

# The 21<sup>st</sup> Century Chance for Innovation

With about two-thirds of the world population and led by the world's second largest economy, Asia is at the core of global economy growth and might well transform the 21<sup>st</sup> century into “Asian Century”. Under one condition though: that Asia takes the lead in innovation.

**A**sia has seen a boom in economy, first with the rise of Japan and the Asian Tigers (Hong Kong, Singapore, Taiwan and Korea) then with China, now the world's second largest economy. Lately however, Asia has been in the midst of a very challenging transition to slower growth, higher production costs and the imperative to produce higher added value products and services in a more and more globalized and competitive economy. It is only natural that this competitive edge can be found in innovation.

## Innovation: myth and reality

Nowadays, innovation is often a buzzword. But when you think about it, the speed of innovation has been so tremendous that if it wasn't for it, many areas of our everyday life and economy would not even exist today. In 2000, one hard drive gigabyte cost around \$44. In 2012, it dived down to \$7. In 2000, to watch a streaming video cost \$193 per gigabyte. Ten years later, it is 3 cents<sup>1</sup>. Smartphones only weigh a few grams and cost a hundred dollars. But their memory is thousands times greater than the very first computer, the Cray-1A back in the late 1970s, that cost almost \$9bn and weighted 5.5 tons<sup>2</sup>. The increased productivity gains and related cost efficiency can also be found in another hot area: renewable energy. The Swanson law stipulates that the price of photovoltaic cells will tend to decrease by 20% when production capacity doubles<sup>3</sup>.

Companies that will not be on the lead of innovation will be left behind, as many have already been. Some reference cases are Kodak or Blackberry. Some of the most valuable companies in the world are firms that didn't exist a dozen years ago. Some can be found in Asia. But in spite of their dramatic growth from the 1990s, Asian countries still lag behind in terms of innovation. According to the Global Innovation Index 2016 rankings that scores country's capacity in innovation from 0-100 (lowest – highest), China scores 50.44 [25<sup>th</sup>] and Korea 57.15 [11<sup>th</sup>], compared to Switzerland 66.28 [1<sup>st</sup>], Sweden 63.57[2<sup>nd</sup>] or the UK 61.93 [3<sup>rd</sup>]<sup>4</sup>.

## Fuel growth and address societal challenges

The gap may not seem large, but Asian countries are facing structural challenges that need to be addressed. Innovation to raise the productivity of the service sector and to digitalize manufacturing sector is becoming increasingly imperative as the two sources of growth – labor force expansion and heavy capital investment – fade<sup>5</sup>. This is particularly true for China. But Korea is also going through a sluggish economic growth, in particular as the result of the slowdown in world trade, the country's export-led development nature and its large productivity gap between manufacturing and services.

In addition to the economic slowdown, Asia is going through a social change: the ageing population, which will hurt the economy in the long run since the demographic change will lead directly to a shrinking working force and put pressure on the existing healthcare system. Innovations that can make up for the lower labor market participation and take care of the large older population will be priorities.

In this context, some Asian countries have increasingly designed policies to expand their innovation capacity. In China, the 13th Five-Year Plan put the development of an innovative economic structure as a priority. The Made in China 2025 policy is aimed at transforming China from a low-end manufacturing giant to an innovation powerhouse. In Korea, the Three Year Plan for Economic Innovation also calls for a growth through innovation with increased investment in R&D, ICT and other industries. The plan corresponds to another policy: Creative Economy, which is to foster creative industries such as culture and arts, departing from the existing manufacturing-centered model in Korea.

Driven by these policies, Asia has found that more opportunities may lie abroad as it can transfer knowledge that is not strongly performed in Asia so as to develop new products, to strengthen new industries, to foster economic growth and to tackle the social problems in Asia.

<sup>1</sup> Robert D. Atkinson et al., *The Internet Economy 25 years after .com*

<sup>2</sup> “Cray 1-a: 1977-1989”, *Computer and Information Systems Laboratory, 2009*

<sup>3</sup> Jeremy Rifkin, *The Zero Marginal Cost Society, 2014*

<sup>4</sup> Cornell University, INSEAD, and WIPO(2016): *The Global Innovation Index 2016: Winning with Global Innovation, Ithaca, Fontainebleau, and Geneva.*

<sup>5</sup> Mckinsey & Company, *The China Effect on Global Innovation, October 2015.*

