# MEAL YEAR 2004

Corporate responsibility report



m·real

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# M-real's commitment and principles of corporate responsibility

# M-real's commitment to corporate responsibility

M-real Corporation is committed to promoting sustainable development through its business activities, to continuously improving its operations and to conducting its business in a responsible way.

We take into consideration the economic, environmental and social aspects of our operations. Our objective is to ensure both our own and our business partners' long-term business success, to contribute to the well-being of people through our products and activities, and to minimise the adverse environmental impacts of our operations.

We support the principles of the UN Global Compact\*) on human rights, labour, the environment, and anti-corruption. We are committed to advancing these principles within our sphere of influence.

M-real Corporation defines its commitment to corporate responsibility in more detail through concrete principles and monitors their implementation

\*) The Global Compact is a joint initiative launched by the United Nations together with business to advance responsible corporate citizenship. It is based on ten universal principles in the areas of human rights. Jabour, the environment, and anti-corruption.

# M-real's principles of corporate responsibility

#### General

#### M-real values

**are the basis** The activities of M-real are based on the company values:

- We have no barriers
- We mean what we say, we do what we say
- We encourage people to reach their full potential
- We respect each other

#### Compliance with legislation

#### Cooperation with stakeholders

#### Promotion of sustainable forest management

Responsibility in investments, mergers and acquisitions

#### Responsible advertising and sponsoring

#### **Economic responsibility**

- Long term profitability
- Open and fair economic information
- Refraining from corruption and bribery
- Corporate governance

#### Social responsibility

- Respect for human rights and labour standards
- Taking care of work safety and occupational health
- Respect for different cultures
- Meaningful work

#### **Environmental responsibility**

#### Implementation of

the principles For the implementation of these principles, M-real provides policies and codes of conduct for necessary areas. A list of available codes of conduct is maintained in M-real's company intranet Pulse, with references to the location of the actual documents and responsible functions for the respective areas.

#### Monitoring of

implementation The implementation of these principles is monitored and reported regularly to M-real Corporate management and Board of Directors.

M-real regularly publishes a report on corporate responsibility for external stakeholders.

#### Review of

the principles These principles are reviewed and updated upon need using as basis the monitoring results and analysis of business environment.

# These principles are presented in detail on M-real's website www.m-real.com.

# Corporate policy on occupational safety and well-being

Our values and the principles of corporate responsibility mean that M-real is committed to promoting the occupational health, safety and well-being of its employees. As well as complying with legislative requirements and relevant agreements, M-real strives to be one of the leaders in occupational safety and well-being.

It is our belief that accidents at work and occupational diseases are preventable. For this reason, only safe working practices and safe work environments are acceptable within M-real. Our ultimate goal is zero work accidents and occupational diseases.

M-real is committed to occupational health and safety through:

- organising roles and responsibilities in ways that support a positive impact on work safety and individual well-being
- establishing, maintaining and developing the

transparent reporting and monitoring of indicators

- the regular setting of targets, formulation of action plans and allocation of necessary resources
- following developments and taking corrective action where necessary
- benchmarking both inside and outside the company to ensure we are competitive in this area.
   Individual operational units and business areas are responsible for health and safety matters.
   Controlling risks and promoting safe working practices requires joint effort by employees and management. While safe working environments are conducive to physical, mental and social health, well-being at work also calls for meaningful work and opportunities, which allow individuals to achieve their full potential.

This corporate policy was approved by the M-real Corporate Executive Board on 14 December, 2004

# M-real's environmental policy

M-real is one of Europe's leading suppliers of paper and paperboard products. We are committed to integrating environmental management into our entire range of business activities. M-real's environmental policy is based on the company values.

Our policy is to:

- be a responsible corporate citizen and a reliable business partner, meeting our legal obligations and fulfilling our commitments to our customers and other stakeholders
- ensure that everyone at M-real shares
   responsibility for our environmental performance
- utilise raw materials and energy sparingly, and ensure that our production equipment and machinery is properly maintained
- supply products and solutions that are safe and meet our customers' needs
- develop our products, processes and working methods in order to continuously improve our environmental performance
- maintain an open dialogue about our environmental work.

In addition to these principles, we have set ourselves a number of further objectives.

We aim to:

- use wood from well-managed forests, and develop and promote reliable systems for forest certification
- reduce the environmental and health impacts of our operations
- develop resource-saving products that can be recycled
- motivate our own people to take care of the environment and ensure that they have the necessary competence and skills
- make environmental information about our products openly available
- promote open networking and information sharing within M-real.

This environmental policy is implemented by our individual units and business areas in conjunction with the relevant corporate functions. Implementation is monitored and the policy will be reviewed on an on-going-basis.

Espoo 25 March, 2002 Jouko M. Jaakkola

# President's review

#### Dear

Reader ■ During 2004, we made several major changes to improve the efficiency of our operations and to develop the company further. We are well aware, however, that we still have many challenges ahead of us in 2005. One of our main goals now is to raise the financial results of the company to an acceptable level.

Particularly in times such as this, it is important that we know where we are heading and that our operating principles are on a sustainable basis. We will continue to be guided by M-real's company values, also in the future.

Corporate responsibility is about making these company values come alive. We recognise that this is a long-term process that requires management support and example. M-real issued its statement of commitment to corporate responsibility in February 2004. The principles of implementing this commitment and the indicators used to assess our success have also been prepared. An action plan was approved by the company's Board of Directors in January 2005.

Our approach to Corporate responsibility will be coherent. Many of the practices have already been part of our daily work experience for years. What is perhaps new is better coordination and extensive cooperation in applying them throughout the company.

Some may question whether it is a good idea to proceed with this kind of broad initiative when other projects are under intense scrutiny and very short payback times are required. I am convinced, however, that responsible action is exactly what we need. This is not a fancy, isolated project, but an initiative that will influence our company culture in all three realms of corporate responsibility – economic, social and environmental.

Ensuring M-real's long-term profitability is, of course, one of our principles of economic responsibility. I realise that we need to take action to improve profitability and to restore our owners' confidence. Our products and services form a solid basis for this improvement. We have traditionally maintained close contacts with our customers and other stakeholders both locally and at the corporate level. Whatever our stakeholders consider to be important is bound to have an influence on our business opportunities. We will therefore focus



on the systematic gathering and assessment of feedback.

This year, we are also going to clarify some of our internal processes. Improved clarity in strategy and organisation will help to improve our operational efficiency. I believe that clear objectives and responsibilities will also contribute to workplace well-being for all at M-real. In particular, we will look at processes related to our employees' occupational health and safety.

In its environmental work, M-real focuses on the whole life cycle of its products. We will continue to develop products that help save natural resources and have minimum harmful impacts on their way from cradle to grave, from the forest to recycling. To support our customers in their own businesses, we will also continue to provide them with detailed environmental product information.

Hannu Anttila President and CEO

# M-real in a nutshell

M-real is one of the leading producers of fine paper and paperboard in Europe. The company focuses on four core businesses: Consumer Packaging, Publishing, Commercial Printing and Office Papers. M-real's global clientele consists mainly of publishers, printers, paper merchants, offices and wellknown consumer product manufacturers as well as carton printers.

M-real aims at enhancing its customers' businesses by providing excellent wood fibre based solutions for consumer packaging, communications and advertising purposes. Together with customers and partners, M-real develops new innovations for demanding applications, such as magazines, art books, brochures, direct mail and office papers, as well as packages for beauty and health care products, cigarettes, branded food and consumer electronics. M-real's brands include Galerie, Euro Art, Data Copy and Logic fine papers, and Carta and Avanta boards.

M-real has 26 production units in nine European countries; Austria, Belgium, Finland, France, Germany, Hungary, Sweden, Switzerland and the UK. Total production capacity amounts to 4.6 million tonnes of paper and 1.3 million tonnes of paperboard per annum.

M-real has an extensive sales network with offices in 70 countries and a merchanting arm, Map Merchant Group, with offices in 22 European countries. M-real's four technology centres in Finland, Germany and Sweden focus on the development of new products and services to meet customers' needs in specific areas.

M-real Corporation, which generated a turnover of 5.5 billion euros in 2004, employs nearly 16 000 people. Headquartered in Finland, M-real Corporation is listed on the Helsinki Stock Exchange.

# M-real business areas 2005

Consumer Packaging ■ The Consumer Packaging business area offers high performance paperboards, packaging solutions and related services to carton printers and brand owners in industries such as: beauty care, health care, foods, cigarettes and consumer durables. The product range also includes high quality graphic boards, wallpaper base and papers for flexible packaging, labelling and self-adhesive laminates.

Publishing ■ The Publishing business area provides a coated paper range of Galerie Papers for demanding applications, such as magazines, product catalogues, direct mail and sales promotion materials. Galerie Papers have an excellent reproduction quality, even in very low weights, and are highly regarded by leading publishers, printers and brand owners around the world.

Commercial Printing ■ The Commercial printing business area produces added value fine papers for promotion and corporate communications. Art books, brochures, annual reports, direct mailings, flyers, inserts, leaflets are characteristic products made of this choice paper. The end users are primarily professionals working in marketing and corporate communications. The products are typically sold via merchant partners.

Office Papers ■ The Office Papers business area focuses on high quality office papers used in the business environment. The product portfolio meets the needs of all types of users, from the smallest home offices through to large corporations and government institutions. The products are designed to provide the highest performance in various printing technologies applications.

Map Merchant Group ■ Map Merchant Group is the third largest merchant group in Europe and is made up of 24 individual merchant companies, active in 22 countries with links across the globe. It serves some 50 000 customers, principally printers, publishers, advertising agencies, banks and retail chains throughout Europe. Map supplies both M-real's and other manufacturers' paper grades.

# Executive summary

# Key performance indicators

■ Financial and ecor	nomic		2004	2003	2002
Financial	Turnover	euro million	5 460	6 044	6 564
	Operating profit	euro million	-75	74	324
	Profit before extraordinary items	euro million	-209	-80	134
	Return on capital employed	%	-1.0	1.6	5.8
	Equity ratio	%	41.5	31.9	34.2
	Gross capital expenditure	euro million	259	397	310
	R&D expenditure	euro million	28	27	26
Payments to stakeholders	Dividend and interest payments	euro million	219	300	298
	Wages (including wages and fees, pension expenses and other social expenses)	euro million	917	1 044	1 079
	Purchases from suppliers	euro million	3 383	3 564	3 876
	Income taxes	euro million	55	31	61

 $\label{eq:Return on capital employed} \begin{aligned} & \text{Profit before extraordinary items + interest expense,} \\ & \text{net exchange gains/losses and other financial expenses} \\ & \overline{\text{Total assets - non-interest-bearing liabilities (average)}} \end{aligned}$ 

Equity ratio = Shareholders' equity + minority interest
Total assets – advance payments received

#### ■ Environmental

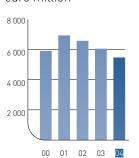
Resources	Wood	1 000 m <sup>3</sup>	14 268	13 347	13 343
	Purchased fuels	GWh	12 393	13 649	13 005
Emissions into air	Greenhouse effect (CO <sub>2</sub> eqv.)	tonnes	2 708 290	3 023 341	2 882 720
	Acidification (SO <sub>2</sub> eqv.)	tonnes	10 504	10 923	10 771
Discharges into water	COD	tonnes	58 545	64 601	65 636
	Eutrophication (P eqv.)	tonnes	392	442	425
Waste	Landfill waste	tonnes	82 521	184 002	160 571
	Emission coefficients on page 46.				

■ Human recourses

Human resources					
Basic statistics	Personnel (average)		16 490	20 372	21 070
	Years of service (average)		15.7	16.6	16.0
	Employee turnover rate	%	4.5	8.3	6.7
Health and safety	Lost time accident frequency rate	per million worked hours	19.0	18.7	_
	Sickness and work injury absenteeism	%	5.0	5.3	5.8
Competence development	Training days	per employee	2.8	2.5	1.6

#### Turnover,

euro million



#### Personnel, average



# Corporate responsibility – practical steps forward

#### Dear

Reader ■ In February 2004, M-real's Corporate

Executive Board announced the company's commitment to the spirit of corporate responsibility.

M-real's principles of corporate responsibility were formulated and approved by the company's Board of Directors in January 2005.

M-real is also committed to the principles of the Global Compact, the United Nations' initiative to encourage world business leaders to advance responsible corporate citizenship.

M-real has a long-standing record of environmental work and caring for employees' well-being. Our company values also reflect this attitude. When we issued our statement of commitment to corporate responsibility, therefore, we did not feel as if we were entering a new era but were just putting this commitment into practice.

To support the management of corporate responsibility issues, two important new positions were established in 2004, that of Senior Vice President, Corporate Public Affairs, with responsibility for corporate responsibility, and of Assistant Vice President, Occupational Safety and Well-being. In

addition, responsibilities in the various areas of corporate responsibility were also more clearly defined.

In 2004, we also took several major steps towards the enhancement of our environmental communications. For example, we supplemented our environmental product declaration



with information on the origin of the wood raw material. We also held discussion forums with our customers and sales staff, talking with them about the measures we have taken to ensure sustainable sourcing of wood raw material.

Wood procurement is an area where all three aspects of corporate responsibility – social, eco-

#### M-real's first

corporate responsibility report ■ This report accounts for M-real's activities and performance during 2004 in terms of economic, environmental and social impacts on the surrounding society, environment and personnel. The report has been prepared by applying the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines 2002. M-real has reported on its environmental impacts since 1989. The content of M-real's annual environmental reports published since 1995 corresponds to that of the present report.

Introduction ■ The report begins with opening words from M-real's top management and basic information on the company, followed by key performance indicators on corporate responsibility and an executive summary with an assessment of the achievements in 2004 and future prospects for corporate responsibility. ▶ See pages 1–5

#### Commitment to

corporate responsibility ■ This section presents the results of an assessment of the expectations of M-real's stakeholders. M-real demonstrates its commitment to corporate responsibility through its Commitment and Principles of Corporate Responsibility and through clearly defined functional responsibilities. Promotion of sustainable forest management and wood procurement is an essential and integral part of M-real's operations and commitment to corporate responsibility. See pages 6–14 and inside front cover

nomic and environmental – are involved. Responsible wood harvesting benefits local communities as a source of income and employment opportunities. At the same time, we must make sure that loggings do not endanger forest biodiversity. M-real encourages the development of credible forest certification systems verified by third-party audits as an effective tool to ensure the preservation of biodiversity in commercial forests.

In 2005, we will continue to focus on putting our principles of corporate responsibility into practice. There will be an internal roll-out campaign designed to make everyone in our organisation aware of what corporate responsibility is and how we should demonstrate our commitment to it. We will put more effort into dialogue with our stakeholders and build up a system for sharing feedback within the company. We will also watch for "weak signals" of future trends. This information will naturally be taken into account in the development of M-real's strategy.

M-real's Corporate Executive Board approved the company policy on occupational safety

and well-being on 14 December 2004. We will enhance the well-being of our employees further by implementing a consistent, company-wide approach based on the many good practices that already exist within M-real.

Despite the fact that our immediate responsibility is to improve the profitability of M-real and that we will have to be relatively modest with our other ambitions in 2005, I firmly believe that our practical approach to corporate responsibility will enable us to achieve the best results in the long run.

#### **Armi Temmes**

#### Economic performance

and indicators ■ This section describes monetary flows between M-real and its various interest groups, the investment project in Kaskinen, contribution to the industry's competitiveness, competition issues and risk management. The section also comments other areas, such as product safety, producer responsibility, and customer satisfaction.

#### See pages 15−22

#### Environmental performance

and indicators ■ This section reports on mill improvements, energy usage and emissions, and presents the materials balance. It also describes M-real's procedures in preparing for the EU's emissions trading scheme, customers' interest in environmental issues and environmental aspects in M-real's transports.
 See pages 23-35

#### Human resources and social performance

and indicators ■ This section describes M-real's
Human Resources activities including occupational
safety and competence development. Examples of
M-real's community involvement are also provided.

#### See pages 36-44

#### Reporting principles and

assurance statement ■ The reporting principles explain the scope of the report, and a comparison to the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines 2002 provides information on reported issues. Included is also an assurance statement, which is based on an independent verification process by auditors of PricewaterhouseCoopers, with the aim of ensuring the completeness, accuracy and comparability of the numerical information presented in this report. Key contact information on corporate functions related to corporate responsibility is presented.

**■** See pages 45-47 and 50-52



# M-real's commitment to corporate responsibility

# Stakeholders' expectations

M-real has assessed stakeholder expectations in a Corporate Responsibility policy group working at corporate level. The assessment was based on the gathered experience of the members. The expectations, as well as the principles of the Global Compact, were used as a basis for defining M-real's commitment to and principles of corporate responsibility. An understanding of stakeholder expectations will be extended through feedback from various stakeholder groups, including regular business contacts.

