Clean Construction Accelerator

Planned Actions to Deliver Commitments
ACCELERATOR COMMITMENTS

Prioritise the better use, repurposing, and retrofit of existing building stock and infrastructure across the city to ensure their optimal use before new construction projects are considered.

Lead by example with municipal procurement by:
- Requiring life cycle assessments (LCAs) and the diversion of construction and demolition waste from disposal for all municipal projects.
- Use municipal purchasing power to procure or demand zero emission construction machinery in municipal projects from 2025, where available.
- Reward resource efficient and circular design, use of low carbon materials, and low to zero waste construction sites for all new projects and major retrofit.

Demand transparency and accountability, starting with requiring LCAs in planning permissions and embedding them into planning policies, processes and building codes within a year of endorsing this accelerator. Require the public disclosure of this data to facilitate greater transparency and foster accountability to develop robust baselines, standards, certifications and policies.

Work with businesses, industry, public institutions, residents, workers, social partners and other organizations to establish a joint roadmap and set interim targets towards the collective 2030 goals adhering to circular economy principles within two years of endorsing this accelerator, and incorporate it into our Climate Action Plan. The roadmap will provide an implementation pathway to the Clean Construction Accelerator actions and to reaching its goals inclusively and equitably.

Approve at least one net zero emission (operational and embodied) flagship project by 2025.

Assess the impact our choice of materials and construction design will have on our cities’ overall resilience to climate impacts (i.e. increasing urban heat island, impermeable surface increasing the risk of flooding, etc.).

Work with and advocate for regional, national and supranational government to take action on sources outside the boundaries of our control.

Publicly report every year on the progress our cities are making towards these goals.

INTENDED ACTION/APPROACH TO MEET THE COMMITMENTS

- Budapest has already developed its guideline on energetic refurbishment of historical buildings which will serve as a basis for needs assessment.
- Budapest intends to strengthen its social housing services by adding new functions to the existing, but underutilized building stock.
- Budapest has already started to assess potential pilot projects and will provide a list of potential intervention fields.
- Budapest will implement small-scale pilot projects in 2023-2022 to prepare for large-scale implementation.
- Budapest aims to engage the market players from the beginning; therefore, the city will hold market consultation and undertake research during 2021-2022.
- Budapest will publish the process and results on a dedicated website and facilitate cooperation with national stakeholders and propose legislation to co-develop baselines and standards with key stakeholders for clean construction.
- Budapest will always engage key stakeholders, with special attention to district municipalities and citizens.
- Budapest will implement gamification and start a scholarship to identify novel technologies and models for clean construction.
- Budapest will spread its findings and best practices within its network, such as EUROCITIES, ICLEI, Climate-KIC, Energy Cities and Big Buyers Initiative of the European Commission.
- Budapest will prepare small-scale pilot projects to identify drivers and barriers by 2022.
- Budapest has already published several guidelines on energetic renewal, brownfield regeneration and handbooks on greener infrastructures (green roofs and facades, permeable road coverings, urban trees and utilities, water-sensitive planning in cities and urban inner-yard rehabilitation).
- Budapest will facilitate cooperation with national stakeholders and propose legislation to co-develop baselines and standards with key stakeholders for clean construction.
- Budapest will publish its annual report on a dedicated website.
- The City will integrate clean construction targets into its Sustainable, Green and Innovation Procurement Strategy by 2021.
### ACCELERATOR COLLECTIVE GOALS

- **Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030**

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<tr>
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<td>• carry out research on building construction material flows (LCA), building standards and available methodologies and practices by 2022;</td>
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<td>• undergo energy audits for municipal buildings and facilities, including municipal institutions and utilities by 2025, and later use the results of the LCA assessments for newly built municipal buildings to calculate the potential emission savings and identify and prioritize measures;</td>
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<td>• utilize its procurement power and hold market dialogue sessions with suppliers;</td>
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<td>• apply for clean construction pilot projects and implement</td>
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<td>small-scale projects by 2023;</td>
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<td>propose a guide and roadmap for reducing embodied emission by 2024;</td>
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<td>propose legislative change to support clean construction both on the city level (e.g. harmonising building and procurement regulations across different administrative levels) and on the national level, since the current legislative background is exceedingly complex and inflexible;</td>
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<td>develop a monitoring scheme for clean construction developments;</td>
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<td>extend clean construction methodology to the city level by 2030;</td>
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- **Reduce embodied emissions by at least 50% of all infrastructure projects by 2030**

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<td>• carry out research on construction material flows (LCA), infrastructure construction standards and available methodologies and practices by 2022;</td>
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<td>• identify potential EU funded infrastructural projects (2021-2027) where clean constructions are feasible;</td>
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**Example of financial resources available to deliver the commitments (can be applicable to one, some, or all of the accelerator commitments or supportive actions above):**

- Budapest will allocate around 570 000 EUR in its 2021 budget for launching pilot interventions.

