

# **ACCELERATION OF GREEN PRODUCTS**

CAPITAL MARKETS DAY 2021 MILJAN GUTOVIC / EXCO MEMBER EMEA CARMEN DIAZ / COMMERCIAL DIRECTOR SPAIN



## SIX MEGATRENDS DRIVING CONSTRUCTION OUR MARKETS HAVE NEVER BEEN AS ATTRACTIVE

POPULATION GROWTH from ~8 billion today to ~10 billion by 2050

#### URBANIZATION AND MEGACITIES

Approx. 2.5 billion more people are expected to live in cities by 2050 Higher demand for SUSTAINABLE CONSTRUCTION SOLUTIONS due to resource scarcity & climate change Increased demand for BETTER LIVING STANDARDS and more efficient infrastructure

#### INNOVATION DRIVING BUILDING TECHNOLOGIES AND BUILDING EFFICIENCY accelerated by light and

modular construction solutions

#### More **REPAIR & REFURBISHMENT** driving urban demand



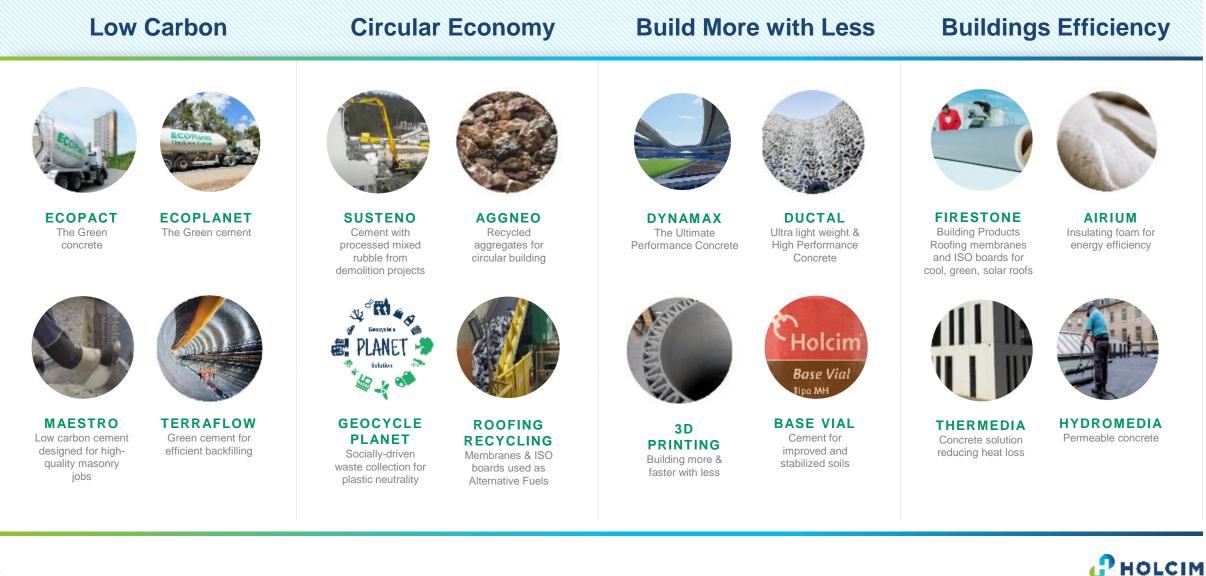


## SHAPING NORMS AND STANDARDS ACCELERATING GREEN DEMAND





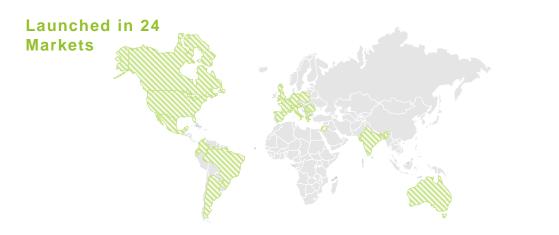
## AT THE FOREFRONT OF GREEN BUILDING SOLUTIONS INNOVATING TO ACCELERATE GREEN GROWTH

