

A satellite view of Earth from space, showing the Western Hemisphere. The image is dark blue and black, with the continents of North and South America visible in a lighter blue. The text is overlaid on this background.

THE GLOBAL
CO₂ INITIATIVE

Transforming a liability into an asset

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Chairman, CO₂ Sciences, Inc.
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The **Global CO₂ Initiative** is dedicated to reducing CO₂ emissions by catalyzing the development and commercialization of CO₂-based products, a \$1 trillion annual market opportunity that can reduce carbon emissions by over 10%.

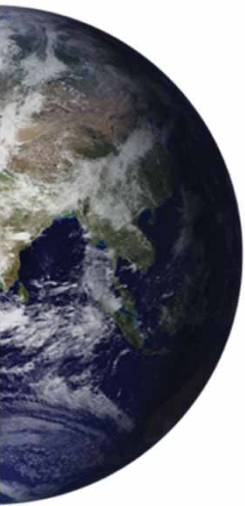
Industrial gas
& fluids

Agriculture
& food

Plastics

The Challenge

Rapidly increasing global CO₂ emissions



Annual CO₂ emissions:

35.9 gigatons

Mass equivalent:

1.1 billion garbage trucks

Annual Increase:

1.9%

CO₂ stays in the atmosphere for hundreds of years

275 PPM



1700

1800

1900

2000

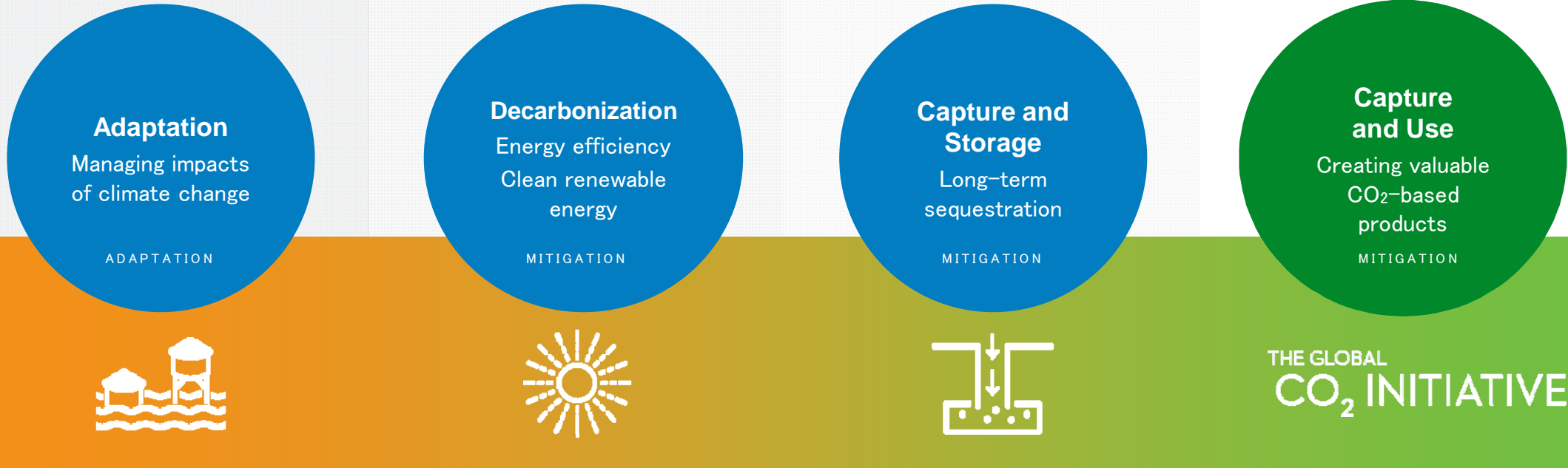
CO₂ ATMOSPHERIC CONCENTRATION (PPM)

