Setting targets and strategy aligned with science

EXPONENTIAL ROADMAP

WWF

Johan Widheden

Global Lead for WWF Climate Savers Program

Johan Falk

Head of Exponential Roadmap Initiative

Senior Innovation Fellow Stockholm Resilience Centre

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

THE 1.5°C BUSINESS PLAYBOOK

Build a strategy for exponential climate action

Setting targets and strategy aligned with science

EXPONENTIAL ROADMAP

WWF

- What is required to save the climate?
- Why a company shall align with the 1.5 ambition
- Complementary tools
- SBTi highlights
- 1.5BusinessPlaybook highlights

WE ARE ENTERING

A CLIMATE CRISIS.

WE RISK

A HOTHOUSE EARTH FUTURE.

Why set goals aligned with 1.5˚C?

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Increase innovation

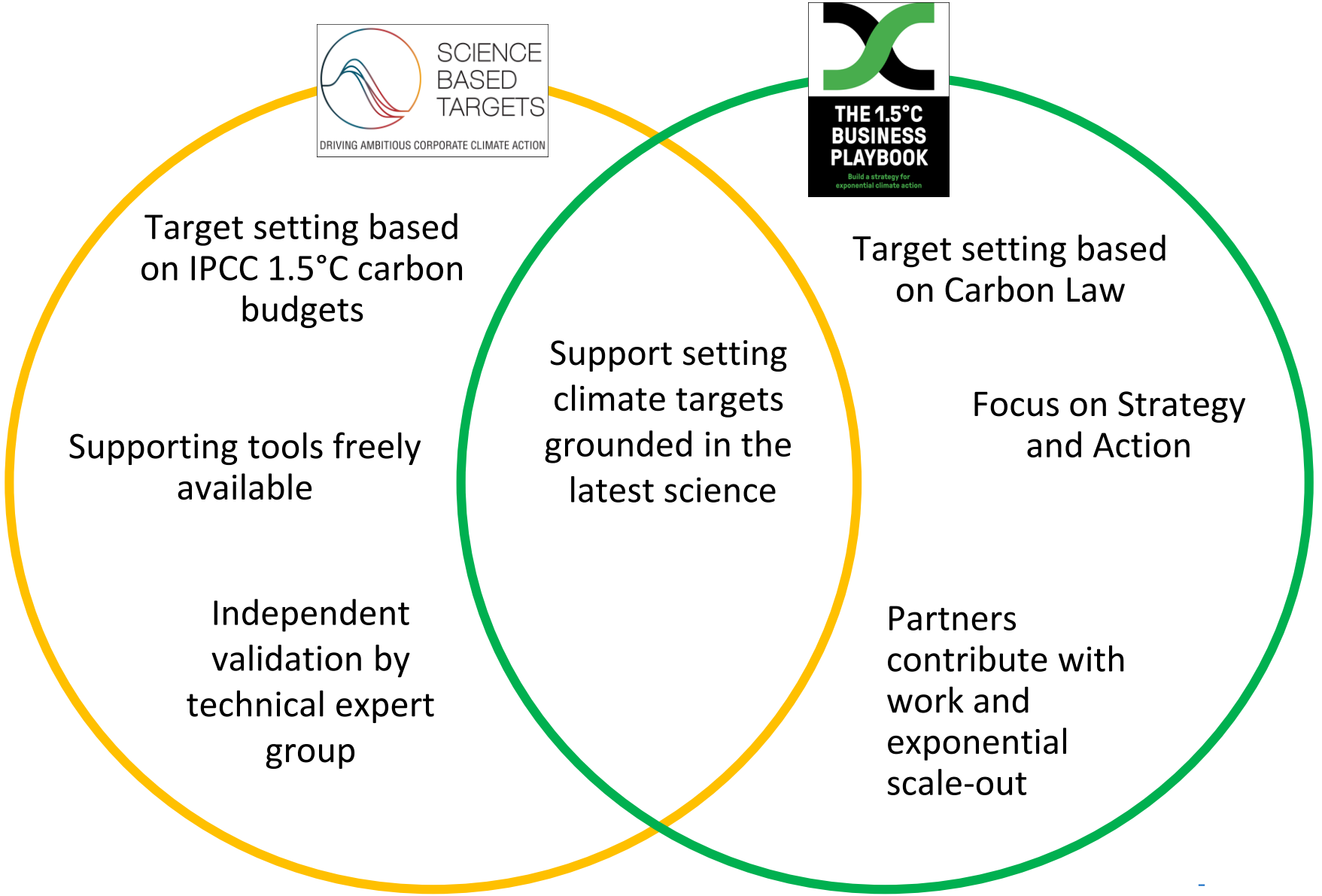
Reduce regulatory uncertainty

Strengthen investor confidence and credibility

Attractive employer

Strengthen green growth, competitiveness and profitability

Two complementary initiatives



SBTi1.5 overview

Johan Widheden

Global Lead for WWF Climate Savers Program

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION


BUSINESS
AMBITION FOR 1.5°C
SCIENCE
BASED
TARGETS
UN GLOBAL COMPACT
United Nations
Global Compact
WE MEAN
BUSINESS

WWF climate initiative(s) for business

Climate & Business Impact Network

VOLVO

The Coca-Cola Company

SONY

SOFIDEL

- Networking
- Learning & Technical advice
- WWF cross-thematic resources
- Direct support

Johnson & Johnson

hp

H&M

P&G

https://wwf.panda.org/our_work/climate_and_energy/

https://www.wwf.se/foretag/

The Science Based Targets Initiative (SBTi)

Overview

SCIENCE BASED TARGETS

An initiative by

CDP DISCLOSURE INSIGHT ACTION

