Innovation Survey

SURVEY QUESTIONNAIRE, 2015 (in yellow – core question in EU questionnaire)

This survey collects information on your enterprise's **innovations and innovation activities** during the three years 2013 to 2015 inclusive.

An **innovation** is the introduction of a new or significantly improved product, process, organisational method, or marketing method by your enterprise.

An innovation must have characteristics or intended uses that are new or which provide a significant improvement over what was previously used or sold by your enterprise.

An innovation need only be new or significantly improved for your enterprise. It could have been originally developed or used by other enterprises or organisations.

Innovation activities include the acquisition of machinery, equipment, buildings, software, and licenses; engineering and development work, feasibility studies, design, training, R&D and marketing when they are specifically undertaken to develop and/or implement a product or process innovation. This includes also all types of R&D consisting of research and development activities to create new knowledge or solve scientific or technical problems.

Sections 3 to 8 cover product and process innovations. Organisational and marketing innovations are covered in sections 9 and 10.

Please complete all questions, unless otherwise instructed.

Person we should contact if there are any queries regarding the form:

Name:	
Job title:	
Organisation:	
Phone:	
E-mail:	

1. General information about the enterprise

Name of enterprise		
Address		
Postal code	Main activity	

1.1 In which geographic markets did your enterprise sell goods and/or services during the three years 2013 to 2015?

		Yes 1	No 0
A.Local / regional within Armenia	MARLOC		
B. National (other regions of Armenia)	MARNAT		
C. European Union or associated countries*	MAREUR		
D. All other countries	MAROTH		

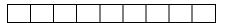
Which of these geographic areas was your largest market in term of turnover during the three years 2013 to 2015? (Give corresponding letter)

LARMAR

*: Include the following European Union (EU) and associated countries: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Ireland, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, FYR Macedonia, Malta, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Slovakia, Switzerland, Turkey, Spain, Sweden and the United Kingdom.

2. Basic economic information on your enterprise

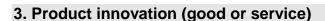
2.1 What was your enterprise's total turnover for 2015? (Give turnover in '000 AMD currency units). Turnover is defined as the market sales of goods and services (include all taxes except VAT/for credit institutions: interests receivable and similar income; for Insurance services give gross premiums written).



TURN15

2.2 What was your enterprise's average number of employees in 2015?

EMP15

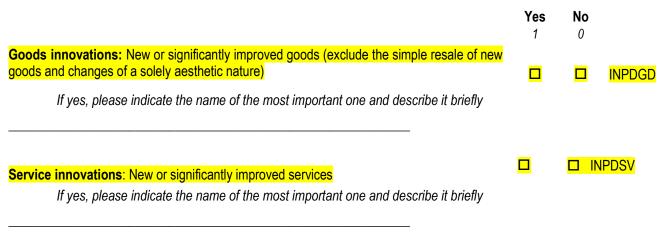


A product innovation is the market introduction of a **new** or **significantly** improved **good or service** with respect to its capabilities, user friendliness, components or sub-systems.

- Product innovations (new or improved) must be new to your enterprise, but they do not need to be new to your market.
- Product innovations could have been originally developed by your enterprise or by other enterprises or organisations.

A **good** is usually a tangible object such as a smart phone, furniture, or packaged software, but downloadable software, music and film are also goods. A **service** is usually intangible, such as retailing, insurance, educational courses, air travel, consulting, etc.

3.1 During the three years 2013 to 2015, did your enterprise introduce:



If no to all options, go to section 4 Otherwise, go to question 3.2

	ر	Fick all that apply
	Goods	Service innovations
	innovations	
Your enterprise by itself	INITGD	
Your enterprise together with other enterprises or organisations*		
Your enterprise by adapting or modifying goods or services originally developed by other enterprises or organisations*	INADGD	
Other enterprises or organisations	□ INOTHGD	□ INOTHSV

*: Include independent enterprises plus other parts of your enterprise group (subsidiaries, sister enterprises, head office, etc.). Organisations include universities, research institutes, non-profits, etc.

