

India's Competitiveness: A Perspective from States

Presented By:

Amit Kapoor

Chair, Institute for Competitiveness

WHAT IS COMPETITIVENESS?

- Competitiveness is the **productivity (value per unit of input)** with which a nation, region, or cluster utilizes its human, capital, and natural resources. Productivity sets a nation's or region's standard of living (wages, returns on capital, returns on natural resources)
 - Productivity depends both on the **value** of products and services (e.g. uniqueness, quality) as well as the **efficiency** with which they are produced.
 - It is not **what** industries a nation or region competes in that matters for prosperity, but **how** firms compete in those industries
 - Productivity in a nation or region is a reflection of what both domestic and foreign firms **choose to do in that location**. The location of ownership is secondary for prosperity.
 - The productivity of **“local”** industries is of fundamental importance to competitiveness, not just that of traded industries
 - Devaluation and revaluation do **not** make a country more or less “competitive”



- Nations and regions compete in offering the **most productive environment** for business

WHAT DETERMINES COMPETITIVENESS?

MICROECONOMIC COMPETITIVENESS

Quality of business environment

State of cluster development

Sophistication of company operations and strategy

MACROECONOMIC COMPETITIVENESS

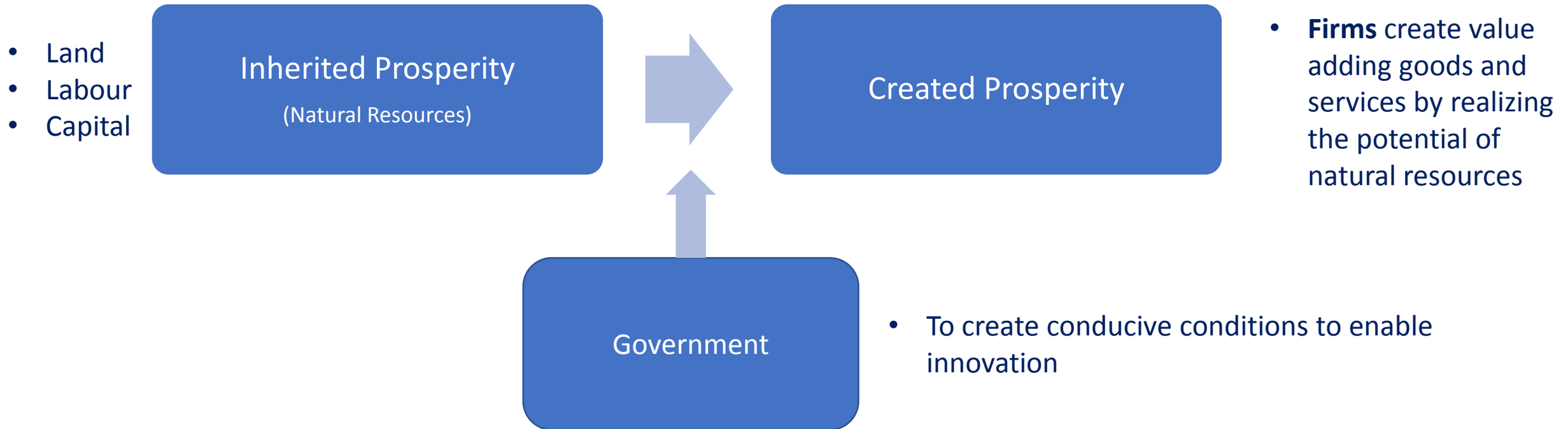
Sound monetary and fiscal policy

Human Development and effective public institutions

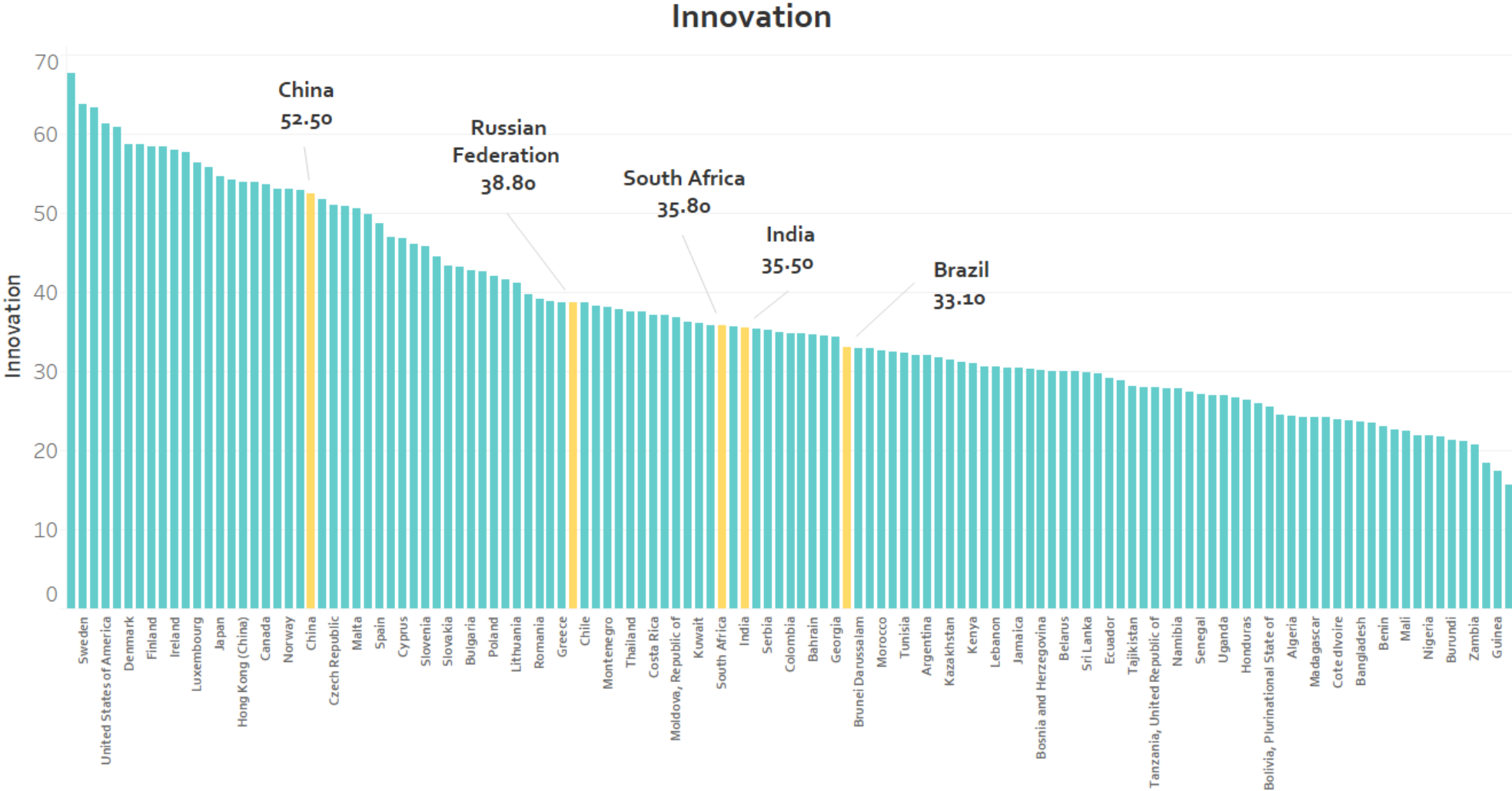
ENDOWMENTS

WHY INNOVATE?

The capability to innovate and to bring innovation successfully to market is a crucial determinant of the global competitiveness of nations.

