Students Reinventing Cities

A global competition for universities and students to share their vision for green & thriving city neighbourhoods

Rules and Regulations of the Competition

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Foreword

Climate breakdown and global temperature rise present an existential threat to the human race. They require a unified global response across all levels of society. Scientists estimate that we are currently on a trajectory that will increase average global temperatures by two degrees above pre-industrial levels by 2100. If these emissions are not appropriately addressed the world will become increasingly vulnerable to the adverse impacts of climate change.

Cities are where we must focus our efforts for a transition to a green and just future. We know that the majority of GHG emissions come from cities and their built environment. As urban populations increase, compact, well connected communities are our best and only way to preserve global resources and fragile biodiversity.

Now more than ever, we must harness a model for low-carbon urban development that promotes a thriving and inclusive future for all our citizens. The C40 Students Reinventing Cities programme provides an opportunity for academics and students to collaborate with global cities. Together they will imagine a more sustainable and inclusive vision for cities everywhere, by rethinking city neighbourhoods.

This competition comes at a key moment. We are at a possible turning point in the global fight against climate change. Across the world, cities are strengthening their climate commitments and actions as we work towards a Global Green New Deal. They are developing an ambitious agenda for a green and just recovery to the COVID-19 crisis and building a broad coalition with youth climate activists, representatives from labour, business, academia and civil society.

We are ready to take bold action in this vital revolution for a greener and more equitable future. Are you ready to join us?

Mark Watts, Executive Director of C40 Cities

Objectives

The Covid-19 pandemic and the devastating impacts of climate change act as a wake-up call. It raises awareness of how urgently we must protect our common good and the environment.

This new reality has also changed the way we live, move, work - deeply impacting on our routines and the quality of our urban life. These shifts have led to city dwellers adopting a more locally based lifestyle. This provides an opportunity for us to rethink our neighbourhoods in a way that accelerates the urban green transition.

For the Students Reinventing Cities initiative, 18 global cities have identified small neighbourhoods, blocks or main streets they intend to revive. Together with C40, they invite multidisciplinary teams of students from around the world to imagine a pathway to decarbonize these urban areas and improve the quality of life for local communities. Students Reinventing Cities will:

- actively drive collaboration between students and city governments to deliver new approaches for low carbon urbanisation
- support the development of new ideas and innovative solutions that can be rolled out on a global scale
- create a space for academics and students to contribute to addressing the climate crisis and shaping a future that has climate and social justice at its heart.
- strengthen students' knowledge on the leading policies, solutions and technologies on sustainability

Structure of the competition

Participants are required to choose one (or several) site(s) from the 18 cities. Participants do not need to choose the site from the city they reside or study in. Participants will develop a design response and comprehensive action plan for the site to regenerate the area with green solutions.

A Site Form will be provided for each city. This will be prepared by the City and summarise the context of the site and detail the cities' objectives and specifications for the projects. This should be read in conjunction with the details and requirements outlined in this document. An online folder ("dataroom") will also be made available so cities can share all relevant data and documents related to the site.

www.c40reinventingcities.org is the website dedicated to the C40 Reinventing Cities initiatives. Within this website, a tab will be dedicated to the Students Reinventing Cities competition.

Calendar

The competition consists of two key phases: Registration; and the submission of the Final Project.

The timeframe of the competition is outlined below. Some cities may propose a slightly different timeframe which will be specified in the Site Form.

- Competition kick-off: 10 December 2020
  - Opening of the website, all information available online
  - Q&A via the website (from 18th February to 1st April 2021)
  - Series of webinars to present the competition and the sites (February and March 2021).
- Registration (mandatory): participating teams must register prior to Thursday 15th April 2021 at 5 pm Coordinated Universal Time (UTC)
  - Q&A via the website (from 29th April to 13th May 2021);
  - Series of webinars to support the teams to shape their project (April and May 2021)
- Submission of the Final Project: Submissions close Thursday 27th May 2021 at 5 pm Coordinated Universal Time (UTC)
- Analysis of the proposals and final selection by the juries (one jury for each site) (approx. 1 month)
- Announcement of the winning projects: July 2021

Details about Q&A and Webinars

For a limited window of 1 month before the deadline for both the registration and the final submission, questions relating either to the site or to the competition may be asked through the question box on the page dedicated to the site on the website. The City and C40 will analyze the questions. Answers to the most important questions will be gathered and included in a consolidated FAQ that will be shared with all the teams through the site *dataroom*.

