

Summary and Purpose

The **InnoCENS Survey Report** presents information and data that were compiled and collected by all the partners of the InnoCENS project. Three different surveys were designed to obtain the data with the goal of identify the challenges for each one of the participating countries, but also, to adapt the best implementation for the InnoCentres of each one of the university partners.



Although InnoCENS takes every reasonable step to ensure that the Data thus compiled and collected is accurately reflected in this Report, the organization provide the data as is available, without warranty of any kind, and accept no liability for any use of the said data or reliance placed on it, in particular, for any interpretation, decisions, or actions based on the Data in this report.

InnoCENS invites policymakers, business leaders, civil society leaders, academics, and the public at large to identify the main challenges and barriers to growth facing their economies. We invite all stakeholders to look beyond rankings and to analyze the report to identify areas of improvement and areas where economies are lagging. Benchmarking and monitoring can support public-private collaboration toward identifying priorities, thereby allowing for the design and implementation of more forward-looking policies that balance market, state, and community to make economies more competitive, productive, and prosperous.

InnoCENS is a Capacity Building in Higher Education project, funded by **European Union's Erasmus+ Programme**.

The project aims to enhance engineering students' innovation competences and entrepreneurial skills in order to support socio-economic development and create new start-ups and new employment opportunities in Armenia, Belarus, Georgia and Kazakhstan. The specific objective is to develop innovation and entrepreneurship courses for engineering students, introduce innovation pedagogy and competence assessment in teaching and learning, establish 8 innovation centres to support engineering students and staff members in commercialisation of innovation ideas.

The project consortium consists of 19 partners, with Royal Institute of Technology (KTH) in Sweden as the coordinating institution (grant holder). The project will last for three years, from 15/10/2016 to 14/10/2019.

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Main findings

INNOCENS SURVEY RESULTS: COMPANIES

**50%**

In the four countries, **at least 50%** of the companies currently **collaborate** with universities.

**75%**

At least 75% of the companies from Belarus, Kazakhshtan and Armenia are currently developing **R&D activities** (over 60% in Georgia).

**90%**

More than **90% of the Armenian companies** usually hire employees among university grads (over 55% in the other 3 countries).

**58%**

58% of the Georgian and 40% of the Armenian companies think the university is a **good source of entrepreneurial talent** while only 6% of the companies from Kazakhstan and Belarus agree on this in their countries.

**50%**

About **50% of the companies** from Kazakhshtan and Belarus think universities currently provide students with sufficient training on entrepreneurship and business development **while 67% of the Armenian companies think universities are not**. 63% of the Georgian ones did not answer.

INNOCENS SURVEY RESULTS: STUDENTS I



50%

At least 50% of the students in Georgia and Kazakhshtan get a training on entrepreneurship during their university years (24.1% in Armenia and 13.5% in Belarus).



87%

87% of the Armenian students are interested in learning more about innovation and entrepreneurship (76% in Kazakhshtan, 67% in Georgia and 56% in Belarus).



69%

69% of the students from Belarus have a business idea (66% in Georgia, 58% in Kazakhshtan and 45% in Armenia).



64%

64% of the students from Georgia think that their university provides assessment in entrepreneurship (49% in Kazakhshtan and only 23% in Belarus and 19% in Armenia). 39% in Belarus don't know.

INNOCENS SURVEY RESULTS: STUDENTS II



80%

80% of the students from Georgia have a close relative undertaken a business (69% in Armenia, 52% in Belarus and 34% in Kazakhshtan).



60%

More than 60% of the students of Armenia, Kazakhstan and Belarus are **NOT** able to identify a person in their university that would help them in the creation of a startup (39% in Georgia).



70%

70% of the students from Armenia think that an innovation centre is a good idea (64% in Georgia, 48% in Belarus and 45% in Kazakhshtan).

INNOCENS SURVEY RESULTS: UNIVERSITIES



34%

34% of Georgian universities (27% in Armenia) don't have employees assessing entrepreneurs. Average: 2.37 employees.



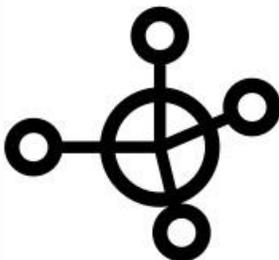
50%

Over 50% of the universities are providing training on Entrepreneurship and Innovation (86.4% in Kazakhstan).



70%

Almost 70% of the universities of the four countries **DO NOT have** a business incubator in their campuses.



50%

An average of 50% of the universities in the four countries think they have a major role in their local entrepreneurial ecosystem.

MAIN DIFFICULTIES TO START A BUSINESS

	COMPANIES	STUDENTS	UNIVERSITIES
ARMENIA	Lack of training, Access to Funding, and Risk Aversion.	Access to Funding, Risk Aversion, and Country Regulation.	Access to Funding, Risk Aversion and Capacity to Innovate.
BELARUS	Building a Team, Access to Funding, and Capacity to Innovate.	Access to Funding, Country Regulation, and Risk Aversion.	Lack of training, Country Regulation and Access to Funding.
GEORGIA	Building a Team, Access to Funding, and Lack of Training.	Building a Team, Access to Funding, and Innovate.	Building a team, Lack of training and Capacity to Innovate.
KAZAKHSTAN	Building a team, Innovate, and Access to Funding.	Building a team, Access to Funding, and Country Regulation.	Lack of training, Access to Funding and Risk aversión.

