

EXPONENTIAL
ROADMAP INITIATIVE

IMPACT REPORT

Exponentially scaling solutions to
halve emissions by 2030

2024

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01

Our mission

We unite innovators, transformers and disruptors to drive the transformation to halve global emissions before 2030 through exponential climate action and solutions.

About the Exponential Roadmap Initiative

The Exponential Roadmap Initiative (ERI) is anchored in the latest climate science. We focus on projects with exponential scaling potential.

ERI is an accredited initiative of the UN Climate Change High-Level Champions' Race to Zero and is aligned with the UN High-Level Expert Group on the Net Zero Emissions Commitments of Non State Entities (HLEG) recommendations.

Our strategy is threefold:

- We support companies' **business transformation** by sharpening their transition plans and climate performance, providing clear assessments, benchmarks, and actionable exponential strategies for leadership in the modern economy.
- We drive **collaborative action** by bringing businesses together to solve complex climate challenges, scale solutions, and drive systemic change where no company can act alone.
- We **influence the global narrative** by empowering companies to co-create and spread cutting-edge thought leadership, shape high-integrity climate standards, and lead the global transition to a modern economy.

We are an action-focused initiative. Our goal is to be a leader in game-changing innovation, with a "world's first" ambition in everything we do.

02

Our story

We turn the Carbon Law into action, working with leading companies to halve emissions and transform business.

Through open tools, shared best practice and strong standards, we drive credible and exponential climate action.

2017

Carbon Law

Johan Rockström, Owen Gaffney and Johan Falk developed the [Carbon Law](#), a concept inspired by Moore's Law, as a simple roadmap for rapid decarbonisation applicable for companies, cities, countries, and citizens. Falk and Gaffney later co-founded the Exponential Roadmap Initiative. The Carbon Law sets out that, from a peak in 2020, emissions need to be halved every decade – with the first halving by 2030 – until 2050 in order to limit global warming to 1.5°C. The Carbon Law thus preceded the 2018 [Special Report on Global Warming of 1.5°C](#) from the UN's Intergovernmental Panel on Climate Change (IPCC), which concluded that emissions had to decline by about 45% by 2030 in order to reach net zero around 2050, to keep global warming to a maximum of 1.5°C, and to avoid high risk of catastrophic consequences for people and the planet.

2018

Exponential Roadmap report

The world's first [Exponential Roadmap](#), lead-authored by Exponential Roadmap Initiative co-founders Johan Falk and Owen Gaffney, was launched at the Global Climate Action Summit 2018 by Johan Rockström and Christiana Figueres, former executive secretary of the UN Framework Convention on Climate Change (UNFCCC). It is the first global roadmap highlighting that there are solutions which can halve emissions by 2030 and that they need to be scaled exponentially through four forces: climate leadership, strong policy, finance and technology.

2019

Exponential Roadmap 1.5

We launched the Exponential Roadmap 1.5, a substantial iteration of the Exponential Roadmap.

2019



Climate index launch

Sweden's leading finance newspaper, Dagens Industri, launched the world's first [climate index](#) for stock exchange pages, developed in collaboration with Exponential Roadmap Initiative CEO Johan Falk. The index, which includes climate indicators, illustrates to readers and companies the importance of measuring and reporting own emissions and value-chain emissions as an integrated part of financial decision data.

12 in 12 report

We launched the [12 in 12](#) report, arguing that major information and communication technology companies (ICTs) must align their mission and products with the goals of ensuring a stable planet.

2020



The 1.5°C Business Playbook

The [1.5°C Business Playbook](#) aims to make the insights of the [Exponential Roadmap](#) report actionable for companies. Launched at the World Economic Forum in Davos by Johan Rockström and Christiana Figueres, the Playbook helps companies and organisations of all sizes set a 1.5°C-aligned strategy and begin to act.

