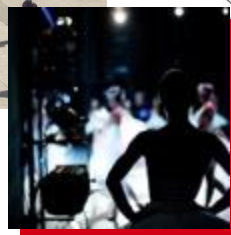
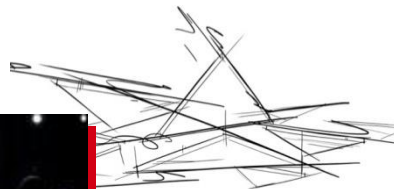




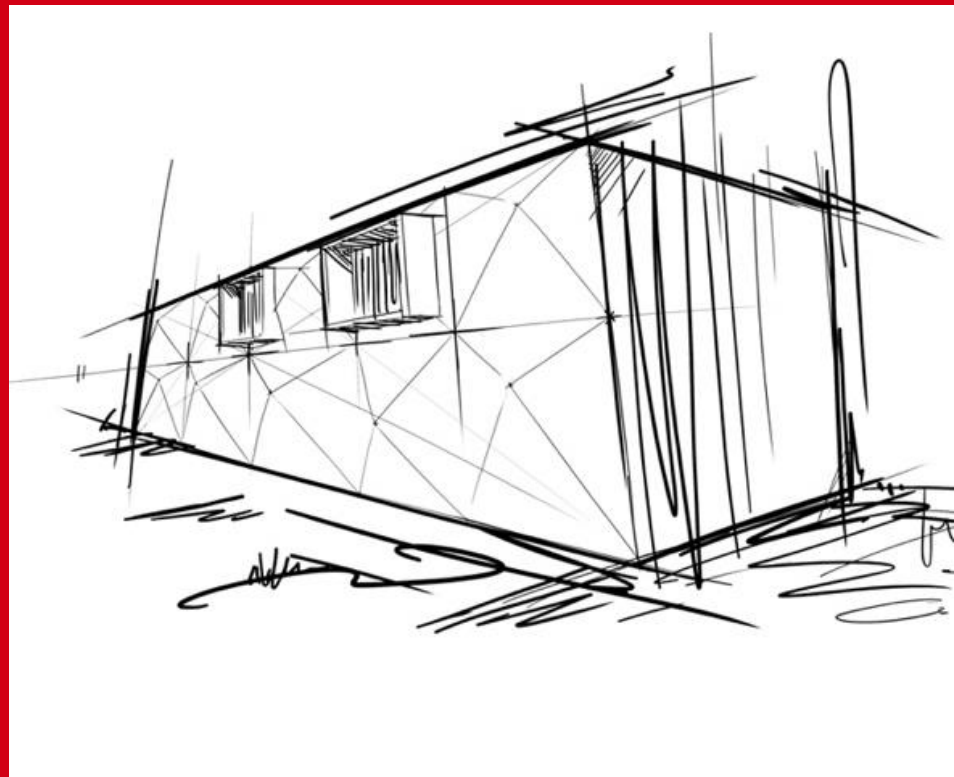
ROCKWOOL & CIRCULARITY





1

This is
ROCKWOOL



More than 80 years of experience



1951

In 1951 Deutsche ROCKWOOL was established, and in 1954 production was started at the first factory outside Scandinavia, in Germany.



1980s

During the 1980s a wide range of new products based on the highly refined stone wool technology were introduced.



1988

In 1988 the first factory in North America is acquired in Ontario Canada, setting the base for future expansion in the region.



1996

In 1996 the ROCKWOOL Group became a public listed Company and shares were launched on the Copenhagen Stock Exchange.



2017

After more than 80 years of successes, in 2017 a new growth plan is launched supporting future expansion and profitable growth.

1935 — 1940 — 1950 — 1960 — 1970 — 1980 — 1990 — 2000 — 2010 — 2017



1935

In 1935 the company bought drawings and property rights for production and sale of stone wool used for insulation purposes throughout Scandinavia. In 1936, the first production line becomes operational.



1970s

Due to the oil crisis in the 1970s with rapidly increasing energy prices all over the world many people had their eyes opened to the advantages of insulating their houses. The ROCKWOOL Group experienced an increase in turnover from DKK 360 million in 1970 to DKK 1,6 billion in 1979.



