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of Basel, which will be inaugurated this September, are among the achievements of the past six years. Furthermore, Basel serves as an attractive residential and working location with excellent labour conditions and a very high quality of life, which are also enjoyed by the highly qualified Chinese residents who live and work in the city.

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Dear Members and Readers

Last April, I had the opportunity to join an economic mission to Hefei, the capital of the Anhui Province. The mission was organized by the Swiss Consulate Shanghai, under the lead of Consul General Mr. Heinrich Schellenberg. It included a series of visits to companies, economic zones, and most importantly, meetings with the leaders of the Anhui province and the city of Hefei.

As most of us know, the Chinese system fosters quite a rough competition amongst its development zones to attract investors, and some of the soft factors are not pushed in the same way and may be given less attention. Particularly in Hefei, I had the impression that a sustainable, 'green' development is considered. Despite the less successful growth than its neighbouring provinces of Zhejiang and Jiangsu, an impressive 88 out of the world's top 500 companies have already invested in the Anhui region to date. Perhaps, it's because of Anhui's geographical location with all major transport connections, or possibly its slower pace - and in return - a more sustainable development?

For all those who didn't make it to this year's Swiss Ball in Shanghai - I just can say, you missed a lot! The theme chosen by the committee consisting of members from SwissCham and Swiss Club was "The 70's" - with all its craziness and colourful outfits. The band played countless, popular 70's songs and melodies to everyone's delight - that even during the dinner, most of the guests couldn't sit still and already wanted to dance!

Buoyed by its success, we are planning ahead to organize the next ball - and hopefully, we see you all at the Swiss Ball 2014.

Andreas Luchsinger  
President SwissCham Shanghai

亲爱的会员和读者朋友们：

去年四月，我参加了在安徽省会城市合肥举行的经济会议，会议由在总领事史伦博（Heinrich Schellenberg）领导下的瑞士驻上海总领事馆组织，包括对企业、经济区以及与安徽省和合肥市政府领导人的会面等一系列访问。

正如多数人所知的，中国体系促使各个经济发展区争相吸引投资者，但对一些软性因素的重视程度不够，尚未以等同的力度推进。尤其在合肥，这里已经开始考虑可持续性、“绿色”的发展模式。虽然与邻界省份浙江和江苏间仍存在差距，但迄今为止，世界 500 强企业中已有 88 家在安徽地区投资。也许是由于安徽拥有联接所有主要交通方式的地理区位优势，或许较慢的发展速度相应的会带来更为可持续性的发展？

我想对那些没有参加今年在上海举办的瑞士舞会的人们说，你们错过了许多！由瑞士商会和瑞士俱乐部成员组成的委员会选择了“70 后”的主题——他们的狂热以及缤纷多彩的装备。乐队演奏了受人们喜爱的多首 70 年代流行歌曲和音乐——在晚宴还没有结束的时候，许多宾客就已经跃跃欲试，希望随着音乐舞蹈！

由于此次晚会的成功，我们已经在提前策划明年的舞会——希望在 2014 年的瑞士舞会上与各位会面。

Andreas Luchsinger  
中国瑞士商会主席上海总裁

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目前, 我们在中国设立了两家分公司——摩科瑞能源贸易(北京)有限公司和摩科瑞投资咨询(北京)有限公司, 我们正在与中国的业务伙伴紧密合作, 向中国供应能源产品, 并共同投资包括仓储、码头在内的能源基础设施, 从而为促进这一伟大国家的繁荣发展贡献力量。

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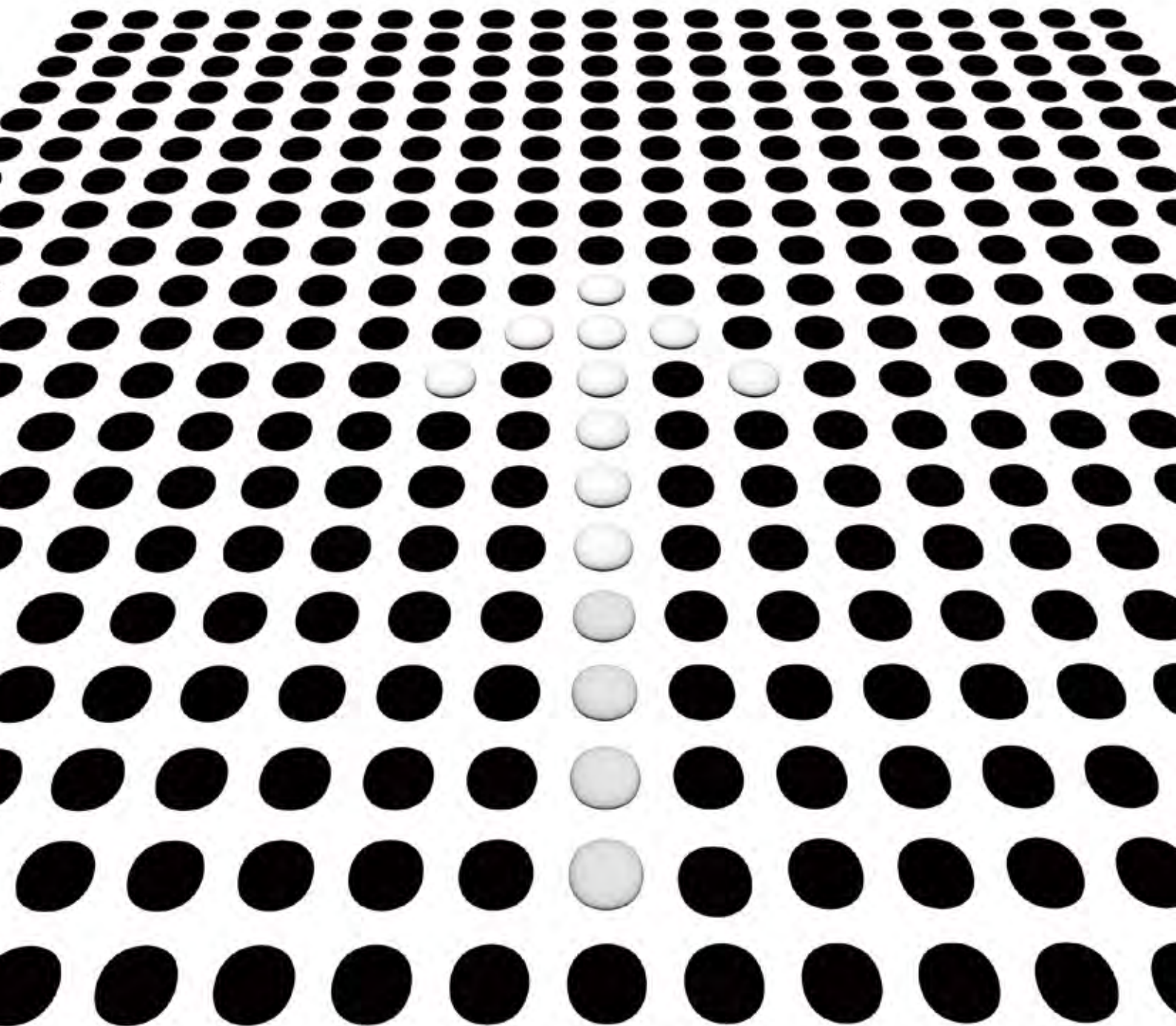
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# A CEO's Guide to Innovation in China

## CEO中国创新指南



Dynamic domestic players and focused multinationals are helping China churn out a growing number of innovative products and services. Intensifying competition lies ahead; here's a road map for navigating it.

Written by **Gordon Orr** and **Erik Roth** of McKinsey

China is innovating. Some of its achievements are visible: a doubling of the global percentage of patents granted to Chinese inventors since 2005, for example, and the growing role of Chinese companies in the wind- and solar-power industries. Other developments - such as advances by local companies in domestically oriented consumer electronics, instant messaging, and online gaming - may well be escaping the notice of executives who aren't on the ground in China.

As innovation gains steam there, the stakes are rising for domestic and multinational companies alike. Prowess in innovation will not only become an increasingly important differentiator inside China, but should also yield ideas and products that become serious competitors on the international stage.

Chinese companies and multinationals bring different strengths and weaknesses to this competition. The Chinese have traditionally had a bias toward innovation through commercialization - they are more comfortable than many Western companies are with putting a new product or service into the market quickly and improving its performance through subsequent generations. It is common for products to launch in a fraction of the time that it would take in more developed markets. While the quality of these early versions may be variable, subsequent ones improve rapidly.

Chinese companies also benefit from their government's emphasis on indigenous innovation, underlined in the latest five-year plan. Chinese authorities view innovation as critical both to the domestic economy's long-term health and to the global competitiveness of Chinese companies. China has already created the seeds of 22 Silicon Valley-like innovation hubs within the life sciences and biotech industries. In semiconductors, the government has been consolidating innovation clusters to create centers of manufacturing excellence.

But progress isn't uniform across industries, and innovation capabilities vary significantly: several basic skills are at best nascent within a typical Chinese enterprise. Pain points include an absence of advanced techniques for understanding - analytically, not just intuitively - what customers really want, corporate cultures that don't support risk-taking, and a scarcity of the sort of internal collaboration that's essential for developing new ideas.

Multinationals are far stronger in these areas but face other challenges, such as high attrition among talented Chinese nationals that can slow efforts to create local innovation centers. Indeed, the contrasting capabilities of domestic and multinational players, along with the still unsettled state of intellectual property protection (see sidebar, "Improving the patent process"), create the potential for topsy-turvy competition, creative partnerships, and rapid change. This article seeks to lay out the current landscape for would-be innovators and to describe some of the priorities for domestic and multinational companies that hope to thrive in it.

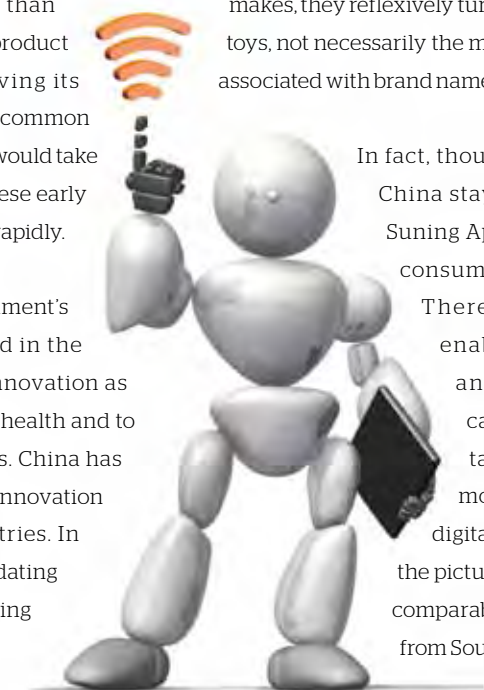
### China's innovation landscape

Considerable innovation is occurring in China in both the business-to-consumer and business-to-business sectors. Although breakthroughs in either space generally go unrecognized by the broader global public, many multinational B2B competitors are acutely aware of the innovative strides the Chinese are making in sectors such as communications equipment and alternative energy. Interestingly, even as multinationals struggle to cope with Chinese innovation in some areas, they seem to be holding their own in others.

### The business-to-consumer visibility gap

When European and US consumers think about what China makes, they reflexively turn to basic items such as textiles and toys, not necessarily the most innovative products and rarely associated with brand names.

In fact, though, much product innovation in China stays there. A visit to a shop of the Suning Appliance chain, the large Chinese consumer electronics retailer, is telling. There, you might find an Android-enabled television complete with an integrated Internet-browsing capability and preloaded apps that take users straight to some of the most popular Chinese Web sites and digital movie-streaming services. Even the picture quality and industrial design are comparable to those of high-end televisions from South Korean competitors.







We observe the same home-grown innovation in business models. Look, for example, at the online sector, especially Tencent’s QQ instant-messaging service and the Sina Corporation’s microblog, Weibo. These models, unique to China, are generating revenue and growing in ways that have not been duplicated anywhere in the world. QQ’s low, flat-rate pricing and active marketplace for online games generate tremendous value from hundreds of millions of Chinese users.

What’s keeping innovative products and business models confined to China? In general, its market is so large that domestic companies have little incentive to adapt successful products for sale abroad. In many cases, the skills and capabilities of these companies are oriented toward the domestic market, so even if they want to expand globally, they face high hurdles. Many senior executives, for example, are uncomfortable doing business outside their own geography and language. Furthermore, the success of many Chinese models depends on local resources – for example, lower-cost labor, inexpensive land, and access to capital or intellectual property – that are difficult to replicate elsewhere. Take the case of mobile handsets: most Chinese manufacturers would be subject to significant intellectual property-driven licensing fees if they sold their products outside China.

Successes in business to business

Several Chinese B2B sectors are establishing a track record of innovation domestically and globally. The Chinese communications equipment industry, for instance, is a peer of developed-world companies in quality. Market acceptance has expanded well beyond the historical presence in emerging markets to include Europe’s most demanding customers, such as France Télécom and Vodafone.

Pharmaceuticals are another area where China has made big strides. In the 1980s and 1990s, the country was a bit player in the

discovery of new chemical entities. By the next decade, however, China’s sophistication had grown dramatically. More than 20 chemical compounds discovered and developed in China are currently undergoing clinical trials.

China’s solar- and wind-power industries are also taking center stage. The country will become the world’s largest market for renewable-energy technology, and it already has some of the sector’s biggest companies, providing critical components for the industry globally. Chinese companies not only enjoy scale advantages but also, in the case of solar, use new manufacturing techniques to improve the efficiency of solar panels.

Success in B2B innovation has benefited greatly from friendly government policies, such as establishing market access barriers; influencing the nature of cross-border collaborations by setting intellectual-property requirements in electric vehicles, high-speed trains, and other segments; and creating domestic-purchasing policies that favor Chinese-made goods and services. Many view these policies as loading the dice in favor of Chinese companies, but multinationals should be prepared for their continued enforcement.



Despite recent setbacks, an interesting example of how the Chinese government has moved to build an industry comes from high-speed rail. Before 2004, China’s efforts to develop it had limited success. Since then, a mix of two policies – encouraging technology transfer from multinationals (in return for market access) and a coordinated R&D-investment effort – has helped China Railways’ high-speed trains to dominate the local industry. The multinationals’ revenue in this sector has remained largely unchanged since the early 2000s.

But it is too simplistic to claim that government support is the only reason China has had some B2B success. The strength of the country’s scientific and technical talent is growing, and local companies increasingly bring real capabilities to the table. What’s more, a number of government-supported innovation efforts have not been successful. Some notable examples include attempts to develop an indigenous 3G telecommunications protocol called TDS-CDMA and to replace the global Wi-Fi standard with a China-only Internet security protocol, WAPI.

Advantage, multinationals?

Simultaneously, multinationals have been shaping China’s innovation landscape by leveraging global assets. Consider, for example, the joint venture between General Motors and the Shanghai Automotive Industry Corporation, which adapted a US minivan (Buick’s GL8) for use in the Chinese market and more recently introduced a version developed in China, for China. The model has proved hugely popular among executives.

In fact, the market for vehicles powered by internal-combustion engines remains dominated by multinationals, despite significant incentives and encouragement from the Chinese government, which had hoped that some domestic automakers would emerge as leaders by now. The continued strength of multinationals indicates how hard it is to break through in industries with 40 or 50 years of

The Chinese are more comfortable with putting a new product or service into the market quickly and improving its performance through subsequent generations.

intellectual capital. Transferring the skills needed to design and manufacture complex engineering systems has proved a significant challenge requiring mentorship, the right culture, and time.

We are seeing the emergence of similar challenges in electric vehicles, where early indications suggest that the balance is swinging toward the multinationals because of superior product quality. By relying less on purely indigenous innovation, China is trying to make sure the electric-vehicle story has an ending different from that of its telecommunications protocol efforts. The government’s stated aspiration of having more than five million plug-in hybrid and battery electric vehicles on the road by 2020 is heavily supported by a mix of extensive subsidies and tax incentives for local companies, combined with strict market access rules for foreign companies and the creation of new revenue pools through government and public fleet-purchase programs. But the subsidies and incentives may not be enough to overcome the technical challenges of learning to build these vehicles, particularly if multinationals decline to invest with local companies.

Four priorities for innovators in China

There’s no magic formula for innovation – and that goes doubly for China, where the challenges and opportunities facing domestic and multinational players are so different. Some of the priorities we describe here, such as instilling a culture



of risk-taking and learning, are more pressing for Chinese companies. Others, such as retaining local talent, may be harder for multinationals. Collectively, these priorities include some of the critical variables that will influence which companies lead China's innovation revolution and how far it goes.

#### Deeply understanding Chinese customers

Alibaba's Web-based trading platform, Taobao, is a great example of a product that emerged from deep insights into how customers were underserved and their inability to connect with suppliers, as well as a sophisticated understanding of the Chinese banking system. This dominant marketplace enables thousands of Chinese manufacturers to find and transact with potential customers directly. What looks like a straightforward eBay-like trading platform actually embeds numerous significant innovations to support these transactions, such as an ability to facilitate electronic fund transfers and to account for idiosyncrasies in the national banking system. Taobao wouldn't have happened without Alibaba's deep, analytically-driven understanding of customers.

Few Chinese companies have the systematic ability to develop a deep understanding of customers' problems. Domestic players have traditionally had a manufacturing-led focus on reapplying existing business models to deliver products for fast-growing markets. These "push" models will find it increasingly hard to unlock pockets of profitable growth. Shifting from delivery to creation requires more local research and development, as well as the nurturing of more market-driven organizations that can combine insights into detailed Chinese customer preferences with a clear sense of how

**The strength of the country's scientific and technical talent is growing, and local companies increasingly bring real capabilities to the table.**



the local business environment is evolving. Requirements include both research techniques relevant to China and people with the experience to draw out actionable customer insights.

Many multinationals have these capabilities, but unless they have been operating in China for some years, they may well lack the domestic-market knowledge or relationships needed to apply them effectively. The solution – building a true domestic Chinese presence rather than an outpost – sounds obvious, but it's difficult to carry out without commitment from the top. Too many companies fail by using "fly over" management. But some multinationals appear to be investing the necessary resources; for example, we recently met (separately) with top executives of two big industrial companies who were being transferred from the West to run global R&D organizations from Shanghai. The idea is to be closer to Chinese customers and the network of institutions and universities from which multinationals source talent.

#### Retaining local talent

China's universities graduate more than 10,000 science PhDs each year, and increasing numbers of Chinese scientists working overseas are returning home. Multinationals in particular are struggling to tap this inflow of researchers and managers. A recent survey by the executive-recruiting firm Heidrick & Struggles found that 77 percent of the senior executives from multinational companies responding say they have difficulty attracting managers in China, while 91 percent regard employee turnover as their top talent challenge.

Retention is more of an issue for multinationals than for domestic companies, but as big foreign players raise their game, so must local ones. Chinese companies, for example, excel at creating a community-like environment to build loyalty to the institution. That helps keep some employees in place when competing offers arise, but it may not always be enough.

Talented Chinese employees increasingly recognize the benefits of being associated with a well-known foreign brand and like the mentorship and training that foreign companies can provide. So multinationals that commit themselves to developing meaningful career paths for Chinese employees should have a chance in the growing fight with their Chinese competitors for R&D talent. Initiatives might include in-house training courses or apprenticeship programs, perhaps with local universities. General Motors sponsors projects in which professors and engineering departments at leading universities research issues of interest to the automaker. That helps it to develop closer relations with the institutions from which it recruits and to train students before they graduate.

Some multinationals energize Chinese engineers by shifting their roles from serving as capacity in a support of existing global programs to contributing significantly to new innovation thrusts, often aimed at the local market. This approach, increasingly common in the pharma industry, may hold lessons for other kinds of multinationals that have established R&D or innovation centers in China in recent years (read about AstraZeneca's experience in "Three snapshots of Chinese innovation"). The keys to success include a clear objective – for instance, will activity support global programs or develop China-for-China innovations? – and a clear

### Improving the patent process

In innovative sectors such as biotechnology, electric vehicles, pharmaceuticals, and solar energy, the number of patent applications from Chinese companies is rising. In fact, Huawei and ZTE ranked among the world's top five corporate patent registrants by volume in 2010. Intensifying patent activity reflects a growing recognition that intellectual property is essential to value. As this mentality takes hold, domestic innovators may pressure the government to create a more modern intellectual-property system. Currently, China recognizes three categories of patents: invention (what most people elsewhere think of as worthy of a patent), utility (a new use for something that already exists), and design. Invention patents run for 20 years, the others only for 10. Patent reform – such as reducing the duration of design or utility patents and raising the bar for what can be registered in those categories – would be a powerful way for the Chinese government to signal its seriousness about promoting indigenous innovation. If China decides to move ahead with patent reform, a desire for global consistency could well make it a high-priority multilateral issue.

Without patent reform, companies must rely on one of two strategies for protecting intellectual property. The first is to continue to outrun the competition by developing increasingly innovative solutions or building in protection through complex integration that is difficult to reverse-engineer. The second is to create easily identifiable technology "signatures" that would be hard to refute in legal proceedings.

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plan for attracting and retaining the talent needed to staff such centers. Too often, we visit impressive R&D facilities, stocked with the latest equipment, that are almost empty because staffing them has proved difficult.

#### Instilling a culture of risk-taking

Failure is a required element of innovation, but it isn't the norm in China, where a culture of obedience and adherence to rules prevails in most companies. Breaking or even bending them is not expected and rarely tolerated. To combat these attitudes, companies must find ways to make initiative-taking more acceptable and better rewarded.

One approach we found, in a leading solar company, was to transfer risk from individual innovators to teams. Shared accountability and community support made increased risk-taking and experimentation safer. The company has used these "innovation work groups" to develop everything from more efficient battery technology to new manufacturing processes. Team-based approaches also have proved effective for some multinationals trying to stimulate initiative-taking (read about General Motors' approach in "Three snapshots of Chinese innovation").

How fast a culture of innovation takes off varies by industry. We see a much more rapid evolution toward the approach of Western companies in the way Chinese high-tech enterprises learn from their customers and how they apply that learning to create new products made for China (read a perspective on the evolution of its semiconductor sector in "Three snapshots of Chinese innovation"). That approach is much less common at state-owned enterprises, since they are held back by hierarchical, benchmark-driven cultures.

#### Promoting collaboration

One area where multinationals currently have an edge is promoting collaboration and the internal collision of ideas, which can yield surprising new insights and business opportunities. In many Chinese companies, traditional organizational and cultural barriers inhibit such exchanges.

Although a lot of these companies have become more professional and adept at delivering products in large volumes, their ability to scale up an organization that can work collaboratively has not kept pace. Their rigorous, linear processes for bringing new products to market ensure rapid commercialization but create too many hand-offs where insights are lost and trade-offs for efficiency are promoted.

One Chinese consumer electronics company has repeatedly tried to improve the way it innovates. Senior management has



called for new ideas and sponsored efforts to create new best-in-class processes, while junior engineers have designed high-quality prototypes. Yet, the end result continues to be largely undifferentiated, incremental improvements. The biggest reason appears to be a lack of cross-company collaboration and a reliance on processes designed to build and reinforce scale in manufacturing. In effect, the technical and commercial sides of the business don't cooperate in a way that would allow some potentially winning ideas to reach the market. As Chinese organizations mature, stories like this one may become rarer.

China hasn't yet experienced a true innovation revolution. It will

need time to evolve from a country of incremental innovation based on technology transfers to one where breakthrough innovation is common. The government will play a powerful role in that process, but ultimately it will be the actions of domestic companies and multinationals that dictate the pace of change – and determine who leads it.