UN GLOBAL COMPACT

WWF

WORLD RESOURCES INSTITUTE

In collaboration with WE MEAN BUSINESS

873 Companies have formally committed to set SBTs

363 Companies have approved targets

Two tracks

Large companies

New!

SMEs

1.5°C Large companies – Option 1

Setting 1.5°C aligned SBTs across all scopes

Option 1 – Setting, validating and publishing science-based emissions reduction targets across all relevant scopes, in line with 1.5°C emissions scenarios, within 24 months.

→ *This translates into:*

- **A 4.2% minimal annual linear reduction rate over the target period across scope 1, 2 and 3 emissions.**

1.5°C Large companies – Option 2

Net zero target with interim SBTs

Option 2 – Setting a long-term target to reach net-zero value chain emissions by no later than 2050, alongside science-based targets across all relevant scopes.

→ *This translates into:*

Net Zero Target well before 2050

- **Based on SBTi working definition and following the upcoming criteria and guidance by the SBTi**
- **Across scope 1, 2 and 3 emissions**

+

Interim SBTs

Scope 1&2:

- **Absolute-based approach:**
  - 4.2% annual linear reduction (1.5°C aligned) OR
- **Sector-based approach**

+ ambitious scope 3 target if applicable

1.5°C SMEs

Company commits to reduce absolute scope 1 and scope 2 GHG emissions 50% by 2030 from a 2018 base year, and to measure and reduce its scope 3 emissions.

Take action

Sign the Business Ambition for 1.5C Commitment Letter

Develop targets
Using tools and guides

Submit target submission form
- Validation

Make public within 6 months
- SBTi website & comms
- Use of logo

24 months

Sign the Target Setting Letter for SMEs → **Target review** →
- SBTi website & comms
- Use of logo

