



# THE 1.5°C BUSINESS PLAYBOOK

Build a strategy for  
exponential climate action



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exponential climate action

Kristian Rönn, CEO Normative,  
Exponential Roadmap Initiative

**EXPONENTIAL**  
**ROADMAP**

**2030**  
LET'S HALVE  
GLOBAL  
EMISSIONS BY

# 1.5°C Business Playbook

## Exponential Business Initiative

An eco-system of frontline organisations, committed to halving emissions before 2030 towards net-zero by 2050 at the latest, integrating climate in business strategy and contributing to climate action in society. The initiative focuses on strategy and action with the goal to accelerate climate action exponentially through radical collaboration.

The 1.5°C Business Playbook is the cornerstone of the initiative. It helps organisations to set a 1.5°C aligned strategy and move to action. It focuses on simplicity and speed and is anchored in the latest science\*.

\*as expressed in the IPCC 1.5°C special report.

A spin-off from the Exponential Roadmap Initiative.

We are official partners of Race To Zero and TED Countdown.

## EXPONENTIAL ROADMAP



**PILLAR**

**1**

**Reduce  
your own  
emissions**

**PILLAR**

**2**

**Reduce  
your value  
chain  
emissions**

**PILLAR**

**3**

**Integrate  
climate in  
business  
strategy**

**PILLAR**

**4**

**Influence  
climate  
action in  
society**

# Actions for Own Emissions

|         | Example                             | Action  |
|---------|-------------------------------------|---|
| Scope 1 | Electric Cars                       | <ul style="list-style-type: none"> <li>Electric motors supplant gasoline or diesel engines, which are polluting and less efficient. EVs always reduce car emissions—dramatically so when powered by renewable electricity.</li> <li>Move towards a zero-emissions vehicle fleet, including own and leased company cars.</li> </ul>  |
|         | Hybrid Cars                         |   |
|         | Refrigerants                        | <ul style="list-style-type: none"> <li>Demand and implement low-carbon cooling, heating, ventilation and refrigerants for all building sites you operate in.</li> </ul>   |
| Scope 2 | Renewable energy                    | <ul style="list-style-type: none"> <li>Immediately start implementing use of renewable energy, fuel and electricity for all possible processes, buildings and sites.</li> <li>Consider buying renewable energy through power purchase agreements and collaborate to accelerate adoption.</li> <li>Consider generating your own renewable electricity, if it is not provided by your grid operator.</li> </ul>   |
|         | Insulation                          |   |
|         | LED Lighting                        | <ul style="list-style-type: none"> <li>Improve energy efficiency for buildings through retrofitting and digital automation.</li> <li>Optimise the use of building space in all operations, in order to reduce emissions and costs.</li> <li>Require zero-carbon buildings and clean grid energy when expanding or establishing new businesses in a region.</li> <li>Systematically reduce energy, resource and material waste in all operations.</li> </ul> |
|         | Insulating Glass                    |   |
|         | Building Automation                 |   |
|         | Smart Thermostats                   |   |
|         | Low-Flow Fixtures                   |   |
| Scope 3 | Train first policy & video meetings | <ul style="list-style-type: none"> <li>Set up a plan to reduce emissions from business travel by shifting to low-carbon travel (for example a “train first” policy over air travel) and use digital meeting technologies to avoid unnecessary travelling.</li> </ul>  |

# Mitigation Potential

| Example                             | Action  | Potential |
|-------------------------------------|---|-----------|
| Electric Cars                       | <ul style="list-style-type: none"> <li>Electric motors supplant gasoline or diesel engines, which are polluting and less efficient. EVs always reduce car emissions—dramatically so when powered by renewable electricity.</li> <li>Move towards a zero-emissions vehicle fleet, including own and leased company cars.</li> </ul>  | 5-10%     |
| Hybrid Cars                         |   | 1-3%      |
| Refrigerants                        | <ul style="list-style-type: none"> <li>Demand and implement low-carbon cooling, heating, ventilation and refrigerants for all building sites you operate in.</li> </ul>   | 0-3%      |
| Renewable energy                    | <ul style="list-style-type: none"> <li>Immediately start implementing use of renewable energy, fuel and electricity for all possible processes, buildings and sites.</li> <li>Consider buying renewable energy through power purchase agreements and collaborate to accelerate adoption.</li> <li>Consider generating your own renewable electricity, if it is not provided by your grid operator.</li> </ul>   | 5-15%     |
| Insulation                          | <ul style="list-style-type: none"> <li>Improve energy efficiency for buildings through retrofitting and digital automation.</li> <li>Optimise the use of building space in all operations, in order to reduce emissions and costs.</li> <li>Require zero-carbon buildings and clean grid energy when expanding or establishing new businesses in a region.</li> <li>Systematically reduce energy, resource and material waste in all operations.</li> </ul> | ~1.2%     |
| LED Lighting                        |   | ~1.1%     |
| Insulating Glass                    |   | ~0.8%     |
| Building Automation                 |   | ~0.7%     |
| Smart Thermostats                   |   | ~0.5%     |
| Low-Flow Fixtures                   |   | ~0.1%     |
| Train first policy & video meetings |   | 0.5-1%    |

