

failure is identified, we systematically prepare back-up plans in order to ensure consistency of supply.

We expect our suppliers and contractual partners to behave in a manner in keeping with our own corporate ethics and values. The basic requirements in this regard are set out in our purchasing standards, valid across the Group, and our safety, health and environmental standards formulated in 1997, through which we have long acknowledged our responsibility for the entire supply chain. Consequently, when selecting and developing our vendors and contractual partners, we also consider their performance in relation to the requirements of sustainable development. We use the cross-industry Code of Conduct published by the German Federal Association of Materials Management, Purchasing and Logistics [BME] as a globally applicable vendor code and the basis for our multi-faceted "Responsible Supply Chain Process." The objective of this process is to ensure compliance by our suppliers with these standards and to improve, together with our strategic vendors, the sustainability standards pertaining to our supply chain. A global training program further ensures that the requirements governing the sustainability profile of our vendors are understood and properly applied by our employees.

Our five most important commodity groups are raw materials for use in hotmelt adhesives, washing-active substances (surfactants), raw materials for polyurethane-based adhesives, solvents and inorganic raw materials for use e.g. in detergents and surface treatment products. These account for around 34 percent of our total direct material expenditures. Our five largest suppliers account for around 14 percent of our direct material cost.

Purchases made in the general category **indirect materials and services** are not directly linked to the production of our finished products. Examples include maintenance, repair and overhaul materials, and logistics, marketing and IT services. Through our global procurement strategy and structural cost reduction measures, we succeeded in reducing our procurement prices in these categories compared to the previous year.

Due to positive business developments, the overall volume of indirect materials and services rose in 2011. The related expenditures therefore increased compared to 2010, by 0.4 billion euros to 4.3 billion euros.

## Production

We further optimized our production footprint in 2011, with Henkel manufacturing products with a total weight of around 7.6 million metric tons at 180 sites located in 56 countries around the world. Our largest production facility is in Düsseldorf, Germany. Here we manufacture not only detergents and household cleaners but also adhesives for consumers and craftsmen, and products for our industrial customers. Cooperation with toll manufacturers is an integral component of our production strategy, enabling us to optimize our production and logistics structures when developing new markets or where volumes are still small. Each year we purchase around 10 percent in additional production tonnage from toll manufacturers based on current figures.

Number of production sites

	2010	2011
Laundry & Home Care	31	29
Cosmetics/Toiletries	8	8
Adhesive Technologies	149	143
<b>Total</b>	<b>188</b>	<b>180</b>

Our Düsseldorf facility is also the largest production site of the **Laundry & Home Care** business sector. Here we predominantly manufacture powder and liquid detergents, fabric softeners and liquid cleaning products. We have further upgraded our Germany-based production activities within our European manufacturing concept. Following the construction of a factory in Düsseldorf for the production of liquid laundry and home care detergents in 2010, we have now also constructed on the same site a new facility for the manufacture of machine-dishwashing tabs to be supplied to the markets of Germany, the rest of Europe and the Middle East region as from 2012.

In 2011, we further reduced the number of production sites around the world from 31 to 29. Concentrating our laundry and home care product

manufacturing activities on fewer, more efficient factories close to our customers has enabled us to continuously improve our performance. At the end of 2011, our Ratibor site in Poland became the first Henkel factory around the world to be certified according to the international standard for energy management systems, ISO 50001. The Laundry & Home Care business sector is thus continuing its successful implementation of sustainability strategies in production.

Through the implementation of a global management and control approach to the functions of production, planning and logistics, we are now able to centrally coordinate decision processes extending over the entire supply chain. In conjunction with optimized structures and processes, this leads to the faster commercialization of innovations, more efficient cost structures and, ultimately, a higher level of competitiveness throughout the supply chain.

**Cosmetics/Toiletries** is very efficiently structured with eight factories around the world. The largest of these, located in Wassertrüdingen, Germany, manufactures body care and hair care products. We further optimized production in Europe in 2011 by focusing on dedicated technologies in each of our production plants.

2011 also saw us successfully complete the roll-out of our “Total Productive Management” (TPM Plus) program. This involves ensuring the all-encompassing and continuous optimization of our production and supply chain processes. Through it, we have been able to achieve improvements in productivity, quality and sustainability. For example, we have further reduced our energy consumption levels and waste and wastewater volumes at all our facilities. Our commitment to sustainable methods was underlined by the “Factory of the Year” award won by the Wassertrüdingen plant in the category “Excellent Resource Efficiency.” The award is jointly conferred by the business magazine “Produktion” and the management consultancy A.T. Kearney.

The currently two largest sites for **Adhesive Technologies** are likewise located in Germany: in Düsseldorf – with a portfolio of high-quality specialty adhesives for industry and consumers –

and in Heidelberg, where we manufacture a broad range of adhesives and sealants.

