

Climate  
progress  
needs  
protecting



CHUBB®

Climate+

Climate Technologies: The Opportunity

Chubb EMEA Broker Partner Event  
Malaga June 2024



# Agenda

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- Defining Climate Tech
- The Macro Opportunity
  - The European Climate Tech Investment Landscape
  - Industry Deep Dive: EV Charging Infrastructure
- Revenue Growth Opportunity
  - Case Study I: EV Charging Station Manufacturer
  - Case Study II: Green Hydrogen as a Service
- Expertise and Customer Loyalty Growth Opportunity
  - Scenario I: Methane gas digester and recapture system
  - Scenario II: Roof Top Solar (Photovoltaic systems)
  - Scenario III: Heat Pump
  - Scenario IV: Green Hydrogen
  - Scenario V: Cyber

# Climate Tech Universe Defined



## Transport & Mobility

### Company Types:

Electric Vehicles, EV charging stations and infrastructure, decarbonization of contractors equipment.

### Market Commentary:

By 2030 in Europe, approximately €280 billion need to be invested in installing charging points (hardware and labor), upgrading the power grid, and building capacity for renewable energy production for EV charging



## Food & Agriculture

### Company Types:

Vertical Farming, AgTech, Plant Based/Cellular Foods, Crops Engineering, Low Carbon Fertilizer, Aquaculture

### Market Commentary:

Interest in plant-based alternatives are driven by the environmental concerns related to meat production and the global market is valued at \$40B-50B and further growth is expected.



## Carbon Tech & Climate Finance

### Company Types:

Carbon Capture, Carbon Markets Participants, Climate incubators and industry associations

### Market Commentary:

\$18bn of capital has been raised or committed to invest in carbon credit funds over the last two and half years (Jan 2021 - June 2023). A further \$3bn has already been committed over 2024 and 2025.



## Built Environment & Efficiency

### Company Types:

Building automation, efficient heating and cooling equipment, industrial processes, green concrete/steel production.

### Market Commentary:

Emerging clean industrial technologies beginning to advance to commercial deployment stage. H2 Green Steel raised \$1.6B to construct the world's first large-scale green steel plant in Sweden, including the first giga-scale electrolyzer.



## Renewable & Alternative Energy

### Company Types:

Companies supporting the renewables and alternative energy market manufacturing wind turbines, solar panels, and related services.

### Market Commentary:

To hit 2050 net-zero target, manufacturing capacity for key climate technologies will significantly accelerate by 2030 with expected investment of \$640B driven by manufacturing of electrolyzers and heat pumps.



## Storage & Transmission

### Company Types:

Batteries, alternatives storage, fuel cell & smart grids.

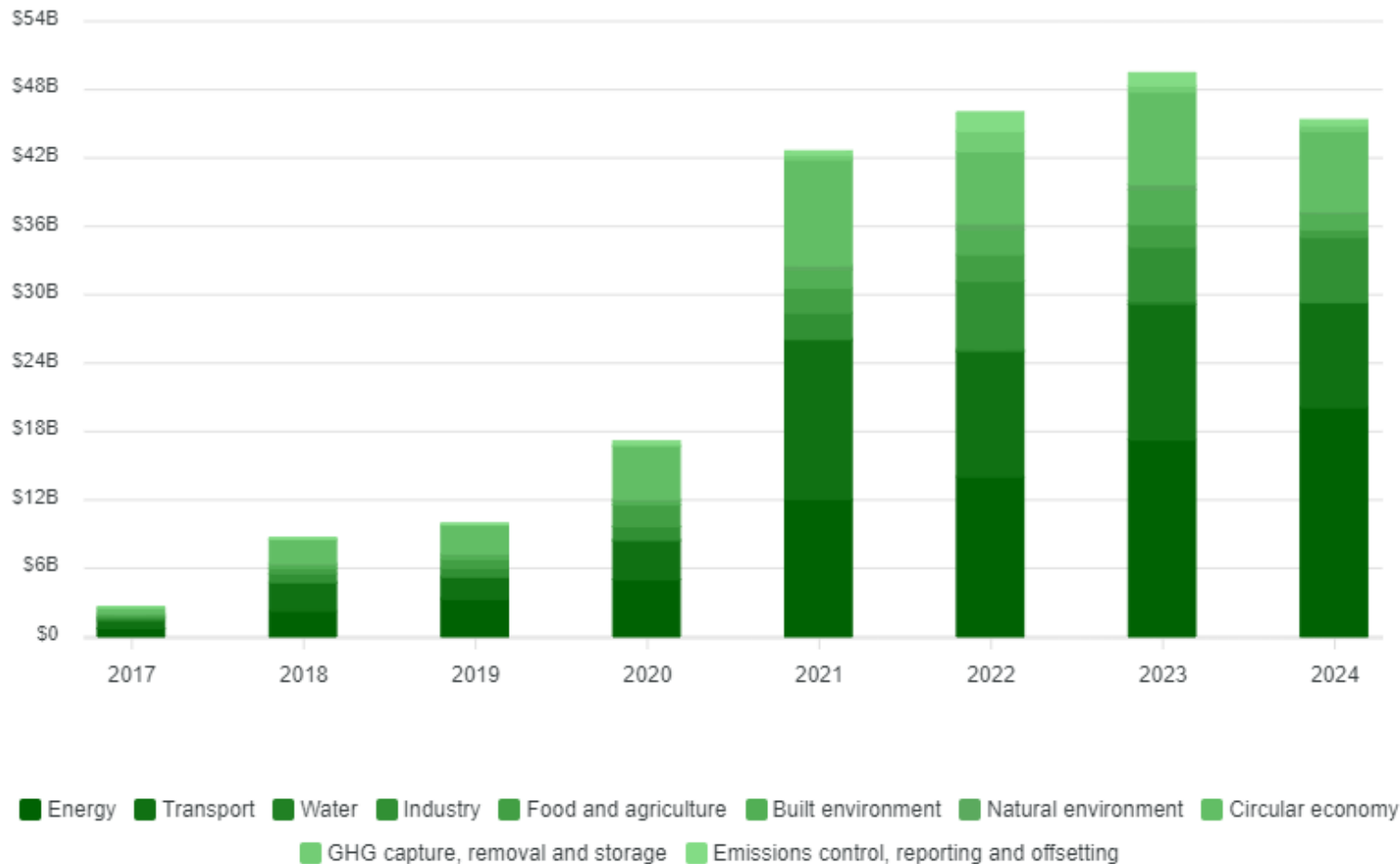
### Market Commentary:

Funding into Energy Storage is continuing in an upward trajectory, with overall funding in the sector exceeding \$35B in 2023 - up from about \$20B for 2022.

## What is Climate Tech?

- Chubb targets a variety of climate related organizations that develop:
  - *products,*
  - *technologies,*
  - *services*with a core focus to:
  - reduce, mitigate or remove emissions,
  - to adapt to an altered environment,
  - or to address the impacts of climate change.

# European Climate Tech Investment

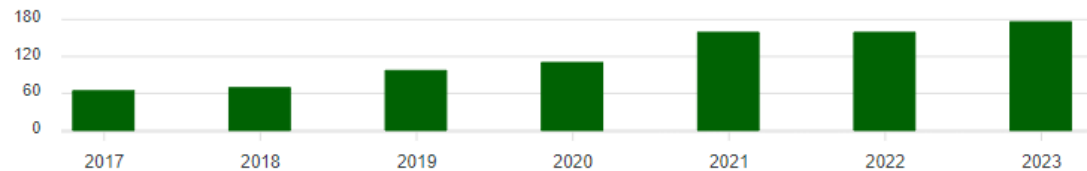


- Significant investments driving the rapid growth and expansion of the Climate Tech universe in Europe.
- Investment has accelerated in the last 3 years with 2024 off to a strong start.
- Sectors driving the highest levels of investment are:
  - Energy, Transport, and Industry.
- 2024 has been buoyed by large investments in mega projects in the Nordics.
- 2023 also saw Climate Tech exits hit an all time high indicating a healthy environment for investors.

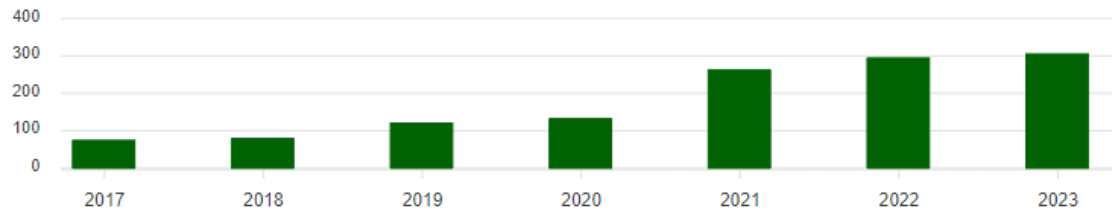
# Industry Deep Dive: EV Charging Infrastructure

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Count of EV Charging Companies (Europe)



Count of EV Charging Investors (Europe)



- EV Charging refers to the process of charging battery electric vehicles as well as plug-in hybrid vehicles using an electric charging station.
- Within the scope are solutions are companies providing the necessary
  - infrastructure,
  - software,
  - and charging equipment.
- Innovative solutions include:
  - ultra-fast charging,
  - wireless charging systems,
  - pop-up and lamp post chargers,
  - self-heating batteries,
  - electric roads, and vehicle to grid (V2G).



