



GeSI
GLOBAL e-SUSTAINABILITY
INITIATIVE

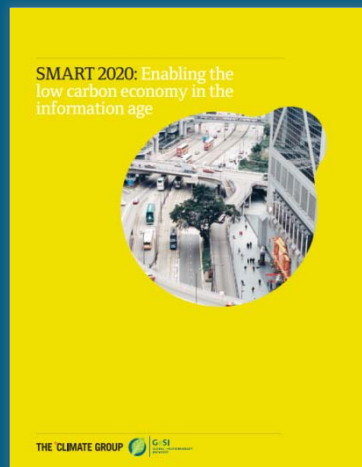
GeSI SMARTer 2020: the Role of ICT in Driving a Sustainable Future

GreenTouch Workshop
Brussels, June 26, 2013

GeSI SMARTERer 2020 report re-evaluates ICT's potential to enable a low-carbon economy

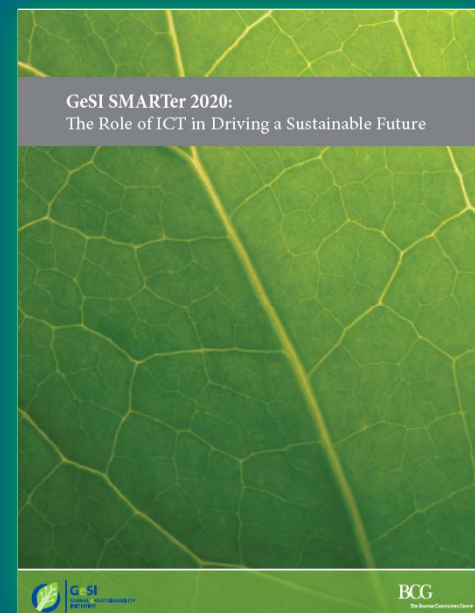
SMARTer 2020 follows up the SMART 2020 study, which first evaluated ICT's potential to enable a low-carbon economy in 2020

In 2008



SMART2020

Today



SMARTer 2020

The potential for information technology to reduce global carbon emissions has been under-estimated until now

9.1 GtCO₂e

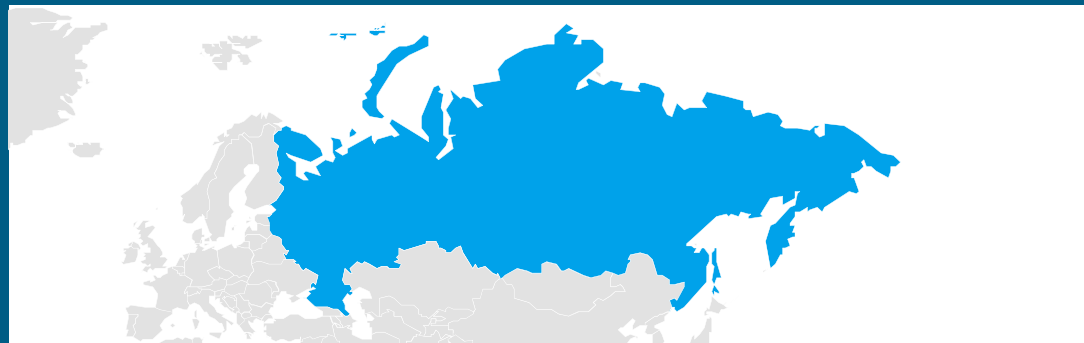
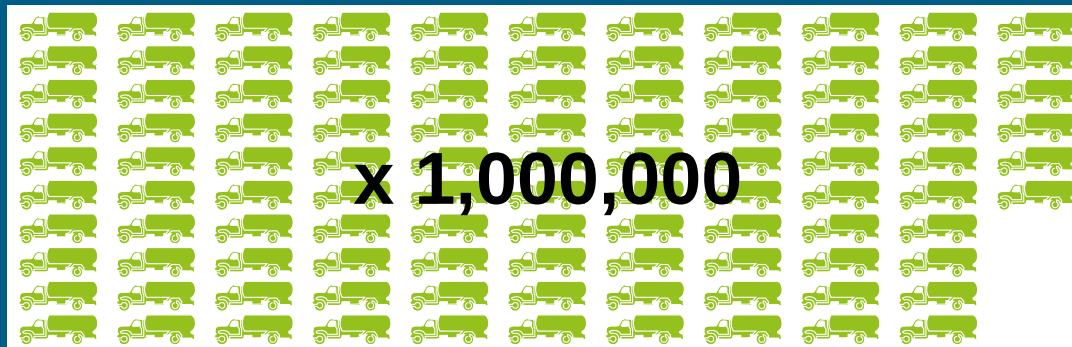
Total abatement potential of
ICT-enabled solutions in 2020

