

Roadmap for the development of a pharma cluster and park in Uzbekistan

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Executive Summary

International experience indicates a promising potential to generate mutually reinforcing effects between specialised zones and clusters. A phased approach is recommended to test this concept in Uzbekistan

- **The initial focus should be on developing a pharma park in Kibray, next to Tashkent, and a pharma cluster covering the capital as well as the surrounding region and pharma zones (Bustonlik, Parkent, Sidaryo)**
- **Clusters often have a local centre or nucleus – such as a science park or FEZ**
- **However, clusters typically cover a region, as they need a critical mass of actors with related activities and interests to create synergies and spill-over effects**
- **A main focus of the pharma park in Kibray should be on innovation-oriented projects. Furthermore, it should provide an entry platform for international investors and take over a hub function for the cluster**
- **The park should also comprise research, training and educational institutions as well as conference / meeting facilities to support networking activities**

Executive Summary

A main focus of cluster development measures should be on establishing a management organisation for the pharma cluster comprising Tashkent and the surrounding region / pharma zones (Bustonlik, Parkent, Sirdaryo)

- With a **needs-oriented portfolio of activities and services** (e.g. training programmes, networking and cooperation platforms), the cluster management organisation should **facilitate cooperation-based development and innovation processes**
- A **lean organisational model** is recommended ensuring the integration of key stakeholders and their competencies in the cluster development process
- It could be a viable option, that the **directorate** of the new pharma park **takes over / hosts the regional cluster management**
- In addition, a **steering and coordination mechanism at the national level** should be established to ensure an enabling environment and consistent approach
- Equally at this level, synergies can be utilised between cluster and park development. However, from the perspective of cluster development, **involvement of high-level decision makers from academia and businesses plays an important role**

Executive Summary

A sustainable funding model should be based on different sources and should be adjusted in the course of the development process

- The management of **both the park and the cluster** should be **self-financing in the medium term**
- As in many other countries, the **initial development phase** will very likely need to be **financed mostly by public funding or international loans**
- Regional **cluster management** organisations can increasingly **generate income from membership fees and paid services** – e.g. training programmes or trade fair visits
- **Specialised parks** can usually finance the necessary operational and capital expenditure for subsequent **development phases from revenues generated** – in particular from the sale / lease of land / space as well as from administrative fees
- In the medium term, it should also be considered to **involve the private sector in the expansion or upgrading of the site** (e.g. provision of pre-built facilities / rental space)

Executive Summary

The table below provides an overview of the main stages and actions during the initial cluster and park development phase (three years)

Stages	Actions	Timeline
1. Preparatory stage	1.1 Policy decision and commitment by government	Month 1
	1.2 Establish steering structure	Month 1
	1.3 Needs analysis	Month 1 – 2
	1.4 Cluster diagnostics	Month 2 – 3
	1.5 Feasibility study for the park	Month 2 - 5
	1.6 First round of stakeholder consultations	Month 3
	1.7 Complementary meetings with international partners	Month 3
2. Concept stage	2.1 Development concept	Month 4 – 7
	2.2 Marketing concept	Month 4 – 7
	2.3 Organisational and financing concept	Month 4 – 7
	2.4 Second round of stakeholder consultations	Month 7
3. Implementation stage	3.1 Setting up and supporting park and cluster management organisation	Month 8 – 36
	3.2 Planning / construction of on- / off-site infrastructure, buildings and facilities	Month 8 – 36
	3.3 Promotion of the cluster / park and attraction of members / residents	Month 8 – 36
	3.4 Evaluation of interim results	Month 34 – 36

Structure

1. Introduction
2. Key features of clusters and specialised parks
3. Organisational set-up
4. Funding model
5. Promotion of clusters and parks
6. Action plan for cluster and park development

Annex 1: Lviv IT Cluster (Ukraine)

Annex 2: Healthcare Cluster in the German Capital Region

1. Introduction

In May 2019, the German Economic Team submitted the Policy Study “Leveraging clusters to increase the effectiveness of free economic zones in Uzbekistan” focusing on the following recommendations:

1. Develop and promote a pharma cluster comprising Tashkent and the surrounding region / pharma zones (Bustonlik, Parkent, Sirdaryo)
2. Develop a pharma park in or close to Tashkent offering a hub function and entry platform for the cluster

To support the implementation of the recommendations, this document outlines an action plan for the development of the park and cluster based on an overview of ...