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## 在灵活的国内业者与专注的跨国企业共同努力下，中国不断推出创新的产品与服务，面对未来日益激烈的竞争，下面是可供企业参考的导航路线。

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**创**新的中国。中国已取得若干耀眼的成就：中国发明家取得的专利数在全球的占比自2005年以来已增加一倍，同时中国企业在风力和太阳能发电行业中也逐渐占有举足轻重的地位。但其他本地企业的进展，诸如以内需市场为导向的消费电子、实时信息和在线游戏等等领域的创新，不常驻中国的企业高管则可能根本没有留意到。

随着创新的加速，中国国内和跨国企业面对的竞争形势也更加严峻。卓越的创新能力不但成为中国市场上日益重要的差异化因素，其产生的创意与产品也有希望成为国际舞台上的强劲对手。

在这场竞赛中，中国企业与跨国企业分别展现出不同的优势与劣势。中国传统上倾向通过商业化进行创新，同时也比许多外资企业更懂得如何让新产品或服务快速上市，以及如何通过不断翻新产品来提升性能。中国企业所需的产品上市时间往往比先进市场短得多。尽管初期产品的质量可能并不稳定，但后续产品则进步神速。

中国企业也受惠于中国政府新的五年计划所强调的重视自主创新。中国政府视创新为确保国内经济长期健全发展，以及企业建立全球竞争力的重要的关键性因素。中国已为生命科学和生物科技两个行业的22个类似硅谷的创新中心打下根基。在半导体产业，中国政

府也不断整并创新群集，企图建立卓越制造中心。

但行业间的进展并不一致，创新能力也有很大的差异。例如在典型的中国企业中，部分基本能力不过才开始萌芽，它们面临的困难包括：缺乏了解客户真正需要的先进分析技术（而非仅依赖直觉）、不鼓励冒险的企业文化，以及缺乏发展新创意所不可或缺的内部合作。

跨国企业在这些方面强得多，但在其他方面则面临挑战，例如本土人才流动率高，从而延缓了建设在地创新中心的速度。然而，中国国内业者与跨国企业能力上的反差，以及中国知识产权保护的不明朗状态（详见附文《提升专利流程》），也开启了颠覆式竞争、创意合作及快速变革的大门。本文试图为有心成为创新业者的公司描绘目前的创新版图，同时为有意追求成功的中国国内业者与跨国公司指出若干需要注意的重点。

### 中国的创新版图

中国在公司对个人(B2C)及公司对公司(B2B)两个领域都出现了大量的创新，尽管这类创新突破并不为全球普通公众所注意，但许多跨国B2B竞争对手对中国企业在通讯设备和替代能源等行业的创新发展却是了如指掌。有趣的是，尽管跨国企业在某些领域穷于应付中国的创新，但在其他领域似乎还是能稳住阵脚。

### B2C 缺乏能见度

欧美消费者一想到中国制造，总是首先想到纺织、玩具等基本产品，却未必会想到最新的产品，同时也很少联想到品牌产品。

但中国相当数量的的产品创新出现在这些领域。只要逛一趟中国大型消费电子零售业者苏宁电器的门店，就不难看出来。你可以在店里找到搭载Android系统的电视，配备完整的整合式网络浏览能力，能带用户直接访问中国最受欢迎网站的预载应用程序，以及数码影片串流服务。这些产品甚至连影片画质和工业设计都与竞争对手韩国高端电视不相上下。

我们观察到在商业模式上出现了同样的本土创新。例如在线行业特别是腾讯QQ空间的实时通信服务，以及新浪的微型博客-微博。这些中国特有的商业模式不但创造收入，同时也以全球其他国家从不曾出现过的方式增长。QQ空间低廉的固定费率计价方式，以及活跃的在线游戏市集，成功地从数亿中国网民身上创造了庞大的价值。

但创新的产品与商业模式又为何仅留在中国？一般而言，主要是因为中国市场相当庞大，国内企业缺乏将成功产品加以调整并销往海外的诱因。这些企业的技能往往是针对国内市场的，即使它们想进行全球扩张，面对的门槛还是相当高。例如许多企业高管不习惯在自己不熟悉的地区用自己不熟悉的语言做生意。再者，许多

成功的中国模式靠的是本地资源，例如低廉的人工成本、廉价的土地，以及取得资金与知识产权的渠道，这些很难在别的地区复制。以手机为例，大部分中国制造商要将产品销售到中国以外的市场，就必须付出庞大的知识产权授权费。

### 成功的 B2B 业务

中国已有若干B2B行业在国内和国际建立了优良的创新实绩。例如中国的通讯设备质量与发达国家已不相上下，产品除了新兴市场外，更获得欧洲最挑剔客户——法国电信(France Télécom)和Vodafone的青睐。

制药则是另一个中国大有斩获的领域。1980年代和1990年代，在发现新化学物质方面，中国还是毫不起眼的角色，短短十年内，中国成熟许多，共发现并开发了20种化学复合物，且目前都已进入临床试验阶段。

中国的太阳能和风能发电行业也占据举足轻重的地位。中国将成为全球可再生能源技术的最大市场，若干中国企业也已成为行业龙头，为全球该行业提供关键零部件。中国企业不仅享有规模优势，更在太阳能领域采用新制造技术来提高太阳能电板的效率。

B2B创新能如此成功很大一部分应归功于有利的政府政策，如建立市场进入障碍，对电动车、高铁和其他领域制定知识产权要求等，藉以改变跨境合作的性质，同时出台优惠的中国制造产品与服务的国内采购政策。许多人认为这些政策明显偏向中国企业，但考虑到长期实施的可能性，跨国企业仍应做好相关准备。

尽管近期受挫，中国的高速铁路仍是政府协助建立国内产业的一个有趣实例。2004年之前所做的种种努力并未达到显著成效，但政府之后推出鼓励跨国企业技术移转（以换取市场准入）及协调研发投资两项政策，使中铁高速铁路得以主导当地产业。该行业的跨国企业收入自2000年以来大致维持不变。

但如果因此认定中国在B2B领域成功的唯一因素是政府支持，那我们就把问题看得太过简单了。随着中国的科学与技术人才实力的不断提高，本土企业越来越展现出真正的能力。更何况政府支持的创新活动也未必都成功，著名的失败案例包括建立3G自主通讯协议TDS-CDMA，以及试图以中国自主研发的无线局域网网络安全协议WAPI来取代全球WI-FI标准。

### 跨国企业具有优势？

与此同时，跨国企业也利用其全球资产来塑造中国的创新版图。例如通用汽车与上海汽

车工业集团成立了合资企业，其在中国市场的做法是首先推出一款改版的美国厢式豪华商务车（别克GL8），然后近期才上市一款中国自行开发的版本。此模式颇受企业高管欢迎。

尽管中国政府释放出足够的诱因与鼓励，希望促成一部分国内汽车制造商登上内燃机动力汽车市场的龙头宝座，但实际上此市场仍然为跨国企业所主宰。从跨国企业持续享有优势这一点来看，本土企业要打进已累积40-50年智慧资本的行业着实不易。设计与制造复杂的工程系统所需的技能移转，其实是相当大的一项挑战，需要通过师徒学习、恰当组织文化和一定的时间才能做到。

电动车行业也有类似挑战。初期迹象显示，市场偏好产品质量较优的跨国企业，但中国为了不重蹈通讯协议的覆辙，电动车行业并不全然仰赖自主创新。中国政府为了达到让500万辆插电式混合动力车和电池电动车在2020年上路行驶的目标，对本土企业给予大力支持，包括广泛的补贴和税务优惠，并对外国对手实施严格的市场准入管制，同时又通过政府公共采购计划等方式来创造新的营收。但单靠补贴与奖励，不足以应对制造电动车的技术挑战，尤其是跨国企业可能拒绝与本土企业共同投资。

### 中国创业者的四大要务

世界上并没有神奇的创新配方，对中国而言更是如此，因为国内与跨国业者面临的是截然不同的机会与挑战。我们在这里提出的部分重点，例如培养冒险与学习的文化等是中国企业刻不容缓的要务，其他如留住本土人才等，



## 尽管中国政府释放出足够的诱因与鼓励，希望促成一部分国内汽车制造商登上内燃机动力汽车市场的龙头宝座，但实际上此市场仍然为跨国企业所主宰。

则是跨国企业较难做到。总的来说，这些重点共同决定了哪些企业将能带领中国的创新革命，以及革命的动力能持续多久。

### 深入了解中国客户

阿里巴巴的淘宝网络交易平台，就是基于消费者未获得充分服务及无法与商家联系等深刻洞察，加上对中国金融体系的深刻了解，从而创造出产品的一个绝佳实例。这个大型网络市集让数千家中国制造商能直接找到潜在客户并与其进行交易。这个貌似eBay的交易平台实际上内含了无数支持交易的重要创新，例如促进电子资金转帐，以及纳入中国金融体系特质的能力。若没有阿里巴巴对客户的深入了解与精辟剖析，就不会有今天的淘宝。

中国企业很少具备深入了解客户问题的系统化能力。国内业者传统上都以制造为导向，重点放在既有商业模式的再运用，将产品推到快速增长的市场上。但這些“推动”模式越来越难找寻获利增长空间。从交付到创造的转型需要结合更多的当地研发，以及培养更多市场导向的组织，同时结合对中国客户偏好的深入洞察，以及对当地商业环境演变的具体掌握。具体的条件包括适合中国的研究技术，以及懂得将客户洞察转化为行动的人才。

许多跨国企业都具备这些能力，但除非在中国经营已有相当年数，否则它们可能还是缺乏对国内市场的了解或对其有效应用的必要人脉关系。解决的方式就是真正在中国进行布局，而不是仅建立前哨站。这听起来浅显易懂，但如果没有来自高层的决心，很难付诸实现。例如许多采用“空降”部队的企业都遭到失败。但也有部



分跨国企业懂得进行必要投资,例如我们最近分别与两家大型实业公司的高层主管会面,两人都是从欧美派驻到上海,管理本公司的全球研发机构,而这么做的理由是为了接近中国客户,以及接近有利于跨国企业网罗人才的各大机构与大学。

#### 留住本地人才

中国的大学每年有超过1万名理工科博士毕业,同时还有越来越多的海归中国科学家,这些人才是跨国企业尽力想争取的。从事高管招聘的海德思哲公司(Heidrick & Struggles)近期的一次调研发现,受访的跨国企业中有77%的高层主管表示很难在中国吸引到管理人才,同时91%的高层主管认为员工流动率是最大的人才难题。

跨国企业比本土企业更难留住人才,但随着外国企业不断加码,本地业者势必也要跟进。例如中国企业非常善于通过营造类似社区的环境来建立员工的忠诚度,当竞争对手提高薪资挖人时,这一做法有助于留住部分员工,但单靠这一点未必足够。

由于国际品牌的影响力以及参与外企提供的导师制度或培训课程的好处日益明显,因此致力于为中国员工搭建有意义的职业发展道路的跨国企业,应该有机会在与中国对手日益激烈的研发人才大战中胜出。相关人才举措包括内部培训课程与师徒计划,以及与本地大学合作等。例如通用汽车就对顶尖大学的教授和工程学系的某些研究项目提供赞助,并通过这种方式与之建立更密切的关系,以便将来从中网罗优异学生,并在毕业前进行培训。

部分跨国企业更通过职位升迁的方式来

**失败是创新之母,但在中国并非常态,大部分中国企业充斥着循规蹈矩的文化,破坏或改变规则并不常见,甚至不被允许。**

激励中国工程师,例如从原来支持既有的全球计划的角色升任直接参与以本土市场为主的新创新活动的岗位。这种作法在制药业中日渐普遍,值得近年来在中国设立研发或创新中心的其他跨国企业学习(详见《制药业的创新:阿斯利康的中国经验》)。成功的关键因素包括设立清晰的目标,例如是以满足全球市场为主,或开发“立足中国、服务中国”的创?以及吸引或留住必要人才的明确计划。我们常在参访中看到壮观的研发中心,里面摆满了新颖的设备,但几乎空无一人,原因就在于要招聘或留住人才实在不容易。

#### 培养冒险的文化

失败是创新之母,但在中国并非常态,大部分中国企业充斥着循规蹈矩的文化,破坏或改变规则并不常见,甚至不被允许。因此,企业必须想办法让自动自发的精神更容易被接受且受到更多的鼓励。

我们发现一家顶尖太阳能公司的作法是将风险从个别创新者转移到创新小组。通过权责的分担和小组的支持,从事冒险与试验活动也变得更有安全感。从开发高效率电池技术到新制造流程,该公司所有开发工作都是通过这类“创

新工作小组”进行。对试图激发员工自动自发精神的部分跨国企业来说,小组工作模式也证实是相当有效的模式(有关该公司模式的细节,详见《中国汽车业创新:通用汽车观点》)。

创新文化起飞的速度也随行业的不同而有差异。我们看到中国高科技公司快速地朝西方模式靠拢,不断向客户学习并将学习所得用来开发适合中国的新产品(有关中国半导体行业的演进,详见《半导体:中国创新的新源泉?》)。此模式在中国的国有企业中则较不常见,因其往往充斥着官僚风气和标杆导向的组织文化。

#### 促进合作

跨国企业目前拥有优势的一个领域就是促进合作与内部的创意激荡,这有助于产生令人惊喜的新洞见与新商业机遇。但许多中国企业都因传统的组织与文化障碍而限制了这类交流。

尽管中国也有不少企业相当专业且规模很大,但欠缺进一步扩大组织同时保持内部充分合作的能力。他们严谨、直线式的新产品上市流程虽能确保快速商业化,但因过程中交接次数过多,反而容易流失重要洞察,这实际上也鼓励了效率至上的作法。

中国一家消费电子子公司多次试图改善其创新模式,高层主管不断鼓励员工提出新创意,同时支持所有创造一流流程的努力,新生代工程师也设计了高质量的产品原型,但最终还是不具备差异化特质的渐进式改善。看似最主要的原因是缺乏跨企业的合作,以及过度依赖建立与强化制造规模的流程。但真正的问题其实在于该公司整体业务的技术面与商业面缺乏适当的合作机制,导致具有获胜潜力的创意不能成功进入市场。随着中国的企业逐渐成熟,这类事件的发生机率应该也会日益减少。

中国尚未经历真正的创新革命,同时要从仰赖技术转移产生渐进式创新为主的模式,转变为以突破式创新为常态的模式,恐怕也需要一定的时间。中国政府在这过程中将扮演着重有力的角色,但变革的速度以及由谁主导变革,最终还是取决于中国国内企业和跨国公司的行动。

#### 麦肯锡季刊 McKinsey Quarterly

欧高敦(Gordon Orr)是麦肯锡公司亚太区董事长,目前常驻上海分公司;罗瑞麟(Erik Roth)为麦肯锡上海分公司的董事。  
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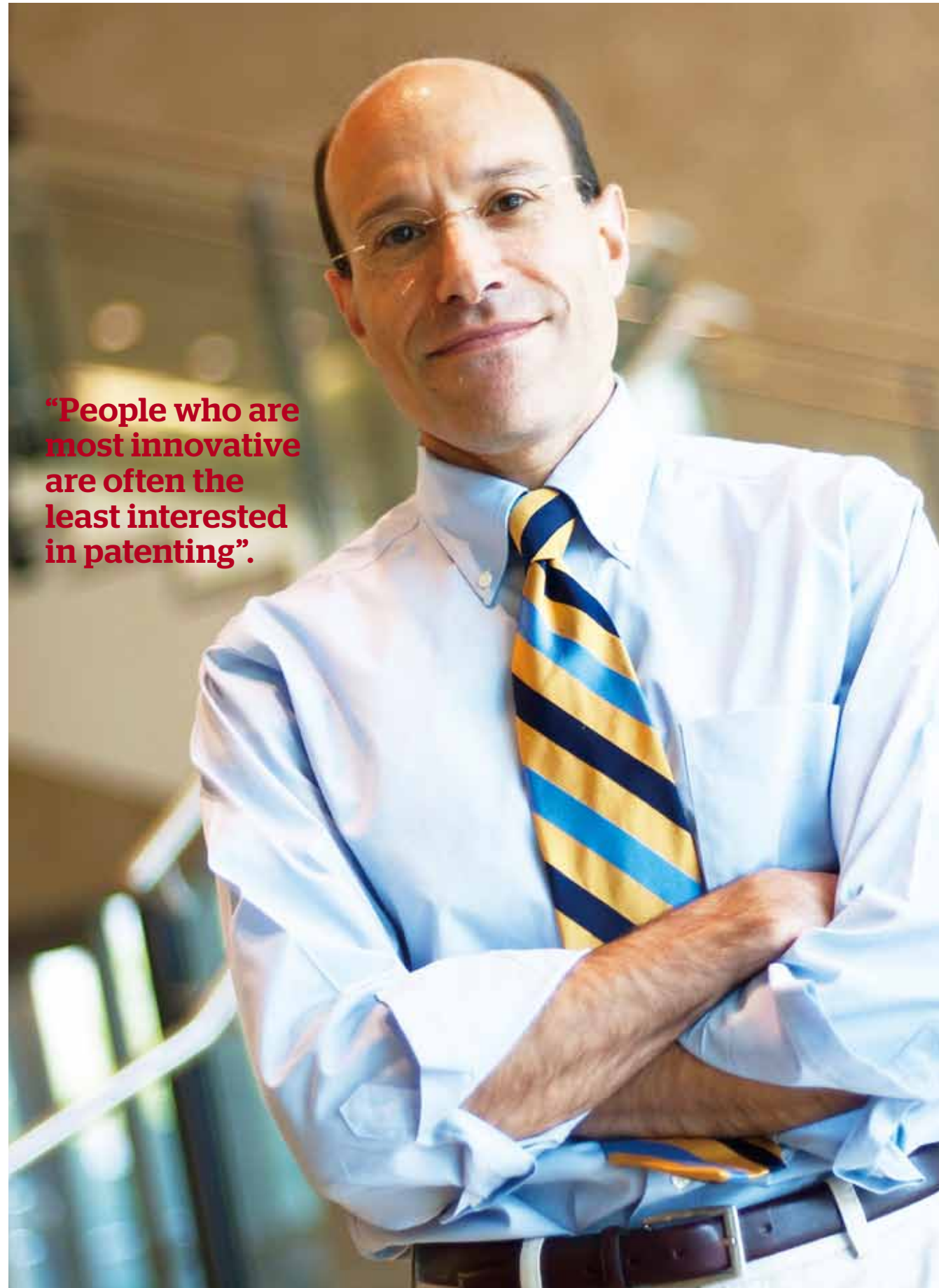
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**“People who are most innovative are often the least interested in patenting”.**

## Innovation Made in China

# Scaling Up at Low Cost

## 创新在中国：低成本量产

MIT Professor and innovation expert Edward Steinfeld sees true innovation in China's particular ability to combine tempo, scale and cost reduction in the manufacturing industry. What we haven't seen yet is truly new product innovation, he tells The Bridge.

Written by **Fabian Gull**, Shanghai

### **The Bridge: Innovation made in China - is fiction or reality?**

**Ed Steinfeld:** There is absolutely innovation going on in China. But innovation can be understood in many different ways. In China, we see a lot of commercial innovation, which is the ability to take new ideas and find ways to create commercial value. The ultimate innovation-related goal for advanced economies and especially for developing countries is how to convert ideas into value that improves people's living conditions.

### **What is China's standing concerning commercial innovation today?**

There are divided views in the world. In the US, people are fearful about China because so much manufacturing is happening in China and innovation is flowing from advanced economies to China. Ironically, in China, many are frustrated, too, because of all the manufacturing and its side effects and believe there is no or little innovation. I believe there is a truth that is apart from those two views. My feeling is that in manufacturing, there is a particular style of innovation that is unique to the Chinese business eco system.

### **What is unique and where do you see the country's innovation-related core strengths?**

In China, there is a particular ability to combine the three characteristics of tempo, scale and cost reduction. If you are in a manufacturing activity that needs to be scaled up or down while achieving cost reductions, I would argue China is probably the best place in the world to do that. Chinese companies have an edge over

multinationals when it comes to scaling and cost reduction. In the West, this is seen as a threat.

For many lower and higher-end industries (like electronics, wind, solar, complex machinery), absolute low cost is not the issue. Besides, there are a number of cheaper places in the world. The issue is time, which of course translates into cost. The question is - how quickly can you get the product to market, and how quickly can you get this product scaled up in a manufacturing process while maintaining high quality - all the while squeezing out cost - so that you can outcompete competitors globally. This all requires particular skills that reside at the intersection of upstream R&D, which is often done outside of the country, and downstream manufacturing.

### **Where do you see commercial innovation happening in China?**

Let me pick the wind turbine industry, for example. It is true that the state of the art products, such as advanced offshore turbines, are still generally produced by global companies. However, and again with great rapidity, Chinese companies have been able to take these designs - redesign, and reengineer them by analysing the systems - plus redesigning the supply chain and finding out which component can be swapped by cheaper ones without affecting the performance. So, you end up having a product similar to the leading product, but much less expensive to produce, and therefore to sell.

**“Indigenous innovation has become a mantra in China”.**





“Chinese are good at bringing over-engineered designs to reality”.

**Q Can such adjustments be considered innovation?**

I am not a lawyer. One can look at this saying it's stealing and copying. There are certainly cases of piracy that involve this kind of innovation. There is a more important aspect, though. There are many cases in which global companies come to China and absorb a bunch of the Chinese reengineering talent (often by acquisitions) so that the global company in itself can scale up the product more quickly and reduce cost. In many cases, foreign companies have been able to come up with middle range products specifically for China.

**Q Can you make an example?**

Look at what has been happening in the wind sector. Foreign design houses have been able to team up with China-based manufacturers. Together, they find ways to translate often over-engineered designs into products and improve the manufacturability. Chinese help bringing the designs to reality. Of course there are IP concerns. But in a number of cases, there is mutual trust and we see repeated cycles of this kind of collaboration.

**Q Isn't this rather benefiting from economies of scale, a business friendly environment, and relative low cost?**

This is an important question. There are definitely cases in which scale alone offers advantages. There are plenty of examples where European and American design houses were not able to manufacture their product at a low enough cost to succeed in the market. When they bring their product to China, it's not just scale that they are capturing, but experience in manufacturing and design skills related to product development.

**Q The number of patents in China is surging...**

...a number of Chinese academics are sceptical of these numbers, though.

**Q Why?**

There is a lot of pressure right now for firms and academics to patent. There are a number of financial incentives, rewards and programs. The government wants people to patent. Often, patents tend to be duplicative and sometimes involve very minor changes that might not merit a patent in other countries. Sceptics in China - and there are many of them - say, that many patents are of low value and somewhat false. I tend to agree with that. The heck of the point is that the people who are most innovative in manufacturing in China are the least interested in patenting and just keep their innovation to themselves. And the ones who patent the most may not be the most true innovators.

**Q To date, Chinese innovation is not really present to people outside China. Will upstream innovation - as in new product innovation - ever emerge from China?**

First of all, most Chinese feel that China is not innovative. So it is not a crazy or exclusively international idea. Secondly, China-based innovation is already internationally successful as it is embedded in many global products like electronics, cell phones, solar modules or batteries. But it is not obvious to the end consumer. But what we haven't seen yet is truly new product innovation.

**Q Is this going to change?**

I think it will. But it is going to take time. I would be surprised if in 20 years we don't see it. Bear in mind, no economy in the world of a similar size in the per capita sense is associated with product innovation. So, it is not shocking that China isn't either. But many Chinese are concerned about that.

**Q Do you see a growing social interest in entrepreneurship?**

Yes I do. Many of the students I interact with are eager to start their

own company in technology, media, arts, etc. The buzz has arrived. The education system is still not where it should be, also in terms of encouraging entrepreneurship, so the students are sort of ahead...

**Q Commercializing innovation requires an idea and money. But it also takes a culture of risk-taking and a culture of failure, as failure is an important element of innovation. Where is China in this respect?**

I agree with you. But these attitudes are not culturally bound. I tend to feel it is more a development issue. The risk-taking mentality is different from what we see in the West. There is a very strange combination of conservatism and just wild willingness to pour in money into fixed assets. Speaking personally, my parents grew up in the great depression, were uneducated and poor. So, their desire for their children was for them to find a reliable profession. Many of my Chinese students come from families having the same attitudes. But I clearly see more and more risk-taking young people who are willing to try it out.

**Q Do you personally invest in some of your students' start-ups?**

No, I keep my money out to avoid conflicts of interest. But I tell you, I am continuously kicking myself because I have been exposed to a number of ventures that have made a lot of money - and I could have as well - if I invested early (laughing).

