ESCAP
Economic and Social Commission for Asia and the Pacific

Expert group meeting on the use of innovative technologies to promote green transformation for sustainable development in North and Central Asia

QazInnovations

Session 1:

The role of science, technology and innovation in solving the problems of LLDCs development in North and Central Asia

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SUPPORT FOR INNOVATIVE ENTREPRENEURSHIPAT THE NATIONAL LEVEL

When you learn to forget about your EGO in favor of exchanging ideas, this will be the BEGINNING of real progress!

ECOSYSTEM. CURRENT SITUATION

STATISTICS. SUCCESS. INITIATIVES.

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ECOSYSTEM

incubation, acceleration

Generating ideas

R&D

Researches

seminars and trainings

Direct investment

registration of patents

Intellectual property

Made in KZ

Unicorn

MVP

reimbursement of expenses

free grants

Export

Commercialization

tax preferences

equity financing

leasing loans

Scaling

Production

foresights

astana hub · QazInnovations · TECH GARDEN.KZ · СТИМУЛИРОВАНИЕ ПРОДУКТИВНЫХ ИННОВАЦИЙ · ҒЫЛЫМ ҚОРЫ ҒЫЛЫМ ҚОРЫ ФОНД НАУКИ · QAZPATENT · QazIndustry · QazTrade · KazakhExport · KAZAKH INVEST · KazAID · BAITEREK VENTURE FUND · QIC

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SILK ROAD INNOVATION HUB

ECOSYSTEM

+ 37 VENTURE FUNDS Source AIFC

MOST Ventures
TUMAR VENTURE FUND
Quest VENTURES
Jas
Falconny
ASADEL
ACTIVATE
APEX II INVESTMENT FUND

+ 57 BUSINESS INKUBATORS

MOST БИЗНЕС-ИНКУБАТОР
ABAI IT VALLEY
kyzylorda hub
Terricon Valley
JAIQ
NURIS
KBTU STARTUP INCUBATOR

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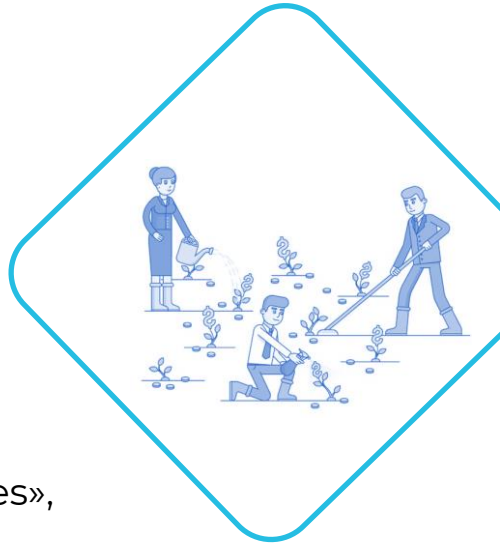
BUSINESS INCUBATION
DEVELOPMENT

AIM:

CREATING AN ECOSYSTEM IN THE COUNTRY'S REGIONS



- TRADITIONALLY, THE CENTERS OF ATTRACTION - Almaty and Astana
- **3 STAGES OF DEVELOPMENT:**
  - 2022, pilot «pumping regions», 13 BI
  - 2023, creating an ecosystem «наращиваем темп», 19 BI
  - 2024, scaling up the опыта Astana Hub «improving our competencies», full coverage of the country

yourbandy

Social network, marketplace and website builder

attracted $ 200K

- **4 PROJECT RECEIVED GRANTS** (57 mln KZT)
  - APP Take Care Mom,
  - Zanger.AI
  - Agri Innovation

GRANT SUPPORT
FROM THE STATE

- **SEEDING, DEATH VALLEY** → **+20 mln KZT (MVP) 80 mln KZT (SALES)**
- **TECHNOLOGY TRANSFER** → **400 mln KZT (NEW PRODUCT)**
- **INDUSTRY DEVELOPMENT** → **800 mln KZT (MULTIPLICATE)**

370 projects

13,5 bln KZT grants

200 bln KZT Production output

30 bln KZT taxes paid

0.75 KZT of investments were attracted for 1 KZT of the grant

+ 2.22 KZT taxes to the budget

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STARTUPS
SUPPORTED BY QAZINNOVATIONS

