PUJIANG INNOVATION FORUM 浦江创新论坛

2013 创新驱动与企业主体

Innovation-Driven Development and the Role of Enterprises

浦江创新论坛

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Conference Review

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Opening Ceremony & Plenary Session

Innovation-Driven Development and Role of Enterprise

Currently, the world is advancing in great strides and undergoing major changes and adjustments. Innovation-driven development emerges a general trend. Pujiang Innovation Forum 2013, held on October 26th and 27th in Shanghai under the theme "Innovation-driven Development and Role of Enterprises", was composed of the Plenary Session, Country of Honor Forum and eight sub-forums. The present brief report, developed on speakers' reports of the Plenary Session, is for your reference.

XU Guanhua

President of Pujiang Innovation Forum, Academician of Chinese Academy of Sciences

Jan Vapaavuori

Minister of Economic Affairs, Finland

LIU Jie

Vice Governor of Sichuan Province

In the international arena, science and technology has become a major driving force behind social and economic development. Innovation-driven development is what the world is seeking. It is hinged upon close cooperation between scientific and technological innovation and social and economic development. It is making the enterprise a major player of technological innovation. At the opening and Plenary Session of Pujiang Innovation Forum 2013, senior statesmen, experts, scholars and renowned entrepreneurs from both home and abroad, under the theme "Innovation-driven Development and Role of Enterprises" in mind, exchanged great ideas and views on hot-spot issues of innovation-oriented economy, innovative technology and innovative utilization of energy in the context of the new technological revolution and industrial transformation.

I. A New Round of Technological Revolution and Industrial Transformation is in the Making

Nearly all the speakers believe that innovation is a theme of the current world and a new round of technological revolution and industrial transformation is in the making. Only by going with the tide and seizing opportunities can a country or city make a head start and hold the initiative in the cut-throat competition in the future.

First of all, worldwide issues such as the global financial crisis have become an important force driving the technological revolution and industrial transformation, posing great challenges to the existing development model. To create new engines for development and growth, we must make ground-breaking progress in science and technology innovation. Wan Gang, Vice Chairman of the CPPCC and Minister of Science and Technology, pointed out that the current global issues concerning population, resources, energy, food, environment and health as well as the global financial crisis served as a great driving force behind the technological revolution and industrial transformation.

Secondly, new technological revolution and industrial transformation brings about great opportunities for human development. Years of development has laid a solid foundation for many major fields concerning science and technology innovation, yielded revolutionary results and facilitated the rapid rise of new industries, instilling great vitality into the world economy. Steven Chu, former Secretary of Energy, USA and professor of Stanford University, in his speech under the theme of "the energy problem and climate change", stated that presently, great progress and breakthroughs were being made in the areas of new energy vehicles, smart technologies, distributed power

YANG Xiong
Mayor of Shanghai

WAN Gang
Minister of Science and Technology

Erkki KM Leppävuori
President & CEO, VTT Technical Research Center of Finland

generation, photovoltaic technology, energy-saving and environmental friendly technologies and many other new technologies, bringing about major changes to global economy and social development. Closing his speech, he highlighted that technology and innovation could help us get to where we need to go.

Thirdly, industrial transformation based on technological revolution carries symbolic features. Perceived from a historical perspective, industrial transformation greatly supported by technological revolution bears distinctive features. Reviewing the major transformations in history, Minister Wan Gang held that the occurrence of new industrial transformation followed certain rules and had its own features. Firstly, it was usually built on important scientific theories. Second, it was accompanied by significant means of production. Third, it gave rise to a great number of popular investment spots and jobs. Fourth, the development mode of economic structure underwent major changes and brought about high profits. Fifth, mode of production and people's lifestyle would go through important reforms.

II. Openness and Cooperation should be Considered a Crucial Way for the Realization of Innovation-Driven Development

To expect new technological revolution and industrial transformation around the globe and collectively tackle global issues, there is a crying need for the full utilization of global innovation resources and strengthened cooperation.

Globally, the importance of scientific and technological cooperation and exchanges has been widely recognized. Experts from both home and abroad unanimously believed that openness and cooperation dominated the development of the world and had become an irresistible trend. Mr. Fursenko, Assistant to the President of the Russian Federation, stressed in his speech that "the bio-diversity concentrates efforts of the regional and international organs including the United Nations. But to keep the intellectual diversity, we need to develop efficient cooperation to arrange proper exchanges of the knowledge, ideas and approaches" and in such a world, "we are thinking of not how to compete but how to interact and cooperate". Minister Wan Gang pointed out that in order to enhance intergovernmental technological cooperation and exchanges, we should make arrangements of industrial innovation in the context of international technological development and competition between industries, analyze the situation of global technological development and industrial transformation, give priority

CHEN Xiaoya
Deputy Minister of Science and Technology

Andrey A. Fursenko
Assistant to the President of the Russian Federation

Steven Chu
Nobel Prize Laureate; Former Secretary of Energy, USA; Professor of Stanford University

to the selection of technology foresight and key technologies as well as follow the trend of technological development.

Nationally, to construct an innovation ecosystem is of great importance. Such a system lays more focus on the diversity and dynamics of innovation, attaches greater attention to interactions and exchanges between major players and plays an increasingly crucial part in the innovation-driven development of countries and regions. President and CEO of VTT Technical Research Centre of Finland Mr. Leppävuori, when introducing the development of the innovation system of Finland, said that the innovation ecosystem of Finland had been changing constantly, but "Regardless of the details of the paradigm, what has been important is good cooperation between different parties in the academic world and the business world and in the political arena as well" and "the innovation eco-system of the future will be increasingly built on the impact and outcome of the research. The impact can be described in terms of five dimensions. The first is the technical impact which refers to the immediate impact that an R&D corporation project has in terms of technical output such as innovations and patterns. Scientific publications can also be included in this category. The second category of impact is defined as economic impact which refers to the direct short- and medium- term impact that R&D has economic issues such as sales, exports, productions cost, profits, productivity, employment and client base. The third impact of impact often refers to as input additionality and refers to how current changes in investment may affect future performance, machinery, information and software systems, new methods of human resources management and training, internal and external R&D, patent licensees and non-R&D related innovation services. The fourth category is intangible impact. This affects things like company's long-term competitiveness and includes activities such as learning, staff training, team work and knowledge sharing, market understanding, defining and planning innovation activities, better use and selection of information and software systems, improved relationships between company's R&D departments and other units and better information of public innovation programs. The fifth category covers other types of impact including qualitative issues such as general client's satisfaction and the additionally offered in terms of speed, relative ambition and efficient project".

III. The Enterprise is the Major Player of both Technological Innovation and Innovation-Driven Development

To realize innovation-driven development, the enterprise plays an indispensable role. It's the major player of both technological innovation and

Kris Gopalakrisnan

Co-Founder & Executive Vice Chairman, Infosys Limited

LIN Zuoming

President, Aviation Industry Corporation of China

Jussi Pesonen

President and CEO of UPM Corporation

innovation-driven development.

First, entrepreneurship needs to be carried forward to facilitate value realization of innovation. Schumpeter held that innovation is an economic concept instead of a technological one because innovation is supposed to create economic value. Innovation is a recombination of production factors made by entrepreneurs and innovation is made possible by the innovative spirit of entrepreneurs. Lin Zuoming, President of the Aviation Industry Corporation of China, believed that innovation was not simply a physical accumulation of different factors, bur instead, incorporating information media of other factors with the original one or several factors so create a "Rong Jie State"--a stable "evolutionary state" where new value was created as a result of the evolution of the original value. This process depended on the extent to which entrepreneurship was played out. As long as the entrepreneurship was carried forward and the enterprise was given a major role, innovation of technology and business management mode would come along.

Second, promoting innovation cooperation is essential to the enhancement of the enterprise's innovation ability. A company must constantly acquire external information and digest it to build up its own capability. Mr. Pesonen, President and CEO of UPM Corporation pointed out that in recent years, his company had established stable partnership with enterprises, academies and various institutions in the areas of renewable diesel, bio-composite, biofibre and bio-chemicals. Innovation cooperation involved not only external cooperation but also internal cooperation within the company itself. Co-founder and Executive Vice Chairman of Infosys Limited, Mr. Kris said that a good example of all-round collaboration within the enterprise was "in the area of strategy planning at Infosys" and "this is a wonderful example of how we have leveraged technology". In the platform created by technology, "employees around the world are allowed to participate in discussion forums, they are able to give their comments, they are able to add to other's ideas and things like that. In this way, ideas bubble up to the top" and "this is a bottom-up approach including every employee in the strategy planning exercise".

Third, research institutions of applied technology play an important role in the enhancement of company's innovative capacity. Apart from the government, universities and scientific research institutes, research institutions of applied technology also play a crucial part in enhancing the role of the enterprise in technological innovation. While introducing the operation mechanism of VTT, Mr.Vapaavuori noted that "the biggest difference (between research and technology organizations

and universities), however, is that in research and technology organizations, the core business is services to business life, whereas for universities, these activities may even be in conflict with the basic core businesses like teaching and research" and "as a representative of technology sector, I believe that by developing and applying new technology, science and innovation policy, VTT's primary aim is to improve business competitiveness and benefit both industry and the service sector".

Country of Honor Forum

Innovation Economy:
Competitiveness through Innovation

The Country of Honor Forum of Pujiang Innovation Forum 2013 was held on October 26 in Shanghai. Republic of Finland was the Country of Honor 2013.

CHEN Linhao

Deputy Director General, The Department of International Cooperation, Ministry of Science and Technology

Pekka Soini

Director General, Tekes

CHEN Xiaoya

Deputy Minister of Science and Technology

Pujiang Innovation Forum 2013 invited Finland, a country of great innovative strength, as the country of honor and set up the Country of Honor Forum. At the forum, statesmen, businessmen and intellectuals from both China and Finland conducted in-depth exchanges and discussions centering around issues of new value creation model, investment in knowledge, etc. and under the theme of "Innovation Economy: Competitiveness through Innovation". Their ideas and views met positive respond from the attendees.

I. Intangible Assets and Services Play an Increasingly Important Role in Value Creation.

Experts present at the forum held that intangible assets and services were becoming a crucial source for value creation. Combined with tangible assets and being fully applied, they ultimately provided products and services of greater value.

Firstly, mobile information facilitates the realization and transfer of value. Factor mobility, especially information mobility, is a significant channel for value realization. Mr. Petri Rouvinen, Managing Director of Etla, the Research Institute of Finnish Economy, cited the example of NOKIA and Oilon, believed that transnational companies dominated the R&D, brand design and management, thus gaining great benefits in the value chain. But it should be attached great attention that large-scale international knowledge transfer was breaking the existing distribution pattern and influencing the mobility of value capture ability. In the meantime, as a major destination of information flow, the location of engineering product assembly had a growing impact on the value of the products. This was because during the assembly process, accumulation of knowledge concerning localized services, local development and intellectual property played a positive role in value creation.

Second, the brand, the end user and the "gate keeper" role of the industry have become the recipes for value creation and capture. Through case analysis on 39 value chains around the globe, Director Petri Rouvinen concluded that "as far as companies are concerned, there are three positions that seem to be more desirable than others. First, it is often supposed to be the brand owner or orchestrator of a value chain. An example of this is Apple. Second, if you are not in the first category, it is often supposed to control the interface to the final customer. For example, retailers often have a lot of power over their suppliers and thus they can often capture a lot of the overall value added. A third position that seems to be good is some kind of a gate keeper role in a value chain. A good example of this is Microsoft, a

MA Hong

Deputy Director, Shanghai Financial Service Office

Riitta Maijala

Director, Ministry of Education and Culture

LOU Yongqi

Vice Director of Sino-Finnish Centre, Tongji University

highly profitable company even if their underlying busy industry is not".

Third, the capacity to understand the demand is also an intangible asset. Currently, the demand has exceedingly outgrown its traditional scope. Culture has become a significant part of it. Peter Vesterbacka, Chief Marketing Officer of Rovio, said that great attention should be attached to the local characteristics and needs which involved cultural elements. "We have celebrated Chinese Moon Festival in our game for three years and we've done that by adding a Moon Festival episode to the game, we created physical Angry Birds branded moon cakes" and "when we built the Chinese Moon Festival into our game, hundreds of millions of people, first time they heard about the Chinese Moon Festival, through our game. So we are bringing Angry Birds to China, but we are also bringing China to the world". Niu Xiaoming, President of Shanghai Academy of Science and Technology and Shanghai Industrial Technology Institute, thought that to understand the demand, we needed to pay attention to both R&D activities and non-R&D factors. In the meantime, we needed to join hands with customers to bring about innovation and transfer, turning the value of the customers into that of ourselves.

II. Open Innovation is a Significant Channel for Value Creation

Open innovation helps to gather factors of intangible and tangible assets and gives them mobility, thus facilitating value creation.

First, a coordination network of innovation needs to be constructed. Value realization entails coordination between major players and between different links of the innovation chain. President Niu Xiaoming held that innovation-oriented cities needed to make use of the gluing function of intellectual property and capital, building the "triangle" of knowledge, innovation and transfer. The seven major players on the industrial system—universities, research institutes, enterprises, users, governments, suppliers and the financial sector—should be connected into a network so that each of them would play its own part in the "triangle".