3.3 Were any of your product innovations (goods or services) during the three years 2013 to 2015:

		<mark>Yes</mark> 1	No 0	
<mark>New to your</mark> market?	Your enterprise introduced a new or significantly improved product onto your market before your competitors (it may have already been available in other markets)			NEWMKT
Only new to your enterprise?	Your enterprise introduced a new or significantly improved product that was already available from your competitors in your market			NEWFRM

Using the definitions above, please give the percent of your total turnover in 2015 from:

New or significantly improved products introduced during the three yea your market	ars 2013 to 2015 that were new to TURNMAR	<mark>%</mark>
New or significantly improved products introduced during the three yea new to your enterprise	ars 2013 to 2015 that were only TURNIN	<mark>%</mark>
Products that were unchanged or only marginally modified during the (include the resale of new products purchased from other enterprises)	he three years 2013 to 2015 TURNUNG	%

Total turnover

100%

4. Process innovation

A process innovation is the implementation of a **new** or **significantly** improved production process, distribution method, or supporting activity.

- Process innovations must be new to your enterprise, but they do not need to be new to your market.
- The innovation could have been originally developed by your enterprise or by other enterprises or organisations.
- Exclude purely organisational innovations these are covered in section 9.

4.1 During the three years 2013 to 2015, did your enterprise introduce:	Yes 1	No 0	
New or significantly improved methods of manufacturing for producing goods or services			INPSPD
If yes, please indicate the name of the most important method and describe it briefly			
New or significantly improved logistics, delivery or distribution methods for your inputs, goods or services			INPSLG
If yes, please indicate the name of the most important method and describe it briefly			
New or significantly improved supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing			<mark>INPSSU</mark>
If yes, please indicate the name of the most important process and describe it briefly			
If no to all options, go to section 5			
Otherwise, go to question 4.2			
4.2 Who developed these process innovations?			
Your enterprise by itself		l that app NITPS	<mark>ly</mark>
Your enterprise together with other enterprises or organisations*		NTOPS	
Your enterprise by adapting or modifying processes originally developed by other enterprises or organisations*		NADPS	
Other enterprises or organisations*		IOTHPS	;

*: Include independent enterprises plus other parts of your enterprise group (subsidiaries, sister enterprises, head office, etc). Organisations include universities, research institutes, non-profits, etc.

5. Ongoing or abandoned innovation activities for product or process innovations

Innovation activities include the acquisition of machinery, equipment, buildings, software, and licenses; engineering and development work, feasibility studies, design, training, R&D and marketing when they are specifically undertaken to develop and/or implement a product or process innovation. This includes also all types of R&D consisting of research and development activities to create new knowledge or solve scientific or technical problems.

5.1 During the three years 2013 to 2015, did your enterprise have any innovation activities that did not result in a product or process innovation because the activities were:

	Yes	<mark>No</mark>	
	<mark>1</mark>	<mark>0</mark>	
Abandoned or suspended before completion			INABA
Still ongoing			INONG