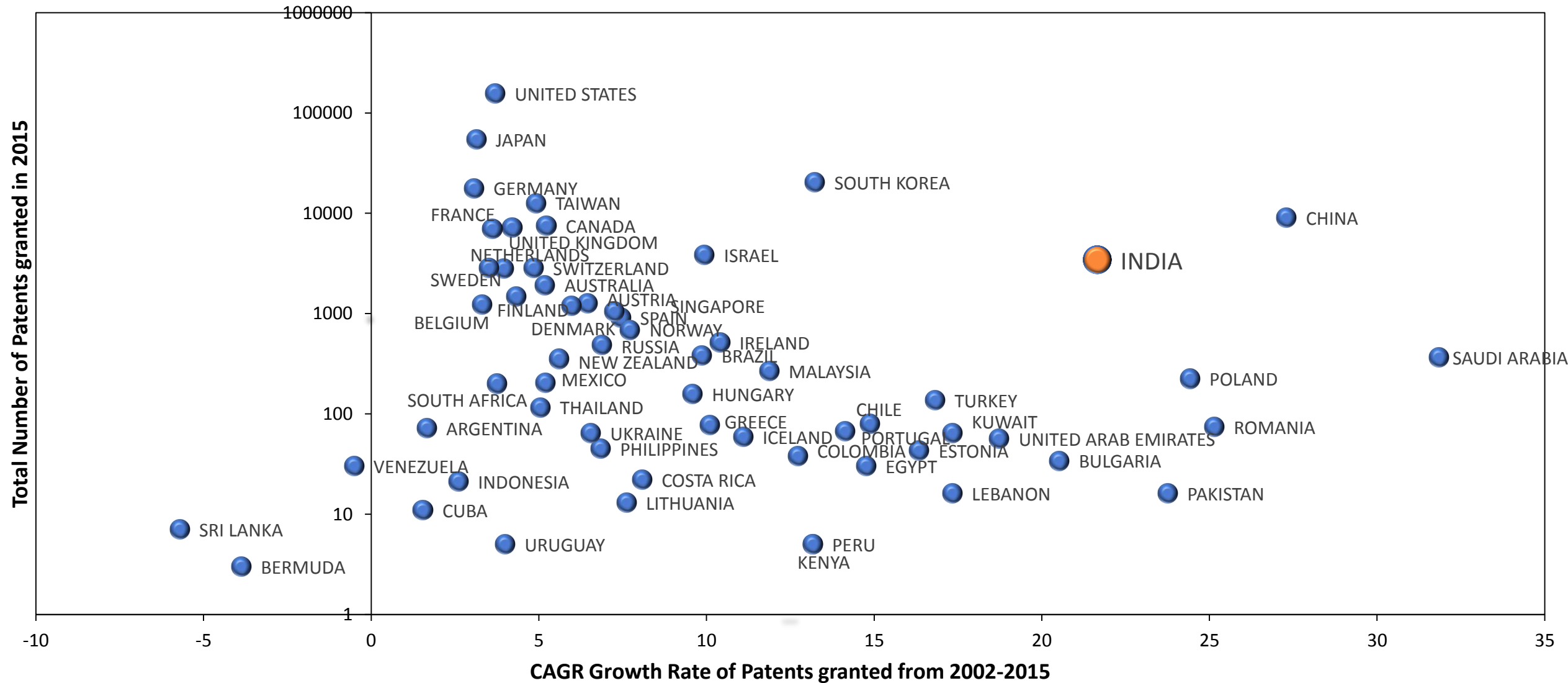


GLOBAL INNOVATION

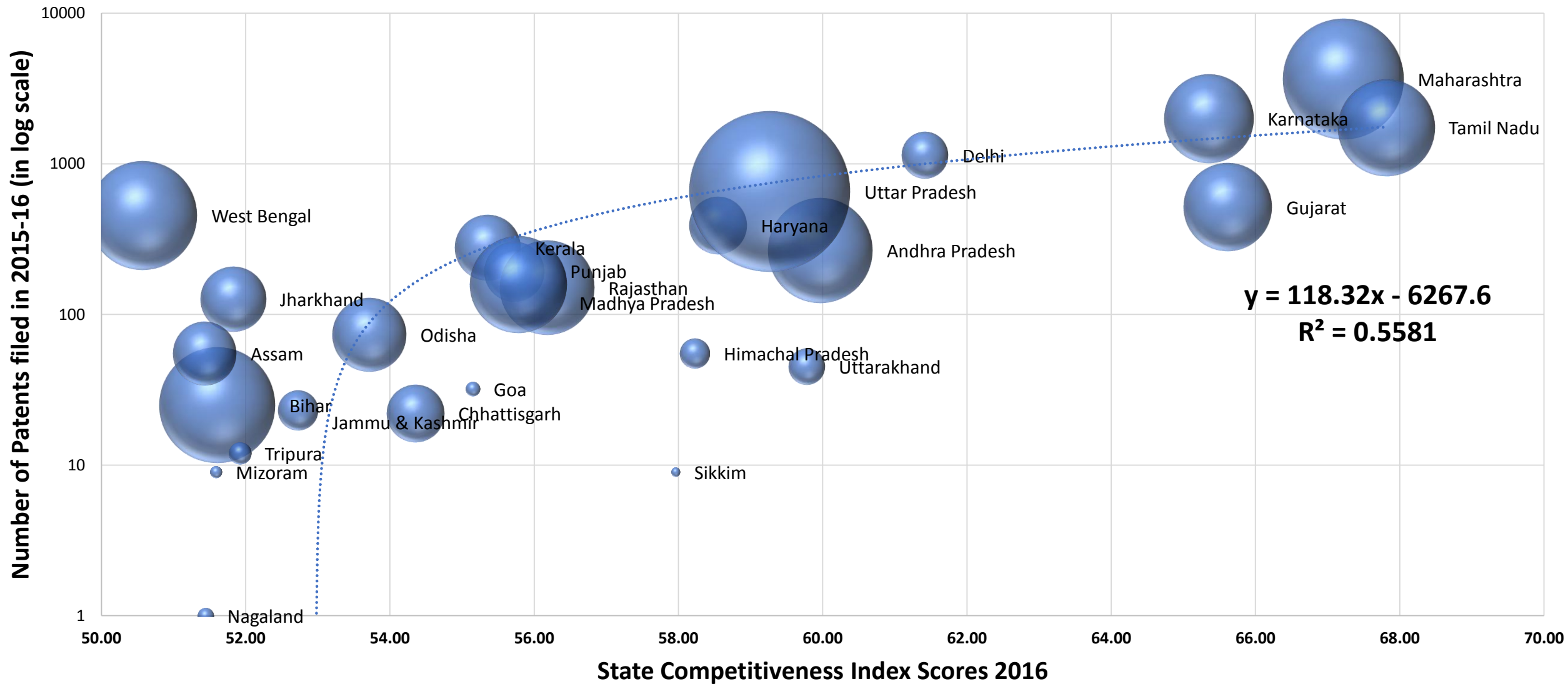


Data Source: Global Innovation Index

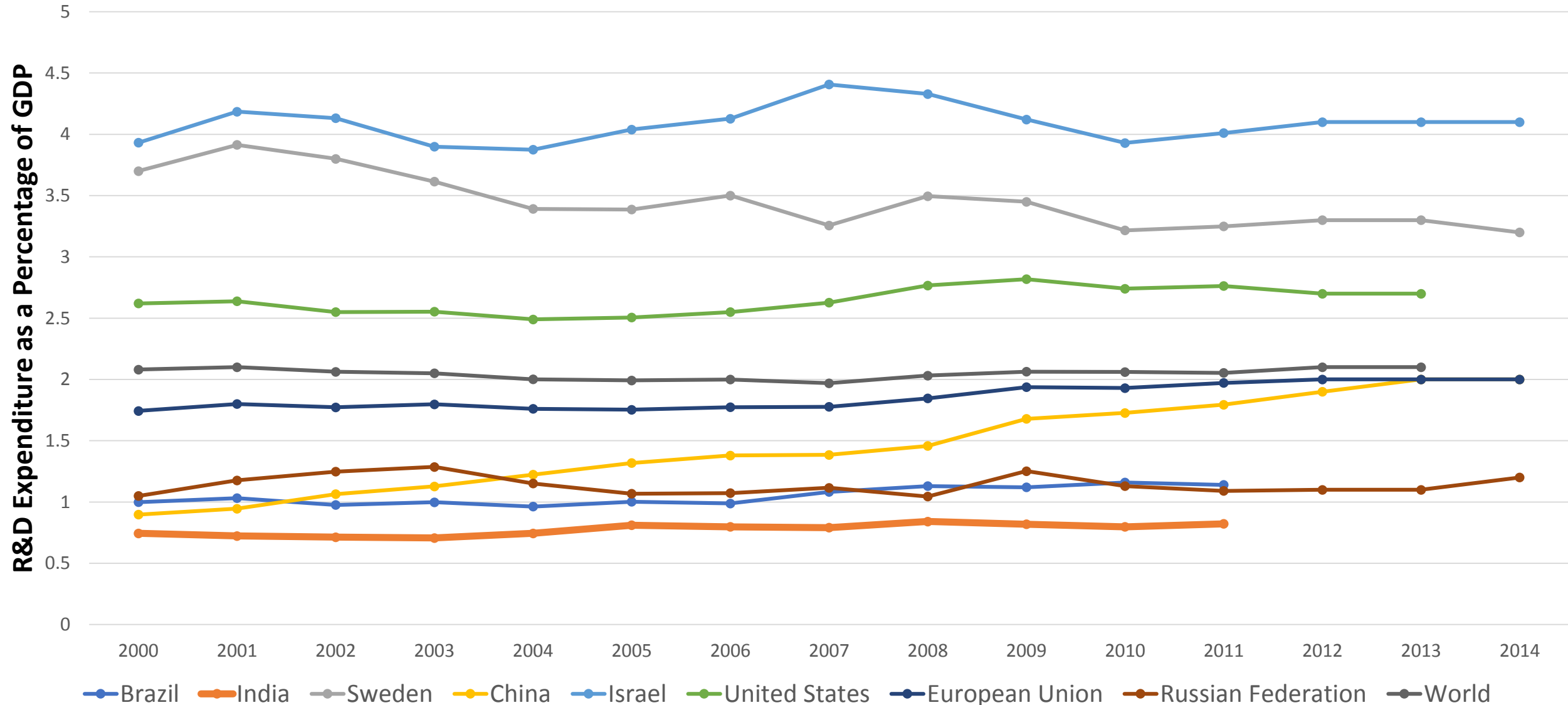
COUNTRY-WISE GROWTH IN PATENTS



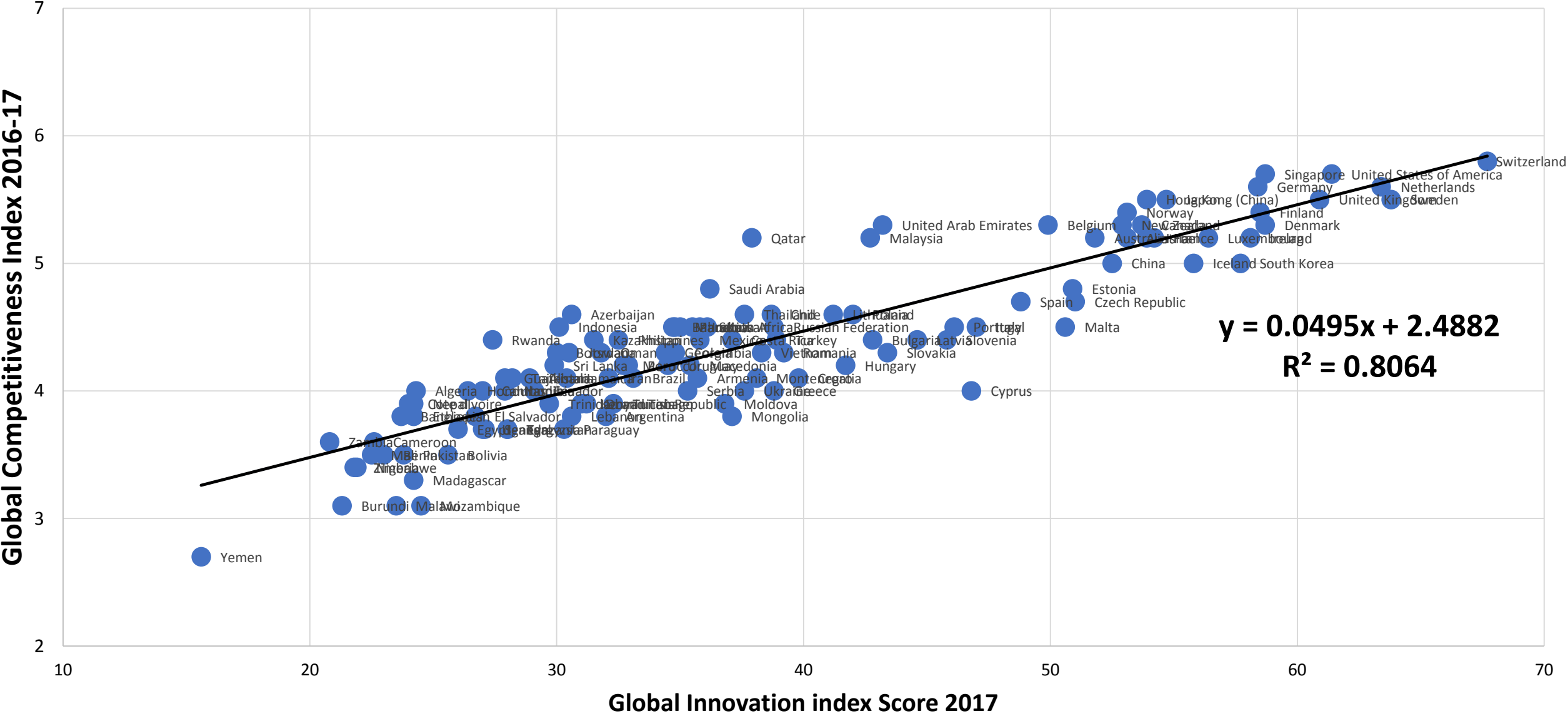
LINK BETWEEN PATENTS AND COMPETITIVENESS

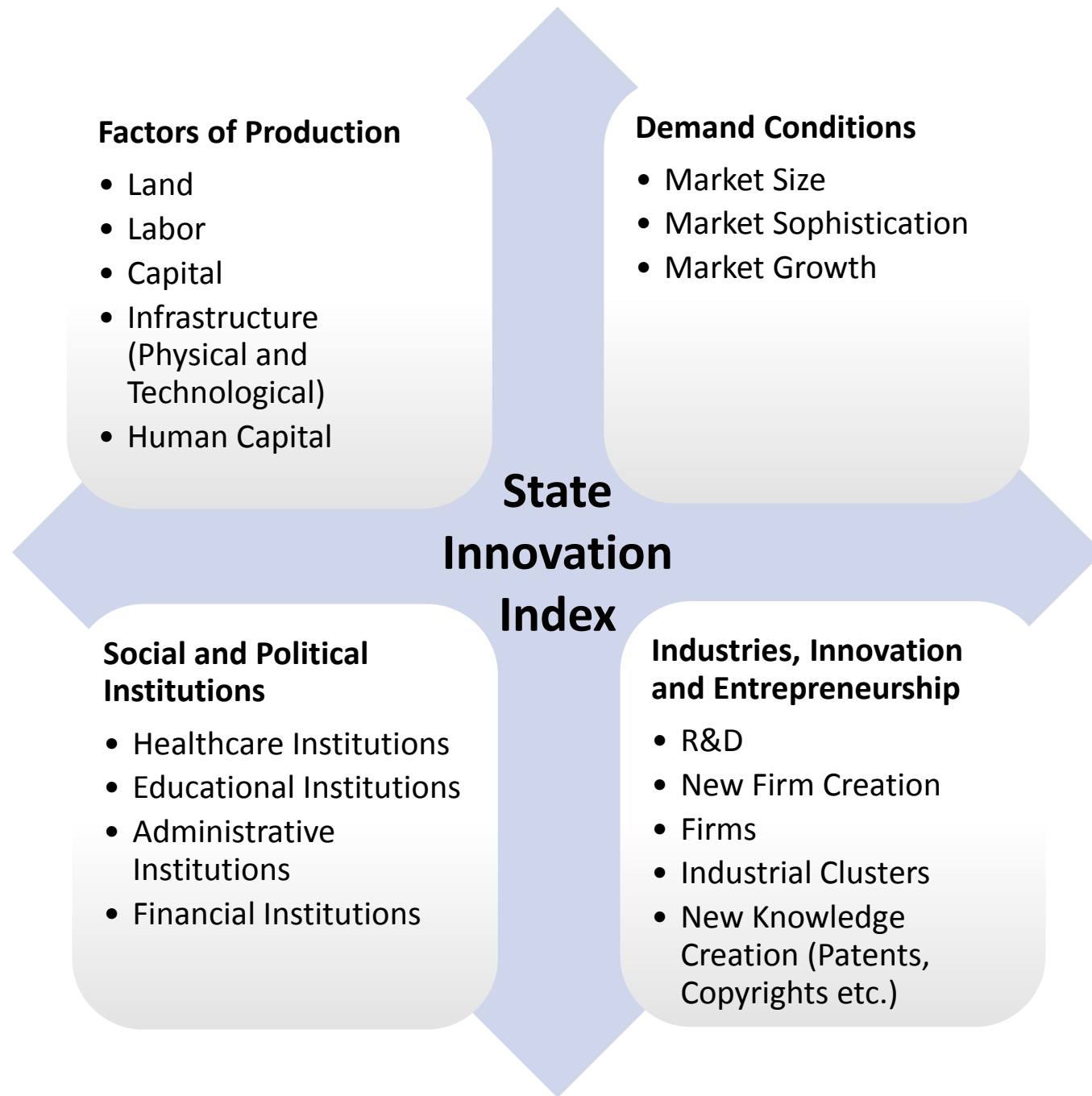


Country-wise R&D Expenditure as a Percentage of GDP



Link between Innovation and Competitiveness at Global Level

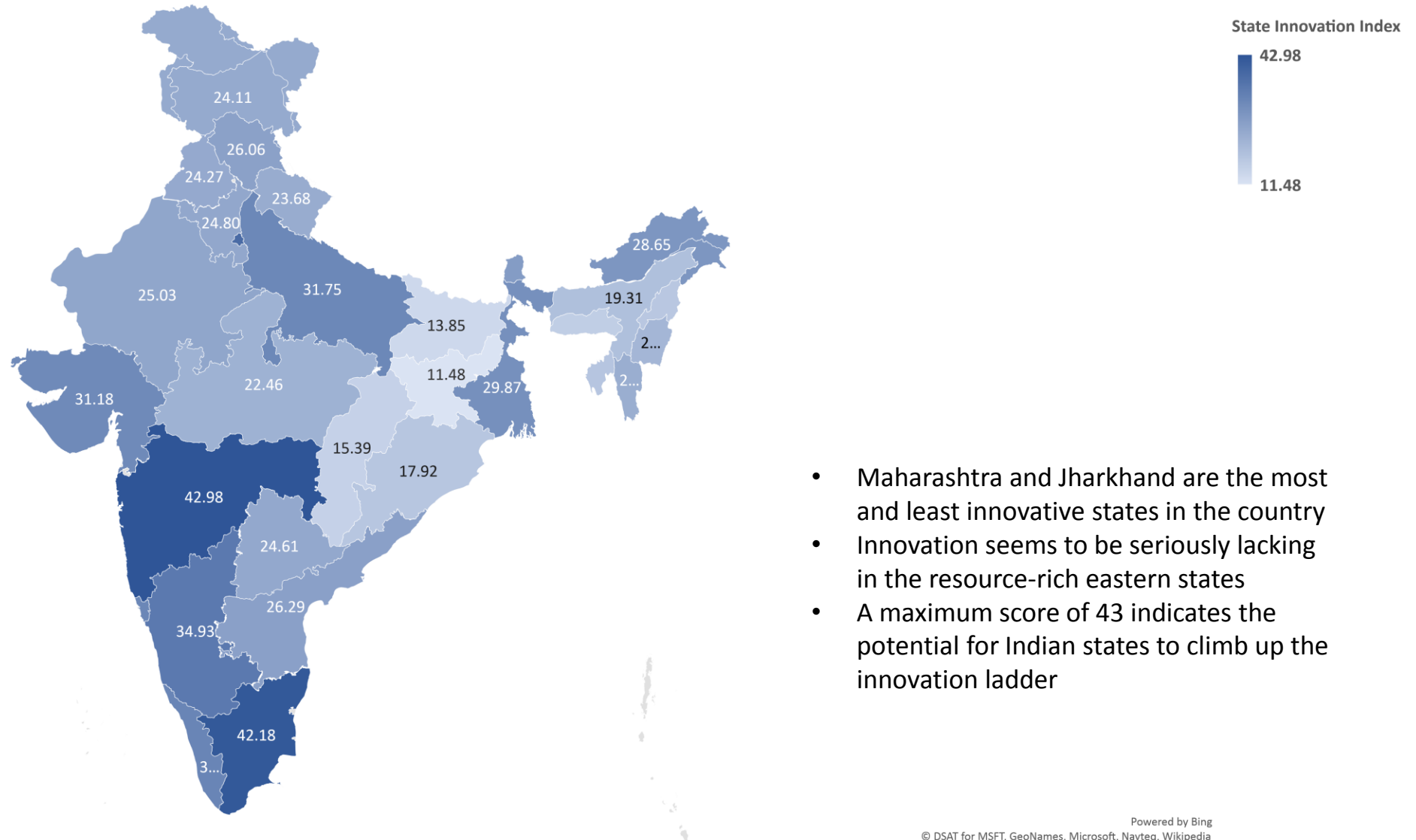




State	Per Capita SDP (₹)	State Innovation Index	Rank	Stage
Maharashtra	130056	42.98	1	Innovation-Driven States
Tamil Nadu	120767	42.18	2	
Delhi	235361	38.02	3	
Kerala	127187	32.27	4	
Goa	231509	31.94	5	
Gujarat	124934	31.18	6	
Sikkim	203515	27.26	7	
Himachal Pradesh	125680	26.06	8	
Haryana	137513	24.80	9	
Uttarakhand	133047	23.68	10	
Karnataka	119711	34.93	1	Investment-Driven States
West Bengal	70059	29.87	2	
Arunachal Pradesh	91061	28.65	3	
Andhra Pradesh	88082	26.29	4	
Rajasthan	70966	25.03	5	
Telangana	115316	24.61	6	
Punjab	107776	24.27	7	
Mizoram	81413	23.31	8	
Nagaland	68688	17.59	9	
Chhattisgarh	72459	15.39	10	
Uttar Pradesh	40469	31.75	1	Factor-Driven States
Jammu & Kashmir	64406	24.11	2	
Madhya Pradesh	50183	22.46	3	
Manipur	48684	21.37	4	
Assam	51016	19.31	5	
Tripura	65414	18.15	6	
Odisha	63122	17.92	7	
Meghalaya	66058	16.20	8	
Bihar	27675	13.85	9	
Jharkhand	53335	11.48	10	