- Hold market consultations to assess suppliers’ approach to zero-emission construction machinery and available technologies;
- Develop a roadmap to foster the transition from fossil fuel-based machinery to zero-emission by 2025;
- Implement indoor pilot projects by 2022 and outdoor pilots by 2025.
ACCELERATOR COMMITMENTS

Prioritise the better use, repurposing, and retrofit of existing building stock and infrastructure across the city to ensure their optimal use before new construction projects are considered.

INTENDED ACTION/APPROACH TO MEET THE COMMITMENTS

- **Planning policy:** The London Plan prioritises the better use, repurposing and retrofit of existing buildings through the following objectives and policies: Good Growth Objective 5 and Good Growth Objective 6 (which promote the benefits of a low-carbon circular economy), and policies Sustainable Infrastructure 2 (requires whole life (WLC) cycle carbon assessments and the supporting guidance places re-use as the first WLC principle), Sustainable Infrastructure 7 (requires developments to aim for net zero-waste, to produce Circular Economy Statements (CES) and follow the waste hierarchy to encourage use of existing materials and structures).

- **Monitoring WLC policy:** first summary report of progress to be published by Dec 2022.

- **Monitoring CES Policy:** A progress report is scheduled for early 2023. In addition, the Horizon 2020 CIRCuIT project (developing solutions for CE in the built environment with EU city partners and London) is developing a materials exchange portal and performance monitoring database.

- **Tackling national barriers:** 20% VAT is typically paid on refurbishment projects but not new build developments which sets the wrong incentive. This is an issue we need national government to address, and we will continue to identify opportunities to lobby on this.

- **LCAs and diversion of waste:** WLC assessments (or LCAs) and CE statements are required by planning policy for all developments referred to the Mayor.

- **Construction machinery:** London’s Low Emission Zone for Non-Road Mobile Machinery (LEZ NRMM) sets strict standards to control emissions from construction sites. Standards will become more stringent in 2025 and 2030 with an aim for zero emission machinery by 2040. The London Environment Strategy and Transport Strategy commits the Mayor to lead by example and exceed these standards in GLA Group projects where possible.

- **Municipal purchasing power:** An updated Responsible Procurement Action Plan which commits the GLA Group to identifying opportunities to reduce emissions through our procurement activities was published in September 2022. Actions include: all new contracts to ensure zero-emission deliveries to GLA sites from 2025 and new benchmarks for sustainable construction were created in June 2022 and are expected to be adopted by the GLA Group in January 2023. We are also piloting ReLondon’s CE SME matchmaker platform to identify suitable construction and IT contracts.

- **Demand transparency and accountability, starting with requiring LCAs in planning permissions and embedding them into planning policies, processes and building codes within a year of endorsing this accelerator or in the next revision of planning policies and codes. Require the public disclosure of this data to facilitate greater transparency and foster accountability to develop robust baselines, standards, certifications and policies.**

- **Rewards:** As more case studies become available, we will promote best practice examples through the monitoring reports referred to against Commitment 1.

- **Planning policy:** As explained above, the whole life-cycle carbon policy was introduced in the London Plan in March 2021.

- **Public disclosure:** All whole life-cycle carbon assessments are publicly available via each borough’s planning portal. To make this information more accessible we will publish an annual report on progress, the first will be published by end 2022. We are also engaging with RICS as part of an industry working group to update the Built Environment Carbon Database to help create consistency in WLC data and share it publicly, and which planning applicants will be required to submit information to. The beta version of the data base is under consultation and users will be able to submit data in October 2022.

- **NRM monitoring:** All construction sites must register their NRMM on the GLA’s database to demonstrate compliance with the NRMM LEZ standards. Between 20 19 and 2022 this scheme has reduced PM and NOx emissions from NRMM by 42% and 36% respectively, alongside an 11.5% reduction in CO2 from construction NRMM. We routinely enforce compliance with the standards which has significantly improved compliance from 4.2 per cent without enforcement to 91 per cent with enforcement. Since 20 19, 2172 site audits have been undertaken. The Mayor of London has funded this NRMM LEZ scheme alongside match funding from local authorities.

- **London’s Circular Economy Route Map:** has been developed by ReLondon in partnership with London stakeholders to enable London to become a circular, resource-efficient city. The built environment is one of five focus areas with supporting actions to achieve this aim. The Mayor is working with ReLondon and partners to implement these actions. The Mayor will work with ReLondon to understand how the collective 2030 goals can be aligned with a future update of the route map.

