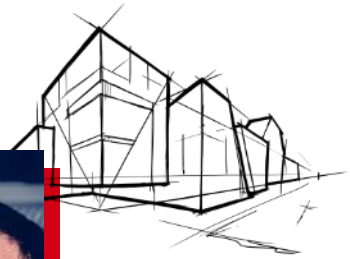


From product to purpose

Jens Birgersson
President & CEO,
ROCKWOOL Group

VL Session
20 March 2019

From Product to Purpose – some initial thoughts

- **It is happening quickly**

- **Fundamental elements of sustainability strategy**
  1. Use less
  2. Green the rest
  3. Address your climate hazards

- **Having great products is not enough**
  - Understand the whole and what role we play
  - Get facts and be accurate on your source
  - Engage and take real action; skip the window dressing

People's needs are rapidly changing..

The Purposeful Age.

72%

of the architects say that the principal (or project owner) asks for sustainability in projects. Half of them indicate that the principal is also willing to invest in sustainability.

Source: European Architectural Barometer Report, 2018

9/10

(**87%**) believe that "the success of a business should be measured in terms of more than just its financial performance."

Deloitte millennials survey, 2016

+ Values

'Millennials* are just as interested in how a business develops its people and its contribution to society as they are in its products and profits.'

ROCKWOOL

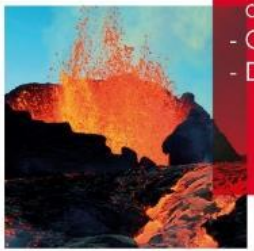
From Product to Purpose – some initial thoughts

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.

- Unlock potential
- Unleash
- Actively giving

- Self-sustaining
- Resilient
- Inexhaustible

Release the natural power of stone to enrich modern living



- Common denominator
- Core expertise
- Differentiator

- Cultivate
- Innovation
- Versatility

- Urbanization
- Safety & comfort
- Food & waste
- Human development

From Product to Purpose – some initial thoughts

2016

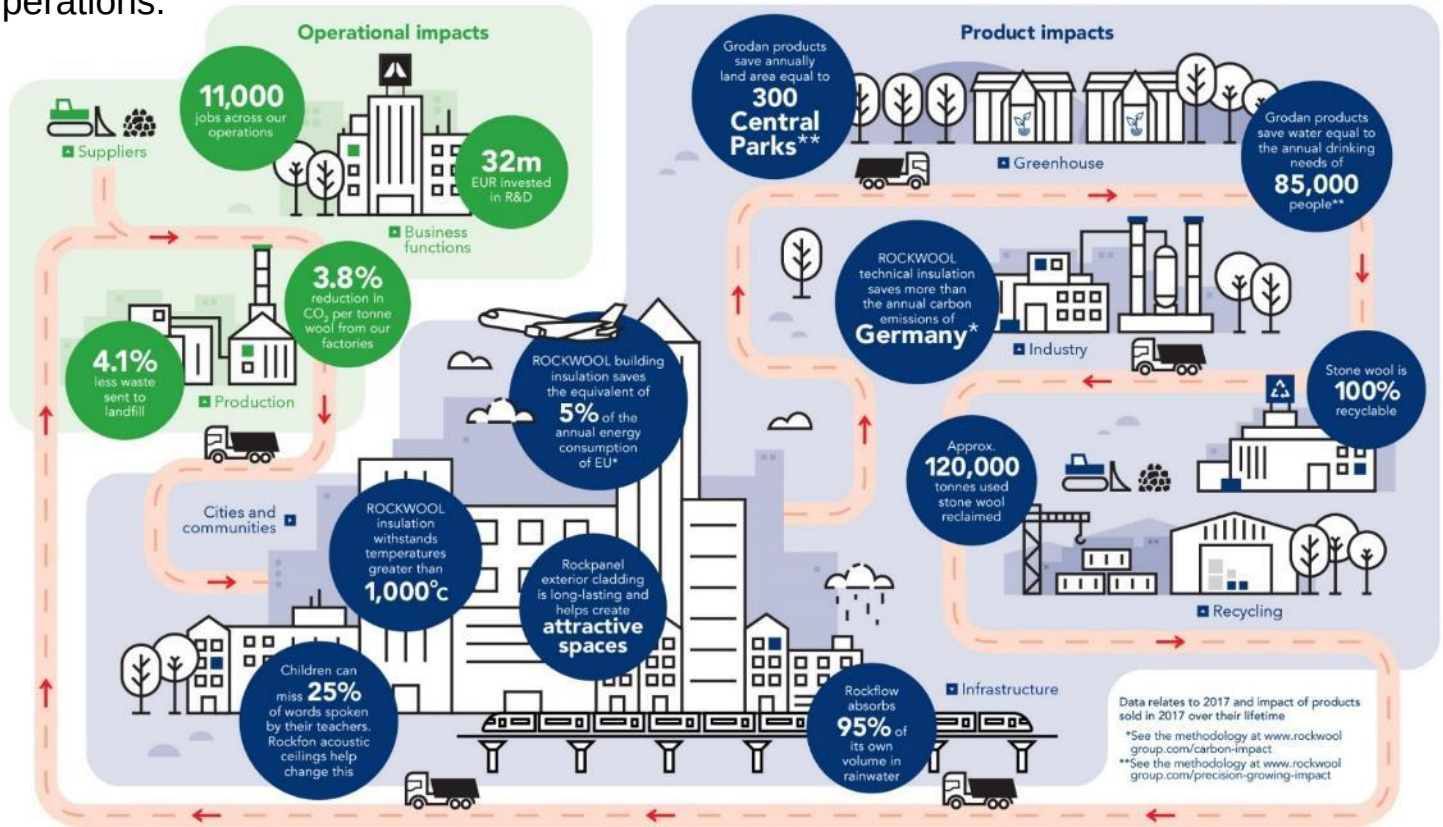
ROCKWOOL's approach to sustainability is closely aligned with UN's Sustainable Development Goals.