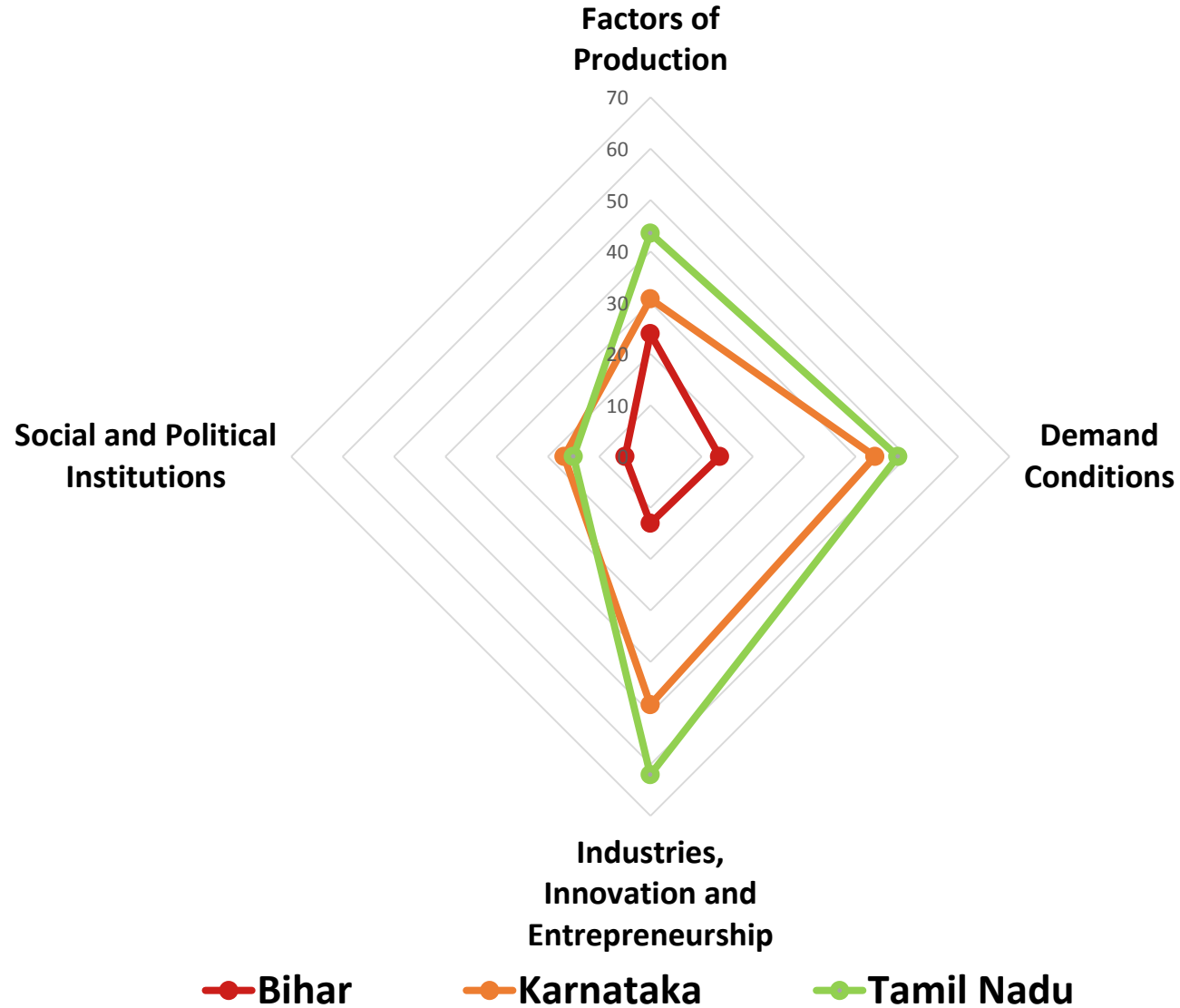
State	2017 Rankings	2016 Rankings	Stage
Maharashtra	1	1	Innovation-Driven States
Tamil Nadu	2	2	
Delhi	3	3	
Kerala	4	6	
Goa	5	4	
Gujarat	6	5	
Sikkim	7	8	
Himachal Pradesh	8	7	
Haryana	9	10	
Uttarakhand	10	9	
Karnataka	1	1	Investment-Driven States
West Bengal	2	4	
Arunachal Pradesh	3	6	
Andhra Pradesh	4	2	
Rajasthan	5	7	
Telangana	6		
Punjab	7	3	
Mizoram	8	5	
Nagaland	9	9	
Chhattisgarh	10	8	
Uttar Pradesh	1	1	Factor-Driven States
Jammu & Kashmir	2	5	
Madhya Pradesh	3	4	
Manipur	4	2	
Assam	5	8	
Tripura	6	3	
Odisha	7	6	
Meghalaya	8	9	
Bihar	9	7	
Jharkhand	10	10	

STATE INNOVATION INDEX

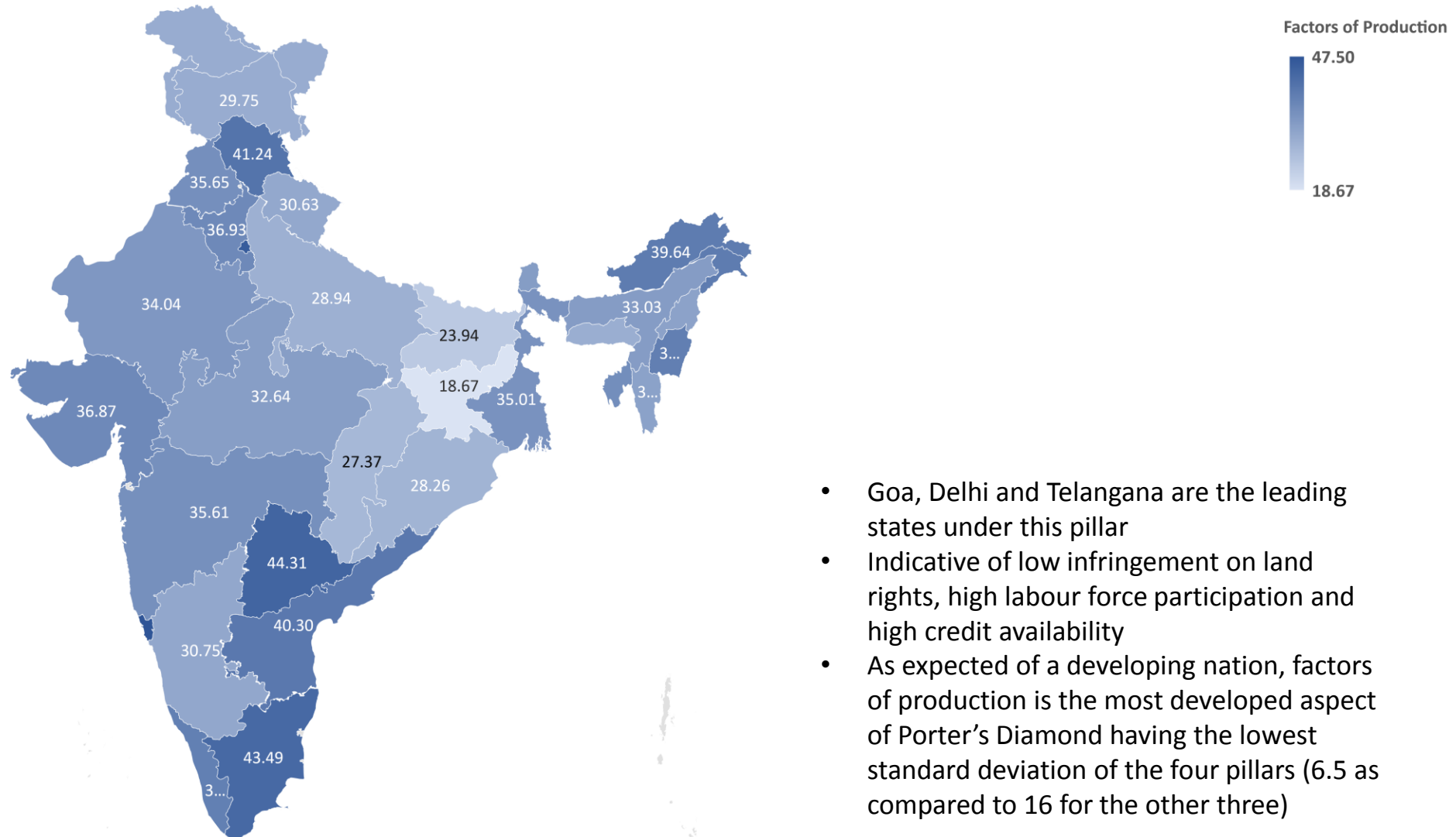


- Maharashtra and Jharkhand are the most and least innovative states in the country
- Innovation seems to be seriously lacking in the resource-rich eastern states
- A maximum score of 43 indicates the potential for Indian states to climb up the innovation ladder

