## 浦江创新观察 Pujiang Innovation Observation

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**编者按:** 2024浦江创新论坛——区域创新发展论坛以"科创中心引擎区域高质量发展"为主题,与会嘉宾围绕区域科技创新中心建设,就如何深入实施区域重大战略和协调发展,加快培育具有国际竞争力的产业集群与经济增长极展开深入研讨。本期专报对区域创新发展论坛嘉宾报告进行梳理,供参考。

Editor's note: At the Regional Innovation and Development Forum under the 2024 Pujiang Innovation Forum with the theme of "Sci-tech Innovation Centers, the Engine for High-quality Regional Development", the guests present discussed in depth how to deeply implement major regional strategies and coordinate development, accelerate the development of globally competitive industry clusters and economic growth poles around the building of regional scientific and technological innovation centers. This special report summarizes the reports of the guests at the Regional Innovation and Development Forum for your reference.

#### 2024 浦江创新论坛专报之六

Special Report 6 of the 2024 Pujiang Innovation Forum 打造特色区域科创中心 激发区域创新融合新动能

# Creating distinctive regional scientific and technological innovation centers, and arousing new driving forces for regional innovation and integration

统筹推进国际科技创新中心和区域科技创新中心建设,是深入实施创新驱动发展战略、加快建设世界科技强国的重大部署。 在新形势新要求下,区域科技创新中心在推动国家科技实力提升 中扮演着重要角色。与会嘉宾一致认为,通过加强科技创新要素 的流动,区域科创中心能够与国际科技创新中心形成优势互补, 构建梯次联动的创新格局,在国家创新体系中承接重大科技任 务、汇聚关键要素,推动区域与国家整体科技实力提升。

Promoting the building of international and regional scientific and technological innovation centers in a coordinated manner is a major arrangement to deepen the implementation of the innovation-driven development strategy, and accelerate the building of China's science and technology strength. Under the new situation and requirements, regional scientific and technological innovation centers play an important role in promoting the improvement of

national scientific and technological strength. The guests present agreed unanimously that by strengthening the flow of technological innovation factors, regional scientific and technological innovation centers can form advantages that complement those of international scientific and technological innovation centers, build a hierarchical linkage innovation landscape, undertake major scientific and technological tasks in the national innovation system, pool key factors, and promote the overall improvement of regional and national scientific and technological strength.

- 一、聚焦新热点:明确区域科创中心功能定位
- 1. Focusing on new hotspots: Defining the functional positioning of regional scientific and technological innovation centers
- 一是区域科技创新中心受到各界广泛关注。在研究界,中国 科学技术发展战略研究院党委书记刘东梅认为,中国的科技创新 中心可以分为三类:以基础研究为主的国际科技创新中心,专注 于科技创新;以应用研究为主的全国科技创新中心,覆盖更大区 域,支撑重点产业的高质量发展;以一个省或相邻省份的区域科 技创新中心,利用省级资源对接国家战略,重点推动技术应用和 区域重点产业的创新发展。在政府界,科技部政策法规与创新体 系建设司司长解敏指出,建设充满活力的科创中心是各国抢抓科

技革命机遇、提升国家创新能力的重要手段,区域科创中心是国家区域创新战略的重要组成部分,也是建设科技强国和实施创新驱动战略的关键举措。**在产业界,爱思唯尔全球高级副总裁兼大中华区总裁李琳**表示,不同城市在学科、产业发展上各具优势,体现在人才聚集、科研基础、战略布局和政策配套等方面。她认为,通过区域科技创新中心的建设,这些城市能够更加紧密地合作,充分发挥各自优势。

First, regional scientific and technological innovation centers have received widespread attention from all communities. In the research community, Liu Dongmei, Secretary of the CPC Committee of the Chinese Academy of Science and Technology for Development, thought that China's scientific and technological innovation centers can be divided into three types: international scientific and technological innovation centers that focus on basic research, and scientific and technological innovation; national scientific and technological innovation centers that focus on applied research, cover larger regions and support the high-quality development of key industries; and regional scientific and technological innovation centers in one province or adjacent provinces that are aligned with national strategies through provincial resources, and focus on promoting technology application, and the innovation and development of regional key industries. In the government community, Xie Min, Director-General of the