400 PPM

Source: Global Carbon Project, 2015 Carbon Budget

Addressing the challenge creates an opportunity

CO₂-based products are one part of the climate solution



Increasingly necessary

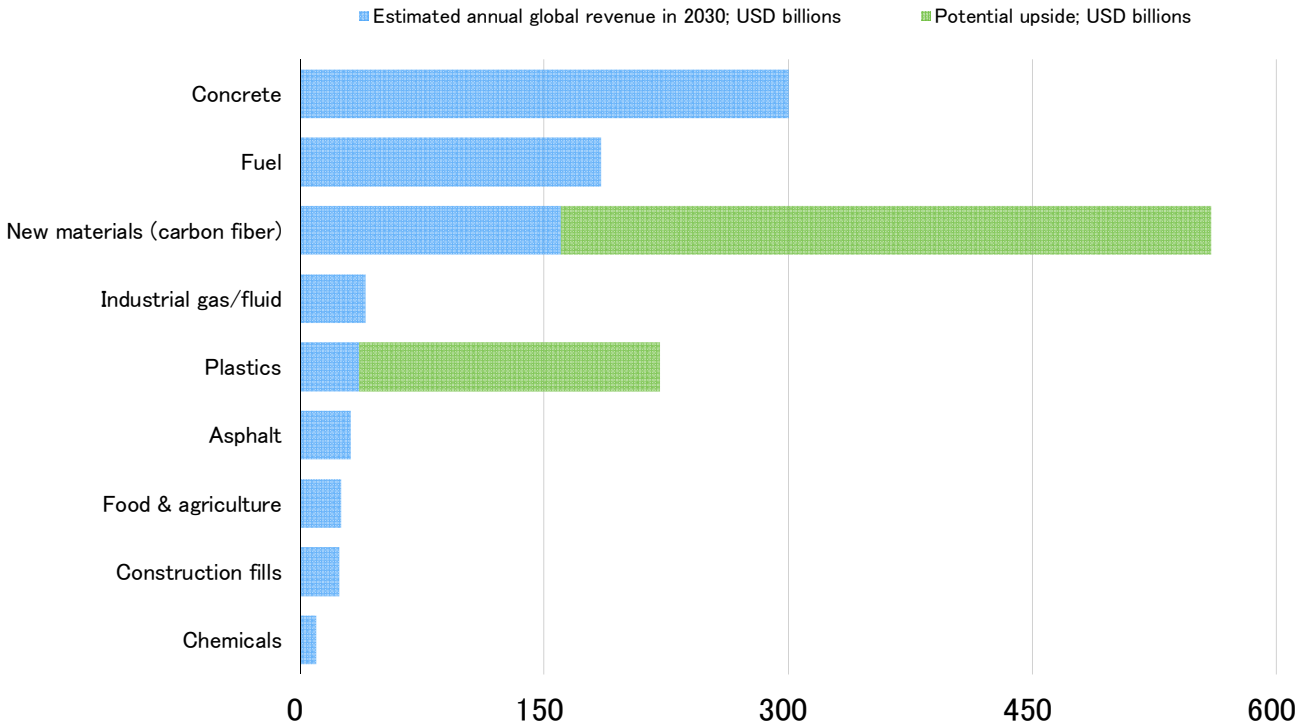
Progress, but not fast enough

Necessary but costly

Market-driven solution

