

# Partnering India's Development

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# Siemens at a glance in FY15



#### **Divisions** (Revenue in €bn)

Industrial Business									
Power and Gas	Wind Power and Rene- wables	Power Gener- ation Services	Energy Manage- ment	Building Tech- nologies	Mobility	Digital Factory	Process Industries and Drives	Health- care (separately managed)	Financial Services
13.2	5.7	Part of PG and WP	11.9	6.0	7.5	10.0	9.9	12.9	Assets 25

#### **Portfolio**



















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Page 2 May 31, 2016 Dr. Roland Busch

# Regional footprint: Partnering with India for about 150 years



#### Revenue



€1.6bn or INR119bn

## **Employees**



16,000

### **Manufacturing footprint**



22 factories

#### Research focus



11 centers

>4,000 R&D employees

#### **Listed locally**



~€5.8bn

Market capitalization<sup>1</sup>





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Dr. Roland Busch Page 3 May 31, 2016

# India remains a bright spot on the economic landscape



### **GDP growth** (in %)



Economy is to grow by the fastest rate of any major country with **7.5%** until 2017

Average economic growth of **10%** is needed to create jobs for the young and growing population

Labor productivity accounted for **>60%** of GDP growth 1990-2012, compared with **91%** in China

Need to remove infrastructure bottlenecks to sustain growth - especially in the energy, transport and water sectors

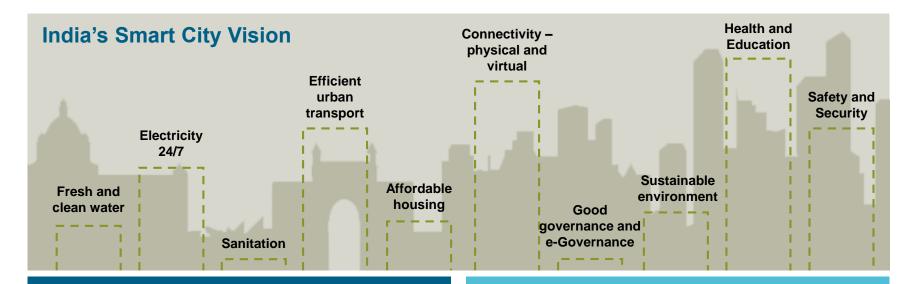
# Infrastructure determines competitiveness and productivity of a city





# Delivering India's 100 Smart Cities: Translating the vision into delivery





# The consortium – led by Siemens

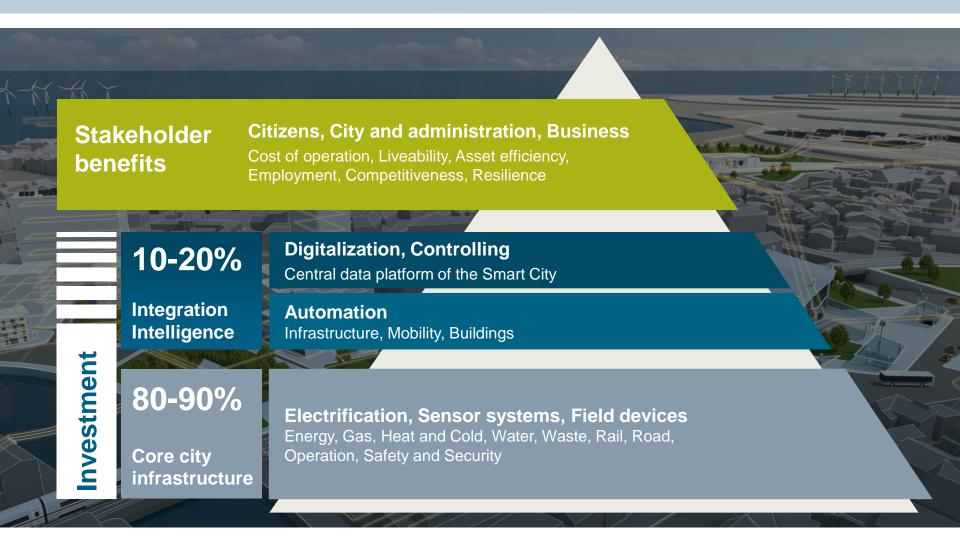
- MoU with Confederation of the Indian Industry to lead a consortium creating a Smart City Vision
- Partners: Atos, Bosch, Deutsche Bank, KfW,
   Shapoorji Pallonji and VA Tech WABAG,

# Benefits of our approach

- Covering all elements of a smart city (energy, waste, transport, water, governance)
- Remain committed to India's future
- Engage as supplier or act as investor/financing
- Leveraging local delivery but also profit from global thinking expertise



# Intelligent Infrastructure makes smart cities possible



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# Intelligent Infrastructure: Benefits and customer stories



# Rolling stock



#### Metro



# Power and in the utility grids



## **Buildings**





# 49.957

# **Paris**

Driverless Metro Lines 1 and 14 increased capacity by up to 50% through trains run at shorter headways

# Gurgaon

Transporting 30k passengers every hour, advanced signaling and automatic train control ensure 90 second headway

# **Maharashtra**

Modernizing electricity grids in 8 cities. Improving reliability, reducing losses (by at least 15%) and a major step towards smart grid

# **Taipei**

Building automation for Taipei 101 cuts energy consumption by 30% compared to equivalent buildings

# The Mobility Opportunity: Improving urban transport to drive economic growth





- Transport essential to economic activity and competitiveness
- Infrastructure under increasing pressure: growth in labour force, urbanisation, climate change considerations
- Aging/underdeveloped infrastructure

**Key question:** What investment into transport infrastructure is needed to gain the most economic benefits?

Outcome: With "best in class" transport conditions cities<sup>1</sup> can gain economic benefit of US\$800bn p.a. from 2030 (1% of global GDP)

1 Extrapolating from 35 cities in the study to 470 cities with over 750,000 residents © Siemens AG 2016

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# The Mobility Opportunity: Selected investment cases



- Productivity loss (% of GDP per capita) varies from 9% (Singapore) to 28% (Largos)
- Every city can realize economic benefits by investments into its infrastructure



(current \$)

**Timescale** 

Investment

Annual value of benefit (by 2030)

Years to pay back

Sources: Railway Gazette, Railway Technology, UN Urbanisation Statistics, World Bank, Credo research & analysis, China Daily

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Page 10 May 31, 2016 Dr. Roland Busch



# India's rapid urbanization is an opportunity

Planning and developing smart cities and infrastructure is essential to enable growth of India's economy Intelligent Infrastructure boosts productivity and efficiency in cities Siemens is committed to playing a key part in the delivery of India's 100 Smart Cities