

EXPLORANDO LOS BENEFICIOS DE LA CONSISTENCIA Y COMPARABILIDAD DE LOS INVENTARIOS DE EMISIONES DE GASES DE EFECTO INVERNADERO EN TODA LA CIUDAD

OCTUBRE 2018



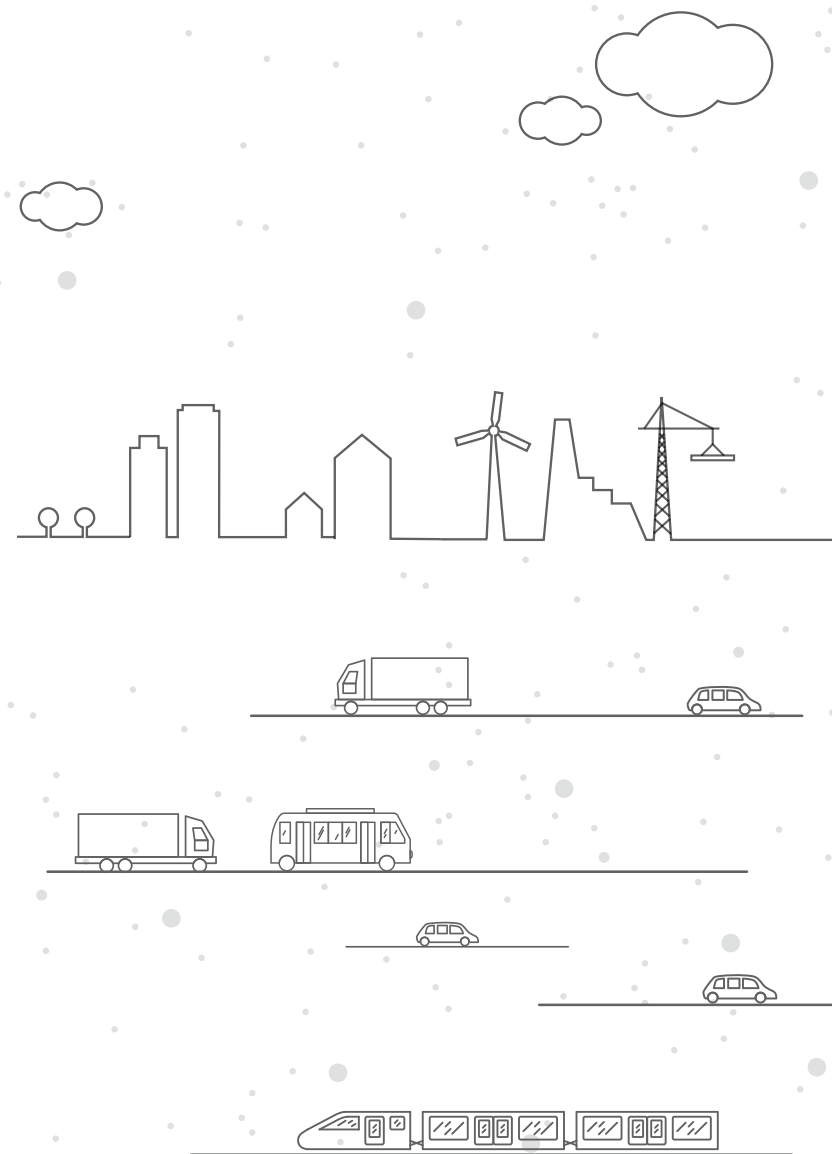
EXPLORANDO LOS BENEFICIOS DE LA CONSISTENCIA Y COMPARABILIDAD DE LOS INVENTARIOS DE EMISIONES DE GASES DE EFECTO INVERNADERO EN TODA LA CIUDAD

Para actuar contra el cambio climático hay que empezar con un minucioso análisis de las emisiones de gases de efecto invernadero. Por este motivo, en 2014, C40, ICLEI y el World Resources Institute lanzaron el Protocolo Global para Inventarios de Emisión de Gases de Efecto Invernadero a escala Comunitaria (también denominado GPC) para apoyar a las ciudades a medir y reportar emisiones de gases de efecto invernadero en toda la ciudad de una manera robusta, comprensiva y consistente.

Hasta la fecha casi dos tercios de las ciudades miembro de C40 ya están midiendo sus emisiones GEI en línea con el GPC, a las que seguirán muchas más. Globalmente, el GPC también se ha convertido rápidamente en el estándar de esta naturaleza más usado.

Un estándar global permite la comparación, 'benchmarking' y agregación, y potencia mejoras en la calidad de la información y transparencia. Los inventarios de emisiones GEI robustos ayudan a las ciudades a tomar mejores decisiones sobre las acciones elegidas para reducir emisiones y permite monitorizar emisiones a lo largo del tiempo.