If no to all options in questions 3.1, 4.1 and 5.1 go to section 9

Otherwise, go to section 6

6. Activities and expenditures for product and process innovations

6.1 During the three years 2013 to 2015, did your enterprise engage in the following innovation activities:

Yes No

		1	0	
In-house R&D	Research and development activities undertaken by your enterprise to create new knowledge or to solve scientific or technical problems (include software development in-house that meets this requirement) If yes, did your enterprise perform R&D during the three years 2013 to 2015:			RRDIN
	Continuously (your enterprise had permanent R&D staff in-house) $\Box 1$ Occasionally (as needed only) $\Box 2$			RDENG
External R&D	Your enterprise contracted-out R&D to other enterprises (include enterprises in your own group) or to public or private research organisations			RRDEX
Acquisition of machinery, equipment, software & buildings	Acquisition of advanced machinery, equipment, software and buildings to be used for new or significantly improved products or processes			RMAC
Acquisition of existing knowledge from other enterprises or organisations	Acquisition of existing know-how, copyrighted works, patented and non- patented inventions, etc. from other enterprises or organisations for the development of new or significantly improved products and processes			ROEK
Training for innovative activities	In-house or contracted out training for your personnel specifically for the development and/or introduction of new or significantly improved products and processes			RTR
Market introduction of innovations	In-house or contracted out activities for the market introduction of your new or significantly improved goods or services, including market research and launch advertising			RMAR
Design	In-house or contracted out activities to alter the shape, appearance or usability of goods or services			RDSG
Other	Other in-house or contracted out activities to implement new or significantly			

6.2 How much did your enterprise spend on each of the following innovation activities in 2015 only? Innovation activities are defined in question 6.1 above. Include current expenditures (including labour costs, contracted-out activities, and other related costs) as well as capital expenditures on buildings and equipment.(Give expenditure data in 000's AMD)

Please fill in '0' if your enterprise had no expenditures for an activity in 2015

Please estimate if you lack precise accounting data

In-house R&D (Include current expenditures including labour costs and capital expenditures on buildings and equipment specifically for R&D)	<u>RRDINX</u>
External R&D	RRDEXX
Acquisition of machinery, equipment, software & buildings (Exclude expenditures on these items that are for R&D)	RMACX
Acquisition of existing knowledge from other enterprises or organisations	ROEKX
All other innovation activities including design, training, marketing, and other relevant activities	ROTRX
Total of the above innovation activities	RALLX

7. Public financial support for innovation activities

7.1 During the three years 2013 to 2015, did your enterprise receive public financial support for innovation activities? Include financial support via tax credits or deductions, grants, subsidised loans, and loan guarantees. Exclude R&D and other innovation activities conducted entirely for the public sector* under contract.

Yes	No	
1	0	
		PUBFUN

*The public sector includes government owned organisations such as local, regional and national administrations and agencies, schools, hospitals, and government providers of services such as security, transport, housing, energy, etc.

8. Co-operation for product and process innovation activities

8.1 During the three years 2013 to 2015, did your enterprise co-operate on any of your innovation activities with other enterprises or organisations? Innovation co-operation is active participation with other enterprises or organisations on innovation activities. Both partners do not need to commercially benefit. Exclude pure contracting out of work with no active co-operation.

No □(**Go to section 9**) CO Yes □(Go to question 8.2)

8.2 Please indicate the type of innovation co-operation partner by location

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Type of co-operation partner	<mark>Armenia</mark>	Europe*	<mark>United</mark> States	<mark>China or</mark> India	All other countries
A. Other enterprises within your enterprise group	□CO11	□C012	<mark>□CO13</mark>	<mark>□CO14</mark>	
B. Suppliers of equipment, materials, components, or software	CO21			CO24	□CO25
C. Clients or customers from the private sector	□CO311	□CO312	□CO313	□CO314	CO315
D. Clients or customers from the public sector				□CO324	
E. Competitors or other enterprises in your sector**	<mark>□CO41</mark>		<mark>□CO43</mark>	<mark>□CO44</mark>	□CO45
F. Consultants or commercial labs	CO51		<mark>□CO53</mark>	<mark>□CO54</mark>	□CO55
G. Universities or other higher education institutes	CO61		<mark>□CO63</mark>	<mark>□CO64</mark>	□CO65
H. Government, public or private research institutes	<mark>□CO71</mark>	CO72	<mark>□CO73</mark>	<mark>□CO74</mark>	□CO75

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** It is a question about innovation co-operation partners and one of possibilities can be partner from the same sector (NACE activity group) like a responsible enterprise. For example Coca-Cola and Pepsi are competitors, but can work together to creating environmental innovation

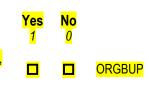
8.3 Which type of co-operation partner (8.2) was the most valuable for your enterprise's innovation activities? (Give corresponding letter) _____ PMOS

9. Organisational Innovation

An organisational innovation is a new organisational method in your enterprise's business practices (including knowledge management), workplace organisation or external relations that has not been previously used by your enterprise.