# Difficulty

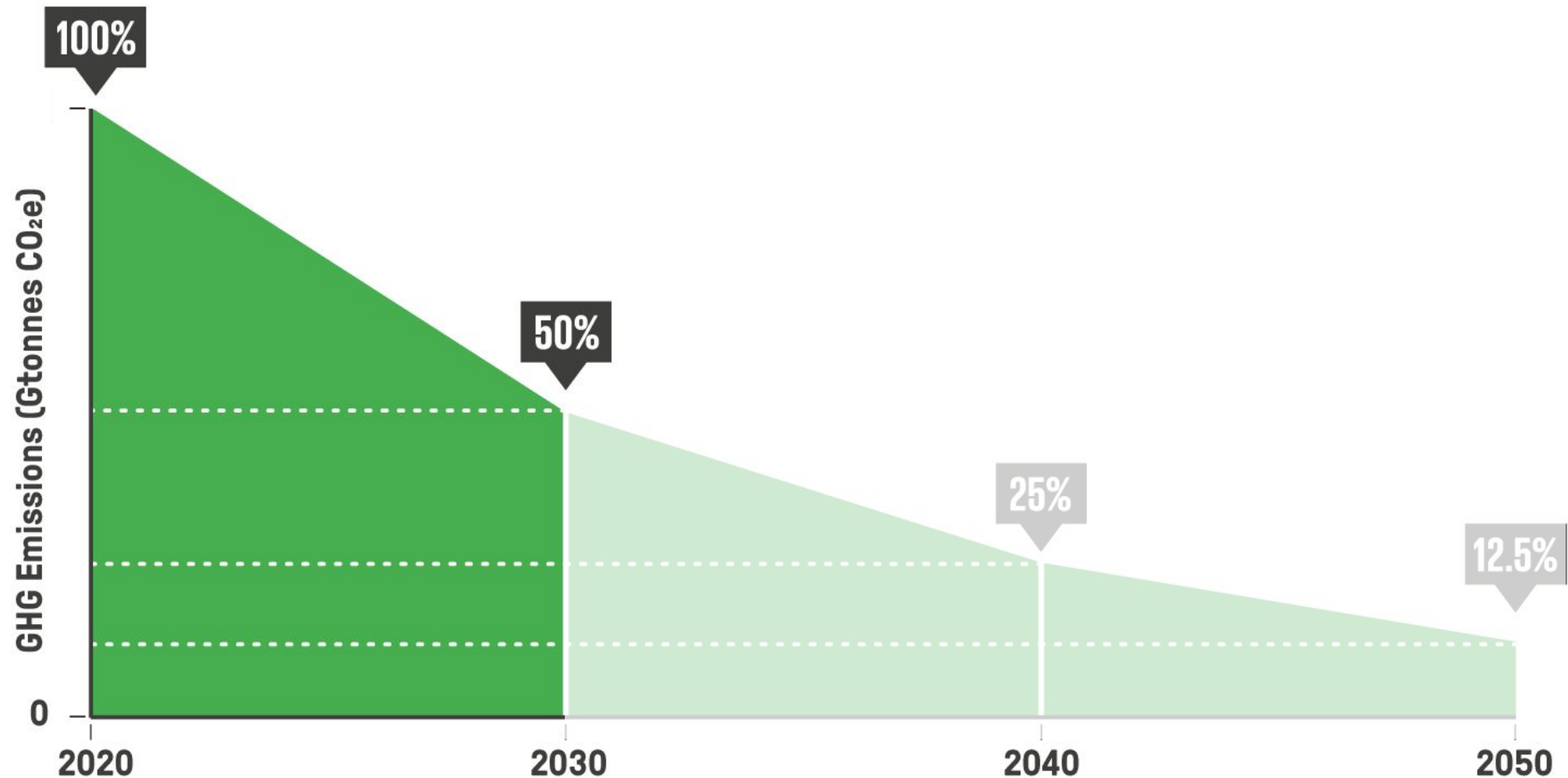
| Example                             | Action  | Potential | Difficulty |
|-------------------------------------|---|-----------|------------|
| Electric Cars                       | <ul style="list-style-type: none"> <li>Electric motors supplant gasoline or diesel engines, which are polluting and less efficient. EVs always reduce car emissions—dramatically so when powered by renewable electricity.</li> <li>Move towards a zero-emissions vehicle fleet, including own and leased company cars.</li> </ul>  | 5-10%     | Medium     |
| Hybrid Cars                         |   | 1-3%      | Low        |
| Refrigerants                        | <ul style="list-style-type: none"> <li>Demand and implement low-carbon cooling, heating, ventilation and refrigerants for all building sites you operate in.</li> </ul>   | 0-3%      | Medium     |
| Renewable energy                    | <ul style="list-style-type: none"> <li>Immediately start implementing use of renewable energy, fuel and electricity for all possible processes, buildings and sites.</li> <li>Consider buying renewable energy through power purchase agreements and collaborate to accelerate adoption.</li> <li>Consider generating your own renewable electricity, if it is not provided by your grid operator.</li> </ul>   | 5-15%     | Low        |
| Insulation                          | <ul style="list-style-type: none"> <li>Improve energy efficiency for buildings through retrofitting and digital automation.</li> <li>Optimise the use of building space in all operations, in order to reduce emissions and costs.</li> <li>Require zero-carbon buildings and clean grid energy when expanding or establishing new businesses in a region.</li> <li>Systematically reduce energy, resource and material waste in all operations.</li> </ul> | ~1.2%     | Medium     |
| LED Lighting                        |   | ~1.1%     | Low        |
| Insulating Glass                    |   | ~0.8%     | Medium     |
| Building Automation                 |   | ~0.7%     | Low        |
| Smart Thermostats                   |   | ~0.5%     | Low        |
| Low-Flow Fixtures                   |   | ~0.1%     | Low        |
| Train first policy & video meetings | <ul style="list-style-type: none"> <li>Set up a plan to reduce emissions from business travel by shifting to low-carbon travel (for example a “train first” policy over air travel) and use digital meeting technologies to avoid unnecessary travelling.</li> </ul>  | 0.5-1%    | Low        |

# Priority

## EXPONENTIAL ROADMAP

| Example                             | Action  | Potential | Difficulty | Priority |
|-------------------------------------|---|-----------|------------|----------|
| Electric Cars                       | <ul style="list-style-type: none"> <li>Electric motors supplant gasoline or diesel engines, which are polluting and less efficient. EVs always reduce car emissions—dramatically so when powered by renewable electricity.</li> <li>Move towards a zero-emissions vehicle fleet, including own and leased company cars.</li> </ul>  | 5-10%     | Medium     | 2        |
| Hybrid Cars                         |   | 1-3%      | Low        |          |
| Refrigerants                        | <ul style="list-style-type: none"> <li>Demand and implement low-carbon cooling, heating, ventilation and refrigerants for all building sites you operate in.</li> </ul>   | 0-3%      | Medium     | 3        |
| Renewable energy                    | <ul style="list-style-type: none"> <li>Immediately start implementing use of renewable energy, fuel and electricity for all possible processes, buildings and sites.</li> <li>Consider buying renewable energy through power purchase agreements and collaborate to accelerate adoption.</li> <li>Consider generating your own renewable electricity, if it is not provided by your grid operator.</li> </ul>   | 5-15%     | Low        | 1        |
| Insulation                          | <ul style="list-style-type: none"> <li>Improve energy efficiency for buildings through retrofitting and digital automation.</li> <li>Optimise the use of building space in all operations, in order to reduce emissions and costs.</li> <li>Require zero-carbon buildings and clean grid energy when expanding or establishing new businesses in a region.</li> <li>Systematically reduce energy, resource and material waste in all operations.</li> </ul> | ~1.2%     | Medium     | 8        |
| LED Lighting                        |   | ~1.1%     | Low        | 4        |
| Insulating Glass                    |   | ~0.8%     | Medium     | 9        |
| Building Automation                 |   | ~0.7%     | Low        | 5        |
| Smart Thermostats                   |   | ~0.5%     | Low        | 6        |
| Low-Flow Fixtures                   |   | ~0.1%     | Low        | 10       |
| Train first policy & video meetings | <ul style="list-style-type: none"> <li>Set up a plan to reduce emissions from business travel by shifting to low-carbon travel (for example a “train first” policy over air travel) and use digital meeting technologies to avoid unnecessary travelling.</li> </ul>  | 0.5-1%    | Low        | 7        |

# There is no excuse not to begin your mitigation journey now.



# Join Us

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1. Download the Playbook and start to apply it directly
2. Join the eco-system and register on [www.exponentialbusiness.org](http://www.exponentialbusiness.org).
3. Reach-out if you want to become a supporting partner. This means:
  - Use, endorse and scale-out the Playbook
  - Contribute in leading projects such as SME Exponential Race To Zero

**EXPONENTIAL  
ROADMAP**

**RACE TO ZERO**

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**Extra**

# The Global Carbon Law

Opinion | OP-ED CONTRIBUTOR

## Why the World Economy Has to Be Carbon Free by 2050

By JOHAN ROCKSTROM MARCH 23, 2017

The New York Times



In front of the financial district of Pudong amid heavy smog in Shanghai in 2015. Aly Song/Reuters



POLICY FORUM

CLIMATE POLICY

### A roadmap for rapid decarbonization

Emissions inevitably approach zero with a "carbon law"

By Johan Rockström,<sup>1</sup> Owen Gaffney,<sup>2,3</sup> Joeri Rogelj,<sup>4,5</sup> Malte Meinshausen,<sup>6,7</sup> Nebojsa Nakicenovic,<sup>8</sup> Hans Joachim Schellnhuber<sup>9,10</sup>

Although the Paris Agreement's goals (1) are aligned with science (2) and can, in principle, be technically and economically achieved (3), alarming inconsistencies remain between science-based targets and national commitments. Despite progress during the 2016 Marrakech climate negotiations, long-term goals can be trumped by political short-termism. Following the Agreement, which became international law earlier than expected, several countries published mid-century decarbonization strategies, with more due soon. Model-based decarbonization assessments (4) and scenarios often struggle to capture transformative change and the dynamics associated with it: disruption, innovation, and nonlinear change in human behavior. For example, in just 2 years, China's coal use swung from 3.7% growth in 2013 to a decline of 3.7% in 2015 (5). To harness these dynamics and to calibrate for short-term realpolitik, we propose framing the decarbonization challenge in terms of a global decadal roadmap based on a simple heuristic—a "carbon law"—of halving gross anthropogenic carbon-dioxide (CO<sub>2</sub>) emissions every decade. Complemented by immediately instigated, scalable carbon removal and efforts to ramp down land-use CO<sub>2</sub> emissions, this zero-emissions

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The road to global decarbonization must involve renewable energy, as from these wind turbines in Germany, and improved transportation technologies.