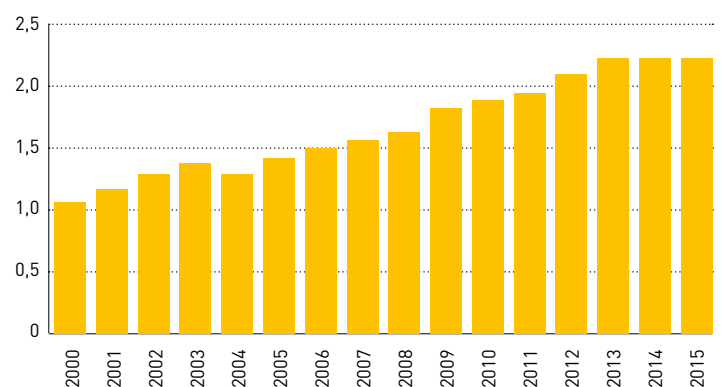


Asia has taken action: in 2016, the total value of foreign M&A deals by Chinese companies increased 145% from the same period in 2015 to \$245.6bn and the main targets of Chinese firms have gradually transferred from energy and power to technologies and brands<sup>6</sup>. This February, the Ministry of Strategy & Finance of South Korea announced that the country's overseas direct investment increased by 15% from a year ago to \$40.2bn as a five-year high<sup>7</sup>.

### Myth and reality again: Europe

From abroad, Europe has probably been more talked about in terms of crises than attractiveness. Geopolitical tensions, Brexit, terrorist attacks, euro crisis or refugee migration have hit the headlines these past years. What has been less talked about is the fact that "Destination Europe" experienced a record year in terms of Foreign Direct Investment (FDI). In spite of the aforementioned uncertainties, the rest of the world is considered even more unstable and risky. This perception is likely to deepen with the new policies promised by newly elected US President Trump. According to EY's European attractiveness survey, Europe

Chinese investment in R&D as a proportion of GDP (%)



Source: 2000-2014 date from the "China Statistical Yearbook series, 2016 date from the "Statistical Communiqué of the People's Republic of China on the 2016 National Economic and Social Development"

<sup>6</sup> Yue Qiu, Mathieu Benhamou, Ben Scent, Cynthia Hoffman, Jonathan Browning, Cedric Sam, Parker Leung and Adrian Leung, China Deal Watch, Bloomberg, December 2016. <https://www.bloomberg.com/graphics/2016-china-deals/>

<sup>7</sup> Jung Suk-ye, Korea's ODI Hit Five-year High in 2015, Business Korea, February 15, 2016.

<sup>8</sup> Moody's

<sup>9</sup> [http://www.ey.com/Publication/vwLUAssets/ey-EY-s-2016-attractiveness-survey-europe/\\$FILE/ey-EY-s-2016-attractiveness-survey-europe.pdf](http://www.ey.com/Publication/vwLUAssets/ey-EY-s-2016-attractiveness-survey-europe/$FILE/ey-EY-s-2016-attractiveness-survey-europe.pdf)



attracted 14% more projects (amounting to 5,083), which created 217,696 new jobs, reinforced with the dynamics of mergers & acquisitions, up 68% from 2014. Europe accounts for 44% of the total value of China's overseas M&A, compared to 22% in US and 9% in Asia<sup>8</sup>. In a nutshell, investors and companies continue to see Europe as a safe haven, with 82% expecting investment prospects to improve or remain the same over the next three years<sup>9</sup>.

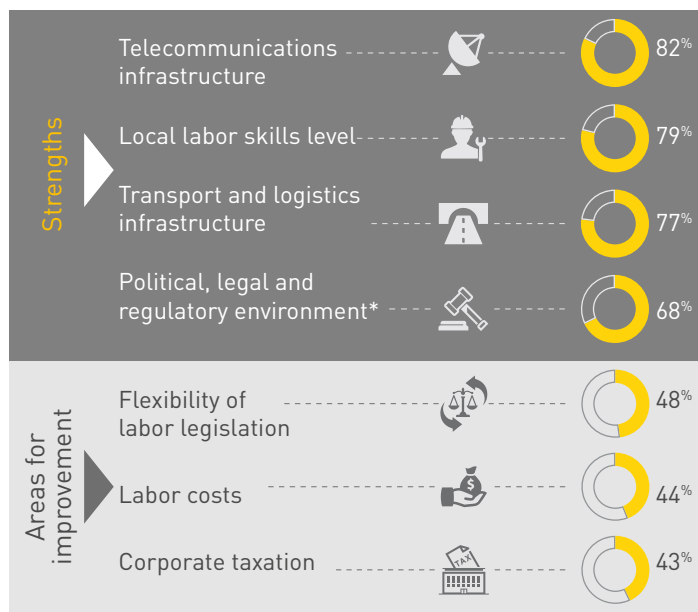
## Europe: both a safe haven and a cradle for innovation

