



Technical Assistance Report

Project Number: 48040-001
Policy and Advisory Technical Assistance (PATA)
December 2015

Armenia: Export- and Innovation-Led Industrial Development (Cofinanced by the Financial Sector Development Partnership Special Fund)

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 4 December 2015)

Currency unit	–	dram (AMD)
AMD1.00	=	\$0.0021
\$1.00	=	AMD484.37

ABBREVIATIONS

ADB	–	Asian Development Bank
DFA	–	Development Foundation of Armenia
EIAA	–	Export Insurance Agency of Armenia
OECD	–	Organisation for Economic Co-operation and Development
TA	–	technical assistance

NOTE

In this report, "\$" refers to US dollars.

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POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 48040-001	
Project Name	Export- and Innovation-Led Industrial Development	Department /Division	CWRD/CWPF
Country	Armenia, Republic of	Executing Agency	Ministry of Economy
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Industry and trade	Industry and trade sector development		0.15
	Large and medium industries		0.10
	Small and medium enterprise development		0.15
	Trade and services		0.10
Finance	Trade finance		0.25
		Total	0.75
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 2: Trade and investment		
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
	Institutional systems and political economy		
	Organizational development		
Knowledge solutions (KNS)	Knowledge sharing activities		
Partnerships (PAR)	Pilot-testing innovation and learning		
	Implementation		
	Official cofinancing		
	Private Sector		
Private sector development (PSD)	Conducive policy and institutional environment		
	Public sector goods and services essential for private sector development		
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.75	
Policy and advisory technical assistance: Technical Assistance Special Fund		0.50	
Policy and advisory technical assistance: Financial Sector Development Partnership Special Fund		0.25	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		0.75	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		No	

I. INTRODUCTION

1. The Government of Armenia has requested technical assistance (TA) from the Asian Development Bank (ADB) to improve its industrial and innovation policies. The TA was included in the country operations business plan, 2016–2018 for Armenia.¹ ADB approved the concept paper for the TA in September 2015. Following an ADB mission on 22–25 September 2015, an agreement was reached with the government on the outcome, scope, monitoring framework, financing and implementation arrangements, and schedule for the TA. The design and monitoring framework is in Appendix 1.²

II. ISSUES

2. Armenia's economic growth during 2001–2008 was remarkable, with annual gross domestic product growth averaging 11.9%. This growth brought Armenian income per capita in line with most other emerging economies. But the growth rate was not sustainable, and in 2009–2014 annual growth slowed to an average 1.1%. During the boom years, a disproportionate share of resources flowed to nontradable activities (e.g., construction sector), which crowded out other sectors, particularly exporting firms, many of which were displaced from world markets.³ Throughout most of the 2000s, Armenia went through a process of de-industrialization, driven by a sustained real exchange rate appreciation fueled by easy access to external financing (remittances and credit). This structural de-industrialization was also a result of the lack of incentives for firms to invest in new, nontraditional economic activities and overcome informational, financial, and technical barriers to exports. Important private sector capabilities in industry and export activities were lost. The export share in gross domestic product declined from 29% (2001–2005) to 18% (2006–2009), before rebounding to 25% during 2010–2014 supported by the significant exchange rate devaluation in March 2009.⁴ During 2009–2013, Armenia experienced 0% growth in exports of new products to new markets.⁵ Armenia has become less diversified in its export basket and export destinations, and these export connections are not easy to recover. This specialization structure limits the economy's growth potential.

3. Armenia has an established private sector manufacturing base, but many of its products cannot compete in international markets.⁶ In 2012 Armenian firms exported only 80 products with comparative advantage.⁷ Armenia's export basket has become concentrated on minerals and nonprecious metal-related exports. Exports in just 15 product categories (out of the 786 categories in the four-digit product classification of the Standard International Trade Classification) now represent 80% of Armenia's merchandise exports (footnote 5). Processed food represents 17% of merchandise trade in Armenia.⁸ Many of these products are exported to

¹ ADB. 2015. *Country Operations Business Plan: Armenia, 2016–2018*. Manila.

