Surveys and studies

Innovation perspective In Ukrainian IT- Educational Standards

This report was prepared in 2013 for Tempus project “National Education Framework for Enhancing IT Students’ Innovation and Entrepreneurship”, 530576-TEMPUS-1-2012-1-SE-TEMPUS-SMHES.

GOAL

The goal of the stage 2.1 was obtaining the overview of the current practices in the second and third level educational standards in IT sector from an innovation perspective.

1. LAW ON INNOVATION ACTIVITY IN UKRAINE
2. INNOVATION PERSPECTIVE IN UKRAINIAN EDUCATION STANDARDS
3. ANALYSIS OF UNIVERSITY SURVEY OF INNOVATION AND ENTREPRENEURSHIP POWER OF UKRAINE UNIVERSITIES
4. STATISTICAL ANALYSIS OF STUDENTS' SURVEY CONCERNING THE STATE OF INNOVATIONS AT UKRAINIAN UNIVERSITIES

Types of innovations in Ukraine

- Technical innovations appear in the production of new products or products with improved properties;
- Technological innovations appear when improved methods of production are applied;
- Organizational and management innovations are related to the processes of optimal organization of production, transport, distribution and supply;
- Information innovations are implemented to organize rationally information flow in science, technology and innovation, to improve reliability and timeliness of information;
- Social innovations are aimed at improving working conditions, solving problems related to health, education and culture.

Problems and perspectives

- Poor funding
- Inadequate representation of courses, related to innovation activities and entrepreneurship, in the universities' curriculums
- Lack of clear legislative support

- The interest of the state in the developme of innovation activity research organizati and specific individuals, lobbying innovati initiatives
- High scientific and pedagogic potential o higher education, a high level of IT professionals
- The interest of the real business compani in cooperation with universities

- Create strategies to attract students to innovation activities, support students a entrepreneurship
- The development of the autonomy of universities at the legislative level
- The development of entrepreneurial skills in education programs
- Expansion of cooperation between the university and businesses

LAW ON INNOVATION ACTIVITY IN UKRAINE

- the Law of Ukraine "On the innovation"
- the Law of Ukraine «On the scientific and technical activities»
- the Law of Ukraine «On priority directions of innovative activity in Ukraine»
- the Law of Ukraine «On special regime of technological parks»
- the Law of Ukraine «On the scientific and technical information»
- the Law of Ukraine «On the scientific and technical expertise»
- the President of Ukraine Decree of 30.12.2005, № 1873/2005 "On the
- Establishment of the State Agency of Ukraine for Investments and Innovations"
- the Decree by MESU "On Approval of the Procedure of innovative educational activities"
- the Decree by MESU «On Approval of monitoring the implementation of innovative projects in the priority areas of technological parks»
- the Decree of the President of Ukraine "On the decision of the National Security and Defense Council of Ukraine on April 6, 2006" On the state of scientific and technological areas and measures to support innovative development of Ukraine "
- the Verkhovna Rada of Ukraine "On Compliance for the development of scientific and technological capacity and innovation activity in Ukraine".
- the Civil Code of Ukraine (Chapter IV "Intellectual Property")
- the Law of Ukraine «On Property»
- the Law of Ukraine «On state regulation in the field of technology transfer»

What should be done:

- For the development of innovation activities universities it is required the new version of the Law "On Higher Education" with a supplements and modifications, related to innovation activities

STUDIES OF INNOVATION PERSPECTIVE IN UKRAINIAN EDUCATION STANDARDS

Total number of Universities which took part in this analysis was 97 Universities of 3-4 accreditation levels that train bachelors, specialists and masters for IT industry.

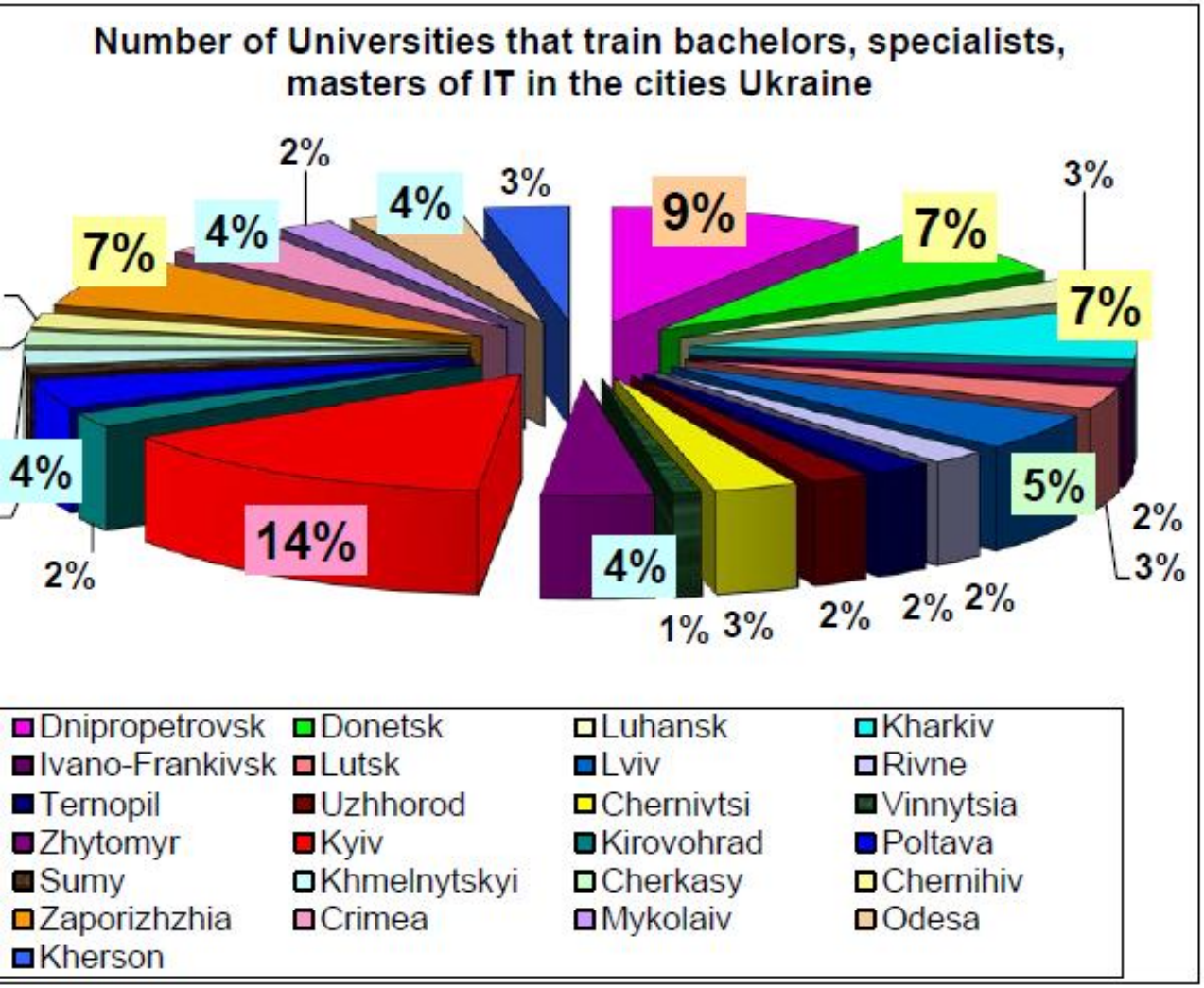
- Computer Science and Engineering
- Information Security
- System sciences and Cybernetics

The following problems were analyzed:

•Curricula for all Master, Specialist and Bachelor programs for IT training .

•Syllabus of the courses in innovation and entrepreneurship.