- **We will also consider how future updates to the Mayor’s 15C Climate Action Plan can take progress against the Circular Economy Route Map and the 2030 collective goals into account as we develop our work on calculating and reducing scope 3 emissions.**

- **Through the Horizon 2020-funded, Circular Construction in Regenerative Cities (CIRCuIT) project, in collaboration with 31 Partners across the built environment chain in Copenhagen, Hamburg and Helsinki, the Mayor, along with ReLondon, aims to showcase how circular construction approaches can be scaled and replicated enabling cities to build more sustainably and transition to a circular built environment.**

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**Approve at least one net zero emission (operational and embodied) flagship project by 2025.**

- A number of net zero emission (operational and embodied) flagship projects have already been approved by the GLA in London including: 80 Charlotte Street and 10 Liverpool Street which have offset residual emissions to achieve net zero. Timber Square is also aiming to be net zero emission in line with the UKGBC framework. It is anticipated to be completed in early 2024.
- We will review the GLA Group project pipeline and identify potential projects that could be encouraged to meet the criteria by the end of 2022.

**Assess the impact our choice of materials and construction design will have on our cities’ overall resilience to climate impacts (i.e., increasing urban heat island, impermeable surface increasing the risk of flooding, etc.).**

- Our planning policy already integrates this thinking into building design. The London Plan (Policy SI 4) requires planning applicants to follow the cooling hierarchy to avoid overheating and undertake dynamic overheating modelling to identify and mitigate against overheating risk. It also requires consideration of Urban Heat Island (UHI) impact through design, choice of materials and incorporating green infrastructure. A UHI checklist for planning applicants is being developed and will be ready for use in 2023.
- Research and guidance into retrofit measures for existing buildings to improve their climate resilience has also recently been completed.
- The London Plan also has established policies on flood risk management and sustainable urban drainage to ensure climate impacts are understood and considered in building design.
- In light of the extreme weather events in London in 2022, we will undertake further work to assess whether planning policies related to UHI impact, flood risk management, and sustainable drainage are achieving intended outcomes.

**Work with and advocate for regional, national and supranational government to take action on sources outside the boundaries of our control.**

- We are working with national government through an expert advisory working group to share the lessons learned from introducing the WLC policy in London to help inform a national approach.
- We also work closely with local authorities outside London and most recently have provided expertise and advice to the South West Local Authorities who are intending to adopt our whole life-cycle carbon policy and guidance. As more local authorities introduce such policies this helps support its adoption at a national level.
- The Mayor’s powers to set and enforce the NRMM LEZ standards, and to define the scope of NRMM, are limited. Following our lobbying a commitment to introduce direct legislation is included in the Government’s Clean Air Strategy. We continue to publicly call for better regulation in this area at every opportunity.

**Publicly report every year on the progress our cities are making towards these goals.**

- We commit to reporting publicly.

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**ACCELERATOR COLLECTIVE GOALS**

**INTENDED ACTION/APPROACH TO SUPPORT THE GOALS**

**Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030**

- • Track and report progress against WLC benchmarks annually (first report due by end 2022) to inform future benchmark updates and future targets.
- • Continue to work with industry leaders (LETI, UKGBC etc.) on development of the benchmarks and identifying projects that could work towards the 50% collective aim.

**Reduce embodied emissions by at least 50% of all infrastructure projects by 2030**

- • All actions above will also apply to infrastructure projects.
- • A 6 month study is underway to understand the impact of the Mayor’s preferred net zero pathway on London’s utilities and road networks. It will include embodied carbon impacts and will help inform our engagement with the sector on how to improve infrastructure coordination, plan effectively for net-zero and minimise disruption and carbon impacts in London.

**Require zero emission construction sites city-wide by 2030, where technology is available**

- • Develop planning guidance to support the Non-Road Mobile Machinery Low Emission Zone (which has a city wide zero emission standard for construction machinery from 2040) and consider how it could align with the 2030 goal. New guidance will be developed in 2023.
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LEAD BY EXAMPLE WITH MUNICIPAL PROJECTS

Since 2010, the City of LA has a policy requiring all mixed C&D waste to be taken to City-certified C&D waste processing facilities. Non-compliance penalties of $5,000 per load are levied.

• Launch Zero by Design, a utility program to incentivize design teams to reduce operational and embodied carbon, by Q2 2021

• By Q4 2021, investigate how to offer preference points for contractors who utilize zero emission construction equipment on City projects.

• Work with BOE to implement Buy Clean CA requirements for steel, flat glass, and mineral wool board insulation procurement throughout 2021

• Work with BOE to pilot LCA review for City buildings by utilizing the LEED v4.1 pilot credit by Q4 2022.

• In 2021 revisit the ARO to see what enhancements might be helpful.

• Encourage adaptive reuse of existing buildings through developing incentives and fast track permitting for qualified projects by Q4 2021

• Work with businesses, industry, public institutions, residents, workers, social partners and other organizations to establish a joint roadmap and set interim targets towards the collective 2050 goals adhering to circular economy principles within two years of endorsing this accelerator, and incorporate it into our Climate Action Plan. The roadmap will provide an implementation pathway to the Clean Construction Accelerator actions and to reaching its goals inclusively and equitably.

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Approve at least one net zero emission (operational and embodied) flagship project by 2025.

LA has several City projects that are net zero energy, as well as one certified as LEED Net Zero Energy (our utility headquarters).