² The TA first appeared in the business opportunities section of ADB's website on 30 October 2015.

³ International Monetary Fund. 2011. *Armenia's Housing Boom–Bust Cycle*. <https://www.imf.org/external/country/arm/rr/2011/112811.pdf>

⁴ World Bank. *World Development Indicators*. <http://data.worldbank.org/products/wdi> (accessed 29 November 2015).

⁵ International Trade Centre. *Trade Map*. <http://www.trademap.org> (accessed 29 October 2015).

⁶ The manufacturing base includes diamond processing, metal-cutting machine tools, forging–pressing machines, electric motors, tires production, knitted wear, hosiery, shoes, silk fabric, chemicals, trucks, instruments, microelectronics, jewelry manufacturing, software development, food processing, and brandy.

⁷ ADB. 2013. *Report to the Government of Kazakhstan: Policies for Industrial and Service Diversification in Asia in the 21st Century*. Manila.

⁸ The food and beverages production sector forms an important part of private sector activity in Armenia, with important backward linkages to agriculture activities. Armenian brandy has strong reputation in the Commonwealth of Independent States.

members of the Commonwealth of Independent States, where historical ties and migration flows have built consumer awareness and distribution channels. Armenian products, however, remain largely unknown to the rest of the world.

4. The financial sector in Armenia provides limited trade-related financial instruments, such as export credit insurance and guarantees. This is a major impediment to Armenian manufacturers, impacting on their competitiveness and risk-taking when attempting to penetrate new export markets, since they are unlikely to offer supply credit terms like their foreign competitors. In 2014 the government created the Export Insurance Agency of Armenia (EIAA) to provide insurance to exporters based in Armenia against financial losses incurred as a result of nonpayment by foreign buyers of Armenian exported goods and services. The EIAA started its insurance activities in May 2015 and its outreach so far has been limited.

5. Penetration into export markets is important for firms operating in scale-sensitive tradable activities. It is crucial in small and open economies like Armenia, as otherwise firms are not cost-competitive and cannot compete with imports produced at a much larger scale. Firms' export success is also dependent on how many other firms in the same country export the same product. This positive externality has justified the establishment of export promotion institutions in many countries.

6. The Armenian dram has been depreciating against the US dollar since the second half of 2014. The macroeconomic adjustment toward industry can be supported by the depreciation of the real exchange rate. However, for this adjustment to be sustained, manufacturing firms in Armenia need to overcome the scale-related cost disadvantages of a small domestic market. This can be done by regaining market share in export markets and establishing footholds in new ones, and by adopting a more diversified and risk-taking approach to innovation.

7. In 2011, the government adopted the Export-led Industrial Development Strategy, a set of initiatives to trigger dynamism in manufacturing sectors with export potential and directly target export growth and diversification objectives.⁹ The government selected 11 strategic industrial subsectors: brandy, wine, canned food, water, juices, diamond cutting, gold and jewelry, watches, precision engineering, pharmaceuticals, and textiles. The government is preparing a new action plan to support the development strategy for 2016–2020.

8. In December 2014, the government established the Development Foundation of Armenia (DFA)—by merging the Armenian Development Agency, the National Competitiveness Foundation of Armenia, and the Industry Development Foundation—to be responsible for export-led industrial policy. This improved institutional architecture can result in a more focused and coherent set of initiatives to pursue business competitiveness and export promotion. The DFA has been allocating funding for export promotion (about \$1 million per year) and it plans to improve its targeting in the coming years.

9. Under the country partnership strategy, 2014–2018 for Armenia, ADB aims to strengthen the enabling environment for private sector development and help the private sector play a greater role in export-oriented industry, trade, logistics, and infrastructure development.¹⁰ By testing different instruments for industrial development, the TA will complement the ADB TA on investment promotion that is improving Armenia's capacity to bring committed investors to the

⁹ Government of Armenia, Ministry of Economy. 2011. *Strategy of Export-Led Industrial Policy of the Republic of Armenia*. Yerevan.

