

Pro Motion

The world is in continuous motion, and we need to be too. We offer sustainable solutions that enable people to move with a clear conscience.

NESTE OIL

Annual Report 2011
Sustainability

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Sustainability at Neste Oil

Sustainability represents a central part of Neste Oil's cleaner fuel strategy. By developing and producing premium-quality fuels that have a lower level of impact on the environment, Neste Oil can help meet the growing energy needs of traffic and transport and make its own contribution to combating climate change. Neste Oil's approach to sustainability is based on a thorough understanding of the impact its products have over their entire lifecycle and a commitment to continuous improvement.

The world's 19th most sustainable company

Foreword by Simo Honkanen, Senior Vice President, Sustainability and HSSE at Neste Oil.

[Read more](#)



Reducing traffic-related emissions as a goal

The amount of NExBTL renewable diesel produced in 2011 enabled us to reduce the greenhouse gas emissions generated by traffic and transport by an amount equivalent to eliminating more than 310,000 diesel cars from the roads.

[Read more](#)

Significant improvement in safety at work

In 2011, Neste Oil succeeded in halving the number of its work-related accidents when compared to the previous year.

[Read more](#)



Sustainability at Neste Oil

Neste Oil's operations and products impact society, the environment, and people. The company's goal is to reduce or eliminate the negative impact of its operations, while generating added value and wellbeing for its stakeholders. Neste Oil's premium-quality, cleaner products play a key role here.

Sustainability work covers all aspects of operations

Neste Oil's sustainability-related work is often seen as limited to renewable fuels, and the procurement of renewable raw materials in particular. This work, however, covers all of the company's operations including the entire petroleum product and renewable fuel supply chain, Neste Oil's extensive safety work, and its efforts aimed at promoting the wellbeing and development of the company's personnel and that of communities affected by its operations. This Sustainability Report covers the central aspects of this broad-ranging work in 2011.

In 2011, Neste Oil completed the update of the majority of its sustainability-related guidelines and launched a wide-ranging safety culture development program. During the year, Neste Oil succeeded in improving its safety performance significantly; for example, the company was able to reduce the number of work-related injuries requiring medical attention by over 50 % from 2010. This significantly narrowed the gap between Neste Oil and the industry's leading safety performers.

Neste Oil continued its constructive cooperation with the companies supplying the raw materials for its renewable diesel and successfully completed the sustainability certification process of its NExBTL refineries. Improving the company's safety performance, as well as verifying and supporting the sustainable development of Neste Oil's ever-increasing number of raw material suppliers, remain key challenges.

[Read more about sustainability-related goals and achievements.](#)

[Read more about sustainability-related reviews.](#)

Neste Oil's goal is to achieve a leading position in the industry in terms of sustainable performance.

When evaluating its progress in the sustainability area, Neste Oil monitors Group-level indicators covering health, safety, and environmental and HR management.

Progress is also monitored with the help of ESG (Environmental, Social Governance) reviews carried out by independent third parties.

Well-placed to continue improving our sustainability

The environments in which companies in the energy sector operate, particularly those with international businesses, are complicated and typified by extended supply chains. The expectations and demands of legislators and stakeholders across society are also growing.

Responsible and sustainable businesses take the environment and people into account, focus on performance, and follow good governance practices. Sustainable companies are also committed to continually improving their operations.

Sustainability represents an integral and important part of Neste Oil's way of working and is based on efficient management of the company's supply chain. Day-to-day operations are guided by Group-level principles and operating guidelines based on these principles. A lot was achieved in developing and implementing these principles and guidelines in 2011.

The recognition that Neste Oil received in 2011 internationally is a good example of this. We were again featured in the Dow Jones Sustainability World Index and were ranked as the best performer in the Oil & Gas sector by the Forest Footprint Disclosure Report in 2011. Just after the end of the year, in January 2012, Neste Oil was again selected for inclusion in The Global 100 list of the world's most sustainable companies for the sixth time. We also succeeded in improving our ranking to 19th place, one better than in 2011.

Safety is particularly important in our industry. 2011 saw us achieve our best-ever safety performance, when we recorded a total recordable work-related injury frequency* of as low as 2.3 per million hours worked. This excellent performance was overshadowed, however, by an accident that resulted in the death of one of our contractor's employees at Porvoo.

Systematic, long-term development work on our safety systems has played a key role in helping us improve our safety performance. Neste Oil has a comprehensive incident management system, which is used for recording all operational incidents. The most serious of these are thoroughly investigated to identify the root cause behind them and prevent them occurring again.

Basic safety guidelines have been for the most part completed for all of Neste Oil's operations, and the emphasis during 2012 will be on implementing them in practice. Special attention will be paid to developing our process safety systems. Our goal is to be one of Europe's best companies in terms of occupational and process safety by 2015.

Neste Oil has also been at the forefront of the industry in developing systems for managing its renewable raw materials supply chain. All the renewable raw materials we use are traceable back to their origins. Before selecting a new potential supplier, we always carry out a thorough review of their sustainable principles and practices.

The work we are doing on sustainability is helping us implement our vision of becoming people's preferred partner in cleaner traffic fuel solutions. Safe and sustainable operations create a good workplace and enhance our value as a company. We are well-placed to continue making Neste Oil even more sustainable in the future.

Simo Honkanen, Senior Vice President, Sustainability and HSSE
Neste Oil

* TRIF = Total Recordable Injury Frequency – the number of incidents requiring medical attention per million hours worked. The figure includes both Neste Oil's own personnel and those of its contractors and subcontractors.

Sustainability-related risks and opportunities

A number of sustainability-related risks are associated with Neste Oil's operations. The company's risk management aims to identify these threats and focus on preventive measures to counter them.

The most significant of these risks have remained essentially unchanged in recent years, and during 2011 were linked to raw material procurement, the environmental impact of refining and logistics, occupational and process safety, and product liability. Other risks identified included changes in legislation on sustainable fuels and the slow progress of implementing this type of legislation at EU level, member state level, and in the US. More information on the financial risks associated with business operations can be found in [the Risk Management section](#).

Unlike many other oil companies, Neste Oil does not have any oil exploration or drilling business, which reduces the company's exposure to environmental risks.

Sustainable products and specialist expertise create new opportunities

Neste Oil's renewable diesel capacity increased significantly in 2011. Its lower-emission products have the potential to play a key role in helping the world respond to growing energy needs sustainably. Premium-quality products and strong refining, product development, and technological expertise offer Neste Oil a clear competitive edge on the biofuel market.

Neste Oil is committed to promoting sustainability and responsible operations across the industry and to supporting development of the legislation designed to foster these in cooperation with its stakeholders.

As a small oil company in global terms, Neste Oil does not aim to promote sustainability by working alone. Instead, it prefers to take part in numerous projects in which it cooperates with Finnish and international partners to investigate how the undesired impact associated with traffic and transport can be reduced and greater sustainability in this area fostered. Greater sustainability has the potential to offer Neste Oil and its partners a number of new business opportunities.

[Read more about stakeholder's engagement.](#)

Sustainability of fossil fuels

No new sustainability issues emerged in respect of the fossil fuels produced by Neste Oil in 2011. The sustainability risks associated with these fuels are primarily linked to the procurement of the crude oil and other refinery feedstocks used in producing them, occupational and process safety, environmental impact of the company's refineries, as well as feedstock and product logistics. The main risks associated with Neste Oil's Oil Products business area are detailed in the [Risk Management section](#).

Neste Oil has a long history of developing and introducing lower-emission fossil fuels. The opportunities associated with fossil fuels lie very much in the development of these lower-emission products and offering them to both consumers and corporate customers.

Greenhouse gas emissions of fossil fuels

[EU's Fuel Quality Directive](#) sets a binding target for reducing the greenhouse gas emissions of traffic fuels by 6% by 2020. The means to achieve this target, which is calculated over the products' entire lifecycle, includes reducing emissions resulting from crude oil production, improving energy efficiency of fuel refining, and increasing the share of biofuels within the European market.

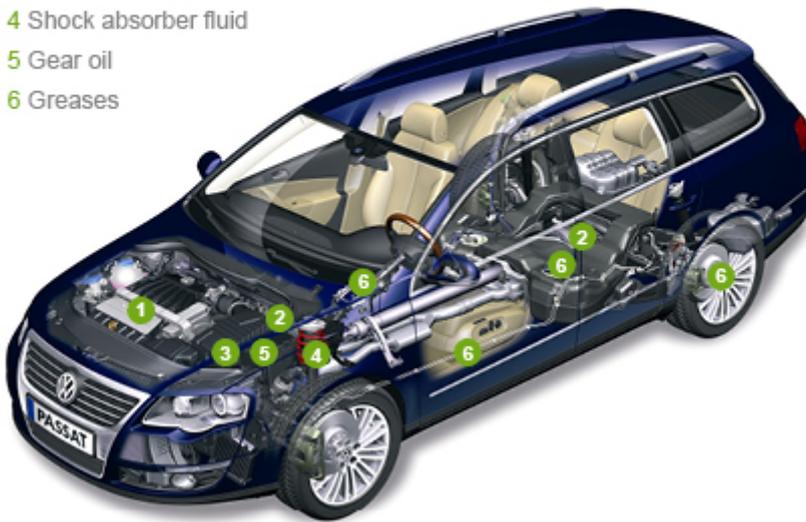
A common prerequisite for improving the energy efficiency of combustion engines is that the quality of fuel should remain as high as possible. This limits the use of some lower-quality biocomponents in modern engines. Such limitations do not apply to Neste Oil's premium-quality renewable diesel.

Base oil and cleaner light fuel oil suitable for heating

In addition to traffic fuels, Neste Oil also produces premium-quality base oils with a very low sulfur and aromatics content from fossil feedstocks for use in manufacturing lubricants. High-performing lubricants play a valuable part in helping reduce traffic- and transport-related emissions.

Application areas for premium-quality base oils

- 1 Engine oil
- 2 Driveline fluids
- 3 Power steering fluid
- 4 Shock absorber fluid
- 5 Gear oil
- 6 Greases



Neste Oil also produces low-emission, more environmentally friendly light fuel oil suitable for heating, which is sulfur-free and produced from fossil feedstocks containing an average of 4% NExBTL biocomponent.

Sustainability of renewable fuels

A number of sustainability issues continued to be associated with Neste Oil's renewable fuels growth business during 2011. The most central of these was the reputation-related risk associated with Neste Oil's use of palm oil and the slow progress that has been seen in the implementation of biofuel legislation.

Reputation-related risk associated with the use of palm oil

There were no significant sustainability-related deficiencies associated with Neste Oil's use of palm oil, such as legislative or statutory issues. There was, however, an element of reputation-related risk in 2011, as a result of the criticism [of palm oil usage presented by various non-governmental organizations \(NGOs\)](#).

Neste Oil aims to reduce the reputation-related risk associated with palm oil use and minimize its impact through proactive and open communication, as well as close cooperation and engagement with the company's stakeholders, especially in Europe and Southeast Asia. Neste Oil explored the opportunities for collaboration with oil palm smallholders in 2011. Neste Oil also strove to dispel the misconceptions associated with its palm oil usage and to correct misleading claims made in the public arena.

Among the issues that Neste Oil proactively and openly communicated about via press releases and the company's web site in 2011 were the company's raw material procurement targets and the new types of vegetable oil that the company has introduced into its renewable raw material pool.

[Read more about sustainable raw material procurement.](#)

Slow progress on sustainability legislation covering biofuels

Biofuel legislation progressed slowly at EU and member state level, as well as in the U.S., during 2011. Neste Oil continued its efforts to support legislative work in the area of renewable energy and fine-tune its voluntary sustainability verification scheme within the framework of the EU's Renewable Energy Directive.

[Read more about the development of sustainability legislation.](#)

[Read more about the work Neste Oil does to support legislative work.](#)

Sustainability legislation and recent development

Neste Oil always complies with the requirements of local legislation in the countries in which it operates and actively monitors changes made to this legislation, as well as other initiatives taken by the authorities. All company sites are required to have a system for reporting environmental data as stipulated under local legislation and environmental and other operating permits.

Neste Oil's sustainability experts paid particular attention during 2011 to the progress being made in renewable fuels legislation, as they are responsible for ensuring that the company's products comply with all aspects of this legislation at all times. These personnel are also responsible for developing operational compliance.

Uncertainties surrounding developments in the biofuel sustainability legislation area and its implementation continued to be an issue in 2011, and have impacted Neste Oil's renewable fuels business. The European Commission continued its work towards incorporating the impact of [indirect land use change \(ILUC\)](#) into the Renewable Energy Directive. Various EU member states also continued their implementation of the directive by developing their own national sustainability legislation.

In addition to the above-mentioned ones, there are also many other developing areas of legislation that affect Neste Oil's operations. Some of the significant ones can be found in the following table.

Key legislative developments related to health, safety and environment affecting Neste Oil's operations in 2011

Regulation	Stage	Impact	Company actions
EU Renewable Energy Directive (RED)	Directive in force, national implementation under way.	Creates a basis for national legislation and sets sustainability criteria and targets.	Participates actively in preparatory work in industrial associations; monitors implementation in member states.
EU Fuel Quality Directive (FQD)	Directive in force, national implementation under way.	Mandates fuel suppliers to reduce greenhouse gas emissions by 6%.	Prepared for implementation by conducting technical and economical analyses.
EU Industrial Emissions Directive (IED)	Directive in force, national implementation under way.	May result in stricter environmental permits for production plants.	Advocacy work related to technical implementation of legislation; optimizing environmental investments.
EU Energy Efficiency Directive (EED)	Draft directive issued for consideration.	May result in more detailed regulation of energy efficiency; ultimate impact will be seen when national implementation takes place.	Energy efficiency plans have been drawn up for Neste Oil's refineries, ships, and other operations.
EU Emission Trading Scheme (ETS)	Updated directive has been implemented in member states. The new emission trading period will begin in 2013.	The basis for calculation and the obligation to report on CO2 emissions at the Porvoo and Naantali refineries will change.	The emission allowances for the next trading period have been applied for; prepared for the new requirements and the updating of the monitoring plan.
EU REACH chemical regulatory framework	Regulation in force.	Regulates in detail the use of chemicals and the information flow within the chemical supply chain.	Registrations carried out in 2010, ongoing updating and maintenance under way in 2011.

Regulation	Stage	Impact	Company actions
EU Classification, Labelling and Packaging regulation (CLP)	Regulation in force and transition period under way.	Will require all chemical classifications and labeling to be updated.	Completed for substances, under way for compounds. Transition period will last until 2015.
EU Seveso Directive	Directive is in the process of being updated for the third time to reflect the requirements of the CLP regulation.	Limited number of stricter requirements; ultimate impact will be seen when national implementation takes place.	No actions in 2011; documentation will be updated when the new requirements are confirmed.
U.S. Renewable Fuel Standard (RFS2)	Legislation in force; approvals for new raw materials and production chains moving forward on a phased basis.	Accepted production chains allow access to the market and to the Renewable Identification Number (RIN) system.	Neste Oil has supplied the Environmental Protection Agency (EPA) with information about NExBTL technology, information on the use of current plants, as well as the greenhouse gas calculations for various raw material chains.

Progress on voluntary sustainability verification scheme

Neste Oil continued development of its voluntary sustainability verification scheme for use within the framework of the EU's Renewable Energy Directive during 2011.

The European Commission reviewed the Neste Oil scheme twice during 2011 and presented proposals for further developing it. Neste Oil updated the areas that the Commission drew attention to, tested the scheme with the help of certification company SGS, and resubmitted the scheme for approval in the late fall of 2011.

Neste Oil's goal is to receive the Commission's approval for the scheme by early 2012, after which it will be available for use by all companies and organizations in the renewable fuels area for verifying the sustainability of the production of HVO-type (Hydrotreated Vegetable Oil) renewable fuel produced from any type of raw material.

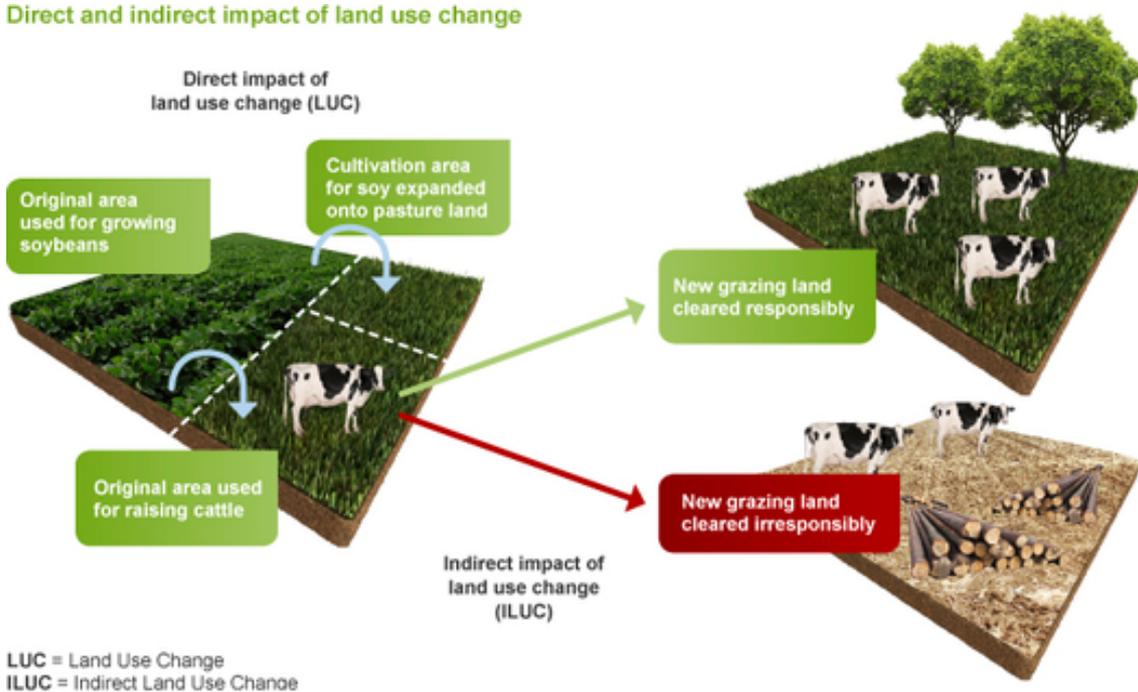
[Read more about Neste Oil's certificates.](#)

Impact of indirect land use change

A number of difficult questions surround the raw materials used in biofuel production. One of the most current of these is linked to the cultivation of these raw materials and the direct and indirect impact of changes in land use resulting from cultivation.

Direct impact is already covered extensively in existing biofuel legislation. The EU has addressed particularly attention recently to how biofuel producers should bear responsibility for the impact that changes in the use of the land employed for producing their raw materials can cause, indirectly or through other players. The term Indirect Land Use Change (ILUC) is used to describe the phenomenon that has been developed in this area.

Direct and indirect impact of land use change



As demand for raw materials increases, cultivation can be extended into areas that were originally used to grow other crops or raise cattle, for example. This agriculture, in turn, can then shift in an uncontrolled way to other land – resulting in deforestation, the loss of protected animal species, loss of biodiversity, a reduction in the size of CO₂ sinks and a growth in CO₂ emissions, erosion, algae bloom in waterways, and even human rights infringements. While the cultivation of the raw materials used in biofuel production does not generate this type of negative impact directly, it can do so indirectly.

Drafting work under way on ILUC legislation in the EU is currently concentrating on the greenhouse gas emissions resulting from changes in land use linked to the production of raw materials used in biofuels. The fact that similar legislative work is not under way related to other industries could create a false impression that the problems associated with irresponsible land use are linked solely to biofuel raw materials. In reality, land is also used by many other industries, as well as local populations, and the impact of indirect land use change applies to all areas of raw material production, regardless of the end-use of these materials.

Neste Oil has followed EU debate on the subject closely and believes that legislation covering all land users is the only effective way to reduce ILUC-related risks. The scientific fundamentals involved also need to be clarified before any regulations are introduced.

It will only be possible to avoid indirect negative impact if everyone involved acts responsibly and ensures that their operations in a given area do not result in direct negative impact.

Neste Oil will continue to monitor legislative developments and is working to ensure that it will be able to take account of any possible changes in sustainability criteria. Neste Oil ensures that the raw materials it procures today are produced sustainably and that production does not endanger forestland or biodiversity.

[Read more about Neste Oil's views on assessing the indirect impact of land use.](#)

Material aspects of sustainability

Neste Oil systematically defined the material aspects of its sustainability in the fall of 2010, combining its views and those of its stakeholders to create an overview of the key components of Neste Oil's sustainability. Neste Oil committed itself at the same time to the long-term development of its operations, as well as communications and reporting of these identified material issues.

During 2011, Neste Oil's sustainability-related work focused on these material aspects identified and approved by the Neste Executive Board and the Board of Directors in 2010. These material issues also form the foundation for the 2011 Sustainability Report.



Read more about the work that went into defining the matrix of material issues on [page 28 of the Annual Report for 2010](#).

Stakeholder engagement in materiality assessment

Neste Oil launched work aimed at creating a new stakeholder panel comprised of non-company members in 2011, which it hopes will assist the company in defining material issues into the future. Additionally, a Stakeholder Advisory Panel was established following the abolishment of Neste Oil's Supervisory Board in 2011 and this is expected to provide the company with greater access to the views of its external stakeholders and assist with evaluating various material issues.

No reasons for changing the existing matrix of material issues were identified during interaction with external stakeholders in 2011, in stakeholder surveys, or analyses of Neste Oil's operating environment.

[Read more about stakeholder engagement.](#)

Focus on listening to internal stakeholders

During 2010, the focus of defining Neste Oil's material issues was on surveying and understanding the hopes and expectations of the company's external stakeholders. During 2011, Neste Oil updated its understanding of the issues involved by reviewing the views and expectations of the company's internal stakeholders, particularly employees, in respect of Neste Oil's operations and competitiveness.

An employee survey was used here, together with a workshop held as part of the HSSE organization's annual meeting. Personnel were also encouraged to give their views on sustainability-related material issues as part of the internal [strategy dialogue](#) held as part of the annual strategy review.

In spring and summer 2011, Neste Oil organized sustainability seminars for its employees at its main operating sites. These sessions, hosted by Senior Vice President of Sustainability and HSSE, covered topical themes in an interactive manner to encourage the employees to ask questions and present their opinions.

Based on the results of these surveys and other engagement, it was concluded that the company's approach to sustainability continues to be one of the most important areas of Neste Oil's strategy, with many of the areas highlighted in the matrix of material issues considered central to maintaining Neste Oil's competitiveness. Internal work during 2011 did not generate any results indicating a need to change the 2010 matrix.

Neste Oil plans to review the material aspects of sustainability regularly in the future. The matrix will be updated where appropriate as part of the annual reporting process.

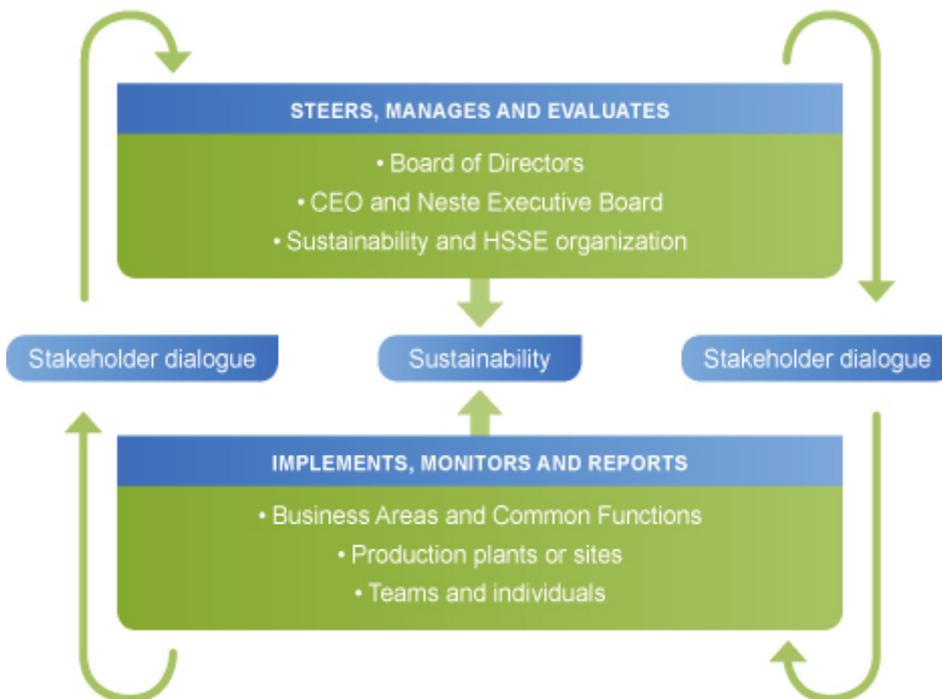
Managing sustainability

Sustainability is one of Neste Oil's four core values, and the company's [sustainability policy and the related principles and various guidelines in the area](#) represent an integral and important part of the company's management system.

Ultimate responsibility for approving the sustainability policy within Neste Oil lies with the Board of Directors, while President and CEO is responsible for establishing the company's strategic approach to sustainability, and Neste Executive Board evaluates how it performs in terms of sustainability.

Sustainability-related work is steered by the company's Senior Vice President, Sustainability and HSSE, who is a member of the Neste Executive Board.

Managing sustainability in Neste Oil



In addition to senior management, the Sustainability and HSSE organization is also closely involved in managing sustainability work and is responsible at Group level for occupational safety, sustainable development, corporate security, as well as the environment and product safety. It is also responsible for coordinating the implementation of actions in these areas, monitoring, and reporting in collaboration with business area and site organizations. The company's Chief Financial Officer is responsible for financial responsibility, while responsibility for the development of social responsibility is divided among several members of personnel. Personnel-related sustainability development, for example, is the responsibility of the HR organization and the Senior Vice President, HR. [Read more about managing social responsibility.](#)

Everybody has a role to play in promoting sustainability

Safety, environment, and other sustainability-related matters are reviewed regularly by the Board of Directors, the Neste Executive Board, the HSE Management Team, and business area and site management teams. Every member of Neste Oil's personnel engages in sustainability-related work through continuous safety work, for example.

[Feedback from stakeholders](#) is taken into account when developing sustainability. This feedback is collected through various surveys, as well as through ongoing, close [interaction with a range of different stakeholder groups](#).

Read more on Neste Oil's sustainability policy and the principles underlying its approach to sustainability on the company's web site.

Sustainability management tools

Neste Oil's [sustainability policy](#) acts as the foundation for all of the company's activities and underpins its Sustainability and HSSE Management Principles, which act as key tools for steering sustainability-related work. These principles define the central responsibilities, practices, and overall guidelines to be followed in environmental and safety management. They also set minimum requirements for sustainability, health, safety, the environment, and product safety.

Based on these principles, production sites draw up their own detailed guidelines where appropriate and incorporate them in their management systems. Other Neste Oil locations, such as offices, follow the principles as they apply to their activities. HSSE training is offered to every employee to help ensure that these principles are implemented in practice.

Neste Oil's [principles for sustainable raw material procurement and production of biofuels](#) have been collated into a single set of principles. Sustainability principles covering personnel are included in the company's [HR policy](#). Neste Oil's [Code of Conduct](#), approved by the Board of Directors, also guides work in the sustainability field.

New and updated guidelines for managing sustainability

No major changes in Neste Oil's key sustainability management tools took place during 2011 compared to 2010. The Group's management system was supplemented, however, with numerous sustainable development- and HSSE-related principles and guidelines, such as more detailed guidelines on preventing accidents related to personnel working high off the ground.

Certified operating systems

In addition to the Group's management system, Neste Oil's operations are also guided by plant-, business area-, and function-specific certified systems that meet the requirements of the ISO 9001, ISO 14001, and OHSAS 18001 standards in respect of quality, the environment, and occupational health and occupational safety respectively.

Internal and external audits are used to assess the effectiveness of HSSE systems. Internal quality and HSSE audits ensure that the Group's operations comply with the requirements of the law, regulations, and guidelines. Neste Oil's certified operating systems are audited by an external impartial third party, Bureau Veritas Certification. A total of 105 internal audits were carried out in 2011 based on an internal auditing plan. Additionally, 22 external audits and 3 accreditation audits were carried out. Accreditation audits follow the requirements set by the SFS-EN ISO/IEC 17025 standard.

The Porvoo and Naantali refineries, as well as Neste Oil's terminals in Hamina, Kokkola, Kemi, Pietarsaari, and Tornio, all in Finland (excluding security of supply storages), were audited in 2011 for a multisite certification purposes. Certification will be granted in 2012 after completion of the corrective measures are approved. Certification covers the requirements of the quality, environment, and occupational health and occupational safety standards mentioned above. Internal and external ISO-certification related audits are planned for the Rotterdam and Singapore refineries during 2012.

A total of 1,861 (1,521) audit-, HSSE-, and quality-related incidents were reported in 2011 in Neste Oil's incident management system. Lessons learned from all reported incidents are used to further develop management systems and operating practices.

All significant incidents are investigated based on Group-level procedures. These common procedures aim at ensuring that the root cause behind each incident is identified and addressed to prevent similar incidents from happening in the future, and to foster learning among business areas and production plants.

All NExBTL plants now ISCC-certified

ISCC ([International Sustainability and Carbon Certification](#)) certification of all Neste Oil's NExBTL refineries and units was completed in 2011. The NExBTL units at Porvoo were recertified, while the new refineries in Singapore and Rotterdam received their first ISCC certificates. The Singapore site was certified early in the year and the Rotterdam site in the fall. Plant certification audits were carried out by an independent third party, SGS.

ISCC certification confirms that renewable fuel is produced in accordance with the EU's Renewable Energy Directive at Neste Oil's sites. Certificates verify that Neste Oil's methods and documentation used in raw material procurement, fuel production, and product sales match ISCC requirements and that NExBTL renewable diesel produced from certified raw materials is suitable for use as mandated bio-content.

[Read more on Neste Oil's certified plants, business areas, and operations.](#)

[Read more about certified raw materials.](#)

Sustainability-related reviews

A large number of international experts, companies, and not-for-profit organizations specializing in ESG (Environmental, Social, Governance) reviews exist today for evaluating companies' and organizations' sustainability-related work and how it is reported.

ESG reviews are carried out in many different ways. The most thorough are based on an extensive and in-depth analysis of a company's operations and reporting and typically involve the personnel of the company being audited.

Based on the growing number of bodies producing ESG reviews and the amount of work required by the reporting associated with these audits, Neste Oil decided in 2011 to concentrate on the following sustainability reviews:

- Dow Jones Sustainability Index
- Global 100
- Forest Footprint Disclosure
- Carbon Disclosure Project.

The reviews produced by these bodies provide Neste Oil with objective, specialist analyses of the company's sustainability performance and reporting and offer feedback on how operations can be developed. Neste Oil monitors developments in the ESG review field, and in the development of its sustainability performance, aims to focus on reviews by independent specialist bodies. The company aims to facilitate the work of these specialists through more detailed reporting on the web.

Sustainability review results in 2011

Dow Jones Sustainability Index World

Neste Oil was selected for inclusion in the Dow Jones Sustainability Index (DJSI World) for the fifth year in succession in September 2011, as one of 342 companies from 30 countries. The highly respected DJSI World features companies from a wide range of fields, all of which are expected to demonstrate a high level of commitment to sustainable development in the areas of financial, social, and environmental responsibility and be committed to continuous development. The companies included are selected by the Swiss-based SAM Group, based on reviews of sustainability performance.

[Read more from Neste Oil's web site.](#)

Global 100

Neste Oil was also selected for inclusion in The Global 100 List of the world's most sustainable companies, for the fifth successive year (2007–2011), in January 2011. Neste Oil was ranked 20th in the list in 2011, significantly improving from its 85th place in 2010. The list is based on expert analyses of 3,000 listed companies in a wide range of fields.

After the reporting period, in January 2012, Neste Oil was again selected for inclusion in the Global 100 list for the sixth successive year. The company placed 19th improving its ranking by one step from the previous year.

[Read more from Neste Oil's web site.](#)

Forest Footprint Disclosure

Neste Oil was again recognized by the international Forest Footprint Disclosure (FFD) project in January 2011 for thorough management and reporting of its forest footprint. FFD ranked the company the best performer in the Oil & Gas sector for the second year in succession. Neste Oil was particularly praised for the transparency and thoroughness of the way in which it manages and reports its forest footprint. The FFD project is an important forum for sharing information and expertise related to deforestation.

After the reporting period, in February 2012, Neste Oil was again recognized by the FFD project. Based on its forest footprint management, the company placed second in the Oil & Gas sector.

