

Renewable energy deployment in cities

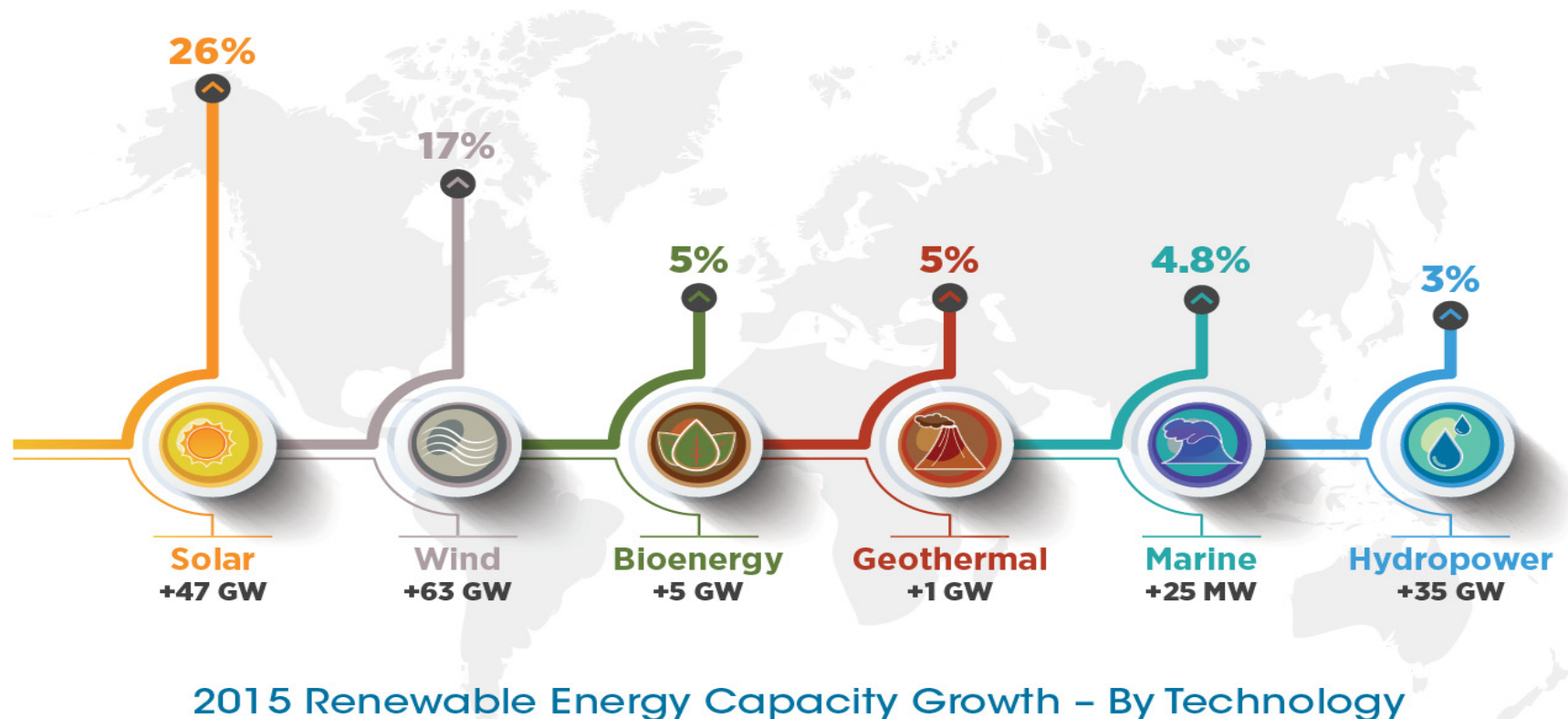


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Number of countries with renewables targets increased
from 73 in 2010 to 164 in 2015