Business Playbook

EXPONENTIAL ROADMAP

WWF

Johan Falk

Head of Exponential Roadmap Initiative

Senior Innovation Fellow Stockholm Resilience Centre

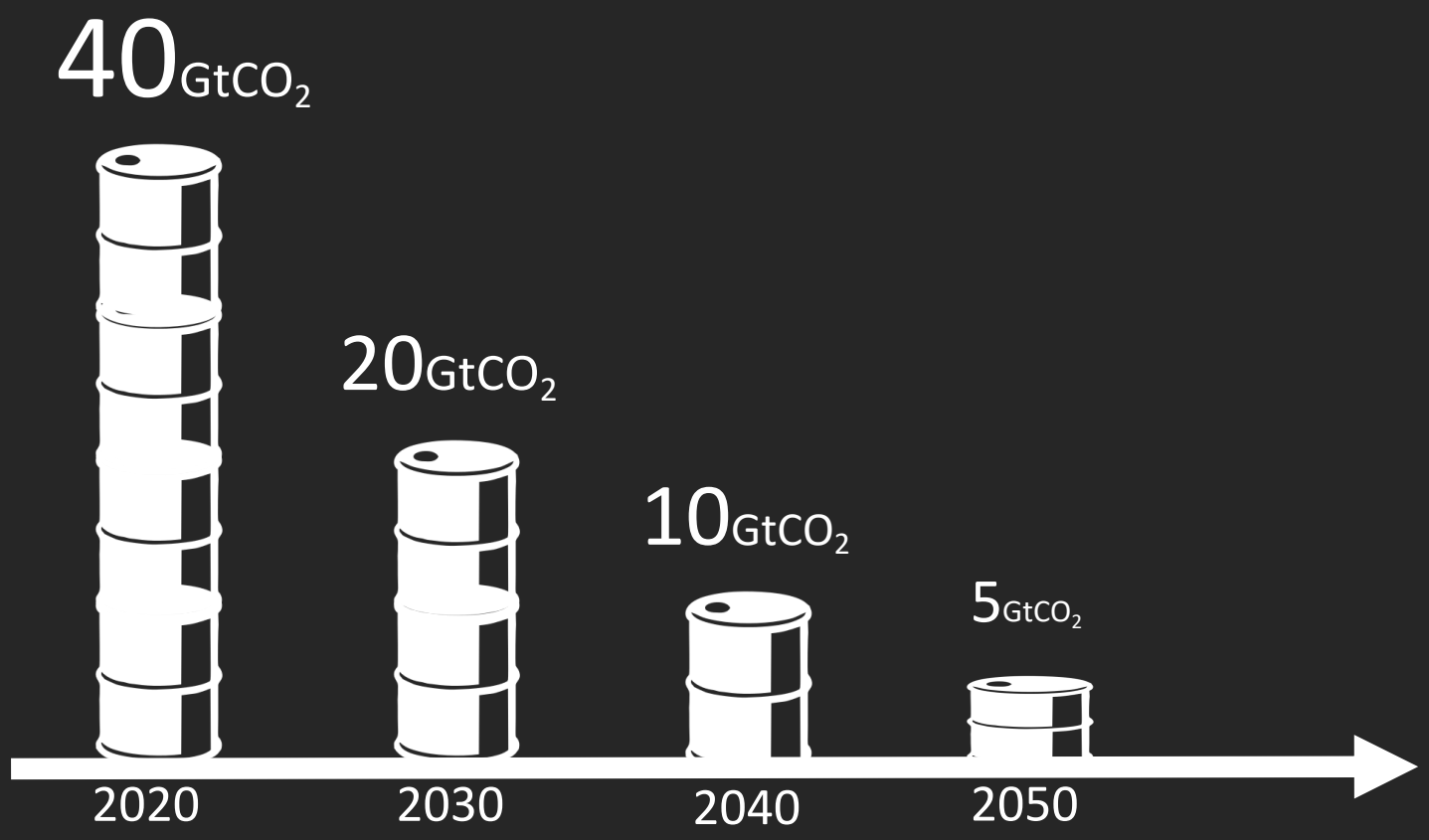
1.5 Business Playbook

EXPONENTIAL ROADMAP

- A 15-page guide on essentials for strategy and action aligned with science
- simplicity and speed
- four pillar framework
- developed by leading experts and organisations contributing with work and driving scale-out

www.exponentialbusiness.org

The global carbon law



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

CLIMATE POLICY

A roadmap for rapid decarbonization

Emissions inevitably approach zero with a "carbon law"