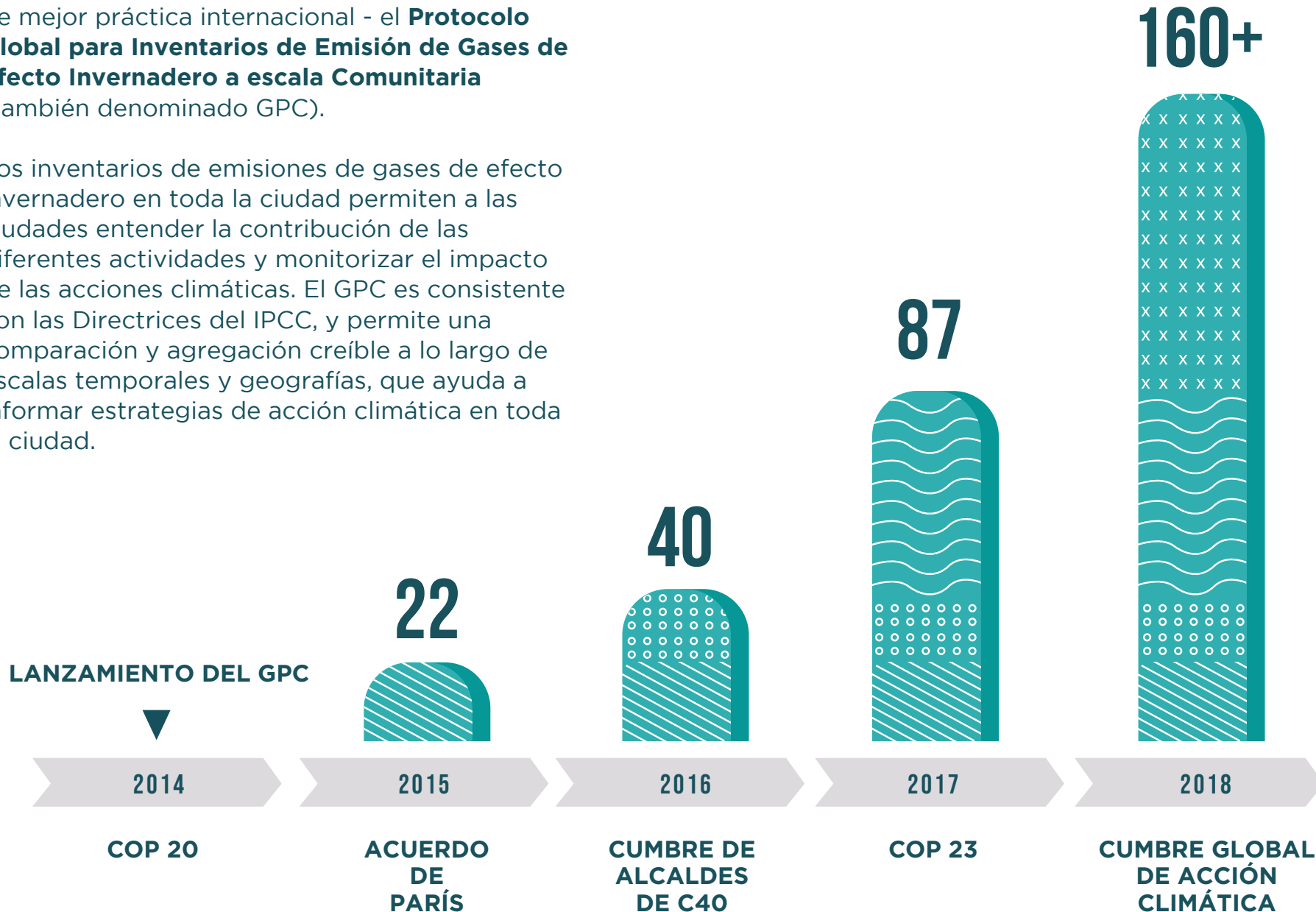
Por medio de una serie de infografías, basadas en el análisis de más de 160 inventarios de emisiones GEI de 60 ciudades de C40 que han adoptado el GPC, este informe explora las actividades resultantes en emisiones GEI y demuestra el valor de adoptar un enfoque impulsado por la recopilación de información para combatir el cambio climático.



Cada año muchas más ciudades desarrollan inventarios de emisiones de gases de efecto invernadero en toda la ciudad usando el estándar de mejor práctica internacional - el **Protocolo Global para Inventarios de Emisión de Gases de Efecto Invernadero a escala Comunitaria** (también denominado GPC).

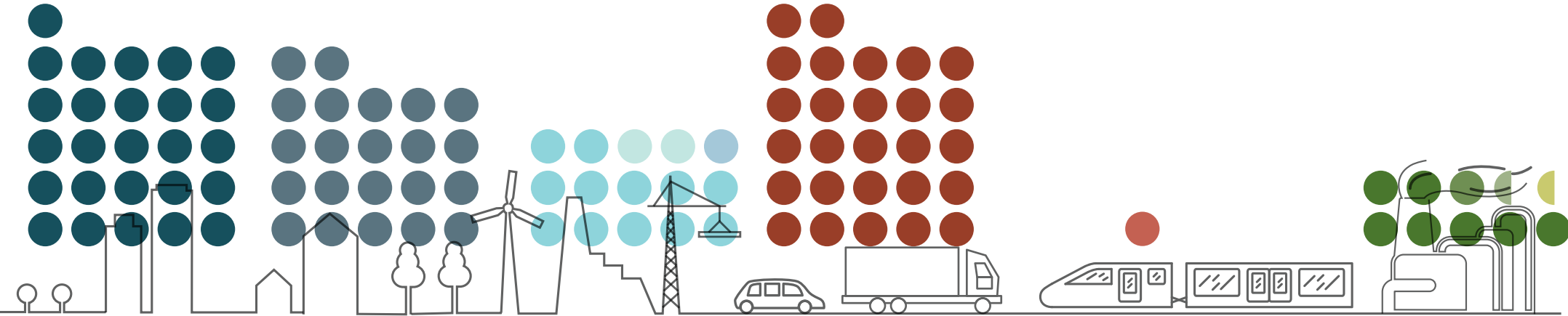
Los inventarios de emisiones de gases de efecto invernadero en toda la ciudad permiten a las ciudades entender la contribución de las diferentes actividades y monitorizar el impacto de las acciones climáticas. El GPC es consistente con las Directrices del IPCC, y permite una comparación y agregación creíble a lo largo de escalas temporales y geografías, que ayuda a informar estrategias de acción climática en toda la ciudad.