- Key features of clusters and specialised parks
- Organisational and financing models for clusters and parks
- Target-group specific measures for the promotion of clusters and parks

2. Key features of clusters and specialised parks

Clusters are geographical concentrations of companies and specialised institutions actively collaborating along related value chains

- They are rooted in the **triple-helix concept** which refers to the cooperation between
 - Private sector
 - Government
 - Academia
- Clusters are characterised by:
 - **Shared interests** and a variety of **formal and informal relationships**
 - **Coopetition** (co-existence of cooperation and competition)
 - **Awareness beyond region**



2. Key features of clusters and specialised parks

Governments can facilitate the development of clusters. However, it is very difficult to create clusters from scratch

- The origins of clusters differ, but most clusters are **rooted in specific assets** of a region:
 - **Anchor companies** attracting suppliers or service providers
 - **Specialised R&D institutions and universities** generating spin-offs and attracting innovation partners
 - **Natural resources, climatic conditions** conducive to specific activities
 - Industrial **traditions** and specific **infrastructure**
- **Cluster development** efforts focus on:
 - **Facilitating the development process** of (emerging) clusters
 - **Improving the environment** for cluster success
 - **Maximising the impact** of clusters
- However, **not all agglomerations can be developed into clusters**

2. Key features of clusters and specialised parks

Clusters need a critical mass and a sufficient concentration of companies and institutions with related activities and interests at the regional level to create synergies and spill-over effects

- A major success factor relates to **geographic proximity** which is important for ...
 - **Lowering transaction costs**
 - **Personal contacts, sharing information, interacting** with (innovation) partners
 - Benefitting from specialised factor markets (e.g. labour, capital, technology)
- The core region of a cluster typically has a **radius of a one-two hour drive**
- Clusters often have a **local centre or nucleus** – such as a **science park or FEZ**
- The **size of clusters** in terms of number of actors **varies between industries**
 - In knowledge-intensive industries clusters tend to be smaller
 - To become viable, a **regional cluster initiative** should be able to integrate **at least 25 actors** (in the medium term)

2. Key features of clusters and specialised parks

According to international experience, regional cluster management organisations form a central element of cluster programmes facilitating cooperation-based development and innovation processes

Their **portfolio of activities and services** which should be developed based on stakeholder consultations could comprise (note the case studies in the annex):

Information and cooperation platforms

Networking events, dissemination of technology-/ market-related information, newsletters etc.

Innovation and start-up support

initiating collaborative innovation projects, laboratory and testing services, accelerator programmes etc.

Business development

Trade fair visits, matchmaking, twinning with clusters abroad, supplier development programmes etc.

Specialised infrastructure projects

Initiating incubators, test and training centres, IT / logistics infrastructure etc.

Skills development

Tailored training and talent retention programmes, job fairs, joint development of study courses etc.

Cluster marketing

Publications, online and event marketing to raise awareness of the cluster and its members etc.

2. Key features of clusters and specialised parks

Specialised parks aim at developing specific industries or technology areas. Quite often, they are combined with science and technology parks stimulating innovation and collaboration between companies and research institutions

- Specialised parks / zones play an increasing role within industrial policy packages around the globe
- **Next to companies, universities, research and training institutions are located in the parks** offering industry-oriented R&D, study and training programmes
- Investors and start-ups can **benefit from a specialised infrastructure and facilities aligned to their needs** (e.g. laboratory space for rent, testing facilities, incubators with target-group oriented advisory services)
- Park management organisations **plan, develop and operate facilities** so that investors can start production **according to a “plug and play” concept**
- Furthermore, they offer a **range of services** in areas such as **business development, incubation & acceleration, innovation transfer, networking & matchmaking**

2. Key features of clusters and specialised parks

Service portfolio of selected European parks with a focus on life sciences

	Business Development Services			Marketing & Promotion	Match-making & Networking	Meeting rooms	General Services		Facility Management	Real Estate Management & Development
	Incubation & Acceleration	Equity Finance	Technology Transfer				Reception Services	Catering		
COBIS (Denmark)	(x)	(x)	(x)	x	x	x	x	(x)	x	(x)
Symbion (Denmark)	x	x	x	x	x	x	x	(x)	x	x
Ideon (Sweden)	x	-	x	x	x	x	x	(x)	x	(x)
Medicon Village (Sweden)	(x)	-	x	x	x	x	x	(x)	x	x
Karolinska Sciences Park (Sweden)	(x)	(x)	(x)	x	x	(x)	-	(x)	(x)	(x)
Espoo Innovation Garden (Finland)	(x)	-	(x)	x	(x)	,	,	,	,	,
Meilathi Biomedicum (Finland)	-	-	(x)	x	-	x	-	(x)	(x)	(x)
Turku Science Park (Finland)	x	-	x	x	x	(x)	(x)	(x)	(x)	(x)