73
countries
2010

164
countries
2015

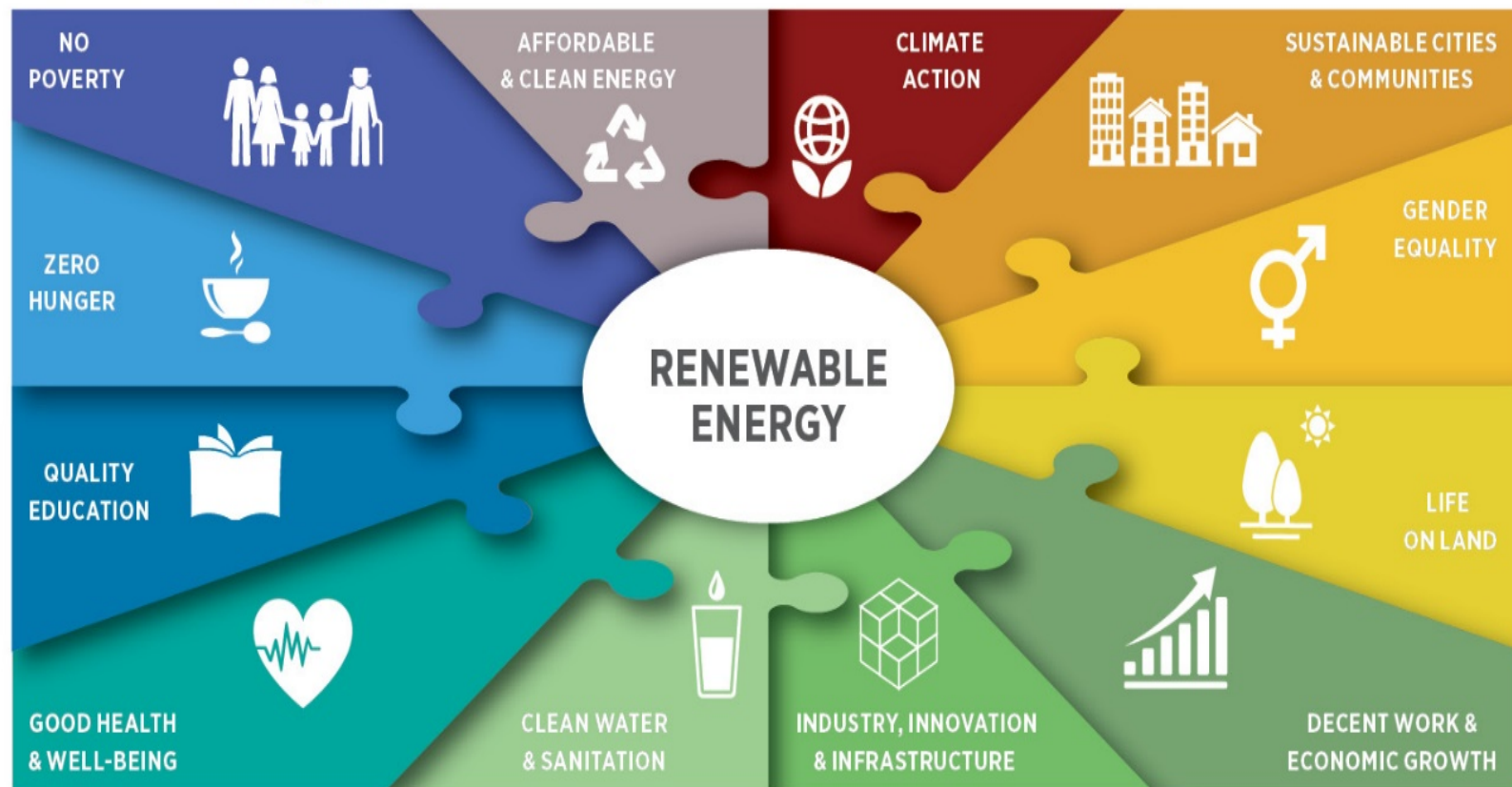


Renewables are now the most affordable source of power in many parts of the world, a trend that will continue.

- Solar PV module costs have fallen as much as 80 % since 2009.
- Wind turbine prices have fallen by almost a third since 2009.
- Residential solar PV systems are now as much as 65% cheaper than in 2008.