•Syllabus and work programs in specialty 8.18010012 “Innovation management”

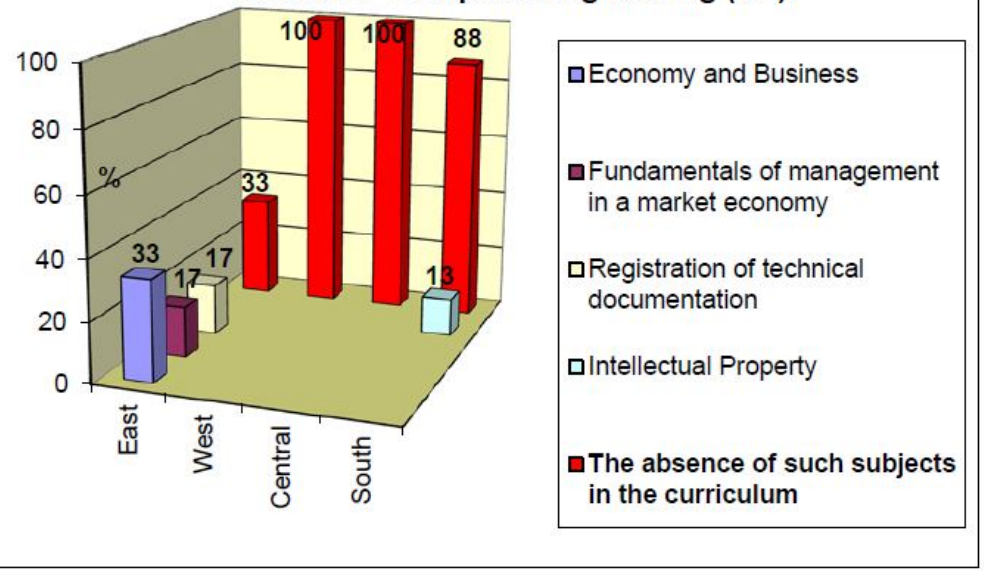


The 1st place goes to the central and northern regions -32 universities, 33%

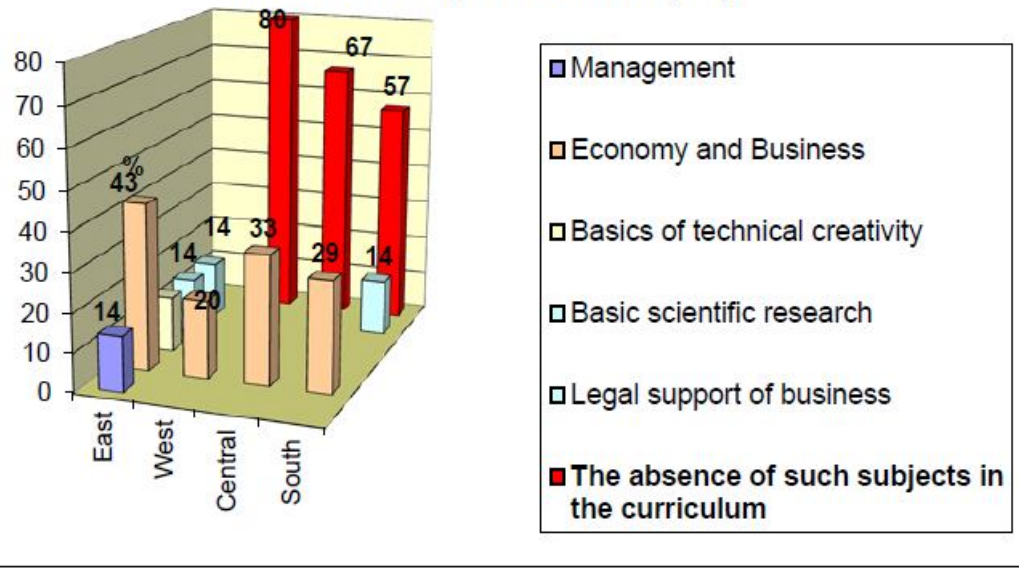
The 2nd place – to the eastern region - 27 universities, 27%.
The 3rd place –to the southern region – 20 universities, 21%.
The 4th place – to the western region - 19 universities, 19%.

292 syllabuses of the courses dealing with innovation and entrepreneurship in bachelor, specialist, master training at universities in Ukraine were processed.
In addition, curricula and their contents, syllabi in specialty 8.18010012 “Innovation Management” at 14 universities in Ukraine were analyzed.

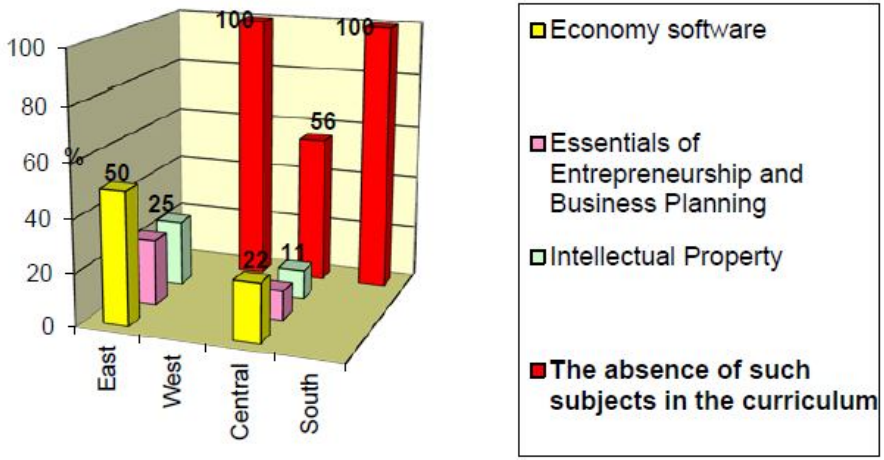
6.050102 - Computer Engineering (CE).



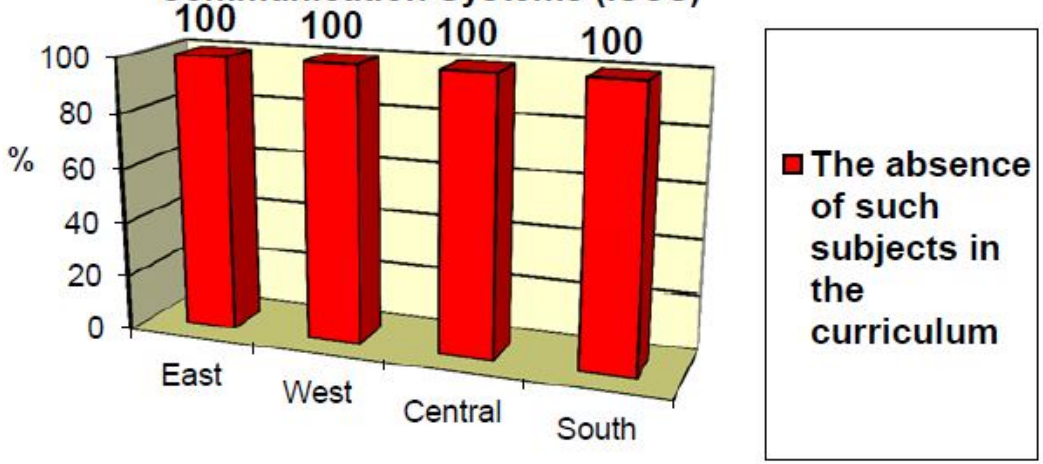
6.050101 Computer Science (CS)