- It must be the result of strategic decisions taken by management.
- Exclude mergers or acquisitions, even if for the first time.

9.1 During the three years 2013 to 2015, did your enterprise introduce:



(Tick all that apply)

New **business practices** for organising procedures (i.e.first time use of supply chain management*, business re-engineering, knowledge management, lean production**, quality management, etc.) New methods of **organising work responsibilities and decision making** (i.e. first time use of a new system of employee responsibilities, team work, decentralisation, integration or de-integration of departments, education/training systems, etc.)

New methods of **organising external relations** with other enterprises or public organisations (i.e. first time use of alliances, partnerships, outsourcing or sub-contracting, etc.)

ORGEXR

ORGWKP

...

* Supply chain management (SCM) is the management of the flow of goods and services. It is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. Currently SCM are known as the software. There are two main types of SCM software: planning applications and execution applications. Planning applications use advanced algorithms to determine the best way to fill an order. Execution applications track the physical status of goods, the management of materials, and financial information involving all parties.

** Lean Manufacturing is a theory that you can reduce waste, and keep your people, equipment, and workspace responsive to what's needed right now. Lean production is an assembly-line methodology. It is also known as the Toyota Production System or just-in-time production. Main principles:

- 1. Eliminate waste
- 2. Minimize inventory
- 3. Maximize flow
- 4. Pull production from customer demand
- 5. Meet customer requirements
- 6. Do it right the first time
- 7. Empower workers
- 8. Design for rapid changeover
- 9. Partner with suppliers
- 10. Create a culture of continuous improvement

10. Marketing innovation

A marketing innovation is the implementation of a new marketing concept or strategy that differs significantly from your enterprise's existing marketing methods and which has not been used before.

- It requires significant changes in product design or packaging, product placement, product promotion or pricing.
- Exclude seasonal, regular and other routine changes in marketing methods.

10.1 During the three years 2013 to 2015, did your enterprise introduce:

	Yes 1	NO 0	
Significant changes to the aesthetic design or packaging of a good or service (exclude changes that alter the product's functional or user characteristics – these are product innovations)			<u>MKTDGP</u>
New media or techniques for product promotion (i.e. first time use of a new advertising media, a new brand image, introduction of loyalty cards, etc.)			<mark>MKTPDP</mark>
New methods for product placement or sales channels (i.e. first time use of franchising or distribution licenses, direct selling, exclusive retailing, new concepts for product presentation, etc.)			<mark>MKTPDL</mark>
New methods of pricing goods or services (i.e. first time use of variable pricing by demand, discount systems, etc.)			<mark>MKTPRI</mark>

If 'no' to all options in questions 3.1, 4.1, 5.1, 9.1 and 10.1 go to section 13 Otherwise go to section 11

11. Factors hampering product and process innovation activities

11.1 During the three years 2013 to 2015, how important were the following factors in preventing your enterprise from innovating or in hampering your innovation activities?

		Degree of importance				
		High	Medium	Low	Factor not experienced	
		3	2	1	0	
0 1	Lack of funds within your enterprise or group					HFENT
Cost factors	Lack of finance from sources outside your enterprise					HFOUT
1401010	Innovation costs too high					HCOS
Knowledge	Lack of qualified personnel					HPER
Knowledge factors	Lack of information on technology					HTEC
	Lack of information on markets					HINF
	Difficulty in finding cooperation partners for innovation					HPAR
Market	Market dominated by established enterprises					HDOM
factors	Uncertain demand for innovative goods or services					HDEM
Reasons	No need due to prior innovations by your enterprise					HPRIOR
not to innovate	No need because of no demand for innovations					HMAR

Section 12 refers to enterprises that have introduced/implemented innovation ('yes' to questions 3.1, 4.1, 9.1 and 10.1)

12. Innovations with environmental benefits

An innovation with environmental benefits is a new or significantly improved product (good or service), process, organisational method or marketing method that creates environmental benefits compared to alternatives.

