北京协同创新研究院

Beijing Institute of Collaborative Innovation

Collaboration among universities
Collaboration between universities and industries
Collaboration for innovation and business startups
Collaboration in innovation and education
Collaboration between Beijing and the rest of the world

因创新而无限 因共享而永恒

Infinity in innovating *Eternity by sharing*

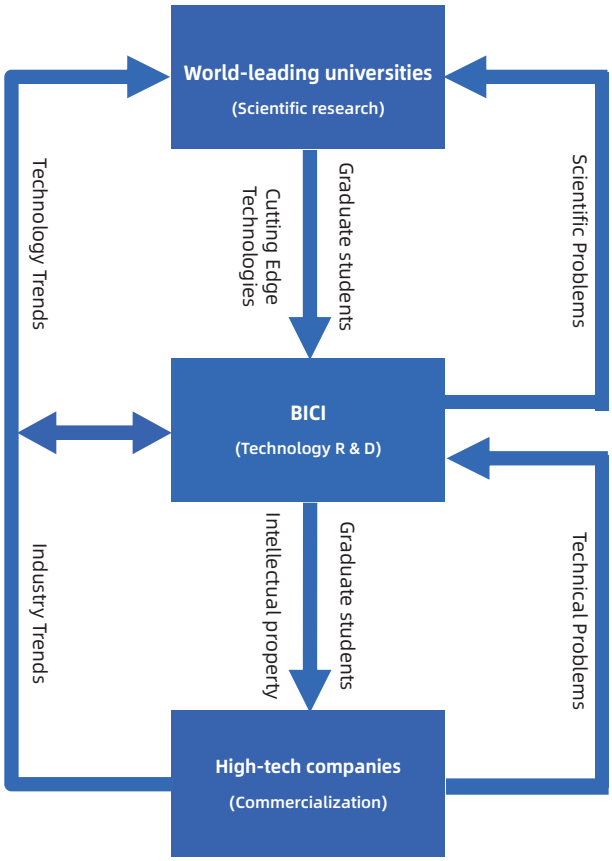
Beijing Institute of Collaborative Innovation (BICI) is an international, non-governmental, non-profit innovation platform established in 2014. With offices in Beijing, Silicon Valley, London, and Hong Kong, BICI is committed to building a global collaborative innovation system, transfering university technological innovations into real productive forces, and serving the sustainable development of mankind.

Focusing on the six key areas of medical devices, biomedicine, intelligent manufacturing, optoelectronics, materials, and environmental engineering, BICI has established collaborative laboratories and supported research groups with a number of prestigious universities at home and abroad to study cutting-edge technologies and lead future technological advances. At the same time, BICI has internal R&D facilities and technical teams to jointly develop engineering technologies for commercialization.

Targeting major innovation and entrepreneurship regions worldwide, BICI propels technology commercialization and transforms the potential of technology into economic dynamism through technology-based JV creation and intellectual property assignment or licensing.

Jointly with universities at home and abroad, BICI adopts the "knowing and doing" model to train innovative and entrepreneurial graduate students. Students study academic courses at university, take innovation and entrepreneurship courses at BICI, and carry out practical training based on BICI's real-world projects together with peers across universities and disciplines. Under this model, a unique effect has been created to sustainably cultivate talents in innovation.

An Intellectual Property Fund has been established to support scientific research, and a Transformation Fund to support commercialization, forming a capital chain covering the entire innovation lifecycle.



At present, BICI has established strong collaborative relationships with more than ten prestigious Chinese universities and around ten top international universities, with the in-depth involvement of a large number of world-class professors. Each year, approximately 50 world-class scientific research projects are launched, 30 technologies commercialized, 25 start-up companies formed, and close to 200 entrepreneurial students trained.

After several years' development, BICI has become a communal innovation and entrepreneurial base for a number of world-renowned universities, an explorer of university reform in a new era, and a leader in innovation development.

Application Guide

Why collaborate with BICI?

As a global leading innovation hub , BICI has

- access to a large pool of funds for research teams and startups
- well-established collaboration with many universities and research institutes globally
- strong connections with many industrial partners especially in the Chinese market

BICI can

- fund your research
- provide you with extensive market analysis
- commercialize your technology by forming a startup company or joint venture
- help you find research/business partners in both academia and industry
- provide resources for technology validation, product prototyping, pilot test, and user feedback
- help you find supply chain and customers
- provide support in securing further investments for your company

Ways for collaboration

BICI can collaborate with you in different ways depending on the readiness level of your technology.

