



Climate Risk has become a major concern globally

Organizations are responding through both adaptation and mitigation efforts

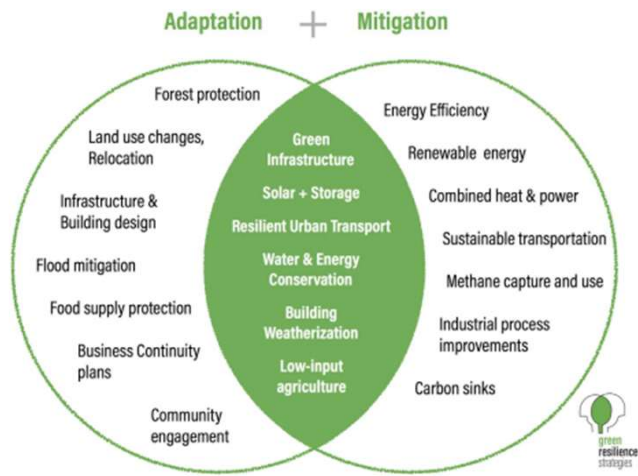
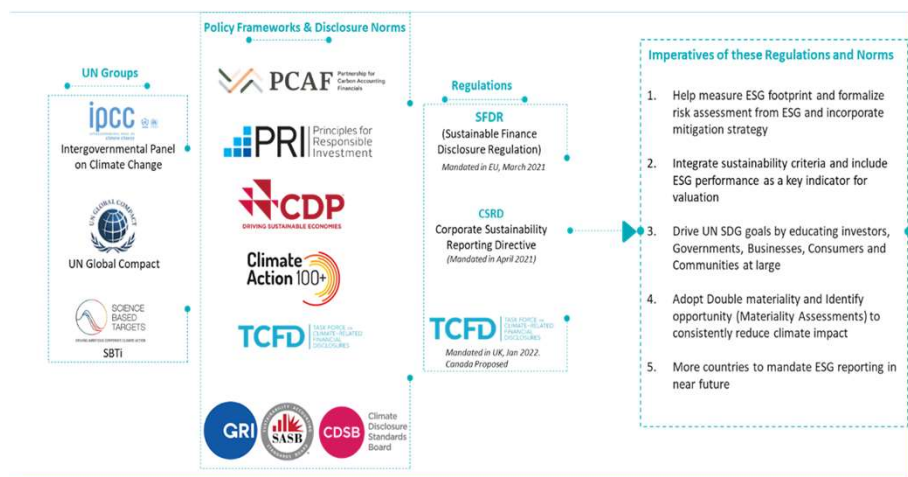
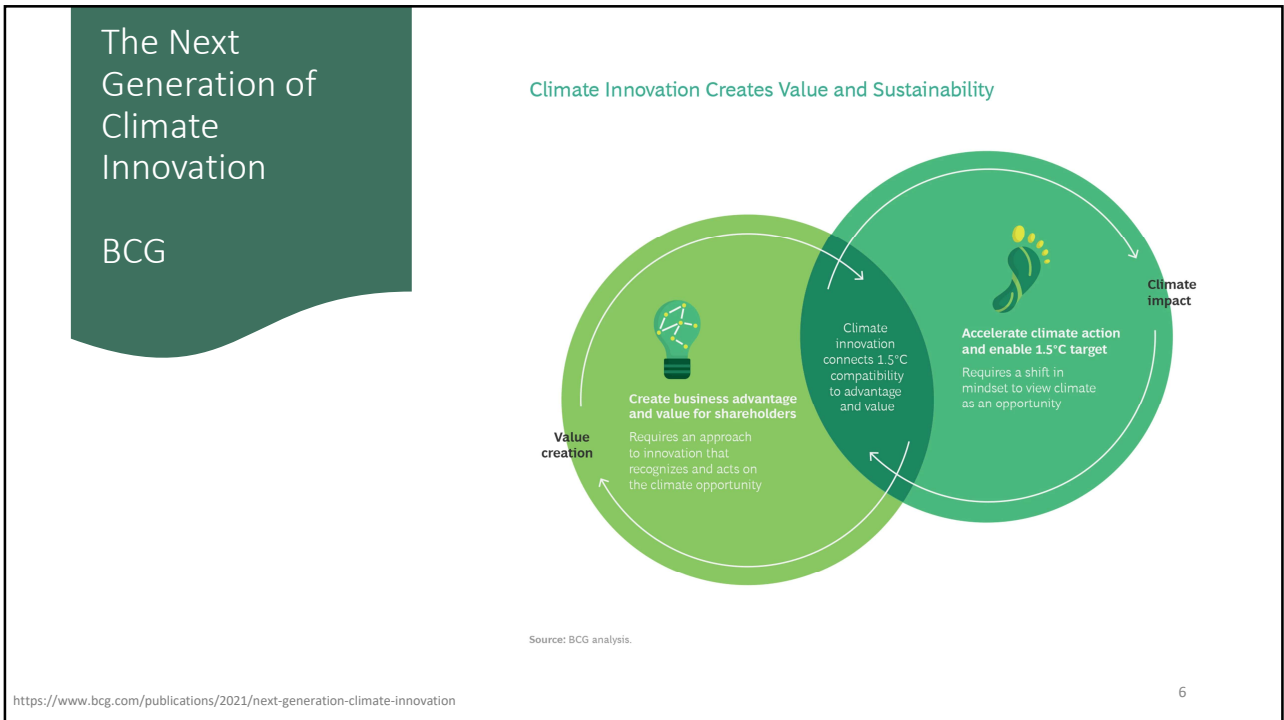


