



Environmental responsibility

Active innovation

Union of European Beverages Associations

UNESDA

VARIETY *and* CHOICE



UNESDA and the environment

UNESDA, the Union of European Beverages Associations, represents a major part of the innovative and dynamic non-alcoholic beverages industry, uniting major producers as well as national beverage associations in 27 EU and two non-EU countries as well as the major international beverage companies.

For over 50 years, UNESDA's primary role has been to engage with European stakeholders to support the acceptance of the products and growth and development of the non-alcoholic beverages industry.

An environmental journey

Through the health and wellness commitments, made in January 2006, UNESDA members demonstrated that the industry responds positively to public concerns. Building on a legacy of self regulation, this booklet outlines UNESDA members' commitment to drive efficiency in the key areas of water stewardship, climate protection and sustainable packaging. It also sets out the industry's environmental journey, recognises the challenges it faces and highlights some innovations and best practice solutions.

Environmental stewardship is not new for our members and remains an ongoing priority, but we recognise that we cannot act in isolation. That is why UNESDA members are actively seeking ways to engage with stakeholders and their partners in the supply chain to share information about environmental initiatives, technologies, innovation and opportunities, in order to learn from each other and jointly contribute to a better environment.

Our members recognise that environmental protection is a joint effort of society and therefore requires a common, consistent and co-ordinated approach. Transparency is key for our industry, whether it is declaring the nutritional value of our ingredients or explaining the environmental impact of our products and processes. One of our key priorities therefore is to seek standardisation in environmental footprint measurement. Through continuous engagement with all stakeholders, the industry can then move towards a voluntary co-ordinated and measured approach to delivering clarity for consumers – so that they can be confident that non-alcoholic beverages are healthy, refreshing, hydrating, and produced in an environmentally responsible manner.



UNESDA: named and praised

In November 2006, UNESDA was just one of four organisations to be named and praised for its actions by the EU Consumer Protection Commissioner Markos Kyprianou for its Commitments on tackling obesity made in the framework of the EU Platform for Action on Diet, Physical Activity and Health.

Pictured: UNESDA Secretary General Alain Beaumont; PepsiCo Europe CEO Zein Abdalla; then UNESDA President Dominique Reiniche, The Coca-Cola Company European Union Group President; and Commissioner Kyprianou.

Our environmental journey

Active innovation

Global challenge

While global issues such as the need to reduce CO₂ emissions and manage water resources require a co-ordinated approach across geographies and industries, we recognise that our sector has a role to play and must take up its responsibility in managing resources and reducing waste throughout our production processes and distribution activities.

Local industry

It is important to recognise that ours is predominantly a local industry, operated by local people in each of the 27 countries of the European Union. We respond to local consumer needs in terms



The industry operates 1,071 bottling plants in Europe.

of taste and convenience, and in general our products are produced near the markets and consumers we serve. In addition, the vast majority of ingredients and services we use are sourced locally, contributing to the local economy. This local approach also results in relatively short transport distances.



UNESDA President
Graham Neale

What are the responsibilities of the non-alcoholic beverages industry?

Crucially, our products are used for hydration, and as such water is a key resource. **Water efficiency and protection** is therefore something that we take very seriously and are working hard to address. **Packaging** is another essential material for the industry as it allows us to secure the quality and integrity of our beverages and deliver them to consumers in a safe and convenient way. The industry is taking steps to introduce sustainable packaging policies and effective systems for package reduction, recovery and reuse. **Energy** is the third key essential resource, used from the production of ingredients to the manufacture, distribution and sale of all non-alcoholic beverages. UNESDA members and their suppliers are steadily improving energy efficiency and reducing the rate of CO₂ emissions in production and distribution while at the same time seeking new and innovative ways of doing business in

sustainable ways. In this document, we have taken the opportunity to share key facts about environmental performance in the industry and demonstrate this by exploring some of the innovations in which we are investing.

A presidency focused on environmental responsibility

When I took over the presidency of UNESDA in May 2007, I committed to addressing the environmental sustainability of our industry as a key part of my mandate. I am pleased at the progress that we are making and look forward to continuing an open dialogue with all stakeholders in the future.

