

Europe 4.0: How the new data economy will reshape our lives



Dr. Wolfgang Fengler, Lead Economist
World Bank Vienna
Vienna, November 26, 2018



EU-REPARIS SENIOR OFFICIALS' WORKSHOP



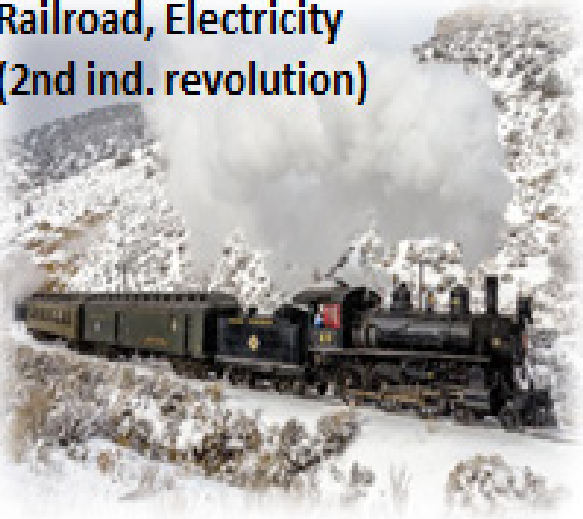
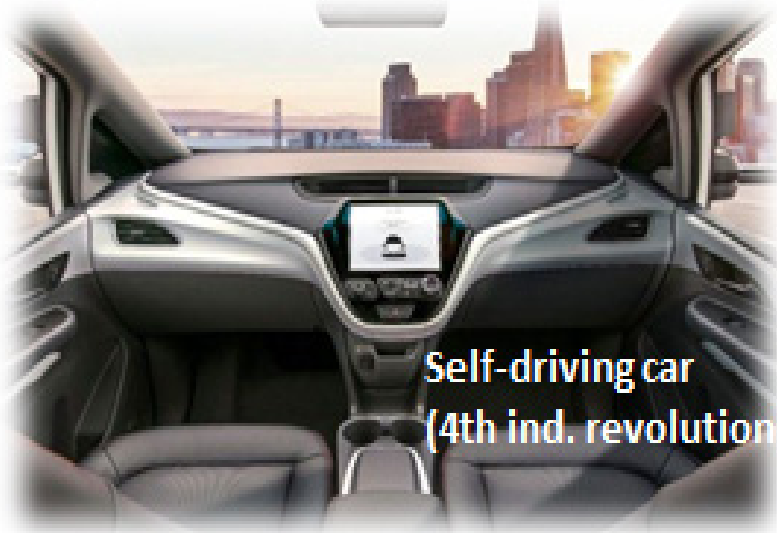
26 November 2018, Hotel Intercontinental Vienna

 @wolfgangfengler

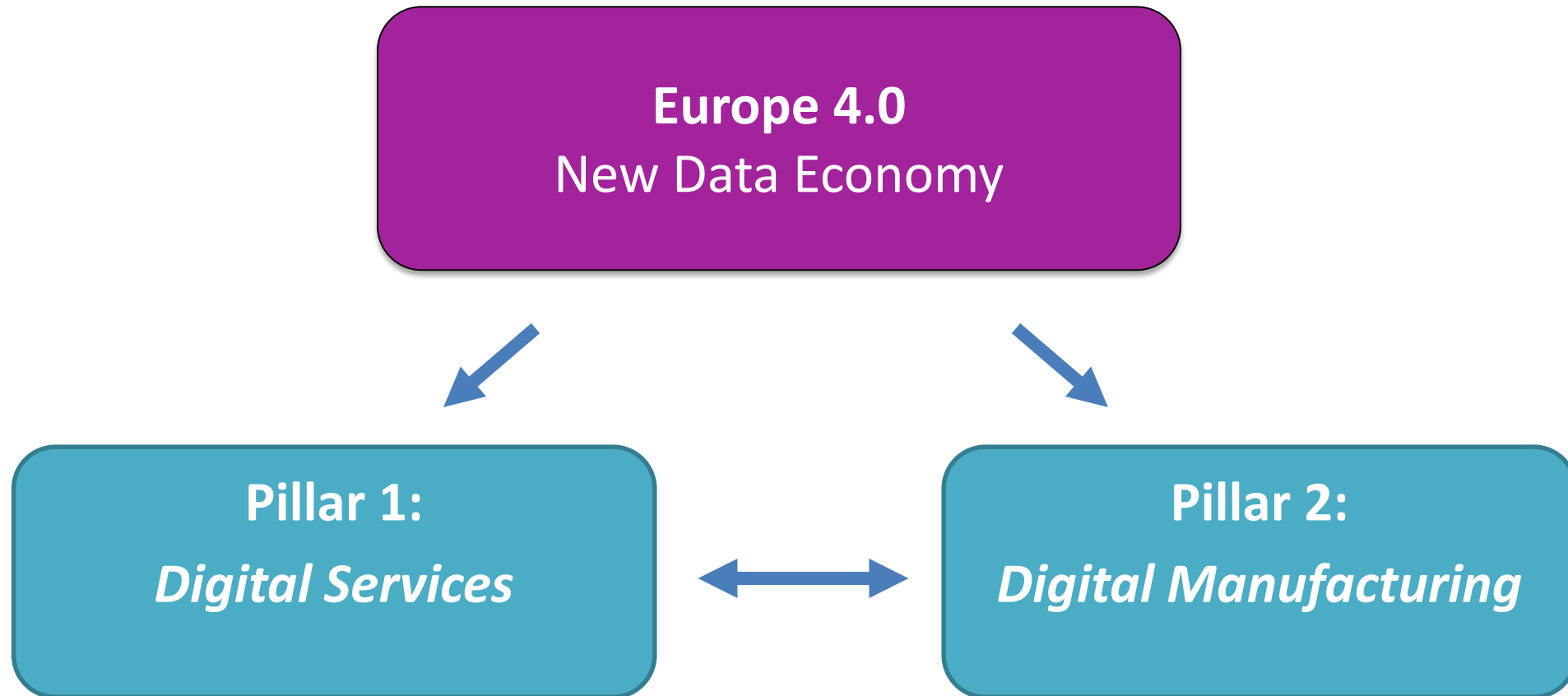
A DATA REVOLUTION FOR THE SDGS



The fourth industrial revolution: Horizontal integration of digital transformation

	Mechanical transformation	Digital transformation
Vertical integration	<p>Spinning Wheel (1st industrial revolution)</p> 	<p>Computer (3rd industrial revolution)</p> 
Horizontal integration	<p>Railroad, Electricity (2nd ind. revolution)</p> 	<p>Self-driving car (4th ind. revolution)</p> 