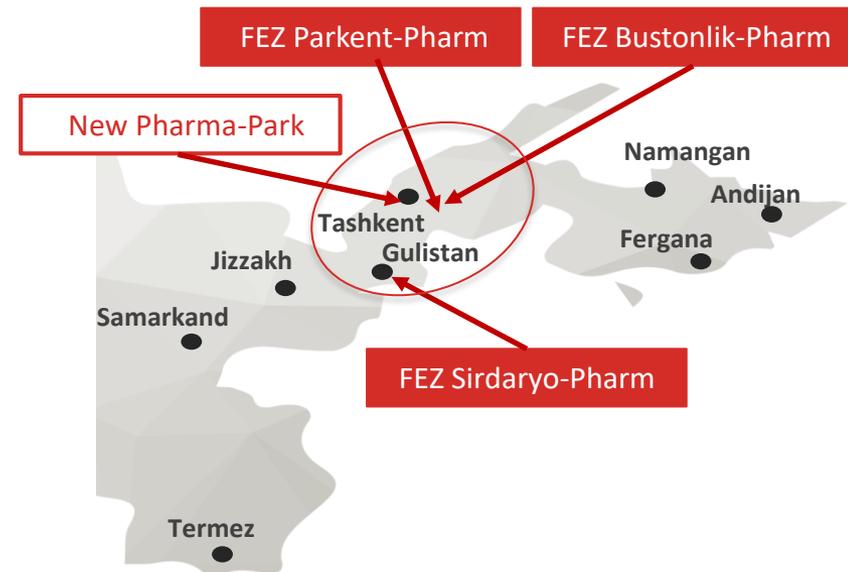
X = offered by park management; (x) = offered by external partners; - = no offer

Source: Own research

2. Key features of clusters and specialised parks

In the industrial policy context, there is a promising potential to generate mutually reinforcing effects between cluster and specialised parks

- Clusters can increase the attractiveness and impact of parks, while **parks can act as a catalyst** for cluster development
- The combination also allows to **use public funding more efficiently** as both new investors and local companies can benefit from facilities and services provided
- **Spill-over effects** can be maximised
- Considering the findings of the previous Policy Study, the **pharmaceutical industry in Tashkent and the surrounding region offers the most promising conditions** to test the approach



Proposed initial focus for combining cluster and park development

3. Organisational set-up

The organisational set-up for cluster development measures reflects the triple-helix approach ensuring the integration of key stakeholders and their competencies in the process

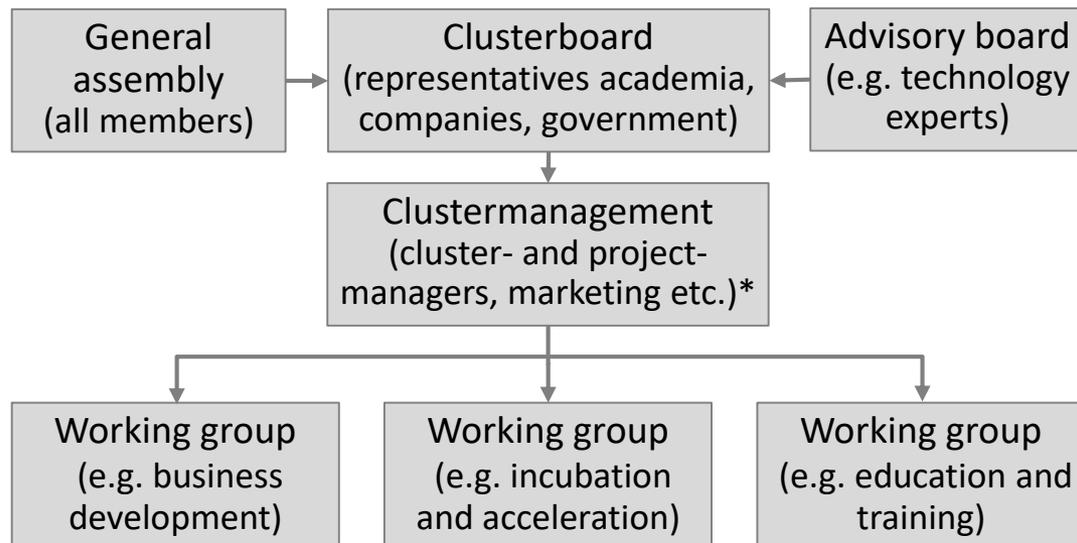
- According to international experience, regional cluster management organisations integrate **key stakeholders from government as well as the academic and business community** in their structures
- The **legal form** depends on the **regulatory framework** in the country, the **funding model** and **whether a membership-based approach** is foreseen
- In many countries, cluster management organisations have the legal form of **associations**. In some cases **private limited** companies or **hybrid models** are used
- Moreover, it is **quite common practice** that existing organisations – with strong industry-, innovation- and investment-related expertise – host or take over the cluster management (e.g. **in Germany a number of regional development agencies**)
- This way, synergies can be generated and the cluster management has access to the expertise and contact networks of the host organisation

