

Accelerating Climate Action in the United States

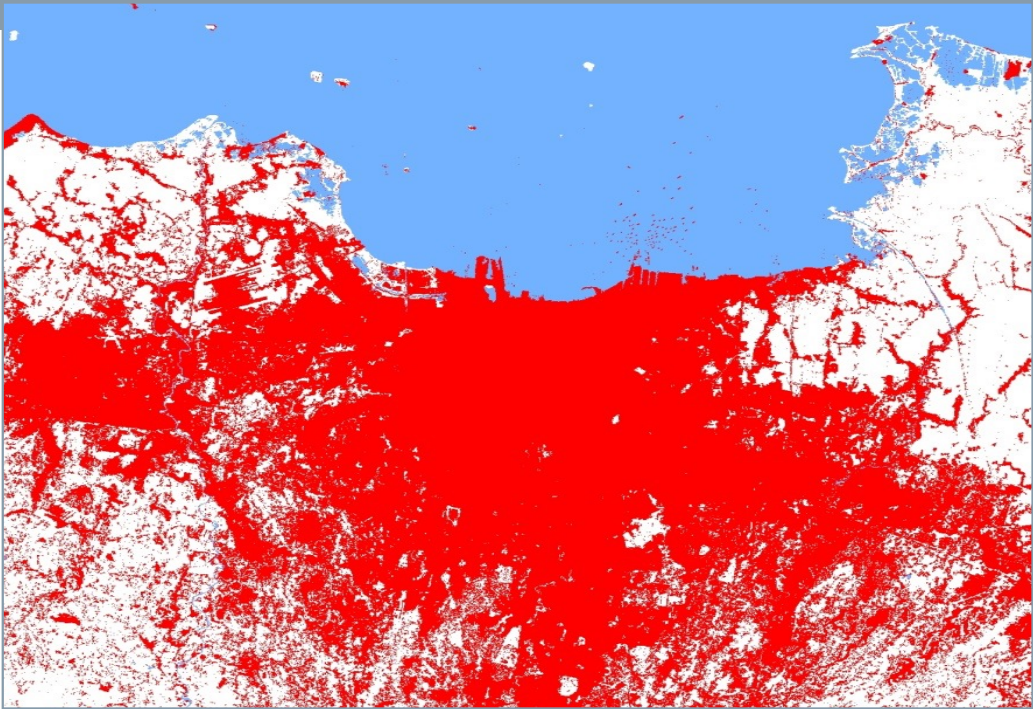
What Are We Doing and What More Can Be Done?