Figure 1: Climate Adaptation and Mitigation Synergies  
 Green Resilience Strategies (2017)  
 Graphic concept modified with acknowledgement of David MacLeod, City of Toronto

Organizations are also now required to make climate disclosures



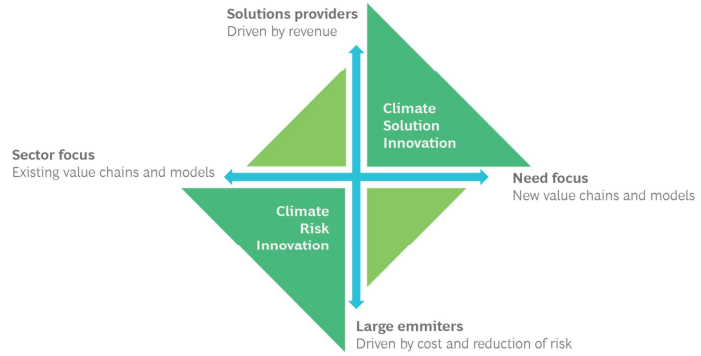
- Imperatives of these Regulations and Norms**
1. Help measure ESG footprint and formalize risk assessment from ESG and incorporate mitigation strategy
  2. Integrate sustainability criteria and include ESG performance as a key indicator for valuation
  3. Drive UN SDG goals by educating investors, Governments, Businesses, Consumers and Communities at large
  4. Adopt Double materiality and identify opportunity (Materiality Assessments) to consistently reduce climate impact
  5. More countries to mandate ESG reporting in near future



# The Next Generation of Climate Innovation

BCG

Exhibit 1 - Climate Innovation Can Move the World Toward Net Zero While Creating Enormous Business and Economic Value

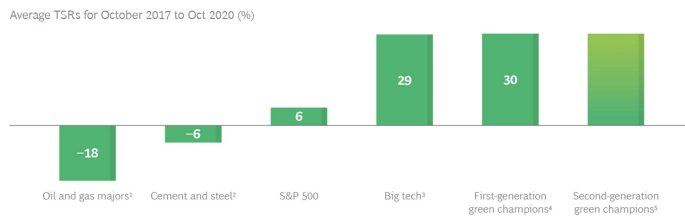


Source: BCG analysis.

# The Next Generation of Climate Innovation

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Exhibit 2 - The First Generation of Green Champions Is Performing at Big-Tech Levels



Source: S&P Capital IQ; BCG ValueScience Center; BCG analysis.

Note: TSRs = total shareholder returns. TSRs reflect the simple average of companies within each category; company reporting currency used.

<sup>1</sup>Companies: BP, Chevron, Eni, Equinor, Exxon, Royal Dutch Shell, and Total.

<sup>2</sup>Category comprises 732 companies with steel or cement as the primary classification.

<sup>3</sup>Companies: Amazon, Apple, Facebook, Google, Microsoft, and Salesforce.

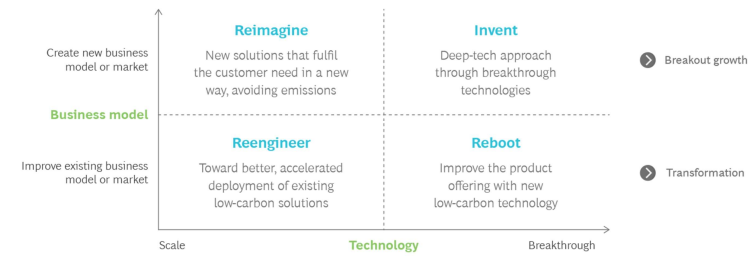
<sup>4</sup>Companies: Enel Group, Iberdrola, Neste, NextEra Energy, and Ørsted.

<sup>5</sup>Companies: Tesla, Beyond Meat (1-year TSR only). Since this wave is still emerging, it is impossible to accurately estimate TSR.

# The Next Generation of Climate Innovation

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Exhibit 3 - The Climate Innovation Canvas

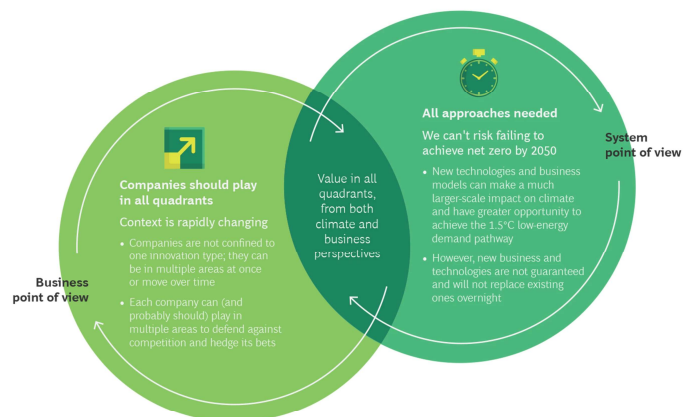


Source: BCG analysis.