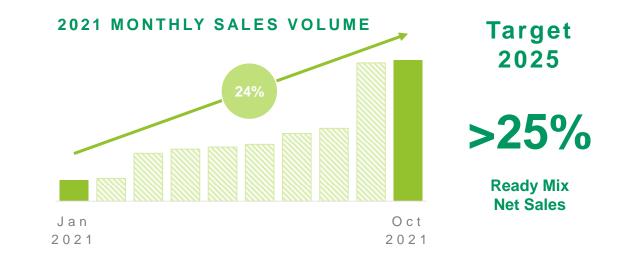


# AT THE FOREFRONT OF GREEN BUILDING SOLUTIONS WITH ECOPACT INDUSTRY'S LARGEST RANGE OF GREEN CONCRETE TO ADDRESS GREEN DEMAND



- Low carbon concrete with CO<sub>2</sub> reduction of 30% to 100%
- First ever low carbon branded concrete
- High **performance**, **sustainable** & **circular** designed for all applications
- Low carbon properties include:
  - Upcycled construction and demolition waste
  - Low CO<sub>2</sub> binders
  - Supplementary cementitious materials
  - Innovative mix design & optimization technology







## **ECOPACT IN ACTION** GLOBAL MARKET PENETRATION

#### Delivering High Performance Low Carbon Concrete WASHINGTON, USA

### $CO_2$ reduction of **46%**

- Residence hall, Georgetown
  University
- Achieved LEED Platinum certification
- Volumes supplied: 6'000 m3

Reducing the Footprint, Green Energy Infrastructure ARGENTINA

 $CO_2$  reduction of **46%** 

- Aña Cuá hydro-electric dam, key infrastructure project
- Volumes supplied: 250'000 m3

Helping developers deliver on their Net Zero Agenda WATFORD, UK

#### $CO_2$ reduction of **64%**

- The Eight Gardens project
- Volumes supplied: 4'000 m3

Winner of Best Green Building Material AUSTRALIA & NZ

- Sustainability Awards Australia
- Winner in the category green building materials







Winner of Best Green Building Material Holcim Australia and New Zealand Sustainability Awards



🗗 HOLCIM

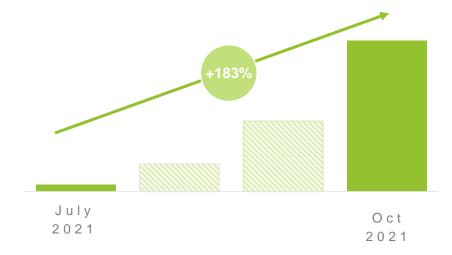
# AT THE FOREFRONT OF GREEN BUILDING SOLUTIONS WITH ECOPLANET LARGE RANGE OF APPLICATIONS FROM HOME BUILDING TO INFRASTRUCTURE



- Low carbon cement with CO<sub>2</sub> reduction of 30% to 100%
- First global range of green cement available at scale
- High **performance**, **sustainable** & **circular** for a broader range of applications from home building to complex infrastructure project
- CO<sub>2</sub> reduction through use of innovative lowemission and recycled raw materials, process efficiency and alternative fuels
- Includes the world's first cement with 20% recycled construction and demolition waste "SUSTENO"

