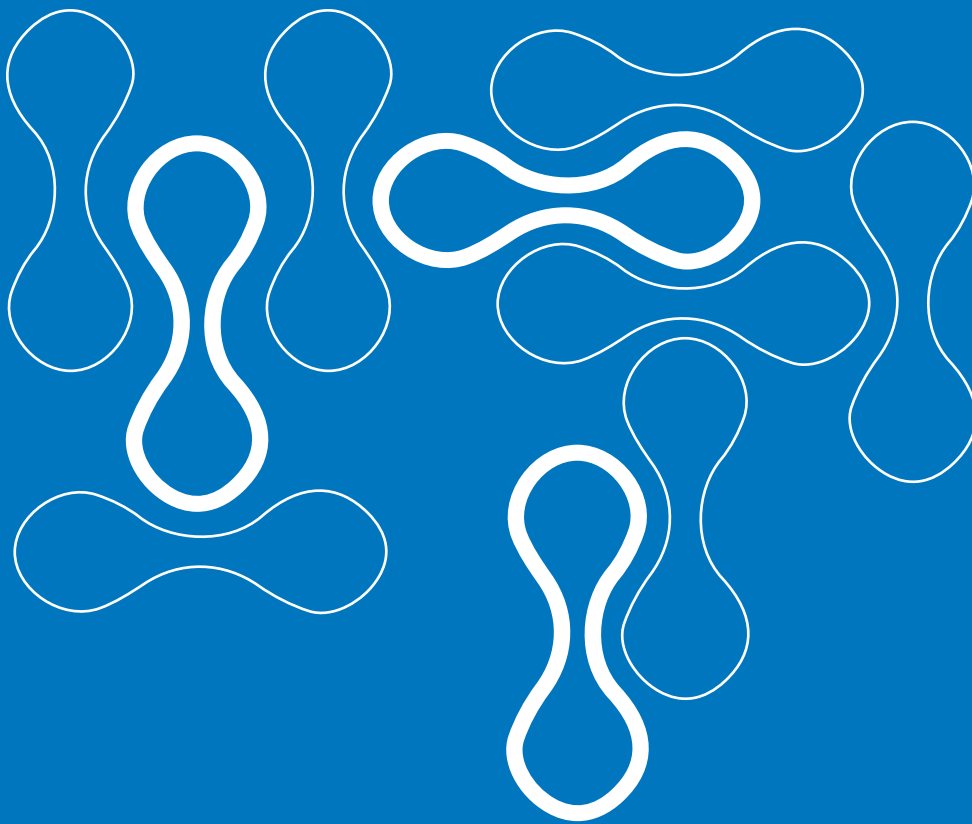


ADVANCED MATERIALS

An Introduction to Advanced Materials



LIBERATING INNOVATORS

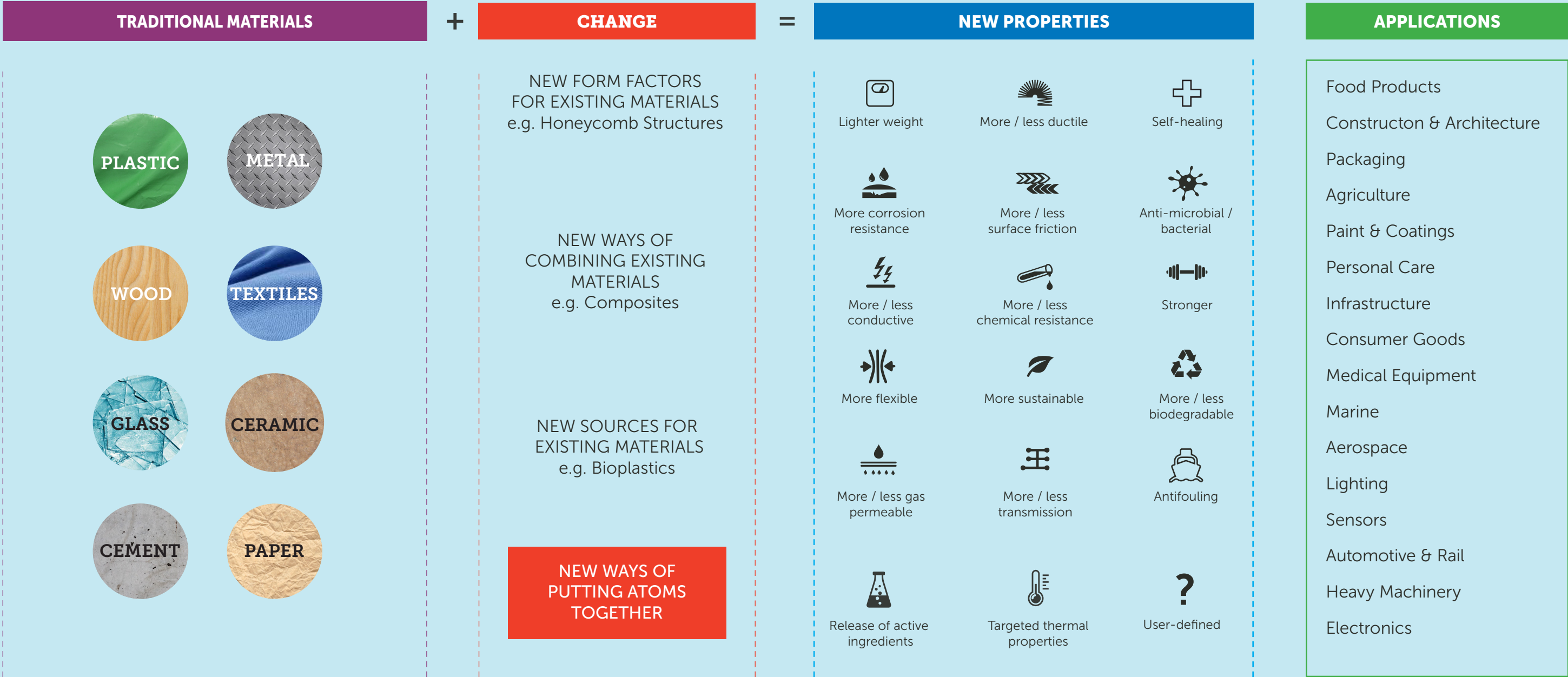
Liberating businesses, individuals and future generations to unleash our economy