16.5%

% of global GHG emissions
in 2020

9.1 gigatons of GHG emissions amounts to USD1.9 trillion in gross energy and fuel savings

Savings of 21.6 billion barrels of oil¹

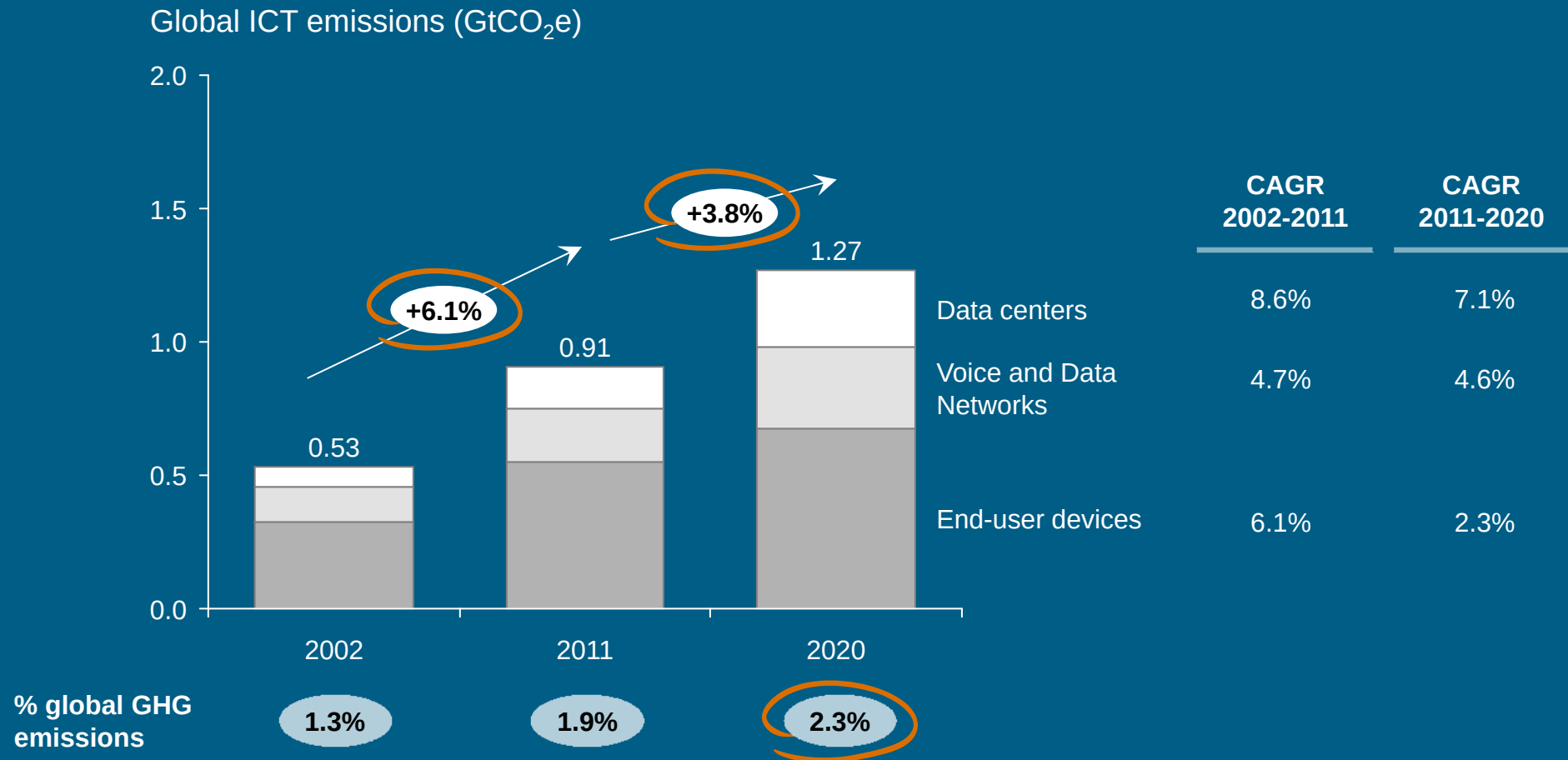


Equivalent to GDP of the Russian economy²

1. Number of barrels of oil with equivalent emissions assuming