330

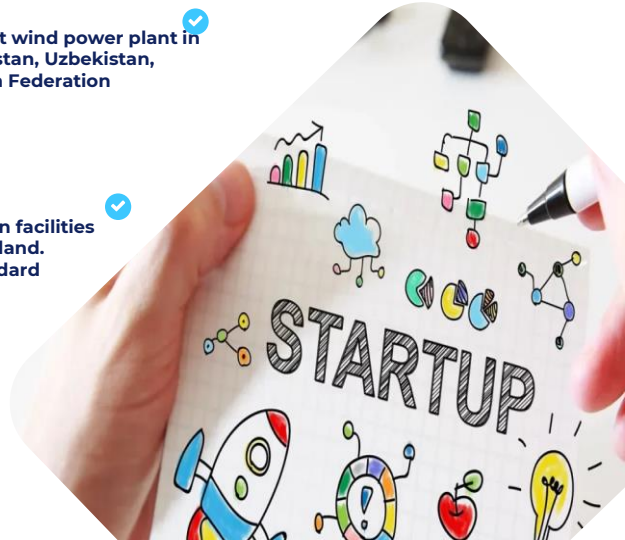
19,2 mln KZT
Python RPA
Robotization of production processes
+200 mln KZT
EXPORT
NEW MARKETS
Brazil (Silimed), Philippines, Paraguay

15 mln KZT
CODIPLAY
Gamification of programming, IoT
RETURN ON INVESTMENT
$ 2 mln
South Korea, Azerbaijan, Uzbekistan, UAE, Turkey

18,2 mln KZT
проманалитика
IDM online
Online monitoring of rotating equipment
+50 mln KZT
The first wind power plant in Kyrgyzstan, Uzbekistan, Russian Federation

41 mln KZT
inncdent
An innovative Kazakhstani drug
Production of a caries treatment drug without drilling
Production facilities in Switzerland. GMP standard

31 mln KZT
Verigram LLP
Online identity verification platform
+106 mln KZT
Entering the market of Southeast Asia, Vietnam, Kyrgyzstan, Russia



NEW PRODUCTIONS LAUNCHED

40

Industrial glass processing. Uralsk

400 mln KZT

The industrial glass processing line has been upgraded

+1,5 bln KZT

The export of products has been increased by 30%

Cable factory. Semey

196,7 mln KZT

A new type of cable: with cross-linked polyethylene insulation

+8,8 bln KZT

Long-term contracts + 3 bln KZT Taxes + 615 mln KZT

Transformer plant. Uralsk

349 mln KZT

A new line for the production of round enameled wires

Access to new production facilities of 300 thousand kg

Battery manufacturing

256 mln KZT

TOP 3 largest battery plants in the CIS3.5 million batteries per yearExport: Russia, Uzbekistan, Belarus, Ukraine, Africa

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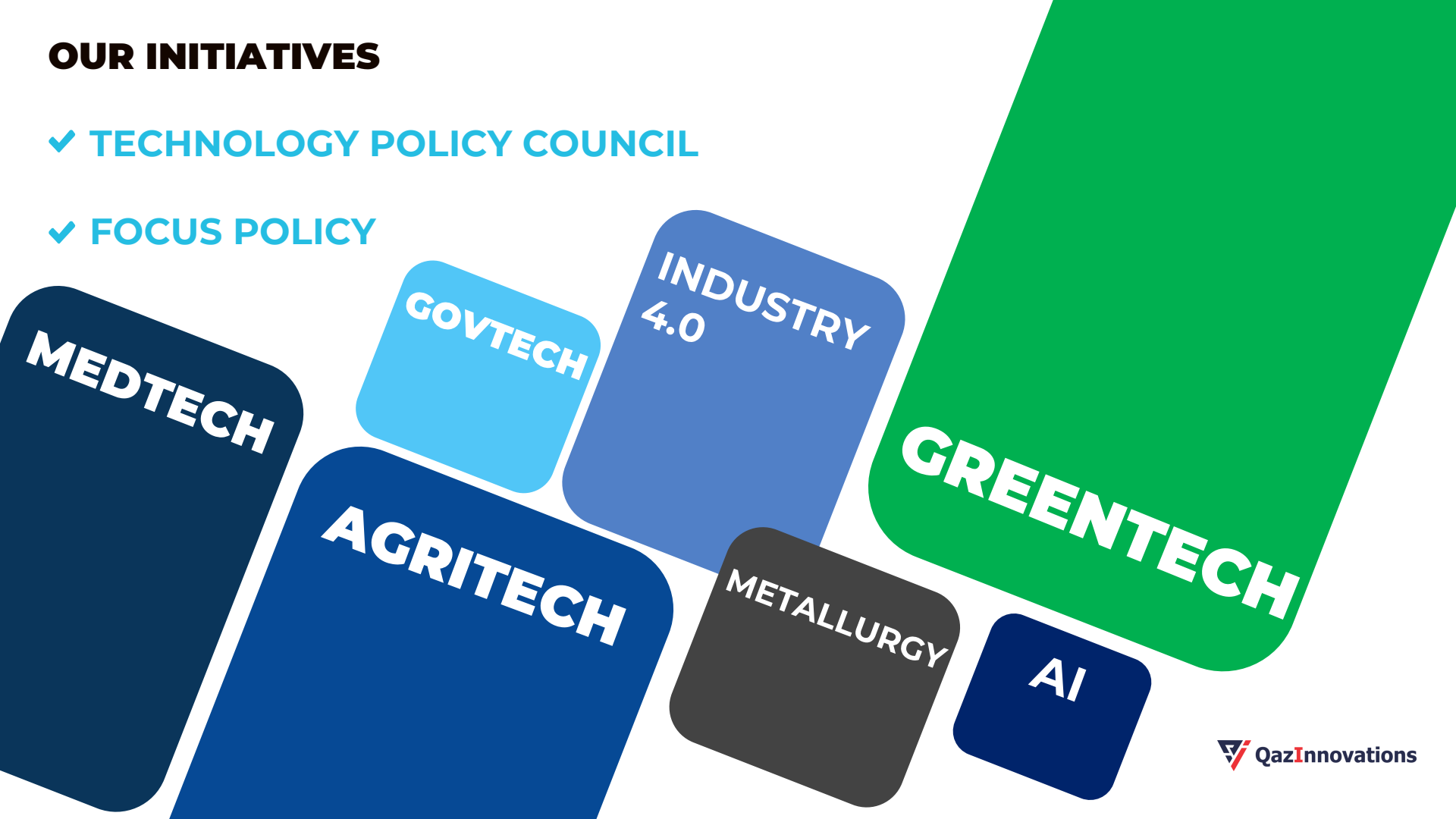
OUR INITIATIVES