 @martinpowell14 / martin.powell@siemens.com



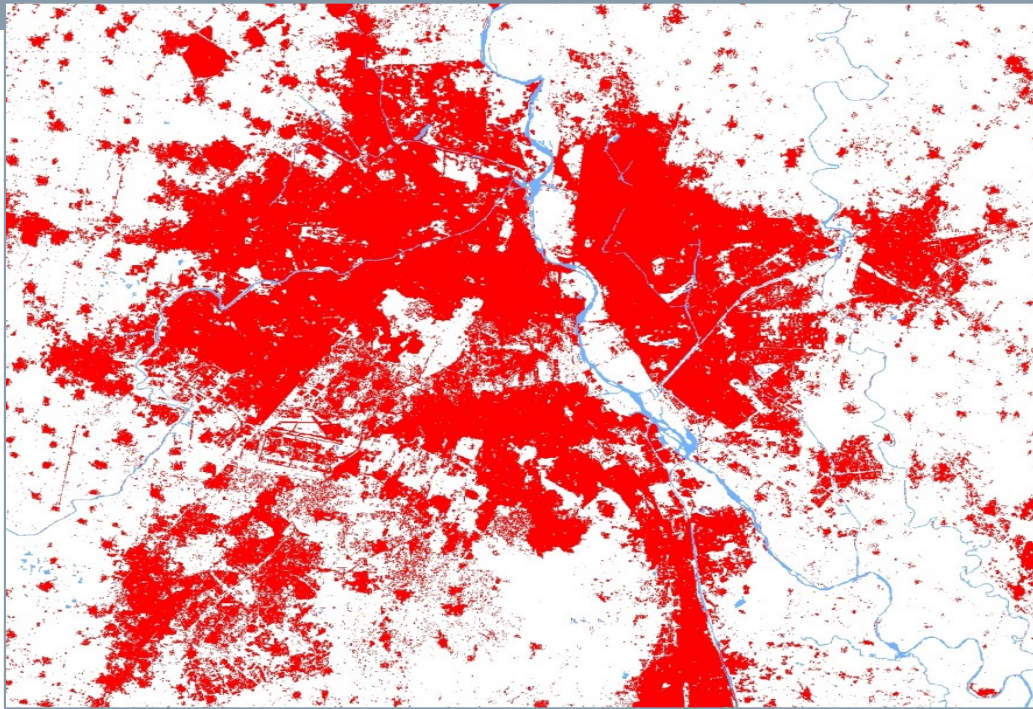
Jakarta 2010

9.2 Mio



Delhi 2010

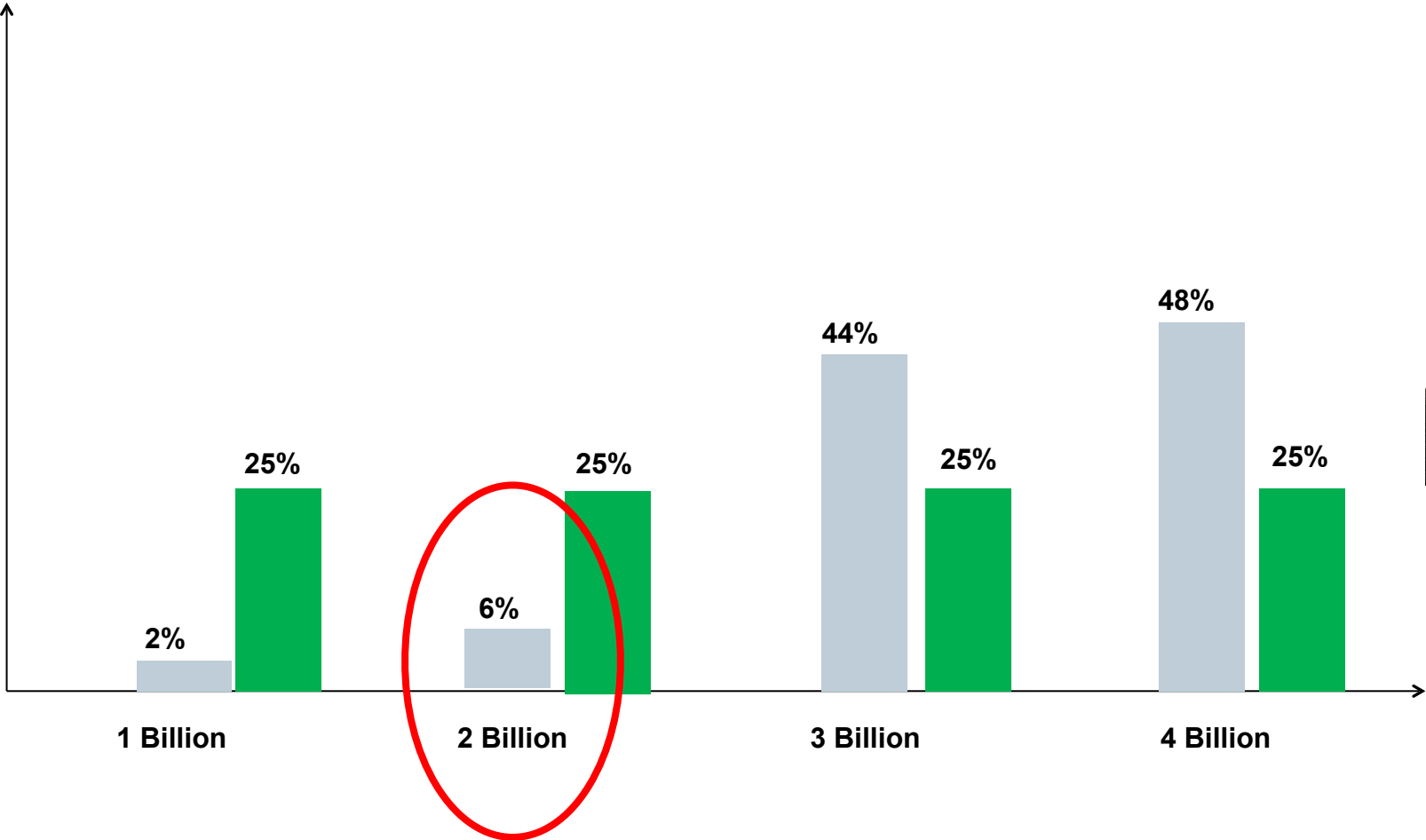
22.2 Mio



Source: Deutsches Zentrum für Luft- und Raumfahrt, UN World Urbanization Prospects: The 2009 Revision

In the year 2000 there were two billion children on Earth...

How many children will there be in the year 2100?