MOST IMPORTANT SKILLS FOR ENTREPRENEURS

	COMPANIES	STUDENTS	UNIVERSITIES
ARMENIA	Team Work , Creativity, and Technical skills.	Team Work , Creativity, and Risk Taker..	Team Work , Creativity, and Technical skills
BELARUS	Creativity, Risk taker, and Design skills.	Creativity, Leadership, and Risk taker.	Risk taker, Creativity and Team Work .
GEORGIA	Team Work , Risk taker, and Technical skills.	Team Work , Risk taker, and Leadership.	Leadership, Team Work and Risk taker.
KAZAKHSTAN	Team Work , Leadership, and Creativity.	Leadership, Risk taker, and Team Work .	Leadership, Team Work and Risk taker.

InnoCENS Consortium

InnoCENS project consortium consists of 19 partners, which are listed below classified by country.

Project Coordinator

Royal Institute of Technology (KTH), Stockholm, Sweden

Other partners

Turku University of Applied Sciences (TUAS), Finland

Polytechnic University of Valencia (UPV), Spain



ARMENIA



National Polytechnic University of Armenia (NPUA)

National University of Architecture and Construction of Armenia (NUACA)

Ministry of Education and Science of Armenia (MoES)

Scientific Educational Reforms Foundation (SERF) Yerevan, Armenia

Yerevan Telecommunication Research Institute (YeTRI) Yerevan, Armenia

GEORGIA



Georgian Technical University (GTU), Tbilisi

Batumi Shota Rustaveli State University (BSU), Georgia

Ministry of Education and Science of Georgia (MES)

SMART Consulting, Tbilisi, Georgia

BELARUS



Belarusian State University (BSU), Minsk

Brest State Technical University (BrSTU), Belarus

Ministry of Education of Belarus, Minsk

KAZAKHSTAN



Almaty University of Power Engineering & Telecommunications, Kazakhstan

Taraz State University, Kazakhstan

Bologna Process and Academic Mobility Center (BPAMC), Astana, Kazakhstan

ND & Co, Ltd, Almaty, Kazakhstan

The Surveys

The surveys have been created considering other famous studies to obtain valuable information to analyse entrepreneurial ecosystems and to identify points of improvement and challenges to face.

There are three main stakeholders who are groups of interest to obtain their point of view about the ecosystem:

1. University students: To evaluate their entrepreneurial skills and if they are willing to undertake their own businesses now or in the future.
2. Universities: To evaluate their role in their regional entrepreneurial ecosystem and the services they provide.
3. Companies and corporates: To evaluate their role in their regional entrepreneurial ecosystem and their relationships with universities.

The survey has been adapted to each one of these groups. Some of the items in the survey are common to the three groups, but there are also some specific questions to each one of them.

Common questions for the 3 groups:

1. What are the main difficulties to start an innovative startup in your country?

Please use the scale from 1 to 6 (1 - most important, 6 - less important). Do not repeat the same scores.

- 1. Lack of training
- 2. Access to funding
- 3. Risk aversion
- 4. Country regulation
- 5. Insufficient capacity to innovate
- 6. Building a team
- Other:

2. What are the main difficulties in university-industry cooperation?

- Policy
- Regulations
- Time
- Funding
- Benefit
- Interests
- Other:

3. What would you say are the most important skills to be an entrepreneur?

- To be a leader
- Team work
- Risk taker
- Creativity
- Technical skills
- Sales
- Design
- Other:

Specific questions for University Students:

1. Do you get any training course on entrepreneurship during your university degree?

- Yes
- No
- I don't know

2. Are you interested in learning more about innovation and entrepreneurship, as taking 1 or 2 courses on this topic?

- Yes
- No
- I don't know

3. Have you ever thought about undertaking a business instead of working as an employee?

- Yes
- No

4. Do you have any business idea?

- Yes
- No

5. If yes, would you like to tell us more about your idea?

6. Do you think your university currently provides the required tools and assessment to be entrepreneur?

- Yes
- No
- I don't know

7. Have any of your close relatives undertaken a business?

- Yes
- No
- I don't know

8. Could you identify a person in your university that would help you in the creation of a startup?

- A professor
- Another member of the staff
- I don't know
- Other:

9. From 1-low to 5-high, is it a good idea that your university has an organization with competent staff who can help students in entrepreneurial projects (such as creating a startup)?

Specific questions for Universities:

1. Is there a unit in charge of innovation & entrepreneurship?

- Yes
- No
- I don't know

2. How many employees are working as mentors for new entrepreneurial projects?

3. Is there currently any training course in innovation & entrepreneurship?

- Yes
- No
- I don't know

4. Is there any organized cooperation with industry or business?

- Yes
- No

5. How many startups have been created in the last 3 years?

6. How many technology transfers have been done in the last 3 years?

7. For Q5 and Q6, in which sectors?

8. Do you have a business incubator inside the university campus?

- Yes
- No

9. If yes, how many startups are being incubated at the university?

10. Has your university a major role in your local entrepreneurial ecosystem?

- Yes
- No
- I don't know

11. Is there any business idea/startup competition currently in the university?

- Yes
- No
- I don't know

12. Are there multidisciplinary activities currently being developed in the university?

- Yes
- No
- I don't know

13. Does the university facilitate access to public/private funding for its potential entrepreneurs?

- Yes
- No
- I don't know

14. Is there anything else you would like to add?

Specific questions for Companies:

1. Do you currently collaborate with universities?
 - Yes
 - No
 - I don't know

2. If yes, would you like to tell us more about this collaboration?

3. Are you currently doing any Research & Development activities in your company?
 - Yes
 - No
 - I don't know

4. Do you usually hire employees among university graduates?
 - Yes
 - No

5. From 1 to 5, do you think the university is a good source of talent?

6. Do you think universities currently provide students with with sufficient training on entrepreneurship and business development?
 - Yes
 - No
 - I don't know

7. What new topics do you think universities should include in their curricula?

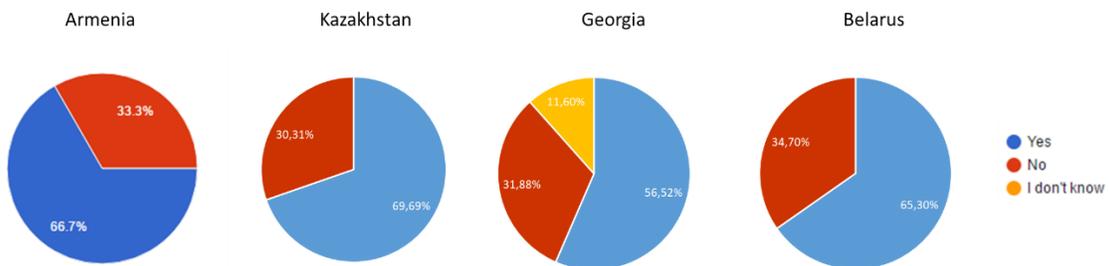
Number of participants per country:

	Belarus	Armenia	Georgia	Kazakhstan
Companies	20	19	70	31
Students	275	184	278	283
Universities	2	33	12	17

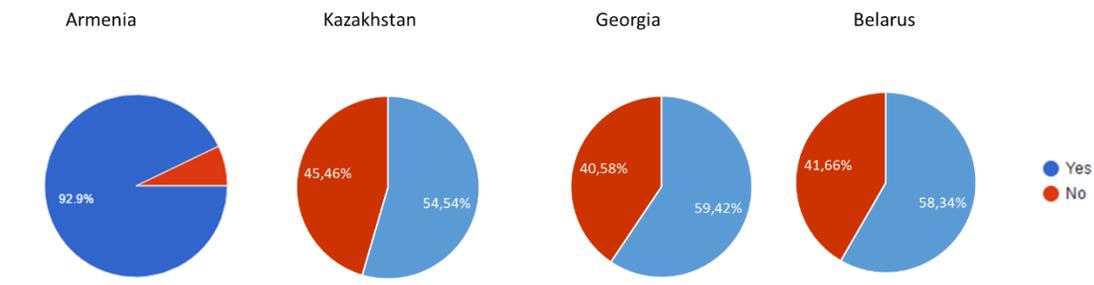
Results of the surveys for companies

Here we show the results from the surveys for companies:

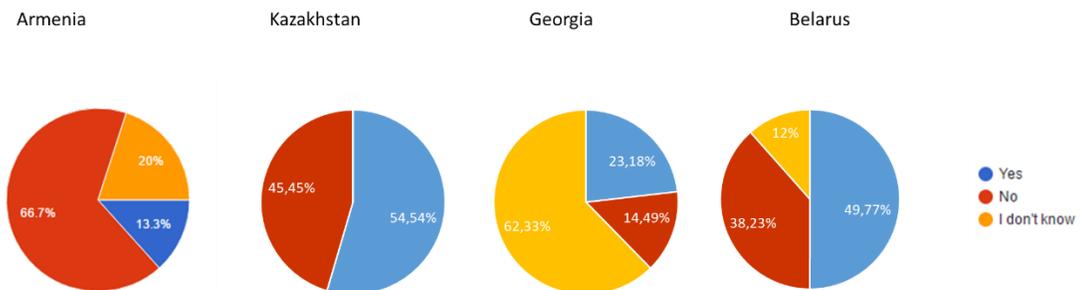
Do you currently collaborate with universities?



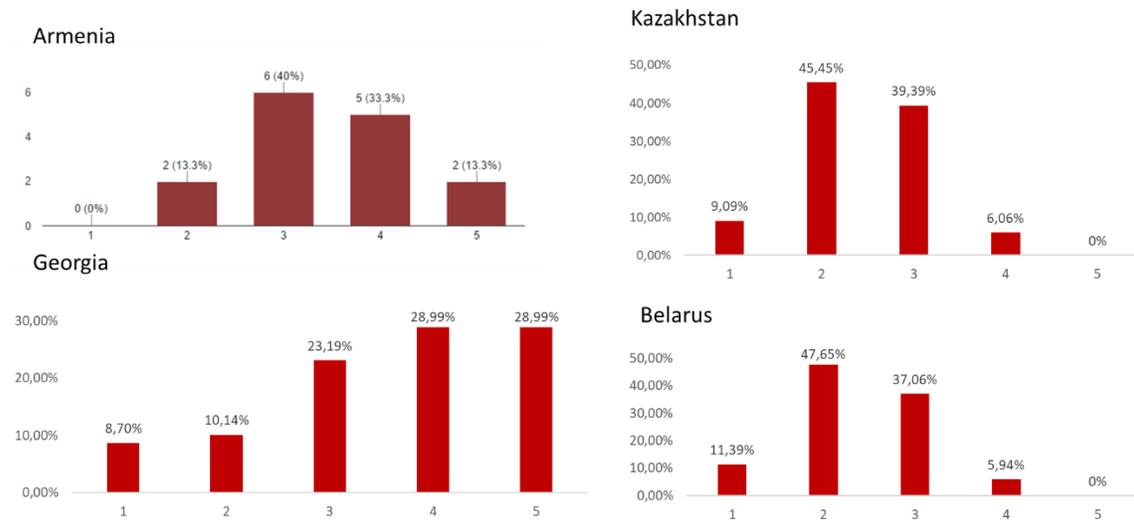
Do you usually hire employees among university graduates?