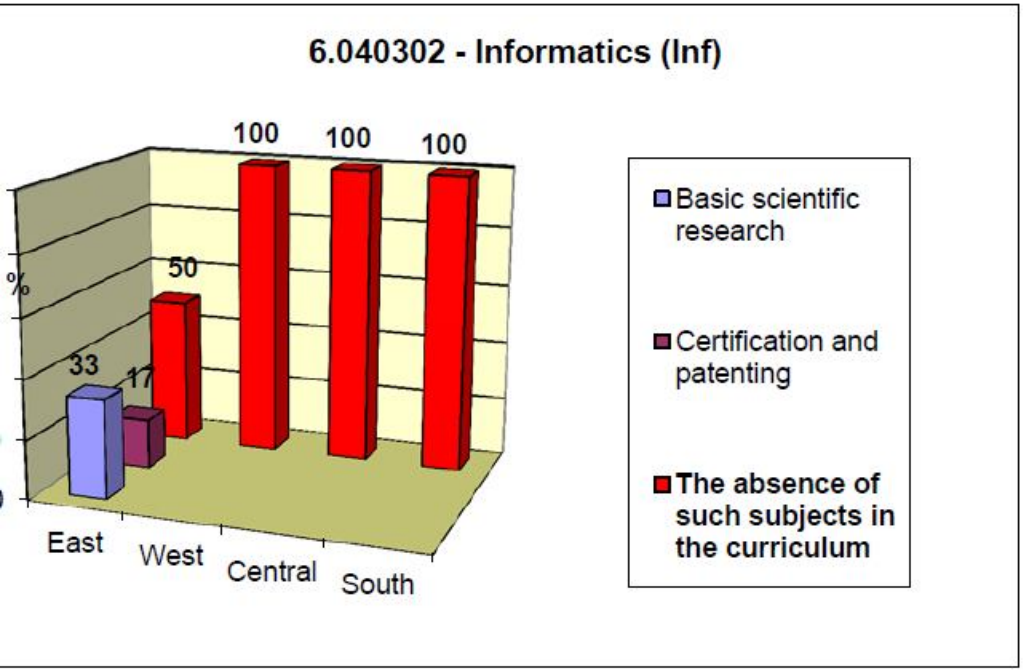


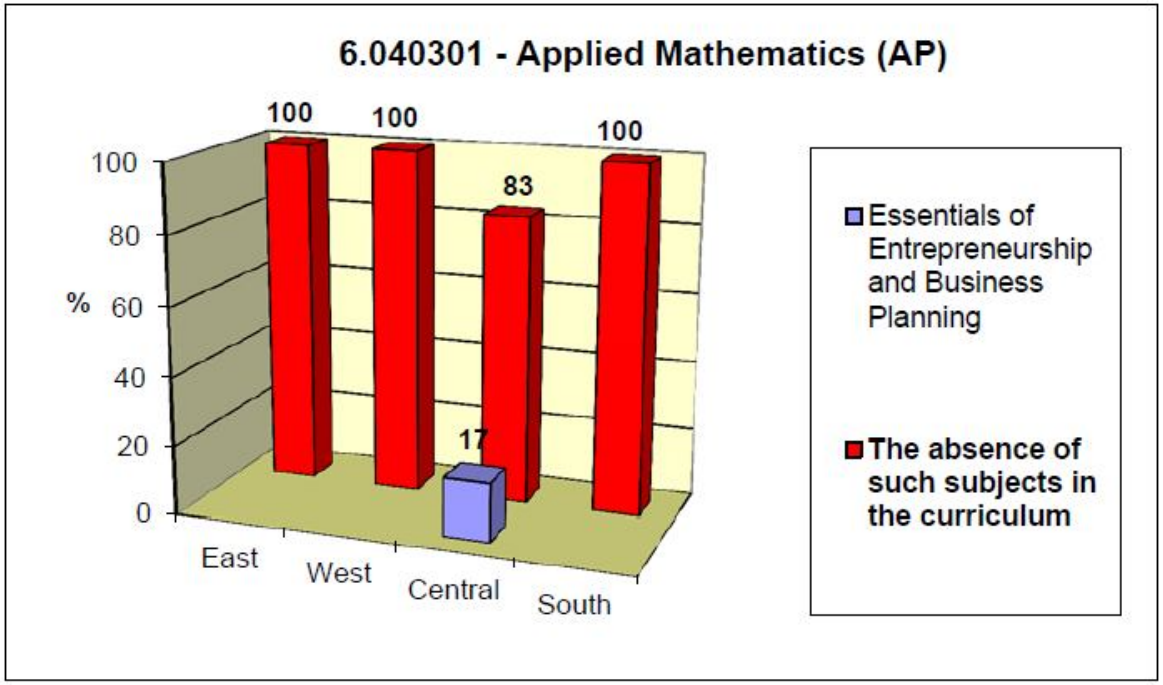
6.050103 - Software Engineering (SE)



6.170101 - Information Security and Communication Systems (ISCS)

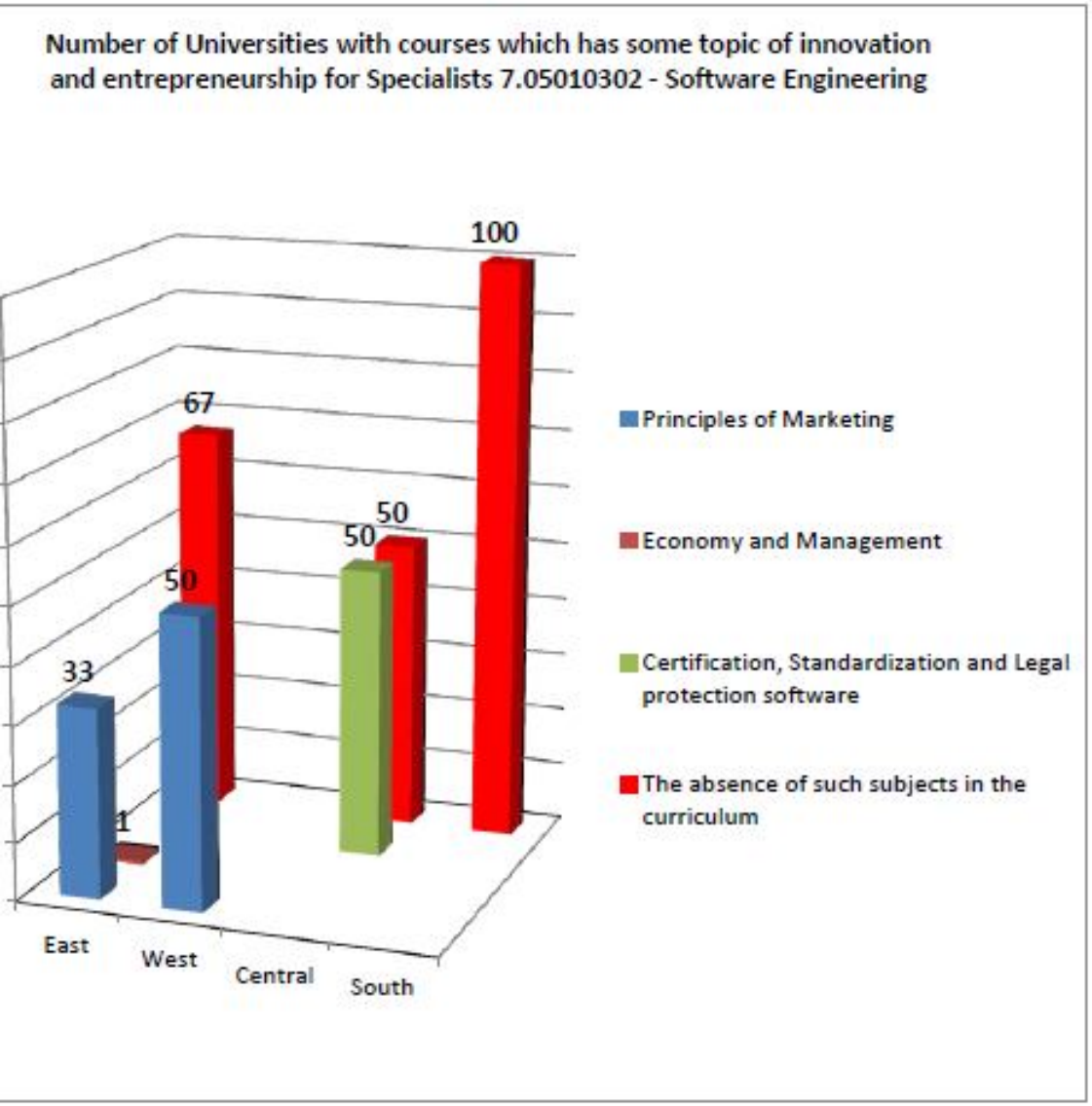






ntellectual property;
cientific and technical creativity;
basics of marketing;
management and marketing;
economy and management;
ndustrial economics and business management;
modern concepts of management;
basics of patent and copyright; intellectual property;
cientific and technical creativity;
basics of marketing;
management and marketing;
economy and management;
ndustrial economics and business management; economics and organization production of software;

- modern concepts of management;
- basics of patent and copyright;
- basic scientific research;
- methodology and organization of science;
- creation and commercialization of intellectual property;
- innovative training technology;
- management in education;
- methodology for industrial software development and intellectual property;
- economic efficiency of scientific research;
- philosophy of science and innovation.


