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AlmaU

Technology Commercialization Center (TCC)

Unlocking University R&D Innovations to Improve Your Business Effectiveness

Almaty Management University, 2023

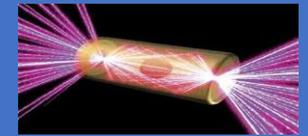
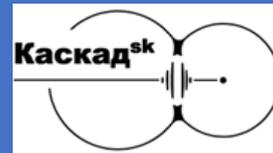
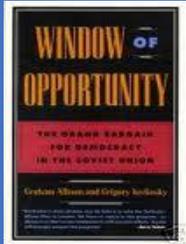
What is Innovation Economy in XXI century?



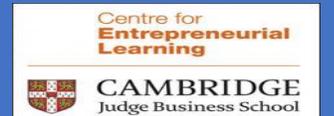
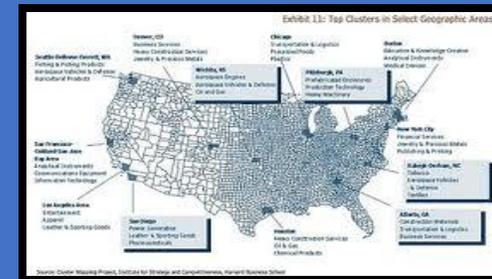
***“A lone explorer exclaiming
“Eureka!” from insight, - a
historical relic”***

***«Research process is complicated, competitive,
expensive and has to be fulfilled in cooperation»***

My experience 1985– 2012: Banking, Consulting, VC Fund Management



Super Position



AlmaU - Focus on Performance



1988-1995



Almaty School of Management

Number of programs

15+ short-term

Number of students

200

Number of faculty and staff

15 faculty (freelancers)
10 staff

Infrastructure

30 – 900 sq. m (rent)

1996-2013



International Academy of Business

7 Bachelor
6 Master's degree
20+ short-term
4 MBA
2 DBA

2000+ 70 foreign, through incoming and outgoing mobility

100 full-time faculty
10+ foreign faculty
100 staff

900 – 8000 sq. m (owned)

2014-2022



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20+ Bachelor
8 Master's degree
200+ short-term
6 MBA
1 DBA
4 PhD

5000+ 140+ foreign, through incoming and outgoing mobility

235+ full-time faculty
20+ foreign faculty
493+ staff

8000 – 16000 sq. m (owned)

Problem:

- 1) R&D is locked inside university labs
- 2) Industry focused on exporting raw material rather than developing value-added products;
- 3) Enterprises BUY their solutions rather than MAKE their own innovative solutions;
- 4) Local R&D market is weak and offers few career opportunities for young scientist's;
- 5) Current university Tech-Transfer offices are unable to assess the commercial value of R&D ideas

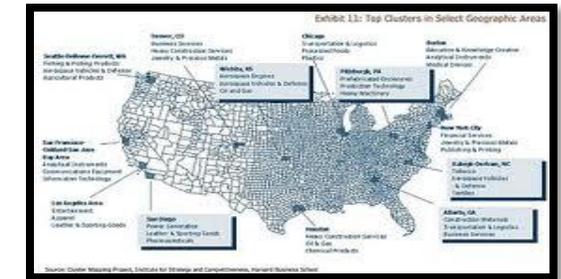


Enterprises need deep science solutions to solve complex problems and are forced to look for and buy “ready” solutions worldwide

- *Textiles & New Materials*
- *Agriculture & Genetics*
- *Minerals & Mining*
- *IT & Telecommunication*
- *Pharma & Biomedicine*
- *Green & Alternative Energy*

SOLUTION

- Technology Commercialization Center (TCC) focuses on evaluation and maximization of commercial values of university IPs
- Proven record of successful projects in deep tech science with the development of TCC worldwide.
- The MIT Deshpande POC Center proved to be an excellent prototype model to use to modernize the Russian university Tech Transfer and Commercialization infrastructure
- The AlmaU TCC was created to provide technology Commercialization services to Kazakh science universities in order to identify solutions to complex industrial problems and maximize the commercial value of the IP by promoting this to business partners and investors



Key Goals of the Technology Commercialization Center

The TCC acts as a key element in the Kazakh innovation infrastructure, supporting the evolution of new ideas originating from the university's students and professors into commercially viable business solutions.

