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# Vision 2050 and the Green Race towards it

Washington, December 2010  
Peter Paul van de Wijs

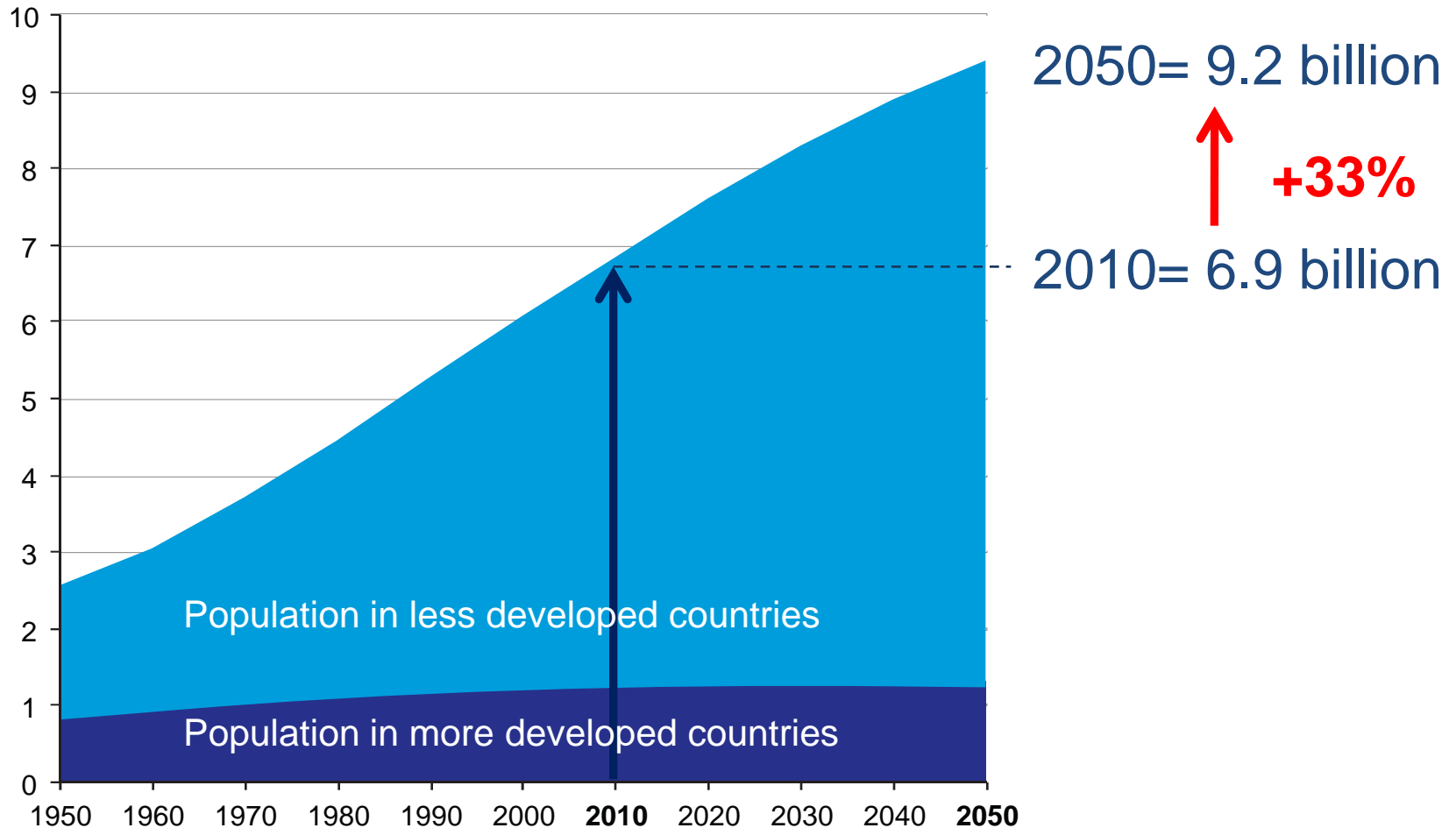


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# The future society - a growth story

## World population (in billions): 1950-2050





# The poverty challenge

## **Income poverty**

Over 2 billion people live on less than \$2/day

## **Energy poverty**

1.6 billion people do not have access to electricity

## **Water poverty**

By 2030 3.9 billion people will live in water stressed areas  
(> 50% of the population)

## **Resource poverty**

Which Continents consume at rates beyond the available  
resources?