**Q Do innovation capabilities in China differ from the West?**

What distinguishes global players from Chinese is the ability to build up and use multinational R&D networks. No Chinese company has been able to do that yet. The challenges are huge. Firstly, it's an HR, managerial, and knowledge management challenge. Secondly, multinational companies are more effective in attracting and 'cherry picking' the best and brightest young people in China. Thirdly, multinationals are better than local companies at providing new skills, whether it is management skills, training, or people-to-people skills.



**Q What is the number of world-class universities in natural sciences in China?**

World-class is a complicated term (laughing). I might regret saying this, but I really don't think that any Chinese universities right now are at the cutting edge. They are not leading the world. There are excellent Chinese universities with very talented staff and students, but none of these educational institutions have achieved truly world leading status.

**Q What is lacking?**

The curriculum today is still delivered in a very top-down hierarchical fashion, so professors lecture and students listen. There is very little 'action learning' at Chinese universities and they also tend to be extremely bureaucratic. Also, the sheer numbers of students and the very high demand for education are making the delivery of a quality product very difficult. But looking at the trend, it is also true that universities are on a very rapid move upward. And it is the students themselves that are driving this process. They know what 'world-class' is and they are demanding it. Universities feel this pressure.

“Chinese students know what 'world-class' is, and they are demanding it”.

**Q How would you qualify the role of returnees for Chinese innovation?**

They are all over the place. I wouldn't want to suggest that the solution for all of China's problems lie in the hands of returnees. That is not the case. But it is very positive that universities are increasingly open towards people who have been educated globally. I remember in the early nineties, there was such hostility to returnees throughout the system. This has completely changed. Many returnees are quite patriotic, wanting to make a contribution to their society. The partnering up of local and foreign talent is a very potent source for change.

**Q China ranks 34th on the INSEAD Global Innovation Index 2012. Interestingly, the top ranking nations are all small countries like Switzerland, Sweden, Singapore or Finland. Is there an explanation for this?**

Without any reservation, I would say that innovation is not contingent on the size of the country and the size of the economy. Some of the most innovative economies are innovative precisely because they are outwardly focused and because of their small domestic market. Switzerland is a perfect example. Neither do small countries have a particular taste that is so powerful that it is going to determine global products. These 'small in scale' eco systems just combine incredible human talent, creative companies, very good universities and very outward-looking populations that allow for great innovation.



### ▣ What is the role of indigenous innovation in China's latest Five-Year-Plan?

It has become a mantra. You pour a lot of money in, then you import and absorb technology, but then you indigenize it and produce it in China for the global market. Japan and South Korea also did that.

### ▣ Are there risks to that approach to indigenization?

Yes, there are. A lot of innovation involves cross-disciplinary and cross-sectoral efforts. Some of the most interesting innovation in the energy sector doesn't necessarily involve the designing of a new kind of nuclear power plant or wind turbine. But it involves the delivery of a business solution that might involve I.T. for optimizations. These kinds of innovations combine mechanical and electrical engineering with design knowledge. Companies doing so, not only have a remarkable ability to hire people, but also understand developments across industries. I have heard many Chinese officials and academics pointing to the example of IBM - a company that redefined itself from doing physical products to the delivery of business solutions. The company is able to jump across sectors. The government's emphasis on pushing companies to innovate on defined products and in defined industries (like air planes, gas turbines) by definition, ensures that Chinese companies are always one step behind the industry leaders which are moving into cross-sectoral innovation.

### ▣ What can be done instead?

To some extent, it would be wise to back off a little bit and spend

## “China is probably the best place in the world to scale up at low cost”.

more time in building markets for technology instead of defining the technology. Let the market define the technology. Together with better venture capital financing, that would be much healthier to indigenous innovation output. Often, state-owned companies are the least innovative, but are so big that they can control the markets.

### ▣ What are the impacts of loose intellectual property (IP) standards in some areas? Does it help to catch up faster, or is it hindering from investing in innovation?

It does both. Countries that are in a self-described position to catch up usually aren't so excited protecting IP. This was no different in the US or Switzerland in the 19th century. The shaky IP situation encourages process innovation and discourages new product innovation. Also, Chinese complain about their technology being stolen, so there is an increasing domestic pressure for better IP protection.

### ▣ Is the Chinese business model “give us technology, we give you the market” still alive?

Absolutely. Because global markets are in such a downturn, this model is as alive as it was ever before, maybe moreso. But this approach can be used to the mutual benefits of both domestic and global players.

撰文\_方必安, 上海

### ▣ 创新在中国——这是一种幻想还是现实?

**Ed Steinfeld:** 现在创新已经在中国发生, 不过创新可以通过许多不同的方式来理解。在中国, 我们可以看到许多商业创新, 也就是通过新思路和新方法创造商业价值的能力。对于先进经济体尤其是发展中国家来说, 最顶级的创新目标是如何通过思想转换为价值来改善人们的生活条件。

### ▣ 中国目前的商业创新处于什么阶段?

世界上人们的看法不同。美国人害怕中国, 因为大量的制造业在中国进行, 创新也从先进经济体流往中国。然而, 具有讽刺意味的是, 在中国, 制造业及其副作用使人们感到担忧, 许多人认为根本没有或者只有很少的创新活动。我认为事实必定在这两种看法之外。我的感觉是在制造业领域, 中国的商业生态系统中存在着一种特有的创新形式。

### ▣ 中国有哪些特殊之处, 与创新相关的核心实力在哪里?

中国具有将速度、规模和降低成本结合在一起的特殊能力。如果一项制造活动需要在降低成本的同时实现规模膨胀或缩小, 那么我会说中国应该是最适合的地方。在规模经济和成本控制方面, 中国企业拥有跨国企业不能企及的优势。对于西方来说, 这就是一种威胁。

## “本土化创新在中国已经成为一种准则”。

对于许多低端和高端产业(如电子、风能、太阳能和复杂机械)来说, 实现绝对低成本在中国不成问题。虽然世界上还有一些其他廉价的地区, 但它们的问题是耗时长, 这就相应的转化为了成本。将产品投放市场的速度、在保证高质量和低成本的情况下实现规模化生产的速度, 都是制胜于全球的决定性因素。这都取决于上游的研发——常常在国外完成——和下游的生产的结合能力。

### ▣ 中国的商业创新主要发生在哪些领域?

以风机行业为例, 虽然目前最前沿的产品如高科技海上风机的制造仍由跨国企业生产, 但中国企业正迅速通过对产品设计进行再设计、通过分析产品系统进行再造工程、通过对供应链的再设计从而找出不影响性能的情况下

MIT 教授及创新专家 Edward Steinfeld 认为在制造业领域, 中国具有结合速度、规模和降低成本的创新能力。我们目前还没有看到的是新产品的创新, 他这样对《桥》说。

可以用较便宜的零部件替换的零部件。也就是说, 经过再次设计的产品与原产品性能相似, 但成本和价格却低得多。

### ▣ 这种调整应该被视为创新吗?

我不是律师, 你可以说这是偷窃和复制, 也有一些侵权案例就是类似的创新活动。不过还有很重要的一方面, 有许多跨国企业来到中国后, 大量引入具有再造工程能力的中国工程师(往往通过并购的方式)以实现快速量产和降低成本的目的。在很多情况下, 外国企业也实现了专门为中国市场生产的中端产品。

### ▣ 能举个例子吗?

比如风电行业, 外资设计公司与中国本土制造商联手, 找到将工程设计转化为产品的方法, 并提高产品的可制造性。中国企业将设计转化为产品。当然也有知识产权的问题, 不过大多数情况下双方都建立了共同信任, 这种协作形式也在不断重复。

### ▣ 这主要受益于规模经济、良好的商业环境以及相对低成本吧?

这个问题很重要。肯定在一些案例中只有规模方面的优势, 也有很多欧洲和美国设计公司不能以足够低的成本生产产品从而难以制胜于市场的案例。当他们把产品带入中国来时, 他们寻求的不只是规模, 还有生产经验以及与产品开发相关的设计技能。

### ▣ 中国的专利数量在不断增长……

……不过一些中国学术专家对这些数据表示怀疑。

### ▣ 为什么?

现在在企业和学术领域都没有很大的专利压力, 政府为了鼓励人们取得专利权, 也推出了一系列的资金鼓励措施、奖励和相关项目。专利往往具有复制性, 有时只是基于其他国家专利的一个细微的改变。中国的怀疑论者很多, 他们认为许多专利的价值很低, 在某种程度上具有虚假性。我同意这种说法。问题是中国制

造业中那些最具有创新性的人们对专利不感兴趣, 他们的创新只限于自己使用。而那些申请专利最多的人往往不是最具有创新性的人。

### ▣ 迄今为止, 中国创新还没有真正的展现给外界。新产品创新这样的上游创新真的会出现在中国吗?

首先, 许多中国人认为中国不具有创新性, 因此这并不是一种毫无根据或纯国际性的看法。其次, 在中国发生的许多创新都已经取得了国际性的成功, 因为这些创新已经广泛应用于包括电子产品、手机、太阳能模块和电池等在内的许多全球性产品中, 只是销售者没有注意到这种创新。不过在新产品方面我们还没有看到真正的创新。

### ▣ 这种情况会改变吗?

我想会的, 但需要很长时间。我认为在未来20年里就会发生。请记住, 世界上拥有相似人均经济规模的经济体都还没有出现产品创新的迹象, 因此创新尚未在中国出现并不令人惊讶。不过许多中国人已经开始对此感到担忧。

### ▣ 你有没有注意到社会上对创业的兴趣越来越浓厚?

我注意到了。我接触的许多学生都希望创立自己的企业, 包括技术、传媒和艺术等方面。信号已经出现了, 目前的教育体系仍待完善, 包括在鼓励创业方面, 因此学生已经开始走到了创新的前方……

### ▣ 创新商业化需要成熟的思路和足够的资金支持, 在文化上它还要求冒险性和不畏失败的精神, 因为失败是创新的重要要素。在这方面中国目前处于什么阶段?

我同意你的说法, 不过这种对待创新商业化的态度并不受文化的束缚。我认为这应该被看作是一个发展的问题, 这里的冒险精神不同于我们西方的认识。现在中国出现了一种保守思想与把资金注入固定资产的疯狂意愿的奇怪结合。就我个人来说, 我的父母成长于大萧条时

## BIO BOX

**Edward Steinfeld** (46) is a professor of political economy at the Massachusetts Institute of Technology (MIT) Department of Political Science and co-director of the China Energy Group in the MIT Industrial Performance Center. Steinfeld received his PhD in political science from Harvard University. In addition to a variety of academic articles, the American researcher is the author of *Playing Our Game: Why China's Rise Doesn't Threaten the West* (Oxford, 2010) and *Forging Reform in China: The Fate of State-Owned Industry* (Cambridge, 1998). Steinfeld is also the author of numerous articles in both academic and non-academic journals including *The Far Eastern Economic Review*, *The Washington Post*, *The Wall Street Journal*, and *The South China Morning Post*. Steinfeld is a member of the Board of Directors of the National Committee on US-China Relations, as well as a member of the academic committee of the Center for Industrial Development and Environmental Governance at Tsinghua University. He is on the China Advisory Board of Swiss machinery manufacturer Buhler. Steinfeld is currently on an academic sabbatical at Tsinghua University in Beijing. He has been living in China on and off since 1989, he is married and has two sons. He has been teaching at MIT for the last 17 years.

**Edward Steinfeld** (46岁) 是麻省理工大学 (MIT) 政治科学系政治经济学教授, 他也是MIT工业效能中心中国能源小组的联合主任。Steinfeld在哈佛大学获得了政治学学士、硕士和博士学位, 他曾发表过许多学术论文, 包括: 中国的逻辑: 为什么中国的崛起不会威胁西方 (牛津, 2010)、中国改革: 国有产业的宿命 (剑桥, 1998), 他还在远东经济评论、华盛顿邮报、华尔街日报和南华早报等学术和非学术期刊上发表过多篇文章。Steinfeld是美中关系全国委员会董事会成员, 清华大学工业发展与环境治理中心学术委员会成员, 瑞士企业布勒公司中国顾问团成员。Steinfeld已婚, 有两个儿子, 他于1989年首次来华, 现在清华大学进行学术休假, 他已在MIT任教达17年。





“那些最具有创新性的人们对专利不感兴趣”。

期，他们没接受过什么教育，也很贫穷，因此他们对子女的期望就是找到一份可靠的职业。我的许多中国学生的家长也持有类似的态度，不过我清晰的看到越来越多具有冒险精神的年轻人愿意尝试创业。

#### Q 你有没有在你的学生创业中投资？

没有，为了避免利益冲突，我没有把资金的问题牵涉进来。不过，当我看到许多商业冒险带来大量利润的时候，我就会自责，后悔没有早点投入（笑）。

#### Q 中国的创新能力与西方不同吗？

全球性企业不同于中国企业的地方是建立和使用跨国研发网络的能力，现在还没有中国企业能做到这点。中国面对着巨大的挑战，这是一种人力资源、管理和知识管理方面的挑战。另外，跨国企业更容易有效的吸引和挑选中国最有才能的年轻人。再次，在提供新技能方面——不管是管理技能、培训还是人与人之间交流的技能——跨国企业都比本土企业更具优势。

“中国学生知道什么是世界级的水平，并要求达到这种水平”。

#### Q 在自然科学方面中国有多少世界级的大学？

“世界级”是一个复杂的术语（笑）。很遗憾，我认为中国还没有什么大学具有前沿的水平，它们还没有领先于世界。中国有一些很好的大学和十分优秀的师资队伍和学生，不过这些教育机构里还没有真正达到世界级领先水平的。

#### Q 它们所缺乏的是什么呢？

现在的课程仍是通过一种自上而下的层级方式教授的，也就是教授讲课，学生听课。中国大学里的学习活动很少，而且官僚主义盛行。另外，现在学生的数量以及人们对教育的高需求使得教育的质量很难提高。不过，从趋势上来看，中国的大学也确实在以很快的速度向前发展。推动这种发展的正是学生自己，他们知道什么是世界级的水平，并要求达到这种水平。大学机构已经感受到了这种压力。

#### Q 你怎么看海归在中国创新中的作用？

现在海归很多，我并不认为解决所有中国问题的办法掌握在海归手里，并不是这样的。有一点值得乐观的是，大学开始越来越愿意为那些接受过全球性教育的人们开放。我记得在九十年代早期，在整个教育体系里，人们都对海归持有一种敌对的态度。现在局面已经完全转变了。许多海归都很爱国，希望对社会有所贡献。本土和外来人才的结合是改变最有效的来源。

#### Q 中国在欧洲工商管理学院全球创新指数（2012）中排名第34，而有趣的是，排在最前面的是像瑞士、瑞典、新加坡和芬兰这样的小国家，怎么解释这种现象呢？

毫不保留的说，创新跟国家的规模以及经济的规模无关。一些最具创新性的经济体之所以具有创新性正是因为它们针对的是外部市场，以及其国内市场的局限性。瑞士就是一个很好的例子，小国家并没有能够决定全球产品的强大的特殊品位，这些小型规模的经济体系将人才、创新企业、顶级大学和外向型人口相结合从而实现巨大的创新。

#### Q 本土创新在中国最新的五年计划中具有什么地位？

它已经成为一种准则，大量的资金进入，通过进口吸收技术，然后将技术本土化，并为全球市场生产产品。日本和韩国采取的也是这种做法。我个人认为，这种方式的本土化具有风险性。

#### Q 例如？

许多创新包括跨学科和跨部门的努力，一些在能源领域发生的最吸引人的创新并不一定是设计一种新型的核电站或风机，它包含的是IT优化的商业方案的传递。这种创新将机械与电子工程及设计知识相结合，这种企业不仅具有寻找人才的突出能力，还具有了解不同产业发展的能力。我听说许多中国政府部门和学术领域以IBM为例，IBM正是一家从生产实体产品重新定位为传递商业解决方案的企业，它可以纵横多个产业领域。政府重视通过定义的方式推动企业在既定的产品和既定的产业领域（如飞机和燃气涡轮机）进行创新的做法印证了中国企业在跨产业创新方面总是落后于行业领导者一步。

#### Q 有哪些替代的做法吗？

在某种程度上，更明智的做法是后退一步，花更多的精力在打造技术市场上，而不是在定义技术上。让市场来界定技术，通过与风险资本融资合作将是一种增加本土创新产品的更为健康的方法。国有企业在创新性上往往最差，但是由于规模巨大，它们常常是市场的操控者。

#### Q 某些地区宽松的知识产权标准有哪些影响？

它是否有助于快速赶超，还是说创新投入在制约它的发展？

两方面的因素都有。那些处于自我描述状态的国家一般都对知识产权保护兴致不高，19世纪的美国和瑞士也是如此。知识产权的不确定地位鼓励过程创新，抑制新产品创新。中国企业也在抱怨技术被剽窃的问题，因此，国内制定更好的知识产权保护标准的压力越来越大。

#### Q “给我技术，还你市场”的中国商业模式还存在吗？

当然。由于全球市场下滑，这种模式仍然存在，可能更为盛行。不过这种模式可以帮助国内企业和国际企业实现共赢。

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# Two Snapshots of Chinese Innovation

## 中国创新两大特写

Chinese innovation is evolving in diverse ways and at an uneven pace across a range of different industries. Presented here are ground-level views from two of them: automobiles and semiconductors.

General Motors and its Chinese joint-venture partners sold more cars in 2010 in China (2.35 million units) than in the United States (around 2.2 million units). In an edited version of an interview with McKinsey's Glenn Leibowitz and Erik Roth, GM China president Kevin Wale explains the importance of team-based innovation efforts in China and describes GM's rapidly growing Advanced Technical Center in Shanghai. He also observes that innovation in China's auto industry is more about commercialization models than technical achievements.

While automotive innovation has had years to take hold, innovation on the leading edge of the semiconductor business remains nascent. But barriers that once held back local chip makers now appear to be eroding. This means global players will face some tough trade-offs in the years ahead. The challenge: how to participate in China's growth – which may well require joint ventures with domestic players – without sacrificing valuable intellectual property. McKinsey's Bob Dvorak, Sri Kaza, and Nick Santhanam describe this dilemma and present a few ideas for multinational companies trying to overcome it.

## Automotive Innovation in China: The View From General Motors

Written by **Kevin Wale**, Managing Director of GM China

### Innovation through commercialization

There is probably more innovation in going to market and in thinking about new business opportunities than there is in technical innovation. Technical innovation is lagging behind the rest of the world in maturity. The country is trying to get there as quickly as it can but doesn't have the deep graduate research capability that the rest of the world has.

What China does better than any place else in the world is to innovate by commercialization, as opposed to constant research and perfecting the theory, like the West. When the Chinese get an idea, they test it in the marketplace. They're happy to do three to four rounds of commercialization to get an idea right, whereas in the West companies spend the same amount of time on research, testing, and validation before trying to take products to market. The electric vehicle is a good example. The Chinese view is that it's not



going to be perfect, and they're not trying to make it perfect from day one. They've got a few more series of improvements to go, and they'll work on them in parallel with finding out what the customer really likes and adapting to that. That's an innovative way of doing innovation, something that the rest of the world is struggling to understand. In our business in China, if we don't innovate through or with commercialization, we're going to lag behind our competitors.

### The power of teamwork

We are trying to set up a small unit that is designed to focus on what some people call "innovation," but what I call "predator versus prey." Everyone's coming after us, and we want to stay the predator. The

only way to do that is by having people who are focused on who is doing what to us and where the opportunities are.

We find the deployment of small task teams is by far the best approach to drive these innovative ideas. Take OnStar for instance, which was actually quite innovative for this market (OnStar, a subsidiary of GM, is a vehicle safety, security, and information service system). The way we did it was well ahead of others. These systems are released by code, and they're now up to OnStar 8. We deployed the absolute latest and went straight to 8; we didn't start at 1. It was a calculated risk that we could make a business model that could benefit from this technology and cover the significant cost and technical support required to



support that. Being out there, it feels like you're in the Wild West. Four to five of you are in a team. You don't have a lot of support, but a lot of responsibility.

In our joint ventures, we're happy to take innovation from suppliers any day of the week. We encourage suppliers to come up with new ideas. We have a lot of local technology in our cars. Our people wanted to lead and they worked with suppliers to develop new ways of doing things. Lighting systems and infotainment are pretty much at the cutting edge of what's available.

### R&D and advanced design centers in China

We wanted to take advantage of some of the great talent that's going to be coming out of the universities. They are going to be coming out in droves. They are not at the advanced graduate stage, simply because they don't have the mentors in the system, but they will be coming out, and there's plenty of good talent now that we can staff.

We also want to do research and applied development that is close to the biggest market in the world. It really is very easy to ignore the realities of life when you don't confront them every day. So we want to make sure that we have activity in the market, with people who speak the language, understand the culture, and confront that culture every day. The first building that is going up is a battery lab. With the electric vehicle, there will be a lot of suppliers, a lot of government support; the rules will be different, and the applications will be different. We want to be here, where we will be learning that every day and reacting to it every day. It is the same research capability we have in Detroit, but we are able to do the work here and frame it around real local knowledge.

We also will have an advanced design center here for the same reason. It is hard to imagine doing advanced design without taking into account the influence of the largest and fastest-growing market in the world. So we are putting in a starting point where we will have the basis for future creativity in the country.

The leader of our R&D is a local Chinese who has worked in R&D in China and has excellent connections with the local universities. We also have excellent connections with universities, and we run multiple projects through a program called "PACE" (Partners for the Advancement of Collaborative Engineering Education) and through cooperative development. That will be the starting ground for recruiting.

Also, we are offering more internships than we normally do because we want to take the best young technical talent. Initially, we will supplement them with skilled researchers from the rest of the world, primarily the United States. But at the end of the day,

we will use local skilled talent. We don't see a problem for the size of what we're doing here. It's a big site, but it's not a big number of people at a particular time – probably 300 people to start with – among all those areas: design, advanced research, powertrain engineering.

### Integration with global product development

I would say with a fair degree of confidence that we integrate our Chinese operations fully into our global operations better than anyone else in the world. If we are working on a global program, we will be doing serious work down the road the same way as they are doing it in the United States or Germany.

Our engineering centers two years ago introduced the subcompact Chevrolet Sail, which was completely designed here. The low-cost passenger vehicle was difficult to provide out of a global solution because we were trying to cater to too many global needs. That opened the opportunity for the Sail. We were able to focus on addressing a solution that wasn't going to come out of a global package.