City Performance Tool (CyPT)

SIEMENS
Ingenuity for life



Vienna



Riverside



New Bedford



Nanjing



Shenzhen



Copenhagen



Munich



Minneapolis



Helsinki



Mexico City



Aarhus



Ningbo



Adelaide



San Francisco



Seoul



Berlin



Stuttgart



Madrid



The Hague



Nuremberg



Charlotte



Washington



Wuhan



London

The challenge



Europe

GHG emissions reduction targets

Copenhagen	100% by 2025
Stockholm	100% by 2050
Oslo	95% by 2030
Helsinki	92% by 2050
London	60% by 2025
Berlin	40% by 2020
Amsterdam	40% by 2025

Americas

GHG emissions reduction targets

Seattle	100% by 2050
Portland	80% by 2050
Washington DC	80% by 2050
Houston	36% by 2016
Los Angeles	35% by 2030
Vancouver	33% by 2020
Buenos Aires	33% by 2030
São Paulo	30% by 2012
New York	30% by 2030
San Francisco	25% by 2017
Boston	25% by 2020
Santiago de Chile	20% by 2020

Asia

GHG emissions reduction targets

Seoul	40% by 2030
Tokyo	25% by 2020
Wuhan	20% by 2015

Australia

GHG emissions reduction targets

Melbourne	100% by 2020
Adelaide	100% by 2020
Sydney	70% by 2030

Africa

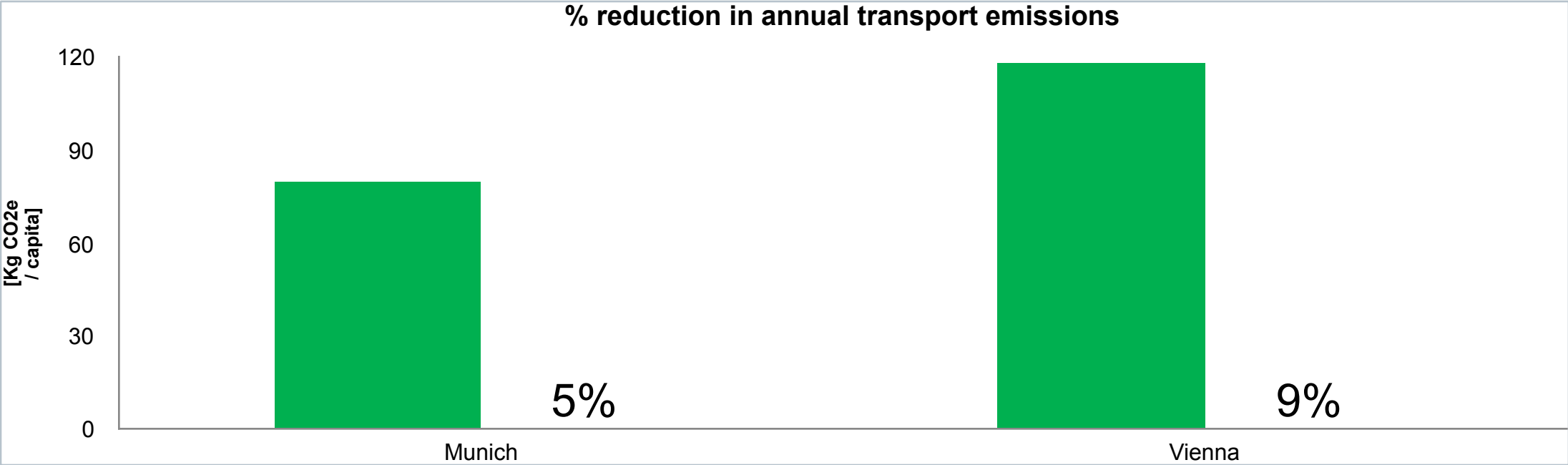
GHG emissions reduction targets

Johannesburg	30% by 2025
--------------	-------------

MUNICH vs VIENNA



Impact of replacing 20% of car fleet with electric cars

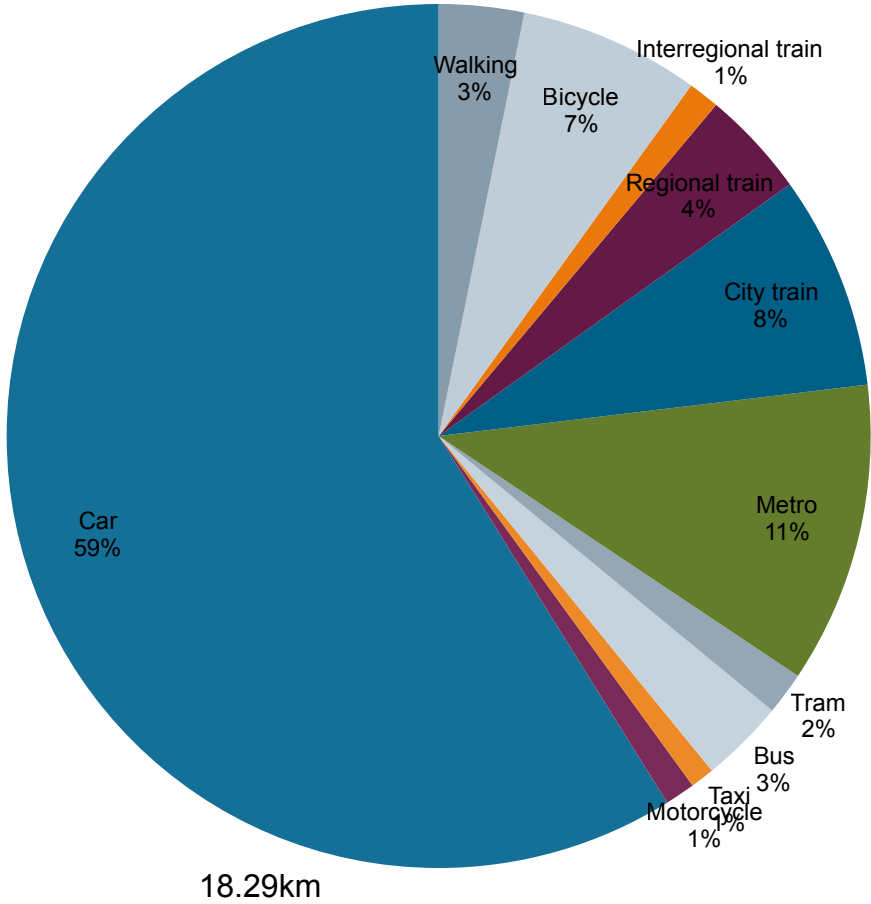


Passenger transport

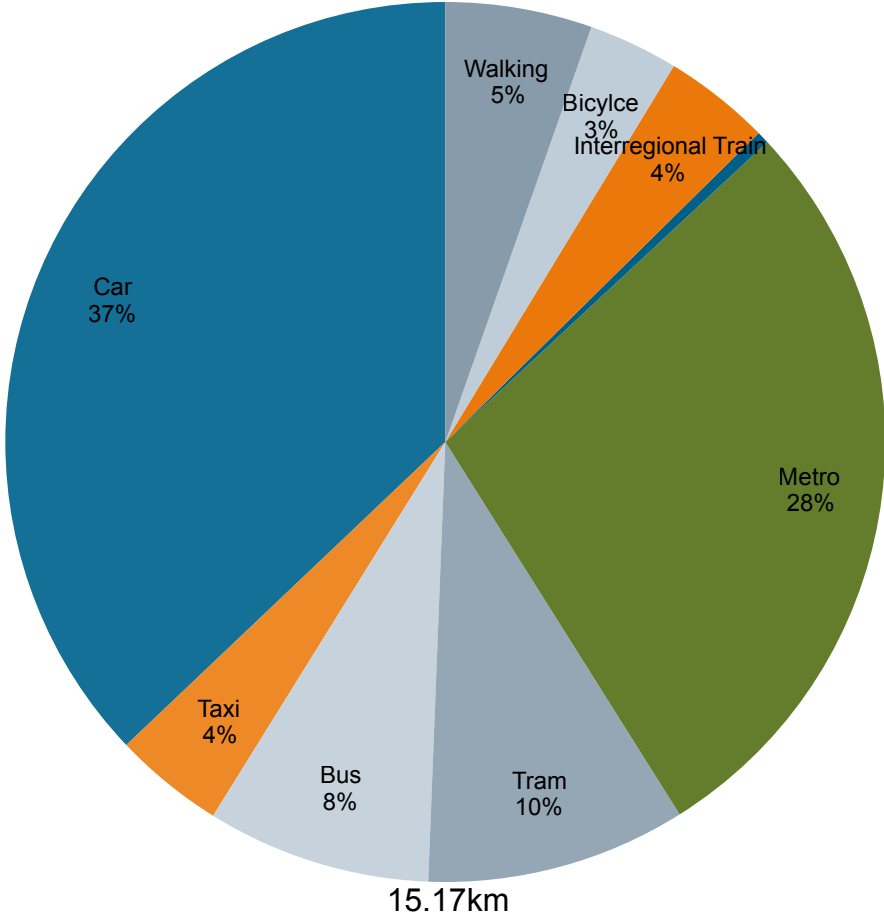
Modal share



Munich

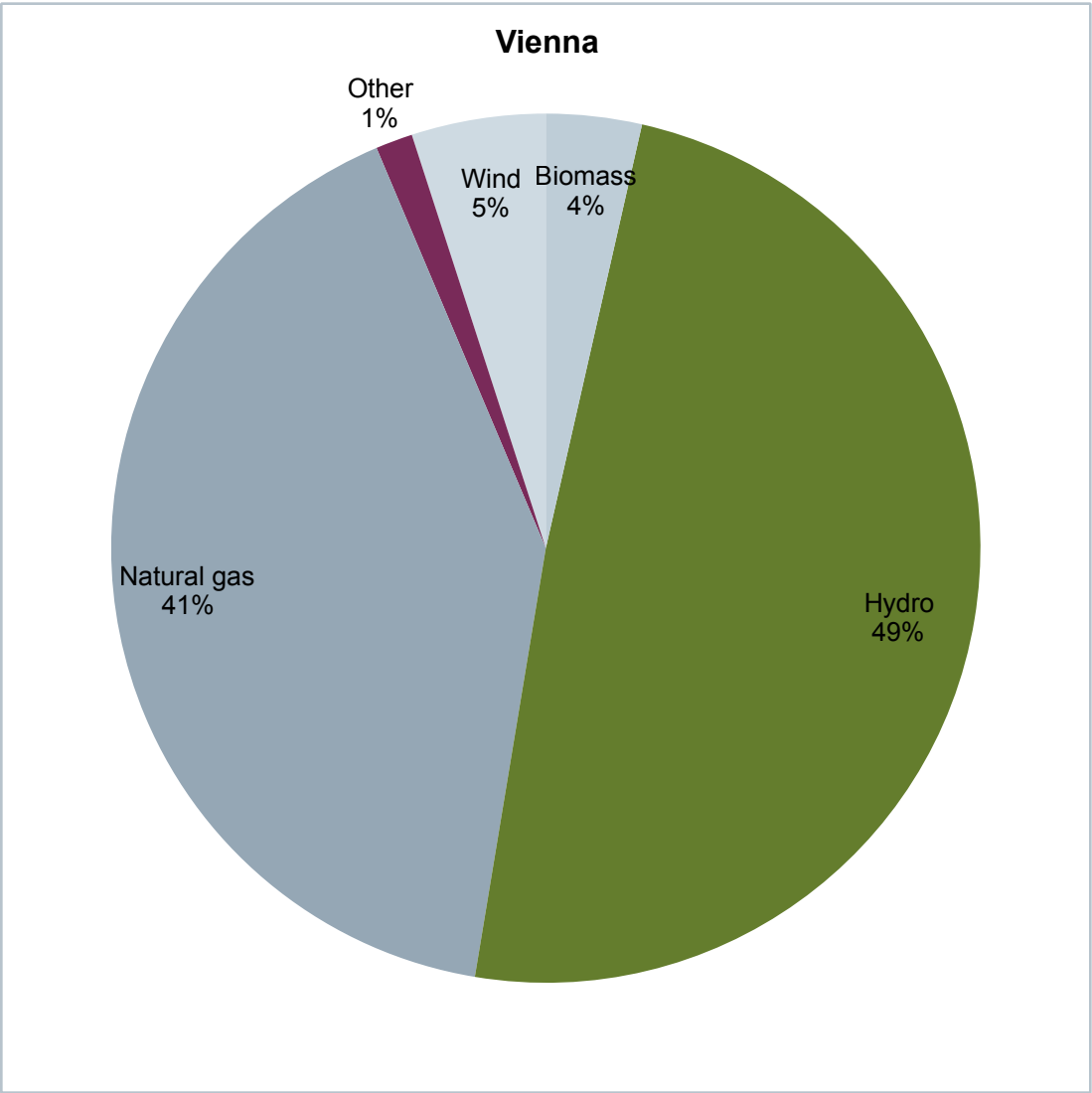
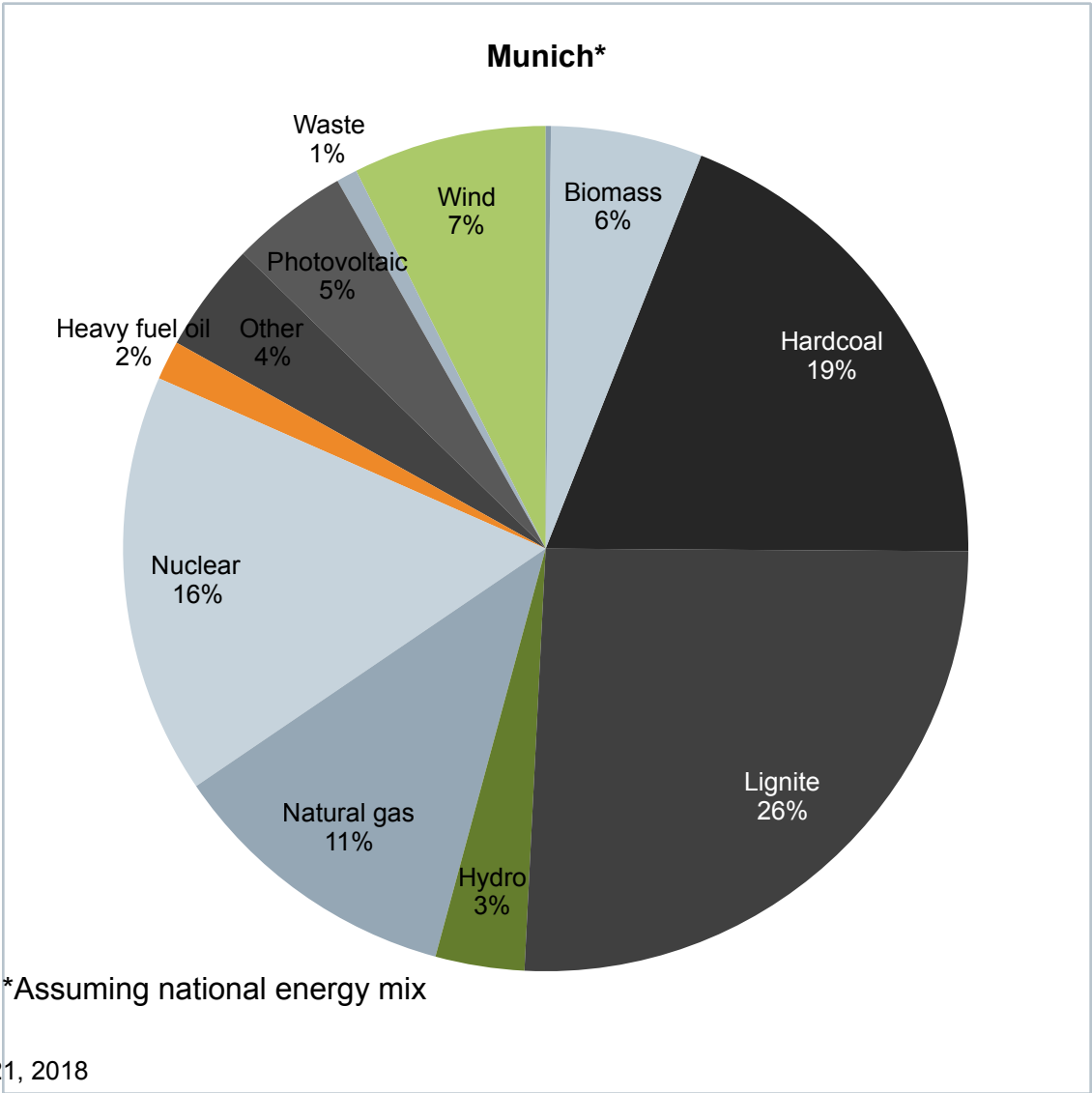


