



The contribution of buildings towards low carbon & resilient cities

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October 2020



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

6 factories

Main business areas: Insulation, acoustic ceilings and horticultural substrates

Austria
Belarus
Belgium
Bulgaria
Canada
China
Croatia
Czech Republic
Denmark
Germany
Estonia
Finland
France
Hungary
India
Indonesia
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

29 factories

Main business areas: Insulation, acoustic ceilings, horticultural substrates, cladding boards, engineered fibres, and noise & vibration control



Russia

6 factories

Main business areas: Insulation, acoustic ceilings and horticultural substrates

Asia

7 factories

Main business areas: Insulation, mainly industrial & technical, and acoustic ceilings



Global challenges we face today - Urbanisation

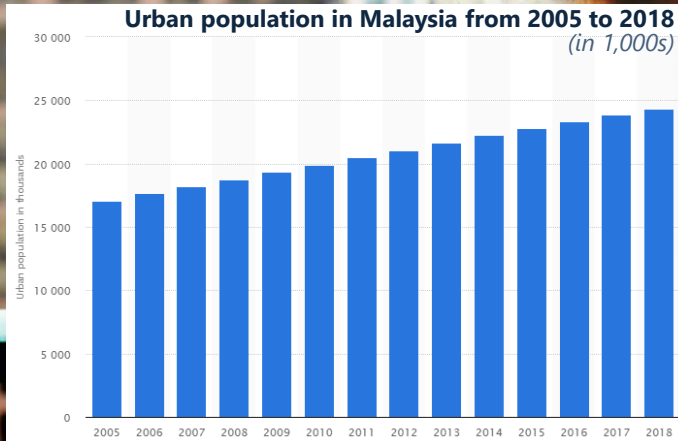
“With a little math, that breaks down to about **21 people migrating to Kuala Lumpur or be born in it every hour**. With this rapid urbanisation rate, it is now more important than ever to build well,”

Cheng Jew Keng, Chief Operating Officer of Sunway Property and Facilities Management

By **2050**, **66%** of the world's population will live in cities.

These people like all the rest of us will spend **90%** of their time indoors in buildings and cities emits huge amounts of CO₂.

If no action is taken, energy consumption will rise by **50%**.



89%

of the people surveyed believes their productivity decreases with noise pollution