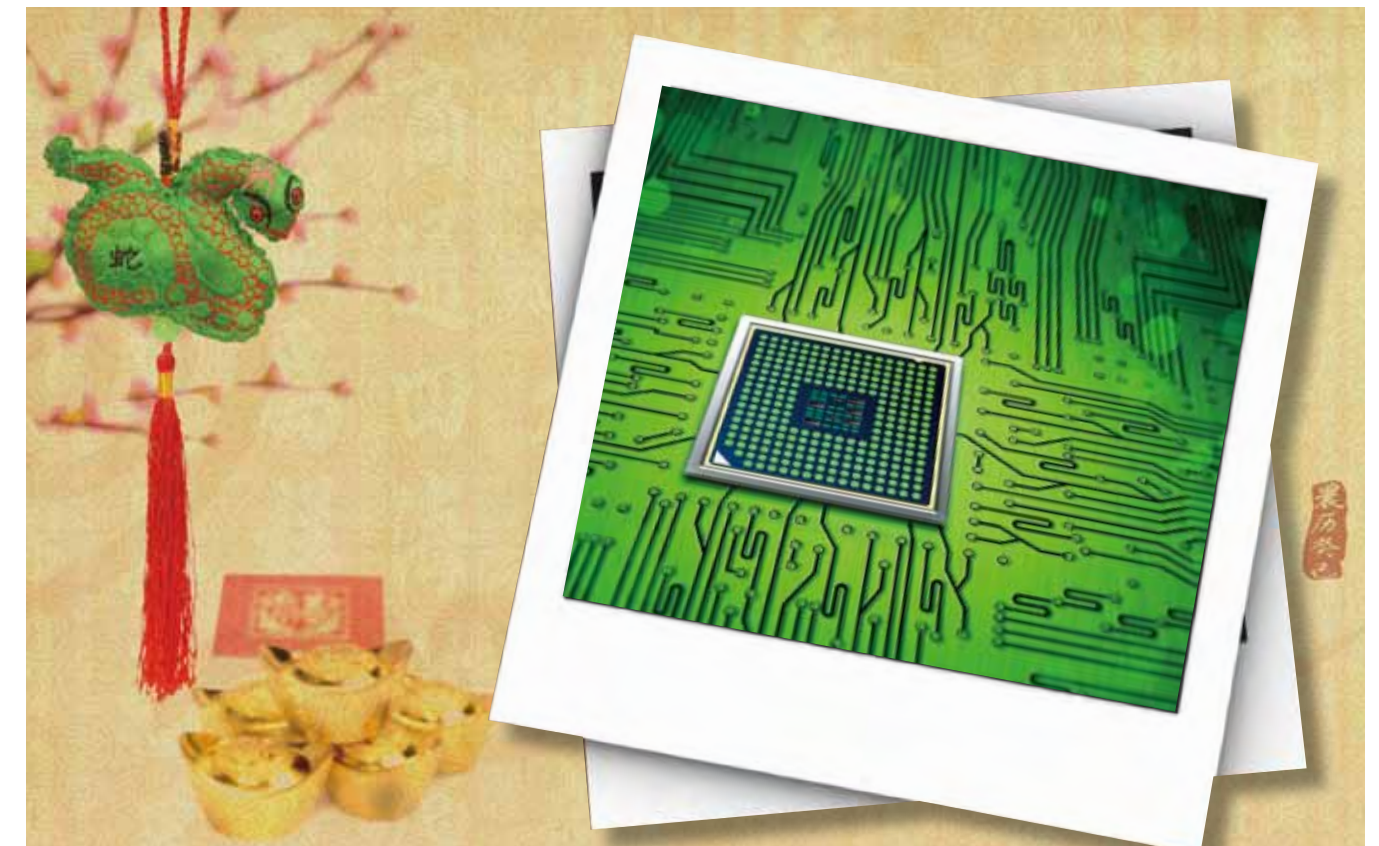
The latest Buick GL8 minivan was introduced here and was done pretty quickly through capability that is built here in China, using a combination of on-the-job mentoring, coaching, and expert assistance from overseas, as well as a very structured development process from our global team. The GL8 is an old GM architecture that no one else wanted, but it's a terrific product for China. It has turned into an unbelievably good-looking and highly desirable car. I can't tell you how many senior executives and CEOs ring me up trying to speed up their provision of the GL8.

The Baojun brand is a lower-priced sedan aimed at consumers who live outside of China's major markets. It's just a massive opportunity in China, and the ability to meet the income needs and transportation needs of that group of people was never going to be met by GM in a traditional sense.

麦肯锡季刊 McKinsey Quarterly

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# Semiconductors: A New Source of Chinese Innovation?



The semiconductor industry is a powerful example of the tension surrounding China's potential for innovation. The country's leaders understand the important role silicon plays in product innovation, so for two decades they have sought to create a more potent domestic semiconductor industry – with mixed results. China purchases 33 percent of the world's chips (\$100 billion worth), using them both in products sold domestically and in exports. But most of the Chinese industry competes in commoditized areas such as chip assembly and testing, and Chinese semiconductor companies hold 4% or less of the most prized segments of the global value chain in chip design and manufacturing.

This article highlights four obstacles that have kept the country in check, the potential for their impact to diminish, and the resulting challenge for global producers that have been reluctant to share key elements of intellectual property (IP) with Chinese players.

### Shifting winds

Structural changes in the industry and the marketplace, coupled with new industrial policies that promote next-generation technologies

and technology transfers from abroad, are combining to weaken the barriers that have held China back.

### Chips designed for China's needs

Chinese players have exerted little influence on semiconductor design, technology standards, or chip selection for major product categories such as mobile phones, laptop computers, and LCD televisions. Most decisions about design and functionality come from global champions and reflect the preferences of consumers in Europe, Japan, and the United States.

But that dynamic is shifting, along with the rising economic power of China's middle class, with its increasingly diverse needs. Some Chinese companies are now moving to the forefront of a "built in China, for China" movement. Their clout is likely to mean that more semiconductor platforms will be designed locally. Consider the fact that in 2010, Chinese consumers purchased 19 percent of all PCs sold throughout the world, 18 percent of the LCD TVs, 14 percent of the mobile phones, and 26 percent of the automobiles (all by unit volume).



China's manufacturers, meanwhile, are leveraging this domestic scale to sell in global markets: Lenovo now ranks second in global PC sales and ZTE fourth in the manufacture of handsets. Huawei ranks among the top three world players in all segments of telecom equipment.

Export controls lose their bite

The home governments of leading semiconductor manufacturers have long banned the sale of leading-edge manufacturing technology to China. Current controls by Taiwan and the United States, for example, bar the export of equipment used to make chips below the 65-nanometer threshold. As a result, Chinese manufacturers are at least two generations behind the highest-performing 32-nanometer chips.

Market changes, however, are eroding the impact of these bans. Leading-edge semiconductors represent only 14 percent of global demand - half the market share of 2003 - as fewer devices require the highest levels of processing power. That's particularly true of devices favored by China's new consumers, whose purchases often involve entry-level mobile phones and TVs. The result: a more level playing field for China's players, some of which can now use manufacturing processes that are two generations behind to mass-produce chips that represent sizable markets (for example, analog integrated circuits and microcontrollers).

Reordering China's high-tech zones

China's industrial planners made missteps in early efforts to incubate a semiconductor industry. Rather than concentrate investments and incentives in one geographic area, as the Taiwanese did with Hsinchu Science Park, government officials dispersed their bets, financing fabrication sites in 19 cities. This fragmentation hindered the establishment of a vibrant semiconductor ecosystem with clusters of manufacturing prowess and design talent.

China has corrected its course, however, and now is concentrating more investment in a smaller number of cities – for instance, Chengdu, Dalian, and Shanghai. These centers have a stronger base of expertise, as well as a critical mass of manufacturers and suppliers. They are attracting investment from global leaders and developing more broadly based value chains in areas such as wireless communications systems.

A new regime for technology transfer

Foreign players own most of the IP across the semiconductor value chain, and the lion's share of revenue streams for the design of semiconductors and the processes used to manufacture them goes to non-Chinese companies. While the Chinese have found ways to acquire or piece together IP to build a strong position in many industries, the challenge in semiconductors is uniquely difficult because of the complexity of chip design and manufacturing and the high level of materials science that is required.

China, however, has one of world's best-funded and ambitious tech industry policies, and acquiring semiconductor know-how and IP remains a high priority. Increasing China's chances for success is a new, two-pronged initiative that will increase the pressure on global companies to share their IP with Chinese partners. The first part involves stepped-up investments and new policy directives that will advance large, next-generation technology platforms such as cloud computing, the Internet of Things, and hybrid electric vehicles. These three markets represent tens of billions of dollars in opportunities for global and domestic semiconductor companies. The second part sets targets for indigenous innovation, with the goal of reducing dependence on foreign technologies to 30 percent, from the current 50 percent. Government purchases of products and services, from mobile phones to cloud-computing networks, will favor products that incorporate high levels of domestically developed technology.

Strategic choices for global players

For global semiconductor players, the dilemma is clear: how to participate in what will probably be the world's most dynamic technology growth environment while safeguarding core IP and know-how. These companies must remember that China seeks to use transferred IP and manufacturing methods to create its own champions that can compete with global countries around the world, not just in the local market.

The experience of high-speed rail players provides a cautionary tale. Global companies were encouraged to form partnerships with Chinese ones to develop a national high-speed network. Some foreign companies favored a relatively restrictive sharing of IP, but a classic prisoner's dilemma scenario played out: the attractiveness of market access gave global players a powerful incentive to ditch hard-line positions. In the end, industry partnerships were formed on less restrictive terms. Within three years, Chinese companies had absorbed key elements of the core technology, and since 2007 they have won nearly \$20 billion in new rail contracts.

Global semiconductor players thus will need to be clear about the terms of engagement with potential partners. China's complex fabric of national, provincial, and local policy makers and companies creates a considerable opportunity for customized strategies. Forming ventures with strictly delineated IP transfer terms is the obvious solution. Global leaders such as GE (in rural health care) and ABB (in electric motors and power transmission) are exploring alternatives.

One option is for foreign companies to launch indigenous R&D centers with Chinese universities and institutes and to focus these facilities on developing technologies for unproven but promising next-generation domestic markets. Multinationals that participate in such ventures align themselves with China's goals while they

contain IP risks to markets that are still evolving. Another approach is to focus on local product development in partnership with downstream players such as auto manufacturers. This strategy helps multinationals meet local-technology requirements and provides for more active risk management.

中国的创新方式与步伐在各行各业呈现出截然不同的景象。本文将阐述来自汽车和半导体两大行业对创新的基本观点。

汽车业创新：通用汽车的观点

通过商业化创新

新产品上市和新商机的探索,可能比技术创新更受到汽车行业的重视。中国的技术创新成熟度仍落后于其他国家,虽然亟欲迅速并驾齐驱,但仍缺乏其他国家所具备的深厚研究能力。

但是,中国有一点做得比世界上其他国家更好,就是商业化创新。中国不像西方国家一样不断研发、完善技术理论。在中国只要一有新构想出来,就会马上在市场上进行测试。只要构想最后能够成功,中国人不介意进行三四轮商业化;西方企业则是把同样长的时间花在研究、测试和验证,然后才让产品问世。电动车就是一个很好的例子。中国人的想法是,世上没有完美的电动车,他们也不试图一开始就制造出完美的电动车。他们会进行好几次的改善,与此同时找出客户的喜好并投其所好。这是一种创新的创新方式,一种其他国家还在努力了解的创新方式。在中国,如果我们不通过或利用商业化实现创新,就会被竞争对手抛在脑后。

团队合作的力量

我们试着成立一个小部门,部门的成立宗旨是专注于一般人所谓的“创新”,不过我却称之为“掠食者与猎物之争”。在这一行,大家都追着我们跑,我们想要一直当“掠食者”。要做到这点唯一的办法就是让一组人全心全意观察他人如何应对我们,并找出市场机会所在。

我们发现布署小型团队明显是推动创新构想最好的方法。以安吉星(OnStar)为例,对市场来说这其实是项创举。我们的做法超前了其他竞争对手。系统的推出都按照顺序编码,现在已经有OnStar 8了。我们其实采用最新技术,直接来到8,而非从1开始。我们靠着精心计算过的风险建立了一套新的商业模式,不但能受益于系统技术,而且能应付维持系统所需的庞大成本与技

术支持。团队成员不过四五人,他们没有太多支援,只有很重的责任。

在我们的合资企业中,我们愿意随时采纳供货商的创新观点。我们鼓励供货商提出新想法。我们的汽车采用了很多本地技术。我们的员工想要扮演领头羊的角色,他们与供货商合作开发新的做事方式。我们的照明系统和信息娱乐几乎是市场上最先进的。

中国的研发与前瞻设计中心

我们想要网罗即将进入社会的优秀人才。他们将大举出笼。他们没有进入研究所阶段,因为没有遇到好的导师,但是他们将步入职场,其中有许多才华横溢,能为我们所用。

我们也想要贴近全球最大市场,从事相关研究和应用开发。如果你没有每天面对现实生活,很容易会忽略了生活的种种现实。因此我们要确保在市场上的参与度,让能说本地语言、了解本地文化的同仁每天面对这样的文化。我们的第一栋建筑是电池实验室。伴随着电动车而来的将是许多供货商和政府支持;游戏规则也将改变,技术应用同样不可同日而语。我们想要参与其中,这样才能每天学习、实时响应。我们在底特律也有同样的研究单位,现在在中国我们也可以做同样的事,甚至能根据扎实的本地化知识决定研究的框架。

我们也将基于同样的理由设立前瞻设计中心。从事前瞻设计却不考虑到全球成长最快、规模最大市场的影响力,无异于无稽之谈。所以我们将以此作为未来在中国创新发展的起始点。

我们的研发主管是中国本地人,她在中国从事研发很多年,和国内大学有着良好的关系。我们与各大专院校也有极深的渊源,并通过名为“PACE”2的计划与学校合作执行了许多项目。这将成为我们吸收人才的平台。

同时我们也有了更多的实习机会,以便最好的培养运用年轻的技术人才。刚开始我们会用其他地区(主要是美国)的专业研究人员弥补不足,但最后我们将全面采用本地人才。我们在人才开发这方面的规模将没有上限。这是很庞大的单位,但员工数不算特别多——开始约300人——涵盖设计、前瞻研究、传动工程等领域。

与全球产品开发整合

我可以很自信的说,我们的中国运营和全球运营的整合成效优于世上任何别的企业。如果我们要执行全球计划,我们的行动方式将与美国或德国如出一辙。

我们的工程中心两年前推出了完全本地设计的微型车——雪佛兰赛欧(Chevrolet Sail)。从固有的全球解决方案中,很难提供真正低成本乘用车,因为我们必须满足太多的全球需求。这反倒为赛欧开启了一道机会之窗。我们能专注于发展出不走全球路线的解决方案。

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# 半导体：中国创新的新源泉？

半导体是说明中国创新潜能紧张气氛的最佳例证。中国领导人深知硅在产品创新上3扮演着重要的角色，因此二十年来不断致力于提高国内半导体产业的实力，但成败参半。中国采购的芯片占全球的33% (总值达1,000亿美元)，所生产的产品供应国内和外销市场。但中国的行业多半在商品领域竞争，比如芯片装配与测试等，中国半导体公司在全球芯片设计与制造价值链最受重视的细分市场所占的份额仅为4%或更低。

本文列出了限制中国半导体发展的四大障碍，其影响力消退的可能性，以及因此不愿意与中国业者共享知识产权关键要素的全球制造商可能面临的挑战。

## 风向改变

在产业与市场结构改变，以及鼓励新时代技术发展和由国外转移技术的新产业政策两股力量的带动下，过去牵绊住中国的绊脚石已开始消失。

## 服务中国的芯片设计

中国业者过去在移动电话、笔记本电脑和LCD电视等重要产品领域的半导体设计、技术标准 and 芯片的选择上一向发挥不了太大的影响力，大部分设计和功能性等相关决策都是来自全球龙头业者，并且以欧洲、日本和美国等地的消费者偏好为主要考虑。

但上述情况已经发生改变，同时随着需求的日益多样化，中国中产阶级的经济实力也逐渐崛起。部分中国企业目前已成为“立足中国、服务中国”运动的先锋。其影响意味着未来可能将会有更多的半导体平台在中国本地设计，尤其是2010年数据显示，中国消费者购买的个人电脑已达到全球总销量的19%、LCD电视的18%、移动电话的14%、汽车的26% (皆据单位销量计算)。

同时中国的制造商也运用其国内规模优势，向全球市场出售产品：联想个人电脑的销售排名已达到全球第二，中兴在手机制造业中排名全球第四，华为在电信设备销售已跻身全球前三。

## 外贸管制的失效

领先半导体制造商的母国政府长期以来都禁止企业向中国出售尖端制造技术。例如目前台湾和美国都设有禁止65纳米以下芯片制程设备

出口的门槛4。因此，中国的制造商比顶级效能的32纳米芯片落后至少两代。

然而市场的变化削弱了这些禁令的效力。尖端半导体仅占全球需求的14%，为2003年市场份额的一半，主要是因为需要最高处理能力的设备数量的减少5，尤其是以中国新兴消费者偏好的设备来看，他们购买的通常是入门型的移动电话和电视。因此，对中国业者来说，竞争事态相对公平，部分业者已开始利用落后两代的制程，大量生产具一定市场规模的芯片 (例如模拟集成电路和微控制器)。

## 中国高科技园区的调整

中国在培育半导体产业的初期，曾经在产业规划上出现失策。中国官员并未像台湾的新竹科学园区一样将投资与奖励集中在同一个区域，反而是分散投资，同时在19个城市注入资金兴建制造基地。过度分散阻碍了有利于制造能力与设计人才群聚的半导体活跃产业生态的形成。

但中国正在修正其路线，目前已将投资进一步集中在少数城市，如成都、大连、上海。这些半导体中心拥有较强的专业基础，以及足够数量的制造商与供应商，目前不但吸引全球领先业者的投资，也在无线通讯系统等领域发展范围较大的价值链。

## 新的技术转移制度

外国业者拥有半导体价值链上大部分的知识产权，而设计半导体及半导体制程的收入也有相当大一部分流向非中国籍的企业。尽管中国在许多产业已能取得或拼凑出知识产权并建立稳固地位，但半导体却面临特别艰巨的挑战，因为芯片的设计与制造相当复杂，其中涉及的材料科学也相当精深。

但中国也是世界上一个拥有雄厚资金和有野心的科技产业政策的国家，同时取得半导体技术知识 (know-how) 和知识产权也仍是中国的一个优先重点。为了提高成功概率，中国推出一项新的双管齐下的举措，让全球企业更加感受到不得不与其中国伙伴共享知识产权的压力。此举措的第一个部分是加速投资，同时推出新的政策指示，进一步发展大型的新时代科技平台，例如云计算6、物联网、混合式电动车等，此三大市场将为全球和国内半导体公司带来数百亿美元的商机。举措的第二部分是设定国内

自主创新的目标，同时表示对外国技术的依赖将从目前的50%降低至30%。政府采购的产品与服务，从移动电话到云计算网络等，也都将优先考虑结合较多国内自主开发技术的产品。

## 全球业者的战略选择

全球半导体业者明显面临两难的窘境：如何在参与算得上是全球最诡谲多变的科技增长环境的同时，成功捍卫其核心知识产权和技术知识。全球业者必须谨记中国的目的是要利用转移来的知识产权和制造方式来创造自己的龙头企业，以便与全世界的业者一较高下，而不是仅局限在其国内市场。

高速铁路业者的经验就相当发人深省。中国政府鼓励全球企业与中国企业合作，共同发展一个全国高速铁路网。尽管部分外国企业偏向采用限制较严的知识产权共享模式，最后还是出现了典型的囚徒困境7：进入市场的吸引力让全球业者有十足的诱因放弃原先强硬的立场，但最后同业合作仍是建立在较宽松的条件下，于是在三年的时间里，中国企业将核心技术的关键要素吸收殆尽，从2007年起顺利赢得近200亿美元的新轨道合同。

因此全球半导体产业必须与可能对象订立明确的合作条款，由于中国的全国、省级和地方政策制定者与企业形成复杂的网络，因此创造出庞大因地制宜的空间。因此在明确的知识产权转移条款下建立事业，是最明显的解决之道，但全球领先业者如GE (农村健保) 和ABB (电动马达和传动系统) 等也在尝试探索其他可能方式。

外国企业可尝试的一个做法是与中国大学或研究机构合作设立本地研发中心，同时让这些中心致力开发尚未证实但前景看好的下一代国内市场所需的技术。参与这类研发的跨国企业一方面可以配合中国的政策目标，另一方面又能将知识产权的风险控制在仍在成型的市场范围内。另一项做法则是与下游业者如汽车制造商等建立合作关系，专注在本地产品的开发。此战略有助于跨国企业符合本地技术的要求，同时有助于更积极地管理风险。

## 麦肯锡季刊 McKinsey Quarterly

Bob Dvorak是麦肯锡硅谷分公司资深董事，Nick Santhanam和Sri Kaza为同一分公司的董事。  
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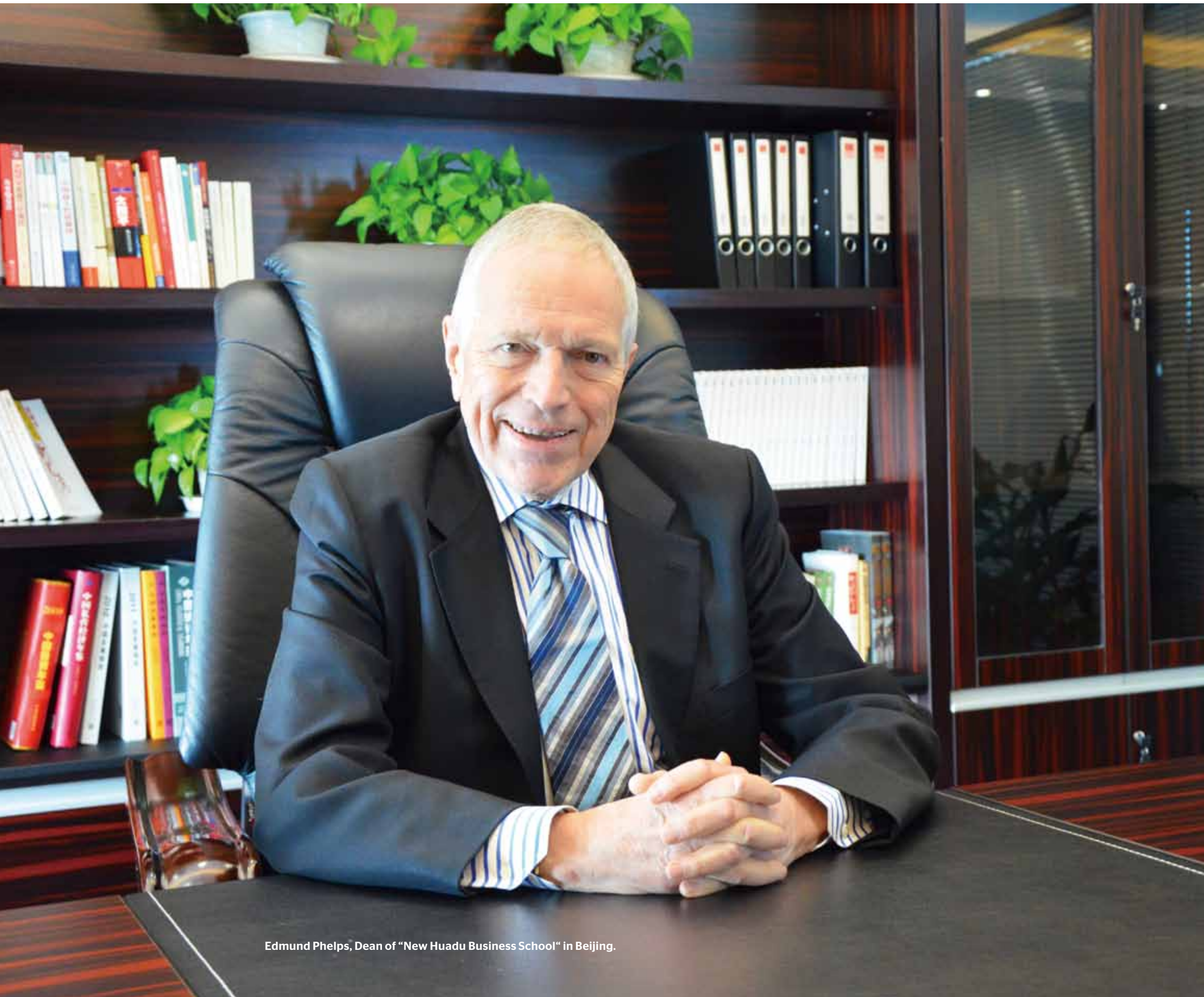
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Edmund Phelps, Dean of "New Huadu Business School" in Beijing.

# “Yes, They Can”

## “中国人能”

The Nobel Prize Winner in Economics for 2006, Prof. Edmund Phelps, is very positive about China becoming a major source of indigenous innovation in the world, as he tells “The Bridge” in an exclusive interview. In the long run and very similar to the US, the American economist and Dean of the newly established “New Huadu Business School” in Beijing sees China mainly trading with itself.