[Read more from Neste Oil's web site.](#)

Carbon Disclosure Project

Neste Oil monitors and measures greenhouse gas emissions across all its operations, and in 2011 reported on them for the fifth year in succession as part of the [Carbon Disclosure Project](#) (CDP). In a review published in fall 2011, Neste Oil scored 58 points based on company information from 2010 compared to 64 in the 2010 review. The score represents an average level of performance, given the industry in which the company operates. The review based on the 2011 figures will be published in fall 2012.

Read more on the company's CO₂ emissions and CDP review results from the [section on environmental responsibility](#).

Other reviews in 2011

In addition to these ESG reviews, which are the ones Neste Oil primarily monitors, the company was also selected for inclusion in the [Ethibel EXCELLENCE Investment Register](#) in 2011. The Ethibel Register reviews financial performance, social responsibility, and environmental issues. Neste Oil was not included in the Ethibel PIONEER Register in 2011.

Neste Oil was also included in the STOXX® Global ESG Leaders Index, which reviews companies' environmental and social responsibility and governance, in September 2011.

2011 also saw Neste Oil take part in the Natural Value Initiative project, which works to build investors' awareness of how oil companies operate in terms of biodiversity, ecosystem services, and water use management. The Natural Value Initiative comparison ranked Neste Oil's performance in these areas as average and reported that management in these areas matched the company's risk exposure.

Neste Oil's NExBTL refinery in Singapore received the Asia Pacific Green Excellence Award from Frost & Sullivan in August 2011 in recognition of its contribution to product innovation in the bioenergy field. Neste Oil was selected as the best company in the Chemicals category on the basis of its product profile, the sustainability of its business, and environmental responsibility.

Neste Oil was also voted 'the worst company of the year' in the online Public Eye Award vote organized annually by the Berne Declaration and Greenpeace, from a shortlist of five preselected by the organizers. Neste Oil believes that the vote did not reflect the true nature of the situation. The Award's professional jury selected a mining company for the award instead of Neste Oil.

Sustainability targets

Neste Oil's goal is to become a leader in terms of its key sustainability indicators. Group-level health, safety, and environmental management indicators and targets are set annually as part of the business planning process. These, as well as financial and HR management indicators, are monitored continuously and reported on monthly. Neste Oil also uses the results of [ESG \(Environmental, Social, and Governance\) reviews](#) carried out by outside bodies to monitor how it is performing in terms of sustainability.

Key sustainability-related targets and achievements

Targets for 2011	Actions and achievements	Targets for 2012
Continue developing sustainability management methods and indicators.	<p>We completed a manual of Group-level Sustainability and HSSEQ Management Principles.</p> <p>We updated the structure of the Safety and Environment organization to ensure the effective implementation of the principles embodied in the manual.</p> <p>We achieved ISCC certification of all Neste Oil's NExBTL refineries.</p>	<p>Continue implementing HSSE guidelines and systems and linking sustainability issues more closely to business area management based on the new organizational structure.</p> <p>We expect the European Commission to approve our sustainability verification scheme, which is in line with the EU's Renewable Energy Directive.</p> <p>Certify the operating systems at the Singapore and Rotterdam refineries to ISO standards.</p> <p>Maintain our position in all key sustainability reviews.</p>
Continue measures to improve energy efficiency aimed at saving 660 GWh of electricity by 2016, equivalent to 5% of consumption at Neste Oil's refineries and terminals in Finland in 2007.	<p>We achieved 53% of the energy-saving targets defined in the energy efficiency program for 2016 during 2009–2011.</p> <p>Based on Solomon Associates' Energy Intensity Index (EII), the Porvoo refinery was one of the industry's best</p>	Continue measures aimed at achieving our 660 GWh savings target at our refineries and terminals.

Targets for 2011	Actions and achievements	Targets for 2012
	<p>performers in terms of energy efficiency in 2011.</p>	
<p>See Neste Oil included in the top 25% of European refinery safety performance statistics by 2015, by reducing the number of work-related injuries requiring medical attention per million hours worked (Total Recordable Injury Frequency, TRIF).</p> <p>TRIF target <2.5</p>	<p>We halved our TRIF figure compared to 2010, to 2.3.</p> <p>In 2010, our TRIF performance (4.7) put us in the third quartile compared to our European peers. The comparative data on European refiners for 2011 will only be available in fall 2012.</p>	<p>Be among the top 25% refiners in terms of safety performance by 2015.</p> <p>TRIF target = 2.0</p>
<p>We will avoid all work-related injuries resulting in absence from work per million hours worked (Lost Workday Injury Frequency, LWIF).</p> <p>LWIF target = 0</p>	<p>We reduced the number of work-related injuries resulting in absences from work by over 40%.</p> <p>LWIF = 1.7</p>	<p>LWIF target = 0</p>
<p>Extend the use of safety observation tours to all the company's operations.</p>	<p>We carried out 25,739 safety observation tours.</p> <p>We established safety observation tour targets for all areas of the company's operations.</p>	<p>Carry out 25,000 safety observation tours annually.</p>
<p>Further reduce the number of >100 kg leaks in our operations compared to 2010.</p>	<p>We reduced the number of all leaks by over a third. There were 26 leaks of more than 1,000 kg of material and 35 leaks involving 100–1,000 kg of material.</p>	<p>Continue steadily reducing the number of leaks in our operations.</p>
<p>Deepen our engagement with all stakeholder groups.</p>	<p>We met key political decision-makers and influential figures in all our most important markets.</p> <p>Regular contacts were maintained with the authorities, industry organizations, and NGOs in countries where we source</p>	<p>Draw up Group-level targets and a Group-level plan for stakeholder engagement.</p> <p>Continue extending systematic, planned engagement with all our key stakeholder groups.</p>

Targets for 2011	Actions and achievements	Targets for 2012
	<p>our raw materials.</p> <p>We launched global IGO and NGO programs, and met numerous international intergovernmental organizations (incl. FAO, UNEP, OECD, IFC, the World Bank) within the framework of these programs.</p>	
<p>Increase the proportion of certified raw materials used in refining renewable fuels.</p>	<p>We increased the proportion of certified raw materials used in our refining processes to 49%.</p>	<p>Increase the proportion of certified raw materials by a minimum of 10%-points.</p>
<p>Raise ROACE (Return on Average Capital Employed, After Tax) to at least 15% over the long term.</p>	<p>ROACE = 2.6%</p>	<p>Continue working to achieve a long-term ROACE of at least 15%.</p>
<p>Retain a leverage ratio of 25–50%.</p>	<p>Leverage ratio = 45.7%</p>	<p>Maintain a leverage ratio of 25–50%.</p>
<p>Distribute a dividend equivalent to at least a third of underlying profits for the financial year.</p>	<p>The Board of Directors propose a dividend totaling EUR 90 million or EUR 0.35 per share (132% of Neste Oil's comparable net result) for 2011.</p>	<p>Distribute a dividend equivalent to at least a third of underlying profits for the financial year.</p>
<p>Targets related to human resources can be found in the Personnel section.</p> <p>For a glossary of the abbreviations and terms used in the table, see the Neste Oil's web site.</p>		

Financial responsibility

Ensuring that Neste Oil remains competitive, strives for profitable growth, and makes a valuable contribution to local, regional, and national economies in all the countries that it operates in are all part of what financial responsibility means for Neste Oil.

Neste Oil continued to implement measures at improving the company's competitiveness and ensuring the successful implementation of its strategically important investment projects during 2011. The most important of these was the launch of a series of [Value Creation programs](#) as part of the company's strategy update. These programs are intended to enhance the implementation of the company's strategy by focusing attention and resources on a limited number of core areas and thereby increase Neste Oil's shareholder value.

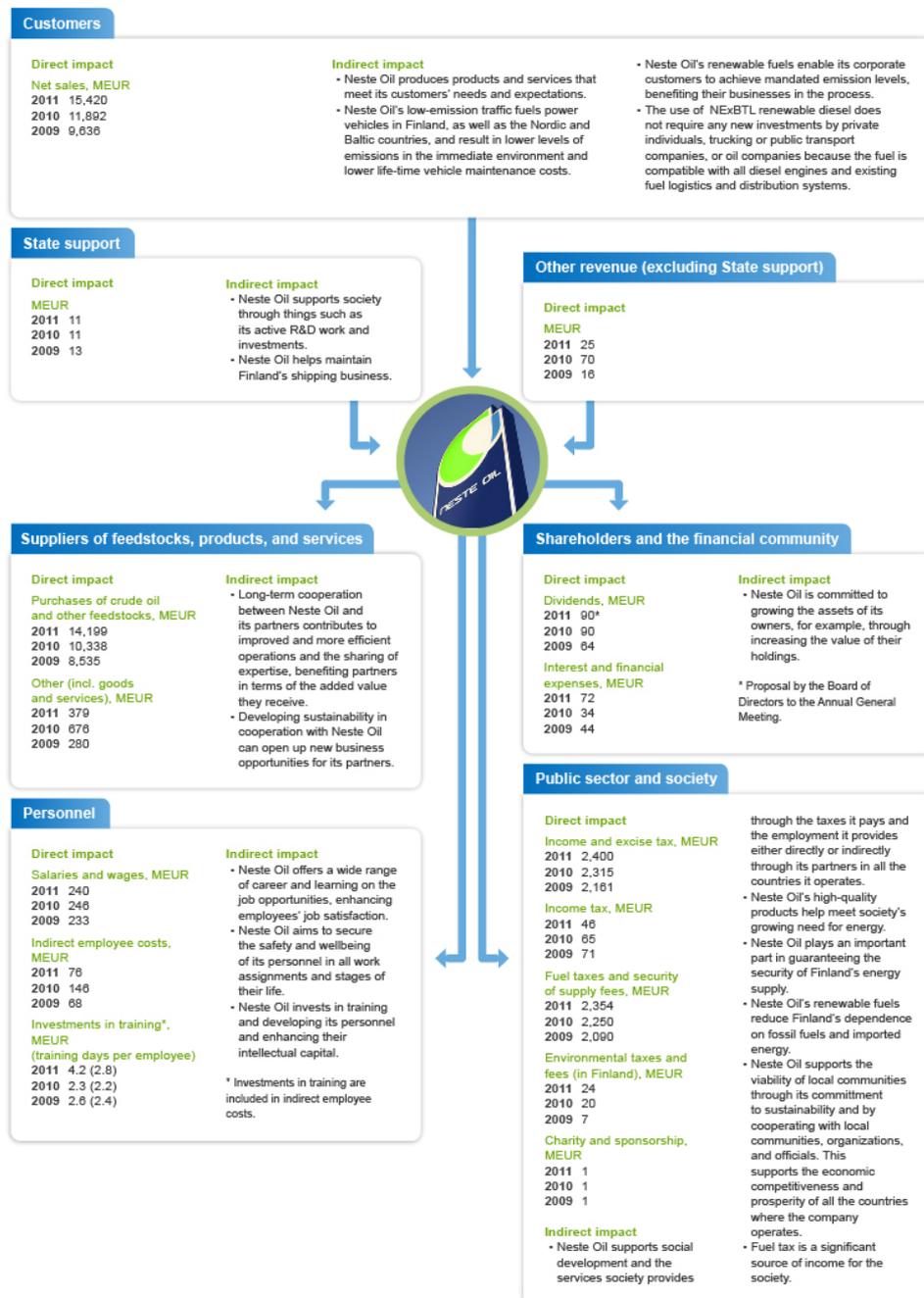
[Read more about Neste Oil's owners and financiers.](#)

Neste Oil completed EUR 1.5 billion investment program aimed at increasing its renewable diesel capacity in 2011 with the commissioning of a new refinery in Rotterdam in the fall. A new base oil plant was also commissioned in Bahrain, designed to increase base oil capacity and strengthen Neste Oil's position on the global base oil market. Neste Oil contributed EUR 130 million to the cost of this joint venture plant.

Neste Oil completed EUR 1.5 billion investment program aimed at increasing its renewable diesel capacity in 2011 with the commissioning of a new refinery in Rotterdam in the fall.

Creating financial added value for stakeholders

Neste Oil is committed to profitable growth and increasing shareholder value. Providing good conditions and competitive pay for employees, supplying customers with quality products and services, and working effectively with suppliers and other partners are all essential to achieving this. Wherever it operates, Neste Oil makes a valuable contribution to local, regional, and national economies. This diagram shows how Neste Oil generates financial added value to various stakeholders.



Capacity-related investments

Neste Oil's most important capacity-related investments in 2011 were focused on strategic growth projects in Rotterdam and Bahrain.

Following the start-up of production of NExBTL renewable diesel at the new Rotterdam refinery in September 2011 on-schedule and on-budget, Neste Oil has now completed the EUR 1.5 billion investment program aimed at significantly increasing the company's renewable diesel capacity. The Rotterdam investment was budgeted at EUR 670 million, and construction of the plant took a total of approx. 5.7 million work hours and involved employees from around 15 service providers and contractors.

Output from Rotterdam and the refinery commissioned in Singapore in November 2010 has largely been sold to meet customers' mandated bio content needs in Western Europe. Neste Oil's two NExBTL plants at the Porvoo refinery in Finland, in contrast, have primarily focused on producing NExBTL renewable diesel for the Finnish and other Nordic markets.

Neste Oil's third-largest investment project of recent years, the construction of a new base oil plant in Bahrain, was completed in fall 2011, and the plant was started up in October the same year. Neste Oil owns 45% of the joint venture and contributed EUR 130 million to the plant's construction.

All these projects represent important steps towards implementing Neste Oil's cleaner traffic strategy. Now that these major projects have been completed, the focus of investments will shift primarily to maintenance and efficiency-enhancement projects. Neste Oil will concentrate on increasing sales of product from its renewable diesel plants and the new base oil facility in Bahrain and on enhancing operational efficiency at the Porvoo and Naantali refineries.

Divestments in 2011

Neste Oil continued its divestment of non-core business in 2011, selling its liquid gas business in Estonia and PAO plant in Belgium; and announced its decision to sell its holding in an iso-octane plant in Canada. The sale was confirmed in January 2012.

Investments in efficiency, environment, and safety

Preparations for the next major planned maintenance turnaround at the Naantali refinery, scheduled for 2012, continued during 2011. The turnaround, which is budgeted at EUR 60 million, is expected to take around six weeks and employ approximately 1,000 employees from Neste Oil and the company's service providers and contractors.

Regular decoking turnarounds are carried out on diesel production line 4 at the Porvoo refinery to maximize diesel output, and a five-week planned turnaround was carried out there during the second half of 2011, together with a four-week turnaround in October. The Singapore NExBTL refinery also carried out its first maintenance turnaround since coming on stream during the last quarter of 2011. This was aimed at securing the ongoing availability of the refinery and eliminating various bottlenecks.

Environmental and safety investments

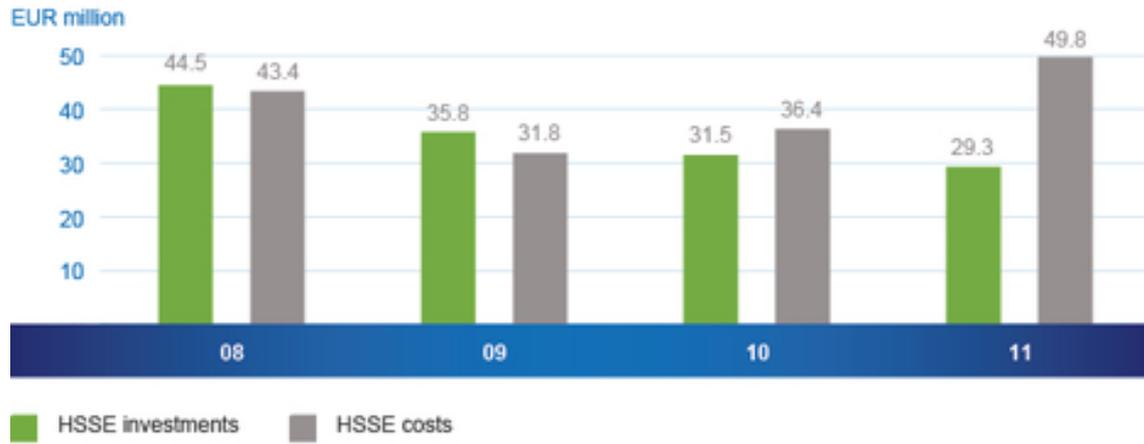
Neste Oil invested a total of EUR 25.9 million in improving process safety during 2011, of which EUR 15.3 million was spent at the Porvoo refinery and EUR 10.6 million at the Naantali refinery. Investments were concentrated on improving process, occupational, and fire safety, and included furnace modernization, changes to operators' rest areas, improvements in process and condition monitoring, and upgrades to key sections of site pipework.

Neste Oil will invest a total of approximately EUR 60 million in safety-related projects at the Porvoo and Naantali refineries in 2012. These will enhance process, fire, and employee safety at the sites by modernizing automation and safety automation systems among other improvements. Two process furnaces will also be modernized at Naantali, and a new fire water system and new, safer employee premises will be built at Porvoo. The latter was completed at Naantali in 2011.

Neste Oil invested EUR 5 million during 2011 in GreenStream's Climate Opportunity Fund, which finances projects aimed at reducing CO₂ emissions in developing countries. The investment is part of Neste Oil's global greenhouse gas balance management program and will give Neste Oil access to emission allowances under the EU emissions trading scheme for the trading period beginning in 2013.

Neste Oil also announced in 2011 that it plans to invest in a new system to recover gases released during loading at the harbor of the Porvoo refinery, capable of recovering the majority of the VOC emissions released during loading gasoline. The investment is valued at approximately EUR 23 million and will enable Neste Oil to further reduce the impact its operations have on the environment and ensure a cleaner working environment for personnel working at the harbor.

Neste Oil's HSE costs and investments



*HSSE = Health, Safety, Security, and Environment

Neste Oil has announced that it will invest a total of approximately EUR 60 million in safety-related projects at the Porvoo and Naantali refineries in 2012.

Customers

Neste Oil's financial responsibility is primarily linked to its commitment to provide premium-quality, cleaner traffic fuels to its customers. The company's petroleum products enable consumer and corporate customers to reduce the impact they have on the immediate environment; while its NExBTL renewable diesel enables customers, particularly oil companies, to meet their nationally mandated bio-content requirements for traffic fuel. The bio-content of Neste Oil's heating oil also helps reduce heating-related greenhouse gas emissions.

Neste Oil's customers include other oil companies and businesses marketing oil and fuel in Finland, the Nordic region, the Baltic countries, and elsewhere in Europe and North America. Neste Oil also has base oil customers further afield, in South America and Asia. Products and services are sold to corporate and private retail customers in Finland, Estonia, Latvia, Lithuania, Poland, and the St. Petersburg region in Russia.

Neste Oil recorded net sales of EUR 15,420 million in 2011 (11,892 million) and net sales per employee of EUR 3.13 million (2.36 million).

Partners and suppliers

Neste Oil provides a stable source of revenue for numerous suppliers of raw materials, products, and services, as well as other contractors. The company prefers long-term contracts with its products, service, and feedstock suppliers, and offers its partners a range of services and expertise to help them develop their own operations. This enhances the financial added value offered by working with Neste Oil, and the stable flow of revenue offered enables Neste Oil's partners to provide permanent employment and buy products and services in their local communities.

Neste Oil procured goods, services, and feedstocks valued at a total of EUR 14,578 million in 2011 (11,014 million), equivalent to 95% of the company's net sales (93%). Payments related to the purchase of crude oil, vegetable oil, waste animal fat, and other feedstocks totaled EUR 14,199 (10,338 million) and accounted for the majority of procurement.

[Read more about the development of renewable raw material prices.](#)

The bulk of the crude oil used in refining conventional petroleum products the proportion of Russian crude purchased was lower than in 2010, at 85% (92%) and the remainder mainly from British, Norwegian, and Danish fields in the North Sea.

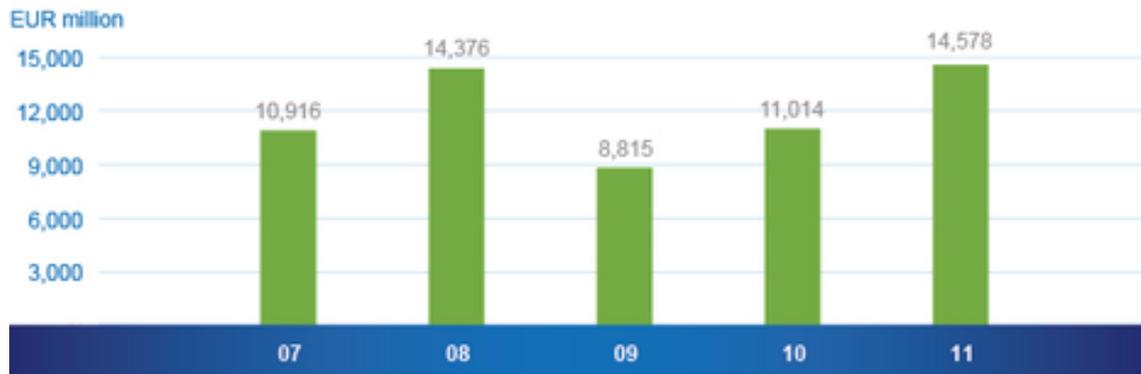
[Read more about the development of fossil raw material prices.](#)

With the growth in Neste Oil's procurement of renewable raw materials and the wider range of raw materials now used, the direct and indirect impact of the company's purchasing activities now affects a larger geographical area than previously. Neste Oil procured renewable raw materials from a total of 29 suppliers, and during 2011 purchased palm oil-based materials from Southeast Asia and other types of vegetable oil and waste animal fat from Africa, Australasia, Europe, and North and South America. Rapeseed oil and waste animal fat was also sourced from Finland during 2011.

Neste Oil's purchases of renewable raw materials increased from 2010 as a result of increased production volumes. These purchases are expected to increase further until the Singapore and Rotterdam refineries achieve regular operations following their start-up.

[Read more about the company's sustainable raw material procurement.](#)

Products, materials, and services purchased



Investments in personnel

Neste Oil is a major local employer and source of salaries, wages, and social insurance contributions at many of its major locations, such as Porvoo, Espoo, Naantali, Singapore, and Rotterdam. Neste Oil is committed to providing good working conditions and a competitive level of remuneration matching the requirements of people's jobs for all its employees everywhere it operates.

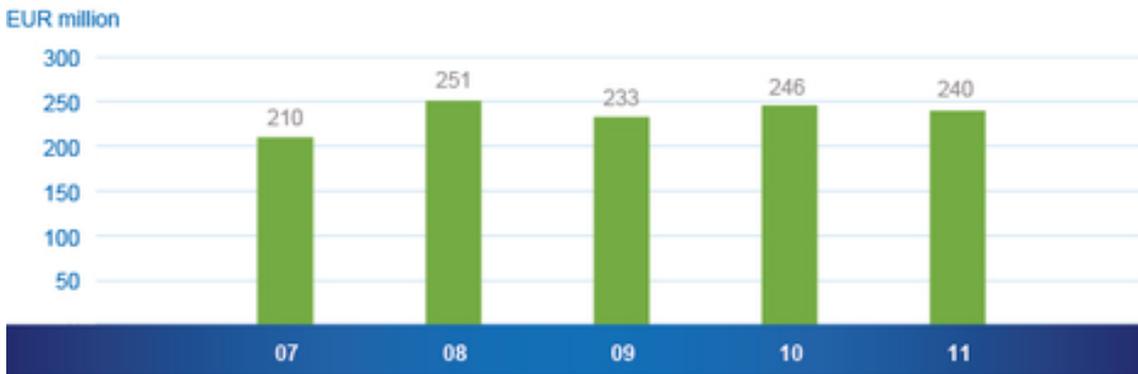
Neste Oil employed an average of 4,926 personnel (5,030) in 14 countries (14) in 2011. Total salaries, wages, and remuneration, excluding other personnel expenses, amounted to EUR 240 million (246 million), equivalent to 1.56% (2.07%) of net sales. This figure includes performance-related pay, bonuses, and vacation pay. In 2011, Group employees received performance bonuses totaling EUR 20.5 million (1.1 million). All personnel come within the scope of the company's salary-based incentive programs.

Other personnel expenses totaled EUR 76 million (146 million) and included pension and social insurance and unemployment and disability insurance payments. Salaries and wages, other remuneration, and social benefits totaled EUR 316 million (392 million).

Neste Oil also has a Personnel Fund, established in 2005, covering personnel in Finland. A total of EUR 0.7 million in profit-sharing bonuses were distributed in 2011. As the criteria for payment were not met based on the Group's result in 2009, no bonuses of this type were paid in 2010.

Neste Oil's expenditure on training and employee development rose to EUR 4.2 million compared to EUR 2.3 million in 2010 and was the equivalent of 2.8 training days per person (2.2). Comprehensive training is provided to all categories of personnel.

Salaries and wages



Owners and financiers

Neste Oil had 76,969 shareholders (76,554) as of the end of 2011. No significant changes took place in the company's ownership structure compared to 2010. Shareholders benefit from their investment in the company through the dividends they receive and possible increases in the value of Neste Oil shares.

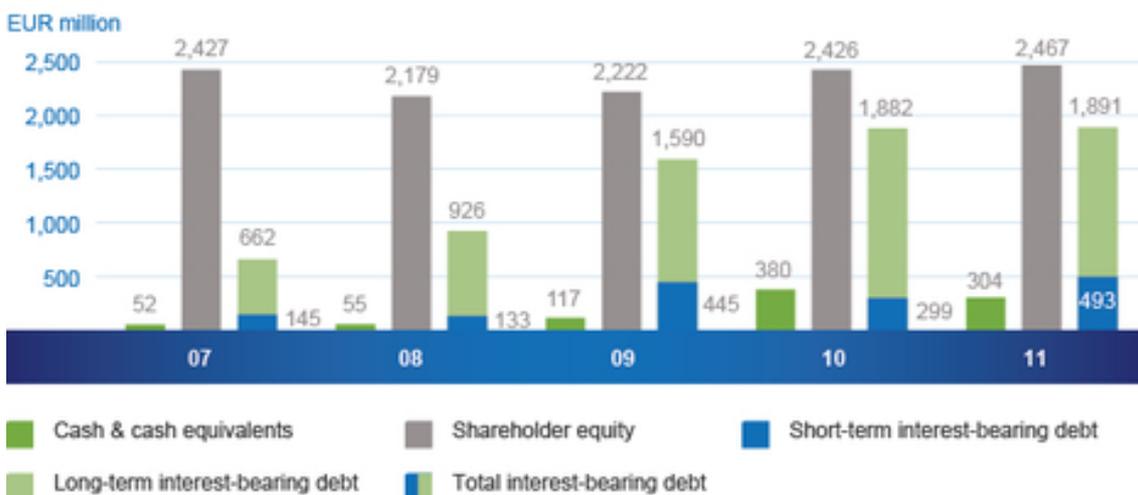
Neste Oil's shareholders as of the end of 2011 comprised:

- The Finnish State, 50.1% (50.1%)
- International institutions, 19.4% (18.6%)
- Finnish institutions, 16.8% (18.5%), and
- Finnish households, 13.7% (12.8%).

Neste Oil's dividend policy remains unchanged and is based on distributing a minimum of one third of the company's underlying profit in the form of an annual dividend. Neste Oil paid a dividend of EUR 0.35 per share (0.25) on its 2010 result in spring 2011, totaling EUR 90 million (64 million) or 54% of the comparable net result for 2010. The Board of Directors will propose that a dividend of EUR 0.35 per share, totaling EUR 90 million or 132% of the comparable profit for 2011, should be paid in 2012.

Because of the capital-intensive nature of its business, Neste Oil uses return on average capital employed, after tax (ROACE) as its main financial target. This is calculated based on the Group's comparable operating profit. Neste Oil's cumulative 12-month ROACE stood at 2.6% (4.6%) and leverage ratio at 45.7 % as of the end of 2011. Neste Oil targets a 25–50% leverage ratio and a long-term return on average capital employed, after tax (ROACE) of 15%.

Capital structure



Creating shareholder value

Neste Oil's share on the NASDAQ OMX Helsinki Exchange fell by 34.7% during 2011 compared to the closing share price at the end of 2010. The company's market capitalization as of the end of the year stood at EUR 2.0 billion (3.06 billion).

During recent years, the development of Neste Oil's market capitalization has been slightly weaker than the average of the most traded companies on the NASDAQ OMX Helsinki Exchange, although it has developed in line with that of other European refining companies. Reflecting this development, Neste Oil launched five [Value Creation Programs](#) as part of the update of the company's strategy in 2011, aimed at securing a significant increase in the value that Neste Oil offers its shareholders and other stakeholders.

Taxes and other payments benefiting society

Neste Oil's operations benefit large areas of the local, regional, and national economy. The taxes and other payments that the company collects and pays represent an important source of income to the public sector in Finland and other countries. The taxes and tax-like payments paid by the company contribute to supporting services at both national and local level in all of Neste Oil's operating countries.

Neste Oil's income and excise taxes amounted to EUR 2,400 million in 2011 (2,315 million). As a fuel wholesaler, Neste Oil remitted a total of EUR 2,354 million (2,250 million) in fuel taxes and security of supply fees.

Neste Oil paid a total of EUR 46 million (65 million) in tax on its 2011 result. Neste Oil's other operating countries also benefited from the income tax employees pay on their salaries and wages.

Environmental taxes and fees at Group level amounted to EUR 24 million (20 million), consisting mainly of oil pollution duties remitted in Finland. The amount of similar taxes and fees remitted in other operating countries were much less significant. Neste Oil received EUR 11 million (11 million) in financial support from the public sector in 2011, mainly in the form of funding for shipping operations and R&D, as in previous years.

Neste Oil's investment in climate protection

A comprehensive update of energy taxes affecting excise duty took place in Finland as of the beginning of 2011. Excise duty is now environmentally based and determined on energy content and the specific amount of CO₂ released during combustion. The change is designed to support the country's energy saving targets and improve energy efficiency, and to promote the benefits offered by biofuels in reducing society's environmental footprint.

The EU's Renewable Energy Directive requires member states to increase the proportion of renewable energy used in traffic to 10% of fuels' energy content by 2020. Finland, however, has decided to aim for 20% content over the same timeframe. A 6% energy content requirement was introduced in 2011. Biofuels must also comply with a set of sustainability criteria if they are to be considered as contributing to meeting mandated content requirements and be taxed as biofuels.

The sustainability criteria covering biofuels prevent the conversion of protected areas, old-growth forest, and land with a high carbon content into cultivation areas. The greenhouse gas emissions of biofuels must also be at least 35% lower than those of fossil fuels. This figure will rise in the future, to 50% in 2017.

In addition to complying with the statutory requirement covering the distribution of traffic fuels with a bio-component, Neste Oil has also agreed with the Ministry of Employment and the Economy, the Ministry of the Environment, and other oil companies on a voluntary initiative to add 4% bio-content to heating oil. Neste Oil has committed itself to continuing to add bio-content in the future as part of its contribution to helping Finland achieve its target of 38% renewable content in the country's energy supply by 2020.

[Read more about the company's investments in the environment.](#)

Income and excise taxes

EUR million



Charitable donations and sponsorship

Neste Oil supports local communities and the wellbeing of its stakeholders through sponsorship and charity work in the countries in which it operates. The company sponsors carefully selected international, national, and local activities to strengthen its customer and community relations, communicate its values, and develop its image as a responsible corporate citizen. Key factors in selecting partners include compatibility with Neste Oil's values, the extent to which Neste Oil can make use of sponsored activities with its stakeholders, and the media visibility these activities could provide.

Neste Oil spent a similar sum on sponsorship and charity work in 2011 to that spent in recent years, approximately EUR 1 million. At Group level, Neste Oil spent a total of EUR 1 053 580 on selected activities, the Porvoo refinery spent EUR 37,450, and the Naantali refinery EUR 26,920. A total of EUR 38,000 was donated to international charity work.

Read more about the [major recipients of sponsorship funding](#) and the [principles followed in selecting recipients](#). The principles are listed in detail in the company's sponsorship policy which is included in Neste Oil's management system.

Environmental responsibility

Neste Oil has a long tradition of proactive environmental protection work, and has systematically monitored the environmental impact of its operations since the end of the 1960s. Negative impact has been reduced significantly over the past decades with steady improvements in environmental protection initiatives, resulting in the current good level of performance.

Neste Oil's direct environmental impact linked to its day-to-day operations today is not significant, and the incremental progress made in improving environmental protection performance annually is small. Improving current levels of environmental performance could result in a significant increase in costs. Neste Oil is nevertheless committed to continually improving its performance in the environmental area and minimizing the impact of its operations on the environment, while aiming to maintain an ongoing dialogue with the authorities and its stakeholders on what constitutes an acceptable and sufficient level of environmental protection.

