



Arup BV

CO2 Performance Portfolio

Participation Plan

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This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1. Introduction

Sustainable development is at the heart of our Arup Strategy. It is our purpose. It is how we will shape a better world. For us ‘better’ is all about creating a more sustainable future and delivering on our commitment to meaningfully contribute to the 17 UN Sustainability Development Goals (UNSDGs).

Arup B.V. is committed to the active participation in initiatives in the field of sustainability in general and CO₂-reduction in particular. This entails both performing in-house research and establishing partnerships with academic and industry partners.

This report is produced in 2023 and covers the actions that were carried out in 2022. Section 4 looks ahead to planned measures for 2023.

2. Internal Initiatives

Arup works with a range of internal initiatives outside of projects. These include Research, Invest in Arup and Digital Tools.

2.1 Completed research

In 2022, Arup carried out internal research through Invest in Arup. See section 2.2.

2.2 Invest in Arup

The following Invest in Arup projects have been funded in 2022:

- Wind performance of timber high-rise measured through on-site testing-Phase 2 -developing understanding on how to design efficiently in timber, and backing this up with real data from constructed buildings.
- RES4BUILD H2020 - Renewable Energy Systems 4 Buildings - develop renewable-energy-based systems solutions for decarbonising the energy used in buildings and evaluate its impacts in the building engineering and energy markets.
- Fire safety of wooden bridges
- Wood-concrete composite bridges
- Carbon reduction of bridges
- Arup Zero for infrastructure
- Arup carbon toolkit for infrastructure

3. External Initiatives

Arup B.V. participates in a number of initiatives aiming to reduce CO₂-emissions.

3.1 CB-23

The Circular Building initiative hosted by Bouwcampus has since 2019 been working on ways to measure circularity. From mid 2019 to mid 2020 Arup participated in the workgroup Measuring Circularity. This participation will be continued in the year to come.

3.2 Green Business Club Amsterdam Sloterdijken

Arup is a founding membership of a Green Business Club Amsterdam Sloterdijken, aiming to help the local business deploy sustainable development initiatives. In 2022, Arup sat on the Board and facilitated and drafted an ambition statement for achievements in the coming years.

In 2023, Arup (with participants) will be working on energy scans for buildings. These scans will help buildings in the neighborhood become more energy efficient and improve their energy consumption.

3.3 GIKI

In December 2021 Giki Zero was made available to all staff, to evaluate their personal carbon footprint one step at a time. Giki Zero is an app which provides you with your own personal path to reach zero carbon emissions based on several factors such as food choices and travel habits. With our working unbound policy the boundaries between work and home become less clear, this app will allow people to improve their personal carbon footprints along the improving of our corporate carbon footprint.

3.4 Memberships

- Arup is a member of the Sustainability Committee TC1 of the Dutch Steel Association
- Arup is a Member of Madaster, the circularity initiative for building materials
- Staalakkoord - As Arup we want to push and support the initiative to make the use of steel in construction more sustainable. Therefore we signed in 2022 the 'Bouwakkoord Staal' and are one of the front runners for this initiative. As frontrunner in sustainability we agreed to share our knowledge, experiences, insights and ideas for the ambitions and activities of the agreement and making the application of steel in the construction and civil sector even more sustainable. We have a position in the steering committee, Director Sabine Delrue represents Arup. This committee is responsible for the strategy and the realization of the points from the agreement. We share our knowledge and experiences in one of the action teams, in team 'design'. For 2023 the transition from starting to acting phase is foreseen.
- Arup is a member of ChangeInc

3.5 Sector Initiatives

- Arup is a Knowledge Partner of the Ellen MacArthur Foundation. Whilst most of the effort is geared towards Arup global, there have been a number of calls for input from Arup in Amsterdam.
- Arup is participating in the RWS initiative Roadmap naar klimaatneutrale en circulaire kunstwerken in 2030. In 2022 we participated in two RWS workshops regarding climate neutral and circular structures.
- Presented a VNConstructeurs Webinar regarding Sustainable Design in Infrastructure on the topics of circular design and extending the life of existing steel bridges.
- As part of the Week of Circularity, Arup held a Circularity Workshop in partnership with Engineers without Borders.

4. Future Plans

In 2023, Arup plans to:

- Continue funding internal initiatives
- Renew membership with NL Ingenieurs – We believe that by working intensively with our partners through NL Ingenieurs, we can help the Netherlands achieve its climate goals
- Joined the Dutch Green Building Council (DGBC)

- Join VN Constructeurs
- Hold a workshop as part of Circularity 2024