Interview by **Fabian Gull**, Beijing



**Q Prof. Phelps, did any economic theories or growth models have to be rewritten because of China's economic miracle of the past two decades? It is a development, after all, that is unique in the history of mankind.**

**Edmund Phelps:** Good question (thinking). There have been around five or six Asian economic miracles since the 1950's, and each is somewhat different. China is unique by virtue of its size. It has come along very fast despite the huge scale of its economy, which makes the development even more impressive. But the theoretical and practical mechanisms were not new. There were gains of the reallocation of labour from farms into industry. A high proportion of the increased output became exportable overseas. In that sense, China complies with the Asian export-driven growth model we know from other countries.

**Q So no radical rethinking of growth theories?**

I think that is right. To me, it was interesting to see how China could meet the challenge of going to the next stage, of exercising its own creativity to create new technologies and new products. The unprecedented take offs from history - such as Britain in the early 19th century and America a little bit later - were all driven by indigenous innovation. So the big test for China will be whether it's going to be another powerful source of homemade innovation.

**Q Why did this growth miracle not happen elsewhere in the world? Why not in Africa, for instance? What did China do better?**

I don't know enough about Africa to be able to answer that.

**Q What are most common misperceptions about China, mainly in the West?**

Outsiders think of Chinese companies as being very insular. Many

imagine the Chinese to have little sense of the rest of the world. I am astounded of how cosmopolitan the Chinese are. I will never forget a visit at a zipper factory in China. I asked the President at one point whether he knew that the zipper was invented by a man whose name was Zipper and who lived in New York City. To my surprise, he knew the family personally and even produces some lines for them. The Chinese are "right in there", and fully participating in the global economy. They don't just load products on to the ship and then off it goes. It's nothing like that at all.

**Q What is fascinating you about China?**

I love the creative spirit and enthusiasm. I think I also detected a sense of fun, a sense of engagement and delight in the new. Then I realized that the answer to the question that has been nagging me - can China become a major source of indigenous innovation in the world? - is a clear "yes, they can"!

**Q You are very positive about the prospects of the Chinese being innovative, but more on a domestic market level.**

Well, I may have appeared to contradict myself on that score. Future Chinese development will be less export based. In that sense, there will be tendencies for China to become a low export country like the US. Big countries tend to be low export countries. However, that doesn't mean that there won't be companies that are innovative in a global way. People often casually refer to the US as a somewhat closed economy. That's a poor way of putting it, though. The American economy is not closed, but actually very open to the world. It's just that the country is so big that it mostly trades with itself. But it still exports, of course. I see China moving into a similar direction.

**Q When will we see Chinese innovation conquering the global**



**“American innovation is restricted to a small sliver of land hugging the Californian coast. In the heartland, there is little to no innovation”.**



**markets - something that hasn't really happened on a large scale to date?**

In China, there is first going to be pulling up with the Western regions to the level of those in the coastal regions. That is stage two, so to speak. Once that stage is finished, and if it remained that innovation would still be very slow in the West, then the only thing for China will be indigenous innovation.

**Q How do you view the scientific level in China in your subject?**

There is a huge range. At the moment, at a place like Tsinghua University, you have graduate students who know various components of the current literature better than I do. Chinese educational institutions are acquiring American level universities. But that is not a rapid process. It can't be, as you first have to teach the people who teach. There is a coming together of China and the West. It really is to some extent "joining the club" of advanced universities which are mostly in the West.

**Q What would be a fair exchange rate USD/RMB and based on what assumptions?**

I have some trouble with the notion of a "fair" exchange rate. First of all, it is not widely understood, namely in the US, that there was a period of time over which the RMB appreciated significantly to the USD.

**Q Could a fair exchange rate just be the market equilibrium of two freely floating currencies?**

I can't engage in this conversation, as I really don't understand the concept of a "fair" exchange rate. It sounds medieval to me, talking about a just exchange rate. I know you are from Europe, so maybe it seems very natural to you. But I come from a part of the world where that is a fairly remote concept (laughing).

**Q In the long run, you are rather negative concerning the outlook for the US, and quite positive for Europe. This is contradicting reality where we see a quite robust recovery in the US and a further deteriorating situation in Europe.**

Well, that's because I was speaking in relative terms...

**“In China, I detected a sense of engagement and delight in the new”.**

**Q What do you mean by this?**

Things are going to be less bad in Europe over the next couple of years and less bad at a surprisingly rapid rate. I can't promise you that the growth rate of output will exceed the one in America. Although that wouldn't be too difficult, since I am not bullish about the growth rate in America. It has to be understood that we are still in the grip of a secular slowdown of productivity, which is the result of a decline in indigenous innovation in America. We are not going to rack up high growth rates of productivity in the next several years.

Also, America has a demographic problem. So does Europe in some countries, but not in all. In the long term, Europe has a demographic edge over America. Europe is coming from a situation where productivity growth in France and Italy - two rather important countries - was, if I am not mistaken, pretty close to zero since around 1998. Also, the productivity growth rate in Germany is nothing to write home about - to use an American expression. I am suggesting that maybe that situation will improve. It is hard to imagine that Europe will be content having another decade with almost zero productivity growth. Won't there be pressure on politicians to do something, to liberate the creativity of business people?

**Q You made a surprising statement. The United States has stopped innovating, you say.**

In the aggregate, yes. I am not saying it doesn't innovate anymore. There are patches in which innovation continues, but only along the Pacific Ocean. I like to joke that all our innovation is restricted to a small sliver of land hugging the Californian coast. In the heartland of the country, there is little to no innovation.

**Q On the other hand, you are quite positive on Europe's aggregated ability to innovate.**

I am looking forward to the possibility that a degree of innovation will return to Europe. Part of the problem is that there is no memory of innovation. Today, there is no Frenchman alive with a living memory of innovation happening in France in the 1920's. So to Frenchmen, it may simply seem normal not having any innovation. But it's not. Not even in a highly centralized economy like France.

**Q How do you view the overall handing of the European crisis? Isn't it more about buying time than solving the problem?**

Yes. It is what we call in America "kicking a can down the road" (laughing). Postponing things, hoping that something will turn up.



And Mario Draghi (President of the European Central Bank) did turn up saying he would do whatever it takes to save the Euro.

**What are the most pressing challenges and reforms needed in China?**

Too much of Chinese savings are drained away in financing - for example, real estate projects. Also, too much saving is going overseas through the current account surplus. Hence, the much needed reform in funding of small and medium sized enterprises cannot happen. This would broaden indigenous innovation and make it an important aggregated force. But unless there is a pullback in the flow of savings out of the country and into all those real estate projects, that's not going to happen.

**Many economists are concerned about a looming debt crisis in China, mainly fuelled by the very high level of indebtedness of provinces and a huge shadow banking system. What is your view?**

Although I am quite interested in financial flows and balances between wealth and capital, I don't know how to answer your question. Generally, it would be important for the government to participate in a tamping down of the flow of funds to real estate projects and to state-owned enterprises. These money flows should go to start-up entrepreneurs. Government should participate in a revamping of the financial sector.

**How trustworthy are the Chinese key economic figures?**

My colleagues tell me there is a significant worry about the growth rate numbers in China. Companies are invited to do some calculations on their own, which is not done in other countries. But just look outside... (he is pointing outside the window overlooking snow covered Beijing). Wages have risen spectacularly in the past 20 years. I don't lose a lot of sleep over whether the GDP growth is overestimated by 0.3% or not. Growth has been phenomenally high and it is somewhat lower now.

**Would you agree to the following simplification: America today is not producing anything anymore, but only consuming.**

There has, indeed, been way too much stimulus for consumption. Mainly by running fiscal deficits, but also by forcing banks to offer loans to people who can't afford things. It's a political sickness in Washington that is fuelling consumerism in America. If I were a religious person, I would say it is hurting our soul (laughing). It is now being explained to Americans that the American dream is to own a house. On a personal note, my wife and I have gotten through our lives in pretty good shape without owning a house.

**What mainly triggered the US housing crisis that turned into a global financial crisis was Alan Greenspan lowering interest rates from 6.5% to below 1% in the early 2000's. A policy that is also**

**followed by his successor Ben Bernanke.**

I think you are not giving enough credit to former President George Bush. Whatever blame there is for the speculative episode, Alan Greenspan has to share the blame with George Bush, the Congress, with financial interests and probably also construction companies fuelling the political pressure.

**In one of your research papers you raise the question of how to increase lower end wages and the impacts of doing so. Wages and cost of labour increase sharply in China. At the same time, because of that, jobs move to lower cost countries. What is a smart way of addressing this issue?**

I am the father of the idea of low wage employment subsidies. I have written a book called 'Rewarding Work' which has its admirers around the world. The idea is to subsidize companies for their employment of low-income workers, in example by granting tax rebates that would apply from day one. Companies would be given credit by their governments for having low wage employees on their books.

**Has this system been implemented somewhere?**

The big experiment was in Singapore. Economists were warning the government back in 2008 of the rate of unemployment soaring from 2% to 9% without taking any immediate action. So the government agreed on giving tax credits to companies having low paid employees on their books. A former student and collaborator of mine who became involved in that telephoned me with the good news that it had finally been put in place only recently. I asked him how long it took them to implement the scheme, and I will never forget his answer. Only two hours, he replied. They just had to reprogram the computers to adjust the social security tax for the tax credit. A huge loss of jobs could be averted.

The scheme has been tried a little in the Netherlands, too. But it never succeeded in influencing politics on a large scale. The trouble is, I got so bored talking about this year after year since 1997 that I eventually stopped talking about it - until somebody like you reminds me of it (laughing). A brilliant up and coming journalist who stumbled on the scheme at Harvard is now making it his crusade.

**Macro data in China is favourable in many ways, like a relative fiscal neutrality, a low level of public debt, stable currency, manageable levels of inflation, the largest foreign exchange reserves in the world, a growing economy. As an American, are you envious?**

No. But I guess you can say I am one of these Americans who are a little embarrassed at how well the Chinese government has shepherded through this early stage of development. It seems to be far more thoughtful than the US government.

**Allow me a personal question. Part of your research also included the role of expectations in macro economic theories. How did the expectations of people around change towards you after you were awarded the Nobel Prize in Economics?**

I am not sure it's very important (laughing). But sure, a lot of people thought that I was some incredible guru and a fount of wisdom being able to solve all sorts of problems, while mostly, I was still working on problems I have always been working on (laughing). It heightens expectations of where your capabilities are. Also, it has caused some of my journalist friends to think that I must think of wages and unemployment rates every day...

**Which you don't?**

No. Whole months can go by without my paying the slightest attention to it (laughing).

**Edmund Phelps**

Edmund Phelps (80) is McVickar Professor of Political Economy at Columbia University, NY (USA), and winner of the 2006 Nobel Prize in Economics. He is also the Dean of the newly established New Huadu Business School which is funded by New Huadu Charity Foundation, the first Chinese business school established abroad (Switzerland).

The American economist has won the Nobel Prize for his work on macroeconomics and for developing the understanding of the relationship between inflation and unemployment. In particular, he has focused on investigating the trade-off between inflation and unemployment, and between future and current consumption. His work has deepened the understanding of the relationship between short and long term effects of economic policy. His contributions have had a decisive impact on economic research, and have fed into macroeconomic policy-making.

Phelps' work can be seen as a program to put "people as we know them" back into economic models - to take into account the incompleteness of their information and knowledge - and to study the effects of their expectations and beliefs on the workings of markets. He has adopted this perspective in studying unemployment and inclusion, economic growth, business swings, and economic dynamism.

Phelps, who earned his Ph.D. from Yale in 1959, holds many honorary doctorates and professorships, including accolades from the Université libre de Bruxelles, Tsinghua University and the Institut d'Etudes Politiques de Paris, among others.

China has always been an intellectual fascination for Phelps, and he has attended several Nobel Conferences in Beijing, accompanied by his wife. In the one hour exclusive interview with The Bridge, he admitted with a smile in his face, that he wanted to be a small part of China's historical transformation process that has lifted hundreds of millions of people out of poverty.



埃德蒙德·菲尔普斯 (80岁)

是位于美国纽约的哥伦比亚大学政治经济学麦可维克教授，是2006年诺贝尔经济学奖获得者。他还是成立不久的新华都商学院院长——该学院由新华都慈善基金会资助，是首个在海外（瑞士）设立的中国商学院。

由于其在宏观经济研究和在促进对通胀与失业率间关系的理解上——尤其是在研究通胀与失业率、未来消费与当前消费间的关系上——所作出的贡献，菲尔普斯被授予了诺贝尔奖。他的研究加深了人们对经济政策的短期和长期影响的理解。他的贡献对经济学研究有着决定性的影响，贯通整个宏观经济政策决策。

菲尔普斯的研究将“我们所了解的人们”引入经济学模型——将他们获取信息的不完整性和他们的知识水平等因素考虑在内，研究他们的预期及对市场运作方式的信赖所带来的影响。在研究失业、经济增长、商业发展和经济多样性等方面他都采用了这种角度。

菲尔普斯于1959年获得耶鲁大学博士学位，是多所高校的荣誉博士和教授，包括布鲁塞尔自由大学（2010）、清华大学（2007）和巴黎政治学院（2006）等。

菲尔普斯一直都对中国有着浓厚的兴趣，在妻子的陪伴下，他在北京参加过多次诺贝尔会议。在与《桥》的一个小时的对话中，他笑着承认，他希望成为帮助十几亿人口脱离贫困的中国历史性转型过程中的一小部分。

“The unprecedented take offs from history were all driven by indigenous innovation”.



2006 年诺贝尔经济学奖获得者埃德蒙德·菲尔普斯 (Edmund Phelps) 在《桥》独家采访中表示对中国成为一个世界本土创新的主要来源十分乐观。这位美国经济学家及新近在北京成立的“新华都商学院”院长认为：长远来看，中国的贸易主要将会是与其自身开展的，这点与美国相似。

作者 **方必安**，北京

**问 菲尔普斯教授，基于中国过去二十年的经济增长奇迹，某些经济理论或增长模型是否应该被改写？不管怎么说，这种发展在人类历史上都是独一无二的。**

**埃德蒙德·菲尔普斯：**这个问题很好（思考）。自 20 世纪 50 年代以来，亚洲出现了五、六次经济发展奇迹，每次都有所不同。中国的独特之处在于规模。尽管中国的经济规模巨大，其发展却十分迅速，这就使得这种发展更加令人叹为观止。不过，中国经济发展的理论和实践机制并没有什么新颖之处。劳动力通过再分配从农业转移到工业，增长的产出中很高比例出口海外。从这方面来说，中国遵循的也是与其他国家一样的出口推动型的增长模式。

**问 也就是说没有对增长理论的根本性再思考？**

我认为是这样的。在我看来，中国将如何应对下一阶段的挑战，将自身的创造力运用于新技术和新产品的开发，这将是十分值得关注的。历史上发生的前所未有的经济腾飞——如 19 世纪初期的英国和稍后的美国——都是由本土创新推动的。因此，中国面临的挑战就是能否成为另一个拥有强大本土创新的国家。

**“在中国，我发现了人们的参与精神以及对新事物的喜悦之情”。**

**问 为什么这种增长奇迹没有发生在世界其他地区？例如非洲？中国取得了哪些先机呢？**

我对非洲的了解不多，因此不能回答这个问题。

**问 西方人对中国最大的错误认识是什么？**

外界认为中国企业都被隔膜了起来，许多人想象中的中国人对世界其他国家了解很少。事实上，我十分惊讶于中国的全球化程度。我永远都不会忘记对中国一家拉链工厂的参观，我当时问那家工厂的总裁是否知道拉链是一个居住在纽约市、名叫 Zipper 的人发明的。出乎我意料的是，他对这个家族十分熟悉，还为他



们生产一些衣服用线。中国人就是这样完全参与到全球经济中来的，他们做的并不仅仅是将产品装到船上运走这么简单，根本就不是那样的。

**问 中国什么方面最吸引你？**

我很喜欢这里的创造精神和人们的激情。我还发现了人们的快乐感、参与精神以及对新事物的喜悦之情。就这样，我找到了一直困扰着我的问题的答案——中国能否成为世界本土创新的一个主要来源？——很显然，“他们能”！

**问 你所谓的对中国人创新性的前景十分乐观，指的是在国内市场范围内吧。**

也许在这一点上我有点自相矛盾，未来中国的发展将更少的依赖出口，也就是说，中国有成为像美国那样的低出口国的倾向。大国一般都会朝着低出口国的方向发展。不过，这并不意味着中国的企业不能成为在全球范围内的创新型企业。人们往往将美国看作一个具有某种封闭性的经济体，这样的看法并不恰当。美国经济并不是封闭的，而是对世界都十分开放的。只是美国这个国家很大，它的许多贸易都是与其自身开展的。当然，美国仍然出口。我发现中国正在朝着相似的方向发展。

**问 中国创新什么时候能征服全球市场——迄今为止，这种现象还没有大规模出现？**

在中国，首先要使西部地区发展到东部沿海地区的水平。可以说，这将是中国发展的第二阶段。这一阶段的发展一旦完成，如果说届时西方的

创新仍是以低速发展的话，中国将做的唯一的事情就是本土创新。

**问 在您这一领域，您怎么看中国的科学水平？**

范围很广。目前，在像清华大学这样的地方，许多研究生对当代文学的不同部分的了解比我还要深刻，中国的教育机构在兼并具有美国水准的大学。不过，这一过程将是缓慢的，因为首先需要对教师进行培训。中国和西方交汇在一起，在某种程度上可以说是加入大部分位于西方的“高等大学俱乐部”。

**问 美元和人民币之间公平的汇率是多少？基于什么假设？**

我不认同“公平”汇率这一说法。首先，在美国，人们不理解为什么有一个时期人民币会针对美元大幅升值。

**问 合理的汇率是否会带来两种自由浮动货币间的市场均衡？**

我不能回答这个问题，因为真的不理解“公平”汇率这个概念。“公平”汇率对于我来说像是中世纪用的词汇。我知道你来自欧洲，也许在你看来很自然，但是我来自于一个对这个概念不太熟悉的地方（笑）。

**问 长期来看，你对美国的前景十分悲观，对欧洲十分乐观。这似乎与事实相反，因为美国的经济正在蓬勃复苏中，而欧洲危机却进一步深化。**

那是因为我是从相对的层面上来谈的……

**问 这是什么意思？**

在未来几年，欧洲的危机局面将以惊人的速度得以缓解。我不敢保证欧洲的产出增速会超越美国，虽然这并不难，因为我对美国的增速也并不乐观。需要理解的一点是，我们目前仍受长期的低速生产力增长的控制，这是美国的本土创新下降的结果。在未来几年，高速的生产力增长将不会出现。另外，美国也存在着人口统计上的问题，欧洲一些国家也有这样的问题。长期来看，欧洲存在着优于美国的人口统计优

势，如果我没有记错的话，欧洲的情况是从法国和意大利——两个十分重要的国家——的生产力增长自 1998 年以来接近于零的状况下发展形成的。此外，用美国人的话来说，德国的生产力增速无足挂齿。我认为也许这种情况会有所改观，我们很难想象欧洲会满足于另一个生产力增速几乎为零的十年。政治家是否会感到压力，是否应该做些什么，是否应该解放商人的创造力？

**问 你的话让我感到很吃惊，你的意思是美国已经停止了创新吗？**

总的来看，是的。我的意思并不是说它不再创新了，在某些地方创新仍在继续，不过不在太平洋海岸。我喜欢开玩笑说我们所有的创新都局限于加利福尼亚海岸的一小块土地上。在美国的中心，几乎没有创新。

**问 从另一方面说，你对欧洲的整体创新能力十分乐观。**

我希望出现创新在某种程度上回归欧洲的可能性，问题之一是人们已经失去了对创新的记忆。现在，那些拥有 20 世纪 20 年代法国创新时记忆的人都不在了。因此，对于法国人来说，没有创新是件很正常的事。但这不正常，在法国这样一个高度集中的经济体也一样。

**问 你如何评论欧洲经济危机的整体应对策略？他们做的是为了获取更多的时间，而不是解决实质性的问题？**

是。在美国我们称为“缓兵之计”（笑）。将问题延后，希望解决方法自动出现。Mario Draghi（欧洲央行总裁）曾现身表示将尽其所能挽救欧元。

**问 中国面对的最紧迫的挑战和需要进行的改革是什么？**

中国人大量的储蓄都在金融体系中消耗掉了——举例说，房地产项目。另外，大量的储蓄通过经常项目盈余的方式流往海外。因此，现在亟需对中小企业的融资改革不能推行。中小企业将有助于扩大本土创新，使其成为一股重要的集结力量。不过，除非资金不再流往海外或房地产项目，不然这种局面是不会出现的。

**问 许多经济学家担忧中国会出现主要由那些债台高筑的地方政府和银行系统引发的债务危机，你怎么看？**

虽然我对金融流动和财富与资本间的平衡十分感兴趣，但我不知道如何回答你的问题。总的

来说，政府参与控制资金向房地产市场和国有企业的流入十分重要。这种资金应该流入那些创业者。政府应该参与到金融部门的改革中来。

**问 中国的主要经济数据值得信赖吗？**

我的同事跟我说他们对中国的经济增长数字感到十分担忧。企业开始独立核算，这在其他国家没有发生过。不过看看外面……（他手指窗外被大雪覆盖的北京）。在过去 20 年里，工资水平大幅提升，不管中国的 GDP 增长是否被高估 0.3%，我都不会太在意。过去增速太快，现在只是适度慢了下来而已。

**“美国的创新都局限于加利福尼亚海岸的一小块土地上。”**

**问 你是否同意这种说法：当今的美国基本不生产什么产品，只是在消费。**

政府的确采取了许多刺激消费的措施，主要通过财政赤字以及迫使银行给那些没有偿还能力的人们发放贷款的方式。美国华盛顿对消费主义的鼓励是一种政治病态。如果我是宗教人士，我会说这种做法伤害了我的灵魂（笑）。现在美国人被灌输的美国梦就是拥有一所房子。从个人方面来说，我妻子和我虽然没有房子，但我们生活的很不错。

**问 引致美国房地产危机转化为全球性金融危机的原因是格林斯潘在刚进入 21 世纪时将利率从 6.5% 调低至 1% 以下，他的继任者伯南克延续了这一政策。**

我想在这里你没有算上前总统布什。不管对投机时期有什么样的指责，布什、议会、金融利益体以及给政府施压的建设公司都应该与格林斯潘一起受到责备。

**问 在你的一些研究中，你提出了如何提高低收入人群的收入以及会带来哪些影响。中国的工资和劳动力成本增长迅速，因此，工作机会转移到了成本低的国家。应该如何解决这一问题？**

我是最早提出低工资雇佣补贴这一想法的人，我曾写过一本在世界受到一些推崇的名为“有益的工作”的书。主要思想就是给那些雇佣低技术低收入工人的企业以补贴，比如自第一天起给符合条件的工人以退税。那些雇佣低收入工人的企业将获得政府发放的补贴。

**问 这种政策推行了吗？**

在新加坡进行了大规模的试验，经济学家在 2008 年提醒政府如果不采取任何紧急措施的话，失业率将从 2% 飙至 9%。政府同意给那些愿意雇佣低收入工人的企业以税收抵免。我以前的一位学生和合作伙伴参与了这个项目，他最近打电话告诉我这种政策最终得以推行的好消息。我问他政府花了多长时间来实施这个计划，他的回答我将永远铭记，只用了两个小时，他说。他们只需要对电脑重新编程调整社保税以实现税收抵免。这样就可以避免大量的失业了。另外这个计划也在荷兰进行了小范围的推广，不过还从没在大规模上给政治决策带来过影响。问题是，自 1997 年以来，我年复一年的谈论这个计划，我自己都感到厌倦了，最后不愿意再谈了——直到像你这样的人提醒我（笑）。一个曾在哈佛无意中发现这一计划的才华横溢、精力充沛的记者正将其作为圣战。

**问 中国的许多宏观数据都十分具有优势，比如财政相对中立，低水平公共债务，稳定的货币，控制范围内的通胀水平，世界最大的外汇储备国，不断增长的经济。作为一个美国人，你感到嫉妒吗？**

没有。不过我想你可以说我是那些对中国政府很好的度过发展初期而感到尴尬的美国人之一。中国政府的做法看起来比美国政府要深思熟虑的多。

**问 我有一个私人的问题，你的研究的一部分包括预期在宏观经济理论中的地位。在你获得诺贝尔经济学奖后，你周围的人们对你的预期发生了什么变化？**

我不知道这是不是很重要（笑）。不过当然，许多人认为我是一个令人难以置信的大师，认为我拥有能够解决各种问题的智慧，认为大部分时间我都在研究我一直在研究的问题（笑）。诺贝尔奖提高了人们对你的能力的预期。另外，它也使我的许多记者朋友认为我每天都必须考虑工资和失业率的问题……

**问 你并不是每天都考虑这些问题吗？**

不是，也许在好几个月里，我根本就没有想过这些问题（笑）。

**“历史上发生的前所未有的经济腾飞都是由本土创新推动的”。**





# China's Changing Innovation Landscape

## 改变研发重点

Switzerland has been ranked for several years as the most innovative country in the world – in part, thanks to its infrastructure, funding schemes, and framework conditions. China, on its side, is investing heavily into some of the industries of tomorrow, like new energy sources and biotechnology. These are fields where Switzerland can offer its expertise, both on an academic and industrial level. According to Pascal Marmier of Swissnex, all signals point to a fast strengthening of China's science and technology system.