1.5°C Supply Chain Leaders

The [1.5°C Supply Chain Leaders](#) founded and convened by the Exponential Roadmap Initiative drives climate action throughout global supply chains. Understanding the need to work with and support suppliers to halve emissions before 2030 and achieve net zero emissions before 2050, the 1.5°C Supply Chain Leaders support small- and medium-sized enterprises (SMEs) through the [SME Climate Hub](#) (see below).

2020

Exponential Climate Action Summit

First hosted in April 2020, the Exponential Climate Action Summit is a collaboration between We Don't Have Time, the Exponential Roadmap Initiative and Ericsson. The summit focuses on bringing together stakeholders, experts and activists in conversation about how to scale exponential solutions to solve the climate crisis.

Race to Zero

ERI becomes an accredited partner and entry point for businesses to join the [Race to Zero](#), a global campaign of the UN Climate Change High-Level Champions, rallying non-state actors to take rigorous and immediate action to halve global emissions by 2030 and deliver a healthier, fairer zero carbon world in time.

SME Climate Hub

ERI and the We Mean Business Coalition (WMBC), supported by their software partner, Normative, launched the SME Climate Hub, which enables small- and medium-sized companies to understand their emissions, make a commitment aligned with the UN Climate Change High-Level Champions' Race to Zero, take action and report their progress on climate action.

2021

1.5°C Supplier Engagement Guide

The 1.5°C Supply Chain Leaders, co-founded and convened by the Exponential Roadmap Initiative, launched the [1.5°C Supplier Engagement Guide](#), a collaborative platform to engage with suppliers to halve greenhouse gas emissions (GHG) before 2030. The platform provides practical guidance for setting 1.5°C-aligned targets and action throughout global supply chains.

2022

Climate performance review

ERI launched its enhanced and more stringent climate performance review to ensure member companies' actions are aligned with the [Race to Zero criteria 3.0](#).

Exponential Roadmap for Natural Climate Solutions

ERI, Conservation International (CI), and PIK launched the [Exponential Roadmap for Natural Climate Solutions](#), the first science-based plan to maximise the land sector's emissions-mitigation potential. The report introduced a critical new benchmark, the Carbon Law for Nature.

Guiding principles for corporate climate leadership on the role of Nature Based Climate solutions

ERI, PIK and the WMBC launched the [Guiding principles for corporate climate leadership on the role of nature-based solutions](#).

We Can Do It campaign

ERI, together with We Don't Have Time, launched the We Can Do It campaign, which was ultimately signed by 856 business leaders, policymakers, scientists, and investors from 76 countries, representing \$183 billion in turnover and reaching 41 million people. The campaign increased the impact of an opinion piece holding the Swedish government to account on keeping its promise to invite the Swedish business community to a climate summit, which the government finally did on 16 June 2023.

2022

Increased global recognition and influence

The Exponential Roadmap report and the 1.5°C Business Playbook are extensively referenced in Chapter 5 of the UN Emissions Gap Report 2022, which outlines the transformations needed to achieve the Paris Agreement. ERI's contributions to two working groups led to Race to Zero integrating the Carbon Law and the requirement to halve emissions by 2030 into its [starting line criteria and Leadership Practices 3.0](#).

Additionally, both the [UN Emissions Gap Report](#) and [UN Race to Zero 2030 Breakthroughs](#) highlight the importance of exponential transformation and disruption. ERI also influenced the UN Secretary-General's High-Level Expert Group report, [Integrity Matters](#), by contributing to stakeholder consultations on strengthening net-zero commitments for non-state entities.

2023

Greening Cash Action Guide

ERI launched the [Greening Cash Action Guide](#), which sets out seven actions companies can take to reduce emissions resulting from how business cash deposits are indirectly used by banks to finance high-emission activities. By taking these actions, companies can accelerate the transformation of the financial system.

Transition plans

In 2023, ERI began supporting member companies with their transition plans. During the year, ERI assisted 12 companies in developing and submitting their transition plans to the Secretary General's Climate Action Team. These plans adhered to a UN-produced checklist, incorporating the recommendations from the Secretary General's High-Level Expert Group on net-zero commitments for non-state entities.