Vienna

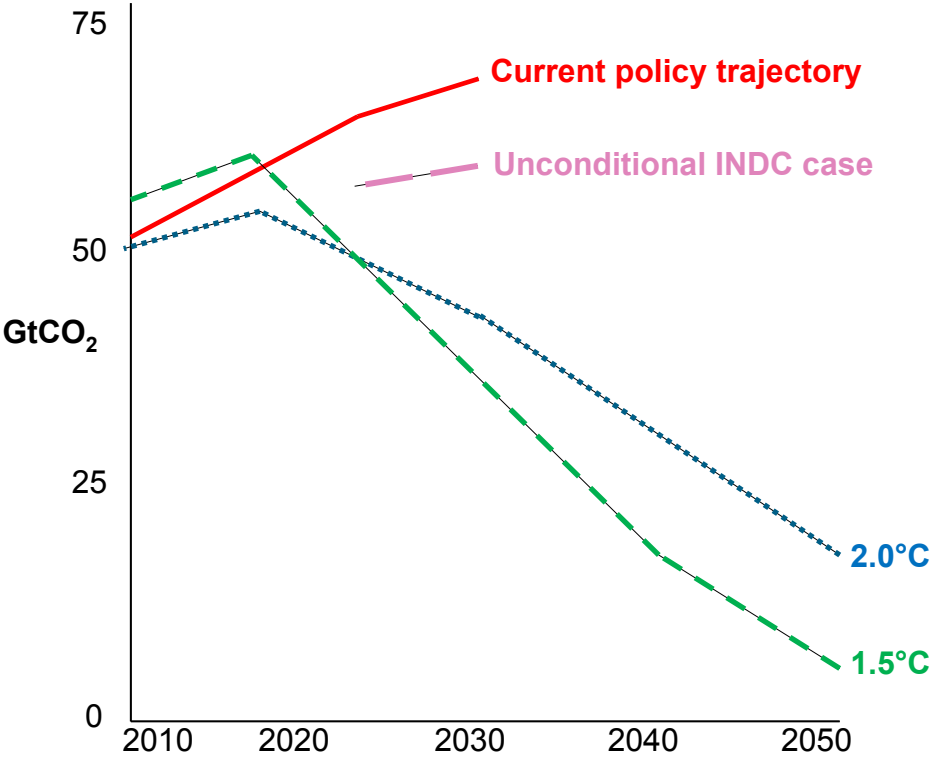


Electricity mix

(powering the electrical car)



Calculating the Global GHG reductions required



Illustrative chart based on UNEP 2016 assessment

	Now (2014)	2025 (Unc. INDC)	2030 (Unc. INDC)	2050	2100
Baseline	52.7	53.9	55.5	n/a	n/a
2.0°C			42	23	-3
% reduction from baseline			21%	57%	-106%
1.5°C			39	8	-5
% reduction from baseline			26%	85%	-110%