# The Next Generation of Climate Innovation

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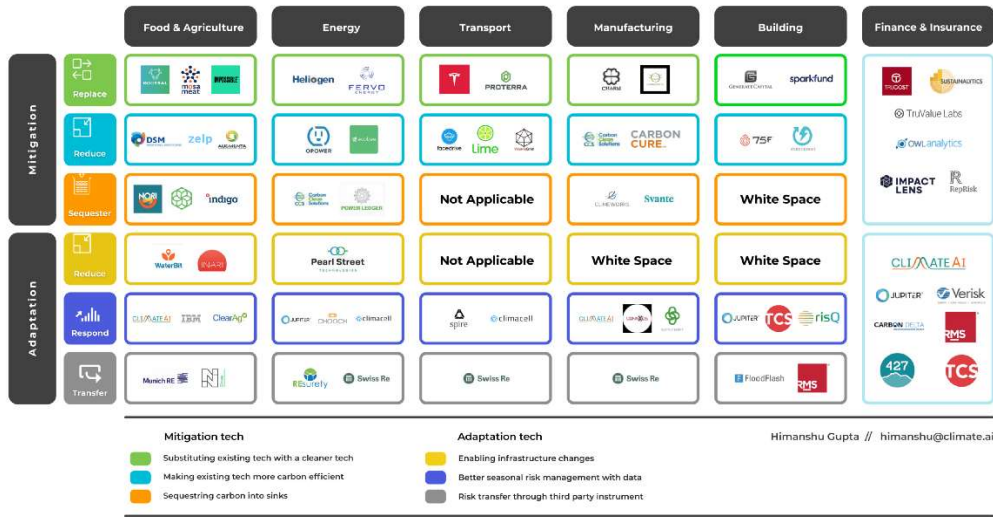
Exhibit 5 - Companies Should Explore the Full Canvas of Opportunities



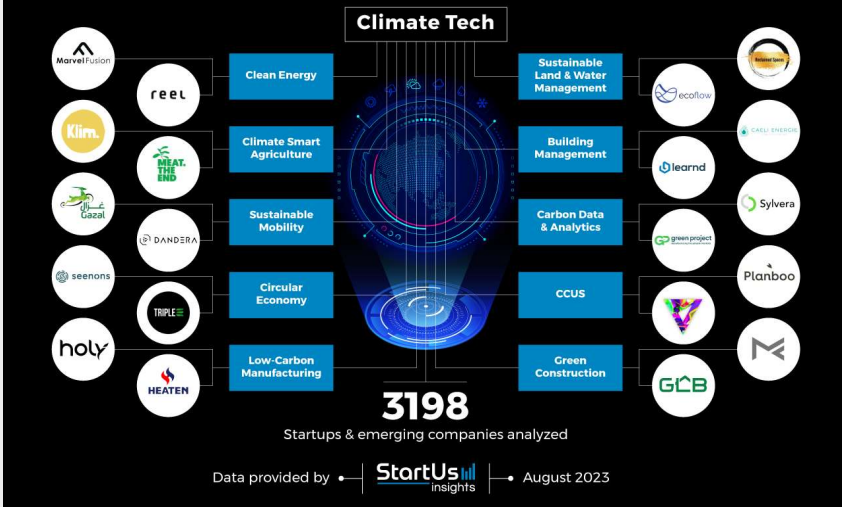
Source: BCG analysis.



## Climate Innovation Matrix



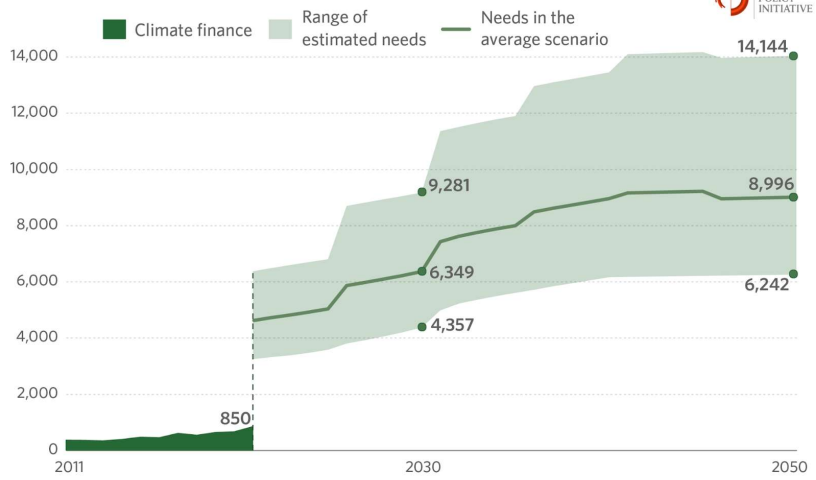
## Top 10 Climate Tech Trends & Innovations in 2024