Europe 4.0: The data economy, digital services and digital manufacturing

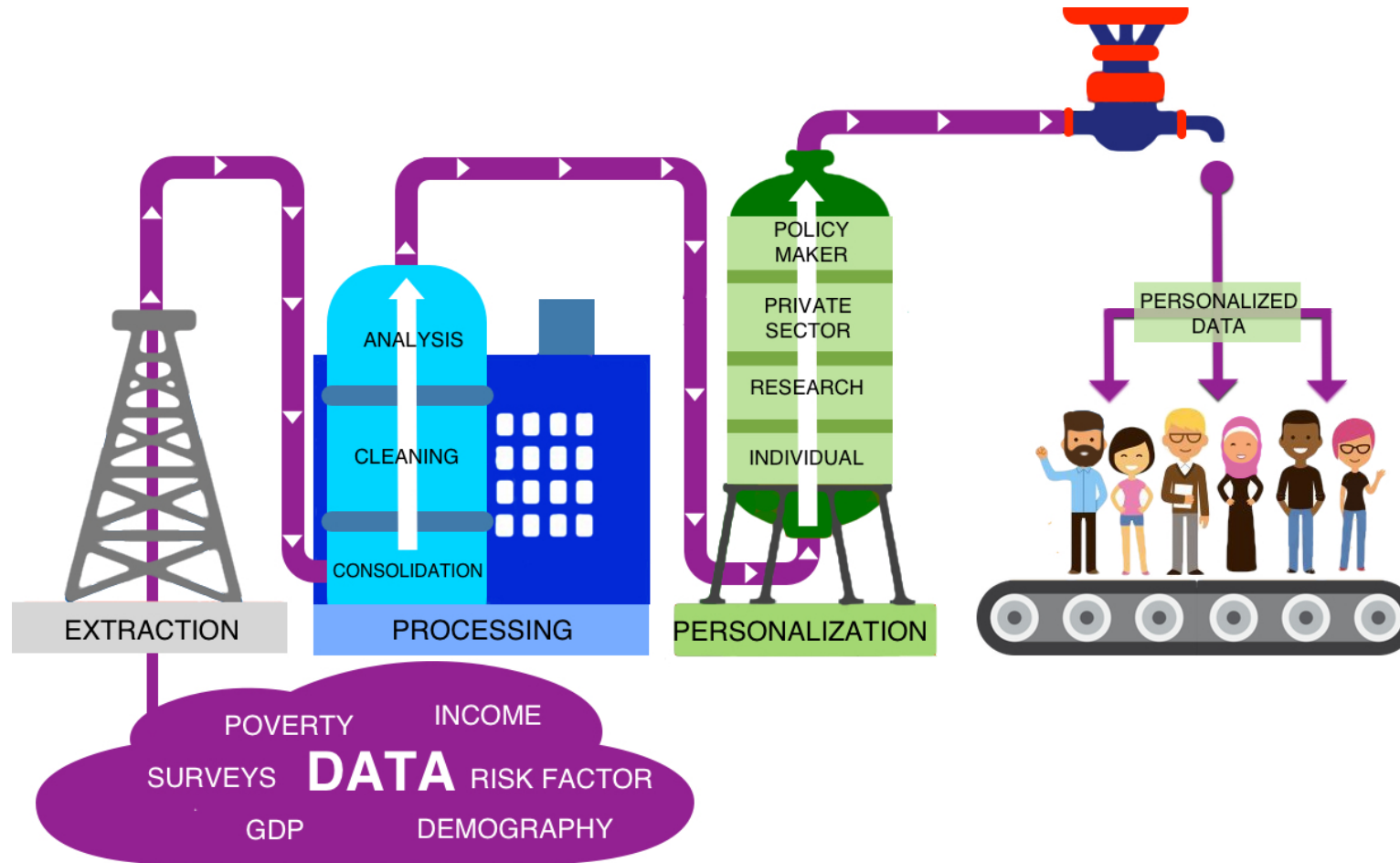


Already today, there is more data than grains of sand

The Emergence of Big Data: from zero to 100 sextillion in five years