Written by **Pascal Marmier**, Executive Director, Swissnex China

As Dominique Jolly, visiting Professor of Management at CEIBS and currently doing research about innovation in China, recently noted during an event with Swiss business executives in Shanghai, the kind of R&D activities that multinational companies are doing is changing fast. Technology management expert Jolly explained how he sees companies moving from a development-focused strategy of adapting products to market needs, to that of a research-led approach that taps into the fast-growing China knowledge base.

### Local innovation eco system

China's economy is in a period of transition as the consumers' tastes are evolving fast and smart companies are already busy adapting their products to this trend. However, in the future, we will see more companies tap into the expertise of Chinese scientists to develop global products by taking advantage of the local innovation eco system. All the signals point to a fast strengthening of the science and technology system. In science, the number and the quality of publications from Chinese researchers are increasing rapidly. Graduates from the top tier universities can now count on more available capital to launch their ventures, and they are increasingly connected to other regional innovation hot spots.

According to the SwissCham Business Confidence survey of 2013, Swiss companies are following this trend by investing more and more in fundamental and applied research for their R&D activities in China. We can also say that they are actively trying to capture the talent base, as the report explains that more than 50% of respondents are doing R&D for the global market. For those that focus more on product development and improvement, the outlook also seems bright. Another recent Swiss Business Survey (prepared by CEIBS, Swiss Center Shanghai and China Integrated) shows that Swiss companies are confident that they will be able to anticipate the changing nature of their market and deliver value-added services and products.

Switzerland has been ranked for several years in a row as the most innovative country – in part, thanks to its infrastructure, funding schemes, and framework conditions. China, on its side, is investing heavily into some of the industries of tomorrow. According to the latest five-year plan, the government has decided to focus on building strong technology industries in new energy sources and in biotechnology. These are fields for collaboration where Switzerland can offer its expertise both on an academic and industrial level.

### Innovation as a by-product

At Swissnex China, we are excited about the potential for additional Sino-Swiss relations in the field of innovation. One point of our focus is to better understand which kinds of innovation Swiss companies develop in China. While the multinationals have

dedicated labs and teams, SMEs are innovating as a by-product of doing business in China. To document and learn more about how SMEs innovate, we have an intern from the School of Business Administration who is researching if the innovation can be understood as "product-", "business-" or "process-oriented", as well as the factors that prevent or facilitate it.

Another program that we are starting is a partnership with the Swiss Innovation Agency (CTI) to support Swiss start-up companies in fields such as ICT, cleantech, and medtech to find partners in China. Start-ups that are built on technology spun out of university are developing niche technologies. We would like to explore how some of their products could become the starting point of more ambitious business development efforts. CTI already runs a program to help start-ups launch in the US market, and the China program will be modelled after it.

## At Swissnex China, we are excited about the potential for additional Sino-Swiss relations in the field of innovation.

In terms of collaborative programs, the next Sino-Swiss Science and Technology Cooperation program will be launched soon. The program allows for Swiss and Chinese research groups to apply for funding aimed at joint research programs, as well as the exchange of knowledge and people. To prepare for the next program, which will focus on translational medicine and medtech, there will be three workshops in China on the topics of cancer research, neuroscience and medtech.

To support all of these activities, we are always keen to learn more about what people are doing in the fields of education, research and innovation, so please don't hesitate to contact us. We will also continue to organize various workshops and conferences. We believe that there is a strong potential to bring China and Switzerland closer around the topic of innovation, and we are keen to intensify our efforts.

[www.steppingstone.ethz.ch](http://www.steppingstone.ethz.ch)  
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得益于国家的基础设施，资助计划和框架条件，瑞士已连续数年被评为最具创新性的国家之一。而中国方面也正大量向一些明日产业注资。根据最新的五年计划，政府已决定将重点放在不断壮大的新能源和生物技术产业。而这些领域正是瑞士的专长，无论在学术或工业方面都有很大的合作空间。瑞士科技文化中心 Pascal Marmier 认为，所有的信号都显示中国的科学技术体系正在不断深化。

作者\_Pascal Marmier，瑞士科技文化中心执行主任

中欧国际工商学院客座教授 Dominique Jolly 目前正在做关于中国的创新研究，最近参加了一个在上海的瑞士企业主管的活动，他认识到跨国公司所做的研发活动的种类正在迅速变化。作为技术管理专家的 Dominique Jolly 教授解释说，他看到了如何将公司从“D”策略的产品适应市场转变为“R”策略，以挖掘快速增长的中国知识库。

本土创新生态体系

中国的经济正处于一个过渡时期，因为消费者的口味变化快，聪明的公司已经专注于开发顺应潮流的产品。然而，未来我们将看到更多的公司用中国科学家的专业技能及当地的创新体制去开发全球化的产品，由此可见科学技术体系正在不断深化。在科学领域，来自中国研究人员的出版物的数量和质量正在迅速增加。顶尖大学的毕业生也可以依靠更多的可用资本建立他们的企业，他们越来越多地被连接到其他区域创新热点。

根据中国瑞士商会 2013 年的商业信心调查显示，瑞士的公司顺应这一趋势，为推进其在中国的研发活动，正越来越多得投资于基础研究和应用研究。我们也可以这是在积极地储备人才库，据报告称，超过 50%



我们的关注点之一是更好地了解瑞士公司在中国以何种创新形式成长并发展。

的受访者在为全球市场做研发工作。对于那些更注重产品的开发和改进的公司，前景似乎也十分明亮。最近的一个瑞士商业调查（来自中欧国际工商学院，上海瑞士中心和 China Integrated）显示，瑞士的公司有信心能够预测市场的变化和提供增值的服务和产品。

得益于国家的基础设施，资助计划和框架条件，瑞士已连续数年被评为最具创新性的国家之一。而中国方面也正大量向一些明日产业注资。根据最新的五年计划，政府已决定将重点放在不断壮大新能源和生物技术

产业。而这些领域正是瑞士的专长，无论在学术或工业方面都有很大的合作空间。

创新作为一种衍生品

在瑞士科技文化中心，我们对中瑞两国在创新领域的合作充满期待。我们的关注点之一是更好地了解瑞士公司在中国以何种创新形式成长并发展。而跨国公司有专门的实验室和创新团队，不断创新的中小企业是在中国商业的一个衍生品。为了记录和更多地了解中小企业如何创新，我们有一个来自工商管理学院的实习生在做这样一个研究，对于小企业的发展，是否可以将创新理解作为一种产品导向、商业导向或者过程导向以及一种阻碍或促进因素。

另一个我们启动的项目是与瑞士的创新机构（CTI）合作，帮助并支持信息和通信技术、清洁技术和医疗技术等领域的瑞士创业公司在中国寻找合作伙伴。剥离于大学并基于技术的一些初创企业正在寻找商机，我们愿意和他们一起探索关于如何让一些产品成为发展伟业的起点。CTI 已经立项帮助初创企业立足美国市场，相应的项目也将在中国被模式化启动。

合作项目方面来看，下一个中瑞科学技术合作项目即将开始。瑞士和中国的研究团队能够申请资金支持，项目方式包括联合研发项目、知识及学者的交流。下一个项目的主题将会是转化医学和医疗技术，会在中国举办三个工作坊，主题分别是：癌症研究、神经系统科学、以及医疗技术。

我们渴望了解更多关于在教育、研究和创新领域相关人士的最新动态，所以欢迎大家随时与我们联系。我们也将继续组织各种研讨会和工作坊，围绕创新这一话题，不断挖掘中瑞两国的合作潜力。

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# M&A Options for Chinese FDI in Switzerland

中国直接投资在瑞士的并购选项



Watchmaker Corum has been acquired by Haldian Holdings of China, marking the first time a Swiss watchmaker with the “haute horlogerie” distinction has been bought out by a Chinese company. This trend is expected to continue, although, it is still moderate to date. Swiss law firm Vischer provides insights on what needs to be considered when investing in Switzerland.

Written by **Felix W. Egli, Adrian Doerig, Fan Wu**, Vischer

As a rule, Chinese investors have the same M&A options for their foreign direct investment (FDI) in Switzerland as other foreign or domestic investors. They may either acquire a controlling stake in a private company by a share deal or asset deal or in a listed company by public tender offer or, rather theoretically, by an immigration merger. Nevertheless, in certain industry sectors, some restrictions apply only to foreign or foreign controlled investors.

## Regulatory Restrictions

In regulated industries such as energy, radio and television, telecommunication, financial services and public transportation, domestic and foreign investors must operate through a Swiss company or branch licensed for such businesses. Nevertheless, foreign-controlled banks are subject to additional license requirements, and permits for the construction and operation of hydroelectric power plants may be refused to foreigners for policy reasons. Finally, permits for the prospection and exploitation of natural gas are only granted to companies owned by a 75% Swiss majority.

Bank shareholders - whether domestic or foreign - acquiring or selling a 10% or more stake in the bank, or increasing or decreasing their shareholding beyond or below 20%, 33% or 50%, and shareholders in (re)insurers - whether domestic or foreign - reaching, increasing or decreasing their shareholding beyond or below 10%, 20%, 33<sup>1/3</sup>% or 50% of the capital of (or voting rights in) the target must notify the Swiss Financial Markets Authority (FINMA) before closing the transaction and FINMA may prohibit such shareholdings or subject them to conditions. Nevertheless, foreign investors may face some difficulties to comply with FINMA's (disclosure) requirements regarding their financial reliability and ultimate (beneficial) ownership.

Only foreigners and foreign controlled companies are, as a rule, prohibited from purchasing residential real estate including controlling stakes (defined as more than 33<sup>1/3</sup>% of the share capital) in privately held residential real estate companies. Nevertheless, permits to acquire second homes may be granted if certain conditions apply. Purchases of purely commercial real estate are, however, not restricted.

## Public Tender Offers<sup>1</sup>

Public M&A transactions in the form of public tender offers (PTO) are governed by federal law aiming to ensure transparency, fairness and equal treatment of shareholders. There is no discrimination of foreign or foreign controlled bidders.

## Disclosure Requirements

If a bidder (directly, indirectly or acting in concert with a third party) acquires or sells securities directly or indirectly held in a Swiss

company listed on a Swiss exchange (or in a foreign company primarily listed on a Swiss exchange) and as a result reaches, exceeds or falls below the voting rights-thresholds of 3, 5, 10, 15, 20, 25, 33<sup>1/3</sup>, 50 or 66<sup>2/3</sup>%, these holdings must be disclosed and notified to the target company and the relevant stock exchange. Irrespective of the settlement method (cash or physical), these disclosure obligations also apply to transactions in options (puts and calls) or conversion rights. In case of commitments to buy or sell the disclosure obligation is already triggered by the commitment (i.e. irrespective of completion).

Further, after publication of the PTO or its preliminary announcement, the bidder and anyone acting in concert with it as well as anyone holding directly or indirectly (alone or in concert with others) at least 3% of the voting rights in the target (whether exercisable or not), must thereafter and throughout the offer's acceptance period notify any transaction in target securities to the Swiss Takeover board and the relevant stock exchange.

## Best Price Rule

Whenever between the publication of the offer or its preliminary announcement and a period ending six months after the expiry of its acceptance period the bidder or anyone acting in concert with it directly or indirectly acquires target shares at a price higher than offered, the offer price must be increased accordingly ("best price rule").

## Due Diligence

When responding to a PTO, the target's board of directors has no duty to grant a hostile bidder access to due diligence information. Therefore, a hostile PTO cannot be made subject to due diligence satisfactory to the bidder. However, if the target does provide non-public information to other interested parties (including a white knight), the principle of equal treatment requires the target to disclose the same information to any other competing bidder (including the hostile bidder).

## Mandatory PTO

A person holding, directly, indirectly or acting in concert with a third party, more than 33<sup>1/3</sup>% of the voting rights in the target is required to submit a mandatory PTO for all equity securities of the target listed at a Swiss exchange within two months (extendable by the Swiss Takeover Board). Only limited exemptions apply. The target's articles of incorporation may provide for an "opting-out" (in which event, no mandatory offer is required), or an "opting-up" (effectively increasing the triggering threshold from 33<sup>1/3</sup>% to up to 49% of the voting rights).

The price offered by such mandatory offers must at least equal the higher of (i) the volume weighted average share price of the 60 days' period preceding the publication of the PTO or its preliminary



announcement and (ii) the highest share price paid by the bidder within the twelve months’ period preceding the publication of the PTO or its preliminary announcement(“minimum price rule”). The minimum price rule also applies to voluntary PTOs which would, if successful, result in a stake of the bidder exceeding the 33<sup>1/3</sup> threshold.

Put Up or Shut Up Rule

If a potential bidder publicly announces to consider launching a PTO, the Swiss Takeover Board may require it to (i) publish a PTO, or (ii) publicly declare that for six months it will neither make a PTO, nor exceed the mandatory PTO threshold (“Put up or Shut up rule”).

Squeeze Out

If 100% control is sought, Swiss law allows a squeeze-out of the remaining minority shareholders if the majority shareholder holds at least 98% of the target’s outstanding voting rights.

Supervision

Public takeover offers are supervised by the Swiss Takeover Board and the Swiss Financial Market Supervisory Authority FINMA.

Immigration merger

To avoid a public tender offer, an immigration merger between a Chinese company and the Swiss target, as the surviving company, could theoretically be considered. From a Swiss law perspective, such a merger would be permissible if also Chinese law permitted it and all relevant Swiss and Chinese law prerequisites were met.

The Swiss Merger Acts requires a merger agreement approved by the board of directors and the shareholders meetings of the merging companies and a merger report of the boards of directors of the merging companies. The merger balance sheet which must not be older than six months must be audited by licensed auditors which must also confirm the legal compliance of the merger agreement and the merger reports of the boards. Furthermore, creditor protection and employee consultation procedures apply.

The statutory quorum for the shareholders' approval of the merger is two-thirds of the votes present, but the squeeze-out of minority shareholders by way of a merger requires the approval of 90% of all shareholders.

Joint ventures

The Chinese investor may also invest in a Swiss joint venture. This approach is often used if control is not sought, or at least not in a first stage. Joint venture agreements usually contain share transfer restrictions, provisions about board representation and financing commitments of the joint venture partners. They may also provide

for voting arrangements in the shareholders’ meetings.

Merger Control

On top of the notifications that may have to be made under Chinese merger control laws, notification of the transaction must be made to the Swiss merger control authority prior to completion if in the financial year preceding the transaction the companies involved reported:(i) combined world-wide sales of at least CHF 2 bn (≈US\$ 2.1 bn) or combined sales in Switzerland of at least CHF 0.5 bn (≈US\$ 0.53 bn); and (ii) individual sales in Switzerland of at least CHF 100 million (≈US\$ 106.3 million) by each of at least two of them.

If the merger control authority does not notify the opening of a merger control investigation within one month from receipt of the merger control notification, the relevant transaction is deemed cleared and may thereupon be consummated. If, however, an investigation is opened, the transaction must not be consummated until expressly cleared. The statutory deadline for the relevant investigation is four months from the notification of the investigation.

Nevertheless, as most Swiss companies are active on foreign markets, usually foreign merger control laws - in particular EU merger control laws - need to be complied with, as well.

1. The full version on the public tender offer section of this article is available in China Business Law Journal. www.cblj.com

中国对海外并购的需求不断增加，比如在瑞士，中国投资者近期就购买了欧瑞康集团的纺织部，并购得了瑞士金属公司的多数股权。瑞士制表企业昆仑也被中国海淀集团有限公司购得，成为瑞士首个被中国企业收购的拥有“高级钟表制造”能力的钟表企业。虽然速度放缓，但这种趋势仍将会持续。在本文中，瑞士菲谢尔律师事务所将从法律角度谈中国在瑞士投资。

撰文 \_Felix W. Egli, Adrian Doerig, Fan Wu, Vischer

原则上，中国投资商可与其他国别投资商同样的方式在瑞士进行并购，即从私营企业或上市公司那里取得控股权，通过股份交易、资产交易或（从理论上讲）移民并购（中国公司并入一家存续的瑞士公司）。不过，在某些领域，确实存在一些对外国或外国控制投资人的限制。

监管限制

在受管制的行业，如能源，广播，电视，电信，金融服务和公共交通，国内和外国投资者必须通过一家拥有相关经营牌照的瑞士公司或分公司开展业务。外资控制的银行需获得相应的经营许可，在建设和运营水力发电设施方面，外国投资商可能会因政策原因而遭到排斥。最后，天然气的勘探和开采许可证只授予 75 %以上为瑞士控股的公司。

银行股的持有者，无论是本国 人还是外国人，收购或出售银行 10 %或更多股权的，或增加、减少其持股超过或低于 20 %、33 %或 50 %的，必须在完成交易之前上报监管当局 (FINMA)，该监管当局可以禁止此交易或给此交易设置条件。其间，外国投资者在遵守 FINMA 有关其财务可靠性和终及所有权的披露要求上可能会面临一些困难。外国人或者外国控股企业购买民用房地产（其中包括购买 33.33% 以上的民用房地产公司控股权）通常仍属于禁止之列。然而，在满足条件的情况下，可能准许购买度假房。纯粹的商业地产的购买则不受任何限制。

公开要约<sup>1</sup>

以公开收购要约（“PTO”）形式进行的上市公司并购交易适用联邦法，该法旨在确保透明，公正和平等对待股份持有人，对外国或外国控制投标人不存在歧视。

信息披露要求

如果收购方——直接、间接或以与第三人一致行动的方式——收购或出售对在瑞士证券交易所上市的瑞士公司或主要股票在瑞士证券交易所上市的外国公司直接或间接持有的股份，并因此达到、超过或者低于 3%、5%、10%、15%、20%、25%、33.33%、50% 或 66.66% 表决权的，收购方必须披露其持股量，并通知目标公司及相关证券交易所。不论采用何种结算方法（现金或实物），信息披露义务也适用于期权（延买和延卖期权）或者可转换权利交易。在承诺收购或出售股份的情况下，做出承诺即触发信息披露义务，无论将来是否履行该承诺。

另外，在要约公布或先期公告发布后，收购方和共同收购方，以及独自或与他人共同持有目标公司至少 3% 表决权的直接或间接持股人，无论是否可以行使投票权，必须在随后的

承诺期限内将任何有关目标公司股份的交易通报瑞士企业并购委员会及相关的证券交易所。

最佳价格规则

在公布要约或初步公告发布起至承诺期限届满后六个月内，只要收购方或共同收购方以高于要约价直接或间接收购目标公司股份的，要约价必须相应提高——最佳价格规则。

尽责调查

在响应公开要约时，目标公司的董事会没有义务给予恶意要约人以尽职调查信息。因此，恶意公开要约无权提出满意尽职调查前提。然而，如果目标公司确实向其他利害关系人（包括白衣骑士）提供了非公开信息，则根据平等对待的原则，目标公司也须将相同的信息披露任何其他竞标人（包括恶意要约人）。

强制要约收购

任何直接、间接或以与第三人一致行动的方式持有目标公司 33.33% 表决权的人，必须在两个月之内（瑞士企业并购委员会可延长）向在瑞士证券交易所上市的目标公司的全体股东提出强制要约收购。此规定仅在少数情况下豁免适用。目标公司的公司章程可以规定“选择退出”机制，排除强制要约收购义务，或“选择上调”机制，将触发阈值由 33.33% 表决权提高到 49% 表决权。

强制要约收购中的要约价至少要等于以下两种价格中更高的：(1) 要约公布或初步公告发布前 60 天的成交量加权平均股价；以及 (2) 要约或初步公告发布的前 12 个月内收购方支付的最高股价——最低价格规则。最低价格规则也适用于如果交易成功，收购方将持有超过 33.33% 表决权的自愿要约收购。

采取行动或放弃规则

如果有意收购方宣布考虑进行要约收购，瑞士企业并购委员会将会要求有意收购方：(1) 刊登收购要约；或者 (2) 公开声明不会在六个月内进行要约收购或超过强制要约收购阈值——“采取行动或放弃”规则。

挤出小股东

如果收购方准备收购 100% 控制权，瑞士法律规定如果收购方取得目标公司至少 98% 的表决权，那么收购方可以强行挤出剩下的少数股东。

监管

公开收购要约由瑞士收购委员会和瑞士金融市场监督管理局 (FINMA) 监管。

移民并购

为避免公开收购要约，从理论上将，可考虑移民并入方式，即中国公司并入一家存续公司的瑞士企业。从瑞士法律角度讲，只要中国法律允许，且所有相关中国法律规定的条件均已满足，则上述并购方式就是允许的。

瑞士并购法要求并购双方提供经由董事会和股东大会批准的并购协议，以及由并购双方董事会提供的合并报告。合并资产负债表的时间点不得超过六个月以上，且必须经由注册审计师审批，并确认合并协议和董事会合并报告的合法性。此外，债权人保护和雇员协商程序也同时适用。法律规定三分之二以上出席股东大会的票数才能通过合并决定，但以合并挤出少数股东则要求 90% 以上股东的批准。

合资

中国投资人还可以通过与瑞士公司合资进行直接投资。通常，在并非或者至少初始并非以控股为目的时，采用此法。合资协议通常规定股权转让的条件。约定董事会构成以及合资各方承诺的资金投入。协议中也可以约定股东大会的表决方式。

并购控制

除了需要根据中国并购控制法律进行通知之外，收购方还必须在交易完成之前向瑞士并购控制机构通知有关交易，如果交易进行前的一个会计年度中：(1) 有关公司所取得的全球销售额至少达 20 亿瑞士法郎 (20.6 亿美元) 或在瑞士境内的联合销售额至少 5 亿瑞士法郎；以及 (2) 最少有两家公司在瑞士各自取得至少 1 亿瑞士法郎的销售额。

如果并购控制机构在收到并购控制通知后的一个月 内未通知它将进行并购控制调查，有关交易被视为通过审批并可以完成。如果开始进行调查，在明确获得审批之前，交易不得进行。有关调查的法定截止期限是发出调查通知后的四个月。然而，因为大多数瑞士公司都活跃在国外市场上，通常也需要被遵守外国合并控制法律——尤其是欧盟并购控制法。

1. 如需阅读本文关于公开要约的全部内容, 请参看《中国商法》，网址：<http://www.cblj.com/>。



UBS China Economic Update

# Who Cares About China?

谁会关心中国?

China's economy is the second largest one in the world, and the fastest growing large one, but its "true" importance for the global economy is often questioned, says economist Wang Tao, Head of China Economic Research at UBS.

Written by **Wang Tao**, Head of China Economic Research, UBS



The conventional wisdom is that China matters mainly for the smaller neighbouring economies and commodity exporters, and much less for the rest of the world; and, given the increasing vertical integration in the production chain in East Asia, even the exposure of many Asian economies to China is just indirect exposure to the US and other advanced economies. These are valid points to some extent, of course, but China's importance has grown for almost everyone, including large developed economies. Moreover, China's import structure has evolved over the years as the country moved up the value chain, a trend that could continue and have significant implications for different exporters.