**Callaghan
Innovation**

Rukuhia te wāhi ngaro hei maunga tātai whetū
Explore the unknown, pursue excellence

ADVANCED MATERIALS

Refers to all new materials, and modifications to existing materials, to obtain superior performance in one or more properties



LIBERATING INNOVATORS

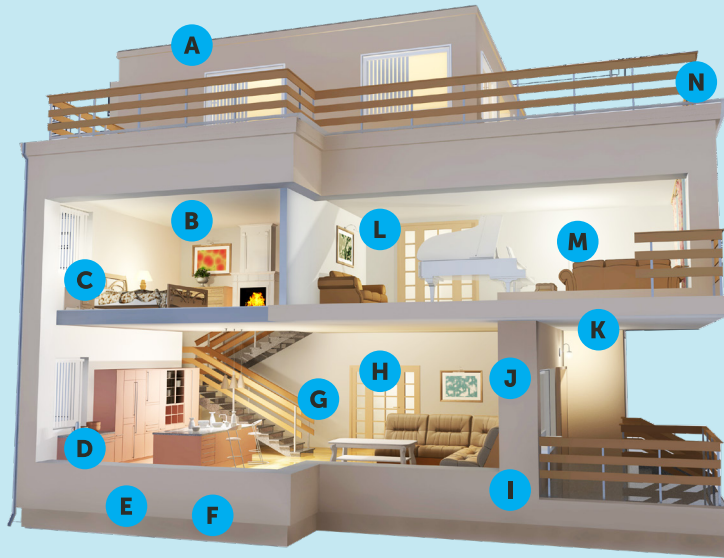
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ADVANCED MATERIALS

IN THE BUILT ENVIRONMENT



- A** PHOTOVOLTAIC ROOF TILES
Integrated, unobtrusive solar energy harvesting
- B** AEROGEL INSULATION
Lightweight, highly effective thermal insulation
- C** FIRE RETARDANT TEXTILES
Increased in-home safety
- D** CERAMIC TAP WASHER
Decreased surface friction for more efficient mechanism
- E** BIO-BASED BRICKS
Lightweight and environmentally sustainable
- F** AIR-PURIFYING FLOORING
Anti-microbial and removes volatile organic compounds (VOCs)
- G** PIEZOELECTRIC STAIRS
Power generation from footsteps
- H** SUPERHYDROPHOBIC COATINGS
Water-repelling for self-cleaning surfaces
- I** NANOFIBRE AIR FILTRATION
More efficient and can integrate anti-microbial properties
- J** FIBRE OPTIC SENSORS
In-wall structural and health monitoring
- K** SELF-HEALING CONCRETE
Active ingredient repairs cracks as they form
- L** SMART WINDOWS
Controllable transmission of light
- M** CONDUCTIVE PAINT
On-wall light switches
- N** ENGINEERED TIMBER
Increased strength/weight ratio and quicker construction

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