THE NEED FOR A DATA REFINERY



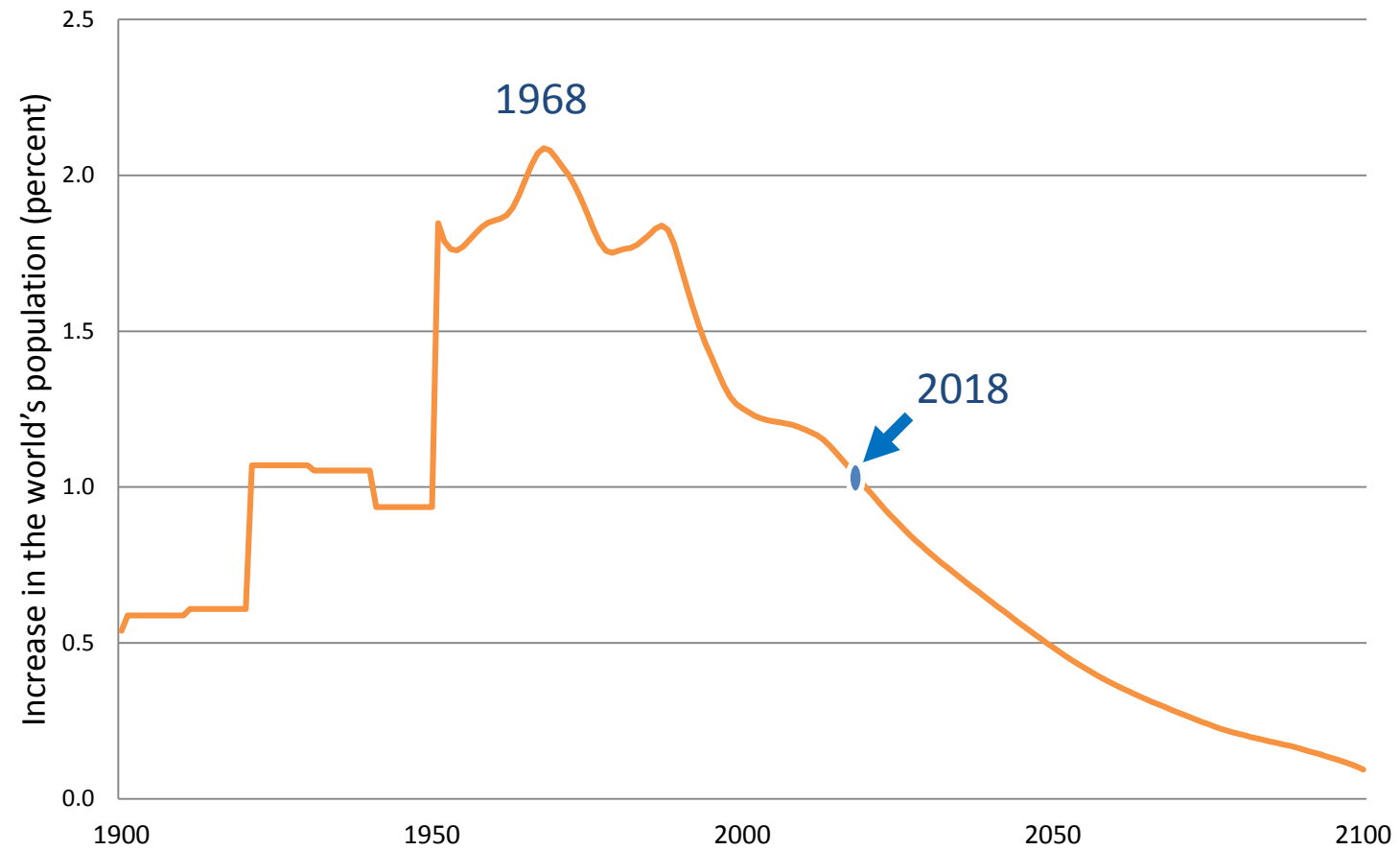
Big Shifts



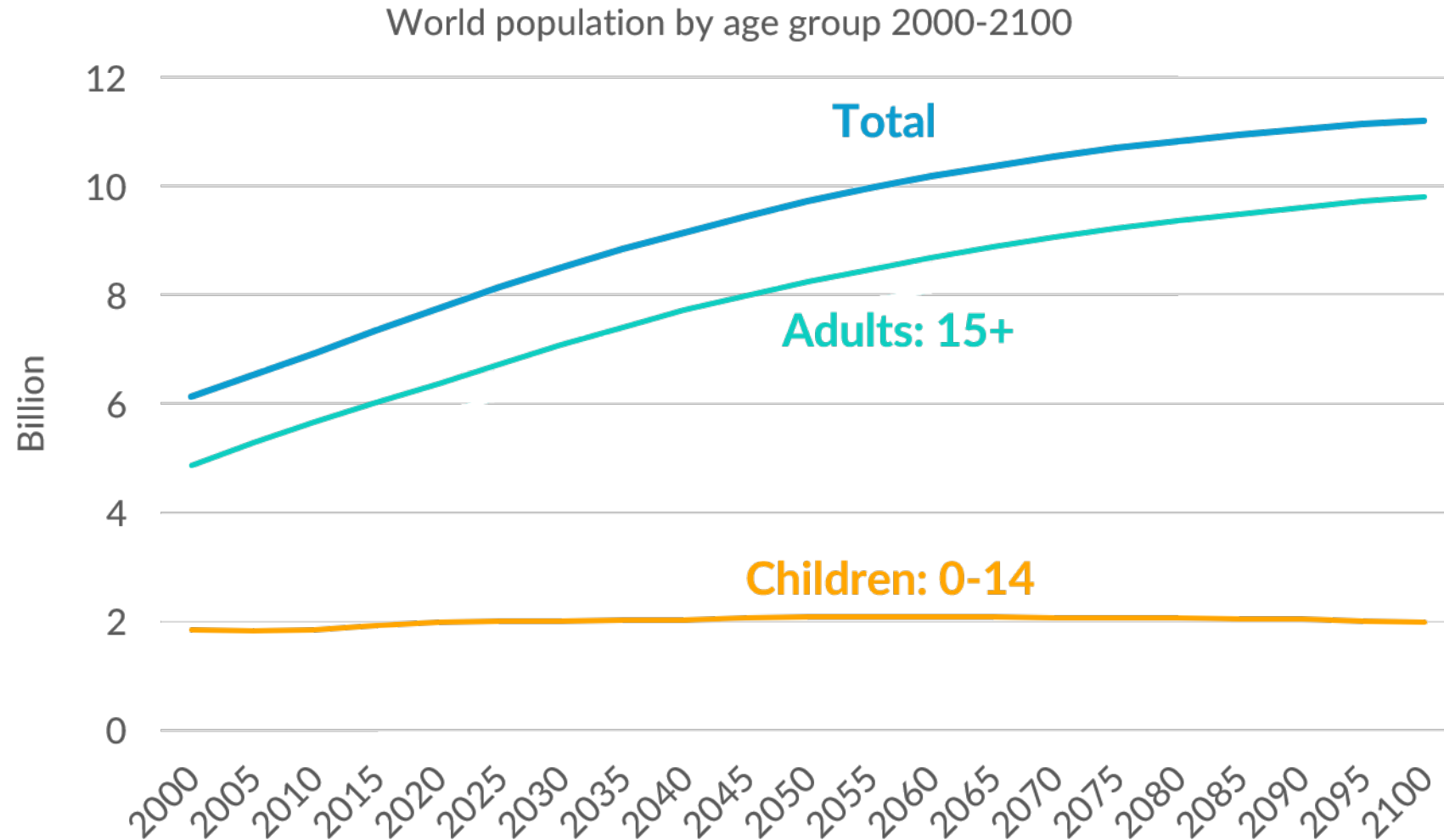
Number of people in the world

7,6b

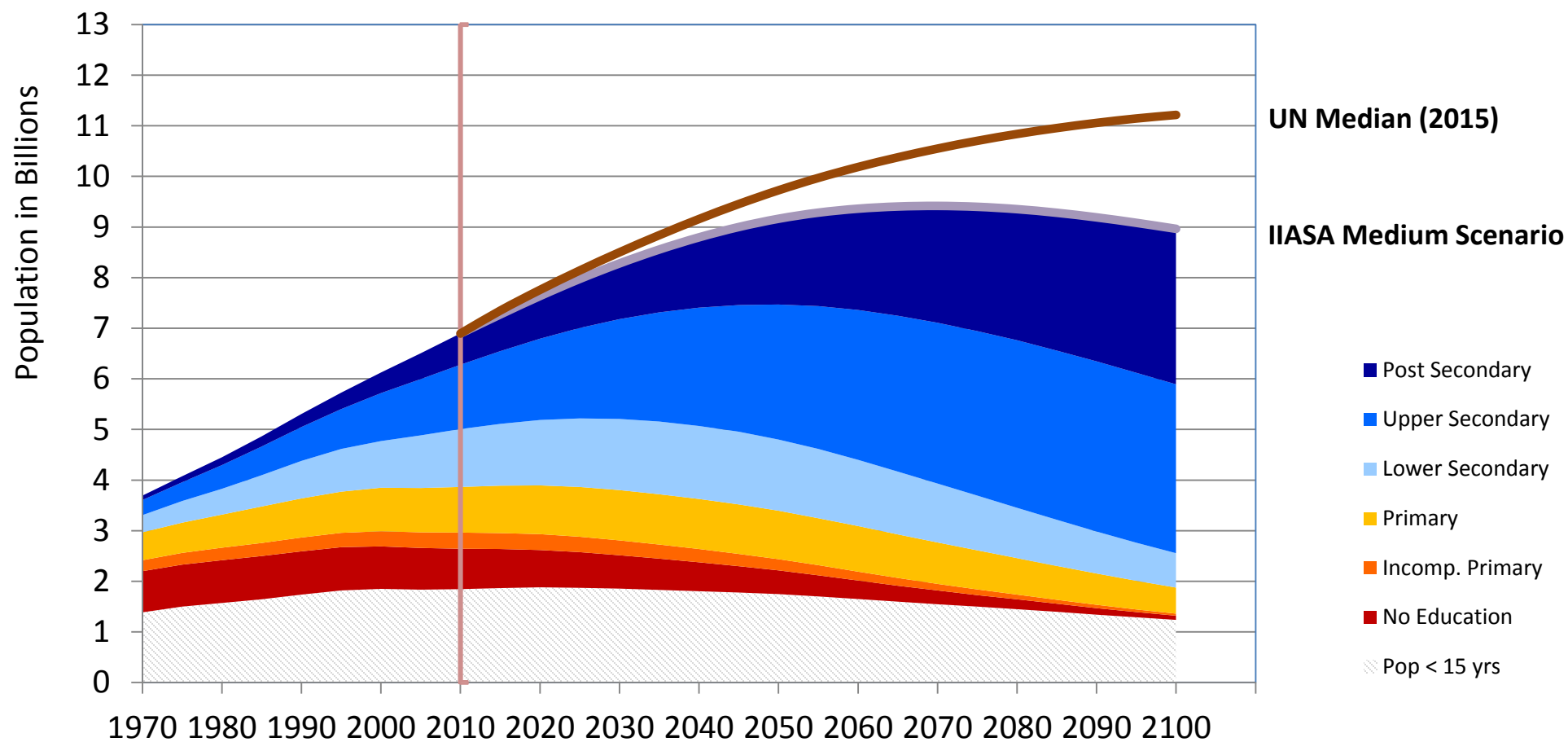
