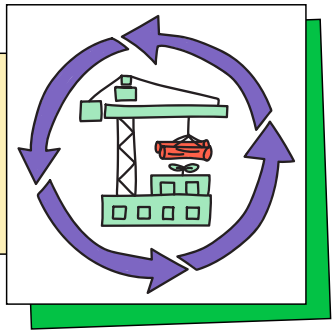
C40 CLEAN CONSTRUCTION ACCELERATOR



How cities are leading the transition to a decarbonised and resilient built environment

SIGNATORY CITIES

Budapest, London, Los Angeles, Milan, Mexico City, New York City, Oslo, San Francisco

COMMITMENTS

1. Prioritise the better use, repurposing, and retrofit of existing buildings
2. Lead by example with municipal procurement
3. Demand transparency and accountability
4. Establish a joint roadmap with targets towards the 2030 decarbonisation goals
5. Approve one net zero emission flagship project (operational and embodied)
6. Assess the impact that material and design choices will have on climate resilience
7. Advocate for other levels of governments to take action

SUMMARY

With 2.5 billion more people expected in urban areas by 2050, the global building stock will nearly double. This is equivalent to building a city the size of Singapore or New York every month. Building materials, construction, maintenance, and demolition contribute significantly to carbon footprints, and so a whole life-cycle approach to construction is crucial. Construction accounts for over 23% of global CO_2 emissions, with concrete and steel being major contributors. Cement alone represents 8% of global GHG emissions. The sector also consumes over 30% of global resources, damages ecosystems, and generates significant waste and pollution.

The C40 Clean Construction Accelerator**'s 8 global signatory cities** are shifting markets toward low carbon practices and boosting confidence in clean construction. **Los Angeles** and **New York** are collaborating with the private sector to signal growing demand for low carbon construction and electric machinery through the North American Electric Construction Coalition. Cities are pushing for greater action at the national level, which has been frequently cited as a key barrier in this year's reporting. The city of **Oslo** continues to set leadership standards, and recently coordinated with other municipalities in Norway to advocate to the national government for policy changes on sustainable procurement, which are now forthcoming. Many cities continue to use their own procurement to help move the market to low carbon practices, which often involves cross-departmental coordination.

Mexico City is convening a clean construction working group, which will identify underused assets for repurposing, develop low carbon public procurement catalogues, and identify actors from the private sector, civil society, and academia, who can participate in policy development. Recent research shows that a clean construction transition in Mexico City's built environment will create 1.1 million job years by 2050, nearly triple that of a high-carbon, business-as-usual scenario. This growth is largely driven by a significant rise in maintenance and repair work, which will generate many more good green jobs.

This kind of coordinated cross-department action has led to greater understanding of the links between clean construction and adaptation. Cities are increasingly implementing interventions which can deliver joint outcomes for resilience and embodied emissions. In **Los Angeles**, the Energy and Sustainability office established a cross-departmental Climate Cabinet to identify and promote high quality nature-based and bio-based solutions for the built environment. By deploying more tree cover, the city is also reducing the amount of cement-based hard paving, instead using high reflectance permeable paving to reduce heat and flood risk.

Mayors are committed to shifting the values of the global construction industry to collectively value existing building stock, better prioritise retrofits for healthy, comfy buildings, and ensure new buildings and infrastructure embed circular economy principles in their design, material and construction choices. No single actor is able to transform built environment systems alone. However, the signatory cities of the C40 Clean Construction Accelerator are committed to take bold actions and bring together the necessary stakeholders to affect urgent change.

IMPACT

88% **of signatory cities have now approved a pilot construction project for net zero operational and low embodied emissions**

TURNING COMMITMENT INTO ACTION

Commitment 1: Prioritise the better use, repurposing, and retrofit of existing building stock and infrastructure

Los Angeles is expanding its Citywide Adaptive Reuse Ordinance, which incentivises the conversion of existing commercial buildings into housing units. This is designed to address housing shortages, reduce vacant space, and extend the lifespan of buildings, while also promoting sustainable development by repurposing existing infrastructure. The ordinance allows buildings that are 15 years or older to be converted into housing without discretionary review. It also enables conversions of parking structures and office buildings, helping address both housing shortages and commercial vacancies. The relaxed planning restrictions make adaptive reuse more financially viable for developers.