NÚMERO DE INVENTARIOS GPC COMPLETADOS POR CIUDADES DE C40



La gráfica contiene el número de inventarios presentados por 60 ciudades de C40
Los inventarios incluidos corresponden al año en el que fueron presentados públicamente

City-wide GHG emission inventories help us understand where a city's GHG emissions come from. Across 60 C40 cities, buildings represent 60% of the total GHG emissions



○ = 1%

BUILDINGS

- 26% COMMERCIAL AND INSTITUTIONAL
- 22% RESIDENTIAL
- 12% MANUFACTURING AND CONSTRUCTION
- 2% ENERGY INDUSTRY
- 1% OTHER

TRANSPORTATION

- 27% ROAD
- 1% RAILWAYS

WASTE

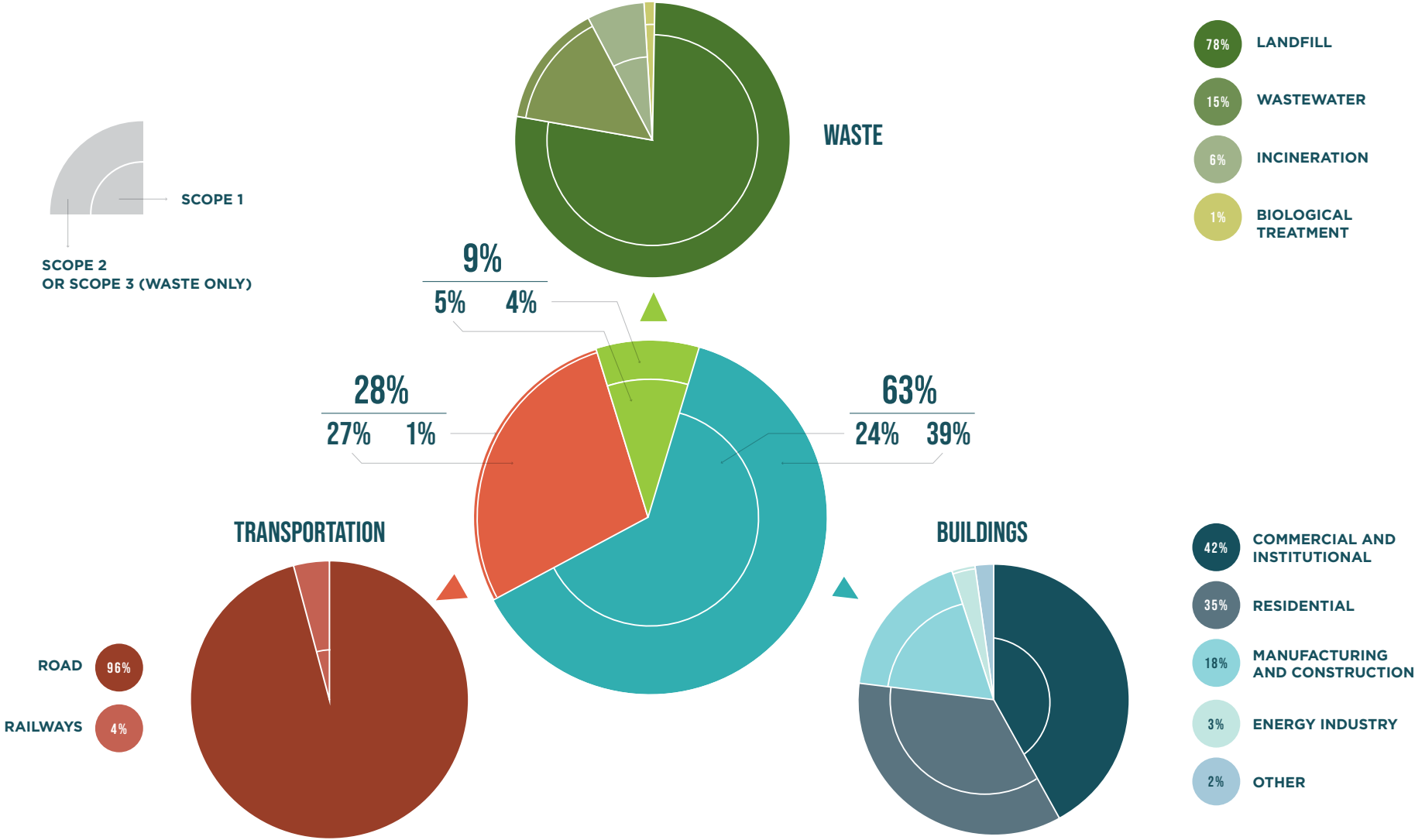
- 7% LANDFILL
- 1% WASTEWATER
- 0.5% INCINERATION
- 0.5% BIOLOGICAL TREATMENT

Where incineration is used to generate energy, emissions are captured under buildings scope 2