To meet 1.5 °Celsius

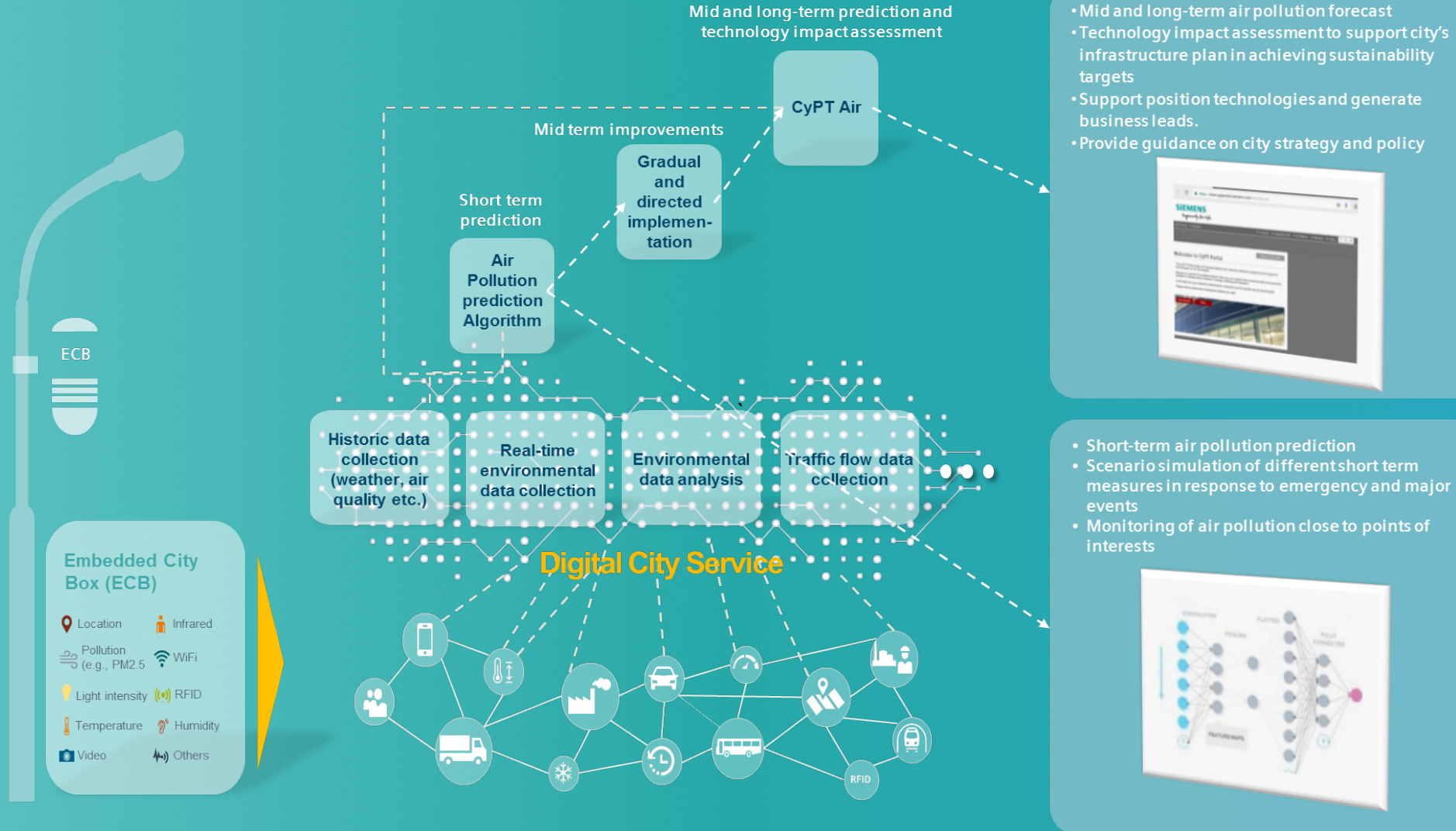
From 2014 baseline global emissions need to fall by 26% by 2030 and 85% by 2050 (for a 50% probability)

Unconditional INDC case currently implies warming of 3.2°C by 2100

City Air Management (CyAM): Tool that leverages a digital interface with policy and technology measures

SIEMENS

Ingenuity for life



Smart(er) Communities

Restricted © Siemens AG 2018

[siemens.com/intelligent-infrastructure](https://www.siemens.com/intelligent-infrastructure)

3 Challenges Facing Cities

Sustainability



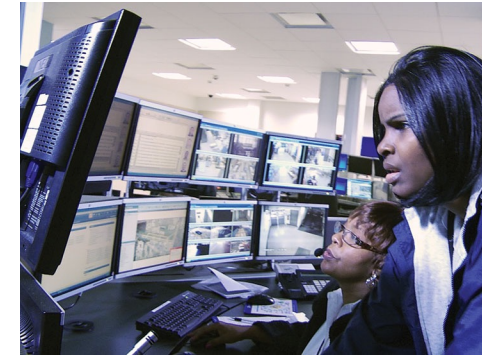
>400 city mayors have joined Climate Mayors, pledging to continue sustainability efforts in the U.S. in accordance with the Paris Climate Accord.