Barrel of oil emits 0.43 metric tons of CO₂ 2. At today's crude oil price, value of the oil that would be saved (\$87.99 per barrel of crude oil as of Nov 6, 2012)

ICT emissions growth expected to slow down from 6% to ~4%

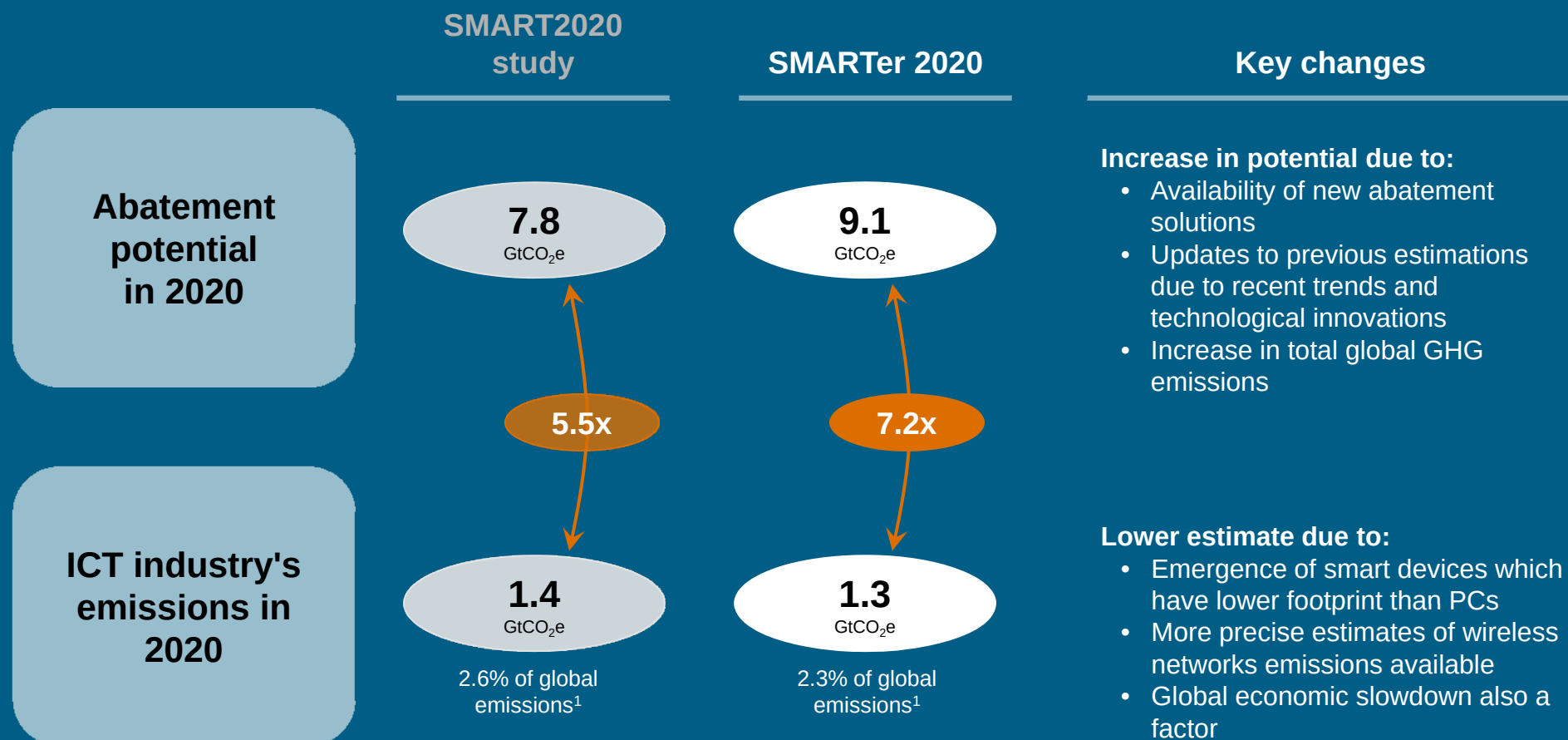
ICT emissions 2.3% of global emissions by 2020