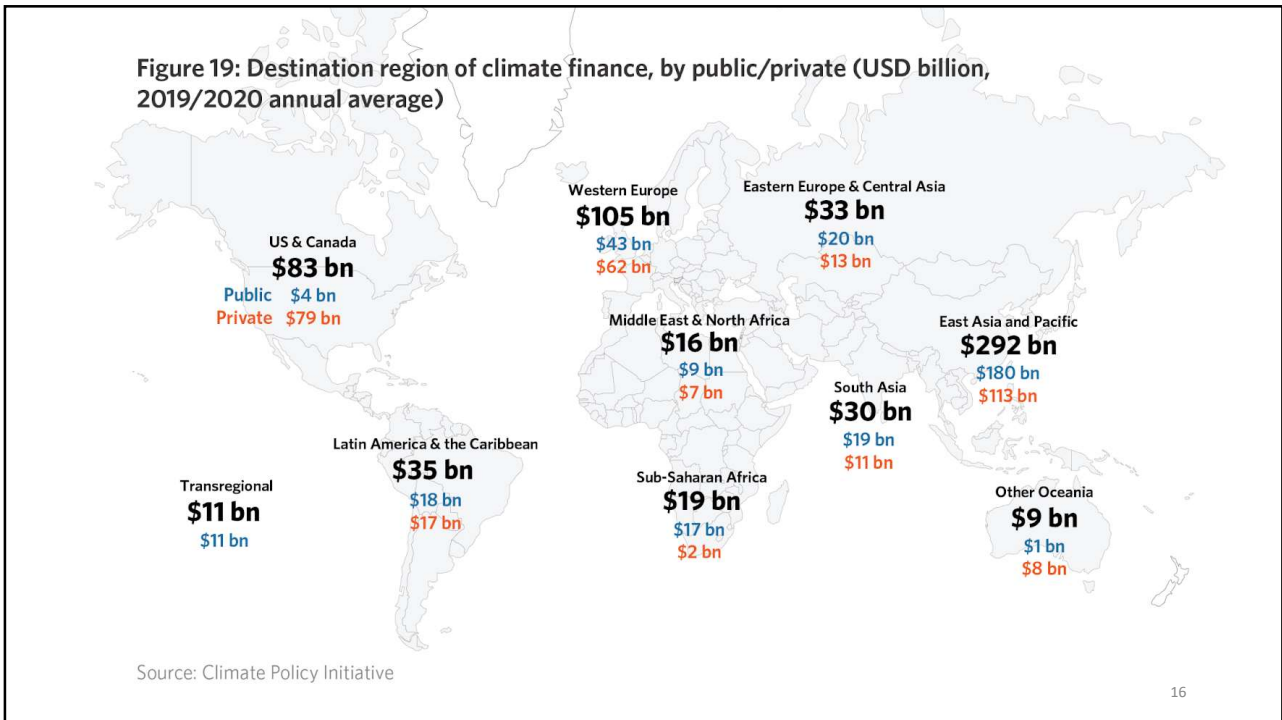
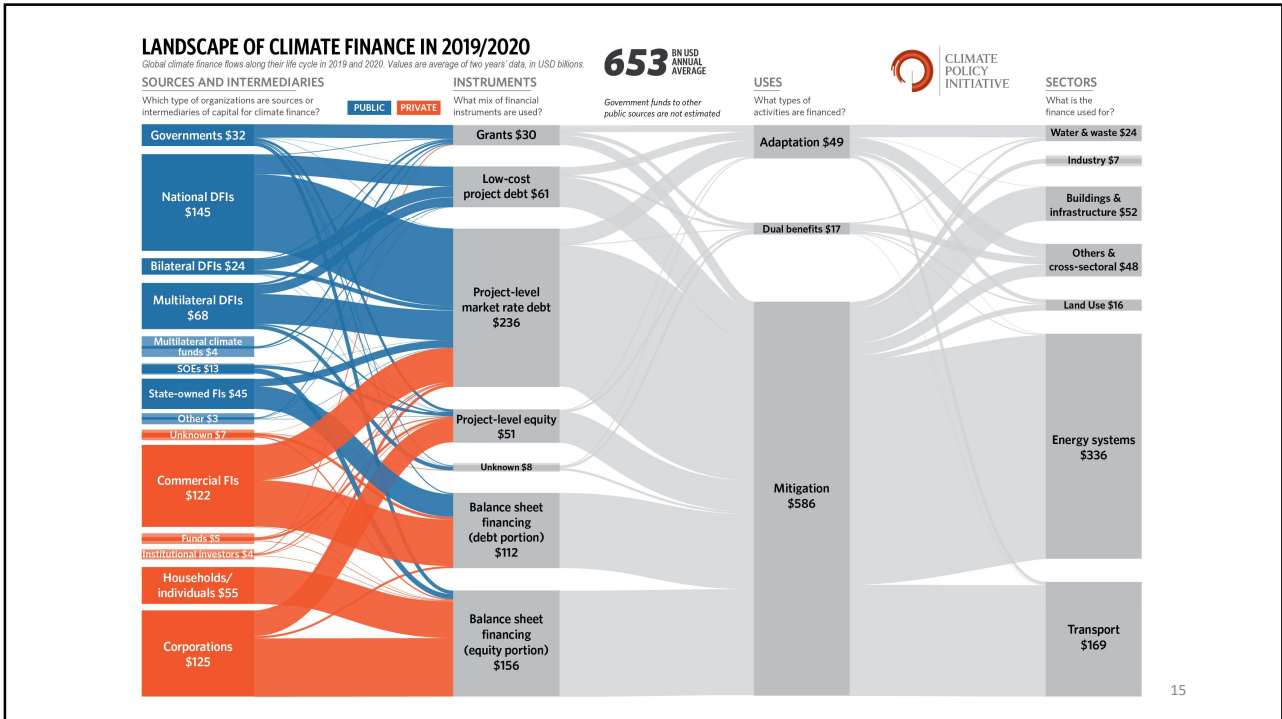