Population growth is slowing down rapidly



2000-2100: WHY IS THERE HIGH POPULATION GROWTH?

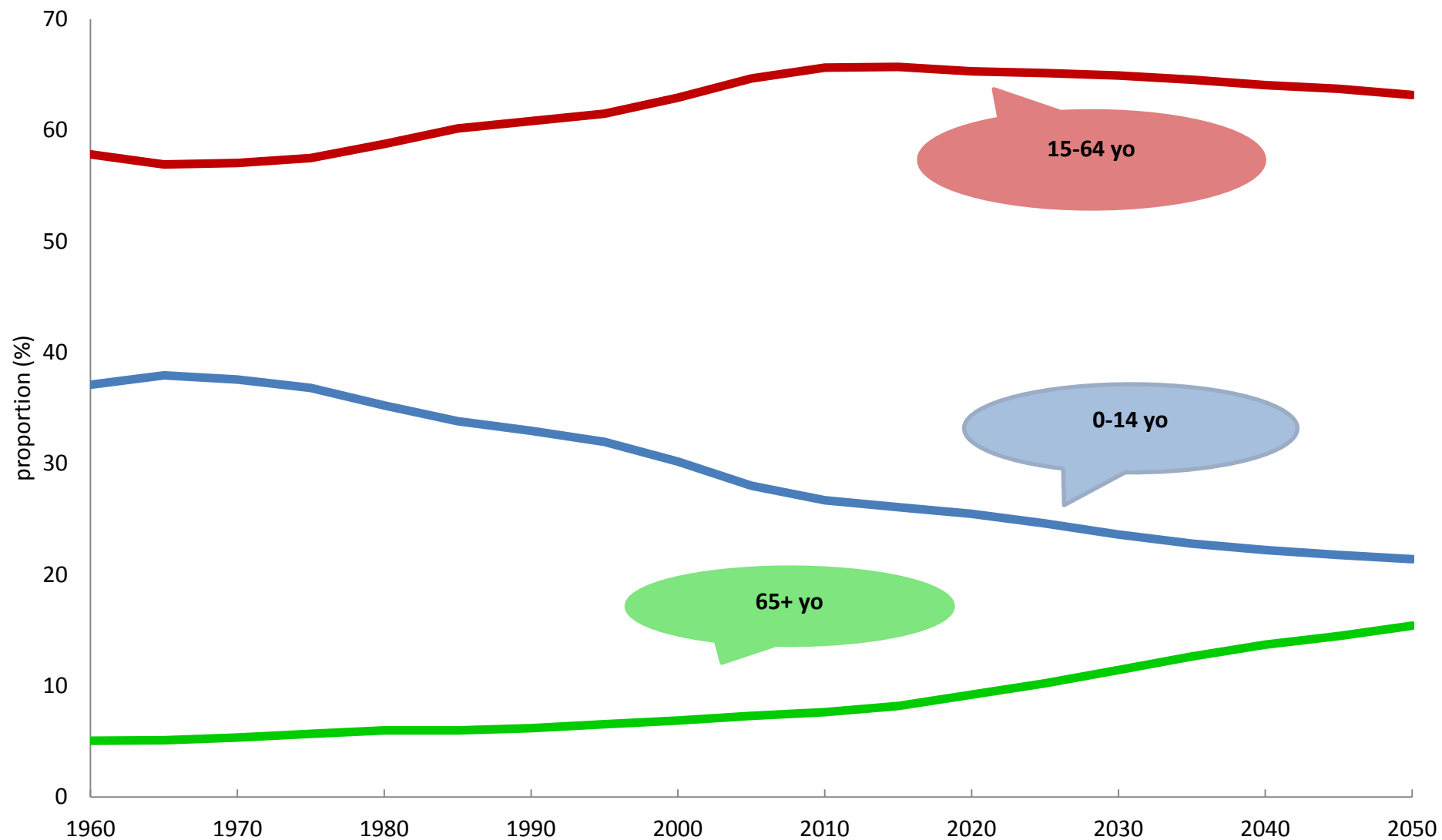


Despite the recent UN projections, we may not reach 10 billion ...