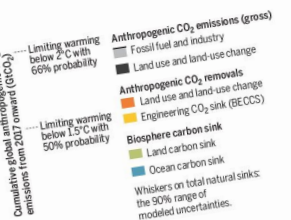
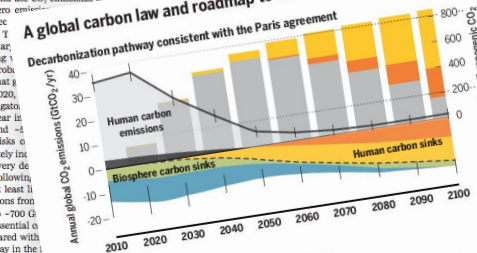
sistent with the trajectory of the past decade (see the figure, bottom left). All sectors (e.g., agriculture, construction, finance, manufacturing, transport) need comparable transformation pathways. In addition, in the absence of viable alternatives, the world must aim at rapidly scaling up CO<sub>2</sub> removal by technical means from zero to at least 0.5 GtCO<sub>2</sub>/year by 2030, 2.5 by 2040, and 5 by 2050. CO<sub>2</sub> emissions from land-use must decrease along a nonlinear trajectory from 4 GtCO<sub>2</sub>/year in 2010, to 2 by 2030, 1 by 2040, and 0 by 2050 (see the figure, bottom right). The endgame is for cumulative CO<sub>2</sub> emissions since 2017 to be brought back from around 700 GtCO<sub>2</sub> to below 200 GtCO<sub>2</sub> by the end of the century (see the figure, top) and atmospheric CO<sub>2</sub> concentrations to return to 380 ppm by 2100 (currently at 400 ppm).

Roadmaps are planning instruments, linking shorter-term targets to longer-term goals. They help align actors and organizations to investigate technological and institutional breakthroughs to meet a collective challenge. An explicit carbon roadmap for halving anthropogenic emissions every decade, co-designed by and for all industry sectors, could help promote disruptive, nonlinear technological advances toward a zero-emissions world—key to such a carbon law.

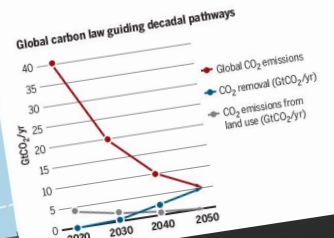
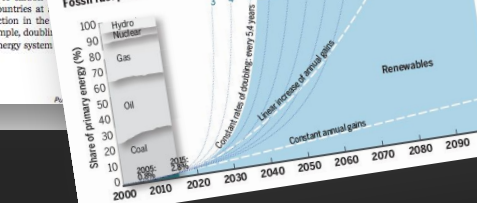
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### A global carbon law and roadmap to make Paris goals a reality