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Our environmental journey

WATER – a key resource for our beverages

Water is a key resource for non-alcoholic beverages and contributes greatly to the hydration of our consumers.

The industry recognises the value of water in local societies and the need to use it efficiently and without waste.

Manufacturing operations continuously aim to optimise water use and treat wastewater appropriately before returning it to nature.

“increase efficiency, using our most precious resource”

REDUCE water ratio

Water use ratio is defined as the total water used relative to the volume of beverage produced. It is one of the industry’s main environmental key performance indicators.

Innovations such as air rinsers on bottling lines, employee awareness in bottling plants, investments in new production lines and bottle washers, combined with a quest for continuous improvement are part of the industry’s daily commitment to increase efficiency at its sites.

On average, non-alcoholic beverages bottling uses a little over two litres of water per litre of finished product. The ratio varies depending upon the type of beverage being produced, the type and size of packaging material being used, and the efficiency of the production operation.

In Europe, it typically ranges from as little as 1.2 litres of water per litre of produced beverage to 2.8 litres.

The major companies have reduced this ratio significantly since 2004. Bottling sites continue to implement measures for further reduction including working with suppliers to develop new equipment and processes.

RECYCLE wastewater

Water from production processes such as cooling and rinsing is internally reused for cleaning of crates and trucks, floor washing and even watering landscape features.

The non-alcoholic beverages industry is committed to treating its wastewater and ensures that all water used in manufacturing processes is returned safely to the environment at a quality which supports fish and plant life.

For this, the industry either uses its own purpose-built wastewater treatment plants or works in partnership with third parties and local authorities, to manage and control all water used in manufacturing its products.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Natural solution

Coca-Cola Enterprises’ production facility in Grigny, France is continuing to pilot the use of a



Coca-Cola Enterprises’ reed filter garden in Grigny, France.

reed filter garden, designed to return wastewater to the purity of rainwater. The basin uses plants as wastewater treatment agents, with a process known as phytoremediation. Plants such as reeds, irises, bamboos and rushes retain organic matter and filter phosphorus and nitrogen. The process significantly reduces the use of chemicals and the consumption of energy, preserves the plants and at the same time creates an attractive and bio diverse garden.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Water from juice

The Orangina Schweppes Group in Spain has installed a system to reuse water from the juice concentration process. Juice evaporators produce 12,000 litres of water per hour at around 50°C. In the past, this water was rejected and sent for purification but is now being reused for orange peel extraction and fruit washing.

The company now saves the energy required to treat and heat 100,000 litres of water a day from 15°C to 45°C. It also saves 150,000 litres of well water a day, previously used for fruit washing.

Our environmental journey

WATER – a key resource for our beverages



PROTECT watersheds

The industry is proactive in watershed protection, community water access programmes and the promotion of efficient agricultural water use.

In addition to protection and conservation of watersheds, programmes include awareness raising and educational initiatives by working with local NGOs, schools and communities. Initiatives may be short term and tactical, such as river bank clean-ups and tree planting, or longer term and strategic ensuring sustained support and commitment.

“protecting valuable watersheds for the future”

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Water education

Since 1992, Nestlé Waters has supported Project WET – a non-profit water education programme that facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources through the dissemination of classroom-ready teaching aids and the establishment of internationally sponsored Project WET training programmes.



ENVIRONMENTAL BEST PRACTICE SHOWCASE

Water stewardship

The Green Danube Partnership

The Green Danube Partnership was established in 2005 to preserve and protect the Danube River and its basin and involves the co-operation of the



Young volunteers clean the banks of the Danube River.

International Commission for the Protection of the Danube River (ICPDR), Coca-Cola Hellenic and The Coca-Cola Company. The annual celebrations of Danube Day on 29 June grow in their reach and extent each year.

The programme is active in Serbia, Hungary, Romania, Bulgaria, Slovakia, Ukraine, Austria, Moldova, Croatia and Slovenia and attracts the participation of hundreds of thousands of people, while communicating important water conservation messages to millions of others.