Environmental responsibility is part of company strategy

Environmental responsibility plays a major role in Neste Oil's operations and is closely integrated into the company's business strategy focused on producing and supplying premium-quality, lower-emission traffic fuels. By producing cleaner fuels, Neste Oil can help reduce the levels of greenhouse gases and tailpipe emissions released by traffic and transport and benefit the environment far beyond its own area of activity.

[Read more about Neste Oil's climate protection work.](#)

The environmental impact of the world's oil companies is closely monitored, both internally and externally. In Neste Oil's case, the company's environmental impact is monitored by the authorities, NGOs, people living close to the company's sites, and customers, amongst others. Neste Oil reports on its environmental work and the impact of its operations on a regular basis both at Group level, through the Sustainability Report included in the Annual Report, as well as [separately to the authorities and neighboring communities in respect of its largest refineries.](#)

Managing environmental responsibility

No significant changes took place during 2011 in Neste Oil's environmental management. Management of environmental responsibility is covered by the company's overall management system, together with the other main aspects of its sustainability. Environmental responsibility work is guided by the company's sustainability policy and related HSSE and safety principles and instructions.

Neste Oil updated a number of its key HSSE guidelines during 2011, and around 90% of these are now complete. Updates covered areas such as the principles used in HSSEQ auditing and the HSSE management guidelines followed in respect of acquisitions, storage, and service provision. These updates did not significantly change how Neste Oil manages environmental responsibility-related matters, however, or the way that the company operates. Training on implementing the company's guidelines continued.

Achievements in 2011:

- **Energy efficiency was improved.** Energy efficiency plans for operations in Finland were completed. The drafting of similar plans for operations in other countries was started.
- The **number of leaks resulting from our operations was significantly reduced.** None of these resulted in significant environmental damage or lead to the company exceeding environmental permit levels significantly.
- A project was started to conduct environmental studies required for environmental permits.
- A three-year-long **study on observing whether or not cooling water intake affects fish catches** at the Porvoo refinery was completed.

Targets for 2012:

- Energy efficiency plans will be completed for all Neste Oil's operations, and the activities to improve energy efficiency will be continued.
- The number of leaks resulting from Neste Oil's operations will be further reduced.

Environmental impact and risks comprehensively identified

The key environmental risks related to Neste Oil's operations remain unchanged and are linked to environmental impacts of refining and transport. The company has comprehensive and efficient systems and procedures for monitoring these risks.

Unlike many other oil companies, Neste Oil does not have any oil exploration and drilling business, which significantly reduces environmental risks related to the company's operations.

Neste Oil monitors its direct environmental impact in areas such as:

- emissions into the air, waterways, and the ground
- the generation and treatment of waste and hazardous waste
- fuel and energy consumption, and
- CO₂ and other greenhouse gas emissions.

Neste Oil monitors that its performance in these areas remains within the boundary values set by the law, regulations, and the company's own limits. Each of these areas is covered in more detail in separate sections of this Sustainability Report.

In addition to constantly monitoring the environmental impact of its existing plants, Neste Oil carries out environmental impact assessments where appropriate prior to the construction of new plants. The most recent of these was carried out in September 2011 for a proposed commercial biorefinery to be run by NSE Biofuels Oy, a joint venture owned by Neste Oil and Stora Enso, which studied the potential impact of a plant located in either Porvoo or Imatra. The partners in the joint venture have trialed the production of biowax for use as a raw material for NExBTL renewable diesel. The assessment did not reveal any major differences between the two locations.

Continued monitoring of indirect environmental impact

Neste Oil continued work related to evaluating the indirect environmental impact of its operations during 2011. The company focused particularly on the indirect impact of the production of the renewable raw materials that it procures.

The European Commission also continued work aimed at developing the EU's renewable energy directive and taking account of the indirect impact of changes in land use related to the production and procurement of the raw materials used in producing biofuels. Neste Oil continues to monitor legislative developments and is prepared to meet possible changes that might be introduced in sustainability criteria.

[Read more about changes in sustainability-related legislation.](#)

Making better use of natural resources

In addition to measuring and monitoring environmental impact, using natural resources efficiently is also an integral part of environmental responsibility – as is ensuring biodiversity to guarantee the continuity of ecosystem services. In line with its [sustainability policy](#), Neste Oil is committed to using natural resources responsibly. The company's commitment to making better use of natural resources and maintain biodiversity is reflected in areas such as:

- continually improving [energy efficiency](#), using the Solomon Associates' Energy Intensity Index (EII) at the Porvoo and Naantali refineries
- [procuring raw materials responsibly](#) and working through industry organizations (RSPO, RTRS, RSB)
- [participating](#) as a CONCAWE member in the research and benchmarking carried out by this European association of oil refiners
- committing the company's Head Office to the [WWF's Green Office initiative](#)
- [optimizing the use of clean water](#) for process, firefighting, and cooling purposes
- using [closed-cycle cooling water systems](#) at production plants, and
- efficiently [treating all effluent](#) before release into local waterways.

[Read more about how Neste Oil helps protect biodiversity.](#)

Leveraging synergies is also part of sustainable operations

Although Neste Oil's refineries are major users of energy and natural resources, the Porvoo site, for example, also generates electricity, steam, and heat in a combined cycle power plant. Fired on natural gas and fuel oil, this supplies most of the energy used by the other companies in the surrounding Kilpilahti industrial area.

Neste Oil also works to make better use of natural resources at its other refineries. The location of the company's new refineries in Singapore and Rotterdam offers numerous opportunities for leveraging synergies with neighboring plants. These refineries procure the gases, electricity, water, and steam they need from nearby chemical and energy generation plants. They can also make use of sidestreams and process waste from nearby companies in their production processes.

Material and energy balance

Neste Oil's feedstock use, production, and emissions ¹⁾

	2011	2010	2009
Feedstocks			
Crude oil (t/a)	11,840,000	10,500,000 ²⁾	11,960,000
Other feedstocks (t/a)	3,700,000	3,920,000 ²⁾	3,100,000
Energy consumption			
Electricity (GWh/a)	1,441	1,334 ²⁾	1,320
Oil (t/a)	88,760	97,260 ²⁾	85,500
Natural gas (billion Nm ³ /a)	0.5	0.5	0.5
Water			
Water withdrawal (m ³ /a)	7,628,000 ³⁾	8,410,000 ³⁾	7,830,000 ³⁾
Wastewater (m ³)	8,340,000 ¹⁾	8,142,000 ²⁾	7,988,000
Waste			
Ordinary waste (t/a)	4,140	8,620 ²⁾	6,100
Recycled waste (t/a)	64,034	42,008 ²⁾⁴⁾	15,000
Hazardous waste (t/a)	22,200 ⁵⁾	15,700 ²⁾⁵⁾	3,600 ⁵⁾
Emissions to air			
Direct CO ₂ (carbon dioxide), (t/a)	3,722,000	3,809,000 ²⁾	3,981,000
Indirect CO ₂ (carbon dioxide), (t/a)	165,300 ⁶⁾	25,900 ²⁾⁶⁾	15,000 ⁶⁾
VOC (volatile organic compounds), (t/a)	4,300	5,600	4,000
NO _x (nitrogen oxides), (t/a)	10,100	11,900	14,800
SO ₂ (sulfur dioxide), (t/a)	9,300	10,200	12,100
Emissions to water			
Oil (t/a)	2.3 ¹⁾	2.1	1.1
COD (chemical oxygen demand), (t/a)	390 ¹⁾	390	390
Products			
LPG (liquefied petroleum gas), (t/a)	457,300	298,300	327,100
Gasoline (t/a)	4,265,500	3,988,500	4,361,200
Diesel fuel and heating oil (t/a)	8,389,800	7,448,800	7,459,500
Heavy fuel oil (t/a)	1,066,184	970,300 ²⁾	1,288,200
Bitumen (t/a)	490,100	492,900 ²⁾	385,600
Sulfur (t/a)	133,300	121,700	126,300
Solvents (t/a)	267,400	251,300	241,200
Other products	231,200	168,700	184,900
Services			
Marine shipments (t/a)	28,640,000	30,700,000	38,000,000
Marine shipments (km/a)	2,196,400	2,422,000	3,000,000
Fuel usage (t/a)	110,000	136,000	161,600
Road shipments (t/a)	3,767,000	3,700,000	3,300,000
Road shipments (km/a)	29,300,000	29,200,000 ²⁾	25,000,000
Fuel usage (t/a)	9,865	10,013 ²⁾	

- 1) Some emission figures are preliminary. Regarding wastewater and emissions to water, figures from 2010 have been used for Porvoo refinery because the final calculated figures were not available at the time of reporting.
- 2) Figure has been updated from 2010 report.
- 3) Does not include cooling water.
- 4) The storage of waste at Porvoo refinery's recycling area was reduced in 2010, which explains the higher figure.
- 5) Does not include contaminated soil.
- 6) Proportion of purchased electricity. CO₂ free electricity was used at the company's office buildings in Finland until the end of January 2011.

The material balance table in the 2009 report (p. 39) was based on data from the Porvoo and Naantali refineries. The figures for 2010 and 2011 in the table above cover all of Neste Oil Corporation's operations.

Energy efficiency

Neste Oil monitors the development of its energy efficiency and aims to continually improve its performance in this area. The company's goal is to reduce energy usage in production and logistics in particular. Solomon Associates' Energy Intensity Index (EII) is used as a yardstick at the company's conventional refineries. Neste Oil observes all national laws, regulations, and agreements related to energy efficiency in all aspects of its operations. The company draws up and regularly updates energy efficiency plans covering all areas of operations.

Energy efficiency-related targets

Neste Oil is committed to the national action program developed for energy-intensive industries in Finland, where it is one of the country's largest single energy users. The program is designed to help combat climate change in line with the national climate and energy strategy, and covers Neste Oil's most energy-intensive sites in Finland: the Porvoo and Naantali refineries, its terminals, and road transportation. As part of the program, Neste Oil has set an energy-saving target of 660 GWh for its operations in Finland by 2016. This is equivalent to 5% of the energy used at the Porvoo and Naantali refineries and the company's terminals in Finland in 2007.

Neste Oil's other energy-saving targets include:

- Cost-efficient reduction of greenhouse gas emissions to prevent climate change. Intensified use of energy sources free of GHG emissions.
- Identification of more cost-efficient energy solutions for GHG emission neutral situations.
- Implementation of energy efficiency planning, measures and monitoring in compliance with continuous improvement principles.
- Compliance with the laws and regulations related to energy efficiency.
- Help customers, with our solutions, to improve their energy efficiency, e.g. in the transportation sector.

In addition to the above, Neste Oil's Head Office has also set itself the target of reducing the amount of energy used by its ICT systems by 5 % as part of the [WWF's Green Office initiative](#).

Continuous improvements in energy efficiency

Neste Oil's energy efficiency has improved steadily over recent years. During 2009–2011, Neste Oil reached over half of its [energy savings targets set for 2016](#). The majority of these savings were achieved thanks to the improvements made during the major maintenance turnaround at the Porvoo refinery in 2010. The closer Neste Oil comes to achieving its target, the more challenging the remaining improvements needed will be, as the investments and operational changes required will be larger than earlier.

Neste Oil continued drawing up energy efficiency plans for all its operations during 2011, and new plans were completed covering operations outside Finland, Oil Retail in the Baltic region, and the new refineries in Singapore and Rotterdam. Ship-specific energy plans were also drawn up for the Neste Oil fleet. When the final plans for the Singapore and Rotterdam refineries are completed in 2013, energy efficiency plans will be in place for all of Neste Oil's major operations.

As part of ongoing efforts to improve energy efficiency, Neste Oil carried out extensive energy efficiency reviews covering the refinery sites at Naantali and Porvoo in 2011. Following on from these, a number of energy efficiency enhancement projects and initiatives were launched at Naantali towards the end of the year for implementation between 2012 and 2014. Follow-up measures will be launched at Porvoo in 2012. In addition to these major reviews, a number of smaller individual measures were undertaken in 2011, although the savings these generated were minimal compared to the improvements implemented as part of the major maintenance turnaround at Porvoo in 2010. Neste Oil's next major maintenance turnaround, although somewhat smaller than the one at Porvoo, will take place at the Naantali refinery in spring 2012.

Based on Solomon Associates' EII Index, the Porvoo refinery was one of the best anywhere in the world in 2010 in terms of its energy efficiency. The refinery has retained the same energy efficiency level also in 2011. Neste Oil's new refineries in Rotterdam and Singapore incorporate numerous advanced features and have been designed with energy efficiency in mind from the very start.

Neste Oil's aim is to continue work during 2012 aimed at achieving the various targets outlined above, as well as keeping all energy-saving plans up-to-date.

Climate protection and products that reduce emissions

Neste Oil strives to continuously improve its own overall performance in terms of its climate footprint. The company has committed itself to continuing to improve its [energy efficiency](#) and to reduce operations-related emissions of pollutants such as [greenhouse gases](#).

Cleaner traffic fuels play a central role

Neste Oil has a history of developing [lower-emission, cleaner fuels](#) stretching back decades. The use of Neste Oil's renewable fuels – produced in accordance with the company's cleaner traffic strategy and promoted as a valuable means of reducing the volume of pollutants emitted into the atmosphere – represent the company's most valuable tool in helping protect the world's climate and combat climate change. These fuels can also help meet the world's growing need for energy in the traffic and transport sectors.

The greenhouse gas emissions of Neste Oil's [NExBTL renewable diesel, as calculated over the product's entire lifecycle, are up to 40–80% lower](#) than those of fossil diesel. The company's renewable fuels and premium-quality base oil, used in producing advanced lubricants, also help reduce traffic-related tailpipe and particulate emissions.

The amount of NExBTL renewable diesel produced in 2011 enabled to reduce the greenhouse gas emissions generated by traffic and transport by an amount equivalent to eliminating more than 310,000 diesel cars from the roads.

Other steps forward

During 2011, Neste Oil took several small-scale steps forward regarding climate protection. It updated its internal guidelines on company cars in 2011, introducing CO₂ emission limits for all the cars that it leases, for example, and started construction of a system for recovering emissions released when loading ships at the harbor of its Porvoo refinery. Additionally, Oil Retail reached a good capability level to start recovering vapors released during fueling at Neste service stations within the schedule set by a statute effective from the beginning of 2012.

Neste Oil will also refine its climate strategy in 2012.

Neste Oil's greenhouse gas emissions

The carbon footprint has become a key indicator for measuring environmental responsibility in recent years. It is useful in helping assess the level of climate impact of an organization's operations and reduce its environmental loading. Neste Oil monitors greenhouse gas emissions, particularly CO₂ emissions, as part of its lifecycle analyses (LCA).

Neste Oil does not have any oil exploration and drilling business, and the company does not produce any of the raw materials that it uses in refining NExBTL renewable diesel either. As a result, the company's largest single sources of greenhouse emissions are its refineries at Porvoo and Naantali and its tanker fleet.

Neste Oil's greenhouse gas emissions are virtually all carbon dioxide (CO₂) emissions, and no significant changes took place in these during 2011 compared to 2010. Neste Oil's direct CO₂ emissions totaled 3.72 million tons in 2011 (3.81 million tons), approximately 2% less than in 2010. Nearly 80% of these were generated at the Porvoo refinery. The biggest savings achieved were related to the company's fleet, which reduced its CO₂ emissions by nearly 67,000 tons compared to 2010. Emissions increased due to the start-ups of the company's refineries in Singapore and Rotterdam.

Indirect CO₂ emissions related to bought-in electricity totaled 165,300 tons (25,900 tons) in 2011, over six times more than in 2010. This was partly caused by the start-ups of the new refineries and partly by the fact that electricity in Finland was acquired from the power exchange and no longer CO₂-free as it had previously been.

Greenhouse gas emissions across the company are measured regularly and in 2011 were reported on for the fifth year in succession as part of the Carbon Disclosure Project. In a review published in fall 2011, Neste Oil received a C ranking on a scale of A-D in the [Carbon Disclosure Project's](#) Carbon Performance Index used to measure climate-related performance. In the overall evaluation, Neste Oil received 58 points (64) out of a possible 100. This can be considered an average performance. The review was based on Neste Oil's information from 2010. A review based on the 2011 figures will be published in fall 2012.

Neste Oil's energy efficiency-related improvements are directly linked to reduction in the company's CO₂ emissions.

[Read more about Neste Oil's energy efficiency.](#)

[Read more about Neste Oil's refining-related airborne emissions.](#)

[Read more about Neste Oil's products that reduce greenhouse gas emissions.](#)

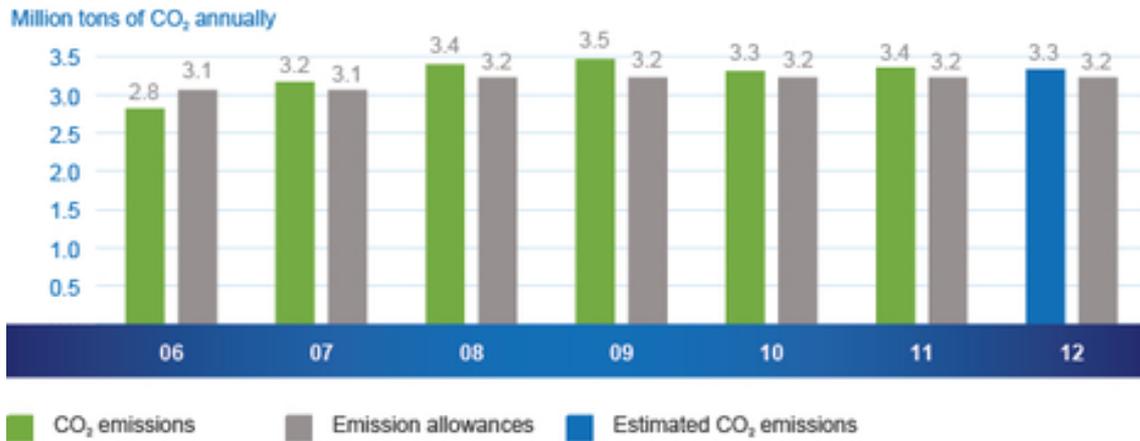
Emission allowances

Neste Oil has received emission allowances for 3.2 million tons of CO₂ emissions annually between 2008 and 2012. Acquiring new allowances will be necessary to cover future emissions.

Neste Oil will have to acquire new emissions allowances to meet the deficit regarding the next emissions trading period of 2013–2020. The European Commission has not yet confirmed the emissions allowances for the company's refineries for the upcoming period.

Only Neste Oil's refineries in Porvoo and Naantali come within the scope of the EU's emission trading scheme. The Rotterdam and Singapore refineries are not covered by the scheme.

Neste Oil's refineries' CO₂ emissions and emission allowances



Emissions from the Porvoo and Naantali refineries included.

Neste Oil invested EUR 5 million in GreenStream's Climate Opportunity Fund in 2011, giving the company access to additional emissions allowances under the EU emissions trading scheme for the trading period beginning in 2013. [Read more](#)

Product lifecycle analyses

Neste Oil has carried out lifecycle analyses of its products on a voluntary basis since the early 1990s. An increasing proportion of the figures from these calculations are now also supplied to the authorities. Neste Oil's expertise in carrying out lifecycle calculations and analyses has steadily grown over the years and is of a particularly high standard today; the reporting requirements associated with renewable fuels have made their own contribution to this development.

One of the main reasons for producing and using renewable fuels is that their greenhouse gas emissions, calculated over products' entire lifetime, are significantly lower than those of fossil fuels. The most effective tool available to Neste Oil to combat climate change is to produce renewable fuels and promote their wider usage as a means of reducing the levels of greenhouse gases released into the atmosphere. The greenhouse gas emissions of Neste Oil's NExBTL renewable diesel calculated over the product's entire lifecycle, for example, are up to 40–80% lower than those of fossil diesel.

Lifecycle calculations have shown that the majority of the greenhouse gas emissions of fossil fuels, close to 85%, are released into the atmosphere during usage. Around 10% is released during refining and the final approximately 5% during crude oil production, logistics, and product transportation.

No fossil-based greenhouse gas emissions are released during the use of renewable fuels. The majority of the greenhouse gases that are emitted, 65–85%, are released during the production of renewable raw materials, 10–30% during the refining of renewable fuel, and approximately 5–10% during raw material and end-product transportation.

[Read more on the greenhouse gas emissions of the supply chain.](#)

[Read more about Neste Oil's products that reduce airborne emissions.](#)

Protecting the soil and waterways

Neste Oil protects the soil, groundwater, and waterways from being polluted by its operations and from other negative impact resulting from its refining and logistics activities. This covers soil, groundwater, and waterways everywhere the company operates, and past damage is always systematically cleaned up.

Groundwater protection

Voluntary groundwater monitoring continued at the Porvoo and Naantali refineries during 2011, as well as at the company's partly-owned base oil plant in Bahrain. A groundwater monitoring program has been in place at Porvoo since 1995, in Naantali since 1996, and at the Bahrain plant since 2010. The Porvoo refinery's groundwater protection plan was updated in 2011 to ensure that sufficient groundwater monitoring capabilities will continue to be available into the future.

All of Neste Oil's refineries are ready to meet the requirements contained in the EU's Directive on Industrial Emissions ratified in 2011 related to possible pollution of the soil. Neste Oil's goal is to ensure that pollutants are never leached off the company's sites through groundwater.

Protecting waterways

Monitoring of waterways, particularly in sea areas, adjacent to Neste Oil's refineries in Finland continued during 2011. Significant deviations from the good levels achieved during the previous year were not recorded. In addition to normal monitoring, a three-year fisheries study in waters near the Porvoo refinery was completed in 2011. This showed that cooling water intakes used by the refinery do not have a significant impact on fish catches. The size of catches may be reduced by approximately 5%, but most of the fish trapped at intakes have been of no commercial value.

Neste Oil committed itself in 2010 to the Tanker Safety Project coordinated by the John Nurminen Foundation and launched to improve sea transport and environmental safety in the Gulf of Finland. The goal of the project is to significantly reduce the risk of a major accident involving an oil tanker in the Gulf of Finland. Project activities have included the development of a new ship-to-shore communications service. By communicating ships' planned routes, this will help anticipate possible risk situations and identify alternative routes where necessary. A prototype of the system for demonstration purposes was developed during 2011 and has been shown to various officials around the Baltic. Neste Oil marine personnel have been among those involved in developing the service, and the service will be tested later on Neste Oil ships.

[Read more about Neste Oil's water usage and how the company protects waterways.](#)

[Read more about Neste Oil's marine logistics.](#)

Soil protection

Oil Retail business area continued work on its environmental risk management program in 2011 and carried out various measures to protect the soil and clean up polluted soil at several Neste service stations across Finland. A total of approximately EUR 3.6 million was spent on environmental protection-related pre-inspections, monitoring programs, studies, analyses, technical improvements, and protective and soil cleanup measures carried out at stations and in nearby areas. This figure does not include dealer-owned stations, where dealers are responsible for soil protection and possible cleanup measures. Planning for similar work in 2012 started at the end of 2011 and is expected to be similar in extent, although costs are projected to be slightly lower.

[Read more about the environmental impact associated with the use of products produced by Neste Oil.](#)
[Read more about the environmental impact of Neste Oil's supply chain.](#)

Water

Salt water accounts for around 97.5% of the earth's water, and the majority of the remainder is made up of ice, permafrost, water bound to the earth's soil, or groundwater found so deep below the surface that it cannot be used. Less than 0.01% of the earth's fresh water can be used by the planet's ecosystems or mankind, and even this water is unevenly distributed in terms of when and where it is most needed.

UNESCO has predicted that by 2025 the total global water use will be approximately 5,000 km³ of water annually for agricultural, municipal, and industrial use. The world's entire renewable and accessible fresh water reserves are estimated to be only in the region of a little over 10,000 km³, or perhaps up to 50% according to some sources. As a result, the significance of water – and its availability and usage in particular – is likely to grow, and water will probably become one of the environmental themes to attract the most attention globally in the near future.

Water is a key element for Neste Oil's operation

Water and steam are used extensively at the company's refineries and numerous measures are taken to protect groundwater and waterways from pollution and other harmful impact. Neste Oil is focusing increasing attention on water-related issues in its operations and improving its understanding of these issues. Neste Oil does not have a separate water strategy, rather water issues are managed comprehensively as part of the company's sustainability and environmental protection work.

The majority of Neste Oil's water usage, around 96%, is linked to the company's refineries. Cooling water used at refineries is sourced from the sea. Seawater is used to cool the fresh water circulating in a closed circuit. Large quantities of water are needed: at the Porvoo refinery, over 100,000 m³ an hour. The temperature of this water is around 10 °C higher when it is returned to the sea.

Based on a study conducted at the Porvoo refinery in 2010, the discharge of warmer water does not weaken ice cover or melt it during the winter. The study concluded that water flows into the area near the site rather than out to sea, which indicates that thinner ice cover could be caused by thermal energy stored in deeper water layers being released, rather than the refinery's cooling water. Similar observations of melting ice have been made all along the coast of the Gulf of Finland, not just off the Porvoo refinery. Also the effects that [cooling water may have on fish catches has been studied](#).

Neste Oil constantly monitors water usage at its refineries in areas such as how water is sourced, how it is used in cooling, how wastewater is treated, and how efficiently water is used. The water-related impact of the company's operations is evaluated using [water balance calculations](#) or [water inventories](#) throughout the fuels' supply chain, all the way from raw material input to end-product use.

Water issues in feedstock procurement

As Neste Oil monitors water-related issues from the initial stages of production onwards, water issues are seen as fundamental and carefully considered when making decisions regarding new renewable raw materials and their suppliers. Neste Oil always reviews water usage and wastewater treatment prior to the selection of any new raw materials or their suppliers. Pressing the palm oil used as one of the raw materials for NExBTL renewable diesel, for example, generates quantities of wastewater. Neste Oil expects potential palm oil suppliers to treat this effluent using responsible procedures and processes. Neste Oil's experts also monitor research on the water consumption characteristics of different crops and cultivation areas producing renewable raw materials, as well as how much evapotranspiration occurs during cultivation.

Impact of water use is local

While the impact of greenhouse gas emissions on the world's climate is global, the impact of water usage on communities and the environment is often strongly linked to local conditions and specific periods of time. The availability of raw water and the impact of wastewater loads on the waterways into which they are discharged can be very dependent on both place and time.

In terms of its water resources, Neste Oil operates in a wide range of different conditions. The new base oil plant in Bahrain partly owned by Neste Oil, for example, is located in a hot and dry environment, where protecting local supplies of potable water is particularly important. The Bahrain plant does not use any fresh water suitable for drinking in the refining process, as this is in short supply, and relies instead on poorer-quality brackish groundwater and seawater for cooling purposes.

Water resources are in good supply at Neste Oil's refineries in Finland and the renewable diesel refinery in Rotterdam, and moderate at the Singapore refinery. Preventing leaks and protecting local waterways are given high priority as part of overall environmental protection efforts at all refining sites, as they are located close to the sea. A major proportion of both feedstock and end-product [transportation also takes place by sea](#).

Water issues are always taken into account when carrying out environmental impact assessments prior to the construction of new plants. The most recent of these assessments was completed in September 2011 and covered the [potential impact of a new biorefinery operated by NSE Biofuels Oy](#), a joint venture between Neste Oil and Stora Enso, in either Porvoo or Imatra.

Updating Neste Oil's water inventories under way

Neste Oil launched work on updating the water inventories at its Finnish refineries in 2011. Water inventory analyses covering the company's product chains consist of more detailed analyses of the impact of water usage than water balances and provide additional information on ways of minimizing areas of possible negative impact.

Water balances have been calculated also earlier for the two refineries in Finland, detailing water inputs and outputs and the volume of the major water flows at the sites. For the Naantali refinery, this type of water balance was last calculated for all of 2008, and for the Porvoo refinery between summer 2007 and summer 2008. Water balance calculations are currently being updated for the Porvoo refinery.

Neste Oil's new NExBTL refineries in Rotterdam and Singapore have been designed to function efficiently with regards to water usage and wastewater treatment.

No standard procedure for measuring comparable water footprints

As yet, there is no commonly agreed standard, method, or set of guidelines for measuring water footprints based on water inventories, and no body is responsible for overseeing the accuracy of how these figures are calculated or produced.

Neste Oil is actively monitoring international research on new methods for measuring water footprints. The company's aim is to produce water footprint profiles for its products in which the key impact of its operations are comprehensively covered.

Water-related terminology

Water inventory

Inventory analysis is used to determine which incoming and outgoing flows of inputs and outputs of a particular system, such as the Porvoo refinery for example, affect waterways and how large they are. The results of this analysis list data on the water flows that exceed the system's boundary limits, and can be used as the basis for assessing environmental impact.

Water inventories are one of the four iterative stages of a life cycle assessment (SFS-EN ISO 14044), which are:

1. defining goals and scope of operations covered
2. inventory analysis
3. impact assessment, and
4. interpretation

Water balance

Using a water in/water out model, it is possible to check the approximate accuracy of the assumptions made in a water inventory. The scope and assumptions used in determining a water balance also need to be defined.

Water footprint

A product's water footprint comprises the amount of water used both directly and indirectly to produce it. The water used at every stage of its lifecycle is included. Water footprints can also be calculated for processes or organizations. A water footprint can be expressed as m^3 Weq/t of product, where m^3 Weq stands for cubic meter of water equivalent, taking account of factors such as water scarcity and wastewater quality.

Efficient water use and wastewater treatment

Neste Oil's water usage ("water withdrawal" in the material and energy balance table) was 9.3% lower than in 2011 mainly due to lower water usage volumes at the Porvoo refinery. The wastewater volumes generated by the company's operations have remained largely unchanged.

The exact figures on water use and wastewater can be found in the [material and energy balance table](#).

Neste Oil optimizes usage of fresh water for process, firefighting, and cooling needs throughout its operations and uses closed-cycle cooling systems at all its refineries. Before being discharged into waterways, all wastewater passes through highly efficient treatment plants featuring mechanical, physical-chemical, and biological processes. Wastewater treatment at the refineries operated well during 2011, with the exception of two incidents occurring at the Naantali refinery in which the limits set by the authorities for effluent discharges were exceeded due to mechanical problems and exceptional weather in December. It was decided in 2011 that the buffer capacity related to wastewater treatment at Naantali will be increased. This increased capacity will be in place by 2014 at the latest.

Wastewater treatment at the Singapore refinery is handled by external wastewater treatment plants.

As the company's largest and most diverse site in terms of its operations, the Porvoo refinery is also Neste Oil's largest water user. Neste Oil has increased the efficiency of water usage and wastewater treatment at the site over the past years, partly as a result of the stricter environmental permit conditions regarding the refinery's wastewater that came into force at the beginning of 2012.

The oil content of emissions to water at the company's two largest refineries at Naantali and Porvoo was 0.14 grams (0.14 g) per ton of feedstock processed in 2011. This was below 5% of the target level of 3 g/t set by the Baltic Marine Environmental Protection Commission.



Case

Court orders Neste Oil to pay for cleaning up soil at a service station

Finland's Supreme Court found in August 2011 that Neste Oil was liable for the cost of cleaning up polluted soil discovered following the bankruptcy of a service station owner. The station in question operated under the Neste brand between 1981 and 1996. The site and fuel storage tanks were owned by the station dealer and Neste supplied the station with fuel and leased forecourt pumps to the dealer.

The Supreme Court concluded that Neste was the operator at the station, making Neste Oil liable for paying for the cleanup costs of the site to the new owner of the property. The Supreme Court stated in its ruling that Neste at the time was ultimately responsible for the environmental damage caused at the site, regardless of the fact that Neste had not owned the station or caused the damage through its own actions.

Neste Oil's case was that the pollution of the soil at the site was the result of the dealer's activities, as Neste at the time only supplied fuel to the station, which was operated by the dealer independently. The contract between Neste and the dealer specifically stated that due care was to be exercised by the dealer at all times.

Following the court ruling, Neste Oil has paid the soil cleanup costs to the property owner.

Protecting the biodiversity of forests and the natural world

Neste Oil has invested in environmental protection for decades. Neste Oil monitors emissions and their impact on the nearby environment as an integral part of its refining operations and strives to minimize the negative impact of its operations. The environmental benefits this has brought has helped preserve natural biodiversity in numerous locations.

Bioindicators have been monitored on a long-term basis since 1985. The latest report based on this monitoring, dating from 2010, shows that forestland in the vicinity of the Porvoo and Naantali refineries is slowly recovering from the impact of previous pollution. Monitoring is continuing.