Global Climate Finance

Figure 2: Global tracked climate finance flows and the average estimated annual climate investment need\* through 2050

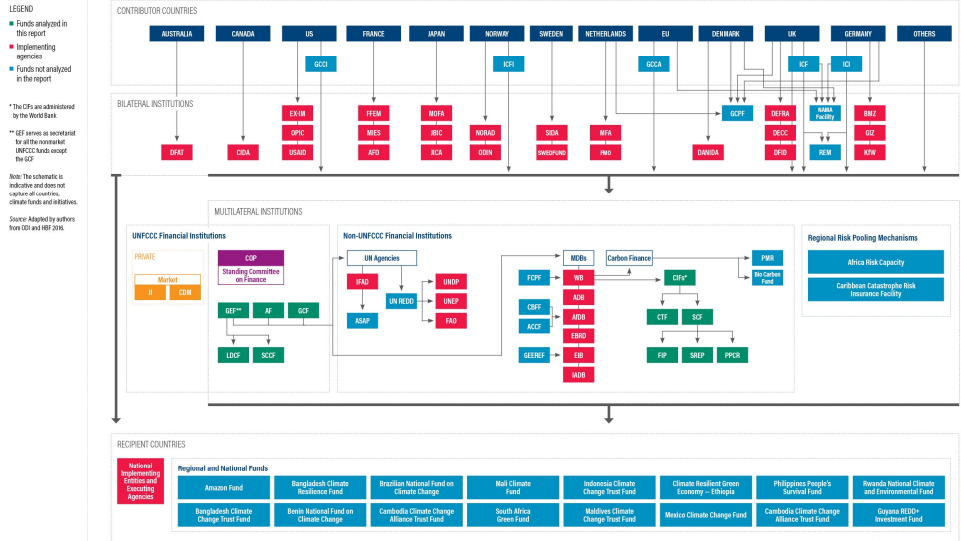


Note: Global climate finance flows and annual climate investment need through 2050. \$850M represents climate finance tracked in 2021. Source: [Climate Policy Initiative](#)





### Global Architecture of Climate Finance




## Global Climate Finance Stack



	DEVELOPMENT FINANCE (DFIS)	(BILATERAL) GOVERNMENT LOANS	GOVERNMENT AID	PHILANTHROPY
DESCRIPTION	Government-backed institutions that invest in private sector projects in emerging markets to promote job creation and sustainable economic growth	Loans provided by one government to another to finance development projects, infrastructure improvements, and other large-scale investments	Government-backed financial assistance that promotes and specifically targets the economic development and welfare of developing countries	Donation of impact-oriented capital, goods, or services to address social and environmental challenges
RECIPIENTS	Private sector projects, Governments	Governments, NGOs	Governments, NGOs	Governments, NGOs
RETURNS	Market rate - Concessional	Market rate - Concessional	Concessional	Concessional
INSTRUMENTS	Debt, Guarantees, Equity (sometimes)	Debt	Grants, Debt	Grants





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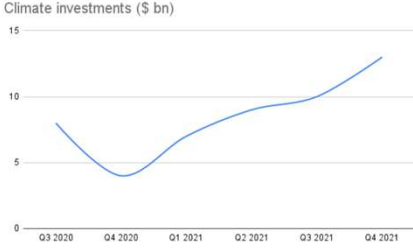
## Climate investment is heating up with more than \$40B invested across 600+ deals in 2021

Haje Jan Kamps @Haje / 2:17 PM EST • February 23, 2022

Comment



Climate investments (\$ bn)