The river system supports 81 million people in 18 countries. All initiatives are carried out jointly with governments, non-governmental organisations, educational institutions and various local bodies.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Water stewardship

Danone/Evian Ramsar – IUCN partnership

Danone has established a partnership with the Ramsar Convention on Wetlands and The World Conservation Union, IUCN.

The programme aims to help restore biodiversity and fight global warming through the implementation of projects to recreate mangrove swamps. The intergovernmental treaty was adopted at Ramsar, Iran, in 1971, and has now been signed by 153 countries.

The mission of the Ramsar Convention is “the conservation and wise use of all wetlands through local, regional and national actions and international co-operation, as a contribution towards achieving sustainable development throughout the world”.

Evian has taken actions to protect its water sources, and for the past 15 years has worked closely with its local community through APIEME (Association pour la Protection de l’Impluvium des Eaux Minérales d’Evian). For the last 10 years Evian has also backed the Ramsar Convention with its Les Ecoles de Protection de l’Eau (Schools for the Protection of Water).

Our environmental journey

ENERGY – a commitment to conservation

Energy is a key resource for the production and distribution of non-alcoholic beverages. UNESDA members and their suppliers are steadily reducing energy use and emissions. They are constantly seeking new and innovative ways of doing business in the most energy efficient ways.

The industry believes that sustainable business growth goes together with new approaches to minimise carbon emissions.

REDUCE energy use

Energy efficiency and investments go together with financial return. That is why the industry has been working for a long time in reducing its dependency on energy – through changes in lighting, production processes, bottling blowing equipment, and investments in energy saving devices and technologies.

The energy use ratio for soft drink bottling in production facilities is typically in the range of 0.4–0.6 MJ per litre of produced beverage. Major companies have decreased this number significantly since 2004, with greater improvements expected in the next two to three years as new technologies are adopted.

Investments in new cooling equipment and energy management will also significantly

“continuously increase the energy efficiency of our operations”

reduce energy use at the point of sale in coolers and vending machines.

New technologies currently being introduced will bring energy reductions of up to 50% and more in the coming years helping to further reduce the energy footprint of our cooling equipment.

REDUCE emissions

The non-alcoholic beverages industry is largely dependent on energy throughout its production process, sales equipment and distribution systems. That is why it is gradually building expertise and experience in renewable resources.

Europe is working towards a more highly efficient and renewable energy supply equivalent to 12% of total EU energy consumption by 2010. We strongly believe that significant reductions in energy use can be achieved in our operations. Wind turbines, geothermal energy, Combined Heat and Power generation and new cooling gases are some of the innovations which the industry is currently using and developing.

Other initiatives in the supply chain include truck sharing and the introduction of energy efficient and hybrid distribution vehicles. These efforts should allow the member companies to help reduce fleet emissions in Europe.

REPORT and communicate our footprint

We are convinced that consumer information and transparency of our environmental footprint is important to allow us to increase our performance, track our progress and allow stakeholder dialogue and consumer information. Therefore, some of our members are closely involved in independent programmes to develop and test methodologies to calculate the carbon impact of our products. As this topic is evolving rapidly, UNESDA is directly involved in pan European platforms aimed at finding solutions and harmonisation that fits the beverage sector.

Many UNESDA members, including The Coca-Cola Company, Coca-Cola Enterprises, Danone Waters, PepsiCo, The Pepsi Bottling Group and Nestlé Waters are participating in the Beverage Industry Environmental Round Table (BIER). The mission of BIER is to bring together leading global beverage companies to define a common framework for stewardship, drive continuous improvement in industry practices and performance, and inform public policy in the areas of Water Conservation and Resource Protection, Energy Efficiency and Climate Change Mitigation.

BIER has been leading in developing methodologies for calculating water and carbon footprinting and is working closely with the Carbon Trust, the World Resources Institute and the World Business Council for Sustainable Development. Twelve global beverage companies are actively participating in BIER, representing nearly every category in the industry.