1. Data for 2010 2. Previous study used an incorrect number for the wireless network emissions (50 vs. 24kWh/yr) and therefore ended up with higher total emissions

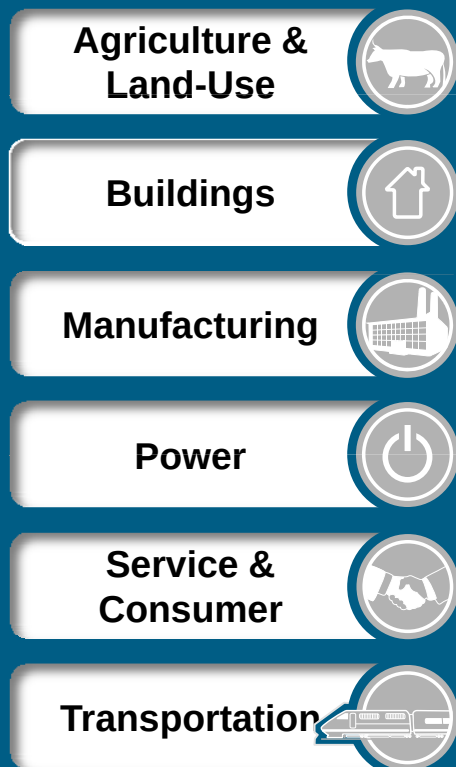
Source: Gartner; Forrester; U.S. Census Bureau; IEA; Greentouch; CEET; CDP; Ovum; GSMA; CERN; Cisco; CEET; SMART 2020: Enabling the low carbon economy in the information age; academic publications; industry experts; academic experts; manufacturer websites; GeSI Smart2020 Refresh team members; BCG analysis

The abatement potential of ICT is seven times the size of the ICT sector's own carbon footprint