- The environmental benefits can be the primary objective of the innovation or a by-product of other objectives.
- The environmental benefits of an innovation can occur during the production of a good or service, or during its consumption or use by the end user of a product. The end user can be an individual, another enterprise, the Government, etc.

12.1 During the three years 2013 to 2015, did your enterprise introduce a product (good or service), process, organisational or marketing innovation with any of the following environmental benefits?

	res	NO	
Environmental benefits obtained within your enterprise	1	0	
Reduced material or water use per unit of output			ECOMAT
Reduced energy use or CO ₂ 'footprint' (reduce total CO ₂ production)			ECOENO
Reduced air, water, noise or soil pollution			ECOPOL
Replaced a share of materials with less polluting or hazardous substitutes			ECOSUB
Replaced a share of fossil energy with renewable energy sources			ECOREP
Recycled waste, water, or materials for own use or sale			ECOREC

Environmental benefits obtained during the consumption or use of a good or service by the end user

Reduced energy use or CO ₂ 'footprint'		ECOENU
Reduced air, water, noise or soil pollution		ECOPOS
Facilitated recycling of product after use		ECOREA
Extended product life through longer-lasting, more durable products		ECOEXT

12.2 During 2013 to 2015, how important were the following factors in driving your enterprise's decisions to introduce innovations with environmental benefits?

	Degree of importance				
	High	Medium	Low	Not relevant	
	3	2	1	0	
Existing environmental regulations					ENEREG
Existing environmental taxes, charges or fees					ENETX
Environmental regulations or taxes expected in the future					ENREGF
Government grants, subsidies or other financial incentives for environmental innovations					ENGRA
Current or expected market demand for environmental innovations					ENDEM
Improving your enterprise's reputation					ENREP
Voluntary actions or initiatives for environmental good practice within your sector					ENAGR
High cost of energy, water or materials					ENCOST
Need to meet requirements for public procurement contracts					ENREQU

Only answer section13 if your enterprise did <u>not</u> introduce an innovation and did not have ongoing/abandoned innovation activities during the three years 2013 to 2015 ('no' to all options in questions 3.1, 4.1, 5.1, 9.1 and 10.1).

13. Non-innovators

13.1 Which of the following best describes why your enterprise had no innovation activities during the three years from 2013 to 2015:

	Tick one only		
No compelling reason to innovate		Go to 13.2	N_HCOMPR
Considered innovating, but barriers to innovation too large		Go to 13.3	N_HBARIN

13.2 How important were the following reasons for your enterprise not to conduct innovation activities during 2013 to 2015?

Degree of importance Not High Medium Low important

	3	2	1	0	
Low demand for innovations in your market					N_HLDEM
No need to innovate due to previous innovations					N_HPRIOR
No need to innovate due to very little competition in your enterprise's market					N_HCOMPL
Lack of good ideas for innovations					N_HIDIN

13.3 How important to your enterprise were the following barriers to innovation during 2013 to 2015?

	Degree of importance					
	High	Medium	Low	Not important		
	3	2	1	0		
Lack of internal finance for innovation					N_HFENT	
Lack of credit or private equity					N_HCRE	
Lack of skilled employees within your enterprise					N_HPER	
Difficulties in obtaining government grants or subsidies for innovation					N_HSUBS	
Lack of collaboration partners					N_HPAR	
Uncertain market demand for your ideas for innovations					N_HDEM	
Too much competition in your market					N_HCOMPH	
Lack of information on technology					N_HTEC	
Lack of information on markets					N_HINF	