ROCKWOOL, Modern Life Google survey, February 20th 2017

In Malaysia

15%

of total energy consumption
is for residential &
commercial buildings

Cooling makes up

30%

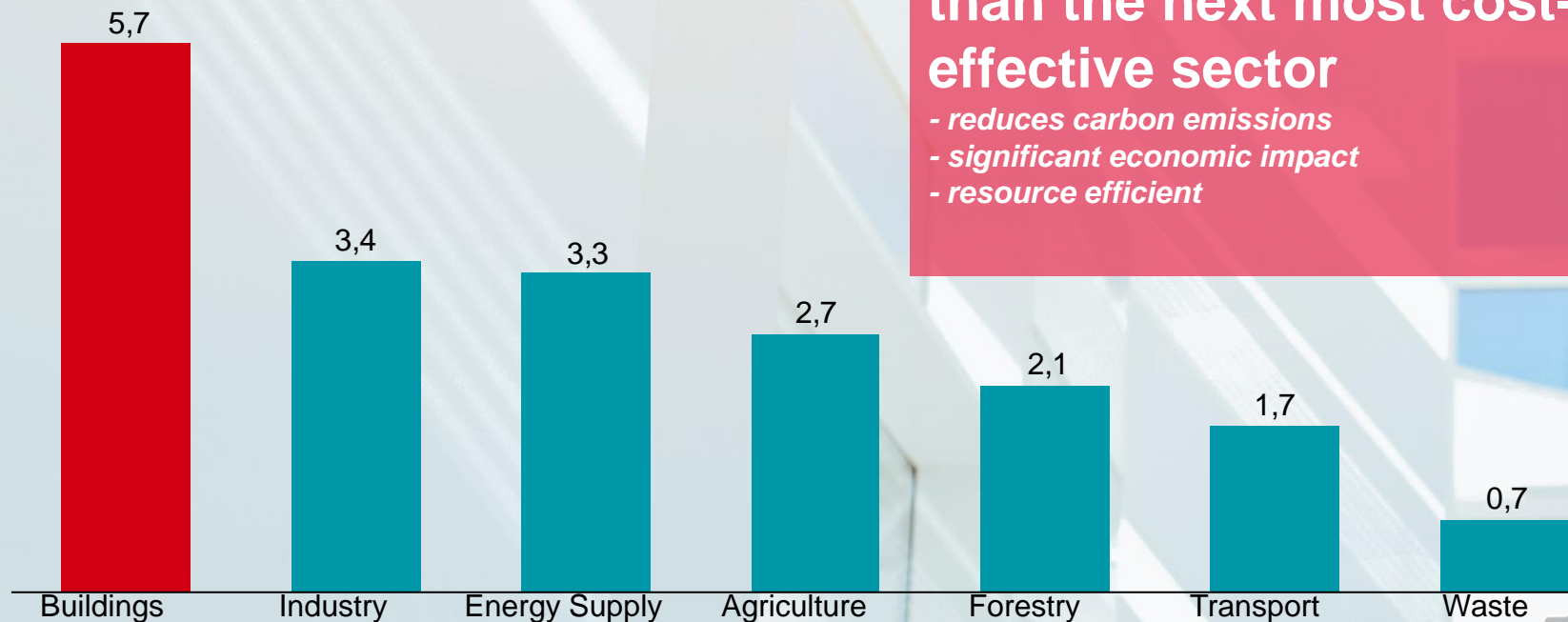
Share of peak electricity
demand

Energy efficiency is the
bedrock of emissions
reductions in all
2°C scenarios

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

Global 2030 greenhouse gas mitigation potential at a carbon price <50 USD/tCO₂e in 2030

GtCO₂e/year



For the same amount of money, buildings can save 40 percent more emissions than the next most cost-effective sector

- reduces carbon emissions
- significant economic impact
- resource efficient



ROCKWOOL

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





Beyond low carbon,
why do we need to
make our cities more
resilient?

Withstand
effects of
climate change

For safe,
comfortable
and healthy
environment

Building, the catalyst for Low Carbon & Resilient Cities



Buildings

and the construction sector are responsible for **39%** of energy-related CO₂ emissions worldwide.



40% of all carbon emission reductions in low-carbon 2°C scenarios come from energy efficiency.



48% is

how much you can **increase concentration levels** if you improve the acoustics in an open-plan office.



85% of people agree that 'better quality buildings and public spaces improve the quality of people's lives.'



Fire safety advocacy post-Grenfell contributes to the UK ban on combustible façade insulation and cladding.



Considerations for Safer & Healthier Buildings



Fire resilience

Withstand temperatures
above 1000°C.



Circularity

Reusable and
recyclable material.



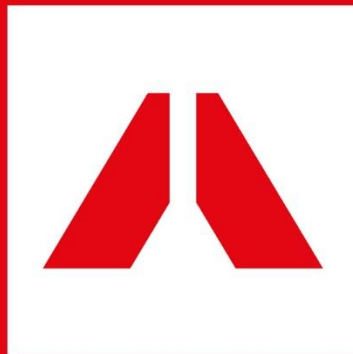
Thermal properties

Saving energy by maintaining
optimum indoor temperature and
climate.



Water properties

Manage our most precious resource.



Acoustic capabilities

Block, absorb or enhance sounds.



Aesthetics

Match performance
with aesthetics.



Robustness

Longer-lasting performance and
robustness with easier installation.