In this year's version of our annual "China export exposure chart book", we show that China's importance as a market has grown significantly for almost all major trading partners over the past decade (Chart 1). In the case of Japan, the EU, Korea, Australia and India, China's importance has more than doubled or tripled. For Germany, although China only accounts for 6% of its total exports in 2012, slightly more than Italy (5%), there have been big changes over the past decade. Ten years ago, China accounted for a mere 2.2% of total German exports while Italy accounted for 7.3%. That is to say, over the past 10 years, China's demand has contributed to about 9% of overall German export growth whereas Italian demand has contributed negatively.

### Domestic use or re-export?

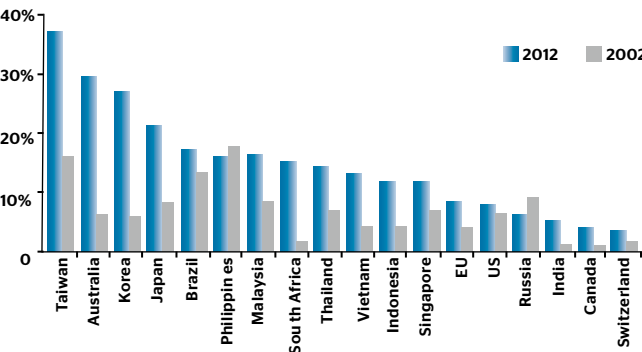
How much does China really matter though? In other words, to what extent are these exports to China for China's domestic use rather than re-exports to the rest of the world? After all, it is well known that more than 40% of China's exports are processing exports where the import content is high. We try to estimate the portion of China's imports for domestic usage for each major partner economy, based on the types of products they export to China (Chart 2). As summarized in the chart below, indeed, a large share of exports to China by many Asian economies are intermediate goods or processing components that are eventually exported by China, rather than for final domestic demand within China, most notably, Taiwan, Korea, and some Southeast Asian economies.

Nevertheless, China's final domestic demand does matter a great deal for most Asian economies, including Japan. A recent joint project of the OECD and WTO measures global trade in value-added terms (TiVA), which arguably measures the "true" trade link by summing up all value-added in a country's direct and indirect exports to another while subtracting from it the part that is used for re-exports as well as the imported value added embedded in the exports. According to these estimates, China's own domestic demand remains the most important final use of value-added exports of Australia, Taiwan, and Korea, and still accounted for 14% of Japan's total exports as of 2009 (the latest available data point).

Chart 1 The importance of China as an export market

图 1 中国是重要的出口市场

Exports to China as a share of total exports  
对中国出口占总出口比重 (%)

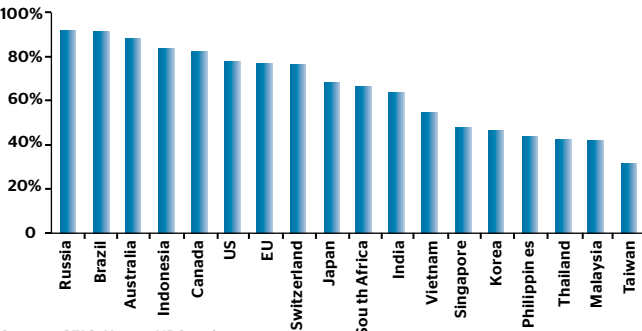


Source: CEIC, Haver, UBS estimates  
数据来源: CEIC, Haver, 瑞银证券估算

Chart 2 Share of exports to China for "domestic" use

图 2 对华进口中用于国内消费的比重 (%), 2012

Share of "domestic" use in Chinese imports, 2012  
中国进口用于国内消费的比重 (%)

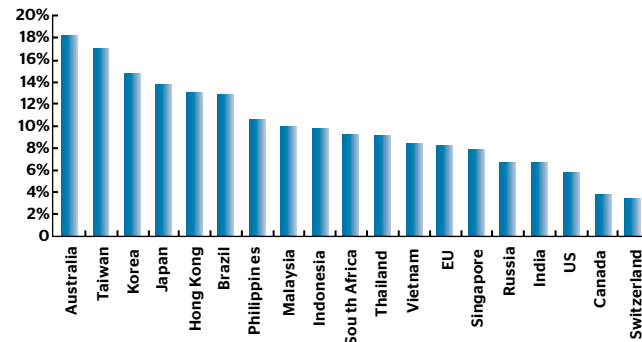


Source: CEIC, Haver, UBS estimates  
数据来源: CEIC, Haver, 瑞银证券估算

Chart 3 Exports for China's final demand as a share of total exports, in value-added

图 3 对中国自身消费出口占其总出口比重, 基于增加值

Value added exports to China as a share of total value added exports, 2009  
对中国出口增加值占总出口增加值的比重 (%), 2009



Source: OECD - WTO TiVA database, UBS estimates  
数据来源: OECD-WTO TiVA 数据库, 瑞银证券估算

From China's point of view, the top five import sources are the EU, Japan, Korea, the US, and Taiwan, in that order (Table 1). In value-added terms, the EU is by far the largest source of imports for China's



Table 1 China's ten largest sources of imports

表 1 中国前十个最大进口地

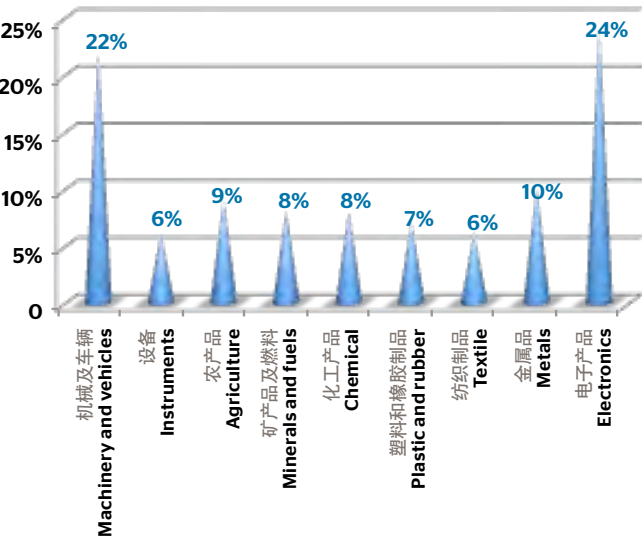
Country 国家	China's gross imports, 2012 中国来自下列国家 / 地区的进口，2012 年	Value added for China's final demand, 2009 中国用于最终消费的进口增加值，2009 年
	占总进口比重 Share in total	占总进口比重 Share in total
欧盟 EU	11.7%	21.4%
日本 Japan	9.8%	11.7%
韩国 Korea	9.3%	5.7%
美国 US	7.3%	12.1%
台湾 Taiwan	7.3%	3.6%
澳大利亚 Australia	4.7%	5.0%
马来西亚 Malaysia	3.2%	1.8%
巴西 Brazil	2.9%	3.3%
南非 South Africa	2.5%	0.9%
俄罗斯 Russia	2.4%	3.3%

Source: Gross imports data estimated from Chinese Customs, value added exports data estimated from OECD-WTO TIVA database  
数据来源：中国进口基于中国海关数据估算，进口增加值基于 OECD-WTO TIVA 数据估算。

Chart 4 China's main imports, 2002

图4 2002年中国主要进口品

Share in total Chinese imports, 2002 (%)  
占中国总出口比重，2002 年 (%)



Source: CEIC, UBS estimates  
数据来源：CEIC, 瑞银证券估算

own final consumption, and the US becomes the second largest source, surpassing that of Japan and Korea. Imports from Taiwan became less important than that from Australia for China's own domestic consumption.

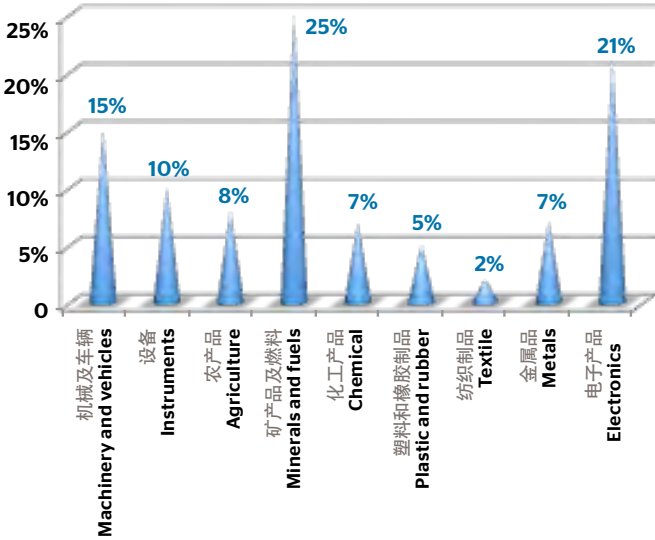
Moving up the value chain

How might China's importance as a market for different economies evolve in the future? It will of course depend on China's future growth as well as its success in rebalancing its economy to one less reliant on exports and investment. In addition, as China develops, the country should continue to move up the value chain in its own production, and hence perhaps increasingly substitute imports in the middle

Chart 5 China's main imports, 2012

图 5 2012 年中国主要进口品

Share in total Chinese imports, 2012 (%)  
占中国总出口比重，2012 年 (%)



Source: CEIC, UBS estimates  
数据来源：CEIC, 瑞银证券估算

part of the value chain. The latter point can be clearly seen in the change in the composition of Chinese imports over the past decade (Charts 4&5). Broadly speaking, China's main categories of imports are commodities, capital goods such as machinery and equipment, and intermediate components for re-export, now and 10 years ago.

However, further details of the import breakdown show that China has reduced its imports of both processing components (such as electronics, textiles, rubber and plastic materials) and capital goods (machinery and equipment, vehicles and metal products). China's processing exports are still more than 40% of the total exports, but as shown in other research, the share of domestic value-added has

apparently increased over time. At the same time, as China moved up the value chain, it has reduced its relative reliance on imported capital goods while enlarged its relative reliance on imported commodities, especially minerals and fuels.

Over the next decade, China may continue to move up the value chain in the manufacturing sector, increasingly substitute imports of machinery and equipment, vehicles and instruments with domestically produced products. Meanwhile, its demand for commodities could be a net result of two main offsetting factors: a more balanced and slower GDP and investment growth, and an increase in the production of intermediate products and capital goods in the process of industrial upgrading.



中国是全球第二大经济体，也是增长最快的大型经济体，然而，中国对全球经济的“真正”重要性经常受到质疑，瑞银中国经济研究所主任汪涛表示。

撰文\_汪涛\_瑞银证券中国经济研究所主任

传统观点认为，中国的重要性主要体现在对相邻小国和大宗商品出口国的影响上，对全球其他地区的重要性则要低得多；此外，鉴于东亚产业链的纵向整合日益增强，中国对许多亚洲国家的重要性也只不过是体现了美国和其他发达经济体对它们的间接影响而已。当然，从某种程度上讲，这些观点有一定道理；不过，对几乎所有国家和地区（包括大型发达经济体）而言，中国的重要性都已经有所提升。此外，随着中国在产业价值链中的位置不断提升，其进口结构也在过去几年不断发生演变——这一趋势可能将持续下去，并对各出口国具有重大意义。

我们最新编制的《中国出口影响年度图表（2013 年版）》显示，过去 10 年里，作为一个重要的出口市场，中国对几乎所有主要贸易伙伴的重要性都大幅提升（见图 1）。对日本、欧盟、韩国、澳大利亚和印度而言，中国的重要性出现了成倍或三倍以上的增长。对德国而言，尽管 2012 年对中国出口仅占其出口总额的 6%，略高于意大利的 5%，但这一份额在过去 10 年里发生了非常大的改变。10 年前，对中国出口占德国出口总额的比重仅为 2.2%，而意大利是 7.3%。换言之，过去 10 年里，来自中国的需求对德国整体出口增长的贡献约为 9%，而来自意大利需求的贡献为负。

自身消费还是再出口？

不过，中国的重要性到底有多大？换句话

说，这些国家的对华出口中有多少是被中国自身消费，而非对全球其他地区的再出口？毕竟，众所周知中国 40% 以上的出口属于加工贸易出口，其中进口来料占了很大比重。根据每个主要贸易伙伴对华出口的产品类型，我们尝试估算中国进口中用于自身消费的比重（见图 2）。如下图所示，的确许多亚洲经济体对华出口中很大一部分是中间产品或加工类产品，最终它们将再次被中国出口而不是满足自身的最终需求，这种情况对台湾、韩国以及部分东南亚经济体而言最为突出。

然而，中国的最终需求对大多数亚洲经济体而言的确非常重要（这当中也包括日本）。近期经合组织（OECD）与世界贸易组织（WTO）共同建立了“贸易增加值统计体系”（TIVA），将一个经济体对另一个经济体直接或间接出口的增加值加总，并扣除用于再出口的部分以及包含在出口中的进口增加值，从而以此衡量“真实”的贸易链关系。根据上述估算，中国自身需求仍然是澳大利亚、台湾和韩国出口增加值中最重要的需求来源，在日本 2009 年总出口中的比重也占到约 14%（2009 年为现有最新数据）。

从中国的角度看，最大的五个进口源地依次是欧盟、日本、韩国、美国和台湾（见表 1）。从增加值的角度看，在中国用于自身最终消费的进口中，欧盟是最大的进口地，美国超过日本和韩国排名第二。依据中国自身消费来衡量，从台湾进口的重要性要低于澳大利亚。

沿着价值链上移

未来，中国作为一个出口市场对各经济体的重要性将如何演变？这当然取决于中国未来的经济增长，及其是否能成功实现经济转型、降低对出口和投资的依赖度。此外，随着中国的发展，其自身产品在价值链中的位置也应继续提升，也许会越来越多地替代价值链中游产品的进口。关于后者，我们可以从过去 10 年中国进口结构的变化中明显看出这一点（见图 4&5）。总体而言，中国目前和 10 年前的主要进口类别均是大宗商品、资本品（如机械设备）以及用于再出口的中间产品。

不过，进一步细分的进口结构显示，中国加工贸易产品（如电子、纺织、橡胶和塑料材料）以及资本品（机械设备、车辆和金属产品）的进口均有所减少。中国加工贸易出口占总出口的份额仍达 40% 以上，但正如其他研究指出的，国内增加值所占比重已有明显增长。同时，随着中国沿着价值链不断上移，中国对进口资本品的依赖度有所降低，但对大宗商品（尤其是矿产品和燃料）进口的依赖度上升。

未来 10 年，中国的制造业领域可能会继续沿着价值链上移，越来越多的国产商品替代进口的机械设备、汽车和工具。同时，影响中国大宗商品需求的两个因素可能互相抵消：一是更加均衡并且放缓的 GDP 与投资增长，二是中间产品与资本品产量在产业升级过程中出现提升。





Guy Morin, President of the Basel Government, and His Excellency Wu Ken, Ambassador of the People's Republic of China to Switzerland, cut the moon cake at the Basel Mid-Autumn Festival.



The "Manager Exchange Programme" is part of the push to actively maintain more vibrant and diverse relationships between the partner cities.



Chinese lion dance at the annual Basel Mid-Autumn Festival.

# Global Reputation For Excellence in Research and Innovation

**Basel opens up attractive opportunities to the Chinese**

**全球领先的研究与创新——巴塞尔向中国开放新机会**

The Swiss city of Basel and the Chinese metropolis of Shanghai have maintained a successful city partnership since 2007. Numerous projects and collaborations have been made for a lively exchange between the two cities and cultures, and offer many attractive opportunities to the Chinese in Basel.

Basel and Shanghai have been partner cities since 2007 and can already look back on a number of cooperations and joint activities. In collaboration with key decision makers from industry, research, education, culture and tourism, the Canton of Basel-Stadt is always striving to integrate the Chinese community in Basel, as well as all those in the region who are interested in China, as best as it can into the partnership projects and then to support them in their activities.

The location of Basel should be particularly attractive to the Chinese due to its numerous activities and become one of the top destinations in Switzerland to live and work. Various occasions, but also a virtual communication platform on Facebook ensure that the contact and exchanges with the China Community in Basel can be maintained. Interested parties can find up-to-date and comprehensive information about Basel and the partnership with Shanghai on the official website [www.basel.ch](http://www.basel.ch) - also in Chinese.

## Chinese Mid-Autumn Festival Basel

The Chinese Mid-Autumn Festival in Basel is a special public event where the local residents can truly experience the partnership between the cities of Basel and Shanghai. It also provides them with an opportunity to interact with the Chinese people living in

Basel. Thanks to its large appeal, which the event inspired in the people of Basel and the China Community in Basel, this traditional Chinese festival is now celebrated every year and for the 3rd consecutive time. This year, it will be held on the 21 September. At the historic Münsterplatz in Basel, visitors have the chance to actively experience the traditions from the Middle Kingdom: Tai Chi, Chinese instruments and calligraphy on asphalt and paper. There are also delicious culinary specialties from China on offer.

## A Confucius Institute in Basel

A further important project of the partnership between Basel and Shanghai, the Confucius Institute in Basel, is nearing a successful completion. The Chinese government organisation Hanban, financial supporter of the Confucius Institute, and the East China Normal University have discussed the framework in detail together with the University of Basel. The contracts were signed in May 2013, during a visit by Basel University's Rector, Antonio Loprieno, in Beijing and Shanghai. The Confucius Institute at the University of Basel will be inaugurated in September 2013 (also see the interview with Antonio Loprieno on page 60).

The Confucius Institute in Basel is a platform for Chinese language and culture. In addition to its own range of services, it aims to work



Basel and Shanghai also maintain numerous collaborations in the business sector. The China Business Platform is responsible for the economic exchange.

closely with the Adult Education Centres in Basel and the Language Institute of the University of Basel. The cooperation with China is of particular interest for the European Institute of the University of Basel, which, in the future, seeks to develop into a Centre for Advanced European Global Studies and it will also focus on researching contemporary East Asia.

Exchange for young managers

Basel and Shanghai also maintain numerous collaborations in the business sector. The China Business Platform has been responsible for the economic exchange between China and the Basel region since 2012 (see information box). Furthermore, there is a regular exchange between the University of Applied Sciences Northwestern Switzerland (FHNW) and Shanghai. The FHNW has been offering an exchange for young managers since 2009. The managers are given an insight into the Chinese business world. It also works the other way around, operations in Basel take on board Chinese managers. During the first week, the young Chinese talents receive an introduction to the Swiss corporate world and local management principles at the FHNW. Then they work for six weeks in a company based in Basel - ideally on tasks where the Chinese guests can contribute something from their cultural background and their relationship network to the benefit of the Basel company.

www.basel.ch  
www.facebook.com/chinaworldbasel



More information  
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Tel. +41 61267 4091

China Business Platform

The China Business Platform (CBP) is a trade and investment platform with the aim of facilitating business relations between China and Northwestern Switzerland, the fastest-growing Swiss business location with a global reputation for excellence in research and innovation.

Fuelled by the successful city partnership between Basel and Shanghai, the CBP has access to important economic institutions in Switzerland and in China. It collaborates closely with major public and private business organizations in both countries to support Chinese companies in Switzerland as well as Swiss companies in China.

- With a powerful network of partners and service providers, the CBP
- offers a single point of contact for Swiss companies interested in expanding their businesses to China, providing initial support and know-how in finding the right partner in China
  - supports Chinese companies setting up their businesses in Northwestern Switzerland by offering consultancy and equipping them with “soft landing” office space and connections to local experts and companies
  - connects Chinese and Swiss business communities in Northwestern Switzerland

The platform is operated by the Office of Economy and Labour of the Canton of Basel-Stadt in collaboration with other cantons of Northwestern Switzerland.

www.china-business-platform.ch

中国商务平台

中国商务平台 (CBP) 是一个旨在促进中国与巴塞尔大区之间商贸关系的贸易与投资平台。巴塞尔大区是瑞士目前增长最快的经济区，以卓越的研究与创新闻名于世。

在巴塞尔与上海之间成功友好城市关系的推动下，中国商务平台联系瑞中双方相关经济机构，与双方主要的官方及私人经济团体组织密切合作，共同支持在瑞士的中国企业和在中国的瑞士企业的发展。

- 拥有强大的合作伙伴和专业服务公司网络的中国商务平台
- 为有志于在中国拓展业务的瑞士企业提供一站式服务，为其在中国找到合适的合作伙伴给予前期的支持和指导。
  - 支持中国企业来巴塞尔大区设立公司开展业务，提供咨询服务，配备“软着陆”办公空间并介绍推介当地专家和企业。
  - 为巴塞尔大区的中瑞两国工商业界牵线搭桥。

本平台由巴塞尔城市州经济与劳动办公室与西北地区其他城市州共同运营。

该平台由巴塞尔城市州经济与劳动局联合瑞士西北部其他各州共同运作，总部设于巴塞尔科技园。

更多详情，请访问www.china-business-platform.ch



瑞士城市巴塞尔和中国都市上海自 2007 年以来一直保持着成功的城市伙伴关系。为了保持两座城市、两种文化之间活跃的交流，双方开展了许多项目和合作，巴塞尔还为当地华人提供了许多富有吸引力的机会。

自 2007 年建立伙伴城市关系以来，巴塞尔和上海已经开展了许多可供回顾的合作和联合活动。通过与产业、研究、教育、文化和旅游等领域的关键决策者进行合作，巴塞尔市一直都在努力将巴塞尔的华人社区及巴塞尔地区对中国感兴趣的人们融入到双方的合作项目中，从而支持他们的活动发展。

由于巴塞尔多样的活动及其正成为人们在瑞士生活和工作的首选目的地之一，巴塞尔城市对于中国人来说十分具有吸引力。除了各种不同的活动场合外，虚拟交流平台 Facebook 也是保持与巴塞尔华人社区联系与交流的重要工具。如有兴趣，可访问官方网站 [www.basel.ch](http://www.basel.ch)——包含中文信息，了解最新、最全面的巴塞尔及其与上海的伙伴关系信息。

巴塞尔中秋节活动

华人在巴塞尔的中秋节活动是当地居民可以真正经历巴塞尔与上海之间城市伙伴关系的特殊公共活动，它还为人们提供了一个与在巴塞尔的华人交流的机会。应巴塞尔人民和

巴塞尔华人社区的一致要求，现在巴塞尔每年都会庆祝这一中国传统节日。今年是第三年，庆祝活动将于 9 月 21 日举行。在巴塞尔的历史性地标蒙斯特广场，来宾将有机会体验中国的各种习俗和文化：太极拳、中国乐器和书法等。此外，还可以品尝中国的传统美食。

巴塞尔孔子学院

巴塞尔孔子学院是巴塞尔与上海之间伙伴关系的另一个重要项目，目前该学院的成功建设已近尾声。中国政府组织汉班、孔子学院的资金赞助者以及华东师范大学已就该项目的具体框架与巴塞尔大学进行了讨论。在巴塞尔大学校长 Antonio Loprieno 访问北京和上海期间，各方还于 2013 年 5 月正式签订了合同。位于巴塞尔大学的孔子学院将于 2013 年 9 月正式开幕（见 60 页，访谈巴塞尔大学校长 Antonio Loprieno）。

巴塞尔孔子学院是了解中国语言和中国文化的平台。除了其自身的服务范围外，它还将与巴塞尔的成人教育中心和巴塞尔大学的语言中心密切合作。欧洲教育机构巴塞尔大学

对此次与中国的合作具有特别的兴趣，在未来也希望发展成为一个欧洲全球高级研究中心，同时将十分关注对当代东亚地区的研究。

青年经理人交流项目

巴塞尔和上海还在商业领域保持着密切的合作。中国商务平台自 2012 年以来一直负责中国和巴塞尔地区的经济交流（见信息框）。此外，瑞士西北应用科学大学（FHNW）与上海之间也保持着定期的交流。FHNW 自 2009 年以来，一直组织着一个青年经理人交流项目，经理人从此项目获得对中国商界的深度认识。这种交流不是单方面的，巴塞尔方面的运营部门也会接待来自中国的经理人。在项目第一周，年轻的中国经理人将在 FHNW 了解瑞士的企业界和当地的管理原则。随后，他们会在巴塞尔的一家企业工作 6 周，主要根据中国客人的教育背景和关系网络，在能使巴塞尔企业受益的领域工作。

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# 巴塞尔将设孔子学院 Confucius Institute to Open in Basel

As China increases efforts to promote its cultural influence and enhance its global reputation, Confucius Institutes are springing up all over, bringing Chinese language and culture to many foreign audiences. Confucius Institutes are part of the “soft power initiative” launched by Chinese President Hu Jintao back in 2005. After Geneva, Basel will host Switzerland’s second Confucius Institute, which will open its doors this fall. The Bridge talked to Prof. Antonio Loprieno, Rector of University of Basel and Egyptologist.