¹⁰ ADB. 2015. *Country Partnership Strategy: Armenia, 2014–2018*. Manila.

country.¹¹ The proposed TA will benefit from the sector studies being prepared under the ongoing TA. The outcome of both TA efforts will help identify policy areas that can improve government support of business competitiveness, and thus be the basis of an ADB policy-based operation.

III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE

A. Impact and Outcome

10. The impact will be growth in employment. The outcome will be improved industrial and innovation policies in Armenia. The TA is aligned with the Armenia Development Strategy, 2014–2025, which gives special importance to modern industrial and export promotion, with direct interventions aimed at job creation.¹²

B. Methodology and Key Activities

11. The TA will produce two outputs: (i) new institutional and policy instruments to promote export-oriented industries and innovation piloted, and (ii) government's capacity to implement industrial and innovation policies strengthened.

12. **Output 1: New institutional and policy instruments to promote export-oriented industries and innovation piloted.** The TA will design and pilot policy and institutional instruments that can support the export and innovation efforts of industrial firms based in Armenia. Some of the new instruments will improve targeting of government grant subsidies for firm investments in market and product research needed for export discovery and exports of new and more sophisticated products. Pilots can be designed as variable matching-grant schemes that (i) induce firms' effort, risk-taking, and commitment to agreed export performance targets at the product level; (ii) reward success (cofinancing should be linked to export performance, with appropriate sunset clauses); and (iii) incorporate regular monitoring and dialogue between participating firms and the government to effectively coordinate public actions with firms that can take export discovery risks. The pilot instruments will target firms producing tradable goods and services based on past export performance but will exclude ADB-prohibited investment activities as listed in Appendix 5 of the Safeguard Policy Statement (2009). The feedback mechanism of performance-based rewards will reinforce successful export attempts.

13. The TA will finance the cost of a senior advisor to the EIAA for market penetration of export credit insurance among exporters and financial institutions in Armenia, product and underwriting development, discussions on the regulatory treatment of credit insurance for capital adequacy, and advice on potential strategic partnership with an international credit insurer. The senior advisor will participate in the meetings of the EIAA's supervisory board as a nonvoting member. The DFA will explore links between the pilot mechanisms for export promotion (para. 12) and the export credit insurance provided by the EIAA.

14. The TA will finance the design of policy and institutional instruments to support innovation efforts. The TA will finance a feasibility study for possible replication of complementing existing initiatives that promote the development of innovation-oriented human capital (e.g., the Tumo Center for Creative Technologies).¹³

¹¹ ADB. 2013. *Technical Assistance to Armenia for Investment Promotion*. Manila.

¹² Government of Armenia, Ministry of Finance. 2014. *Armenia Development Strategy for 2014–2025*. Yerevan.

¹³ The Tumo Center for Creative Technologies is a nonprofit institution that provides an after-school learning environment for students aged 12–18. <http://tumo.org/en/>

15. **Output 2: Government's capacity to implement industrial and innovation policies strengthened.** The allocation of resources for industrial and innovation policies and their instruments should be based on evidence and guided by a results framework.¹⁴ It should also be informed by an international trade and economic competitiveness assessment and by thorough industrial analysis that maps the local and global industrial landscape. This requires an upgrade in the economic analysis capabilities of the Ministry of Economy and its agencies. The TA will recruit experts to work with the Ministry of Economy and the DFA to expand the current results framework for industrial and innovation policy. The TA will recruit a senior research economist to assist the Ministry of Economy to design and implement an economic research program that helps understand, among other things, which Armenian products have a comparative advantage (e.g., product space analysis). The TA will finance the purchase of software and databases for the implementing agencies for these purposes.