• During Q4 2020, prepare a stakeholder map and set up a working group meeting schedule for 2021 Working group invites will include, but may not be limited to, architects, engineers, contractors, developers, tenants, and City Departments.

• The working group will craft implementation targets with a foundation of equity and economic inclusion. The roadmap will be developed by 2022 and will be an addendum to LA’s Green New Deal (our CAP).

Assess the impact our choice of materials and construction design will have on our cities’ overall resilience to climate impacts (i.e. increasing urban heat island, impermeable surface increasing the risk of flooding, etc.).

• Heat island effect is of paramount concern in LA and several initiatives and code updates are in progress to establish cool streets and cool neighborhoods, make all new roofs cool roofs, and increase cool hardscapes on private property. The SRI number range is the prescriptive standard by which we verify project compliance, it has been calculated by ASTM E 1980 and verified by Lawrence Berkeley National Lab to be appropriate for LA’s climate conditions.

LA adopted the Adaptive Reuse Ordinance (ARO) in 1999 which offers regulatory exemptions and project streamlining for developers reusing an old site for a new purpose. 72% of ARO projects are developed within 1/2 mile from Metro rail stations and so have reduced VMT. ARO buoyed development during the last recession and is expected to do so again during this recession.

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**ACCELERATOR COLLECTIVE GOALS**

**Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030**

- Select a set of City buildings and calculate the embodied carbon of their design, construction, and operation to pilot as a baseline, by Q4 2021.
- Collaborate with industry groups to deliver training on the EC3 tool so the industry gains familiarity with low-carbon products and design choices throughout 2021.
- Launch working groups in 2021 for architecture, engineering, contractors, developers, and tenants to develop a roadmap to 2030.

**Reduce embodied emissions by at least 50% of all infrastructure projects by 2030**

- Select a set of City infrastructure projects and calculate the embodied carbon of their design, construction, and operation to pilot as a baseline by Q4 2021.
- Send market signals for low carbon and/or carbon sequestering concrete throughout 2021.
- Pilot use of above products throughout 2021.
- Work with Contract Administration, Procurement, and relevant departments to standardize terms for all City infrastructure project contracts by 2022.

**Require zero emission construction sites city-wide by 2030, where technology is available**

- By Q1 2021 investigate potential to add procurement preference to City contracts for contractors who use zero emission equipment. Implement for Public Works contracts by 2022.
- Convene focus groups in 2021 for general contractors to discuss how to advance electric equipment use in the region in accordance with the 2025 and 2030 goals.
- By Q4 2021 develop with South Coast Air Quality Management District a trade-in program for gas equipment to electric equipment.

**INTENDED ACTION/APPROACH TO SUPPORT THE GOALS**

- Mayor Garcetti’s leadership with networks of Mayors, Congressional leaders, and all levels of government - as well as planning for COP26 - can draw attention to embodied carbon action on a large scale.
- Report ongoing progress to C40 on an annual basis.

Example of financial resources available to deliver the commitments (can be applicable to one, some, or all of the accelerator commitments or supportive actions above).

- We will seek outside funding support to achieve the CCA from Energy Foundation and other foundations. Our City budget has been affected by COVID-19 and resources are limited at this time.
ACCIÓN PREVISTA/ENFOQUE PARA EL CUMPLIMIENTO DE LOS COMPROMISOS

Priorizar el mejor uso, reasignación y modernización del stock de edificios y la infraestructura existente en toda la ciudad para garantizar su uso óptimo antes de que se consideren los nuevos proyectos de construcción.

Predicar con el ejemplo en la contratación pública municipal:
- Exigiendo evaluaciones del ciclo de vida (ACV) y la desviación de los residuos de construcción y demolición de la eliminación de todos los proyectos municipales.
- Utilizar el poder de compra municipal para adquirir o exigir maquinaria de construcción con cero emisiones en los proyectos municipales a partir de 2025, cuando esté disponible.
- Premiar el diseño circular y de uso eficiente de los recursos, el uso de materiales con bajas emisiones de carbono y la reducción a cero de los residuos.

El programa de certificación de edificios sustentables está desarrollando criterios en conjunto con el Instituto Nacional de Antropología para edificios históricos.

Norma de residuos de la construcción, donde se establece el uso de concreto reciclado en la construcción de nuevos edificios públicos y privados.

Actualización de los lineamientos de compras del gobierno, enfocados a la adquisición sustentable, desde una perspectiva de análisis de ciclo de vida en el caso que existan estudio, o mediante el reconocimiento de certificaciones existentes.

Debido a este acuerdo, la CDMX está considerando permitir a este sector trabajar a distancia disminuyendo el uso de los edificios gubernamentales manteniendo estas áreas abiertas al público y creando nuevas áreas de coworking o trabajo colaborativo.

Aprobar al menos un proyecto emblemático de cero emisiones netas (operativas e incorporadas) para el 2025.