Second, efforts should be made to develop diversified model for innovation cooperation. The model for innovation cooperation varies due to different locales, fields, major actors, etc. Zhang Xijun, President of Suzhou Nano Technology Development Co., Ltd., stated that cooperation between the Suzhou Industrial Park and Finland in the field of nano technology in recent years was not only confined to the technological level. Industrial cooperation featured by openness and diversification had been conducted. In this process, a cooperation platform—a one-stop industrial cluster-to-industrial

Jan Vapaavuori
Minister of Economic Affairs, Finland

Tuula Teeri
President, Aalto University

WU Jiang
Vice President, Tongji University

cluster innovation center—was established, effectively enhancing the interaction and technological exchanges between industrial clusters in China and in Finland.

Third, the high-tech community becomes a new form of open innovation. A community is an important place for people to live in and exchange views. Related concepts are being introduced into innovative activities. Zhang Zhihong, Executive Deputy Director of the Torch High Technology Industry Development Center, the Ministry of Science and Technology, pointed out that the high-tech community was a relatively ideal form of technological evolvement, a reflection of the new industrial space and a place where the innovative industry was originated. It had distinctive features such as the "high technology" which can be broadly used, "high enthusiasm" which was born out of the entrepreneur's confidence and "high-frequency contact" which facilitated communication among the people.

III. The Enterprise is Supposed to be the Major Player of Value Creation

The enterprise plays a major role in both technological innovation and value creation. In the process of value realization, efforts should be made to construct and forge enabling environment and mechanism so as to inspire the enterprise to create value.

First, a proper incentive mechanism needs to be developed. Nearly all the guests from both China and Finland held that young people in both countries had extraordinary capacity for technological innovation. What we lack was by no means good innovative ideas but favorable environment and incentive mechanisms which could surely build up creativity and competitiveness of key industries and companies. Director Petri Rouvinen noted that the Finnish government had adopted different approaches in recent years to encourage innovation and transformation of enterprises. For instance, the government encouraged enterprises to build cooperation alliances and introduced new policies to attract venture capital so as to boost the growth of traditional industries. To date, these measures had worked out fine.

Second, new entrepreneurship needs to be fostered. Entrepreneurship is essential to the corporate culture. It's the enterprise's intangible asset and is of high spiritual value to the society. Wu Jiang, Vice President of Tongji University, held that it took quite a long time and favorable social environment to nurture the entrepreneurship. It was a dynamic process involving practice, learning as well as resource identification, integration and application. During such a process, the entrepreneur would fully realize his responsibilities of

ZHANG Zhihong

Executive Deputy Director, Torch High Technology Industry Development Center, The Ministry of Science and Technology

Petri Rouvinen

Managing Director, Etla the Research Institute of Finnish Economy

NIU Xiaoming

President, Shanghai Academy of Science and Technology, Shanghai Industrial Technology Institute

marketing, risk management, business management and innovation.

Third, the technological and financial system should be improved. Value realization of scientific and technological yields depends on not only the entrepreneurship but also the possibility of getting funds. Deputy Director of Shanghai Financial Service Office Ma Hong pointed out that in the past few years, Shanghai made various endeavors to promote reform and innovation of technological and financial services. For example, encouraging the establishment of diversified financial institutes, advancing IPR pledge financing, introducing the policy loan for technological enterprises and improving support policies for technological financing. According to Petri Rouvinen, Finnish investment institutions went a long way towards helping the enterprises to grow and many of these institutions were under great financial assistance from the government. Besides, Finland had established a venture capital fund that combined financial fund and the old-age pension, mainly serving start-up enterprises with innovative vitality.

IV. University's Function of Knowledge Dissemination, Transfer and Service should be Highlighted.

Experts present at the forum believed that the university played the role of a new information producer, new technology creator and expert cultivator. We should better harness its positive impact on scientific, economical and social development.

First, efforts need to be made to step up exchanges and collaborations between disciplines and domains. In the current world, major breakthroughs and innovations made at the frontiers are mostly resulted from the integration, collaboration and convergence of different disciplines. Mrs.Tuula Teeri, President of Aalto University in Finland, noted that "the idea of the university was to strengthen the Finnish university system by way of integrating expertise in science and technology, in business and in economics as well as arts and design" and to break the barriers between and bridge the gap between different disciplines, Aalto University set up several research institutions such as the Alto factories which "provide a new type of platform for open innovation. Alto factories represent dynamic and multi-disciplinary learning, education, research and cooperation environments which bring together students, academic groups, businesses or the public sector."

Second, a deep-going international collaboration network needs to be constructed. As the technological globalization picks up its momentum, international technological exchanges and collaborations of universities and research institutions are broadening and going into greater depth. Both

ZHANG Xijun

President, Suzhou Nano Technology Development Co., Ltd.

Peter Vesterbacka

Chief Marketing Officer, Rovio

Eero Pekkola

CEO, Oilon Group

Mrs.Tuula Teeri and Vice President of Tongji University WuJiang agreed that the major function of a university was to guarantee smooth dissemination of knowledge, technology and academic outcomes across the globe and to broaden its global vision through the establishment of deep-going strategic partnership. Mr. Jan Vapaavuori, Minister of Economic Affair in Finland, also believed that the success of innovation-driven development depended on strengthening a country's capacity of making investment in human resources, knowledge and innovation.

The Regional & Urban Forum

Regional Cooperation: Innovation Connecting More Cities and Towns

The Regional & Urban Forum of Pujiang Innovation Forum 2013 was held on October 26 in Shanghai. With the development of globalization of technology, regional coordination has become a new trend in technological innovation. The accelerated flow of innovation resources worldwide makes different countries and different cities closely connected to form global or regional innovation networks. Breaking down the barriers of administrative division and enhancing regional coordination will connect more cities and towns together, expand the integration of technology and economy in a broader space, and promote development of innovation cities and innovation regions. Senior executives from well-known multinational and domestic corporations and famous scholars in innovation networks and clusters were invited to the forum to explore the theory and practice of coordinated regional innovation development.

WU Weiping

Professor, Department of Urban & Environmental Policy & Plan, Tufts University, USA

PENG Yuxing

Director General, Science & Technology Department of Sichuan Province

Presently, with the development of globalization and technology, regional coordination has become a new trend in technological innovation. The accelerated global flow of innovation resources makes different countries and cities closely connected to form global or regional innovation networks. At the Regional & Urban Forum of Pujiang Innovation Forum 2013, renowned scholars and entrepreneurs from both home and abroad conducted in-depth discussion over issues concerning regional cluster connection, cluster upgrading and regional coordination. They exchanged ideas and brought forth forward-looking opinions over the trend, problems and path of regional innovation.

I. External Connection is Significant to the Improvement of Regional Innovativeness

Currently, ways to reach to the outside world play a crucial role in regional innovation and development. In particular, regional innovation clusters need to interact closely with other regions. In the meantime, successful start-up companies need to distribute R&D resources around the globe.

First, local environment is a prerequisite for regional connection. Local policy framework and innovation culture has an impact on the connection between cities and regions around the world or within the innovation network. Harald Bathelt, Professor at Department of Political Science and Department of Geography, University of Toronto, held that some regions gained competitive edges relying on low cost while others, innovative environment. Sustained competitiveness only went to the latter. Though developing countries, with China as the representative, were known for their low cost, the government had gradually shifted focus to the building of innovative environment. In this endeavor, the university played a positive role. Wu Weiping, Professor at Department of Urban &Environmental Policy &Plan, Tufts University, believed that the university didn't necessarily serve the region through direct R&D but could boost the regional growth through talent nurturing and community service.

Secondly, building connection channels is a vital link for the formation of an innovation network. Stepping up the effort to construct the innovation network with developed countries and regions on the basis of the late-developing advantages is a crucial way to improve the innovation capacity of late-developing regions. Professor Bathelt, citing the example of the investment linkage between China and Canada, showed how Canada and China, through international channels, established their ties with well-

Harald Bathelt

Professor, Department of Political Science and Department of Geography, University of Toronto, Canada

WANG Jici

Professor, College of Urban and Environmental Sciences, Peking University

developed global clusters and gained development advantages hard to access for other regions. Wang Jici, Professor at College of Urban and Environmental Sciences, Peking University, held that establishing close ties between cities could effectively facilitate technological transfer and innovation. Presently, cities which had characteristic clusters were intensifying their collaborations and the cluster network brought together more and more cities of this kind both at home and abroad.

Third, due to its remarkable ability to obtain external resources, the enterprise has become a major actor of regional connections. At an age of globalization, regional innovation entails not only the cooperation and interaction between local companies and institutions, but also an ability to access, utilize and integrate the innovation-related information across the world. According to Rameshbabu R Songukrishnasamy, General Manager of Honeywell Technology Solutions China, Honeywell had integrated its 97 R&D and project centers in the world. While the R&D center in North America mainly dealt with the core strategy research, the one in the Asia Pacific region focused on solutions. In Chine, apart from R&D centers in Shanghai and Beijing, branch agencies had been set up in cities like Chengdu to understand the local demand. Chen Deguang, Vice President of Sichuan Kelun Industry Group, pointed out that after the initial success of the group in Chengdu, Sichuang Province, R&D centers were set up in cities like Suzhou so as to integrate local resources and build up the company's competitiveness.

II. Efforts should be Made to "Embed" Innovation Ability in the Region to Avoid Low-End Locking

"Embedding" innovation ability in the region drives innovation and its development. In the process of new network construction and industrial transfer, some regions make temporary progress taking advantage of the low cost but may slip into the plight of low-end locking. To avoid such a situation, efforts should be made to truly "embed" innovation ability in the region and, via it, make breakthroughs.

First, importance should be attached to knowledge-building and training. At present, many countries including China, while developing themselves, overlook the building and improvement of innovation ability in the process of industrial transition, causing the lack of strength for future progress of regional innovation and development. Professor Bathelt held that while dealing with external industrial transfer, more attention needed to be paid to education and training in the specific region, particularly to the improvement of local entrepreneurs' capability and optimization of the local environment for innovation so as to further

CHEN Deguang
Vice President, Sichuan Kelun Industry Group

whip up the entrepreneurship and innovativeness in the region.

Second, clusters need to be constantly upgraded and transformed. A region with the low cost advantage might be overtaken by others if it lacks innovation. How to realize fast yet proper economic development is a tough problem confronted by late-developing countries. The local government needs to consider how to raise the quality of the cluster through innovation. Professor Wang Jici believed that China's industrial clusters were facing both daunting challenges and opportunities for transformation and upgrading. Under the pressure of increasing domestic factor cost, some coastal clusters were apt to move to central and western China. For example, the shoe-making industry was moving from Dongguan, Guangdong Province to cities such as Yichun, Jiangxi Province and Chengdu, Sichuang Province; the pottery industry was moving from Foshan, Guangdong Province to Jiajiang, Sichuang Province, etc.. Industrial transfer provided opportunities for backward regions to develop. However, the dependence on the advantage brought about by lowered cost was just temporary.

Third, the internal learning mechanism has become an important factor for the growth of local enterprises. Innovation of local enterprises is a vital part of embedded local innovation ability and the internal learning mechanism is of particular significance. Chen Deguang, taking Kelun Industry Group as an example, pointed out that grassroots innovation was also something that we couldn't afford to neglect. The enterprise's activities related to Quality Control, platform for rationalization proposals and Lean Production projects further developed the enterprise's internal learning mechanism for its staff. Good suggestions made by the employees could, while effectively guarantee the product quality and lower the cost, consistently improve the enterprise's creativity and innovativeness

III. China will continuously influence innovative activities in the future

China's ever-increasing economic aggregate and innovation ability has a great bearing on the innovation network of transnational companies and local enterprises.

First, China's position in the international innovation network is changing. Years of development has elevated China's position in the world in terms of R&D. Transnational companies in China are progressively adjusting their strategies. Rameshbabu R Songukrishnasamy introduced that the R&D Center of Honeywell had adopted the "east for east" and "east to west" strategy which "means that the offerings can be simply transported to anywhere else and can be used by

Rameshbabu R Songukrishnasamy

General Manager, Honeywell Technology Solutions, China

pretty much everybody across the world" and "Honeywell has taken an extra effort to increase the value to serve the local customers by truly understanding the local needs and then using the global technology platforms and apply them in the local context".

Second, China enhances its ties with the global innovation network through the strategy of "go global". In the past few years, China's enterprises have been expanding their business overseas and building up their strength with local resources(human, capital and natural resources). Professor Bethelt took China and Canada as examples, saying that statistics showed that "investments from China in Canada have stabilized to an average of 11 to 12 billion Canadian dollars per year. Investments in the other direction from Canada to China are much lower, less than half the amount" and China-Canada cooperation took on more types and covered more areas.