3. Organisational set-up

Cluster or advisory boards, assemblies and working groups are commonly used to integrate the triple-helix actors in regional cluster management organisations

- Most regional cluster organisations have a **cluster board** or similar body with representatives from companies, government and educational / research institutions
- Depending upon the strategic and technological focus, some models also comprise **advisory boards** with technology experts
- **Working groups** help involve cluster members, stimulate cooperation and **develop concrete projects and activities**

Typical structure of regional cluster management organisations



* On average, cluster management organisations in Germany have 4 full-time employees (1 FTE / 22 cluster members)

3. Organisational set-up

In addition to the regional structures, cluster development programmes usually comprise a steering and coordination mechanism at the national level to create synergies and ensure an enabling environment and consistent approach

- The main focus of the steering and coordination mechanism is on:
 - **Designing the cluster policy** and corresponding programmes
 - **Involving key stakeholders and aligning related policy areas** (e.g. investment and trade policy, innovation and education policy, industrial infrastructure development)
 - Applying for international funding and **enlisting international partners' support**
 - **Monitoring and evaluation**
- The tasks are often covered **by a coordination unit in a ministry** and a **steering committee with high-level decision-makers** from further relevant ministries / agencies, academia and the business community

3. Organisational set-up

In case of a roll-out of a larger-scale cluster programme, the scope of tasks at the national level is increasing

- In case various clusters / industries are integrated, the following additional tasks need to be covered:
 - **Facilitating knowledge-transfer** between the different clusters
 - **Initiating cross-cluster projects**
 - **Capacity building** for cluster managers and board members
 - **Developing a common branding** and coordinating the promotion of the programme
 - Assisting the clusters in **developing international relations**
- The **more implementation-oriented tasks are frequently taken over by existing agencies** (e.g. agencies for technological development / innovation)
- The **tasks related to policy design and intra-governmental coordination** typically remain **within the ministerial structures**

3. Organisational set-up

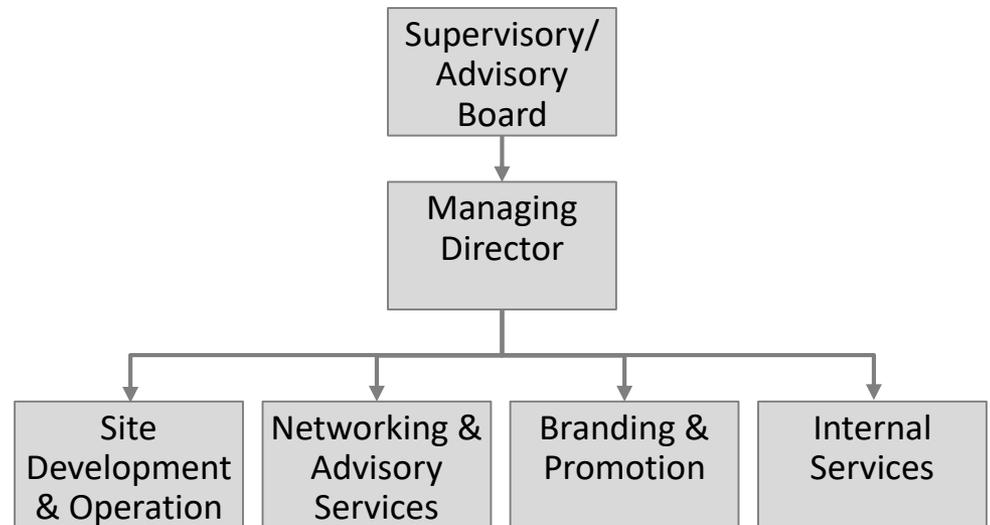
In most countries, specialised parks are developed and operated by the public sector in the initial phase. Private sector involvement can only be realised at a later stage, when more reliable information on the performance is available

- Depending upon the country-specific context and regulatory framework, **different legal and organisational forms** are used for the development and management of specialised parks (e.g. state-owned companies, public agencies or authorities)
- The **integration of key partners** – e.g. from relevant ministries / agencies, research and educational institutions – represents a major success factor. Increasing consideration is given to **private sector involvement** in the design of organisational models
- Private sector involvement can help mobilise additional resources and increase the efficiency. However, **private sector involvement can often only be realised at a later stage**, when more reliable information on the performance is available
- **In Germany**, the park management is often organised **in the form of a private limited company**: In the beginning, the public sector holds all the shares. When further players – such as private companies – need to be integrated, shares can be transferred

3. Organisational set-up

Organisational models for the development and operation of specialised parks typically comprise departments for the “hard” and “soft infrastructure”