Webinars will be organized by C40 and the cities at different stages of the competition. The objectives of these webinars are to share information about the competition and the sites as well as to provide training to the students on urban sustainability and decarbonization to help them to shape

their project. The information about these webinars will be indicated on the website and send directly to the people that shared their contact with the organizer through the website (using the tab 'Keep me informed about this site').

Team Composition

Throughout this document, the term "University(ies)" will refer to research institutes, schools, colleges and all the academic world in higher education, above high school level.

Teams must be composed of current university students, enrolled during the 2020-2021 (or 2021) academic year.

It is expected that in developing a response, students will draw on knowledge from a wide range of disciplines. To support this, teams may include participants from multiple departments such as architecture, urbanism, environment, engineering, real estate development, sociology, economy, art etc.

The Students Reinventing Cities competition encourages international collaboration between universities. Teams may combine members from the same university or different universities.

It is recommended (but not required) to appoint a member in charge of the project design such as a student in architecture or urbanism, and a member with environmental knowledge.

It is recommended (but not required) to have a faculty advisor who may offer support and resources. Students may also consult other external experts. Advisors and external experts cannot directly develop the project or any of the documents to hand in.

Each team must designate one member to receive all official communication and be the main point of contact for the group throughout the competition.

The teams can alter the composition (size and members) of their consortium throughout the competition. However, after the Registration phase, it is expected that the main point of contact will stay the same.

Ten Design Principles for a Green & Thriving City Neighbourhood

The Students Reinventing Cities competition aims to harness new models for **green** and **thriving** city neighbourhoods, that embrace both:

- **the imperative of emissions reduction.** Teams are invited to consider operational emissions, embodied emissions from any construction of the project and the consumption-based emissions linked to the way of living and consuming of the residents
- **the critical goal to ensure the quality of life for local communities.** Teams are invited to consider models such as '15-minute City / 20-minute neighbourhood', which is increasingly adopted as a valuable urban planning principle.

These two main objectives are linked and must be approached in an integrated way. Therefore, the competition defines ten design principles that the teams are invited to consider while they are developing their project.

1- Close to home

The project should strengthen a model of compact neighbourhood where people can access everything they need within a short walk or bike ride of their home. This relies on mixed-use planning from the district-scale down to the building. Instead of single purpose areas, the project should support a balanced diversity of 'human-scale' activities. It should also support the local economy and inject life into streets by encouraging active ground floors and temporary activation. When possible, spaces should be used for multiple purposes at different times of the day or week to make the most of existing stock, minimizing the need for new construction and helping concentrate activity in existing areas.

2- People-centred mobility and thriving streets

Walking and cycling should be the main way people get around in the neighbourhood and can be encouraged through well-designed urban spaces and services. Reclaiming city spaces from private vehicles to widening of sidewalks and create cycle lanes, encouraging vegetation in the street and developing parking and repair services for bikes, are especially important to create safer and more enjoyable routes to cycle and walk. Tactical urbanism may also be considered to inspire residents. To de-incentivize the use of individual fossil fuel transport, the project should also foster the use of public transport, shared vehicles and electric and other low-emission vehicles.

3- Connected place

Although the project should foster a more locally based lifestyle, it is vital to strengthen physical and digital links with other parts of the City and beyond. District scale projects provide the opportunity for creating, extending and refurbishing public transport and digital infrastructure that enhance social and economic connectivity and enable more flexible working practices. Digital and smart approaches can also play a significant role in improving the efficiency of infrastructure solutions, for example by optimizing transport systems and energy consumption.

4- A Place for everyone

The project should not only aim to address the causes and impacts of GHG emissions but also raise the quality of life of local communities. In particular, it should include varied and affordable homes and amenities so everyone can find a decent place to live in the neighbourhood. The design should support health and wellness. For example, to foster connectedness, the project may create spaces dedicated to public/collective use such as shared gardens and third places. It should also aim for an equitable distribution of positive impacts from climate action including lower energy bills and economic opportunities. Finally, the involvement of the local community and stakeholders in the development of the project will be key, especially as decarbonizing the area will require wide-ranging behaviour change.