	Expectations regarding HR issues	Expectations regarding environmental issues	Expectations regarding wood procurement	Expectations regarding responsible business practices
Customers and consumers	Customer orientation and an efficient service organisation. Value chain management.	Environmental information on products.	Good reputation. Respect for old growth forests.	Enhancing customers' business and helping customers serve their clients. Long-term partnership, reliability, consistency. Stability over business cycle. Data security. Product safety.
Shareholders, investors, analysts	Good human resources practices, an integral part of ethical investment criteria in particular.	Environmental risk manage- ment.		Profitability, steady dividends. Open, transparent and reliable investor communications. Good corporate governance, top management capability and remuneration, and risk man- agement. Good ratings on CSR practices and performance.
Employees and their families	Working conditions, safety, health, well-being. Compensa- tion. Continuity. Life balance. Meaningful work. Respect.		Occupational safety. Good reputation.	Good reputation.
Potential recruits, educational institutions, students	Company reputation, success. Values, reliability. International opportunities.			Good reputation.
Wood suppliers and private forest owners	Professional purchasing.		Profitability, continuity, competitiveness. Quality of operations. Provision of livelihood and vitality to forest owners.	Profitability. Good reputation.
Other suppliers	Professional purchasing.			Long-term, profitable, and reliable business partner-ships. Need to balance quality requirements and costs. Good reputation.
Local communities, neighbours of production units	Continuity, reliability, safety and economic vitality of local communities. Community involvement e.g. visits, projects, programmes.	Environmental protection and safety. Minimisation of disturbances such as noise, smells/odours and traffic.	Provision of livelihood and vitality through forest operations. Environmental protection, recreational and scenic aspects, public right of access.	Continuity in providing employment, services and financial support (local taxation).
NGOs, ENGOs	Human rights.	Dialogue. Compliance with legislation. Case-specific requirements.	Responsibility, compliance with legislation. Nature conservation values. Reducing amount of wood used.	Ethical behaviour.
Authorities (governmental, environmental, competition)	Compliance with legislation and regulations.	Compliance with legislation and regulations. Attentive to regional planning issues.	Compliance with legislation and regulations.	Prevention of anti-competitive behaviour.
Media	Provision of news material on employment and personal stories.	Open, reliable, varied and professional external communications.		Ethical behaviour and good corporate governance. Misconduct unacceptable.
Politicians		Influence on employment creation and regional planning. Open external communications.		
The general public	Responsible employment practices, especially when reducing numbers.	Minimisation of negative impacts.	Recreational and scenic aspects important, public right of access.	Responsible employment practices, especially when reducing numbers. Ethical behaviour and good corporate governance. No misconduct.

# M-real's approach to corporate responsibility

Paper plays a significant role in nearly everybody's life, but the abundance of it creates huge material flows. At the same time, the production and supply of paper create direct and indirect employment for millions, but they may also affect surrounding communities in other ways.

Having grown to be a pan-European paper manufacturer, M-real acknowledges the fact that a strong impact on society goes hand in hand with responsibility.

Stakeholders ■ To define the company's principles of corporate responsibility, the project group members needed to consider not only company values and ethics but also the expectations of other stakeholders. Various corporate functions, Business Areas and local units were able to provide this information as a result of regular dialogue with their stakeholders.

The corporate responsibility tasks that M-real is going to tackle immediately include creating internal mechanisms for more efficient sharing of stakeholder feedback and establishing practices to ensure that the information gathered is utilised in corporate planning and strategic processes. The company also needs to ensure that its dialogue with all stakeholders is regular and systematic.

#### M-real

values ■ M-real's approach to corporate responsibility is based on the company's values, which were prepared in 2001, and officially launched 2002 and then introduced to employees through a comprehensive training programme.

Values ■ In 2001, M-real's top management initiated a project with the objective of creating a set of corporate values for the company. In February 2002, the Corporate Executive Board defined M-real's corporate values as:

- We have no barriers
- We mean what we say, we do what we say
- We encourage people to reach their full potential
- We respect each other

#### Benefits for

M-real's business ■ Long-term benefits that M-real will gain through commitment to corporate responsibility include:

- a firm basis for long-term business partnerships
- improved ability to attract, motivate and retain high quality employees
- added credibility and enhanced company reputation

#### Commitment and

principles ■ During 2004, M-real finalised its commitment to corporate responsibility. A draft version of the principles was approved by the Corporate Executive Board in February 2004. After broad internal consultation, the text was modified slightly. Some of the feedback will also be utilised during implementation.

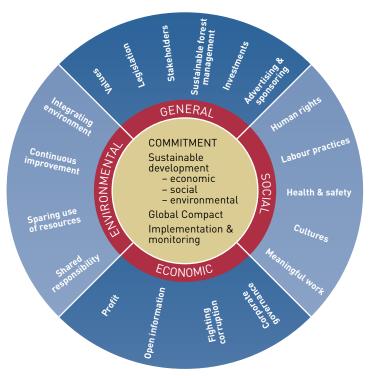
The main outcome of the internal consultation can be summarised as follows:

- All proposed principles were considered relevant.
- Company profitability and ensuring sustainable wood procurement were perceived as the major challenges.
- Implementation should not increase bureaucracy.
- Commitment alone is not enough; implementation is crucial.
- Benefits include support for local dialogue with stakeholders, enhanced company reputation, support for marketing and sales and improved well-being at work for M-real employees.
- Support provided by corporate headquarters must include clear commitment from top management, leadership by example, consistent but not rigid guidelines, a clear business strategy and high quality communications material for M-real's staff and customers.

The Commitment and Principles of Corporate Responsibility were formally approved by the company's Board of Directors on 12<sup>th</sup> January 2005 (see inside front cover).

These values were created to unite people working for a company that has been enriched with many different cultural backgrounds while almost doubling in size over the past few years. Values are at the "heart" of M-real and they are closely related to the concept of corporate responsibility.

Based on M-real's values, "M-realians" listen and talk to each other and treat their business partners with integrity. They only give promises they can keep. M-realians promote open communication, encourage personal and group initiatives and allow people to learn from mistakes.



Implementation ■ M-real's Board of Directors has also approved a corporate responsibility implementation plan. This includes collection of stakeholder feedback and planning how this feedback will be taken into account in the formulation of the company's business strategy. Responsibilities for the main areas of corporate responsibility have been defined. The Board of Directors has also stated its commitment to regular reporting of corporate responsibility performance as part of annual reporting.

Management ■ The management of issues related to corporate responsibility is based on integrating the responsibility aspects into the existing functions in M-real and ensuring efficient networking between these.

Work related to corporate responsibility is coordinated by M-real's Senior Vice President, Corporate Public Affairs. The tasks include:

- development and implementation of corporate responsibility policy
- development and implementation of regular corporate responsibility reporting
- development of and engagement in systematic stakeholder dialogue

support for and coordination of the various areas of corporate responsibility

The following corporate functions are responsible for the development of the necessary policies, practices and their implementation in the company. Implementation includes maintaining the necessary corporate organisation, the networks between countries and business areas/units and relevant stakeholder contacts.

- Corporate governance Secretary of the Board of Directors
- Corporate reputation Corporate Communications
- Marketing, sales, customer service Marketing Support
- Investments Industrial Development and Resources
- Suppliers Corporate Purchasing
- Personnel Human Resources
- Occupational health, safety and well-being HR,
   Occupational Safety and Well-Being
- Environmental responsibility Environmental Affairs
- Risk management Risk Management
- Competition issues Legal Affairs
- Financial information, future outlook Finance and Control

In addition, the following responsibilities for stakeholder contacts have been defined:

- Universities, schools, students Human Resources Development
- Research institutes, universities Research and Development
- Wood supply chain Resources

The fact that all M-real units have certified quality and environmental management systems will ensure the systematic implementation of the company's newly-defined principles of corporate responsibility. In many units, the scope of their management systems has also been broadened to include occupational safety and product safety aspects. A summary of all management systems is presented on page 48.

#### Global

Compact ■ M-real is committed to advancing the principles of the Global Compact, the United Nation's voluntary corporate citizenship initiative, within its sphere of influence. The ten principles relate to human rights, labour and environmental issues, and anti-corruption.

M-real is committed, as is expected of the participants of the initiative, to communicate regularly

with its stakeholders on its progress in implementing the Global Compact principles. This is done through annual and corporate responsibility reporting and other corporate communications, such as M-real's website, and by providing a link to these communications on the Global Compact website.

# Five management systems integrated at Tako Board

Tako Board mill in Finland has successfully implemented five certified management systems and merged these into one integrated management system (IMS). The integrated system effectively meets the mill's need for a systematic approach to quality control, management of environmental issues, hygiene control, product and work safety issues and the tracking of wood origin.

Tako Board first started developing its ISO 9001 Quality Management System in the early 1990s. Because the mill is located in the heart of the city of Tampere, the environmental authorities have always

imposed strict limits on emissions and effluents. In addition, Tako Board needed to provide customers with evidence of its ability to meet, or exceed, their own exacting standards.

After achieving ISO 9001 Quality Management System certification in 1994, followed by ISO 14001 Environmental Management System certification in 2001, Tako Board started working towards three more qualifications. The approach, elements and implementation processes of the five standards were found to be quite similar, which enabled Tako Board to integrate the systems, and because the mill's existing working practices were already of a high standard, IMS implementation was less challenging than expected. Only minor changes to procedures and some additional specifications were necessary.

The internationally recognised standards, and the dates that Tako Board received certification, are:

- ISO 9001 Quality Management System (1994)
- ISO 14001 Environmental Management System
- OHSAS 18001 Health and safety (2003)
- DS 3027 Hygiene and product safety (2003)
- SMS 1003-1 Origin of wood (2003)

The fact that these five management systems are now integrated makes it easier for Tako Board to present them to customers, authorities and



auditors. The integrated system has also reduced the mill's overall workload, costs and training time. The IMS is audited by an external auditing company every nine months.

#### Online benchmarking

between M-real board mills ■ To provide easy access and to facilitate updating, all documents relating to management systems are on M-real's company intranet Pulse, which is now used as the only official information channel. The board mills are able to share information more effectively and to carry out online benchmarking. Today, all of the board mills cooperate in the development of the IMS.

#### The benefits of the IMS include:

- ability to meet customers' and authorities' requirements more effectively
- a single auditable platform for the various standards
- less duplication of work within the company
- uniformity across the mills, leading to greater efficiency

## Corporate Governance

The duties of the various corporate bodies within M-real Corporation (M-real or the Company) are determined by the Finnish Companies Act and the Finnish Securities Market Act, as well as other relevant laws of Finland. The Company complies with the rules and recommendations of the Helsinki Stock Exchanges. M-real is managed according to the Corporate Governance Recommendation, as included in the Helsinki Stock Exchanges' regulations. M-real's corporate governance policy is defined by the Board of Directors (Board).

M-real has prepared its annual and interim financial accounts in accordance with Finnish Accounting Standards. The Company will apply the International Financial Reporting Standards (IFRS) from the beginning of the year 2005. These Audit reports are published in Finnish and English.

The Company's head office is in Espoo, Finland.

# Corporate Governance Bodies in M-real Corporation



The Company's highest decision-making body is the Annual General Meeting of the shareholders, which is held by end June on a day determined by the Board. The decision-making bodies with responsibility for managing the Company are the Board of Directors, the CEO and Deputy CEO. The operations of the Company are co-ordinated through the Corporate Executive Board (CEB).

The Board has defined a working order, or "Rules of Procedure", which is published on M-real's website (www.m-real.com). The Board meets regularly during the year. In 2004, for example, the Board held 22 meetings, of which 5 were telephone conferences. Each of the Board members attended, on average, 94 per cent of the meetings.

The CEO is in charge of the day-to-day management of the Company in accordance with instructions and orders issued by the Board. It is the duty of the CEO to ensure that the Company's accounting methods comply with the law and that financial matters are handled in a reliable and professional manner. In managing M-real, the President and CEO is assisted by the Corporate Executive Board (CEB).

M-real's new organisation structure became valid as of 1st September 2004. According to the new structure, the functions and responsibilities of each Business area are defined more clearly, with each business area being responsible for its sales as well as production. M-real has the following Business areas: Consumer Packaging, Publishing, Commercial Printing (including Specialities) and Office Papers. Day-to-day operational responsibility rests with the Business areas' management and operation teams, supported by Corporate Strategy & Sales Services, Industrial Development and Resources and Map Merchant Group. Other

supporting functions at corporate level are Finance, Control & Legal Affairs, Human Resources & Communications

and Corporate Public Affairs.

During 2004, the Company's Auditors were Göran Lindell, Authorised Public Accountant, and PricewaterhouseCoopers Oy, represented by Ilkka Haarlaa, Authorised Public Auditor.

More information on M-real's Corporate Governance issues is available in the Annual financial report 2004 and on M-real's website (www.m-real.com).

## Wood procurement

It is M-real's policy to use wood raw material only from sustainably managed forests. M-real also aims at continuously increasing the proportion of third-party certified wood entering its supply chain. M-real knows the origin of its wood raw material and reports it openly.

The wood used by M-real mills is procured by Metsäliitto Cooperative and its subsidiary Thomesto Ltd. Metsäliitto, which is M-real's parent company and largest shareholder, handles wood procurement in Finland, while Thomesto operates in Russia, the Baltic countries, Sweden, France, Germany and Austria.

#### Wood procurement

guided by environmental policy ■ Metsäliitto and

Thomesto have adopted a uniform environmental policy for wood procurement. The general principles of the policy include sustainable forest management, compliance with legislation, tracking of wood origin, support for forest certification and continuous improvement. The environmental policy is put into practice through the companies' environmental programmes, which are reviewed annually.

To ensure that the logging operations conform to their environmental policy, Metsäliitto and Thomesto have implemented quality and environmental management systems and chain-of-custody systems. These have been certified by independent third parties and are reviewed annually to keep them up-to-date in a changing operating environment.

Metsäliitto and Thomesto do not procure or accept wood deliveries from conservation areas where logging is forbidden or from other protected areas.

#### **Enhancing living conditions**

in wood procurement areas ■ Some 50 per cent of the wood used by M-real mills is procured from Finland, mainly from the members of Metsäliitto Cooperative. The average holding of these private forest owners is 40 hectares.

Forestry plays a significant role in maintaining the vitality of rural areas in Finland. One in five Finnish families owns some forest land, which is traditionally passed from generation to generation.



Loggings are usually planned so that every generation will receive its share of forest income.

Both Metsäliitto and Thomesto respect local expertise and cooperate closely with local entrepreneurs, creating job opportunities and contributing to the economic well-being in their wood procurement areas. In Russia, for example, income from forestry operations improves the living conditions in the procurement areas, where job opportunities and other sources of income are otherwise scarce. In Finland, the revenue earned by forest owners through the sale of timber to Metsäliitto amounted to approximately 469 million euros in 2004. Indirect income from forestry is also considerable. In 2004, Metsäliitto paid some 217 million euros to its subcontractors for logging, wood transport and other related operations.

#### Sustainable wood

procurement and forest biodiversity ■ Metsäliitto and

Thomesto are committed to compliance with local legislation. Subcontractors are also required to conform to the companies' environmental policy for wood procurement.

Most of the wood procurement areas for Metsäliitto and Thomesto are in the boreal zone, where the forest ecosystem is naturally poor in biodiversity in comparison with rain forests,



for example. In Finland, commercial forests are mainly "semi-natural" i.e. managed by man but developed as mixed forests that resemble primary forests in terms of flora and fauna. Only indigenous tree species are planted and there is always a significant number of naturally regenerated seedlings.

In Finland, the objective of sustainable forest management is to secure the production of high quality timber while also preserving forest biodiversity and providing the opportunity for multiple forest use. Loggings are carried out on some two per cent of the total forest area annually. About half of these are thinnings. The average size of a regeneration area is less than two hectares.

Nature conservation areas cover over three million hectares, approximately the size of Belgium. Areas which have been protected on the basis of acts of law and various conservation programmes are mainly located on state-owned land. In addition, private forest owners have voluntarily protected some of their forests. Sensitive habitats, so-called key biotopes, are protected by law also in commercially managed forests.

In Finland, forest authorities regularly monitor the quality of logging operations and the preservation of nature values at logging sites. Their random checks have revealed that the standard of nature management at Metsäliitto's logging sites has shown steady improvement in the long run.

Thomesto's most important wood procurement area is North-West Russia. In Russia, annual cuttings are only 30 per cent of the sustainable volume. Strictly protected areas, such as national parks and nature reserves, cover 12 per cent of forest area.

#### Tracing the

origin of wood ■ Metsäliitto and Thomesto have certified systems for wood origin management to ensure that wood is procured only from legal sources. These systems include Geographical Information System (GIS) maps. In Finland, the GIS system is also an invaluable tool in wood harvesting and transport, making it possible to locate wood batches in roadside stocks and to plan transport routes efficiently. Efficient transport logistics reduce fuel consumption.