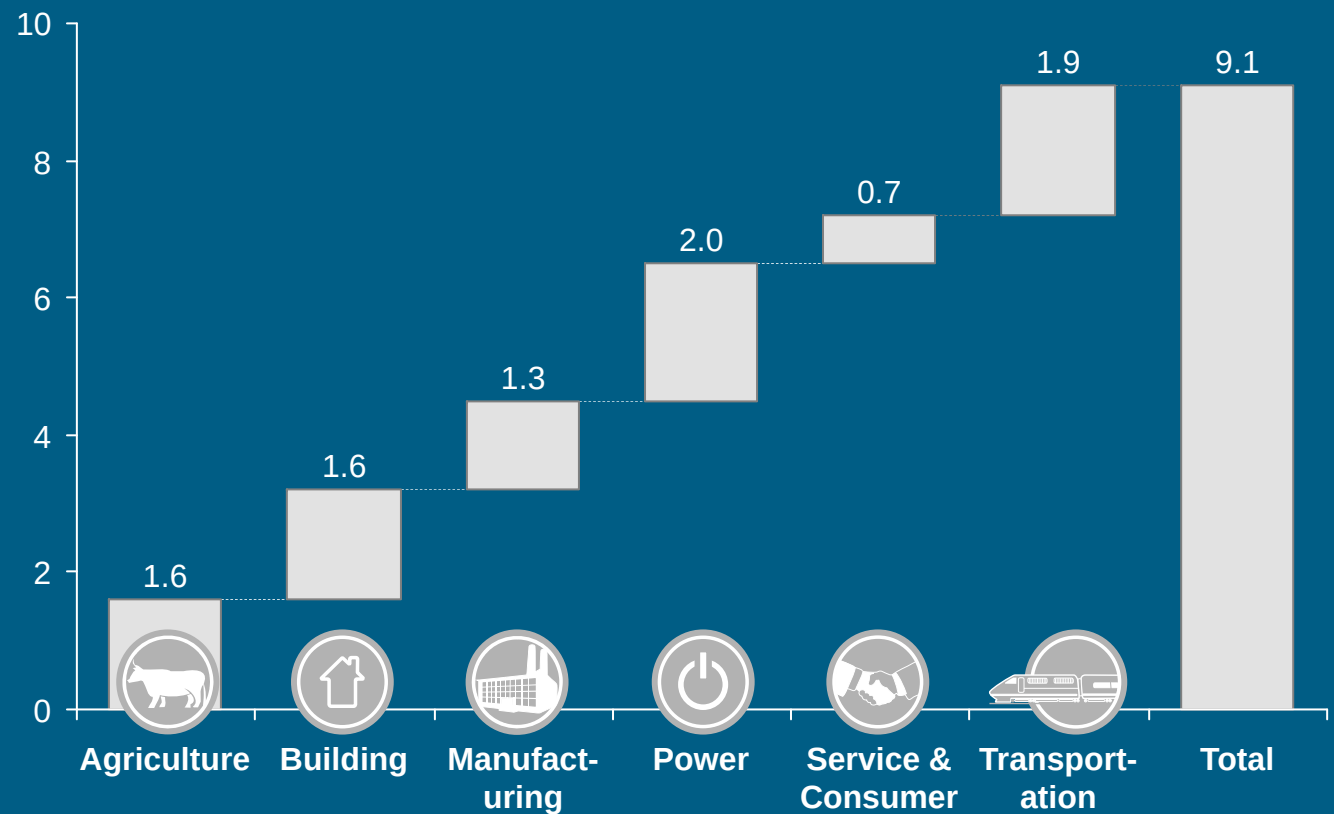


1. On a base of 55 Gt CO₂e GHG emissions (IEA)

SMARTer 2020 study identifies GHG abatement potential from ICT-enabled solutions across six sectors