Emissions from airborne and waterborne journeys that both originate and terminate within city boundaries are negligible. Trans-boundary air and water travel are not captured at GPC BASIC level

Average of latest available GPC BASIC level GHG emissions data for 60 C40 cities. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

City-wide GHG emission inventories help us understand where a city's GHG emissions come from



Scope 1: GHG emissions from sources located within city boundary, e.g. direct fuel combustion
 Scope 2: GHG emissions from the use of grid-supplied energy
 Scope 3 (Waste only): GHG emissions that occur outside city boundary as a result of city activity, e.g. waste exported

Where incineration is used to generate energy, emissions are captured under buildings scope 2

Emissions from airborne and waterborne journeys that both originate and terminate within city boundaries are negligible. Trans-boundary air and water travel are not captured at GPC BASIC level

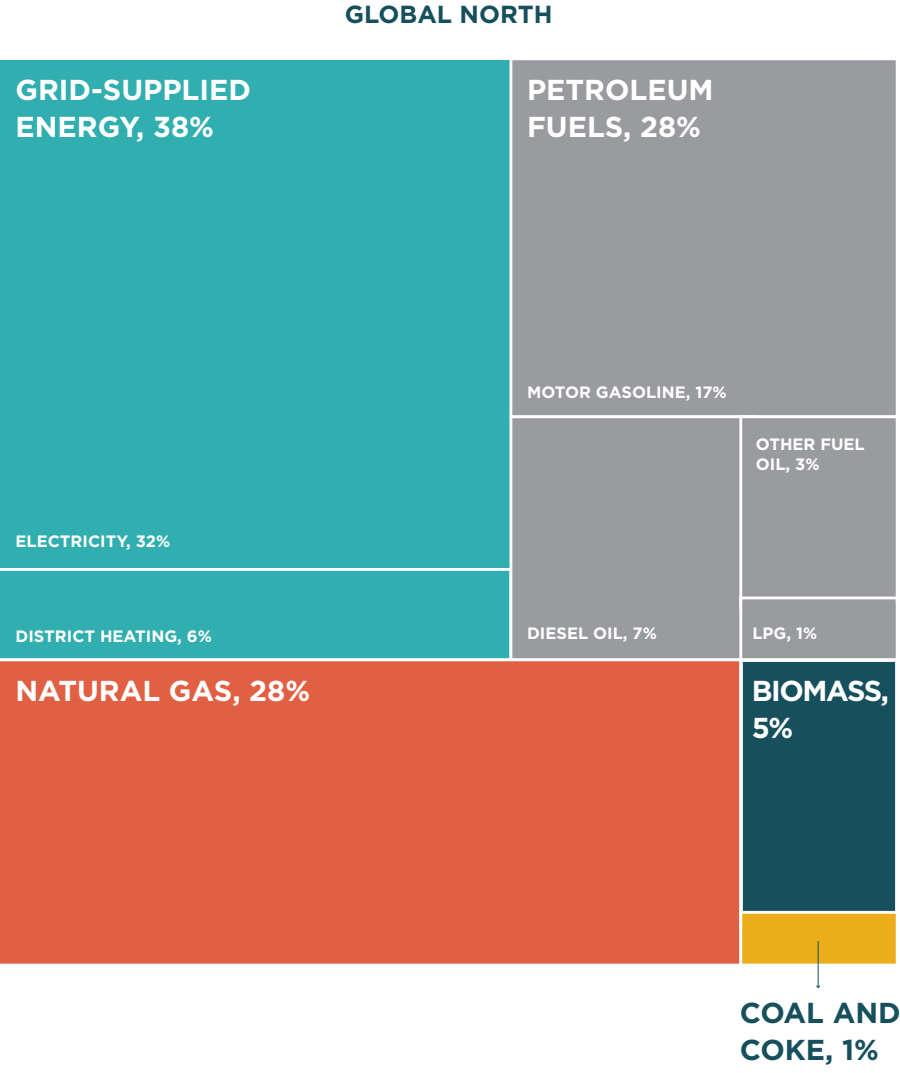
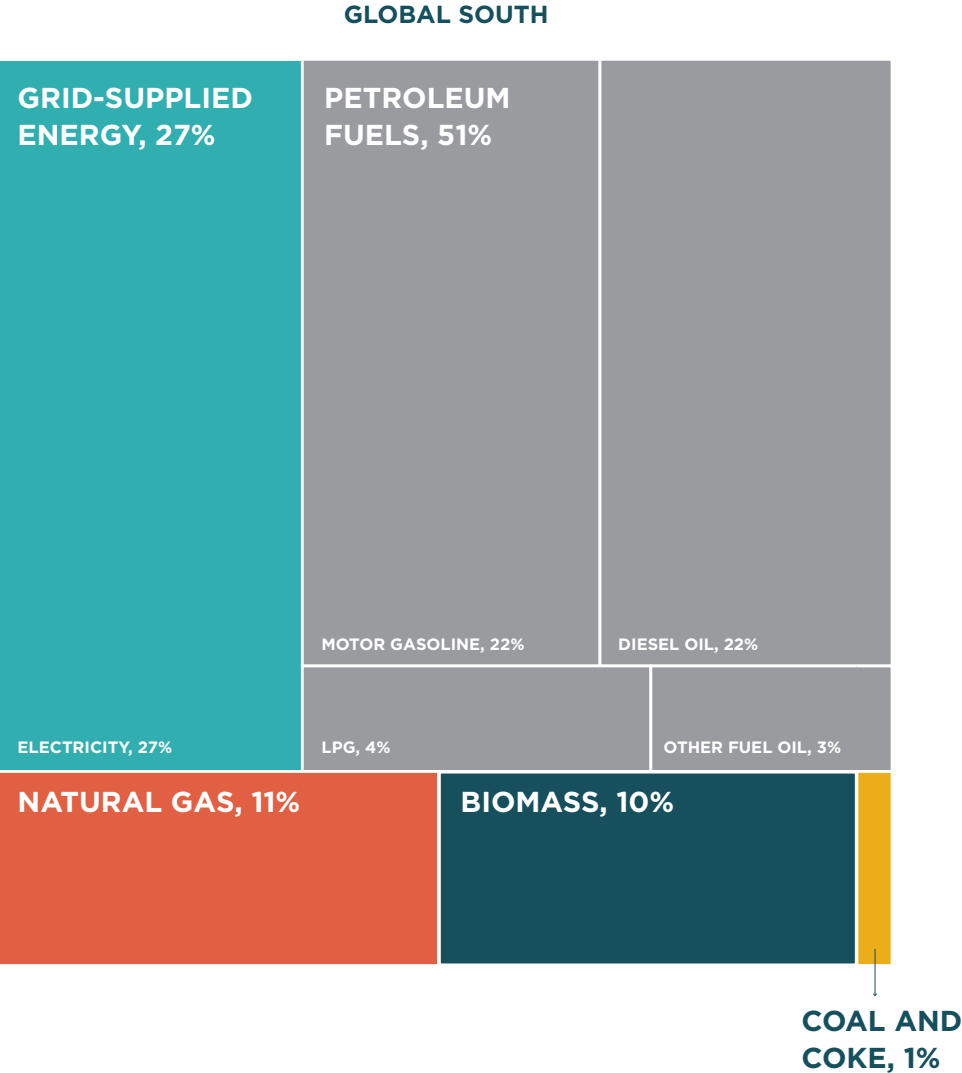
Average of latest available GPC BASIC level GHG emissions data for 60 C40 cities. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