Wood origin tracking in Finland is based on contract numbers. Each purchase contract is given a unique number, which is entered into Metsäliitto's information system. In the information system, the number accompanies each batch of wood from the forest stand to the mill gate. The origin of the batch can thus be identified when it arrives at the mill. Metsäliitto's delivery reports enable the mills to indicate the share of certified wood used in their products.

Thomesto operates through its network of subsidiary companies and external wood suppliers. In Russia, Thomesto has implemented a wood supplier classification system which helps the company to choose the best partners. Classification is based on the quality of operations and on field audits, which include environmental and social aspects such as the quality of nature management and safety at work.

The wood purchase contract includes an environmental clause which requires the wood supplier to procure wood only from legal sources and to provide information on the exact location of the cutting site. The wood origin information is entered into Thomesto's GIS map system, which also has information on conservation areas. The GIS system is able to identify inaccuracies in wood origin information or illegal activities, such as loggings in protected areas. If a subcontractor violates the

terms of the contract, Thomesto has the right to terminate the contract and to refuse deliveries.

Thomesto regularly audits its wood suppliers and their logging operations in Russia and in the Baltic States. The company continued to develop its audit procedures in 2004. Audits made in Russia in 2004 covered suppliers of 60 per cent (52%) of the wood volume imported to Finland and Sweden. During the past two years, no cases of logging without a proper cutting licence have been detected.

#### Forest

certification ■ By reporting the share of wood raw material that can be traced back to certified forests, M-real supports the development of forest certification systems adapted to local conditions. Forest certification is a voluntary tool to improve sustainable forest management, in which economic, ecological and social aspects are taken into account in a balanced way.

Metsäliitto is committed to the Finnish Forest Certification System (FFCS), which is endorsed by PEFC (Programme for the Endorsement of Forest Certification Schemes). In Finland, 95 per cent of the forest area is certified under FFCS. The FFCS standards were revised during the years 2002–2003 and took effect in January 2005. In Sweden, forest companies have chosen FSC (Forest Stewardship Council) as the main certification system for their own forests, while PEFC is the prevailing system in privately owned forests. Some company forests are also PEFC certified.

In Germany, Austria and France, forests are certified mainly under PEFC. In the Baltic countries, state-owned forests are to a large extent FSC-certified. In Russia, the area of certified forests is increasing, and both FSC and PEFC national standards are being developed.

#### Deliveries of certified wood to M-real mills

(including 47% of wood delivered to Botnia mills)

	Certified PEFC (%)	Certified FSC (%)
Finland	73	0
Sweden	2	28
Germany	65	2
Austria	65	0
France	41	0

The figures indicate the share of wood, including imports, supplied with certified chain-of-custody.

#### Wood procurement to M-real mills by country

(including 47% of wood delivered to Botnia mills)

	1 000 m <sup>3</sup>
Finland	6 940
Sweden	2 116
Russia	1 695
France	1 060
Austria	715
Latvia	674
Germany	503
Estonia	348
Lithuania	193

In addition, M-real's share of exchange wood supplied by UPM contains 82 400  $\rm m^3$  of wood sourced from Estonia, Germany, Latvia, Lithuania and the UK.

#### Environmental and wood chain-of-custody systems in Metsäliitto's wood procurement operations

Country of wood origin	ISO 14001	Chain-of-custody
Austria	-	PEFC (2001)
Estonia	Certified 2005	PEFC (2005)
Finland	Certified 1997	FFCS/PEFC (2000)
France	Wood procurement part of Alizay mill management system, certified 1999	PEFC (2003)
Germany	-	PEFC (2001)
Latvia	Covered by Thomesto Ltd. management system, certified 2003	PEFC (2003) and FSC (2002)
Lithuania	Covered by Thomesto Ltd. management system, certified 2003	_
Russia	Covered by Thomesto Ltd. management system, certified 2003	_
Sweden	Certified 2003	PEFC (2003)



# Economic performance and indicators

# M-real's economic impacts on society

■ In 2004, M-real generated a turnover of 5.5 billion euros and employed nearly 16 000 people. Total production amounted to 4.1 million tonnes of paper and 1.2 million tonnes of paperboard.

M-real's expenditure includes direct payments to companies in the supply chain and to employees and the surrounding society and communities. In addition to these direct economic impacts, there are significant indirect impacts, including job creation and business opportunities for subcontractors and entrepreneurs who provide harvesting, transport and other services.

#### Supply chain

impacts ■ M-real's purchases from suppliers amounted to 3.4 billion euros, of which raw materials and consumables accounted for 3.2 billion euros and external services 224 million euros. Raw materials consisted of wood, chemical pulp, recovered paper, pigments, binders and purchased fuels and electricity (see materials balance on page 30 of this report).

Investment projects and research and development (R&D) activities enhance the long-term profitability of M-real. Gross capital expenditure in 2004 amounted to 259 million euros, with the largest investments being a new bleached chemithermomechanical pulp (BCTMP) mill in Kaskinen, Finland, a biological effluent treatment plant at Husum mill and a biomass combined heat and power plant at Hallein mill.

M-real's R&D expenditure totalled 28 million euros. In 2004, patent applications totalled eighteen, an increase of 50 per cent. M-real participated in R&D projects such as NETCOAT (Network of com-Suppliers\* (raw materials, petence in formation of surface consumables and properties), ECOTARGET (New external services, euro 3.4 billion) and flexible production processes), SUSTAINPACK (Innovation and sustainable development in the fibre based packaging value chain), PINTA (Clean Surfaces), and FinNano (Nanotechnology Programme).

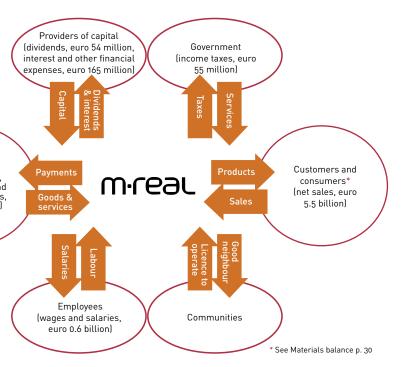
M-real's operations enhance living conditions in wood procurement areas and provide livelihood

for forest owners and small entrepreneurs through harvesting and transportation. The wood used by M-real mills is procured by Metsäliitto Cooperative and its subsidiary Thomesto Ltd. Metsäliitto, M-real's parent company and largest shareholder, handles wood procurement in Finland, while Thomesto operates in Russia, the Baltic countries, Sweden, France, Germany and Austria.

Approximately 50 per cent of the wood used at M-real mills is procured from Finland by Metsäliitto Cooperative. Most of this wood is supplied by its members, who are ordinary citizens owning an average of 40 hectares of forest land.

Forestry plays a significant role in maintaining the vitality of rural areas. In Finland, for example, one in every five families owns some forest land, and it is a tradition to pass on the forest from one generation to the next. Loggings are usually planned so that every generation will receive its share of forest income.

Areas of land in M-real's possession are mainly industrial sites. In Finland, for example, M-real owns approximately 3300 hectares of land consisting of the company's own industrial sites, land leased to other Metsäliitto Group companies and sites where operations have been closed.



#### Payments to employees and the

surrounding society ■ In 2004, payments to share-holders amounted to 54 million euros. Payments to financial institutions and other loan providers totalled 165 million euros.

Employees' wages and salaries accounted for 630 million euros, with an additional 290 million euros for other employment related expenses, such

as pension contributions and social expenses.

Income tax payments totalled 55 million euros. For large companies with operations focused in Europe, such as M-real, taxes are the most significant way of contributing to the well-being of the societies in which they operate.

## M-real invests in a new BCTMP mill at Kaskinen



M-real is building a new 300 000 tonne bleached chemi-thermomechanical pulp (BCTMP) mill in the town Kaskinen in Western Finland. Investment in the mill, which will go on-stream in Autumn 2005, will amount to some 180 million euros. The raw material requirement of the mill will be approximately 900 000 cubic metres of softwood and hardwood per year.

The BCTMP mill will be built on Botnia's Kaskinen pulp mill site, with the integration of the two mills resulting in considerable synergy benefits. The project creates jobs for up to 700 persons per month during the construction phase. Once completed, it will offer 65 permanent jobs. At the moment, the construction of the mill is the only on-going large-scale industrial investment project in Finland.

The bleached chemi-thermomechanical pulp manufactured in Kaskinen will be used mainly by M-real's mills outside Finland, while the entire production of the Joutseno BCTMP mill will be used by the company's mills in Finland.

M-real uses high quality chemi-thermomechanical pulp in the production of printing papers and

boards. By increasing its production capacity of BCTMP, the company aims to provide products with added value, thereby helping its customers enhance their competitive position.

BCTMP has been a focus of M-real's R&D work for the past five years. The findings will be utilised in both Kaskinen and Joutseno to further improve the competitive advantages of M-real's BCTMP pulps.

Because the new plant in Kaskinen is being designed and built using Best Available Technology (BAT), its environmental impacts will be minimal. The use of evaporation technology in process water treatment will enable the plant to recycle process water more efficiently, thereby minimising fresh and waste water volumes, while also enabling the separation and energy recovery of soluble organic material and the recycling of chemicals.

#### Significant impact

on local economy ■ Thanks to the investment, there will be some 115 new direct and indirect employment opportunities. In addition, new business prospects will emerge in the service, transportation and forestry sectors. The mill is expected to attract new residents to Kaskinen, leading to a demand for additional housing. The town infrastructure, including the harbour, will be enhanced. The total transportation volume going through the port is estimated to rise from 1.4 million tonnes in 2004 to 2.2 million tonnes in 2007.

According to Marlene Svens, Town Manager of Kaskinen, cooperation with M-real has worked very well in creating mutual benefits. She is satisfied with the favourable impact of the project on the economies of the small town of Kaskinen and the surrounding communities, and its contribution to the vitality of the whole region.

## Research and development

M-real continuously strengthens its expertise and improves its products through research and development work. The company is known for its lightweight products with superb performance characteristics, which are the fruit of long-term research work. The key areas of M-real's R&D work include fibre properties and their performance in various pulping processes, process intelligence and the development of the optical characteristics of paper and board.

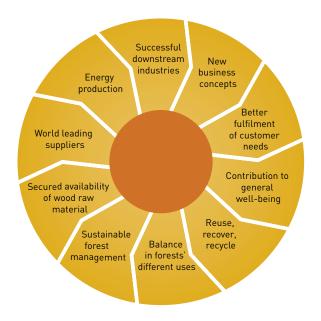
In 2004, M-real's R&D expenditure amounted to 28 million euros, accounting for 0.5 per cent of turnover. The number of patents that M-real applied for increased by 50 per cent, totalling 18. The number of reports on ideas and inventions was 49.

Efficiency achieved by focusing on specific topics is a fundamental characteristic of M-real's R&D operations. The company also networks with several European universities and research institutes and companies, and participates in joint research projects aiming at the development of new applications for paper.

Cooperation with universities is focused on topics of exploratory nature, such as bridging the opportunities of the paper industry and latest developments in information technology, or utilising discoveries made in biotechnology to enhance M-real's products and processes. Examples of such innovations include printed electronic components and tags giving access to the internet sites through a mobile browser.

M-real also participates in several national and EU level research programmes either directly or through research institutes and companies such as STFI, KCL, YKI and MoRe Research. M-real's R&D resources are strengthened by minority ownership in these institutes.

Good cooperation and shared development projects with our suppliers are keys to the improvement of product quality and the efficiency of our production processes.



#### European

Technology Platform ■ M-real takes an active role in the formation of European Commission's new forest-based European Technology Platform (ETP). The aim of this strategic research and technological development project is to enhance the long-term competitiveness of the forest sector through innovation and sustainability, which are the two main topics on the political agenda of the EU in the future, and to develop renewable materials for a more sustainable and competitive Europe. The areas in focus include developing new business concepts, improving reuse and recycling and enhancing sustainable forest management.

This project was initiated in early 2004 by CEI-Bois (European Confederation of Woodworking Industries), CEPF (Confederation of European Forest Owners) and CEPI (Confederation of European Paper Industries), and is expected to be completed by mid 2006. The Advisory Committee of the project is chaired by M-real's representative.

The benefits gained through the forest-based ETP project include:

- more efficient utilisation of raw materials
- improved energy efficiency and increased use of wood-based fuels
- increased value of products through innovation
- reduced capital intensity
- support for strategic business planning.

# Competition investigations, litigation and M-real's competition law policy

#### **European Commission**

inspection ■ At the end of May 2004, competition inspectors of the European Commission, assisted by officials from the national competition authorities, launched simultaneous, unannounced inspections at the premises of some of the major European producers of paper and forestry products, including M-real.

According to the European Commission, the purpose of these inspections was to ascertain whether there is evidence of cartel agreements and related illegal practices concerning price fixing, fixing of other commercial items and/or allocation of customers in several product markets in the European paper and forestry products sector.

At the time of writing (mid-February 2005), M-real does not yet know whether the European Commission will continue its inspection or what further actions, if any, the Commission may take. Specifically, M-real cannot predict whether the inspection will lead to the opening of a formal investigation.

#### **United States**

Antitrust Litigation As a consequence of the European Commission inspections, M-real and certain of its affiliates have been named, along with certain other producers of paper and forestry products, as defendants in a number of classaction lawsuits brought by direct purchasers of publication paper in U.S. federal courts and indirect purchasers of publication paper in California state courts. Plaintiffs allege, generally, that with respect to the United States market the defendants agreed to fix, increase or maintain the prices of publication paper, allocated market share, customers or geographic markets or restricted supply and sold publication paper at non-competitive prices.

The lawsuits pending in the federal courts have been ordered to be consolidated in the Federal District Court for the District of Connecticut and the state court lawsuits in California have been consolidated into a single action. M-real has joined a demurrer seeking the dismissal of the California actions, which is currently pending. M-real anticipates filing a similar motion to dismiss the federal cases once the consolidation process has been completed. Although M-real plans to vigorously

defend itself against these and any future claims, we are unable to predict the outcome of these lawsuits or any similar future claims.

#### M-real's competition

law policy ■ Since at least the early 1990s, M-real has continuously restated to its personnel the importance of compliance with competition law regulations through internal seminars and information on competition law matters.

M-real has issued a policy on full compliance with competition law, which has been approved by the Corporate Executive Board and communicated to relevant persons throughout the organisation, including M-real business area managers and controllers, mill managers, sales network personnel and M-real merchants in the European Union. Training will continue on a regular basis.

M-real's competition law policy provides information on a wide range of issues, such as the recent reform of EC Competition rules and competition law, and provides instructions on both horizontal and vertical competition issues. It also specifies, for example, specific practices that would be in breach of the policy and competition legislation e.g. price fixing, sharing of markets, exchange of competitively sensitive information with competitors and use of trade associations for unlawful purposes.

# Product safety of M-real consumer packaging materials

- M-real markets packaging materials throughout the world. Key market sectors include food, health and beauty care, cigarettes and consumer durables.
  - M-real's policy regarding product safety is to:
  - ensure that packaging products, if used as intended, are safe for people and the environment
  - manage hygiene and product safety risks throughout the company's entire supply chain
  - meet or exceed legislative requirements
  - use raw materials of known origin
  - ensure the traceability of raw materials and finished products, especially when delivered for applications with strict hygiene standards.

#### Crucial issue in

food packaging ■ Product safety is a particularly important issue in food packaging. M-real meets the requirements of all current EU legislation and actively monitors the development of new directives and regulations.

Food packaging materials are regulated by the Framework Regulation /(EC) No 1935/2004. According to this regulation, the transfer of harmful substances from the packaging material into food is not permitted. In addition, the packaging material must not change the composition of food or impair its taste, smell or visual appearance. Operations at all M-real board mills and carton plants conform to this Framework Regulation.

M-real's board mills and carton plants have implemented ISO 9000 quality management and ISO 14001 environmental management systems,

# Producer responsibility

Disposal is just one phase in the life cycle of paper and paperboard products. Because they can be recycled easily, there has always been a market need for recovered paper. Recycling is therefore a traditional part of the life cycle of paper.

Producer Responsibility, often referred to as Extended Producer Responsibility (EPR), is an approach which aims to make producers of goods responsible for efforts to reduce environmental impacts from both the use and disposal of their products, and to use recycling, recovered resources and reclaimed materials in doing so (OECD, 1996).

and operate in accordance with the principles of good manufacturing practice (GMP). Their product safety control systems are based on HACCP (Hazard Analysis Critical Control Point).

M-real's board grades intended for food packaging comply with the food regulations BfR XXXVI and FDA 21 CFR, parts 170–189.