Third, it is a major responsibility of the government to create conditions for the cooperation between transnational companies and local enterprises. Transnational R&D enterprises and local companies have their own advantages. Cooperation-based development of the two lays the foundation for regional innovation network. Rameshbabu R Songukrishnasamy pointed out that due to managerial difference between local and foreign-funded companies, they still couldn't cooperate with each other quietly effectively. Transnational enterprises expected the local government to set up a better innovation eco-system which could help them quickly find partners and thus build a more effective linkage between transnational and local companies.

The Industry Forum (Health Industry):
Opportunities and Prospects

The Industry Forum (Health Industry) of Pujiang Innovation Forum 2013 was held on October 26 in Shanghai. The health industry, a newly emerged industry with huge market potential, is a new engine for China's economic growth. It is highly relevant to the principle of China's New Healthcare Reform—"taking preventive measures to contain disease and attaching importance to the grassroots level". Experts in the health industry from domestic and overseas companies, research institutes and governments were invited to share and exchange opinions on hot topics such as nutrition and healthcare, digital healthcare management and the "Preventive Treatment of Disease" project which combines Chinese and western medicine. The objective of the Forum is to promote innovative development of the health industry, build a health ecosystem for future and help realize the Chinese dream for health.

WU Jiarui

Deputy Director, Shanghai Advanced Research Institute, Chinese Academy of Sciences

ZHANG Boli

Academician of Chinese Academy of Engineering; President of China Academy of Chinese Medical Sciences

Presently, with the development of globalization and technology, regional coordination has become a new trend in technological innovation. The accelerated global flow of innovation resources makes different countries and cities closely connected to form global or regional innovation networks. At the Regional & Urban Forum of Pujiang Innovation Forum 2013, renowned scholars and entrepreneurs from both home and abroad conducted in-depth discussion over issues concerning regional cluster connection, cluster upgrading and regional coordination. They exchanged ideas and brought forth forward-looking opinions over the trend, problems and path of regional innovation.

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Secondly, building connection channels is a vital link for the formation of an innovation network. Stepping up the effort to construct the innovation network with developed countries and regions on the basis of the late-developing advantages is a crucial way to improve the innovation capacity of late-developing regions. Professor Bathelt, citing the example of the investment linkage between China and Canada, showed how Canada and China, through international channels, established their ties with well-

SU Gangqiang

Director, Division of Science and Technology, State Administration of Traditional Chinese Medicine

developed global clusters and gained development advantages hard to access for other regions. Wang Jici, Professor at College of Urban and Environmental Sciences, Peking University, held that establishing close ties between cities could effectively facilitate technological transfer and innovation. Presently, cities which had characteristic clusters were intensifying their collaborations and the cluster network brought together more and more cities of this kind both at home and abroad.

Third, due to its remarkable ability to obtain external resources, the enterprise has become a major actor of regional connections. At an age of globalization, regional innovation entails not only the cooperation and interaction between local companies and institutions, but also an ability to access, utilize and integrate the innovation-related information across the world. According to Rameshbabu R Songukrishnasamy, General Manager of Honeywell Technology Solutions China, Honeywell had integrated its 97 R&D and project centers in the world. While the R&D center in North America mainly dealt with the core strategy research, the one in the Asia Pacific region focused on solutions. In Chine, apart from R&D centers in Shanghai and Beijing, branch agencies had been set up in cities like Chengdu to understand the local demand. Chen Deguang, Vice President of Sichuan Kelun Industry Group, pointed out that after the initial success of the group in Chengdu, Sichuang Province, R&D centers were set up in cities like Suzhou so as to integrate local resources and build up the company's competitiveness.

II. Efforts should be Made to "Embed" Innovation Ability in the Region to Avoid Low-End Locking

"Embedding" innovation ability in the region drives innovation and its development. In the process of new network construction and industrial transfer, some regions make temporary progress taking advantage of the low cost but may slip into the plight of low-end locking. To avoid such a situation, efforts should be made to truly "embed" innovation ability in the region and, via it, make breakthroughs.

First, importance should be attached to knowledge-building and training. At present, many countries including China, while developing themselves, overlook the building and improvement of innovation ability in the process of industrial transition, causing the lack of strength for future progress of regional innovation and development. Professor Bathelt held that while dealing with external industrial transfer, more attention needed to be paid to education and training in the specific region, particularly to the improvement of local entrepreneurs' capability and optimization of the local environment

GAO Jiechun

Deputy Director-general, Shanghai Hospital Development Center

LOU Jingwei

President of Shanghai Biotecan Pharmaceuticals Co., Ltd

for innovation so as to further whip up the entrepreneurship and innovativeness in the region.

Second, clusters need to be constantly upgraded and transformed. A region with the low cost advantage might be overtaken by others if it lacks innovation. How to realize fast yet proper economic development is a tough problem confronted by late-developing countries. The local government needs to consider how to raise the quality of the cluster through innovation. Professor Wang Jici believed that China's industrial clusters were facing both daunting challenges and opportunities for transformation and upgrading. Under the pressure of increasing domestic factor cost, some coastal clusters were apt to move to central and western China. For example, the shoe-making industry was moving from Dongguan, Guangdong Province to cities such as Yichun, Jiangxi Province and Chengdu, Sichuang Province; the pottery industry was moving from Foshan, Guangdong Province to Jiajiang, Sichuang Province, etc.. Industrial transfer provided opportunities for backward regions to develop. However, the dependence on the advantage brought about by lowered cost was just temporary.

Third, the internal learning mechanism has become an important factor for the growth of local enterprises. Innovation of local enterprises is a vital part of embedded local innovation ability and the internal learning mechanism is of particular significance. Chen Deguang, taking Kelun Industry Group as an example, pointed out that grassroots innovation was also something that we couldn't afford to neglect. The enterprise's activities related to Quality Control, platform for rationalization proposals and Lean Production projects further developed the enterprise's internal learning mechanism for its staff. Good suggestions made by the employees could, while effectively guarantee the product quality and lower the cost, consistently improve the enterprise's creativity and innovativeness

III. China will continuously influence innovative activities in the future

China's ever-increasing economic aggregate and innovation ability has a great bearing on the innovation network of transnational companies and local enterprises.

First, China's position in the international innovation network is changing. Years of development has elevated China's position in the world in terms of R&D. Transnational companies in China are progressively adjusting their strategies. Rameshbabu R Songukrishnasamy introduced that the R&D Center of Honeywell had adopted the "east for east" and "east to west" strategy which "means that the offerings can be simply transported

to anywhere else and can be used by pretty much everybody across the world" and "Honeywell has taken an extra effort to increase the value to serve the local customers by truly understanding the local needs and then using the global technology platforms and apply them in the local context".

Second, China enhances its ties with the global innovation network through the strategy of "go global". In the past few years, China's enterprises have been expanding their business overseas and building up their strength with local resources(human, capital and natural resources). Professor Bethelt took China and Canada as examples, saying that statistics showed that "investments from China in Canada have stabilized to an average of 11 to 12 billion Canadian dollars per year. Investments in the other direction from Canada to China are much lower, less than half the amount" and China-Canada cooperation took on more types and covered more areas.

Third, it is a major responsibility of the government to create conditions for the cooperation between transnational companies and local enterprises. Transnational R&D enterprises and local companies have their own advantages. Cooperation-based development of the two lays the foundation for regional innovation network. Rameshbabu R Songukrishnasamy pointed out that due to managerial difference between local and foreign-funded companies, they still couldn't cooperate with each other quietly effectively. Transnational enterprises expected the local government to set up a better innovation eco-system which could help them quickly find partners and thus build a more effective linkage between transnational and local companies.

The Policy Forum - Innovation Environment

Coordination between Supply-Side and Demand-Side Policies

The Policy Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. A policy framework that motivates innovation is indispensable to the improvement of innovation performance. The effects of supply-side and demand-side policies on the different development stages of different industries vary. In recent years, it is a new global trend to promote innovation with coordinated policy tools. The coordination among supply-side and demand-side policies is especially important in emerging industries of strategic importance. China has already issued a large number of policies motivating innovation, yet it is worth in-depth discussion on how to better coordinate innovation policies based on the successful practices of other countries.

WANG Fenyu

Deputy Director of Chinese Academy of Science and Technology for Development

XU Jianpei

Director-general, Department of Policy, Regulation and Reform, Ministry of Science and Technology

Mario Cervantes

Senior Economist, OECD

Demand-side policy is a new tool for technological development and the establishment of favorable environment for innovation. Involving public procurement, standard setting, tax relief and reduction, etc., it has become a major trend of global science and technology innovation policy making. At the Policy Forum of the Pujiang Innovation Forum 2013, six guests from the political, academic and business community conducted discussion around the theme of "coordination between supply-side and demand-side policies". Many policy-related messages conveyed by them are highly valuable.

I. Government Organs Makes Use of Science and Technology Policies in a More Professional and Voluntary Way

Experts believed that currently, countries around the world were adjusting their strategies for science and technology innovation and introducing more effective policies. As innovative activities went into greater depth and innovation value became more diverse, government organs' capability to harness policy tools of science and technology innovation, especially the demand-side policy, had been enhanced. They made use of such policy tools in a more professional and voluntary way.

First, government organs have quite a thorough understanding of demand-side policies. Demand-side policy tools help create development opportunities and application markets through initiatives of the government organs, assisting enterprises in learning new industrial opportunities and building up their competitive edges. Senior Economist of OECD Mario Cervantes pointed out that the government and academia's research on demand-side policy tools, which was quite thorough, fell into six categories: (1) establishment of innovation-friendly regulations; (2) innovative public procurement; (3) standards that can stimulate innovation; (4) development of new markets; (5) pricing plan/tax and subsidies; (6) user-driven innovation.

Second, the government's coordinating and guiding role comes under the spotlight again. The latest OECD research shows that though not a major actor of innovation, the government can still address problems such as inadequate technological preparedness, lack of size effect and high cost, etc. and foster new industries through its coordinating role. Mario Cervantes said, "Traditionally government's role in intervening in the market is to correct market failures, coordination failures in this system to link the different actors together, the universities and the companies. More recently, the rationale of many countries has evolved to also identifying opportunities for economic

WEN Ku

Director, Department of Science and Technology, Ministry of Industry and Information Technology

Charles Edquist

Professor, Lund University, Sweden

WANG Yimin

Director, Department of Science and Technology, STATE GRID Corporation of China

development, for growth through innovation" and "another evolution is the shift from single-action measures, for example, government grants for R&D to portfolio approach". He pointed out that "many OECD countries and the U.S. have started taking this system of approach", especially in the field of green technology, electric vehicles and new energy. In 2009, the general procurement of 15 EU countries hit 20% of the GDP. If all of this could be turned into innovative public procurement, there would be more resources driving innovation and development.

Third, improvement of China's policy system for science and technology innovation is speeding up. According to Xu Jianpei, Director-General of the Department of Policy, Regulation and Reform, Ministry of Science and Technology, China has already established an extensive policy system for science and technology innovation. Statistics show that the number of documents is over 5000. The system targets at various subjects, involves diverse tools and covers the entire innovation chain. The system mainly aims at enhancing the innovation capacity of major actors, promoting science and technology innovation, facilitating interactions between major actors, stepping up services of scientific and technological difficulty tackling and creating favorable environment. In the future, focus of policies will shift from the supply side to the coordination between supply and demand side and reform will be carried out in five aspects: the role of enterprise, universities and research institutions, results transfer, scientific and technological talents and technological services.

II. Demand-Side Policy Is Also Facing Challenges in Terms of Design and Implementation

It is proved by facts that for innovation, demand-side policy isn't a "life saver" or cure-all. It needs to be considered thoroughly, evaluated cyclically and tested in practice. An isolated, groundless and unadjusted demand-side policy stands little chance of playing its role.

First, policy makers should adopt a general perspective. Professor Charles Edquist from Lund University, Sweden, believed that to make demand-side policies, we should consider the impact of 10 activities—"research and development, education and training, formation of new product markets, articulation of policy requirement, these are on the demand side; the creation and changing organizations, interactive learning, creating institutions, incubation and financing and consultancy services". He said, "Innovation policy is public intervention with regard to all the 10 activities. It's not a separate activity". Expert present at the forum also pointed out that many countries had undergone failures

XU Qiang
General Manager, Zhongguancun Development Group

in making public procurement policies due to inadequate consideration of consumers' need and international rules. Policy makers didn't give full attention to the general picture, hence the disconnected and conflicting policies.

Second, the government should step up research on policy implementation. Professor Charles Edquist, taking Ericsson, ABB and the US Department of Defense as examples, introduced two demand-side policy tools—PPI (Public Procurement for Innovation) and PCP (Pre-Commercial Procurement). He believed that the government needed to research into the nature of these tools and how to operate them as thoroughly as possible so as to maximize the effect of policies. A key point is that the government should step up its efforts in analyzing industrial and market demand. Related efforts include distinguishing PPI from regular procurement, identifying potential fields for the application of "unwelcome" technologies and setting up rules on the basis of the market reality instead of instructions or orders.