Good level of biodiversity-related management

During 2011, Neste Oil took part in the Natural Value Initiative assessment, which works to build investors' awareness of how oil companies operate in terms of biodiversity, ecosystem services, and water use management. The project rated Neste Oil's management of biodiversity as good and the company's performance as average for the industry and in line with Neste Oil's risk exposure. Neste Oil aims to learn from the findings of the assessment and take biodiversity questions into greater account in its risk management in the future.

[Read more about Neste Oil's efforts to make more effective use of natural resources.](#)

Recognition for Neste Oil's work in managing and reporting its forest footprint

Neste Oil was again recognized by the international [Forest Footprint Disclosure \(FFD\) project](#) in January 2011 for its thorough management and reporting of its forest footprint in 2011. The FFD project is an important forum for sharing information and expertise related to deforestation.

[Read more about the environmental impact of Neste Oil's supply chain.](#)

Taking account of forestland and biodiversity in raw material procurement

Neste Oil strives to purchase only certified raw materials to ensure that environmental protection practices are used in producing its raw materials. Neste Oil always confirms that its raw materials are fully traceable in accordance with the requirements of the EU's Renewable Energy Directive and that producing them does not endanger sensitive areas.

Neste Oil has committed itself to an international alliance calling for a moratorium on the felling of rainforest and an immediate end to the destruction of rainforest, biodiversity, and irresponsible land use. Neste Oil knows the exact origin of all the renewable raw material it uses. Production of the raw materials procured by the company does not endanger forestland or natural biodiversity.

Natura areas close to the Porvoo and Naantali refineries

The Stormossen bog – a 75-hectare domed bog – to the west of the Porvoo refinery has been a protected site since 1993 and is part of the European Natura 2000 network of nature conservation sites. Together with sites of significant cultural historical importance, the Stormossen bog was one of the Natura and other nature conservation sites within a 20-kilometer radius of the Porvoo refinery that were listed in [the environmental impact assessment completed in 2011 on a possible biorefinery](#) to be built by NSE Biofuels.

The Vanto area of deciduous woodland close to the Naantali refinery, owned by Neste Oil, was declared a protected area under Finnish nature conservation legislation at the end of 2008.

Neste Oil always takes areas such as these into account in its operations and strives to protect them and the rest of the environment around its sites.

Case

Using forest harvesting waste to produce a premium-quality raw material for renewable fuel

Neste Oil and Stora Enso have been working together to test how premium-quality biofuel can be produced from a range of forest-based raw material, and forest industry by-products, including stumps, branches, bark, and sawdust. The aim of the partnership is to develop second-generation biofuel production technology.

The two companies jointly own a demonstration plant in Varkaus, where biowax has been produced from forest harvesting waste using gasification-based Biomass to Liquid (BTL) technology since summer 2009. The results generated by the plant have been promising, and the biowax that has been produced has been of a high quality and suitable for refining into NExBTL renewable fuel.

In November 2010, Neste Oil's and Stora Enso's joint venture, NSE Biofuels, launched an environmental impact assessment (EIA) in Porvoo and Imatra for a biorefinery to produce high-quality biowax from wood-based biomass. The aim of the EIA was to ascertain the suitability of the two locations for such a plant and look into the impact that using forest harvesting waste would have on the biodiversity of forestland.

EIA completed

The Southeast Finland Centre for Economic Development, Transport and the Environment issued its findings on the EIA covering NSE Biofuels' proposed commercial biorefinery in September 2011, marking the completion of the public EIA process.

The review of the plant's possible impact did not reveal any significant differences between the two locations. The proposed locations for both BTL plants, at Kaukopää in Imatra and Kilpilahti in Porvoo, were declared suitable in terms of potential environmental impact.

The biorefinery would use 1.75–2.4 million solid cubic meters of forest-based input a year, mainly harvesting waste from felling mature stands of timber. This would be processed into 145,000–200,000 t/a of biowax and condensate suitable for use in biofuel production. The biowax would be refined into traffic fuel at Neste Oil's refinery at Porvoo.

The project would not result in major changes in land use outside the area of the plant at either location, and it would be possible to use the surplus thermal energy generated at the plant effectively year-round in both alternatives.

The press release in Finnish on the statement issued by the Southeast Finland Centre for Economic Development, Transport and the Environment [can be found here](#).

Go-ahead for the project would require outside funding

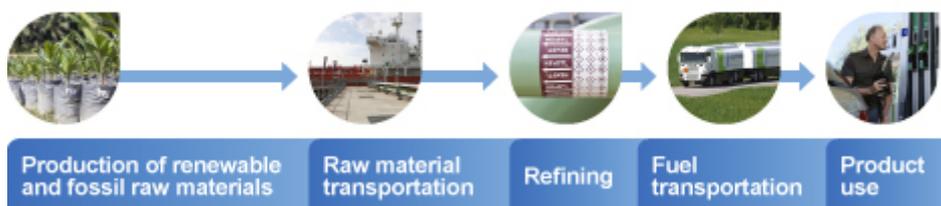
A final decision on the construction of a commercial biorefinery has yet to be taken. Finland's first large-scale commercial biorefinery would require an investment of at least EUR 500 million, and a significant public subsidy would be needed to make the project viable. The Ministry of Employment and the Economy in Finland announced that it had forwarded Neste Oil's and Stora Enso's NER 300 funding application to the European Commission in May 2011. The partners have announced that a possible decision on the basic engineering for the 200,000 t/a plant will be taken after the decision on possible public funding for the project has been taken.

Environmental impact of the supply chain

Oil refining results in environmental impact at every stage of the supply chain: feedstock procurement and transportation, fuel refining, product transportation, and use. The bulk of Neste Oil's environmental impact is linked to refining and the use of its products.

Neste Oil is committed to constantly striving to improve the sustainability of its refining operations by investing in environmental protection and initiatives to promote safety at its refineries and neighboring areas, for example. This commitment is most clearly reflected in the company's strategy and its focus on developing and producing cleaner, premium-quality products.

Sustainability of supply chain



Neste Oil has a long tradition of being a pioneering company in the oil industry. The use of renewable raw materials, particularly palm oil and the thinking behind its use, has generated extensive debate nationally and internationally. Neste Oil has played an active role in developing sustainable operating practices related to the procurement of renewable raw materials.

Sustainability of partners is a key selection criterion

The service providers, suppliers, and contractors that Neste Oil uses have a major impact on its environmental responsibility in practice. As a result, Neste Oil provides regular training for its partners, systematically highlights the importance of sustainability, and requires that sustainable working practices are complied with and continuously improved.

Operational sustainability is a key criterion for Neste Oil when selecting new partners. Neste Oil audits its significant service providers systematically and uses both internal and independent third-party audits to review that they meet the minimum requirements set for the sustainability of renewable raw materials.

In 2011, Neste Oil's lifecycle analysis specialists supplemented and clarified the [greenhouse gas emission calculations for the production of various raw materials](#) in cooperation with the cultivation companies.

[Read more on how Neste Oil selects its suppliers of renewable raw material.](#)

Environmental impact of raw material procurement

As Neste Oil is not involved in oil production, it has little potential to influence how crude oil is produced. Neste Oil sources the crude oil it uses from major international commodity trading centers, rather than directly from producers. In addition to product properties, the only other things normally known about a crude shipment are its country of origin or the region in which it was produced.

Neste Oil does not produce the raw materials it uses in refining NExBTL renewable diesel either. Neste Oil is committed, however, to procuring only raw materials that, based on the sustainability criteria in the EU's Renewable Energy Directive and other regulations, can be shown verifiably to have been produced sustainably and that can be traced back to the original plantation or production location.

When considering whether to begin use of a new bio-based raw material, Neste Oil gives most priority to whether it is produced responsibly and sustainably and the impact that it will have on reducing greenhouse gas emissions. Security of supply, availability, and price also influence which renewable raw materials Neste Oil procures.

Neste Oil assesses greenhouse gas emissions over the entire supply chain.. The total lifecycle greenhouse gas emissions of renewable diesel must be at least 35% lower than those of fossil diesel. All the renewable raw materials used by Neste Oil enable the lifecycle emissions of its NExBTL diesel to be 40–80% below those of fossil diesel.

During 2011, Neste Oil aimed at promoting methane capturing at the palm oil mills in Indonesia and Malaysia. A large number of the palm oil mills supplying to Neste Oil have either a methane capturing system in place or a system to prevent its formation. Reducing methane emissions at the palm oil mills helps to further improve the greenhouse gas balance of fuels produced from palm oil.

[Read more on Neste Oil's procurement of renewable raw materials.](#)

Environmental impact of refining

Neste Oil monitors the energy efficiency of its own refining operations and the emissions that these operations release into the air, ground, and waterways. This monitoring is based partly on the need to comply with the requirements of the company's environmental permits and other statutory requirements, and partly on its own voluntary commitments. Efforts are made to prevent pollution of the soil, groundwater, and waterways at all sites; and systematic cleanups of past pollution are always carried out where it has occurred.

The energy efficiency of Neste Oil's refining operations has steadily improved in recent years, and environmental emissions have largely fallen. Refining-related emission levels during 2011 continued this trend and were lower than in 2010, and essentially remained within statutory limits.

[Read more about energy efficiency.](#)

Leaks due to malfunctions or other unplanned incidents reduced by over a third

Neste Oil's goal was to further reduce all leaks resulting from malfunctions or other unplanned incidents. During 2011, unscheduled emissions were successfully reduced by over a third in 2011 compared to 2010. There were a total of 61 (92) leaks involving more than 100 kilograms of material, of which 30 resulted in some emission into the air, ground, and waterways. Eleven of these leaks to the air, ground, and waterways involved more than 1,000 kilograms of material, and only two resulted in exceeding the environmental permit levels. None resulted in significant environmental damage or lead to the company exceeding environmental permit levels significantly.

Six operational incidents resulting in minor emissions exceeding permitted levels were reported to the authorities. Even very small incidents are always reported, and the reasons for them investigated and corrective action, if needed, taken immediately. Major incidents are reported to people living close to sites, the authorities, contractors, and the media.

[Read more about process safety.](#)

[Read more about emissions into the air released during refining.](#)

Airborne emissions resulting from refining

Neste Oil's most significant airborne emissions resulting from normal refining operations during 2011 remained at the low levels typical of recent years. The following refining-related emissions are calculated and reported to the environmental authorities: carbon dioxide (CO₂), nitrogen oxides (NO_x), sulfur dioxide (SO₂), volatile organic compounds (VOC), particulate matter, nickel and nickel compounds, and vanadium. Emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x), and particulates are monitored and measured continuously.

Air quality at the Porvoo refinery was constantly monitored during 2011 by measuring airborne concentrations of the following compounds:

- Nitrogen oxides (NO_x)
- Sulfur dioxide (SO₂)
- Total Reduced Sulfur (TRS)
- Ozone

At the Naantali refinery, air quality monitoring concentrated on measuring concentrations of the following compounds:

- Nitrogen oxides (NO_x)
- Sulfur dioxide (SO₂)

[More detailed figures can be found in the material and energy balance table.](#)

Sulfur emissions

Following the overhaul of the sulfur recovery unit at the Porvoo refinery as part of the major maintenance turnaround there in 2010, sulfur recovery performance at the site has improved. In general, airborne SO₂ emissions from Neste Oil's refinery operations continued to decline in 2011.

Neste Oil uses only gaseous fuels in its refinery furnaces. This significantly reduces the formation of SO₂ emissions.

[Read a case article on SO₂ emissions at the Porvoo refinery in 2009.](#)

Other emissions

Emissions of NO_x and volatile organic compounds also remained at the good level recorded in past years. Compounds contributing to ozone depletion were eliminated from production and firefighting systems back in the 1990s.

[Read more about the construction of a new VOC recovery system to recover gases released when loading ships at the Porvoo refinery harbor.](#)

[Read more about refining-related greenhouse gas emissions.](#)

[Read more about the emissions resulting from malfunctions or other unplanned incidents.](#)

Refinery greenhouse gas emissions unchanged

The majority of Neste Oil's direct greenhouse gas emissions, around 90%, are released during refining. The Porvoo and Naantali refineries are the company's most significant sources of these types of emissions.

[Read more about Neste Oil's overall greenhouse gas emissions.](#)

No major changes in refinery greenhouse gas emissions took place in 2011 compared to 2010. Direct CO₂ emissions from refining operations totaled 3.4 million tons (3.3 million), 3% above 2010 levels.

CO₂ recovery continued at Porvoo

Nearly 150,000 tons (122,000 tons) of CO₂ generated during refining at the Porvoo refinery were recovered at the site's hydrogen plant in 2011. Under a decision issued by the Finnish Energy Market Authority, 2% of the CO₂ recovered in this way, equivalent to 2,979 tons in 2011, can be used in CO₂ emission calculations to reduce the Porvoo refinery's total CO₂ emissions, which totaled approximately 2.95 million tons in 2011. During the emissions allowance trading period beginning in 2013, this 2% reduction will be eliminated as a result of new regulations covering the monitoring and reporting of emissions trading.

Neste Oil has recovered CO₂ at the Porvoo refinery for a number of years. Following the start-up of the site's new hydrogen plant, the amount of recovered CO₂ rose between 2005 and 2007, after which it has remained essentially unchanged. The recovered CO₂ is sold to a gas company based in the area. There are no similar CO₂ recovery systems at Neste Oil's other refineries.

[Read more about Neste Oil's emissions allowances.](#)

[More detailed figures can be found in the material and energy balance table.](#)

Case

Sulfur dioxide emissions at Porvoo within permitted levels in 2009

Neste Oil reported in its Annual Report for 2009 that a number of malfunctions had occurred at the Porvoo refinery's sulfur recovery unit in the summer and fall of 2009. These malfunctions resulted in elevated SO₂ concentrations in the atmosphere around the site on three days at the end of July that year. A total of 219 tons of SO₂ emissions were released into the environment, causing odor issues and irritation reactions among some local people.

The issue was reported immediately to the appropriate environmental and safety authorities. The report of the technical investigation that took place, together with the results of the air quality measurements that were made, were also reported to the authorities subsequently. The incident was also discussed with local residents. The environmental authorities requested the police to investigate the case.

Police verdict: Neste Oil not guilty of environmental damage

The police investigation of the case ended in July 2011. Based on the investigation, Neste Oil was not guilty of having caused damage to the environment.

Neste Oil's environmental performance at Porvoo has improved since 2009. Various technical modifications and improvements to operational systems at the site were made immediately after the incident, in the fall of 2009. In addition, measures taken during the refinery's maintenance turnaround in 2010 have improved the site's operational reliability and further reduced incidents involving environmental emissions. The sulfur recovery plant at Porvoo was overhauled during the turnaround, for example, and the plant has performed more effectively since then.

Environmental impact of logistics

Neste Oil transported a total of nearly 32.4 million tons (34.4 million tons) of refinery feedstocks, refined products, and other chemicals by sea, road and rail in 2011. As a result of the smaller volumes transported in 2011, both fuel consumption and emission levels decreased from 2010. Emissions per ton of product carried by sea are lower than those of road-based logistics.

Modest growth in road transport

The amount of Neste Oil's products transported by road has grown slightly over the last few years, by 1.8% from 2010. This has not resulted in increased fuel consumption in this area of operations, however; fuel consumption decreased by 1.5% in 2011 compared to 2010.

The areas served by tanker trucks and the cargoes they carry are planned as efficiently as possible to keep fuel consumption down and reduce tailpipe emissions. Fuel vapor released when filling up storage tanks at service stations is recovered by tanker trucks.

Neste Oil's road-based deliveries of fuel and gas were handled by a total of 193 (194) tanker trucks owned by various private transport companies in 2011, of which 135 (130) were based in Finland and 58 (64) in the Baltic countries, Poland, Russia, and Sweden. 2.8 million tons (2.9 million tons) were carried by road in Finland and 1 million tons (0.8 million tons) in the Baltic countries, Poland, Russia, and Sweden.

The only significant logistics-related leak into the environment took place in May 2011 when a road tanker carrying a Neste Oil load leaked 11,400 kg of fuel into the ground after having swerved off the road. This did not result in any environmental damage, however, as the rescue services were able to fully recover all the leaked fuel.

Lower level of marine shipments

Neste Oil transports tens of millions of tons of crude oil and other refinery feedstocks, petroleum products, and chemicals by sea annually. The amounts shipped in this way decreased by 6.7% during 2011. This saw bunker fuel consumption decrease by over 19%.

During 2011, Neste Oil developed an energy efficiency program for sea transportation that includes ship-specific energy efficiency manuals for 2012. Ships' bunker fuel consumption and CO₂ emissions have been reduced in past years following the introduction of a basic tanker speed of 13.5 knots in 2007 and more detailed bunkering instructions.

The maximum sulfur content of 1.5% mandatory for bunker fuel used by ships in the Baltic, the North Sea, and the English Channel was reduced to 1.0% in summer 2010. New bunker fuel specifications produced by the International Maritime Organization (IMO) will reduce ships' permitted sulfur emission levels even further, to 0.1%, by 2015.

Since the stricter sulfur emission limit came into effect, Neste Oil has used low-sulfur bunker fuel when traveling in these areas. Documentation on the sulfur content of fuel is acquired from fuel supplier and presented, where appropriate, to the authorities when they carry out spot tests. Neste Oil is also planning to install desulfurization equipment prior to 2015 or just after during the planned docking.

[Read more about the safety of product logistics.](#)

Neste Oil began constructing a new system to recover gases released while loading ships at the Porvoo refinery harbor at the end of 2011. [Read more.](#)

Two Neste Oil tankers successfully sailed along the Northeast Passage between Murmansk and the Pacific Ocean in the late summer which resulted in significantly reduced bunker fuel consumption and shipborne emissions. [Read more.](#)

[See the exact transportation and fuel consumption figures on the material and energy balance table.](#)
[Read more about feedstock and product shipments.](#)

Case

Neste Oil tankers sail along the Arctic Northeast Passage

Two Neste Oil tankers successfully sailed along the Northeast Passage between Murmansk and the Pacific Ocean in August and September 2011. The approximately 6,250 nautical miles or 11,500 kilometers covered by the MT Stena Poseidon and MT Palva between Murmansk and South Korea took around 20 days at a speed of 13 knots. The alternative route through the Suez Canal is twice as long and takes twice as long to cover as a result. Using the much shorter Northeast Passage offers the potential to reduce ships' bunker fuel consumption and overall emissions by 40% each.

The very challenging ice conditions along the route, which follows Russia's northern Arctic coastline, limit its use. The route continues to be open to traffic for only a couple of months in the summer. Only a few vessels including Neste Oil's ships operated along the route in 2011. The Stena Poseidon and the Palva carried customers' cargoes to ports in South Korea and China respectively.

The Russian authorities require that all ships operating along the route are ice-classified and fitted with additional equipment, such as radios approved for use in Arctic areas and a spare propeller blade. Bunkers and provisions sufficient for 30 days at sea are also required because of the unpredictable nature of ice conditions along the route.

Neste Oil's extensive maritime expertise, decades of experience in navigating in ice-bound waters, and fleet of ice-strengthened ships – one of the largest in the world – give the company a clear edge in shipping along the Northeast Passage.

Thanks to its Arctic expertise and modern fleet, Neste Oil is excellently placed to handle commercial operations along the Northeast Passage. Neste Oil's MT Uikku was the first Western commercial vessel to transit the route back in 1997.

Case

New VOC recovery system being built at the harbor at Porvoo refinery

Neste Oil started construction on a new system to recover volatile organic compounds (VOC) released during loading at the harbor of the Porvoo refinery in 2011. The system will be capable of recovering the bulk of the VOC emissions released into the atmosphere when loading gasoline. The investment is budgeted at approximately EUR 23 million and it is one of Neste Oil's largest environmental investments in 2011–2012. The new facility will enable Neste Oil to meet the stricter environmental permit requirements.

The aim of the investment is to reduce hydrocarbon emissions at Porvoo significantly, by as much as approximately 70% compared to present levels, as gasoline loading at the harbor is the refinery's single large source of VOC emissions. These compounds form ozone in the lower atmosphere, where they react with nitrogen oxides in the presence of sunlight. Ozone is harmful to humans, animals, and plants. The new system will also provide a cleaner working environment for harbor personnel.

The system will reabsorb VOCs into gasoline during loading after which the gasoline will be returned to the refinery for re-use. A similar system is already in use when loading tanker trucks at the Porvoo refinery's distribution terminal.

Construction work on the VOC recovery system began in October 2011 and the facility is due to be commissioned in the latter half of 2013.

Environmental impact resulting from the end use of products

Producing cleaner traffic fuels and promoting their use as a means of reducing the amount of greenhouse gases released into the atmosphere represent Neste Oil's most efficient way of helping combat climate change. Measured in terms of installed production capacity, as well as product quality, Neste Oil is now the world's leading producer of renewable diesel.

Lower-emission products

Neste Oil refines a range of class-leading traffic fuels from crude oil. These premium-quality, sulfur-free fossil fuels allow drivers and manufacturers to make use of the latest engine technology – and benefits air quality and reduces the local impact of traffic and transport on the environment and health, particularly in urban areas. Modern engines are also more fuel-efficient than their predecessors.

The quality of Neste Oil's NExBTL diesel, produced from 100% renewable inputs, is better than that of both conventional biodiesel and the best fossil diesel. Its low temperature performance and storability, in particular, are both better than those of conventional biofuels.

Compared to fossil diesel, NExBTL renewable diesel has been shown to reduce tailpipe and greenhouse gas emissions significantly. It can reduce greenhouse emissions by 40–80% across the product's entire lifecycle when produced from any of the raw material inputs currently used. Numerous laboratory tests and field trials have shown that the fuel offers the following reductions in tailpipe emissions:

- Nitrogen oxides (NO_x), -10%
- Particulates (PM), -28%
- Soot or carbon monoxide (CO), -28%
- Hydrocarbons (HC), -50%.

[Read more about emissions throughout the entire production chain.](#)

Low-emission aviation fuel

In 2011, Neste Oil produced a batch of NExBTL renewable aviation fuel, capable of making a valuable contribution to reducing airline emissions, for Lufthansa. During its six-month trial of the fuel, Lufthansa was able to reduce its CO₂ emissions by as much as 1,471 tons and save over 1% in fuel consumption thanks to the higher energy content of the new fuel compared to fossil jet fuel. [Read more on the results of Lufthansa's trial use of biofuel.](#)

Other products reducing emissions

In addition to the cleaner fuels mentioned above, Neste Oil also uses fossil feedstocks to produce premium-quality base oil for use in manufacturing lubricants. The use of high-quality lubricants can reduce traffic and transport emissions and makes it possible to take advantage of the latest engine technology, which is both more fuel-efficient and offers better emissions performance. Neste Oil also launched [a new small-engine gasoline](#) in Finland during 2011.

[Read more about Neste Oil's research and product development.](#)

Case

Excellent results from NExBTL aviation fuel trial

Lufthansa began scheduled commercial flights using NExBTL renewable aviation fuel produced by Neste Oil on 15 July 2011. Neste Oil supplied Lufthansa with a total of 800 tons of the fuel for use in a six-month trial on four daily return flights between Hamburg and Frankfurt.

Completed at the end of 2011, the trial saw 1,187 flights flown between the cities using NExBTL renewable aviation fuel. Lufthansa estimates that it was able to reduce its CO₂ emissions by as much as 1,471 tons during the trial and save over 1% in fuel consumption, thanks to the higher energy content of NExBTL renewable aviation fuel compared to fossil jet fuel.

Lufthansa reported that the fuel met its expectations in every respect and is ideal for commercial aviation use, based on the results of the trial. No problems were encountered during flights, and the engines of the aircraft performed exactly as they would flying on conventional fossil-based Jet A-1.

Lufthansa flew its first intercontinental flight using renewable aviation fuel with Neste Oil's NExBTL aviation fuel at the beginning of 2012, a regular scheduled service from Frankfurt to Washington D.C. Lufthansa estimated that using biofuel on this flight reduced airborne CO₂ emissions by as much as 38 tons, equivalent to the CO₂ released during six flights between Frankfurt and Berlin.

An aromatics- and sulfur-free fuel, NExBTL renewable aviation fuel is fully compatible with all current aircraft engines and no investments or modifications to engines or other equipment are needed before it can be used. Neste Oil is one of the few companies that are currently capable of producing renewable aviation fuel in commercial quantities. Low-emission renewable aviation fuel is one of the areas where the company is looking to grow in the future.

Neste Oil and Lufthansa will continue to cooperate in the renewable aviation fuel area, initially focusing on research into various raw materials suitable for producing this type of fuel, and will also collaborate in other areas of biofuel research.

Waste management

The majority of Neste Oil's waste, over 90%, is generated at the company's refineries. The total amount of waste amounted to 90,374 tons (66,328 tons) and wastewater volumes to 8,340,000 m³ (8,142,000 m³) in 2011. The amount of waste generated by the company has increased due to one-off arrangements in waste management and the start-up of the new refinery in Singapore. The company's fleet is also now included in the scope of Neste Oil's waste reporting.

Ongoing goal to reduce waste volumes and increase recycling

Neste Oil's Group-level target is to steadily reduce the amount of waste that the company's operations generate and promote greater waste recycling. Neste Oil launched a program in 2011 to outsource waste management at its refineries to specialist professionals in the field as a means of improving overall waste management efficiency and achieving cost savings. The Porvoo refinery was the first site to see its waste management outsourced to a waste-management company, which has a full-time site manager in the Kilpilahti area. The latter assists Neste Oil personnel in day-to-day waste management matters, guides and monitors the company's waste management partners, develops operations, and is responsible for waste reporting, monitoring legislative changes in the field, and informing Neste Oil of anything that may affect its operations.

Neste Oil's largest refinery at Porvoo concentrated on improving waste sorting, labeling waste skips, and establishing centralized waste collection points during 2011 as a way of reducing the volume of the site's mixed waste stream. Concrete, asphalt, and similar waste is shipped off-site directly to specialized treatment facilities.

The outsourcing program will continue in 2012 at other sites. The aim is to introduce the approach developed at Porvoo to the Naantali refinery, terminals, and sites outside Finland.

The largest of these, Head Office in Espoo, has been involved in the [WWF's Green Office program](#) for some time; as part of its participation, Neste Oil has targeted reducing mixed and secure ICT waste there by 5% during 2012.

Detailed figures on Neste Oil's waste volumes can be found in the [material and energy balance table](#).

Read more on [water usage and wastewater treatment](#).

Head Office and the WWF's Green Office program

Neste Oil's Head Office in Espoo has been part of the WWF's Green Office program for the past three years. Auditing carried out in June 2011 confirmed that the office continues to meet the criteria set for membership of the program. Auditing is carried out by an external auditor every three years.

Neste Oil improved the efficiency of waste sorting procedures at Espoo during 2011 and re-evaluated the size of waste receptacles and their location. Efforts were made to reduce overall levels of office waste by improving and reducing paper usage; recycling was also prioritized. The company also promotes the use of environmentally and recyclable packaging materials.

Head Office's Green Office plan was updated and the following targets set for 2012:

- Reduce mixed and secure ICT waste by 5%
- Reduce the CO₂ emissions of company cars at Head Office by 5% and increase the use of cars with emissions below 120 g/km by 5%
- Reduce paper consumption by 5%
- Reduce the energy consumption of ICT systems by 5%.

The aim is also to further increase recycling during 2012 through a special recycling campaign.

The goal of the Green Office program is to help save natural resources and promote sustainable consumption. Offices in the program are encouraged to set an example by introducing eco-efficient solutions and pro-environment operating models.

More about the [WWF's Green Office program](#).

Sustainability of supply chain

Neste Oil's approach to sustainability is based on a comprehensive understanding of the impact that the company's products have across their entire life cycle. Sustainability issues are particularly emphasized in the company's production of renewable fuels. In this context, Neste Oil focuses not only on the sustainability of its own refining operations, but also that of its entire supply chain, all the way from how its raw materials are produced to the end-use of the products that it refines.

Neste Oil – like all companies producing renewable fuels for the European market – is required to be able to verify a number of issues in accordance with the requirements of the EU's Renewable Energy Directive, including:

- the origin of the raw materials it uses back to where they are cultivated or produced
- that its fuel supply chain meets the defined sustainable criteria, and
- that the fuel use offers a minimum of 35% reduction in greenhouse gas emissions across its entire life cycle when compared to fossil fuel.

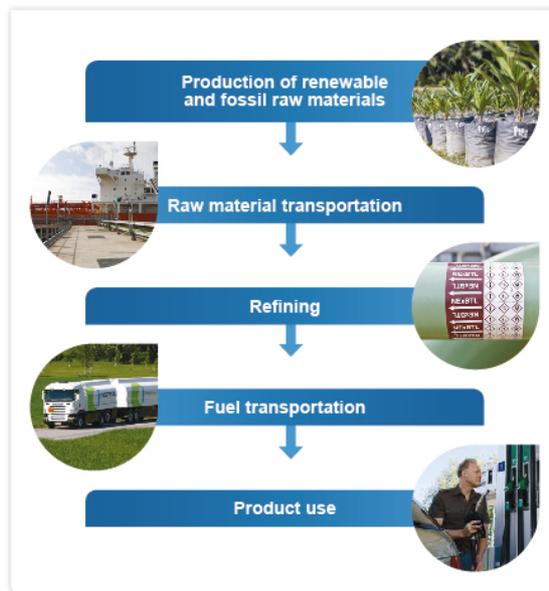
Neste Oil verifies its compliance with these requirements in respect of all the bio-based raw materials that it uses. It also supplies compliance-related documentation to corporate customers that buy its renewable fuels and to the authorities responsible for monitoring compliance with biofuel sustainability legislation in those countries where its fuels are sold or used.

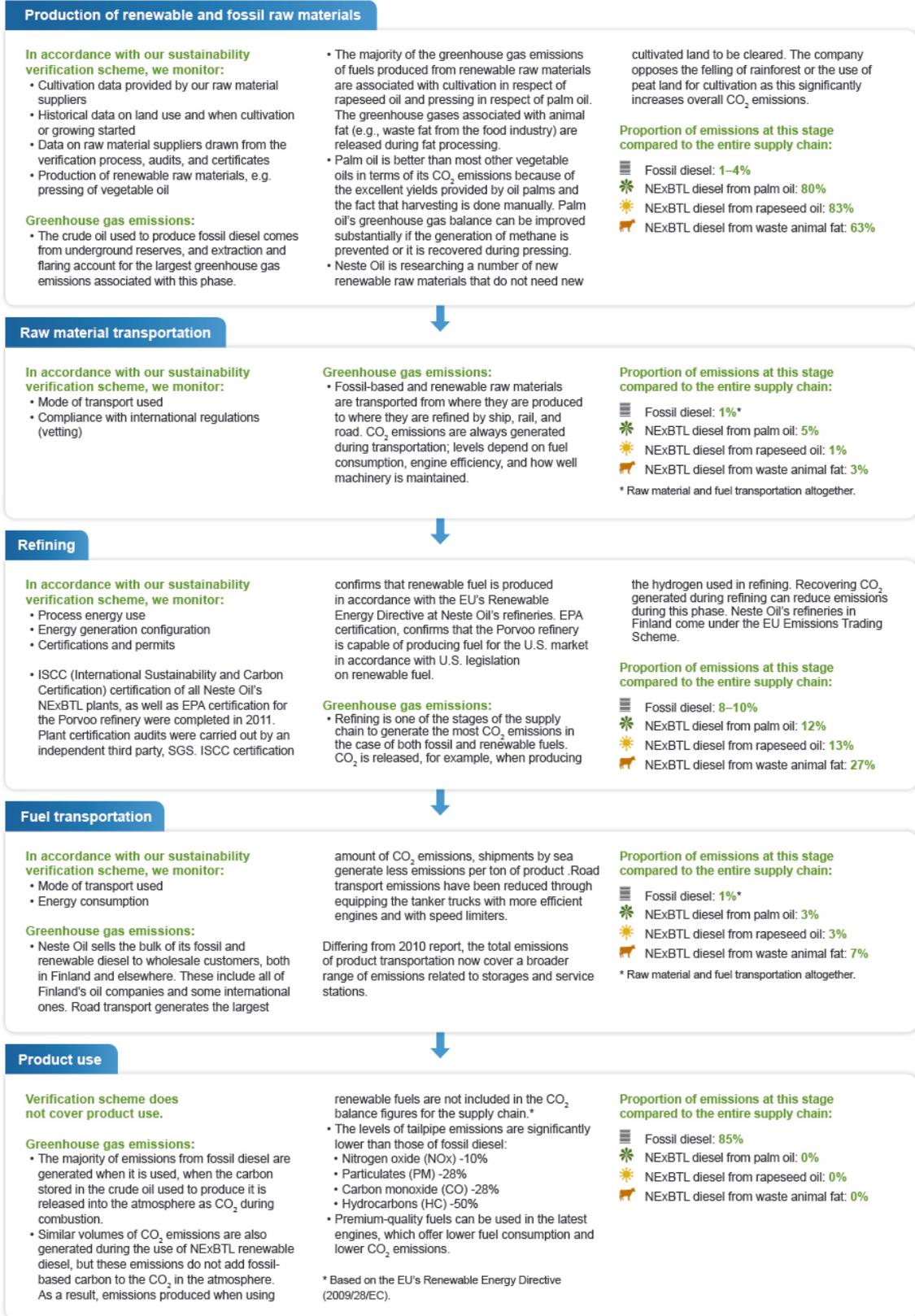
Neste Oil monitors the practical aspects of the sustainability of its renewable fuels on a continuous basis. The compliance of the company's production chain with sustainability criteria is verified regularly, using both internal audits carried out by Neste Oil personnel and external audits carried out by independent third-party experts. During 2011, 19 Neste Oil's renewable raw material suppliers were audited by independent third-party experts in connection to certification procedures.

