

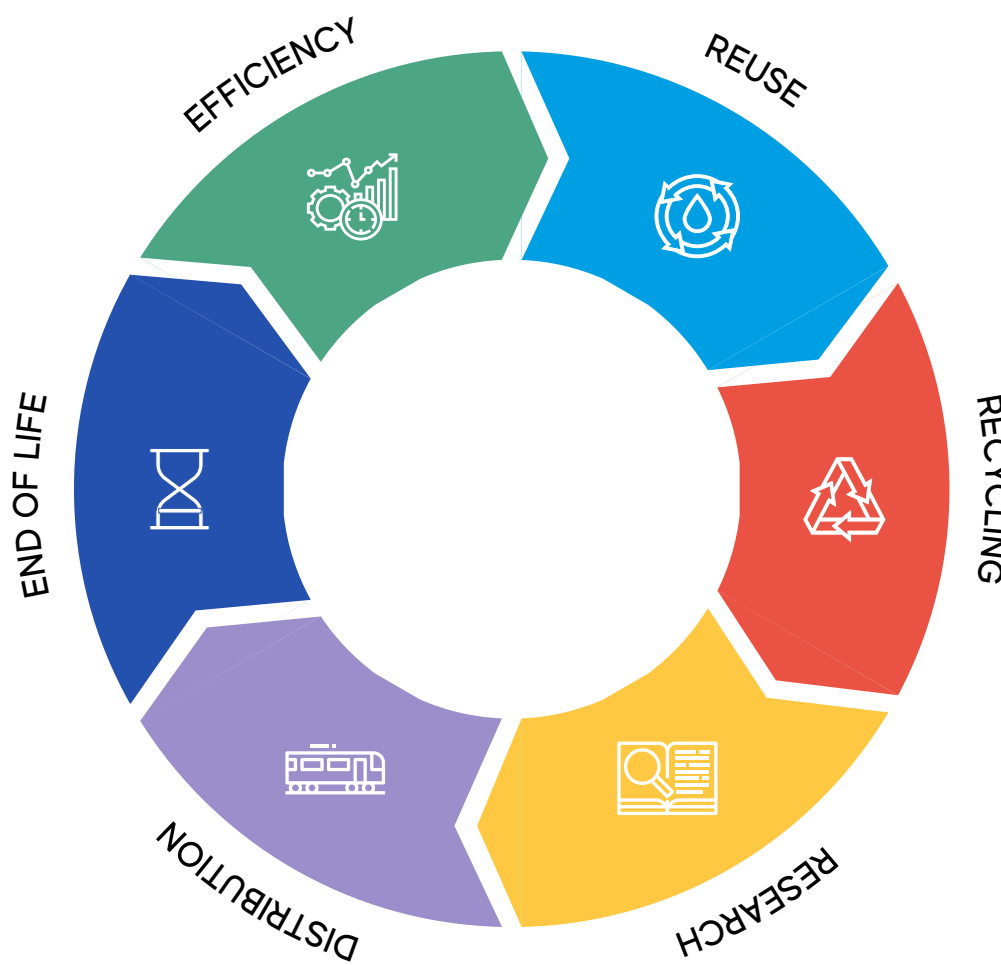


PROCESS

LESS IS MORE

1

The production process of Italian ceramics is **circular** and **virtuous**.



Efficiency

47% Coverage of the water requirement with **wastewater recycling** (drastic reduction of water withdrawal from groundwater).

90% **Lead (Pb) and fluorine (F) emissions removed** by sewage treatment plants.

99% **Dust emissions eliminated** with abatement equipment (-65% since 1988).

9.9% Coverage of raw material requirements for the manufacturing process from recycled materials.

44% **Energy needs fulfilled** from cogeneration (27 plants) + photovoltaic (12 plants).

↓ Digital decoration **drastic reduction of applied materials** per square meter.

6GJ **Energy consumption per tonne.** 10 GJ (GigaJoules) in the '70s, currently 6 GJ.

Recycling

99.5%

Reused production and purification waste within the production cycle (in 1998 it was 89%).

111%

Solid waste average recycling factor (ratio of waste recovered to waste produced). The sector also recovers waste from other sectors.