Do you think universities currently provide students with sufficient training on entrepreneurship and business development?



From 1-low to 5-high, do you think the university is a good source of entrepreneurial talent?



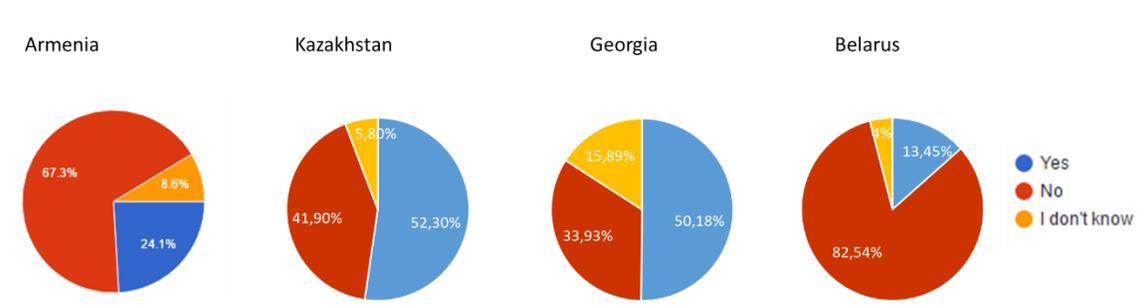
Main difficulties in university-industry cooperation in every country are:

1. Armenia: Regulation, **Interests**, **Funding**.
2. Kazakhstan: **Interests**, **Funding**, Policy.
3. Georgia: **Interests**, **Funding**, Time.
4. Belarus: **Interests**, **Funding**, Policy.

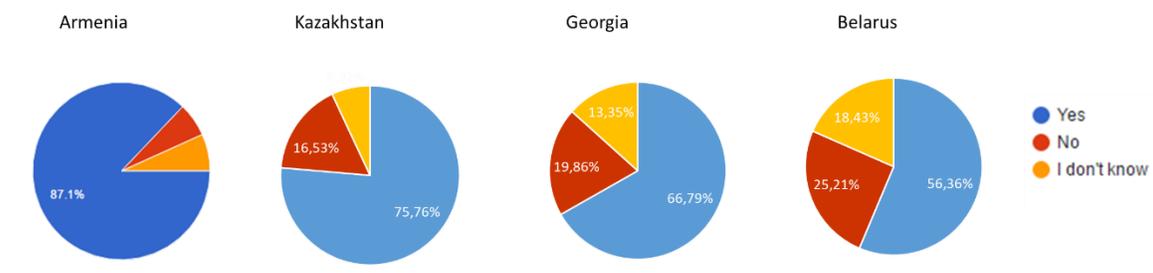
Results of the surveys for students

Here we show the results from the surveys for university students:

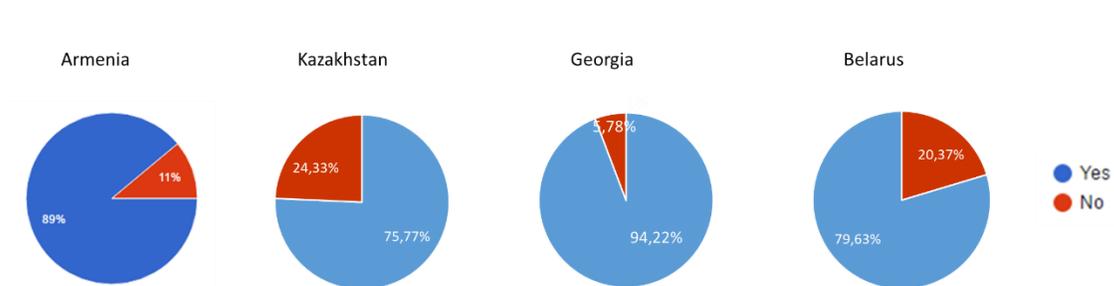
Do you get any training course on entrepreneurship during your university degree?