Sustainability verification and greenhouse gas emissions

The following diagram shows the entire supply chain of the fuels produced by the Neste Oil, the greenhouse gas (GHG) emissions emitted during each stage of the process for different raw materials, and the sustainability verification methods used by the company for renewable fuels.

<p>Greenhouse gas emissions for the entire supply chain, i.e. the lifecycle of the product (g CO₂eq/MJ):</p> <ul style="list-style-type: none"> ☒ Fossil diesel: 83.8 ☼ NExBTL diesel from palm oil: 44.8 ☼ NExBTL diesel from rapeseed oil: 42.8 🐄 NExBTL diesel from waste animal fat: 20.5 	<p>Emissions reduction* achieved compared to fossil diesel:</p> <ul style="list-style-type: none"> ☼ NExBTL diesel from palm oil: 47% ☼ NExBTL diesel from rapeseed oil: 49% 🐄 NExBTL diesel from waste animal fat: 76% <p><small>* Average greenhouse gas emission reduction values calculated by the company for the entire life cycle of the fuel produced at the Porvoo refinery and transported to European markets. The emission reduction is affected</small></p>	<p>by raw material production methods, the selected modes of transport, fuel refining, transportation of fuel, and end use. When calculating the emission reduction, comparison is made with 83.8 g CO₂eq/MJ for fossil fuel. The method of calculation complies with the EU Renewable Energy Directive and has been certified by SGS. The emission share figures for each stage of the fossil fuel supply chain is based on estimates by CONCAWE.</p>
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Sustainable procurement of bio-based raw materials

The increase in NExBTL renewable diesel refining capacity to 2 million tons annually in 2011 resulted in Neste Oil doubling the amount of raw material it needed for refining purposes compared to 2010. Neste Oil used a total of 0.97 million tons (0.48) of renewable raw materials in 2011, which is approximately 5% of the amount of vegetable oils and fats that the energy sector used in 2011 which totaled some 20.5 million tons (Source: Oil World, January 2012). The volume of bio-based raw materials used in refining is projected to rise to a maximum of 2.4 million tons in 2012 when the refining capacity of the company's new refineries are fully utilized.

The use of renewable raw materials in 2011

Raw material	Planned share of procurement	Proportion used in refining 2011
Crude palm oil	<50%	54%*
Waste and sidestreams (incl. waste animal fat, palm fatty acid distillate, stearin)	Approx. 40%	41%
Other (incl. rapeseed oil, jatropha oil, soy oil, and camelina oil)	Approx. 10%	5%

* Includes also 2% of RBD palm oil (Refined Bleached Deodorized)

Neste Oil's targets for bio-based raw material procurement in 2012:

- To increase the volumes of raw materials classified as waste- and sidestream-based that it uses in refining by several hundreds of thousands of tons compared to what was used in 2011 (the total in 2011 was 315,000 tons more than in 2010).
- To increase the proportion of certified raw materials by a minimum of 10%-points compared to 2011.
- To further extend its raw material portfolio by introducing new raw materials.

Neste Oil's mid- and long-term targets for bio-based raw material procurement:

- To increase the share of sidestreams, residues, waste, and next-generation raw materials to account for more than 50% of its raw material base.
- To introduce new raw materials that make the largest contribution to reducing greenhouse gases to meet current and future criteria for reducing emissions.
- To promote research on new raw materials and prepare for industrial-scale fuel production from next-generation raw materials (such as microbial and algae oils, biowax produced from forest industry residue) that are unsuitable for human consumption.

Ethanol

The ethanol procured by Neste Oil for blending into 95 E10 and 98 E5 gasoline in the Finnish market is also produced from renewable raw materials. Ethanol is used mostly as a blending component. The ethanol used in this way, together with other biofuels, helps Neste Oil and Finland comply with their EU-mandated bio content requirements. 95 E10 gasoline, containing 10% ethanol, reduces fuel-related greenhouse gas emissions by 4-6% compared to conventional gasoline.

Ethanol is produced around the world from a variety of different raw materials, such as sugar cane, sugar beet, and corn. Where Neste Oil sources its ethanol from, and what it is produced from, depends on the market situation.

Neste Oil requires all its ethanol suppliers to operate in accordance with the sustainability criteria of the EU's Renewable Energy Directive and be able to show a verifiable reduction in greenhouse gas emissions and use only land permitted for cultivation purposes.

Broader raw material base

The NExBTL technology developed by Neste Oil is capable of using a very wide range of bio-based inputs without compromising the quality of the renewable fuel produced.

The raw materials used to refine Neste Oil's NExBTL renewable fuels (diesel and aviation fuel) in 2011 comprised the following types of vegetable oil and waste animal fat:

Raw material	Source in 2011	Planned share of procurement in 2011	Actually used in refining in 2011
Crude palm oil	Southeast Asia	46%	54%*
Stearin, palm oil by-product	Southeast Asia	7%	17%
Palm fatty acid distillate (PFAD)	Southeast Asia	28%	5%
Waste fat from the food industry	Europe, Australasia (incl. Australia and New Zealand)	17%	19%
Other (e.g. rapeseed oil, soy oil, camelina oil, and jatropha oil)	Africa, Europe, South and North America, Southeast Asia	2%	5%
Total		100%	100%

* Includes also 2% of RBD palm oil (Refined Bleached Deodorized)

In line with its strategy, Neste Oil extended its raw material base in 2011, adding camelina oil, jatropha oil, and soy oil to its procurement. Relatively small shipments of these materials were sourced for producing NExBTL renewable fuels.

Neste Oil will continue its strategy aimed at further extending its raw material base during 2012, and will carry out work to prepare for adding waste fish oil from fish processors to its procurement program. An extensive environmental review related to this material was carried out in 2011, together with a greenhouse gas calculation that showed that the greenhouse gas emissions released by NExBTL renewable diesel produced from this waste would be over 80% lower over the fuel's entire life cycle compared to fossil fuel emissions.

Significant progress was also made in 2011 on Neste Oil's [long-term alternative inputs in areas such as R&D on algae oil and microbial oil](#). An environmental impact assessment for a [joint venture biorefinery planned by Neste Oil and Stora Enso](#), based on using wood-based waste from the forest products industry, was also completed.

Read more on the [sustainability criteria used for raw material suppliers](#).

[Read more about the renewable raw materials used by Neste Oil](#).

[Read more about Neste Oil's raw material-related R&D](#).

Proportion of certified bio-based raw materials nearly quadrupled

49% of the raw materials used by Neste Oil in 2011 was certified, an increase of 28%-points from 2010. A significant proportion of this increase was the result of increased procurement of certified crude palm oil. 100% of the crude palm oil used in refining by Neste Oil in 2011 was fully traceable back to the plantations where it was produced; and 83% (25%) was either certified by the Roundtable on Sustainable Palm Oil (RSPO) or by the independent EU-approved ISCC certification system (International Sustainability and Carbon Certification). Neste Oil was the world's largest buyer of fully traceable, RSPO-certified palm oil in 2011.

Neste Oil aims at increasing the proportion of certified raw materials in its raw material base by a minimum of 10 %-points in 2012. Of the various inputs used by Neste Oil, only palm oil, stearin, palm fatty acid distillate (PFAD), rapeseed oil, and soy oil were covered by a certification system in 2011. The company's goal is to procure solely certified palm oil by the end of 2015.

No certification system exists for waste animal fat or camelina oil, and it only became possible to certify jatropha oil in 2011 after Neste Oil had already purchased its jatropha oil for the year.

In cases where a raw material-specific certification system does not exist, Neste Oil verifies the sustainability of raw material production and compliance with the EU's Renewable Energy Directive mainly by following a European Commission -approved [sustainability verification scheme](#) (e.g. ISCC) or by means defined by the local legislation in the country to which the fuel is to be delivered.

Raw material	Source	Certified material as a proportion of used in refining	Certification system	Traceable	GHG emission reduction **	GHG emission reduction default values from the EU Renewable Energy Directive (for HVO ***)
Crude palm oil	Southeast Asia	83%	ISCC RSPO*	Yes	47%	26% (65% with methane capture at oil mill)
Stearin, palm oil by-product	Southeast Asia	4%	ISCC RSPO*	Yes	44% (89% if fuel is sold in a country where stearin is classified as	No default value

Sustainability > Sustainability of supply chain > Sustainable bio-based raw material procurement > Proportion of certified bio-based raw materials nearly quadrupled

Raw material	Source	Certified material as a proportion of used in refining	Certification system	Traceable	GHG emission reduction **	GHG emission reduction default values from the EU Renewable Energy Directive (for HVO ***)
					waste or residue)	
Palm fatty acid distillate (PFAD)	Southeast Asia	3%	ISCC RSPO*	Yes	45% (89% if fuel is sold in a country where PFAD is classified as waste or residue)	No default value
Waste animal fat from the food industry	Europe, Australasia (incl. Australia and New Zealand)	–	No dedicated system	Yes	76%	No default value
Other (e.g. rapeseed oil, soy oil, camelina oil, and jatropha oil)	Africa, Europe, South and North America, Southeast Asia	–	Rapeseed oil: ISCC, REDcert* Soy oil: RTRS EU RED, 2BSvs Camelina oil: no dedicated system Jatropha oil: no dedicated system	Yes. The availability of certified and traceable soy oil is very limited.	Rapeseed oil: 49% Soy oil: 45% Camelina oil: 46% Jatropha oil: exact percentage being calculated	Rapeseed oil: 47% (cultivation must take place in EU-approved areas) No default value for others

* The European Commission has not yet approved the RSPO certification system for palm oil or the REDcert certification system for rapeseed oil as complying with the EU's Renewable Energy Directive's

sustainability verification requirements. They are widely approved internationally, however, as a means of verifying sustainability.

** These are average values calculated by Neste Oil for the reduction in greenhouse gas (GHG) emissions for fuel produced at Porvoo and supplied to the European market over their entire life cycle. Factors contributing to this reduction include the methods used to produce the raw materials used, the mode of transport used to ship raw material inputs, refining processes, fuel logistics, and end-use. The calculation method used complies with the EU's Renewable Energy Directive and has been verified by SGS. Read more about Neste Oil's [renewable fuel supply chain and emission reductions](#) over fuels' entire life cycle.

*** HVO = Hydrotreated Vegetable Oil like Neste Oil's NExBTL renewable diesel

Neste Oil uses only 100%-traceable palm oil in fuel refining, and was the world's largest buyer of fully traceable, RSPO-certified palm oil in 2011.

Neste Oil aims to further increase the proportion of certified raw materials it uses by a minimum of 10%-points in 2012, and the company's target is that 100% of its crude palm oil input will be certified by the end of 2015.

Proportion of crude palm oil reduced from 2010

Thanks to the continuous expansion of the company's renewable raw material base, Neste Oil reduced the proportion of crude palm oil that it used to refine renewable fuel by 28%-points since 2010. The proportion of crude palm oil represented 54% of all the renewable raw materials the company used in 2011. When measured in tons, however, the volume of crude palm oil used in refining increased by 29% as the total raw material volume the company used for refining increased from 2010.

World production of palm oil (including stearin by-product and palm fatty acid distillate) rose to 50 million tons in 2011 (46 million tons). Neste Oil's use accounted for a fraction of this, 1.4% (1%). In 2011, 77% (80%) of the world's palm oil was used by food manufacturers, 10% (8%) by the biofuel industry, 8% (7%) by the chemical industry, and the remainder in areas such as energy generation (Source: Oil World, January 2012).

The available volumes of certified sustainable palm oil are increasing rapidly at the moment. The volumes of other certified bio-based raw materials are expected to continue increasing slower also in 2012.

Palm oil sustainability certificates (like RSPO) are granted on a plant-by-plant basis, not to palm oil companies as a whole, which may operate a number of oil pressing plants.

To qualify for certification, a pressing plant must be able to show that its palm oil, which can be produced from inputs sourced from a number of different plantations, has been produced in accordance with the sustainability criteria specified in the relevant certification system.

Neste Oil explored the opportunities for collaboration with oil palm smallholders in 2011.

A large number of the palm oil mills supplying to Neste Oil have either a methane capturing system in place or a system to prevent its formation. Reducing methane emissions at the palm oil mills helps to further improve the greenhouse gas balance of fuels produced from palm oil.

Strict sustainability criteria for suppliers

Neste Oil evaluates the operations and working practices of potential raw material suppliers in detail. Decisions on which suppliers to use are made on the basis of a set of strict supplier selection criteria incorporated into Neste Oil's management system. Suppliers also need to comply with the sustainability principles Neste Oil has established for biofuels.

[Read more on Neste Oil's sustainability principles for biofuels.](#)

As part of these principles, Neste Oil requires, for example, that suppliers are committed to sustainable development, continuously improving their operational health, safety, and environment performance, and to respecting human rights, promoting occupational safety, and acting in accordance with good business ethics.

In line with its criteria, Neste Oil requires that all its renewable raw material suppliers must also be committed to international certification. Preference is given to certified raw materials as a means of ensuring that sustainable practices are used in producing the raw materials that Neste Oil buys.

Prior to taking a decision on a supplier, Neste Oil always carries out a due diligence study to clarify areas such as the current level of a supplier's HSSE performance and their plans to improve their performance. Neste Oil either carries out an audit itself or commissions an impartial, third-party audit of the supplier to determine whether they operate responsibly and sustainably and how they are implementing their development plans in practice. During 2011, impartial, third party specialists audited 19 of the company's raw material suppliers in connection to certification procedures. In respect of its own audits, Neste Oil uses the criteria that it has developed as part of its sustainability verification system. The system meets the requirements of the EU's Renewable Energy Directive and is expected to receive approval by the European Commission in the near future. Neste Oil also includes a sustainability clause in all the commercial contracts that it signs with its renewable raw material suppliers.

NGOs continue to be critical of palm oil use

A few non-governmental organizations continued to be critical of Neste Oil's use of palm oil during 2011. This criticism was mainly linked to the company's increased use of renewable raw materials, including palm oil, resulting from its higher output of renewable fuels.

Read more about [Neste Oil's raw material procurement](#), the [high proportion of certified inputs](#), and the [relatively small proportion of the world's palm oil used by Neste Oil](#).

While it was criticized in some quarters, Neste Oil also received recognition for the long-term work that it has done to improve international sustainability standards, particularly those related to palm oil production and procurement. Neste Oil is committed to continuing to enhance the sustainability of its operations and promote the further development and adoption of common sustainability standards in collaboration with its stakeholders. Neste Oil aims to extend this collaboration during 2012.

“Stop using vegetable oil in the biofuels industry”

Current biofuel production around the world relies on raw materials that are available in commercial quantities, primarily food-grade or non-food vegetable oil. New, non-food raw materials are not yet available in sufficient quantities, and developing these types of inputs takes time. Microbial and algae oil, for example, are only expected to be commercially available in 5-10 years' time.

The question, therefore, is: should biofuel production and usage be postponed for a number of years until sufficient quantities of these new raw materials are available? Neste Oil's view is: no.

Postponing the production and use of biofuels in this way would mean that today's targets for reducing traffic- and transport-related greenhouse gas emissions could not be met and that one of the key tools for combating climate change would be lost.

Neste Oil believes that the only sensible solution is to continue the use of sustainably produced vegetable oil as a raw material and to extend sustainability criteria – covering issues such as land use – to legislation covering all vegetable oil users. Neste Oil also remains committed to investing in the development of new raw materials to ensure that they can be used in producing biofuels as soon as possible.

Sustainable land use

NGOs have expressed their concerns that the volume of palm oil purchased by Neste Oil could lead to the cultivation of oil-producing crops being extended onto new land. Expanded cultivation could, the organizations argue, threaten the world's rainforests or the cultivation of food crops, either directly or indirectly.

Current legislation is very specific on land use issues related to the raw materials used in producing biofuels. Various certification programs also place very strict demands on this type of land use. To ensure that it can produce renewable fuel complying with EU requirements and those elsewhere, Neste Oil only sources raw materials produced on land that complies with or exceeds the requirements established by both legislation and certification programs.

Legislation and certification programs forbid, for example, the procurement of raw materials that have been produced on land that has been cleared since the beginning of 2008:

- From rainforest
- From conservation areas and game reserves
- From marshland that has been drained or burnt to make it suitable for cultivation.

If these conditions are not met, it would be difficult to ensure that the minimum requirement for biofuels to reduce greenhouse gas emissions by at least 35% over their entire lifecycle compared to fossil could be met.

Current legislation does not yet define how biofuel producers should take account of the impact of [indirect land use change \(ILUC\)](#). Neste Oil monitors legislative developments closely to ensure that it can respond to any changes in legislation and the possible introduction of requirements related to land use. It is also working to extend its understanding of the indirect impact of its raw material procurement program.

Neste Oil receives the Public Eye Award

Neste Oil was selected for the annual Public Eye Award in January 2011 in an online vote organized by Berne Declaration and Greenpeace as the 'most evil corporation of the year' from five candidates chosen by the organizers. The choice of Neste Oil was based on the company's use of palm oil in producing renewable diesel. The jury of professionals that took part in the Award selected a mining company as the recipient rather than Neste Oil.

Neste Oil believes that the outcome of the online vote did not reflect the true nature of the situation and issued its [response in a press release](#), and replied to emails and enquiries from stakeholders on the subject of the Award. Neste Oil's Senior Vice President, Sustainability and HSSE, Simo Honkanen, officially received the Public Eye Award on the company's behalf in April 2011 at Neste Oil's office in Geneva – stating that the Award had resulted in some positive debate in the media and among the company's employees and other Neste Oil stakeholders, and had offered Neste Oil the opportunity to correct misunderstandings and misconceptions about its operations.

Palm oil producer IOI investigated by the RSPO

The Roundtable on Sustainable Palm Oil (RSPO) launched an investigation through its complaints investigation panel in 2011 into complaints made against the Malaysian palm oil producer, IOI Group, by various local organizations and NGOs. The investigation related to IOI activities linked to a land dispute in the Malaysian part of Borneo and possible environmental problems in Ketapang in southwest Borneo, which is part of Indonesia.

IOI is one of Neste Oil's palm oil suppliers. Based on its traceability documentation, Neste Oil was able to confirm at the very start of the investigation that it had not sourced any palm oil from the areas concerned. Neste Oil was not a party to the investigation at any stage and was not involved in debate related to it. The sustainability certificates for all the palm oil procured from IOI were found to be valid and in compliance with the sustainability criteria of the EU's Renewable Energy Directive.

Some commentators concluded from the public debate that the RSPO had declared IOI's sustainability certificates null and void following the start of the investigation. What the RSPO did do, in fact, was to halt the company's ongoing certification processes; IOI's previously certified plantations and pressing plants were unaffected.

According to a [press release published by the RSPO in September](#), the parties involved committed themselves to working together to find solutions to the land dispute. The RSPO also stated that it had not found any evidence of the environmental problems mentioned in the complaint; and IOI promised to improve its operations to ensure full compliance with RSPO requirements.

Neste Oil sees the RSPO's role in solving disputes of this sort as important. The RSPO complaint investigation procedure is transparent and gives all sides in a dispute an equal chance to put their case. Neste Oil will continue to monitor the IOI case closely and plans to continue working with IOI.

From confrontation to a more constructive cooperation

Neste Oil increased its cooperation with NGOs during 2011 and launched a [Global NGO Program](#) aimed at winning these organizations' support for Neste Oil's sustainability work and increasing their understanding of the company's operations.

As part of this closer cooperation and to promote greater transparency, Neste Oil invited a representative from Greenpeace to events held for personnel, the media, investors, and analysts on the company's Interim Report in October 2011. This was the first time that a Greenpeace representative explained the organization's concerns and expectations on Neste Oil's use of palm oil directly to employees in Finland. Following the employee event, nearly 50 questions for Greenpeace were collected from personnel and given to the Greenpeace representative, who promised that they would be replied to.

Social responsibility

Neste Oil's approach to social sustainability is based on close and constructive cooperation with all the company's stakeholders. Social sustainability covers both the direct and indirect impact the company has on its stakeholders.

Neste Oil promotes the principles contained in the central articles of the United Nations' Declaration of Human Rights and the central conventions of the International Labour Organization (ILO). These international agreements form the foundation for the principles and practices followed in respect of human and labor rights. This respect for human and labor rights also extends to Neste Oil's raw material suppliers and is integrated into the criteria used when sourcing renewable raw materials.

Neste Oil strives to be a good corporate citizen in all the countries that it operates in and complies with all applicable national and international laws and regulations, international agreements, and generally accepted corporate governance practices. The company's Code of Conduct forbids involvement in bribery or corruption, and Neste Oil expects the same of its suppliers, customers, and business partners.

Neste Oil's respect for human and labor rights also extends to the company's raw material suppliers and is integrated into the criteria used when sourcing renewable raw materials.

Human rights and equality

Neste Oil offers its personnel a healthy and safe workplace in which to develop their skills and capabilities. The company selects partners that are committed to the same principles. All forms of harassment, discrimination, child labor, forced labor, and other forms of exploitation are strictly forbidden.

Neste Oil treats all its employees, customers, suppliers, and other partners fairly and equally, regardless of gender, nationality, age, religious beliefs, political convictions, and other similar factors. As a company, Neste Oil does not participate in political or religious activity and provides no financial support for such activities.

Neste Oil is committed to respecting human rights in all aspects of its operations. The company recognizes the economic and cultural needs of native populations, their traditional way of life, and their legal entitlement to their land. This particularly covers those geographical areas from which Neste Oil sources the inputs for its renewable fuel production. Neste Oil continued to carry out due diligence reviews in respect of all its suppliers of renewable raw materials, and as part of this, a thorough assessment was made of human rights issues, including questions such as the use of child and forced labor.

[Read more on equality and diversity.](#)

Neste Oil continued to support the not-for-profit Borneo Child Aid organization during 2011, for the fourth year in succession.

The company's donation in 2011 guaranteed comprehensive education for 265 children aged between 6 and 14 of employees working on oil palm plantations in Sabah, Malaysia.

Managing social responsibility

Neste Oil's values – excellence, responsibility, innovation, and cooperation – provide the foundation for its management of social sustainability. The latter also underpin the policies integrated into the Group's management system and the principles covering the management of equality, procurement, safety, sustainable development, and HSSE in particular, which are supplemented by the company's Code of Conduct. Communication and training are used to bring these principles closer to employees' everyday work. These principles also set a clear target level for developing Neste Oil's social sustainability and its role as part of ongoing operations.

Responsibility for managing social sustainability continues to be shared between a number of people and units, as in previous years. The Group's Senior Vice President, Human Resources is responsible for [developing the company's leadership](#) and [personnel-related matters](#); the HSSE organization is responsible for [product and safety-related matters](#); and the Senior Vice President, Communications, Marketing and Public Affairs for [these aspects of stakeholder engagement](#). Many others are also involved. More detailed targets cover every area of responsibility.

Neste Oil observes a number of principles and guidelines to prevent and deal with misconduct. Compliance with these is monitored by [Internal Audit](#).

Company Values
excellence, responsibility,
innovation, and cooperation

Stakeholder engagement

By actively engaging with its stakeholders, Neste Oil aims to promote its strategic goals and sustainable development generally, as well as contribute to the development of a business environment favorable for its long-term development. Particular emphasis during 2011 was given to involving personnel in updating the company's strategy, improving Neste Oil's customer focus, and engaging society to encourage the uptake of renewable fuels and promote greater sustainability in Europe and the US.

Neste Oil has numerous stakeholders, all of whom have their own expectations about the company. These can sometimes conflict with each other, which can be particularly challenging for Neste Oil. To resolve these and other challenges, Neste Oil engages in ongoing and active dialogue with all its key stakeholders with the aim of finding an equitable balance between different sets of expectations. Open and frank dialogue plays a central role in increasing stakeholders' understanding of the decisions and actions Neste Oil takes and the background behind them.

Neste Oil's stakeholder work, such as [managing social sustainability](#), is split between a number of functions and units. Although no detailed annual plan is currently used for this work, the plan is to introduce one in the future.

Neste Oil changed and strengthened its public affairs organization in 2011 to combine activities into a more effective entity within the Communications, Marketing and Public Affairs function. The organization was also strengthened by recruiting a new Director, Public Affairs, who joined the company at the beginning of 2012.

Neste Oil also introduced an internal Stakeholder Tool database to manage and share information between everyone at the company involved in stakeholder work.

[Read more about stakeholders expectations and Neste Oil's actions to meet these.](#)

What we did and achieved in 2011:

- We supported decision-making and implementation through discussions with local officials.
- We met the secretaries and chairmen of Finland's parliamentary parties, Finland's MEPs, and municipal leaders in key locations. Around 50 meetings were held in 2011.

Goals for 2012:

- Continue monitoring the EU's [Renewable Energy Directive](#) and associated legislation, as well as monitoring and supporting the implementation of the Fuel Quality Directive in member states.
- Meet and promote discussion with EU parliamentarians.
- Continue promoting Neste Oil's role as a source of specialist expertise during the drafting of new legislation.
- Support and provide expert advice on the drafting of [ILUC-related legislation](#). Neste Oil's goal here is to see the creation of a common body of legislation covering all activities involving land use.
- Aim for closer cooperation with NGOs and increase our dialogue with these organizations.

Neste Oil engages in ongoing and active dialogue with all its key stakeholders with the aim of finding an equitable balance between different sets of expectations.

Neste Oil's key stakeholders

The accompanying table details Neste Oil's most important stakeholders, the expectations these groups have, and the measures Neste Oil took during 2011 to meet these expectations.

Stakeholders' expectations

Stakeholder	Expectations	Actions in 2011
Customers	High-quality, reliable products and services, secure supplies, professionalism, responsible operations, and positive, trustworthy business relationships. Corporate customers in particular expect close contacts and efficient problem-solving.	Traffic services for motorists; customer events and seminars; trade fairs and other events; development of more efficient customer relationship management tools; acquiring and contracting new customers; strengthening ties with existing customers; arranging station dealer and regional meetings for station dealers; and arranging a visit for Direct Sales' industrial customers to the Porvoo refinery.
Personnel	Good management, fair and equitable treatment, career development opportunities, openness and collaboration between different parts of the organization, trustworthiness, responsibility, quality, customer care.	Updated HR policy; management and leadership development; performance and development discussions; professional development; job rotation; quarterly performance updates; employee magazine; innovation system; employee satisfaction survey follow-up; info sessions on varied subjects; information on Neste Oil's Code of Conduct; communicating the company's updated vision and strategy; strategy dialogue and strategy presentations; manager events; strategy get-togethers.
Shareholders and investors	Dividends, increase in shareholder value, reliable information on the company and its future prospects, transparency, willingness to take on sustainability and act as a pioneer.	Meetings with investors and analysts; AGM; Capital Markets Day; press conferences; stock exchange and press releases; IR section of the Web site; teleconferences; webcasts.
Society	Compliance with legislation and statutory reporting, expertise on fuels and how they are produced and how they should be used.	Collaboration with and reporting to the authorities at international, national, and local level; expert position papers and other

Stakeholder	Expectations	Actions in 2011
		involvement in public debate; public statements.
People living and working near Neste Oil plants	Honest, open, and topical information on plant operations and incidents; constant monitoring of plants' environmental impact. Acting as a good corporate citizen in the local community.	Open door days; local company newsletters at refinery sites (Porvoo and Naantali); local environmental reporting at refinery sites (Porvoo and Naantali); updates on incidents; donations and assistance to local voluntary-based work with young people; scholarship donations to schools.
Suppliers of goods and services	Reasonable prices, reliable source of revenue and business development opportunities, commitment, partnerships.	Systematic development of procurement processes and principles; support for developing operations (such as certification); meetings with journalists, visits, and other events; trade fairs; Web site; Extranet.
Organizations	Active participation and commitment to common goals.	Memberships; participation in work groups; board work; conferences and seminars.
Universities and research institutions	Careers, internship and thesis opportunities for students, opportunity to commercialize research results, research contracts.	Joint R&D projects; participation in research projects; internships and graduate thesis opportunities.
Students and job applicants	Financial security, challenging jobs, international opportunities, dialogue with international customers and colleagues, good references for future career development.	Jobs and summer jobs; internships; graduate thesis opportunities; visits to sites and colleges; trade fairs and other events; collaboration with ChemistryLab Gadolin and students at Aalto University; studies on Neste Oil's profile as an employer.
Media	Reliable, sufficient, and up-to-date information on the company's operations. A management and key persons that are easily approachable and open about the company's business.	Stock exchange and press releases; press conferences; events; visits to production sites and a palm oil plantation; interviews and Q&As.

Stakeholder Advisory Panel established

Following the abolishment of the Supervisory Board, a new Stakeholder Advisory Panel was established in April 2011 to promote dialogue between the company and its stakeholders in matters such as Neste Oil's operations, business development, and changes in its operating environment.

The following served as members of the Stakeholder Advisory Panel in 2011: Esko Ahonen, Timo Heinonen, Miapetra Kumpula-Natri, Markus Mustajärvi, Petteri Orpo, Kimmo Tiilikainen (Chairman), Oras Tynkkynen, and Anne-Mari Virolainen. All except Esko Ahonen are Finnish MPs. Three representatives selected by Neste Oil's personnel also sit on the Panel, which met twice during the year.

[Read more about the Stakeholder Advisory Panel at company's website.](#)

Measuring stakeholder engagement

The success of Neste Oil's stakeholder work is measured regularly and on a long-term basis through various studies and feedback questionnaires. Neste Oil's own Market Research Team is responsible for implementing these surveys, particularly in respect of Oil Retail's Finnish operations and the development of Neste Oil's brand profile. Other stakeholder studies and questionnaires are carried out as needed across the company. The results of these are used to guide future operations and act as yardsticks for evaluating the success of past work.

Neste Oil also uses annual surveys to study employee satisfaction and that of summer employees, as well as students' perceptions of the company, Neste Oil's image as an employer, developments in the workplace, and the hopes and opinions of private and corporate customers in respect of Neste Oil's products and services, as well as other aspects of the company's operations in Finland. The views of people living close to the company's plants in Finland are surveyed every other year.

The company's most extensive stakeholder survey is the Neste Oil brand study, which is carried out annually and covers representatives of public, investors, media, politicians, customers and personnel. The satisfaction of Neste Oil's international corporate customers is surveyed on a case-by-case basis. No international stakeholder surveys were carried out during 2011.

[Read more about stakeholders expectations.](#)

Communication and cooperation

Neste Oil's Web site (www.nesteoil.com) is the company's most important channel for communicating topical information to all its stakeholders. The Annual Sustainability Report also plays a central role in communicating information, particularly to investors, customers, and personnel.

Communication with personnel takes place on a very comprehensive basis, via managers and supervisors, the company's Intranet and employee magazine, and info sessions. A newsletter for managers was introduced at the end of 2011 to communicate information on things such as updated company guidelines and other material.

Close employer-employee cooperation is promoted through numerous official bodies and meetings. Greater transparency in communication and employer-employee cooperation was promoted in a number of ways during 2011, through things such as joint seminars on wellbeing at work. Cooperation with personnel in Rotterdam was kicked off in spring 2010 in accordance with local legislation by setting up an official framework to promote mutual dialogue.

Neste Oil's Corporate Management-Employee Group reviews topical matters that affect all of the company's employees. The Group's Senior Vice President, Human Resources acts as Chairman, and the Council meets regularly around six times a year. The Group drafts presentations for the Finnish Management-Employee Group, which discusses Group-related matters with senior management. This cooperative framework has been used to increase transparency and improve dialogue and collaboration and foster employees' potential to make their voice heard within the company.

Neste Oil personnel also take part in committee work coordinated by industry organizations, such as the Chemical Industry Federation of Finland's Labor Market and Training Committee. Personnel also manage Neste Oil's Personnel Fund and are represented on the boards of the Kilpilahti Sickness Fund and Enerkem.