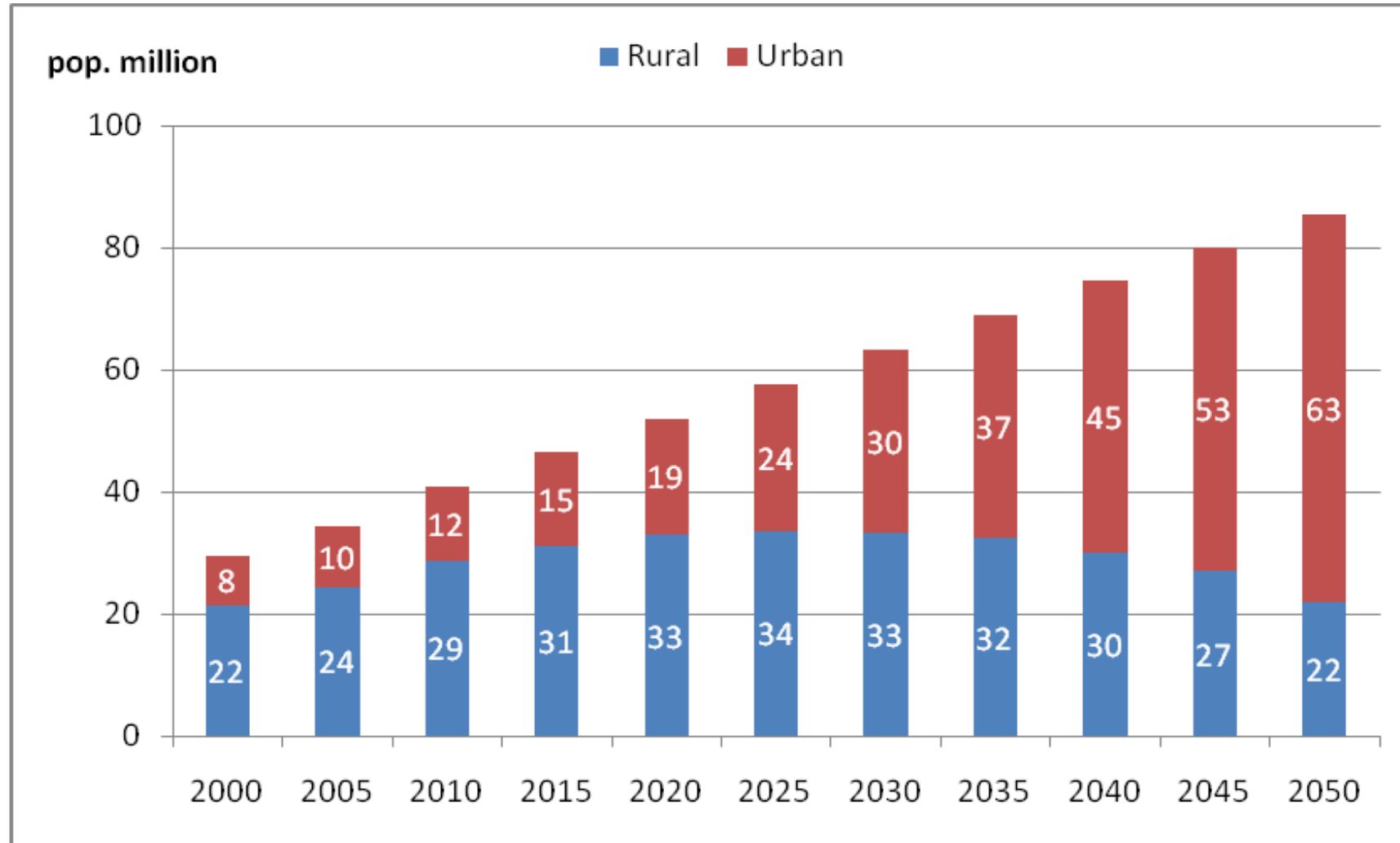
Source: IASA projections

Shift 1. From Young to Old

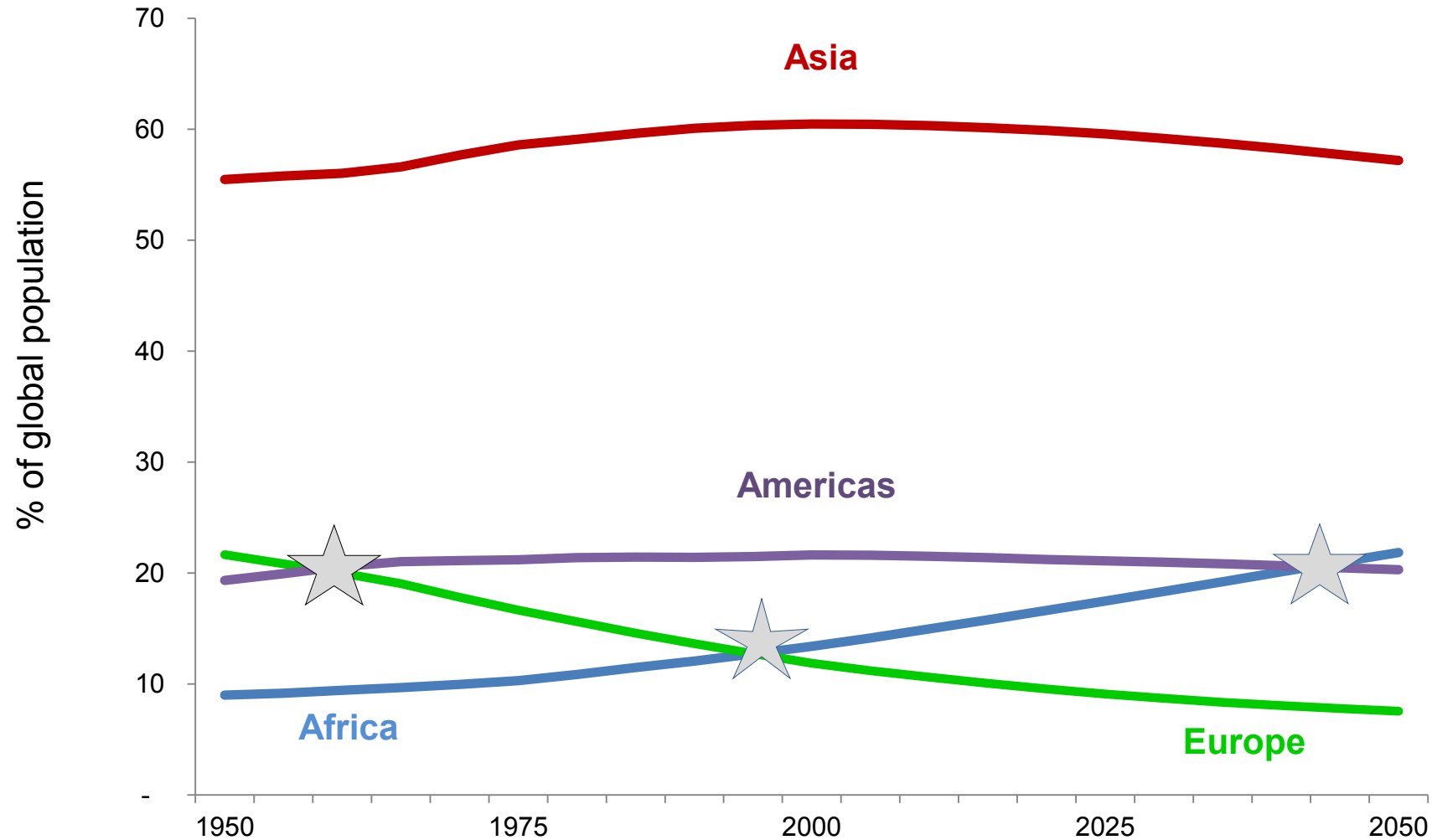


Shift 2. From rural to urban

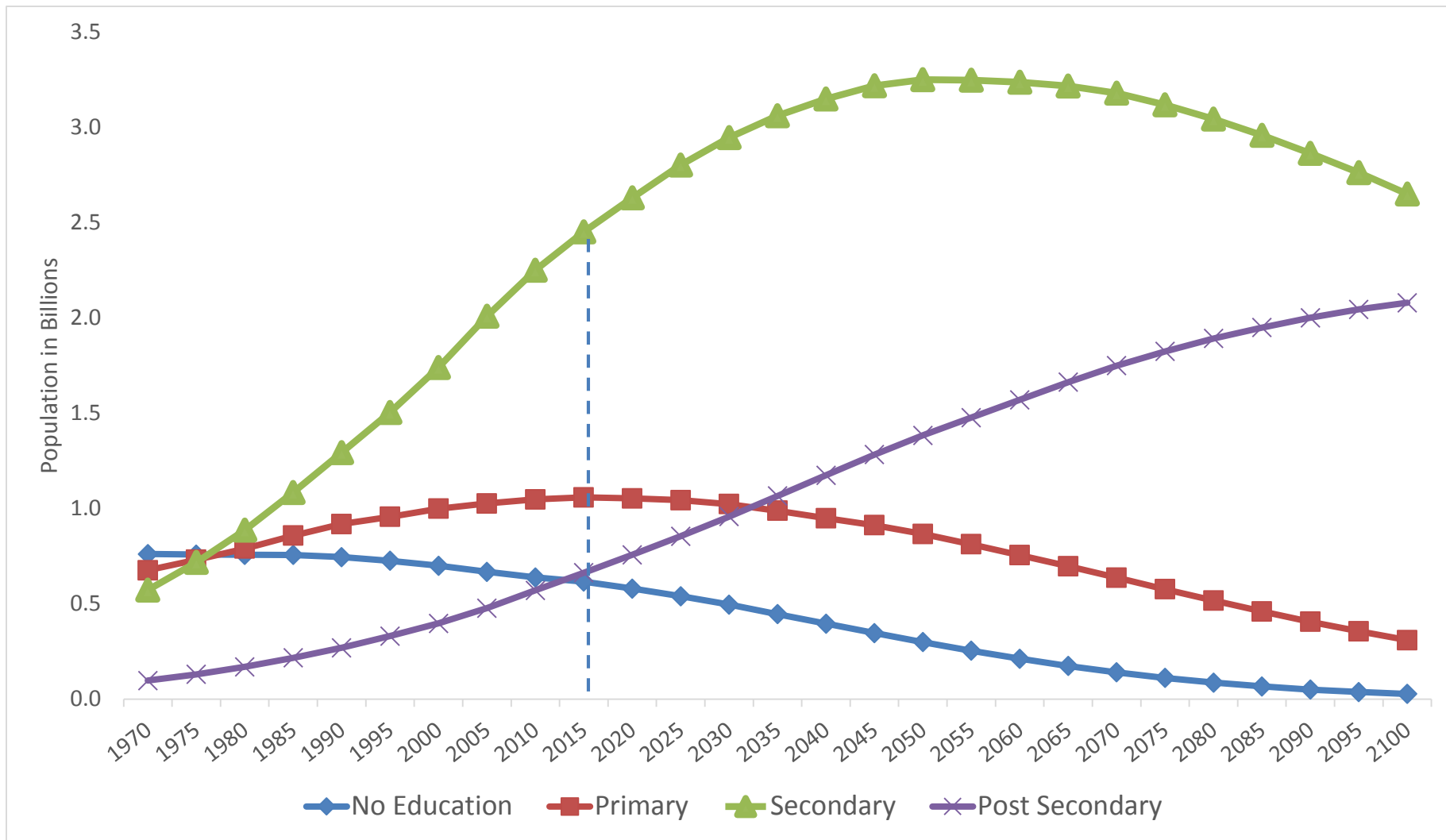