- The **core of organisational models** is often formed by **departments focusing on:**
 - **Site development & operation** (e.g. facility management, real estate and infrastructure development)
 - **Networking & advisory services** (e.g. matchmaking, innovation transfer, incubation)



Typical structure of park management organisations

- Most parks have a **supervisory or advisory board** with representatives from local, regional and national government, educational / research institutions and further residents / private sector

3. Organisational set-up

For the development and management of a pharma cluster and park in the capital region of Uzbekistan, a lean organisational model is recommended

- The **comparison** of organisational models **indicates considerable synergies between cluster and park development** – in particular with respect to the **development of the “soft” infrastructure** as well as corresponding services and capacities
- Against this background, it seems advisable to **combine cluster and park development in one organisation**. It could be a viable option, that the **directorate** of the new pharma park **takes over / hosts the regional cluster management**
- However, in this case, it needs to be ensured that the **triple-helix approach is reflected** in the organisational design. The **key stakeholders from the business community, academia and the government** should be integrated (e.g. in a cluster board)
- In addition, a **steering and coordination mechanism at the national level** should be established to ensure an enabling environment and consistent approach
- **Equally at this level, synergies** can be utilised between cluster and park development, provided that the requirements of the triple-helix approach are reflected

4. Funding model

A sustainable funding model for cluster initiatives should be based on different sources and should be adjusted in the course of the development process

- Financing models of cluster programmes encompass:
 - **Base public funding** (e.g. from local or national government)
 - **Membership fees**
 - **Revenues from paid services**
 - **Project / international funding** (e.g. research projects, funding from international partners)
- Funding models **differ not only between, but also within countries**
 - In the eastern part of Germany, cluster initiatives tend to rely more on public funding (including EU funding)
 - While in the western part of Germany the focus is much stronger on membership fees and paid services

4. Funding model

A sustainable funding model for cluster initiatives should be based on different sources and should be adjusted in the course of the process (cont.)

- In many countries, the **initial cluster development phase (3-5 years) is financed mostly by public funding**
- **In the subsequent phases, public funding can be gradually reduced.** Regional cluster management organisations can increasingly generate income from membership fees and paid services:
 - **Paid services** can relate, amongst others, to training programmes, trade fair visits, E-commerce platforms, laboratory or maintenance services
 - To justify **membership fees**, tangible benefits can be created by offering discounts to members for specific services or exclusive access to services for members only (e.g. training or recruitment programmes)
- In addition, many clusters management organisations are able to **secure funding from international programmes and partners**

4. Funding model

Funding models for parks are similarly structured – with higher volumes. In the initial phase, public and international funding constitute core elements

- Financing models of specialised parks **also comprise public and international funding** (e.g. loans). In addition, revenues from **administrative fees, paid services and from the sale / lease of land / space** play an important role
- Typically, the **initial development phase** of specialised parks is **mostly financed by public and international funding**
- **Specialised parks** can usually finance the necessary operational and capital expenditure for subsequent **development phases from revenues generated**
- The **combination of a pharma cluster and park** in Uzbekistan also **offers synergies from a financial perspective**, as public funding can be used more efficiently
- After initial funding, the management of **both the pharma cluster and pharma park** in the capital region should be **self-financing in the medium term**
- In the medium term, it should also be considered to **involve the private sector in the expansion or upgrading of the site** (e.g. provision of pre-built facilities / rental space)

5. Promotion of clusters and parks

When designing marketing measures for clusters and parks, different objectives and target groups have to be considered

Main objectives and corresponding target groups include:

- **Creating broad-based awareness of the cluster approach**, its benefits and rationale within government, businesses and academia
- **Mobilising companies and institutions** at the regional level and ensure buy-in
- **Sensitising stakeholders at the national level** – in particular relevant ministries and agencies – for the potentials of an integrated and consistent approach
- **Enlisting international partners' support**
- **Attracting investors** from other regions and abroad

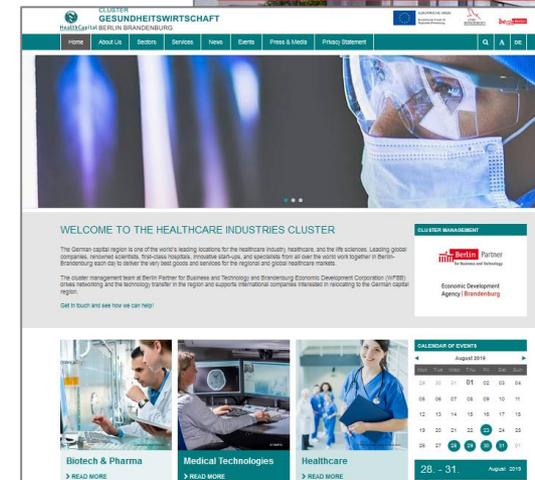
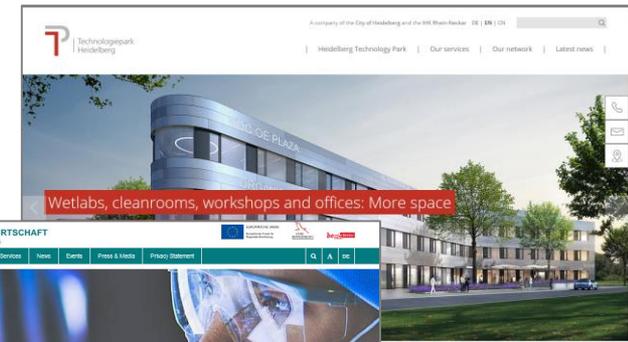