A global standard for measuring city-wide GHG emissions allows differences and similarities between cities to be explored. For example, in the Global South, waste emissions can represent up to 45% of a city's footprint



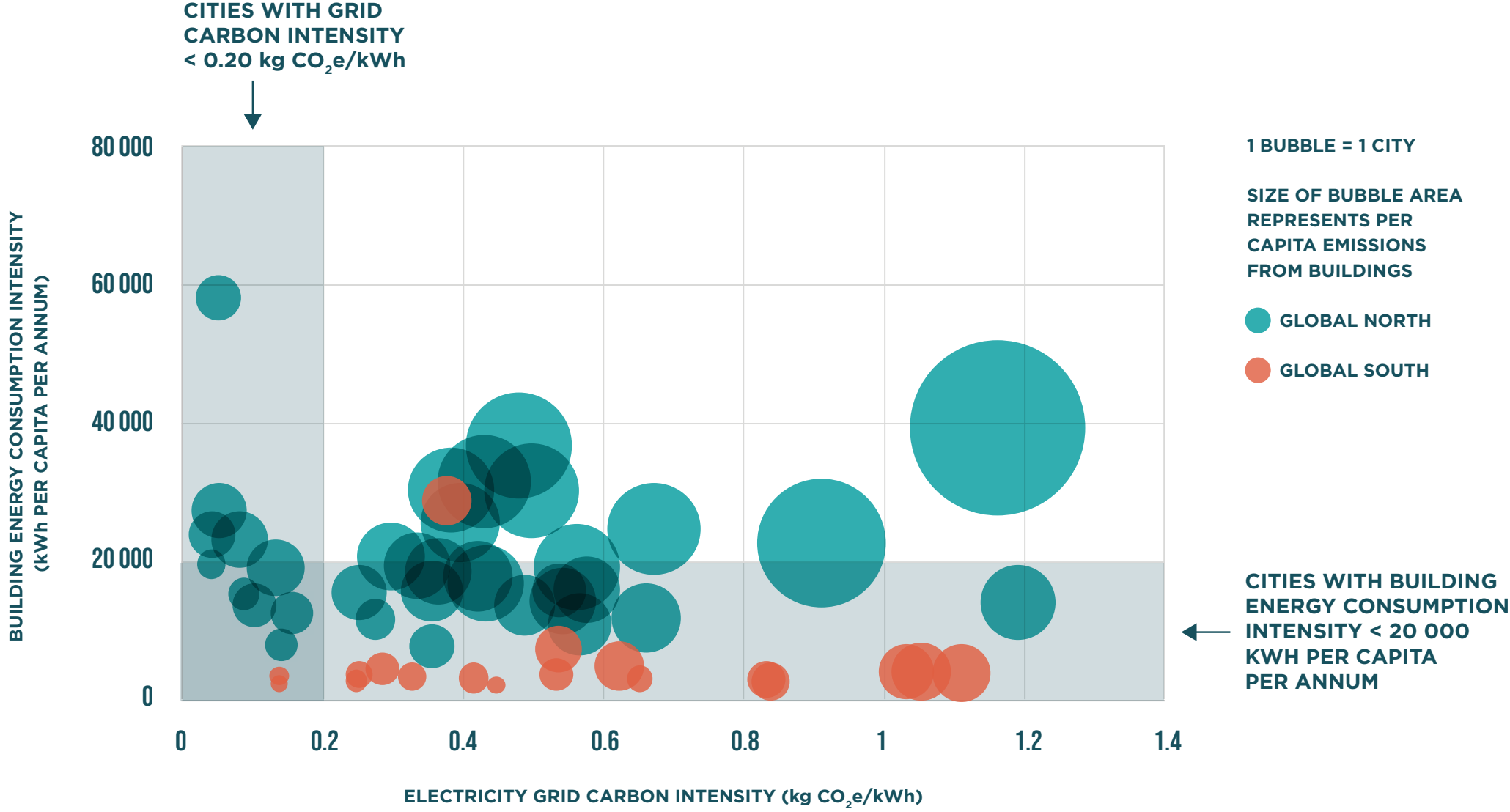
Latest available GPC BASIC level GHG emissions data, by sector. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