Dialogue with customers, suppliers of goods and services, and society in general takes place primarily through face-to-face meetings and various events.

Improving Neste Oil's customer focus

Customer focus is one of the company's [Value Creation Programs](#). Joint, long-term targets for improving Neste Oil's customer focus will be drawn up in 2012, together with a list of the measures to be used to achieve these targets. The goal is not only to increase sales effectiveness and achieve better key customer relationship management, but also to improve the company's sales tools and the training given to sales personnel. Customer issues will also be taken into account when developing logistics and IT system solutions.

As part of Neste Oil's leadership development program, around 130 members of senior and middle management and specialist personnel met at least one of the company's consumer or corporate customer or partners, or at least one NGO, state agency, or other official organization in Finland and overseas during 2011. The main goal of these face-to-face meetings was to familiarize personnel with some of the company's important stakeholders that the people concerned would not normally meet as part of their job. The aim was to listen to these stakeholders and gain a better understanding of their needs and expectations. Summaries of meetings were discussed as part of the program and forwarded to senior management.

[Read more about training for senior management.](#)

Public affairs and advocacy

Renewable fuels continued to play a significant role in Neste Oil's public affairs and advocacy interaction with society during 2011. Neste Oil focused on developing cooperation with various stakeholders in this area and taking an active part in debate, both in Finland and internationally.

The goal of Neste Oil's social engagement during 2012 will continue to be to support legislators and other decision-makers in their work by making the company's specialist expertise and knowledge available on industry-related matters. Neste Oil will continue to monitor and support the EU's Renewable Energy Directive and related sustainability legislation, as well as the implementation of the EU's Fuel Quality Directive in member states. Neste Oil will also aim to meet and engage EU parliamentarians in dialogue; and wants to be involved in promoting common legislation on indirect land use change (ILUC) as it relates to all areas of industry and other activity.

Neste Oil's active dialogue with stakeholders provides the company with valuable information on the direction in which developments in society are moving and input for the company's ongoing efforts to develop its offering to provide the maximum added value to stakeholders and society generally, today and into the future.

Advocacy in Finland

Neste Oil continued to engage society actively in Finland during 2011 and regularly discussed energy-related challenges with ministries involved in drafting legislation in the field, parliamentary parties, local decision-makers, and key officials. These discussions covered a number of important areas for Neste Oil, including the following topics:

1. Neste Oil and the oil industry support speeding up the incorporation of renewable energy into fuels. Achieving a significant level of content (20%) in traffic, transport, and heating fuels by 2020 will require systematic legislation to make large-scale industrial production of these fuels possible.
2. Climate change is a global problem that calls for global solutions. Ensuring that the raw materials needed for renewable fuel production are available in sufficient quantities in Europe will require imports from elsewhere, as in the case of fossil oil. Renewable fuels can improve countries' security of supply.
3. Emission reduction targets should be defined through legislative means. Ensuring that legislation is neutral in respect of both technology and raw material inputs is the best way of ensuring that the best solutions can be developed.
4. Neste Oil is committed to continually improving the quality of its fuels. Fuel quality should not be compromised when increasing the use of biofuels. High quality standards will help develop cleaner engine technology.
5. Emissions-based fuel taxes (CO₂ and ambient emissions) represent a good solution.
6. The definition of 'double-booked waste' – such as forest harvesting waste, vegetable oil sidestreams, and waste fat produced by the food industry – should be clear and unambiguous.
7. The impact of indirect land use change (ILUC) affects all raw material production. Legislation in this area should not solely focus on the energy-related use of raw materials. Significant uncertainties affect current ILUC models, and scientific base needs to be strengthened before new regulation is introduced.
8. Combustion and hybrid engines will continue to be the key source of power in traffic and transport for many years. As a result, developing cleaner fuels for these engines is the most efficient way of reducing traffic- and transport-related emissions in the short term. Developing other solutions to a stage at which they will be capable of offering a true alternative will take a long time, and even then they are likely to be suitable primarily for cars.
9. Support for R&D projects and production plants in the renewable fuels area should be continued.
10. Oil spill containment capabilities need to be improved and funded through the national budget.

In addition to dialogue with legislators and decision-makers, Neste Oil also highlighted these issues in its various contributions to public debate on the industry in Finland.

Advocacy in Europe and the US

The EU's Renewable Energy Directive (RED) required all member states to have national regulations in place to implement the directive as of the beginning of 2011, which resulted in intense legislative work in many EU countries. Neste Oil took an active part in debate and discussion on the subject in its major market areas in Europe during 2011. Similar stakeholder initiatives linked to renewable energy legislation also took place in North America, where operations in line with the Renewable Fuel Standard (RFS2) were introduced in 2010.

Many EU countries will continue work on drafting and implementing sustainability legislation linked to the Renewable Energy Directive during 2012. Sustainability legislation is intended to provide an official framework for verifying that biofuels are produced sustainably. Neste Oil's goal is to promote the introduction of harmonized operating models across the EU.

Engaging the EU

Neste Oil takes an active part in dialogue and other forms of engagement related to the development of EU-level legislation. The aim of this is to encourage the development of a positive business environment and profile Neste Oil as a pioneer in its field and a company that can contribute true added value to the legislative process. Neste Oil generates added value for legislative work through its R&D and the expertise that it can offer covering the entire product chain. In line with its proactive approach and to ensure the transparency of its actions, Neste Oil is registered with European Commission's Transparency Register.

The most important subjects of discussion at EU level for Neste Oil in 2011 related to the Renewable Energy Directive and the development of sustainability verification systems.

Evaluation of ILUC impact yet to be fully clarified

Neste Oil has closely monitored EU-level debate on how issues related to [indirect land use change](#) (ILUC) should be integrated into legislation on renewable energy production. The company has taken part in a number of seminars and panel discussions on this area of legislation and presented its views and position on the subject.

Development of sustainability verification system is nearing completion

Neste Oil continued development work during 2011 on its [voluntary scheme](#) designed to verify the sustainability of its operations in accordance with the EU's Renewable Energy Directive during 2011. Neste Oil has consistently followed the procedures specified in the system in its operations – and has certified NExBTL renewable diesel production at its Porvoo, Singapore, and Rotterdam refineries in accordance with the criteria of the ISCC system approved by the European Commission, using the guidelines and procedures of its own verification system, which has yet to receive Commission approval. This is designed to show that the system meets the requirements of the Renewable Energy Directive and can be fully introduced immediately Commission approval is received.

Following Commission approval, any organization producing renewable fuel will be able to use the system developed by Neste Oil to show that its fuel production meets the strict sustainability requirements associated with the EU's Renewable Energy Directive in areas such as greenhouse gas emissions, traceability, and land use.

[Read more about sustainability legislation and recent development.](#)

Participation in organizations and joint projects

Neste Oil also takes part in the development of the energy sector by working through the industry's key organizations. This type of cooperation continued, both in Finland and internationally, during 2011. Neste Oil took an active role in the boards or committees of the following organizations amongst others:

- [ASFE](#) (Alliance for Synthetic Fuels in Europe)
- [CONCAWE](#), the oil companies' European association for environment, health and safety in oil refining
- [EBB](#), European Biofuels Board
- [EBTP](#) (European Biofuels Technology Platform)
- [Europia](#) (European Petroleum Industry Association)
- [Chemical Industry Federation of Finland](#)
- [Roundtable on Sustainable Biofuels \(RSB\)](#)
- [Roundtable on Sustainable Palm Oil \(RSPO\)](#)
- [Round Table on Responsible Soy \(RTRS\)](#)
- Finnish Interest Representatives Forum (member since 2011)
- [Finnish Petroleum Federation](#).

In addition to initiatives promoted by the above organizations, Neste Oil has also committed itself to various other joint projects aimed at promoting sustainable developing, including:

- [Responsible Care](#) (since 1992)
- [Responsible Care Global Charter](#) (since 2007)
- An international coalition for a moratorium on rainforest destruction
- [2°C Challenge Communiqué](#), aimed at promoting international work to combat climate change
- [Tanker Safety Project](#) an initiative aimed at improving marine safety in the Gulf of Finland (since 2010)
- [European Aviation Biofuels Flightpath](#), an initiative aimed at increasing annual aviation biofuel usage to 2 million t/a by 2020 (since 2011).

Global IGO and NGO programs

Neste Oil launched a global IGO (Intergovernmental Organization) program in 2011 aimed at promoting dialogue primarily with UN organizations active on the global arena. The goal of the new IGO program is to develop new areas of potential cooperation with these influential organizations and develop the sustainability of Neste Oil's operations with their support, particularly in the countries where Neste Oil sources its renewable raw materials. Neste Oil wants to find partners that can enhance its understanding of the local conditions in these countries and with which it can launch collaborative initiatives benefiting the local communities.

In addition to the IGO program, Neste Oil also launched a global NGO program in 2011. The main goal of this initiative is to promote cooperation and discussion with non-governmental organizations, share knowledge and expertise, and improve awareness of Neste Oil's operations and its work in the area of sustainability.

Sponsorship and charity work

Neste Oil supports the wellbeing of local communities and stakeholders in the countries where it operates through sponsorship and charity work. A total of EUR 1 million (1 million) was spent on charity work and sponsorship in 2011.

Neste Oil has a sponsorship program covering the entire Group managed by the Marketing Unit, and carefully selects international, national, and local initiatives. Neste Oil does not sponsor political parties or party-coordinated projects, religious movements or projects linked to such movements, or company clubs.

In 2011, the company launched a new sponsoring model which defined the sponsorship targets for each stakeholder group. The impacts at sponsoring is measured by conducting studies to evaluate the feasibility and effectiveness of sponsoring, to assess brand value and by analyzing visibility in the media.

Neste Oil sponsored the following activities and charities in 2011:

At Group level

- [Neste Oil Rally](#)
- Blues ice hockey team
- Kärpät ice hockey team
- [Millennium Technology Prize](#), the world's biggest technology prize
- Superperis, the top division of Finland's national sport, pesäpallo, a game similar to baseball
- [Borneo Child Aid](#) (Humana Child Aid Society Sabah), which provides educational opportunities to children living on plantations in Borneo
- ChemistryLab Gadolin, an action-based learning environment for schoolchildren studying chemistry
- [CMI–Crisis Management Initiative](#)
- Christmas donation 2011: Save the Children, Red Cross Disaster Relief Fund, John Nurminen Foundation's Tanker Safety project
- Lastenklunikoiden kummit, an organization dedicated to helping the patients of children's clinics at Finland's university hospitals
- [Cleantech Finland, a network of top Finnish cleantech companies](#)
- Operaatio lentävä pyörätuoli, an initiative designed to provide activities for physically disabled and other disabled young people

At local level

- [Naantali Music Festival](#)
- [Avanti! Chamber Orchestra](#)
- Various support to the arts, sport, environmental activities and community projects.
- Scholarships for students in Turku, Raisio, and Naantali
- Christmas charity donations made by Neste Oil personnel.
- INKUBIO RY, Aalto University's Association of Bioinformation Technology Students
- Process Technology Club
- Eastern Uusimaa Educational Association, 50th anniversary
- Finnish Laboratory Technicians Association, 40th anniversary
- Christmas collection for war veterans in Southwest Finland
- Kotimäki School, direct action day
- Tampere University of Applied Science.

Neste Oil invested EUR 5 million in 2011 in GreenStream's Climate Opportunity Fund, which finances projects aimed at reducing CO2 emissions in developing countries.

Personnel

Neste Oil provided employment to an average of 4,926 (5,030) people in Finland and overseas in 2011. As in 2010, the company focused on the systematic development of leadership, management, and wellbeing at work during the year. The international growth of the Neste Oil workforce typical of recent years slowed somewhat. Personnel were employed in a total of 14 countries as of the end of the year.

No major changes took place in Neste Oil's HR management compared to 2010. The creation of a 'winning culture' – based on operational safety, engagement, performance, and being an attractive employer – within the company was defined as a long-term HR management goal as part of the annual update of Neste Oil's strategy.

In line with company practice, HR management guidelines are reviewed and updated regularly, and a number of areas were reviewed during 2011, including the company's HR policy, which provides the foundation for the more detailed principles and guidelines covering HR management. The key elements of the policy remained unchanged, although some content was brought up to date. The updated policy was published in December 2011.

What we did and achieved in 2011:

- Developing leadership and corporate culture, incl. [leadership development programs](#).
- Long-term work on equality and promoting equality in the workplace.
- Developing [wellbeing at work](#).

Goals for 2012

- Continue promoting coaching and [engaging leadership culture](#) and high performance management.
- Continue strengthening [Neste Oil's image as an attractive employer](#).
- Continue focusing on developing employees' [wellbeing at work](#).

79% of respondents to Neste Oil's annual employee satisfaction survey rated the management skills of their superior positively.

Personnel structure

Neste Oil employed an average of 4,926 people in 14 countries in 2011. As in previous years, the majority of employees, 70.8% (70.4%), worked in Finland, where 3,418 (3,431) were employed as of the end of the year. Neste Oil is the second-largest employer in Porvoo and Naantali, where its Finnish refineries are located, immediately after the local municipal authorities.

No significant changes took place in Neste Oil's personnel structure during 2011 compared to recent years. The majority of employees, 96.0% (96.4%), are employed under permanent contracts. Somewhat over half of employees are men, 67.7% (69.5%), as is typical of the industry. Nearly half of employees have either a technical or natural sciences qualification. The average age of employees has remained around 40, being 41,7 years in 2011 (41,5).

	2011	2010	2009
Number of employees, average	4,926	5,030	5,286
Number of employees at the end of the year	4,825	4,874	5,092
Proportion of employees by country at the end of the year (%)			
Finland	70.8	70.4	72.0
Russia	18.8	17.9	18.3
Singapore	2.5	2.4	2.0
The Netherlands	2.2	2.4	1.0
Others ¹⁾	5.6	6.9	6.7
Type of employment contract at the end of year (%)			
Permanent	96.0	96.4	95.1
Temporary	4.0	3.6	4.9
Full-time ²⁾	97.9	97.4	97.4
Part-time ²⁾	2.1	2.6	2.6
Gender ratio at the end of the year (%)³⁾			
Men	67.7	69.5	68.9
Women	32.3	30.5	31.1

¹⁾ Bahrain, Belgium, Canada, Estonia, Latvia, Lithuania, Poland, Sweden, Switzerland, and the US.

²⁾ The figure for full-time and part-time personnel in 2010 and 2009 only cover Finland.

³⁾ The gender ratio for 2009 does not include temporary employees.

[Read more about equality and diversity.](#)

1,4% of employees (1.3%) have a doctorate or licentiate. Half of these (35) work in different types of R&D and engineering positions in the Technology and Strategy function.

Personnel structure by country

The number of personnel employed in the company's newest operation countries has risen in recent years, primarily as a result of the growth projects in Singapore and Rotterdam, where a total of 230 (233) Neste Oil personnel, equivalent to 4.8% of all employees, were employed as of the end of 2011. The size of Neste Oil's sales unit in Geneva has also increased, and the unit employed 48 (40) people in 2011.

The pace of international expansion slowed during 2011, because both Singapore and Rotterdam refineries are now operating normally following their start-up, and each employs something over 100 employees, mainly recruited from local residents or people living in nearby areas. Following the start-up of the new base oil plant in Bahrain in the fall of 2011, operations there are now the responsibility of Neste Oil's local partner, Bapco. As a result, the number of Neste Oil personnel at the site remained below 10 technical experts during the year.

Russia remained the second-largest country in terms of Neste Oil personnel, thanks to the large number of people employed by the service station chain there. Service station personnel in Finland are not employed by Neste Oil.

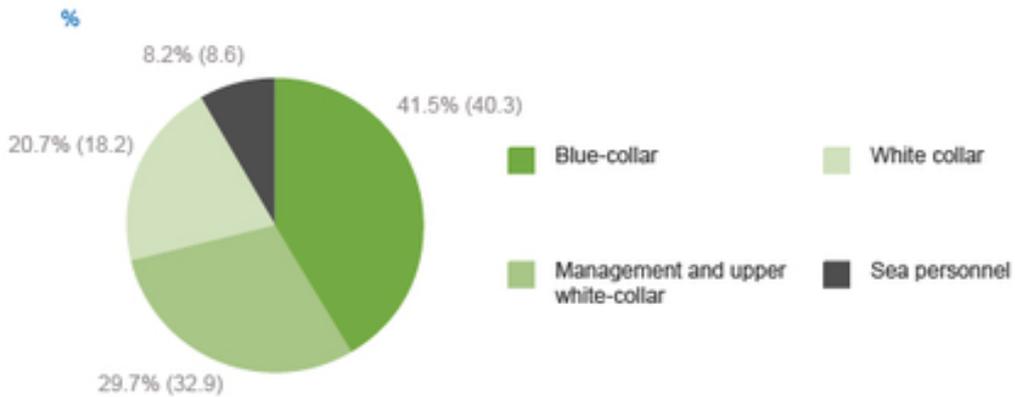
In August 2011 over 60 employees transferred to new employers following the divestment of Neste Oil's Estonian subsidiary, AS Reola Gaas, to the Alexela company in Estonia. The sale of the polyalphaolefins (PAO) plant and associated quality control laboratory and maintenance operations in Belgium to US-owned Chevron Phillips Chemical International NV in December 2011.

Number of overseas assignments decreased

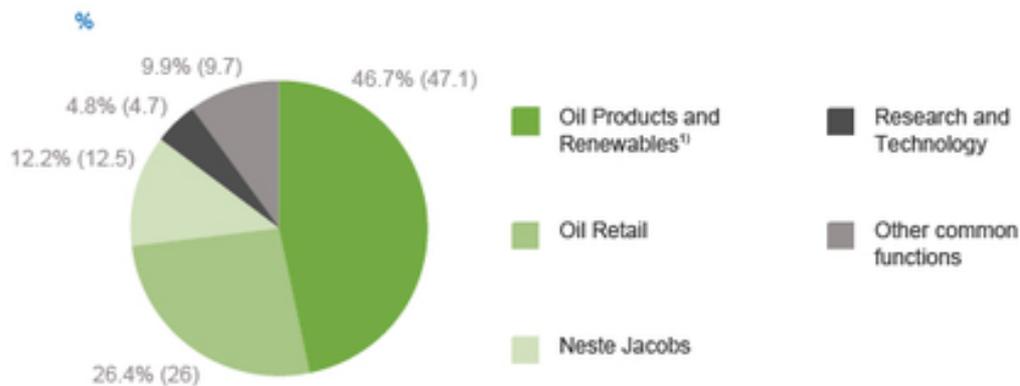
The number of people on overseas assignments during 2011 remained close to the number in 2010. Neste Oil had personnel on overseas assignments in 10 countries during 2011: the Netherlands, Singapore, Switzerland, Bahrain, Russia, Belgium, United Arab Emirates, Estonia, Canada, and the US. The majority of people still overseas will return to Finland during 2012, which is expected to reduce the overall number of overseas assignments. These will be replaced in part over the coming years by job rotation and working trips.

Personnel graphs

Personnel by personnel group as of 31 December 2011



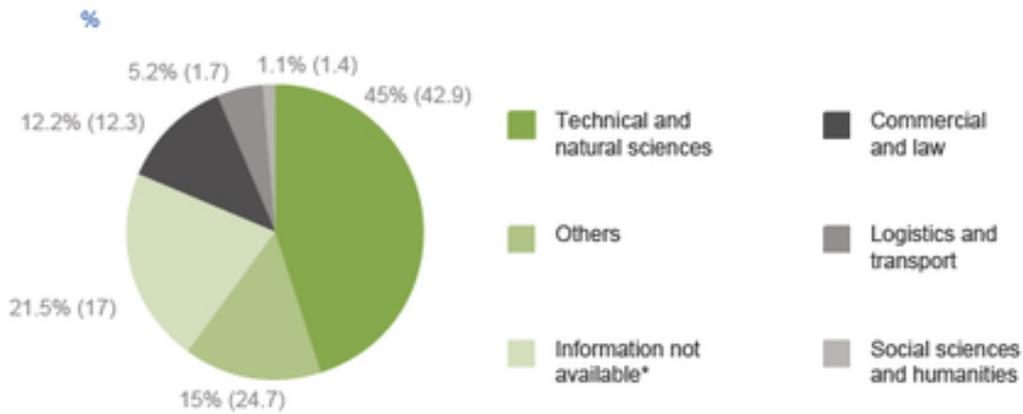
Personnel by segment as of 31 December 2011



¹⁾ Oil Products and Renewables includes Production & Logistics.

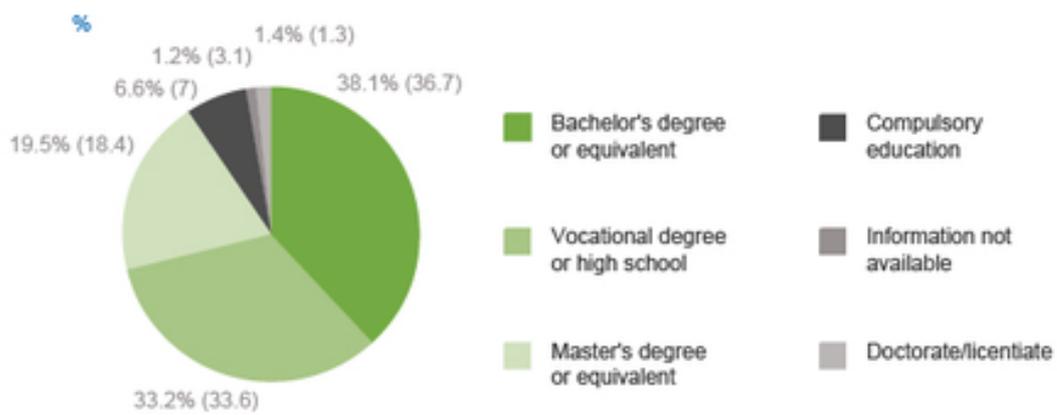
The reporting structure has been updated and the comparative data for 2010 has been restated to match the new structure.

Educational background of employees as of 31 December 2011



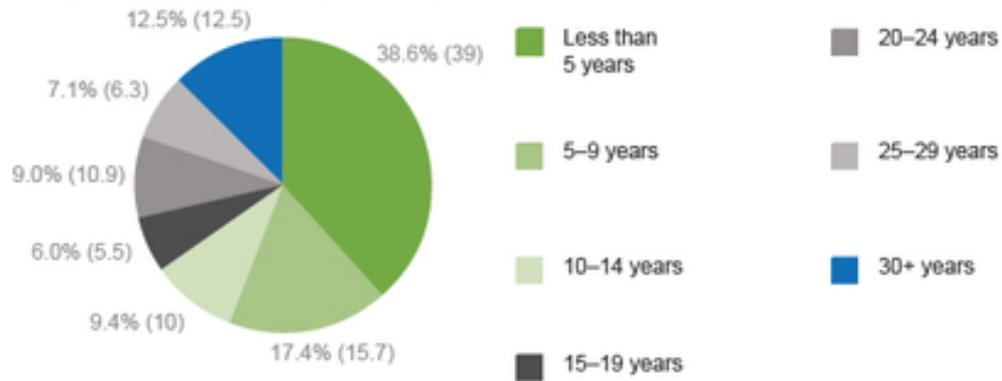
* Information not available e.g. on service station personnel in Russia.

Educational level of employees as of 31 December 2011



Length of employment of employees as of 31 December 2011

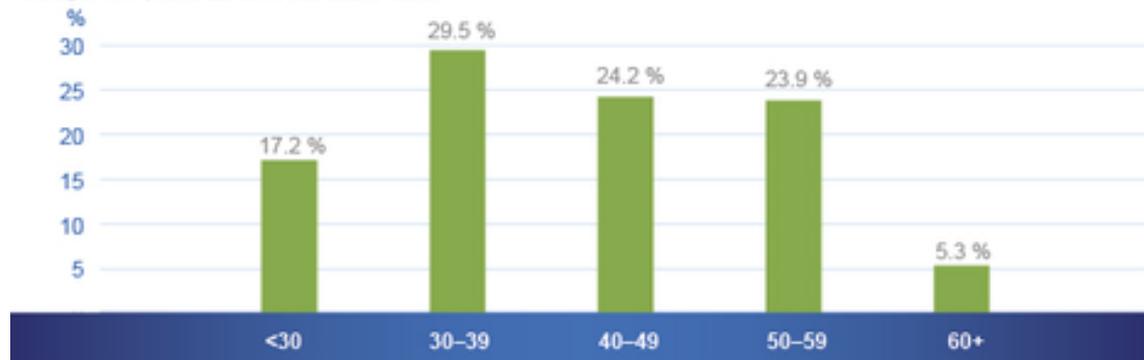
Average: 12.9 years (2010: 13.1; 2009: 13.9)



Average length of employment in 2009 does not include temporary employees.

Breakdown by age as of 31 December 2011

Average 41.7 years (2010: 41.5; 2009: 42.3)



Average age in 2009 does not include temporary employees.

Personnel turnover

Neste Oil's hiring rate in respect of permanent employees stood at 9.8% (7.1%) in 2011 and the leaving rate at 10.3%. The latter figure was lower compared to recent year, when the figure stood at 12.4% in 2010, 8.9% in 2009, and 6.5% in 2008. 10% (37%) of people leaving the company during 2011 did so to retire, while the majority, around 90% (63%), left for other reasons. Fewer people retired and left the company in 2011 than in 2010, as the rest of the voluntary pension schemes were finalized in Finland.

In Finland, personnel turnover in respect of permanent employees was lower: Neste Oil's hiring rate was only 3.4% and the leaving rate 5.8%. Overall personnel turnover was higher as a result of the high turnover of service station personnel in Russia. The hiring rate for permanent employees in Russia was 31.8% and the leaving rate 27.9% in 2011.

The leaving rate at the new refineries in Singapore and Rotterdam was monitored closely during 2011. Although competition for qualified personnel is particularly tough at both locations, the sites' combined leaving rate of permanent personnel during the year was under 10% and involved only 15 people, which can be considered typical locally.

No significant changes have taken place in the age structure of Neste Oil's personnel in recent years. According to a Personnel Fund projection in 2011, it is estimated that around 500 people could retire by the end of 2016, equivalent to around 100 a year between now and then. Neste Oil plans to prepare for this through strategic personnel planning, HR development, successor planning, and other measures.

Neste Oil aims to secure its continued access to the human resources it will need in the future by focusing on areas such as promoting wellbeing at work and developing its employer image. Neste Oil also offers internships to students and works actively with schools, colleges, and universities.

Read more about [personnel structure](#).

Job rotation promotes personal development and motivates people

Internal job rotation is an important means developing Neste Oil's personnel resources and committing people to the company. 7.7% of personnel (9.7%) switched to new positions internally during 2011, which is slightly below the figure for 2010. A target level of approximately 6–8% has also been set for 2012.

Recruitment

The principles followed by Neste Oil in its recruitment form part of the company's management system, and are followed in all the countries where Neste Oil operates in accordance with local legislation. Neste Oil recruits personnel based on their experience, expertise, skills, and values; and is committed to guaranteeing all applicants equal opportunities and fair and equal treatment during the recruitment process. Recruitment is also used to promote diversity across the company.

In line with its HR policy, Neste Oil treats all employees equally, regardless of gender, ethnic origin, age, religious belief, political affiliation, and other similar issues. Neste Oil also aims to recruit primarily local personnel wherever it operates. This is cost-effective and makes the most of the opportunities offered by local job markets.

Neste Oil has not encountered any particular challenges recruiting new personnel in Finland up until now. This situation has begun to change, however, in respect of shipping operations, as a result of the high qualifications expected in the oil industry and the large numbers of retirees. Passenger shipping is also increasingly competing for students. Neste Oil is working with colleges in the field to ensure that the company has continued access to suitable talent; on-board training positions often lead to permanent employment on the company's tankers. A total of around 400 people work on Neste Oil's vessels today. Neste Oil's low profile outside Finland represents a bigger challenge in terms of recruitment.

Developing employer image

Neste Oil continued its long-term efforts to develop its image as an employer during 2011, and took part in a number of recruitment events in Finland, such as the ARENA and Contact Forum fairs and various online recruitment events organized by Monster. Neste Oil Suisse took part in the 'Uni Forum' organized by the University of Geneva in Switzerland in the spring.

Neste Oil deepened its collaboration with students at Aalto University in Finland by signing an agreement with the Student Union there in fall 2011 designed to ensure that more students come into contact with Neste Oil at some point during their studies. Neste Oil's overall goal is to improve its visibility as an attractive employer and one that offers a range of exciting career opportunities.

Neste Oil works with students in a number of other areas as well, and organizes student visits to its sites, gives company presentations at schools, and supports various student events and activities. Proactive cooperation with students and other young people has been seen as important for many years, and the company has been involved in supporting ChemistryLab Gadolin for some years, for example.

Neste Oil also took part in the "Responsible Summer Jobs 2011" campaign in Finland, which involved 74 companies offering nearly 16,000 summer internships across the country. Neste Oil itself offered approximately 290 (250) summer internships in Finland in 2011.

2011 was the International Year of Chemistry, and the UN- and Unesco-sponsored initiative generated a number of activities around the world, including Finland. Neste Oil was the initiative's main partner in Finland and took part in events such as 'Chemistry in Kamppi' in the center of Helsinki and 'Chemistry Night' at the Heureka Science Center.

Neste Oil's employer image development strategy and action plan will both be updated during 2012.

Employer image in 2011

Neste Oil monitors the development of its internal employer image through the company's annual personnel survey, which covers all employees with the exception of service station personnel in Russia, or 84% of personnel. A similar survey was carried out separately at Neste Jacobs in 2011. A total of 3,275 people (3,259) responded to the two surveys.

Results of the employee survey, processed in spring 2011, showed that the Neste Oil's overall results and employer image had both improved compared to previous results. Nearly all the areas covered by the survey were evaluated more positively than the external benchmark level. Respondents proved more likely to recommend Neste Oil as an employer, and Neste Oil was also seen as a safer employer than in 2010. Criticism was directed towards what were described as the company's over-formal and bureaucratic ways of working and what was felt to be the lack of employee's possibilities to influence decisions related to their work. Overall, however, employees' perception of Neste Oil was more positive than in 2010 and employees appeared more committed than those in the benchmark level.

Summer interns' views of working at Neste Oil in Finland are reviewed annually with a survey. The 2011 survey gave the company a rating of 4.2/5 (4.1), and as many as 97% of respondents said that they would be interested in working for Neste Oil and Neste Jacobs in the future. A positive workplace atmosphere and helpful colleagues were listed among Neste Oil's strengths.

Despite the long-term work that Neste Oil has done to improve its image as an employer among students, surveys carried out by Universum in Finland in 2011 indicated that its image has declined. A survey of university students by Universum ranked Neste Oil in 15th place (9th) among technical and natural science students and 50th (34th) among business studies students. Attitudes among technical and natural science students in the professionals study were more positive in 2011, and they ranked Neste Oil 8th (9th); while young professional, ranked the company 7th (9th). Among business professionals, Neste Oil was ranked 60th (31st) by professionals and 57th (30th) by young professionals.

Neste Oil was ranked 17th on "Finland's Most Popular Employers 2011" list. Around 24,600 young people replied to the survey by T-media, which focused on technical college students, students at universities, universities of applied sciences, and highly educated professionals already in employment.

Neste Oil's internal employer image improved compared to 2010. Respondents proved more likely to recommend Neste Oil as an employer.

Developing Neste Oil's leadership and corporate culture

Particular emphasis was given to making employees more aware of Neste Oil's strategy and helping them understand it at all levels of the organization during 2011. A number of new participation-based approaches were introduced, and strategic thinking and a coaching-oriented mindset was promoted in the work community. Neste Oil also continued supporting management work and developing and implementing development programs for managers, supervisors, and senior executives.

Neste Oil's aim is to continue promoting the development of leadership skills and effective performance management during 2012 in line with the company's management development program, as part of the corporate-level Performance Value Creation Program. Neste Oil also continued promoting the development of coaching management skills. Neste Oil's aim is to continue promoting the development of leadership skills and effective performance management during 2012 in line with the company's management development program.

Developing senior managers

Systematic leadership training development continued in 2011, and a training program for senior managers, middle managers, and specialist personnel was launched in collaboration with the Swiss-based International Institute for Management Development (IMD). This program, specially tailored to Neste Oil's needs, was the company's single largest senior manager training initiative in 2011.

A total of 130 people from various Neste Oil locations and countries took part in the IMD leadership program in 2011. The program, which is focusing on developing people's capabilities and engaging people, as well as developing their strategic thinking, is due to be completed in the first quarter of 2012.

