



No 3

# SUSTAINOVATION

Sustainability as a catalyst for radical innovation and growth



# brands & values

“I welcome this timely report and agree with its core proposition that effective corporate social responsibility can act as a driver for innovation within companies. In the difficult current economic circumstances, the spotlight of public concern is focusing increasingly on the ethical practices of corporations. In light of this, CSR has never been more important.”

*Jonathan Djanogly, Shadow Solicitor General and Minister of the Department of Business Enterprise and Regulatory Reform, UK.*

“With the enormous economic and environmental challenges we face, many individuals are adapting their actions, their spending and their lives to be more sustainable, more responsible – not by trying to fix or retain outdated models and notions, but by finding new ways that will work for them now and into the future. Those same people increasingly expect politicians and businesses to do the same, and be seen to do the same. This report is very timely and useful for those businesses that want to do some new thinking, make CSR core to what they do, do it right, and stay in business for the long-haul. The days of businesses jumping on and off the CSR bandwagon as it suits them are over – it is to commit and to take a lead - and this report can help by providing practical ideas and examples.”

*Linda Butcher, Chief Executive, Sheila McKechnie Foundation (SMK)*

## FOREWORD

The world is now home to climate change, peak oil prices, water shortages and a growing population with little inclination to change consumption habits. The time has come for sustainability to drive innovations that will meet the demands of tomorrow's markets. Innovative solutions that increase efficiency and reduce waste can be found if developers have access to detailed information on production processes and value chains.

The valuable study by brands & values shows how important sustainability is for responsible managers and how companies have successfully focused on sustainability as the driving force behind innovation. Innovations based on sustainability are in the interests of companies in increasing their competitiveness by reducing costs and anticipating the needs of their customers. Moreover, sustainable innovations benefit society and make stringent regulations unnecessary. Most of all, sustainability is of interest to the end-consumer who is interested in reducing his societal footprint but unprepared to do all the research involved in comparing alternatives.

As a retailer in pursuit of sustainability over the past 20 years and more, Coop has shown a strong preference for suppliers that share their sustainable innovations. With our Fund for Sustainability, we at Coop can encourage and support innovative projects in the field of sustainable production and consumption.

*Sibyl Anwander, Head of Quality and Sustainability with Coop Switzerland*



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## INTRODUCTION

**IMAGINE** – The history of human life (*Homo sapiens*) can be divided into 1,500 spans of life of 100 years each. For 1,350 of those 1,500 spans, human beings made their homes in caves. For just the past 50 spans of life we have had letters to help us communicate. And right now we are surrounded by the societal and technological developments that have occurred only within the most recent century-long span. The world has become more complex and the speed of change is accelerating.

Today the world is witnessing a profound change, similar to what it experienced in the 19th century at the start of the Industrial Revolution. This time around the catalysts are the complex megatrends associated with sustainability and globalization, including climate change, energy efficiency, a shortage of resources, demographic changes and a lack of clean drinking water. In recent years the worldwide needs for energy and raw materials have grown immensely and are expected to continue their upward trend as the

world's population explodes. At the same time the dramatic loss of the polar cap is evidence of advanced climate change whose economic and social risks and costs are beyond dispute.

Safe and affordable energy, ideal utilization of raw materials, clean air and sufficient supplies of drinking water will all have a new and central significance. Doing without cannot be the answer to resource shortages, ecological threats and social risks, especially not in the face of dynamically developing economies, particularly in newly industrialized countries. Demand is growing for technologies, materials and products, services and business models that help to decouple economic growth from resource consumption and pollution and also contribute to solving social problems.

Companies have responded to the demands over the past few years by developing their own strategies to address the sustainability agenda for their operations. Some companies turn to cor-

porate philanthropy, allocating a share of pre-tax profits to worthy causes because giving something back to the community seems the right thing to do. But money is a weak answer when companies come under attack for their corporate conduct.

