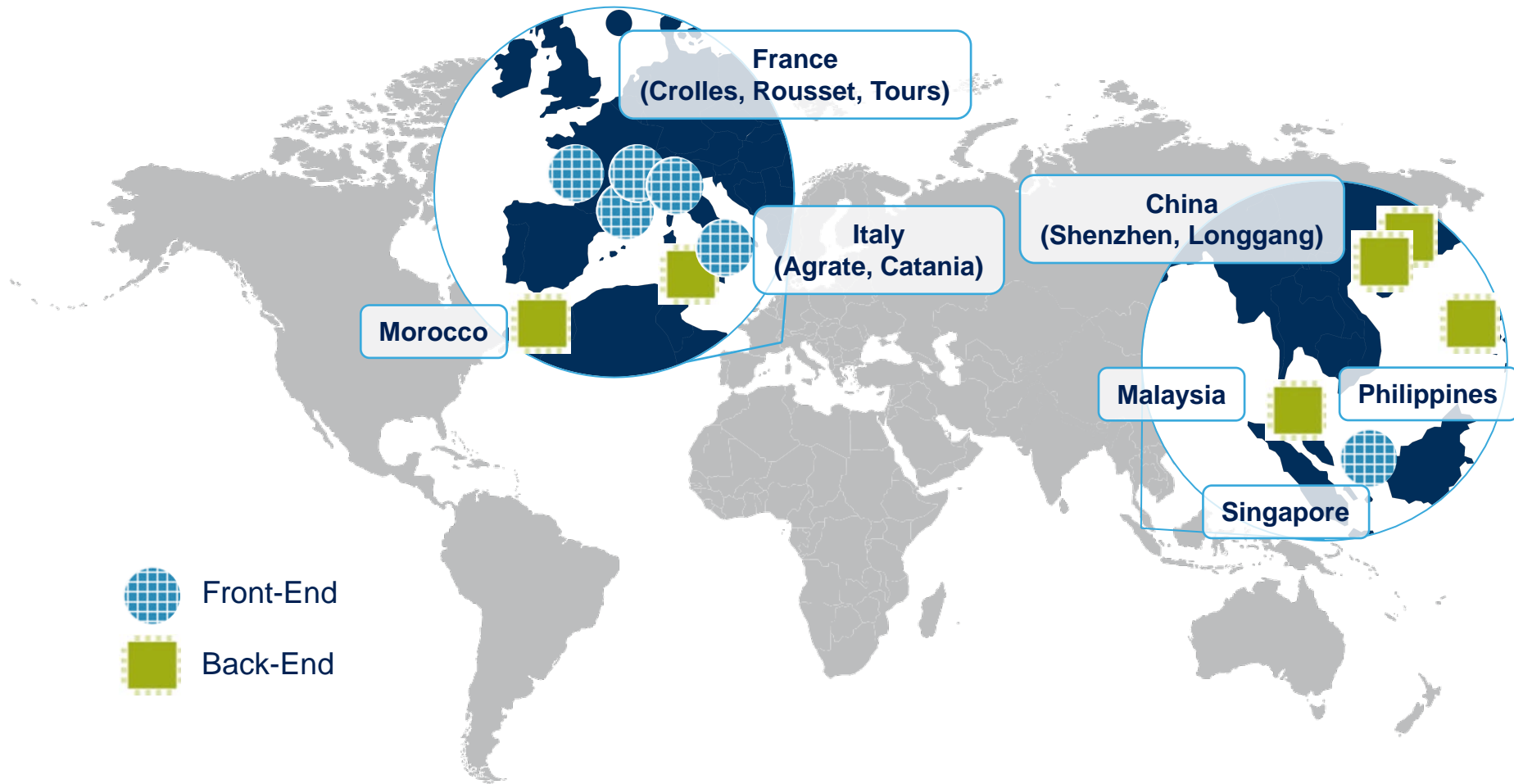
- ST at a glance
- LCA activities in ST
- LCA external communication