New requirements ■ The new framework regulation on food contact materials came into force on 3 December 2004. This regulation includes traceability and product labelling requirements. M-real's production units are already able to trace the flow of materials throughout their supply chains and will continue to work on the labelling of food packaging materials.

The Framework Regulation does not include detailed instructions on the steps to be taken to ensure the safety of food contact materials. The Resolution on paper and board, a Common European recommendation prepared by the Council of Europe, can be used as a tool to ensure that the requirements of the Framework Regulation are fulfilled.

The forthcoming introduction of the new EU chemicals legislation REACH (Registration, Evaluation and Authorisation of Chemicals) will be a further step in ensuring the safety of all packaging materials for both the environment and human health. REACH will necessitate systematic registration and testing of environmental and health effects, especially by chemical suppliers.

#### M-real participates in

setting up collection systems ■ EU packaging legislation obliges all companies using various kinds of packaging for their products to participate in

of packaging for their products to participate in the establishment of collection systems. In some countries, such as the UK, this obligation has been extended to apply also to the producers of packaging materials. In EU-15 countries, the present recycling of fibre-based packaging materials already complies with the EU Packaging Directive, revised in 2004.

M-real participates in the collection and recycling of paper in many countries. In Finland, for

example, the industry is required by legislation to recycle 75 per cent of graphic papers and the paper companies cooperate to meet this responsibility. Paperinkeräys Oy, a paper recovery company owned by the large paper companies, including

M-real, is responsible for organising the collection and delivery of waste paper to paper and board mills that use recovered paper as their raw material. The company also provides the general public with information on collection systems.

## Customer satisfaction

Satisfied customers – and consumers – are the best guarantee of M-real's long-term profitability. M-real's Consumer Packaging and Office Papers business areas carry out regular market surveys on consumer perceptions of their products and services. The results are utilised in product development work to gain an edge over competition.

#### Consumer Packaging

business area ■ In the annual market surveys carried out by M-real Consumer Packaging, converters, merchants and companies using M-real products for packaging purposes are asked to evaluate the company's performance regarding such aspects as product quality, accuracy of deliveries and service. They are also asked to compare M-real's performance with those of its principal competitors.

The results of the customer surveys generally show that M-real Consumer packaging ranks well against its main competitor. Traditionally, one of M-real's major competitive assets has been good product quality, which brings benefits throughout the whole supply chain. From the consumer's viewpoint, this means less packaging waste and better product safety, visual appeal and functional properties, such as ease of opening and closing the packaging. Good order inflow and low complaint rates from board converters indicate that consumers have been satisfied.

In the 2004 survey, M-real's performance was considered to be better than its best competitor's in terms of product quality, sales representation,

# Responsible advertising

M-real's advertising is conducted in compliance with the ICC (International Chamber of Commerce) International Code of Advertising Practice. In Autumn 2004, a Marketing Communications Board was formed to co-ordinate and decide on M-real's marketing communications and branding issues. technical services and overall satisfaction and slightly lower in terms of delivery accuracy and lead times. Improvement projects have been launched to enhance performance, especially in these two areas.

#### Office Papers

**business area** ■ M-real Office Papers business area adds value for users and distributors by focusing on end-users' needs. As part of its business development process, M-real has been active for many years in investigating end-users' (i.e. purchasers in offices) perceptions of and satisfaction with the office paper brands Data Copy, Logic and Evolve. Qualitative and quantitative end user research is carried out on an annual basis across the main European markets. Qualitative surveys are mainly carried out in focus groups and one-to-one interviews, and focus on "what and why" end-users think the way they do about office paper brands in general and the M-real brands in particular. Quantitative surveys are mainly conducted through a large number of telephone interviews and focus on "how" users' perceptions of the more tangible aspects of the M-real brands have changed over time, thereby ensuring that resources are used as efficiently as possible.

To mention only a few examples, key issues in focus in the research are development in brand equity (i.e. end-user satisfaction and value), the brand equity components and brand awareness; loyalty; perceived performance of products; buying behaviour and brand preferences.

Within M-real, it is the responsibility of each purchaser of advertising material to ensure that it complies with the ICC code. The Chairman of the Marketing Communications Board is responsible for monitoring compliance at Group level.

## Risk management

#### Principles and objectives of

risk management ■ Risk management is part of M-real's strategic and operational planning, daily decision making and also part of the internal control system.

The aim of the risk management process is to systematically identify, assess and manage, through cost-effective measures, risks that could have an impact on the achievement of company objectives. A concurrent aim is to take into account risk-related opportunities and, after due appraisal and approval, to exploit them.

M-real adheres to a policy of prudent risk-taking, and decisions must be based on an adequate assessment of factors such as the company's risk tolerance and the loss/profit ratio.

The main objective of risk management work is:

- to ensure that all identified risks affecting personnel, customers, products, the public image, property, intellectual property, social responsibility and the company's ability to operate are always handled in accordance with law and in the light of best available knowledge and prevailing financial conditions
- to meet the expectations of different stakeholders
- to ensure the undisturbed continuity of business operations
- to optimise the upside-downside ratio
- to ensure management of the company's overall risk position and to minimise overall risk.

The responsibilities connected with risk management and other more detailed operating principles are defined in the company's Risk Management Policy and Risk Management Principles.

#### Risk

environment ■ Risks connected with M-real's operations are assessed and reported on a regular basis. The company controls and prepares itself for the risks by monitoring and taking measures to control them. The following key risk areas were identified in 2004:

- strategic choices
- major global changes in demand
- competitiveness of production plants
- optimisation of supply chain efficiency
- the customer relationship management
- price volatility in main products and commodities
- abrupt and unforeseeable changes in financial markets
- threats to corporate security
- key employees and organisational efficiency
- proper functioning of key processes
- business continuity risks and critical dependencies
- public image and reputation.

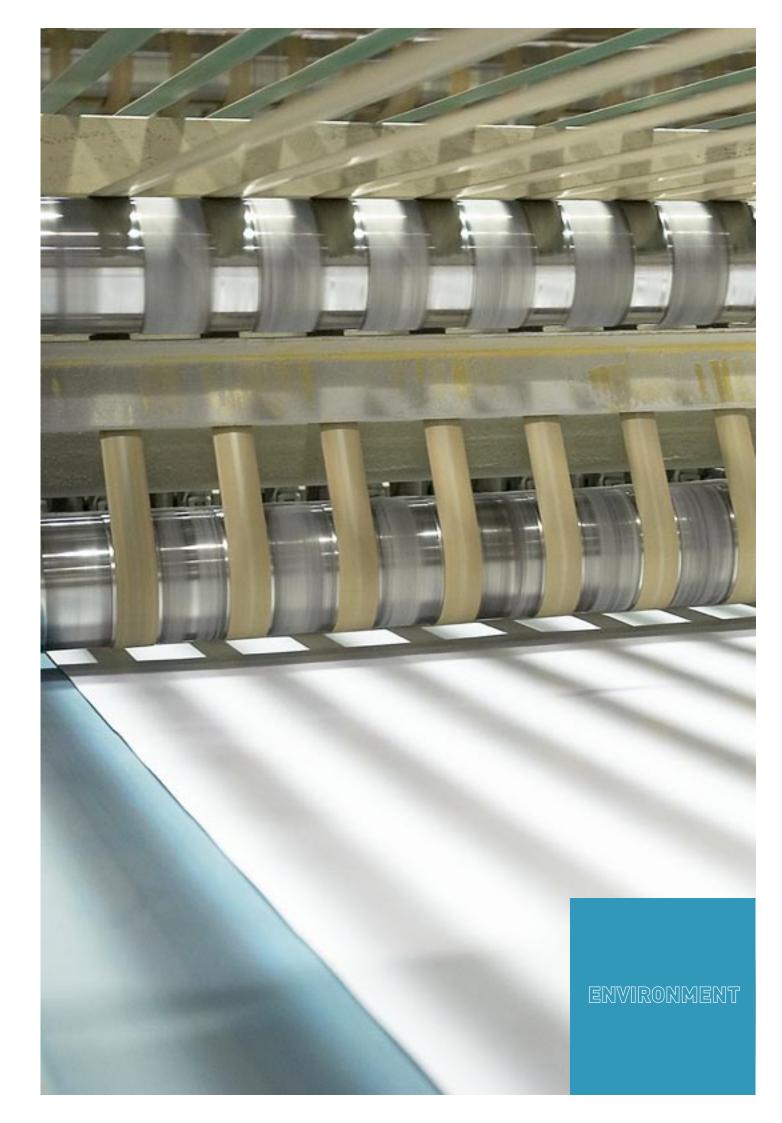
#### Preparing for

and transferring risks ■ Risks are met by applying the information and knowledge available within the company itself, partners or from external experts. In addition to regular risk surveys, the company has prepared a continuity and recovery plan concept for production and other essential business operations to support the corporate and unit level crisis management planning.

Transferable risks are being covered by insurance agreements, derivative contracts and clauses written into general agreements. Global insurance programmes cover the most common non-life risks, including:

- property damage and business interruption insurance
- general third party and product liability insurances
- directors and officers liability insurance
- marine cargo insurance.

No significant losses exceeding current deductibles occurred during 2004.



# Environmental performance and indicators

# The life cycle of paper products

Forests ■ Wood is the main raw material of M-real's products. Wood and pulp suppliers have to ensure that the raw material originates from well-managed commercial forests. To provide evidence of this, suppliers must have advanced systems for tracking the origin of wood. M-real aims at increasing its usage of certified wood.

Production ■ M-real mills are running 24 hours a day, 7 days a week. Continuous production helps to maintain consistent quality and high production efficiency, as well as to minimise emissions and discharges. All of M-real's mills have implemented certified environmental management systems based on the ISO 14001 standard.

#### **Energy and**

chemicals ■ M-real's mills use on-site produced steam and electricity and purchased electricity. Wood-based fuels produce about 50 per cent of the energy consumed by M-real mills. The main fossil fuel is natural gas.

Chemicals are used mainly by the pulp mills in the cooking and bleaching processes, and also in the coating of paper and board. Almost all of the chemicals used in chemical pulp production are recovered and reused. The mills have proper storage and handling systems for chemicals.

#### **Emissions and**

residuals ■ Combustion of fuels in energy production emits carbon dioxide and nitrogen oxides and potentially, depending on the fuel used, sulphur dioxide and particles. Carbon dioxide causes the greenhouse effect; the emissions can be reduced by the choice of fuel. Nitrogen oxides and sulphur oxide cause acidification; these emissions can be reduced by fuel choices, proper combustion conditions and efficient cleaning equipment.

The mills have internal purification systems for process water, and water is reused many times. Before being released into the recipient waterway, waste water goes through purification treatment to minimise the content of oxygen-demanding substances and nutrients. Water discharges cause eutrophication.

Proper sorting and reutilisation of residuals helps the mills to minimise waste going to landfill. By-products, such as tall oil, bark and bio-sludge, are combusted or utilised by external companies.

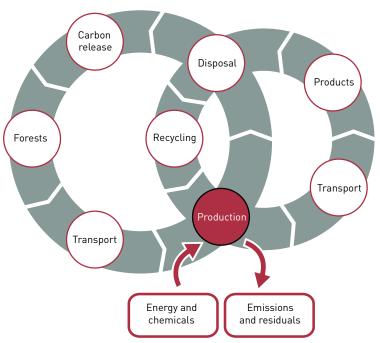
Products ■ M-real focuses on developing lightweight products which consume less raw materials and produce less waste at the end of their life cycles. Lower product weight also means a decrease in transport volumes and lower energy consumption and emissions. M-real's products are safe for people and the environment. The board mills and carton plants have implemented product safety control systems based on Hazard Analysis and Critical Control Points (HACCP), and they comply with the EU Framework Regulation for food packaging materials.

#### Disposal and

recycling ■ The wood fibres of paper and board products can be recycled up to 4–5 times. The products can also be incinerated to produce energy.

#### Carbon

release ■ When paper products are incinerated or composted, the carbon bound in the paper is released to the atmosphere. The amount of carbon dioxide released from incineration equals the amount of carbon dioxide released during natural decomposition of wood in forests.



# Customer feedback and environmental product information

For many years, customer feedback and requests for information have concentrated more on supply chain issues than on paper and board production processes. This is partly due to the fact that the mills have implemented certified environmental management systems and that they have improved their production processes in order to minimise emissions. Many customers are also planning corporate responsibility programmes or revising their purchasing policies, and need information about the supply chain of products purchased.

M-real serves mainly business-to-business customers. Their focus of interest in environmental topics varies according to their own customers, including consumers. Public sector bodies and governmental organisations tend to ask for eco-labelled papers, whereas printers are more interested in Paper Profiles and environmental reports. Publishers, office products companies and packaging end users, such as producers of consumer goods, ask for detailed information in the form of questionnaires. In addition, every market seems to have features of its own, with environmental topics varying according to local environmental and political conditions.

According to a customer survey carried out by M-real in September, there is little call for eco-labels such as the Nordic Swan and the EU flower, although they are preferred by some customers in the Nordic countries. To some extent, Paper Profiles have replaced eco-labels. Customers in many central European countries are still interested in suppliers' environmental management systems and ISO 14001 certificates; EMAS reports are seldom requested. Interest in recycled papers has grown in the USA, Australia and Eastern Europe.

#### Forestry issues

high on customers' agendas ■ For customers in many European countries, e.g. the UK and Germany, sustainable forest management and forest certification have been the most significant environmental topics during the last few years. These issues are also becoming increasingly important in the USA and Canada.

The FSC scheme (Forest Stewardship Council) is the most well-known forest certification scheme

among M-real's customers. It is heavily promoted by environmental non-governmental organisations (ENGOs), which have been the main opinion leaders in forest issues. The PEFC scheme (Programme for the Endorsement of Forest Certification Schemes), which is widely used in Europe, is perhaps less known than FSC, although the target of both schemes is environmentally, socially and economically sustainable forest management.

Unfortunately, some campaigns by ENGOs have caused misunderstandings and concern about wood sourcing. M-real's customer service people have met with customers to tell them about M-real's policy on wood procurement, forest certification and tracking the origin of wood raw materials.

M-real initiated its transparent reporting of wood origin in 2004 due to the increasing number of enquiries concerning forest issues. This information is available in the supplementary pages of M-real's environmental product declarations, Paper Profiles. The data includes the origin of all wood used in a product, the proportion of certified wood and the certification systems. Wood origin is reported according to country and region.

Paper Profile environmental product declarations are available on www.m-real.com.

#### Environmental training

for customers by MAP The merchanting arm of M-real, Map Merchant Group, operates in 22 European countries and is made up of 24 paper merchants. One of the highest priorities during 2004 has been the communication of product information to customers, and information on paper and the environment for wider audiences. GPG Papier, Belgium, provided training and seminars for governmental organisations; Basberg Papir, Norway, continued to run its Paper Schools; and ModoVanGelder in the Netherlands organised seminars and discussions on environmental and corporate responsibility for customers in governmental organisations, finance and insurance, and advised a major bank on its supplier code of conduct.

In the UK, Premier Paper, recognised within the Map group as a pioneer in good environmental practice, embarked on a nationally recognised environmental training programme to CIEH (Chartered Institute of Environmental Health) standards for its staff.

Map and individual merchants have also been producing environmental brochures for customers and the public in general. Papirgros in Denmark worked with Eugropa (the trade association for all

European paper merchants) and CEPI (the Confederation of European Paper Industries) to publish a brochure called "Paper and the Environment", while Premier Paper's updated environmental brochure will be launched in 2005.

## Transport

Transport is an important phase in the life cycle of a product, especially when buyers and suppliers are far away from each other.

M-real has very little transport activity of its own. The company purchases and organises transport services for its paper and paperboard deliveries, while raw material suppliers are responsible for arranging transport services for their own deliveries. MAP Merchant Group, M-real's merchanting arm, employs its own drivers and uses its own or leased vehicles to deliver products to customers. Map's transports, which concentrate on short distances, constitute only a small share of the total transport work needed by M-real for its products and raw materials.

Wood, M-real's most important raw material, represents the largest volume transported but the shortest average distance. Transport is arranged by the wood suppliers and is mainly by truck. Longer journeys are by sea or rail, for example when wood is imported from the Baltic countries and Russia and pigment from the USA and South America. M-real's main market is continental Europe. A small proportion of the products is exported to North America, the Far East and Australia. Sea transport accounts for almost all product shipments from the mills in Finland and Sweden to continental Europe.

#### Transports 2004

	Average distance km	Volume 1000 t	Transport work Mtkm
Products*	4 200	5 900	25 200
Wood	310	12 100	3 800
Purchased pulp	2 600	1 700	4 400
Pigments	2 200	1 800	3 800
Fuels**	1 800	1 200	2 200

transported internal chemical pulp counted as purchased pulp.