By Johan Rockström,[1] Owen Gaffney,[1,2] Joeri Rogelj,[3,4] Malte Meinshausen,[5,6] Nebojsa Nakicenovic,[7] Hans Joachim Schellnhuber[1,8]

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_2) emissions every decade. Complemented by immediately instigated, scalable carbon removal and efforts to ramp down land-use CO_2 emissions, this

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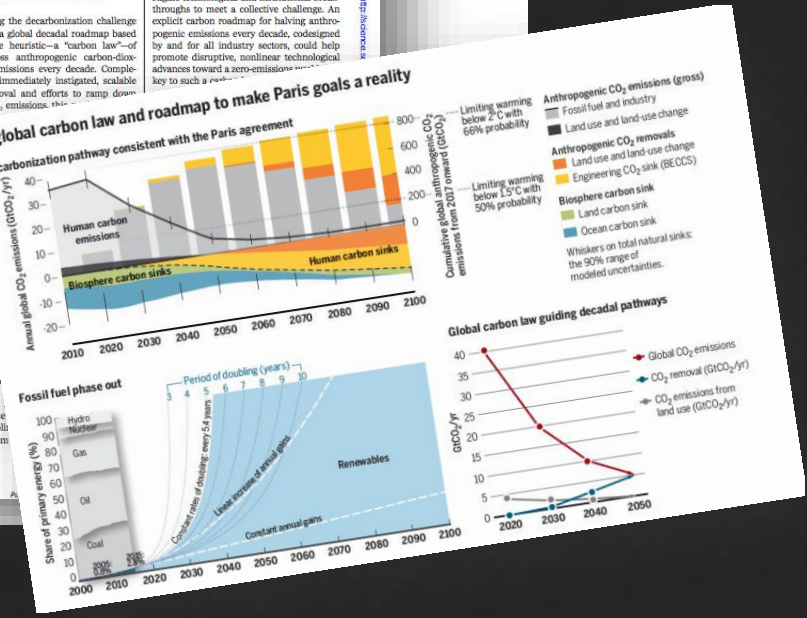
The road to global decarbonization must involve renewable energy, as from these wind turbines in Germany, and improved transportation technologies.

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_2 removal by technical means from zero to at least 0.5 $GtCO_2$/year by 2030, 2.5 by 2040, and 5 by 2050. CO_2 emissions from land-use must decrease along a nonlinear trajectory from 4 $GtCO_2$/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_2 emissions since 2017 to be brought back from around 700 $GtCO_2$ to below 200 $GtCO_2$ by the end of the century (see the figure, top) and atmospheric CO_2 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 instigate technological and institutional breakthroughs to meet a collective challenge. An explicit carbon roadmap for halving anthropogenic emissions every decade, codesigned by and for all industry sectors, could help promote disruptive, nonlinear technological advances toward a zero-emissions



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IKEA supports the Exponential Roadmap and the 1.5° C degree pledge

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How ICT can enable exponential climate action

For Ericsson, sustainability is a serious issue, not a token gesture. We are firmly committed to creating positive impact and reducing risks to the company, our customers and society through technology, solutions and the expertise of our

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Climate change

Scientists set out how to halve greenhouse gas emissions by 2030

Strong civil society movements are needed to ramp up pace of change, says study

Fiona Harvey
Environment correspondent

Thu 19 Sep 2019

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Finally, There's a Roadmap to Tackle the Climate Crisis