2023



Energy Edge

The [Energy Edge accelerator program](#) is a collaboration between ERI, Accenture Sweden, and Microsoft Sweden. It aims to drive the green energy transition by supporting sustainability start-ups and scale-ups in advancing digital and disruptive energy innovations, business growth, and AI technology development. In 2023, the first cohort of five companies was selected.

AI for clean energy

ERI's founders, Johan Falk and Owen Gaffney, along with four other scientists, published a white paper on the role of artificial intelligence in scaling clean energy infrastructure globally. The authors propose that AI tools could identify \$1 trillion worth of projects within 12 months and \$2 trillion within 24 months, accelerating the transition to a clean energy future.

Discussion brief on climate solutions principles

A brief authored by ERI and Oxford Net Zero puts forward principles for defining and qualifying climate solutions and climate solutions companies. These principles are designed to incentivise businesses to develop such solutions while also offering precise and ambitious principles to avoid greenwashing.

Informing the development of the UNFCCC's net zero recognition and accountability framework

An independent consultation by the United Nations Framework Convention on Climate Change (UNFCCC) sought to better understand the barriers to the adoption of climate ambition and action by non-party stakeholders such as companies, financial institutions, and cities and regions. The Exponential Roadmap Initiative submitted views on how the net zero recognition and accountability framework under development could promote greater ambition and increase transparency and comparability.



03

Our impact 2024

In 2024, we successfully drove business transformation, collaborative action, and global influence through a series of strategic activities.

Business transformation

In 2024,

5

new companies joined the Exponential Roadmap Initiative as members: Apple, Handelsbanken, Nestlé, Oatly, and Speedy.

By December 2024, the initiative united companies with a combined annual revenue exceeding

\$1 trillion

and a workforce of nearly 2 million (1,977,686) employees, driving exponential climate action at scale.

The enhanced Exponential Roadmap Initiative's climate performance review assessing companies against 70 key actions (including setting targets, reducing their own and value-chain emissions, influencing society, and reporting) outlined in the 1.5°C Business Playbook has contributed to members' public disclosure of net zero targets, the writing and publishing of transition plans, and reporting of emissions more transparently.

The 1.5°C Business Playbook was downloaded

3,700

 times

reflecting its broader influence and inspiring climate action beyond ERI's member companies. An updated version of the 1.5°C Business Playbook was released during Climate Week NYC.

Exponential Roadmap Initiative hosted

7

Exponential Calls under Chatham House Rules

providing a platform for members to engage in confidential discussions and knowledge sharing for business transformation.

Transition Plans

After supporting the first member transition plans in 2023, ERI launched comprehensive transition plan guidance in 2024. This included:

- 1) a template to define what is needed,
- 2) an open-source annotated checklist to facilitate the development of HLEG-aligned transition plans, and
- 3) a detailed mapping of the requirements from different organisations for a robust transition plan.

These resources were downloaded 2,300 times, demonstrating their widespread use and impact. ERI continued to support member companies in developing and refining their transition plans throughout the year.

During COP29, ERI's CEO and co-founder Johan Falk participated in a United Nations Framework Convention on Climate Change (UNFCCC) press conference on corporate transition plans' role in managing risks and driving a net zero economy. The session also presented a new report by the Assessing Transition Plans Collective, convened by the World Benchmarking Alliance (WBA) and co-convened by the Columbia Center on Sustainable Investment, where ERI's Claire Wigg, Head of Climate Performance Practice, is part of the expert group. The Carbon Law was featured in the report as a key tool to set the decarbonisation rate.

Circular Action Guide

In April, ERI and Cradlenet launched the Circular Action Guide. It offers practical steps for companies to analyse their value chain, product portfolio and business model in order to scale circular climate solutions and fully integrate circularity into their strategic business functions.