#### Modern

fleets ■ M-real uses mainly new vessels in sea transports, the average age of the ships being less than five years. New ships are equipped with water injection techniques to reduce nitrogen oxide emissions. Sulphur emissions are minimised by using fuels with low sulphur content. The average sulphur content of fuel used in Baltic Sea traffic is below 1.5 per cent, which fulfils the future limit set by the EU for this area.

The aim is to utilise rail transport instead of trucks. Transportation from Finnish mills to loading ports is principally by rail. The continental European mills mainly deliver products direct to customers. The goods are loaded into the cargo transport unit and unloaded at the customer's warehouse. Extra handling in ports, terminals and warehouses is therefore minimised. Due to increasing traffic congestion in continental Europe, M-real is investigating the feasibility of using the same transport method for deliveries from mills in Finland and Sweden.

The proper lashing and securing of cargo is also important. M-real aims to minimise accidents by securing cargo in the correct way.

<sup>\*\*</sup> wood not included.

# Mill improvements 2004

#### **Effluent**

treatment ■ A new biological effluent treatment plant was taken into operation at Husum mill in September. The new plant treats all process effluents from the pulp and paper mills, considerably reducing discharges. The investment will also have an impact on the environmental performance of the whole M-real Corporation by reducing the company's emissions causing eutrophication by an estimated 20 per cent.

Effluent treatment plant extensions, consisting of moving bed bioreactors, were taken into use at Stockstadt and Kyro. The system at Kyro is complemented by tertiary chemical treatment. The new equipment has been operating extremely

well, with the investment at Kyro ending persistent operating problems at the old effluent treatment plant.

At Wifsta, a new treatment system has considerably reduced the effluent load to sea. After mechanical sedimentation at the mill, effluent undergoes further treatment at SCA Östrand pulp mill's biological effluent treatment plant.

#### Energy

efficiency ■ Kirkniemi has made improvements in the mill's pressurised air system, reducing energy losses by 20 per cent. In addition, the heat recovery units on paper machine 1 were renewed, making much more efficient use of process steam.

At Äänekoski Board, the new board machine's drying section has decreased specific steam consumption by 15 per cent. Tako Board has also gained substantial savings in steam consumption with new and more efficient heat exchangers on board machines 2 and 3.

Joutseno BCTMP has made considerable savings in natural gas consumption by improving the control and use of the mill's own steam resources. Within two years, the consumption of natural gas has dropped over 20 per cent, with more savings expected in the future.

Comprehensive energy efficiency audits were conducted at Gohrsmühle and Reflex mills. The



target is that energy efficiency audits are made in every M-real mill by end December 2006.

#### Material recovery

and recycling ■ Recovery of raw materials was enhanced at several mills. Tako Board's new fibre recovery system is expected to halve the mill's fibre sludge. The finance arrangements were similar to an Energy Service Company (ESCO) concept, where an external service provider makes the investment and is repaid through the mill's financial savings. The new fibre recovery system at Kemiart Liners has enabled the mill to reuse half of its waste pigment, previously landfilled, and Stockstadt is now able to recycle up to 6–7 tonnes per day of fibre, filler and pigment back into paper production.

New Thames has been developing a new type of construction board which utilises the mills de-inked sludge as one of its main components. In November, Salvtech – the company working with M-real New Thames – was given an "Innovation, Environmentally Friendly Product of the Year" award by a local technology development organisation.

Tako Carton's Järvenpää plant has re-arranged and improved its waste management by, for example, starting to recycle plastic waste and collecting clean combustible waste. Landfilled waste is expected to decrease by up to 60 per cent.

#### Air

emissions ■ Lielahti CTMP mill's power plant now uses natural gas as its main fuel, replacing bark, heavy fuel oil and sludge. This will increase the plant's carbon dioxide emissions but has stopped almost all emissions of sulphur dioxide and particles to air. Biberist has arranged to buy excess steam from the nearby waste incineration plant, instead of using natural gas to generate it at the mill, thereby cutting the mill's carbon dioxide emissions by about 50 000 tonnes per year.

Noise ■ Kirkniemi has started an extensive noise reduction programme which includes over 20 mill installations or modifications aimed at reducing noise levels in nearby residential areas. Kyro

Board has continued its on-going noise reduction programme with minor installations. Äänekoski Paper and Board have carried out an extensive noise survey, which showed that there was no need for further actions.

#### Managing

environmental risks Aänekoski Board has extended the mill's automation system to include the unloading of chemicals. The system will check that all storage tank valves and hatches are at the right position before unloading, thus minimising the possibility of accidental releases. At Alizay, the new plant for manufacturing chlorine dioxide, used in pulp bleaching, considerably reduces environmental risks by utilising methanol instead of sulphur dioxide.

# Environmental expenditure

Environmental expenditure is reported according to the EU Commission's "Recommendation of May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies." It comprises the specifiable expenses of environmental protection measures aimed primarily at combating, remedying or alleviating environmental damage.

The changes in environmental expenditure compared with the previous year are mainly explained by the divestment of Metsä Tissue. Total expenses decreased by 14 per cent. The effect of Metsä Tissue on total costs was –13 per cent. The effect of Metsä Tissue on book value was –3 per cent but as a whole, book value increased by 20 per cent. The increases were clearly higher in comparison with the previous year, 59 million euros in 2004 compared with 9 million euros in 2003. The largest investment was the construction of a biological treatment plant at Husum. Further major investments in waste water treatment included measures carried out at Hallein and Kyro.

#### Profit and loss account

euro million	2004	2003
Materials and services	25.9	27.3
Employee costs		
Wages and fees	6.5	7.4
Other social expenses	1.9	2.6
Depreciation	16.6	16.7
Other operating expenses	16.1	24.1
Total	67.0	78.1

Balance sheet		
Tangible assets		
Environmental protection equipment		
Acquisition costs, 1 Jan	443.3	435.0
Increases (+)	58.7	8.6
Decreases (-)	-12.0	0.0
Accumulated depreciation, 31 Dec (-)	-277.2	-266.9
Book value 31 Dec	212.8	176.7
Provisions		
Provisions for accidents and		
environmental liabilities	6.9	7.2
Notes to the accounts		
Contingent environmental liabilities	0.7	0.9

### Carbon dioxide emissions

Paper, board and pulp production requires a considerable amount of energy in various forms. Electricity is needed for the motors that drive pumps, grinders, compressors, fans, etc.; heat in the form of steam and hot water is needed for drying; and gas is also needed for drying. M-real works continuously to improve the efficiency of its energy production and of its use of energy at the mills, and is therefore able to minimise costs and environmental impacts.

Total Energy (see page 31) consumption of M-real is approximately 35 TWh per year. About 61 per cent of the fuel used for energy production at M-real mills is biomass.

Power is co-generated at combined heat and power plants located at the mills, with the share of co-generated power at M-real being as high as 56 per cent.

#### **Emissions**

trading ■ M-real finalised its climate strategy, including guidelines for actions to combat climate change, in early 2004. In line with this strategy, investments aimed at increasing the proportion of carbon dioxide (CO₂) neutral energy sources commenced at Hallein and Biberist. These investments in energy production and supplies by M-real and its partners will achieve a reduction of about 89 000 tonnes/year in carbon dioxide emissions by mid-2006. Further CO₂ neutral power plant projects are being developed.

During 2004, M-real also continued to prepare for the EU Emissions Trading Scheme which started on 1 January 2005. The necessary processes for obtaining licenses for emitting  $\mathrm{CO}_2$  and for obtaining  $\mathrm{CO}_2$  allowances have been followed. Most of the existing systems and processes for monitoring  $\mathrm{CO}_2$  emissions at each mill were already being documented in accordance with the requirements of the respective national authorities. M-real is also defining its policies for internal and external emissions trading. If mills have surplus emission allowances, the first option will be to sell any surplus to mills having a deficit. The aim is to minimise external trade.

The EU Emissions Trading Scheme will result in various additional costs for M-real. Direct costs include administrative processes (CO<sub>2</sub> emissions

monitoring, verification, etc.) and the probable need to buy some allowances from the market. Indirect costs will result from increased power and fuel (biomass) prices, although the exact increase caused by the Emissions Trading Scheme cannot be quantified.

Actions ■ The construction of a new biomass combined heat and power (CHP) plant at Hallein mill, Austria, started in mid-2004. It will be taken in operation by mid-2006. With the new biomass CHP plant, sludge, bark and other residuals can be utilised for local energy production. Additional biomass in the form of logging residues will be procured for energy production at the CHP plant, thereby reducing CO<sub>2</sub> emissions by 39 000 tonnes per year at the mill's existing power plant, fired by fossil fuel – natural gas.

The output of the new CHP plant will be 5 MW of "green" electricity to the grid and 21 MW of process heat, in the form of steam, to Hallein mill. In addition, a local district heating partner is investing in the extraction of up to 3 MW of heat from the flue gases of the CHP plant for delivery to the local district heating network.

Comprehensive energy efficiency audits were conducted at Gohrsmühle and Reflex mills. Such audits typically lead to several concrete energy-saving actions and investment projects. The implementation of these investment projects will continue and audits at Finnish mills will be updated when necessary. During 2005, energy efficiency audits will be conducted at the mills in Sweden and France. The target is that energy efficiency audits will be made at every M-real mill by end 2006.

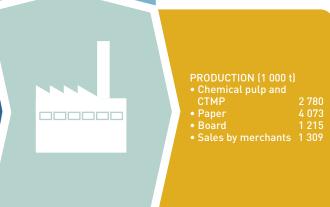
## Materials balance

M-real's materials balance illustrates the material and energy flows to and from the company. The main raw material is wood. Pigments, such as kaolin and calcium carbonate, are used as fillers and coating materials in papermaking. The process

water is purified and re-used in the mills' water circulation systems. The materials balance only includes the carbon dioxide originating from the burning of fossil fuels.

FIBRE RAW MATERIAL • Wood (1 000 m<sup>3</sup>) 14 268 • Chemical pulp (1 000 t) 523 Recovered paper (1 000 t) 164 OTHER RAW MATERIALS • Pigments (1 000 t) 1759 • Binders (1 000 t) 308 **ENERGY**  Fuel, excluding wood-based (GWh) 12 393 • Electricity (GWh) 2 9 3 9 PROCESS WATER (1 000 m³) 189 244

• Carbon dioxide (CO<sub>2</sub>) 2 708 290 Sulphur (as SO<sub>2</sub>)

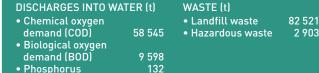


2 9 0 3

Materials balance calculation limits are explained in Reporting principles, pages 46 and 47.

Pulp ■ M-real consumes approximately 3.6 million tonnes per year of various types of pulp, with chemical pulp accounting for some 75 per cent of the total. Of

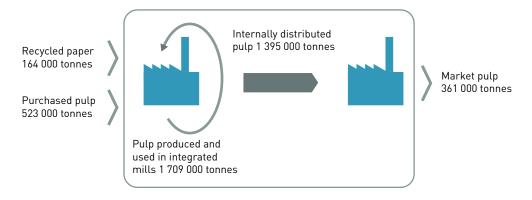
> M-real's twenty-one mills that produce pulp, paper or board, nine are integrated chemical/mechanical pulp and paper mills and two produce only pulp. One of M-real's mill produces recycled pulp in its deinking plant. Because Botnia is 47 per cent owned by M-real and a major pulp supplier to the company, the mill table on pages 48-49 and the data in the Pulps graph below include an equivalent proportion of Botnia's figures. M-real also purchases pulp from other suppliers.



1 022

Pulp suppliers are required to report annually on their environmental performance, including wood origin and chain-of-custody management systems.

The bleaching processes used by M-real's pulp mills are elemental chlorine-free (ECF) or totally chlorine-free (TCF). No chlorine gas is used. From an environmental point of view, the differences between these processes are very small.



Nitrogen

Total suspended solids 4 105

## Energy

The divestment of Metsä Tissue in January 2004 had a major influence on M-real's production structure. To demonstrate how this change affected energy consumption at mill level, some of the figures, where indicated, exclude Metsä Tissue.

In 2004, M-real's Total Energy (see page 31) usage decreased by 4.5 per cent in comparison with 2003. During the same period, production increased by 2.1 per cent. Excluding Metsä Tissue, Total Energy consumption increased by 3.8 per cent, while production increased by 8.6 per cent. Total Energy consumption per tonne of production decreased by 6.5 per cent. This reduction is mainly and equally explained by better energy efficiency at the mills and a less energy-consuming production structure. M-real's production structure became 2.7

per cent less energy intensive (energy per tonne) when tissue paper production was divested.

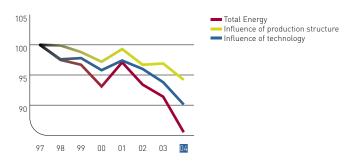
The reduction in Total Energy is mainly seen in the figures for fossil fuel consumption in on-site energy production and in the consumption of purchased electricity. These declined by 8.4 per cent and 10 per cent respectively. The divestment of Metsä Tissue had a major influence on these results. Excluding Metsä Tissue, consumption of fossil fuels increased by 1.5 per cent and consumption of purchased electricity increased by 11 per cent. The increase in purchased electricity implies a return to the normal situation. In the previous year, market prices for electricity were exceptionally high in the Nordic countries and M-real's own electricity production accounted for a larger than

#### Change in energy usage 2003-2004

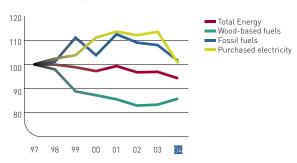
	2004 GWh/a	2004 MWh/t	Total change*%	Volume change %	Struct. change %	Technol. change %	2003 GWh/a	2003 MWh/t
Use of wood-based fuels	17 100	2.1	0.7	2.1	3.0	-4.4	16 987	2.1
Use of fossil fuels	10 992	1.4	-8.4	2.1	-6.1	-4.4	11 999	1.5
Purchased electricity	2 939	0.4	-10.1	2.1	-11.5	-0.6	3 268	0.4
Total Energy	35 244	4.4	-4.5	2.1	-2.7	-3.9	36 907	4.7

<sup>\*</sup> Total change of energy usage = production volume change + production structure change + technological change.

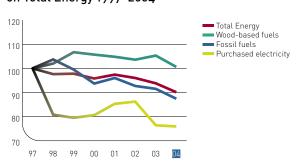
#### Total Energy per tonne of production 1997-2004



# The influence of production structure on Total Energy 1997-2004



# The influence of technology on Total Energy 1997–2004



usual share of total consumption. The change in the consumption of wood-based fuels was very small (+0.7%).

Wood-based fuels accounted for 50 per cent of Total Energy (48% in 2003). This change was totally explained by the divestment of Metsä Tissue. The share of wood-based fuels increased to 61 per cent (59% in 2003) of all fuels used.

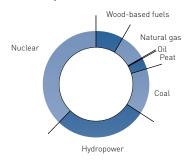
Energy

production ■ On-site energy production accounted for 100 per cent of heat and 56 per cent (54% in 2003) of electricity consumed in production processes. Energy production efficiency decreased slightly, having a potential effect of +0.5 per cent on fuel consumption. Excluding Metsä Tissue, heat production increased by 1.0 per cent and the change in electricity production was zero. The electricity required by an increase in production volume, was satisfied by additional purchase (+11%). Natural gas, including liquefied petroleum gas (LPG) was the most important fossil fuel, accounting for 66 per

#### Total Energy, fuels used, 2001-2004

	2004 GWh/	2004 %	2003 %	2002 %	2001 %
Wood-based	17 716	50	48	46	45
Natural gas	7 710	22	22	22	21
Coal	2 870	8	9	9	10
Nuclear power	2 775	8	8	9	9
Hydropower	2 056	6	6	6	6
Peat	939	3	4	4	3
Oil	1 179	3	3	4	5
Total	35 244				

#### Purchased electricity 2004



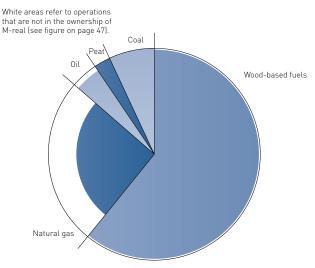
cent (63% in 2003) of all fossil fuels and 26 per cent (26% in 2003) of all fuels. Overall, the use of fuels decreased by 3.1 per cent, with the use of fossil fuels decreasing by 8.4 per cent. Carbon dioxide emissions decreased by 10 per cent. Excluding Metsä Tissue, carbon dioxide emissions increased by 1.4 per cent and the use of fossil fuels by 1.5 per cent.

#### **Energy efficiency**

of processes ■ Energy efficiency of pulp and paper production processes improved in 2004, decreasing the consumption of heat (-5.4%), electricity (-3.9%) and process fuels (-0.0%). The production structure became less energy intensive, with two thirds of this change being the result of the divestment of Metsä Tissue.

