

# Asia: the raising star on the innovation skyline

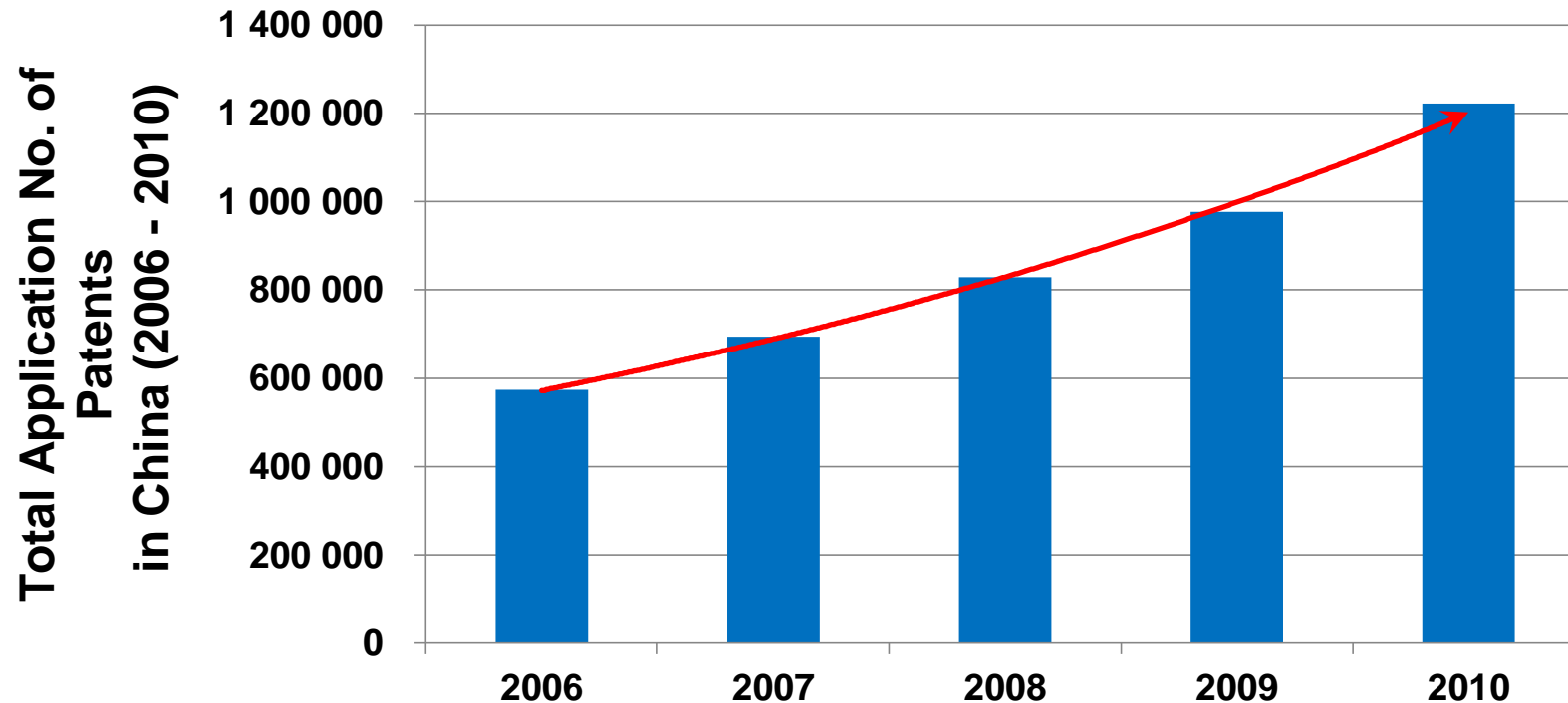
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# Trend of Patent Application (China)

- The trend of inventive outputs starts from 2000.
- An exponential increase has been seen in recent years.