Circularity is key to keeping planet Earth livable for current and future generations because extracting materials as well as handling and using resources is tied to ca 70% of global greenhouse gas emissions and over 90% of global biodiversity loss and water stress impacts. The report was downloaded 1700 times in 2024.

Net zero operating space for business

In February 2024, Simon Stiell, Executive Secretary for UNFCCC, called for “imagining what the world will look like if we succeed in both limiting global warming to 1.5°C and protecting all peoples from climate impacts.” In response, ERI published a scientific thought-piece exploring what a net-zero operating space for business could look like. The piece outlines four key conditions under which businesses can operate to deliver products and services in a net-zero world: Circular, Optimised, Regenerative, and Renewable. This thought piece was presented and well received at Climate Week NYC.

Collaborative action

1.5°C Supply Chain Leaders

The 1.5°C Supply Chain Leaders group, founded and convened by the Exponential Roadmap Initiative, consists of 12 member companies. In 2024, the group held six meetings under Chatham House rules. The group's focus is on addressing and developing solutions to challenges related to rapid emissions reductions across the value chain, including through the accelerated deployment of renewable energy and engaging suppliers. Knowledge-sharing and lessons learned are central to the 1.5°C Supply Chain Leaders, with outputs shared globally, extending beyond the group itself.

The total reported scope 3 emissions of companies gathered in the 1.5°C Supply Chain Leaders have been reduced by 9% between 2020 and 2022.

Supplier Cascade pilot

In 2024, ERI supported the Supplier Cascade Project, an initiative led by the We Mean Business Coalition to drive emissions reductions throughout global value chains. The project mobilises large corporations to require and support their suppliers in setting and achieving science-based climate targets, creating a ripple effect that accelerates climate action across entire industries. ERI contributed by providing strategic insights on exponential emissions reductions and value chain engagement, aligning with our mission to scale corporate climate leadership in line with the 1.5°C Business Playbook.

SME Climate hub

In 2024, the SME Climate Hub experienced steady growth, with a total of 8,844 businesses committing to climate action — an increase of 1,687 from the previous year. Among these, 200 companies joined through the newly launched SME Climate Hub Nordics, which was introduced in June 2024.

During the year, two new tools were developed to enhance the offerings under the SME Climate Hub:

- The Advanced Business Carbon Calculator from Equipoise
- The Scope 3 Specific Calculator from Emitwise

Both tools were implemented in early 2025.

In December 2024, the SME Climate Hub was officially recognised by the EU as a recommended tool for SMEs under the EFRAG's voluntary sustainability reporting standard for non-listed SMEs.

The Professional Services matrix

ERI, together with AFRY and Futerra, developed and presented a new strategic tool for professional service providers – such as consulting and marketing firms – to assess and set targets for emissions across their client and project portfolios.

The tool received praise from key stakeholders, including Ramiro Fernández, Campaign Director, UN Climate Change High-Level Champions, who stated “The Professional Services Matrix empowers professional services firms to address their serviced emissions. By building on Race to Zero’s report “Catalysing Climate Action: The role of professional service providers in a net-zero future”, this matrix encourages strategic client and project choices. This simple tool helps all businesses to become a driving force in the global transition to net zero.”

Business Associations Climate Action Guide

To advance the fourth pillar of the Four-Pillar Framework, ERI published the Business Associations Climate Action Framework in September 2024. This strategic guide outlines how businesses, through their associations, can influence public policy to align with the Paris Agreement and create a regulatory environment that supports the transition to a green economy. Developed in collaboration with Race to Zero, We Mean Business Coalition, UN Global Compact Network UK, Climate Action for Associations, InfluenceMap, and World Business Council for Sustainable Development, the framework provides a clear path for climate-aligned advocacy. Since its launch, it has been downloaded 800 times in 2024.

Influence the global narrative

ERI's efforts to influence the global narrative is done through developing new thought pieces and frameworks, and bringing these to our target audience through different channels, such as high level events and media. We also support high-level working groups to contribute to the development of standards, through enabling our experts to contribute.