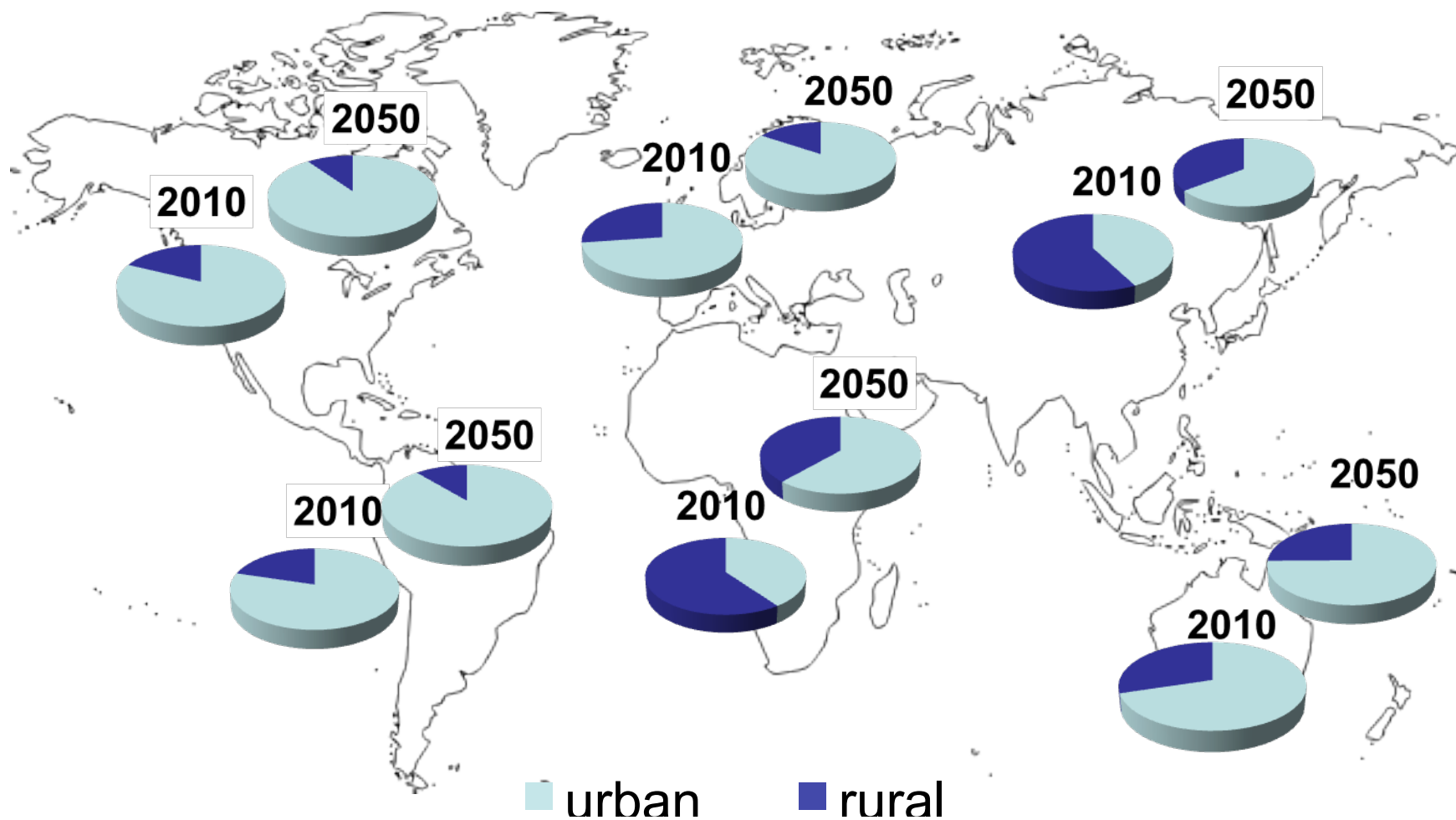


REthinking Energy 2015



Urbanization 2010-2050

80% of global energy use is concentrated in cities



Important city characteristics vary

- Local climatic conditions
- Renewable resource availability
- Infrastructure conditions and urban design, including density
- Existing building stock
- Financial and investment climate
- Economic and social conditions
- Urbanisation rates








Priority areas for action

- Low-energy buildings
 - Existing and new stock
- Heating and cooling
- Electrification and local power grids
- Electric mobility
- Cooking fuels and waste
- Renewables as part of sustainability agenda
- Financing and capacity building



City control over utility sectors

Sector	Level of city control	Key facts
Buildings		<ul style="list-style-type: none"> Although most mayors have control over building codes, only 20 percent of mayors have mandated efficient building codes for new construction 11 percent have mandated energy-efficiency levels in existing buildings (i.e., retrofits) Urban expansion accounts for 2 million hectares per annum, 80 percent of which is in cropland
Transport		<ul style="list-style-type: none"> Nearly 75 percent of mayors have direct control of all or part of the city transit system, and nearly 80 percent have control of roads Almost all mayors control the licensing of taxis, and a large share control procurement of city fleets (e.g., police vehicles)
Power generation		<ul style="list-style-type: none"> Only 15 percent of mayors exercise control over electricity supply to the city Nonetheless, 25 percent of those without control have piloted initiatives in distributed solar PV generation
Water		<ul style="list-style-type: none"> 55–60 percent of mayors control water supply and wastewater treatment
Waste		<ul style="list-style-type: none"> More than 80 percent of mayors control residential waste collection, and more than half carry this through to disposition

SOURCE: McKinsey analysis



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