Third, "double-edged" and misleading issues should be objectively assessed in policy evaluation. The demand-side policy can be double-edged. Its standards can both facilitate technological development and impede the advent of new technologies. While evaluating policies, such "double-edged" issues must be objectively assessed. Apart from that, there are also issues which are hard to evaluate. Mario Cervantes pointed out that how to measure technological result transfer had been a question under research in OECD for 15 years without getting a good answer. The crux was that measurement criteria of result transfer or innovation results remained unknown and commonly used indicators such as R&D investment, patents, etc. couldn't accurately define innovation.

III. The idea of demand-side policy should be incorporated into the strategic scenario

The demand-side policy is essentially market-driven and standard-driven. Another feature lying at its core is that the development of broad-based policies is always facilitated by that of the small-scale ones. Compared with foreign experts who pay more attention to enhancing the professionalization of policy implementation, government officials and enterprises at home are keener on the above-mentioned idea, expecting that its leverage can be harnessed at higher levels.

First, formulation of strategies should be more demand-oriented and question-oriented. For one thing, efforts need to be made to identify the general trend and major demand of technological and industrial revolution in the future. Forward-looking strategic arrangement and sustained investment

should be stressed. Wen Ku, Director of Department of Science and Technology, Ministry of Industry and Information Technology, noted that in the future, the Ministry would further step up company's technological upgrading and introduce more effective supporting policies in terms of taxation, finance, land and environmental protection. Meanwhile, the Ministry would lay focus mainly on technological innovation result transfer and application, release of basic industrial development catalogue and reinforced assistance to the technological R&D of fundamental industries. Wang Yimin, Director of Department of Science and Technology, STATE GRID Corporation China, believed that new energy innovation was a crucial way for countries to ride out the financial crisis and face up to future challenges and it should be given top priority in China's future development. For another, measures should be taken to analyze the reality of industrial development and handle problems induced by restraints and weakness. Xu Qiang, General Manager of Zhongguancun Developemnt Group, held that financing difficulties for start-up companies as well as small and medium-sized ones had long been existing. Meanwhile, there was a lack of coordinated policy backup in China for the entire innovation chain and the upper and lower reaches of industries. Therefore, Zhongguancun had adopted a supporting model of investing in the entire innovation chain and the cluster and shift such an effort to the starting stage of the business, thus enhancing the technological business incubation and team building.

Second, policy focus is shifting to standard setting, platform establishment and system building. Xu Qiang stated that Zhongguancun was quite innovative in several aspects—standard setting: research had been conducted to set standard for the planning and construction of science and technology parks, including industry planning, space planning, low-carbon and green planning as well as investment and financing; platform establishment: efforts had been made to establish platforms for public technological resources, technological expertise, public service and living so as to address problems for companies and provide services of distinct features; system building: measures had been taken to build an all-around system for technological and financial service covering venture capital, science and technology guarantee, microcredit, finance lease, IPR operation and management, etc., offering financial support totalling nearly 60 billion RMB to scientific and technological companies in Zhongguancun each year. Wen Ku also noted that the Ministry of Industry and Information Technology attached great importance to the integrated development of

IPR and standards and had, in the past five years, approved and issued 6252 industrial standards, formulated 5162 national standards and further promoted the standardization of major fields such as electric vehicles, semiconductor lighting, Internet of Things, etc., laying a solid foundation for industrial transformation and upgrading as well as the development of new industries of strategic importance.

Third, we should learn to mobilize the social forces. Efforts need to be made to set up effective mechanisms which can be beneficial in many ways, thus broadly mobilizing social resources. Xu Jianpei said that Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements was being revised on a tight schedule and was supposed to be submitted to the National People's Congress for approval. The Law would improve the intangible technical assets system in universities and research institutions and set up guidance fund for transformation of scientific and technological achievement. Besides, it would upgrade preferential policies for technological transfer, for taxation of university technology parks, incubators and venture capital agencies, etc., expanding the coverage of policies. Xu Qiang, introducing the success of Zhongguancun, pointed out that turning fiscal subsidies into equity investment would be a good idea. Zhongguancun Developemnt Group, by way of direct equity investment, debt equity investment, knowledge-based technological carriers and IPR sharing, etc., has mobilized RMB27 billion worth of social capital with 3.7 billion of investment and the output is expected to be RMB200 billion. This has effectively promoted the transformation of scientific and technological achievements. Besides, the exit mechanism ensures that funds from the government generate profits, thus establishing a virtuous circle.

Entrepreneur Forum - Entrepreneurship Growth

Promoting the Combination of Technology and Market

The Entrepreneur Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. Successful entrepreneurship calls for the effective combination of technology opportunities and market opportunities. The market value of technologies is the key factor of innovation and entrepreneurship, with market as the strategic resource. At the early stage of the enterprise development, entrepreneurs usually only focus on the importance of technologies, while overlooking such factors as the structure, management, marketing and financing. Incubators, as the cradle for enterprises, must help them effectively integrate technologies and the market.

YUAN Yue

Chairman, Horizon Research Consultancy Group

WANG Pengfei

Founder and CEO, Kuaipai.cn

Canice Wu

President of Plug and Play Tech Center, USA

Business starting serves as a catalyst for social progress and the corner stone for rapid regional economic growth. Encouraging entrepreneurial activities and accelerating entrepreneurship growth have already been a focus of countries around the world. At the Entrepreneur Forum of the Pujiang Innovation Forum 2013, guests from the government, business community and academia, under the theme of "Entrepreneurship Growth: Promoting the Combination of Technology and Market", conducted heated discussion over issues such as the effective integration of technologies and market, the crucial impact made by incubators on start-up companies and factors indispensable for the success of start-up companies, etc., presenting important views which were echoed by other attendees.

I. Technologies and Business Models are Essential to Entrepreneurship Growth

Starting a business appears fantastic, but in the process, big problems keep cropping up. The integration of technologies and the market is a major one. Properly handling the relationship between the two lies at the core of successful entrepreneurial campaigns.

First, building channels for technology and market integration is a prerequisite for successful entrepreneurial attempts. Technology and market are not innately connected. Therefore, bridges and bonds are needed. This is seen most obviously in University technological result transfer and the business-starting process. Huang Chingyao, Chairman of Chinese Business Incubation Association in Taiwan held that in the business-starting process, universities and companies represent technology and market respectively. A channel connecting the two is indispensable. That being the case, the Association established an auction platform for university technologies which included two types of membership: the academic members who provided patents and the business members, mainly companies and patent traders, who paid fees,. The platform, through patent portfolio, selection and membership demand-supply matching, effectively facilitated the application and transfer of university research results in companies, thus building a bridge between technologies and the market.

Second, business model innovation is an important propeller for entrepreneurship growth. Successful entrepreneurial attempts result from the marriage of technology opportunities and market opportunities and business model innovation

HUANG Chingyao

Chairman, Chinese Business Incubation Association, Taiwan

Peter Hiscocks

CEO, Judge Business School Executive Education Limited, Cambridge University

ZHANG Weiyi

General Manager, Shanghai Ideaoptics Instruments Co., Ltd.

serves as a driving force for further development of the start-up enterprises. Wang Pengfei, founder and CEO of Kuaipai.cn illustrated it with his own experience. In 2010, he set up Kuipai.cn based on the mobile recognition technology. As WeChat, Baidu, 360, weibo camera introduced the OR code, his company developed technologically and expanded its market. However, the marriage of technologies and market was just the first step. A larger market share could be obtained only through business model innovation. Therefore, his company proactively facilitated the establishment of platforms, shifting focus from large consumers to the general small consumers. Such a move created an important opportunity for the company to move forward.

Third, in the business-starting process, the market value sometimes trumps technological value. In the entrepreneurial attempt, technology serves as a carrier and a method. But it is, by no means, the only goal. Success of an entrepreneurial attempt is ultimately reflected by the market share. Professor Peter Hiscocks from Cambridge University held that to make your start-up successful, you needed to, for one thing, present better products and services, especially increase the added value and create new value and function previously absent in the market; for another, you needed to talk to the consumers to learn their views on the products and find the potential demand of the market.

II. The Incubator is Becoming a "Cradle" for Global Entrepreneurship Growth

Experts at the forum believed that the incubator played a crucial role in the growth, development and nurturing of entrepreneurs of technological start-ups. It effectively reduced the entrepreneurial risks and costs. Development of incubators takes on the following trends:

First, abundance of local resources for entrepreneurial attempts is a significant precondition for the establishment of incubators. A successful incubator is not the result of blind construction and development, but directly related to the innovation and business-starting environment. Canice Wu, President of Plug and Play Tech Center in the US, said that Silicon Valley was picked as the location of the incubator mainly because it was advantageous in its tangible and intangible assets. "On the tangible side, Silicon Valley is certainly full of a lot of young start-ups and corporations. In Silicon Valley, we get to headquarters of companies like Google, Apple, Intel, AMD, Facebook, Twitter…Oracle, HP, etc. So it's a very vibrant community where we got great universities such as Berkley, Stanford and others"; on

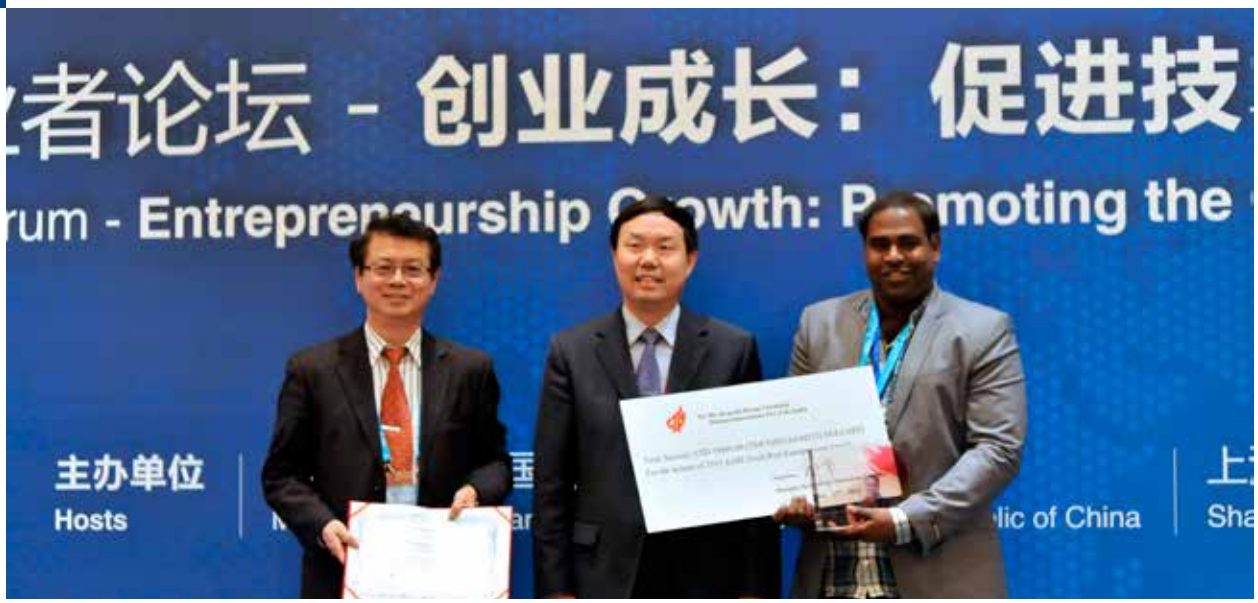
the intangible side, there was "the concept of what I call 'looking at risks and looking at failures'. Silicon Valley is a place where basically young entrepreneurs and people are encouraged to take risks and to try something new to encourage how you can potentially describe the whole industry". To date, Plug and Play had, he said, "actually helped accelerate over 1000 companies…we looked at about 3000 businesses this year, of which at any time about 300 companies is in a community and we actively invest everywhere about 60 to 80 companies a year. We are one of the large business accelerators in Silicon Valley."

Second, building a network for global and regional collaboration is an important goal for the development of incubators. The inadequacy of service-providing ability of an individual incubator could be avoided by intensifying the exchanges, sharing and even integration of global resources for innovation and entrepreneurial attempts. Huang Chingyao pointed out that the Association had established broad-based collaboration networks with global and regional partners including universities, enterprises and institutions, effectively facilitating the growth of start-ups through gathering and integrating factors such as the capital, information and service. While accelerating the internationalization of many companies, the Association also enhanced its own service capacity. Currently, the network covered over 40 universities, several thousands of enterprises and nearly a hundred investment institutions.

Third, the financing function has become part of the core competence of an incubator. The incubator picks up its pace in changing from simply a physical space provider to a high-quality service provider for innovation and entrepreneurial attempts. Several experts at the Forum believed that the service function of the incubator was turning multi-faceted. However, the financing function remained the most essential part. Canice Wu stressed that Plug and Play provided the start-up companies with financial resources. It cooperated with top venture capital firms outside Sillicon Valley and built a gigantic VC network that covered over 180 top-notch venture capital firms. He said, "Over the period of time from the beginning since 2006, we helped companies raise about a billion dollars in terms of venture capital".