As a whole, electricity consumption decreased by 5.4 per cent. The divestment of Metsä Tissue meant that M-real's production volume was lower (-6.0% effect on electricity consumption) and its production structure less electricity intensive (-3.4%).

#### On-site fuels used 2004

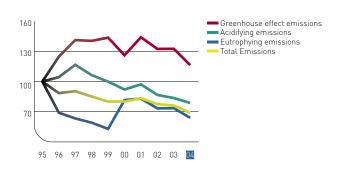


### **Emissions**

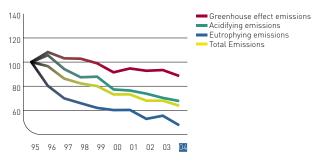
The divestment of Metsä Tissue in January 2004 had a major influence on M-real's production structure. To demonstrate how this change affected emissions at mill level, some of the figures, where indicated, exclude Metsä Tissue.

In comparison with the previous year, Total Emissions (see page 34) decreased by 7.4 per cent while production increased by 2.1 per cent. The reduction in Total Emissions was mainly due to reductions in landfill waste (-2.1% effect on Total

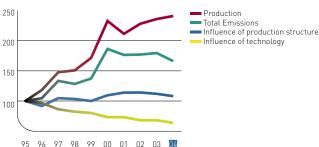
#### Total Emissions per tonne of production 1995-2004



#### Influence of technology 1995-2004



### Total Emissions 1995–2004



Emissions), chemical oxygen demand (–1.8%) and carbon dioxide (–1.2%).

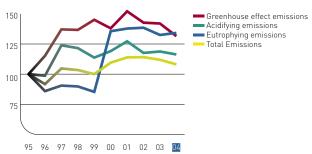
Excluding Metsä Tissue, Total Emissions increased by 1.1 per cent and production increased by 8.6 per cent. The divestment of Metsä Tissue decreased Total Emissions per tonne of production by 2.6 per cent, making M-real's production slightly less emission-intensive. The effect of the divestment on landfill waste was –52 per cent and on carbon dioxide emissions –12 per cent. The effect on production volume was –6.0 per cent.

Total Emissions per tonne of production decreased by 9.3 per cent. Reduced emissions per tonne of production at mill level explain the major part (-6.1%) of this change. The effect of change in production structure was smaller (-3.4%).

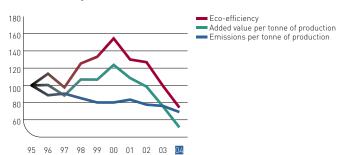
#### Greenhouse

effect ■ Carbon dioxide emissions decreased by 10 per cent. The divestment of Metsä Tissue largely explains this change. If Metsä Tissue is excluded, the change was +1.4 per cent. Carbon emissions per tonne of production decreased by 5.3 per cent

#### Influence of production structure 1995-2004



#### Eco-efficiency 1995-2004



at mill level. This includes the effect of increased use of purchased electricity, which also reduces emissions at mill level. Its potential effect was –2.2 per cent, while –3.0 per cent is explained by changes in energy consumption of production processes, efficiency of energy production, share of bio-fuel and distribution of fossil fuels.

Acidification ■ Emissions causing acidification (NO<sub>X</sub> and sulphur) decreased by 3.8 per cent. If Metsä Tissue is excluded, the difference between the figures for the reporting year and the previous year is only 4.5 per cent, indicating that M-real mills had improved their performance while also increasing production by 8.6 percent. At mill level, emissions per tonne of production decreased by 3.8 per cent. The change in production structure had a smaller effect (-2.2%). The reduction in acidifying emissions was dominated by sulphur, which decreased by 10 per cent.

Eutrophication ■ Emissions causing eutrophication decreased by 11 per cent. Excluding Metsä Tissue, the change was –7.3 per cent, implying Metsä Tissue's smaller effect on emissions to water in comparison with air emissions. The change in M-real's production structure contributed to an

increase in emissions causing eutrophication (+0.8%). On the other hand, technological improvements at mills caused a reduction of 14 per cent in emissions. The total reduction of 11 per cent in emissions causing eutrophication was mainly (-5.8%) because of the 15 per cent reduction in nitrogen emissions. This reduction in nitrogen emissions was achieved mainly (-17%) by Alizay and Kyro mills, when they solved the previous year's waste water treatment problems.

#### Chemical oxygen

demand (COD) ■ COD emissions decreased by 9.4 per cent. Only a fifth of this is explained by the divestment of Metsä Tissue. The divestment changed the production structure, making it more COD intensive and potentially increasing COD emissions per tonne of production by 4.6 per cent. On the mill level, technological changes decreased COD emissions by 13 per cent, with the largest contributors to this change being Husum, Kyro and Botnia Kemi.

#### Landfill

Total

Valuma

waste ■ Landfill waste decreased by 55 per cent. The reduction was mainly in waste from the paper recycling process and resulted from the divestment of Metsä Tissue.

Tachnal

#### Change in emissions, 2003-2004

		Iotal	volume	Structr.	Technol.	
	2004 t	change %	change %	change %	change %	2003 t
Total Emissions (SO <sub>2</sub> eqv.)	46 905	-7.4	2.1	-3.4	-6.1	50 638
Greenhouse effect (CO <sub>2</sub> eqv.)	2 708 290	-10.4	2.1	-7.2	-5.3	3 023 341
Acidification (SO <sub>2</sub> eqv.)	10 504	-3.8	2.1	-2.2	-3.8	10 923
Eutrophication (P eqv.)	392	-11.3	2.1	0.8	-14.2	442
Particulates	1653	6.8	2.1	0.7	4.0	1 548
Carbon dioxide (CO <sub>2</sub> eqv.)	2 708 290	-10.4	2.1	-7.2	-5.3	3 023 341
Sulphur (as SO <sub>2</sub> )	4 967	-10.3	2.1	-4.5	-7.9	5 536
Nitrogen oxides (as NO <sub>2</sub> )	7 909	2.8	2.1	0.1	0.5	7 696
Chemical oxygen demand (COD)	58 545	-9.4	2.1	1.9	-13.3	64 601
Biological oxygen demand (BOD)	9 598	-20.1	2.1	2.5	-24.7	12 011
Phosphorus	132	-3.1	2.1	-1.9	-3.3	136
Nitrogen	1 022	-15.1	2.1	1.9	-19.2	1 204
Total solids	4 105	-29.8	2.1	2.1	-34.0	5 850
Landfill waste	82 521	-55.2	2.1	-49.2	-8.1	184 002
Hazardous waste	2 903	-5.9	2.1	-11.6	3.6	3 086

<sup>\*</sup> Total change in emissions = production volume change + production structure change + technological change.

## Non-compliance and liabilities

#### Non-

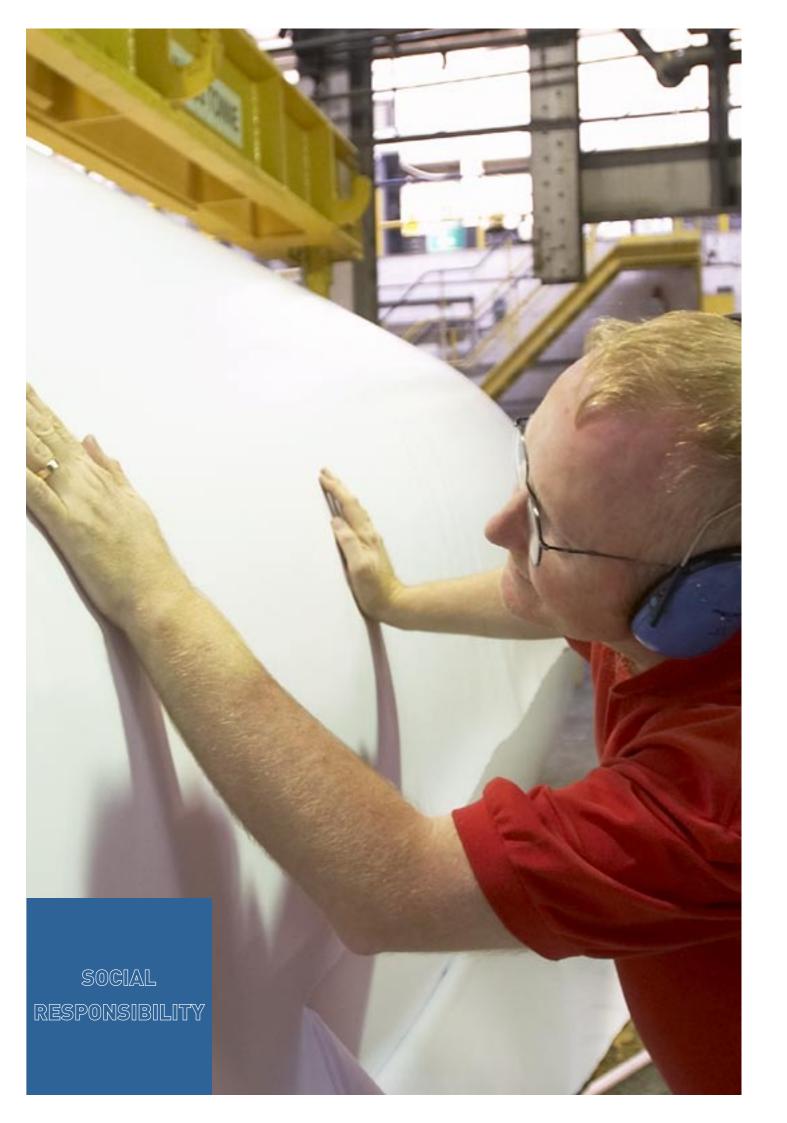
compliance ■ Permit levels for effluent discharges were exceeded in 2004 at Alizay, Hallein, Kyro, Lielahti and Tako Board. Exceedings were mostly short term and emissions have returned to normal levels at all mills. An extended effluent treatment plant was taken into use at Kyro, ending persist-

ent operating problems at the old plant. At Alizay, the effluent temperature continuously exceeds the permit limit. Permit levels for air emissions were exceeded at Husum and Alizay pulp mills. Corrective actions are in progress in both cases. Permit levels for noise were exceeded at Reflex.

#### M-real liabilities at industrial sites

	Location, municipality	Cause of contamination	Actions taken	Actions still needed
Closed down plants	Böle sawmill, Teuva, Finland			inspection of residual contamination
	Ukkola sawmill, Eno, Finland	chlorinated phenols and residual dioxin	inspected	further inspections, possible clean-up
	Kolho sawmill, Vilppula, Finland	chlorinated phenols and residual dioxin	inspected, soil temporarily stored on mill site	treatment or final deposition of contaminated soil
	Riihivuori sawmill, Suolahti, Finland	chlorinated phenols and residual dioxin	composted, soil taken to landfill	inspection of residual contamination
	Toras sawmill, Jyväskylä, Finland	chlorinated phenols and residual dioxin	composted, some soil stored on mill site	final deposition of composted soil
	Vääksy sawmill, Asikkala, Finland	chlorinated phenols and residual dioxin	partly composted, soil tempo- rarily stored on mill site	treatment or final deposition of contaminated soil
	Ylä-Savo sawmill, Iisalmi, Finland	chlorinated phenols and residual dioxin	composted, soil temporarily stored on landfill site	final deposition of composted soil
	Mänttä pulp mill, Mänttä, Finland	oil, heavy metals, PCB inspected		further inspections, possible actions in conjunction with building work
	Silverdalen paper mill, Silverdalen, Sweden	oil	inspected and cleaned-up	no further actions
Decommisioned landfill sites	Loila landfill site, Vilppula, Finland	mixed waste	inspected and landscaped	follow-up in progress
	Mill site landfill, Mänttä, Finland	bark and paper waste	inspected and landscaped	follow-up in progress
	Svensmåla landfill, Silverdalen, Sweden	fibre sludge	inspected, landscaping planned	landscaping
Leased or sold industrial sites	Kolho impregnation plant, Vilppula, Finland	creosote oil, salt impregnating agent	inspected and partly cleaned up	clean-up to be continued
	Kyrö sawmill, Karinainen, Finland	chlorinated phenols and residual dioxin	composted, soil taken to landfill	further inspections, possible actions in conjunction with building work
	Metsä-Saimaa sawmill, Lap- peenranta, Finland	chlorinated phenols and residual dioxin	inspected	further inspections, possible actions in conjunction with building work

 $The \ table \ sets \ out \ responsibilities \ that \ still \ belong \ to \ M-real \ after \ the \ company \ closed \ down \ operations \ on \ the \ sites.$ 



# Human resources and social performance and indicators

#### Human resources

■ The success of M-real is based on skilled, globally-spread personnel, and responsible and effective business operations. During 2004, M-real's human resources strategy was focused on developing core competencies and management resources and strengthening the management system. Creating a uniform corporate culture and an efficient individual performance development process are some of the key targets.

Since 2001, M-real employees have been working in a new and bigger company where many different cultures are represented. This requires flexibility and adaptability on the part of personnel. To integrate the various corporate and national cultures represented within the company, M-real started a process of defining company values in 2001. The

#### M-real Group personnel, 31 December 2002-2004\*

	2004	2003	2002	employment creation in 2004
Finland	4 912	5 835	5 941	-923
Germany	2 873	4 148	4 543	-1 275
United Kingdom	1 832	1 875	2 002	-43
Sweden	1 691	2 334	2 518	-643
Austria	872	871	881	1
France	824	884	894	-60
Switzerland	570	577	581	-7
Hungary	543	575	573	-32
Belgium	392	407	410	-15
The Netherlands	342	361	353	-19
Poland	169	795	844	-626
Other countries	940	974	783	-34
Total	15 960	19 636	20 323	-3 676**

Head count includes 47 per cent of Botnia's employees.
 Influence of acquisitions and divestments in 2004 is -3260.

M-real Vision and Values (ViVa) roll-out took place during 2003 in the form of local training sessions. Local units made ViVa development plans for 2004 and based their actions on the plan.

#### Focusing on personal

Net

and business performance ■ At the heart of M-real's performance management process are "Performance Makes the Difference" (PMD) performance review discussions, which have a uniform format throughout the company. Both management and employees have annual PMD discussions focused on both individual and business performance. The process provides a chance to set clear and challenging goals, to undertake development planning and to provide on-the-job coaching. The implementation and training of the PMD discussion procedure was completed in 2003 for all managers and white-collar employees. In 2004, the documented PMD discussion rate was 79.9 per cent.

A balanced scorecard approach, including job-specific performance profiles, has now been incorporated into M-real's competence framework. This tool is designed for the development of the whole organisation and is applied in individual PMD discussions. The four main perspectives, based on the balanced scorecard, are customer orientation, drive for results, efficiency, and leadership and cooperation.

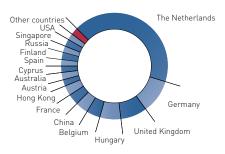
During 2004, the systematic development of the local HR units was started, based on best practices and focusing on enhancing and unifying HR processes, working procedures and tools e.g. common planning forms.

#### M-real Group personnel by country, 31 December 2004\*



<sup>\*</sup> Head count includes 47 per cent of Botnia's employees.

#### M-real international assignments by target country



The corporate level HR indicators, together with data flow, were extended in order to support performance development and implementation of the HR strategy. Many indicators have existed in internal reporting for years and some also in external reporting. Additional corporate level HR indicators were defined during 2004. The calculation principles of all HR indicators were unified to ensure the reliability of reporting. Where relevant, some of the indicators were connected to the action planning process. Most of the data is derived from human resources management and financial IT databases.

Managing and developing

human resources ■ M-real's human resources information management system – HUMA – provides a common tool for HR management and competence development in M-real. It is a source of uniform data for various HR processes, such as HR reporting and storing internal contact information.

The use of HUMA is currently limited to HR professionals. As HR processes are developed further to meet business needs, HUMA will be adjusted to also respond to these needs, e.g. simplified access for managers to personnel information stored and managed in the HUMA system. One of the targets in the near future is to develop an electronic competence evaluation tool.

HUMA was implemented during 2004 in Switzerland, Austria and Germany, as well as in the Map Merchant Group companies. The system had previously been introduced in Finland, the United Kingdom, Sweden and M-real's sales companies. Countries where HUMA is not yet in use include France, Belgium and Hungary.

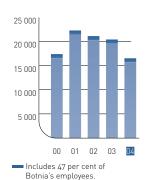
At the end of 2004, the total number of M-real Group employees was 15 960. Of this, blue-collar workers accounted for 59.6 per cent. The average age of all employees was 43.5 years, with the highest average being in Finland (45.8) and the lowest in Poland (37.8). The average years of service was 15.7. As part of the scheme for sharing best practices and knowledge within the organisation, approximately 100 employees, representing 14 nationalities, were on international assignment in M-real units in 18 different countries.