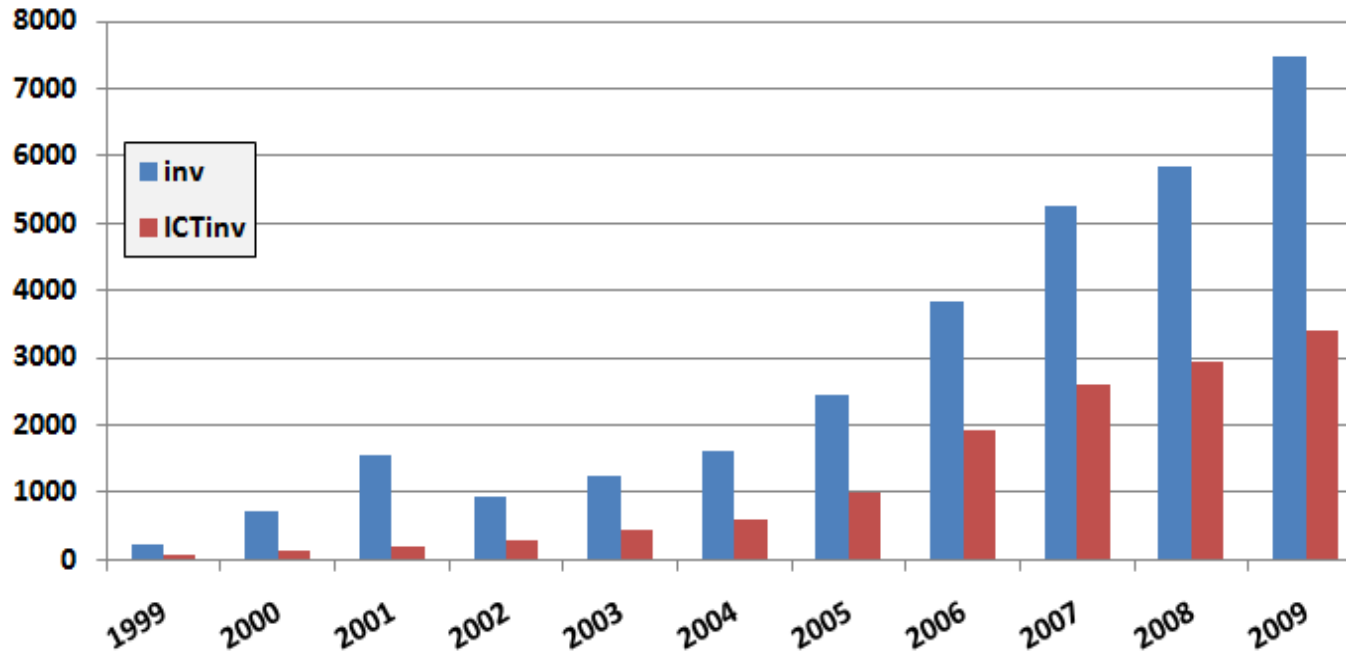
Source: National Bureau of Statistics of China 2011, <http://www.stats.gov.cn/tjsj/ndsj/2011/indexch.htm>



# Trend of ICT parent PCT Patent Application (China)

- The trend for PCT patent applications by China-residents.