5. Promotion of clusters and parks

In order to reach those objectives, different marketing instruments and activities need to be combined

- **Image building measures** are important to raise awareness of the park and cluster initiative and to integrate key actors – amongst others:
 - Developing an **online presence**
 - Carrying out **events** at the regional and national level (e.g. cluster conferences)
 - Implementing complementary **PR activities** (e.g. media releases, newsletters)
- **Social media channels** play an increasing role
- **Broad-based awareness raising** is of particular importance at an **early stage of the process** when many actors are not familiar with the approach and their roles

Website of a German technology park



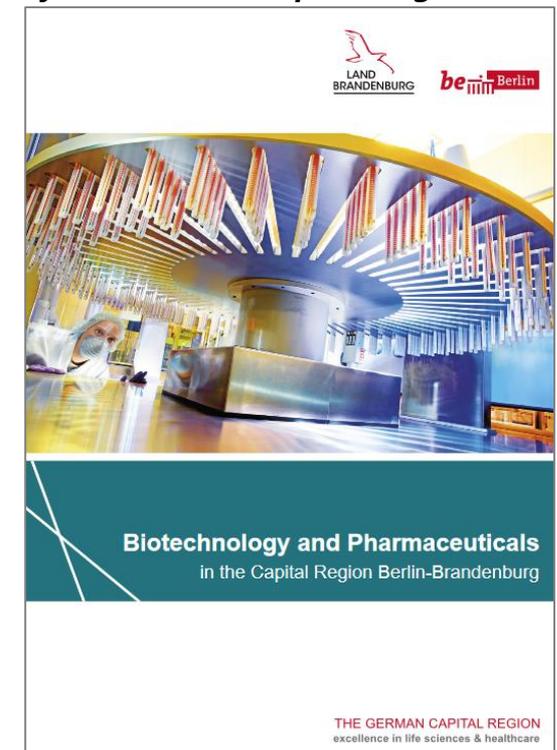
Website of the Life Science Cluster of the German Capital Region

5. Promotion of clusters and parks

Conversely, attracting investors requires a targeted approach focusing on companies and segments contributing to the development of value chains

- With respect to marketing measures aiming at attracting (international) investors, the **main focus should be on targeted lead generation campaigns**
- Investors that can contribute to the development of existing value chains should be approached
- Carrying out lead generation campaigns **in the context of leading trade fairs** often offers promising synergy potentials
- In addition, **intermediary marketing** should form part of a targeted approach
- Amongst others, **joint workshops or matchmaking events** can be carried out in collaboration with intermediaries – such as foreign cluster organisations

Brochure of the Life Science Cluster of the German Capital Region



6. Action plan for cluster and park development

The table below provides an overview of the main phases and actions during the initial cluster and park development phase (three years) which will be specified in further detail on the subsequent pages

Stages	Actions	Timeline
1. Preparatory stage	1.1 Policy decision and commitment by government	Month 1
	1.2 Establish steering structure	Month 1
	1.3 Needs analysis	Month 1 – 2
	1.4 Cluster diagnostics	Month 2 – 3
	1.5 Feasibility study for the park	Month 2 - 5
	1.6 First round of stakeholder consultations	Month 3
	1.7 Complementary meetings with international partners	Month 3
2. Concept stage	2.1 Development concept	Month 4 – 7
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3. Implementation stage	3.1 Setting up and supporting cluster and park management organisation	Month 8 – 36
	3.2 Planning / construction of on- / off-site infrastructure, buildings and facilities	Month 8 – 36
	3.3 Promotion of the cluster / park and attraction of members / residents	Month 8 – 36
	3.4 Evaluation of interim results	Month 34 – 36