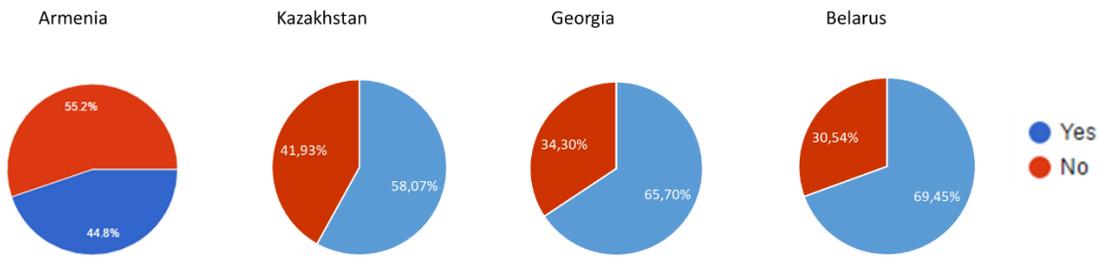
Are you interested in learning more about innovation and entrepreneurship? For example, would you take 1 or 2 courses on this topic?



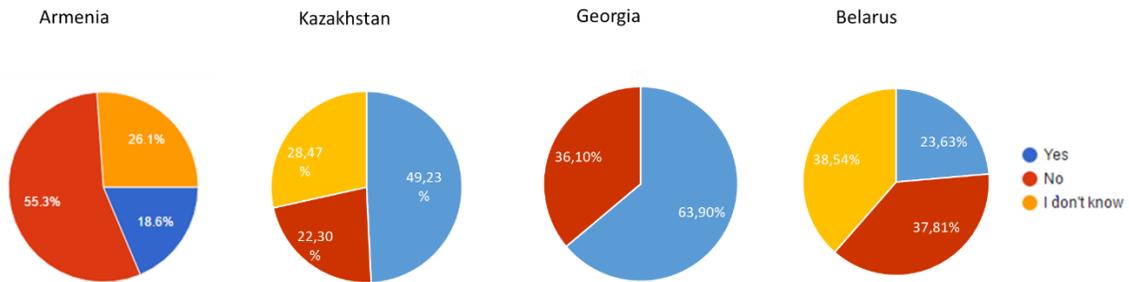
Have you ever thought about undertaking a business instead of working as an employee?



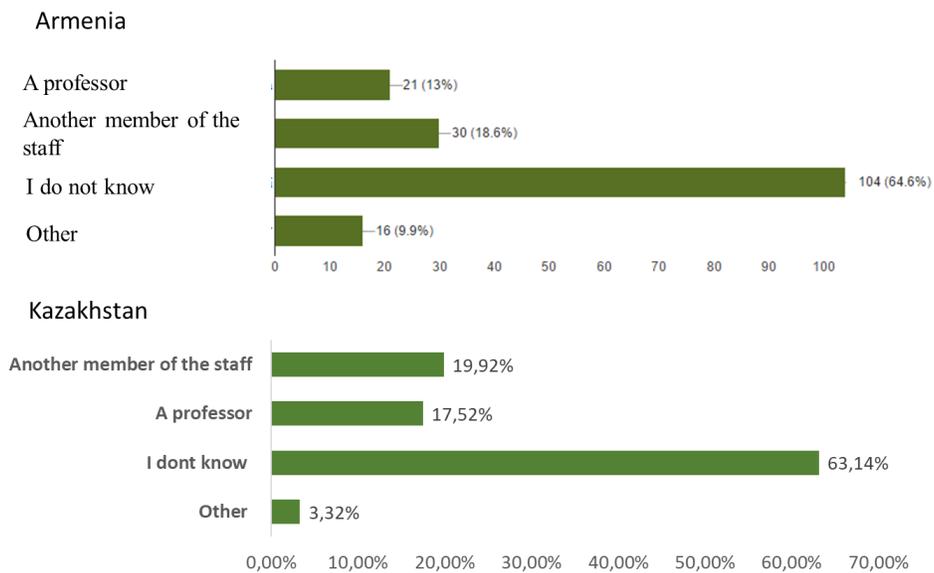
Do you have any business idea?

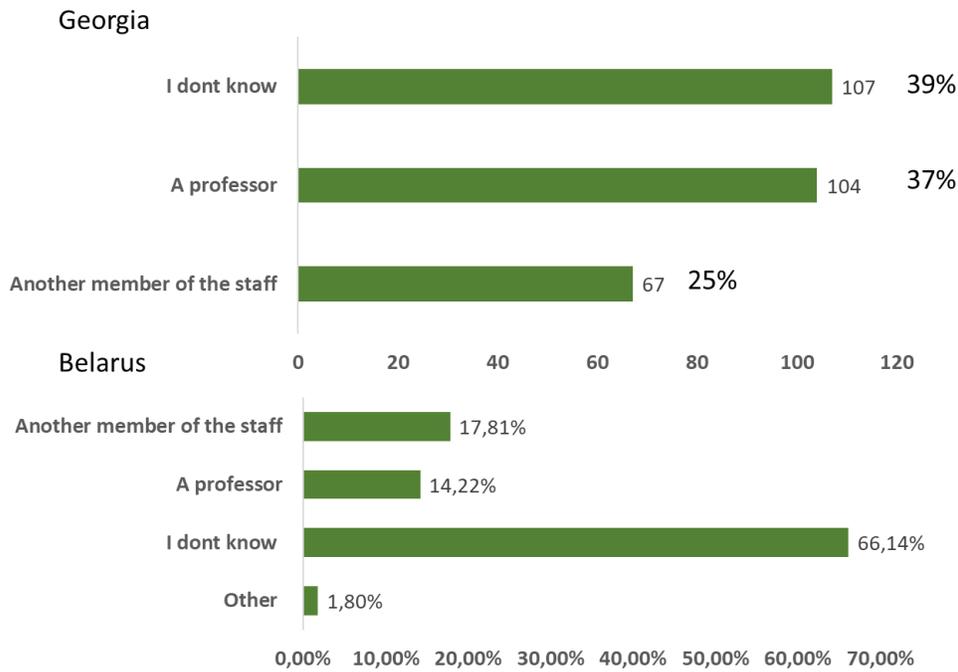


Do you think your university currently provides the required tools and assessment to be entrepreneur?