- A global semiconductor leader
- The largest European semiconductor company
- 2012 revenues of **\$8.49B**⁽¹⁾
- Approx. **48,000** employees worldwide⁽¹⁾
- **11,000** people working in R&D
- **12** manufacturing sites
- Listed on New York Stock Exchange, Euronext Paris and Borsa Italiana, Milano

Flexible and Independent Manufacturing

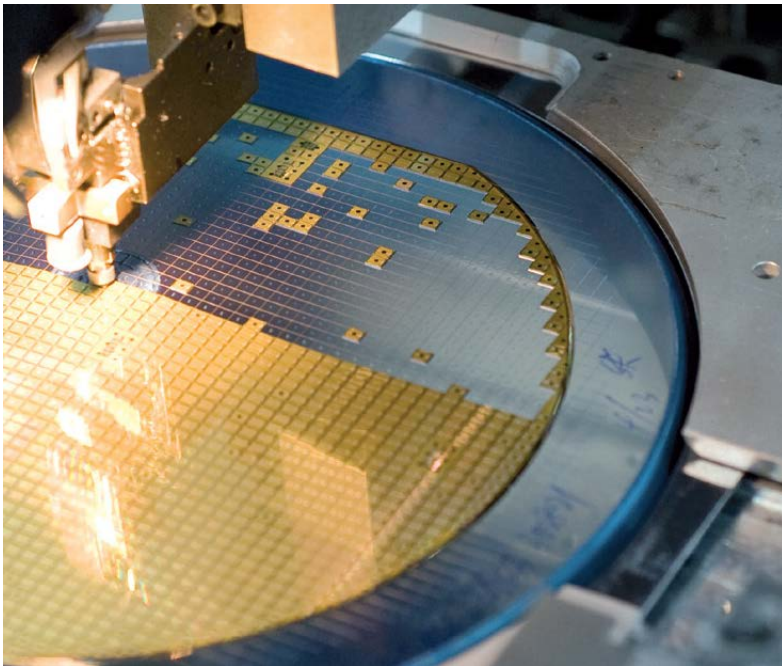


Decalogue evolution

- Sustainable development has been at the top of ST agenda since the early 1990s
- ST sets ambitious and measurable environmental targets in 1994. These aimed to produce specific achievements in 10 key areas such as energy efficiency and water consumption
- The Decalogue is communicated to all ST employees and widely distributed to external stakeholders



- Commitment for 2015 Eco-designed products as stated in 2011 environmental Decalogue



7. Products & Processes

- 7.1** Design products for decreased energy consumption and for enablement of more energy efficient applications (2.2) and products that create value for all stakeholders, with a focus on healthcare and safety applications.
- 7.2** Develop and manufacture products and processes, responsibly managing their potential social, EHS impacts, establishing Eco-tools (Life Cycle Assessments, Eco-Profiles,...).
- 7.3** Strive towards “products greening strategy” through Ecopack® programs deployment and 100 % recyclable and PVC free packing materials.
- 7.4** Have 100 % of our new products “eco-designed” by 2015.

LCA activities in ST

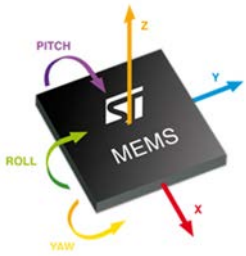
- The main challenge of LCA implementation in ST was the integration of a very precise methodology to cope with the complexity and high product count of our Company
- Focus of LCA activities in ST as a first step towards eco-design
 - Complete LCAs
 - Screening LCAs
- Eco-design target
 - To be fulfilled using an in-house made tool based on complete LCA
- External communication of LCA activities and results

- Complete LCA
 - In line with ISO standards (ISO 14040, 2006; ISO 14044, 2006)
 - Focus on technologies and specific products
 - Target to have a complete LCA study for each main manufacturing sites
- Screening LCA
 - Based on complete LCA studies
 - Specific product characteristic selected as calculation parameters
 - Focus on quick calculation of carbon and water footprint for our products (wide range)

