

# Reviewing the Target Group Selection for Investment Attraction Measures of the Republic of Armenia in light of the COVID-19 Pandemic

**Bjoern Vogler**

Berlin, August 2020

# Outline

---

1. Introduction
2. Impact of the COVID-19 pandemic on investment patterns
3. Adjustments of the target group selection
4. Segmentation
5. Argumentation

# Introduction

---

**In light of changes in investment patterns caused or accelerated by the COVID-19 pandemic, this policy briefing reviews the target group selection for investment attraction efforts of the Republic of Armenia**

- A target group analysis carried out by the German Economic Team at the beginning of 2019 came to the conclusion that the initial focus of investment attraction efforts should be on the IT & software, BPO, food and tourism industry
- Defining target groups is a dynamic process. The selection should be regularly reviewed to reflect changes in the investment environment. The COVID-19 pandemic is severely affecting all components of FDI
- Against this background, an assessment of expected changes in investment patterns formed the starting point of this review to identify potential target groups that are likely to show robust investment dynamics throughout and beyond the crisis
- Next, the interim results were discussed with the Investor Support Centre and industry experts to reflect the competitive position and development impact
- The findings and complementary research formed the basis for the proposed segmentation and argumentation

# Impact of the COVID-19 pandemic on investment patterns

**While overall there will be considerably less FDI available globally in the near future, the impact of the COVID-19 pandemic varies markedly across industries which should be reflected by the target group selection**

- The fDi Report 2020 forecasts a 40% decline of global greenfield FDI in 2020
- Traditional sources of FDI such as tourism, oil and gas, automotive, textile and apparel are experiencing severe disruptions
- At the same time, some industries – such as food and beverages – are more resilient and a number of knowledge- and tech-driven industries are showing robust investment dynamics

## Impact of COVID-19 pandemic on different industries – initial projections

Major decline in FDI	Less affected / resilient	Growth in FDI
<ul style="list-style-type: none"><li>• Tourism and entertainment</li><li>• Retail</li><li>• Luxury goods</li><li>• Aviation</li><li>• Real estate</li><li>• Coal, oil and gas</li><li>• Automotive</li><li>• Textile</li></ul>	<ul style="list-style-type: none"><li>• Food processing</li><li>• Consumer goods</li><li>• Logistics</li><li>• Life sciences</li><li>• R&amp;D</li><li>• IT</li><li>• Financial services</li></ul>	<ul style="list-style-type: none"><li>• E-Commerce</li><li>• EdTech (educational technologies)</li><li>• Health Tech</li><li>• Biotechnology</li><li>• Digital technologies</li><li>• Cybersecurity</li></ul>

Source: Wavteq 2020

# Impact of the COVID-19 pandemic on investment patterns

---

**Furthermore, the pandemic is likely to lead to or accelerate changes in investment patterns as companies review their operations and value chains**

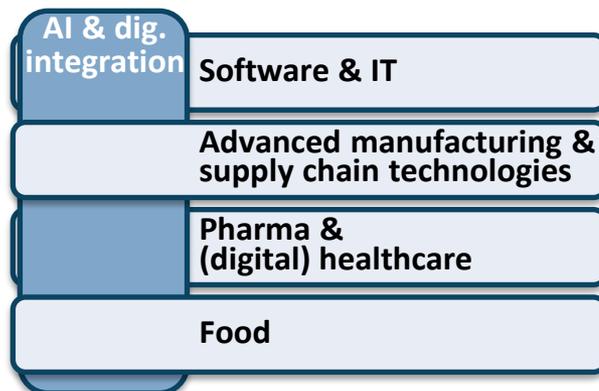
- Amongst others, the following trends and changes can be identified:
  - Most likely re- and nearshoring activities will increase and companies will focus more on regional strategies and value chains
  - It is expected that the pandemic will accelerate the trend towards automation of processes and deployment of digital and advanced manufacturing technologies
  - Investors are likely to increasingly review their operations and supply chains in response to demands by consumers and governments for more sustainable processes
- In the case of Armenia, the latter two trends are of particular relevance for the target group selection
- Although there is no clear picture of how value chains will be adjusted yet, from today's perspective, other locations seem to be better positioned to benefit from the trend towards nearshoring and regional value chains
- At the same time, diaspora-related investment projects offer a promising potential for Armenia