Commitment 2: Lead by example with municipal procurement

San Francisco has provided training for staff in the city infrastructure agencies, and updated design and construction guidelines to align with the State of California's embodied carbon standard for new construction and existing buildings, reducing the embodied emissions of common construction materials by 10%. The city has also updated the municipal green building policy to include an embodied carbon checklist to understand the key challenges to addressing embodied carbon. This information is being gathered to build a toolbox of solutions to minimise embodied emissions in city procurement. Project teams must apply life cycle analysis to achieve at least 10% reduction in embodied carbon in at least three product categories or building assembly types. The city applies Whole Building Life Cycle Assessments (LCAs) to reduce building life cycle impacts, as well as requiring Environmental Product Declarations.

Commitment 3: Demand transparency and accountability

London planning policy requires GLA and circular economy statements for all major developments, including all those on land owned by the municipality. The city also requires all WLCAs to be publicly available via each borough's planning portal, and publishes annual reports on progress, including data on Whole Life Carbon. The GLA's Be Seen Policy requires applicants to provide accurate estimates and in-use performance data at each reporting stage through the appropriate 'be seen' reporting template.

Commitment 4: Work with stakeholders to establish a joint roadmap and set interim targets towards the 2030 goals

London is one of the pilot cities for C40's VISIBLE project, which aims to test and show that decarbonising buildings can work for people, be socially just, economically viable and result in a regenerative built environment. The city aims to build public and political support to accelerate a just transition in the construction and built environment sector.

The programme delivered pilot projects proving construction decarbonisation strategies, held social and market dialogues to align key community and industry stakeholders considering workers' rights and the availability of good, green jobs.

London is incorporating these principles into the next Whole Life Carbon policy in the next London Plan, as well as launching a green economy design lab bringing together key stakeholders to promote inclusive practices, and ensure workers from minority ethnic backgrounds are able to get into and progress in their careers.

Commitment 5: Approve at least one net zero emission (operational and embodied) flagship project two years after signing

Oslo's Urban Village is a new mixed-use development including commercial space and an affordable housing block set in the Furuset neighbourhood in Oslo. It is one of the winning projects from the first edition of Reinventing Cities. The development includes two six-storey buildings, and over 50% of the site is dedicated to green public space. The project was designed to achieve carbon neutrality for both operational and embodied emissions across their lifespan.

Commitment 6: Assess the impact our choice of materials and construction design will have on our cities' overall resilience to climate impacts

New York is faced with the risk of storm surge. In May 2024, NYC progressed the Battery Coastal Resilience Project to protect lower Manhattan from sea-level rise and storm surge. The proposed design incorporates sustainable and resilient features like salt-tolerant trees, an enhanced drainage system, and permeable pavers. Much of the material is being reused on site, using construction equipment that protects workers and residents from noise and air pollution. The project is expected to reduce embodied carbon by over 50%. The city is also exploring the feasibility of ground-glass pozzolan in coastal resiliency projects. Ground-glass pozzolan is made from recycled post-consumer glass and can replace up to 50% of cement in concrete, dramatically reducing embodied carbon emissions in marine applications.

Commitment 7: Work with and advocate for regional, national and supranational governments to take action

Oslo is working with other Norwegian cities to stimulate a larger market for clean construction, and particularly electric construction machinery. The city's efforts involved advocating for national regulations to facilitate action at the city level. As a result of this effort, in 2025 Norwegian municipalities received legislative mandates under the pollution prevention act to require electrification of private and public construction works.

© City of Oslo

INSPIRATION

Milan drew inspiration from Paris' Plan Local d'Urbanisme bioclimatique (PLUb) while revising the City's Master Plan, where the city aims to strengthen sustainability and climate change mitigation and adaptation. **Madrid, London** and **Oslo** all provided inspiration during the C40 VISIBLE workshop held in March 2025 in Madrid. It provided helpful inputs on the equity aspects of the decarbonisation of the construction sector. Milan also is inspired by other Italian cities, for instance Trento, Bolzano and Bologna for their innovative building regulations.