Our environmental journey

ENERGY – a commitment to conservation



ENVIRONMENTAL BEST PRACTICE SHOWCASE

Austrian climate protection

The Austrian industry aims to achieve the most sustainable production and transport systems possible. It is aiming for a net reduction of at least 10% by 2017 on the emission levels of 370,000 tonnes of CO₂ equivalents in 2007. Savings will be made through direct beverage production measures, as well as through indirect measures such as general transport optimisation, energy saving projects in the retail sector, and energy efficiency in cooling facilities. Some companies are already using alternative fuels such as Compressed Natural Gas (CNG) which emits 85% less emissions and are testing Europe's first hybrid beverage delivery trucks.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

CHP plants

Coca-Cola Hellenic has committed to build 15 Combined Heat and Power (CHP) generation units in 12 countries (eight EU), thereby reducing CO₂ emissions across all 80 manufacturing plants by an average of 20%. Not only do CHP units use natural gas, which is cleaner than the coal and other fuels used to generate electricity, but they are 40% more efficient than traditional plants. By capturing and reusing heat from power generation, boilers and power plants, the units will provide all plant power needs: heat, cooling, electricity, as well as capture of CO₂ for product carbonation. Excess electricity will be delivered to the national grid.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Energy use reduction

PepsiCo's modern Tropicana plant was built in Zeebrugge, Belgium in 2003, using all the latest available energy saving technologies. The company's Global Resource Conservation Programme has achieved significant additional energy reduction through a number of initiatives ranging from optimisation of utilities and capacity to strong employee awareness and involvement. In addition to improving energy efficiency, PepsiCo uses 100% renewable electricity at all its sites in Belgium and is investigating the possibility of generating renewable electricity on site – as it is already doing at a number of its snacks plants.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Energy reduction coolers

Many UNESDA members have been active in lowering the environmental impact of their point-of-sale coolers and vendors. This has resulted in refrigerators using up to 50% less energy since 2004. In the meantime, insulation materials containing HFC have been replaced on a large scale by more environmentally friendly insulation materials. Major international companies including several UNESDA members have also collaborated on the creation of environmentally improved refrigeration by the formation of an industry initiative called 'Refrigerants, Naturally!'.

Refrigerants, Naturally! is a global collaboration of companies committed to combat climate change and

ozone layer depletion through the substitution of harmful fluorinated gases ('F' gases, such as CFCs, HCFCs and HFCs) with natural refrigerants with a major focus on point-of-sale cooling applications. Refrigerants, Naturally! is supported by Greenpeace and the United Nations Environment Programme and is recognised as a "Partnership for Sustainable Development" by the UN Commission on Sustainable Development. Refrigerants, Naturally! provides a platform and a critical mass for communicating to the refrigeration technology supply chain, governments, civil society and other refrigeration users.

Originally launched in 2004 by Unilever, The Coca-Cola Company and McDonalds and expanded in 2006 by

Pepsico, Carlsberg and Ikea – the objective is to reduce carbon emissions from coolers, vending machines and freezers and replace harmful 'F' gases with safer, natural substitutes.

Participants are committed to shift point-of-sale cooling technology towards natural refrigerants with a dramatically lower Global Warming Potential and zero Ozone Depleting Potential that are safe, reliable and cost effective. At the same time companies are working on improving energy efficiency compared to existing fluorocarbon-based technology. For this reason companies are piloting alternative refrigerants in various countries that will lead to a reduction in CO₂ emissions from refrigeration.

Our environmental journey

PACKAGING – a valuable resource for future use

Packaging is crucial to protect the quality of our beverages. It is used to provide important information, and offers hydration and refreshment in a safe convenient way to consumers.

As a communication platform for product information and brand image, it is also highly visible and represents an important part of our environmental footprint.

“lighter packages save energy and use less resources”

Working closely with its suppliers, the industry continues to reduce material used in packaging while ensuring that it is recovered and recycled either into new bottles or for other uses.

REDUCE

The average weight of packaging has been reduced substantially in the past few years.

As a packaging material, PET cuts the amount of energy used by transportation in the global food supply chain by half. The total energy used to deliver packaging to the filler and from the filler to the retailer is, on average, 13.7 MJ of diesel fuel per kg compared to 25.4 MJ per kg for the average glass beverage packaging.