The results of the 2011 employee survey showed that leadership capabilities are seen as one of Neste Oil's clear strengths. Leadership was rated more positively than in 2010 and the company's leadership index clearly outperformed the external benchmark level.

Developing leadership and supporting managers in their work

Employee satisfaction with leadership and management and how it develops over time is measured annually at Neste Oil. Various statutory employer-employee negotiations and organizational changes saw employee satisfaction in these areas decline in 2010. As a result, it was decided in 2011 to focus on improving performance to restore satisfaction to the good level typical of previous years. The results of the 2011 personnel survey showed that management work was rated more positively than in 2010, and Neste Oil's leadership index clearly exceeded the external benchmark level.

Development programs for both new and more experienced managers continued during 2011 as part of efforts to support the overall performance of managers and supervisors. A total of 37 managers took part during 2011 in the training program designed for all managers that has been under way since 2007. The program was updated during 2011 to reflect the themes covered by the training program for senior managers, middle managers, and specialist personnel aimed at promoting a capabilities-driven, engaging leadership culture and strategic thinking. Piloting of the updated program will begin in 2012.

Neste Oil's management development program for new managers and supervisors continued at Finnish locations in 2011, and was supplemented with a module devoted to remuneration and bonuses. A total of 80 people took part in the program during the year. It will be piloted for the first time outside Finland during 2012 and will involve new managers from a number of different countries.

Training for project and matrix managers and specialist personnel also continued during 2011, aimed at improving participants' understanding of Neste Oil's approach to project management and the means available for people without formal managerial status to influence and lead developments. A total of 237 people took part in this training during 2011.

354 (313) managers and supervisors from Finland and elsewhere took part in leadership development programs as a whole during 2011. Feedback gave courses an average rating of 4.23 (4.25) on a scale of 1 to 5.

Engaging people

The need to engage Neste Oil personnel more closely in the company's strategy process and in planning its operations and development was highlighted in the results of the personnel survey carried out in early 2011. This need was also highlighted in employee responses during the strategy dialogue that formed part of the annual strategy process. Engaging people is seen as one way of encouraging people to commit more to the company and improve their personal performance.

Development of our own operation

All employees, except service station personnel in Russia, who are not part of the survey, took part in reviewing the results of the personnel survey during 2011 at different levels of the organization, such as management groups and own work groups, which planned various development measures by themselves for achieving their own and common targets.

[Read more about the employee survey.](#)

Performance and development discussions

Performance and development discussions form an integral part of Neste Oil's management approach based on setting clear goals and engaging people. Managers are responsible for drawing up personal development plans with their subordinates. These are drawn up and reviewed annually as part of performance and development discussions, which covered 84% (84%) of personnel in Finland and overseas in 2011, but not service station personnel in Russia. HR development is based on Neste Oil's short- and long-term business goals.

Performance management is an important area of ongoing development. The goal in 2012 will be to link wellbeing at work more closely to effective and engaging performance management.

Neste Oil's strategy and the update of the company's vision were announced to personnel in June 2011. Over 1,000 employees generated around 7,000 ideas on the company's future strategy in 2011 as a part of strategy dialogue process.

Engaging personnel in the strategy process

Employees were encouraged to take a more active part in Neste Oil's annual strategy review in 2011. Involving people in strategy-related work is one of the ways that Neste Oil is using to create a management culture that truly engages personnel.

[Neste Oil's strategy dialogue](#) – in which over 1,000 employees generated around 7,000 ideas on the company's future strategy – is a key example of Neste Oil's commitment to this type of management approach. A number of the themes that emerged during the strategy dialogue were used in the review of Neste Oil's strategy and the update of the company's vision. The dialogue also provided a number of concrete ideas on how the company's strategy can best be implemented and its operations developed. Feedback from the dialogue was used in operational planning and development throughout the year. Five new [Value Creation Programs](#) were launched on the basis of the themes identified during the strategy dialogue, and most employees will be involved in implementing these programs over the coming years.

Neste Oil's updated strategy was presented to personnel at a series of strategy info sessions hosted by senior executives held across the Neste Oil organization. A total of eight sessions were held at the company's largest sites in Finland and elsewhere, and were attended by around 15% of personnel.

A series of strategy workshops for managers, supervisors, and key specialist personnel were held in the second half of 2011 aimed at strengthening managers' grasp of strategy and their ability to communicate it at team level. Workshops provided participants with a model for involving teams in the strategy process and developing this way of working. A total of 13 workshops were arranged at Neste Oil's largest sites: Espoo, Porvoo, and Naantali in Finland, and Singapore, Geneva, and Rotterdam. Oil Retail organized strategy days for its personnel in Finland and the Baltic countries.

Engaging personnel in Neste Oil's innovation process

New Group-level guidelines for managing Neste Oil's innovation process were drawn up at the end of 2011 to promote the systematic processing of new ideas within the company. The innovation process now covers systems for ideas, initiatives, and inventions. The latter two systems have been in use for some time, while the new ideas systems was introduced in spring 2011.

Neste Oil's new ideas system is designed to provide personnel with a channel for presenting ideas and developing them jointly. In addition to brainstorming, the system includes various challenges. These include a safety challenge, launched in the fall of 2011, to encourage personnel to brainstorm safer ways of travelling and develop new ways of getting to and from work in particular. Some of the ideas generated by the campaign were implemented towards the end of 2011.

The introduction of the new system has helped highlight what Neste Oil is already doing in terms of innovation and has encouraged people across the company to innovate and develop new ideas as a team effort.

In addition to these systems, a new Innovation Team will also help create a more innovative mindset within Neste Oil. Established in 2011 with members drawn from different parts of the company, the team's mission will be to promote open and interactive brainstorming across the company. Training for 14 innovation facilitators was also launched at the end of 2011. The role of these facilitators – from different organizations, sites, and countries – will be to encourage people to come up with their own ideas and develop other people's ideas with the help of the ideas system. They will also encourage personnel to take part in innovation workshops in 2012 designed to challenge personnel to brainstorm and develop new solutions.

These various innovation-related initiatives will help create a solid foundation for the development of a more innovation-minded culture within Neste Oil and for jointly developing operations and services.

Employee development and training

The specialist skills and expertise of Neste Oil's personnel are the foundation of the company's success. HR training and development is based on the short- and long-term goals of Neste Oil's businesses.

Annual performance and development discussions play an important role in helping people achieve their goals and develop their careers. Performance discussions concentrate on setting targets and evaluating performance, while development discussions review issues related to employees' personal development.

The results of the 2011 employee survey indicate that employees appreciate the opportunities their work offers for personal development and that managers and supervisors are seen as supporting people in developing their careers.

Measures and indicators used in developing people's capabilities at Neste Oil include:

- Development discussions and plans
- Job rotation and learning on the job
- Skill reviews
- Job and responsibility descriptions
- Project work
- Internal training
- Supporting employees' participation in external training
- Online self-study material
- Choosing the right people
- Induction and on-the-job training
- Personnel survey.

Given the large amount of job rotation within Neste Oil, it was decided in 2011 to measure the progress being made in developing employees' professional expertise at the company's refineries in Finland. This focused on measuring how long people have worked for Neste Oil and the experience of people employed at the two sites – and showed that people's capabilities have developed well overall, although it has proved challenging to find sufficiently experienced for some positions.

Read more about [personnel turnover](#).

Increased investment in management and leadership development

An average of 2.8 (2.2) training days per employee were provided at Group level in 2011 and a total of EUR 4.2 million (2.3 million) spent on training. The significant increase in training-related expenditure resulted from the large investment in management and leadership development in 2011. Training are offered equally to all personnel groups.

Personnel received training at Neste Oil's new refineries in Singapore and Rotterdam in particular. All refinery personnel took part in safety and operational training, for example. Some of this training was required under statutory provisions. Training designed to support other areas of people's capabilities, covering things such as teamwork, was also organized for the new organizations.

Training provided in 2011:

- Professional training
- Safety and first aid courses
- Language courses
- IT courses
- Leadership development
- Project manager, matrix manager, and specialist training.

Neste Oil also offered employees a range of self-study material and online modules covering areas such as data security, competition law, and work permits.

An average of 2.8 (2.2) training days per employee were provided at Group level in 2011 and a total of EUR 4.2 million (2.3 million) was spent on training.

Complying with values, laws, and principles

Neste Oil's values help personnel work together towards common goals by defining how the company and its people should act. These values – responsibility, cooperation, innovation, and excellence – crystallize what Neste Oil considers important and the kind of behavior it expects of personnel.

Neste Oil strives to be a good corporate citizen in all the countries where it operates and to abide by all appropriate national and international laws and regulations, international agreements, and generally accepted forms of good governance.

Competition law is a good example of the importance of abiding by all aspects of legislation and statutory regulations. Neste Oil takes this area of legislation particularly seriously and has a competition law program in place in all its operating countries. The program was supplemented with a competition law commitment at the end of the year applicable to all employees who are required to be familiar with this type of legislation as part of their work. Training on competition law will be arranged in early 2012 as part of this process.

Neste Oil offers its personnel a healthy and safe workplace in which to develop their skills and capabilities. No risks related to child and forced labour in company's own operations during the reporting period. All employees have the right to organize amongst themselves and belong to associations. No threats to this right emerged during 2011 in any areas of Neste Oil's operations.

Implementation of Neste Oil's Code of Conduct continued

Neste Oil's Code of Conduct was presented to personnel in 2010 and is intended to help employees to act ethically in their day-to-day work. The Code outlines what constitutes appropriate behavior in terms of the law and Neste Oil's own values and principles, and forms an integral part of Neste Oil's management system.

The Code of Conduct covers subjects ranging from complying with the law and observing human rights, and preventing all forms of bribery and corruption, to ensuring operational transparency and open communications and recognizing Neste Oil's responsibilities in terms of sustainability. The Code of Conduct complements Neste Oil's policies on sustainability and HR, and its biofuel sustainability principles.

Implementation to the Code of Conduct and engaging personnel in this area continued during 2011 through joint discussions at unit and team level and a dedicated Web-based game. The Code has also been incorporated into the induction training given to new personnel. As of the end of 2011, the online Code of Conduct game had been played over 2,000 times. In the case of units where personnel cannot access the game, equivalent written material has been distributed.

The Code of Conduct prohibits employees from taking part in any form of bribery or corruption, and Neste Oil expects the same of its suppliers, customers, and partners. Neste Oil has a number of principles and guidelines designed to prevent various forms of misconduct and how this behavior should be handled if it occurs; compliance is monitored by Internal Audit. More details on Neste Oil's approach to misconduct can be found from the section of [Governance](#).

Equality and diversity

Neste Oil has worked systematically to promote equality in the workplace for many years, and these issues are taken into account in Group-wide recruitment and remuneration principles, and HR policy. The company treats all its employees equally and fairly, regardless of their gender, nationality, age, religious beliefs, political convictions, and other factors. Neste Oil is committed to respecting human rights and treating all its employees as individuals.

Gender is not a factor in remuneration, personal and career development, or recruitment. Neste Oil believes that a more balanced gender distribution within the company will give the company a competitive edge in the future, both in the marketplace and in the competition for the best possible talent. Treating employees equally and fairly helps promote job satisfaction, create a positive atmosphere, motivate people, and encourage them to commit themselves to their employer and their employer's goals.

[Read more about recruitment.](#)

Women accounted for 11.1% (11,1%) of the members of the Neste Executive Board in 2011, and for 27.6% (27%) of the members of the management teams of the company's business areas and common functions. Three of the members of the Board of Directors were women, equivalent to 37.5% (37.5%). 8.3% of women and 17.5% of men were working in supervisory positions. A woman was appointed head of the Naantali refinery in March 2011, the first woman to be made responsible for refinery operations in the company's history.

Neste Oil monitors gender distribution within the company based on the composition of its employees, management, management groups, and the membership of the Board of Directors. The age distribution and educational level of employees is also monitored. Employees' ethnic origin or nationality are not monitored. Neste Oil did not record any cases of discrimination in 2011.

[Read more about equal pay.](#)

Neste Oil believes that a more balanced gender distribution within the company will give the company a competitive edge in the future, both in the marketplace and in the competition for the best possible talent.

Promoting equality in Finland and elsewhere

Neste Oil's equality principles cover the underlying concepts and practical measures used to develop equality between men and women in the company in Finland and elsewhere. These principles are applied throughout Neste Oil. The company monitors all the indicators required under Finland's equality legislation and develops an equality plan annually together with employee representatives. Outside Finland, company practice is required to comply with local legislation and any possible changes that might be introduced in this legislation aimed at promoting greater equality between men and women.

An executive summary of Neste Oil's equality principles was drawn up in 2011 and the company's equality action plan in Finland updated. Updated principles are going to be approved in 2012. Operations outside Finland have been requested to investigate equality between men and women in 2012.

Male employees' use of time off to look after their families was monitored in Finland in 2011 and showed that men make very little use of the family time they are entitled to. Only five fathers made use of this opportunity (average between one and five in recent years), although most take advantage of paternal leave when their children are born. An average of 160 men used their family time entitlement in 2011. Neste Oil will continue to monitor this indicator in 2012 and will strive to increase people's awareness of this right and encourage discussion on the possibility of making use of it.

Read more about [personnel structure](#).

Read more about [equal pay](#).

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Equitable and motivational remuneration

Neste Oil's remuneration aims to motivate personnel to perform at their best and encourage people with the skills and talent the company needs to join and stay with the company.

Neste Oil applies and observes the requirements of local employment legislation and collective bargaining agreements wherever it operates, which determine things such as minimum wages and supplements such as overtime pay.

90.4% (89.3%) of personnel came within the scope of collective bargaining agreements in 2011. Not all countries were covered by these types of agreements. Neste Oil's senior executives do not come within the scope of collective bargaining agreements. They are covered by Neste Oil's senior management remuneration principles.

Neste Oil will concentrate on developing its performance management process and related remuneration during 2012.

Basis of remuneration at Neste Oil

Neste Oil's employee remuneration consists of a number of different elements:

- their basic salary
- short-term incentives
- a comprehensive range of fringe benefits
- long-term incentives
- bonuses for excellent performance
- and intangible benefits.

All of Neste Oil's personnel are covered by the company's incentive systems. Neste Oil's main short-term incentive is the annual bonus system. Employees at the Porvoo refinery had previously their own system but joined the Group's system in 2011. Neste Jacobs left the Group's system and adopted its own customized scheme. The Personnel Fund represents Neste Oil's main long-term incentive and covers the Group's employees in Finland. Similar funds do not exist in other countries.

Remuneration principles

Under the Group-wide remuneration principles published in 2010, employee remuneration is based on people's job responsibilities, their performance, and equality, regardless of gender or factors such as personnel category. These principles are applied wherever Neste Oil operates within the framework of local collective bargaining agreements and the national labor market and competitive environment.

Work started in 2011 on drawing up local remuneration guidelines for the various countries outside Finland in which Neste Oil operates and implementing these guidelines locally. This involved taking part in local assessments of job complexity and salary market studies. Drafting work and implementation will continue in 2012.

[Read more about remuneration and shareholdings.](#)

[Read more about Neste Oil's investments in its personnel.](#)

Competitive remuneration and fringe benefits

Neste Oil extended its use of salary market studies in 2011 to other countries outside Finland to secure its overall salary-related competitiveness. Salary market studies are now carried out in all of the company's most important operating countries, either annually or every few years.

These studies compare Neste Oil's salary levels with industry pay levels in each country in terms of job descriptions. Taking part in these studies has given Neste Oil a better understanding of industry pay levels in different countries, and this information has been used in helping determine pay rises. While legislation and other regulations set minimum salaries and wages, those paid by Neste Oil are higher. Salary market studies have also enabled Neste Oil to clarify the system it uses for classifying job complexity.

In addition to salary, Neste Oil also strives to offer its employees competitive fringe benefits in line with local market standards. Further comparisons of local fringe benefits were made in the various countries in which the company operates and resulted in insurance cover being increased in a couple of countries, for example.

Neste Oil selected a global personal insurance partner in 2011 to be responsible for coordinating competitive tendering in the field internationally. Personal insurance used to be handled on a country-specific basis previously. With the help of the new system and a new operating model that will come into force in 2012, the aim is to reduce insurance-related risks and ensure that changes in local legislation are taken into account. The new approach will also enable cost-effective insurance solutions to be introduced across different countries.

Salary equality in practice

Neste Oil aims to begin collecting pay equality statistics in countries where this is not required under local legislation during 2012. Pay equality surveys are carried out annually in Finland in accordance with the company's equality plan.

The ratio between the average basic salaries of women and men working full-time and belonging to upper white-collar, white-collar, and blue-collar employee categories in Finland varied between 91% and 121% (92–108%), depending on the responsibilities of the people concerned and the category of employee. An analysis of salaries carried out by the Mercer consultancy company in 2010 showed that equality between women and men, as measured in terms of salary, is clearly better at Neste Oil than in the private sector on average.

Neste Oil has successfully promoted salary equality among its personnel in Finland for a number of years by making separate equality payments. It has been decided to continue the practice in Finland of making 0.1% equality payments to white-collar employees to balance out differences in salary between women and men. A similar arrangement was not required for upper white-collar employees, as their salary levels based on job complexity were good based on local comparisons.

Towards the end of 2011, an extensive survey of employees' salary awareness in Finland was carried out by Aalto University on Neste Oil's behalf among white-collar and upper white-collar staff that come within the scope of Finnish chemical industry collective bargaining agreements. The survey also addressed equal pay questions. Despite the work that Neste Oil has done to promote equality, female respondents were more critical as to whether equal pay has been achieved than their male colleagues. The results of the survey and the need for any corrective measures will be analyzed in 2012 when the entire study is completed.

Pension cover

The Ilmarinen Mutual Pension Insurance Company is responsible for managing Neste Oil's statutory occupational pensions in Finland and the associated pension portfolio. The additional pension benefits provided to people who joined the company before 1994 are managed by OP Life Assurance Company Ltd. The most important benefit of this additional cover is the opportunity to retire earlier than the statutory minimum age of 63. The statutory occupational pensions of seamen are covered by the Seamen's Pension Fund, in accordance with the relevant legislation. No changes took place in employees' pension cover during 2011.

29.3% of the Group's personnel in Finland and overseas were entitled to a supplementary pension in 2011.

Pension cover in countries outside Finland

Statutory occupational pension cover is offered to employees in all the countries in which Neste Oil operates, together with possible additional pension benefits in accordance with local practice, mainly through pension insurance cover. There are large country-specific differences between additional pension benefits. Neste Oil's aim is that new additional pension provision arrangements should be contributory in nature and that the company should not guarantee a specific level of pension payable when a person retires; instead, Neste Oil should play an agreed proportion of people's salaries to a pension insurance company. Defined benefit-based arrangements are still in place in some countries and are statutory in Finland.

[Read more about how the number of retiring employees is developing.](#)

Wellbeing, health, and safety

Neste Oil believes that an individual's physical and mental health and other capabilities are fundamental to their wellbeing. Neste Oil's occupational health care service works with the company and employees to promote healthy work and a healthy workplace, safety, a positive sense of community at work, the health and other capabilities of employees throughout their career, and the prevention of work-related illness and accidents.

Wellbeing, health, and safety are promoted through:

- Integrated occupational health care, including check-ups, preventive health-related advice, and medical care
- Contributory sickness and insurance funds
- Early rehabilitation techniques and dedicated rehabilitation courses
- Guidance on alcohol and drug abuse and access to the appropriate care if required
- Early support model
- Outplacement and new job opportunities
- Personnel club activities
- Leisure time activities supported by Neste Oil
- Encouraging personnel to adopt healthy habits and various health promotion campaigns.

Wellbeing at work

Employees' wellbeing at work was the subject of extensive development work at Neste Oil during 2011, and cooperation with the Ilmarinen Mutual Pension Insurance Company in the area was extended.

A wellbeing at work plan was drawn up in cooperation with the company's Management-Employee Group and labor protection delegates in 2011, defining the measures to be used for promoting wellbeing at work across Neste Oil. A new module on wellbeing at work training was also added to the License to Lead management training program for new managers. The section on occupational health care in the Neste Oil Intranet was also revamped.

Wellbeing at work was incorporated into Neste Oil's employee survey by adding a wellbeing at work index to the questionnaire covering 11 factors that play a central role in determining people's wellbeing at work. The 2011 survey showed that employees' evaluation of their working capability was similar to the good level recorded in previous surveys.

An early support model was introduced in 2010 that emphasizes the importance of providing advance support as a means of reducing the amount of sick leave people take and supporting people's return to work after an extended period of sick leave. The early support model was made standard company practice in 2011.

Neste Oil's Lithuanian subsidiary, Neste Latvija, received a "Most Family-Friendly Company" certificate in September 2011 from the country's Minister of Welfare, Ilona Jursevskā. The award is given to companies that actively promote family-friendly policies in their operations. Neste Latvija supports continuation training for personnel by granting time off for study and study scholarships, for example.

Occupational health

Neste Oil's occupational health care offers a comprehensive range of services aimed at promoting employees' health and their ability to do their job effectively. Occupational health care personnel provide expert assistance in developing working conditions and wellbeing at work based on preventive initiatives. This approach is developed in line with changes in working life and through ongoing cooperation between employer and employee representatives.

Occupational health care services are provided at Neste Oil's main locations in Finland (Porvoo, Espoo, and Naantali) by the company's own occupational health care units, supplemented by a voluntary membership in the Enerkemi Insurance Fund and sickness fund in Kilpilahti. Occupational health care services at other locations are sourced from external service providers.

Neste Oil uses various rehabilitation models to promote and support employees' ability to do their job effectively. Monitoring of the impact of rehabilitation courses was started in 2011, with the introduction of a set of follow-up indicators. Monitoring will be split over a number of years and will form part of long-term monitoring work.

Medical care offered by Neste Oil's occupational health service focuses on preventing, caring for, and following up work-related illnesses. The number of cases of work-related illnesses and diseases remains low and no work-related illnesses were reported in 2011. Goal for 2012 is to create a follow-up system for occupational diseases.

Neste Oil makes use of an alternative work procedure for personnel injured by accidents at work, under which employees and the occupational health physicians treating them investigate people's opportunities for doing alternative work during their recovery.

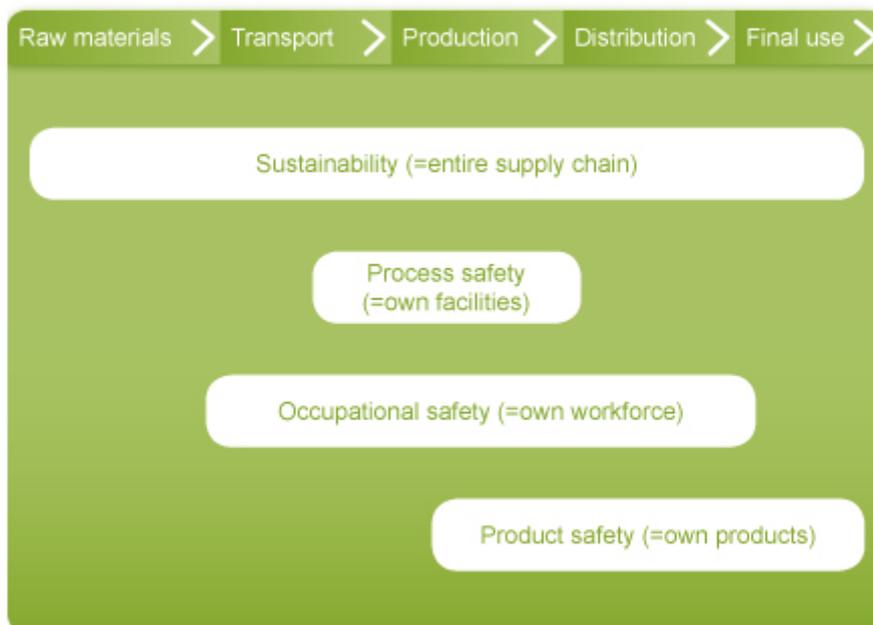
Neste Oil's goal is to reduce the amount of sick leave taken by personnel by developing the company's working conditions and making use of various part-time solutions. Neste Oil's sick leave percentage calculated as a proportion of theoretical regular working hours per month was 3.2% (3.6%) at Group level in 2011. The goal was to reduce sick leave to below 3.5% in 2011. The reduction seen during the year was partly the result of a change in the method used to inform the company of sick leave, which now allows employees to take between one and three days of sick leave with the permission of their manager or supervisor. Neste Oil's occupational health experts expect that the change will shorten the duration of sick leave taken by personnel.

[Read more about work safety.](#)

Safety

Neste Oil's business is exposed to a number of safety-related risks, the largest of which are associated with working practices, processing raw materials and products, logistics, and storage. Neste Oil is committed to the safety of its personnel, partners, customers, neighbors, and the environment. By focusing on preventive safety work, Neste Oil aims to prevent accidents from happening, damage being caused, and major problems developing.

How sustainability and safety relate?



Achievements in 2011:

- Record amount of [safety trainings](#) organized, in total 136.
- A total of EUR 25.9 million in improving [process safety](#).
- Safety instructions were improved.
- Safe project related to develop safety culture was started.
- New NExBTL refinery in Rotterdam was started up safely.
- A Total Recordable Injury Frequency per million hours worked (TRIF) of 2.3 was recorded in 2011, compared to a target of 2.5.

Goals for 2012:

- To continue process safety development work.
- To avoid all injuries or any damage caused to the environment during the Naantali refinery's shutdown, the turnaround, and when the refinery is started up again.
- To further reduce the number of work-related accidents (TRIF=2.0; LWIF=0).
- 25 000 safety observation tours done.

Safety management

Safe operations are essential for the success of Neste Oil's business and represent an important aspect of its approach to sustainability and responsibility. Preventive safety work is central to the company's efforts to create a safe workplace. Safety management is based on ensuring that all of the company's operations are safe for its personnel, its neighbors, its partners, its customers, and the environment. Neste Oil believes that all accidents and injuries can be prevented, and this is the company's long-term goal.

Neste Oil's aim is to be one of the best European oil companies in terms of safety. To help achieve this goal, the Porvoo and Naantali refineries take part in Finland's "Zero Accidents Forum", for example. A safety management system integrated into the company's overall management system is used to monitor and develop safety-related areas of operation. This system covers all the company's business areas and corporate functions and acts to ensure that the latter make use of harmonized procedures, monitors the implementation of targets, and promotes continuous development in the safety field.

The following performance indicators on safety are reported monthly:

- **TRIF** (Total Recordable Injury Frequency)
- **LWIF** (Lost Workday Injury Frequency)
- **Leaks**
- **Sick leave**
- **Safety observation tours**
- **Health, safety, security, and environmental-related inspections**
- **Safety discussions**

These indicators are used both to monitor the progress of preventive safety work and register any accidents or safety incidents that occur. Figures on these indicators are reported and shared internally on a monthly basis. In addition, topical safety issues are regularly covered in the company's internal communication channels, its personnel magazine, and in the monthly Neste Executive Board blog, launched in 2011. Annual targets are set and incorporated into the action plans covering every company location.

Local statutory safety requirements are taken into account in sites' own management systems and safety practices. CONCAWE principles are followed in calculating safety-related injury frequency figures.

Safety reporting

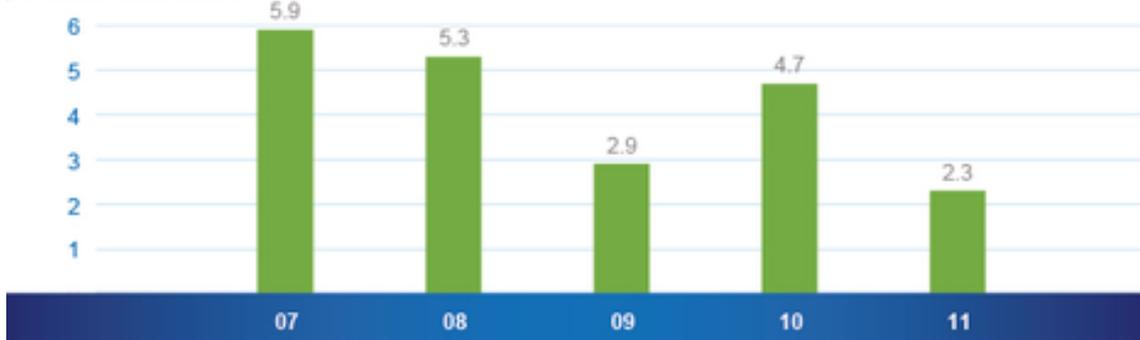
Neste Oil reports incidents using its non-conformance reporting system. The system covers all the company's operations and is the most important tool in Neste Oil's safety management system. Serious incidents are analyzed using an investigation method that has been introduced across the company, and the conclusions of these investigations and the corrective measures decided on are communicated to all units. The system is also used to monitor progress made on preventive measures, such as safety observation tours and safety discussions.

As part of corporate safety practice, a package of "Lessons Learned" material is produced quarterly, covering both successes and unscheduled incidents that take place across the company. Material is collated in collaboration with local HSSE managers on the basis of safety feedback received from line organizations. 'Lessons Learned' material has proved particularly useful in the safety discussions that managers and supervisors have with their team members.

Neste Oil keeps people living close to its production sites in Finland and companies based in these areas up-to-date on the operations of its refineries and any possible incidents on a regular basis. This is done through tools such as a toll-free info line, the Neste Oil Web site, and events and visits.

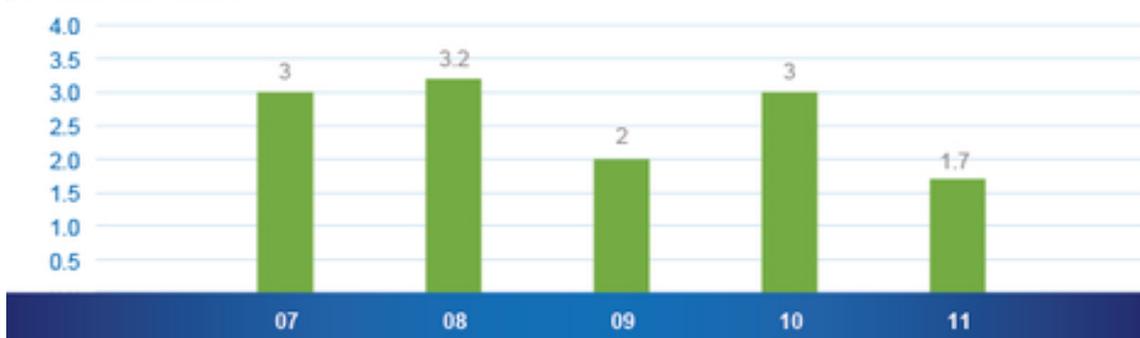
Total Recordable Injury Frequency (TRIF)

per million hours worked

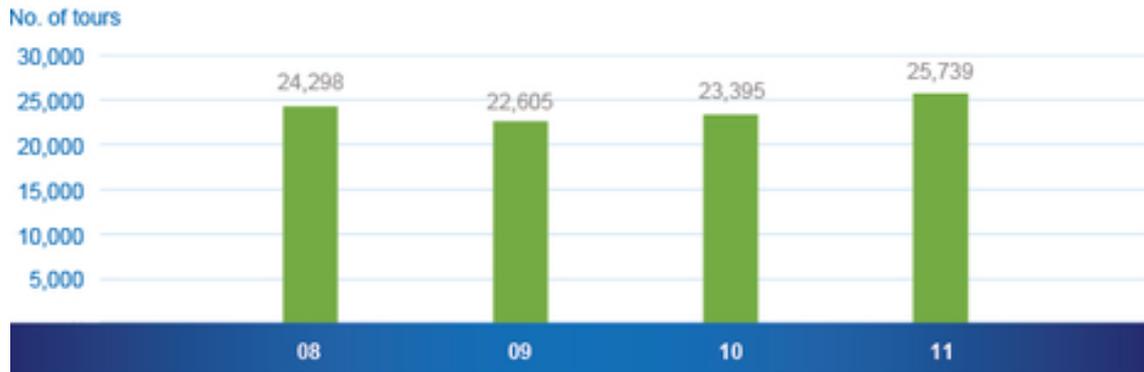


Lost Workday Injury Frequency (LWIF)

per million hours worked



Safety observation tours



Safety improvement initiatives

Strategy work carried out in 2011 resulted in the launch of five Group-level [Value Creation Programs](#). Safety was included as one of the key components of this initiative, and the projects that will be monitored as part of this will be aimed at improving safety management and process and occupational safety, consolidating people's understanding of safe working practices, and building a safer mind-set. The aim is to profile and develop a total of 12 key safety areas. A series of self-assessments will be carried out in 2012, in which sites will evaluate their safety-related strengths and weaknesses. Self-assessments will be evaluated by internal audits, and will become a permanent part of Neste Oil's safety development work in the future.