We have committed to focusing on **10** of these 17 Global goals.

External contribution

From Product to Purpose – some initial thoughts

We create value for society by increasing the positive impacts of our products and reducing the negative effects of our operations.



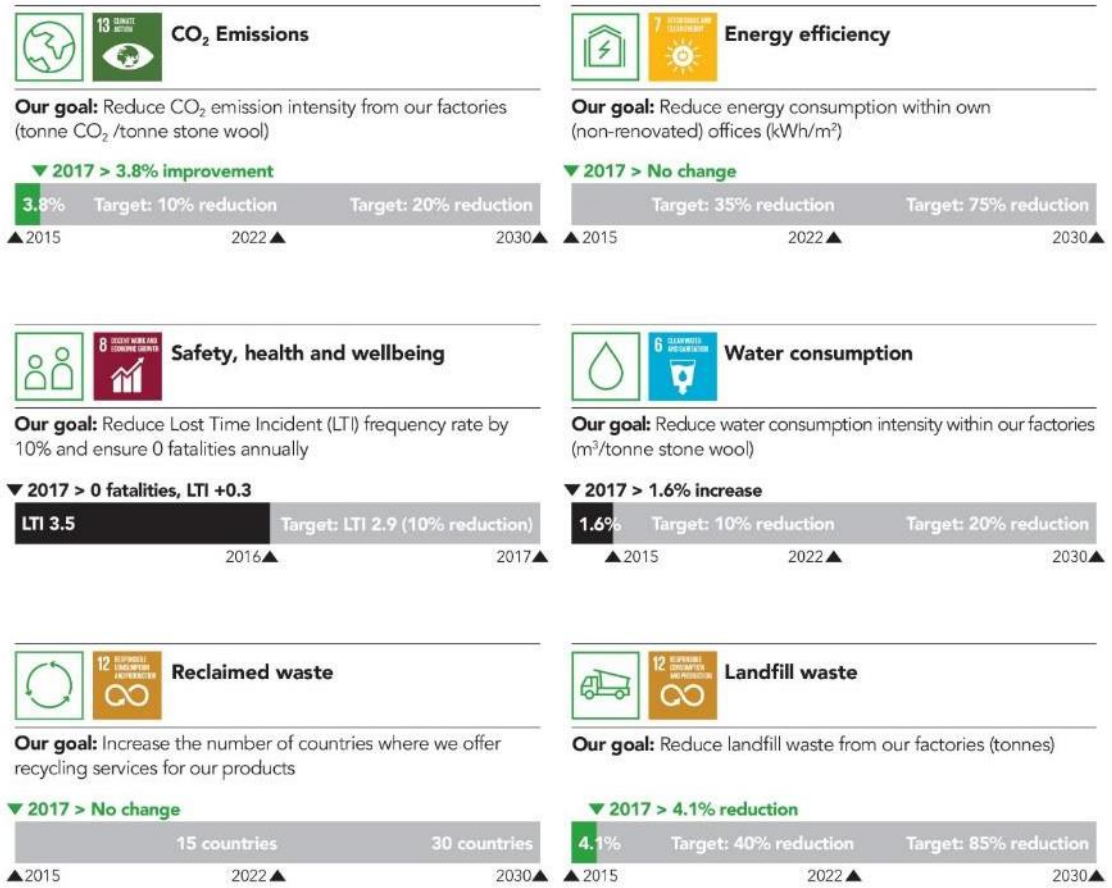
Source: ROCKWOOL Group Sustainability Report 2018