STAGES OF DEVELOPMENT

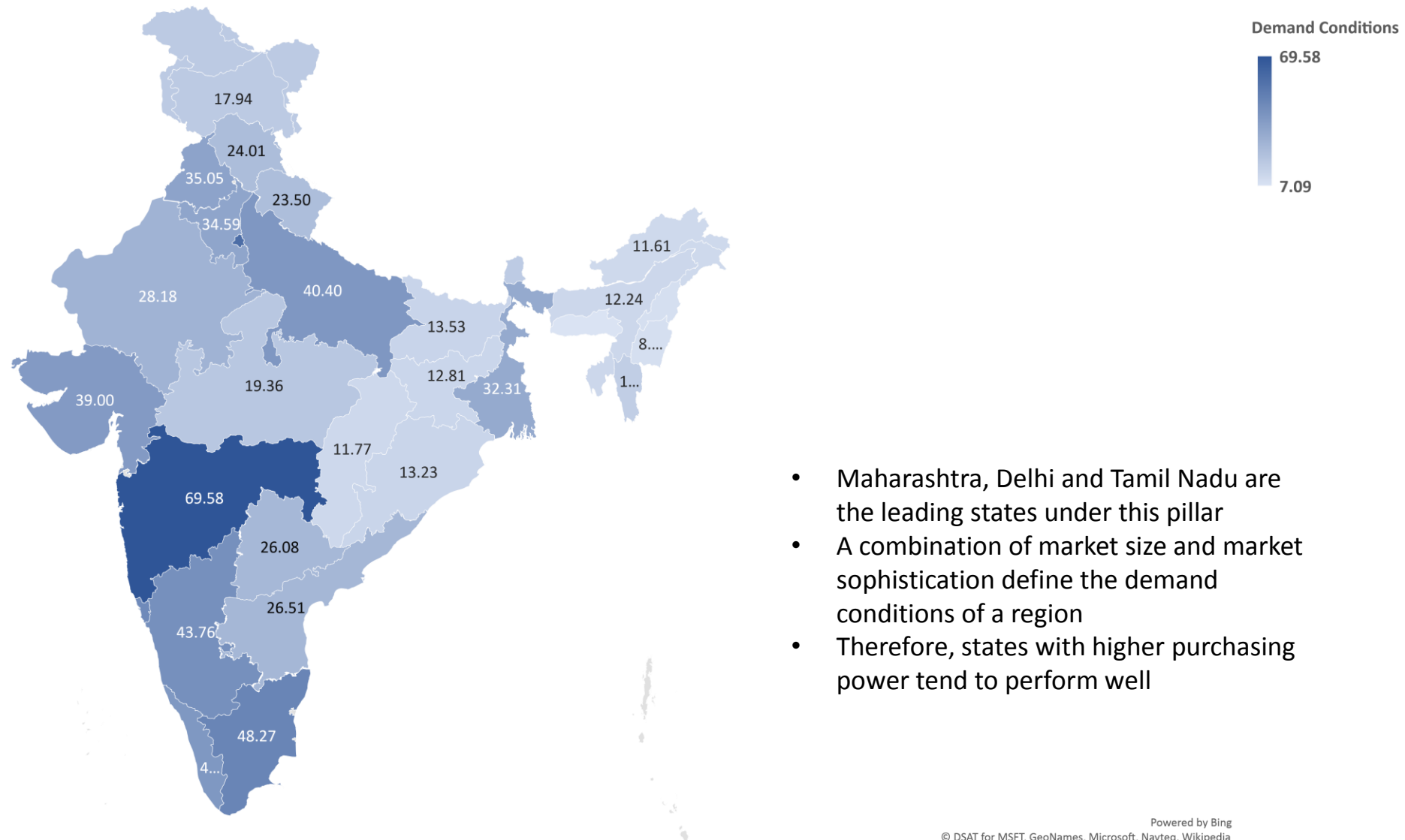


FACTORS OF PRODUCTION



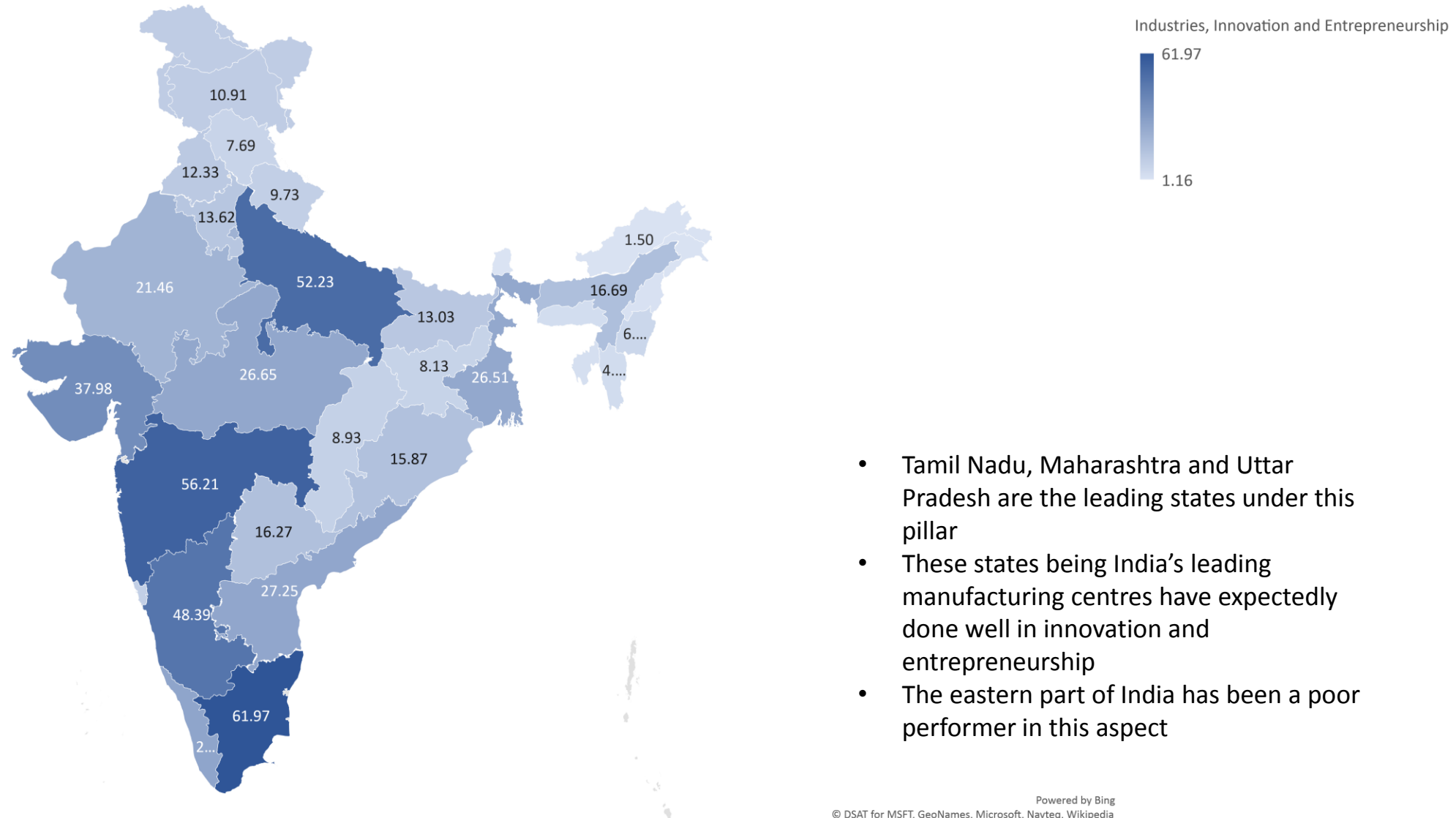
- Goa, Delhi and Telangana are the leading states under this pillar
- Indicative of low infringement on land rights, high labour force participation and high credit availability
- As expected of a developing nation, factors of production is the most developed aspect of Porter’s Diamond having the lowest standard deviation of the four pillars (6.5 as compared to 16 for the other three)

DEMAND CONDITIONS



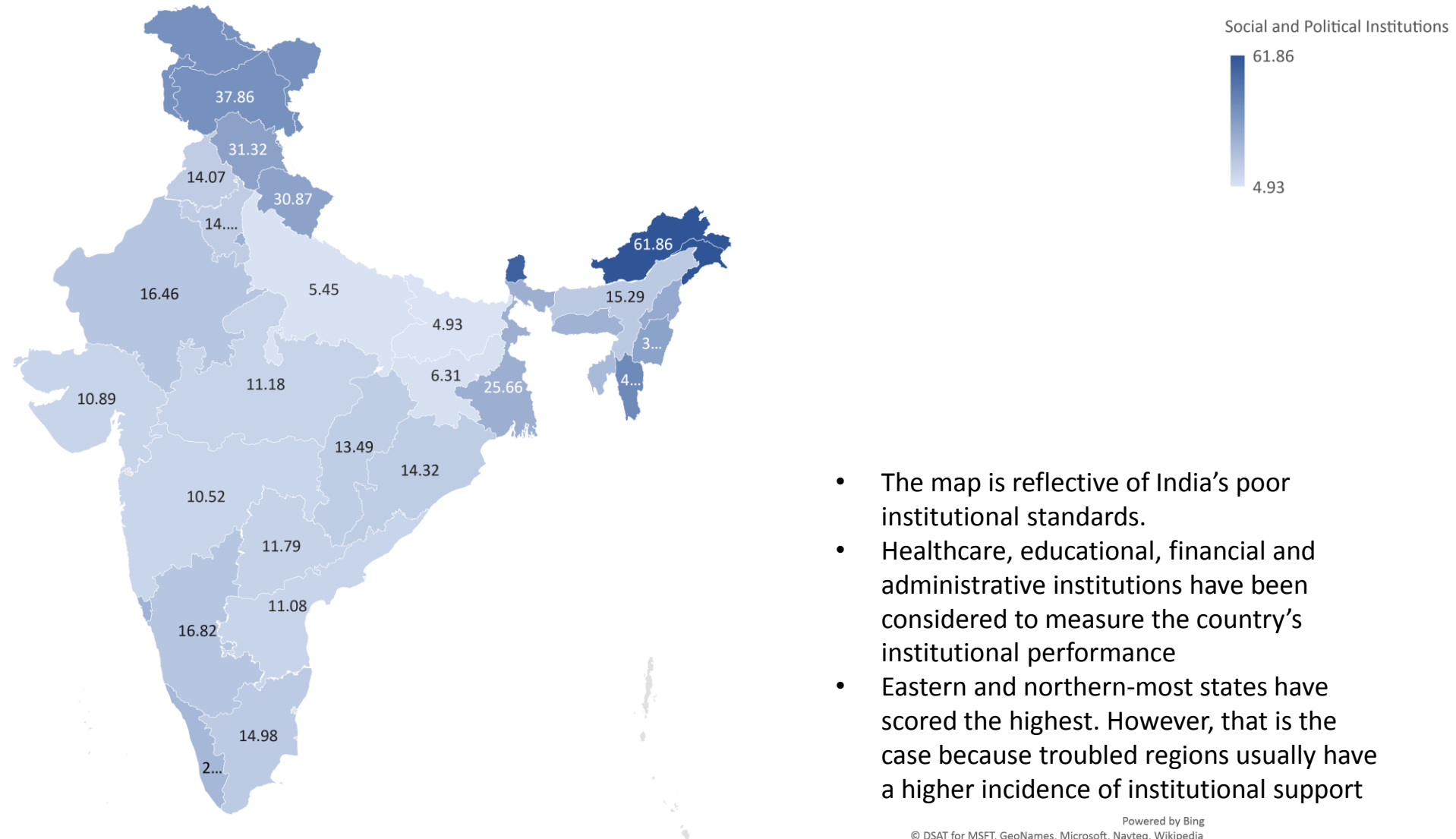
- Maharashtra, Delhi and Tamil Nadu are the leading states under this pillar
- A combination of market size and market sophistication define the demand conditions of a region
- Therefore, states with higher purchasing power tend to perform well

INDUSTRIES, INNOVATION AND ENTREPRENEURSHIP



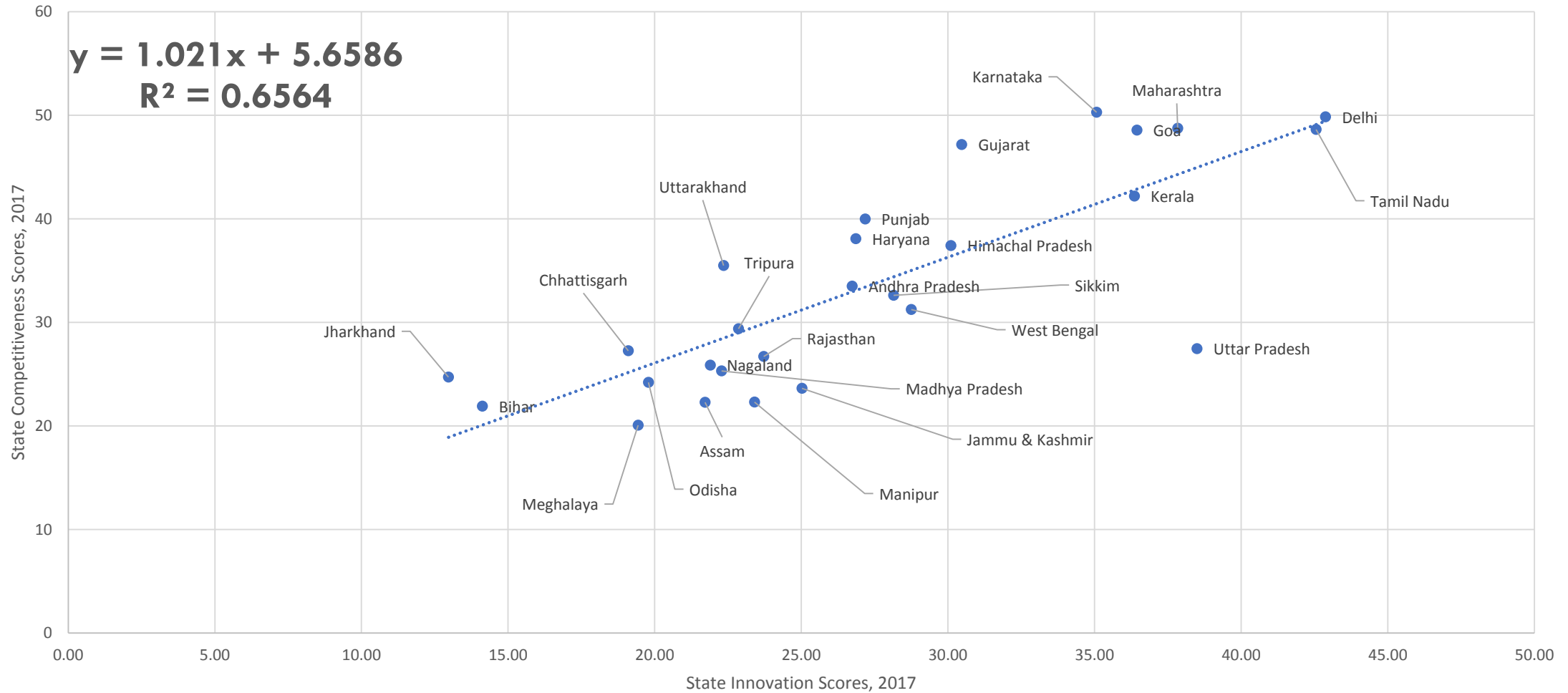
- Tamil Nadu, Maharashtra and Uttar Pradesh are the leading states under this pillar
- These states being India's leading manufacturing centres have expectedly done well in innovation and entrepreneurship
- The eastern part of India has been a poor performer in this aspect

SOCIAL AND POLITICAL INSTITUTIONS

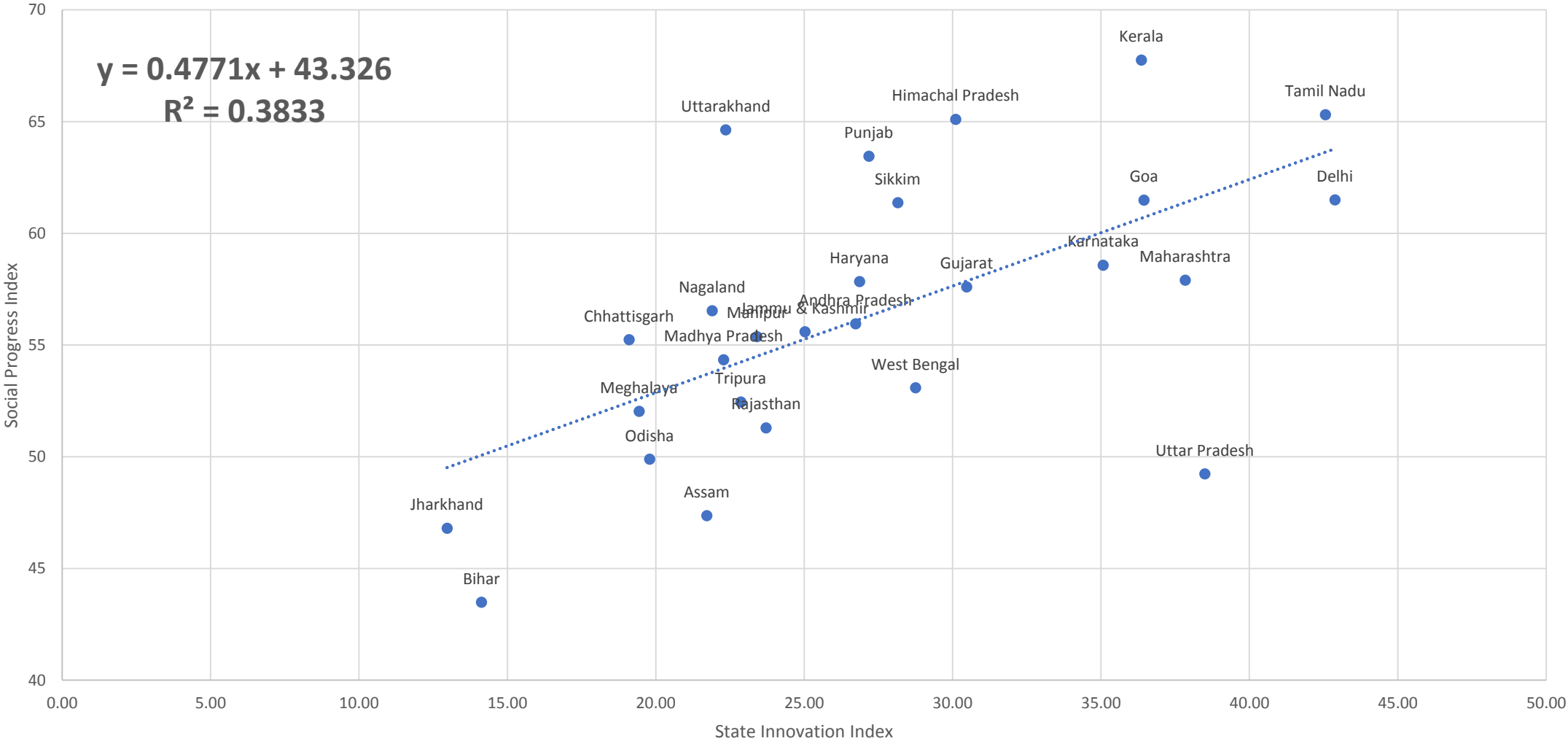


- The map is reflective of India's poor institutional standards.
- Healthcare, educational, financial and administrative institutions have been considered to measure the country's institutional performance
- Eastern and northern-most states have scored the highest. However, that is the case because troubled regions usually have a higher incidence of institutional support