Written by **Fabian Gull**, Shanghai



## **Q The Bridge: Why does the University of Basel need a Confucius Institute?**

**Antonio Loprieno:** I shall mention two main reasons. First - striving for the university’s internationalization is an integral part of our strategy. However, to date, we are not engaged in any intellectual relationship with China. This is going to change very soon. Second, we believe that the Confucius Institute is a flexible tool that can be used as a platform for various collaborations with Chinese scientists.

## **Q Contrary to the University of Zurich, Sinology is not part of the curriculum in Basel. Shall the Confucius Institute compensate for that lack?**

The absence of Sinology is a boon and bane for us (laughing). The fact that we don’t have a Sinology tradition in Basel maybe allows us to bring in a fresh perspective. For example, we view this project as part of our strategic focus on Global Studies which would be less feasible when coming from a strictly Sinology background. We are trying to translate this deficiency into an advantage.

## **Q Do you have plans for the introduction of a Sinology chair in Basel?**

It is on our wish list. In the coming years, I can assure you we aim to establish professorships with a “China focus” at our

university. I am talking about two to three professorships.

## **Q With what kind of “China focus”?**

This can be, as an example, in linguistics or economics. It is too early to tell. We strive towards a bottom-up approach in the engagement with the topic of China, for which, again, the Institute can serve as a platform.

## **Q What will the Institute focus on? Folklore or academic studies?**

In my current position as Rector, I can tell you, it is sometimes good to have clear ideas and

visions. But often, it can also be advantageous to not have a clear agenda in mind from the very beginning. A broader framework is set, but the detailed content needs yet to be defined. It is an adventure for us. Our primary orientation will be an academic one. But folklore - not as in making dumplings and spring rolls - but seen as a cultural dialogue aside from academia, will surely also be part of it. So we will serve both a public as well as an academic audience.

## **Q In the West, China is often criticized for a multitude of reasons, and Chinese culture centres spark propaganda fears amongst China critics. What is your view?**

In Switzerland, the interaction of universities with various stakeholders has always triggered vivid discussions. And rightfully so. All stakeholders and every money source, be it Cantons who are financing our university or corporate or private donors, naturally have some sort of interests, agenda and wishes. Or do you think contributing Cantons have no agenda? This is no different with Hanban (see sideline). But I can assure you, we have a tradition based on academic independence from politics. And we are experienced in dealing with and balancing out expectations of our stakeholders.

## **Q China launched a “soft power” initiative, aiming at improving the country’s image. Do you see Confucius Institutes as part of this initiative?**

Yes I do. And so is Swissnex a tool to foster Switzerland’s reputation in the field of science and innovation. Similarly, also Goethe Institutes were a massive propaganda of the Federal Republic of Germany, helping to re-establish the country as an important intellectual partner in the world.

## **Q How long did it take from the first idea until the opening?**

Roughly two years, which is quite swift for usually inert institutions like universities (laughing). The establishment also needs to be seen in the context of a city partnership between Basel and Shanghai, which has helped raise awareness on both sides.



## **Q How is the Institute financed?**

Hanban follows the principle of matching funds. So whatever we invest, China doubles the amount. We account for the management and provide infrastructure. Visiting Professors from China will be funded by our partner institution - the China East Normal University in Shanghai. The university’s investments will be CHF 250’000 per annum for the years to come.

## Confucius Institutes

Confucius Institutes are non-profit public institutions aimed at promoting Chinese language and culture. Their headquarters are in Beijing; and Hanban, which is affiliated with the Ministry of Education, oversees their programme. They operate within existing educational institutions in the host country, providing teaching and educational materials. Funding is shared between Hanban and the host. The first Confucius Institute opened in Seoul in late 2004. Currently, there are about 300 of these institutes worldwide. Hanban aims to raise that number to 1,000 by 2020. The Confucius Institutes are more or less the equivalent of the Alliance Française, Goethe Institutes, the British Councils, the Società Dante Alighieri and the Institutos Cervantes - which different European countries have established to promote their language and culture.

## 孔子学院

孔子学院是旨在推广中国语言和非盈利性公共机构，总部位于北京。孔子学院由汉办承办，附属教育部。孔子学院在海外主办国家的现有教育机构下运营，提供教学与教育资料，费用由汉办与主办国共同承担。2004 年底首家孔子学院在首尔设立，迄今已在全球建立了近 300 家。汉办计划在 2020 年共设立 1000 家孔子学院。孔子学院类似于许多欧洲国家设立的语言和文化推广机构如法语联盟、歌德学院、英国文化协会、但丁协会和塞万提斯学院等。



孔子学院是中国前任国家主席胡锦涛于 2005 年提出的“软实力”倡议的一部分。继日内瓦之后，巴塞尔将于今年秋天正式设立位于瑞士境内的第二家孔子学院。《桥》对话巴塞尔大学校长、埃及古物学者 Antonio Loprieno，为您介绍学院的设立情况。

撰文\_方必安，上海

问 巴塞尔大学为什么需要孔子学院？

Antonio Loprieno :有两个原因。努力实现大学的国际化是我们整体办学战略的一部分，但是，迄今为止我们还没有与中国建立学术关系，孔子学院的设立将改变这种现状。其次，我们认为孔子学院将成为与中国科学家间多样合作的一个灵活的平台工具。

问 与苏黎世大学不同的是，巴塞尔大学的课程里面没有设置汉学，孔子学院是否将弥补这一缺失？

汉学的缺失是这一切的祸根（笑）。事实上，我们在汉学传统上的空白将有助于我们以全新的角度引入汉学。比如说，我们把这个项目视作全球性研究的战略重点的一部分，如果我们拥有十分完全的汉学背景的话，那么这种战略的可行性就会降低。我们希望把这种缺失转化为优势。

问 你们计划在巴塞尔引入一个汉学席位吗？

我们希望这样。今后几年，我们的大学肯定会设立以中国为研究重点的教授席位，可能会设立两到三个这样的席位。

问 以什么为侧重点？

可能是语言学或经济学，现在确定还为时过早。在中国课题上，我们积极采取一种自下而上的战略，孔子学院将起到一个平台的作用。

问 孔子学院的重点是什么？它服务于大众还是学术研究？

在我担任校长期间，我认为清晰的思路和愿景有时是十分有利的。不过，在初期不确立明确的安排往往也具有优势。这对于我们来说是种冒险。我们已经设定了一个大致的框架，具体的内容还需要进一步确定。不过，目前看起来我们将同时服务于大众和学术界。我们的首要方向在学术方面，而大众也是一部分，我们将呈现不是包饺子和春卷，而是学术之外的文化对话。

问 在西方，由于种种原因使得中国备受批评，中国文化中心往往会引起中国批判论者对中国宣传的恐惧。你怎么看这一点？

在瑞士，大学与不同利益体的接触往往都会引发热烈讨论。所有的利益体和每一个资金来源，不管是资助我们大学的城市州、公司抑或

私人捐助者，都有着不同的兴趣、安排和愿望。难道提供赞助的城市州没有安排？汉办（见边栏）也是一样。不过我可以确定的是，我们的传统是学术独立于政治。另外，在处理和平衡利益体的期望方面我们拥有丰富经验。

问 中国提出了旨在提升国家形象的“软实力”倡议，孔子学院是否这一倡议的一部分？

是的，就像瑞士科技文化中心是提升瑞士在科技与创新领域声望的工具一样。类似的，歌德学院是德意志联邦共和国巨大的宣传工具，帮助国家重建重要的学术伙伴地位。

问 从最初设想正式设立，花费了多长时间？

大概两年时间，这对行动迟缓的大学来说算是很快的。此外，孔子学院也应该被看作是促进双方了解的巴塞尔和上海间伙伴关系的背景下设立的。

问 学院的资金来源是什么？

汉办遵循共同出资的原则，即不管我们出资多少，中方都会出与我们相同的金额。我们负责管理和提供设施，来自中国的客座教授由我们在中国的伙伴华东师范大学资助。今后，巴塞尔大学每学年的投资是 25 万瑞士法郎。



Confucius

The philosopher Confucius was born in China in the 6th century BC. His teachings emphasised family loyalty and the respect of elders by their children. His philosophy, based on virtue and morality, was the official state ideology of China for about 2,000 years. At the beginning of the 20th century, when the imperial system was overthrown, Confucianism was blamed for having helped the emperors keep the bulk of the population in subservience. Later, Mao Zedong blamed Confucian ideology for China's backwardness. However, in recent years Confucius has again become popular.

孔子

哲学家孔子出生于公元前6世纪的中国，他的思想倡导家庭忠诚、敬奉祖先。他的哲学以德行和道德为基础，作为中国的官方思想达近2000年之久。20世纪初期，当帝国体系被颠覆，孔子思想被认为是帝王奴役人民的帮凶。后来，毛泽东将中国落后的根源归咎于孔子思想。不过近年来，孔子思想再次受到了人们的关注。



SwissCham China is proud to announce the launch of its new website:

[www.swisscham.org/china](http://www.swisscham.org/china)

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On the occasion of SwissCham Beijing's Regional Annual Assembly (RAGA), our members elected the new Board of Directors for 2013. We would like to congratulate our new and re-elected Board Members and thank them for their service and dedication to the success of SwissCham and its members. We look forward to working with them during this new SwissCham year.



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**Yannick Roulin**  
Honorary Director of the Board

Head of Economic &  
Commercial Section  
Embassy of Switzerland

**15**  
March 2013

## Regional Annual General Assembly & Swiss Traditional Dinner

**Venue:** Renaissance Beijing Chaoyang Hotel

**Organizer:** SwissCham Beijing

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This year's RAGA saw the successful election of the new Board of Directors for the Beijing office. The General Assembly was followed by the Swiss Traditional Dinner. Members and non-members came along with families and friends to experience a typical Swiss atmosphere. This year each table had its own raclette stove allowing the guests to cook their own raclette according to preference and taste. This new formula was a great success gathering once again over 120 people. The raclette cheese was provided by Swissmooch and the exquisite food was accompanied by a selection of white and red wines proposed by MQ Wines.





**20**  
March 2013

## NBS Nobel Prize Roundtable

**Venue:** New Huadu Business School

**Speaker:** Prof. Edmund Phelps, McVickar Professor of Political Economy at Columbia University, Dean of New Huadu Business School

SwissCham Beijing, in collaboration with New Huadu Business School (NBS), organized the NBS Nobel Prize Roundtable on 20th March 2013. The event was attended by H.E. Jacques de Watteville from the Swiss Embassy, officials from the Swiss Business Hub, SwissCham Members as well as participants from the Danish, German, French and Benelux Chambers of Commerce. Professor Phelps, 2006 Nobel Prize Winner in Economics, lectured on "Main Developments in Trade, Capital Flows and Exchange Rates".



**05**  
March 2013

## How to Enable Managers to Become Successful Future Leaders

**Venue:** Radisson Blu

**Speaker:** Mr. Robin Ball, MDS

**12**  
March 2013

## Ten Important Things to Consider When Concluding a Contract in China

**Venue:** Kempinski Hotel

**Speakers:** Mr. Laurent von Niederhäusern, Wenfei Attorneys-at-law; Ms. Yaqi Liu, Wenfei Attorneys-at-law.



**19**  
March 2013

## Using Coaching Skills to Empower Your Team

**Venue:** Radisson Blu

**Speaker:** Ms. Elisa Mallis, MDS

**10**  
April 2013

## Quel est le « rêve chinois » de Xi Jinping ?

**Venue:** Kempinski Hotel

**Speaker:** Mr. Eric Meyer, Journalist



**17**  
April 2013

## Hot Issues in Labor Contract Law

**Venue:** Westin

**Speakers:** Mr. Du Baozhong, Senior Counsel in the International Legal Affairs Department, Beijing Yingke Law Firm





**19** **The Sheet Metal Processing Pioneer - Bystronic Roundtable & Factory Visit**  
**April 2013** **Venue:** Bystronic's company, Tianjin  
**Speakers:** Mr. Bob Yang, Bystronic, Mr. Bill Wei, Bystronic

**06** **Asian-European ECA Coaching Congress Beijing 2013**  
**May 2013** **Venue:** Sofitel Wanda Beijing  
**Speakers:** Mr. Gerhard Schwarz, Vienna State University; Master Shi Xing Qing, 32nd generation Shaolin monk and China's Shaolin Kung Fu Master

**09** **Using Coaching Skills to Empower Your Team**  
**May 2013** **Venue:** Radisson Blu  
**Speaker:** Ms. Elisa Mallis, MDS

**14** **Rebalancing of China, India and ASEAN in Global Supply Chain and Rise of New Asian Consumer**  
**May 2013** **Venue:** Hilton  
**Speaker:** Mr. Chris Devonshire-Ellis, International Group

**16** **Ambassador's Briefing**  
**May 2013** **Venue:** Beijing Marriott Hotel Northeast  
**Speaker:** H.E. Mr. Jacques de Watteville, Ambassador of Switzerland to China, Mongolia and North Korea



**26** **Business Networking Event in Tianjin**  
**March 2013** **Venue:** Hotel Indigo, Tianjin

**28** **Inter-Chamber Ladies Afterwork**  
**March 2013** **Venue:** Face Bar



**18** **Inter-Chamber HR Networking**  
**April 2013** **Venue:** Legendale Hotel

**25** **YP Wine Tasting and Networking**  
**April 2013** **Venue:** Enoterra  
**Speaker:** Mr. Ludovic Lafleur



**21** **Biz Socializer Inter-chamber Business Networking**  
**May 2013** **Venue:** Renaissance, Tianjin

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22  
March 2013

### Regional Annual General Assembly (RAGA) & National Annual General Assembly (NAGA) 2013

Venue: Sofitel Hyland, Shanghai

Organizer: SwissCham

With Consul General Heinrich Schellenberg as acting President of the day, SwissCham Shanghai held its Regional Annual General Assembly, followed by the National Regional Assembly. More than 70 attendees, including guests from SwissCham Beijing and Guangzhou, participated in the two assemblies and mingled during the sumptuous dinner. The Shanghai chapter will be headed by Andreas Luchsinger. Newly elected Board members in Shanghai are John Woo (DKSH), Andrea Nessi (Unitouch Services) and Martin Honegger (IBM). Martin Wagner has been elected as new Chairman of SwissCham China, succeeding Urs Calonder.





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**Lise Tissot Jendly**  
Board Member

Of-counsel/Swiss Attorney-at-law  
Eiger Law



**Martin Honegger**  
Board Member

Director of Marketing  
Operations  
IBM



**Martin Tempus**  
Board member & National Rep.

General Manager  
Sulzer Metco Surface  
Technology



**Patrick Mueller**  
Board Member

CEO  
DrM Shanghai

## 12 March 2013 Strengthening Leadership Through Agility & Resilience

**Venue:** Sofitel Hyland

**Speakers:** Mr. Noriko Takagi, Steinbach und Partner Consulting China, Mr. Bart de Backker, B-Integral

**Moderators:** Mr. Rolf Koehler, Freudenberg Management, Mr. Thomas Dorn, ProConTra Trading

**Organizers:** SwissCham, German Chamber of Commerce

## 18 March 2013 Innovative Entrepreneurship in China

**Venue:** Brownstone Bar

**Speaker:** Mr. Olivier Glauser, Shankhai Sports

**Organizers:** SwissCham, Swissnex



## 28 March 2013 The Annual Inter-Chamber Spring Season Mixer 2013

**Venue:** Glamour Bar

**Organizer:** Multi-Chamber Event

## 01 April 2013 Young Professional Networking Event: Digital Impact in China

**Venue:** The Chalet

**Speaker:** Mr. Marc Finsterlin, Aquarius Digital Consulting

**Organizers:** SwissCham, Eiger Law

## 26 March 2013 Bobst Company Visit: Lean Management

**Venue:** Bobst

**Speaker:** Mr. Johnny Yang, Bobst

**Organizer:** SwissCham



## 03 April 2013 Shanghai Mega City on the Move

**Venue:** Waldorf Astoria Hotel

**Speaker:** Mrs. Fanny Hoffmann-Loss

**Organizers:** SwissCham, Shanghai Flaneur



## 19 Home Sweet Home

**Venue:** Bloc  
**Speaker:** Mr. Christopher Dillon, Dillon Communications  
**Organizers:** SwissCham, Canadian Chamber of Commerce



## 25 China's Economy Outlook

**Venue:** Longemont Hotel  
**Speaker:** Mr. Harrison Hu, UBS  
**Organizers:** SwissCham, MayCham

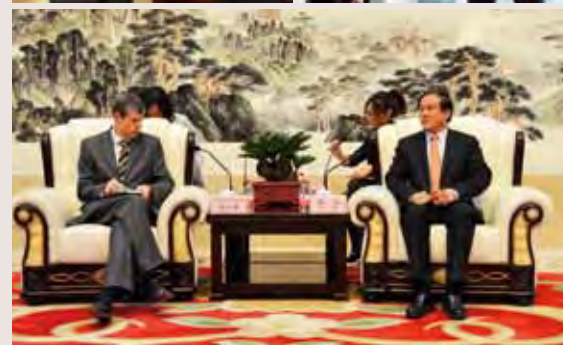


## 23 The Key to Success - Entrepreneurship Event

**Venue:** The Royal Meridien  
**Speakers:** Mrs. Liu Yan, Xin Dan Wei, Mr. Andre Gisiger, Ivy League English, Mr. Philippe Huser, Napa Wine Bar & Kitchen  
**Organizers:** SwissCham, Spanish Chamber of Commerce

## 16-17 Economic Mission to Anhui Province

**Venue:** Anhui Province  
**Organizer:** Consulate General of Switzerland in Shanghai



## 14 The Economic Significance of Sino-Swiss Relations

**Venue:** Swatch Art Peace Hotel  
**Speakers:** Mr. Carlo Conti, Vice Mayor of the Canton of Basel-Stadt, Mr. Antonio Loprieno, University of Basel, Mr. Heinrich Schellenberg, Consulate General of Switzerland, Mr. En Li, Novartis  
**Organizers:** SwissCham, Swissnex, Basel



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### Individual

#### Mr. Gregor Conrad

Languard Partners

#### Mr. Daniel Guenther

Nuessli Schweiz AG



## 04 Monthly Luncheon with the Swiss Association: Current Political Situation in Hong Kong and Outlook 2013

March 2013

Venue: The Hong Kong Club

Speaker: Mr. Mike Rowse



## 07 Cocktail Initiated by Swiss Young Professionals

March 2013

Venue: Latitude 22



## 18 Joint Business Community Luncheon with John Tsang, Financial Secretary of the HKSAR

March 2013

Venue: Hong Kong Convention Centre  
Speaker: Mr. John Tsang, HKSAR  
Financial Secretary

At this luncheon, HKSAR Financial Secretary, the Honorable John Tsang, spoke to the Hong Kong business community at a luncheon on the reasoning behind his 2013-2014 budget speech, which he delivered to the Legislative Council in February. He also fielded questions from the audience on Hong Kong's "effective" tax rate, competitiveness and the need to expand MICE facilities (meeting, incentive, conference, event).



## 21 INSIDE Series - Get the INSIDE View in Another Business Zero Carbon Architecture in Hong Kong - Site Visit to Zero Carbon Building

March 2013

Venue: Zero Carbon Building

Speaker: Mr. Guiyi Li, Construction Industry Council



## 08 Monthly Luncheon with the Swiss Association on Business Aviation in Asia

April 2013

Venue: The Hong Kong Club

Speaker: Mr. Björn Näf, Metrojet





10

## Bloomberg TV Studio Tour

**Venue:** The Bloomberg TV Studio  
**Speaker:** Mrs. Clare Robinson, Bloomberg



02 **Cocktail Initiated by Swiss Young Professionals**  
**Venue:** Delaney's  
**May 2013**

10 **Monthly Luncheon with the Swiss Association**  
**Venue:** The Hong Kong Club  
**Speaker:** Mr. Bernhard J. Walker, Migros Hong Kong



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## Individual

### Mr. Max Thommen

### Mr. Frank Eggmann

## Young Professional

### Felix Ng

### Werner Broennimann

### Serge Aymon

### Deepak Mohan

### Bastian Hofacker

### Thomas Haller

### Georgette Schmid

### Thomas Camenisch

### Dan Ni Zhao

### Gerard Belicha

### Adrian Andreas Baumgartner

### Andres Flueckiger



# Regional News

.....Guangzhou.....

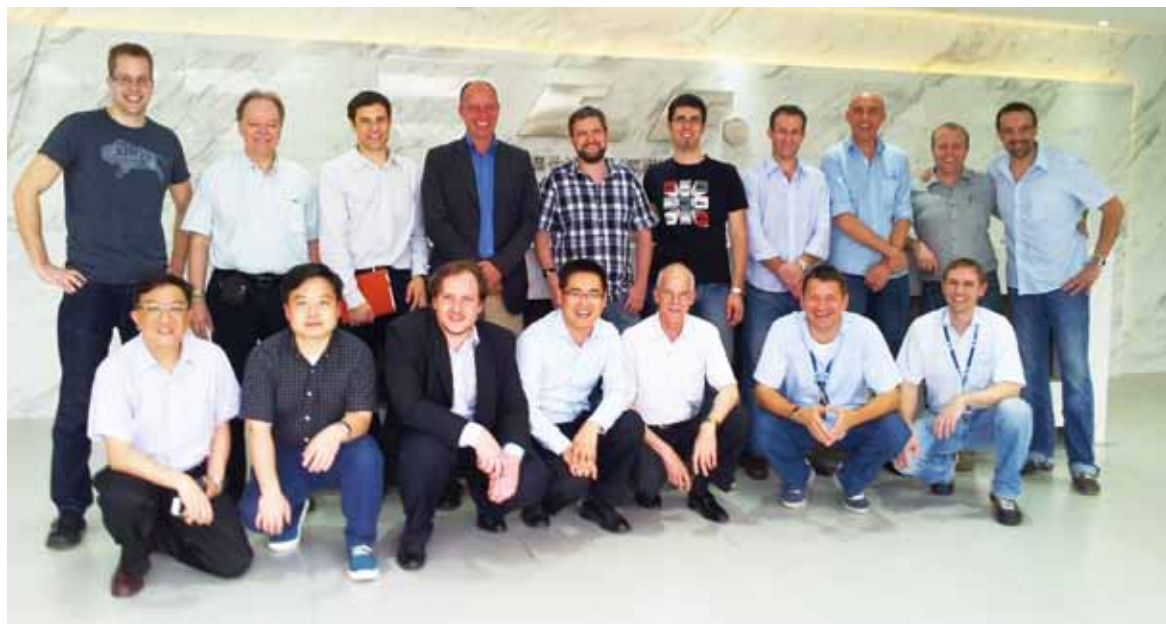
## 12 Third Annual Swisscham Guangzhou Gold Tournament

April 2013 This year's event was held at the luxurious Wind Valley Golf Club in Shenzhen and attracted the largest turnout for the tournament to date.



## 10 Visit to EF Electrical (Shenzhen) Co Ltd

May 2013



### Upcoming Events

- 2 August** Swiss National Day Celebration
- 9 November** Jass Tournament

"Spotlight on Guangzhou Members" returns next issue where we update members on the activities of a Swisscham Guangzhou member. If you would like your business featured in this section then please contact [kelly.lee@swisscham-gz.org](mailto:kelly.lee@swisscham-gz.org).

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