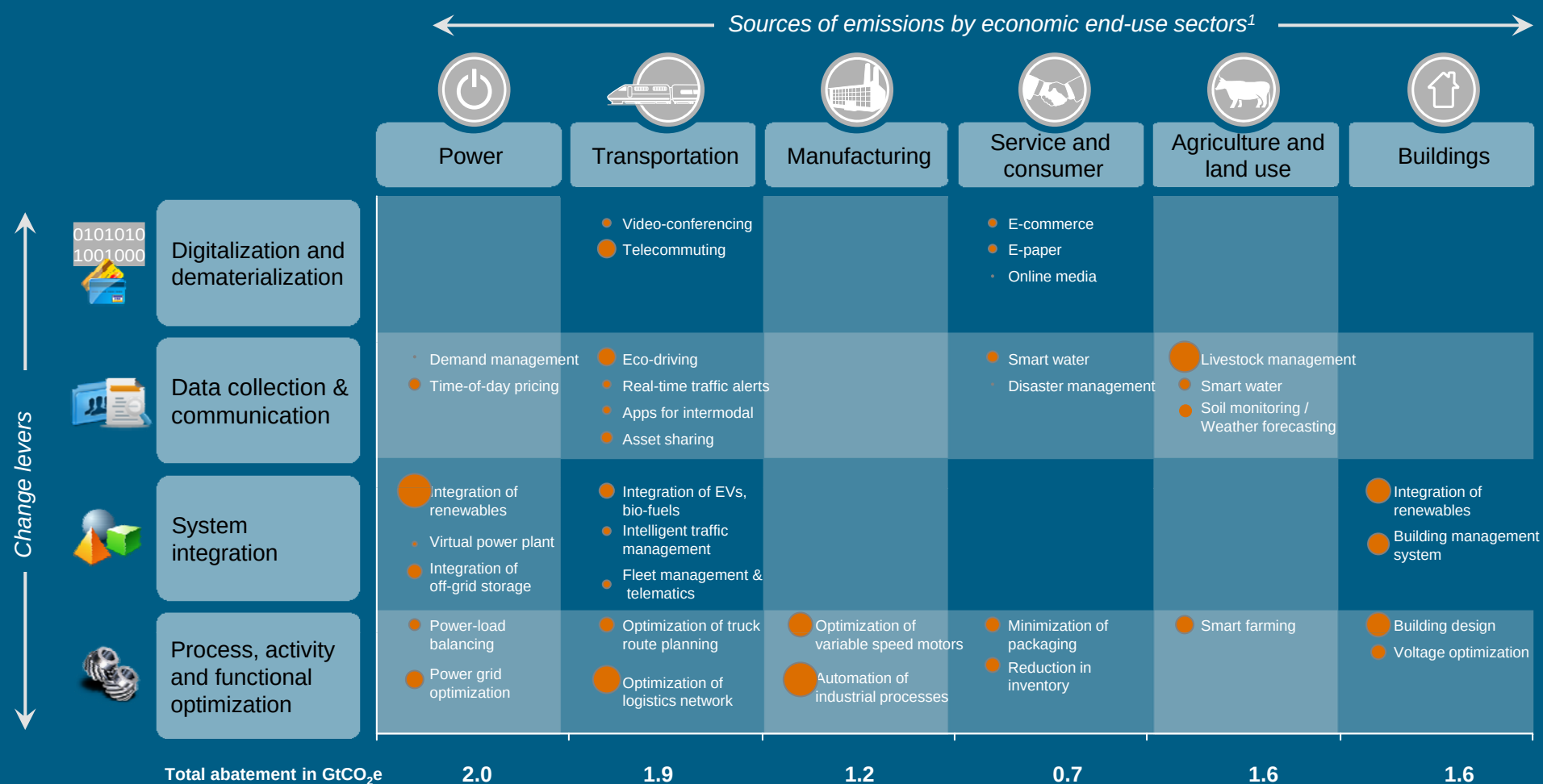


Abatement potential (GtCO₂e)