**Ecological footprint and biocapacity by region, 2003**

Global hectares per person (2003)

Population (millions)

Legend:

- North America
- Europe EU
- Europe non-EU
- Middle East and Central Asia
- Latin America and the Caribbean
- Asia-Pacific
- Africa
- Biocapacity available within region

Region	Population (millions)	Ecological Footprint (Global hectares per person)	Biocapacity (Global hectares per person)	Difference (Footprint - Biocapacity)
North America	326	9.48	5.71	-3.71
Europe EU	454	4.82	7.46	-2.64
Europe non-EU	349	3.82	4.64	+0.82
Middle East and Central Asia	270	2.12	3.32	-1.20
Latin America and the Caribbean	535	1.92	5.34	+3.42
Asia-Pacific	3489	1.32	1.92	-0.60
Africa	847	1.12	0.88	+0.24



# Vision 2050

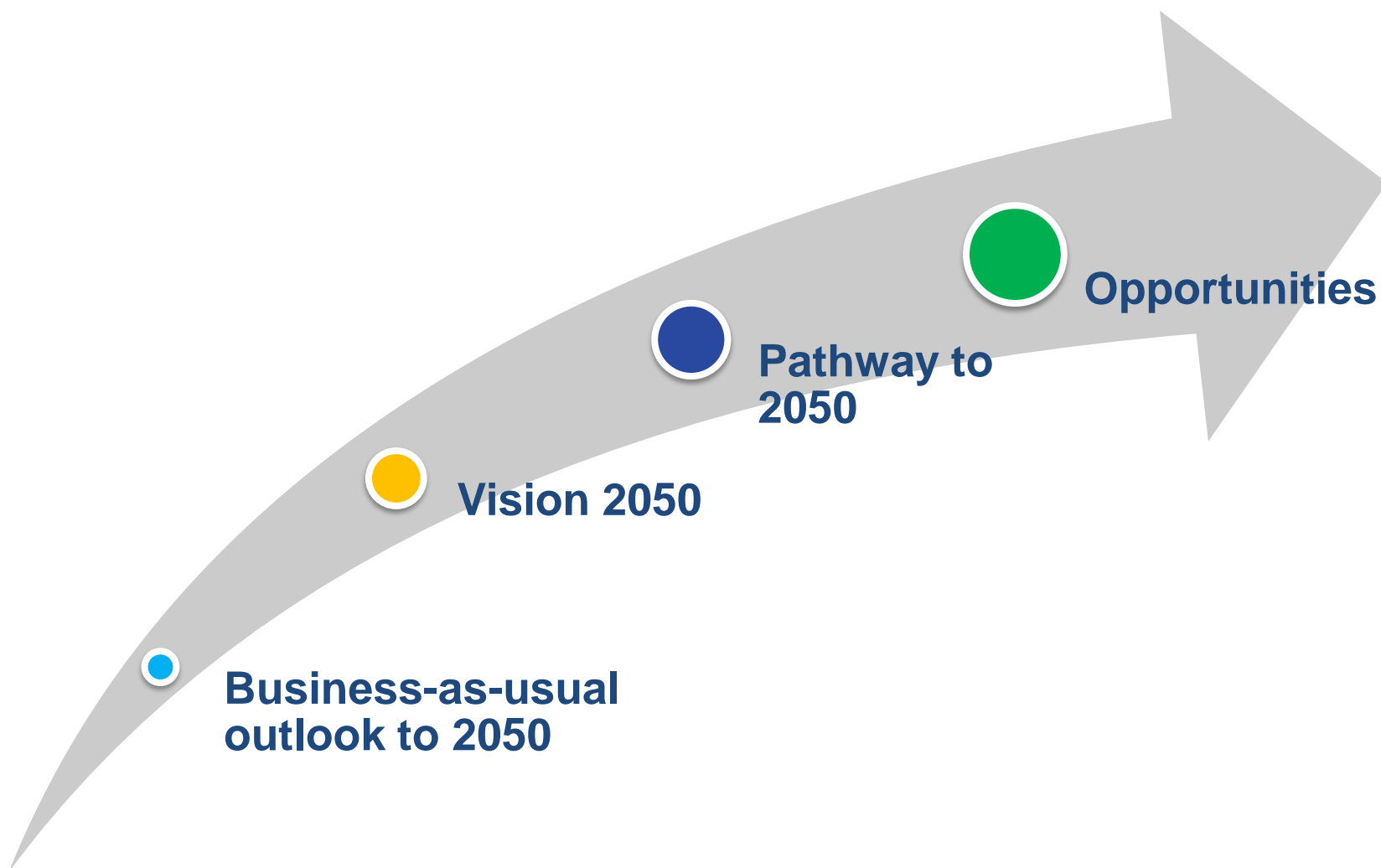
A platform for dialogue about the role of business in a  
resource & carbon constrained world