By Petralia Bergmark | October 14, 2019, 4:19 PM | *Techonomy Exclusive*

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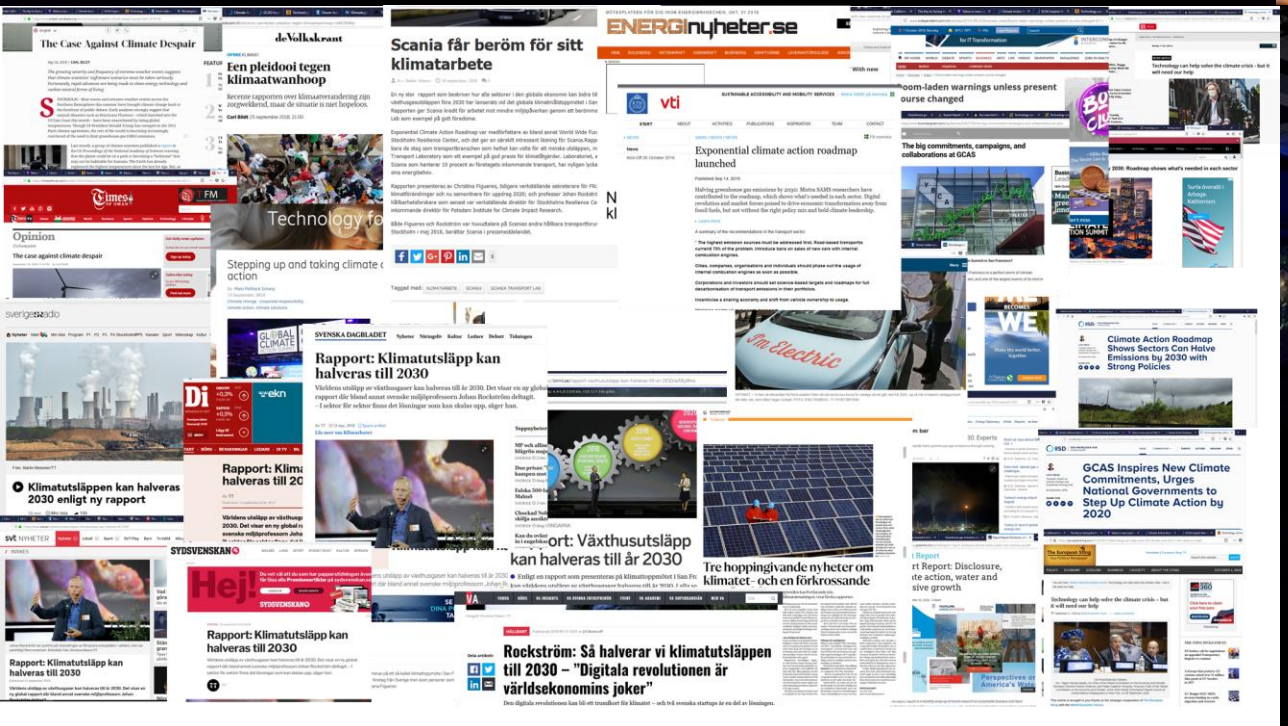


Press release
2020-01-21, 7 AM CET

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.

Partners

"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

"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

"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."