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010302 - Software Engineering
100
67
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East
West
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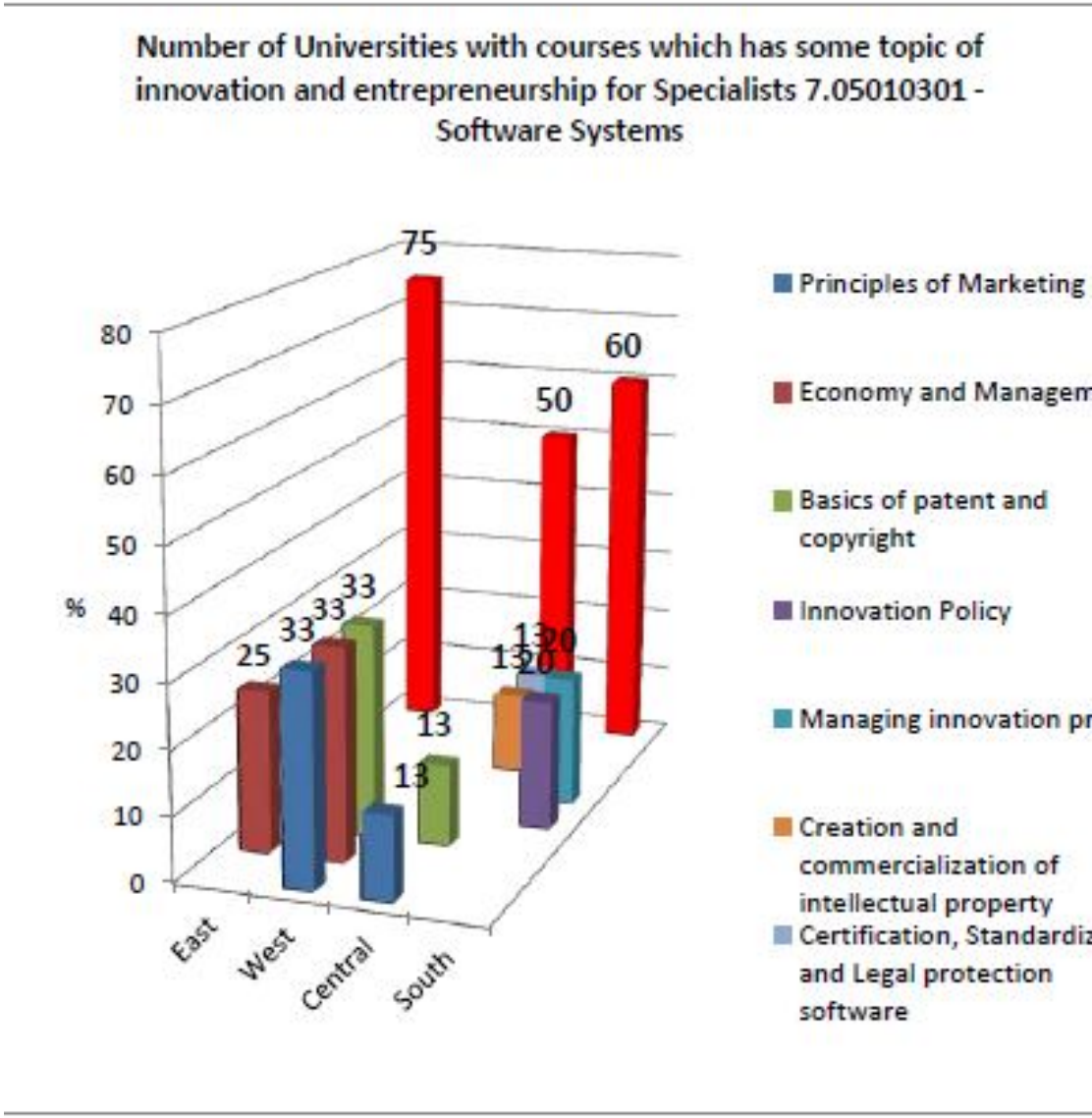
Principles of Marketing
Economy and Management
Certification, Standardization and Legal protection software
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010301 - Software Systems
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Principles of Marketing
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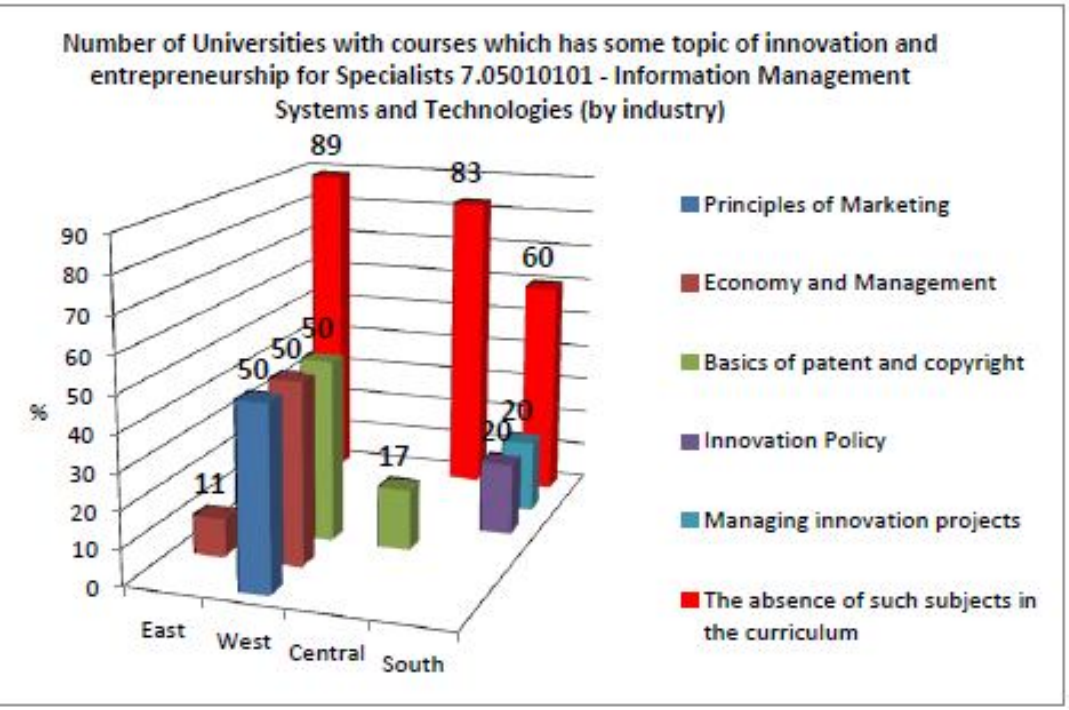
Basics of patent and copyright
Innovation Policy
Managing innovation pr
Creation and commercialization of intellectual property
Certification, Standardiz and Legal protection software