Example: Kenya



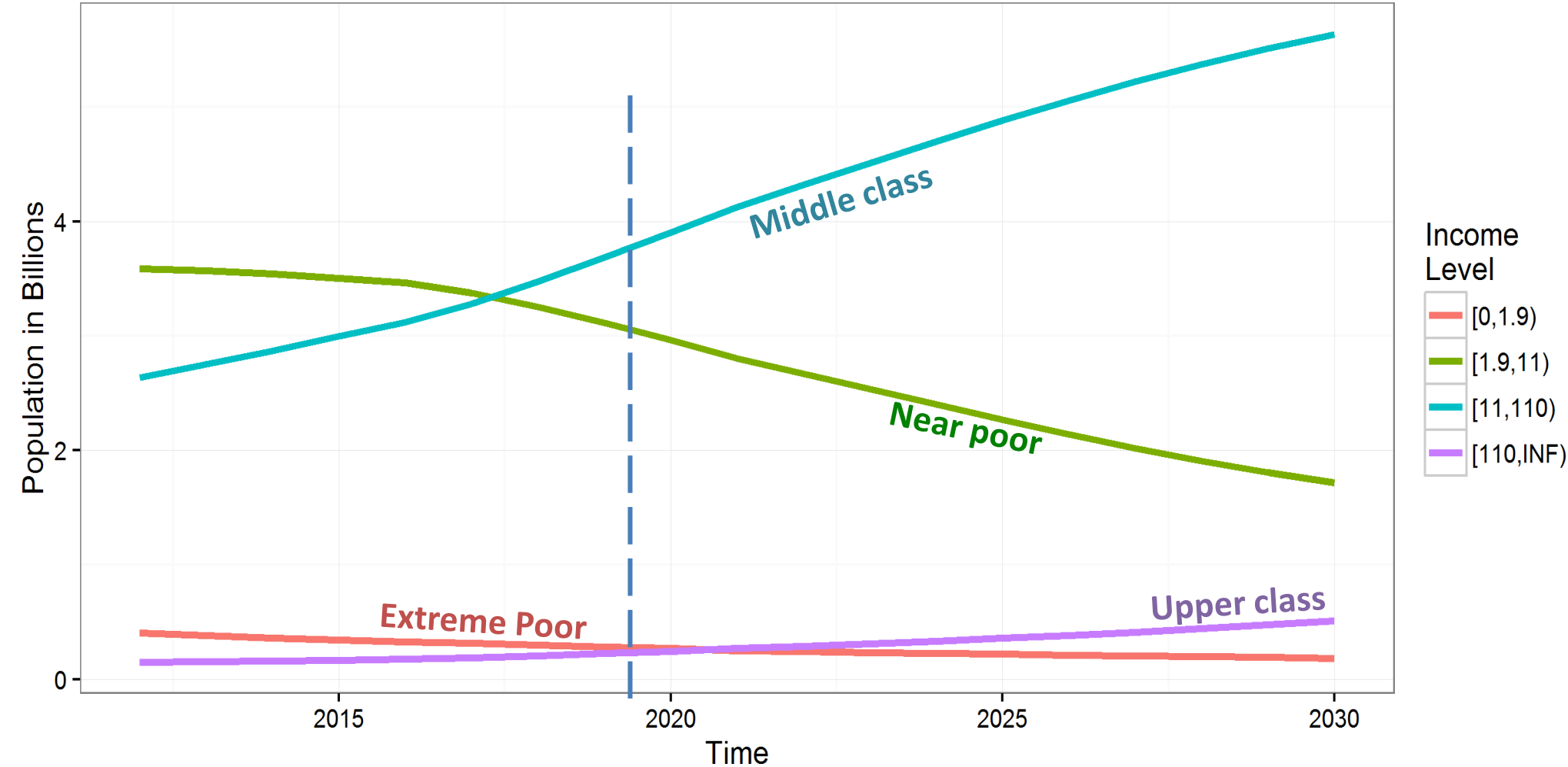
Shift 3. From Europe to Africa



Shift 4. From low to high education



Shift 5. From poor to Middle Class