1. Identification of complex R&D tasks and challenges to solve real world problems;
2. Promote student entrepreneurship and creative thinking;
3. Promote cooperation between research universities and industrial partners;
4. Support university grant applications to unlock government R&D funding;
5. Stimulate the development of the domestic market for industrial R&D;
6. Promote Deep-Tech as an attractive career opportunity for young scientists;
7. Maximize the commercial value of the university research & IP



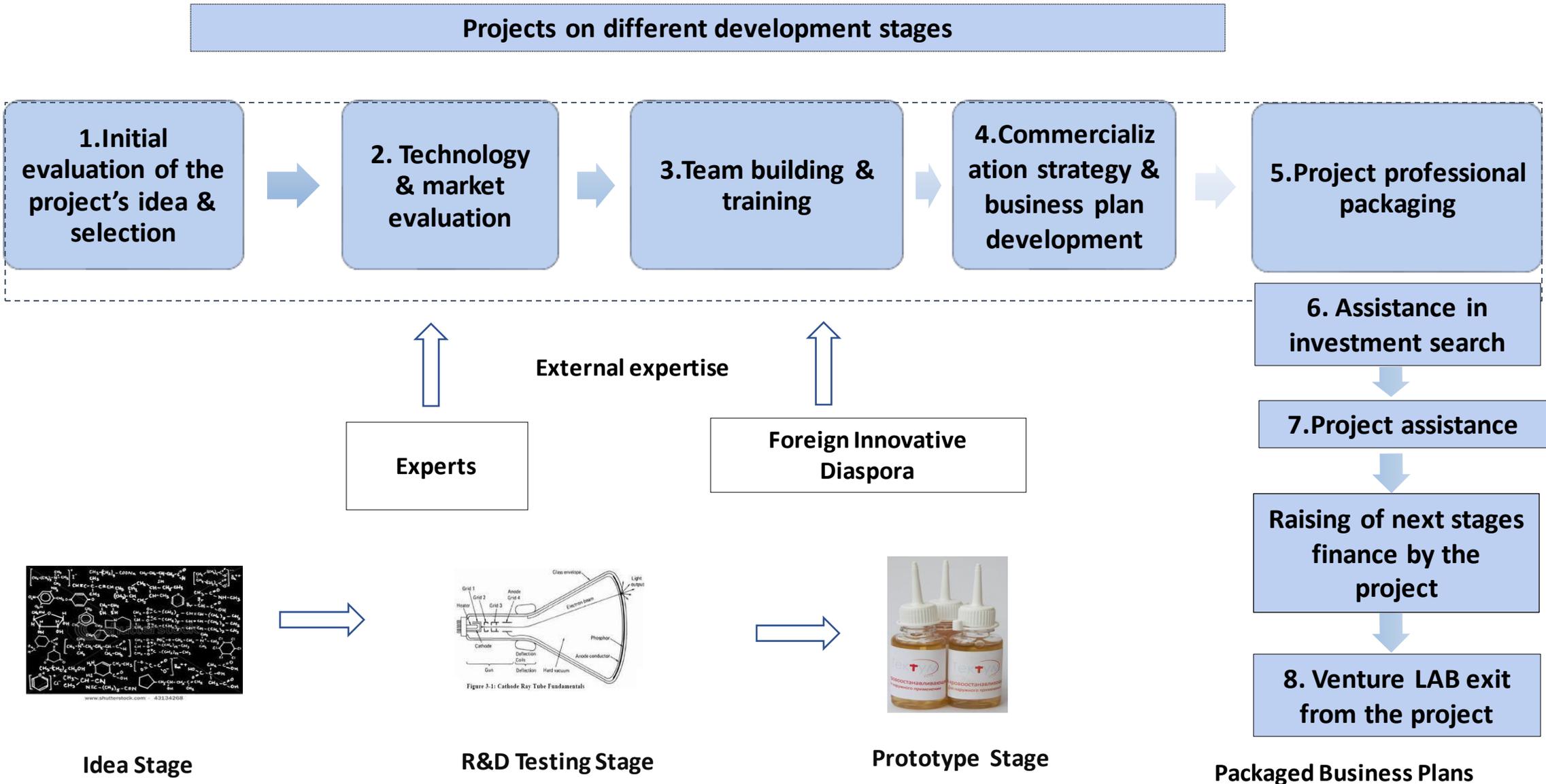
InnoBoost
Acceleration program

Commercialization Alliance
University Research Scientists

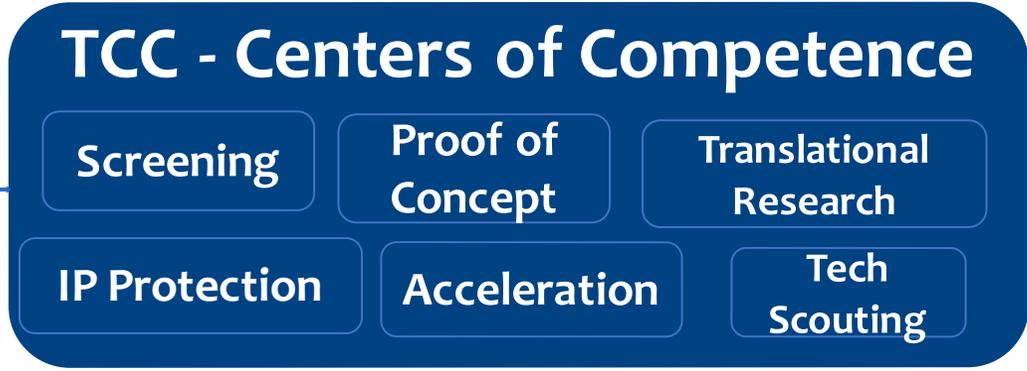
Industry Advisory Board
International Business & Investment Leaders

Venture Mentors Network
Business angels, coaches, trainers and experts

How will the AlmaU TCC methodology will operate?

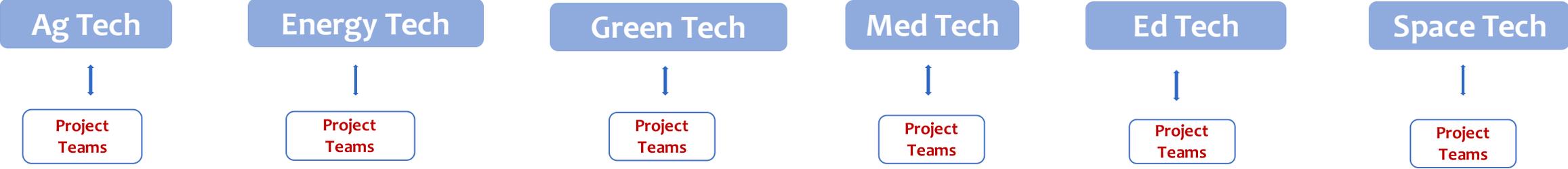


The Solution: TCC Creates Centers of Competence



Venture Mentors Network
 Angels, Mentors, Coaches, Incubators, Accelerators, Alumni, VC funds

Industry Advisory Board
 Отраслевой Консультативный Совет



Three Step Preparation of Innovation Driven Project Teams

Step One: Weekly Friday “STARTUP HUDDLE” open pitch coaching sessions



Step Two: 2-week Business Incubator “KITE” Team Building Program



Step Three: InnoBoost Acceleration Program & Demo Day

No	Actions	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
1	Preliminary consultation	■	■						
2	Project development plan		■	■					
3	Express market analysis		■	■	■	■			
4	Business models for certain markets				■	■			
5	Market analysis				■	■	■	■	■
6	Short presentation of the project				■	■	■		
7	Financial model of the project				■	■	■	■	■
8	Project materials review								■
9	Presentation of the project								■
10	Express business plan								■

Industry Advisory Board
Отраслевой Консультативный Совет



Specific Packaged Deliverables:

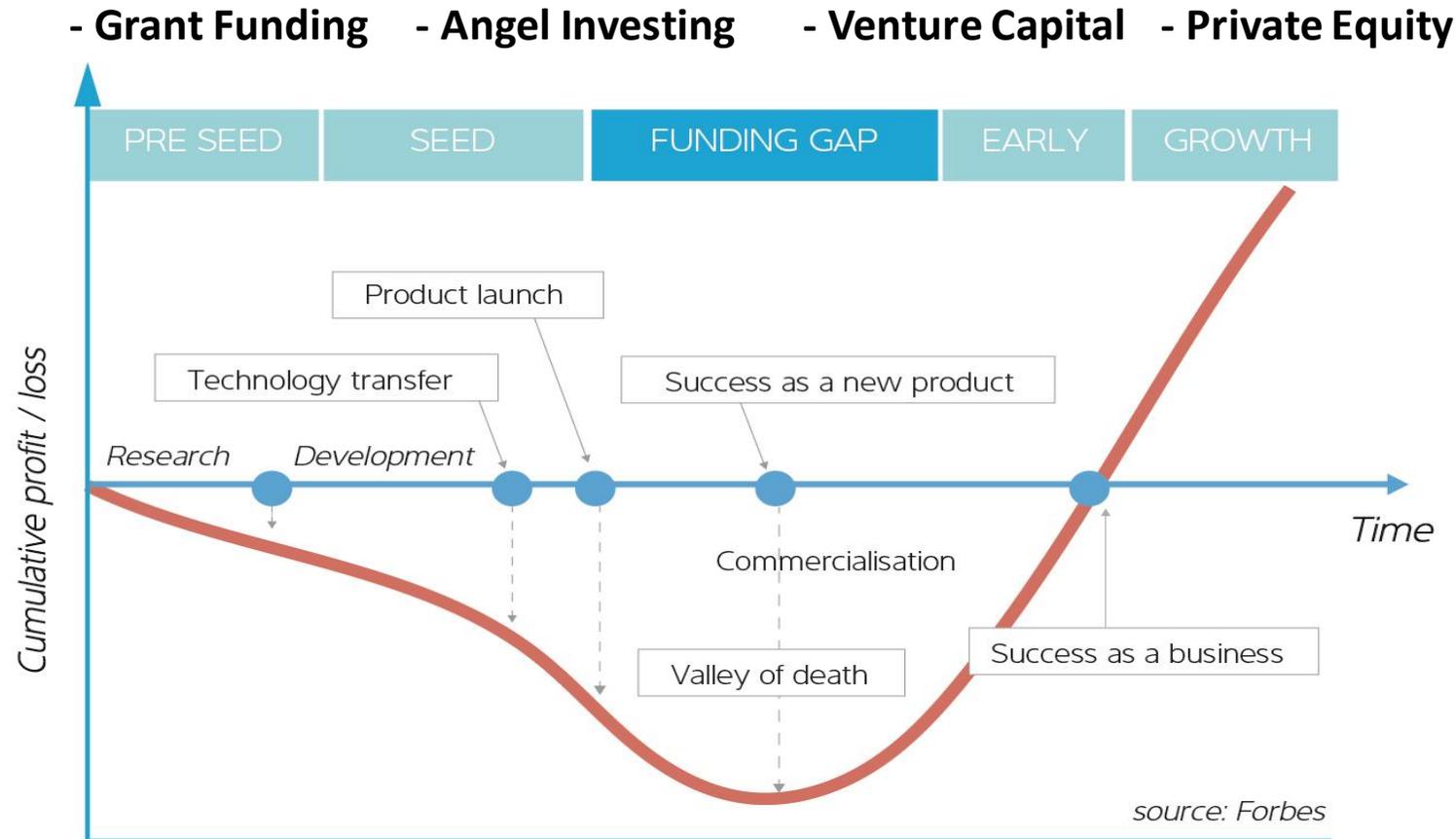
- **Monthly Tech Scouting services for R&D teams and start ups**
(10-12 project “Teasers” per month)
- **Monthly Detailed Reports on selected investment targets**
(2-4 “Deep Dive” due diligence reports per month)
- **Quarterly Market Research Report on global best practices**
(15–20-page detailed report by segment/geography per quarter)
- **Quarterly Industry Advisory Board meetings**
(4-6 qualified project team “Pitch” presentations seeking investment)
- **Quarterly training program for selected technology segment cohorts**
(specific training programs covering best practices developed for specific audiences)
- **Quarterly training seminars for University R&D scientists and TTO staff**
(Detailed work in preparing applications for World Bank and Kazakh Science Fund grants)



Case Study Assignment: MUNIS: RCP/BIRD Programs – Bridging the “Death Valley” Gap in Uzbekistan’s Innovation Ecosystem

RCP Fund: Techno Push

The objective of this program is to improve research excellence and the commercialization of publicly funded research.



BIRD Fund: Market Pull

The objective of this program is to increase private sector investment into innovation in Uzbekistan.