Neste Oil invested a total of EUR 25.9 million in improving process safety in 2011, of which EUR 15.3 million was spent at the Porvoo refinery and EUR 10.6 million at the Naantali refinery. Investments were concentrated on improving process, occupational, and fire safety, and included furnace modernization, changes to operators' rest areas, improvements in process and condition monitoring, and upgrades to key sections of site pipework. More than EUR 60 million is expected to be invested in safety during 2012.

More than EUR 60 million is expected to be invested in safety during 2012.

Process safety

The key goals of process safety management are to prevent personnel from being injured or exposed to danger, to protect the environment and the company's property and other assets, and to prevent or minimize collateral financial losses. Process safety thinking is based on identifying operational risks and dealing with them using various technical and operational tools, and minimizing any impact should a risk develop into a concrete problem.

Neste Oil's process safety management approach covers the entire refining chain and all process safety-related areas: engineering, technology, changes and modifications made to systems, operating and maintenance work, know-how and practices.

Process safety management at Neste Oil plants has been improved in recent years to reduce the number of unscheduled leaks and operational incidents. In 2010, Neste Oil started trialing a new process safety figure (PSE– Process Safety Events) introduced by CONCAWE, a European association of oil refiners. PSE figure records the process safety level and number of incidents, such as leaks, emissions, and fires that take place in a company's processes.

During 2011, a new level was added to the system, which now covers PSE1 and PSE2, to monitor process safety events in all operations more effectively and rank them in degree of seriousness. The latter is determined on the hazards associated with the materials involved and any possible consequences resulting from an incident. A total of 0.85 PSE1 and 4.2 PSE2 incidents per million hours worked were reported in 2011. The total of safety events were 24. In the near future, the company aims to reach CONCAWE's top 25%.

Neste Oil's process safety management approach covers the entire refining chain.

A safe workplace

Continuously improving safety performance is seen as an important aspect of management at Neste Oil. The company's sense of ethical responsibility and society's expectations make improving safety essential. The systematic development of safety culture that has taken place within Neste Oil in recent years has been heavily concentrated on promoting a safer mindset among the company's own employees and those of Neste Oil's service providers and contractors. Neste Oil is committed to ensuring the safety of all aspects of its operations and using responsible practices. Each and every Neste Oil employee is responsible for acting safely, as are the company's partners.

A Total Recordable Injury Frequency per million hours worked (TRIF) of 2.3 was recorded in 2011, compared to a target of 2.5. This was the lowest total recordable injury frequency in the company's history and an improvement on 2010, when a TRIF of 4.7 was recorded. The company's Lost Workday Injury Frequency (LWIF) was 1.7 during 2011, compared to a target of 0. Positive progress was made, as the LWIF for 2010 was 3.

Targets were met in the area of preventive indicators, such as safety observation tours, safety discussions, and HSE inspections. A total of 25,739 safety observation tours – focusing on the safety of working practice and providing constructive input where shortcomings are identified – were carried out at Neste Oil during 2011. 2,563 safety discussions were held during the year, as well as 521 HSSE inspections.

Safety and environmental reporting for 2011 covers all the refineries owned by Neste Oil in which the company has a greater than 50% holding in Finland and overseas. Safety data on the PAO plant in Beringen, Belgium is included up until the end of November, when the plant was transferred to the new owner's management. The new base oil plant in Bahrain is not included.

Reporting on safety matters also covers suppliers and the main contractors, as well as the road and marine transportation of the company's products and feedstocks.

All accidents are preventable

Neste Oil's underlying safety principle is that all accidents and injuries are preventable, which is why safety work concentrates on preventive measures and tools, such as safety training, observation and monitoring, and communication.

Despite the company's extensive safety work, one fatality took place during 2011, when the employee of a contractor fell from scaffolding while working at the Porvoo refinery. Safety measures and corporate guidelines were tightened across the Group.

Neste Oil successfully commissioned a new renewable diesel plant in Rotterdam in 2011. Projects also succeeded in achieving its safety targets. A total of 2.3 occupational accidents per million hours worked (TRIF) were recorded between 2009–2012 during the Rotterdam project. One occupational accident occurred in 2011, when the accident frequency was 5.3 per million hours worked.

As Neste Oil has expanded its operations internationally, the scope of the company's safety work has also grown, with good practices being passed on to other sites worldwide on an active basis. The Singapore and Rotterdam refineries, for example, have established separate guidelines covering work carried out high above the ground, together with a training plan aimed at ensuring that employees work safely in these types of locations. Similar guidelines were introduced at Neste Oil's refineries in Finland in 2011.

The HSSE requirements set for Neste Oil's service providers were also updated in 2011. A clear commitment to Neste Oil's safety requirements and compliance with them is a prerequisite, and this is specified in all contracts. Service providers' performance is regularly audited internally. Safety is also a key criterion when selecting service providers.

Neste Oil successfully commissioned a new renewable diesel plant in Rotterdam in 2011, as well as a base oil plant in Bahrain. Both of these projects also succeeded in achieving their safety targets.

Safety training

All Neste Oil employees are required to be appropriately trained and capable of carrying out their duties and responsibilities successfully and safely. Neste Oil offers all employees training in health, safety, and environmental matters, together with basic and more advanced training. This is given at all levels of the organization. Health, safety, and environmental training is also a requirement for senior management.

The HSEQ (Health, Safety, Environment, Quality) performance of personnel working at the company's refineries is reviewed annually by comparing performance with agreed targets as part of each employee's annual review. A safe work record is a requirement for continued employment. An annual HSEQ training plan ensures that operational, site, and employee targets are linked to Neste Oil's overall HSEQ targets.

There are five categories of health, safety, and environmental training:

- General basic training (Group program)
- Operations-based training
- Job-specific training
- Statutory basic training
- Special training

Neste Oil developed its general basic training offering at Group and site level during 2011. A new overview of safety training programs has also been created. In addition, process and fire safety training was given particular emphasis at all refineries. A plan covering work involving high levels of risk was also drawn up, and work started on drafting comprehensive programs in the area, which will continue until 2015.

A total of 35,000 hours were spent on safety training across Neste Oil in 2011, of which occupational safety training accounted for 18,000 hours, work-specific training 12,000 hours, and other types of safety training 5,800 hours.

Safety training courses in 2011

Occupational safety	Number of courses	Number of participants	Course length	Hours
Access permit training		3,933	1.5	5,899.5
Act Safe for managers and supervisors	9	93	24	2,232
Act Safe basic course	31	874	8	6,992
Work permit training		295	1	295
Occupational safety card / update	8	116	8	928
Occupational safety card / basic	4	59	6	354
Other	8	154	8	1,232
Occupational safety, total	60	5,524	56.5	17,932.5

Work-specific training

Process and fire safety	22	909	8	7,272
Safety equipment for working at heights	5	41	8	328
Forklift and hoist training	5	68	8	544
Hot work card training	9	244	8	1,952
Other	3	944	2.5	1,874
Work-specific training, total	44	2,206	32	11,970

First aid

EA1	2	50	8	400
Emergency first aid		508	8	4,064
First aid for electrical accidents		43	8	344
First aid, total	2	601	24	4,808

Other

Other, total	26	407	2.5	1,017.5
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All training, total	132	8,738	115	35,728
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Product logistics

Neste Oil transported 3.77 million tons (3.70 million) of fuel and gas by road in 2011 and 28.6 million tons (30.7 million) of feedstocks, chemicals, and refined petroleum products by sea.

A total of 6 (7) major traffic accidents involving Neste Oil tanker trucks resulting in either environmental impact or personal injury took place in Finland in 2011. These accidents were reviewed in accordance with the company's incident reporting process. There were no such accidents in other countries (0).

Road transport safety is covered by statutory and contractual requirements associated with the transport of hazardous materials that regulate things such as how long time drivers are allowed to drive for and how long their breaks should be. In addition to these requirements, Neste Oil also organizes preventive driving course for all the drivers of the contract transport companies it uses in Finland.

Neste Oil's fleet consists of approx. 24 vessels with an overall tonnage of around 770,000 tons, of which some are company-owned and some are time-chartered. All the tankers Neste Oil uses to ship its cargoes are ice-strengthened and double-hulled; and escort tugs are employed to ensure the safe passage of large tankers into harbor. Training and high standards of maintenance are used to minimize the risk of accidents at sea or in port. The average age of Neste Oil's tankers is approximately 5.5 years.

Neste Oil also transports large quantities, 2 million t/a, of products to its refineries by rail. These products comprise mostly of raw materials used in refining. Neste Oil is Finland's largest rail-based shipper of hazardous substances. In 2011, the company prepared for applying for a safety permit for the railways it manages. The company does not own any freight cars or locomotives, and its shipments by rail are operated by a partner.

Product safety

Product safety for Neste Oil means being responsible for the safety of all the products that the company sells. The goal of the company's product safety work is to ensure that products are handled safely throughout their lifecycle, beginning from product development and production and extending all the way to end-use and recycling. Neste Oil is also responsible for ensuring that customers have access to the information they need to handle products safely, and ensuring that its products comply with the requirements of both national and international legislation.

Safe products for Neste Oil's customers

Neste Oil has long been a pioneer in developing and launching cleaner, premium-quality products.

The majority of the products sold by Neste Oil are classified as hazardous, which places a number of special requirements on how they must be classified, labeled, and transported, and on how information on them must be communicated to customers. Neste Oil complies with International Chamber of Commerce (ICC) guidelines in the marketing of its products and with country-specific legislation covering the advertising and marketing of hazardous substances. The product safety principles followed by Neste Oil are defined in the company's management system and are monitored as part of the company's auditing process, both internally and through audits carried out by impartial third-party inspectors. Any issues associated with product safety are reported through the company's incident reporting system.

No significant incidents associated with product safety were identified during 2011.

Neste Oil experts take an active part in fuel standardization work as part of efforts to develop higher-quality, more energy-efficient, better-performing, and more environmentally benign products. Updating work on the EN590 diesel fuel standard and the EN228 motor gasoline standard continued during 2011. Progress was also made on standardizing renewable diesel, although some work still needs to be done in this area.

Updating the public on fuel changes

The bio-content of gasoline in Finland was increased at the beginning of 2011 in compliance with the national biofuel mandate. Neste Oil's fuel experts played a key role during the year in updating the public on the change; the information campaign on the subject, coordinated by the Finnish Petroleum Federation, continued throughout the early part of the year to eliminate people's concerns about the new fuel. Neste Oil also updated its Web site to provide drivers with up-to-date and comprehensive information on the subject.

Guide for new diesel drivers

Following the growth in the sale of diesel cars, there is a growing number of drivers on the road for whom diesel is a new fuel. With these motorists in mind, Neste Oil published a guide in Finnish entitled "Diesel drivers: Be prepared for the winter" in fall 2011. This explains the cold temperature performance of different diesel grades, when best to switch to winter-grade diesel, how car and engine performance can be improved in the cold, and what drivers should do if the diesel in their fuel tank freezes. The guide has been specially written for Finnish conditions, where sub-zero temperatures are common during the winter and call for fuel that performs well in the cold.

[The guide in Finnish.](#)

Product packaging and labeling

The REACH chemical regulatory framework that came into force in the EU in 2007, together with the new EU Classification, Labeling and Packaging (CLP) Regulation for chemicals introduced in 2009, have made it necessary to update the safety data sheets for Neste Oil's products. This work continued during 2011 in accordance with official transition rules.

Safety data sheets for Neste Oil's consumer products can be found online at Neste Oil's Finnish-language site.

Work on CLP changes continuing

Neste Oil continued updating the classification and labeling of its products in accordance with CLP requirements during 2011. The new system is designed to harmonize European practice with UN global recommendations.

The new labeling is being reflected both on products and in the guidelines covering how they should be handled. The transition to the new system will continue until 2015, and new and old labeling will be used in parallel during this period.

REACH

The EU's REACH framework places extensive requirements on the manufacturers, importers, and users of chemical substances in terms of registration, permitting, and use. The system is designed to improve the safe use of these substances across the EU.

Neste Oil registered all the chemical substances that it produces and imports in accordance with the official REACH timetable. REACH requirements have been taken into account in procurement and sales contracts, R&D, and risk management practices at Neste Oil's refineries. Compliance with REACH calls for constant vigilance and close cooperation between Neste Oil and the authorities, other companies, and all those in the company's supply chain. These responsibilities were handled on a centralized basis by the corporate HSSE function during 2011.

Safety of new raw materials

Neste Oil carried out extensive evaluations during 2011 on the suitability of various renewable raw materials that it is considering for use on an industrial scale in producing NExBTL renewable diesel.

A three-stage comprehensive model for evaluating new raw materials was introduced and covers:

1. the technical suitability of a raw material for producing NExBTL fuel
2. the suitability of a raw material for use at the company's various NExBTL refineries and units, and
3. the health, safety, and environmental aspects of a raw material (such as safety issues associated with a material's usage, transportation, and storage) and whether it is capable of meeting legislative sustainability criteria (greenhouse gas emissions, traceability, etc.).

Studies were carried out on palm fatty acid distillate (PFAD), camelina oil, soy oil, and waste fat generated by fish processing, amongst others during 2011. These concluded that the materials in question comply with both Neste Oil's own requirements and legislative requirements in terms of safety and sustainability, and listed the various factors that would need to be taken into account before using them in Neste Oil's process.

Case

New small-engine gasoline launched in Finland

Neste Oil launched a new small-engine gasoline in Finland in summer 2011 customized for the type of engines found in products such as chainsaws, lawnmowers, and outboards.

This is produced from sulfur-free paraffines with good antiknock properties and does not contain any olefins or aromatics, especially benzene. Thanks to its carefully selected composition, the new gasoline does not evaporate as easily as regular gasoline, which makes fuel handling more pleasant and safe. This low level of evaporation, combined with minimal emissions, benefits both users and the environment.

As the new fuel stores well and does not degenerate over time, fuel systems do not need to be emptied if users do not expect to use a chainsaw or other piece of equipment for an extended period.

[Read more about small-engine gasoline.](#)

Sustainability reporting

The goal of Neste Oil's Sustainability Report is to share information on the sustainability of the company's operations and provide the information required by Neste Oil's stakeholders in this area. A Sustainability Report is published annually as part of the Annual Report, and supplementary information is published on the Neste Oil web site. The Annual Report and the Sustainability Report for 2011 are the first to be published primarily online in html-format.

The switch to online publication is designed to make it easier for readers to locate the information they are interested in, and will also make it possible for users to assemble customized editions of the report for their specific needs.

Sustainability reporting is developed annually based on stakeholder feedback, which can be sent via email to CORPCOMViestinta@nesteoil.com.

In addition to the corporate Sustainability Report, Neste Oil's Porvoo and Naantali refineries publish regular newsletters for residents in the surrounding areas covering the local impact of the company's operations. These newsletters can also be read online in Finnish [at Neste Oil's web site](#).

Reporting principles

Neste Oil is committed to the principles of the AA1000APS (2008) standard, which cover inclusivity, materiality, and responsiveness. The 2011 Sustainability Report is the third to have been compiled in accordance with the G3 guidelines (version 3.0) of the Global Reporting Initiative (GRI); and has also been assured by an independent third party.

Sustainability reporting has been developed based on feedback from the 2010 Report, particularly in terms of the development areas identified during the assurance process.

The sustainability reporting in Finnish has been assured by an independent third party, PricewaterhouseCoopers Oy, and congruence between the Finnish and English versions has been checked. PricewaterhouseCoopers has checked Neste Oil's reporting and has confirmed it to meet the GRI requirements for the Application Level B+.

Neste Oil is preparing to adopt the Oil & Gas sector guidelines published by the GRI in December 2011 in its reporting, as well as the G4 guidelines that will be published in 2013.

Neste Oil's Annual Report for 2010 was published on 10 March 2011. The reporting period covered by the Sustainability Report is the same as that followed in the Annual Report: January 1 – December 31. Changes in previously reported key figures and accounting principles, are reported in connection with the corresponding key figures.

Scope of reporting

Safety and environmental reporting for 2011 covers all the refineries owned by Neste Oil in which the company has a greater than 50% holding in Finland and overseas. Reporting on safety matters also covers suppliers and the main contractors, as well as the road and marine transportation of the company's products and feedstocks.

The Rotterdam refinery commissioned in September 2011 came within the scope of reporting at the beginning of 2011 in respect of personnel-related matters (such as occupational safety and working hours), and at the beginning of June 2011 in respect of environmental and process safety indicators (such as incident reporting on leaks). The new base oil plant in Bahrain is not included in the reporting.

Following divestments, reporting has not covered AS Reola Gaas, which was majority-owned by Neste Oil, since August 2011 and has not covered the operations of the PAO plant in Belgium since the beginning of December 2011.

Reporting tools and practices

Financial reporting complies with international IFRS accounting requirements, while corporate governance reporting complies with relevant national legislation and the Finnish Corporate Governance Code covering listed companies. The presentation of environmental costs and liabilities is based on Finnish accounting legislation.

Financial indicator data is based on audited figures, while personnel data is sourced from Neste Oil's HR systems. Personnel figures are calculated in accordance with the Finnish Accounting Board's general guidelines for annual reports. Environmental data is gathered from various systems operated by the company's business units. [CONCAWE principles](#) are used in calculating safety-related injury frequency figures.

Adoption of new reporting tool continued

Neste Oil continued the adoption of a new reporting tool during 2011 and organized training on its use and reporting procedures for personnel involved in the reporting process. The tool fully supports GRI G3 reporting and is intended for reporting HSSE data on a monthly and annual basis.

The new tool is designed to collect data on most environmental, social, and financial responsibility indicators. Neste Oil also continues to use various other reporting tools for collecting the data needed for its sustainability reporting.

Independent Assurance Report

(Translation from the Finnish Original)

To the Management of Neste Oil Corporation

We have been engaged by the Management of Neste Oil Corporation to perform a limited assurance engagement on the information on economic, social and environmental responsibility for the reporting period of January 1, 2011 to December 31, 2011 disclosed in the "Sustainability" section of Neste Oil Corporation's online Annual Report 2011 (hereinafter "Sustainability information").

Management's responsibility

The Management of Neste Oil Corporation is responsible for preparing the Sustainability information according to the Reporting criteria as set out in Neste Oil Corporation's sustainability reporting instructions, the Sustainability Reporting Guidelines of the Global Reporting Initiative (version 3.0), as well as AA1000 Accountability Principles Standard 2008 issued by AccountAbility.

Practitioner's responsibility

Our responsibility is to express a conclusion on the Sustainability information based on our work performed. Our assurance report has been made in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Neste Oil Corporation for our work, for this report, or for the conclusions that we have reached.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 'Assurance engagements other than audits or reviews of historical financial information'. This Standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance whether any matters come to our attention that cause us to believe that the Sustainability information has not been prepared, in all material respects, in accordance with the Reporting criteria.

In addition, we have conducted our work in accordance with the AA1000 Assurance Standard 2008. For conducting a Type 2 assurance engagement as agreed with Neste Oil Corporation the AA1000 Assurance Standard 2008 requires planning and performing of the assurance engagement to obtain limited assurance on whether any matters come to our attention that cause us to believe that Neste Oil Corporation does not adhere, in all material respects, to the AA1000 Accountability Principles (inclusivity, materiality and responsiveness) and that the Sustainability information is not reliable, in all material respects, based on the Reporting criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other disclosures in the Sustainability information. The procedures selected depend on the practitioner's judgement, including an assessment of the risks of material misstatement of the Sustainability information. Our work consisted of, amongst others, the following procedures:

- Interviewing senior management of Neste Oil Corporation.
- Interviewing relevant employees from various organizational levels of Neste Oil Corporation with regards to stakeholder expectations towards Neste Oil Corporation, the meeting of those expectations as well as stakeholder engagement.

- Assessing stakeholder inclusivity and responsiveness based on Neste Oil Corporation's documentation and internal communication.
- Assessing Neste Oil Corporation's defined material sustainability aspects as well as assessing Sustainability information based on these aspects.
- Performing a media analysis and an internet search for references to Neste Oil Corporation during the reporting period.
- Interviewing persons responsible for the collection and reporting of sustainability information at group level as well as at site level in Finland.
- Assessing the systems and practices used for the collection and consolidation of quantitative information.
- Testing the accuracy of the information from original documents and systems on a sample basis.
- Testing the consolidation of information and performing recalculations on a sample basis.

Conclusion

Based on our limited assurance engagement nothing has come to our attention that causes us to believe that Neste Oil Corporation does not adhere, in all material respects, to the AA1000 Accountability Principles.

Furthermore nothing has come to our attention that causes us to believe that Neste Oil Corporation's Sustainability information has not been prepared, in all material respects, in accordance with the Reporting criteria, or that the Sustainability information is not reliable, in all material respects, based on the reporting criteria.

Our assurance report should be read in conjunction with the inherent limitations of accuracy and completeness for corporate social responsibility information. This independent assurance report should not be used on its own as a basis for interpreting Neste Oil Corporation's performance in relation to its sustainability policy.

Observations and recommendations

Based on our limited assurance engagement we provide the following observations and recommendations in relation to adherence to the AA1000 AccountAbility Principles. These observations and recommendations do not affect the conclusions presented earlier.

- Regarding Inclusivity: Neste Oil Corporation has a strong commitment to stakeholder engagement. The company has an extensive stakeholder engagement process in place to ensure a continuous identification of relevant stakeholders as well their concerns and expectations. We recommend that Neste Oil Corporation further develops the systematic management of stakeholder engagement, and increases the internal communication in this area.
- Regarding Materiality: Neste Oil Corporation has processes in place to determine the materiality of sustainability issues. We recommend that Neste Oil Corporation proactively takes into account emerging sustainability trends in the materiality definition.
- Regarding Responsiveness: Neste Oil Corporation is committed to being responsive to its stakeholders, which is evident from the ongoing and wide-ranging communication on sustainability issues in media, forums and other communication channels. We recommend that Neste Oil maintains active responsiveness to its stakeholders.

Practitioner's independence and qualifications

PricewaterhouseCoopers' own Global Independence Policy is applicable to PricewaterhouseCoopers Oy, its partners and professional staff, including all members of the assurance engagement team.

Our multi-disciplinary team of sustainability and assurance specialists possesses the requisite skills and experience within financial and non-financial assurance, sustainability strategy and management, social and environmental issues as well as knowledge of the energy industry to undertake this assurance engagement.

Helsinki, 23 February 2012

PricewaterhouseCoopers Oy

Sirpa Juutinen
Partner
Sustainability & Climate Change

Maj-Lis Steiner
Director, KHT
Sustainability & Climate Change



GRI content index

PricewaterhouseCoopers Oy has checked our reporting and has confirmed it to be Application Level B+.

	GRI Content	Included	Links	Remarks
	1. Strategy and Analysis			
1.1	CEO's statement	Yes	CEO's Review	
1.2	Key impacts, risks and opportunities	Yes	Sustainability-related risks and opportunities Strategy Industry overview Sustainability targets	
	2. Organizational Profile			
2.1	Name of the organization	Yes	Neste Oil in brief	
2.2	Primary brands, products and services	Yes	Business areas in brief Oil Products' customers and products Renewable Fuels' customers and products	
2.3	Operational structure	Yes	Business Note 33 - Group companies on 31 December 2011	
2.4	Location of organization's headquarters	Yes	Company's general information	
2.5	Number of countries and location of operations	Yes	Business areas in brief Note 4 - Segment information	
2.6	Nature of ownership and legal form	Yes	Note 1 - General information Owners and financiers	
2.7	Markets served	Yes	Business areas in brief Customers	
2.8	Scale of the reporting organization	Yes	Oil Products' customers and products Key Figures	
2.9	Significant changes regarding size, structure or ownership	Yes	Scope of reporting	
2.10	Awards received in the reporting period	Yes	Sustainability review reports NGO critiques	

3.Reporting Principles				
3.1-3.4	Report profile	Yes	Reporting principles Sustainability reporting	
3.5-3.11	Reporting scope and boundary	Yes	Material aspects of sustainability Stakeholder engagement in materiality assessment Scope of reporting Reporting tools and practices Reporting principles	
3.12	GRI content index	Yes		
3.13	Assurance	Yes	Independent Assurance Report Reporting principles	
4. Governance, Commitments and Engagement				
Governance				
4.1	Governance structure of the organisation	Yes	Corporate Governance Statement 2011	
4.2	Position of the Chairman of the Board	Yes	Board of Directors	
4.3	Independence of the Board members	Yes	Board of Directors	
4.4	Mechanism for shareholder and employee consultation	Yes	Corporate Governance Statement 2011	
4.5	Impact of organisation's performance on executive compensation (inc. social and environmental performance)	Yes	Remuneration and shareholdings Remuneration principles for senior management	
4.6	Processes for avoiding conflicts of interest	Yes	Board of Directors	
4.7	Processes for determining Board members' expertise in strategic management and sustainability	Yes	Nomination Board Board of Directors' CV	
4.8	Implementation of mission and values statements, code of conduct and other principles	Yes	Sustainability management tools Complying with values, laws, and principles www.nesteoil.com	

4.9	Procedures of the Board for overseeing management of sustainability performance, including risk management	Yes	Sustainability management The objective, framework, and process of risk management	
4.10	Processes for evaluating the Board's performance	Yes	Board of Directors	
Commitments to External Initiatives				
4.11	Addressing precautionary approach	Yes	Risk management	
4.12	Voluntary charters and other initiatives	Yes	Participation in organizations and joint projects Global IGO and NGO programs www.nesteoil.com	
4.13	Memberships in associations	Yes	Participation in organizations and joint projects	
Stakeholder Engagement				
4.14	List of stakeholder groups	Yes	Neste Oil's key stakeholders	
4.15	Identification and selection of stakeholders	Yes	Stakeholder engagement	
4.16	Approaches to stakeholder engagement	Yes	Neste Oil's key stakeholders Stakeholder engagement	
4.17	Key topics raised through stakeholder engagement	Yes	NGO's critique Neste Oil's key stakeholders Employer image in 2011	
Economic Performance Indicators				
	Management approach to economic responsibility	Yes	Financial targets Sustainability goals and achievements Financial responsibility	
EC1*	Direct economic value generated and distributed	Yes	Direct and indirect financial impacts	
EC2*	Financial implications, risks and opportunities due to climate change	Partly	Climate protection	
EC3*	Coverage of defined benefit plan obligations	Yes	Pension cover Retirement benefit obligations	
EC4*	Significant subsidies received from government	Yes	Taxes and other payments Retirement benefit obligations	

			Consolidated income statement	
EC5	Entry level wage compared to local minimum wage	Partly	Competitive remuneration and fringe benefits	
EC7*	Local hiring procedures and proportion of local senior management	Partly	Recruitment	
EC9	Significant indirect economic impacts	Yes	Direct and indirect financial impacts	
Environmental Performance Indicators				
	Management approach to environmental responsibility	Yes	Environmental responsibility Managing environmental responsibility Sustainability management Sustainability targets	
EN1*	Materials used by weight or volume	Yes	Material and energy balance	
Energy				
EN3*	Direct energy consumption	Yes	Material and energy balance	
EN4*	Indirect energy consumption	Partly	Material and energy balance	
EN5	Energy saved due to conservation and efficiency improvements	Partly	Energy efficiency Continuous improvements in energy efficiency	
EN6	Initiatives to provide energy-efficient or renewable energy based products and services	Yes	Renewable fuels Renewable fuels' markets Climate protection Product lifecycle analyses	
Water				
EN8*	Total water withdrawal by source	Partly	Water Water inventories update Material and energy balance	
EN9	Water sources significantly affected by withdrawal of water	Partly	Water Impact of water use is local	
EN10	Percentage and total volume of water recycled and reused	Partly	Efficient water use and wastewater treatment	
Biodiversity				
EN11*	Location and size of land holdings in areas of high biodiversity	Yes	Natura areas	
EN12*	Description of significant impact of activities, products, and services on biodiversity	Partly	Impact of indirect land use change	
EN13	Habitats protected or restored	Yes	Natura areas	

EN14	Managing impacts on biodiversity	Yes	Protecting the biodiversity of forests	
EN16*- EN17*	Total direct and indirect greenhouse gas emissions	Yes	Gas emissions Material and energy balance Refinery gas emissions Logistics	
EN18	Initiatives to reduce greenhouse gas emissions	Partly	Head Office and the WWF's Green Office program	
EN19*	Emissions of ozone-depleting substances	Yes	Airborne emissions from refining	
EN20*	NOx, SOx, and other significant air emissions	Yes	Emissions	
EN21*	Total water discharge	Yes	Efficient water use and wastewater treatment Material and energy balance	
EN22*	Total amount of waste by type and disposal method	Yes	Waste management Material and energy balance	
EN23*	Significant spills	Yes	Sustainability targets Logistics	
EN25	Water bodies and habitats affected by discharges of water	Partly	Efficient water use and wastewater treatment Water	
EN26*	Mitigating environmental impacts of products and services	Yes	Environmental impact resulting from the end use of products Product lifecycle analyses	
EN28*	Non-compliance with environmental regulations	Yes	Court orders Neste Oil to pay for cleaning up soil at a service station	
EN29	Environmental impacts of transportation	Yes	Environmental impact of Logistics	
EN30	Environmental protection expenditures and investments	Partly	Investments in efficiency, environment, and safety	
Social Performance Indicators				
	Management approach to labor practices and decent work	Yes	Managing social responsibility Safety management Sustainability management Sustainability targets	
	Employment			
LA1*	Total workforce by employment type, employment contract and region	Yes	Personnel structure	
LA2*	Total number and rate of employee turnover	Partly	Personnel turnover	

LA4*	Coverage of collective bargaining agreements	Yes	Equitable and motivational remuneration	
LA5*	Minimum notice period regarding operational changes	Yes		Neste Oil follows local legislation.
Occupational Health and Safety				
LA7*	Rates of injury, occupational diseases, lost days, fatalities and absenteeism	Partly	A safe workplace All accidents are preventable	
LA8*	Education and prevention programmes regarding serious diseases	Yes	Wellbeing health and safety	
LA10*	Training hours per employee	Partly	HR development and training	
LA11	Programmes for skills management and lifelong learning	Yes	HR development and training Developing Neste Oil's leadership Developing leadership and supporting managers in their work	
LA12	Employees receiving regular performance and career development reviews	Yes	Engaging people	
LA13*	Composition of governance bodies and breakdown of employees	Yes	Equality and diversity Personnel structure Key figures related to personnel structure	
LA14*	Ratio of basic salary of men to women	Partly	Promoting equal pay Competitive remuneration and fringe benefits	
Human Rights				
Management approach to human rights				
		Yes	Sustainability management Managing social responsibility	
HR2*	Suppliers and contractors that have undergone human rights screening	Partly	Strict sustainability criteria for suppliers	
HR3	Human rights related training for employees	Partly	Complying with values laws and principles	
HR4*	Incidents of discrimination and actions taken	Yes	Equality and diversity	
HR5*	Supporting right to freedom of association and collective bargaining in risk areas	Yes	Compliance	
HR6*	Measures taken to eliminate child and forced labour in risk areas	Yes	Complying with values	

HR7*	Operations identified as having significant risk for forced or compulsory labor and measures taken to contribute to the elimination of forced or compulsory labor	Yes	Complying with values	
Society				
	Management approach to society	Yes	Sustainability management Social responsibility Strict sustainability criteria for suppliers Complying with values	
Corruption				
SO3*	Anti-corruption training	Partly	Complying with values laws and principles	
Public Policy				
SO5*	Public policy positions and participation in public policy development and lobbying	Yes	Public affairs and advocacy	
SO6	Contributions to political parties and related institutions	Yes	Human rights and equality	
SO7	Legal actions for anti-competitive behaviour, anti-trust, and monopoly	Yes		No legal actions during the reporting period.
Compliance				
SO8*	Corruption, Anti-competitive behavior, Compliance	Yes		No fines or sanctions during the reporting period.
Product Responsibility				
	Management approach to product responsibility	Yes	Product safety	
Customer Health and Safety				
PR1*	Assessment of health and safety impacts of products	Partly	Safety of new raw materials	
PR2	Non-compliance with regulations concerning health and safety impacts of products	Yes	Safe products for customers	
PR3*	Product information required by procedures	Partly	Updating the public on fuel changes Product packaging and labeling	
PR5*	Practices related to customer satisfaction and results of customer satisfaction surveys	Partly	Measuring stakeholder engagement	
PR6*	Adherence to marketing communications laws, standards and voluntary codes	Yes	Product safety	

Following GRI core indicators not reported: EC6, EC8, EN2, EN27, HR1, SO1, SO2, PR9

* GRI Core indicator