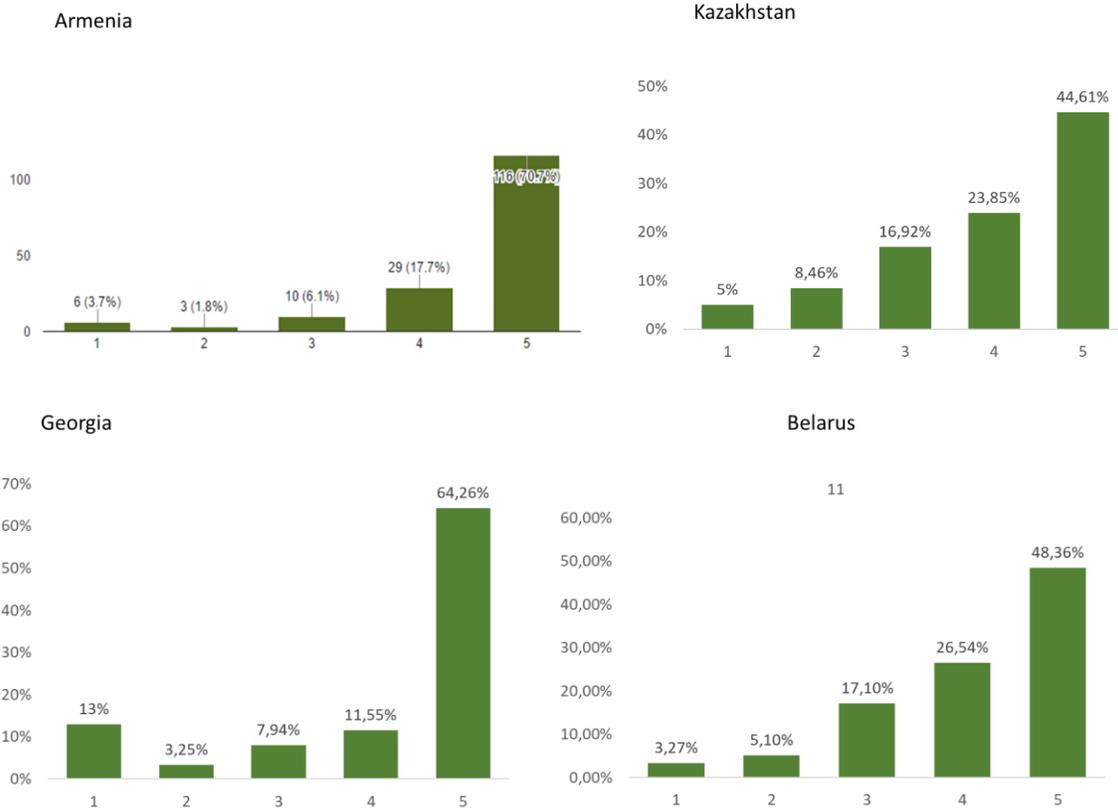


Could you identify a person in your university that would help you in the creation of a startup?





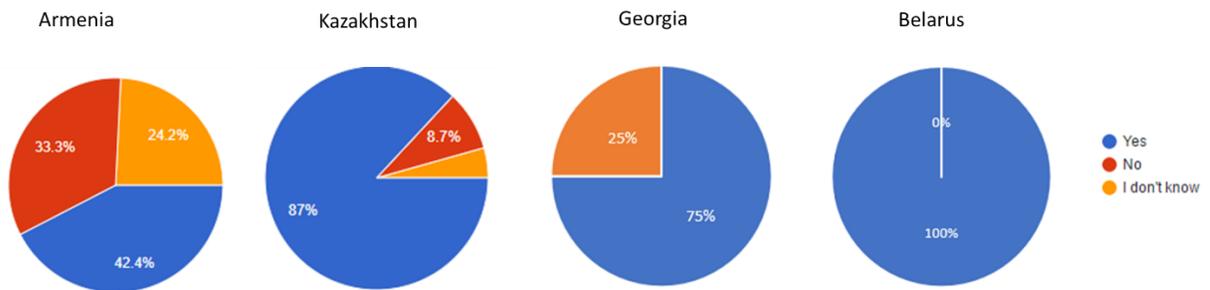
From 1-low to 5-high, is it a good idea that your university has an organization with competent staff who can help students in entrepreneurial projects (such as creating a startup)?