	Average age of employees	Gender ratio (%) male / female	Employment contract (%) permanent / fixed-term
Finland	45.8	78 / 22	93 / 7
Germany	43.6	88 / 12	97/3
United Kingdom	42.7	83 / 17	99 / 1
Sweden	45.6	81 / 19	96 / 4
Austria	41.9	89 / 11	96 / 4
France	42.5	82 / 18	95/5
Switzerland	42.2	87 / 13	100 / 0
Hungary	38.2	66 / 34	100 / 0
Belgium	39.2	77 / 23	100 / 0
The Netherlands	43.2	73 / 27	99 / 1
Poland	37.8	51 / 49	91/9
Other countries	39.8	56 / 44	98 / 2
Total M-real Group	43.5	80 / 20	96 / 4

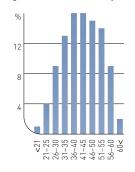
	2004	2003	2002
Turnover/employee (euro)*	331 129	296 700	323 200
Training days / employee	2.8	2.5	1.6
Training costs /			
employee (euro)* **	543	476	440
Employee turnover rate (%)	4.5	8.3	6.7

<sup>\*</sup> Figures include 47 per cent of Botnia's personnel and accounts.

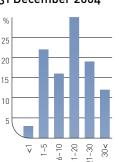
#### Personnel, average



Age distribution 31 December 2004



#### Years served 31 December 2004



<sup>\*\*</sup> Without salaries/wages.

### European Works Council

The establishment of the European Works Council (EWC) in 2001 has resulted in a significant improvement in communications between M-real's management and employees. The EWC also facilitates exchange of experience between the production units in various countries.

EWC representatives are chosen according to the number of employees in each country. At the moment, there are 26 participants from nine countries. EWC representatives act as "ambassadors", discussing current local issues on the EWC's agenda and sharing information with colleagues in their own countries.

The general meetings of the EWC are held twice a year, one in Helsinki and the other in one of M-real's European production locations. A Working Committee, which convenes four times a year, organises the major EWC meetings and also stays in contact with M-real management throughout the year.



### In focus: Henry Heiniö, Chairman of M-real's EWC

■ M-real's European Works Council (EWC) meetings are chaired by Henry Heiniö, an employee representative from Wifsta mill in Sweden. In this interview, he talks about the role

of the EWC in M-real.

#### Why is the

**EWC needed?** ■ The EWC is the only global forum where management and employees really meet and where questions from the shop floor are answered.

## EWC representatives have different cultural backgrounds.

How does this affect the Council's work? ■ The more time we spend working together, the more we learn from each other. We must accept the fact that we are all different and adopt the best practices from each country.

#### What issues have been on

the EWC's agenda? ■ In 2004, themes in focus included M-real's reorganisation, the company's economic situation, IT related issues and the deal between M-real and IBM. Corporate responsibility, health and safety issues, vision and values, human resources projects and training issues are always on the agenda.

#### How will the EWC's work

continue in 2005? ■ We will continue with the same focus as in 2004, and to help the EWC adapt to M-real's new organisation, we will invite representatives from all the business areas to tell us about their restructuring.

#### How do you ensure that every employee

is informed and heard? ■ The ways of communicating with employees about the EWC's work vary at different units. One way, for example, is to have open forums where employees hear what has been discussed and can also raise issues to be discussed at future EWC meetings. I also encourage my colleagues to contact me directly if there is something they think should be taken up at an EWC meeting.

## Has the EWC managed to create an open dialogue between employees and management? ■ I would say

that we are getting there step by step. The issues brought up at the EWC have become more practical and employees are raising more and more questions. I feel that management has also become more open and is not concealing information from us. However, openness is something that we will have to improve continuously – on both sides.

#### What are the main challenges for

the EWC in the future? ■ I think our main challenge is to enhance communication between management and employees throughout the whole organisation.

## Occupational safety and well-being (OSW)

In line with its corporate values and principles of social responsibility, M-real is committed to promoting the occupational health, safety and well-being of its employees. M-real complies with legislation and agreements made with various stakeholders concerning safety and health at work and aims to be one of the leading companies promoting occupational safety and well-being.

The Corporate Executive Board approved M-real's Corporate Policy on Occupational Safety and Well-being (see inside front cover) in December 2004. According to this, all work accidents and occupational diseases are preventable. The target, therefore, is to minimise the incidence of work accidents and occupational diseases, the ultimate goal being total prevention. At M-real, only safe work practices and a safe work environment are acceptable.

#### 0SW

organisation ■ To support the implementation of occupational health and safety and employee well-being, a new corporate level OSW unit was established in March, 2004. The main task of the unit is to develop and coordinate programmes to reduce the incidence of work accidents and occupational diseases and to improve well-being at work.

Managers of individual units and business areas are responsible for safety and health at work.

Continuous improvement, however, is the joint responsibility of managers and employees.

A network of country coordinators on occupational safety and well-being was established



Proper management of work-related hazards, disturbances and non-conformities contributes to better safety, health and well-being at work

in 2004. The tasks of the coordinators include monitoring national legislation in their respective countries; collecting OSW indicators from the units; transferring information between the mills on such issues as best practices and safety alerts; reporting on relevant activities and projects taking place at the mills and business units; and supporting local implementation of corporate OSW projects.

#### 0SW

strategy ■ Safety and well-being at work will be enhanced by setting annual targets and formulating action plans, as well as allocating the necessary resources for their achievement.

The indicators reflecting working conditions and a transparent reporting system have been established. These, together with audits of the occupational safety and well-being management systems, lead to corrective actions where necessary.

In 2004, occupational safety management system audits were completed in all production units. One of the key findings was a clear correlation between the results of the audits and the safety statistics. The audit tool will be developed to become more sensitive to the differences in OSW management systems and to also cover occupational health issues.

In 2005, occupational safety targets will be established for all production units and action plans will be formulated to help them achieve these targets. The targets will be summarised to form M-real's corporate target for occupational safety in 2005. Sickness absenteeism will be reduced by enhancing return-to-work (RTW) support in the units. The target is to achieve an average sickness rate of 4 per cent in the near future.

To help prevent severe and fatal accidents at work, even minor accidents and near-misses are recognised and reported and their causes analysed. Sickness absenteeism and related incidents, such as permanent disability, are minimised by tackling the reasons for work-related ill-health. While safe working environments are conducive to physical, mental and social health, well-being at work also calls for meaningful work and opportunities, which allow individuals to achieve their full potential.

#### Occupational safety and well-being 2002-2004

	2004	2003	2002
Sickness absenteeism (%)	4.7	5.0	5.4
Work injury absenteeism (%)	0.3	0.3	0.4
Lost time accident frequency rate (per million worked hours)	19.0	18.7	-
Lost day frequency rate (per million worked hours)	304	323	_
Reported near misses (per 100 employees, production units only)	13.0	10.0	-

#### Indicators for

occupational safety and well-being ■ In 2004, there were no fatal work accidents involving M-real employees or contractors' employees on M-real's premises.

The frequency rate of work accidents resulting in one or more days of disability i.e. Lost Time Accidents (LTAs) increased slightly compared with the previous year (19.0 accidents per million worked hours in 2004, 18.7 in 2003). Production units, however, had a better safety performance than in 2003 (LTAs decreased from 23.5 to 23.2 per million worked hours). Within the entire company, there was also a reduction in lost time caused by work accidents. In 2004, 304 days were lost per million worked hours, and 323 in 2003. These safety statistics cover 98 per cent of all M-real employees.

Near-miss recording has been encouraged and the results have improved. At the production sites, 13.0 near-miss reports were made per 100 employees in 2004, compared with 10.0 during the previous year.

Absenteeism caused by illness was 4.7 per cent of the potential regular working time. The rate was slightly lower in comparison with those of previous years. In addition to this, sickness absenteeism caused by work accidents was 0.3 per cent, as in 2003.

#### Sickness and work injury absenteeism 2002-2004



### Competence development

To enhance the competitive position of the company, M-real needs innovative and committed people with the right know-how. Competence development, therefore, is an important part of M-real's human resource management.

M-real employees have individual training plans based on their specific development needs. These needs are identified and reviewed in appraisal discussions, which are carried out annually and according to a harmonised "Performance makes the difference" [PMD] format.

M-institute Silva, which is part of M-real and based in Tampere, Finland, trains key personnel for mills located in Finland. The two-year programme is a carefully planned combination of theoretical modules and shop floor training. M-real is also adopting this concept in its other countries of operation.



#### Tools for

personal development ■ M-real's corporate training programmes provide tools for personal development. "M-real Learning" is divided into three main categories: Management Training (M-academy), Business Training, and Paper & Board Technology Training.

 M-academy is designed for positions ranging from middle management to senior executives.
 The programmes are carried out in co-operation with the leading management training institutes in Europe.

- M-real Business Training is targeted mainly at sales, marketing and customer service staff and includes general business studies as well as specific courses that provide a deeper understanding of customers' businesses and processes.
- Paper & Board Technology Training is carried out as a joint effort by the Finnish forest cluster. The target is to provide engineering staff with opportunities to widen or deepen their skills. In 2004, some 60 M-real executives participated in the M-real Executive Development Programme at IMD, Europe's leading business school; about 20 representatives of middle management took part in GRIP (M-academy, Growing in International Performance) Programme; and approximately 200 persons from sales, customer service and marketing were involved in Business Training Programmes. In addition, personnel in managerial positions at the Finnish mills took part in leadership training.

#### Successful recruitment based on

good company image ■ To be able to recruit welleducated, capable and internationally-orientated people, M-real aims at upholding its reputation as an attractive employer.

The company cooperates with local schools to raise young people's interest in science and in pulp and paper production technology in particular. The company also participates in career fairs at universities with faculties relevant to its recruitment needs. Every year, more than 600 students work as summer trainees at M-real's mills.

## M-real units are active members in their local communities

- M-real's mills are active members of their local communities. Their community involvement is diverse and includes numerous activities such as:
  - visits and open door events for neighbours
  - environmental projects
  - sponsoring and donations (including paper and board)
  - art and design competitions
  - cooperation with schools and universities
  - cooperation with decision-makers, politicians, authorities.

Some of the activities in which M-real mills participated during 2004 are presented below, but the actual number of projects is far greater.



for neighbours ■ To maintain good contacts and to build up mutual understanding with neighbours and other stakeholders, several M-real mills invited visitors and arranged open door days.

M-real Biberist, for example, has more than 2000 visitors each year, including families of employees and trainees. The mill's handmade papermaking courses are also very popular.

M-real Zanders' Gohrsmühle mill celebrated its 175<sup>th</sup> anniversary with more than 4000 current and retired employees and their families in September 2004. A wide range of activities for children and adults included mill visits, handmade papermaking and digital photo printing.

M-real Kyro also held an open house in September 2004, when local people were invited to visit the enlarged waste water treatment plant.

M-real Kirkniemi sends a "How are we doing?" questionnaire to the surrounding neighbourhood once a year and follows up the responses.

#### Environmental

projects ■ At employees' request, M-real's New
Thames mill took its waste management scheme
a step further last year by recycling all plastic cups
used by employees. By November, the mill had
collected 80500 cups, which were then made into
the same number of pencils by recycled stationery



specialists Remarkable Pencils. In turn, M-real commissioned the pencils to promote Evolve Business and Evolve Office papers, made from 100% recycled fibre. The pencils are distributed within the mill and to the local community.

Employees and the local community are involved in New Thames mill's waste management projects to reduce landfill while also raising money for charity. The mill continues to look for innovative ways to communicate M-real's commitment to corporate responsibility and to protect the environment.

#### Sponsoring and

donations, including paper ■ Many M-real units donate paper to local schools and pre-schools. The high quality paper and paper samples are much appreciated and put to good use by schools and art departments.

In the UK, M-real mills have been supporting the Historical Research Group of Sittingbourne with donations of paper. At the group's recent exhibition in the local library, M-real had the opportunity to tell the general public about its UK mills. The roots of M-real Sittingbourne go back as far as 1703, with the development of the town due mainly to the production of paper.

#### Art and design

competitions ■ M-real USA Consumer Packaging group arranged a design competition at Parsons School of Design, a higher education school, for the Spring 2004 semester. The competition, named "Unboxed", challenged Communication Design students to create an outstanding paperboard carton for a fragrance or beauty product. The first prize winner will have his carton produced and distributed by M-real, and has already visited Finland for an educational tour of design resources and to see the paper production process at one of M-real's mills.

#### Cooperation with

schools and universities ■ To celebrate
its five year, 25 million pound investment in the mill, M-real Sittingbourne

launched a Project Paint Art competition for eighty local schools. Students at primary and secondary schools and colleges were asked to design pictures inspired by paper, its production, history, uses and future, which would then be used to brighten the large walls built to eliminate draughts around the mill's new winder. The aim was also to help bring the local tradition

eliminate draughts around the mill's new winder. The aim was also to help bring the local tradition of papermaking to life for Kent school children. Four winners of the Project Paint art competition were picked from over 250 entries from local Kent schools and their pictures have been made into stunning, 10 by 6 metre banners which now decorate the walls. The winners and regional and trade press were invited to an award ceremony at M-real Sittingbourne in November to tour the mill and see the winning artwork, and Project Paint calendars have been produced for distribution within the local community.

In Sweden, Wifsta paper mill continues to be active in its cooperation with educational institutions by sponsoring summer school pupils each year. The summer school, a joint enterprise involving Mid Sweden University, upper secondary schools and forestry companies, offers research and study opportunities to upper secondary school students during the summer weeks. The studies are aligned with projects at Mid Sweden University and have resulted in a considerable increase in pupils' interest in courses related to pulp and paper manufacturing. Wifsta also participates in the annual job fair in Sundsvall, arranged by Mid Sweden University. Other interaction with schools includes practical work experience and mill visits.

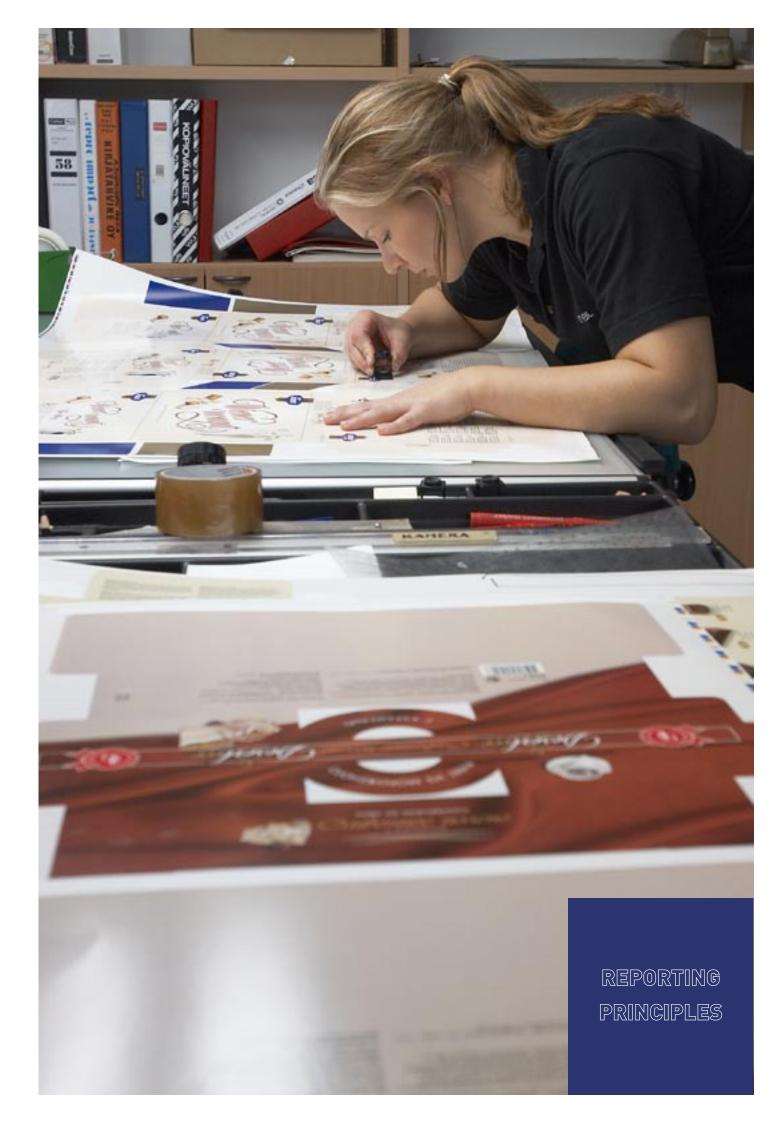


## Cooperation with decision-makers, politicians and authorities ■ On 26 September 2004,

M-real Stockstadt in Germany participated in the local High-Tech-Tour which takes place every year around Aschaffenburg. This nearly 50 kilometre bicycle tour aims at promoting Aschaffenburg and its surrounding communities as a high technology area. Participants visited and had a break and site tour at six locations.