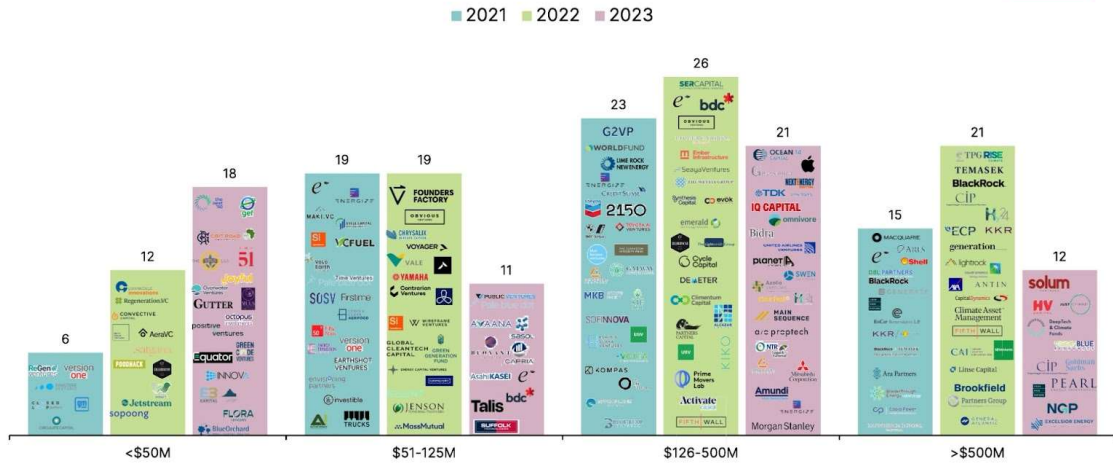


Quarter	Climate investments (\$ bn)
Q3 2020	8
Q4 2020	4
Q1 2021	7
Q2 2021	9
Q3 2021	10
Q4 2021	13

Image Credits: Climate Tech VC under a license.

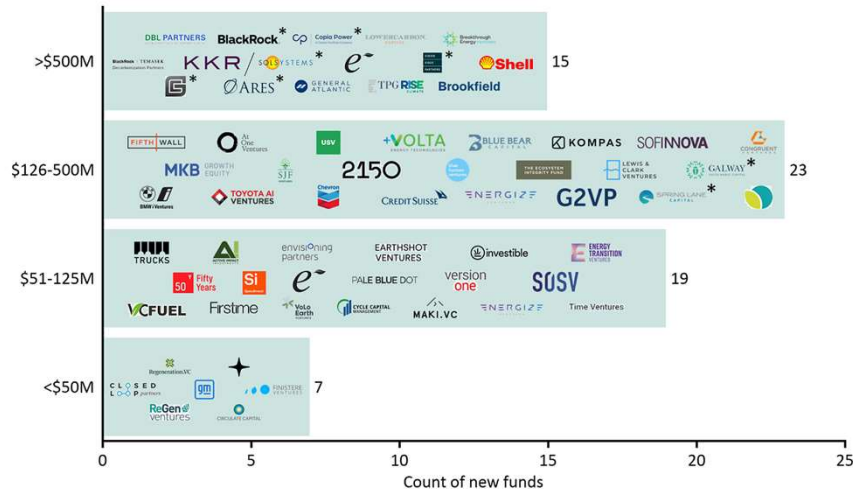
# Climate tech's new money in the game

Count of new announced climate investment funds by AUM



# Climate Tech VC new investors

Count of new announced climate investment funds by AUM (FY'21)



### Top climate tech acquirers made up of energy companies and private equity firms



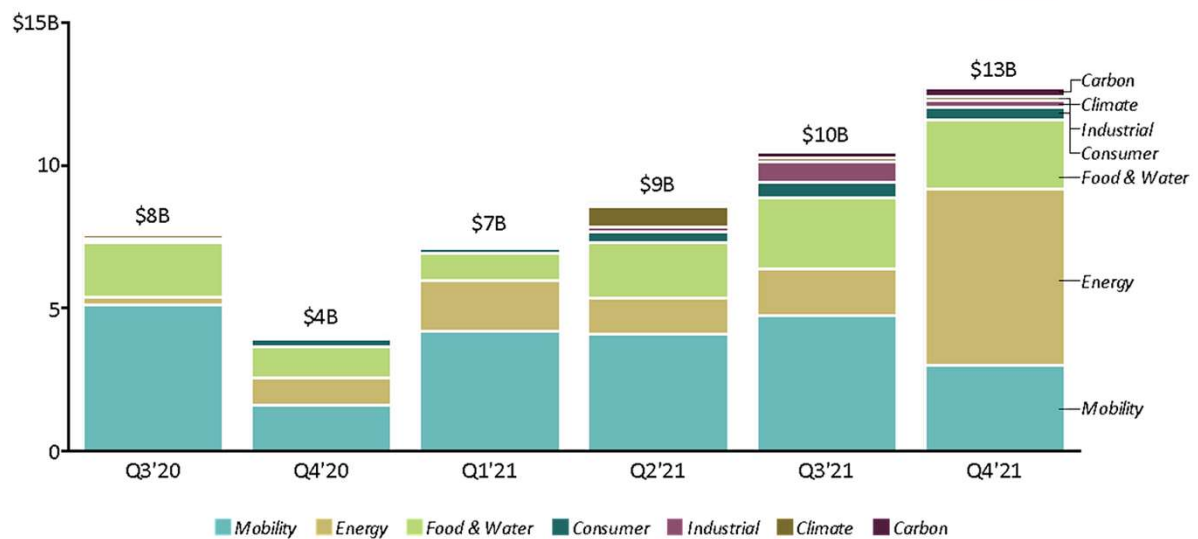
Most active acquirers of climate tech companies by count since 2020