# Adjustments of the target group selection

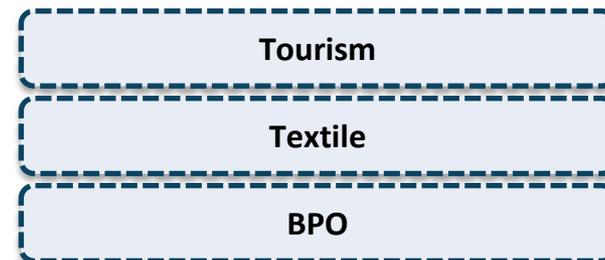
Against this background, the following adjustments are proposed which will be explained in more detail on the subsequent pages

- Software & IT and food should remain priority target groups
- Those should be complemented by the new priority target groups advanced manufacturing & supply chain technologies and pharma & (digital) healthcare. Furthermore, AI & digital integration should form a cross-cutting target group
- In comparison, proactive measures targeting the tourism and BPO industry seem less promising considering the current investment and competitive environment
- In case of improving conditions, activities could be resumed. In addition, the textile industry constitutes a potential target group in the medium term

## Priority target groups (short term)



## Potential further target groups (medium term)



# Adjustments of the target group selection

---

**Software & IT should remain at the core of the target group selection, integrating further segments with high growth / investment dynamics. AI & digital integration should form a complementary, cross-cutting target group**

- Software and IT services were the leading industry by FDI project numbers globally in 2019 and are expected to show comparatively high investment dynamics throughout and beyond the pandemic
- A number of segments, such as EdTech (educational technologies), cybersecurity, e-commerce and retail tech, have seen growing demand as a result of the pandemic crisis which is likely to lead to an increase in investment activity
- Armenia has a strong competitive position as confirmed by its investment attraction record (e.g. recently announced Armenian-Chinese Smart Science City)
- Amongst others, investors can benefit from extensive competencies in the area of data science and AI, from a highly qualified workforce at competitive costs and a well-developed eco-system with strong international links
- AI & digital integration should form a complementary cross-cutting target group to raise the profile as an AI hub and unlock investment potentials at the interface to other target groups (e.g. digital healthcare, Industry 4.0, smart farming)

# Adjustments of the target group selection

---

**In light of emerging trends that will most likely be accelerated by the current pandemic crisis, (AI-enabled) advanced manufacturing and supply chain technologies should become a possible target for investment attraction efforts**

- As already mentioned, the COVID-19 pandemic will most likely accelerate the trend towards automation of processes and deployment of digital and advanced manufacturing technologies
- Furthermore, in light of the current supply chain disruptions, the crisis could act as a catalyst for investment in emerging supply chain technologies as companies seek to diversify their value chains and mitigate the impact of future shocks
- AI-based applications play an important role in the transformation of the manufacturing industries including their supply chains
- Armenia offers favourable conditions for this target group, including:
  - Eco-system with strong AI and engineering competencies
  - Highly qualified workforce, relevant profile of the educational system at university- as well as school-level (e.g. TUMO)
  - Number of flagship projects, e.g. Engineering City

# Adjustments of the target group selection

---

**Furthermore, segments of the pharmaceutical and the digital healthcare industry should be included in the target group mix considering their investment dynamics**

- Global FDI in the pharmaceutical industry has been steadily growing between 2014 and 2019 and is also currently showing robust investment dynamics
- According to the fDi markets greenfield investment monitor, digital healthcare belongs to the few tech-driven industries that have thrived during the pandemic
- Already in 2019, healthcare experienced the largest increase by number of FDI projects worldwide
- Although its pharma industry is still comparatively small, Armenia can offer a range of distinct benefits from the perspective of investors – such as:
  - Relatively good access to important markets (e.g. Russia)
  - Availability of PhD graduates and specialists in relevant areas (e.g. biochemistry)
  - Highly competitive cost-structures
  - Rich sources of natural ingredients / herbs
- Furthermore, the interface between IT and life sciences offers a promising potential to develop a differentiating profile

# Adjustments of the target group selection

---

**In the medium term, proactive promotion measures could also target the BPO/KPO (Business/Knowledge Process Outsourcing), tourism and textile industry – depending upon improvements of the investment and competitive environment**