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010101 - Information Management Systems and Technologies (by industry)
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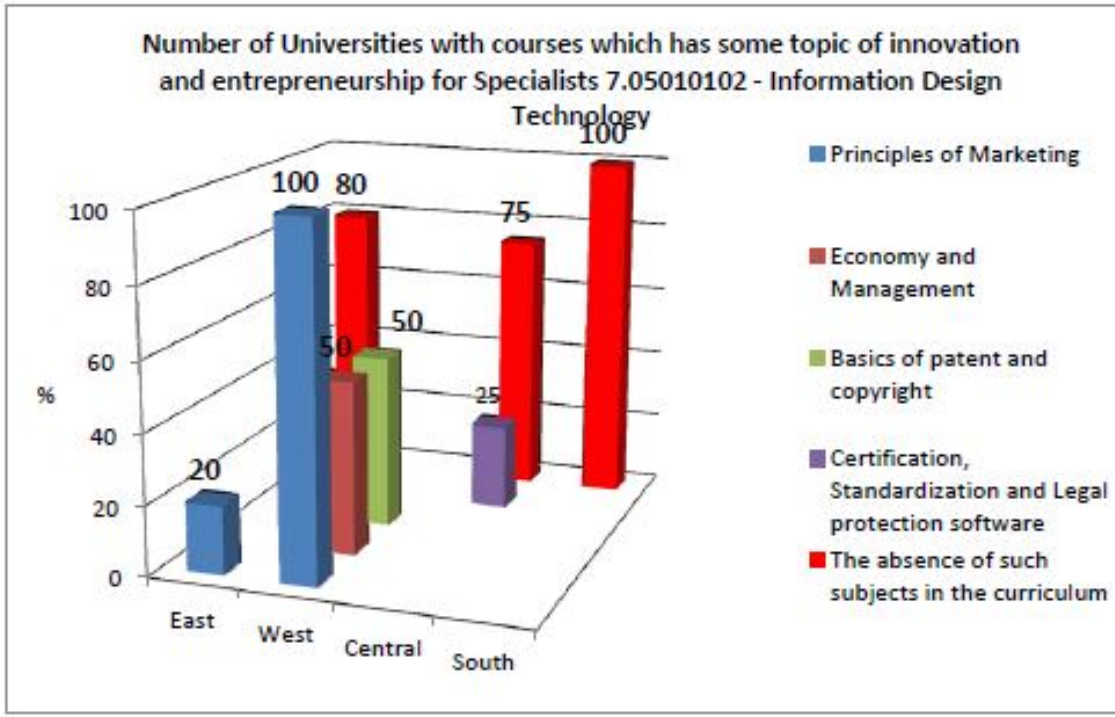
11
Principles of Marketing
Economy and Management
Basics of patent and copyright
Innovation Policy
Managing innovation projects
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010102 - Information Design Technology
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Central
South
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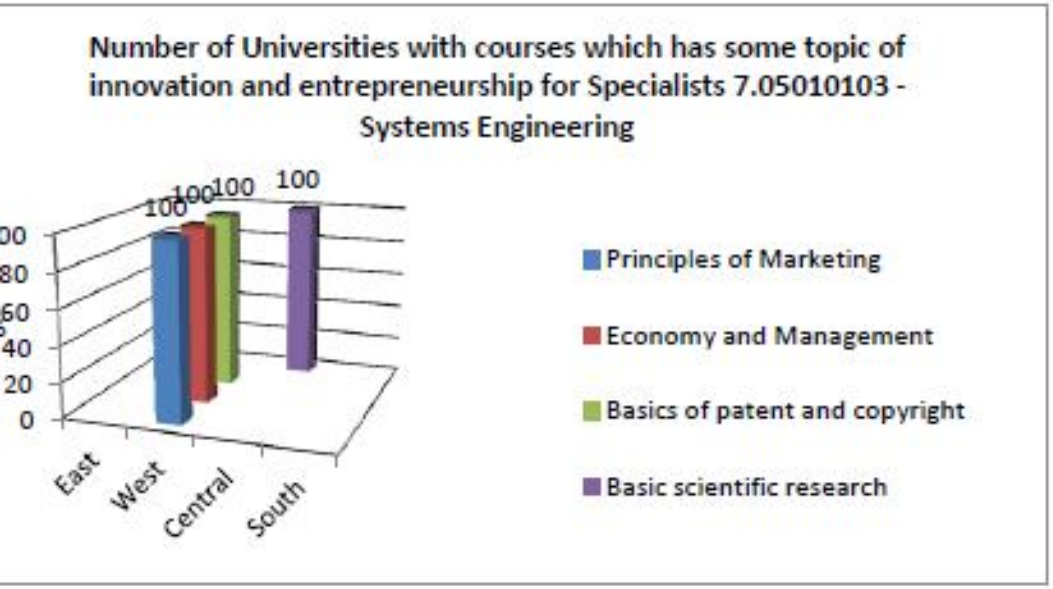
Principles of Marketing
Economy and Management
Basics of patent and copyright
Certification, Standardization and Legal protection software
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010103 - Systems Engineering
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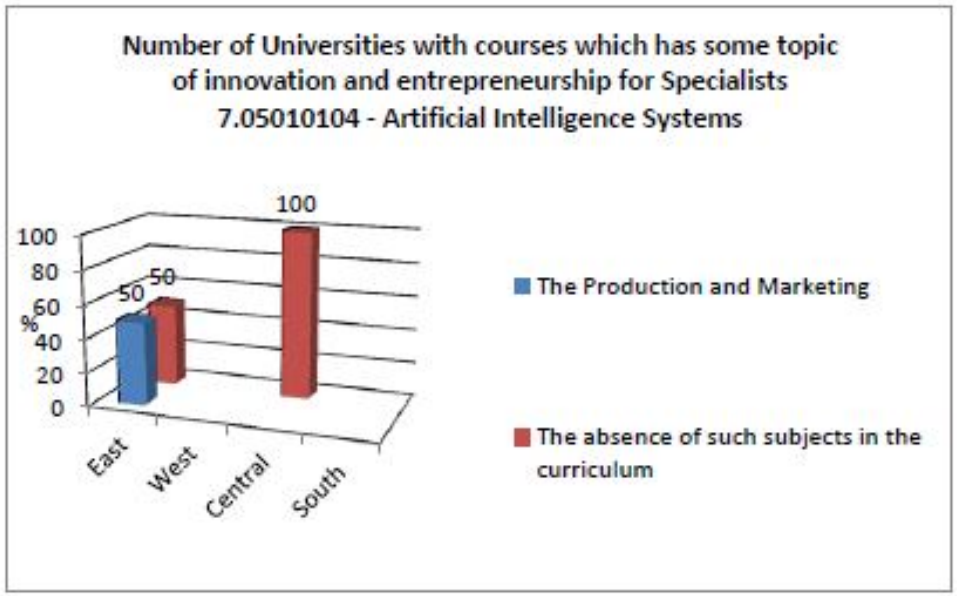
Principles of Marketing
Economy and Management
Basics of patent and copyright
Basic scientific research