16. The main implementation risks will arise during the political process of reviewing and deciding on the new institutional and policy instruments proposed by the TA. Political pressures from vested interests (e.g., firms currently benefiting from subsidies not targeting exports) may constrain policy choices during implementation. Resistance to change in government agencies may prevent implementation of the policy instruments proposed by the TA. The pilot instruments may not receive sufficient funding from the government budget to enable a robust evaluation. The TA will include communication activities to help mitigate these risks.

C. Cost and Financing

17. The TA is estimated to cost \$850,000, of which \$500,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources) and \$250,000 will be financed on a grant basis by the Financial Sector Development Partnership Special Fund.¹⁵ The government will provide counterpart support in the form of counterpart staff, office accommodation, office supplies, secretarial assistance, domestic transportation, rental costs and interpretation services for workshops and seminars, and other in-kind contributions.

D. Implementation Arrangements

18. The TA is expected to run from January 2016 to December 2018. The Public Management, Financial Sector, and Trade Division of the Central and West Asia Department of ADB will administer the TA, and be responsible for the recruitment of consultants, procurement of goods and services, and all payments related to the TA. The Ministry of Economy will be the executing agency. The Ministry of Economy, the DFA, and the EIAA will be the implementing agencies.

19. ADB will engage the services of individual consultants and resource persons in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time) using individual consultant selection with biodata technical proposal. An estimated 23 person-months of consulting services will be needed, of which 11 person-months will be international and 12 person-months national (Table 1). Advance contracting will be used to recruit the TA consultants. The outline terms of reference is in Appendix 3. ADB will finance the purchase of equipment required for the successful completion of outputs, including software and databases. Procurement will be conducted in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). Any website(s) developed or enhanced under the TA will

¹⁴ EQUIP: Enhancing the Quality of Industrial Policies. <http://www.equip-project.org/>

¹⁵ Established by ADB. Financing partner: the Government of Luxembourg.

be maintained and funded by the implementing agencies, which will retain equipment and software procured for these purposes. Disbursements under the TA will be made in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time).

Table 1: Indicative Consulting Services Inputs

Position	Person-Months
International Consultants	
Industrial policy economist	4
Innovation policy expert	4
Senior export credit insurance advisor	3
Subtotal International Consultants	11
National Consultants	
Senior research economist	9
Legal expert	3
Subtotal National Consultants	12
Total Inputs	23

Source: Asian Development Bank.

20. ADB review missions will monitor the TA and conduct consultations with industrial sector firms on a regular basis (at least twice a year) throughout the implementation period. TA consultants will provide progress reports to ADB on a regular basis. ADB will conduct a self-evaluation at the TA completion report stage. The report will be published on ADB's website. The blueprints (and smaller policy briefs) for each policy and institutional mechanism will be published as knowledge products.

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$250,000 to be financed on a grant basis by the Financial Sector Development Partnership Special Fund, and (ii) ADB providing the balance not exceeding the equivalent of \$500,000 on a grant basis, to the Government of Armenia for Export- and Innovation-Led Industrial Development, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned With			
Priority 1. Growth of employment (Armenia Development Strategy, 2014–2025) ^a A Special importance will be given to modern industrial and export promotion with direct interventionist elements aimed at job increase. (Armenia Development Strategy 2014–2025) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Armenia's industrial and innovation policies improved	a. At least 100 export attempts supported under new pilot instruments by 2018 (baseline: 0 in 2015) b. The EIAA increased its support to at least 100 export transactions in 2018 (baseline: 18 transactions in May–September 2015) c. The government adopted the revised industrial policy results framework by 2018	a. DFA's report on the results of the pilot b. EIAA's annual report c. Legal document adopting the revised industrial policy results framework	Political pressures from vested interests may constrain policy choices during implementation
Outputs 1. New institutional and policy instruments to promote export-oriented industries and innovation piloted 2. Government's capacity to implement industrial and innovation policies strengthened	1a. Export promotion instrument piloted by 2018 1b. New export credit insurance products piloted by 2018 1c. Feasibility study to replicate or complement existing initiatives on innovation promotion delivered by 2017 2a. Industrial policy results framework revised to become more evidence-based by 2017 2b. Ministry of Economy's research program implemented starting from January 2018	1a. DFA's report on the results of the pilot 1b. EIAA's report on the results of the pilot 1c. Consultant's feasibility study 2a. Ministry of Economy's internal order 2b. Consultant's report	Resistance to change in government agencies may disrupt implementation of the policy instruments designed by the TA The pilot instruments may not receive sufficient funding from the government budget to enable robust evaluation