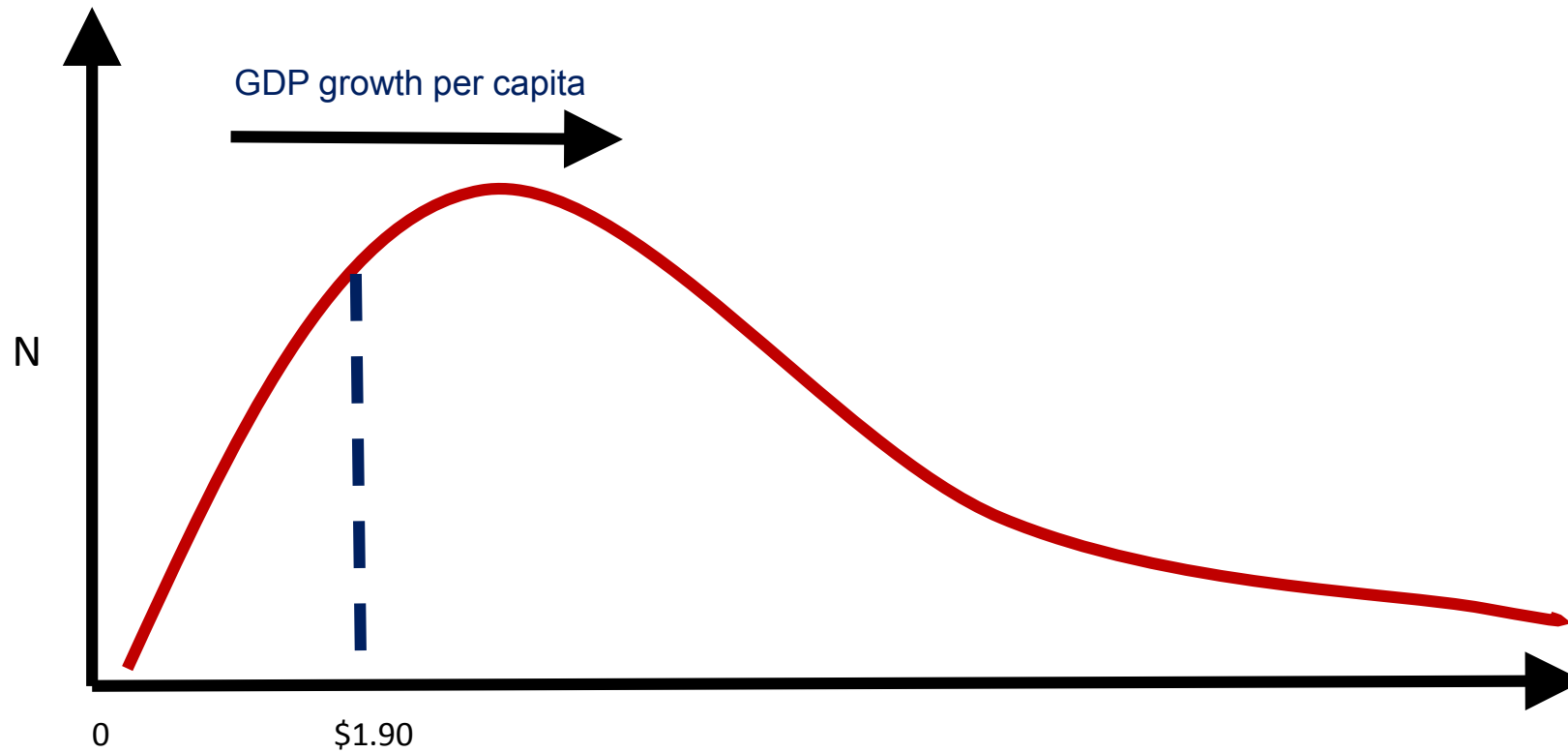


Source: Projections by World Data Lab

Real-time data models



Modelling income in real-time



IS THE WORLD ON TRACK TO END POVERTY BY 2030 (SDG 1)?