III. Entrepreneurship Growth Entails the Integration of Multiple Factors and Conditions.

Although business accelerator plays a pivotal part in innovation and entrepreneurial attempts, start-ups incubated and fostered by it amounts



to just a drop in the vast ocean of innovation and entrepreneurial attempts. Great uncertainties lie with innovation and business-starting attempts and attention should be paid to many key factors.

First, a good team is a must. Professor Peter Hiscocks, taking his own experiences as examples, stressed that "entrepreneurship needs three things. You need a good idea, you need money and you need a great team… the most important thing in making a new venture successful is building a great team". Entrepreneurs needed to, he said, "spend 10, 15, 20 percent of their time working on building that team because this is what we get them success". Wang Pengfei held that the team should have an explicit division of labor and the members should give a full play to their strengths in different fields such as technology, market and management.

Second, the market should be paid respect. That means efforts need to be made to thoroughly understand the rules and needs of the market and to adjust the company's developing strategies in accordance with changes in the market. It is commonly believed among the experts present at the Forum that a thorough understanding of customers' need is the foundation for successful entrepreneurship. Therefore, good ideas alone are not enough. Entrepreneurs should communicate with the customers. They need to develop product prototypes and display their performance. In the meantime, they should listen to what the customers say, understand their need and be bold enough to make changes according to customers' need. Additionally, respecting the market also means that entrepreneurs should face up to competitions, learning competitors' products and service so as to get an upper hand.

Third, an open environment is essential. Successful entrepreneurship usually results from extensive non-official exchanges. An open and exchange-friendly environment inspires the enterprises to explore new ways of development. According to Huang Chingyao, many cities of Taiwan have entrepreneur communities. Some of them conduct, each week, entrepreneur meeting and forum with universities and companies, exchanging and sharing entrepreneurship-related ideas. Activities like this are heralded among young entrepreneurs.

Fourth, outstanding mentors are important. Professor Peter Hiscocks said, "You have to find people who got the knowledge and the experience to help your business become more successful…They will not only help you with your business, but also they will give you useful advice about what is

actually going to succeed in the first place. If you had successful people linked to your business, then you will be much more likely to get funding". Canice Wu noted that during the development of Plug and Play as a business accelerator, their "mentorship program" played a very crucial part. The program had been, he said, "really bringing very experienced mentors and advisors from both corporations and former successful entrepreneurs who have been there and done that…and can really help guide the entrepreneurs along"

The Future Science Forum - Common Challenges

Responding to Global Issues Collectively

The Future Science Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. The development of science and technology brought us not only richer and more convenient life, but also greater challenges and larger threats which are magnified by the unpredictability of the nature and the existing pattern for production and consumption of mankind. Currently, the human beings are faced with bigger threats on issues including energy, resource, environment, climate change, etc., which restricts the development of human society and requires joint effort of the mankind to explore frontier technologies, to prepare in advance and to react timely.

WU Jiang

Vice President and Professor, Tongji University

Bruce E. Rittmann

Director of Swette Center for Environmental Biotechnology, Arizona State University; Member of National Academy of Engineering, USA

SHEN Jianlei

Director, Division of Major Research Program, Department of Basic Research, Ministry of Science and Technology

The climate issue is one of the most formidable challenges faced by the human beings in the 21st century and a great responsibility has been placed on scientific and technological innovation. At the Future Science Forum of the Pujiang Innovation Forum 2013, guests from the government, business community and academia, under the theme of "Common Challenges: Responding to Global Issues Collectively", conducted in-depth, extensive and heated discussion over issues such as new technologies and sustainable development, international cooperation in tackling climate change and the role of the government, etc.. Important consensus was reached.

I. Scientific and Technological Innovation Drives Sustainable Development and Vice Versa

Sustainable development is an economic growth pattern that lays focus on long-term development. While aiming at economic growth, it also stresses the protection of natural resources such as the air, fresh water, ocean, land and forest, etc. and the environment. Experts present at the forum believed that science and technology laid a solid foundation for sustainable development and the latter, with the enormous demand it harbored, was becoming a driving force behind scientific and technological development.

For one thing, great demand harbored by sustainable development spurs scientific and technological innovation and progress. Challenges faced by the world today will have a direct impact on people's life and the sustainability of development, posing new requirements for technological innovation. According to Mr. Wolfgang Miebacb, President of Bayer Material Science China, the human beings are now facing three major challenges which may create great opportunities for technological innovation and in particular, for corporate innovation. The first is "mobility". He said, "the number of cars is supposed to grow from today's 600 million to 2.7 billion by 2050…To move different things to more places, we gonna have to invent more efficient and sustainable automobiles and other moves of transportation". The second is "urbanization". "Five billion people, by 2030, will live in urban areas…And then in 2030, cities will be responsible for 73% of the global energy consumption. Concentrated human activity in urban centers creates severe environmental impact". "…finding solution to cities", he said, "is finding solutions to the world's problems". The third is "demographic changes". He noted, "we are facing an aging population. Someone around 2030 will have a high chance of becoming one hundred and thirty years old. At the same time until 2040, the middle class consumers will increase

Wolfgang Miebach
President of Bayer Material Science China

LIU Xunfeng
President of Shanghai Huayi (Group) Company

ZHANG Junliang
Director of Institute of Fuel Cell, Shanghai Jiao Tong University

by three billion people". There are infinite chances for the industries of bio-medicine, medical equipment and nursing techniques.

For another thing, new technologies spring up, offering solutions and possibilities for sustainable development. In the past few years, the advent of new technologies such as new energy, new energy vehicles, environmental protection and bio-medicine, etc. offered technological support to the solution of issues related to the world development. Zhang Junliang, Professor at Shanghai Jiaotong University, noted that application of fuel cells, Li-ion batteries and Li-air batteries would effectively improve and ease traffic-related problems in cities of various kinds. Professor Bruce Rittmann, Director of Swette Center for Environmental Biotechnology, Arizona State University and member of National Academy of Engineering, USA, stated that the microorganic technology was widely used in fields related to environmental protection such as water treatment. In the meantime, it could help generate electric and hydrogen energy in the process of sewage treatment. Such a technological breakthrough further expanded the developing potential of this industry. President Wolfgang Miebacb introduced that Bayer had made major progress in several new technologies such as green building, food safety and solar-powered airplane, etc.. He took the solar-powered airplane as an example, introducing that Bayer initiated the Solar Impulse program three years ago with Sweden, aiming at creating an airplane with wings as long as those of Airbus A340 and a weight the same as a midsize car. It was supposed to fly solely on solar energy without consuming any motor fuel or discharging any pollutant. The plane had already been flying in Europe and its virgin flying around the world was planned for 2015.

II. The Government should Make Moves to Realize Sustainable Development Supported and Led by Science and Technology

It is a major mission for governments around the world to actively shift their roles, play their part in promoting sustainable development and in particular, make moves to realize sustainable development supported and led by science and technology.

First, sustainable development should be considered a national strategy. Confronted with the daunting challenges of tightening restraints of resources and increasingly severe pollution, governments around the world need to forge a conservation culture featured by the respect for Nature, conformity with Nature and sustainable development. Reinhold Ollig, Head of Division of Resources and Sustainability, German Federal Ministry of Education and Research, noted that

Reinhold Ollig

Head of Division of Resources and Sustainability, German Federal Ministry of Education and Research

in order to tackle challenges concerning the climate and environment, the German government introduced two strategies—the High-Tech Strategy and the National Sustainable Strategy. The latter stressed that realizing sustainable development was a major responsibility of the government. The strategy set a handful of major tasks and quantitative indexes regarding effective utilization of resources, environmental protection and improvement, national finance enhancement, medical and healthcare reform, education reinforcement, scientific and technological innovation promotion, avoidance of land waste and assumption of more international responsibilities, etc.

Second, investment in technology should be increased to build up the strength to tackle future challenges. In the past few years, though countries across the world have been hit by the global financial crisis, their investment in science and technology remains on the rise. Mr. Reinhold Ollig pointed out that a sagging economy didn't cause major changes in the federal budget for sustainable development. Major parties all intended to offer sufficient support to R&D in relevant fields because this was related to the competitiveness of Germany in the future. Shen Jianlei, Director of Division of Major Research Program of Department of Basic Research, Ministry of Science and Technology, noted that the past decade witnessed the fastest growth of China's investment in basic research. In 2012, China's investment in basic research totaled 49 billion RMB, marking a 21.1% increased against the figure of 2011. Among all the basic researches, a large number went to those related to major fields such as global climate change, environmental protection, food safety, life science and health, yielding a great many cutting-edge research results and papers.

The Enterprise Forum - Creating New Wealth

Innovation Chain and Value Chain of Enterprises

The Enterprise Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. In order to accelerate the creation of new wealth, the key is for enterprises to search for the best position on the innovation chain and value chain, enterprises should plan for science and technology innovation activities with a global vision, allocate innovation resources worldwide, and seek the increase in wealth on the whole innovation chain. Enterprises of different sizes should have a clear division of tasks, and close cooperation among government, enterprises, universities, research institutes and users should be encouraged so as to implement open innovation. At the same time, the position of enterprises on the value chain determines the room for increase in wealth. Therefore, enterprises should move towards both ends of the "smiling curve" of the value chain, raise the value added to their priducts and enhance their core competitiveness.

LUO Zhenyu

Economist, Renowned Anchorman in Finance & Economics

DING Lei

Director, Administrative Committee, Shanghai Zhangjiang Hi-tech Park

CHEN Xiangli

General Manager, GE China Technology Center

At the Enterprise Forum of the Pujiang Innovation Forum 2013, guests from the government, business community and financial sector, under the theme of "Creating New Wealth: Innovation Chain and Value Chain of Enterprises", conducted in-depth and heated discussion over issues such as connotations of and difficulties faced by corporate innovation as well as the environment for and ways of business innovation, presenting brilliant ideas and reaching important consensus.

I. Basic Concepts of Corporate Innovation

At an age of innovation, competition between enterprises gets increasingly fierce. As a decisive advantage, innovation has grown out of its original borders.

First, instead of a "face job", corporate innovation is "a tool for survival". Corporate innovation is not just the "powder-puff". Instead, it's all about the "real competence". Ding Lei, Director of the Administrative Committee of Shanghai Zhangjiang Hi-Tech Park, pointed out that corporate innovation shouldn't aim at showcasing the great amount of investment or remarkable number of patents. Instead, it was supposed to enhance the developing ability of the enterprise. Fu Cairui, CEO and Founder of Shanghai Hujia Communication Co., Ltd.(Hujiang.com) believed that the awareness of survival crisis served as the headspring of corporate innovation. Handling the crisis of an enterprise was always the purpose of innovation.

Second, the enterprise no longer "single-handedly" makes innovative attempts but cooperates with others. The age of massive industrial production created individual elites and heroes who could "make their names in the world with a single trick". However, in the current world, technologies, markets and innovation factors are getting more and more complicated. Innovation is usually made possible by collaborations between enterprises. Chen Xiangli, General Manager of GE China Technology Center noted that an important finding of the Global Innovation Barometer released by GE for the past few years was that nearly 90% of the enterprises believed that corporate innovation relied more on the cooperation between enterprises, between enterprises and universities as well as between enterprises and research institutes. Collaborated innovation is an inevitable trend of business development in the future.

Third, corporate innovation is not linear or static but a complicated and dynamic process involving the whole industrial chain. Currently, corporate innovation happens more within industrial clusters or the innovation network. Therefore, it is often an integrating process along the whole

Roman Shaw

Managing Partner, DT Capital Shanghai Office

XU Ke

Founder and President, Shanghai Hippo Animation Co., Ltd.

Duane Kuang

Founding Partner, Qiming Venture Partners

industrial chain, business chain and value chain. Ding Lei, taking the bio-medical industry in Zhangjiang High-Tech Park as an example, stressed that biomedicine was not a simple product of R&D activities in the lab. It involved new medicine exploration, medicine selection, pharmacological evaluation, clinical research, technique research, official registration and mass production for the market. It was quite a long, complicated and ever-changing industrial chain.

II. Corporate Innovation in China is Facing New Difficulties and Restriction.

China's fast economic growth wouldn't be possible without the innovation and development of domestic enterprises. In the future campaign of building an innovative country, enterprise's innovation and development remains a key factor to its success. In the current stage, innovation of Chinese companies is confronted with a lot of difficulties.

First, financing difficulties, especially the monotony of financing channels is among the most prominent difficulties restricting the innovation of Chinese companies. Capital is the lifeline for corporate innovation. Compared with developed countries and regions, China still has a long way to go in improving its financing environment. Roman Shaw, Managing Partner of DT Capital Shanghai Office held that the monotony of funding channels and great difficulty faced by private equity in China was an important cause for the financing problems of enterprises. In China, major participants of Private Equity and Venture Capital were individual investors featured by short-swing trading. However, the US had relatively diverse financing channels. Apart from individual investors, there were also the pension fund and university endowment, etc.. Universities in the US differed from their Chinese counterparts in that their fund mainly came from private donations. Many enterprises originated from innovative entrepreneurial attempt obtained their venture capital, at the very beginning, from the university endowment. Such a relationship gave rise to a natural bond between industrialization, R$D results and university resources. Therefore, such kind of capital was called "the noblest money" within the industry.