Other companies have responded by talking to NGOs (Non-Governmental Organizations) and to governments. They analyze their supply chains with regard to potential risks associated with their social and environmental footprint. They create codes of conduct, hire independent auditing firms to ensure compliance with codes throughout the supply chain and commit themselves to more transparency in their operations.

An increasing number of companies, however, have begun investigating the potential of sustainable business practices for value creation, taking their cues from authors Michael Porter, Michael Kramer and Roger Martin who claim that Corporate Social Responsibility



(CSR) can be a catalyst of radical innovation and growth.

This is where SUSTAINOVATION comes into play. In the wake of the financial crisis in the 3rd quarter of 2008, we invited more than 1,000 CEOs from leading companies across Europe to participate in a pan-European research project to examine the empirical evidence of this third layer of CSR.

This latest brands & values survey takes a look at the importance of sustainability in the business context, both today and in the future. It analyses the motivators, drivers, key success factors and barriers for social and environmental initiatives and programs and asks questions about the focus of these initiatives and the effects they have on business practices within organizations. The survey takes a special look at the relevance of social and environmental challenges as drivers of product innovations and new business models and at the feedback effect that sustainable innovations have on business.

Furthermore, SUSTAINOVATION provides detailed insight into a wide range of sustainable innovation strategies and programs via best practice cases across a diverse range of industries and sustainable innovation areas. Procter & Gamble and Henkel show how companies successfully translate the environmental side of the sustainability agenda into new products and services which complement regulatory efforts and move be-

yond compliance. This includes finding ways of producing goods and materials that are more eco-friendly, integrating environmental goals with the overall objectives of the enterprise and making these new ways of thinking an integral part of the innovation process.

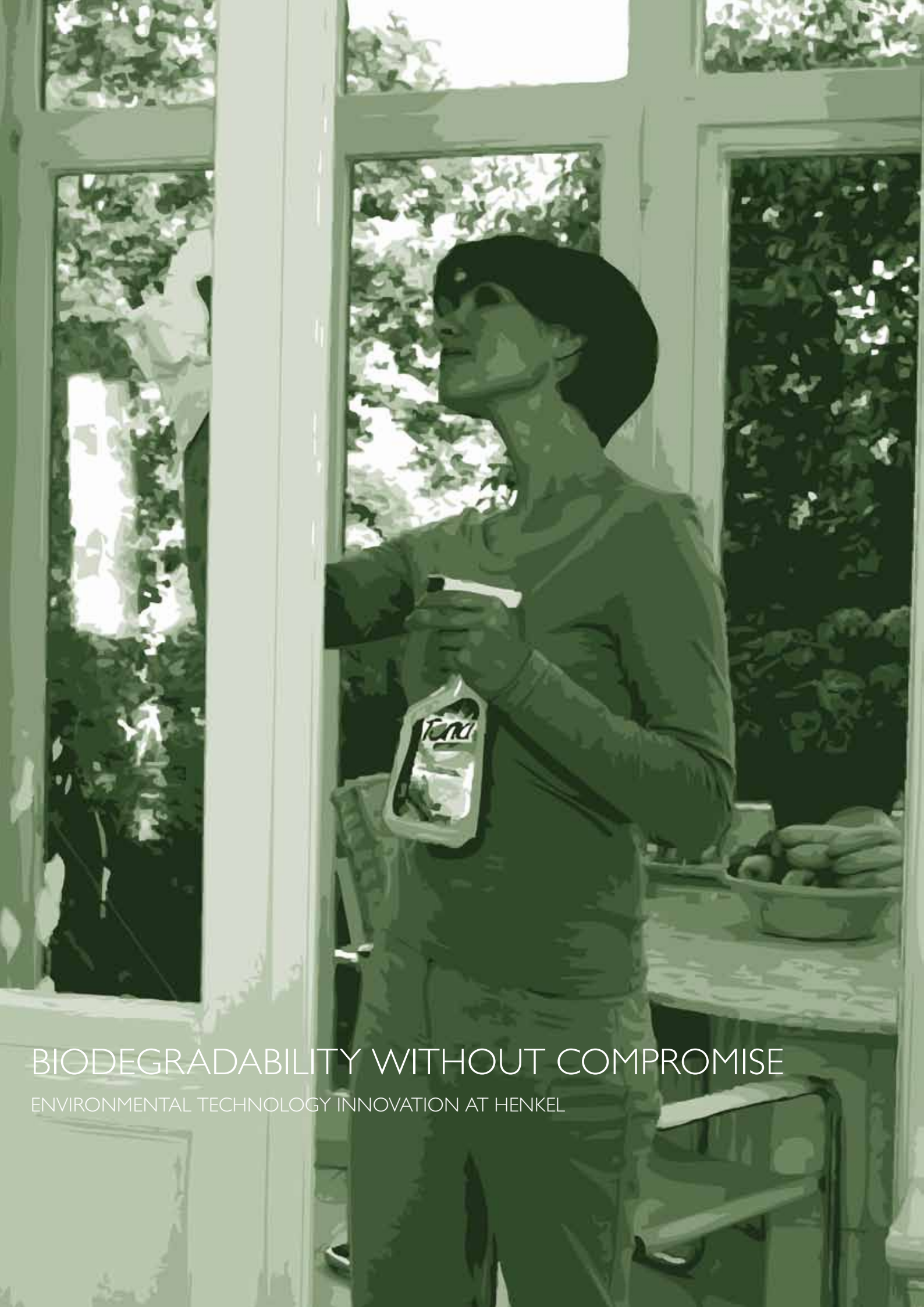
In the case studies about Deutsche Bank with its innovative system of microcredit and about Vodafone, which developed bank services via mobile phones for the unbanked population, SUSTAINOVATION provides great examples of how innovations in technology, business models and ways of thinking create profit and meet pressing social needs in underserved markets. Business models targeted at customers at the bottom of the population pyramid can be seen as the most effective way to eradicate or at least alleviate poverty by improving living standards and increasing purchasing power of the growing populations in developing countries.