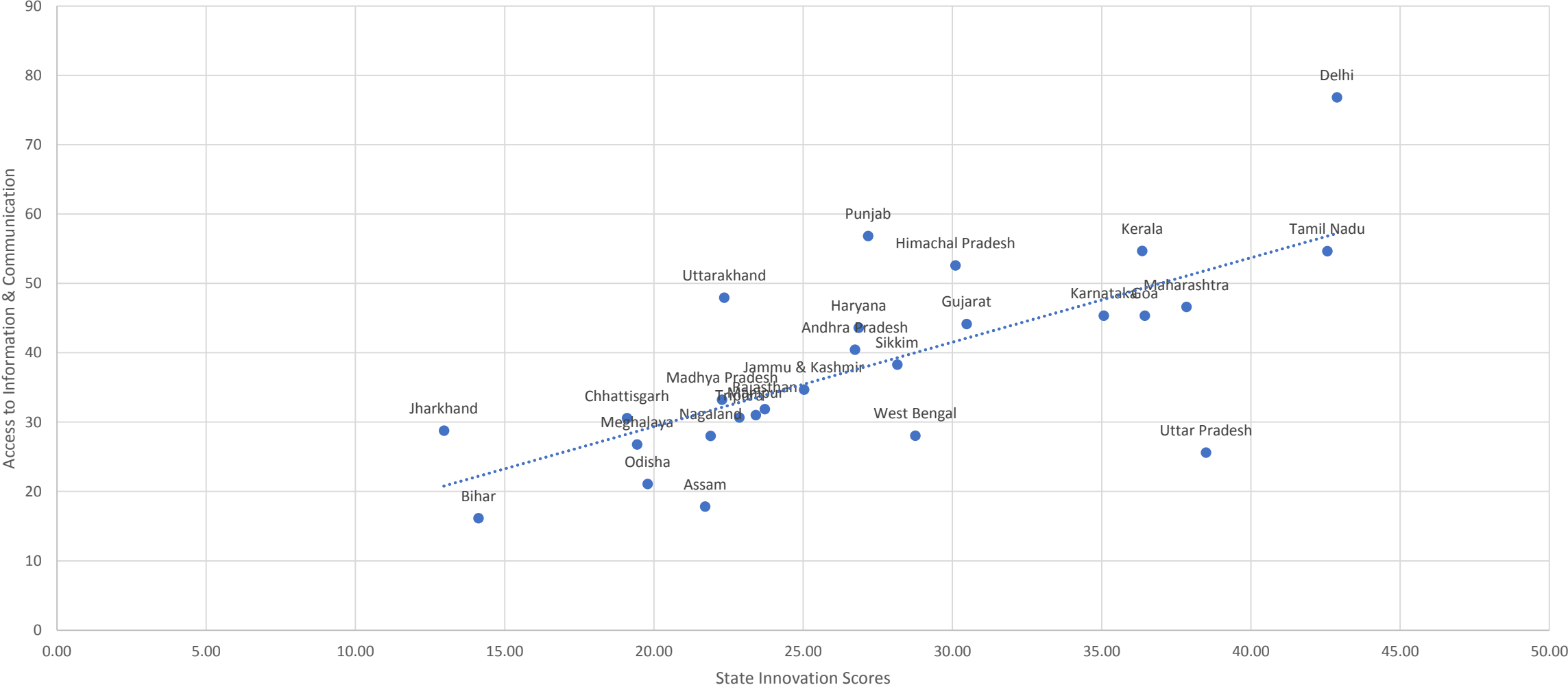
LINK BETWEEN INNOVATION & COMPETITIVENESS: STATES



LINK BETWEEN INNOVATION AND SOCIAL PROGRESS : STATES OF INDIA



LINK BETWEEN INNOVATION AND ACCESS TO INFORMATION & COMMUNICATION: STATES OF INDIA



LINK BETWEEN INNOVATION AND WAGES: STATES OF INDIA

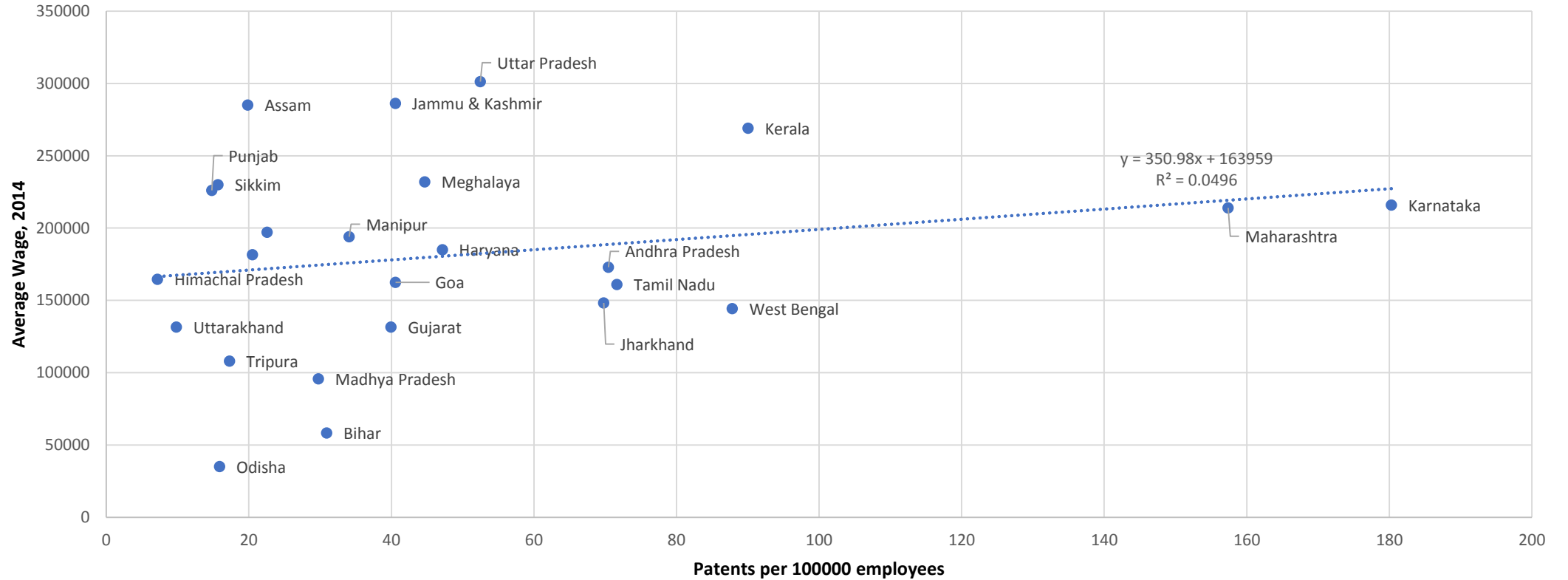
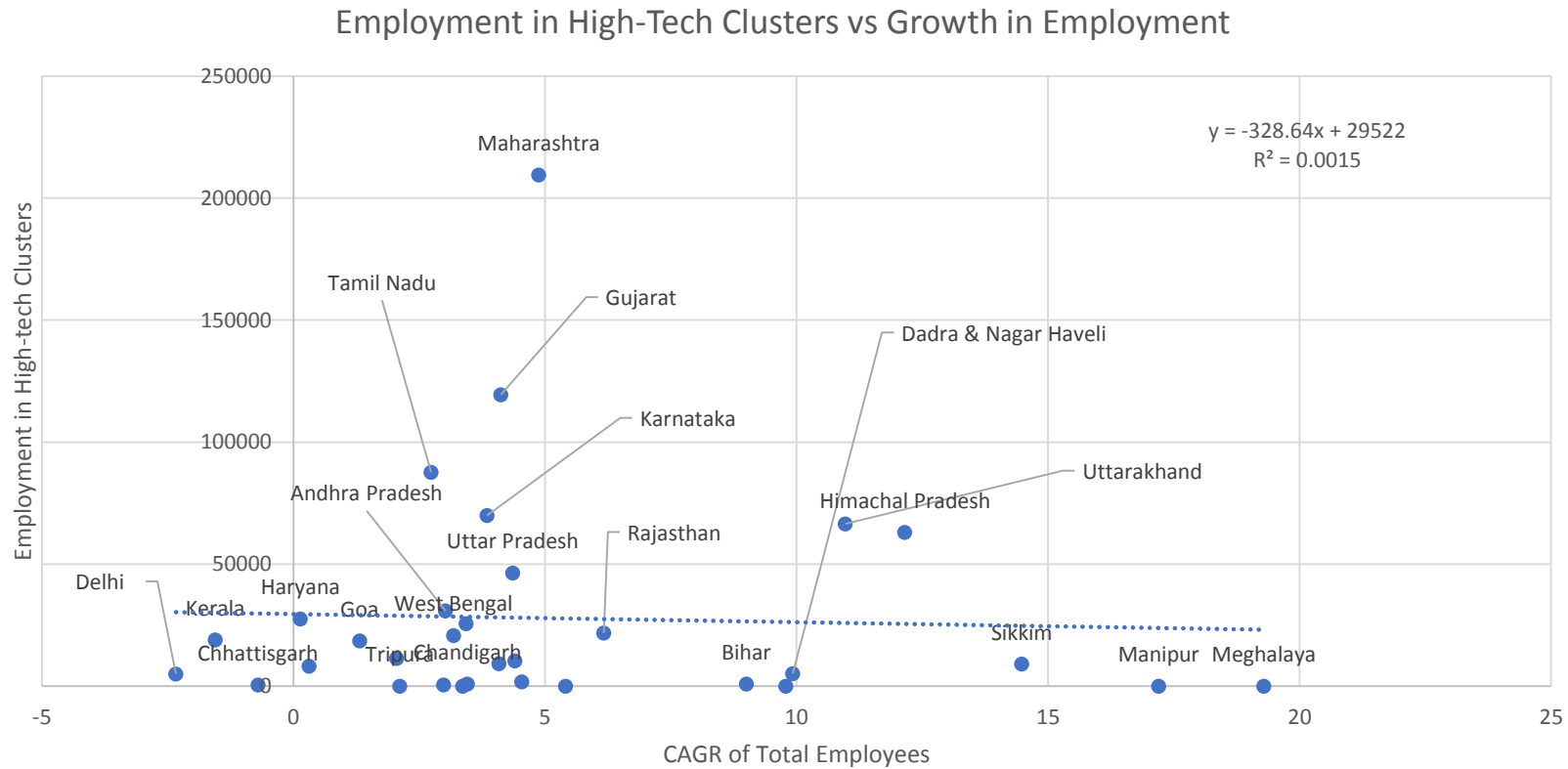


Figure 12. Average Wage vs Patents per 100000 employees by States, 2014

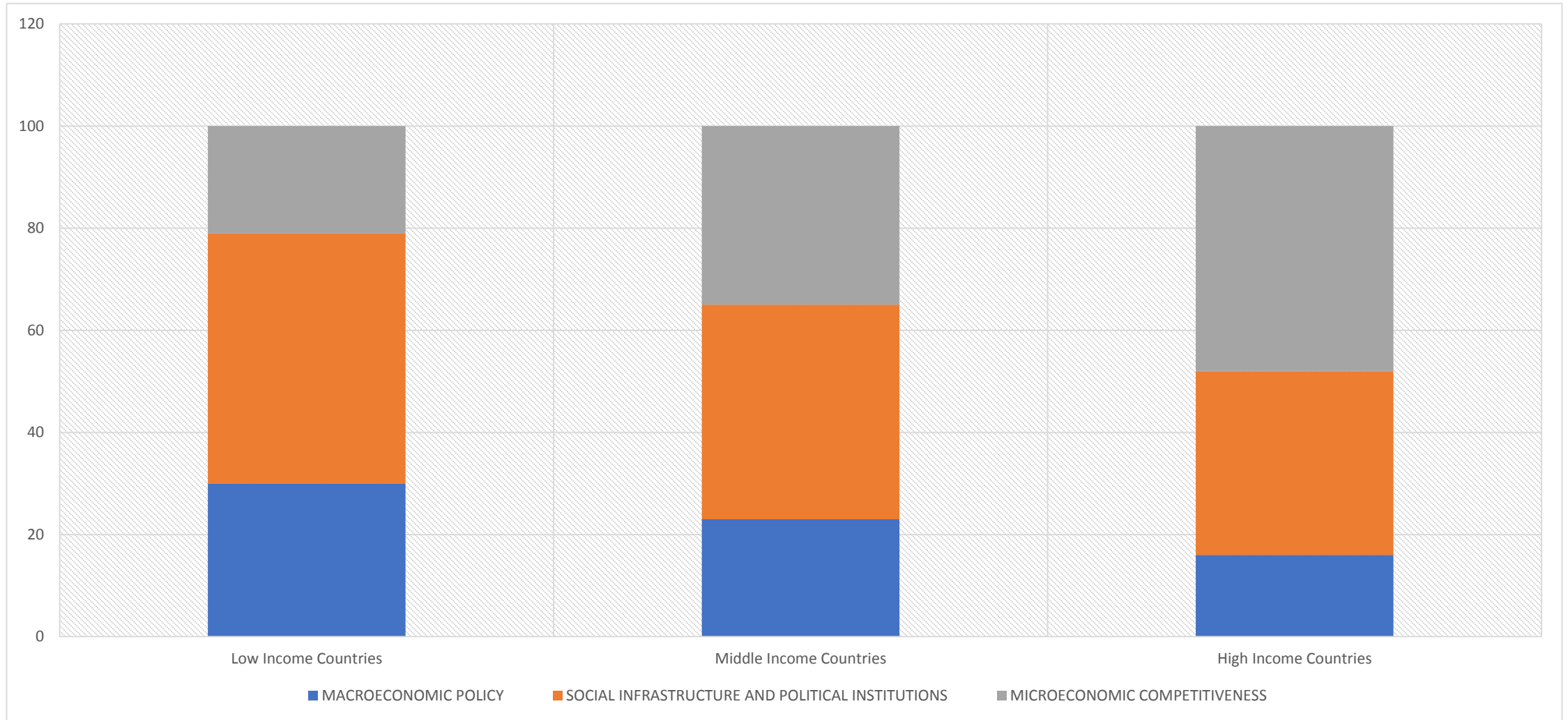
Higher innovative capabilities provide a region with a considerable competitive advantage over other regions. Patenting is the best available measure for quantifying this aspect. It seems to be the case that larger states by employment size show higher innovative tendencies.