Decarbonization pathway consistent with the Paris agreement



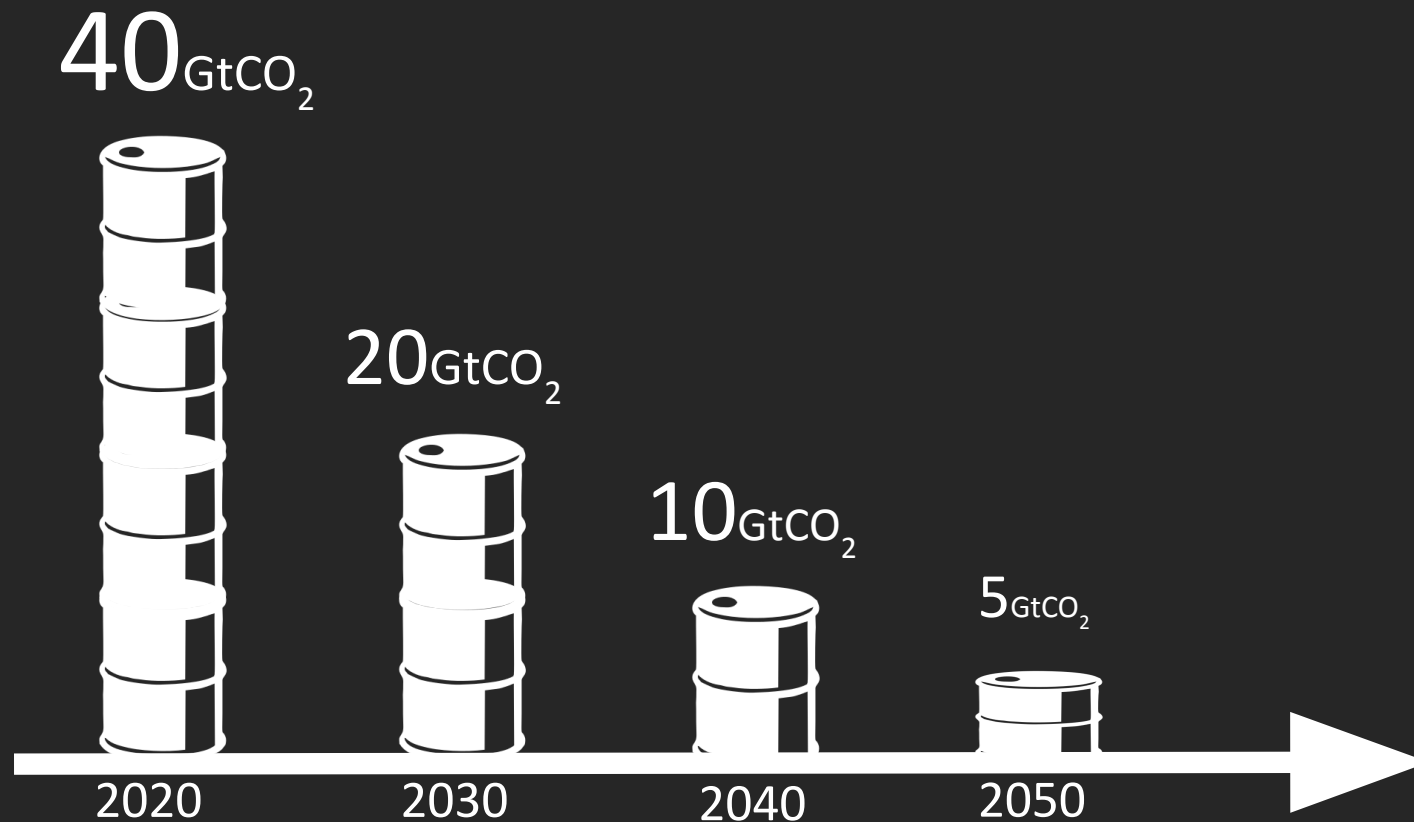
### Fossil fuel phase out



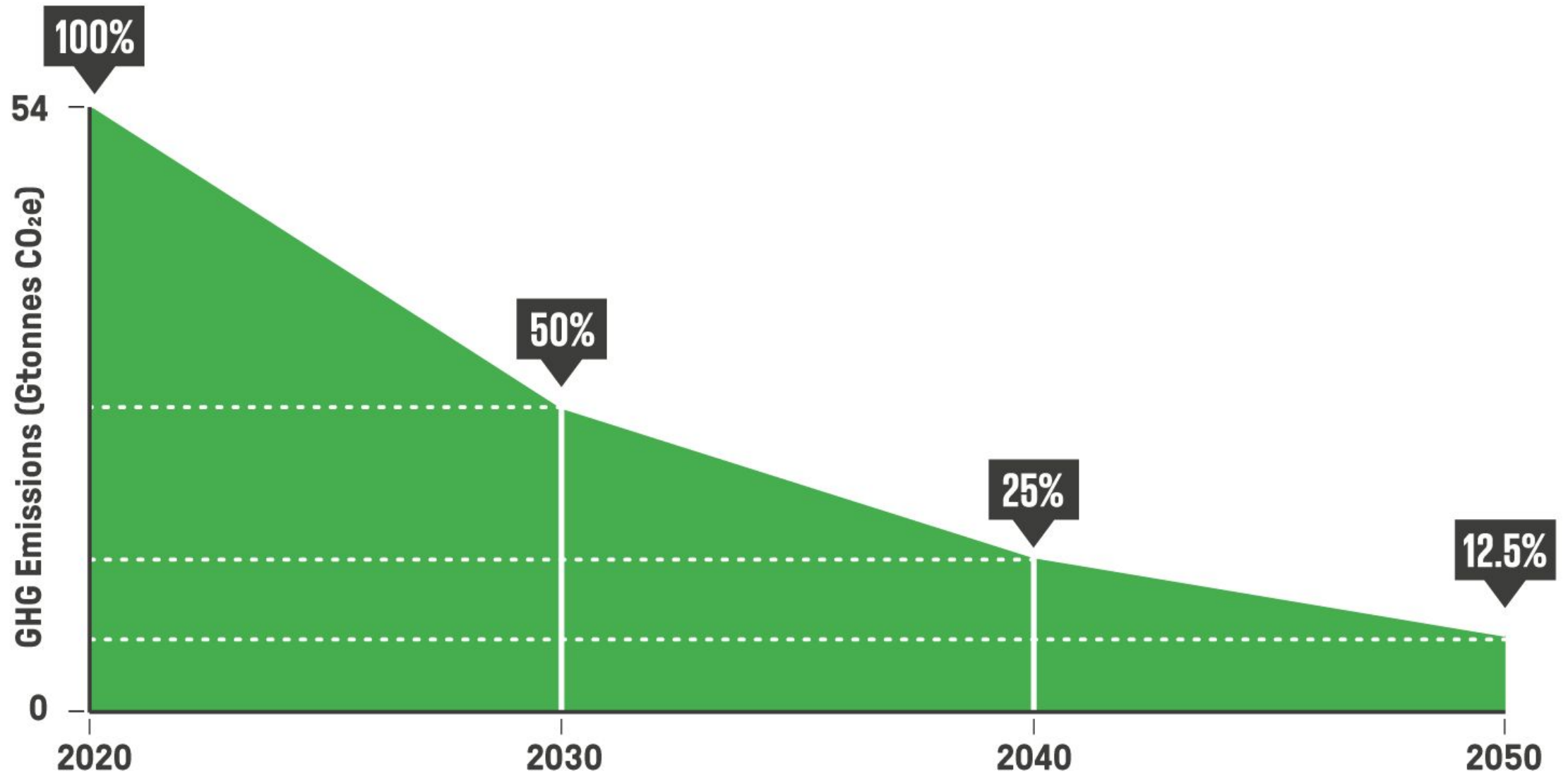
<sup>1</sup>Stockholm Resilience Centre, Stockholm University, 141 86 Stockholm, Sweden; <sup>2</sup>Future Earth, The Royal Swedish Academy of Sciences, 204 05 Stockholm, Sweden; <sup>3</sup>International Institute for Applied Systems Analysis, 2361 Laxenburg, Austria; <sup>4</sup>ICTP, Trieste, 34131 Trieste, Italy; <sup>5</sup>Leibniz Institute for Climate Impact Research, 24473 Potsdam, Germany; <sup>6</sup>Australian Centre for Climate and Energy College, School of Earth Sciences, University of Melbourne, Victoria 3010, Australia. Email: johan.rockstrom@su.se

SCIENCE sciencemag.org

# The global carbon law



# The Global Carbon Law



## New 1.5°C Business Playbook will help businesses take exponential climate action.

DAVOS, Switzerland (21 January, 2020) - The first Business Playbook for exponential action on climate emergency is being launched at the World Economic Forum in Davos. It supports the worldwide call to action for all companies to set sharp climate targets now and establish a strategy throughout their value chain, business proposition and beyond, which is aligned with the ambition to limit global warming to 1.5°C.

The Playbook, produced by leading experts and business stakeholders, provides a framework for all companies to reach net-zero emissions rapidly through the adoption of an exponential trajectory of at least halving their greenhouse gas emissions every decade to approach net zero by 2050, and integrating climate action in their business strategy.

The initiative is supported by the International Chamber of Commerce (ICC) - the institutional representative of more than 45 million companies, the World Business Council for Sustainable Development (WBCSD), Ericsson, IKEA, Scania, Telia Company, WWF, Skanska, the Potsdam Institute for Climate Research and many additional partners and contributors.

"The science makes clear that we need a fundamental reshaping of business and finance. Every board and every company must show a credible strategy to align with 1.5°C. This Playbook is an excellent guide for the necessary journey to net zero emissions, to prepare business for the fastest economic transition in history and help them drive it. It's a guide for preserving a more liveable planet for future generations," **Christiana Figueres, Former head of the United Nations Framework Convention on Climate Change, Convenor of Mission 2020.**

"We designed the 1.5°C Business Playbook to make it easy for businesses to set sharp targets and meet them through clear action. In fact, many companies can halve their emissions much faster than every decade," says **Johan Falk, Exponential Roadmap project, Senior Innovation Fellow, Stockholm Resilience Centre.**

"This Playbook is aligned with the target to limit global warming to just 1.5°C. The only pathway left is massive emissions reductions across all business sectors in the next decade. We show that this is achievable," says **Johan Rockström, Director of Potsdam Institute for Climate Impact Research (PIK).**

According to the most recent science from the Intergovernmental Panel on Climate Change (IPCC), the world has 10 years to halve global greenhouse gas emissions in order to avoid the most dangerous effects of climate change and irreversible tipping points.





"The science makes clear that we need a fundamental reshaping of business and finance. Every board and every company must show a credible strategy to align with 1.5°C. This Playbook is an excellent guide for the necessary journey to net-zero emissions, to prepare business for the fastest economic transition in history and help them drive it. It's a guide for preserving a more liveable planet for future generations."

**Christina Figueres**

*Former head of the United Nations Framework Convention on Climate Change, Convenor of Mission 2020*



"We designed the 1.5°C Business Playbook to make it easy for businesses to set sharp targets and meet them through clear action. In fact, many companies can halve their emissions much faster than every decade."

**Johan Falk**

*Exponential Roadmap co-lead author and program manager,  
Senior Innovation Fellow, Stockholm Resilience Centre and Future Earth*



"Now is the time for businesses to step up and take bold climate action for the future of humanity. ICC is proud to support the 1.5°C Business Playbook to provide companies of all sizes with a tool for actionable and ambitious climate policies that will accelerate the adoption of net-zero emissions targets across the private sector,"

**John W. H. Denton**

*AO, ICC Secretary General*



"This Playbook is aligned with the target to limit global warming to just 1.5°C. The only pathway left is massive emissions reductions across all business sectors in the next decade. We show that this is achievable."

**Johan Rockström**

*Executive Director, Stockholm Resilience Centre, co-chair Future Earth, incoming co-director Potsdam  
Institute for Climate Impact Research*



"The 1.5°C Business Playbook – which we will share with our suppliers – will be a very important tool for us. We all need to commit to exponential climate action. At Telia Company we aim for Zero CO2 in our value chain and Zero Waste in our operations by 2030. This can only be achieved by assisting our customers in their quest to become carbon neutral, and by making sure that our suppliers join us and share our ambition. Being at the heart of digitalization, Telia Company sees a huge potential in accelerating the transition to net-zero and a circular economy. The knowledge and the necessary technology exist – the 2020s must be a decade of massive action,"

**Christian Luiga**  
*acting President and CEO, Telia Company*



"As a sustainability pioneer in the private sector, we have been both an advocate of climate action within our own operations as well as in society. We have also developed an integrated strategy and set challenging 1.5°C targets. Now, it is time for all companies to do the same and the Playbook is a guide for how this can be done. We will work with our business partners to utilize the 1.5°C Business Playbook to enable exponential reduction of carbon emissions globally,"

**Heather Johnson**  
*Vice President, sustainability and corporate responsibility Ericsson*



"The 1.5°C Business Playbook is an indispensable guide for practitioners. For companies with leadership ambitions, it is not enough to only focus on direct or even value chain emissions. True leadership in the 2020s means working in and beyond your industrial ecosystem to support and enable systematic changes away from fossil dependence."