1990s

During the 1990s the company experienced its fastest geographical expansion rate. The ROCKWOOL Group continued its expansion across Europe and in 2000 it started its expansion towards the Far East.



2015

In 2015 Jens Birgersson joins as CEO and launches the business transformation programme which is successfully concluded one year later.

World leader with local presence

We create sustainable solutions to protect life, assets, and the environment today and tomorrow.

- ▲ Stone wool factory
- ▲ Other factory
- ▲ Sales office / administration



North America
 3 stone wool factories, 2 ceiling grid plants
 Main business areas: Insulation, acoustic ceilings and horticultural substrates
 1,000 employees

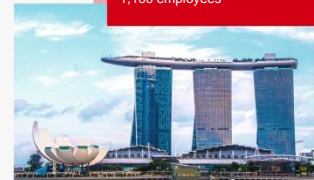
- Austria
- Belarus
- Belgium
- Bulgaria
- Canada
- China
- Croatia
- Czech Republic
- Denmark
- Germany
- Estonia
- Finland
- France
- Hungary
- India
- Italy
- Latvia
- Lithuania
- Malaysia
- Mexico
- Norway
- Philippines
- Poland
- Romania
- Russian Federation
- Singapore
- Slovakia
- Spain
- Sweden
- Switzerland
- Thailand
- The Netherlands
- Turkey
- Ukraine
- United Arab Emirates
- United Kingdom
- United States of America
- Vietnam



Europe
 16 stone wool factories, 3 ceiling tile plants, 1 ceiling grid plant, 1 facade panel plant, 2 wall systems components plants
 Main business areas: Insulation, acoustic ceilings, horticultural substrates, cladding boards, engineered fibres, and noise & vibration control
 7,100 employees



Russia
 4 stone wool factories, 1 ceiling tile plant
 Main business areas: Insulation, acoustic ceilings and horticultural substrates
 1,300 employees



Asia
 5 stone wool factories, 1 ceiling grid plant
 Main business areas: Insulation, mainly industrial & technical, and acoustic ceilings
 1,100 employees

Your choice of Insulation



Technical insulation
solutions for process
industry, marine and
offshore

- Reduces heat loss and CO₂ emissions for industrial insulation
- It has a positive carbon footprint



Firesafe insulation
for all types of
buildings including
ROCKWOOL wall
systems

- 97% of stone wool can be recycled after use
- It does not burn or emit high levels of toxic smoke in a fire
- Provides firefighters critical extra time to save lives by slowing the spread of fire
- Durable and resilient
- Easy to fit and retrofit
- It has a positive carbon footprint



Core solutions
Customised stone
wool solutions to
industrial partners

- It does not burn or emit high levels of toxic smoke in a fire
- Makes air-conditioning less noisy

More stone wool secrets unveiled



Special fibres for e.g. automotive brakes

- Securing your vehicle can come to a stop
- Fully sustainable products throughout their life



Noise and vibration control for rail traffic

- Protects against moisture
- Controls noise and vibration in areas surrounding railways
- Possesses a high degree of volume compressibility



Precision growing for the horticultural industry

- Supports the most sustainable production of fresh and healthy vegetables
- Multiplies yields and saves water



Exterior cladding for buildings

- Durable and resilient
- Easy to fit and retrofit



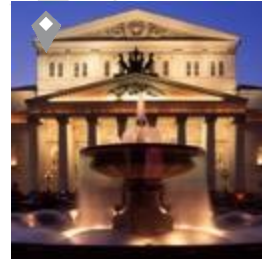
Acoustic ceiling and wall solutions

- Reduces noise and echoes
- Creates a comfortable indoor climate

Our landmarks.....we are proud to be a part of.

You can experience us here,
even when we are not visible:

**Eiffel Tower | Empire
State | Bolshoi Theatre |
Torre Agbar | Marina
Bay Sands | The Shard**



Algunas cifras ROCKWOOL España:



Empleados.
180 Centro Caparrosa
51 Centro Barcelona



Suministrando
desde CAP a **más**
de 7 países



1 centro
productivo en
España
5 turnos de
producción



85% de la gama de
productos
Made in CAP



73 millones de €
facturados en
2017.