Significant environmental impact and market opportunity

CO₂-based products must be a part of our solution to climate change

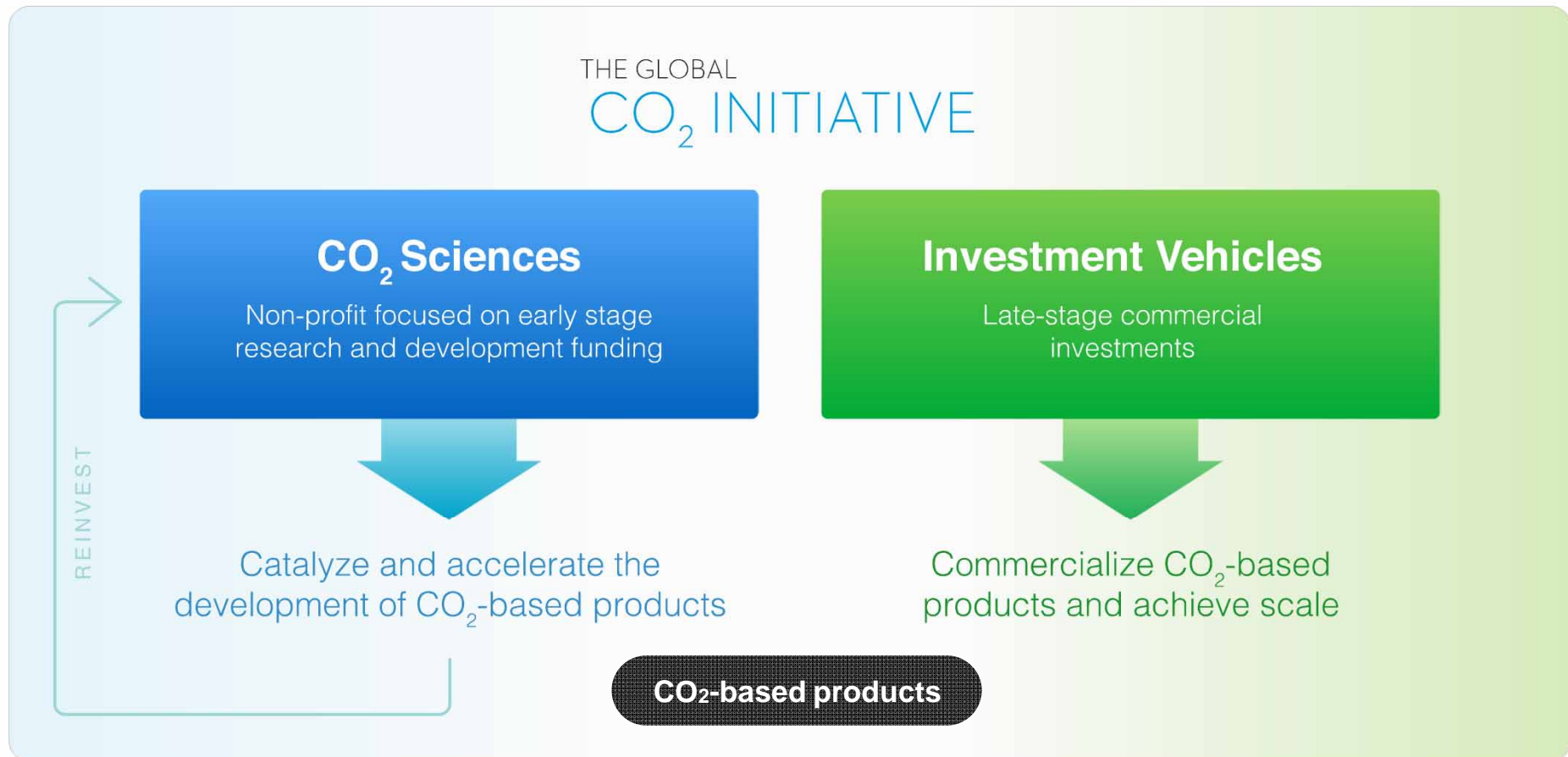


ANNUAL MARKET SIZE:
\$800 billion - \$1.1 trillion

ANNUAL CO₂ CONSUMPTION
10% of global emissions

Source: CO₂-based products market analysis by McKinsey and Company and CO₂ Sciences, Inc.