From Product to Purpose – some initial thoughts

In 2016 we set **6** ambitious Group Sustainability Goals to drive substantial improvements in our environmental and safety performance by 2030.

Progress are there, but there's still a lot of hard work to be done to improve our own operations.

Internal - get fit - goals



The big picture

The most significant positive impact on sustainable development is through the use of our products.

The carbon emissions saved in the lifetime of ROCKWOOL's technical insulation sold in 2017 exceeds the annual carbon emissions of Germany.

But it is important to us that we achieve this by operating in a responsible and sustainable way.

Carbon emission savings of products sold in 2017

Building insulation

Carbon emissions from raw materials and production

Carbon emission savings during product lifetime

80 times the carbon emitted in its production

Technical insulation

Carbon emissions from raw materials and production

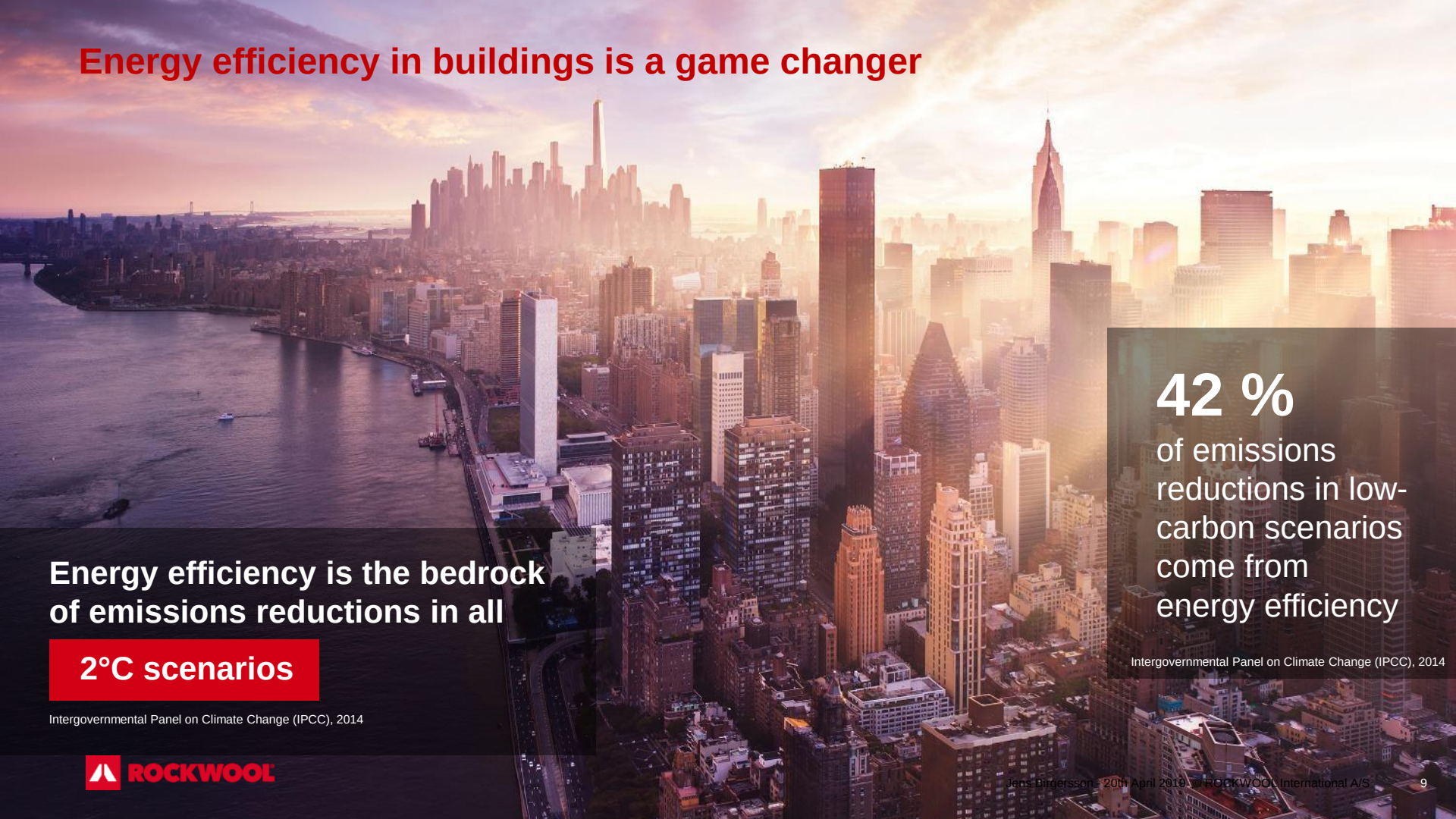
Carbon emission savings during product lifetime