HIGH-TECH CLUSTERS

Employment growth does not show a relationship with the presence of high-tech clusters

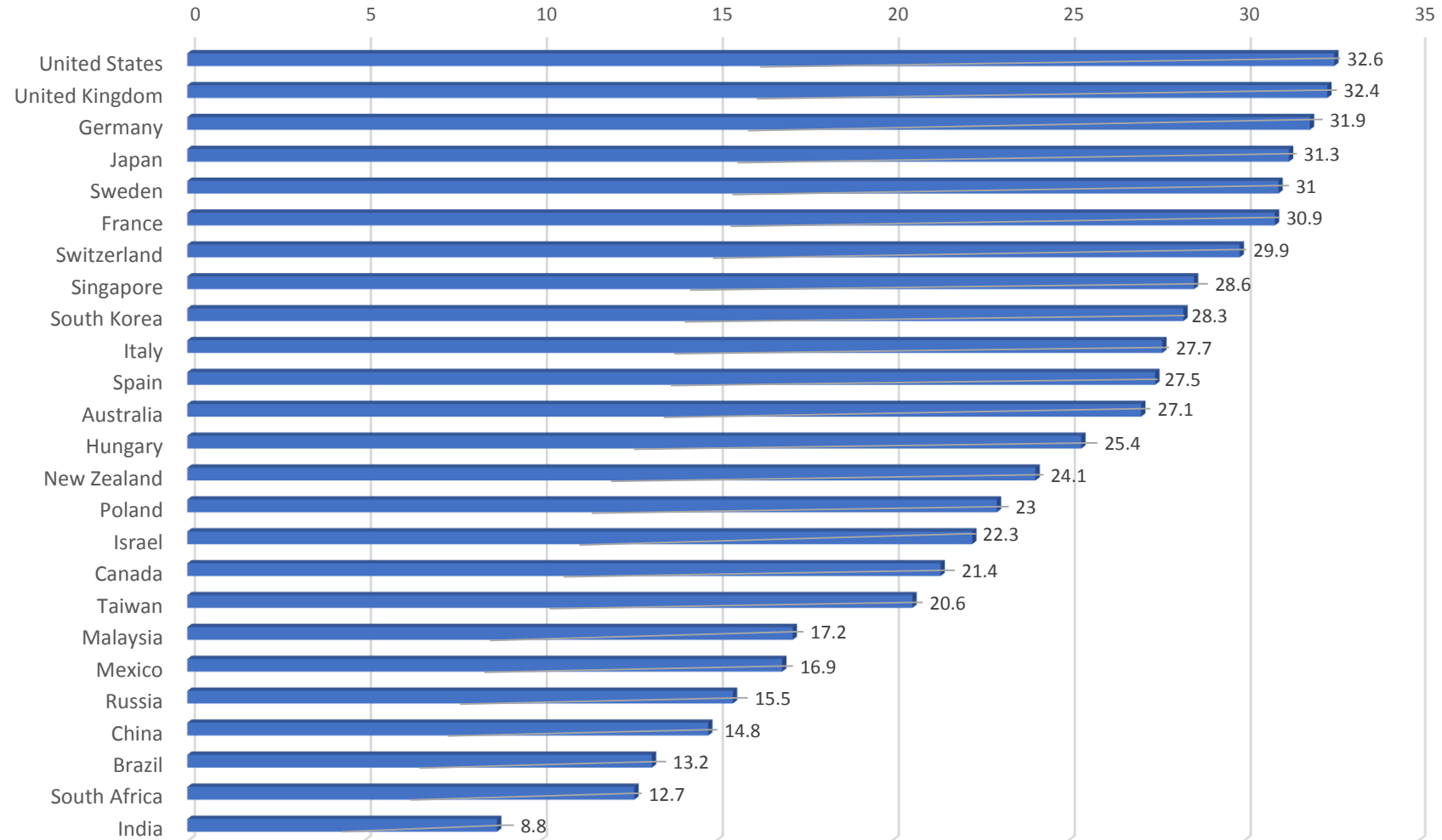


RELATIVE IMPACT BY STAGES OF DEVELOPMENT

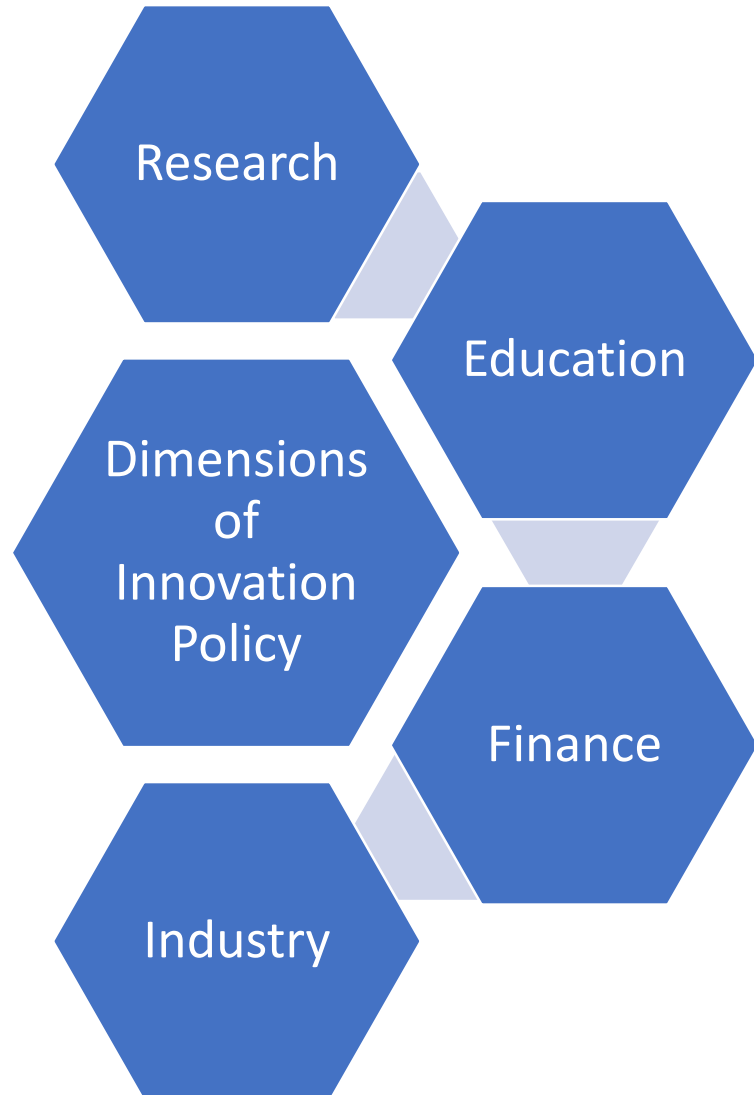


Competitiveness in high-income countries is mainly driven by innovation.

GIPC INTERNATIONAL IP INDEX 2017



DIMENSIONS OF INNOVATION POLICY

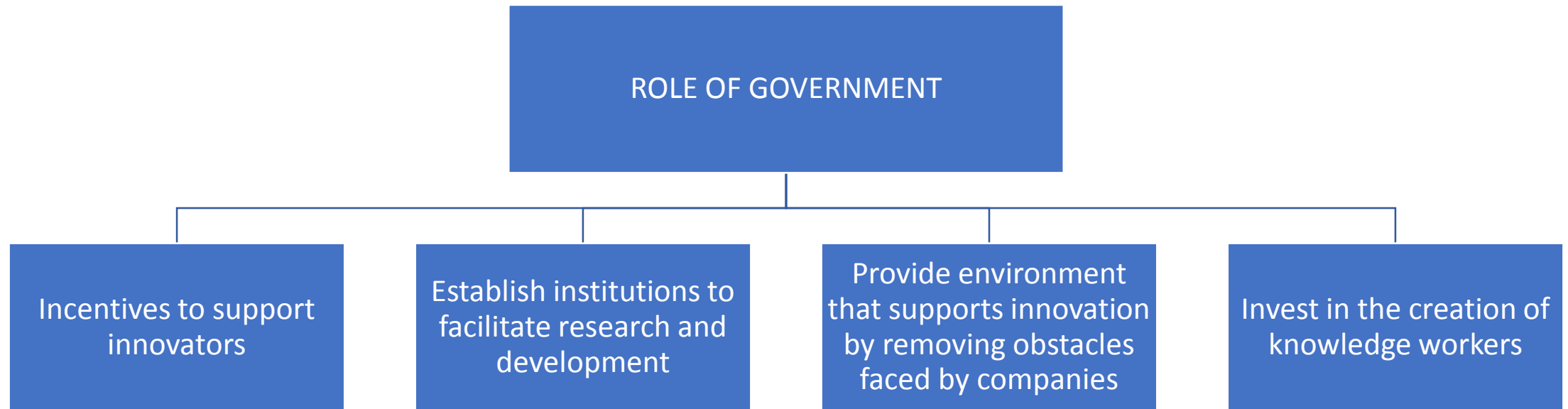


Government can support innovation in two ways:

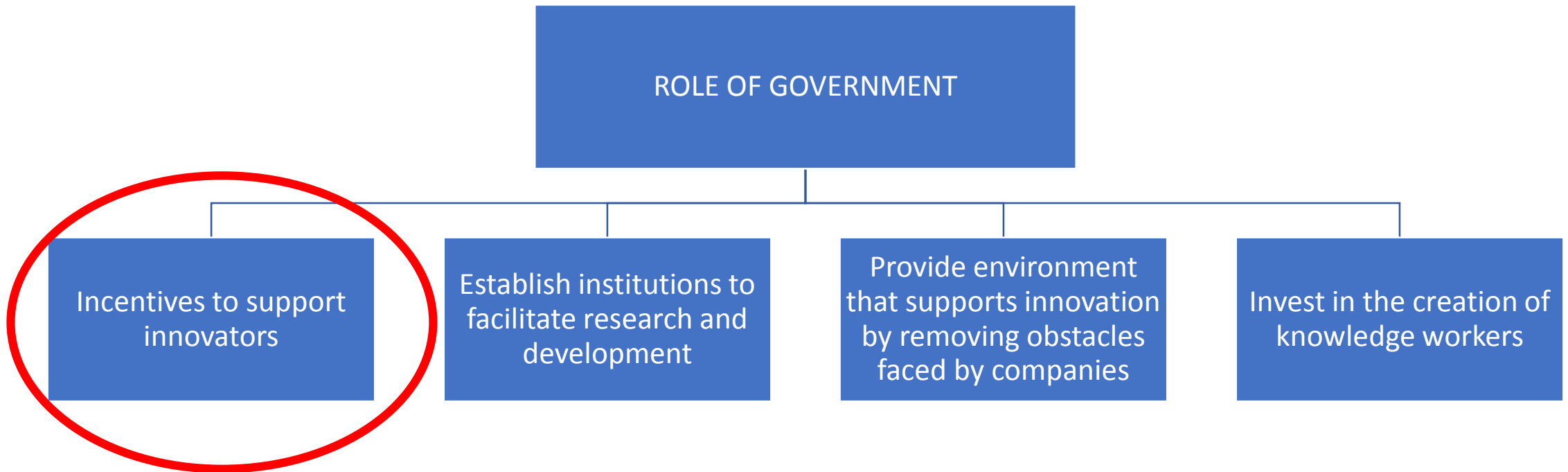
Directly - by investing in development of technology

Indirectly - by creating an environment that supports research and development.