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010104 - Artificial Intelligence Systems
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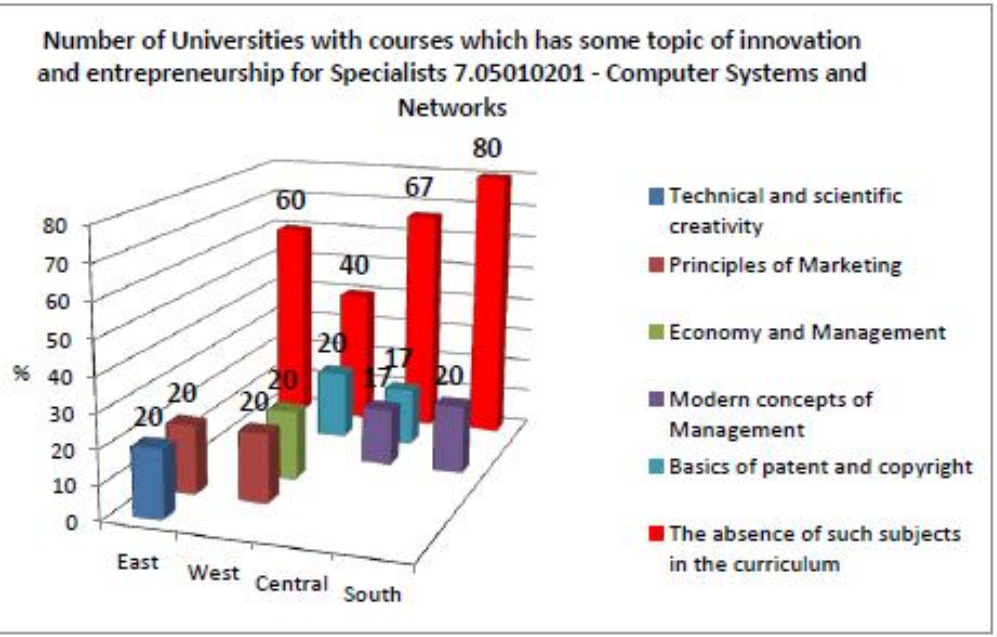
The Production and Marketing
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010201 - Computer Systems and Networks
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East
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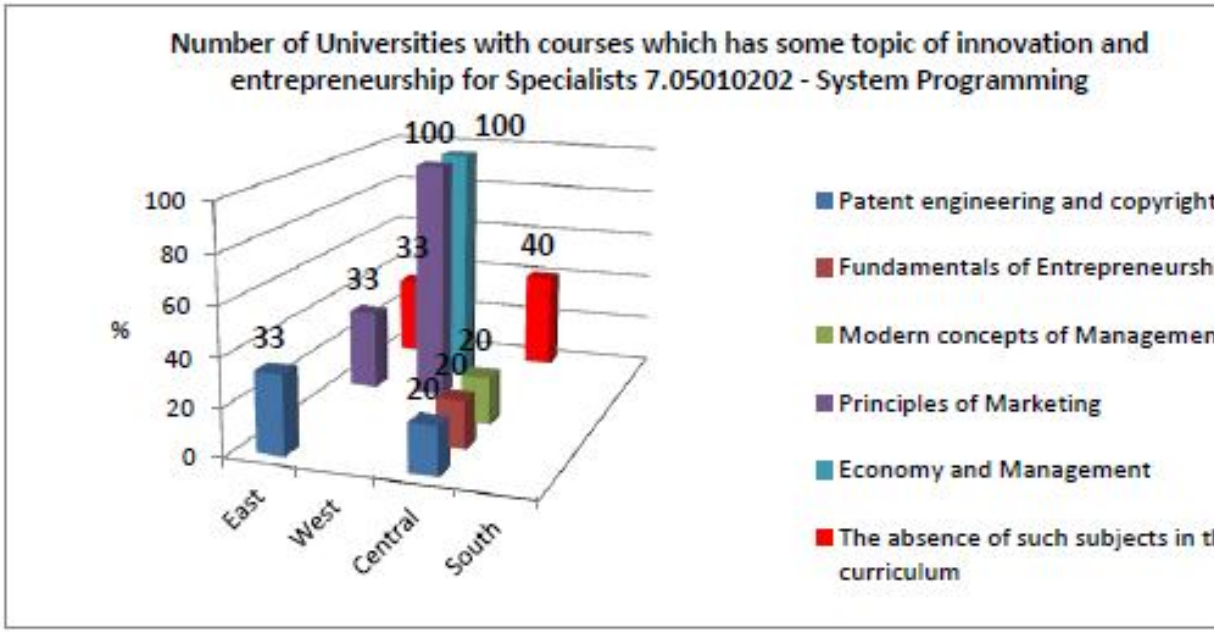
Technical and scientific creativity
Principles of Marketing
Economy and Management
Modern concepts of Management
Basics of patent and copyright
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010202 - System Programming
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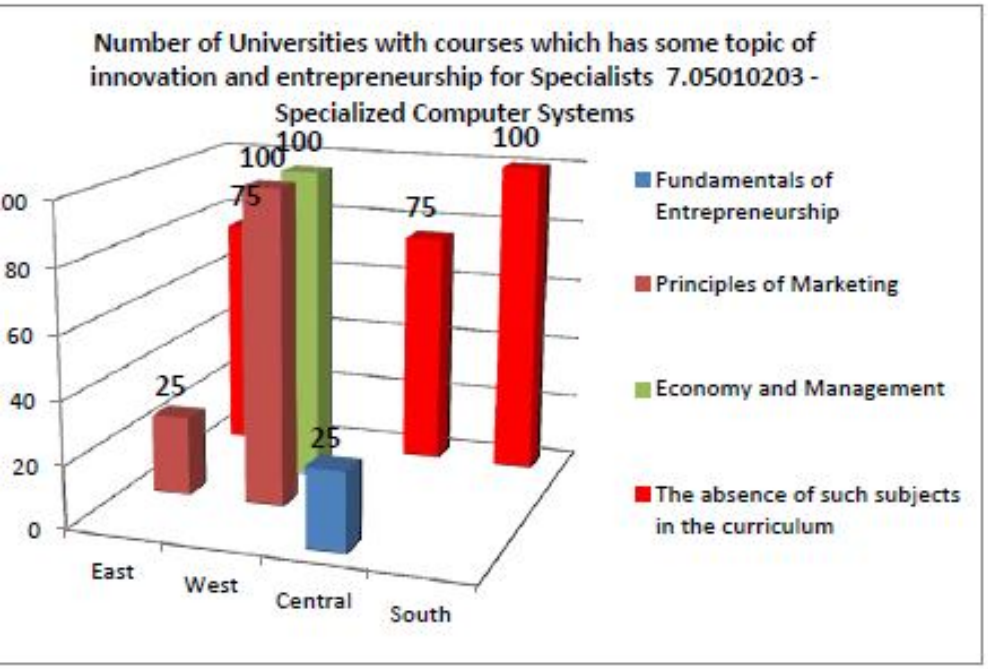
Patent engineering and copyright
Fundamentals of Entrepreneursh
Modern concepts of Managemen
Principles of Marketing
Economy and Management
The absence of such subjects in t
curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.05010203 - Specialized Computer Systems
East
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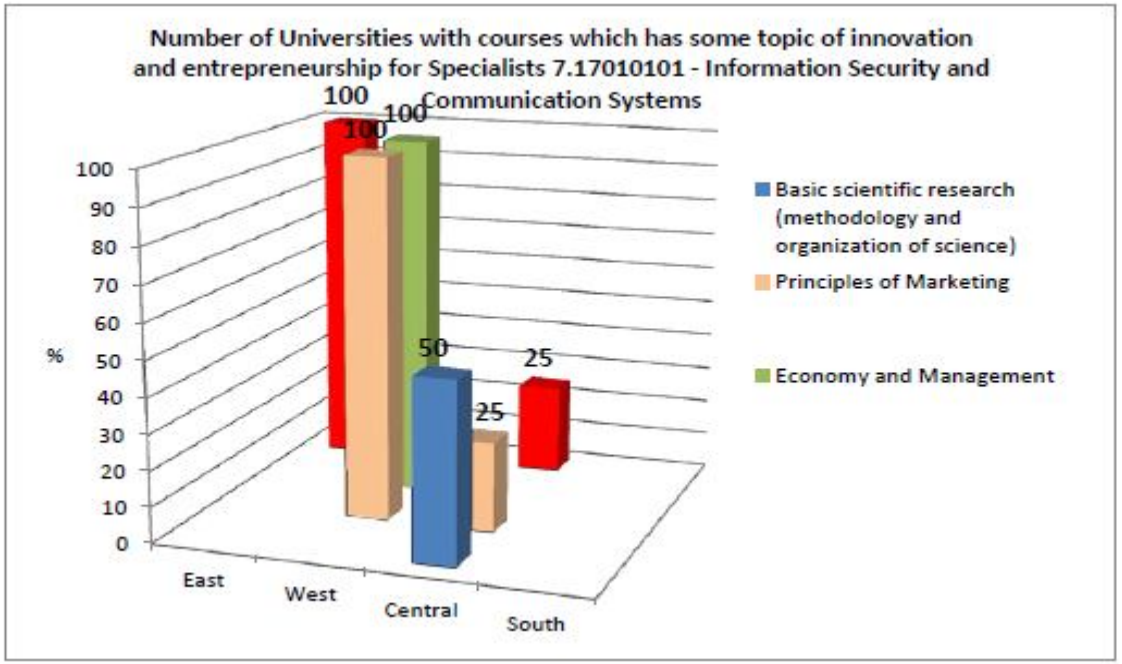
Fundamentals of Entrepreneurship
Principles of Marketing
Economy and Management
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.17010101 - Information Security and Communication Systems
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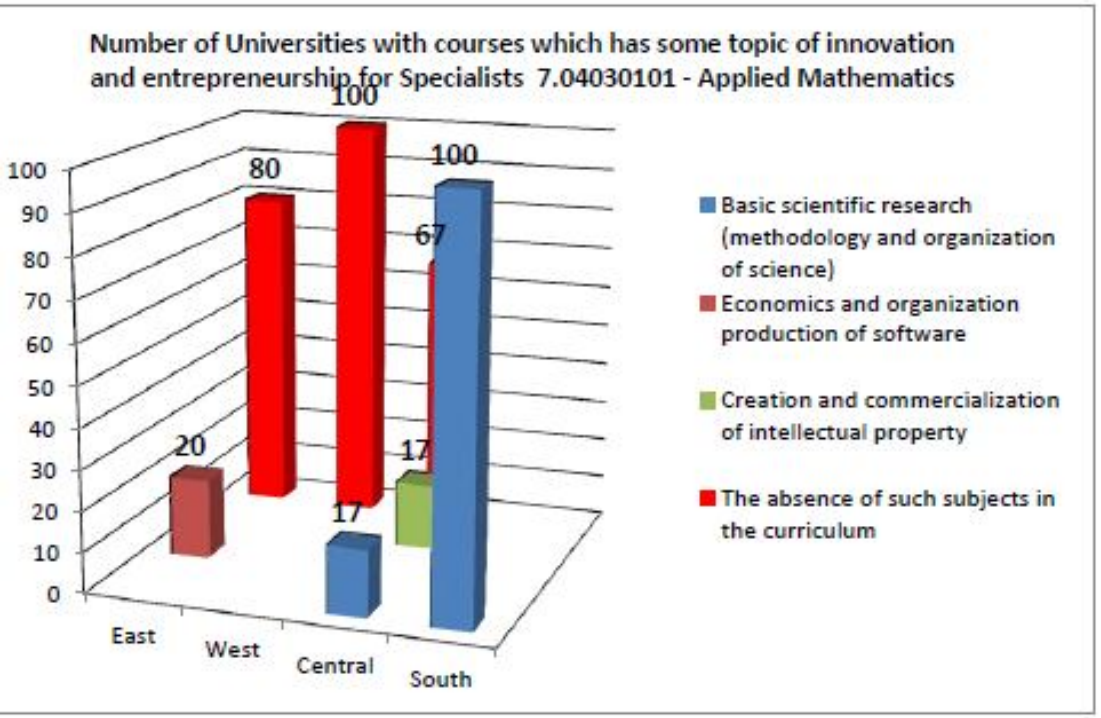
Basic scientific research (methodology and organization of science)
Principles of Marketing
Economy and Management