"I am not a tree," claims the book in front of you. SUSTAINOVATION is not printed on paper as we know it, but rather on a synthetic material with fully biodegradable eco-printing inks. This study is 100 % recyclable and can be broken down and circulated infinitely in industrial cycles as a technical nutrient. The idea behind SUSTAINOVATION is called the Cradle to Cradle® design concept, which introduces a completely new approach toward production processes and the way we make things. Cradle to Cradle

innovations change the traditional linear flow of the cradle-to-grave paradigm into a closed loop system with a zero footprint. Only a few businesses have looked into this new and ambitious field of sustainable innovations to date. Herman Miller, a U.S.-based manufacturer of office furniture, is one of the few to have reinvented the design concept of office furniture by embedding the Cradle to Cradle® design protocol into its design and development team.

The final case study of SUSTAINOVATION is dedicated to the sustainable innovation field of the so-called "catalytic innovations". [betterplace.org](http://betterplace.org) combines successful social entrepreneurship with the idea of catalytic innovations by harnessing the power of the Internet to create and achieve social change.

This study represents our first foray into the terrain of sustainable innovation management, focusing on the relevance of social and environmental challenges as drivers of product innovations and new business models. We hope you find it valuable and look forward to your feedback and guidance on further research in this area.



BIODEGRADABILITY WITHOUT COMPROMISE

ENVIRONMENTAL TECHNOLOGY INNOVATION AT HENKEL



## BACKGROUND

With more than 50 000 employees worldwide and a sales volume of about €14 billion in 2008 generated in more than 125 countries, Henkel is a leading consumer goods company operating in three different business sectors: Laundry & Home Care, Cosmetics / Toiletries and Adhesive Technologies. One of the most popular Henkel brands is Persil, a laundry detergent that is more than 100 years old.

Quality and responsibility toward people and the environment are values that have been central to Henkel's corporate policy for many decades. Throughout its history, Henkel has consistently demonstrated how sales and profits can be generated through responsible action along the entire value chain. One example of this strategy is the launch of Persil phosphate-free, which was introduced to the market as early as 1986. The development of zeolite, a phosphate substitute, was an innovative milestone in the history of laundry detergents.