Reducing the weight of packaging while preserving the qualities of the ingredients and user convenience is an ongoing challenge for the industry, yet every year sees new advances.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

LIGHTWEIGHTING

PET

Most PET (Polyethylene terephthalate) containers are 100% recyclable and on average a PET beverage bottle has reduced 50% in weight over the last 10 years.



Glass

The weight of glass bottles is highly dependent on the use or reuse of the containers. As reused containers need to be resistant to multiple trips, they need to be more robust and consequently are heavier.

New innovation and creative design of single-use glass bottles has allowed the industry to reduce the weight of the existing 330ml glass bottle by 20% to 210 grams in the past three years.

Cans

In Europe, aluminium and steel are used as materials for beverage cans. The first beverage cans on the market in Europe 60 years ago were heavy-weights at more than 80 grams. Today an aluminium can is 40% lighter and a steel can 50% lighter than in 1970.



A 330ml steel can now weighs only around 21 grams, and an aluminium can may weigh as little as 10 grams. Consequently, industry is now able to produce on average around three times as many cans with the same quantity of primary material than was the case some 30 years ago. Moreover, the innovation of metal suppliers made it possible to produce beverage cans with a wall thickness of 0.097mm – as thin as a human hair.

Our environmental journey

PACKAGING – a valuable resource for future use



RECOVER and RECYCLE

Most non-alcoholic drinks packaging is refillable or recyclable – whether glass, aluminium, PET or cartons.

The recycling percentage rates of beverage packaging are amongst the highest of the packaging industry in Europe and in all cases meet or exceed the legal recovery targets in a range of 50–80%.

UNESDA member companies are involved in setting up and leading industry recovery and recycling systems across Europe and lead the way in encouraging the collection, recovery and recycling of post-consumer packaging.

“packaging
is a
resource
for future
use”

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Keeping Denmark tidy

In 2007, the Danish Ministry of the Environment established a working group to consider the problem of fly-tipping. The resulting organisation, Keep Denmark Tidy, has invested funds in focused campaigns, including a physical clean-up and the development of business tools to assist local authorities in managing litter. This corporate fund is backed by several companies including the Danish UNESDA member.

ENVIRONMENTAL BEST PRACTICE SHOWCASE

Cans

Beverage cans are the most recycled beverage containers globally. In the EU15, the recycling rate of steel packaging was 69% in 2007*. The recycling and use of recycled content in cans saves up to 95% of the energy used for production of virgin materials.

Green Dot

All UNESDA members use the Green Dot scheme as licensees of PRO Europe (Packaging Recovery Organisation Europe), which is the umbrella organisation for European packaging and packaging waste recovery and recycling schemes.



- About 140,000 companies are licensees/ members of the PRO Europe member systems
- More than 460 billion packaging items have been labelled with the Green Dot
- More than 565 million inhabitants live in PRO Europe member countries
- More than 22 million tonnes of packaging were recovered by PRO Europe member systems in 2007*
- More than 1,800,000 tonnes of plastic packaging were recycled by PRO Europe member systems in 2007*.

* 2008 data not available at time of publication

ENVIRONMENTAL BEST PRACTICE SHOWCASE

PET

PET (Polyethylene terephthalate), is a commonly used material for beverage containers in Europe. PET is recovered through industry recovery systems and sorted into different colour fractions. This sorted post-consumer PET is crushed, pressed into bales and offered to recycling companies. PET flakes are then used as raw material for a whole range of products from shirts and textiles to carpets and warm winter jackets and today, there is a growing use for recycled PET in new beverage bottles. The current recovery rate for used PET is more than 36% with individual country recovery systems achieving as much as 80% in some EU states.

ENVIRONMENTAL BEST PRACTICE SHOWCASE



Cartons

In 2007, Europeans recycled close to 330,000 tonnes of beverage cartons, representing 32% of total volume, an improvement of 7% over 2006**. Leading carton manufacturers work together to promote environmental best practice through The Alliance for Beverage Cartons and the Environment (ACE).