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.04030101 - Applied Mathematics
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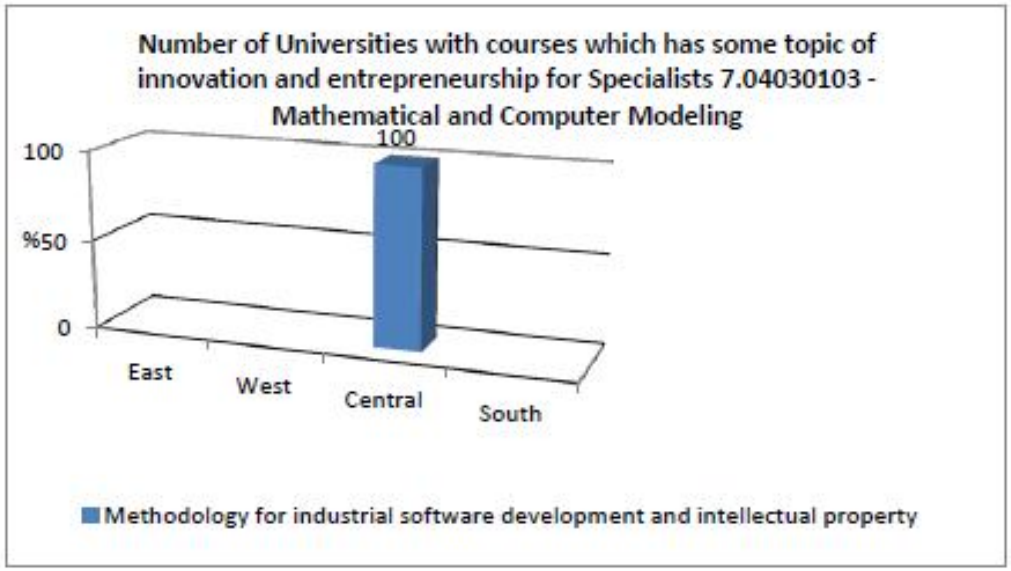
Basic scientific research (methodology and organization of science)
Economics and organization production of software
Creation and commercialization of intellectual property
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.04030103 - Mathematical and Computer Modeling
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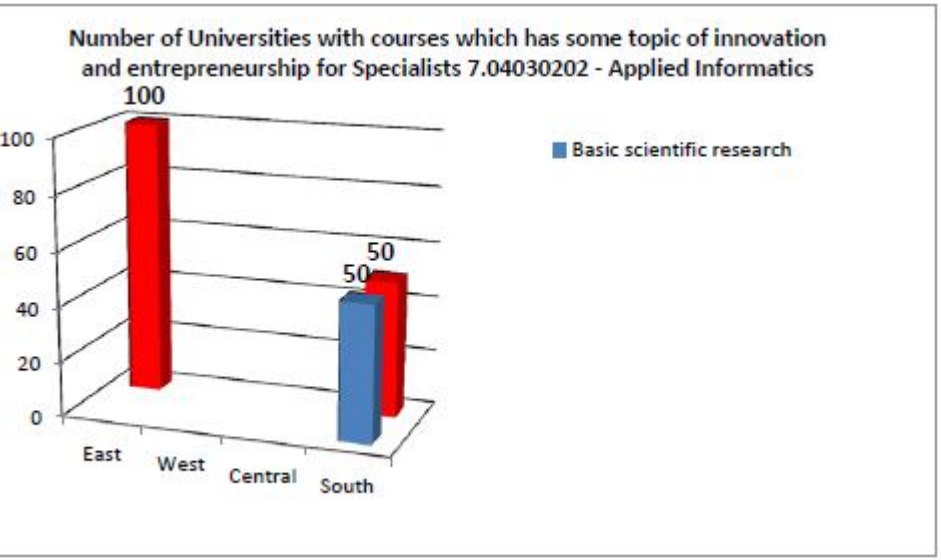
Methodology for industrial software development and intellectual property


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.04030202 - Applied Informatics
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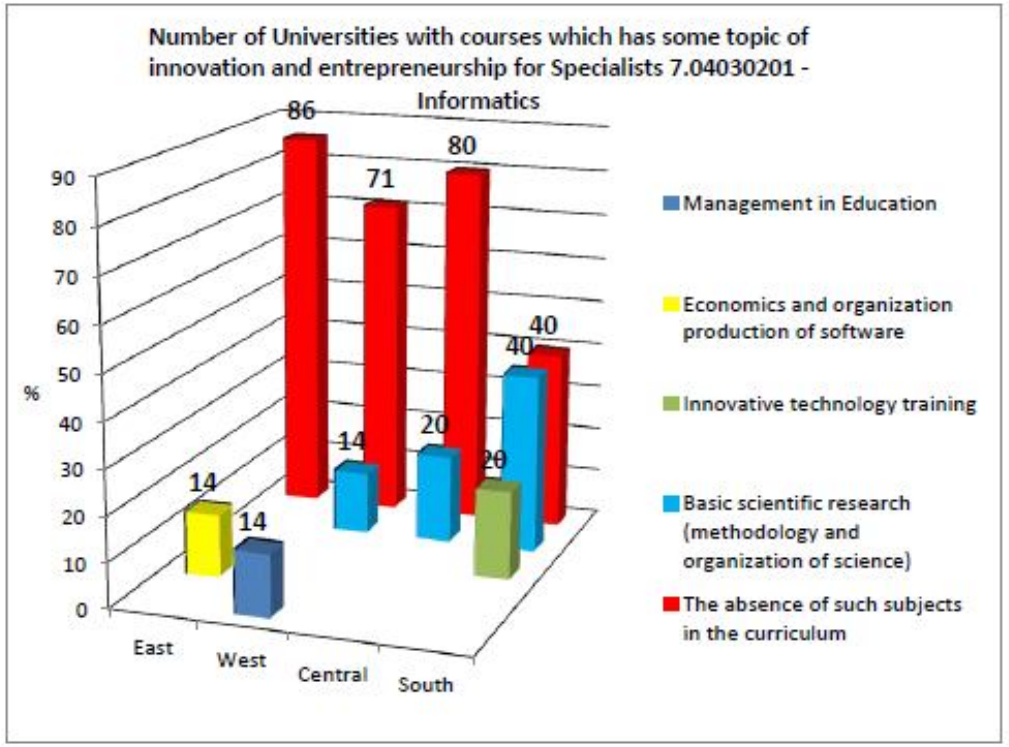
Basic scientific research