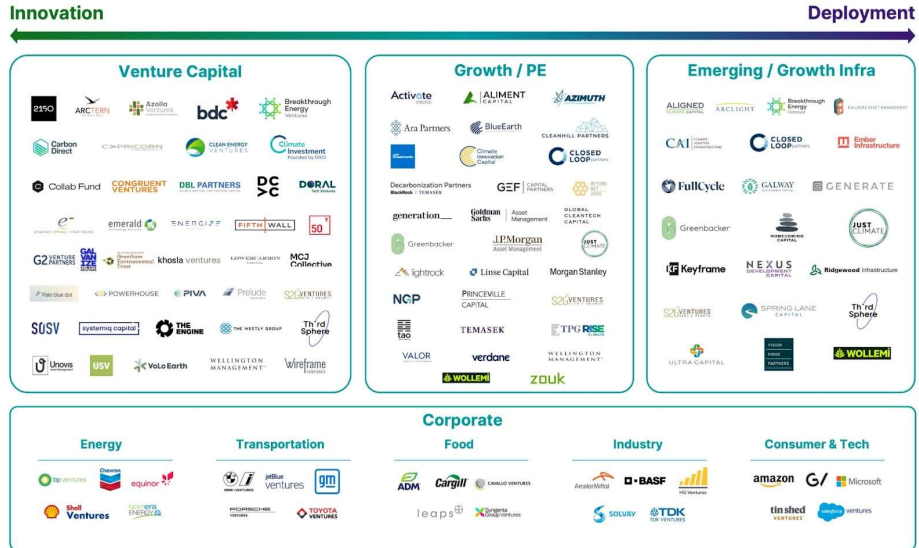
### Climate Tech VC funding by sector



Venture capital investment by sector (\$B)



# CTVC's Climate Tech Capital Stack



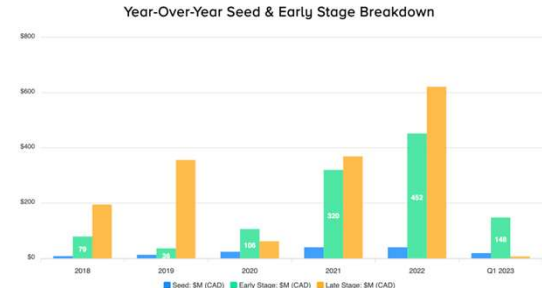
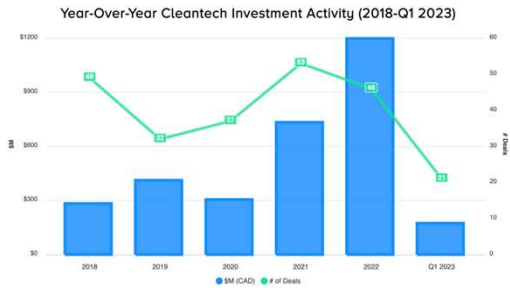
Source: CTVC

## Climate Investment Landscape in Canada





# Cleantech Investments in Canada



# Climate Investment Initiatives in Canada



## Major Government Funding Initiatives in the Climate & Cleantech Sector

- Clean Technology Investment Tax Credit (Clean Tech ITC)
- Clean Hydrogen Investment Tax Credit
- Climate Action and Awareness Fund
- Venture Capital Catalyst Initiative (Climate Window)

## Dedicated Funding Commitments for Cleantech Startups in Canada

- Canada Growth Fund
- Strategic Innovation Fund
- BDC Capital raised \$400M for its latest Climate Tech Fund II
- BDC launched \$150M Sustainability Venture Fund

**Canada**

Canada registered a high score overall, coming 4th in the Index, but with especially strong results for emerging cleantech. The country has a strong score in the Global Innovation Index, but what truly distinguishes it is its score for early entrepreneurship, which is 2nd overall. For cleantech-specific drivers, Canada scores high for the number of cleantech funds, and even ranks 1st for the amount of funding available. However, there are only a few cleantech organisations and clusters. The country is a joint top-scoring for the amount of venture capital investment, together with three other countries in the Index, while also having many companies in the Global Cleantech 100. Late-stage investment is well established in Canada, with the country ranking high for public cleantech companies and M&A activity, leading to a strong score for evidence of commercialised cleantech.