Second, lack of ground-breaking innovation and convergence of innovative attempts shows the inadequacy of the innovation ability of Chinese enterprises. In recent years, a great number of companies which are quite competitive in the world keep springing up. But their general innovation ability still needs to be improved. Ding Lei pointed out that China was lacking in revolutionary technologies and original innovation-oriented enterprises. Advanced technologies such as digital

FU Cairui
CEO and Founder of Shanghai Hujia Communication Co., Ltd. (Hujiang.com)

photography, mobile phone, distributed power generation, search engine and Global Position System (GPS) were almost monopolized by the US; he noted that currently innovation in Chinese companies mostly followed the pattern of introduction-adoption-innovation or stayed at the stage of copied innovation. For instance, the popular on-line shopping platform Taobao.com actually followed the business model of foreign companies. Meanwhile, Chinese companies were highly homogeneous. Most of them looked quite alike.

Third, there is a crying need for the establishment of an enabling innovation ecosystem. A favorable innovation ecosystem is crucial to whipping up enterprises' enthusiasm for innovation. At present, China's innovation ecosystem is still at a fledgling stage, leading to the fact that companies cannot fully develop themselves. Experts present at the Forum commonly believed that the key of building an innovation ecosystem consisted not in the great power and function of the government but in the service function of the soft environment. For example, Silicon Valley had developed one of the best-established innovation ecosystems in the world though it didn't have any management committee and wasn't under the control of the government. We needed to dig up the reasons for its success, draw on its experience and improve ourselves.

III. The Future of Corporate Innovation in China

As the new scientific and technological revolution and industrial transformation surges on, China's enormous potential for economic growth creates important opportunities for China's corporate innovation. Though lays ahead is a bumpy road, a bright future for corporate innovation in China is on the horizon.

First, efforts need to be made to facilitate the effective integration of capital, innovation and innovation-oriented enterprises. Solving financing problems will be a long-term task for Chinese enterprises. Roman Shaw made several proposals in this connection. First, companies should adopt more effective approaches, encouraging institutions focusing on long-term investment to get involved in emerging scientific and technological industries; second, companies should further optimize the function and threshold criteria of China growth enterprise market, making it a platform that created convenience for the financing of innovation-oriented start-ups; third, companies should pay heed to the merger and acquisition of enterprises. For example, in the US, most of the innovation-oriented corporations had, through merger and acquisition, enhanced their own strengths and realized the goal of integrating capital

with technological enterprises

Second, importance should be attached to cross-sector cooperation and collaborative innovation. The ability of looking for proper innovative activities and resources that can meet the innovation needs must be developed by Chinese enterprises. Xu Ke, Founding Partner of Shanghai Hippo Animation Co., Ltd, held that cross-sector cooperation served as an engine for the company's uninterrupted development. New cooperation patterns such as co-production, value-chain sharing and cinema network collaboration had all effectively built up the core competence of the company. Chen Xiangli noted that in recent years, GE had set up customer innovation centers in Chengdu, Xi'an and Shenyang, aiming at better understanding the demand of domestic customers though the strategy of "go global" and "bring in".

Third, efforts should be made to forge an innovation ecosystem. Dinglei pointed out that to build an innovation ecosystem, we should, first of all, change our mindset. We had to understand that the enterprise is the major player of innovation and the market is the only testing stone; secondly, the government should have an objective understanding of its role. Instead of disturbing the market, it should solve the problems that couldn't be solved by the market and optimize the distribution of resources; finally, social organizations needed to shake off their dependence on government, socializing and specializing service resources.

Fourth, innovation should be made an engine for enterprise growth. Consistency is of great importance for corporate innovation. Continuous innovation should be an internal drive for enterprise development. Fu Cairui noted that individual innovation couldn't guarantee a leading position. Instead of a one-man show of the general manager, it must be in a continuous state and be carried out voluntarily by the entire team or company. Duane Kuang, Founding Partner of Qiming Venture Partners, also believed that the enterprise needed to constantly make innovative endeavors and create new models and methods so as to maintain its core competitiveness. Innovation should go down the genes of an enterprise and keep duplicating and multiplying.

Fifth, the enterprise needs to be good at making its own innovation strategies. The ultimate goal of corporate innovation is not the most advanced technology of the highest quality. Instead, the enterprise should seek a balance and make efforts within its reach. Xu Ke stressed that the enterprise, while carrying out innovative attempts, must remain both passionate and rational. It should, instead of blindly chasing after cutting-

edge and sophisticated technologies and products, acquire an appropriate market share and maximize the profits. The example of Hippo Animation Co., Ltd, showed that if we want to improve the quality of current films by 3%-5%, we had to pay over a dozen times more than what we used to. This definitely ran astray from the original purpose of innovation.

The Culture Forum - Heritage Transfer and Remodeling

Traditional Culture and Entrepreneurship

The Culture Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. A large team of good entrepreneurs with innovative spirit is the mainstay of building an innovative country. China is an ancient country which is rich in culture. The essence of the traditional culture has been inherited and developed for generations. In traditional Chinese culture, there is the business culture which stresses honesty and integrity, as well as the moral code that values justice above material gains. However, in the new context of globalization, traditional Chinese culture is faced with unprecedented threat. It is something inherent in the building of innovative culture to figure out how to inherit the essence of traditional culture and to promote the risk-taking and innovation-driven entrepreneurship.

HU Zhijian

Secretary of The Party Committee, Chinese Academy of Science and Technology for Development

LIU Shiding

Deputy Director and Professor, Department of Sociology, Peking University

YANG Mu

Senior Research Fellow, Lee Kuan Yew School, National University of Singapore

As the soul for innovation, entrepreneurship takes its root in the market economy and is influenced, to some extent, by the history, culture and system of a society. At the Culture Forum of the Pujiang Innovation Forum 2013, guests from the government, business community and financial sector, under the theme of "Heritage Transfer and Remodeling: Traditional Culture and Entrepreneurship", conducted in-depth and discussion over traditional cultural concepts such as the family ties which have an impact on entrepreneurship, moral code with "righteousness" at its core and innovative thinking, etc., putting forward quite a few incisive and thought-provoking views.

I. Traditional Culture has a Crucial Impact on Entrepreneurship

While entrepreneurship is taking shape, the traditional culture in which the entrepreneur is brought up always has a great bearing on his thinking pattern, behavior and development, thus knocking into shape essential features of the entrepreneurship.

First, the Chinese are intelligently and genetically equipped to do business. Experts at the Forum generally believed that doing business was in the traditional Chinese culture. Yang Mu, Senior Research Fellow at the Lee Kuan Yew School of National University of Singapore held that originally, the term businessman was a geographical concept, just like the Chinese were usually called the "Tang Chinese", "Han Chinese", the "Qin People" and "Zhou Chinese". In the Shang Dynasty, people were quite good at doing business and bargaining. Therefore, businessman started to refer to an occupation. Chinese people overseas, bearing such a trait in their genes, established a business network through family, geographic and business ties. Moreover, they joined hands with people to whom they were geographically connected, thus building their career overseas.

Second, people's understanding of "righteousness" goes beyond the traditional concept of entrepreneurship based on family and blood ties. Traditionally, harmony between family and blood ties played an important part in conventional Chinese entrepreneurship. Liu Shiding, Deputy Director and Professor at Department of Sociology, Peking University, presented a new point of view. He noted that "righteousness" stressed by Chinese culture should be one of the most outstanding features of Chinese entrepreneurship. It differed from the conventional Chinese corporate culture in three aspects: first, "righteousness", characterized by the courage to give up regular profits, helped break the old-fashioned follow-the-beaten-track corporate culture; second, the sense of responsibility stressed by "righteousness" had something in common with that in the construction and maintenance of social relationship;

TANG Chunshan

President, Shenzhen Langrun Investment Co., Ltd.

QIN Shengyi

Chairman and President, Rechsand Science & Technology Group

finally, compared with those who built the network on the basis of blood and family ties, people who bore the trait of "righteousness" were more likely to make innovative combination of factors.

Third, traditional cultural classics such as the Book of Changes hold unique understandings of innovative thinking and ways of doing things. The upbeat and inspiring world view, outlook on life and values harbored by traditional culture lay a cultural foundation and serve as an internal drive for innovative thinking. Qin Shengyi, Chairman and President of Rechsand Science&Technology Group, taking the example of his own innovative attempts, pointed out that to draw innovative methods from the traditional culture, we had to go through the process of "the law-the state-the reality", namely, the thinking pattern of "the function-the structure-the shape". Such a method had been successfully applied to several technological innovations such as the "pre-coated sand", "sand-based water permeable brick" and "breathing flowerpot".

II. Chinese Entrepreneurship Based on the Traditional Culture Confronts Challenges.

Traditional culture, developed at a specific period and in a specific territory, definitely has its limitation. The Chinese culture is no exception. That means in the future Chinese enterprises built upon traditional Chinese culture will be facing many challenges.

First, Chinese enterprises based on "family ties" is coming to a bottleneck stage for sustained development. Overseas Chinese have a "deep affection" for family business. The first generation mostly started business with the spouse. As the career developed, they began to summon friends and relatives in order to take care of each other; in their declining years, business would be transferred to descendants and it went on like this for generations to come. However, Yang Mu believed that such a pattern was in a dilemma now. For one thing, most of the family business run by the Chinese was for the low-end industry. The trend of globalization, industrialization, intelligent technologies and post-industrialization was squeezing the room for the survival and development of Chinese family business in the labor-intensive industries such as retailing and catering service; for another, Chinese enterprises were confronted by severe "take-over crisis". According to a Citi report in 2008, Chinese companies in Southeast Asia were in a transitional peak. For 30%-40% of the companies, the children had the intention to take over the business; 20% sought a successor from outside the family and for another 40%, nobody was there to carry the torch.

Second, tension exists between "righteousness" and entrepreneurship. Though "righteousness" has enriched and diversified the content of traditional

Chinese entrepreneurship, the term has in-built defects in cultivating entrepreneurship. Professor Liu Shiding held that these defects were threefold: first, "righteous" people were likely to both identify opportunities in a broader area and give them up for the sake of a certain objective; second, driven by the righteousness-centered culture, business runners might chose to be social or political entrepreneurs instead of business entrepreneurs; third, "righteousness" in tradition culture had a relatively vague implication, often stressing the loyalty to friends while overlooking the consequences. Particularly, it conflicted with the market rules and the legal environment to some extent.

Third, attention should be paid to elements of traditional Chinese culture which restrain entrepreneurship. Many experts present at the Forum believed that traditional Chinese culture had positive elements which encouraged innovation and entrepreneurial attempts. But there were also negative impact factors which shouldn't be neglected. Tang Chunshan, President of Shenzhen Langrun Investment Co., Ltd, held that in both ancient and modern China, there was the mainstream values and spiritual pursuit such as "stressing agriculture while overlooking business", "studying hard to be an official" and "valuing production while neglecting distribution". This impeded the development of entrepreneurship to some extent and caused the absence of capitalism in China driven by entrepreneurial innovation. Today, such negative factors had been weakened but not eliminated. We shouldn't stop thinking and breaking the restraints.

III. Efforts Need to be Made to Reshape the Mission and Responsibility of Chinese Entrepreneurship

In inheriting and carrying forward traditional cultural heritage, Chinese entrepreneurs, with their outstanding personality, ability and charisma as well as their hard toil, made ineffaceable achievements. At a new age and in a new round of development, the reshaping process of Chinese entrepreneurship shows the trajectory of traditional culture being revised, enriched and developed.

First, innovation should be made a "good tool" to help modern Chinese enterprises blaze new trials. In recent years, Chinese enterprises, especially those run by Chinese in Southeast Asia have been exploring ways to upgrade and transform their business. An important trend is to survive fierce competition through innovation. Yang Mu held that many Chinese companies in Singapore no longer stuck to traditional industries. They started to develop new products and get into new markets with new technologies. For example, Creative Technology Ltd. was established in 1981 in Singapore. A world renowned leading company in the field of multimedia and digital entertainment, it had

established wholly-owned subsidiaries or joint ventures in China, the US, Japan, Australia and UK. In 1992, the company went public on NASDAQ in the US, becoming the first company in Singapore to go public in the US.

Second, efforts need to be made to strike a balance between "righteousness" and "profits" in entrepreneurship. "Righteousness" is a moral restraint, while "profits" is the goal pursued by the enterprise. The enterprise should not sacrifice righteousness for profits, nor should he turn a blind eye to "profits" for the sake of "righteousness". A balance should be stricken between the two. Tang Chunshan noted that Confucianism never denied "profits". It advocated principles such as "putting righteousness above profits", etc.. In the future, Chinese entrepreneurs could, on the basis of generalized "profits" defined by pursuit of market profits and social responsibility, incorporate "righteousness" into the sense of rule (laws and rules for market competition)-abidance and give it principles and borders, thus making it a driving force behind the modern economic development around the world.