- ✔ TECHNOLOGY POLICY COUNCIL
- ✔ FOCUS POLICY



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THE FORESIGHT PROCESS

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GREENTECH

10 strategic sessions

8 acceleration meetings

- Trends
- Barriers and key issues
- Priority niches and technological solutions
- SWOT analysis of technological solutions
- Calculation of market capacities and scenario planning
- Legislative amendments for the development of green technologies

- Circular economy
- Digitalization
- Net Zero Building
- Water purification technologies
- Electric vehicles
- Smart grid

MARKET SIZE OF KEY SUB-SECTORS

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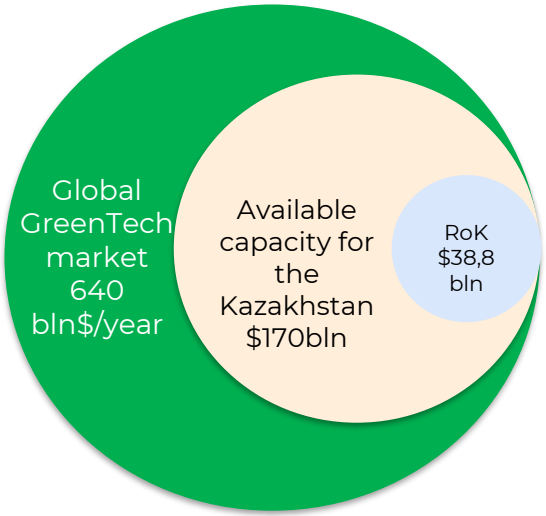
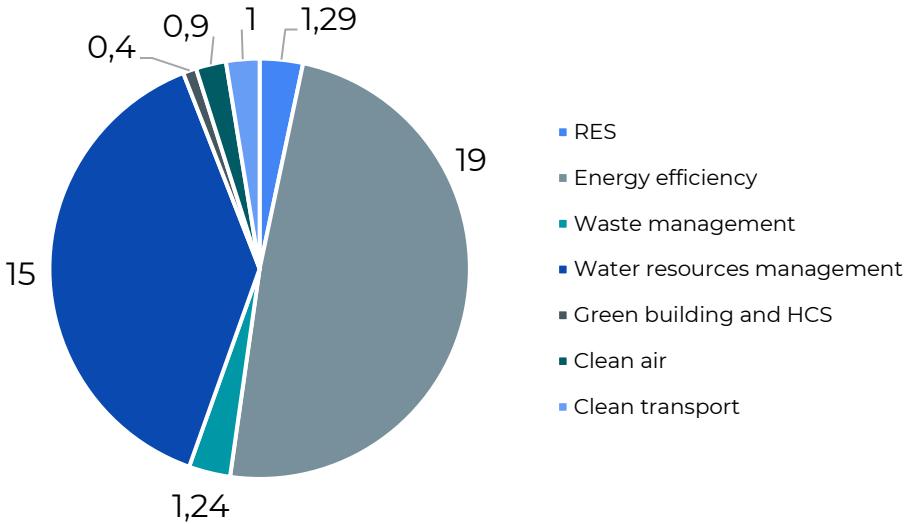
GREENTECH