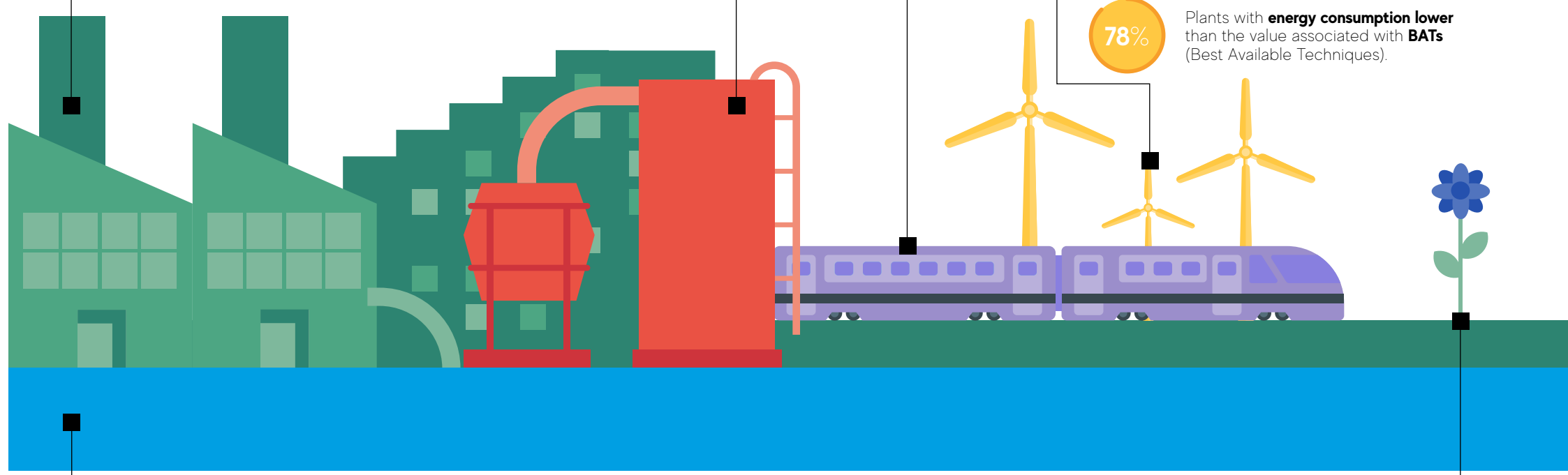
Distribution

24% 24% of supply and distribution flows (more than double the national average) is transported in and out of the District **via trains**.

Research

60% New products have been developed with high circularity characteristics and a **recycling rate in excess of 60%** (less use of raw materials, reduction of transport impact).

78% Plants with **energy consumption lower** than the value associated with **BATs** (Best Available Techniques).



Reuse

97% Sites without process water discharges (with **full reuse**) **reducing the risk** of surface groundwater **pollution**.

110% **Average water recovery factor** (ratio of reused to produced water). The sector also absorbs wastewater of external origin.

End of life

Tiles are an inert material produced from **natural raw materials** that are **easy to dispose of** at the end of their life cycle.

READ THE ARTICLE



PRODUCT



WATCH THE VIDEO

ECO IS GOOD

2

Italian ceramics are made of a material that respects the environment.

THIN CERAMIC SLABS

The reduced thickness of the ceramic material **diminishes the quantity of raw materials used**, thereby also **reducing transport costs**, since the materials weigh less, with fewer energy requirements. The slabs pave the way toward **innovative applications** for ceramic products.



HYGIENE AND CLEANLINESS

Maintenance of ceramic surfaces is **simple**: hot water and neutral detergents are required. This also results in tangible **savings** for consumers while **reducing the risk of pollution**.



HEALTHINESS OF INDOOR SPACES

Indoor products (building materials, furniture, etc.) have a **significant impact on indoor air quality** and can release different types of harmful volatile organic compounds (VOCs) when breathed in. **Ceramics do not emit VOCs** because they are **inert materials**. This characteristic of healthiness is also enhanced by antibacterial treatments that inhibit the growth of the bacterial load.



DURABILITY AND SAFETY

Tiles are **resistant** to: outdoor weather conditions, chemicals, fire, flooding, humidity, temperature changes, and UV rays. Ceramics are therefore **advantageous in situations of severe environmental stress**.



DURABILITY

Carpet, vinyl sheets and wood floor coverings have an average life cycle of six, ten and fifteen years respectively, while tiles have an average **life cycle of over 50 years**.

INNOVATIVE SURFACE FUNCTIONALITY

Innovative surfaces have been introduced, for example with **hydrophobic** characteristics - by not retaining water they are **self-cleaning**; there are also surfaces with **air pollutant abatement** functions.