Climate Solutions Framework

Recognising the shortcomings of existing standards in identifying companies, products, and services with the potential to transform entire sectors if scaled, our previous work on climate solutions resulted in the development of the Climate Solutions Framework. This framework provides a clear and robust definition at both the company and portfolio levels while incorporating safeguard criteria to prevent greenwashing.

Throughout 2024, the framework gained significant attention as an alternative standard for companies committed to driving systemic change. It encourages businesses to shift their portfolios, direct investments, and attract top talent toward solutions aligned with a 1.5°C future. During the year, Oatly and Stegra (formerly H2 Green Steel) became the first companies to qualify under the framework. These companies together, with a few select companies under assessment, formed an accelerator group facilitated by ERI to further drive the climate solutions agenda.

Events

In 2024, we conducted multiple face-to-face events, including:

- **June:** Bonn Climate Change Conference (10 panels)
- **July:** Almedalen
- **September:** Climate Week NYC (8 panels, 4 roundtables)
- **October:** TechArena Zero (4 panels)
- **November:** COP29 (4 panels, 1 press conference)

Through panels and roundtables with members and partners, ERI contributed to shaping the broader climate narrative beyond our direct network. Our main event partners included We Don't Have Time and Solutions House, the latter a collaboration between ERI, Google and Futerra. These platforms significantly amplified our and our members' reach. For example, We Don't Have Time broadcasts drew 8.7 million viewers at Bonn and 72 million at COP29, while Solutions House engaged 4,600 in-person attendees and 1,200 online participants during Climate Week NYC. These numbers illustrate the scale of engagement ERI has helped drive through strategic event participation.

Webinars

Beyond Face-to-Face events we also organised webinars, eg introducing new resources and ideas.

- **March:** Could your company be a climate solutions company?
- **April:** Introducing the Circular Action Guide
- **May:** Introducing the Transportation Action Guide
- **September:** Launching the Business Associations Climate Action Guide
- **November:** SME Climate Hub: Navigate the green transition (in Swedish)

Media

In 2024, we further shaped the global narrative by authoring several media op-eds. These were published in various Swedish and international outlets, covering topics such as climate solutions, transition plans, and accountability legislation.

- [Identifying climate solutions can unlock finance for low carbon growth](#) (ImpactAlpha, September 2024)
- [Why companies need to put profitability at the centre of transition planning](#) (FT Sustainable Views, December 2024)
- [Hold environmental destroyers accountable globally](#) (in Swedish, Dagens Industri, December 2024)

#BuyMoreTime campaign

Recognising the urgent need for immediate action to slow global warming, ERI and We Don't Have Time launched the #BuyMoreTime campaign. This initiative calls on world leaders to commit to rapid methane reduction, an opportunity to slow global temperature rise by up to 0.5°C while accelerating the broader transition to net zero. By reducing emissions of methane and other short-lived climate pollutants, we can stabilise the climate while scaling clean energy, phasing out fossil fuels, and protecting biodiversity.

The campaign is currently backed by 960 business leaders, policymakers, and scientists from 68 countries. It calls on UN Ambassadors to champion a legally binding global agreement - a "Montreal Protocol for Methane". This would strengthen existing pledges and ensure real, enforceable action to curb methane emissions.

How we are organised

The Exponential Roadmap Initiative is a program implemented through two legal entities with identical missions: the climate enterprise Internet of Planet AB and the nonprofit Exponential Roadmap Association.

The mission of both entities is to facilitate the halving of global greenhouse gas emissions by 2030 through exponential climate action by companies. Profits from Internet of Planet are reinvested in new workstreams and projects that will contribute to the company's mission. In the reporting period (2024), income to Internet of Planet came from member companies (c. 70%) and from the We Mean Business Coalition and the European Climate Foundation (c. 30%) for work related to the SME Climate Hub and transition plans.

The Exponential Roadmap Association is an Environmental Partner of the [1% for the Planet](#).



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