<p>Key Activities with Milestones</p> <p>1. New policy and institutional instruments to promote export-oriented industries and innovation piloted</p> <p>1.1 Review existing analysis of industrial and innovation policy results in Armenia, including desk review and initial consultations with stakeholders (June 2016).</p> <p>1.2 Review experience with existing initiatives that promote innovation (e.g., Tumo Center for Creative Technologies)^b (April–June 2016).</p> <p>1.3 Draft blueprints for new pilot instruments^c (September 2016).</p> <p>1.4 Consult with government agencies, businesses, and other stakeholders, and finalize blueprints for new pilot instruments (December 2016).</p> <p>1.5 Advise government during piloting of the new instruments (January 2017–December 2018).</p> <p>1.6 Develop a feasibility study to replicate or complement existing initiatives that promote innovation (e.g., Tumo Center for Creative Technologies)^b (January–December 2017).</p> <p>2. Government's capacity to implement industrial and innovation policies strengthened</p> <p>2.1 Review existing industrial policy results framework and economic research program at the Ministry of Economy, including through desk reviews and initial consultations with stakeholders (June 2016).</p> <p>2.2 Prepare request for proposal of software and databases for implementing agencies (June 2016).</p> <p>2.3 Draft blueprint for new economic research program^c (September 2016).</p> <p>2.4 Conduct consultations with the Ministry of Economy, research institutions, and other stakeholders, and finalize blueprint for new economic research program (December 2016).</p> <p>2.5 Advise the Ministry of Economy in the implementation of the new economic research program (January–December 2018).</p> <p>2.6 Draft new industrial policy results framework (December 2017).</p> <p>2.7 Procure software and databases for implementing agencies (July 2016–June 2017).</p> <p>TA Management Activities</p> <p>ADB to recruit consultants (March 2016).</p> <p>TA activities (April 2016–December 2018).</p> <p>Consultants submit progress reports (April 2016–December 2018).</p> <p>ADB conducts self-evaluation and completes the TA evaluation report (January–June 2019).</p>
<p>Inputs</p> <p>ADB (TASF-other sources): \$500,000.</p> <p>Financial Sector Development Partnership Special Fund: \$250,000.</p> <p>Note: The government will provide counterpart support in the form of office accommodation, office supplies, secretarial assistance, domestic transportation, venue rental and interpretation services for workshops and seminars, and other in-kind contributions.</p>
<p>Assumptions for Partner Financing</p> <p>Not applicable.</p>

ADB = Asian Development Bank, DFA = Development Foundation of Armenia, EIAA = Export Insurance Agency of Armenia, TA = technical assistance.

^a Government of Armenia, Ministry of Finance. 2014. *Armenia Development Strategy, for 2014–2025*. Yerevan.