Department of Policy, Regulation and Innovation System, Ministry of Science and Technology, pointed out that building dynamic scientific and technological innovation centers is an important means for countries to seize the opportunity of the technological revolution and enhance national innovation capacity, and regional scientific and technological innovation centers are an integral part of the national regional innovation strategy, and a key move in building China's science and technology strength, and implementing the innovation-driven strategy. In the industry community, Li Lin, Global Senior Vice President and President of Greater China at Elsevier, said that different cities have their own advantages in discipline and industry development, which are reflected in talent pooling, scientific research foundation, strategic layout, policy support, etc. She thought that through the building of regional scientific and technological innovation centers, these cities can work more closely and fully leverage their respective advantages.

二是区域科创中心建设应为区域协同发展的核心要义。刘冬梅表示,科技创新中心是高质量发展的重要引擎,具有科技创新资源密集、创新活动集中、创新实力雄厚,辐射范围广泛的关键特征。解敏指出,区域科创中心通过大规模组织与协作,利用规模效应和集聚效应,降低科创成本,提升体系效能,加速区域内基础研究到产业化的进程。长三角城市群智能规划协同创新中心

首席科学家、中国工程院院士、同济大学原副校长吴志强指出,相同的创新基因(区域的科技基础)和不同的创新要素(科技人才、技术、资本和政策支持)相结合是产生创新的密码,区域科创中心已成为科技创新的重要策源地,吸引高端人才和风险投资、促进区域经济和科技协同发展。

Second, the building of regional scientific and technological innovation centers should be the core essence of regional coordinated development. Liu Dongmei said that scientific and technological innovation centers are an important engine for high-quality development, with the key characteristics of intensive scientific and technological innovation resources, concentrated innovation activities, solid innovation strength, and broad coverage. Xie Min pointed out that regional scientific and technological reduce scientific and technological innovation centers can innovation costs, improve system efficiency, and accelerate the regional process from basic research to industrialization through large-scale organization and collaboration by leveraging the economy of scale and agglomeration effects. Wu Zhiqiang, Chief Scientist of the China Intelligent Urbanization Co-creation Center for High Density Region, academician of the Chinese Academy of Engineering, and former Vice President of Tongji University, pointed out that the combination of the same innovation DNA (regional scientific and technological foundation) and different

innovation factors (scientific and technological talents, technologies, capital, and policy support) is the key to innovation. Regional scientific and technological innovation centers have become an important cradle of scientific and technological innovation, attracting high-end talents and venture capital, and promoting the coordinated development of the regional economy, and science and technology.

#### 二、把握新趋势:加速区域科技创新资源整合

# 2. Grasping new trends: Accelerating the integration of regional scientific and technological innovation resources

国际实践表明,区域创新的关键在于供应链与创新链的协同合作。未来需通过快速迭代创新概念和吸引顶尖人才保持竞争优势。美国宾夕法尼亚大学原设计学院院长、教授 Gary Hack 分享了剑桥、MIT 等美国典型创新区域的发展经验并指出,区域科技创新中心的成功依赖于供应部门与创新部门的紧密合作,创新中心的运营必须获得政府的政策支持。此外,大学在支持初创公司商业化和提供基础设施方面扮演着关键角色。他强调,这些创新中心通过汇聚顶尖人才和推动新技术的应用,确保其在全球科技竞争中的领先地位。巴西巴西利亚市科学、技术和创新秘书处(SECTI)执行秘书 Alexandre Villain 则指出,巴西利亚通过科技创新融合政策推动区域发展,布局三大重点项目:创新技术倡