**Andreas Foller**  
*Head of Sustainability, Scania*

# 1.5 Business Playbook

- A 15-page guide on essentials for climate strategy and action grounded in latest science
- Simplified targets based on Carbon Law
- Simplicity and speed
- Four pillar strategy framework
- Developed by leading experts and organisations
- Builds an eco-systems of leaders aligned with 1.5 ambition
- Partners contribute with work and exponential scale-out



# Why set goals and strategy aligned with 1.5 °C?

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- Explore the next, green exponential growth areas
- Fulfill customer requirements and be part of the 1.5°C value chains
- Recruit and keep the best and most motivated people
- Attractive to financial market
- Policy regulations and economical
- Become a "1.5°C brand" versus a "hot-house earth brand"



# Align with the 1.5 °C ambition

- Halve emissions in 10 years cross the value chain, preferably faster, towards net zero before 2050
- Integrate climate in your business strategy
- drive climate action in your wider role in society
- report goals, strategy progress on annual basis



**PILLAR**

**1**

**Reduce  
your own  
emissions**

**PILLAR**

**2**

**Reduce  
your value  
chain  
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**PILLAR**

**3**

**Integrate  
climate in  
business  
strategy**

**PILLAR**

**4**

**Influence  
climate  
action in  
society**

PILLAR



## Reduce your own emissions

### PILLAR 1. REDUCE YOUR OWN EMISSIONS

**1** In the global effort to combat climate change, every company has a role to play. This pillar focuses on reducing your own emissions, which is the foundation for any climate action plan.

**ACTIONS**

- Assess your current emissions and set a target to reduce them by 2030.
- Identify the main sources of emissions and prioritize them for reduction.
- Implement measures to reduce emissions, such as energy efficiency, renewable energy, and sustainable procurement.
- Report on your emissions and progress towards your target.

**KEY REDUCTION MEASURES**

- Energy efficiency: Improve the energy efficiency of your buildings, equipment, and processes.
- Renewable energy: Transition to renewable energy sources, such as solar, wind, and hydro.
- Sustainable procurement: Choose suppliers and products that have low carbon footprints.
- Employee travel: Encourage employees to use public transport, carpool, or travel by train.
- Waste management: Reduce waste and recycle as much as possible.

**REPORTING**

- Report on your emissions and progress towards your target.
- Use recognized standards, such as the GHG Protocol, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited resources: Companies with limited resources may find it difficult to implement all the measures listed above.
- Lack of data: Companies may not have accurate data on their emissions, making it difficult to set targets and track progress.
- Greenwashing: Companies may be tempted to make false claims about their climate action plan.

**OPPORTUNITIES**

- Cost savings: Reducing emissions can lead to cost savings, such as lower energy bills and reduced waste disposal costs.
- Competitive advantage: Companies with low carbon footprints may have a competitive advantage in the market.
- Attraction and retention: Companies with strong climate action plans may attract and retain top talent.

**CONCLUSION**

Reducing your own emissions is the first and most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.

PILLAR



## Reduce your value chain emissions

### PILLAR 2. REDUCE YOUR VALUE CHAIN EMISSIONS

**2** Your value chain emissions are the emissions from the activities of your suppliers and customers. Reducing these emissions is essential for achieving your climate goals.

**ACTIONS**

- Map your value chain to identify the main sources of emissions.
- Engage with your suppliers and customers to reduce their emissions.
- Implement measures to reduce your value chain emissions, such as sustainable procurement and supplier engagement.
- Report on your value chain emissions and progress towards your target.

**KEY REDUCTION MEASURES**

- Sustainable procurement: Choose suppliers and products that have low carbon footprints.
- Supplier engagement: Work with your suppliers to improve their energy efficiency and reduce their emissions.
- Logistics optimization: Optimize your logistics to reduce fuel consumption and emissions.
- Product design: Design products that are energy efficient and have a long lifespan.

**REPORTING**

- Report on your value chain emissions and progress towards your target.
- Use recognized standards, such as the GHG Protocol, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited data: Companies may not have accurate data on their value chain emissions, making it difficult to set targets and track progress.
- Lack of engagement: Companies may not have enough engagement with their suppliers and customers to drive change.
- Greenwashing: Companies may be tempted to make false claims about their value chain emissions.

**OPPORTUNITIES**

- Cost savings: Reducing value chain emissions can lead to cost savings, such as lower procurement costs and reduced logistics costs.
- Competitive advantage: Companies with low value chain emissions may have a competitive advantage in the market.
- Attraction and retention: Companies with strong value chain emissions management may attract and retain top talent.

**CONCLUSION**

Reducing your value chain emissions is the second most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.

PILLAR



## Integrate climate in business strategy

### PILLAR 3. INTEGRATE CLIMATE INTO YOUR BUSINESS STRATEGY

**3** Integrating climate into your business strategy is essential for ensuring that your company is prepared for the challenges of a low-carbon future.

**ACTIONS**

- Conduct a climate risk assessment to identify the main risks and opportunities.
- Integrate climate into your business strategy, such as your mission statement and business plan.
- Implement measures to manage climate risks and opportunities, such as climate risk management and climate opportunity management.
- Report on your climate risks and opportunities and progress towards your target.

**KEY REDUCTION MEASURES**

- Climate risk management: Identify, assess, and manage climate risks to your business.
- Climate opportunity management: Identify and pursue climate opportunities for your business.
- Climate resilience: Build resilience into your business to withstand the impacts of climate change.
- Climate innovation: Invest in climate innovation to develop new products and services.

**REPORTING**

- Report on your climate risks and opportunities and progress towards your target.
- Use recognized standards, such as the TCFD Recommendations, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited data: Companies may not have accurate data on their climate risks and opportunities, making it difficult to set targets and track progress.
- Lack of engagement: Companies may not have enough engagement with their stakeholders to drive change.
- Greenwashing: Companies may be tempted to make false claims about their climate risks and opportunities.

**OPPORTUNITIES**

- Cost savings: Reducing climate risks and opportunities can lead to cost savings, such as lower insurance costs and reduced regulatory costs.
- Competitive advantage: Companies with strong climate risk and opportunity management may have a competitive advantage in the market.
- Attraction and retention: Companies with strong climate risk and opportunity management may attract and retain top talent.

**CONCLUSION**

Integrating climate into your business strategy is the third most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.

PILLAR



## Influence climate action in society

### INVEST IN CARBON CREDIT PROJECTS REMOVING CARBON FROM THE ATMOSPHERE

Investing in carbon credit projects is a way to remove carbon from the atmosphere and offset your own emissions. This is an important part of a comprehensive climate action plan.

**ACTIONS**

- Identify carbon credit projects that align with your climate goals.
- Invest in carbon credit projects through a reputable provider.
- Monitor the progress of your carbon credit projects and ensure they are delivering the expected carbon removal.
- Report on your carbon credit investments and progress towards your target.

**KEY REDUCTION MEASURES**

- Reforestation: Planting trees to absorb carbon from the atmosphere.
- Direct air capture: Using technology to capture carbon directly from the air.
- Bioenergy with carbon capture and storage (BECCS): Combining biomass energy production with carbon capture and storage.
- Ocean-based carbon removal: Using natural processes to remove carbon from the ocean.

**REPORTING**

- Report on your carbon credit investments and progress towards your target.
- Use recognized standards, such as the Verra Carbon Market Standard, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited data: Companies may not have accurate data on their carbon credit investments, making it difficult to set targets and track progress.
- Lack of engagement: Companies may not have enough engagement with their stakeholders to drive change.
- Greenwashing: Companies may be tempted to make false claims about their carbon credit investments.

**OPPORTUNITIES**

- Cost savings: Investing in carbon credit projects can lead to cost savings, such as lower carbon taxes and reduced regulatory costs.
- Competitive advantage: Companies with strong carbon credit investments may have a competitive advantage in the market.
- Attraction and retention: Companies with strong carbon credit investments may attract and retain top talent.