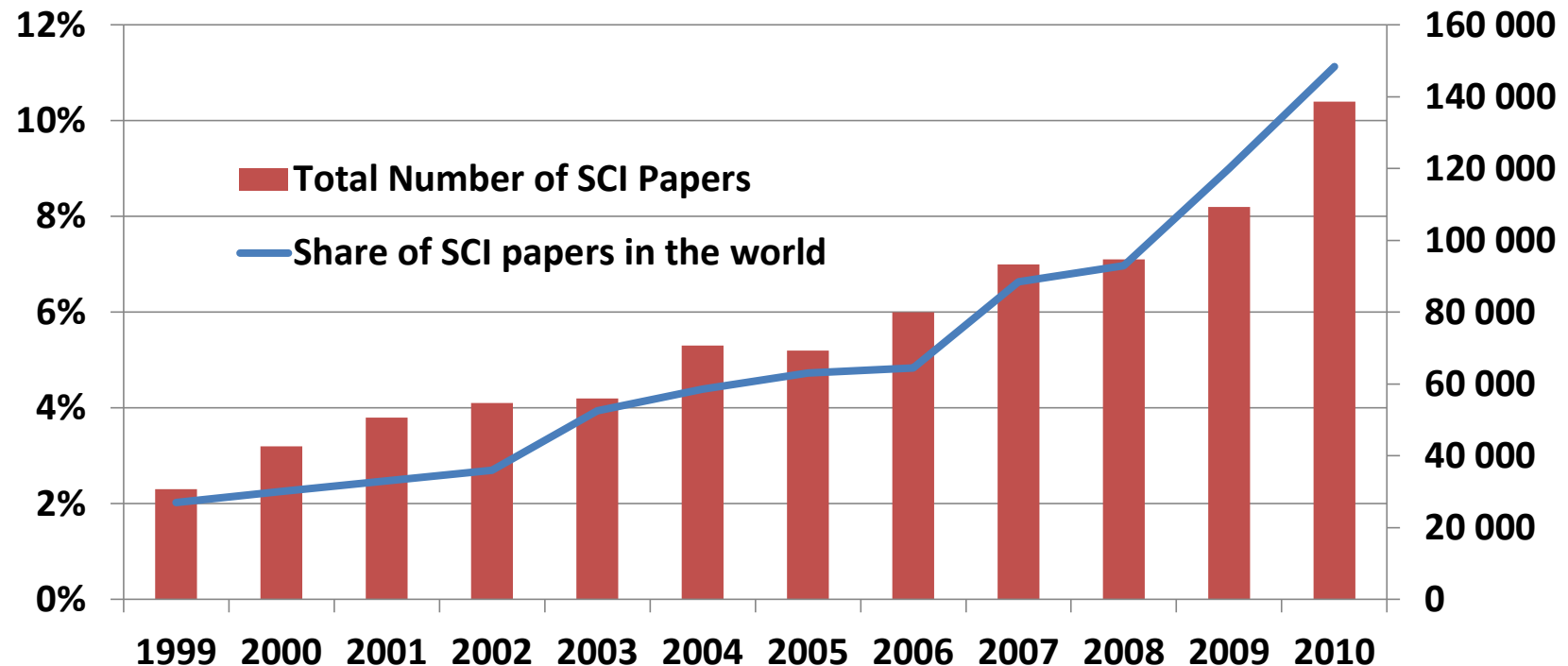
Total and ICT PCT patent applications by China-resident inventors



Source: National Bureau of Statistics of China (NBSC) , <http://www.stats.gov.cn/tjsj/nds/2011/indexch.htm>

# Trend of SCI indexed Papers (China)

- The trend for SCI indexed Papers by China-residents.



Source: Annual report by Institute of Science and Technical Information of China, <http://www.istic.ac.cn/>



# Rank of PCT Patent Application for Corporations

- Rank of PCT international applications by top applicants in 2011.