Fossil-fuel based energy use is the dominant source of GHG emissions across C40 cities, noting a greater reliance on petroleum fuels in the Global South and a greater proportion of natural gas and grid energy use in the Global North



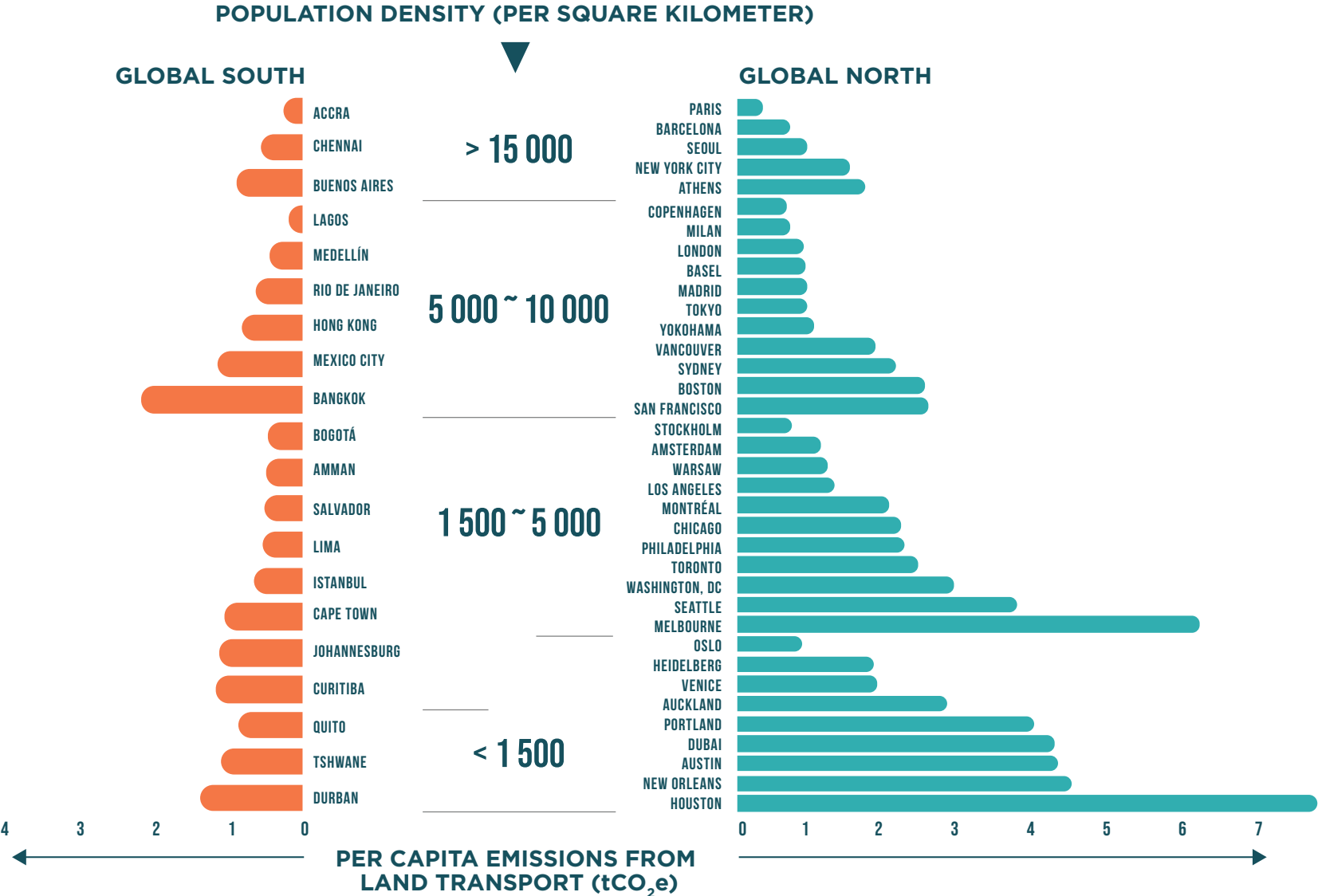
Average of energy consumption profiles reported in latest available GPC BASIC level GHG inventories from 19 C40 cities in the Global South and 35 C40 cities in the Global North, with each city weighted equally. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

GHG emission inventories reveal how improving building energy efficiency and reducing electricity grid carbon intensity can lead to lower building-related GHG emissions



Latest available GPC BASIC level GHG emissions data for 60 C40 cities. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