**CONCLUSION**

Investing in carbon credit projects is the fourth most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.

### PILLAR 4. INFLUENCE CLIMATE ACTION IN SOCIETY

Influencing climate action in society is essential for achieving a sustainable future. This pillar focuses on engaging with stakeholders and advocating for climate action.

**ACTIONS**

- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.
- Advocate for climate action through public campaigns and lobbying.
- Implement measures to influence climate action, such as climate risk management and climate opportunity management.
- Report on your climate action in society and progress towards your target.

**KEY REDUCTION MEASURES**

- Climate risk management: Identify, assess, and manage climate risks to your business.
- Climate opportunity management: Identify and pursue climate opportunities for your business.
- Climate resilience: Build resilience into your business to withstand the impacts of climate change.
- Climate innovation: Invest in climate innovation to develop new products and services.

**REPORTING**

- Report on your climate action in society and progress towards your target.
- Use recognized standards, such as the TCFD Recommendations, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited data: Companies may not have accurate data on their climate action in society, making it difficult to set targets and track progress.
- Lack of engagement: Companies may not have enough engagement with their stakeholders to drive change.
- Greenwashing: Companies may be tempted to make false claims about their climate action in society.

**OPPORTUNITIES**

- Cost savings: Reducing climate action in society can lead to cost savings, such as lower insurance costs and reduced regulatory costs.
- Competitive advantage: Companies with strong climate action in society may have a competitive advantage in the market.
- Attraction and retention: Companies with strong climate action in society may attract and retain top talent.

**CONCLUSION**

Influencing climate action in society is the fifth most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.

### REPORT ON PROGRESS

Reporting on progress is essential for ensuring that your company is on track to achieve your climate goals. This pillar focuses on communicating your climate action plan and progress towards your target.

**ACTIONS**

- Develop a climate action plan that outlines your climate goals and the measures you will take to achieve them.
- Report on your climate action plan and progress towards your target.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.
- Implement measures to improve your climate action plan and progress towards your target.

**KEY REDUCTION MEASURES**

- Climate risk management: Identify, assess, and manage climate risks to your business.
- Climate opportunity management: Identify and pursue climate opportunities for your business.
- Climate resilience: Build resilience into your business to withstand the impacts of climate change.
- Climate innovation: Invest in climate innovation to develop new products and services.

**REPORTING**

- Report on your climate action plan and progress towards your target.
- Use recognized standards, such as the TCFD Recommendations, to ensure consistency and comparability.
- Engage with stakeholders, such as investors, customers, and the public, to communicate your climate action plan.

**CHALLENGES**

- Limited data: Companies may not have accurate data on their climate action plan, making it difficult to set targets and track progress.
- Lack of engagement: Companies may not have enough engagement with their stakeholders to drive change.
- Greenwashing: Companies may be tempted to make false claims about their climate action plan.

**OPPORTUNITIES**

- Cost savings: Reducing climate action plan can lead to cost savings, such as lower insurance costs and reduced regulatory costs.
- Competitive advantage: Companies with strong climate action plan may have a competitive advantage in the market.
- Attraction and retention: Companies with strong climate action plan may attract and retain top talent.

**CONCLUSION**

Reporting on progress is the sixth most important step in addressing climate change. By following the actions and measures listed above, companies can make a significant contribution to a sustainable future.



# Business Playbook scaling

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- Expand with new leading partners
- Resources linked to Playbook to simplify
  - guide-lines
  - software tools
  - consultant companies
- World leading company examples to inspire action
- 1.5 procurement code of conduct (tool)
- Self assessment
- Global expansion strategy with ICC /UNFCCC

# Get started today

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- Join the eco-system and register on [www.exponentialbusiness.org](http://www.exponentialbusiness.org)  
get access to resources and commitment sign-on by summer 2020
- Download the Playbook and start to apply it directly
- Reach-out if you want to become a supporting partner. This means:
  - use, endorse and scale-out the Playbook
  - contribute in leading projects

[mats.risberg@exponentialroadmap.org](mailto:mats.risberg@exponentialroadmap.org)

[johan.falk@exponentialroadmap.org](mailto:johan.falk@exponentialroadmap.org)

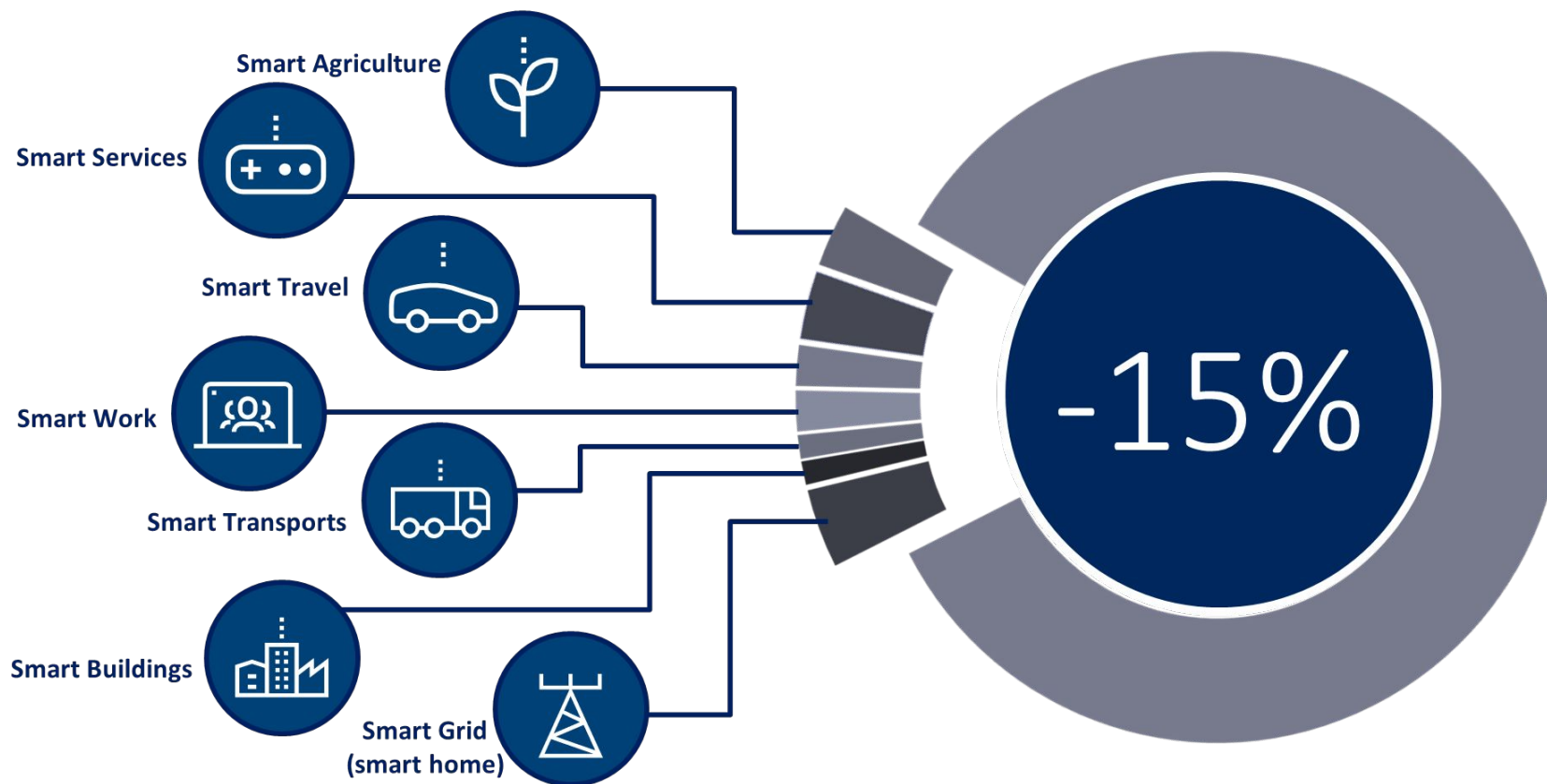
2030

LET'S HALVE  
GLOBAL  
EMISSIONS BY



**Back-up**

# Examples - digital enabling



# Examples



## Massive Chinese solar capacity

In the last two years alone, 98 GW of solar PV have been added to China's electrical grid.