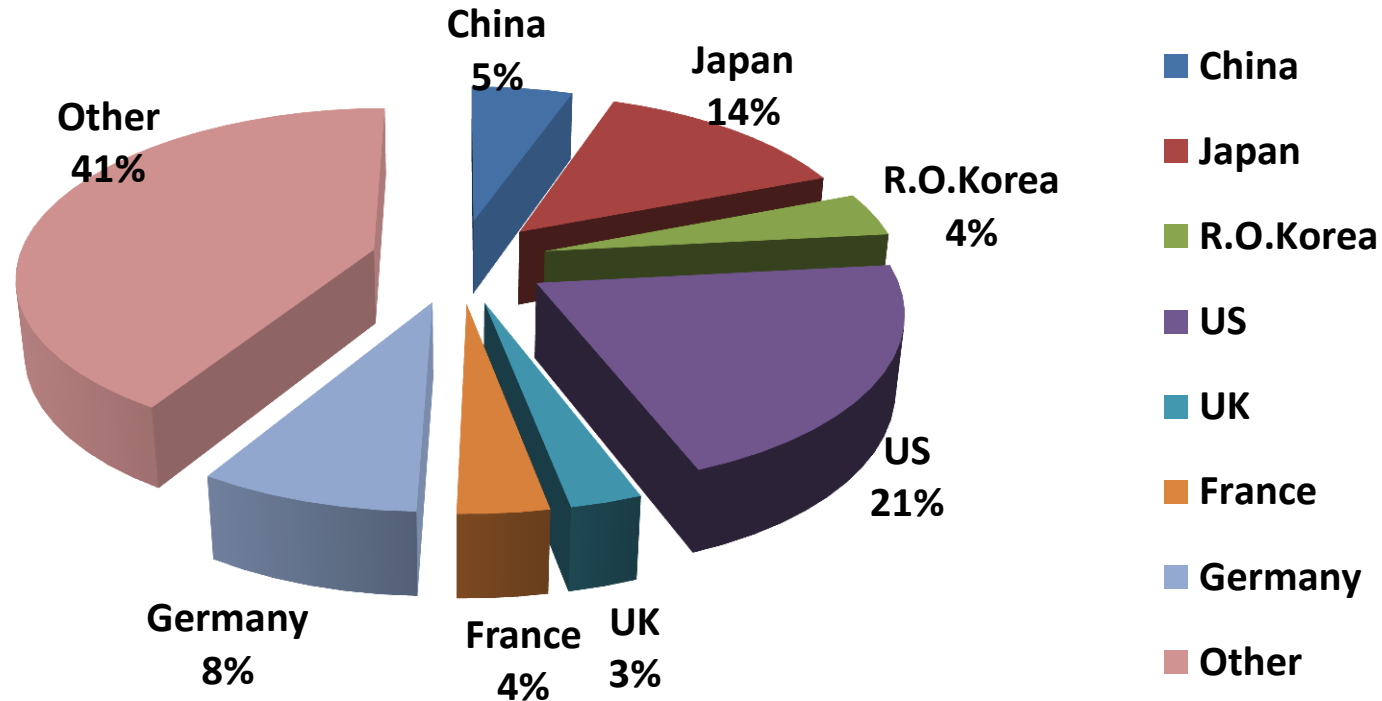
2011 Ranking	Applicant's Name	Country of Origin	PCT application published in 2011
1	ZTE CORPORATION	China	2'826
2	PANASONIC CORPORATION	Japan	2'463
3	HUAWEI TECHNOLOGIES CO.' LTD.	China	1'831
4	SHARP KABUSHIKI KAISHA	Japan	1'755
5	ROBERT BOSCH CORPORATION	Germany	1'518
6	QUALCOMM INCORPORATED	United States of America	1'494
7	TOYOTA JIDOSHA KABUSHIKI KAISHA	Japan	1'417
8	LG ELECTRONICS INC.	Republic of Korea	1'336
9	KONINKLIJKE PHILIPS ELECTRONICS N.V.	Netherlands	1'148
10	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	Sweden	1'116

Source: World Intellectual Property Organization (WIPO)

[http://www.wipo.int/pressroom/en/articles/2012/article\\_0001.html#annex1](http://www.wipo.int/pressroom/en/articles/2012/article_0001.html#annex1)