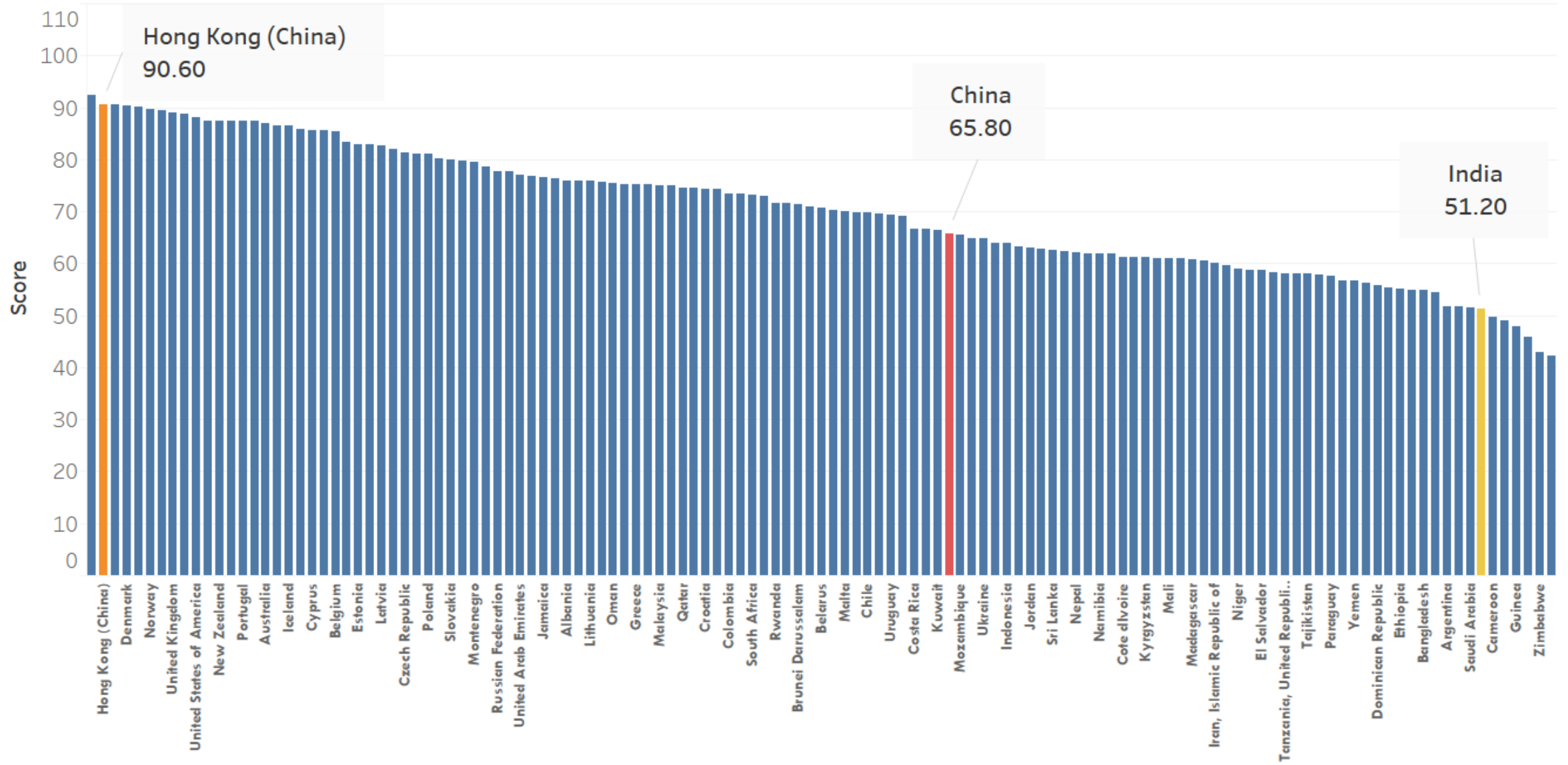
DIMENSIONS OF INNOVATION POLICY



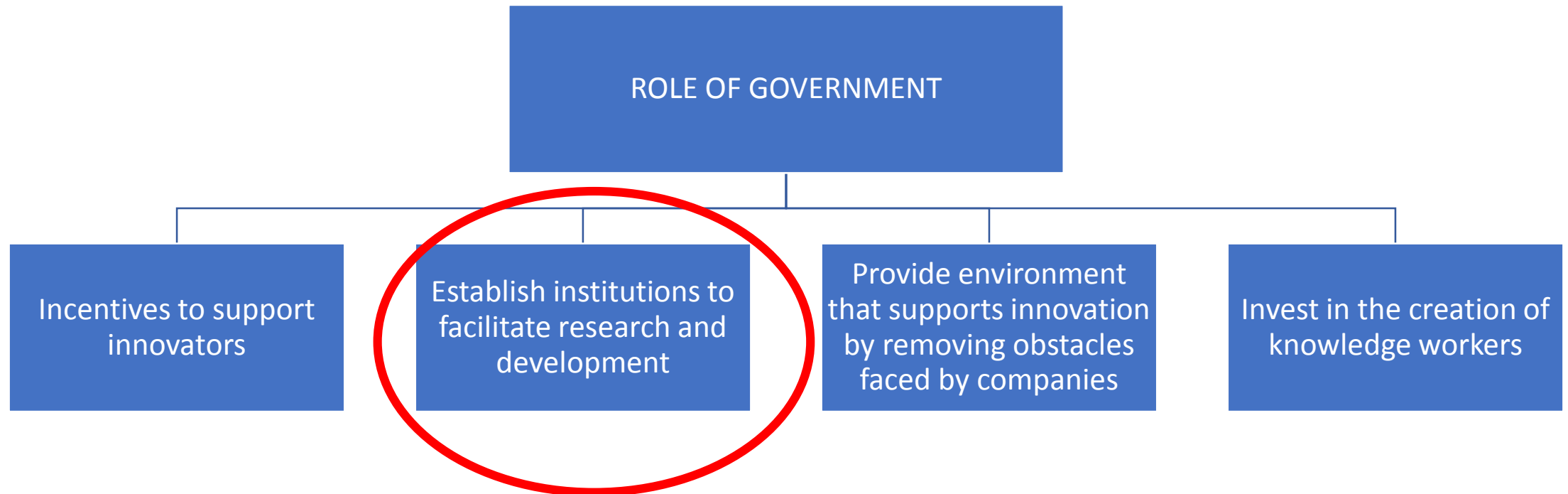
DIMENSIONS OF INNOVATION POLICY



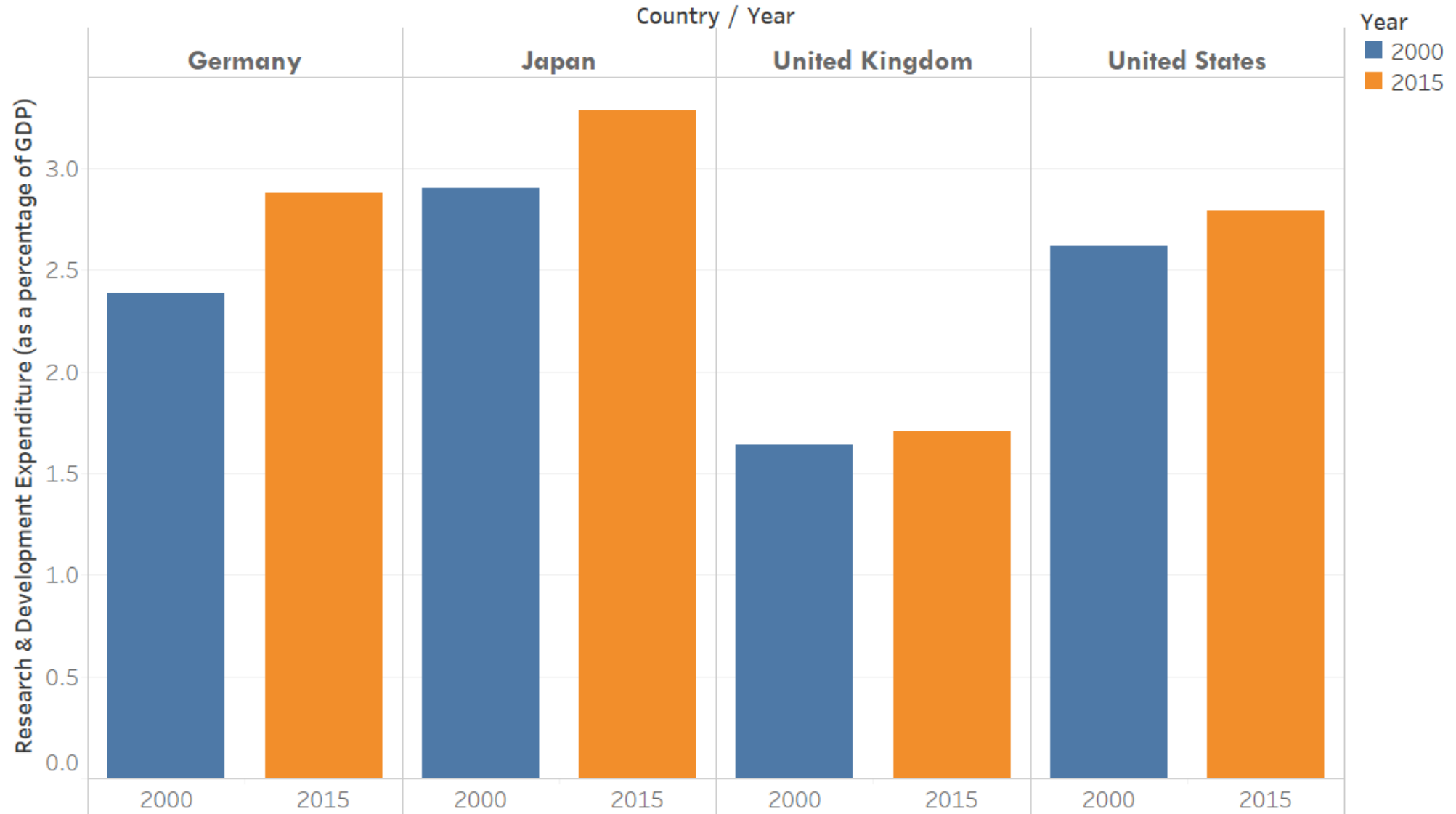
Business Incentives



DIMENSIONS OF INNOVATION POLICY

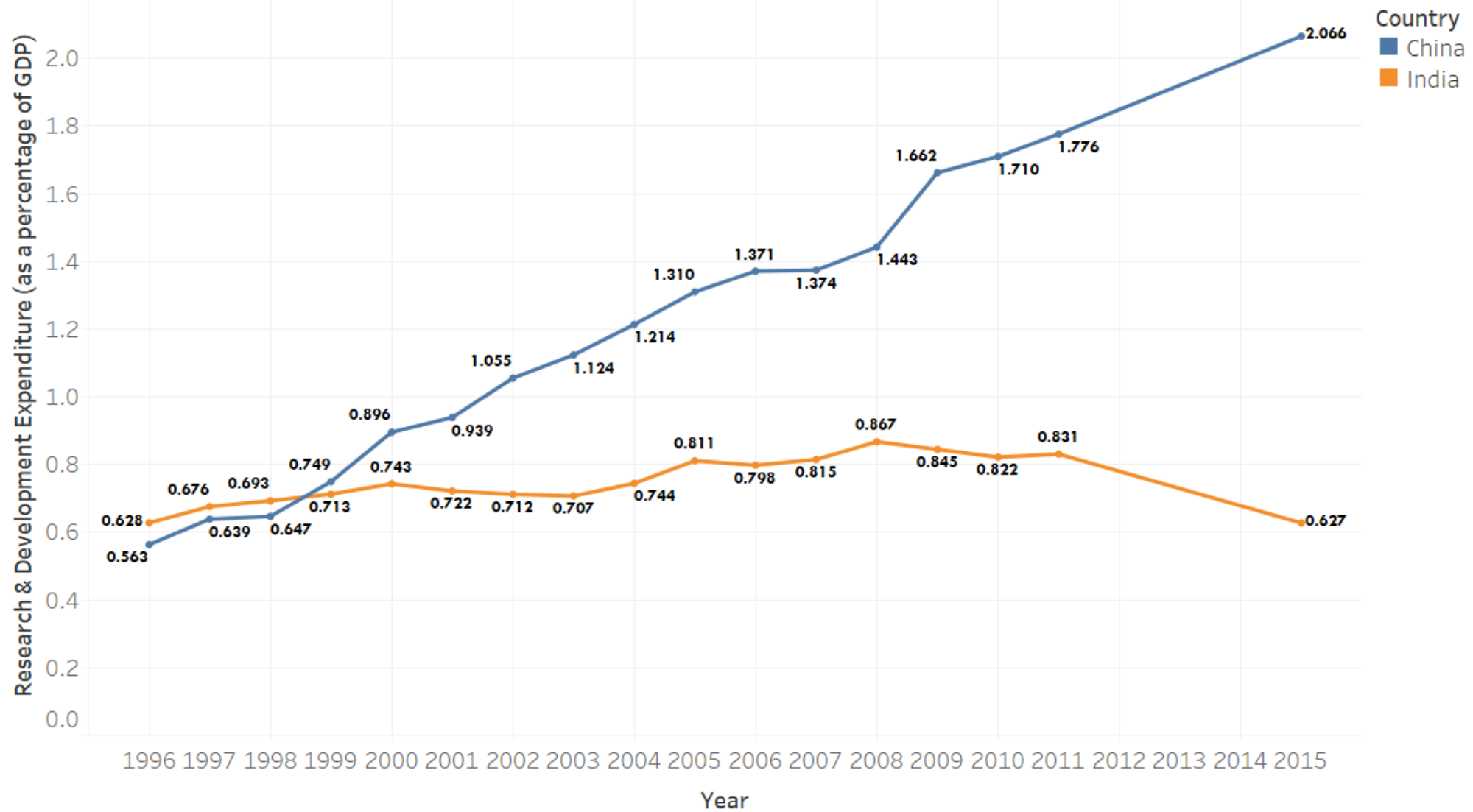


Research & Development Expenditure in Mature Economies



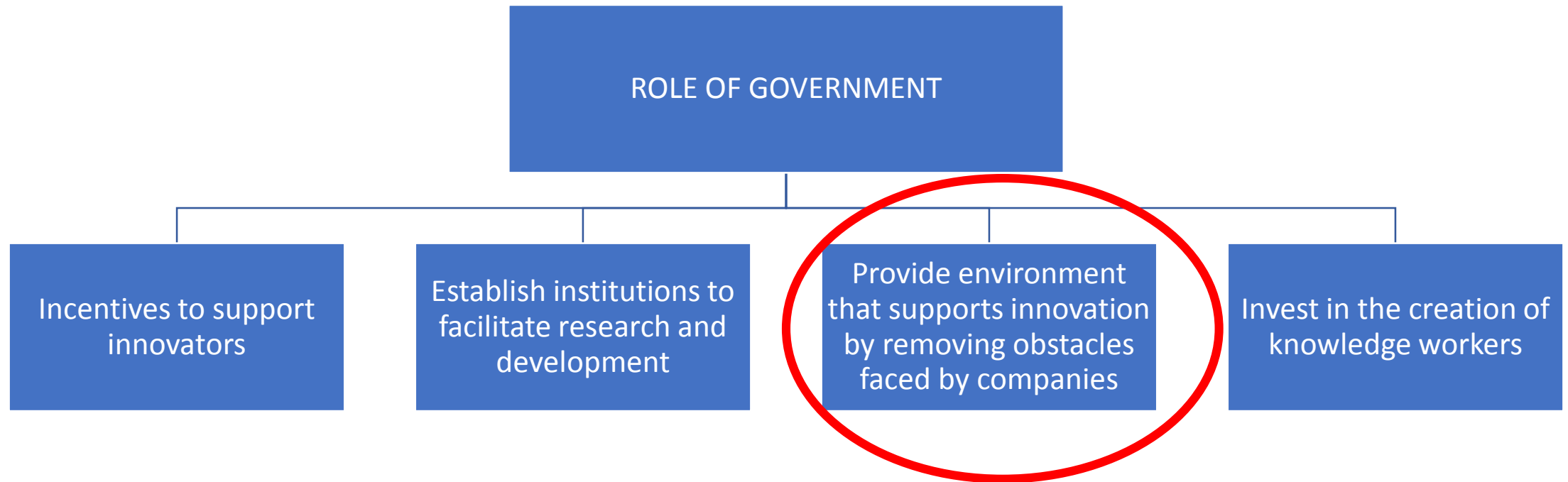
Sum of Research & Development Expenditure (as a percentage of GDP) for each Year broken down by Country. Color shows details about Year.

Research & Development Expenditure (as a percentage of GDP) :India & China

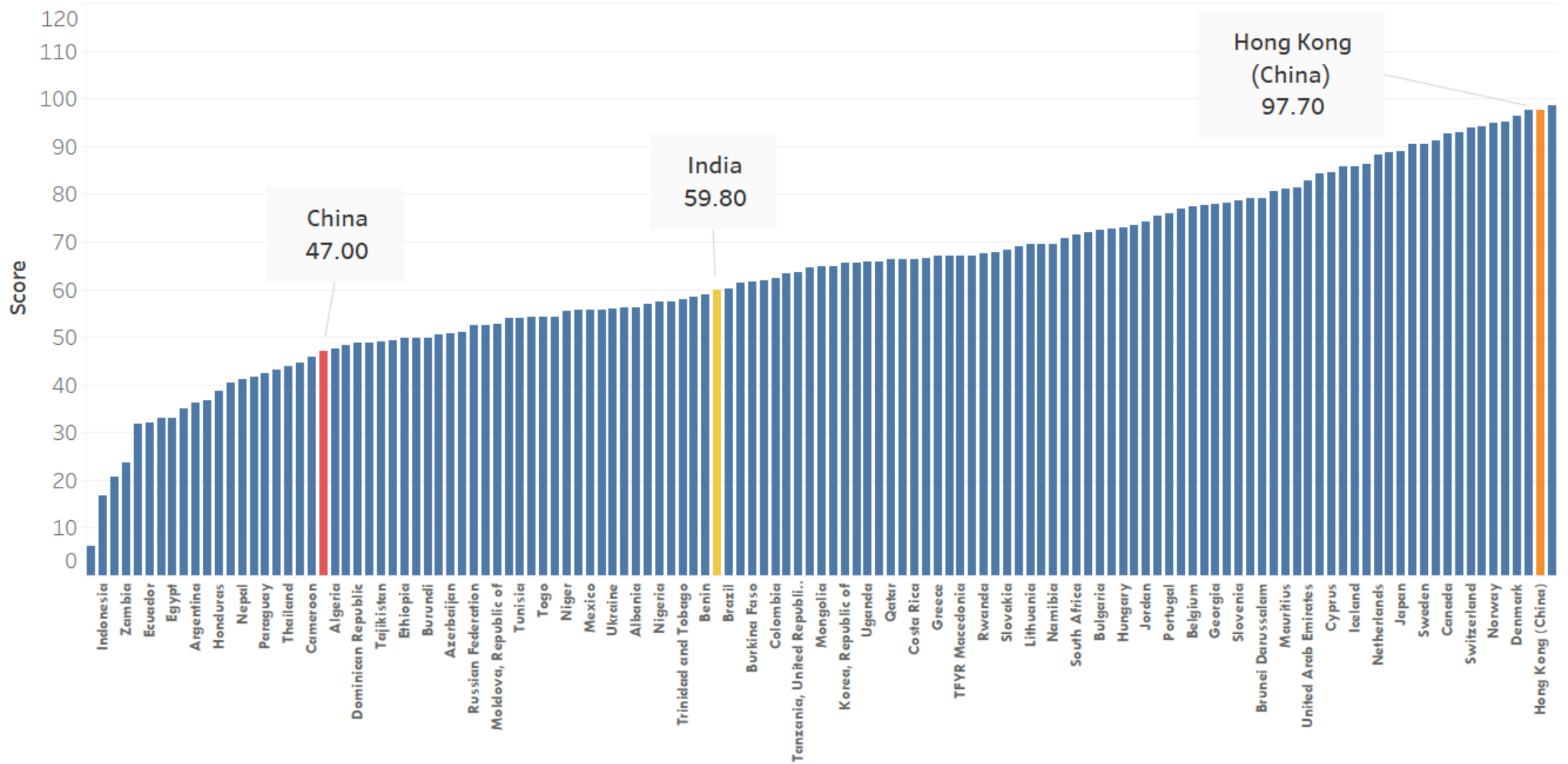


The trend of sum of Research & Development Expenditure (as a percentage of GDP) for Year. Color shows details about Country. The marks are labeled by sum of Research & Development Expenditure (as a percentage of GDP).