The installed capacity of grid-connected solar PV in China has more than 1,000-doubled in a decade.



## Electric site

Volvo and Skanska's Electric Site research project is a test bed for switching to electric autonomous haulers in the quarrying industry.

The project has shown a 98% reduction in CO<sub>2</sub> emissions, 70% in energy cost and 40% in operator cost.



## Renting electric vehicles

EkoRent is a 100% electric car rental and sharing service, and therefore zero-emissions when the electricity comes from renewable sources.

With a 30% market share, about 11 Mt of emissions would be avoided annually.

## Copenhagen

Copenhagen has set a goal for carbon neutrality, with programs for cycling, public transport, recycling and green space access.

Approximately 62% of Copenhagen's population cycles to work or school.



## Rescuing food

Too Good to Go is an app that lets people rescue unsold food from shops and restaurants.

The company aims to save 100 million meals from being wasted by end of 2020.



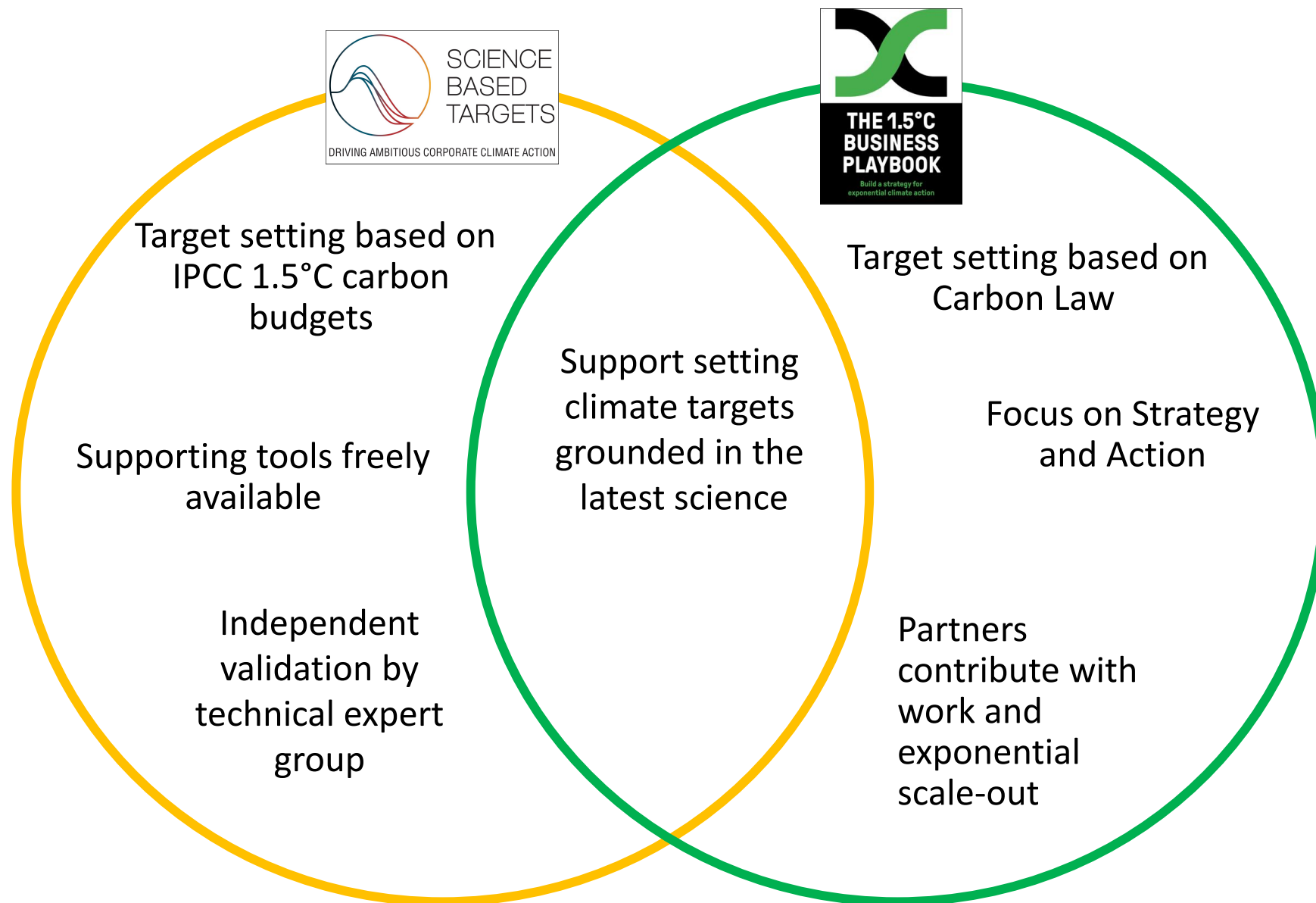
## Materials substitution

Betolar turns different side streams from energy, mining, steel and forestry sectors into geopolymers-based construction materials.

These materials substitute concrete with up to 90% lower carbon footprint.



# Two complementary initiatives



# PILLAR 1. REDUCE YOUR OWN EMISSIONS



To be aligned with a 1.5°C ambition, the minimum requirement is to halve your own emissions at least every 10 years. These emissions are referred to as scope 1 and 2 emissions of the Greenhouse Gas Protocol<sup>5</sup>. They include emissions from in-house sources such as furnaces, vehicles or leakage from refrigerants, and also from purchased electricity, cooling and heating. It is

also recommended to include emissions from business travel in pillar 1 even though they are formally part of scope 3, since they are directly controlled by the company. Your own emissions may represent a small part of your total emissions but can normally be reduced more easily since they are under the company's direct control.

## ACTIONS

- Map out your own greenhouse gas emissions, if you haven't already done so. Make sure you include the main sources of carbon emissions – your hot spots – and that your plans include how to mitigate these.
- Decide your base year. A base year is the year when reductions start and will be used as a comparison to show progress.
  - » Set the base year no more than two years back in time.
  - » Historical emissions reductions deserve acknowledgement and can be highlighted\*, but they cannot be a part of your next halving.
- Set a target within three months of making your commitment and decide on the target year.
  - » Your minimum goal should be to halve emissions every ten years, but preferably faster. Halving in ten years means a 7% year-on-year reduction. Halving in five years will mean 13% emissions reductions and halving in three years will mean a 20% annual emissions reduction rate. Break down your plans into yearly targets and milestones.

\* Companies that have significantly reduced emissions historically will benefit from being able to disclose a lower and better carbon intensity performance value in benchmarks (total emissions divided by net revenue) but should still strive to halve total emissions at least every decade.