El programa de validación de impacto Ambiental para su autorización, por lo que a través de este instrumento pueden darse a conocer los detalles efectivos de obras. La Ciudad planea reforzar este tipo de instrumentos para que la información sea más precisa y el seguimiento de los residuos este actualizado y disponible.

Trabajar con empresas, industria, instituciones públicas, ciudadanos y otras organizaciones para establecer una hoja de ruta conjunta y fijar objetivos intermedios hacia los objetivos colectivos de 2030 que se adhieran a los principios de la economía circular dentro de los dos años siguientes a la aprobación de este acelerador y incorporarla a nuestro Plan de Acción Por Climático. La hoja de ruta proporcionará un camino de aplicación a los compromisos de acelerador de construcción limpia y a alcanzar sus objetivos de manera inclusiva y equitativa.

La CDMX busca desarrollar un mapa de Economía Circular con la UNEP, desde la perspectiva de empleo con resultados esperados para el 2021.

Actualmente, la CDMX cuenta con un Programa de Cero Residuos, siendo una política pública hacia una Economía Circular, con objetivos a 5 años donde esta establecido el reciclaje y reutilización de los residuos de la construcción y demolición.

La Ciudad de México está trabajando con la Unión Europea y la Agencia de Cooperación Alemana (GIZ) para cuantificar el número de toneladas de residuos de construcción generadas, incluyendo aquellas que son depositadas en lugares clandestinos u otras áreas con valor de conservación natural. El proyecto cubrirá trabajos públicos y privados y se espera que este completado para el 2021.

El Gobierno cuenta con un sistema de transparencia muy riguroso, en el cual se reportan los procesos de licitación desde su concepción hasta el término del proyecto. Cualquier obra de construcción requiere de una Manifestación de Impacto Ambiental para su autorización, por lo que a través de este instrumento pueden darse a conocer los detalles de su planificación e incrustándolos en políticas de planificación, procesos y códigos de construcción dentro de un año de respaldar esta acelerator. Exigir la divulgación pública de estos datos para facilitar una mayor transparencia y fomentar la rendición de cuentas para desarrollar lineamientos base, estándares, certificaciones y políticas sólidas.

Se está trabajando para formar vínculos con las oficinas locales dedicadas (SEDUVI, INVII) a la edificación de vivienda social para que incluyan una perspectiva de sustentabilidad en sus criterios.

Se trabaja en el establecimiento de incentivos para aquellos edificios que disminuyan su contribución mediante estrategias como azoteas blancas mediante el programa de acción climática.

Requiera transparencia y rendición de cuentas, empezando por exigir ECV en los permisos de planificación e incrustándolos en políticas de planificación, procesos y códigos de construcción dentro de un año de respaldar esta acelerator. Exigir la divulgación pública de estos datos para facilitar una mayor transparencia y fomentar la rendición de cuentas para desarrollar lineamientos base, estándares, certificaciones y políticas sólidas.

Exigiendo evaluaciones del ciclo de vida (ACV) y la desviación de los residuos de construcción y demolición de la eliminación de todos los proyectos públicos y privados.

Actualmente, la CDMX cuenta con un Programa de Cero Residuos, siendo una política pública hacia una Economía Circular, con objetivos a 5 años donde esta establecido el reciclaje y reutilización de los residuos de la construcción y demolición.

La Ciudad de México está trabajando con la Unión Europea y la Agencia de Cooperación Alemana (GIZ) para cuantificar el número de toneladas de residuos de construcción generadas, incluyendo aquellas que son depositadas en lugares clandestinos u otras áreas con valor de conservación natural. El proyecto cubrirá trabajos públicos y privados y se espera que este completado para el 2021.

El Gobierno cuenta con un sistema de transparencia muy riguroso, en el cual se reportan los procesos de licitación desde su concepción hasta el término del proyecto. Cualquier obra de construcción requiere de una Manifestación de Impacto Ambiental para su autorización, por lo que a través de este instrumento pueden darse a conocer los detalles de su planificación e incrustándolos en políticas de planificación, procesos y códigos de construcción dentro de un año de respaldar esta acelerator. Exigir la divulgación pública de estos datos para facilitar una mayor transparencia y fomentar la rendición de cuentas para desarrollar lineamientos base, estándares, certificaciones y políticas sólidas.

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Trabajar y abogar para que el gobierno regional, nacional y supranacional tome medidas sobre las fuentes fuera de los límites de nuestro control.

Informar públicamente cada año sobre los progresos que nuestras ciudades están haciendo hacia estos objetivos.

**OBJETIVOS DEL ACCELERADOR COLECTIVO**

Reducir las emisiones incorporadas en al menos un 50% en todos los edificios nuevos y en las principales retrofits para 2030

- La CDMX continuará en coordinación con la Comisión Ambiental Metropolitana para incluir medidas ambientales en el Valle de México.
- Se informa a través del Programa de Acción Climática y el Programa de Gestión Integral de Residuos, ambos de la Ciudad de México.