## SUSTAINABILITY AS A DRIVER FOR INNOVATION AND GROWTH

Henkel has long recognized the potential of sustainability as a powerful driver for innovation and new product development. This insight translated into the commitment that all new Henkel products need to contribute to sustainability in at least one of five focal areas: Energy and Climate, Water and Wastewater, Ma-

terials and Waste, Safety and Health, and Social Progress.

To achieve this goal, Henkel systematically anchored its focal areas in the company-wide standardized innovation process called the "Henkel InnoGate", which describes the internal launch pipeline. Every product idea that moves through this pipeline must show that it offers consumers outstanding quality and fulfils sustainability requirements. This combination forms the essence of what Henkel calls its "Performance based on Sustainability" strategy.

## FOCUS ON CONSUMER NEEDS

For many years, Henkel has pointed to the emergence of more and more consumers who prefer a healthy and environmentally responsible lifestyle, without losing any of their quality of life. These consumers combine a propensity to consume, a nature-oriented lifestyle, health and wellness with a pronounced ecological consciousness. In Germany alone, approximately 30 % of consumers, more than 23 million people, fall into this category, which market researchers often refer to as "LOHAS" (Lifestyle of Health and Sustainability) consumers. With their quality-oriented purchasing behavior they clearly distinguish themselves from the 'eco-freaks' of the 1980s, as they are not ready to compromise on performance or quality of life purely for the sake of sustainability. Given a lack of information about LOHAS consumers, Henkel developed its own market

research studies and consumer surveys to find out the unfulfilled wishes of this group of people. Clear findings that emerged from these surveys were that consumers often felt that eco-products did not perform well enough. Anyone who wanted to act in an ecologically responsible manner, and therefore bought cleaning products that had been positioned as especially environmentally compatible or as eco-cleaners, frequently had to accept a drop in performance. There were no high-performance products available that also had a very good environmental profile. "(...) Consumers choose to buy a product for a combination of reasons. One is and will remain excellent performance at an adequate price. In the future, delivering performance that is both based on sustainability and recognized as added value will become increasingly important for consumer choices.(...)" says Christian-André Weinberger, Corporate Senior Vice President and Global Chief Marketing Officer Laundry & Home Care at Henkel.

Based on this insight, Henkel set itself the task of developing cleaning products with the greatest possible environmental compatibility which would also offer the performance of conventional premium products. The search materialised in the form of a new brand of household cleaners under the name Terra Activ, which was launched in October 2008. Terra Activ products incorporate the greatest possible proportion of ingredients based on renewable raw materials, offer excellent biodegradability and deliver top performance.

TERRA ACTIV – POWER AND NATURE WITH A NEW QUALITY

Terra Activ household cleaners are not eco products. The idea is to combine as much “nature” as possible with as little “chemistry” as necessary. All Terra Activ ingredients are selected in accordance with strict criteria – stricter than the usual environmental criteria – and, wherever possible and appropriate, the ingredients are derived from renewable raw materials. At the same time, the formulations deliver excellent performance, equivalent to that of the top products in their category – a big challenge for the product developers at Henkel. “Behind Terra Activ is the concerted know-how of a whole team of scientists, laboratory assistants and engineers,” according to Dr. Michael Dreja and Dr. Erik Brückner.

The two chemists were deeply involved in the development of the new Terra Activ cleaners. Brückner was in on the Terra Activ development project from the beginning. Brückner: “We had to start from scratch again, taking a very close look at every single ingredient.” Conventional cleaning agents have power components which are usually based on chemicals derived from crude oil. In the interest of biodegradability and eco-friendliness of Terra Activ, Henkel developed innovative combinations of active cleaning ingredients and ecological performance components based on renewable raw materials to replace common ingredients.