The problem of “Death valley” is the lack of systemic development of R&D teams at early development stages.

The RCP/BIRD programs are designed to bridge the gap and focus on creating qualified innovation driven teams working to solve specific real-world problems

Modernizing Uzbekistan National Innovation System (MUNIS) Project – What are the Expected Results?

Overall Effects on the Economy:

- Increased volume of venture capital and angel investments
- Sustainable and consistent development of deep technologies
- Consistent pipeline of deep tech spin-off companies
- Increased collaboration between industrial and scientific sectors
- Increased license agreements concluded with international companies
- Bring in a new wave of entrepreneurial activity
- Increased IP assets

Real Results:

- # of Science Teams securing pre seed funding = 30
- # of patents filed under PCT procedures = 20
- # of participating R&D institutes and universities = 50
- # of IP audits of qualified IP assets = 30
- # of seed stage Spin-Off companies created = 10
- # of license agreements with national companies = 5
- # of license agreements with international partners = 3
- # of joint ventures created with foreign partners = 2



MUNIS Program Launch Event – December 20th, Tashkent

- **Goals:** Promoting cooperation between R&D Institutions and industry partners
- **Objectives:** identifying complex R&D challenges to present to university scientists
- **Mission:** improve the effectiveness and ROI on govt investments into R&D

Forum Agenda:

1. Gather the leaders of the innovation community together
2. Publicly launch the RCP and BIRD programs and explain their value
3. Organize a round table on global tech trends and industry challenges
4. Promote the development of regional business angel clubs
5. Organize pitches of innovation driven project grant applicants



AlmaU TCC - Professional Team



Kendrick White – Vice-Rector for Commercialization, Director AlmaU Technology Commercialization Center, responsible for strategic planning and management

Kendrick has over 30 years of experience in banking, corporate finance, VC fund management, and angel investing in Russia. He is the founder of Marchmont Capital Partners, a leading tech scouting and event management firm, and the former Vice-Rector for Innovation, at Lobachevsky University, where he created a pioneering tech transfer and commercialization infrastructure. He was the Director of the highly successful EBRD VC fund (1998-2005) and has developed unique investment experience in early-stage technology commercialization. Kendrick has an MBA from Kellogg (1990) and a BA in economics from Stetson in 1985.



Abylay Akhymbekov – Senior Project Manager and Technology Commercialization Expert

Abylay has extensive experience in launching start-up companies in the field of technology commercialization and business development. Before this worked in two government projects at the International Bank for Reconstruction and Development, (IBRD), as a technology broker in the “Fostering Productive Innovation” Project and as a technology transfer specialist in the “Technology Commercialization” Project. He was also the Executive Director of the Public Union “Alliance of Technology Commercialization Professionals”. Abylay is an alumnus of the University of Manchester (UK) under the “Bolashak” International Scholarship, Master of Science in Mechanical Engineering Design. In addition, he holds the position of CEO of the UDB Venture Support company.



Dinara Moldagalieva – Senior Project Manager, AlmaU TCC

Dinara has almost 10 years of experience in the field of research projects and commercialization of projects. He is the director of a company providing services in the of scientific consulting (2017–2023). Dinara graduated from the Al-Farabi Kazakh National University and completed internships in Spain, South Korea, Russia, and Lithuania. He is a co-founder of the charitable Foundation “QazDemeu”, is involved in the popularization of science in Kazakhstan, and hosts the “Expert” program on television.



Abay Zhangabylov – IP and Commercialization expert

Abay has experience working with IP protection and he is a patent expert. He was working on the World Bank Project as a Technology Commercialization Center LLP IP & Licensing manager. Developed IP and Trade Secret policies to be used within universities and startups, assisted inventors in establishing startups in universities.



Nadezhda Gabdullina – Project Manager AlmaU TCC, Market Research Expert

Nadezhda has experience working with small and micro businesses and mining companies in finance and accounting. She has strong analytical, market research, and management skills. Nadezhda worked on the organization of the CAREC Innovation Summer Bootcamp with the Asian Development Bank. She has effective communication and English language proficiency. Currently holding BA in Business Administration and Entrepreneurship (2024’).



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Capitalizing on Entrepreneurial Innovation

Accelerating Enterprise Value in Turbulent Times

Almaty Management University