# Share of PCT patent applications by Countries

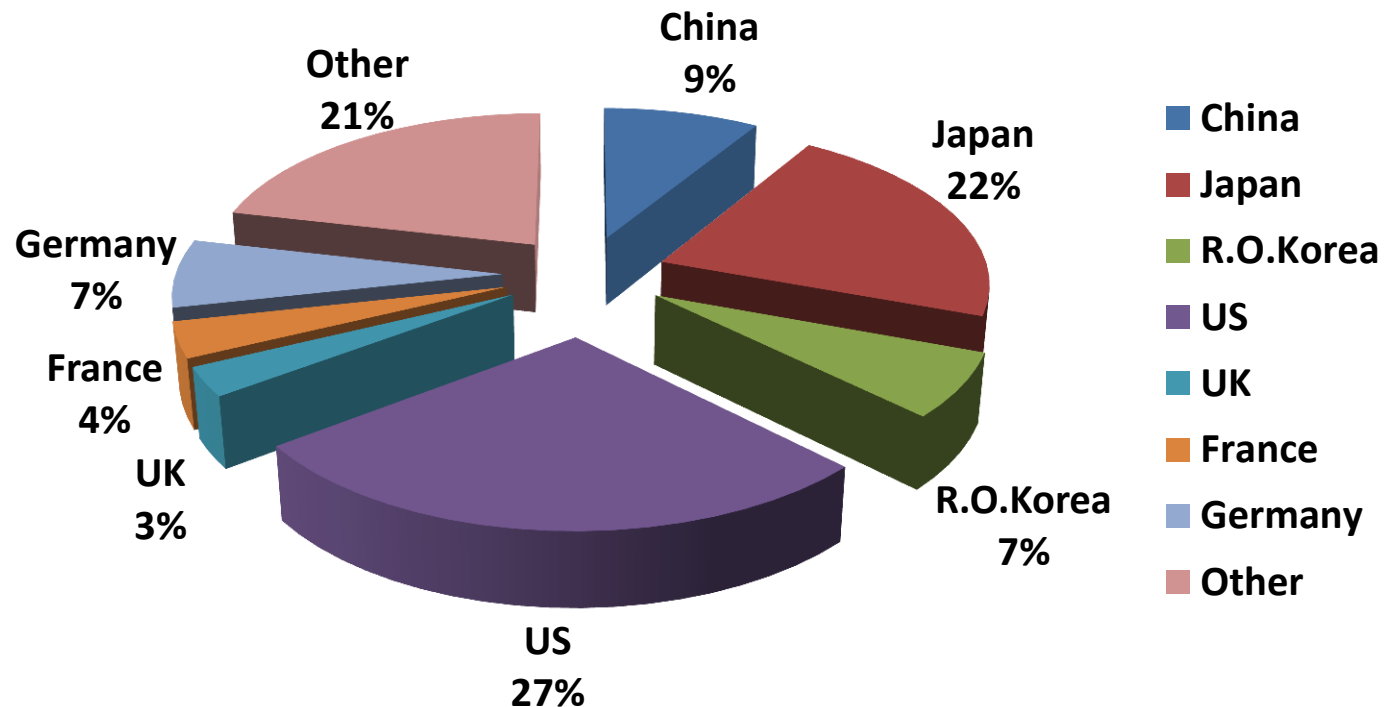
- China, Japan and R.O.Korea accounts for 23% of the world total PCT patent applications in 2009.



Source: Organisation for Economic Co-operation and Development (OECD)  
[http://stats.oecd.org/Index.aspx?DataSetCode=PATS\\_IPC#](http://stats.oecd.org/Index.aspx?DataSetCode=PATS_IPC#)

# Share of ICT parent PCT patent application by countries

- For ICT parent PCT patent applications, China, Japan and R.O.Korea accounts for 48% of the world total ICT parent PCT patent applications in 2009.



Source: OECD, [http://stats.oecd.org/Index.aspx?DataSetCode=PATS\\_IPC#](http://stats.oecd.org/Index.aspx?DataSetCode=PATS_IPC#)

# Rank of Scientific papers by countries

- According to Webmaster Spyder Schafer, China rank second, Japan 4<sup>th</sup> for scientific paper submission in 2011.