35 ICT-enabled abatement solutions identified in the study

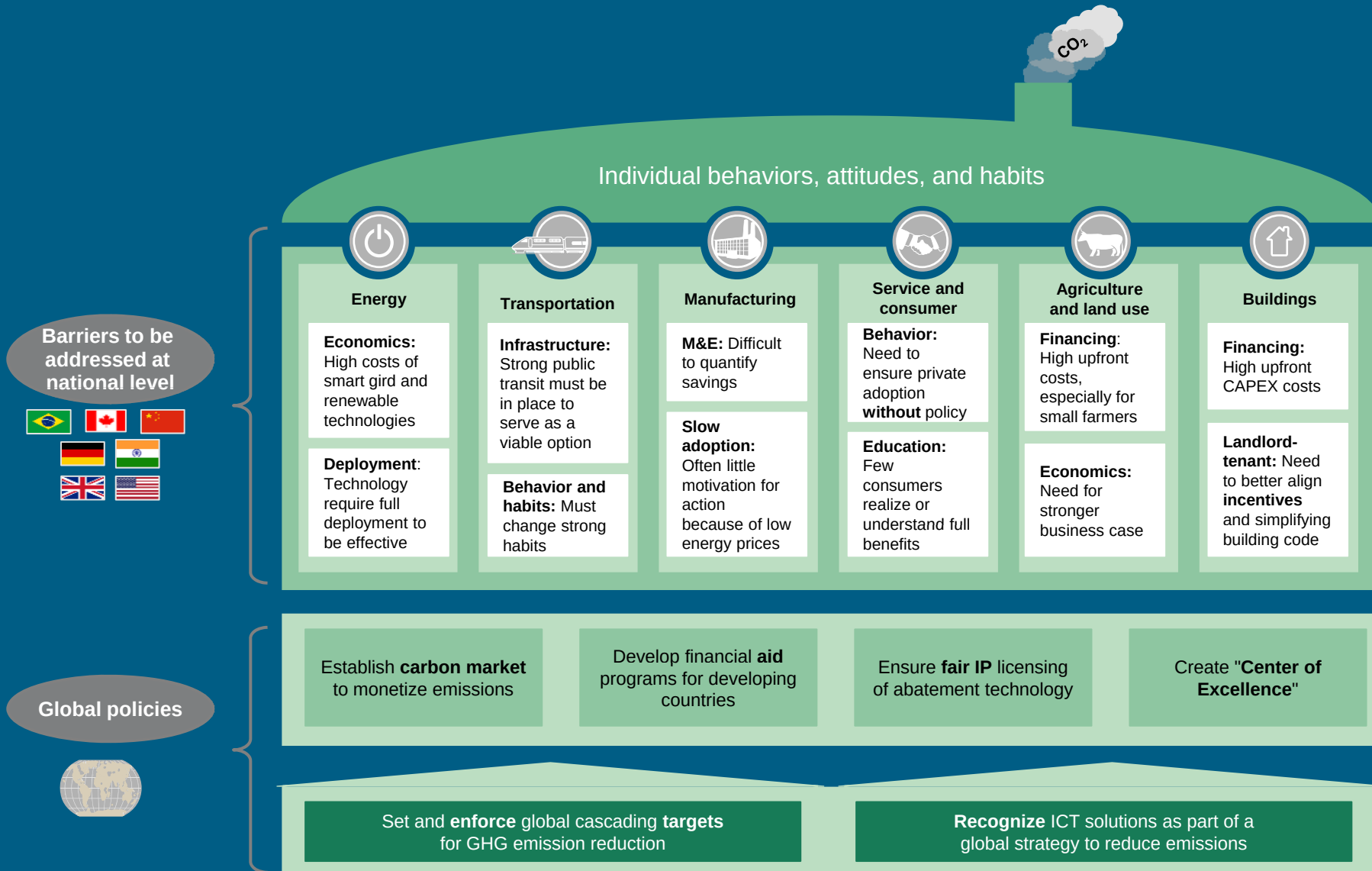
Abatement potential modeled individually for each sublever



1. Based on 2008 data – EDGAR

 = calculated abatement potential by sub-lever

Policies at the national level have the most significant potential to drive sub-lever adoption



Country deep-dives provide context to demonstrate how national and local policies can yield higher abatement



Brazil



Canada



China



Germany



India



U.K.



U.S.

All countries have unique circumstances that impact their ability to abate GHGs

Those differences drive which end-use sectors and which sub-levers deserve most attention

Policies at the national level are the most effective drivers of change in all countries