During the tour's visit to M-real Stockstadt, the mill presented its biological waste water treatment plant, built in 1994 and optimised in 2004. The new pre-treatment phase, introduced in summer 2004, has significantly improved the performance of the effluent treatment process.

Participation in the High-Tech tour and the visit of the mayor and town council of Stockstadt to the mill in November, have enabled M-real Stockstadt to demonstrate its responsible attitude towards the river Main and the community of Stockstadt.



## Reporting principles

#### Calculation limits of

follows:

environmental data ■ When calculating emissions and energy use, the company interface is, in principle, defined in the same way as in the financial balance sheet. For example, 47 per cent of the material and energy flows of Oy Metsä-Botnia Ab (Botnia) is included. As an exception to this, the calculation limit is extended to include externally-owned energy production plants selling mainly to M-real, and waste water emissions piped through externally owned treatment plants. These extensions cause an increase of 10 per cent in M-real's total emissions and an increase of as much as 50 per cent in the emission of carbon dioxide. Detailed principles of calculation limits are as

- ▲ Emissions from the production of resources and raw materials (excluding pulp and paper products) purchased within the Group are allocated to the business units that use them. The allocation of emissions is based on the economic value of the resources. The area of application is mainly energy production.
- B Emissions from the production of resources purchased from outside the Group are allocated to the Group if the mill in question uses more than 50 per cent of the supplying plant's output (in value). Emissions are only calculated for purchased production, and the allocation is based on the economic value of the resource. The application area covers externally owned energy production.
- Wastes discharged into the environment via another business unit or a treatment plant that does not belong to the Group are allocated to the business unit from which they originated. Discharges from a biological treatment plant are allocated between the mills discharging effluents to the treatment plant based on the volumetric flow. COD is allocated on the basis of the soluble COD load of the untreated effluent.
- Wastes coming from outside the Group and discharged into the environment via one of the Group's treatment plants are not allocated to the Group.

#### Emission coefficients, as defined by M-real

	Total Emissions	Greenhouse effect	Acidifi- cation	Eutrophi- cation
Particulates	0.5			
Carbon dioxide (CO <sub>2</sub> )	0.002	1		
Sulphur, as SO <sub>2</sub>	1		1	
Nitrogen oxides, as NO <sub>2</sub>	2		0.7	0.0041
Chemical oxygen demand (COD)	0.15			
Biological oxygen demand (BOD)	0.1			0.0088
Phosphorus (P)	30			1
Nitrogen (N)	2			0.14
Suspended solids	0.1			
Landfill waste	0.01			
Hazardous waste	1			

#### Analysis of yearly

changes and trends ■ The year on year development of emissions and energy use is analysed according to changes in production volume, changes in production structure, and technological development. It is assumed that the total change is the sum of these three changes. "Structural changes" refers to company acquisitions, divestments, installation of new production lines and changes in distribution of production volume between different product lines. "Technological developments" refers to modifications in the company's processes, internal and external purification systems and production efficiency.

Energy ■ Total Energy is expressed in terms of fuels used to produce the total energy needed. For purchased electricity, we have assumed that it is produced in a condensate power plant with an efficiency of 40 per cent. The distribution of different fuels used to produce purchased electricity is based on national averages.

Emissions ■ Emissions and their environmental impact are expressed and presented in three different ways: as eleven specific emission parameters; as the environmental impact on greenhouse effect, acidification and eutrophication; and as Total Emissions.

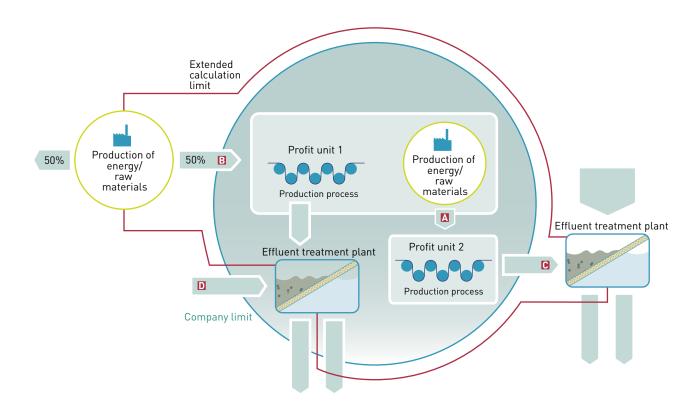
Specific emission parameters and their relation to environmental impact and Total Emissions are shown in the table on page 46. Because there is no commonly agreed way on how to weight individual parameters to produce a Total Emissions index, M-real uses its own defined coefficients, based on how research and political arenas assess different emissions.

Eco-efficiency ■ The eco-efficiency of the company is defined as the value added generated by the company divided by the environmental impact of the company. The value added is defined as value added by the company (wages and profits) and the environmental impact as Total Emissions of the company.

#### Reporting principles of

Human Resources data ■ In general, the scope of consolidated HR data follows the principles of financial reporting. The consolidated performance data therefore includes M-real Corporation, the parent company, and all companies in which it holds, directly or indirectly, over 50 per cent of the voting rights, with the exception of housing and property companies.

Where indicated, the figures include 47 per cent of the accounts and personnel of Oy Metsä-Botnia Ab and its subsidiaries. Data concerning Kemiart Liners is consolidated in accordance with M-real Group's holding, i.e. 47 per cent of Kemiart Liners figures is included in the statistics for January–June 2004 and 100 per cent for July–December 2004.



## Data on M-real units

	Personnel					Manageme	ent system	Produ	uction,1000 t/a
	31 Dec, 2004	ISO 9001	DS 3027	OHSAS	ISO 14001	EMAS	С-о-с	Pulp	Paper/board
Total	15 960	130 7001		0110710	130 14001	211/10	000	3 286	5 288
10.00								0 200	
M-real	15 231							2 135	5 288
Äänekoski Board	194	×	×		×		×		152
Äänekoski Paper	306	×		×	×	×	×		161
Alizay	505	×			×		×	277 C	276
Biberist	551	×		×	×		×		401
Gohrsmühle	1 214	×		×	×				282
Hallein	768	×			×	×		154 C	289
Husum	1 193	×			×			695 C	633
Joutseno BCTMP	54	×			×		×	251 CTMP	
Kangas	333	×	-	×	×	×	×		258
Kemiart Liners	150	×	×		×				235
Kirkniemi	795	×			×		×	187 M	657
Kyro Board & Cresta	367				×		×		213
Lielahti	91				×			96 CTMP	
New Thames	295				×	×		90 D	159
Pont Sainte Maxence	256				×				116
Reflex	579	×		×	×				103
Savon Sellu	254				×	×		214 C	223
Simpele	449		×		×				217
Sittingbourne	303				×				154
Stockstadt	854				×			156 C	397
Tako Board	387		×	×	×		×	15 M	226
Wifsta	266	×			×				137
Others **									
Meulemans	241	×			×				
Petöfi	474	×	×		×				
Tako Carton	192				×				
Sales network	820								
Map Merchant Group	2 523								
Others	817								
Metsä-Botnia 47%	729							1 151	
Joutseno 47%	, _,				×		×	260 C	
Kaskinen 47%								198 C	
Kemi 47%							×	237 C	
Rauma 47%							×	246 C	
Äänekoski 47%							×	210 C	
Mailenuski 47/0		×	×	×	×		×	2100	

<sup>\*\*</sup> includes environmental data from Meulemans, Petöfi, Tako Carton, and Äänevoima Oy.

C-o-c Chain-of-custody

\* as  $BOD_5$  and  $BOD_7$ 

C Chemical pulp

CTMP Chemi-thermomechanical pulp

**D** Deinked pulp

M Mechanical pulp

Waste, t/a		water, t/a	Emissions to				ıs to air, t/a	Emission		
Hazardous waste	Landfill vaste (as dry)	Total solids v	Nitrogen	Phosphorus	BOD*	COD	NO <sub>X</sub> (as NO <sub>2)</sub>	SO <sub>2</sub>	CO <sub>2</sub> (fossil)	Particulates
2 903	82 521	4 105	1 022	132	9 598	58 545	7 909	4 967	2 708 290	1 653
2 842	63 494	3 382	877	117	9 277	44 646	6 038	3 975	2 555 013	1 168
13	364	84	4.99	0.54	157	417	105	13	6 902	
15	254	61	3.31	0.34	128	300	133		10 183	15
485	1 366	506	208	41 -	126	3 581	504	778	42 634	142
23	28	29	1.48	0.60	11	106	85	4.97	156 203	0
104	151	88	12	3.80	66	267	512	800	368 438	18
79	305	381	34	9.00	186	4 673	301	87	115 792	18
860	41 320	703	103	34	7 637	22 658	1 245	714	104 736	468
44	76	7.73	4.24	0.34	6.37	559	86	4.73	33 909	15
34	199	45	7.40	0.88	49	197	6.39	0	14 505	0
19	254	57	8.63	0.88	26	239	208	41	21 386	5.03
101	1322	385	27	1.31	87	1 509	323	1.10	335 686	2.40
19	344	239	14	1.43	84	659	113	0.10	178 748	0
17	82	106	30	1.72	85	1 191	66	41	10 630	12
8.09	1 176	59	6.80	0.77	14	337	71	0.41	127 043	0.24
44	121	24	3.60	0.43	8.60	74	59	0	62 093	0.25
195	180	35	0	1.75	35	 85	121	0	83 487	0
37	4 277	115	299	2.20	124	1 722	487	417	108 894	390
12	9 589	27	13	1.79	25	423	309	463	125 948	
14	258	62	7.23	0.81	15	65	57	0.31	103 439	0
233	57	252	88	12	266	5 191	896	489	381 891	46
83	403	41	1.30	0.97	109	273	170	3.60	93 360	0.17
127	51	76	0.15	0.49	34	123	85	28	27 788	4.00
275	1 318		0.13	0.47	0	0	96		41 319	0.61
273		0					70			
62	19 026	723	145	15	322	13 899	1 871	992	153 277	486
21	2 878	71	39	3.09	59	2 697	362	68	35 295	52
4.51	5 100	122	22	2.92	42	1 999	417	379	30 779	118
18	2 925	224	40	3.89	123	4 919	428	192	35 262	11
8.93	5 342	130	19	2.04	42	1 382	335	157	27 759	167
8.55	2 781	175	25	2.83	56	2904	329	195	24 181	137

## Assurance statement

#### To the management of

M-real Corporation ■ At the request of the management of M-real Corporation we have performed the procedures agreed with you and enumerated below with respect to the M-real Corporation's Corporate Responsibility Report 2004 (the Report). M-real Corporation's management has prepared the Report and is responsible for the collection and presentation of information within it. This independent assurance report should not be used on its own as a basis for interpreting M-real Corporation's performance in relation to its non-financial policies.

#### Scope of

our work ■ There are currently no statutory requirements in Finland relating to the preparation, publication or independent review of corporate responsibility reports. Our engagement was undertaken in the framework of the International Standard on Assurance Engagements 3000 (revised) applicable to assurance engagements other than audits or reviews of historical financial information. The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines 2002 has been used as one source of the criteria for the assurance of responsibility report.

The scope of our work was limited to the parts of the Report covering the areas of wood procurement, environmental performance and indicators, human resources and occupational safety and well-being.

#### Summary of the

work performed ■ The procedures that we performed are summarised as follows:

- We assessed the data management procedures used to compile and report quantitative information presented in the Report in the areas of human resources, occupational safety and well-being and environment.
- We assessed the completeness, accuracy and comparability of information presented in the Report.

Our work consisted of interviews with responsible persons about the practises and procedures used for data generation on a corporate head office and mill site level. The assessment of the quantitative information was based on the initial numeric data delivered to us from all mill sites, as well as interviews with persons responsible for generating and consolidating such data.

#### Our

conclusions ■ The M-real Corporation's Corporate
Responsibility Report 2004 presents, in all material
respects, the performance of M-real Corporation in
the areas of human resources, occupational safety
and well-being and the environment for the year
ended 31 December 2004. The areas of the Report
covered already in the previous years follow the
reporting structure in due form on the areas we
reviewed. The information of the Report is prepared
in a sufficient and appropriate manner.

#### Espoo, 11 February 2005

#### PricewaterhouseCoopers Oy

Authorised Public Accountants

#### Göran Lindell

#### Sirpa Juutinen

Authorised Public
Accountant, Partner

Senior Manager Sustainable Business Solutions

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## GRI content Index

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		Governance structure and management systems	6-11, 48-49	Corporate Governance, M-real's commitment to corporate responsibility, Data on M-real units
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## M-real's global presence





#### Production units

AUSTRIA Hallein (Salzburg)

Meulemans (Arlon) Meulemans (Brussels)

FINLAND
Joutseno BCTMP
Kangas Jyyäskylä]
Kaskinen BCTMP
(in operation fall 2005)
Kemiart Liners (Kemi)
Kirkniemi
Kyro (Kyröskoski)
Simpele
Tako Board (Tampere)
Tako Carton (Järvenpää)
Tako Carton (Tampere)
Äänekoski Board
Äänekoski Paper

Stockstadt Zanders Gohrsmühle (Bergisch Gladbach) Zanders Reflex (Düren)

HUNGARY Petöfi (Kecskemét)

SWITZERLAND Biberist

New Thames (Sittingbourne) Sittingbourne

#### Sales offices and agents

ARGENTINA and URUGUAY Buenos Aires

AUSTRALIA Melbourne Sydney

BELGIUM Brussels

BRAZIL Rio de Janeiro Sao Paulo

CHINA Beijing Hong Kong Shanghai

COLOMBIA Bogotá

CZECH REPUBLIC Prague

DENMARK Copenhager

Bergisch Gladbach Frankfurt am Main Hamburg

GREECE Athens

HUNGARY Budapest

ICELAND Reykjavik

INDIA Mumbai

ISRAEL Tel-Aviv

JAPAN Tokyo

JORDAN Amman

LEBANON Beirut

NORWAY Årnes

SINGAPORE Singapore

SLOVAKIA Bratislava

SWEDEN Upplands-Väsby

SWITZERLAND Baar

SYRIA Damascus

Kemsley London Maidenhead

Chicago, IL Norwalk, CT

#### Map Merchants

BELGIUM Kortenberg

DENMARK Copenhagen

GERMANY Hockenheim

IRELAND Dublin

POLAND Warsaw

ROMANIA Bucharest

SLOVAKIA Bratislava

SLOVENIA Ljubljana

SPAIN Madrid

SWEDEN Stockholm

UNITED KINGDOM Birmingham London

#### Distribution ports

GERMANY Lübeck

SPAIN Bilbao

POLAND Gdynia

UNITED KINGDOM Tilbury

USA Baltimore, MD Philadelphia, PA

#### Technology centres

Kirkniemi Äänekoski

GERMANY Bergish Gladbach

SWEDEN Örnsköldsvik

#### Administration

FINLAND Espoo

#### Project group

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Kreab Ov

Perttu Eskelinen, responsible designer

#### Printer

Libris 2005

We welcome all feedback, questions and comments at responsibility@m-real.com

## Paper information

#### cover



Product Galerie Art Silk 250 g/m²

Mill Äänekoski Paper, Finland

VALIDATED INFORMATION FIN-000042

#### **Environmental management**

Certified environmental management system (at the mill since

ISO 14001 (1998) EMAS (2002)

Certified chain-of-custody (at the mill since

SMS 1003-1 (2003) based on PEFC

Share of wood from certified forests 84%

#### Origin of wood

The figures include all wood used in produc

 Countries of wood origin
 Share of total wood supply (%)
 Share of certified wood\* (%)
 Certification system

 Finland
 93
 90
 PEFC

 Russia, European part
 7

More information www.m-real.com

#### inside pages



Product Galerie One Silk 115 g/m²

Mill Kangas, Finland

EMAS
- VALIDATED
INFORMATION
- FIN-000043

#### **Environmental management**

Certified environmental management system (at the mill since

ISO 14001 (1997) EMAS (2002)

Certified chain-of-custody (at the mill since

SMS 1003-1 (2003) based on PEFC

Share of wood from certified forests 54%

#### Origin of wood

The figures include all wood used in product.

Countries of wood origin wood supply (%) wood\* (%) system

Finland 62.5 85.5 PEFC

Russia, European part 34.5

Estonia 2

Latvia 1

More information www.m-real.com

<sup>\*</sup> The figures indicate the average share of certified wood supplied with certified chain-of-custody.

<sup>\*</sup> The figures indicate the average share of certified wood supplied with certified chain-of-custody.

The complete M-real annual reporting 2004 consists of three parts:



Annual review

available in English, Finnish, French, German and Swedish



Corporate responsibility report

available in English and Finnish



**Annual** 

financial report available in English, Finnish and Swedish

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