Third, traditional Chinese culture should marry with modern western culture. Experts at the Forum unanimously believed that the marriage of the traditional and modern features of Chinese culture gave rise to the new oriental wisdom. Professor Feng Meng from Shanghai Normal University pointed out that the marriage of Chinese and western cultures, particularly the combination of the merits of them, had become an irresistible trend. Quoting Liang Qichao's view, he thought we should make efforts in the following aspects to promote marriage of Chinese and western cultures: first, all of us needed to cherish a sincere willingness to respect and protect the Chinese culture; second, we need to study it from the western point of view; third, we should integrate different facets of our culture and combine it with other cultures; fourth, we should make it benefit the entire human race.

The Industry Forum (Modern Agriculture)

Is Agricultural High Tech A Dreadful Disaster?

The Industry (Modern Agriculture) Forum of Pujiang Innovation Forum 2013 was held on October 27 in Shanghai. The development of modern agriculture has been deeply influenced by social developments, urban expansions, the endless food safety problems and environmental protection. Bearing the ideas of innovation and development, the forum discussed on issues like assimilation of the elements of science, technology and humanity into agricultural production, development from the traditional mode to the modern urban agriculture mode which combines production, ecology and human life together in a multi-functional rural-urban complex, and formation of innovation and industry chains to highlight people's well-being and meet the strategic demands of the Metropolitan Areas, such as food safety, germplasm and environmental controllability.

CAI Wei

Vice President and Professor, Shanghai Jiao Tong University

CHEN Chuanhong

Director General, The Department of Rural Science and Technology, Ministry of Science and Technology

Joseph Jen

Former Under Secretary of Department of Agriculture, USA; Co-chair of the Food Safety Committee of the International Union of Food Science and Technology

Science and technology plays an important role in the growth and prosperity of modern agriculture. But in the same time, it has triggered contentious issues such as the transgenetic technology, environmental pollution and food security. So is agricultural High Tech a dreadful disaster? Are those worries about its negative impact well-based? At the Industry (Modern Agriculture) Forum of Pujiang Innovation Forum 2013, quite a few experts who have dedicated themselves to agriculture and agricultural research for many years put forward, from their professional perspective, a handful of valuable viewpoints centering around controversial issues related to agricultural science and technology.

I. A New Round of Technological Change Facilitates New Development of Modern Agriculture

Future development of modern agriculture will witness the application of innovative technologies in the solution of four major issues: food security, global climate, agricultural resources and safety of agricultural produce. There are three major trends:

First, cutting-edge technologies in three major areas accelerate agricultural changes. Chen Chuanhong, Director General of the Department of Rural Science and Technology, Ministry of Science and Technology, believed that modern biology and life science, information technology and advanced manufacturing would facilitate the forward leap of agriculture. In the field of life science, the technology of genome-wide selection had led the molecular breeding technology into a brand new stage; breakthroughs had been made in the fields of stem cell and cell engineering technology which had become an important means in animal and plant species creation. In the field of information technology, digital agriculture and sophisticated operation technology had already been applied to all aspects of agricultural production. In the field of advanced manufacturing, farming equipment gradually took on the massive, multifunctional and intelligent features, continuously promoting the upgrading of agricultural production capacity.

Second, newly emerged industries of strategic importance built upon agriculture are growing at a high speed. Experts said that people usually entertained a misunderstanding: agriculture was relatively weak. But in fact, it was always an industry with great prospect. As newly emerged industries of strategic importance developed in an all-round manner, a handful of them related to agriculture were on the rise. For example, bio-breeding, biomass energy, modern food, agricultural equipment, etc.. Luo Lijun, Principle Scientist and Research Professor of Shanghai Agrobiological Gene Center, noted that in China, demand for food and agricultural produce grew rigidly, while the cultivated area for crops

LI Changsheng
Professor, University of New Hampshire

LUO Lijun
Principal Scientist and Research Professor, Shanghai Agrobiological Gene Center

WANG Junhao
Founder, Vice Chairman and President, JuneYao Group

went downslope. To achieve the end of doubling food production by 2015, we must improve the efficiency of food yield per unit and ensure stable yield increase through developing new agriculture-related industries.

Third, low-carbon circular agriculture has drawn international attention. There are mainly three agricultural development models in the world: mechanical technology replacing the labor force with the US and Russia as the representatives; resource technology replacing the land with Japan and Netherlands as the representatives; and the model combing both with UK and Germany as the representatives. Chen Chuanhong pointed out that no matter which model was adopted, low-carbon and circular development featured by low energy consumption, low pollution and low emission and based on the philosophy of sustainable development would be a sure thing in the future. Countries were stepping up their efforts to specify the reduction of agricultural emission of greenhouse gases and incorporate industries with carbon storage capacity such as agroforestry into the list of basic industries.

II. The Public should Shake off Their Unnecessary Panic over Agricultural Science and Technology though Scientific Ways

For the contentious issues such as the transgenetic technology and food security, experts noted that we should clearly bear in mind the duality and uncertainty of agricultural science and technology and make changes to traditional mindset. In the meantime, efforts needed to be stepped up to popularize the basic safety knowledge so as to erase the unnecessary panic of the public.

First, statistics show that problems concerning food safety are improving instead of deteriorating. Joseph Jen, Former Under Secretary of Department of Agriculture, US and Co-Chair of the Food Safety Committee of the International Union of Food Science and Technology, pointed out that in the current world, the food safety level hit a record high. He cited data of disease prevention and treatment cases and incidents triggered by unsafe food in the US for the past decade or so. The data showed that each year in the US, 1out of 6 persons got ill due to unsafe food and among 1 million emergencies, 4.2 resulted from food insecurity. Statistically, the above two figures were the lowest for over ten years in the past. He also noted that not a single enterprise overseas dare sacrifice the public health on the altar of profits.

Second, establishment of a well-developed regulatory system takes time and entails experience. Many countries including China are slow at issues regarding food safety regulatory system. In recent years, governments around the world start to pay heed to this problem and are taking measures to formulate laws and reinforce regulation.

XU Shiwei

Director General, Agricultural Information Institute, Chinese Academy of Agricultural Sciences

Joseph Jen said that food safety regulation, similar to environment inspection and regulation, was a process. In 1903, the US formulated the Food Safety Law. But it was not until 2010 that it passed the FDA Food Safety Modernization Act which conferred on the Food Safety and Inspection Service the power of forced confiscation. For countries like UK and Canada, laws stipulating reinforced inspection of imported goods were passed as late as 2012. Statistics also showed that lately, besides the government, the business community and the academia began to lay emphasis on food safety.

Third, scientific channels should be built to spread food safety information. Experts at the forum unanimously believed that the government needed to build scientific channels to spread food safety information among consumers. Joseph Jen talked about the safety of bacteria. He said that bacteria weren't absolutely unsafe, only when the pathogenic bacterium accumulated to a certain amount did they become hazardous. As for the transgenetic technology, no academic paper in the past three decades had ever shown that it posed threats to human health, nor was it absolutely safe. Apart from that, he introduced that the US government had set up a website to verify food safety information and continuously post safety notes for many years in the past. Thanks to such moves, consumers in the US had quite a comprehensive knowledge about food safety and rarely panicked over food safety incidents reported by the newspaper. Because they knew it wasn't that serious, at least not as serious as what the journalists said. Joseph Jen called on the media not to play up such incidents, particularly not to do that through the Internet.

III. Agricultural Development Entails Further Research into Scientific Means and Tools

Experts believed that modern agriculture was in a transitional period, changing from producing food to serving the entire ecosystem. To deal with a series of problems concerning water, air, soil and processing, etc., we must introduce scientific analytical tools and specialized management tools.

First, computer simulation models could be used to make analysis and prediction. China has an enormous territory with dramatically different climatic zones, soil types and planting patterns. Li Changsheng, Professor at University of New Hampshire and Shanghai Jiaotong University, pointed out that the Low-Carbon Agriculture Research Center of Shanghai Jiaotong University simulated the agricultural ecosystem with a simulation model. Through analyzing nationwide statistics in the past three decades, the Center found the relationship between external factors such as the weather, soil, water irrigation, the drought-flood cycle, etc. and crop yield, gas discharge, nutrient content, etc., thus making analysis and prediction. The model had been put into

use and popularized in a few provinces and cities and had drawn valuable conclusions, quantitatively verifying and improving the traditional ways of yield increase.

Second, we must unswervingly advocate the cultivation of superior seed provenance. We should achieve the goals of water conservancy and drought resistance, minimum use of pesticides and chemical fertilizers, high quality, increased crop yields and national food safety through cultivating new crop strains. Professor Luo Lijun introduced the "water-saving and drought-resisting rice" (not genetically modified) cultivated by him. Having been recognized globally and sponsored by Bill and Melinda Gates Foundation, he said, it had been planted experimentally in 12 African countries as demonstration and realized a general yield increase of over 20%. He believed that regardless of the adoption of transgenetic means, we should step up efforts in cultivating fine strains and harnessing environment-friendly genetic resources so as to increase the crop yields and protect the ecological environment.

Third, the enterprise should introduce scientific and professional agricultural safety management expertise. The long and multi-link supply chain for agricultural produce determines that both the enterprise and government can hardly monitor the entire process. Wang Junhao, Founder, Vice Chairman and President of JuneYao Group, held that the enterprise should introduce scientific and professional agricultural safety management expertise. For example, Hazard Analysis and Critical Control Points (HACCP) certification, establishment of modern food safety control system, etc.. In the meantime, a traceable monitoring system for agricultural produce could be established under the effort of the government, enterprise and the society through technologies such as the Internet of Things, making the process in which the raw material was turned into finished product completely "transparent".

Agenda for 2013 Pujiang Innovation Forum

26th October (Saturday)	
09:00-09:20	**Opening Ceremony** Zijin Hall, 1F, Convention Center
Chair	**XU Guanhua,** President of Pujiang Innovation Forum, Academician of Chinese Academy of Sciences
Opening Remarks	**XU Guanhua,** President of Pujiang Innovation Forum, Academician of Chinese Academy of Sciences
	Jan Vapaavuori, Minister of Economic Affairs, Finland
	LIU Jie, Vice Governor of Sichuan Province
	YANG Xiong, Mayor of Shanghai
09:20-10:10	**Keynote Speech**
09:20-09:50	**WAN Gang,** Minister of Science and Technology
09:50-10:10	**Erkki KM Leppävuori,** President & CEO, VTT Technical Research Center of Finland
10:10-10:30	**Break**
10:30-12:40	**Plenary Session** **Zijin Hall, 1F, Convention Center**
Chair	**CHEN Xiaoya,** Deputy Minister of Science and Technology
10:30-10:50	**Andrey A. Fursenko,** Assistant to the President of the Russian Federation
10:50-11:20	**Steven Chu,** Nobel Prize Laureate; Former Secretary of Energy, USA; Professor of Stanford University
11:20-11:40	**Kris Gopalakrisnan,** Co-Founder & Executive Vice Chairman, Infosys Limited
11:40-12:00	**LIN Zuoming,** President, Aviation Industry Corporation of China
12:00-12:20	**Jussi Pesonen,** President and CEO of UPM Corporation
14:00-17:15	**Country of Honor Forum** Innovation Economy: Competitiveness Through Innovation **Zijin Hall, 1F, Convention Center**
Chairs	**CHEN Linhao,** Deputy Director General, The Department of International Cooperation, Ministry of Science and Technology
	Pekka Soini, Director General, Tekes
14:00-14:05 Opening Remarks	**CHEN Xiaoya,** Deputy Minister of Science and Technology
	Jan Vapaavuori, Minister of Economic Affairs, Finland
14:05-14:15 Signing Ceremony	Tekes-MOST
	Espoo / GoldenBridge - Zhangjiang Hi-tech Park

Session 1: Knowledge Drives Success - Investments into Knowledge: Investments into People, Industrial Sectors and Bilateral Cooperation.	
14:15-14:20	**Introduction of Speakers by Chairs**
14:20-14:35	**Tuula Teeri,** President, Aalto University
14:35-14:45	**Heidi Fagerholm,** Chief Technology Officer, Kemira
14:45-14:55	**WU Jiang,** Vice President, Tongji University
14:55-15:05	**MA Hong,** Deputy Director, Shanghai Financial Service Office
15:05-15:35 Panel Discussion	**Chairs:** **Riitta Maijala,** Director, Ministry of Education and Culture **LOU Yongqi,** Vice Director of Sino-Finnish Centre, Tongji University
	Panelists: **Petri Peltonen,** Director General, Enterprise and Innovation Department, Ministry of Employment and the Economy **Antti Pirinen,** Vice President, Kone **WU Jiang,** Vice President, Tongji University **MA Hong, Deputy Director, Shanghai Financial Service Office**
15:35-15:55	**Break**
Session 2: New Models in Value Creation	
15:55-16:00	**Introduction of Speakers by Chairs**
16:00-16:10	**ZHANG Zhihong,** Executive Deputy Director, Torch High Technology Industry Development Center, The Ministry of Science and Technology
16:10-16:20	**Petri Rouvinen,** Managing Director, Etla the Research Institute of Finnish Economy
16:20-16:30	**NIU Xiaoming,** President, Shanghai Academy of Science and Technology, Shanghai Industrial Technology Institute
16:30-16:40	**ZHANG Xijun,** President, Suzhou Nano Technology Development Co., Ltd.
16:40-17:10 Panel Discussion	**Chairs:** **Petri Rouvinen,** Managing Director, Etla the Research Institute of Finnish Economy **TU Qiyu,** Senior research fellow of Shanghai Academy of Social Sciences; Deputy Director of Institute of Urban and Demographic Studies
	Panelists: **Peter Vesterbacka,** Chief Marketing Officer, Rovio **Eero Pekkola,** CEO, Oilon Group **ZHAGN Zhihong,** Executive Deputy Director, Torch High Technology Industry Development Center, The Ministry of Science and Technology **NIU Xiaoming,** President, Shanghai Academy of Science and Technology, Shanghai Industrial Technology Institute **ZHANG Xijun, President,** Suzhou Nano Technology Development Co., Ltd.
17:10-17:15 Closing Remarks	**CHEN Linhao,** Deputy Director General, The Department of International Cooperation, Ministry of Science and Technology **Pekka Soini,** Director General, Tekes