Reducir las emisiones incorporadas en al menos un 50% de todos los proyectos de infraestructura para el 2030

- La ciudad utiliza el proceso de Manifestación del Impacto Ambiental mediante el cual se reportan los residuos generados (RCD) y donde han sido depositados los mismos mediante el plan de manejo. Se va a verificar lo descrito en el plan de manejo de la obra y una vez aprobado se pretende que una unidad de verificación vaya al edificio para verificar que efectivamente se está llevando a cabo conforme a la normatividad.
- Con el fin de reducir los residuos de construcción y demolición, la CDMX planea el reciclaje de 6000 toneladas de residuos por día. Para tal efecto, la CDMX ha emitido un llamado en febrero del 2020 para la instalación de diferentes plantas de residuos de construcción y demolición (RCD), siendo del dominio de la CDMX y financiadas por el sector privado.

**ACCIÓN/ENFOQUE PREVISTO PARA APOYAR LOS OBJETIVOS**

- Revisión de los lineamientos actuales de los residuos de la construcción, donde se establece el uso de concreto reciclado en la construcción de nuevos edificios con la consulta pública planeada en el Q4 2020.
- Actualización de los lineamientos de compras del gobierno, enfocados en la adquisición sustentable (celdas solares, uso de material reciclado, instalaciones de bajo consumo de agua) a realizarse para el Q2 2021.
- La ciudad utiliza el proceso de Manifestación del Impacto Ambiental mediante el cual se reportan los residuos generados (RCD) y donde han sido depositados los mismos mediante el plan de manejo.

Ejemplo de recursos financieros disponibles para cumplir los compromisos (puede aplicarse a uno, algunos o a todos los compromisos de acelerador o acciones de apoyo anteriores).

- Inversión del sector privado para la instalación de plantas de reciclaje de Residuos de la Construcción y Demolición.

- Actualización de los lineamientos de compras del gobierno enfocados a la adquisición sustentable tanto de bienes como de servicios contemplando que esté sea finalizado para el Q3 2021.
- Revisión de Anexos técnicos de los servicios de obra pública contratados para el gobierno.

- Actualizar y agregar lineamientos para el Programa de Certificación de Edificaciones Sustentables para el Q4 2021, este programa incluye el uso de materiales de construcción reciclados para uso no estructural y el uso de pinturas con bajo contenido de COV’s.
ACCELERATOR COMMITMENTS

Prioritise the better use, repurposing, and retrofit of existing building stock and infrastructure across the city to ensure their optimal use before new construction projects are considered.

LEAD BY EXAMPLE WITH MUNICIPAL PROCUREMENT

- In June 2020, the Agency for Planning and Building Services launched new guidance and climate criteria to be applied for all new development, building and infrastructure projects done by the City of Oslo.

- Project developers are required to consider using existing building stock in their projects, including combinations of new and existing buildings. Oslo has in 2020 developed and approved guidelines for more climate friendly management of excavated building masses. Suppliers will also be credited for climate friendly/reduced transport of materials, personnel and waste.

- Oslo rewards using low-emission machinery to procure or demand zero-emission solutions in its public procurement.

- The climate guidance from the Agency for Planning and Building Services includes specific criteria to assess materials choice and construction-related emissions.

- On materials choice, it is required to assess the potential to reduce climate and environmental impacts through choosing more sustainable materials, such as wood, biomass-based materials, low carbon concrete, recycled metals etc. The municipal building agencies require at least two EPDs for each of the ten largest categories of building materials as well as emissions accounting for different phases of the project.

- There is also a requirement to consider indirect emissions as a result of the production and transport of materials.

- Oslo rewards using low-emission and zero-emission solutions in its public procurement.

- The new climate guidance from the Agency for Planning and Building Services will contribute to drive LCA practices in the construction and building industry.

- All information about public procurement is publicly available.

- Oslo has started to develop a strategy for circular economy, which is expected to be finalised by mid-2021.

- Oslo’s cooperation with the business community “Business for climate” promotes climate solutions for the private sector. New members in this organization must commit to reducing their climate footprint. In 2020, the network has had a specific work stream on construction and buildings, with a particular focus on reuse of materials. This work stream is likely carried forward in 2021.

- The climate guidance from the Agency for Planning and Building Services includes a requirement to consider the materials selected for the construction will be resilient to future climate change, for instance in terms of increased precipitation and temperature.

- In 2014, Oslo opened a zero-emission construction site in 2013, for infrastructure development in the city centre. All construction machinery at this site is electric.

- Oslo is also using FutureBuilt to pilot new technical solutions for low emission buildings.

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- In 2014, Oslo adopted a strategy for managing surface water runoff, for the period 2013-2030.

- An updated action plan was established in 2019 - Handlingsplan for overvannshåndtering. The action plan includes expanding the city’s green areas, build rain beds and open waterways, as measures to reduce the risk of flooding.

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Work with and advocate for regional, national and supranational government to take action on sources outside the boundaries of our control.