5- Clean construction

The objective is to reduce embodied carbon, which refers to emissions caused by extraction, manufacture, transportation, assembly, maintenance, deconstruction and end of life aspects in buildings and infrastructure. For that, the project should first optimize the existing built assets, by using them better, repurposing them or retrofitting them before considering new construction. New construction should be made in the most effective way, which means reducing the need for new materials by reusing materials as far as possible and choosing construction materials with lower embodied emissions (e.g. local and biomaterials such as sustainably-sourced timber).

6- Green Energy and buildings

Energy efficiency is a high priority in the design and operation of the buildings and public spaces. The energy strategy developed by the teams should strive to include the following hierarchy: (i) reduce building and infrastructure energy demand through passive design and retrofit; (ii) minimise

inefficiencies within the energy distribution and strengthen occupant control and monitoring; (iii) decarbonise energy supply and prioritise local renewable generation; (iv) include a storage network built on decentralised energy systems (v) invest in long-term district-wide digitally enabled energy infrastructure to share loads and reduce peak demands.

7- Resource management

Resource management, and especially water and solid waste, should move from linear consumption to circular conservation and incentivize resource efficiency. Working at neighbourhood-scale provides an opportunity for a fuller transition to a circular economy, and especially to scale up reuse and recycling by providing the necessary infrastructure. In order to address the impacts of water shortage or droughts, districts should seek to lower water demand and manage water usage sustainably. To decrease solid waste generation, districts may reduce single-use materials and surplus food, fostering goods repairability and recyclability. They may also consider implementing source-separated collection, specifically for food waste and other organics.

8- Green space, climate resilient and nature-based solutions

The primary objective should be to provide all residents access within a 15-minute by walking or cycling to a high-quality open green space. Large-scale green spaces are essential to improve mental and physical wellbeing and to support climate resilience, biodiversity and ecosystem services such as pollination. In addition, the project should develop a 'green throughout' approach by using public space and buildings for expanding tree canopy and increasing permeable ground or roof cover. This helps to improves the quality of urban space but also to mitigate the heat island effect and to reduce the energy needed to cool and heat buildings. The project may also develop urban agriculture to decrease food miles and to raise awareness about the benefits of fresh, seasonal food and local production.

9- Sustainable lifestyles

The objective is to design and use the site to develop new ecological practices and services that will foster sustainable lifestyles and consumption. Strategies include spaces for bike storage and services, infrastructure for waste segregation and collection, development of sustainable freight and urban logistics, dedicated creation of pooled and shared services, etc. Teams should also consider integrating methods of producing and trading goods that foster sustainable consumption habits such as encouraging local production and urban agriculture, embracing circular economy approach with Fab-labs, zero-waste stores and shared spaces that allow retailers and craftspeople to experiment and pool their resources.

10- Green economy

A successful neighbourhood is one which can thrive environmentally, socially and economically. The project should seek to create green jobs and long-term prosperity with the environmental considerations of ecosystem resilience and resource efficiency. This can be achieved by using the development process to incubate new skills and green jobs; providing spaces and infrastructure to support sustainable businesses; promoting training and upskilling opportunities, especially for young people and older workers.

The teams are invited to consider all the 10 principles while developing their project. However, it is important for teams to focus on the principles that are most appropriate for the site, i.e. emphasize those which will enable the city and the local communities to catalyse change. In the Site Form, each city has indicated specific environmental priorities and objectives for its site.
More information about these 10 principles may be found in the document *Guidance to design a green and thriving neighbourhood* will be available on the website.

Submission

Registration

Participating teams will be provided with a template ("Team Form") to register for the competition. This will be provided on the website. In this form, the teams will specify the expertise each member brings to the team and the university program they are enrolled in. The main point of contact should also be identified.