Grants and funding (18 Results)

**Need support? Let's talk money.**

Tips to ace your applications

Apply for research and innovation...  
 > Funding for short-term applied research in Prince Edward Island agriculture

Apply for research and innovation...  
 > Funding for study and action projects in the St. Lawrence ecosystem

Apply for research and innovation...  
 > Money to study projects on the St. Lawrence ecosystem

<https://innovationISED-ISDE.canada.ca/innovation/>



## Climate Finance Resources

### Major Websites

- <https://www.ctvc.co/>
- <https://climate50.com/>
- <https://www.thec100.org/>
- <https://climatefundsupdate.org/>
- <https://www.climatepolicyinitiative.org/>
- <https://www.sdsc.ca/en/>

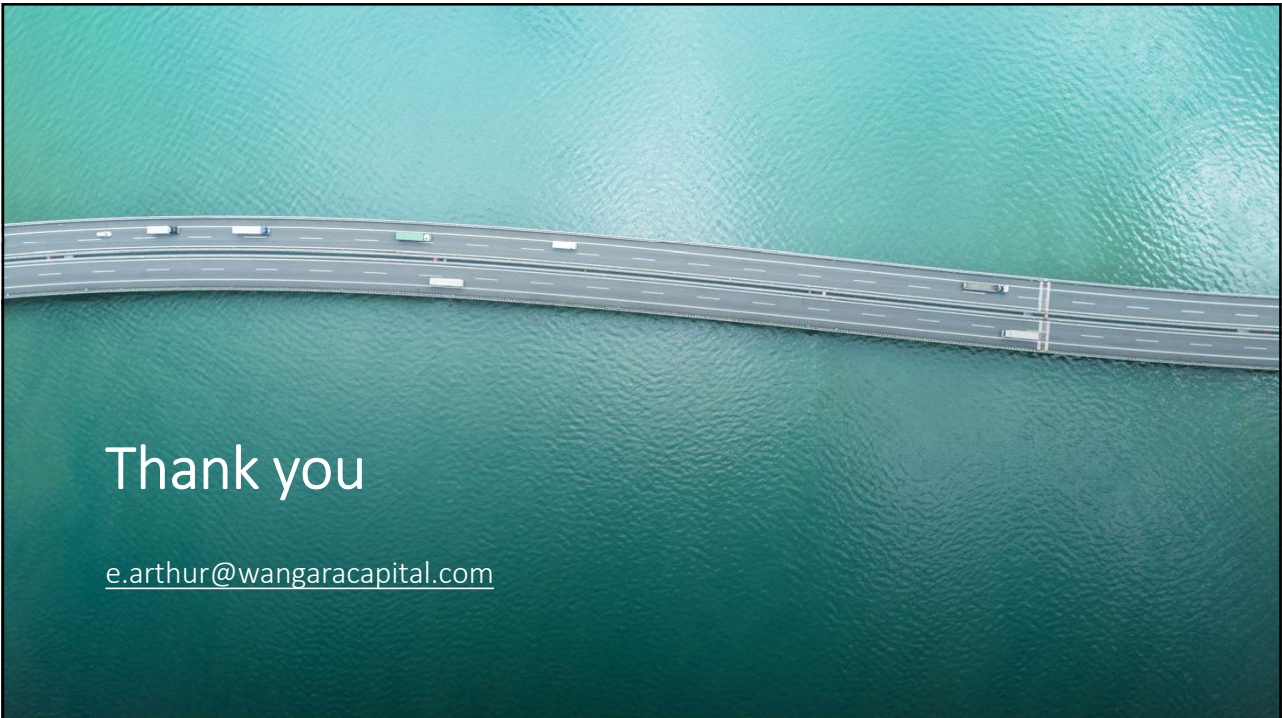
### Key Reports & Articles

- <https://www.bcg.com/publications/2021/next-generation-climate-innovation>
- <https://www.imf.org/en/Publications/fandd/issues/2021/09/bezos-earth-fund-climate-change-innovation-levin>
- <https://www.startup-insights.com/innovators-guide/climate-tech-trends-innovations/>
- <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>
- <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-a-decade-of-data/>
- <https://betakit.com/government-names-three-funds-receiving-50-million-through-vcci-cleantech-stream/>
- <https://www.canada.ca/en/services/environment/weather/climatechange/canada-international-action/climate-finance/announcements.html>
- <https://www.canada.ca/en/services/environment/weather/climatechange/canada-international-action/climate-finance/commitment/all-projects-financed.html>
- <https://central.cvca.ca/canadian-cleantech-sector-gains-momentum-with-record-investments-in-q1-2023>

### Useful Tools

- <https://www.ctvc.co/climate-tech-vc/>
- <https://www.ctvc.co/a-running-list-of-climate-accelerators/>
- <https://www.climatepolicyinitiative.org/resources/data-visualizations/>
- [https://innovation.ised-isde.canada.ca/innovation/s/?language=en\\_CA](https://innovation.ised-isde.canada.ca/innovation/s/?language=en_CA)
- [https://i3connect.com/gcii/country\\_rank](https://i3connect.com/gcii/country_rank)
- <https://climatefundsupdate.org/>
- <https://www.mentorworks.ca/government-funding/cleantech-funding-programs/>

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Thank you

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