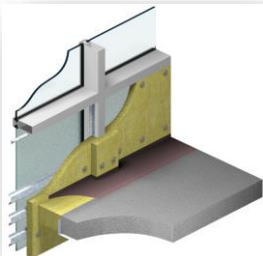


ROCKWOOL Solutions for Buildings

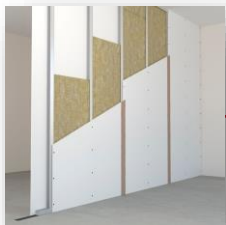
Ceiling



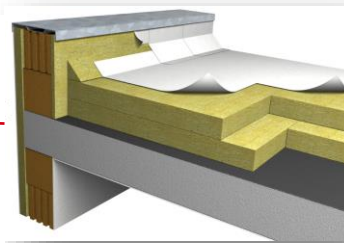
Curtain Wall



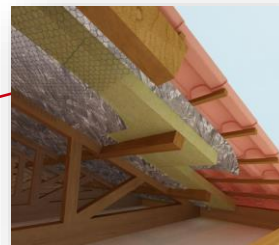
Partition Wall



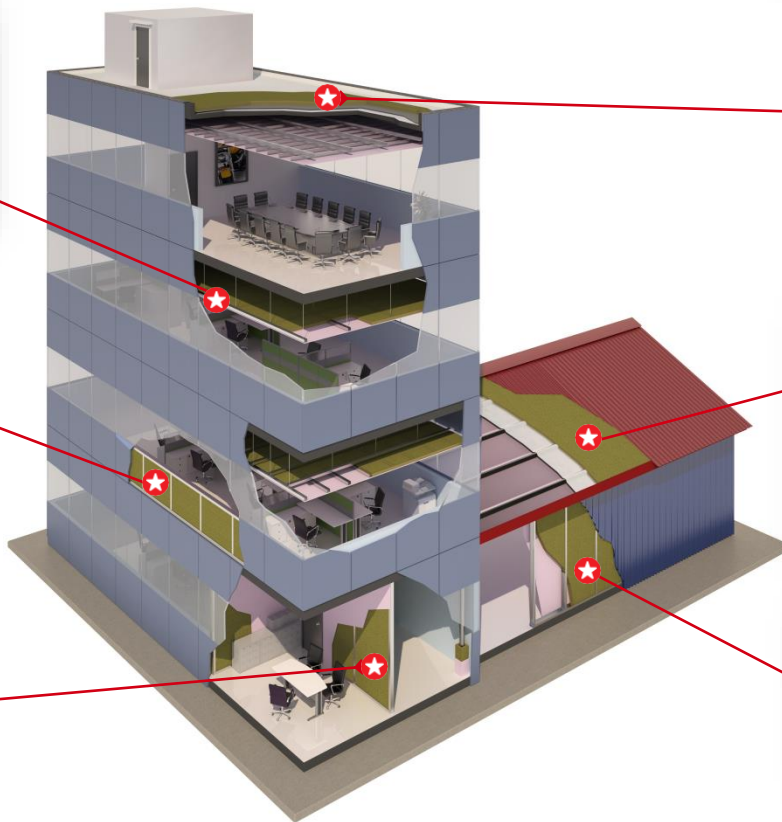
Flat Roof



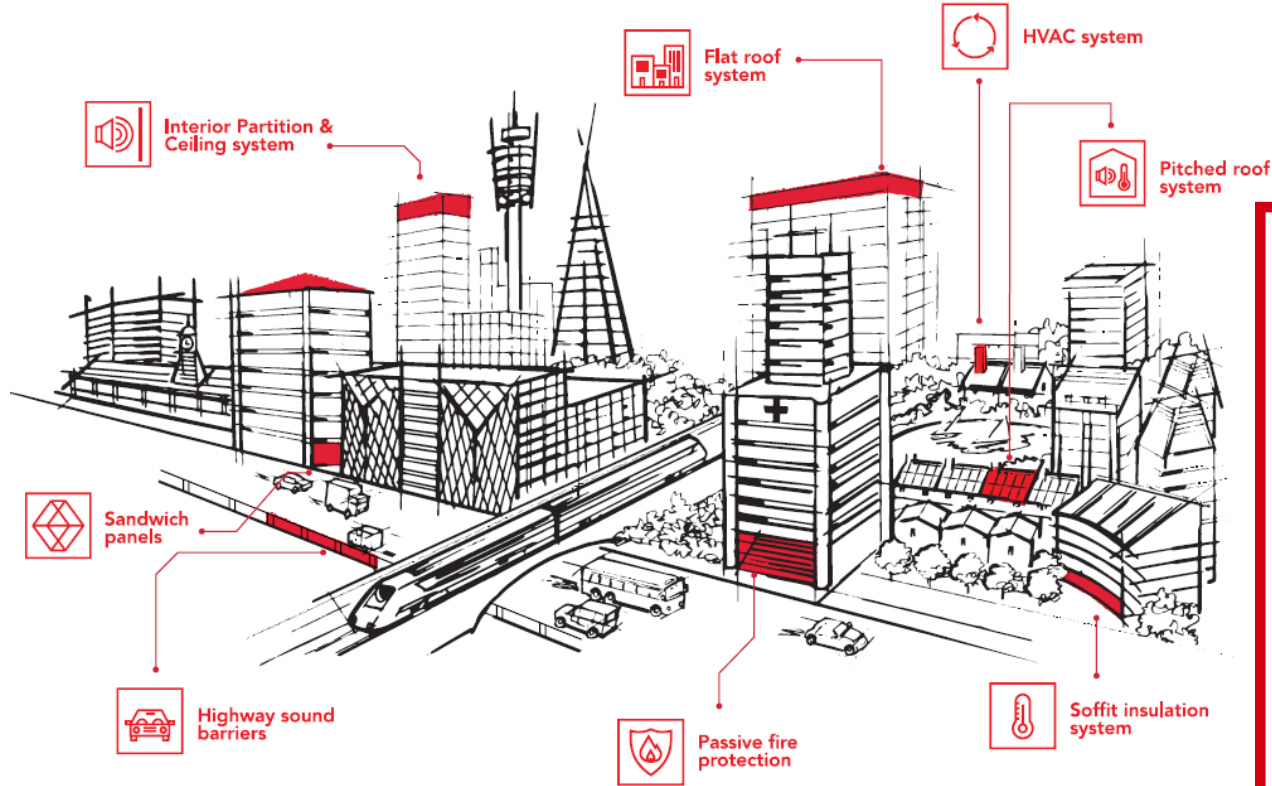
Pitch Roof



Sandwich Panel Wall



Enriching modern life in low carbon & resilient cities



With the majority of the world's population living in urban environments, cities have become the beating hearts of their country's economy. **Economic prosperity gives cities additional power, but with it comes greater responsibility.**

ROCKWOOL Resources for Low Carbon & Resilient Cities



<http://bit.ly/ROCKWOOLblog>



<http://bit.ly/RW-OurThinking>



<http://bit.ly/RWAsiaFB>