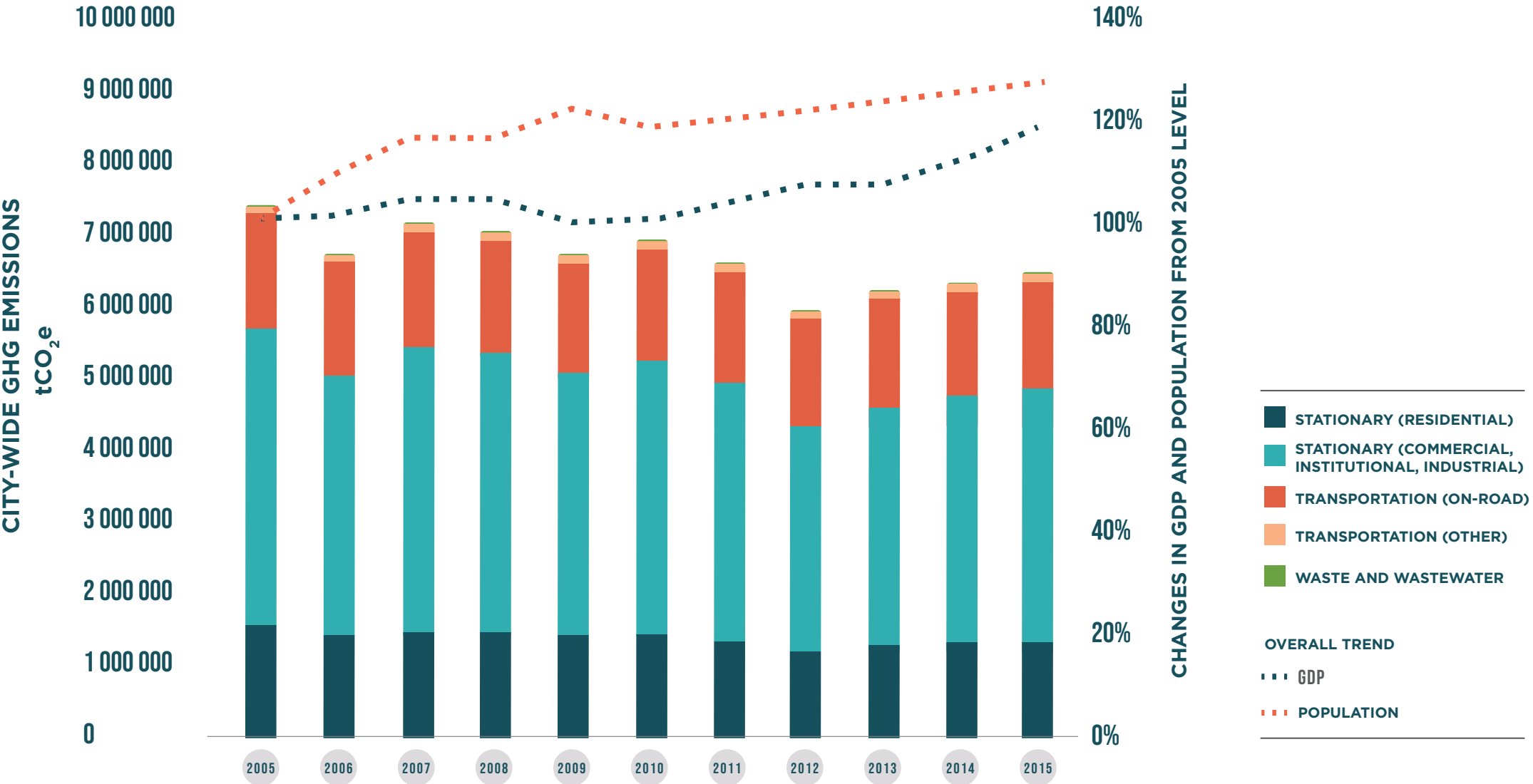
GHG emission inventories reveal how compact and connected city planning can result in lower emissions from land transport



Land transport includes road and rail transport of people and goods

Latest available GPC BASIC level GHG emissions data for 60 C40 cities. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

Regular and consistent reporting of GHG emissions supports monitoring of performance over time. Cities like Boston can demonstrate that emissions have peaked while the population and economy have grown



To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

Assessing GHG emission inventory data quality helps identify where future improvements could be made