^b The Tumo Center for Creative Technologies is a nonprofit institution that provides after-school learning students aged 12–18. <http://tumo.org/en/>

^c A blueprint is a document that proposes the specifications for a specific system or institution to perform certain functions and meet certain objectives. In this case it is a blueprint for institutional and policy instruments for government support of export-oriented industries and innovation. The document should include governance arrangements, business objectives, and rules required for effective performance, with detailed business model and processes, implementation plans, cost estimates and financing plans, and monitoring and evaluation arrangements.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN

(\$'000)

Item	Amount
A. Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem ^b	
i. International consultants (8 person-months)	132.8
ii. National consultants (12 person-months)	24.8
b. International and local travel	16.4
2. Equipment ^c	213.0
3. Training, seminars, and conferences	75.0
4. Surveys	5.0
5. Miscellaneous administration and support costs ^d	5.0
6. Contingencies	28.0
Subtotal (A)	500.0
B. Financial Sector Development Partnership Special Fund^e	
1. Consultants	
a. Remuneration and per diem ^b	
i. International consultants (3 person-months)	110.3
b. International and local travel	16.5
c. Reports and communications ^f	5.0
2. Training, seminars, and conferences	
a. Resource persons	75.0
3. Surveys	10.0
4. Miscellaneous administration and support costs ^d	6.5
5. Contingencies	26.7
Subtotal (B)	250.0
Total	750.0

Note: The technical assistance (TA) is estimated to cost \$850,000, of which contributions from the Asian Development Bank and the Financial Sector Development Partnership Special Fund are presented in the table above. The government will provide counterpart support in the form of office accommodation, office supplies, secretarial assistance, domestic transportation, venue rental and interpretation services for workshops and seminars, and other in-kind contributions. The value of government contribution is estimated to account for 11.8% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

^b Includes honorarium, travel costs, and per diem of resource persons.

^c Includes software and databases for implementing agencies. The equipment will remain Asian Development Bank's property until transferred to the government or disposed of.

^d Includes translation costs.

^e Established by ADB. Financing partner: the Government of Luxembourg.

^f Includes editor's fee and publications-related costs (e.g., copy editing, typesetting, layout, and printing).

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. Industrial Policy Economist (international, 4 persons-month)

1. The consultant should have a minimum of 10 years of practical experience in policy advice on export promotion and industrial policy to governments in Organisation for Economic Co-operation and Development countries (OECD). The candidates must have demonstrated efficiency, organization, and capacity to discuss industrial policy issues with high-level government officials and relevant stakeholders. The candidate should have good presentation and writing skills in English. Experience working in Eastern Europe or the former Soviet Union is desirable.
2. The expert will work directly with the implementing agencies in the design and piloting of new institutional and policy instruments to promote export-oriented industries. The expert will prepare blueprints (maximum of 40 pages each) for at least three instruments, including for a variable matching-grant instrument to support firms' investments in market or product research needed to reach new export markets.¹ The instruments will be designed to (i) induce firms' effort, risk-taking, and commitment to agreed export performance targets at the product level; (ii) reward success based on effective monitoring and evaluation (cofinancing should be linked to export performance, with appropriate sunset clauses); (iii) incorporate regular dialogue between participating firms and government to effectively coordinate public actions with firms that can take export discovery risks; and (iv) be sustainable.
3. The expert will support the Development Foundation of Armenia (DFA) staff in conducting structured dialogue with businesses to effectively coordinate public actions with firms that can take export discovery risks. The dialogue will pick up from earlier efforts and will be conducted along the following principles: (i) include firms engaged in similar economic activity (defined at a minimum of four-digit Standard International Trade Classification product level), (ii) structured as a collective effort to pursue concrete export objectives (not to discuss generic problems such as taxation) supported by market research and analytical work (e.g., trade data, international prices, market competition); and (iii) focused on identifying government actions and inputs required to address key barriers to achievement of export discovery challenges.
4. The expert will advise the Ministry of Economy and the DFA on the purchase of product-focused market studies. The market information collected through the policy and advisory technical assistance will be compiled and shared with all firms operating in Armenia strategic industries.
5. The expert will help the Government of Armenia and the Ministry of Economy improve the design of the results and monitoring framework of its industrial policy by focusing it on export promotion and by expanding the export targets at the product-specific level.

