

Smart Sand

“De-Energize” Buildings

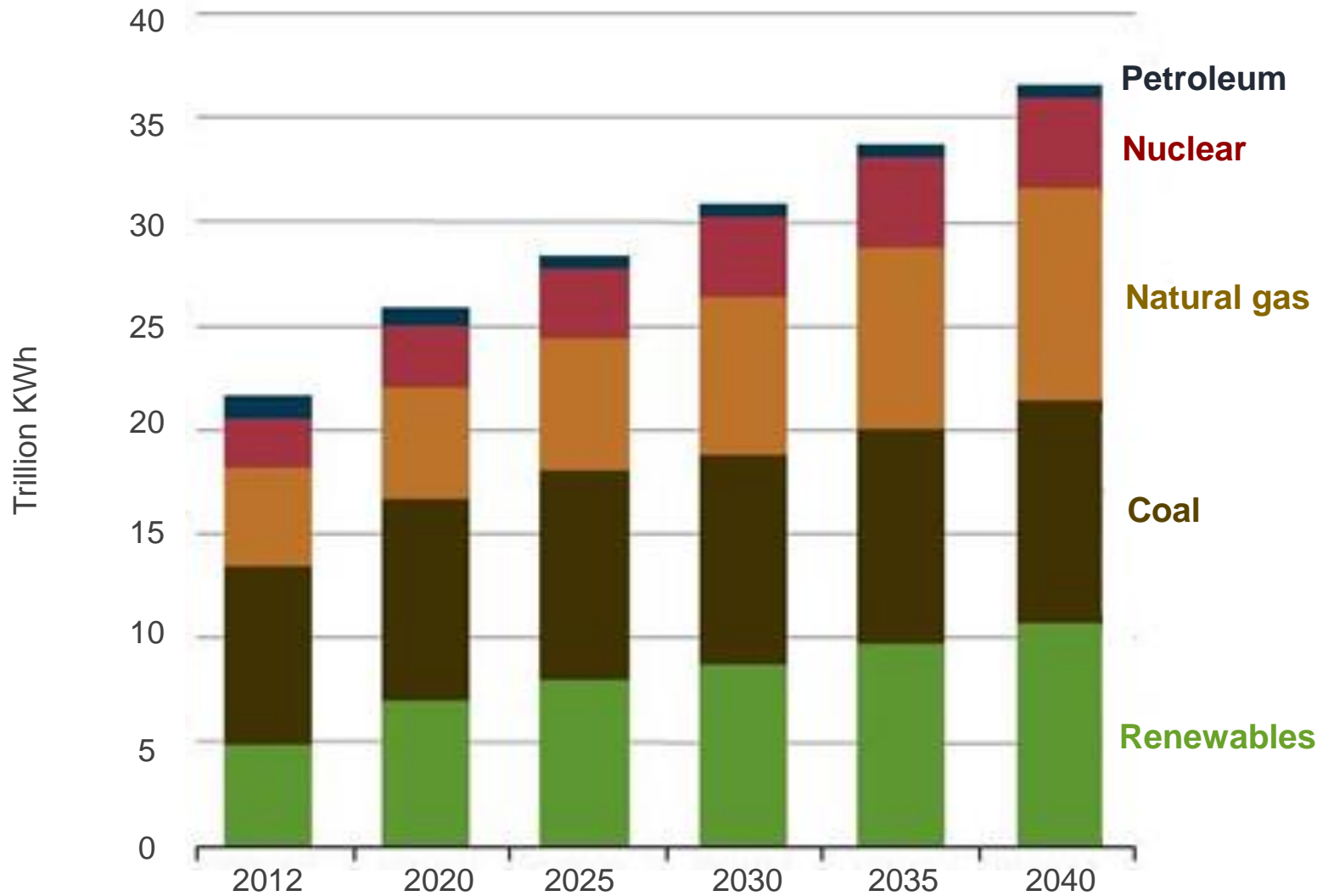
by ZaaK Technologies GmbH



RioTinto



Global Electricity Production (By Source)



Source: EIA, 2015

By 2040:
Renewables > Coal



Fly ash
(25bt accumulated production by 2040)



Coastal Erosion



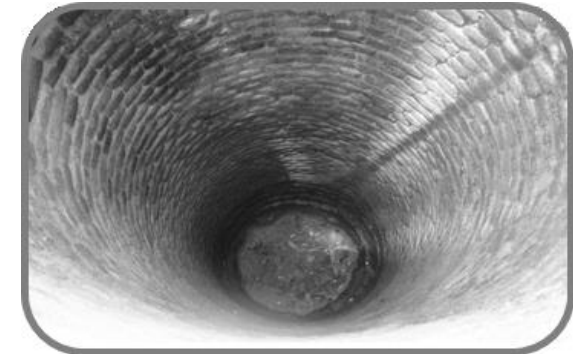
“Sand - rarer than one thinks”.....