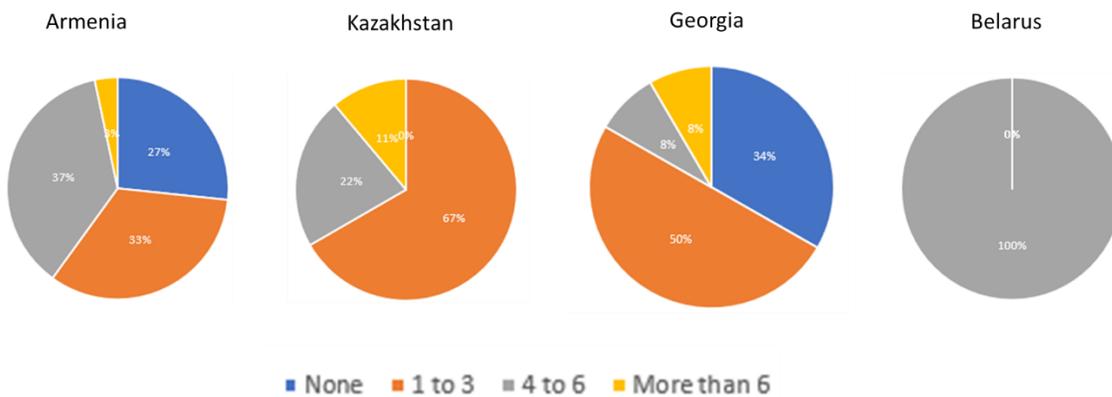
Results of the surveys for universities

Here we show the results from the surveys for universities:

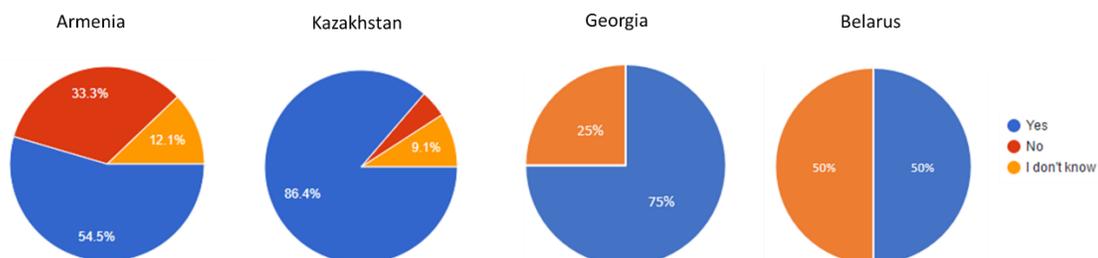
Is there already an InnoCentre?



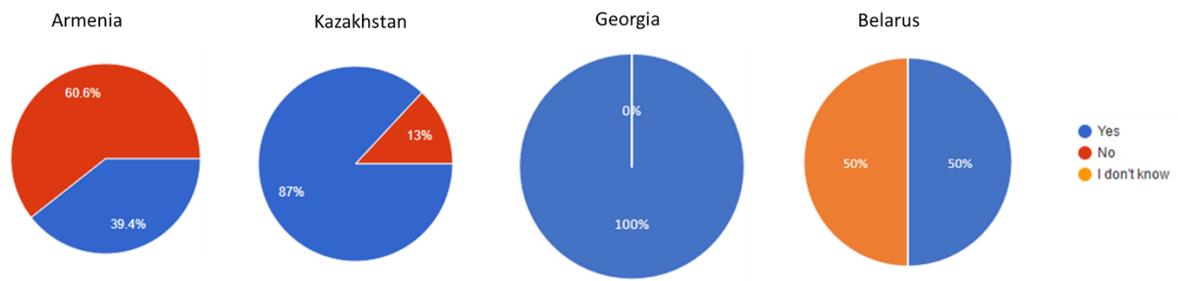
Staff members working as a business mentors



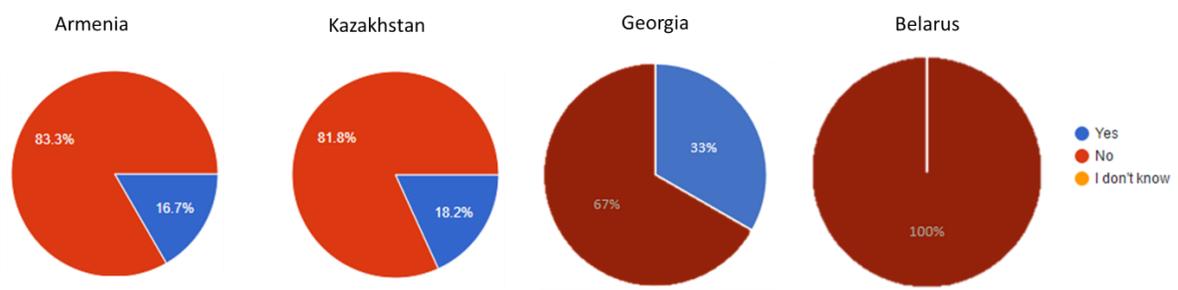
Is there already a training course on Entrepreneurship in the university?