Our purpose

This simple statement means a lot to us. It marks a shift in how we describe ourselves, it's about why we do what we do as well as how.



Our business model

Release the natural power of stone

External

-  Recyclable, natural and abundant volcanic stone
-  Insight from customers, industry experts and science
-  Capital invested

Internal

-  A skilled and diverse workforce
-  Operations & Technology
-  Sustainable research

Purpose

-  Energy Efficiency
-  Acoustic Comfort
-  Renovation
-  Fire resilience
-  Urbanisation / Sustainable cities
-  Precision growing
-  Aesthetics and Design

Enriched modern living

-  Empowering all of our stakeholders to rise to the development challenges of modern living
-  Customer Value and satisfaction
-  High quality products, systems and services
-  Job creation and competence building
-  Return to shareholders
-  Contributions to society and environment

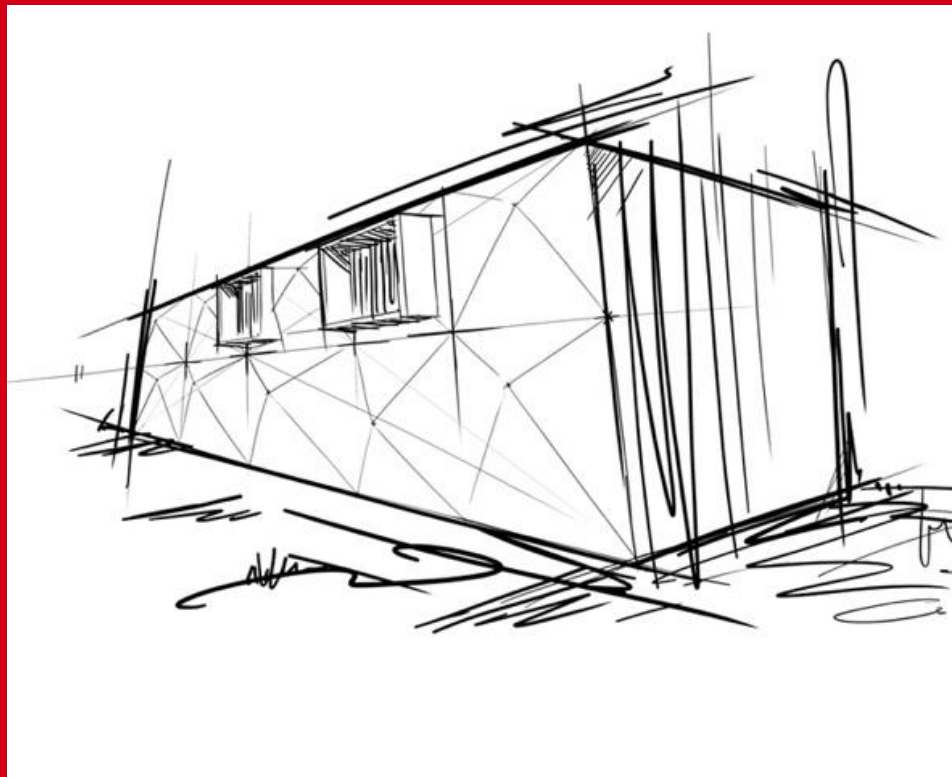
Seven strengths of the rock





2

Global challenges. Circularity



Global challenges - Urbanization

41

Mega-cities with
10 million inhabitants
by 2030

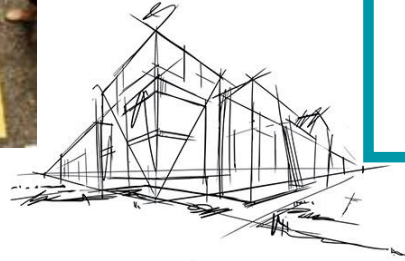


1M

People move to
urban environments
every week

50%

More food and 17%
more water will be
needed by the urban
population by 2050



Global challenges – Energy Consumption

>33%

Buildings account for over 33% of the energy used globally

If no action is taken, energy consumption is expected to rise by

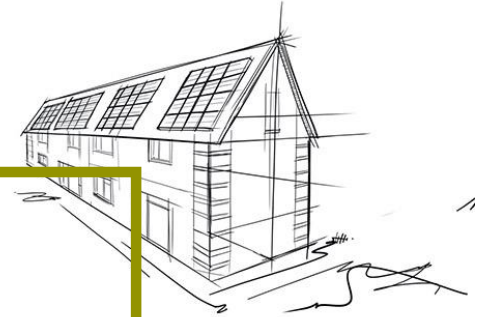
50%

by 2050

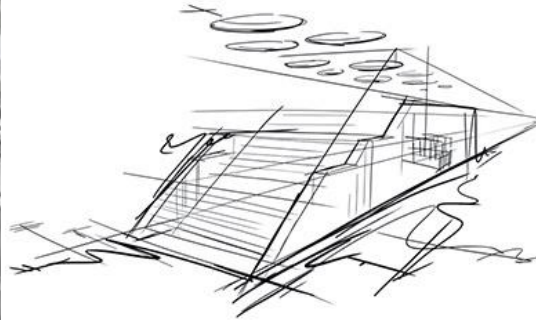
Up to

90%

The potential for energy savings in new and existing buildings globally is 50-90%



Global challenges – Health and wellbeing



30%

of Europeans' sleep
is currently disturbed

35%

of total waste generated
globally comes from
the building and
construction industry

>50%

of Europeans who lose