6. Action plan for cluster and park development

No.	Actions	Comments	Timeline
Stage 1: Preparatory stage			
1.1	Policy decision and commitment by government	<ul style="list-style-type: none"> • Decision to test the cluster approach • Refining the roadmap and specifying responsibilities and procedures 	Month 1
1.2	Establish steering structure	<ul style="list-style-type: none"> • Establishing steering structure for cluster and park development measures (e.g. assign responsibilities, ensure resources and capacities) <ul style="list-style-type: none"> – With high-level decision-makers from government (e.g. relevant ministries / agencies), academia and the business community – Utilising synergies between cluster and park development 	Month 1
1.3	Needs analysis	<ul style="list-style-type: none"> • Preparing and carrying out combined needs analysis for the pharma cluster and park focusing on a survey of / interviews with: <ul style="list-style-type: none"> – Pharma companies as well as specialised educational and research institutions in Tashkent and the surrounding region to identify key needs regarding the infrastructure and services of the pharma park as well as complementary cluster-related activities – International companies and specialised educational and research institutions – preferably with experience in the region – to discuss their interest and perception of the investment location as well as their requirements and priorities 	Month 1 – 2
1.4	Cluster diagnostics	<ul style="list-style-type: none"> • Preparing and carrying out complementary cluster diagnostics for the pharma cluster in Tashkent and surrounding region – amongst others: <ul style="list-style-type: none"> – Assessment of structural characteristics, innovation and cooperation patterns building upon findings from needs analysis – Identification of potential cluster actors and donor organisations – Complementary statistical analysis (e.g. development of employment, production, exports, investment) 	Month 2 – 3

6. Action plan for cluster and park development

No.	Actions	Comments	Timeline
Stage 1: Preparatory stage			
1.5	Feasibility study for the park	<ul style="list-style-type: none"> • Preparing and carrying out a thorough feasibility study for the pharma park utilising synergies with the needs analysis and cluster diagnostics: <ul style="list-style-type: none"> – Assessment of technical feasibility, focusing, amongst others, on key characteristics of the site and the surrounding environment, the state of utilities and transport infrastructure – Assessment of market feasibility, placing particular emphasis on the analysis of the investment potentials and competitive position – Assessment of financial / economic feasibility, comprising an estimation of capital and operational expenditure as well as of revenues, cash flow forecasts and analyses of selected profitability indicators etc. 	Month 2 – 5
1.6	First round of stakeholder consultations	<ul style="list-style-type: none"> • Organising stakeholder consultations: <ul style="list-style-type: none"> – Raising awareness of the potential of the cluster and park building upon international experience – Presenting and discussing the (interim) findings from the needs analysis, cluster diagnostics and feasibility study – Determining if the stakeholders – in particular the companies – share enough common interests for cluster development efforts – Developing a common vision and understanding of the way forward – Discussing concrete steps and the division of tasks 	Month 3
1.7	Complementary meetings with international partners	<ul style="list-style-type: none"> • Organising individual meetings with international partners: <ul style="list-style-type: none"> – Sensitising partners for the benefits of a cluster-oriented approach – Assessing their interest and requirements with respect to supporting selected activities – Agreeing on next steps to explore opportunities for funding and technical assistance for the implementation of the roadmap 	Month 3

6. Action plan for cluster and park development

No.	Actions	Comments	Timeline
Stage 2: Concept stage			
2.1.	Development concept	<ul style="list-style-type: none"> • Drafting a development concept for the pharma cluster and park building upon the results from the analyses and consultations – amongst others: <ul style="list-style-type: none"> – Formulating vision / strategic objectives – Specifying off- / on-site infrastructure as well as portfolio of services – Defining development phases – Developing monitoring and evaluation concept 	Month 4 – 7
2.2	Marketing concept	<ul style="list-style-type: none"> • Developing a target-group oriented marketing concept for the pharma cluster and park – amongst others: <ul style="list-style-type: none"> – Definition of target groups (incl. segments, investment type, activities) – Marketing theme and target group specific messages – Implementation plan for the marketing activities and instruments 	Month 4 – 7
2.3	Organisational and financing concept	<ul style="list-style-type: none"> • Designing an organisational model, documenting the configuration (e.g. division, number / size and tasks of units) as well as core processes <ul style="list-style-type: none"> – Utilising synergies between cluster and park management – Supporting the development of critical competences and expertise – Reflecting the key tasks (including the provision of “soft” infrastructure) – Ensuring the integration of key partners, providing for the option to involve the private sector more closely in the management of the park in the medium term • Developing the financing concept based on results from feasibility study 	Month 4 – 7
2.4	Second round of stakeholder consultations	<ul style="list-style-type: none"> • Organising stakeholder consultations: <ul style="list-style-type: none"> – Presenting and discussing the development, marketing and organizational / financing concept – Mobilising stakeholders and ensuring buy-in – Initiating pilot-activities (e.g. joint visit of a similar cluster abroad) 	Month 7