70

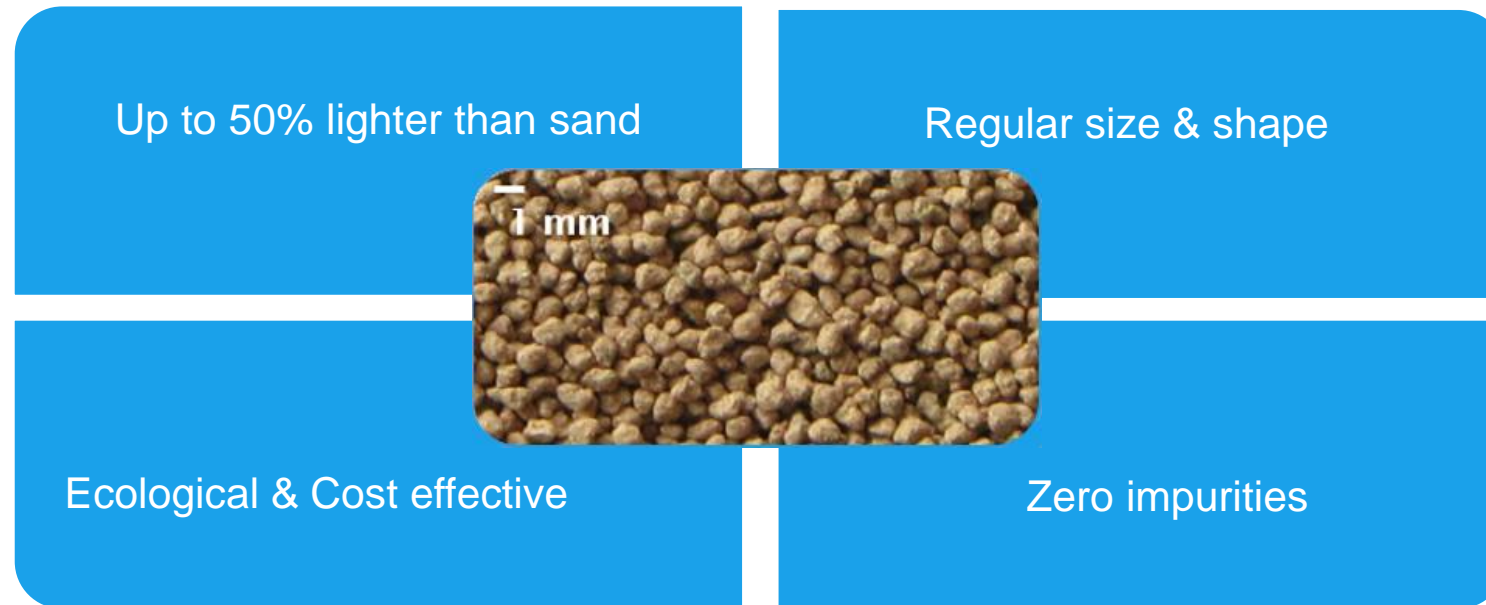
Countries have illegal Sand mining practices

30

Islands disappearance in Asia



Lowering Groundwater Level



“Smart Sand is made from fly ash, a waste byproduct from thermal power plants”

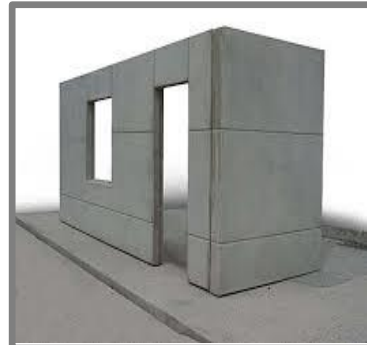
Construction: Concrete & Mortar Productions



Concrete



Tech. Mortar



Walls/Panels



Plaster



Flooring

Global Sand Consumption in Concrete & Mortar Productions



27bt

(2014)