their lives in fires die from
the impacts of smoke and
toxic gases

... we focus

The ROCKWOOL Group actively contributes towards achieving 9 out of the 17 goals established by the United Nations.

No poverty	Zero hunger	Good health and wellbeing	Quality education	Gender equality	Clean water and sanitation
					
Affordable and clean energy	Decent work and economic growth	Industry, innovation and infrastructure	Reduced inequalities	Sustainable cities and communities	Responsible consumption and production
					
Climate action	Life below water	Life on land	Peace, justice and strong institutions	Partnerships for the goals	
					

Because we care



Health, safety and wellbeing
Driving a zero accident culture

10%

reduction in LTI
(Lost Time Incident)
frequency rate
per year

0

fatalities per year



Circular economy
Increase the number of countries
where we offer reclaiming of
products from the market

15

countries
by 2022

30

countries
by 2030



CO₂ Emissions and energy
Reduce CO₂ from factories
(t CO₂ Wool)

10%

by 2022

20%

by 2030



Water management
Reduce water consumption in
factories (m³/t wool)



Reduce landfill waste



Energy efficiency
Improve this in own (non-renovated)
building stock (kWh/m²)








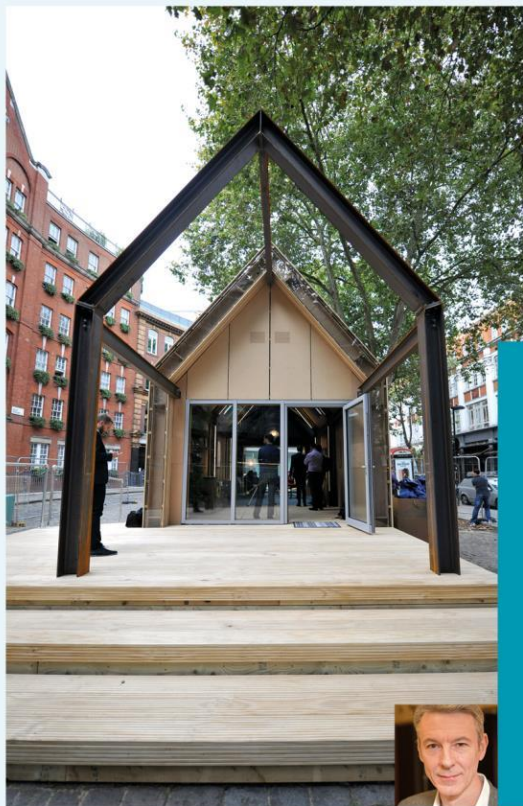
CONTRIBUIR A LA ECONOMÍA CIRCULAR
CONSTRUIR CIUDADES SOSTENIBLES

Imaginando el edificio “circular” del futuro

Para impulsar ideas orientadas hacia la economía circular en el Reino Unido, hemos trabajado con nuestros socios en el diseño de la exposición Circular Building Exhibition, en el marco del Festival de diseño de Londres que tuvo lugar en el 2016. Esta alianza estaba liderada por Arup, junto con Frener & Reifer y BAM, y contó con el apoyo de The Built Environment Trust, y gracias a ella se mostró un prototipo de la construcción más avanzada y reutilizable construida hasta la fecha.