What sets Europe apart are its digital and logistical infrastructure, skilled labor force, and stable political, legal and regulatory environment. Modern means of transportation and communication make for a deeply integrated and open market which gives all European companies the potential to trade inside and outside Europe. Moreover, Europe is based on robust and stable institutions providing long term investment stability. Law and contracts are enforced. This is particularly important when it comes to debtors' rights. When a company needs to be restructured, debtors can claim back their debt as per their seniority with all legal courts backing them. Some people dislike the heavy paper work and administrative processes sometimes required for doing business in some countries, like France, but this is in return for higher protection and law enforcement. If anything, Europe is a trustworthy option.

Did you know that four out of the top 15 cities that can produce the next tech giant are European? This is another result from EY's survey. European countries are topping the global innovation index ranking and harboring world-class academic institutions and corporates. This is particularly true in innovation-intensive sectors. Investors increasing focus on technology intensive investments when they look at Europe: ICT, healthcare and biotech, energy, smart cities... when the objective is to address structural societal challenges, sectorial borders become very porous. Liu Chuanzhi, Founder & CEO of Lenovo, said<sup>10</sup>: 'Modern agriculture is very important for China because of issues such as food security and agricultural holding's structure. Our group has begun its diversification in this field of the future and we have much to learn from the French know-how.'

## Overcome obstacles to cross-border development and economic progress

Despite the obvious value creation that can be brought by funneling Asian investments towards European innovation, taking action is not always easy. In some countries, investors need to diversify their geographical exposure by increasing their underweight allocation to Europe, but need to be reassured on their selected partner for doing so. In China, the story is different: the government has imposed new restrictions on outbound investment in an effort to curb capital outflows. Incidentally, it has come as a contradiction to other policies aiming to develop innovation and cross-border development, such as the One Belt One Road policy. But the capital restrictions only aim to contain the renminbi depreciation via capital outflows that do not create value; on the contrary, value-creating deals in strategic areas like healthcare or green economy are encouraged. 'Who Gains Europe, Can Rule the World', said Wang Yiwei, professor at Renmin University of China, by reinterpreting an old Chinese saying. Investors need to keep looking at Europe with discernment and trust.



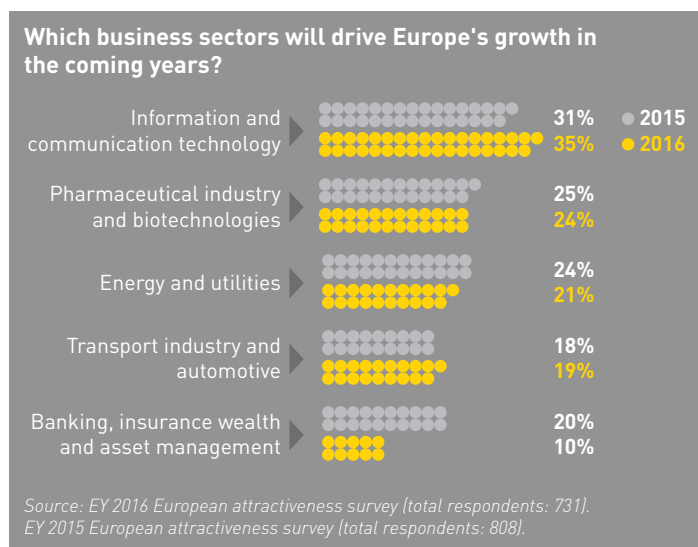
Source: EY 2016 European attractiveness survey (total respondents: 1,469).  
\*Stability and transparency of political, legal and regulatory environment.



## Which cities in the world offer the best chance of producing the next tech giant?

European cities	2016 rank (improvement in ranking from 2015)	2016	Percentage points (change from 2015)
London	2 (+3)	23%	+6%
Berlin	6 (no change)	10%	-1%
Paris	10 (+1)	8%	+1%
Amsterdam	13 (+5)	5%	+3%

Source: EY 2016 European attractiveness survey (total respondents: 1,469).  
EY 2015 European attractiveness survey (total respondents: 808).



Source: EY 2016 European attractiveness survey (total respondents: 731).  
EY 2015 European attractiveness survey (total respondents: 808).

<sup>10</sup> Arnaud de La Grange, Liu Chuanzhi : «La France est le berceau du contrat social», Le Figaro, June 22, 2013.