- Oslo is working with other cities in Norway as well as regionally, to stimulate a larger market for clean construction. The Big Buyers initiative plays a key role.

- At the national level, Oslo is seeking broader legislative mandates to set stricter requirements in our public procurement.

- Internationally, the city of Oslo has initiated the C40 Clean Construction initiative, launched in 2019. The initiative is very important in driving guidance, sharing experiences and mobilising influence on markets.

Publicly report every year on the progress our cities are making towards these goals.

- Oslo uses a climate budget approach to monitor progress towards our climate targets. The climate budget is presented annually as part of the overall budget, and includes progress assessment as well as new measures to be implemented.

ACCELERATOR COLLECTIVE GOALS

Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030

- Oslo’s overall climate target is to reduce greenhouse gas emissions by 95% by 2030, compared to 2009 levels.

- Oslo has conducted a baseline study on embodied carbon in buildings. Using the baseline study, the city is in the process of establishing a target on embodied carbon (by end 2021 at the latest) consistent with the accelerator commitment.

- In parallel, Oslo is exploring policy measures to meet such a target. Firstly, for municipal projects by setting maximum emission limits on embodied carbon and/or using tender competition criteria to reward the use of low-emission materials. These measures need to be implemented following the establishment of a target - starting in 2022. Secondly, how to use planning permits and processes to set requirements for the rest of the market for both Life Cycle Assessment (LCA) accounting in the 2021/22 timeframe, and also for specific materials emission requirements in the 2022/23 timeframe.

- Oslo is also using FutureBuilt to pilot new technical solutions for low emission buildings.

INTENDED ACTION/APPROACH TO SUPPORT THE GOALS

Reduce embodied emissions by at least 50% of all infrastructure projects by 2030

- The baseline study on embodied carbon also looked at infrastructure, but there are much less LCA data on infrastructure projects and more data collection is required.

- For infrastructure, the municipality itself is in charge of almost all projects. Oslo is setting low emission requirements in its procurement processes. The first step, in the 2023-2022 timeframe, will be requirements to conduct LCA accounting for all projects, followed by specific material emission requirements and/or tender competition criteria to incentivize low-emission materials.

- Oslo has several large new infrastructure projects towards 2030, including a new metro line and a new water supply pipeline. Both these two projects have a strong focus on reducing embodied carbon (https://www.klimaoslo.no/2019/07/05/tiltak-for-utslippsfri-anleggsplass/).

Require zero emission construction sites city-wide by 2030, where technology is available

- Oslo’s Climate Strategy towards 2030 states that municipal construction sites shall be zero emission by 2025 and all construction sites by 2030.

- To follow up the targets in the climate strategy, Oslo in 2019 approved a set of common procurement criteria for all municipal construction sites. These criteria require fossil-free (bio-fuels) construction as a minimum and award zero-emission technologies in all tender competitions. From 1 January 2025, all municipal construction sites must be emission free and transport to and from the sites must be emission free or biogas-fueled.

- Oslo is going to set a requirement for fossil free construction for many private sector projects, through its planning permits. The city is preparing to require zero emission construction in all planning permits in the future. This was approved in 2020 and fossil free construction will be required in all new planning permits.

- In the 2020 financial budget, 40 million NOK is set aside to support the procurement of zero emission machinery in municipal agencies.
**ACCELERATOR COMMITMENTS**

**INTENDED ACTION/APPROACH TO MEET THE COMMITMENTS**

**San Francisco’s Economic Recovery Task Force Report**, published in October 2020, includes a recommendation for adaptive reuse: 15 Promote reactivation and consider adaptive reuse of buildings for a vibrant San Francisco, complementing CAP Supporting Action 2. We have yet to develop specific approaches for implementation.

**The Municipal Green Building Task Force has approved a recommended draft update to Environment Code Chapter 7 that includes embodied carbon calculation and reduction requirements (including LCAs) for municipal construction projects. It also includes a per-square-foot cap on waste generated for Tenant Improvement projects and specific materials that must be source-separated during construction. Goal for adoption is early 2022.**

**San Francisco created a robust citywide policy for C&D waste diversion in 2006, banning the direct disposal of any such material to landfill. In 2015, we updated the regulation to mandate third party verification that facilities receiving C&D materials are maximizing recovery. This regulation has been recognized as an alternate compliance path for the LEED credit “C&D Waste Management” for Certified Commingled Recycling Facilities – the first program (and municipality) to do so.**

**Work with businesses, industry, public institutions, residents, workers, social partners and other organizations to establish a joint roadmap and set interim targets towards the collective 2030 goals adhering to circular economy principles within two years of endorsing this accelerator, and incorporate it into our Climate Action Plan. The roadmap will provide an implementation pathway to the Clean Construction Accelerator actions and to reaching its goals inclusively and equitably.**