WORLD POVERTY CLOCK

The World Poverty Clock provides real-time poverty estimates until 2030 for almost every country in the world. It monitors progress against Ending Extreme Poverty, which is the UN's first Sustainable Development Goal (SDG1). The escape rate calculates the current rate of poverty reduction in the world. [Read more](#)

1.6	1.1
TARGET	CURRENT
ESCAPE	ESCAPE
RATE	RATE

people/ sec



630,087,840

people live in extreme poverty
8% of the world population



INDIA

OFF TRACK
41,159,373
behind SDG1

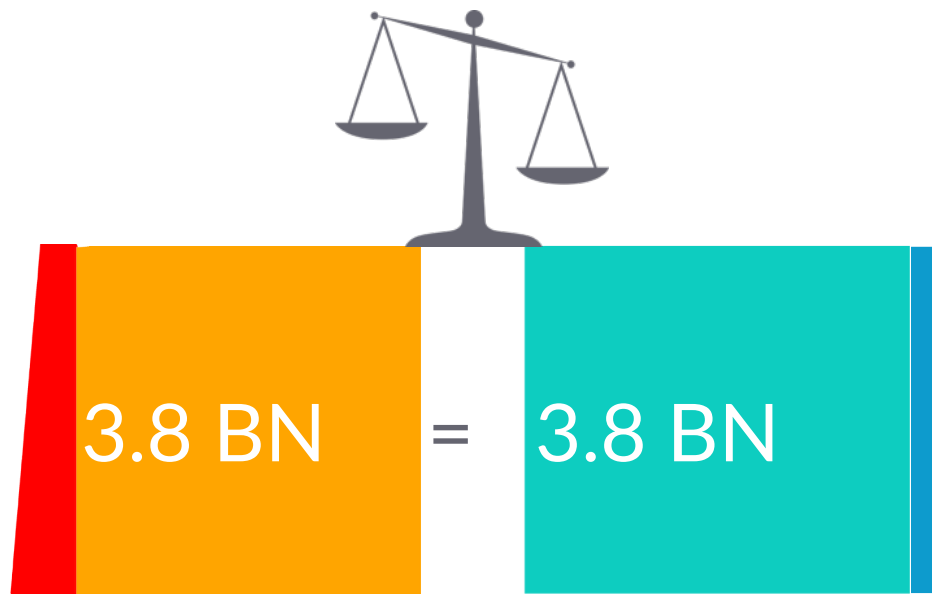
	112,303	escaped poverty today
	22,420	fell into poverty today

How many people are entering the global Middle Class each second?

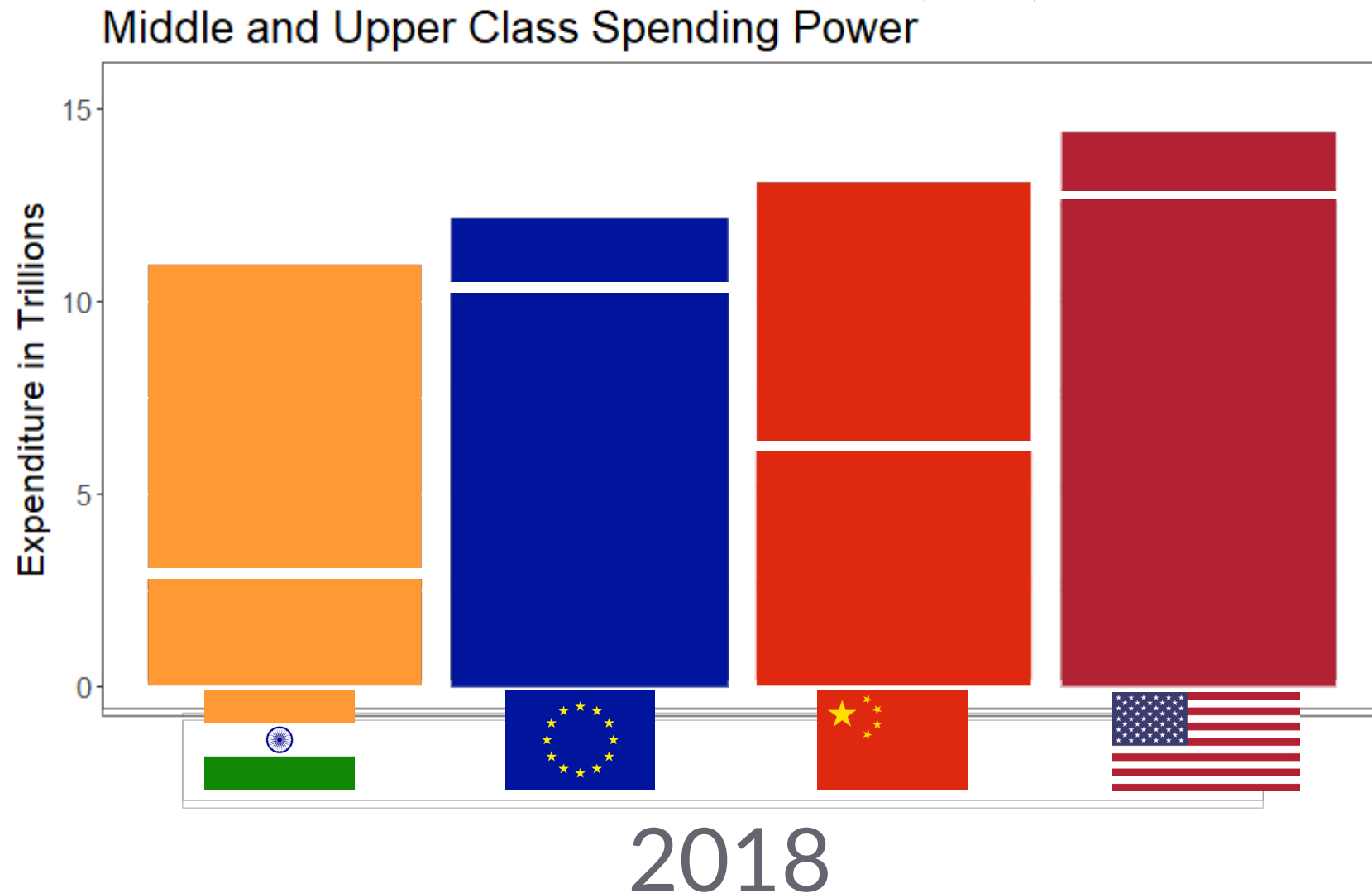


October 2018

Half the world lives above 11\$ / day



IN 2030, THE FOUR LARGEST MARKETS WILL BE OF SIMILAR SIZE



Thank you



 @wolfgangfengler