Ecofys, a Navigant company, developed methodologies to calculate the energy and carbon emission savings in the lifetime of sold building insulation and technical insulation products. Ecofys endorsed that the 2017 energy and carbon emission savings calculated by ROCKWOOL correctly follow these methodologies.

The methodologies are available on www.rockwoolgroup.com/carbon-impact

ROCKWOOL

Energy efficiency in buildings is a game changer



Energy efficiency is the bedrock of emissions reductions in all

2°C scenarios

Intergovernmental Panel on Climate Change (IPCC), 2014

42 %

of emissions reductions in low-carbon scenarios come from energy efficiency

Intergovernmental Panel on Climate Change (IPCC), 2014

By 2050 ...

66%

of people will live in cities

Source: UN World Urbanization Prospects

90%

of their time will be spent indoors in buildings that emit huge amounts of CO2, leading to a..

Source: UN World Urbanization Prospects

50%

increase in energy consumption if no action is taken

Source: Climate Change: Implications for Buildings, 2014, European Climate Foundation et al. * Calculation methodology verified by PwC

Source: European Commission

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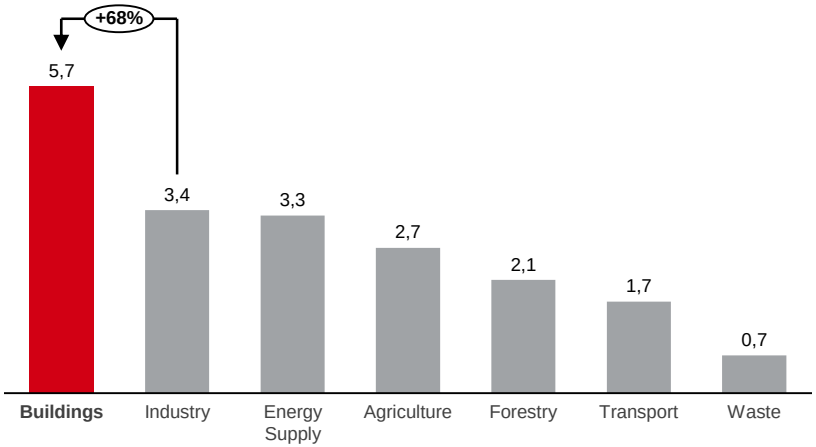
Why national governments across the world should look at buildings ...

Buildings can save **68%** more emissions than the next most cost-effective sector for the same amount of money

Renovating buildings is much more resource efficient than building new, reducing materials CO_2 footprint with **70%**

Global 2030 greenhouse gas mitigation potential at a carbon price <50 USD/tCO_2e in 2030

$GtCO_2$/year



Sources: BPIE, "*Europe's buildings under the microscope - A country-by-country review of the energy performance of buildings".* (2015).