Fortalezas clave:

-  Circularidad
-  Resiliencia al fuego
-  Confort térmico



« Muy pocos han intentado aplicar los principios de la economía circular en el entorno de la construcción.» Participar en este experimento nos ha permitido marcarnos el objetivo de probar si este enfoque podría adaptarse más ampliamente... Como industria, deberíamos intentar eliminar la generación de residuos y diseñar pensando en la reutilización».

Stuart Smith, Director de Arup Associates

Our raw material is one of the most abundant on the planet

While the oceans cover 71% of the Earth's surface, they only account for 0.02% of our planet's total mass

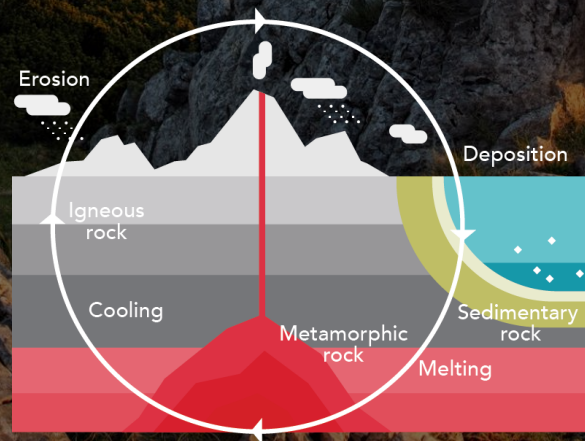
Earth's composition:



Rock mass: **99,98%**

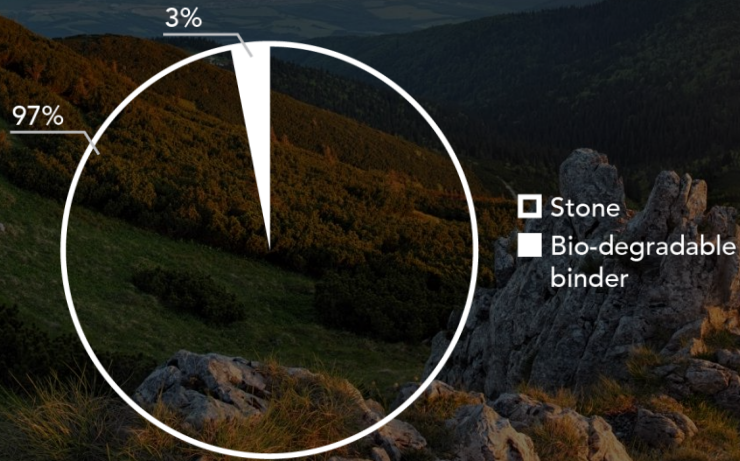
Water mass: **0,02%**

The rock cycle

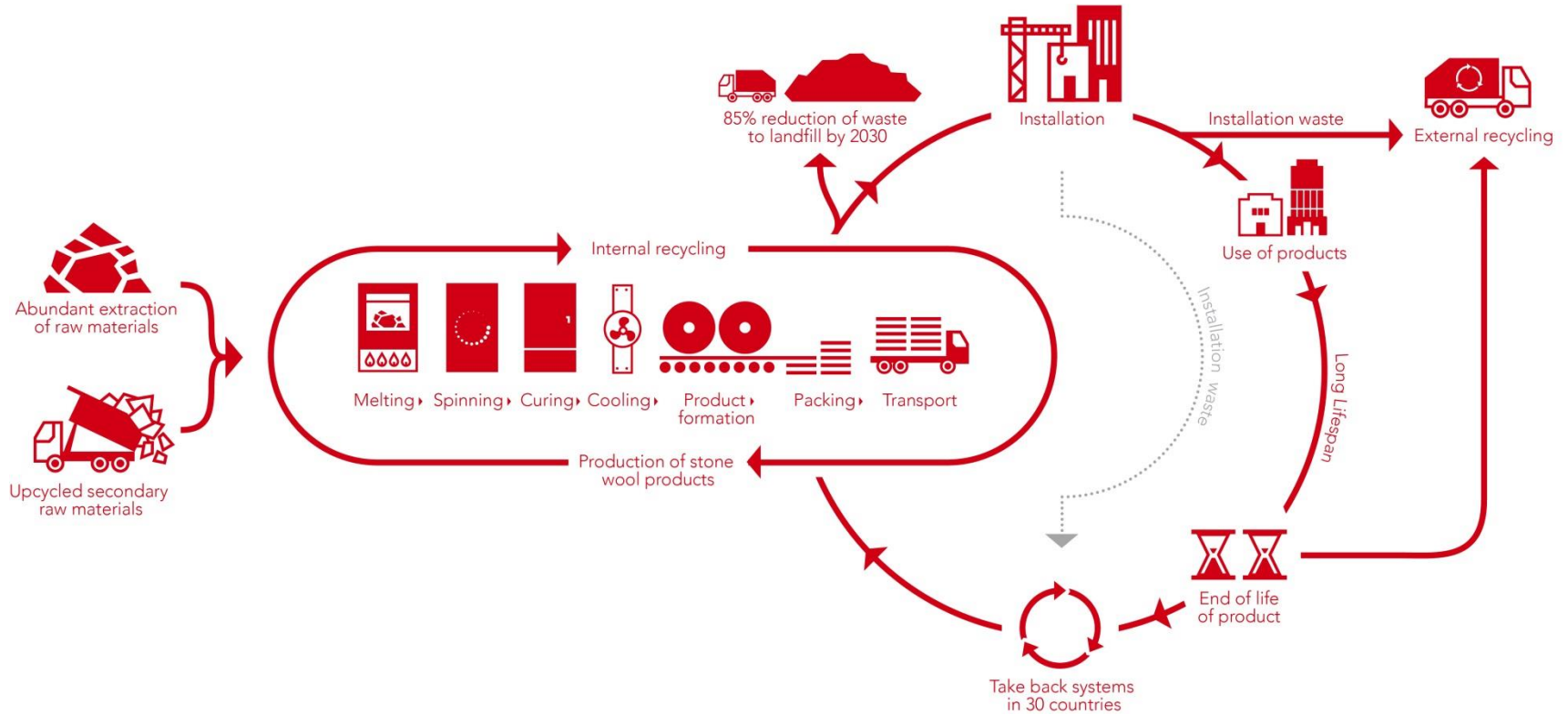


It is nature giving back to nature

ROCKWOOL stone wool production process uses about 97% of mineral materials – basalt, gabbro, as well as recycled materials (e.g. stone wool, briquettes, slag). The remaining 3% are bio-degradable binders.



More than just production





Circularidad



Creando continuamente nuevos valores a partir de materiales ya usados

- 1. RECICLADO DE MATERIALES SECUNDARIOS:** Procedentes del desmantelado de otros edificios e industrias.
- 2. TODOS LOS PRODUCTOS DE LANA DE ROCA** pueden reciclarse indefinidamente.
- 3. GESTIÓN DEL AGUA:** Soluciones naturales para sustentar la resiliencia al agua.
- 4. MAYOR EFICIENCIA:** En el uso del agua en la horticultura mediante soluciones sostenibles de cultivo de precisión, sin tierra que reutilizan el agua y, por lo tanto, aumentan la eficiencia en su uso.



We take a strong stand on circularity

- Wool is fully recyclable
- Other internal wastes are reintroduced in the process
- Use of external wastes from other processes as raw materials
- Valorization of internal wastes in external processes
- Water management



OUR DREAM: 0 WASTE

Stone wool is
100 %
recyclable

Wool from our process....