- If you need more resources to bring your technology to market → BICI can fund your research
- If your technology is ready for market → BICI can help you form a startup company to commercialize your technology
- If you are already a startup company → BICI can form a joint venture in China with you to expand your market coverage

Project selection criteria

Research area

- In compliance with the key focus areas of BICI (see table in page 4)

Strength of innovation

- Strong technical advantage over current industry standards and competitors (supported by solid preliminary data or prototype)
- High technology barrier
- Patentability

Commercial potential

- Feasibility to translate invention into a product or service
- Addressing an unmet market need
- Clear market, large customer base
- No foreseeable obstacle in scale-up production

Project team

- Strong expertise and track record in proposed field of research
- Clear project goal with realistic approaches for translation

Application Process

Applicant		BICI
• Initial meeting with BICI to introduce the technology and discuss project scope	**Pre-evaluation (2-4 weeks)**	• Conduct preliminary technology assessment and market analysis • Present findings to applicant in a secondary meeting • Sign NDA
• 2-3 rounds of meeting with BICI to refine proposal and address concern	**Due Diligence (2-3 months)**	• Conduct extensive technology assessment and market analysis • Work with applicant to draft a collaboration plan and project proposal
	Contract/IP Agreement (in parallel with due diligence)	• Discuss with applicant or affiliated organization on collaboration and IP terms
• Provide supplementary information if necessary	**BICI Board Meeting**	• Present the project to BICl committee and investment board
• Receive funding and collaborative resources	**Signing Contract /Project Kick Start**	• Direct funding to applicant • Involve resources

Key Focus Areas

Medical Devices	Biomedical imaging	Aiqing Chen chenaq@bici.org Zhaoji Jin jinzj@bici.org
	In vitro diagnostic (and reagents)	
	Implantable/interventional and treatment devices	
Biomedicine	Antiviral and cancer drugs	
Intelligent Manufacturing	Micro/nano or multi-energy manufacturing	Juncheng Zhu zhujc@bici.org
	Industrial simulation software	
	Micro/nano robots	
Optoelectronics	Photonic sensors	Jing Li lijing@bici.org
	MEMS/NEMS sensors	
	Laser sources	
	Flexible electronics	
Materials	Energy materials	Haijie Tan tanhj@bici.org
	Functional composite materials	
	Optoelectronic materials	
Environmental Engineering	Water treatment technology	Yuanqing Li liyq@bici.org
	Detection and monitoring technology	

*other cutting-edge technologies that are not listed above may also be considered on a case-by-case basis.

FAQ

Q: What are the typical BICI models of commercializing a completed project?

A: The startup company of a completed project can be formed in at least one of the following three ways after mutual agreement between PI(s) and BICI:

i. BICI + PI(s) form a start-up together, which licenses the technology from University;

ii. BICI licenses the technology from University and forms a startup on its own, if PI(s) are not interested (ideally, related researchers such as PhDs or post-docs from research group join as co-founder and consultant of the company);

iii. PI(s) forms a startup outside China, and BICI forms a startup in China, by licensing from University respectively.

Q: What's the typical project size and duration?

A: The typical funding for each project ranges from 100k to 2M USD. The duration of the project usually ranges between 1-2 year, depending on the maturity of the technology.

Q: Where can pilot testing and scaling-up take place over the course of the project?

A: The pilot test and scaling-up can be carried out anywhere, whichever represents the most efficient route that benefits the technology transfer process.

Q: Will BICI have continuous investments on spin-off companies formed out of the funded projects?