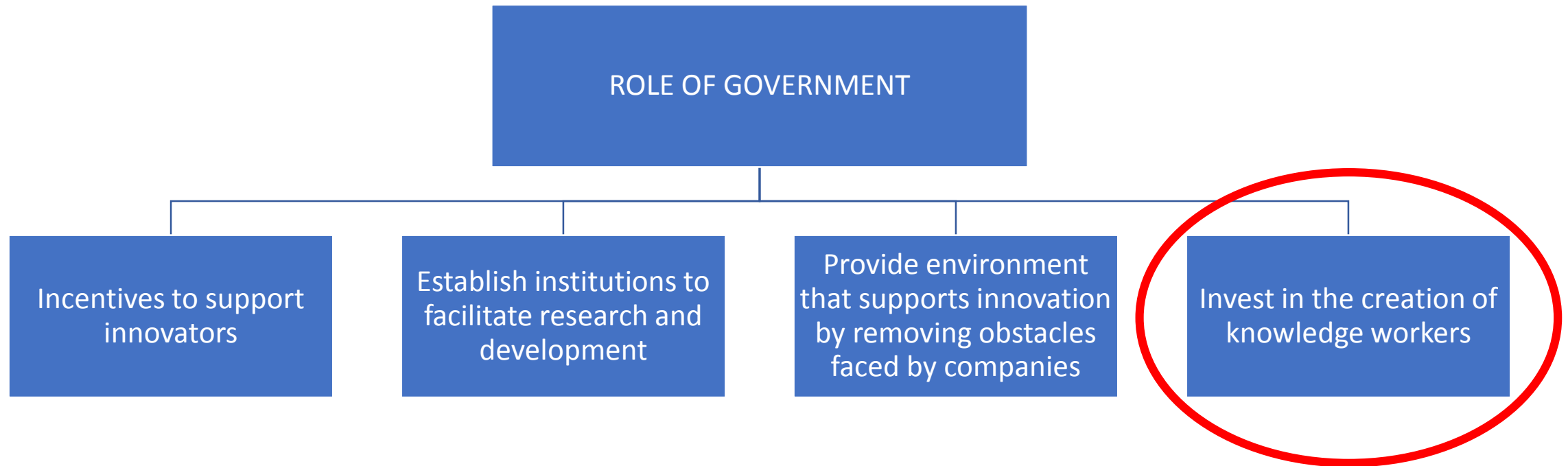
DIMENSIONS OF INNOVATION POLICY



Regulatory Environment

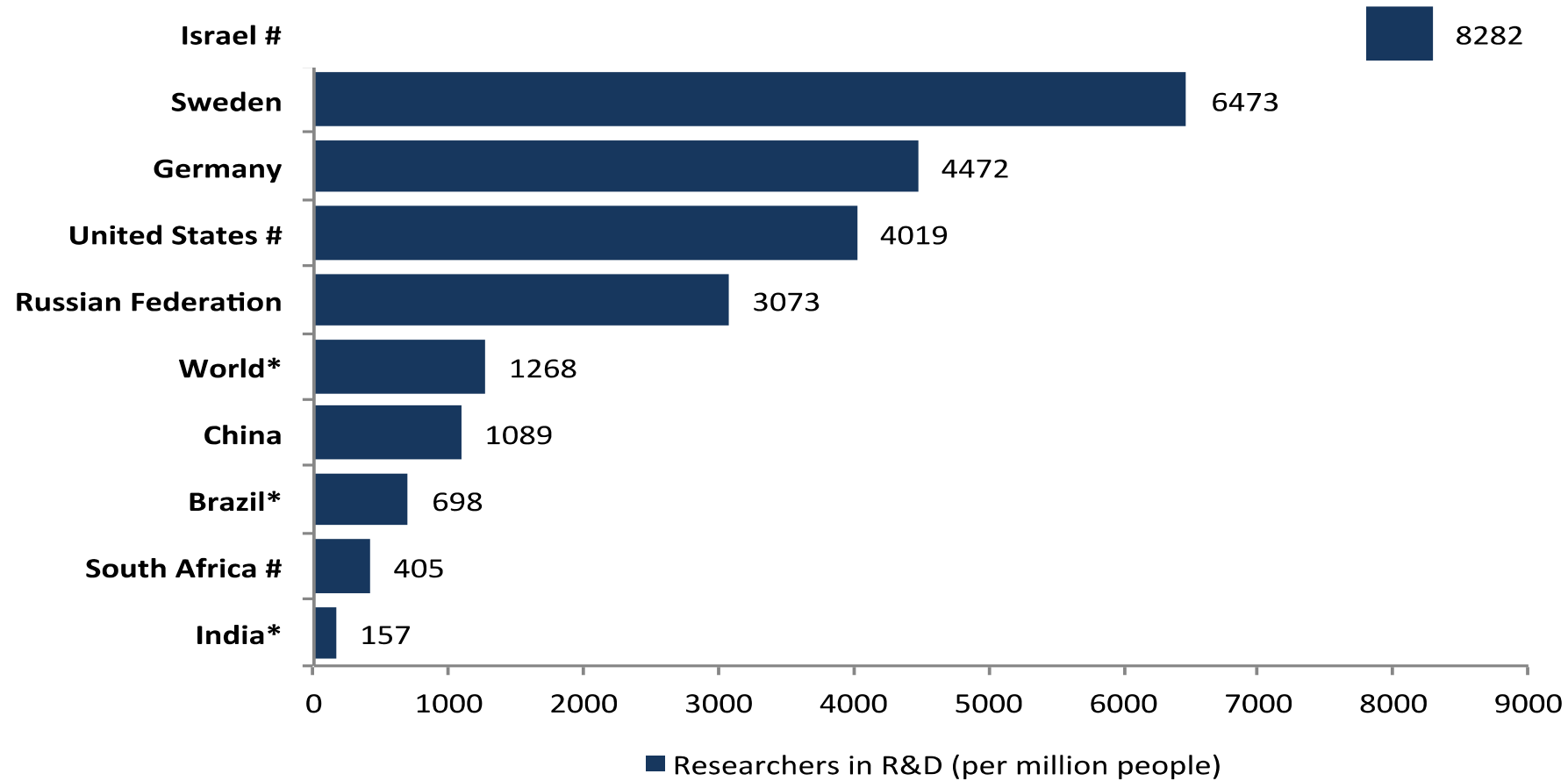


DIMENSIONS OF INNOVATION POLICY



RESEARCHERS IN R&D (PER MILLION PEOPLE) IN 2013

Researchers in R&D (per million people) in 2013

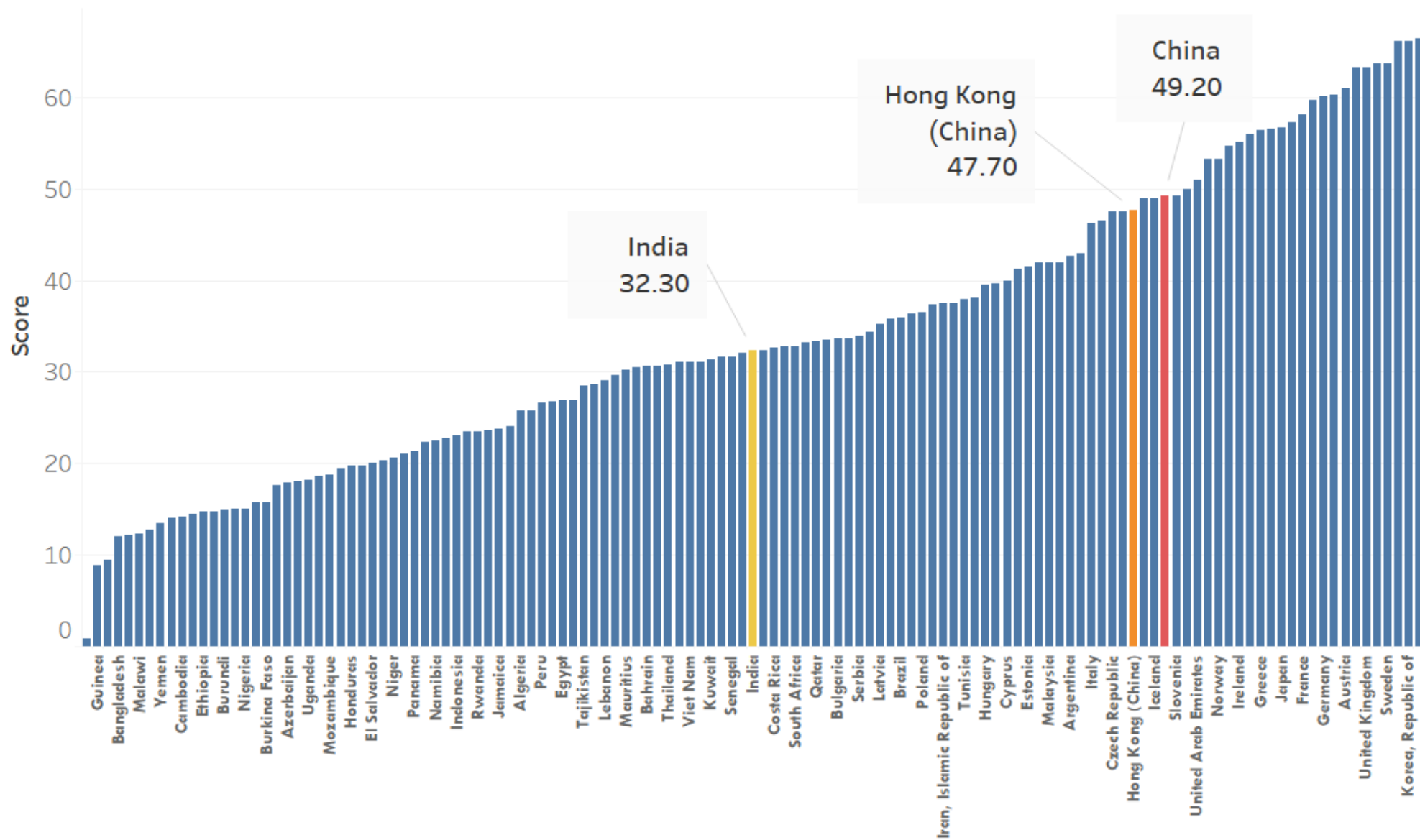


* Figures for 2010

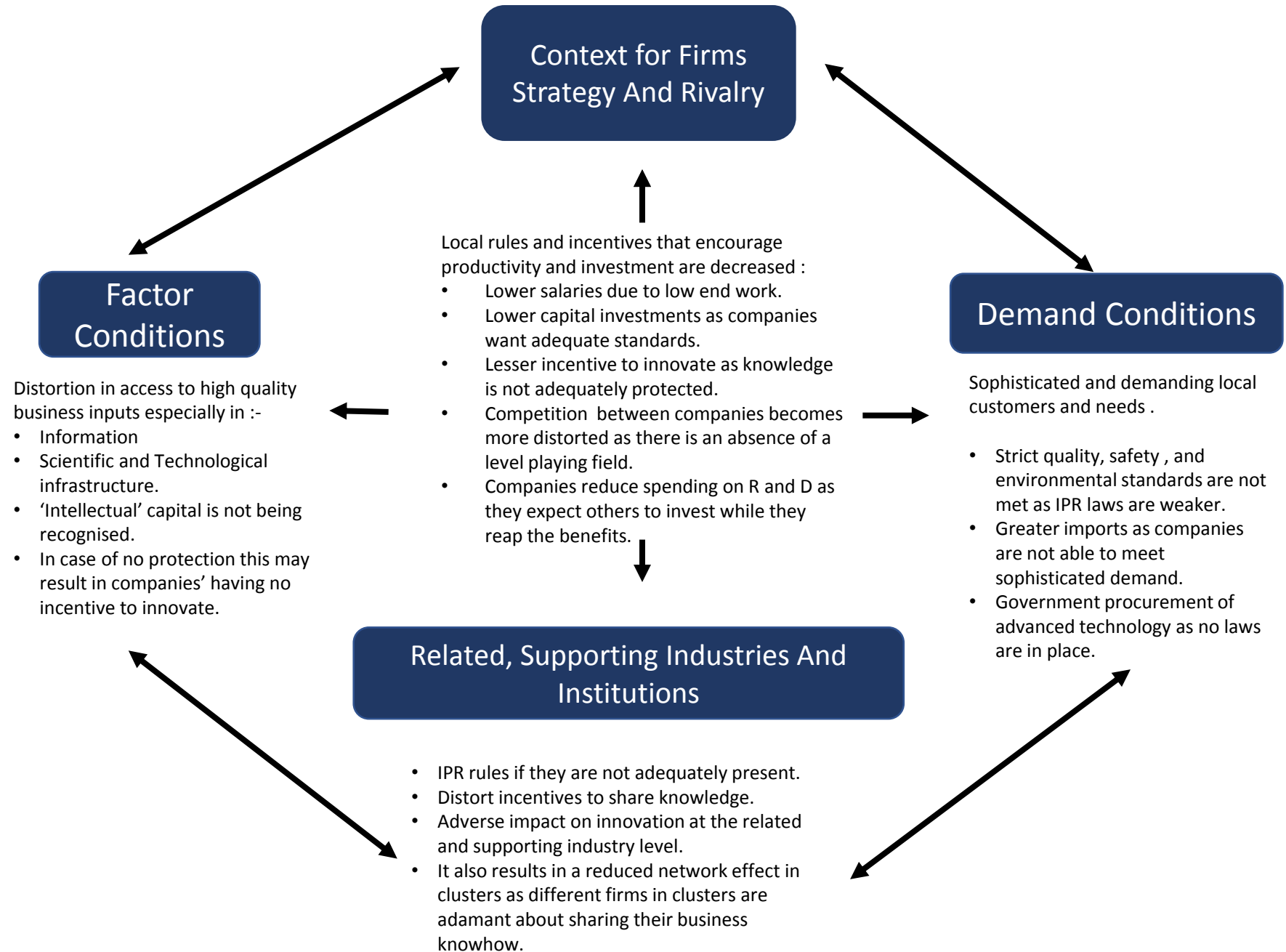
Figures for 2012

Rest for 2013

Human Capital and Research



WHAT IF A COUNTRY LACKS A ROBUST IP REGIME



DOES LACK OF TRUST UNDERMINE COMPETITIVENESS?



HOW CORRUPTION UNDERMINES COMPETITIVENESS?



India's Competitiveness: A Perspective from States

Presented By:

Amit Kapoor

Chair, Institute for Competitiveness