**Demand transparency and accountability, starting with requiring LCAs in planning permissions and embedding them into planning policies, processes and building codes within a year of endorsing this accelerator or in the next revision of planning policies and codes. Require the public disclosure of this data to facilitate greater transparency and foster accountability to develop robust baselines, standards, certifications and policies.**

**We have a holistic view of the building materials reuse ecosystem and are starting to pursue several collaborations (CAP Supporting Actions 4-7). For example:**

**• Publishing by the end of 2021 a “Surplus Construction Products Reduction and Redistribution Study,” with the participation of 12 General Contractors and Developers and their subcontractors. Phase One is an opportunity to learn more about typical types and quantities of materials purchased but not installed. We hope to include a Phase Two that includes onsite inventory and donation.**

**• Partnered with the “All for Reuse Initiative” to create an alliance of large portfolio building owners/developers/renters to commit to rescuing and reusing salvaged/surplus products in their tenant improvement projects.**

**• San Francisco’s participation in the inaugural Reinventing Cities competition led to the commitment by a private development to strive for net zero emissions: The Kelsey Civic Center.**

**• We are currently exploring several options in the Recreation and Parks Department’s portfolio for a flagship net zero emissions municipal project.**

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Assess the impact our choice of materials and construction design will have on our cities’ overall resilience to climate impacts (i.e. increasing urban heat island, impermeable surface increasing the risk of flooding, etc.).

Work with and advocate for regional, national and supranational government to take action on sources outside the boundaries of our control.

Publicly report every year on the progress our cities are making towards these goals.

Related to deconstruction and material reuse:
• San Francisco has staff that are members of the Bay Area Deconstruction Work Group, working closely to promote shared solutions for deconstruction and material reuse with staff at other regional cities, as well as representatives from the Bay Area Air Quality Management District and US EPA Region 9.

• San Francisco staff has been appointed to the LEED Steering Committee, helping to inform the future requirements of the green building standard that has been integrated into codes throughout the US and internationally.

• One implementation proposal for CAP Supporting Action 1 is to require the achievement of two LEED credits as part of a first step for policy for both municipal and private-sector buildings. The credit “Building life-cycle impact reduction” (v4.0) awards points to projects for completing an LCA and reducing embodied carbon ≤3% compared to a baseline building. (The new version of the credit under v4.1 has 5%, 10%, and 20% thresholds.) There is also a credit “Building Product Disclosure and Optimization - Environmental Product Declarations”, which requires EPDs to be submitted for twenty different products. Using these LEED credits to document compliance would offer a standardized process for all construction projects that would ease the potential for public reporting on regular intervals.

ACCELERATOR COLLECTIVE GOALS

Reduce embodied emissions by at least 50% for all new buildings and major retrofits by 2030

San Francisco is in the process of updating our Climate Action Plan (CAP), with a goal for completion in December 2021. The following draft strategy for Responsible Production and Consumption offers a parallel track to address the Accelerator Commitment.

Strategy: Achieve total carbon balance across the buildings and infrastructure sectors.

• Supporting Action 1: Between 2022-2025, phase in policies to reduce embodied carbon more than 10% per project by addressing at least three product categories or building assembly types.

• Supporting Action 2: By 2023, develop a suite of incentives, policies, and/or guidelines for adaptive reuse of existing buildings, as well as the design and procurement of low carbon structural materials for new construction.

• Supporting Action 3: By 2025, establish a maximum allowance for embodied carbon of buildings, to be adjusted at regular intervals.

• Supporting Action 4: By 2025, amend existing policies to require deconstruction of buildings and increase the source separation of specific materials.

Reduced embodied emissions by at least 50% of all infrastructure projects by 2030

• Supporting Action 5: By 2025, engage with designers, landlords, and lessees to develop guidelines for tenant improvement and space turnover projects that reduce excess material purchases and support reuse distribution channels.

• Supporting Action 6: By 2025, create a policy framework to expand and cultivate regional building material reuse markets that support workforce development, small business enterprises, and entrepreneurial innovation.

• Supporting Action 7: By 2030, advance best practices for “Design Disassembly” and “Buildings As Material Banks” by creating implementation resources in partnership with global cities, and pilot at least one municipal project to maximize the value of carbon already invested in buildings.

Require zero emission construction sites city-wide by 2030, where technology is available

The following draft CAP supporting action for Transportation and Land Use advances low- and no-emission construction machinery.

Strategy: Accelerate the adoption of zero-emissions vehicles (ZEV)s and other electric mobility options.

Example of financial resources available to deliver the commitments (can be applicable to one, some, or all of the accelerator commitments above).
• Most of the actions and possible approaches outlined above require an expansion of existing programs or the creation of new programs and infrastructure. As such, they will require additional staff time FTE and funding.
• While we have been successful in receiving one grant so far, and are pursuing financial support via additional grants and partnerships with like-minded organizations to augment our ‘in-house’ capabilities, we will not be able to implement the scale of change desired in the timeframe allotted without new streams of capital, some of which will be necessary seed funding and others that will be needed mid- and long-term.