■ HIGH ■ MEDIUM ■ LOW

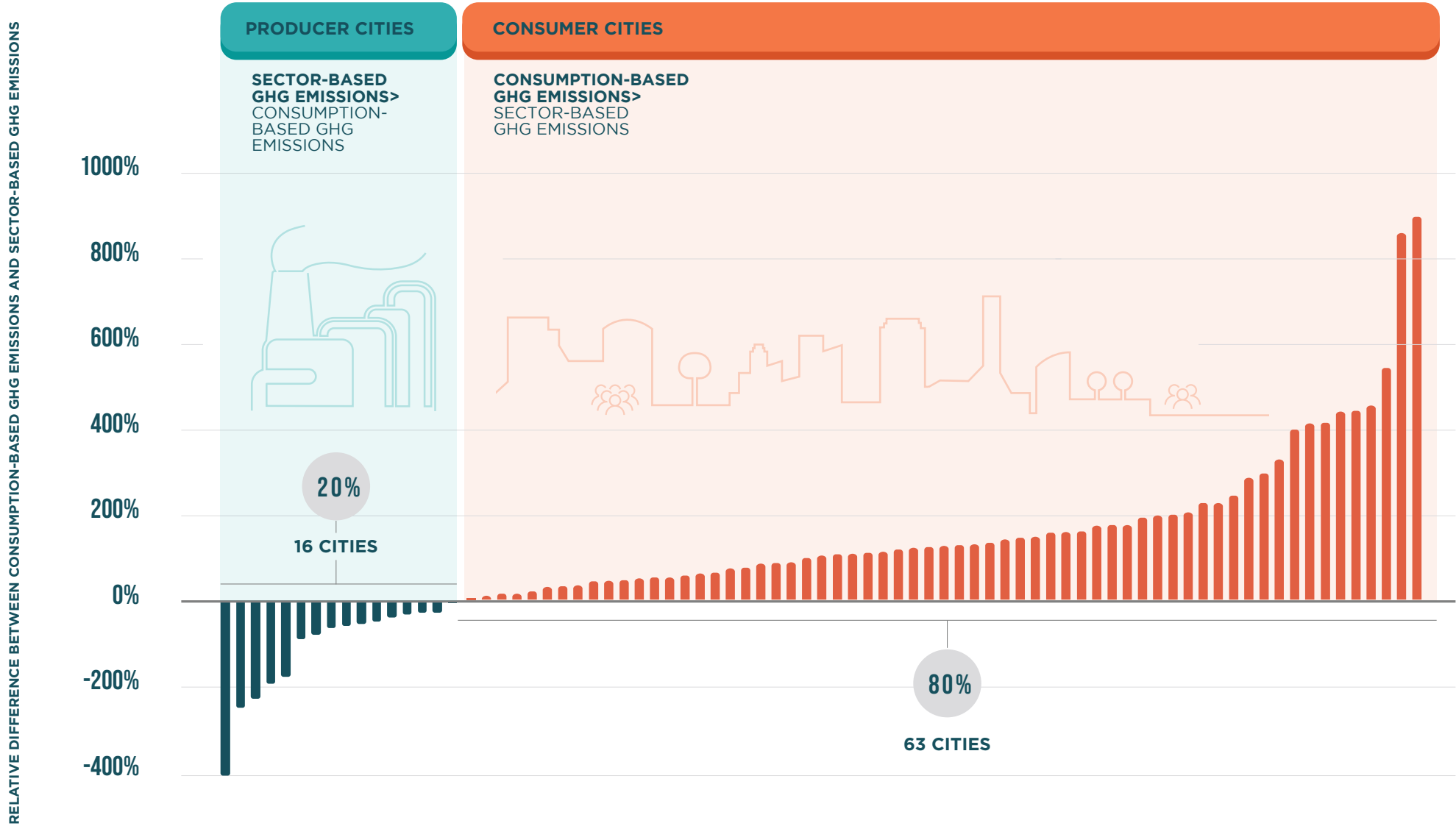


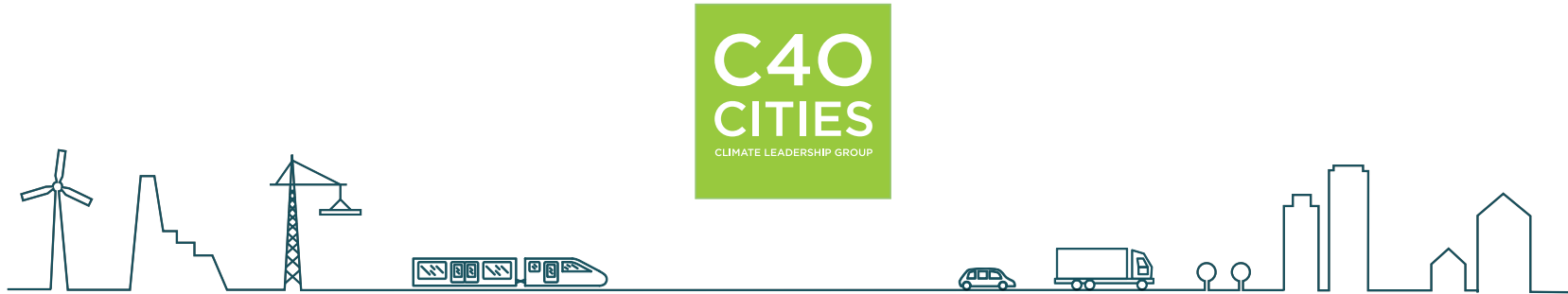
Scope 1: GHG emissions from sources located within city boundary, e.g. direct fuel combustion
 Scope 2: GHG emissions from the use of grid-supplied energy
 Scope 3 (Waste only): GHG emissions that occur outside city boundary as a result of city activity, e.g. waste exported

Average data quality reported in latest available GPC BASIC level GHG inventories from 60 C40 cities. To explore more, visit the GHG Emissions Explorer dashboard at <https://resourcecentre.c40.org/resources#measuring-ghg-emissions>

Assessing the supply chain emissions associated with the goods and services used by a city's residents helps identify opportunities to reduce emissions beyond the city boundary

80% of C40 cities have supply chain GHG emissions that are larger than the emissions occurring within the city itself





SUPPORTED BY:



C40 CITIES TEAM:

MINGMING WANG | MAX JAMIESON | ISABEL FERNANDEZ | MARCUS ARCANJO | VIOLA FOLLINI | MICHAEL DOUST

WWW.RESOURCECENTRE.C40.ORG