Content of the Final Projects

The final proposals should be made of four (4) different documents:

1. A completed Team Form

The teams must submit a new Team Form that replaces the one submitted during the Registration phase. Within this form, participants must report any changes in the composition of the team. They must also detail how they worked together to prepare the project (in a specific document of max 1 page). For example, the team may indicate if the consortium worked with an advisor; if they engaged with specific stakeholders such as experts, local associations, actors and citizens; or whether they conducted specific research works. In this 1-page document, the team should not mention the name of the team members and of the Universities they are part of and neither the name of their eventual advisor.

2. The Presentation of the Project

The Presentation of the Project is a comprehensive action plan that consists of a maximum of 10 pages (A4 or US Letter) made of text as well as illustration such as pictures, drawings and sketches. This document should present the actions/solutions proposed by the team to regenerate the area according to the 10 Principles and the priorities outlined by the City in the Site Form. It is recommended to include:

- **The design concept** to specify how the project is integrated into its urban environment and to outline the design choice. It is expected the team will include drawings, site plans and sketches.
- **An environmental assessment of the project** to evaluate the environmental benefits of the projects and especially in terms of reduction of greenhouse gas emissions. It is expected that a summary is provided in the main 10-page document, however, teams may submit further detail (e.g. calculation, justifications etc.) in a specific appendix (max 5 pages).
- **An evaluation of the community benefits** of the project to specify the broader impacts their project will have on the quality of life of communities.

3. Graphic Presentation

Each team shall provide:

- **one digital illustration board** (A3 or tabloid format) to present their project. The board should indicate the project's title and the name of the city. It should be made of plans, drawings, and any other graphics. Short text can be embedded. The board must be set in Landscape orientation.

- **Three high-resolution images/drawings (**1600 x 900 px minimum), that should reflect clearly your main ideas (without any text embedded). They may be the same or similar to those on the digital boards. These will be used for communication purpose, so please select images that you think will best meet this purpose. At least two of the three images must be in Landscape 16:9 format (format .jpg).

4. Implementation Plan

The Implementation Plan will consist of a maximum of 3 pages (A4 or US Letter). It will outline budget, timeframes and phasing, compliance with the planning rules, specific technical challenges, key actors and responsibilities.

Submission Requirements

All submissions must be written in English or the language indicated on the Site Form and must use the local measurement units and currency where applicable.

All documents (Registration and the Final Project) must be submitted electronically through the Site Page on the website.

All four of the "Final Project" documents must be uploaded in a single .zip compressed file that must not exceed 1.5 GB. The City and C40 reserve the right to use documents submitted by the teams for public communication purposes.

Judging Criteria and Juries

For each site, the final projects will be judged and selected based on the following criteria:

1. **Quality of the team and of their approach to developing the project**. The jury will assess the different expertise included in the team and the approach used to develop the project. They will specifically value multidisciplinary teams and teams that engaged with stakeholders or undertook an innovative approach to collaboration in the development of their project. The competition complies with principles of anonymity, transparency, equal treatment, and non-discrimination. The jury will therefore not have access to the following information: the name of the team members and of the Universities they are part of and neither the name of their eventual advisor.
2. **Quality of design and relevance of the project to the specifics of the site**. The jury will assess the team's understanding and response to the local context and the city's expectations and objectives. The quality of the design proposed will be evaluated against the extent to which it responds to the site-specific context.
3. **The proposed solutions to respond to the 10 principles.** The jury will assess the quality and the innovative nature of the proposed solutions in delivering on the principles. Solutions will also be considered in terms of their replicability across the City and the World.
4. **The feasibility of the project.** The jury will assess the team's Implementation Plan and evaluate the feasibility of the project, against city-specific considerations, such as costings, technical elements, compliance with local rules and broader project timelines.

For each site, the final projects will be evaluated by a jury that will be composed of representatives from the City, C40 and may include external international experts. The composition of the juries will be made public.

A winner will be selected for each site.

Awards

For each site, the winning team will:

- Receive public recognition by both the City and C40 through a public event. This will include the receipt of an official Certificate signed by the Mayor of the City and the Director of C40
- Receive coverage in a local and global communication campaign (incl. social media, press release, featuring on the C40 Reinventing Cities website)
- Be featured in an official video sponsored by C40 that will celebrate their project
- Be invited to present their project to business leaders, city officials and leading climate organizations in a virtual event
- Be invited by the City to stay involved in an advisory role regarding future projects in the area