# Case Study: EV Charging Infrastructure

- Risk Overview

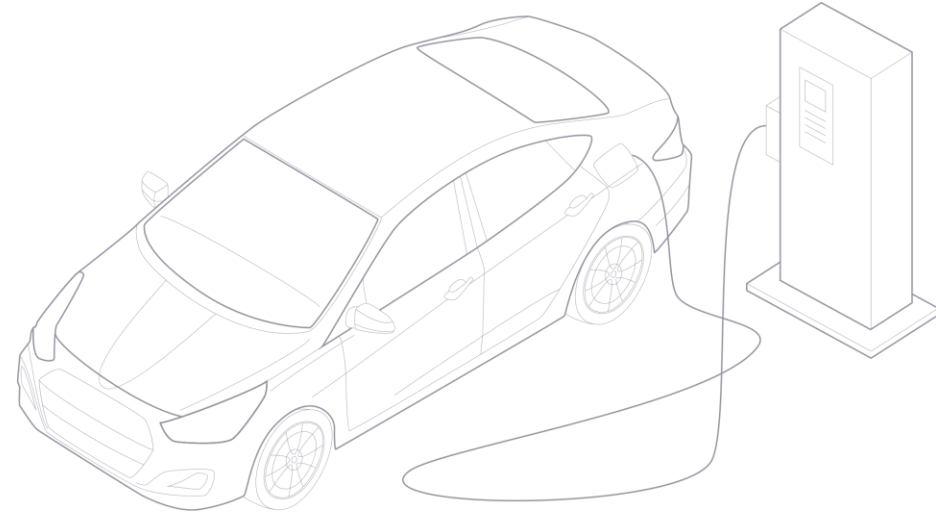
- Founded in 2017
- Leading provider of on-street electric vehicle infrastructure for public sector. Also offers a smart network of charging points to help relieve pressures on the power grid.

- Funding

- \$125,000,000 in total funding

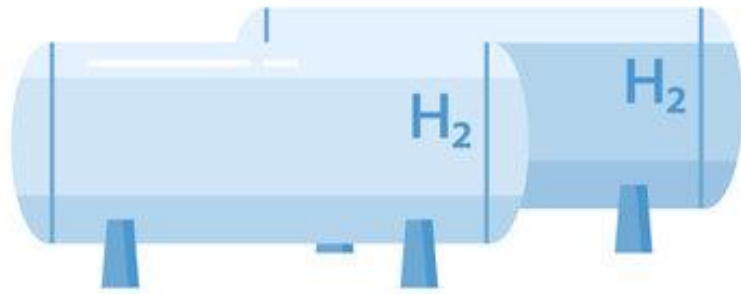
- Evolution of Insurance Needs

- Foundation – Year 1
  - Initially a general liability, employers liability, and property policy.
- Core – Year 2:
  - Quickly moved to a Cyber and Technology E&O policy as digital area of business accelerated.
- Supplemental – Years 2/3 +:
  - Annual EAR / CAR programme growing as volume of charge points increases.



	2022	2023	2024
Turnover	\$10,000,000	\$20,000,000	35,000,000
Employees	61	101	118
Premium	\$60,000	\$93,000	\$117,000
Commission	\$12,000	\$18,600	\$23,400

# Case Study: Green Hydrogen Infrastructure



- Risk Overview

- This organization produces green hydrogen through water electrolysis using a renewable energy source like wind or solar and provides it to third parties as a service.
- This hydrogen can be stored and transported as a gas or liquid, making it a practical solution for off-grid energy generation.
- Company founded in 2019
- TRL: 9

- Funding

- \$122,000,000

- Evolution of Insurance Needs

- Foundation – Year 1
  - Initially opportunity was seeking a project specific EAR policy for a prototype unit.
- Core – Year 2:
  - Insurance needs have evolved into corporate property, casualty, professional liability
- Supplemental – Years 2/3 +:
  - EIL Coverage required.

	2022	2023	2024
Turnover	\$0	\$10,000,000	\$30,000,000
Employees	17	36	65
Premium	\$10,000	\$40,000	\$105,000
Commission	\$2,000	\$8,000	\$21,000

# Scenarios for discussion

## **Methane gas digester and recapture system.** ( ABCD Dairy farm with annual revenue of C. 40m)

What are the considerations: -

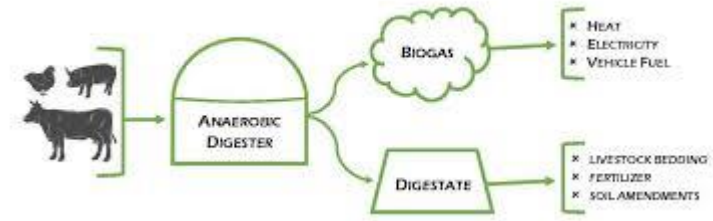
Cost to rectify

Impact to business

Supply chain disruption?

value of the lost revenue

Consideration of lost government incentives based on carbon emissions reductions



## **Roof Top Solar (Photovoltaic systems)**

Considerations

Increased load - Roof needs to be adequately assessed to take the additional load of the PV system with an allowance for increased stresses of natural hazard exposure - Would the PV system withstand Snow accumulation, ice etc.

Fire risk - Combustible components within the roofing systems

Common failures

Damaged, incompatible and uninsulated connectors

Unprotected panels

Arc faults

Poor design and sizing of components





## Heat Pump

installation, failures within software update, consequential failure within lubricant systems

## Hydrogen

Failure within the process train will lead to interruption within production facilities.

Risk of explosions is present.

Fuel cells - odorants have negative impacts on fuel cell performance

## Cyber

Disruption event through of infiltration of Information, operational technology and R&D data. Start-Up ventures without adequate protection will potentially be at greater risk of attack, not just from ransomware but also loss of proprietary information.