ENERGY EFFICIENCY AND URBAN REGENERATION

Tiles are one of the **best solutions for ventilated walls**; they are robust and resistant to the deterioration phenomena that affect external walls. A building with a **system of ventilated ceramic façades is up to 35% more energy efficient**.





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CERTIFICATIONS

SUSTAINABILITY IS NOW

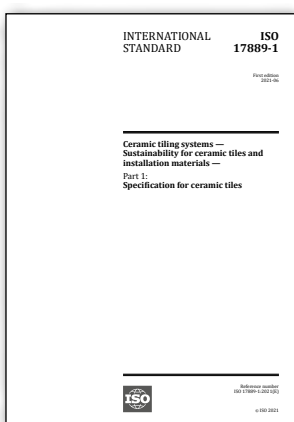
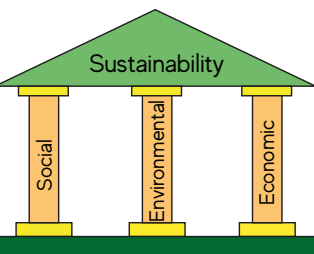
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Italian ceramics are **certified** by the main international bodies.

	EPD (Environmental Product Declaration): Certified and independently verified Environmental Product Declaration, which transparently and objectively expresses the environmental performance of a product throughout its life cycle (LCA-Life Cycle Assessment).	EPD	Sectoral EPD + 21 EPD product companies
	ISO 14001 : International standard that certifies the implementation of an environmental management system by organizations. ISO 17889-1 : A new international standard dedicated to defining the sustainability characteristics of ceramic tiles.	ISO 14001 ISO 17889-1	35 companies Standard published in 2021
	EMAS : Voluntary Eco-Management and Audit Scheme, promoted by the EU, which aims to foster the continuous improvement of the environmental performance of organisations, based on the ISO 14001 Standard model, with some additional requirements.	EMAS	21 production sites
	ECOLABEL : EU's independently certified ecological label, which selects the products and services with the best environmental performance throughout their life cycle.	ECOLABEL	8 Ecolabel licences, covering 1432 products
	LEED (Leader in Energy and Environmental Design): the most widespread international voluntary standard for the certification of energy performance and sustainability of buildings. Ceramic tiles are "LEED Compliant" and can contribute to obtaining various LEED credits that are useful for building certification.	GBC Italia US GBC	23 companies 8 companies
	BS OHSAS 18001 : International standard on the implementation of a management system aimed at preventing accidents in the occupational safety and health area.	BS OHSAS 18001	11 production sites

The **first international ISO standard** on product sustainability.

In 2021, the **ISO 17889-1 product standard**, which certifies the **sustainability** of ceramic tiles, was published. Developed following a **life-cycle analysis** approach, it takes into account environmental, economic and social aspects.



The standard is made up of **38 indicators**, with a rewarding **scoring mechanism**, which allows the products' level of sustainability to be evaluated. A product complies with the standard if, in addition to complying with the **mandatory requirements** (15), it obtains a minimum score of 117.5 among the **voluntary criteria** (23).

A single international standard allows the user to:
 - Identify sustainable tiles with an **easy and transparent tool**
 - Compare the **performance** of different manufacturers
 - Recognize who has made **investments** in sustainability



ISO 17889-1
SUSTAINABILITY FOR CERAMIC TILES AND INSTALLATION MATERIALS



SOCIAL RESPONSIBILITY



READ THE REPORT

SHARING IS BETTER

4

The Italian ceramics industry for the **UN 2030 Agenda SDGs**

In 2015 the **United Nations approved the Global Agenda for Sustainable Development** and its 17 Sustainable Development Goals (SDGs) to be achieved by 2030 (the 2030 Agenda). **The Italian ceramic industry has responded** to this cultural challenge by **implementing various projects that include product and process environmental sustainability objectives**.

In 2021, the **ISO 17889-1 product standard**, which certifies the **sustainability** of ceramic tiles, was published. Developed following a **life-cycle analysis** approach, it takes into account environmental, economic and social aspects.

Goal 13 Take urgent action to combat climate change and its impacts

Goal 3 Ensure healthy lives and promote well-being for all at all ages

Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 6 Ensure availability and sustainable management of water and sanitation for all

Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12 Ensure sustainable consumption and production patterns

Source: Confindustria Ceramica - Review The Italian ceramic industry and the UN 2030 Agenda - SDGs



Ceramics of Italy

THE VALUES OF CERAMICS

A sustainable choice