6. Action plan for cluster and park development

No.	Actions	Comments	Timeline
Stage 3: Implementation stage			
3.1	Setting up and supporting cluster and park management organisation	<ul style="list-style-type: none"> • Setting up the cluster and park management organisation based on organisational concept • Providing financial and technical assistance for: <ul style="list-style-type: none"> – Implementation of the defined construction and infrastructure measures – Delivery of defined portfolio of services 	Month 8 – 36
3.2	Planning / construction of on-/off-site infrastructure, buildings and facilities	<ul style="list-style-type: none"> • Designing and construction of on-/off-site infrastructure, buildings and facilities based on development concept, feasibility studies and existing planning work • Integrating needs and requirements of attracted investment projects • Continuous monitoring of the progress of the construction work 	Month 8 – 36
3.3	Promotion of the cluster / park and attraction of members / residents	<ul style="list-style-type: none"> • Implementing the target-group oriented marketing concept for the pharma cluster and park • Utilising cluster-related activities to promote the park (e.g. events) • Taking up progress of construction work (e.g. completion or opening of buildings) in marketing campaigns and activities • Providing needs-oriented facilitation services to interested investors • Refining target groups and marketing activities based on experience gained 	Month 8 – 36
3.4	Evaluation of interim results	<ul style="list-style-type: none"> • Progress report with assessment of performance and progress made in the implementation process based on monitoring and evaluation concept • Decision on roll-out of larger-scale programme that integrates further clusters / industries depending upon the results of the evaluation 	Month 34 – 36

Annex 1: Lviv IT Cluster (Ukraine)

Lviv IT Cluster (Ukraine):

- The Lviv IT Cluster comprises **80 companies** (15,000 employees), local universities, government institutions
- The cluster management – with its **8 employees** – performs the following tasks and activities:
 - **Promotion**, e.g. Lviv IT Arena (leading IT conference in Ukraine with 1,000 participants), IT Tour (roadshow), IT Club (loyalty programme with discounts offered by 200 partners)
 - **Education**, e.g. IT competition at schools and universities, jointly developed IT bachelor and master programme, recruitment database of IT graduates
 - **Infrastructure**, e.g. IT House (including apartments), IT Village and IT Innovation Park
 - **Business development**, e.g. representative office in Poland, law committee, research services

	<p>Lviv Tech Angels</p> <p>Lviv Tech Angels is a community of investors who aim to boost a startup culture in Lviv and Ukraine. Tech Angels will invest in the development of startups and product companies, contributing to the expansion of the innovative ecosystem of Lviv and the development of the entire region as an attractive location for startups and business.</p>	
	<p>IT Arena</p> <p>IT Arena – the biggest tech event in Eastern Europe annually hosted in Lviv, Ukraine in the end of September. The conference brings together 100 outstanding speakers and more than 2300 attendees.</p>	
	<p>IT Jazz</p> <p>Lviv IT Jazz Conference is a C-level networking event, that unites major IT, investment, and business representatives. The conference creates a platform for communication between IT companies, financial funds, and the government. The event is a unique opportunity to listen to three streams about infrastructure, investments, and joint IT projects while networking and attending jazz concerts afterwards.</p>	
	<p>IT Village</p> <p>IT Village – a non-commercial project, which aims to unite IT professionals, willing to live in a comfortable suburban area. Duration of the project – 3 years. Start of the construction – 02 April 2018. The area will consist of 134 separate houses of different types and will be located in Nahoryany, by the picturesque lake Navariya, 9 km from Lviv and Innovation District IT Park – the biggest infrastructure project developed by Lviv IT Cluster.</p>	
	<p>IT Research 3.0</p> <p>IT Research – a large-scale analytic research of the Lviv IT market. It provides comprehensive information on the economic impact of IT industry in Lviv, market dynamics, number and portrait of IT specialists, number of IT companies and their segmentation. Moreover, IT Research shows detailed data on the direct and total contribution of the IT industry to the city's economy, including financial injection in related industries such as insurance, medicine, real estate, education, horeca, automotive, banking, and</p>	

Annex 2: Healthcare Cluster in the German Capital Region

Healthcare Cluster in the German Capital Region:

- In close collaboration with the stakeholders, a **masterplan** and **regional cluster management structures** have been developed
- The masterplan covers:
 - **Analysis of the cluster and development potential**
 - **Vision and objectives**
 - **Priority actions** (e.g. in the areas joint R&D and innovation projects, skills development and start-up support)
- The **cluster management** has been taken over by the **investment promotion agencies of the federal states of Berlin and Brandenburg**, comprising the following tasks:
 - Coordinating the implementation of **priority actions**
 - Organising **networking platforms** for stakeholders
 - **Promoting the cluster**

Masterplan Healthcare Industries



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