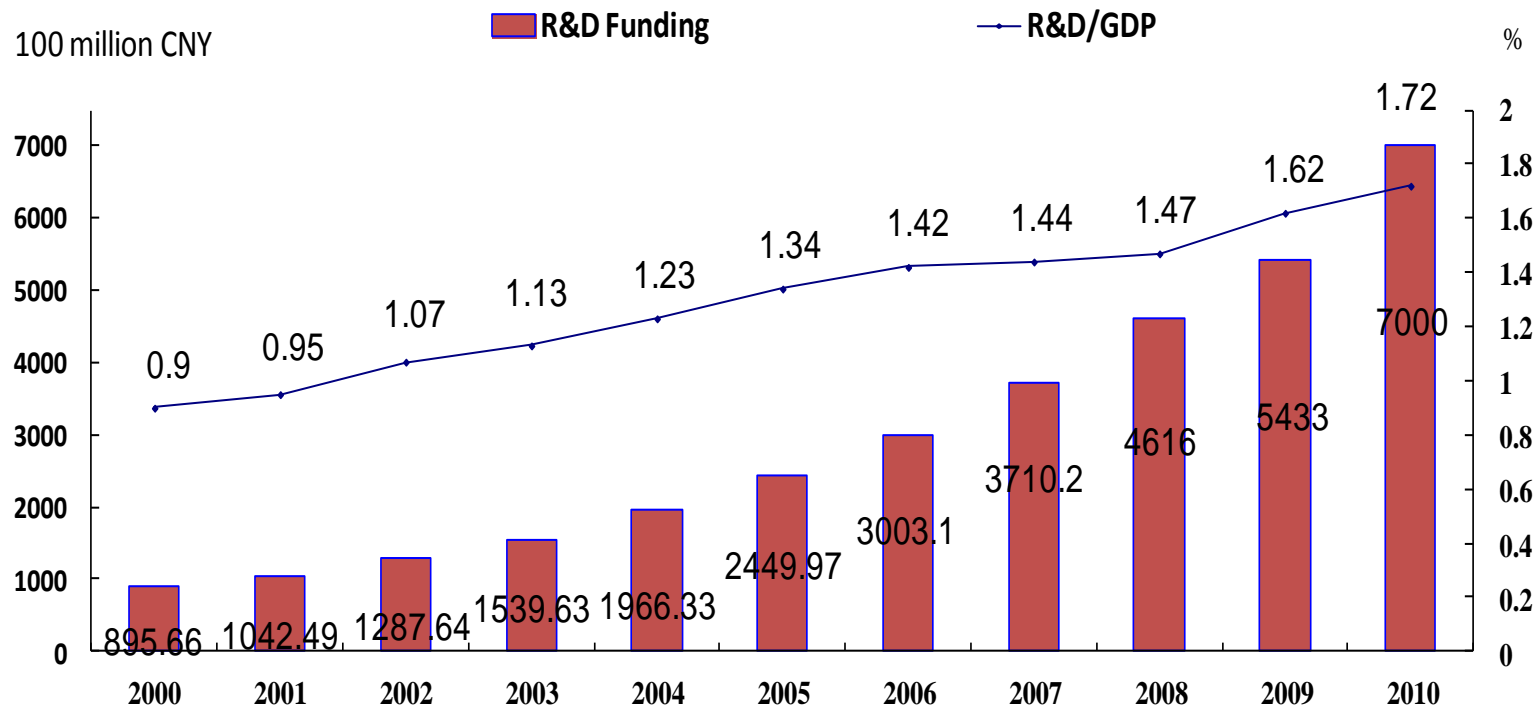
Rank	Country	Papers	Citations	Cites per paper
1	US	3,049,662	48,862,100	16.02
2	China	836,255	5,191,358	6.21
3	Germany	784,316	10,518,133	13.41
4	Japan	771,548	8,084,145	10.48
5	UK	697,763	10,508,202	15.06
6	France	557,322	7,007,693	12.57
7	Canada	451,588	6,019,195	13.33
8	Italy	429,301	5,151,675	12.00
9	Spain	339,164	3,588,655	10.58
10	Australia	304,160	3,681,695	12.10
11	India	293,049	1,727,973	5.90
12	R.O.Korea	282,328	2,024,609	7.17

Source: Essential Science Indicators from Thomson Reuters, time period: 2001-August 31, 2011 (fourth bimonthly period of 2011).