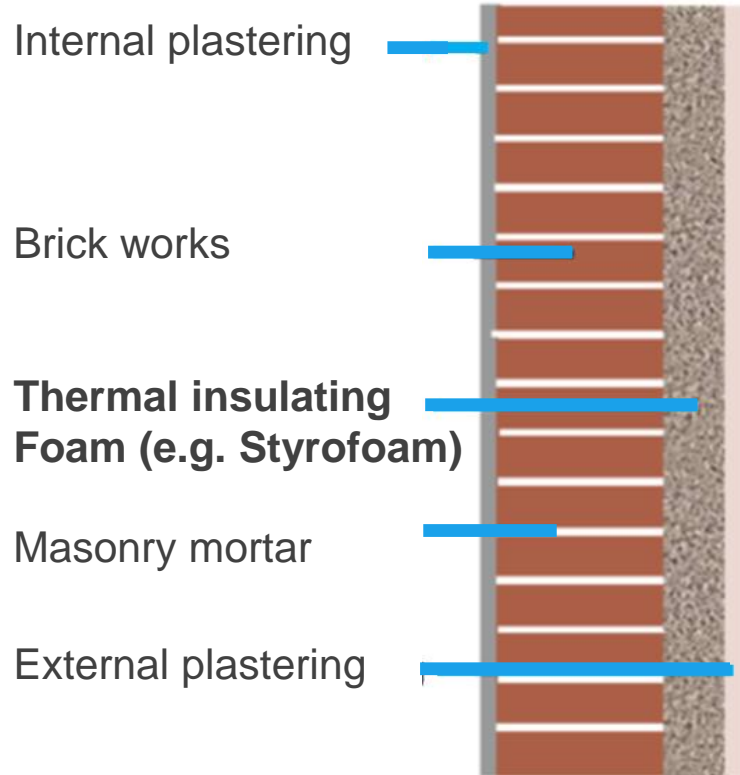
35bt

(2030)