- In comparison to the proposed priority target groups, the conditions for proactive measures targeting the BPO/KPO, tourism and textile are currently less favourable considering the investment and competitive environment
  - The textile and tourism industry have been particularly hard hit by the COVID-19 pandemic and restriction governments were forced to impose
  - With respect to nearshoring projects in the textile industry, other locations seem to be better positioned – e.g. in Southeast Europe – in a highly competitive landscape
- Against this background, the focus of measures for the textile industry should remain on promoting exports and outsourcing opportunities in the short term
- In case of improving conditions, the textile industry could be integrated into the target group mix for investment promotion and proactive measures targeting the tourism and BPO/KPO industry could be resumed

# Segmentation

The figure below summarises the proposed segmentation:

Priority target groups	Target segments	Target regions/countries
<b>AI &amp; dig. integration</b> <b>Software &amp; IT</b>	<ul style="list-style-type: none"> <li>Regional research centres of multinationals</li> <li>Customised and embedded software development</li> <li>Semiconductor design and hardware engineering</li> <li>Educational technologies</li> <li>Mobile applications</li> <li>Cybersecurity</li> <li>Quantum computing</li> </ul>	<ul style="list-style-type: none"> <li>US</li> <li>EU countries</li> <li>Russia</li> <li>China</li> </ul>
<b>Advanced manufacturing &amp; supply chain technologies</b>	<ul style="list-style-type: none"> <li>Industry 4.0 (e.g. AI-enabled robotics and autonomous technologies, automation and additive manufacturing solutions, embedded systems, sensors)</li> <li>Supply chain technologies (e.g. enterprise supply chain management software, risk management solutions, tracking and monitoring solutions)</li> </ul>	<ul style="list-style-type: none"> <li>North America</li> <li>EU countries</li> <li>China</li> </ul>
<b>Pharma &amp; (digital) healthcare</b>	<ul style="list-style-type: none"> <li>Research centres of multinationals, contract research organisations (CRO)</li> <li>Contract manufacturing, e.g. generics, biosimilars, vaccines</li> <li>Medical products and equipment</li> <li>Processing of natural ingredients, e.g. herbs, active substances</li> <li>Digital healthcare services and products</li> <li>AI applications in diagnostics and treatment</li> </ul>	<ul style="list-style-type: none"> <li>India (incl. foreign investors with a presence in India)</li> <li>China</li> <li>US and further countries with a strong presence of the diaspora (e.g. France, Russia)</li> </ul>
<b>Food</b>	<ul style="list-style-type: none"> <li>Smart farming / digital solutions for agriculture and food processing</li> <li>High value fruit and vegetable cultivation (including organic and/or greenhouse cultivation), e.g. apricots, nuts, berries</li> <li>Production of wine and beverages</li> <li>Processing of meat, fruits, vegetables (e.g. preserves, juices)</li> </ul>	<ul style="list-style-type: none"> <li>EU countries with a strong presence of the food industry (e.g. France and Germany)</li> <li>Iran</li> </ul>

# Argumentation – target-group-specific arguments

The following tables are summarising the key target-group-specific arguments, providing guidance for designing marketing materials and activities

Target groups	Target-group-specific argumentation
AI & digital integration  Software & IT  Advanced manufacturing & supply chain technologies	<ul style="list-style-type: none"> <li>• Highly qualified workforce (68% with Master’s degree) still at lower cost than in other IT locations</li> <li>• Extensive competencies, amongst others, in the area of data science and AI / machine learning</li> <li>• Number of universities with industry-relevant education and research programmes (e.g. Yerevan State University, Yerevan State Polytechnic University)</li> <li>• Strong focus on programming and engineering in educational system (e.g. TUMO Centre, Armath laboratories, summer schools)</li> <li>• Advanced eco-system including 800 companies and a vibrant start-up scene, specialised universities, research labs (e.g. YerevaNN), technoparks, incubators / accelerators and innovation centres offering a wide spectrum of cooperation opportunities</li> <li>• Engineering City as flagship PPP project focusing amongst others on wireless communication, semiconductor, industrial IoT, electronics and education technologies</li> <li>• Recently announced Armenian-Chinese Smart Science City offering a wide spectrum of investment and cooperation opportunities, in particular in the area of AI applications</li> <li>• Strong links with the diaspora and leading eco-systems abroad (e.g. Silicon Valley)</li> <li>• Flexibility and innovation potential (e.g. success stories in the Artificial Intelligence area)</li> </ul>