- Inefficiencies of the process (edges, cutting, fibering, etc)
- Material not OK
- Filters used to have under control environmental emissions
- Wool coming from bag filters



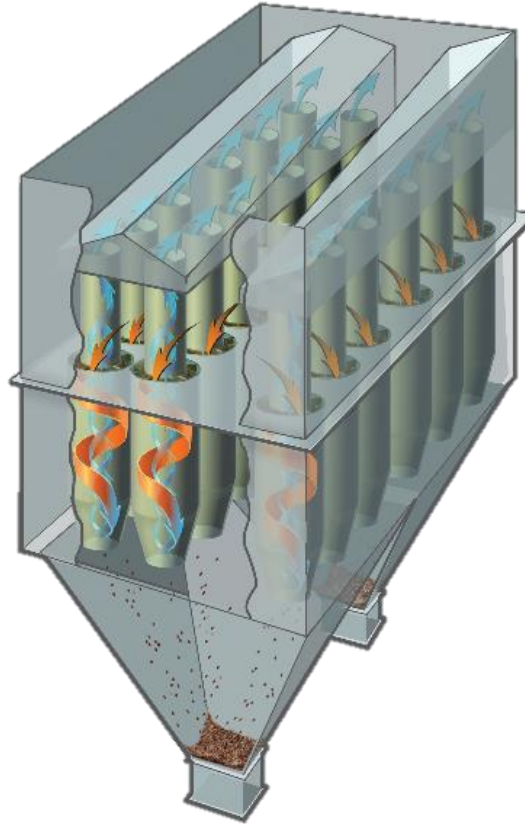
Other wastes from our process....

- Fines from our raw materials
- Lava from the cupola
- Material used to protect the inner part of the cupola



Valorization of internal wastes in external processes

- Fly ashes
- Iron
- Coke fines
- Foil
- Wooden palets
- Metal scrap
- Paperboard



Wastes from external processes....

Mainly slags from different processes:

- Steel slags
- Foundry slags



Because we care: water management



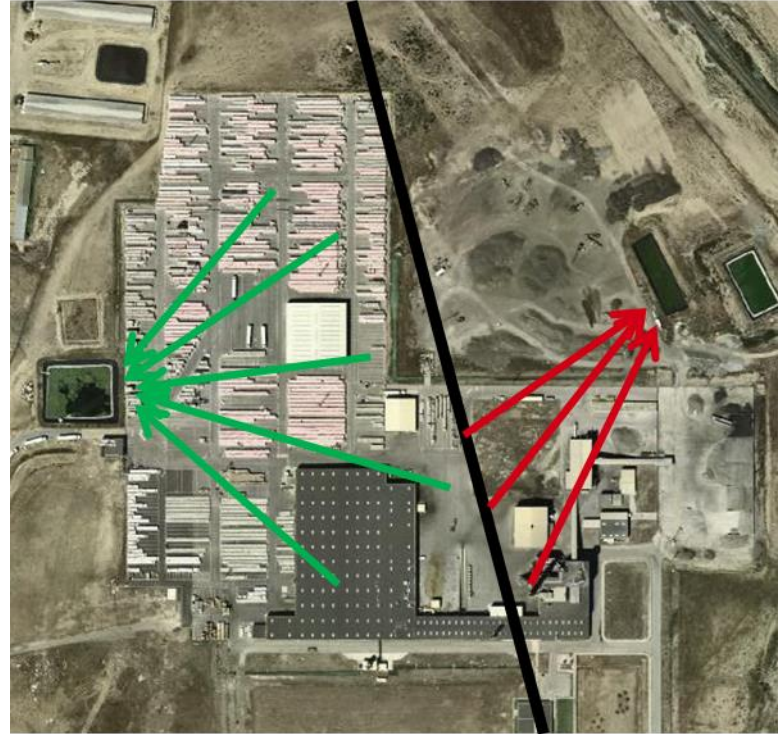
Water management
Reduce water consumption in
factories (m³/t wool)



Water management

Use of different types of water depending of its final use:

- Drink water
- Raw water
- Process water
- Rain water



7

The strengths of stone



ROCKWOOL

Thank you