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# From vision to opportunities





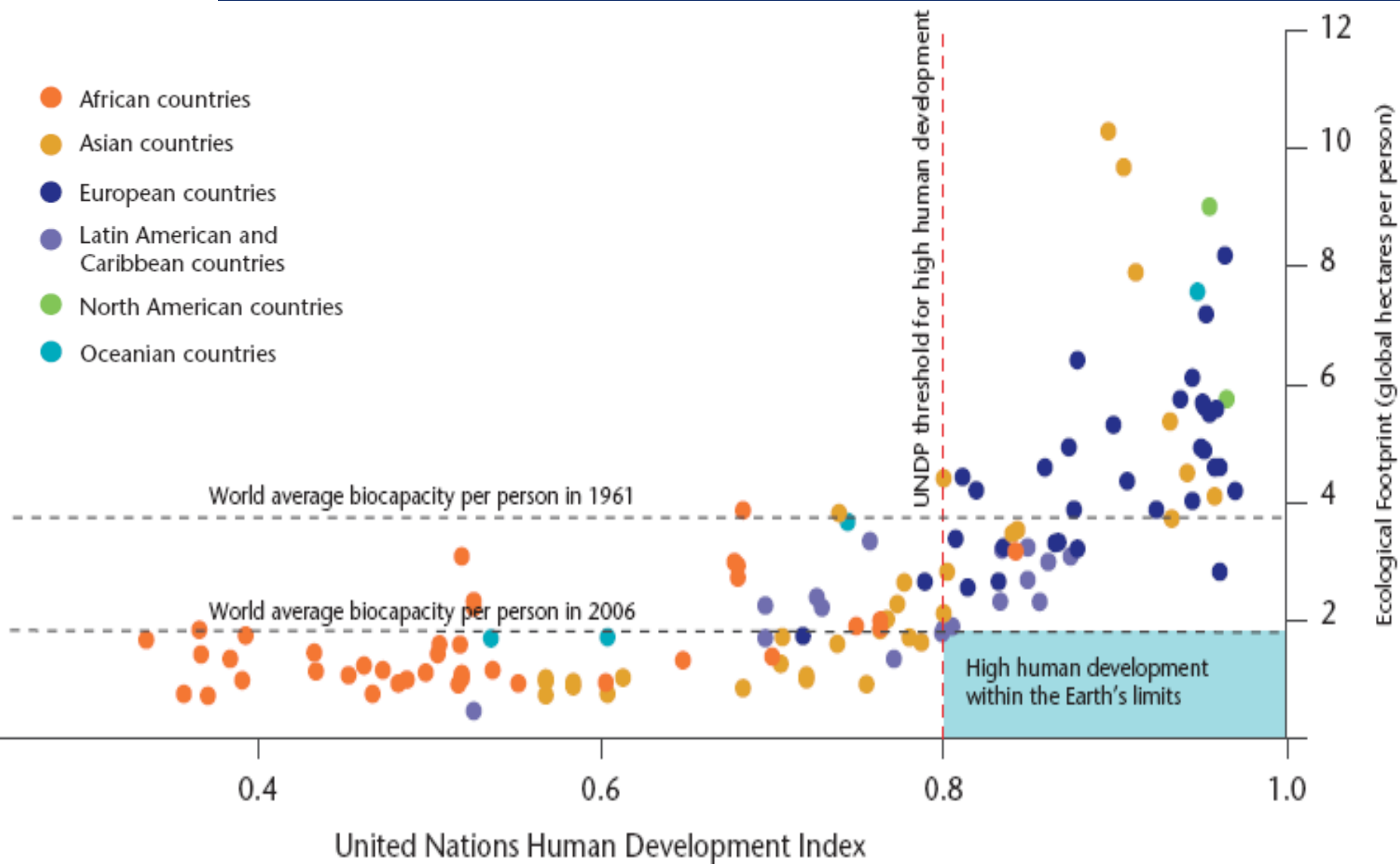


# WBCSD Vision 2050

***In 2050, some 9 billion people live well,  
and within the limits of the planet***

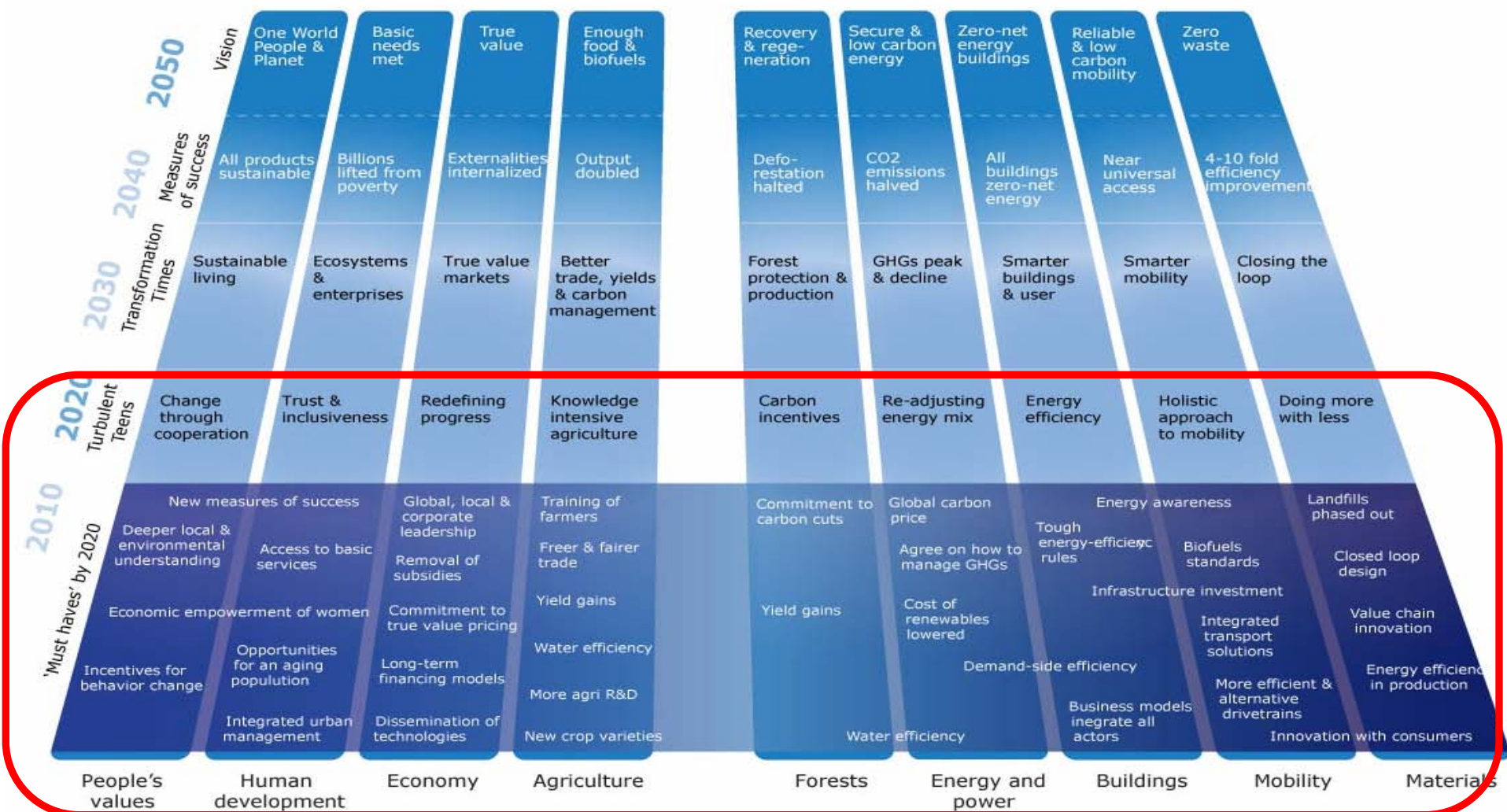


# The underlying challenge



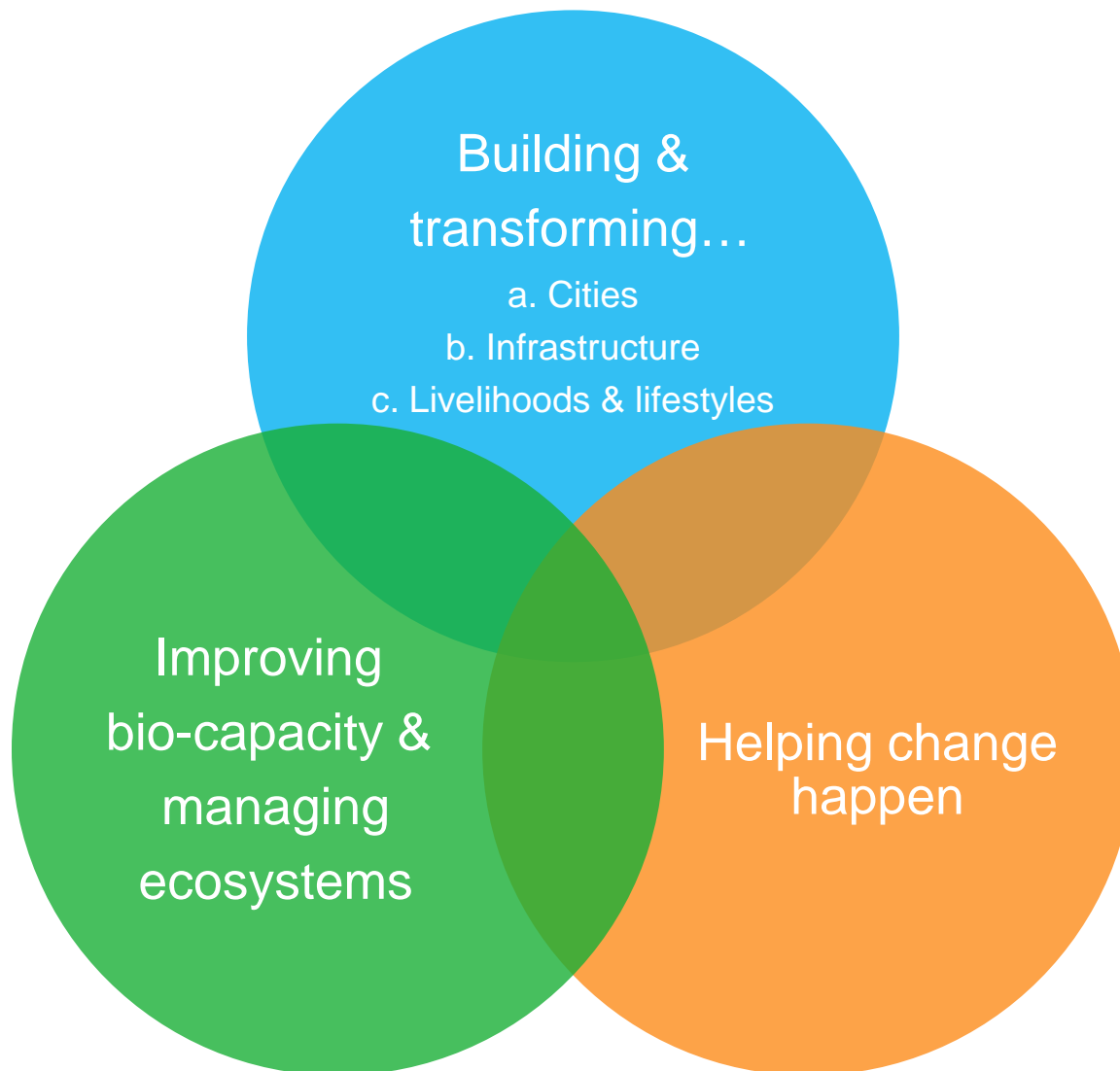


# Vision 2050 Pathway - 9 elements and 2 time periods





# Opportunities in Vision 2050

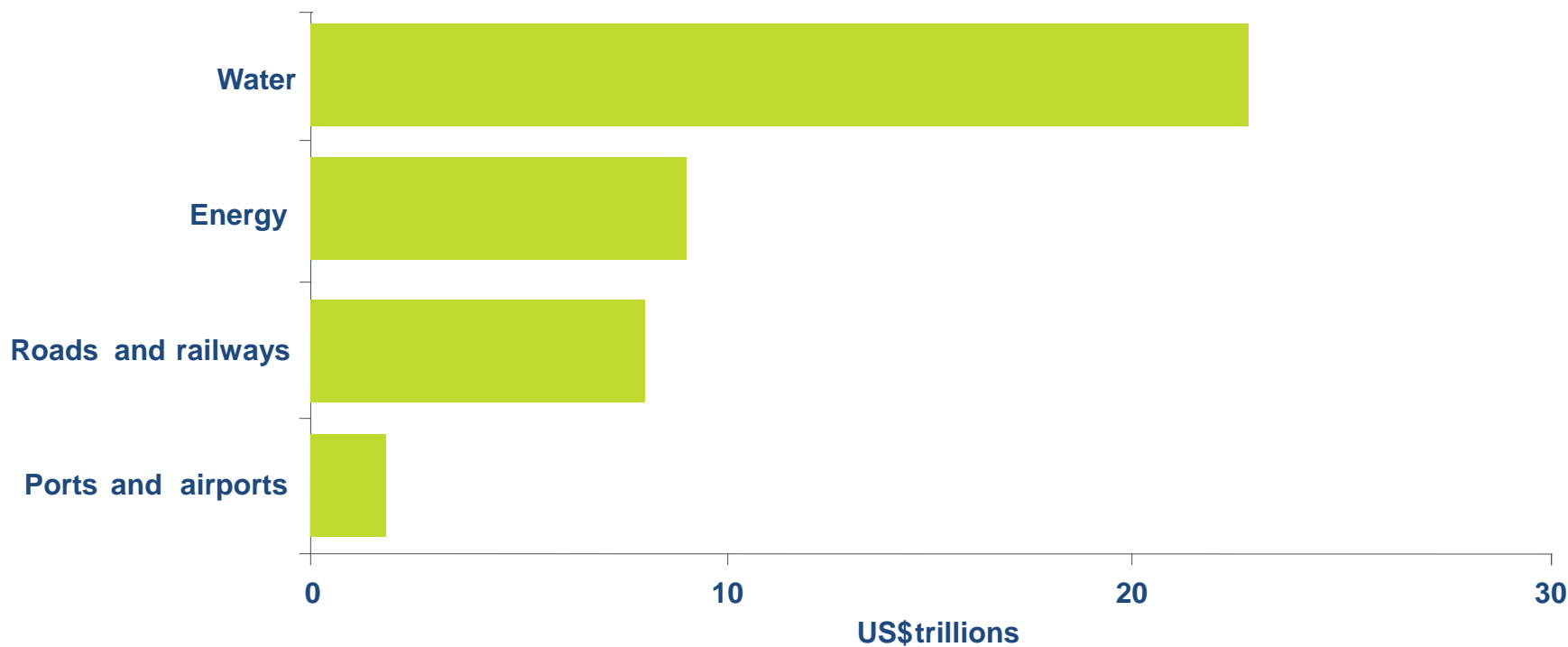






# Examples of the size of potential business opportunities

## Investment requirements for urban infrastructure up to 2030



Source: Booz Allen Hamilton, *Strategy+Business*, n 