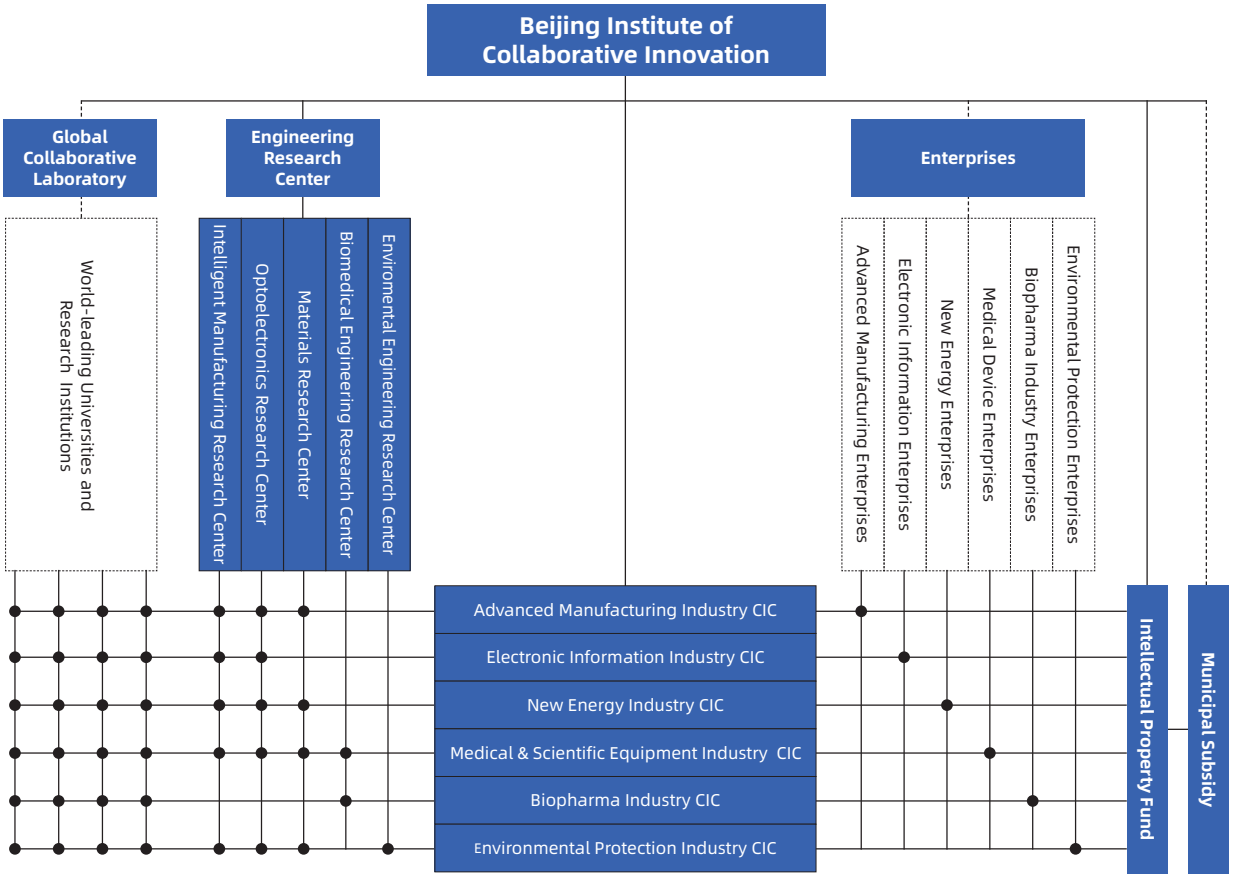
A: For continuous growth of the spin-offs, BICI will support the next round of funding. BICI have subsidiary funds and connected resources (such as VC networks) which can potentially invest in the spin-offs from the funded projects.

Q: What is BICI's risk preference?

A: Compared to conventional VCs, BICI invests technology at an earlier stage, and is willing to take more risk and allow longer time-to-market.

Ternary Coupling: Research Center+Collaborative Innovation Center(CIC)+Intellectual Property Fund

Advance engineering technologies driven by market need



Early-stage research are conducted at universities, followed by translational tasks executed by multidisciplinary teams coordinated by BICI, with the aim for scale-up production and commercialization. Profits of commercialization are shared among inventors, operations team and investors.

This forms a "academia-initiated, industry-driven, capital-led" ternary collaborative innovation system, which enables an optimised allocation of market resources, providing a new way for better addressing the technological and the economical challenges of today.

As of 2020, BICI has initiated 171 projects, of which 50% are world pioneering, 11 are first-of-its-kind, 121 are successfully translated, with 108 spin-offs created.

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