On average, 85 % of the ingredients in Terra Activ are based on renewables

such as palm kernel oil and sugar beet. To give one example of an important component of these cleaners, the proportion of washing active substances (surfactants) based on renewable raw materials lies at more than 70 %. By comparison, the market average for this proportion is 10 % (according to a report issued by IKW, the German association of body care and laundry detergent manufacturers), while the average figure in laundry detergents and household cleaners from Henkel is 35 %. The organic ethanol in Terra Activ is obtained from sugar cane or sugar beets, while the citric acid is produced by fermenting biological residual materials such as molasses from sugar production. (see Exhibit I)

FOCUS ON BIODEGRADABILITY

All of the Terra Activ surfactants are completely biodegradable (in accordance with Organization for Economic Co-Operation and Development (OECD) 301 and supplementary metabolites test). The test methods of the OECD-approved 301 series assess basic biodegradability against strict criteria. The test substance must (i) exhibit 70 % removal of dissolved organic carbon (DOC) or 60 % O<sub>2</sub> uptake or CO<sub>2</sub> evolution within the 28-day testing period, and (ii) it must reach this degree of biodegradation within 10 days of reaching 10 % biodegradation. Substances that are proven to be readily biodegradable by these tests methods are almost completely eliminated from wastewater in sewage treatment plants.

The metabolites test developed by Henkel assesses whether a substance is completely biodegraded or whether it forms non-biodegradable residues (metabolites). In order to achieve the high levels of biodegradability of Terra Activ, ingredients based on synthetics are eliminated and replaced by renewable ones as much as possible. A good example for an achieved balance between ecology and economics is the use of small amounts of synthetic colorants in the WC cleaner, which are more stable and thus more effective at much lower concentrations than biological ones.

Exhibit I Performance Ingredients

	Common cleaners	Terra Activ
Solvents	Alcohol, glycol aether	Organic ethanol
Surfactants	Predominantly surfactants based on crude oil	All surfactants are based on renewable raw materials
Acids	Sulfamic acid, phosphoric acid, hydrochloric acid and other acids	Citric acid, lactic acid and formic acid

Source: Henkel



## PERFORMANCE RECOGNIZED

The ideal combination of excellent performance and exceptional environmental compatibility due to the high proportion of ingredients based on renewable raw materials has been confirmed by the renowned independent SGS Institute Fresenius GmbH, which has awarded its Fresenius quality mark to the Terra Activ range. “We are delighted that our developments have received this recognition from an independent institute,” says Dreja. “The Terra Activ cleaners will be regularly tested again in the future to check important product criteria, such as cleaning performance, compatibility with materials and gentle action on surfaces, and the percentage of renewable raw materials they contain.”

## INNOVATIVE LEADERSHIP

Henkel also wants to use its position as a leading company in sustainability to drive forward the development of innovative

trade instruments. Because committing to sustainable development includes tackling the issue of where the raw materials for production originate and how they are produced. Henkel’s aim is to make a significant contribution to fostering the use of raw materials harvested in accordance with the principles of sustainability. As stated earlier, around 35 % of the surfactants used in the laundry and home care products produced by Henkel are based on renewable raw materials. The commodities involved are mainly palm kernel oil and coconut oil. Although Henkel uses less than 1 % of worldwide palm oil and palm kernel oil production indirectly through its consumption of surfactants, the company has supported the Roundtable on Sustainable Palm Oil or ‘RSPO’ since its foundation in 2003 in Kuala Lumpur, Malaysia. This initiative was founded, among others, by the World Wildlife Fund (WWF) with the purpose of working out a method of sustainable palm oil and palm kernel oil production that would prevent the destruction of wetlands, notably in Indonesia.