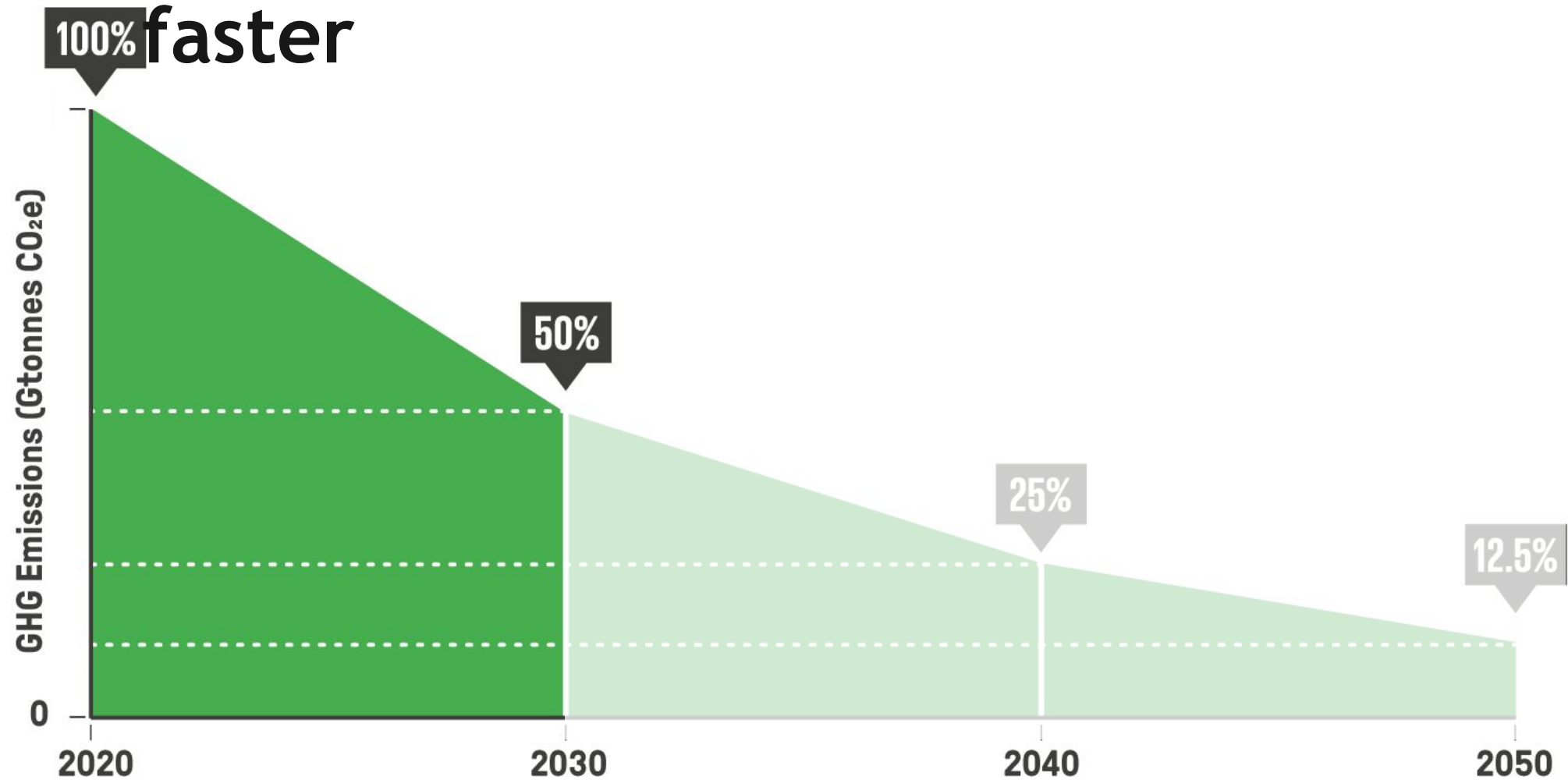
- Decide in which order to eliminate emissions and develop a plan on how to reach the targets.
  - » Start immediately with the “low-hanging fruit” which are economically attractive, bring other co-benefits and create positive momentum in the organisation. Energy efficiency, shifting to renewable energy, building space, transportation and business travel emissions are often good candidates.
- Disclose your company's own carbon emissions, plans to reduce them and emissions reductions as part of your public reporting annually. Clearly explain and motivate any slower pace than halving every decade.\*
- Evaluate results, take corrective actions and update your plan on a yearly basis.

\* Rapidly growing companies that provide solutions which avoid or remove emissions as their core business may contribute most to the climate by keeping emissions at a low level but not halving them.

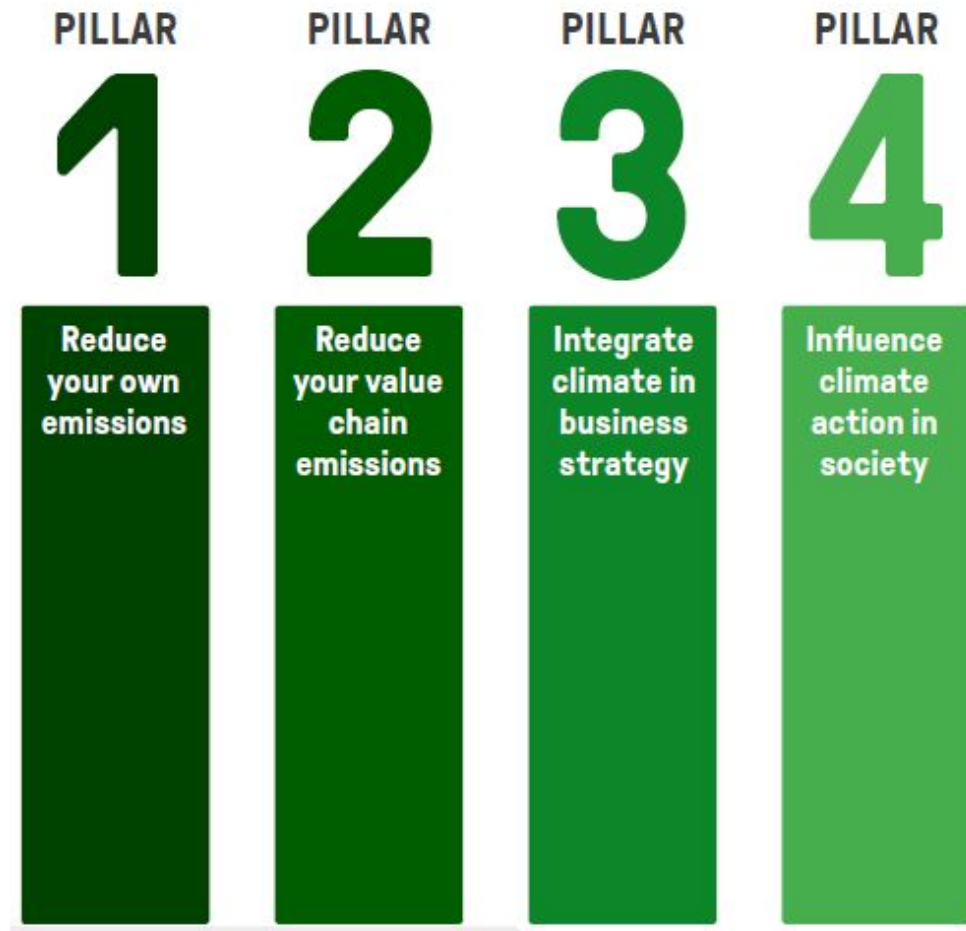
## KEY REDUCTION MEASURES

- Immediately start implementing use of renewable energy, fuel and electricity for all possible processes, buildings and sites.
- Consider buying renewable energy through power purchase agreements and collaborate to accelerate adoption.
- Consider generating your own renewable electricity, if it is not provided by your grid operator.
- Improve energy efficiency for buildings through retrofitting and digital automation.
- Demand and implement low-carbon cooling, heating, ventilation and refrigerants for all building sites you operate in.
- Optimise the use of building space in all operations, in order to reduce emissions and costs.
- Move towards a zero-emissions vehicle fleet, including own and leased company cars.
- Require zero-carbon buildings and clean grid energy when expanding or establishing new businesses in a region.
- Systematically reduce energy, resource and material waste in all operations.
- Set up a plan to reduce emissions from business travel by shifting to low-carbon travel (for example a “train first” policy over air travel) and use digital meeting technologies to avoid unnecessary travelling.

# Halve emissions by 2030 cross the value chain - preferably faster



# The 1.5°C business playbook



- A 15-pages guide on the essentials for building an exponential strategy for 1.5°C
- Simplicity and speed
- Anchored in Science
- Aligned with SBTi 1.5 and other key frameworks
- Focus on strategy and action
- 4 pillar framework
- A wide collaboration involving several international organizations and businesses

# Why set goals aligned with 1.5 °C?

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**Strengthen green growth, competitiveness and profitability**



**Reduce regulatory uncertainty**



**Strengthen investor confidence and credibility**



**Attractive employer**



**Increase innovation**