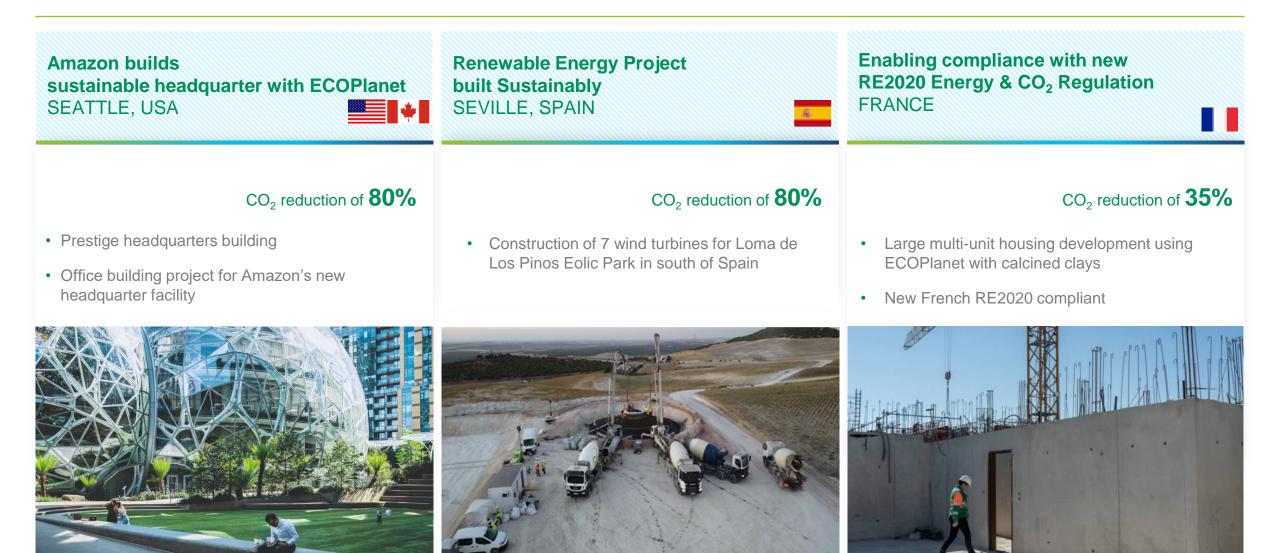


2021 MONTHLY SALES VOLUME





## **ECOPLANET IN ACTION** GLOBAL SCALE UP IN PROGRESS





# **FULL INNOVATION PIPELINE** ACCELERATE GREEN BUILDING

## Low Carbon

## **Circular Economy**

· Enabling increased adoption of recycled

- New alternatives to traditional Cement additives
- New low CO<sub>2</sub> Concrete technologies



**CALCINED CLAYS** 



**NEW SOURCES OF MIC<sup>1</sup>** Harvested Fly Ash



materials use

CDW AS MIC<sup>1</sup> In cement



CDW<sup>2</sup> USED AS ARM<sup>3</sup> replacing Limestone in Clinker Manufacturing

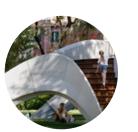


material use

**DYNA**Max The Ultimate Performance Concrete



**INNOVATIVE PRE-**CAST Structural elements &



**3D PRINTING** Building more & faster with less



ORIS



LOW CLINKER CEMENTS

9



MINERAL FILLER USE IN CONCRETE GCC. Limestone



**CDW<sup>2</sup> IN CONCRETE** Extending use of Recycled materials



New applications & feedstocks for recycled Aggregates



**Build More with Less** 

· New offers to enable leaner design

· New systems and solutions to optimize



<sup>3</sup> Alternative Raw Materials

## **CALCINED CLAY GREEN MINERAL COMPONENT** ACCELERATING GREEN CEMENT

Opportunity	Holcim Advantage	Next Step
Lower temperature of calcination; Abundant worldwide	Proprietary Holcim technologies allow carbon neutral calcined clay production	Industrial-scale installation in development in France commissioned in 2022, <b>5+</b> projects in the pipeline
Kg CO2/t Net emissionsClinker600-800Calcined Clay200Slag* / Fly-ash / Pozzolan / Limestone~ 0	Kg CO <sub>2</sub> /t Net emissions	
4 times less CO <sub>2</sub> intensive than clinker; huge scaling opportunities	Pioneering low-CO <sub>2</sub> binders	Mass-market commercialization; CEM IV - up to 48% lower CO <sub>2</sub> intensity

10 \* Slag CO<sub>2</sub> allocation could change in the future, in the range 80-480 kg/t for Environmental Product Declarations

J HOLCIM

## DRIVING THE CIRCULAR ECONOMY SCALING UP CONSTRUCTION AND DEMOLITION WASTE AHEAD OF EU NORMS

**Applications of Construction and Demolition Waste in Switzerland** 

EU

Current European norms & standards do not allow large use of CDW<sup>1</sup>

Swiss norms are supporting demand for ECOPlanet / Susteno

European norms & standards are evolving



Construction and Demolition Waste Recycling, Switzerland

**ECOPlanet** The Green Cement

SUSTENO

As part of the ECOPlanet range, Susteno is the **world's first** cement with **20% CDW**<sup>1</sup> **inside**  By 2023, use of construction and demolition waste as mineral component in cement will be accepted

READY TO GRASP OPPORTUNITY TO WIDELY COMMERCIALIZE CIRCULAR CEMENTS AT SCALE