A unique structure and two platform model

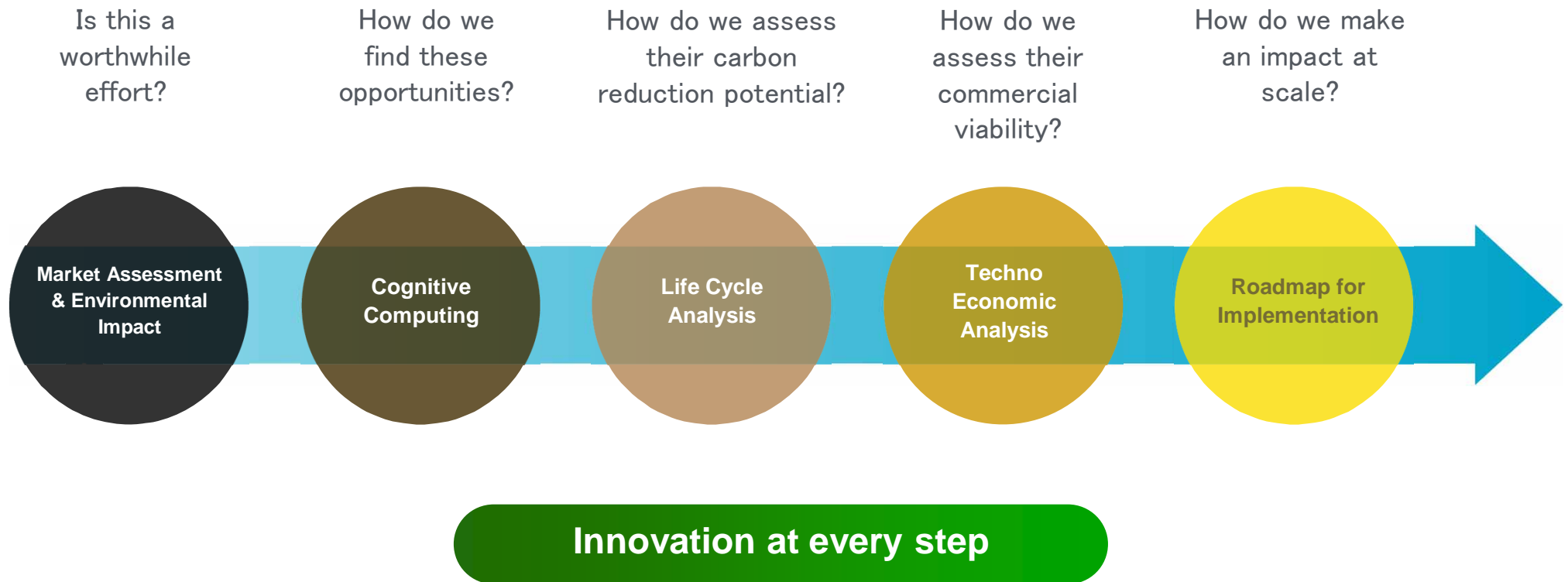


The approach: building partnerships with key stakeholders



Our unique toolset

Project funding and investments are driven by in-depth, proprietary knowledge



An experienced and motivated team

Driven by a team of global scientific, technical, and business leaders



Working at a global level

The Global CO₂ Initiative is the leader in the development of CO₂-based products



Officially launched
Global CO₂ Initiative at the
World Economic Forum in 2016



Releasing global roadmap for
implementation of CO₂-based
products at COP22

CO₂ Sciences – Our nonprofit platform

Funding projects to catalyze CO₂-based product development

Key Points

- Allocate \$400 million between 2017 and 2027 to fund research and development projects for technology to create CO₂-based products
- Fund 25 to 30 projects annually at premier academic and research institutions



Focused technology research and development

Funding pivotal technology development for CO₂-based products

CO₂ capture and reduction

CO₂ transformation into
CO₂-based products

Hydrogen generation

*(Hydrogen is sometimes needed to
make CO₂-based products)*

Low-carbon power sources:
generation and storage

(Needed to make products)

CO₂-based product technology readiness

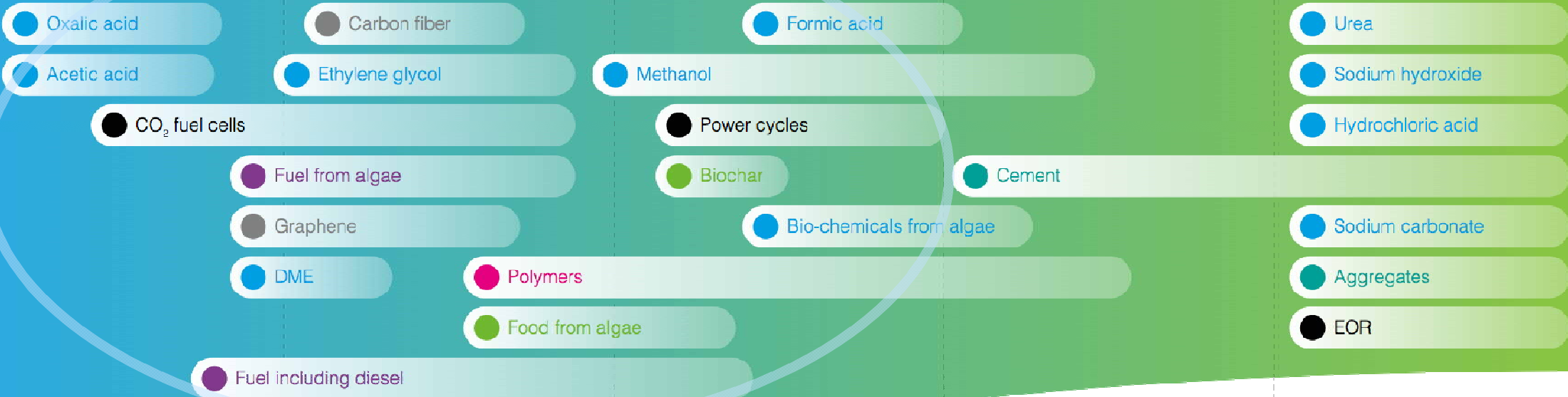
Proof of concept

Lab scale

Pilot

Semi-commercial

Commercial deployment



Research and development funding focus

- Fuel
- Construction materials
- New materials
- Chemicals
- Plastics
- Agriculture & food
- Industrial

Investment Vehicles – Our for-profit platform

Investments to accelerate the adoption of CO₂-based products

Key Points

- Utilize Special Purpose Vehicles and other tools to invest in companies that are commercializing CO₂-based products
- Realize broad climate benefit through widespread production and use of CO₂-based products