Source : UNEP 2014

1bt = billion tonnes

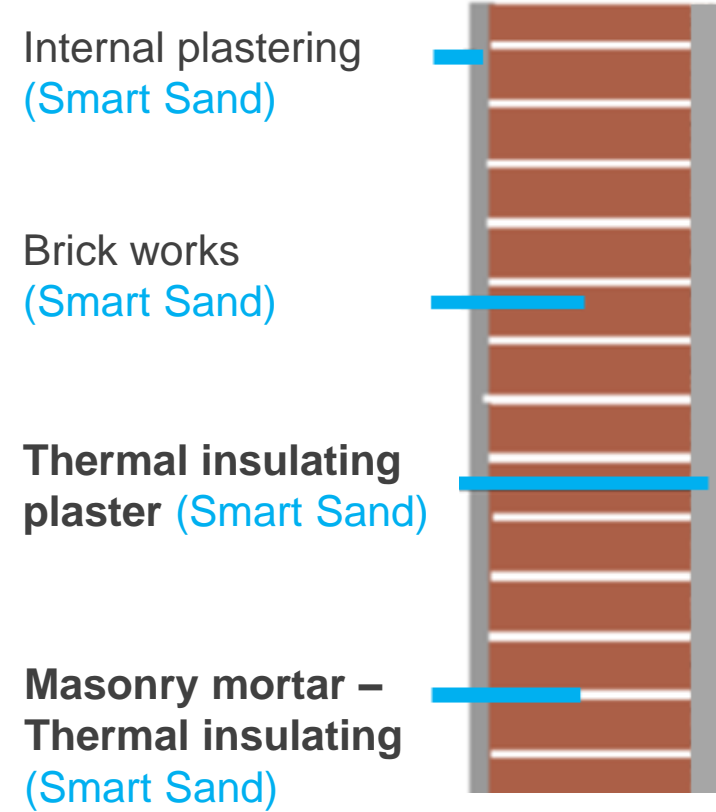
Standard Wall System



Recycling Problem



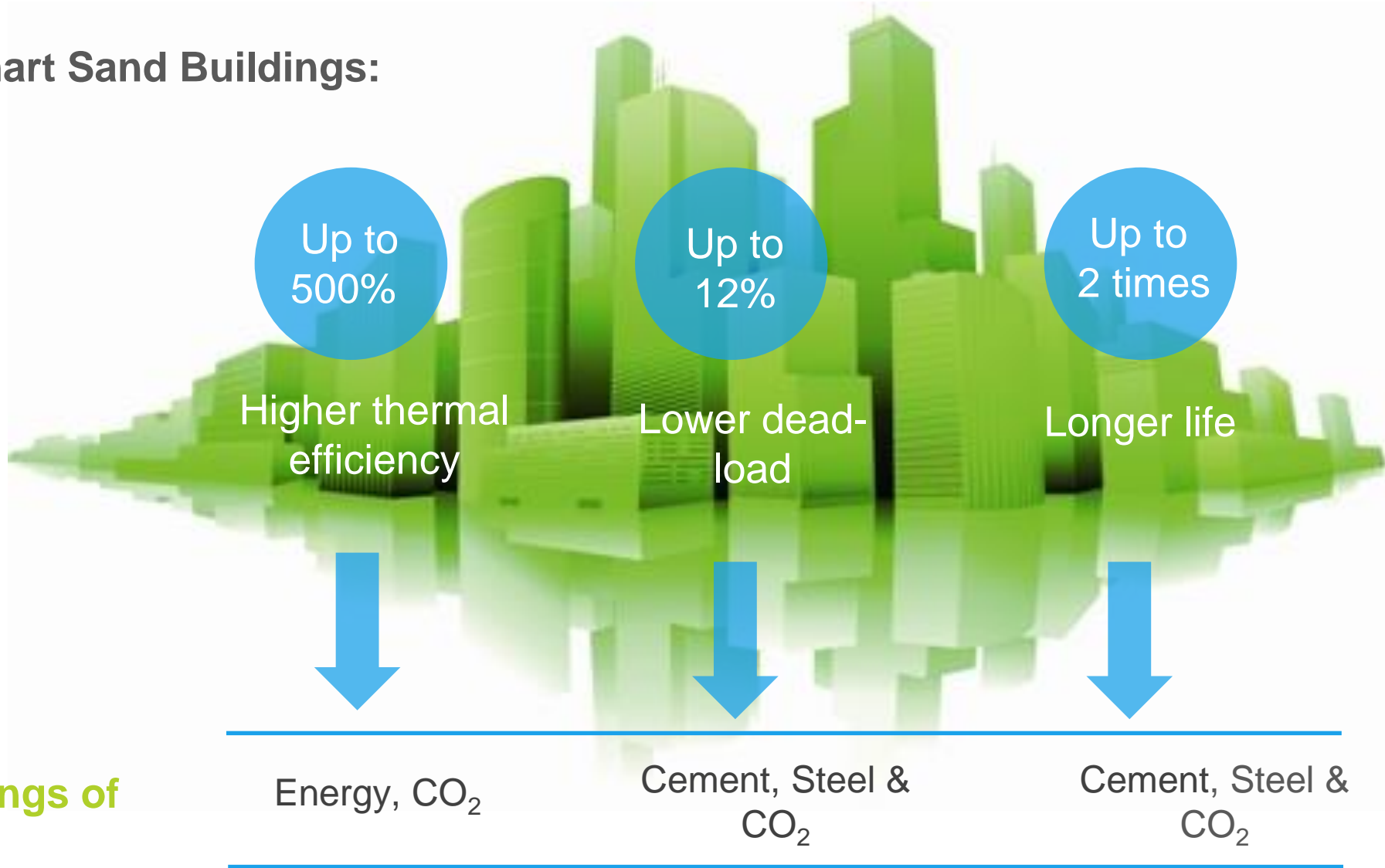
Smart Sand Wall System



Recycling Solution



Smart Sand Buildings:



Savings of







Dr. Abbas Khan
Founder & CEO

B. Tech. (IIT-B), M.
Tech. (IIT-B), PhD
(Germany)

12 years of experience in engineering, product design,
technology commercialisation



**Dr. Niklaus
Grünenfelder**
COO

M. Chem. Engg.
(ETH), PhD (ETH),
MBA (ETH)

25 years experience in operation and people management,
planning, controlling, budgeting, business and organization
development



Greg Vero
Engineering Director

B. Engg (Melbourne
University)

30 years experience in process engineering, design &
commissioning pilot and industrial plants across chemical
and water industries

Awards



Deutschland
Land der Ideen



Ausgezeichneter Ort 2016



Partners/Grantors/Investors



RioTinto





Photo: Smart Sand as a growing media

Thank you for your attention!

For further questions:

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Photo: Smart Sand as a growing media