# Total funding for R&D in China

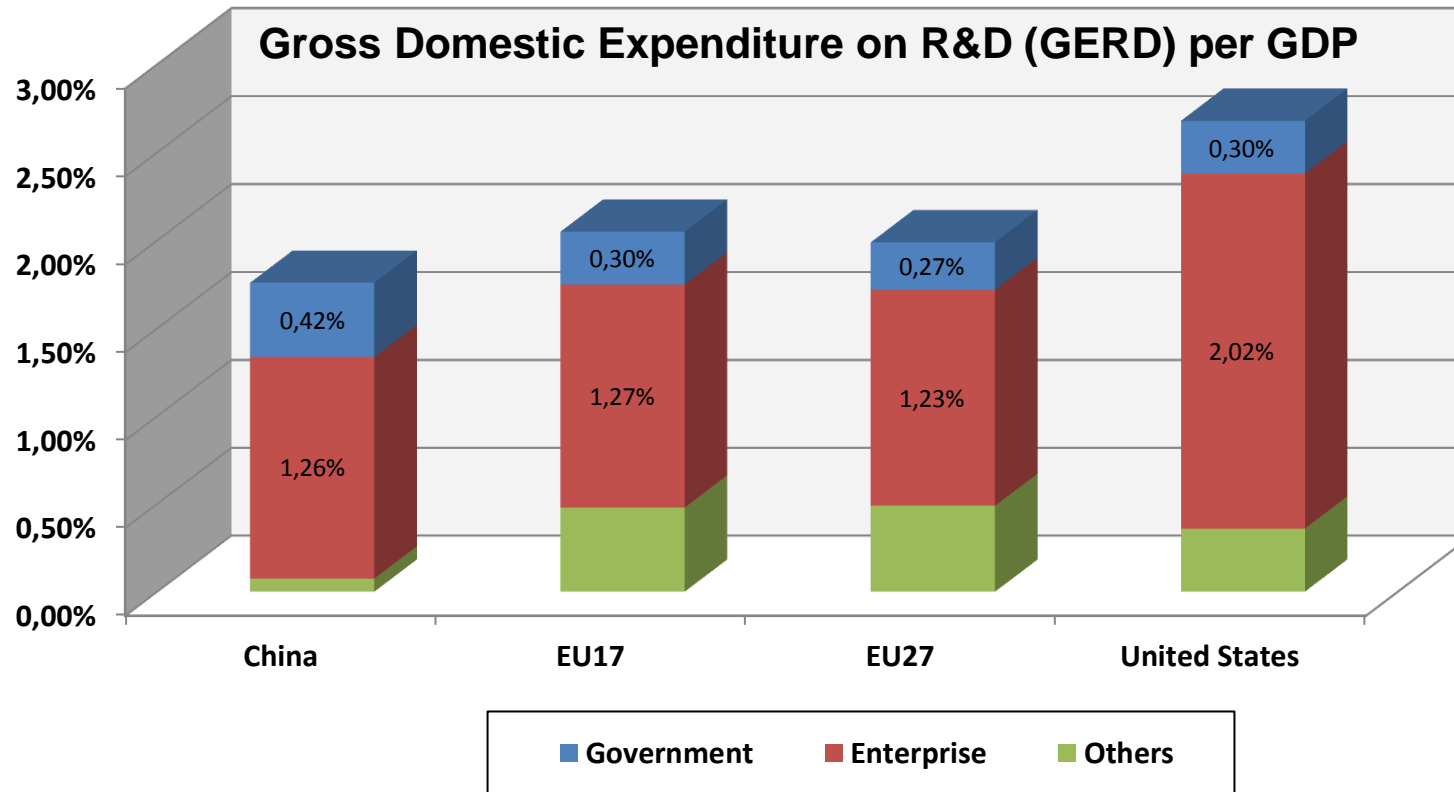
- R&D funding in China (2000-2010)



Source: NBSC, Yearbook of China

# Comparison of GERD/GDP for China and other economic bodies

- In 2010, the rate for GERD/GDP for China is 1.76%, close to that of EU27(1.99%), far below the US(2.68%)



Source: Europe, US: Eurostat; China: NBSC

# The National long-and mid-term S&T Development plans (China)

- The state in 2007 when the plan was published and the aim in 2020.

China	2007	Aim in 2020
R&D/GDP	1.4%	>2.5%
Dependence on overseas technology	40%—50%	<30%
Contribution rate of technical progress	30%-40%	60%
Invention (only authorized invention patents in China)	Ranking the 5th in the world in terms of volume of application	Ranking among top 5 in the world
Number of citation in international scientific papers cited	High quantity, low citation	Ranking among top 5 in the world

# Many thanks to Jean Paul Simon!

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