Resilience



Flooding, severe storms, heat waves, draughts, hurricanes, and tornadoes cost the U.S. >\$700B in damages from 2004 to 2013. **Intensity, frequency, and duration of weather events** have increased.

Innovation



Cities are increasingly bidding for talent and companies. 238 cities bid for Amazon's HQ2 (50k workers, \$5B in new construction) – that's **almost 10% of all cities in the U.S.**



eMobility

Restricted © Siemens AG 2018

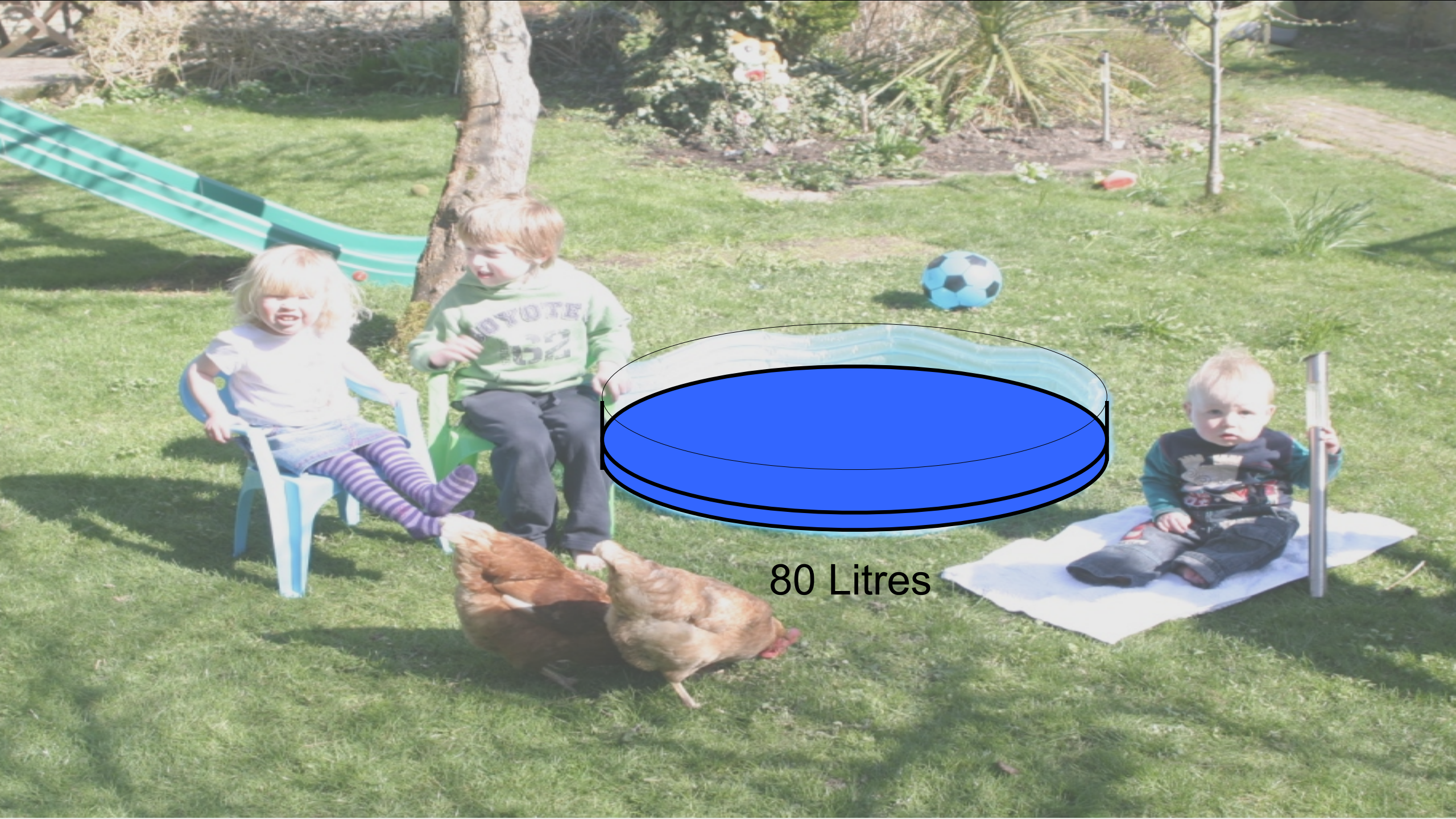
Will we have enough energy to power the future of eMobility?











80 Litres

Thank You

Martin Powell

Global Head of Urban Development
Head of Cities USA

martin.powell@siemens.com

Twitter @martinpowell14