¹ A blueprint is a document that proposes the specifications for a specific system or institution to perform certain functions and meet certain objectives. In this case it is a blueprint for institutional and policy instruments for government support to export-oriented industries and innovation. The document should thus include governance arrangements, business objectives, and rules required for effective performance, with detailed business model and processes, implementation plans, cost estimates and financing plans, and monitoring and evaluation arrangements.

2. Innovation Policy Expert (international, 4 persons-month)

6. The expert should have a minimum of 10 years of practical experience in innovation policy advice to governments in OECD countries. The candidates must have demonstrated efficiency, organization, and capacity to communicate with high-level government officials and relevant stakeholders about innovation policy. The candidate should have good presentation and writing skills. Experience working in Eastern Europe or the former Soviet Union is desirable.

7. The expert will work directly with the implementing agencies in the design and piloting of new institutional and policy instruments to promote innovation, particularly in export-oriented industries. The expert will prepare blueprints for at least two instruments (footnote 1). The instruments will be designed to induce firms' effort, risk-taking, and commitment to innovation projects; and to reward success based on effective monitoring and evaluation (co-financing should be linked to innovation performance).

3. Senior Export Credit Insurance Advisor (international, 3 persons-month)

8. The expert should have a minimum of 10 years of practical experience in underwriting and marketing credit insurance for large export credit agencies in OECD countries. The candidate must have demonstrated efficiency, organization, and capacity to communicate with high-level government officials and relevant stakeholders about export credit insurance. The candidate should have good English presentation and writing skills. Experience working with Eastern Europe or the former Soviet Union is essential.

9. The expert will support the Government of Armenia and the Export Insurance Agency of Armenia (EIAA) in expanding access to export credit insurance by Armenian exporters. The expert will:

- (i) assess the existing market demand for credit insurance and advise the EIAA on market penetration of credit insurance among exporters and financial institutions in Armenia;
- (ii) support product development by the EIAA, including export factoring and pre-export financing;
- (iii) support discussions with the regulators on the regulatory treatment of credit insurance for capital adequacy; and
- (iv) participate in meetings of the EIAA's supervisory board as a nonvoting member to provide strategic advice to the board on expansion of the volume of export transactions supported by official credit insurance and on strengthening the EIAA's governance.

4. Senior Research Economist (national, 9 persons-month)

10. The expert should have a doctorate in economics, industrial organization, or a relevant discipline, and a minimum of 15 years of practical experience in conducting economic research in Armenia. The candidate must have demonstrated efficiency, organization, and capacity to communicate with high-level government officials and relevant stakeholders about industrial and business competitiveness, and to lead a team of research economists. The candidate should have good presentation and writing skills and excellent English language skills.

11. The expert will help the Ministry of Economy in strengthening the recently established economic research center and in designing and implementing an economic research program to

support, among other objectives, the government's industrial and innovation policies. The research program is expected to include an analysis of international trade data (volumes and prices) of Armenia's product competitiveness based on revealed comparative advantage (e.g., product space analysis), and an industrial diagnosis that maps the local and global industrial landscape. The expert will advise the Ministry of Economy on the purchase of software and databases relevant for its economic analysis program. The expert will also seek strategic partnerships with international research centers for joint research programs.

12. The expert will be responsible for a feasibility study to replicate or complement existing initiatives in Armenia that promote development of innovation-oriented human capital (e.g., the Tumo Center for Creative Technologies). The expert will organize data collection, including through surveys.

5. Legal Expert (national, 3 persons-month)

13. The expert will be a practicing lawyer with at least 8 years of experience in commercial law in Armenia, and in working with government. The consultant should be proficient in English. An understanding of the legal framework for government support to businesses is essential. The expert must have demonstrated efficiency, organization, and capacity to meet deadlines, and should be able to draft contracts in a clear and direct style.

14. The objective of the assignment is to assist the government and the DFA in piloting new instruments for export promotion through contractual arrangements by drafting contracts and regulations. The expert will support activities related to all activities of the technical assistance.