46, 2007 (from Booz Allen Hamilton, *Global Infrastructure Partners*, World Energy Outlook, OECD, Boeing, Drewry Shipping Consultants, U.S. Department of Transportation)



# The Green Race is on



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# New leaders emerge – an example

Rank August 2010 (rank May 2010)	Country	All Renewables
<b>1 (1)</b>	<b>China</b>	<b>69</b>
<b>2 (1)</b>	<b>US</b>	<b>67</b>
<b>3 (3)</b>	<b>Germany</b>	<b>63</b>
<b>4 (4)</b>	<b>India</b>	<b>62</b>
<b>5 (5)</b>	<b>Italy</b>	<b>61</b>
<b>5 (5)</b>	<b>UK</b>	<b>61</b>
<b>7 (7)</b>	<b>France</b>	<b>58</b>
<b>8 (8)</b>	<b>Spain</b>	<b>56</b>
<b>9 (9)</b>	<b>Canada</b>	<b>53</b>
<b>10 (10)</b>	<b>Portugal</b>	<b>51</b>

Source: Ernst & Young. Renewable energy country attractiveness indices (August 2010)



Market opportunities	Market size (US\$ per annum)	
	2008	Estimated 2050
Certified agricultural products	\$40 billion	\$900 billion
Certified forest products	\$5 billion	\$50 billion
Bio-carbon / forest offsets	\$21 million	\$10+ billion
Payments for water-related ecosystem services	\$5.2 billion	\$20 billion
Payments for watershed management	\$5 million	\$10 billion
Other payments for ecosystem services	\$3 billion	\$15 billion



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# The “Leader Board”



- Market leader today on green technology exports
- 300% increase in R&D for green technologies in 2009



- Poised to become the race leader, key component of next 5-Year Plan (2011-2015)
- Leader in clean energy investment; especially solar & wind



- Most energy efficient economy
- Has a good technology platform for green solutions



- Largest share of economic stimulus devoted to “green” sector (80%)
- Presidential Decree: Green New Job Creation Plan 2009



- Supplier of low cost solutions based on domestic demand from a large, poor population



- Mobilizing the US innovation capability?
- Transformation of the home market?



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