# Argumentation – target-group-specific arguments

Target groups	Target-group-specific argumentation
Pharma & digital healthcare	<ul style="list-style-type: none"> <li>• EAEU membership offering access to an attractive market potential (e.g. Armenia as an export platform to serve the Russian market)</li> <li>• Availability of PhD graduates and specialists in the areas pharmacy, biotechnology, biochemistry, molecular genetics, microbiology, bioengineering and bioinformatics at competitive costs</li> <li>• Foreign language skills (e.g. English, French, Russian, German)</li> <li>• Specialised academic and research institutions offering a promising cooperation and recruitment potential (e.g. Yerevan State Medical University, Yerevan State University, Russian-Armenian Slavonic University, Institute of Fine Organic Chemistry and Institute of Molecular Biology, Armenian Institute of Applied Chemistry)</li> <li>• State-of-the-art testing and laboratory facilities</li> <li>• Planned centralised digital health record system providing favourable conditions for research and the development of digital health application</li> <li>• Dynamic start-up scene at the interface between the IT and healthcare industry</li> <li>• Rich sources of natural ingredients / herbs</li> </ul>
Food	<ul style="list-style-type: none"> <li>• Cost-competitive access to growing local and large international markets – in particular Russia and Iran – that are difficult to serve from other locations</li> <li>• Favorable soil and climatic conditions</li> <li>• Possibility for companies to purchase agricultural land</li> <li>• Longstanding tradition, expertise and reputation for high-quality and high-value food and beverages production (e.g. No. 6 global exporter of brandy)</li> </ul>

# Argumentation – cross-cutting arguments

---

**The proposed target-group-specific argumentation should be complemented by the following cross-cutting arguments:**

- Liberal investment regime – facilitating investment as a strategic priority of the Armenian Government
  - Almost no restrictions with respect to size and type of ownership, staffing, industry / activity
  - No restriction for capital and revenue transfer and repatriation
  - Investment treaties with approximately 40 countries
  - Number of reforms initiated by the Government to improve the investment climate (e.g. reforms of the tax and judicial system, reduction of corruption)
- Range of FTAs and EAEU membership offering preferential access to large consumer markets – including markets that are currently closed for many partners due to sanctions
  - Free trade regime in force with CIS countries and Georgia
  - CEPA (Comprehensive and Enhanced Partnership Agreement)
  - EAEU membership opening up a 180 million consumer market and offering the benefit of duty free imports of raw materials from EAEU countries

# Argumentation – cross-cutting arguments

---

## Complementary cross-cutting arguments (cont.):

- Effective policy response to the COVID-19 pandemic by Armenian government with comprehensive support package for companies
- Number of infrastructure projects enabling investors to utilise the potential of preferential access to strategic markets (e.g. modernisation of the Zvartnots International Airport, construction of the North-South Road Corridor)
- Attractive innovation and recruitment potential drawing on an advanced educational and research landscape
  - Advanced eco-system including state-of-the-art educational and research facilities in cooperation with leading technology companies
  - High rates of enrolment in education (tertiary education enrolment rate: 51.1%)
- Competitive operational costs and attractive incentives
  - Low labour costs in relation to the high skill level
  - Further cost advantages (e.g. utility costs)
  - Free Economic and Industrial Zones offering a distinctive combination of benefits
  - Range of additional incentives available

# About the German Economic Team



The German Economic Team (GET) advises the governments of Ukraine, Belarus, Moldova, Georgia and Uzbekistan regarding the design of economic policy reform processes and a sustainable development of the economic framework. As part of the project we also work in other countries such as Armenia on selected topics.

In a continuous dialogue with high-level decision makers of the project countries, we identify current problems in economic policy and then provide concrete policy recommendations based on independent analysis.

In addition, GET supports German institutions in the political, administrative and business sectors with its know-how and detailed knowledge of the region's economies.

The German Economic Team is financed by the Federal Ministry of Economics and Energy. The consulting firm Berlin Economics has been commissioned with the implementation of the project.

## CONTACT

**Bjoern Vogler**, Consultant  
vogler@berlin-economics.com

**Nikolas Schmidt**, Project Manager Armenia  
schmidt@berlin-economics.com

German Economic Team  
c/o BE Berlin Economics GmbH  
Schillerstraße 59  
10627 Berlin

Tel: +49 30 / 20 61 34 64 0  
info@german-economic-team.com  
www.german-economic-team.com

Implemented by

 Berlin  
Economics