** www.beveragecarton.eu, 2008

Our environmental journey

PACKAGING – a valuable resource for future use

RE-USE

The European non-alcoholic beverages industry sees used packages not as waste, but as a valuable resource. That is why our packaging finds a second life whether as another beverage package, car parts, a sleeping bag, or T-shirt.

Recycled material is used in almost all non-alcoholic drinks packaging in varying amounts.

“recycled material is used in almost all non-alcoholic drinks packaging”

Glass bottles typically include between 20% and 60% recycled content, while steel and aluminium cans contain between 40% and 60%. Subject to local availability and infrastructure, PET bottles can include up to 50% recycled material for general use, and there are specific examples for still drinks where 100% recycled material can be utilised.

To encourage recycled content in its beverage containers, the industry works together with its suppliers and invests in PET-to-PET recycling operations such as in Austria and Great Britain.

ENVIRONMENTAL BEST PRACTICE SHOWCASE



rPET

This bottle is 100% recycled

GlaxoSmithKline has introduced 100% recycled PET bottles – rPET – for its Ribena brand in the UK.

Using rPET saved more than 8,000 tonnes of CO₂ and saved more than 2,080 tonnes of plastic being sent to landfill in 2008.

ENVIRONMENTAL BEST PRACTICE SHOWCASE



ENVIRONMENTAL BEST PRACTICE SHOWCASE



Bottle-to-bottle

In Austria, industry members Rauch, Spitz, Radlberger, Coca-Cola Hellenic and Vöslauer have worked together to establish a unique PET-to-PET recycling operation, collecting and sorting post consumer waste and then reprocessing it to make high quality food grade PET flakes.



These are then used for the production of PET preforms which in turn are blown into new bottles – therefore creating a fully closed loop system.

Our environmental journey

ENGAGEMENT – for the next steps on our journey



Environmental performance and efficiency has been a priority of the non-alcoholic beverages industry throughout its history. UNESDA members are committed to striving continuously for the lowest possible environmental footprint.

With member companies operating in 29 countries, environmental commitments and objectives are specific to each company, each product portfolio and variable market conditions. UNESDA members therefore seek to drive efficiency through best practice and to set individual goals and standards through striking the correct balance between robust science, consumer needs and the practical impact this has on the entire supply chain from ingredients suppliers to the consumers.

UNESDA and its members are actively participating in a number of platforms contributing to defining common best practice frameworks and developing common environmental footprinting methods. These include the Beverage Industry Environmental Roundtable (BIER) and World Business Council for Sustainable Development (WBCSD), The Retail Forum and the Food Sustainable Consumption and Production Roundtable.

One of the key challenges for the future is to speak the same language as environmental science. Definitions vary and new methodologies to calculate environmental impact and performance are emerging continuously. UNESDA therefore believes that its members need to work together in a consistent and co-ordinated way in measuring

and communicating the environmental performance of the non-alcoholic beverages industry to consumers and stakeholders.

It is UNESDA's intention to work with its members, in dialogue with its partners to move towards a single European standard on environmental measurement. Through sharing information across its members, and encouraging and communicating innovative approaches and methods of transparent communication, UNESDA can ensure that the European non-alcoholic beverages industry makes an increasingly positive and measurable contribution to the global environmental challenge.

To follow developments, visit www.unesda.org

Partners and standards

The majority of operating companies in the European non-alcoholic beverages industry partner with a variety of European and global environmental bodies such as the United Nations Global Compact, Greenpeace, WWF, Carbon Trust, Ademe, and the Oko Institute.

Across Europe, individual companies are included in the Dow Jones Sustainability World Index, Dow Jones STOXX Sustainability Index, and the FTSE4Good Index. They utilise leading international standards such as ISO 9001 (Quality), ISO 14001 (Environment), OHSAS 18001 (Health & Safety), ISO 22000 (Food Safety), the Global Reporting Initiative, London Benchmarking Group, the International Business Leaders Forum and more.

Member companies also work closely together through specific environmental platforms such as the European Organisation for Packaging and the Environment (EUROPEN), World Business Council for Sustainable Development (WBCSD) and the Water Footprint Network.

More information on a company basis, can be explored at the corporate websites listed on www.unesda.org



www.unesda.org