CO₂-based product technology readiness

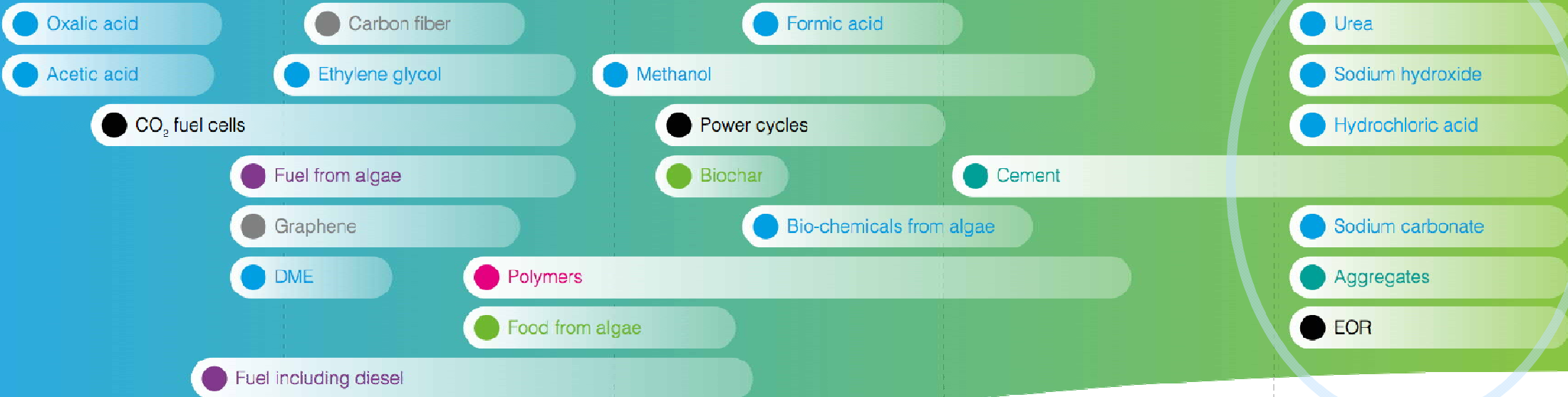
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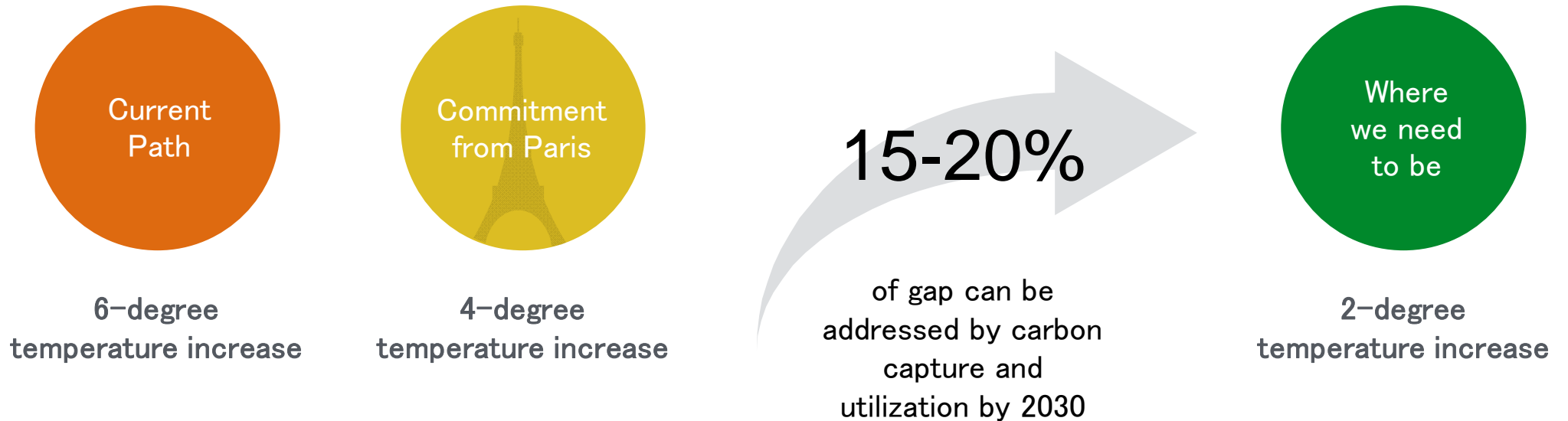


Investment focus

Industrial

- Fuel
- Construction materials
- New materials
- Chemicals
- Plastics
- Agriculture & food

Carbon capture and utilization will help achieve climate goals



Three steps to implement carbon capture and use

1

Research and Development

To reduce costs and expand the options for using CO₂

2

Commercialization

To scale CO₂-based products in areas where there is a strong business case

3

Acknowledgement

To make carbon capture and utilization a part of the mainstream dialogue on how to address climate change



Financial returns and climate impact

Realizing the power of a market-based solution