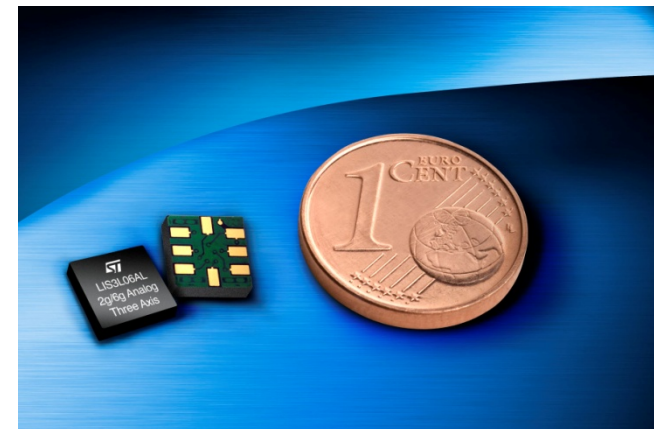
Communication of LCA results

- LCA studies are time and resources consuming, so a key point to get the right deserved value for our LCA effort
- International interest in LCA activities and product footprint is increasing
 - SAM Questionnaire (DJSI)
 - Customer requests
- How to correctly communicate LCA activities and results?
 - Complete LCA → Case study on ST web page
 - Screening LCA → Third party validation before disclosing figures externally

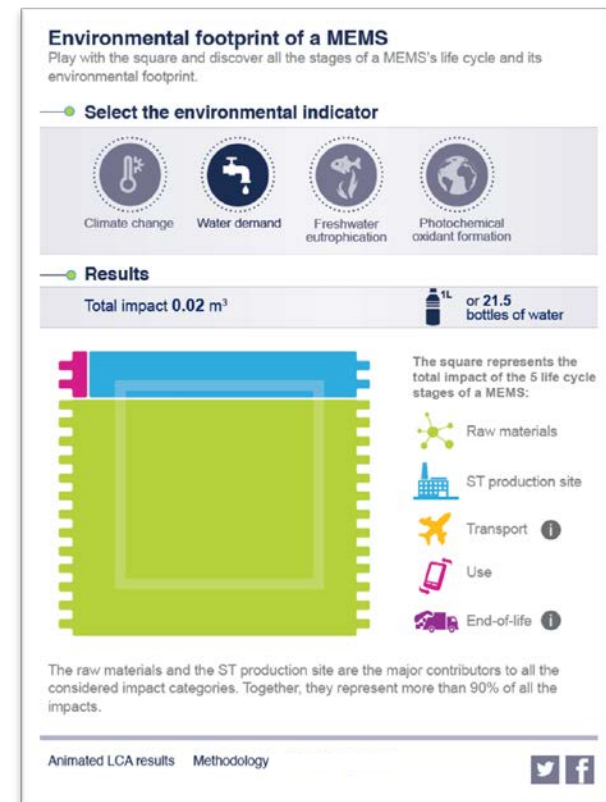
MEMS – Complete LCA



- MEMS (Micro Electro Mechanical System)
- A mechanical acceleration is transformed into an electric signal which is processed by a standard IC
- Manufactured starting from three silicon wafers
 - Two front-end sites (silicon wafers)
 - One back-end site (Package)



- Collaboration with Quantis to develop an effective way to communicate complete LCA results on our web site
- Provide evidence of complete LCA activity to analysts (DJSI)
- Interactive tool
 - One MEMS product (complete LCA)
 - 4 environmental indicators
 - 3 levels of detail



http://www.st.com/web/en/about_st/mems_footprint.html

Thank you!

Sustainability Mission

“To be recognized as world leader in innovation for sustainable development through excellence in our people, our products, the environment and the community.”

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