However, in August 2011 we laid the foundations for our largest adhesives production facility. This is being built in Shanghai in order to serve rapidly rising demand for industrial adhesive technologies in China and the wider Asia-Pacific region. Through the further development of the production processes and technologies involved, water and energy consumption and carbon dioxide emissions will be state-of-the-art in this new, advanced facility. Hence our production operations will also be exemplary in terms of meeting sustainability criteria. This investment in China is a major step in the further expansion of our capacities in the emerging markets.

As part of our ongoing efficiency enhancement program, we further consolidated our global production footprint in 2011. Despite further expansion of our capacities in the emerging markets, we reduced the overall number of factories by six to 143. With other efficiency improvements also having been put in place, we have therefore been able to further reduce our manufacturing cost.

Sustainability performance 2007 to 2011, Henkel Group

Environmental indicators  
per metric ton of output

Water consumption	-33 %	↓
Energy consumption	-29 %	↓
Waste footprint	-25 %	↓
Occupational accidents <sup>1</sup>	-35 %	↓

<sup>1</sup> Per million hours worked.

In all three business sectors, our optimization efforts are aligned to reducing the ecological footprint of our production activities. We focus particularly on cutting energy consumption, not least because of the climate protection benefits that this brings, on reducing our material input and waste volumes, and on limiting water consumption and wastewater pollution. New storage concepts and the manufacture of packaging materials directly at the filling site reduce transport costs and thus likewise make a contribution to climate protection.

R&D expenditures  
in million euros

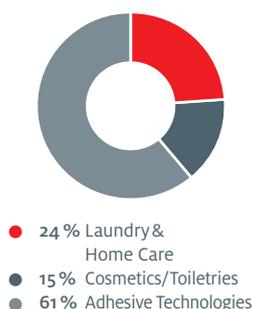
2007	350
2008	429 <sup>1</sup>
2009	396 <sup>1</sup>
2010	391 <sup>1</sup>
2011	410 <sup>1</sup>

<sup>1</sup> Includes restructuring charges of 52 million euros (2008), 13 million euros (2009), 8 million euros (2010), 14 million euros (2011).

Our corporate-wide targets relating to occupational safety, resource conservation and emissions reduction for 2012 were achieved ahead of schedule by the end of 2010. Overall, our global programs for 2011 resulted in 61 percent of our sites reducing their energy consumption, 67 percent cutting their water consumption and 50 percent lowering their waste footprint. Building on this and with the further development of our strategy, we have set ourselves new sustainability targets for the period up to 2015:

- 15 percent less energy per production unit.
- 15 percent less water per production unit.
- 15 percent less waste per production unit.
- 20 percent increase in occupational safety per million hours worked.

For further details relating to our sustainability targets, please go to [AR](#) page 49.

R&D expenditures  
by business sector

Our standards governing safety, health and the environment, and also our social standards, apply to all our sites worldwide. Through a clearly defined process comprising communication, training courses and audits, we ensure compliance with these standards, particularly at the production level.

We have our environmental management systems at our sites externally certified where this generates benefits within our markets. By the end of 2011, around 70 percent of our production output was generated by factories certified according to the international standard for environmental management systems, ISO 14001.

## Research and development

In 2011, expenditures within the Henkel Group on research and development amounted to 410 million euros (adjusted for restructuring charges: 396 million euros), compared to 391 million euros (adjusted: 383 million euros) in 2010. These figures demonstrate our continuing commitment to innovation as our primary driver of profitable growth. As in the previous year, R&D expenditure related to sales amounted to 2.6 percent (adjusted: 2.5 percent).

A major portion of this expenditure goes into the fields of polymer research, surface modification and innovative packaging. These are of major importance for all three business sectors. Around half the total R&D spend is accounted for by personnel expenses.

Our research and development costs were completely expensed in the year under review – there were no development costs qualifying for capitalization pursuant to International Financial Reporting Standards.

As an annual average, the number of employees working in research and development at our sites around the world was 2,654 (2010: 2,665), corresponding to 6 percent of the total workforce. The success of our R&D activities derives from the talents, skills and capabilities of our highly qualified employees. Our teams comprise scientists – predominantly chemists – but also material scientists, engineers and technicians; 18 percent of our staff hold doctorates.

## Key R&amp;D figures

	2007	2008	2009	2010	2011
R&D expenditures (million euros)	350	377 <sup>1</sup>	383 <sup>1</sup>	383 <sup>1</sup>	396 <sup>1</sup>
R&D expenditures (in % of sales)	2.7	2.7 <sup>1</sup>	2.8 <sup>1</sup>	2.5 <sup>1</sup>	2.5 <sup>1</sup>
Employees (annual average)	2,794	2,942	2,743	2,665	2,654

<sup>1</sup> Adjusted for restructuring charges.