14:00-17:00	**The Regional & Urban Forum** **Regional Cooperation: Innovation Connecting More Cities and Towns** **Guest Hall, 1F, Convention Center**
Forum Interpretation	With the rapid development of globalization of technology, regional coordination has become a new trend in technological innovation. The accelerated flow of innovation resources worldwide makes different countries and different cities closely connected to form global or regional innovation networks. Breaking down the barriers of administrative division and enhancing regional coordination will connect more cities and towns together, expand the integration of technology and economy in a broader space, and promote development of innovation cities and innovation regions. The forum will invite senior executives from well-known multinational and domestic corporations and famous scholars in innovation networks and innovation clusters to explore the theory and practice of coordinated regional innovation development.
Chair	**WU Weiping,** Professor, Department of Urban & Environmental Policy & Plan, Tufts University, USA
14:00-14:20	**PENG Yuxing,** Director General, Science & Technology Department of Sichuan Province
14:20-14:40	**Harald Bathelt,** Professor, Department of Political Science and Department of Geography, University of Toronto, Canada
14:40-15:00	**WANG Jici,** Professor, College of Urban and Environmental Sciences, Peking University
15:00-15:20	**CHEN Deguang,** Vice President, Sichuan Kelun Industry Group
15:20-15:40	**Rameshbabu R Songukrishnasamy,** General Manager, Honeywell Technology Solutions, China
15:40-16:00	**Break**
16:00-17:00	**Panel Discussion**
14:00-17:00	**The Industry Forum (Health Industry)** **Creating New Lifestyles: Industrial Innovation Aimed at Improving People's Wellbeing** **Yulan Hall, 2F, Convention Center**
Forum Interpretation	The healthcare sector is both a newly growing industry with huge market potential and a new driving force to China's economic development. It is of great significance to meeting the requirement of disease prevention and treatment set out in China's New Healthcare Reform. This forum will invite healthcare experts from enterprises, research institutes, universities and government departments at home and abroad to discuss and exchange ideas on hot topics such as nutrition and healthcare, digital healthcare management, and the 'Preventive Treatment of Disease' project which combines Chinese and Western medicine. It aims to promote innovation and development for the healthcare industry, construct a healthy ecological system for future, and help realize the Chinese dream for health.
Chair	**WU Jiarui,** Deputy Director, Shanghai Advanced Research Institute, Chinese Academy of Sciences
14:00-14:20	**WU Jiarui,** Deputy Director, Shanghai Advanced Research Institute, Chinese Academy of Sciences
14:20-14:40	**ZHANG Boli,** Academician of Chinese Academy of Engineering; President of China Academy of Chinese Medical Sciences
14:40-15:00	**SU Gangqiang,** Director, Division of Science and Technology, State Administration of Traditional Chinese Medicine
15:00-15:20	**GAO Jiechun,** Deputy Director-general, Shanghai Hospital Development Center
15:20-15:40	**LOU Jingwei,** President of Shanghai Biotecan Pharmaceuticals Co., Ltd
15:40-16:00	**Break**
16:00-17:00	**Panel Discussion**
19:00-20:30	**The Night of China & Finland (By Invitation)** **Zijin Hall, 1F, Convention Center**

27th October (Sunday)	
09:00-12:00	**The Policy Forum** **Innovation Environment: Coordination between Supply-Side and Demand-Side Policies** **Zijin Hall, 1F, Convention Center**
Forum Interpretation	A policy framework that motivates innovation is indispensable to the improvement of innovation performance. The effects of supply-side and demand-side policies on the different development stages of different industries vary. In recent years, it is the new global trend to promote innovation with coordinated policy tools. The coordination among supply-side and demand-side policies is especially important in emerging industries of strategic importance. China has already issued a large number of policies motivating innovation, yet it is worth in-depth discussion on how to better coordinate innovation policies based on the successful practices of other countries.
Chair	**WANG Fenyu,** Deputy Director of Chinese Academy of Science and Technology for Development
09:00-09:20	**XU Jianpei,** Director-general, Department of Policy, Regulation and Reform, Ministry of Science and Technology
09:20-09:40	**Mario Cervantes,** Senior Economist, OECD
09:40-10:00	**WEN Ku,** Director, Department of Science and Technology, Ministry of Industry and Information Technology
10:00-10:20	**Charles Edquist,** Professor, Lund University, Sweden
10:20-10:40	**WANG Yimin,** Director, Department of Science and Technology, STATE GRID Corporation of China
10:40-11:00	**XU Qiang,** General Manager, Zhongguancun Development Group
11:00-11:20	**Break**
11:20-12:00	**Panel Discussion**
09:00-12:00	**The Entrepreneur Forum** **Entrepreneurship Growth: Promoting the Combination of Technology and Market** **Guest Hall, 1F, Convention Center**
Forum Interpretation	Successful entrepreneurship calls for the effective combination of technology opportunities and market opportunities. The market value of technologies is the key factor of the success of innovation and entrepreneurship, with market as the strategic resource. At the early stage of the enterprise development, entrepreneurs usually only focus on the importance of technologies, while overlooking such factors as the structure, management, marketing and financing. As a result, only a small number of enterprises could eventually thrive. Therefore, equal emphasis should be put on technology and market, and the effective combination of both should be promoted.
Chair	**YUAN Yue,** Chairman, Horizon Research Consultancy Group
09:00-09:20	**WANG Pengfei,** Founder and CEO, Kuaipai.cn
09:20-09:40	**Canice Wu,** President of Plug and Play Tech Center, USA
09:40-10:00	**HUANG Chingyao,** Chairman, Chinese Business Incubation Association, Taiwan
10:00-10:20	**Peter Hiscocks,** CEO, Judge Business School Executive Education Limited, Cambridge University
10:20-10:40	**Annual Awarding Ceremony,** Asian Association of Business Incubation (AABI) **MC: Mr. R.M.P. Jawahar,** President of AABI
10:40-11:00	**Break**
11:00-12:00	**Panel Discussion** **ZHANG Weiyi,** General Manager, Shanghai Ideaoptics Instruments Co., Ltd.

09:00-12:00	**The Future Science Forum** **Common Challenges: Responding to Global Issues Collectively** **Yulan Hall, 2F, Convention Center**
Forum Interpretation	The development of science and technology brought us not only richer and more convenient life, but also greater challenges and larger threats which are magnified by the unpredictability of the nature and the existing pattern for production and consumption of mankind. Currently, the human beings are faced with bigger threats on issues including energy, resource, environment, climate change, etc., which restricts the development of human society and requires joint effort of the mankind to explore frontier technologies, to prepare in advance, and to react timely.
Chair	**WU Jiang,** Vice President and Professor, Tongji University
09:00-09:20	**Bruce E. Rittmann,** Director of Swette Center for Environmental Biotechnology, Arizona State University; Member of National Academy of Engineering, USA
09:20-09:40	**SHEN Jianlei,** Director, Division of Major Research Program, Department of Basic Research, Ministry of Science and Technology
09:40-10:00	**Wolfgang Miebach,** President of Bayer Material Science China
10:00-10:20	**LIU Xunfeng,** President of Shanghai Huayi (Group) Company
10:20-10:40	**Break**
10:40-11:00	**ZHANG Junliang,** Director of Institute of Fuel Cell, Shanghai Jiao Tong University
11:00-11:20	**Reinhold Ollig,** Head of Division of Resources and Sustainability, German Federal Ministry of Education and Research
11:20-12:00	**Panel Discussion**
14:00-17:00	**The Enterprise Forum** **Creating New Wealth: Innovation Chain and Value Chain of Enterprises** **Zijin Hall, 1F, Convention Center**
Forum Interpretation	In order to accelerate the creation of new wealth, the key is for enterprises to search for the best position on the innovation chain and value chain. Enterprises should plan for STI activities with a global vision, allocate innovation resources worldwide, and seek the increase in wealth on the whole innovation chain. Enterprises of different sizes should have a clear division of tasks, and close cooperation among governments, enterprises, universities, research institutes and users should be encouraged, so as to implement open innovation. At the same time, the position of enterprises on the value chain determines the room for increase in wealth. Therefore, enterprises should move towards both ends of the 'smiling curve' of the value chain, raise the value added to their products, and enhance their core competitiveness.
Chair	**LUO Zhenyu,** Economist, Renowned Anchorman in Finance & Economics
14:00-14:20	**DING Lei,** Director, Administrative Committee, Shanghai Zhangjiang Hi-tech Park
14:20-14:40	**CHEN Xiangli,** General Manager, GE China Technology Center
14:40-15:00	**Roman Shaw,** Managing Partner, DT Capital Shanghai Office
15:00-15:20	**XU Ke,** Founder and President, Shanghai Hippo Animation Co., Ltd.
15:20-15:40	**Duane Kuang,** Founding Partner, Qiming Venture Partners
15:40-16:00	**FU Cairui,** CEO and Founder of Shanghai Hujia Communication Co., Ltd. (Hujiang.com)
16:00-16:20	**Break**
16:20-17:00	**Panel Discussion**

14:00-17:00	**The Culture Forum** **Heritage Transfer and Remodeling: Traditional Cultural and Entrepreneurship** **Guest Hall, 1F, Convention Center**
Forum Interpretation	A large team of good entrepreneurs with innovative spirit is the mainstay of building an innovative country. China is an ancient country which is rich in culture. The essence of the traditional culture has been inherited and developed for generation. In traditional Chinese culture, there is the business culture which stresses honesty and integrity, as well as the morals which values justice above material gains. However, in the new context of globalization, traditional Chinese culture is faced with unprecedented threat. It is something inherent in the building of innovative culture to figure out how to inherit the essence of traditional culture and to promote the risk-taking, innovation-driven entrepreneurship.
Chair	**HU Zhijian,** Secretary of The Party Committee, Chinese Academy of Science and Technology for Development
14:00-14:20	**LIU Shiding,** Deputy Director and Professor, Department of Sociology, Peking University
14:20-14:40	**YANG Mu,** Senior Research Fellow, Lee Kuan Yew School, National University of Singapore
14:40-15:00	**TANG Chunshan,** President, Shenzhen Langrun Investment Co., Ltd.
15:00-15:20	**QIN Shengyi,** Chairman and President, Rechsand Science & Technology Group
15:20-15:40	**Break**
15:40-17:00	**Panel Discussion**
14:00-17:00	**The Industry Forum (Modern Agriculture)** **Creating New Lifestyles: Industrial Innovation Aimed at Improving People's Wellbeing** **Yulan Hall, 2F, Convention Center**
Forum Interpretation	The development of modern agriculture has been deeply influenced by social developments, urban expansions, the endless food safety problems, and environmental pollution. Bearing the ideas of innovation and development, the forum will discuss on issues like assimilation of the elements of science, technology and humanity into agricultural production, development from the traditional mode to the modern urban agriculture mode which combines production, ecology and human life together in a multi-functioned rural-urban complex, and formation of innovation and industry chains to highlight people's well-being and meet the strategic demands of the Metropolitan Areas, such as food safety, germplasm innovation and environmental controllability.
Chair	**CAI Wei,** Vice President and Professor, Shanghai Jiao Tong University
14:00-14:20	**CHEN Chuanhong,** Director General, The Department of Rural Science and Technology, Ministry of Science and Technology
14:20-14:40	**Joseph Jen,** Former Under Secretary of Department of Agriculture, USA; Co-chair of the Food Safety Committee of the International Union of Food Science and Technology
14:40-15:00	**LI Changsheng,** Professor, University of New Hampshire
15:00-15:20	**LUO Lijun,** Principal Scientist and Research Professor, Shanghai Agrobiological Gene Center
15:20-15:40	**WANG Junhao,** Founder, Vice Chairman and President, JuneYao Group
15:40-16:00	**Break**
16:00-17:00	**Panel Discussion**
	XU Shiwei, Director General, Agricultural Information Institute, Chinese Academy of Agricultural Sciences

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