Market sizes of key sub-sectors of GreenTech in the Kazakhstan, $bln /2023



Reference: https://unido.org

GREENTECH

PRIORITY SUB-SECTORS, NICHES AND TECHNOLOGICAL SOLUTIONS

01 RENEWABLE ENERGY SOURCES

02 ENERGY EFFICIENCY

03 GREEN BUILDING AND HCS

04 WASTE MANAGEMENT

05 CLEAN AIR

06 WATER RESOURCES MANAGEMENT

07 CLEAN TRANSPORT

01 RENEWABLE ENERGY SOURCES

- **EQUIPMENT AND COMPONENTS FOR WIND POWER PLANTS**
  Equipment for wind power plants, parts for solar power plants and electrical equipment for hydroelectric power plants
  Equipment for utilization of industrial heat and ground/groundwater heat
  Biogas, synthesis gas technologies
- **BALANCING ELECTRICITY MARKET, POWER SYSTEM MANAGEMENT**
  Intelligent real-time power system control systems
- **ENERGY STORAGE AND ACCUMULATION**
  Green hydrogen, methane
  Energy storage on an industrial scale

02 ENERGY EFFICIENCY

02 ENERGY EFFICIENCY

- **GENERATION FROM THE GRID**
  Energy-efficient cogeneration plants
- **HEAT SUPPLY SYSTEM**
  Utilization of energy efficient boilers
  Automated individual heating points
- **POWER SUPPLY SYSTEM**
  Statistical reactive power compensators
  Smart Grid system (intelligent power supply networks)
- **WATER SUPPLY AND SEWAGE SYSTEM**
  Energy efficient pumping equipment

03 GREEN BUILDING AND HCS

03 GREEN BUILDING AND HCS

- **ECOLOGICAL THERMAL INSULATION MATERIALS**
  Energy saving technologies for production of gas-glass and glass-foam concretes
  Energy efficient vacuum thermal insulation panels
- **AUTOMATED CONSUMPTION OF RESOURCES (ENERGY AND WATER)**
  Thermostatic control valves on the heating device
  Vacuum energy-saving radiator with efficient heat transfer medium
- **ENERGY EFFICIENT DESIGNS**
  Application of an alternative energy source in a domestic window system for light, heat and sound flow control, self-cleaning and dust collection
  Supply and exhaust units with recuperation

04 WASTE MANAGEMENT

04 WASTE MANAGEMENT

- **MEDICAL WASTE**
  Plasma technology for waste treatment and plasma chemical reactor
- **ORGANIC WASTE**
  Processing of organic waste into biogas, biofertilisers and biofuels
  Equipment for composting of organic waste and production of organic fertilisers
  Equipment for poultry, cow, pig droppings, etc. to produce organic fertilisers
- **MUNICIPAL SOLID WASTE**
  Recycling of waste polyethylene film with the production of reed-laminated building material
- **INDUSTRIAL WASTE**
  Technology for conversion of used motor, lubricating and transforming oils into motor and energy fuels.
  Utilization of blades from wind turbine turbines
  Road construction using recycled tire crumb rubber containing a large amount of synthetic rubber.
  Plant for production of construction crushed stone from ash and slag waste

05 CLEAN AIR

05 CLEAN AIR

- **INSPECTION EQUIPMENT, CATALYSERS**
  Innovative inspection systems
- **SYSTEMS FOR STRUCTURING DATA FROM ALL SENSORS**
  Air pollution map
- **AUTOMATIC MONITORING SYSTEMS, DRONES**
  Stationary monitoring systems
  Automatic monitoring systems "on the tube"

06 WATER RESOURCES MANAGEMENT

06 WATER RESOURCES MANAGEMENT

- **DIGITALISATION OF THE WATER MANAGEMENT SYSTEM IN KAZAKHSTAN**
  Digital platform for integrated water management
- **REPLACING WATER-INTENSIVE TECHNOLOGIES**
  Tools to incorporate water intensity of goods and services into planning and financing
- **WASTEWATER TREATMENT AND USE, DRINKING WATER TREATMENT**
  Wastewater and drinking water treatment technologies
- **FLOOD AND RAINWATER UTILISATION, DESALINATION**
  Flood and rainwater injection, desalination technologies
- **TRANSITION TO BASIN MANAGEMENT**
  Technologies for aquatic ecosystem restoration, basin management

07 CLEAN TRANSPORT

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07 CLEAN TRANSPORT

- **DEVELOPMENT OF CHARGING INFRASTRUCTURE**
  Construction of charging stations for electric vehicles
- **DIGITALISATION OF THE TRANSPORT SECTOR**
  Traffic offloading through school and IT transports
- **CLEAN AIR TRANSPORT**
  SAF (Sustainable aviation fuel) technology

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THANK YOU FOR YOUR ATTENTIONS!