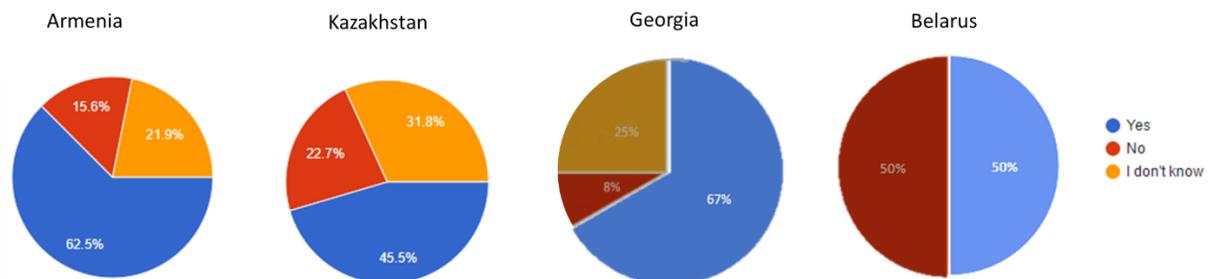
Is there any organized cooperation with industry or business?



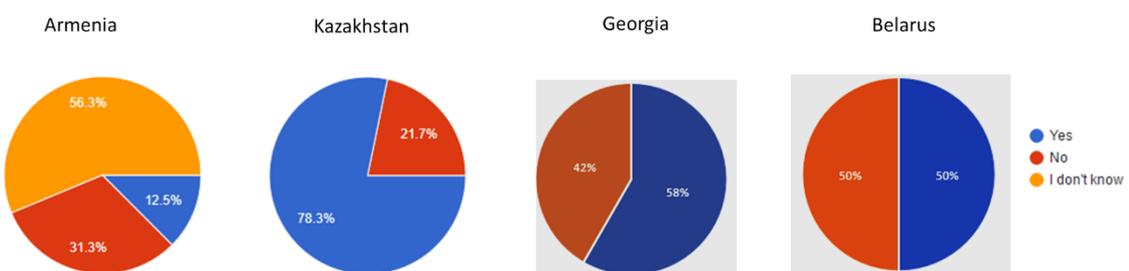
Do you have a business incubator inside the university campus?



Has your university a major role in your local entrepreneurial ecosystem?



Is there any business idea/startup competition currently in the university?



Main reasons not to become entrepreneurs

Armenia	Kazakhstan	Georgia	Belarus
<ol style="list-style-type: none"> 1. ACCESS TO FUNDING 2. RISK AVERSION 3. CAPACITY TO INNOVATE 	<ol style="list-style-type: none"> 1. LACK OF TRAINING 2. ACCESS TO FUNDING 3. RISK AVERSION 	<ol style="list-style-type: none"> 1. TEAM BUILDING 2. LACK OF TRAINING 3. CAPACITY TO INNOVATE 	<ol style="list-style-type: none"> 1. LACK OF TRAINING 2. COUNTRY REGULATION 3. ACCESS TO FUNDING

Main difficulties to undertake a business

Armenia	Kazakhstan	Georgia	Belarus
<ol style="list-style-type: none"> 1. FUNDING 2. BENEFIT 3. INTERESTS 	<ol style="list-style-type: none"> 1. FUNDING 2. BENEFIT 3. LEGISLATION 	<ol style="list-style-type: none"> 1. LEGISLATION 2. FUNDING 3. BENEFITS 	<ol style="list-style-type: none"> 1. LEGISLATION 2. FUNDING 3. BENEFITS

Most important skills for entrepreneurs

Armenia	Kazakhstan	Georgia	Belarus
<ol style="list-style-type: none"> 1. TEAM WORK 2. CREATIVITY 3. TECHNICAL SKILLS 	<ol style="list-style-type: none"> 1. RISK TAKER 2. CREATIVITY 3. TEAM WORK 	<ol style="list-style-type: none"> 1. LEADERSHIP 2. TEAM WORK 3. RISK TAKER 	<ol style="list-style-type: none"> 1. LEADERSHIP 2. TEAM WORK 3. RISK TAKER

Summary of conclusions

1. Companies in general think that the university is not a good source for entrepreneurial talent.
2. Many companies don't know if universities are providing trainings on entrepreneurship and business development to its students. We need better external communication (Job fairs, Business chairs...).
3. Team building is a key skill to be focused on and a general need identified in the 4 countries.
4. Funding is the most popular excuse.
5. Creativity, design, ability to innovate are key skills hardly ever mentioned in the surveys.
6. Many students are interested in learning more about innovation and entrepreneurship but now, they are NOT able to identify a person in their university that would help them in the creation of a startup. We need also better internal communication of the I.C.s
7. The entrepreneurial rate is still very low in general (Average 2 new companies in the last 3 years).

Business Ideas from Students:

Armenia

Most repeated:

Business ideas from students from Armenia

Web programming

Robotics

Mobile application

Other:

Data mining

Sportswear

Fast food

Hotel chain

Bread baking

Woodshop

Pizza

Technical consulting

Architecture

Georgia

Most repeated:

Construction

Farming

Agriculture

Other:

Solar electric panels

Architecture

Law

Tourism

Energy

Web design

Hotel

Kazakhstan

Most repeated:

Farming

Green agriculture

Circular Economy – Waste processing

Hotel

Foreign language centre

Café-book store

Other:

Solar electric panels

Architecture - Construction

Law

Tourism

Energy

Web design

Soap production

Web studio

Belarus

Most repeated:

Information Tech

Virtual Reality

Restaurant, coffee house

Natural language processing

Casino

Other:

Online learning

Clothing

Photography

Ecocenter

Importing goods from abroad

New energy sources



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Erasmus+ Programme
of the European Union