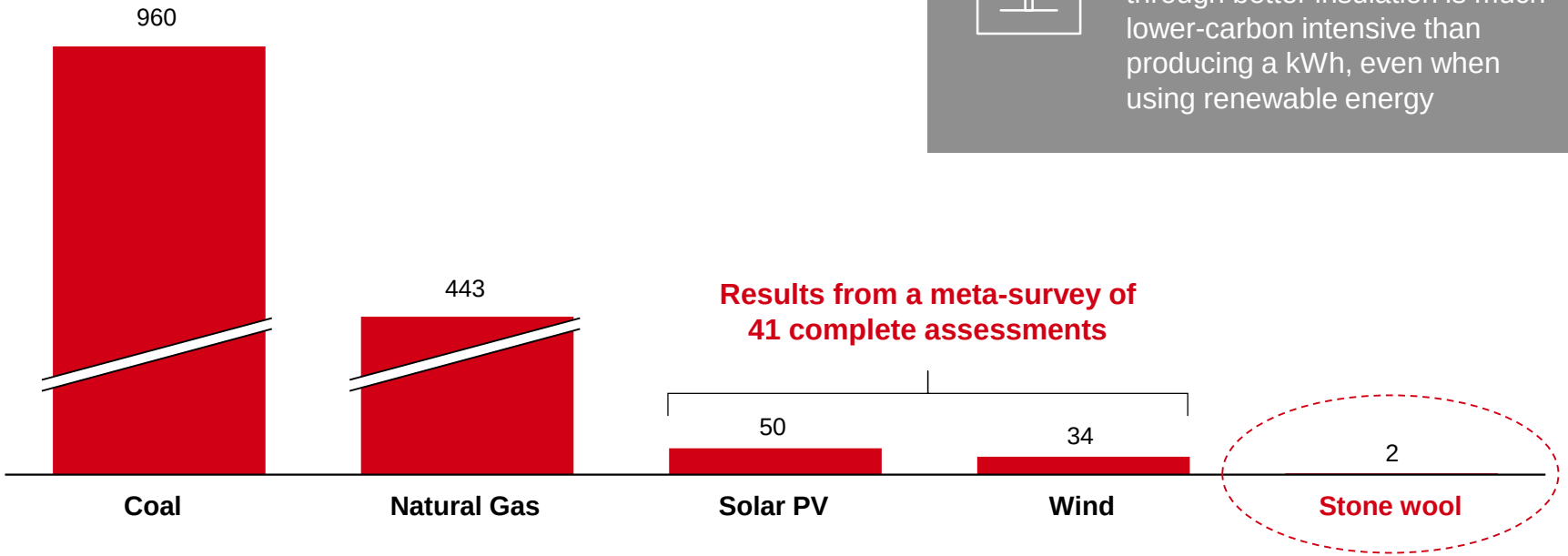
Sources: IPCC, "Climate change 2007 – Mitigation of climate change."

IPCC = Intergovernmental Panel on Climate Change

We have plenty of options for a low carbon footprint future

Carbon footprint per unit of energy generated or saved

gCO2 / kWh



Saving a kWh

through better insulation is much lower-carbon intensive than producing a kWh, even when using renewable energy

Sources: Nugent, Daniel, and Benjamin Sovacool. 'Assessing the Lifecycle Greenhouse Gas Emissions from Solar PV and Wind Energy: A Critical Meta-Survey'. *Energy Policy 65* (1 February 2014): 229–244. Ecofys report, with input from LCA expert. Calculation of stone wool footprint: dividing the total CO2 emissions required to produce one tonne of stone wool (1,020,000 g CO2/tonne line wool) with the energy savings of one tonne of ROCKWOOL over its lifetime (485,599 kWh/tonne line wool).

What is our role in all this?

50-90%

of the global energy used in buildings today can be saved applying existing energy efficiency products and technology.

Source: BPIE, 2014, page 10

But it is not only about Energy Efficiency and Emissions
Renovating neighbourhoods can contribute to improving health

15%

of all people in developed countries live in energy poverty

8%

of the EU population are unable to heat their homes adequately

Energy poverty means

30%

greater risk of admission to hospital or primary care facilities for infants

$3,5bn

is the annual cost of asthma induced by dampness and mould in the US

Source: BPIE (2014) and IEA (2017).

We should not stop here …

1/3

of global material consumption and waste generation is accounted for by the construction and demolition of buildings

Source: Ellen MacArthur foundation, 2018

+ 40%

of all sea birds have ingested plastic.

Source:Plasticoceans.org

21%

of the total plastics produced are used in the construction industry

Source: “Plastic Waste from Building and Construction”, Consultic Marketing & Industrieberatung Gmbh.

50%

of all plastic is single use.

Source: Plasticoceans.org

Thank you