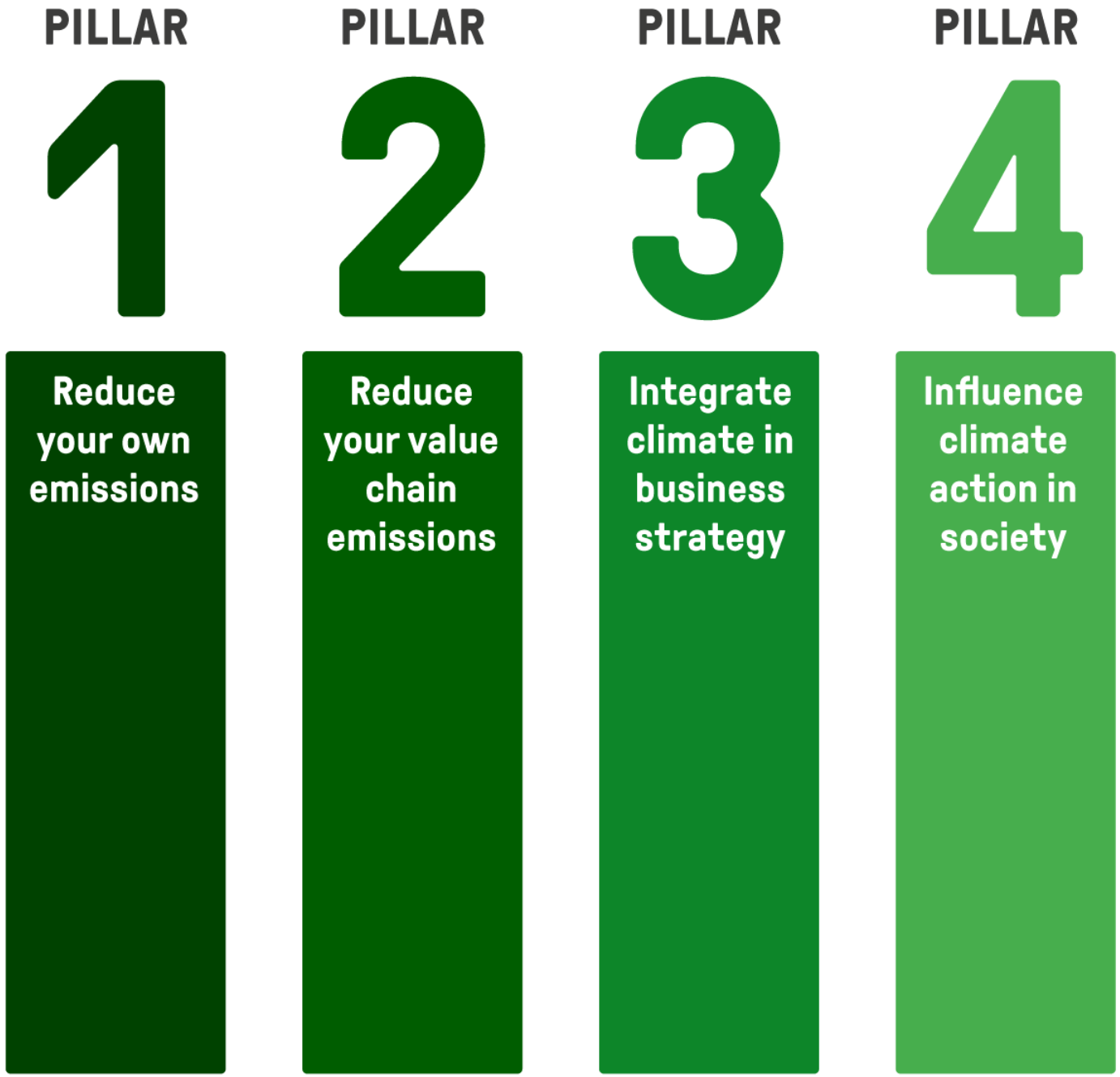
Andreas Foller
Head of Sustainability, Scania

"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

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 emissions
PILLAR
3
Integrate climate in business strategy
PILLAR
4
Influence climate action in society

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

PILLAR 1. REDUCE YOUR OWN EMISSIONS

1

ACTIONS

KEY REDUCTION MEASURES

PILLAR 2. REDUCE YOUR VALUE CHAIN EMISSIONS

2

ACTIONS

KEY REDUCTION MEASURES

PILLAR 3. INTEGRATE CLIMATE INTO YOUR BUSINESS STRATEGY

3

ACTIONS

INVEST IN CARBON CREDIT PROJECTS REMOVING CARBON FROM THE ATMOSPHERE

ACTIONS

PILLAR 4. INFLUENCE CLIMATE ACTION IN SOCIETY

4

ACTIONS

REPORT ON PROGRESS

BASIC PRINCIPLES

www.exponentialbusiness.org

PILLAR 1. REDUCE YOUR OWN EMISSIONS

1

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[5]. 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.
- 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.

* 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.

* 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.

Business Playbook scaling

- 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

- Join the eco-system and register on 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
johan.falk@exponentialroadmap.org

Setting targets and strategy aligned with science

EXPONENTIAL ROADMAP

WWF

Thanks!

2030 LET'S HALVE GLOBAL EMISSIONS BY

SCIENCE BASED TARGETS

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THE 1.5°C BUSINESS PLAYBOOK

Build a strategy for exponential climate action