议、可再生技术倡议和技术人才培训计划。这些项目通过技术创新与可持续发展相结合,极大提升了巴西利亚的科技实力。预计到 2025 年将满足巴西利亚科技产业对人才的需求,可再生技术倡议推动了循环经济的发展,显著节省了水资源和原油。他强调,政府、企业和科研机构的多方合作不仅推动了当地循环经济的发展,还通过技术培训增强了科技产业的人才储备。

International practice has shown that the key to regional innovation is the collaboration between the supply and innovation chains. In the future, it is necessary to maintain competitive advantages by upgrading innovation concepts rapidly and attracting top talents. Gary Hack, former Dean of and professor at the School of Design, University of Pennsylvania, shared development experience of typical innovation regions in the U.S. such as Cambridge and MIT, and pointed out that the success of regional scientific and technological innovation centers depends on the close cooperation between the supply and innovation sectors, and the operation of innovation centers must receive policy support from the government. In addition, universities play a crucial role in supporting the commercialization of startups and the supply of infrastructure. He emphasized that these innovation centers ensure their leading position in global scientific and technological competition by pooling top talents and promoting the application of new technologies. Alexandre Villain, Executive Secretary of the

Secretariat for Science, Technology and Innovation (SECTI) of Brasilia, Brazil, pointed out that Brasilia promotes regional development through integrated scientific and technological innovation policies, and focuses on three key projects: the Innovative Technology Initiative, the Renewable Technology Initiative, and the Technological Talent Training Program. These projects have enhanced Brasilia's technological strength greatly by combining technological innovation with sustainable development. It is expected that by 2025, the talent demand of Brasilia's technology industry will be met, and the Renewable Technology Initiative will promote the development of the circular economy, and save water resources and crude oil significantly. He emphasized that the multi-party cooperation between the government, enterprises, and research institutions not only promotes the development of the local circular economy, but also enriches the talent reserve of the technology industry through technical training.

国内实践表明,区域创新的重点在于通过创新中心的引领、区域间的协同促进融合发展。未来应更加注重区域间的优势互补与创新资源的高效共享,充分发掘新兴城市崛起所带来的潜力。 刘东梅指出,京津冀区域通过优势互补和协同发展,在北京科创中心的带动下,天津的创新水平位居全国第五,河北则取得了显著提升。上海通过其辐射作用,推动了长三角地区创新能力的显著提升,长三角地区的创新活力极为强劲。李琳提到,北京和上 海的科研成果在全球领先,带动了科技资源的高效整合与输出。深圳以19%的年均增长率,展示了新兴城市在科技创新中的强劲潜力,成为我国区域创新发展的重要支撑力量。澳门科学技术发展基金行政委员会主席谢永强表示,澳门凭借其独特的国际化优势和粤港澳大湾区的政策支持,成为推动区域科技创新融合的重要力量。他指出,横琴粤澳深度合作区的设立促进了澳门与内地科技资源的共享与经济协同,成为区域创新体系构建的范例。

Domestic practice has shown that the focus of regional innovation is to promote integrated development through the guidance of innovation centers and interregional collaboration. In should be paid to future, more attention advantage complementation among regions and the efficient sharing of innovative resources in order to fully tap the potential brought by the rise of emerging cities. Liu Dongmei pointed out that through advantage complementation and coordinated development in the by scientific Beijing-Tianjin-Hebei region, and driven technological innovation centers in Beijing, Tianjin ranks fifth in China in terms of innovation level, and Hebei has realized significant improvement. Shanghai has improved the innovation capacity of the Yangtze River Delta significantly through its radiation effect, and the region is extremely vigorous in innovation. Li Lin mentioned that scientific research achievements of Beijing and Shanghai are leading globally, driving the efficient integration

and output of scientific and technological resources. Shenzhen demonstrates the strong potential of emerging cities in scientific and technological innovation, and has become an important supporting force for regional innovation and development in China with an average annual growth rate of 19%. Xie Yongqiang, Chairman of the Administrative Committee, Macao Science and Technology Development Fund, said that Macao has become an important force in promoting regional integration in scientific and technological innovation for its unique international advantages and policy support from the Guangdong-Hong Kong-Macao Greater Bay Area. He pointed out that the establishment of the Guangdong-Macao In-Depth Cooperation Zone in Hengqin has promoted the sharing of technological resources, scientific and and the coordination between Macao and the mainland, and set an example of regional innovation system building.