In particular, Henkel supports a certification and marketing model for sustainable palm oil and palm kernel oil that is known as the “Book & Claim” approach. The “Book & Claim” system is based on trade with certificates which are traded separately from the physical product flows. A well-known example for such a certification system is that applied to eco-electricity, which is traded in Germany on the basis of similar criteria. Together with independent partners, Henkel has helped to achieve recognition of certificates for sustainable palm kernel oil as issued for official trading by the ‘Roundtable for Sustainable Palm Oil’. Only those plantations that satisfy the strict requirements laid down by the RSPO – including the precondition that rainforests should no longer be extensively cleared – receive certificates according to the amount of sustainable palm oil they want to sell. Via a platform called GreenPalm, companies purchase these certificates according to the amount of palm (kernel) oil they want to buy. The certificates serve as proof that the amount of sustainable palm oil purchased has been

added to the value chain. In order to promote and establish the “Book & Claim” system for palm kernel oil, Henkel was the first company in the world to purchase such palm kernel oil certificates for its new brand Terra Activ.

“We are proud to have been instrumental in establishing the first trading platform for sustainable palm kernel oil certificates,” said Weinberger. “Together with a number of independent partners, Henkel has helped to pioneer the establishment of the Book & Claim system, leading to the opening up of new markets for sustainable palm kernel oil. This scheme has the potential to create new and significant incentives for sustainable palm kernel oil development by all market participants,” Weinberger continued. “Our vision is that all palm oil and palm kernel oil will eventually originate from sustainable production systems.”

this opportunity means coming up with more creative and smarter consumer-relevant solutions. It also means working closely with consumers in terms of advocating the resource-efficient use of products and enabling behavioral changes. With Terra Activ, Henkel’s leadership team has proven that it is possible to create new eco-friendly products that can satisfy consumer requirements for quality and performance. The technology potential developed with Terra Activ will be incorporated continually into other Henkel product ranges such as laundry detergents launched in April 2009.

## HENKEL: NO COMPROMISES

Combining core consumer needs, such as product performance and product quality, with emotional brand values like trust and responsibility has allowed Henkel to set a new standard for innovation in the market. For Henkel, the strategy “Performance based on Sustainability” offers enormous potential for spurring the development of innovative products. In that, it holds the opportunity to create real long-term economic added value and competitive advantages – especially given the rise of a new, sustainability-conscious consumer group which is not willing to trade environmental benefits for product performance. Sometimes



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## WHO WE ARE

brands & values is an international team of CSR strategy-, organization- and communication experts. We support our clients in realising economic value and strategic advantage from sustainable business practice.

We do that at four levels:

### 1 Sustainable economic performance

- *Integration of sustainability measures into business processes and systems to maximize the effectiveness of business operations*
- *Development and implementation of sustainable product- and corporate brand strategies and communication programs*

### 2 Sustainable social performance

- *Development and implementation of good corporate citizenship-programs that enhance corporate reputation among critical stakeholder groups*

### 3 Sustainable environmental performance

- *Development of climate strategies and programs that minimize the impact of business operations on ecosystems and maximize the efficiency of energy and resource utilisation*
- *Design of eco effective alternatives for non-sustainable products and packaging solutions*

### 4 Sustainable corporate governance

- *Development and integration of codes of business ethics, guidelines and Key Performance Measures to reduce potential risks associated with social and environmental misbehavior*
- *Development of tailor-made sustainability awareness events and skill development trainings to enable employees to take action within companies and in their home life*

Our consultancy approach with businesses and NPO's is the combination of creative strategic thinking with an active involvement and participation of all relevant stakeholders within the change process.

What distinguishes us is the combination of many years of experience in business operations and management with the specific technical know-how and the methodological competence of a top management consultancy.

## WHAT WE BELIEVE

We are convinced that sustainability is not a merely fashionable idea or passing trend. Globalization and the challenges that come with it, including climate change, energy efficiency, a shortage of resources, demographic changes and a lack of clean drinking water, are leading to fundamental rethinking.

Solving these great challenges is of utmost importance to businesses. Therefore sustainable business practice will become "mainstream" as social and environmental concern is integrated in all areas of business, in corporate structures, in processes and systems.

## WHAT WE LOVE

Discovering and developing the societal potential of businesses and brands with creative and curious people.

## IMPRINT

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