COLLABORATION

The North American Electric Construction Coalition is a partnership between the private sector and cities, including **New York** and **Los Angeles**. These two Clean Construction signatory cities continue to be active members of the coalition, helping to accelerate the transition to zero emission construction equipment by engaging with industry leaders, advocating for supportive policies, and sharing best practices across jurisdictions and industry stakeholders. These coalition efforts are geared towards engaging directly with construction equipment vendors and providers at a national level to help fast-track the implementation of all-electric construction machinery.

EQUITY AND INCLUSION

In 2025, **Mexico City** advanced its participation in C40's pilot project Labour and Cost Impacts of a Clean Construction Transition in Cities, which explores how sustainable construction practices can reshape local labour markets. Findings show that clean construction could generate over 1.1 million jobs annually by 2050, nearly tripling current employment levels - particularly benefitting informal workers. By promoting industrialised construction and woodworking, the city is working to ensure higher wages, safer working conditions, and new training opportunities, building a more inclusive and equitable green workforce.

San Francisco is using its clean construction commitments to advance equity and economic opportunity, as well as cut embodied carbon. By mandating deconstruction and the reuse of reclaimed materials, the city is reducing health risks for contractors and local communities while creating safer, more sustainable jobs. Alongside this, San Francisco is exploring workforce development programmes and small business loans to expand training and support for enterprises in the growing deconstruction and reuse ecosystem; helping build a more circular and inclusive local economy.


© Cécile Faraud - C40

CHALLENGES

Cities face a lack of capacity, with limited resourcing dedicated to clean construction, including low numbers of personnel and low budget allocation. Further still, internal engagement of different departments and agencies can be challenging, while some decision-makers lack a broad understanding of the issues at hand. At the national level there is a significant lack of understanding and motivation, leading to limited legislation and support. Market readiness is a significant challenge – options for heavy-duty, specialist electric machinery are limited, to the extent that some geographies currently have zero procurement options. Access to the electric power grid can also be a challenge for construction sites in certain areas with high energy demand, as well as lack of charging infrastructure at depots and sorting stations. Though there are a growing number of options for bio-based and low carbon materials, there is a perceived cost premium associated with them that is often not true, and a tendency to rely on historic materials and specifications.

HOW CITIES ARE STEPPING UP THEIR ACTION

Signatory cities are stepping up in their commitment to clean construction, evident in the ambitious green procurement policies currently in development. Cities are focusing more on baselining carbon associated with materials and construction, with cities now pushing for greater use of Whole Life Cycle Assessments (WLCA), as London is now demanding for large developments, and **San Francisco** is introducing in its public procurement processes.

Sustainable public procurement is a crucial tool to effect market transformation, to demonstrate value in reusing and repurposing buildings rather than demolishing them to build anew, and it is critical for signalling demand for low carbon practices to the construction industry. Signatory cities recognise procurement as one of the most important actions to take before 2030. The city of **Milan** has been active in persuading the private sector to follow this model, slowly but steadily changing previous mindsets. Similarly, cities can create demand for materials and technologies that are not yet commonplace through their procurement standards, as **Los Angeles** is doing by piloting contractual language to support the use of all-electric equipment on Public Works projects. Most importantly, we see the Accelerator as a tool to help bring together stakeholders to collectively deliver the zero carbon transformation of the built environment and our construction practices.

Crucially, cities cannot bring about market transformation on their own, the most important actions between now and 2030 will focus on bringing together stakeholders to grow demand, change business as usual practices, and evolve standard material choices.

FUTURE ACTION

London's spatial development strategy, known as The London Plan, will be updated in 2026–28, and work is underway to review and collect evidence that will support proposed changes. This includes reviewing all WLC data submitted to the GLA through the planning process, as well as proposing amendments to the air quality section of the new London Plan which will seek to promote the use of zero emission construction machinery (NRMM) on construction sites.

San Francisco is carrying out foundational research to examine how to establish a maximum allowance for embodied emissions based on occupancy or construction type. Once the embodied carbon policy has been tested on municipal projects and refined as necessary, these will be extended to include private developments resulting in a citywide strategy by 2026.