#### 三、打造新引擎:激发区域创新融合动能

### 3. Creating new engines: Arousing regional innovation and integration momentum

一是发挥城市独特优势,深度融入区域发展。吴志强表示, 上海国际科技创新中心要以宽阔胸襟接纳优秀人才集聚,激发区域科技、经济、社会的整体绽放,形成高端科技人才吸引力强、 原创科研成果转化率高、风险投资生态活跃繁荣的"高原风"优 势。谢永强提出,澳门要利用其"一国两制"、低税制、自由经济体和文化融合的独特的优势,助力科技走廊建设。

First, leverage the unique advantages of the city and deeply integrate into regional development. Wu Zhiqiang said that as an and technological international scientific innovation Shanghai should accept outstanding talents with a broad mind, promote the overall development of regional science and technology, economy, and society, and form "plateau-style" advantages with strong attraction to high-end scientific and technological talents, a high conversion rate of original scientific research achievements, and active and prosperous venture capital ecology. Xie Yongqiang proposed that Macao should leverage its unique advantages of "one country, two systems", the low tax system, the free economy, and cultural integration to support the building of the science and technology corridor.

二是加快基础知识设施建设,助力科创中心发展。李琳认为,知识基础设施不仅包括科研机构、人才、风险投资和科学研究基金、科学基础设施和大型科学设施等硬件设施,还涵盖无形的支撑,如政府、科研工作者和企业家在线上协作平台,要利用数字驱动下智能规划方法指导科研战略规划制定及实施的能力,以及促进知识在更大范围内共享、交流、共创的广泛平台。

Second, accelerate the construction of basic knowledge infrastructure to support the development of scientific and technological innovation centers. Li Lin thought that knowledge infrastructure not only includes hardware facilities such as research institutions, talents, venture capital and scientific research funds, scientific infrastructure and large-scale scientific facilities, but also covers intangible support, such as online collaboration platforms for the government, researchers and entrepreneurs. It is necessary to guide the formulation and implementation of scientific research strategic planning, and create a broad platform to promote more extensive knowledge sharing, exchange and co-creation using a digitalization-driven intelligent planning approach.

三是统筹谋划,系统性推进区域创新发展。吴志强指出,在区域创新发展中,需要注重创新资源的有效配置,并通过智能配置体系优化区域创新资源。刘冬梅认为,推进区域创新发展,需要从三个方面入手: (1) 统筹推进国际科技创新中心建设,推动北京、上海、粤港澳大湾区打造战略性新兴产业集群,构建未来产业发展生态; (2) 构建创新增长极和增长带,促进新兴产业要素集聚,形成新质生产力生态圈,增强区域产业链和供应链的韧性与安全; (3) 依托重点地区开展改革试点,促进科技成果转化,破除体制机制障碍,提升科技成果转化效率。

Third, make unified planning to promote regional innovation and development systematically. Wu Zhiqiang

pointed out that in regional innovation and development, it is necessary to pay attention to the effective allocation of innovation resources and optimize regional innovation resources through an intelligent allocation system. Liu Dongmei thought that promoting regional innovation and development requires efforts in three aspects: (1) coordinating the building of international scientific and technological innovation centers, promoting the creation of strategic emerging industry clusters in Beijing, Shanghai, Guangdong-Hong Kong-Macao Greater Bay Area, and building a future industry development ecosystem; (2) creating innovative growth poles and growth belts, promoting the agglomeration of emerging industry factors, forming an ecosphere of new quality productive forces, and enhancing the resilience and security of regional industry and supply chains; and (3) carrying out pilot reforms in key regions, promoting the transformation of scientific and technological achievements, breaking institutional barriers, and transformation efficiency of scientific improving the and technological achievements.

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