Number of Universities with courses which has some topic of innovation and entrepreneurship for Specialists 7.04030201 - Informatics
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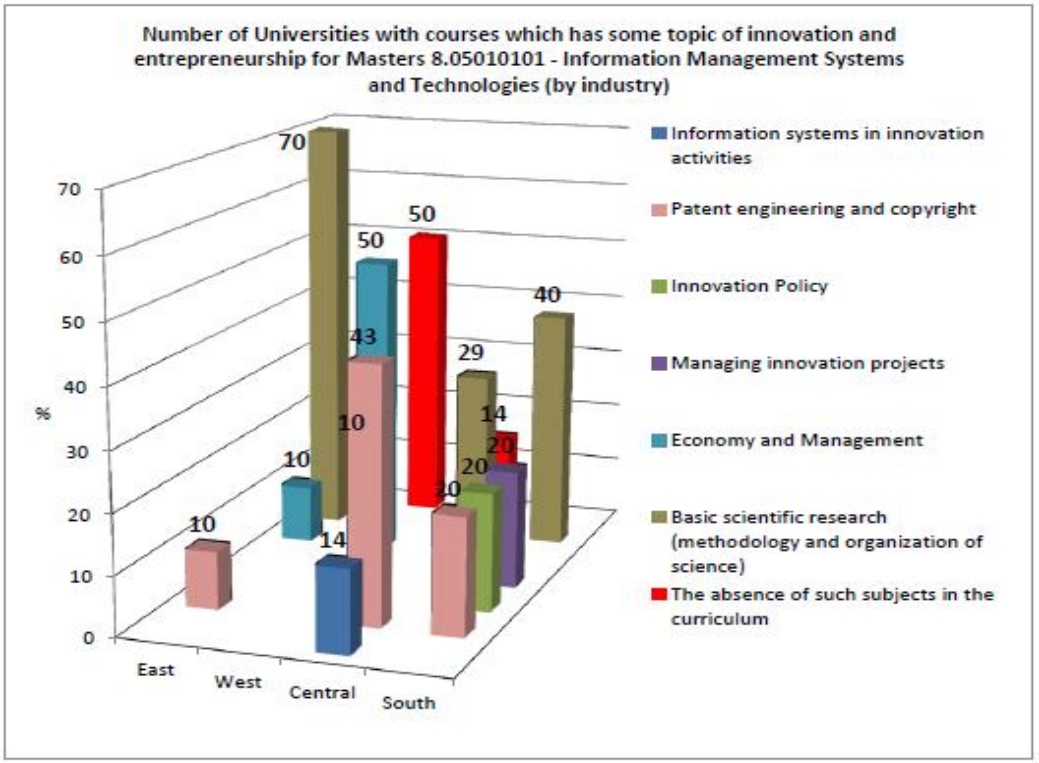
Management in Education
Economics and organization production of software
Innovative technology training
Basic scientific research (methodology and organization of science)
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010101 - Information Management Systems and Technologies (by industry)
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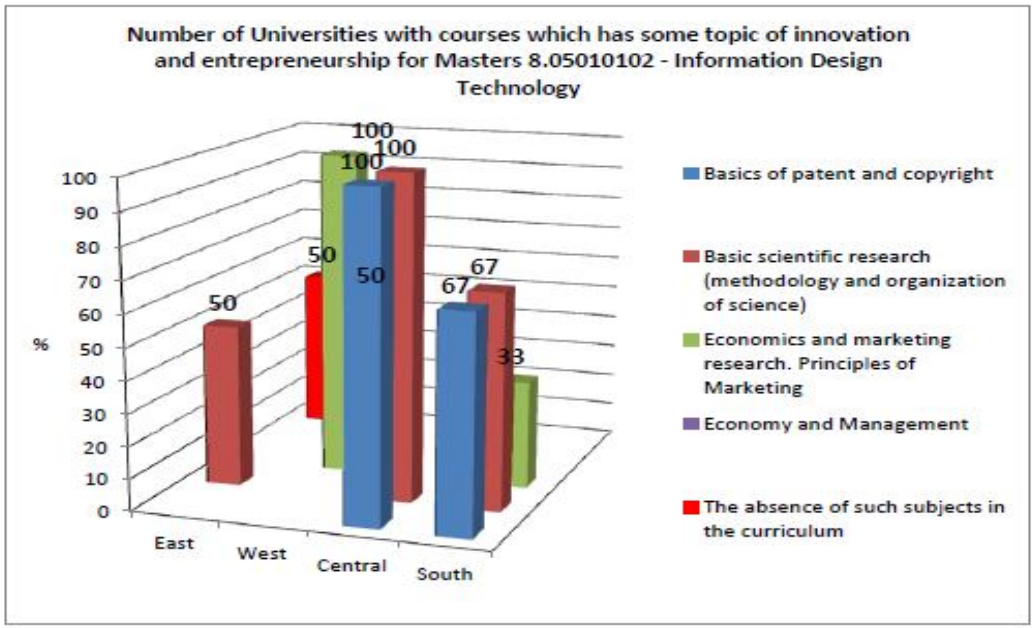
Information systems in innovation activities
Patent engineering and copyright
Innovation Policy
Managing innovation projects
Economy and Management
Basic scientific research (methodology and organization of science)
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010102 - Information Design Technology
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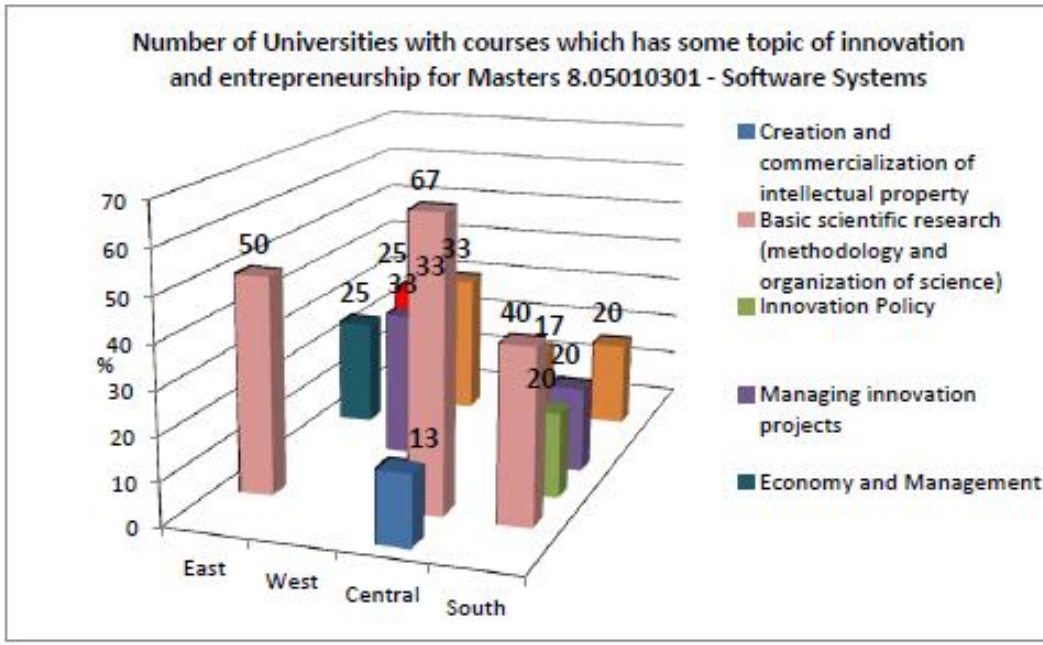
Basics of patent and copyright
Basic scientific research (methodology and organization of science)
Economics and marketing research. Principles of Marketing
Economy and Management
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010301 - Software Systems
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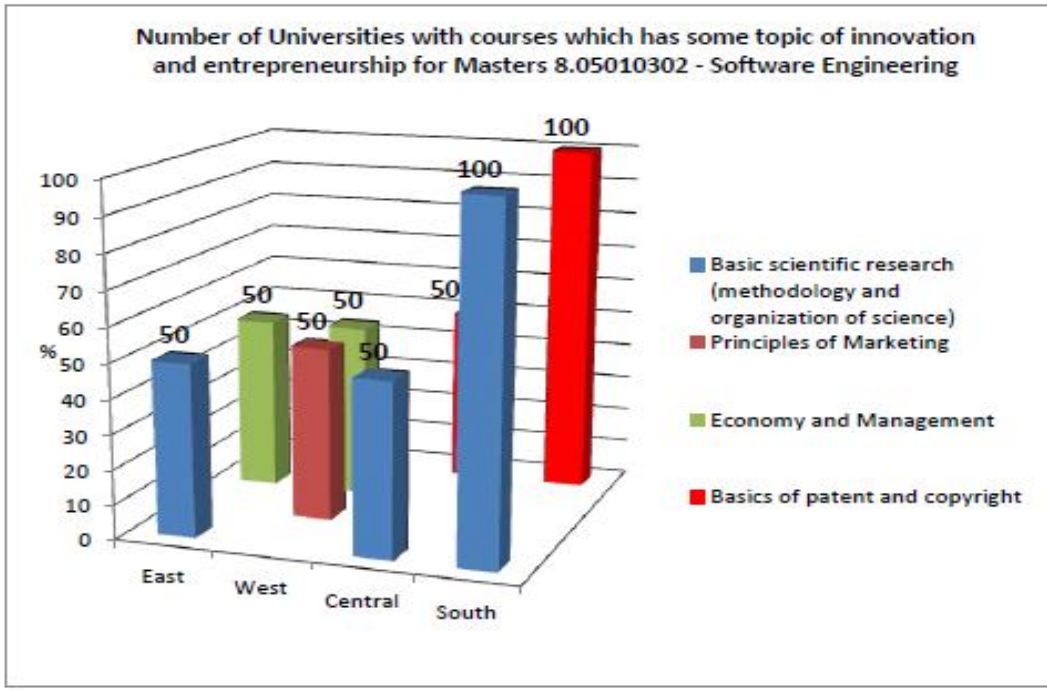
Creation and commercialization of intellectual property
Basic scientific research (methodology and organization of science)
Innovation Policy
Managing innovation projects
Economy and Management


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010302 - Software Engineering
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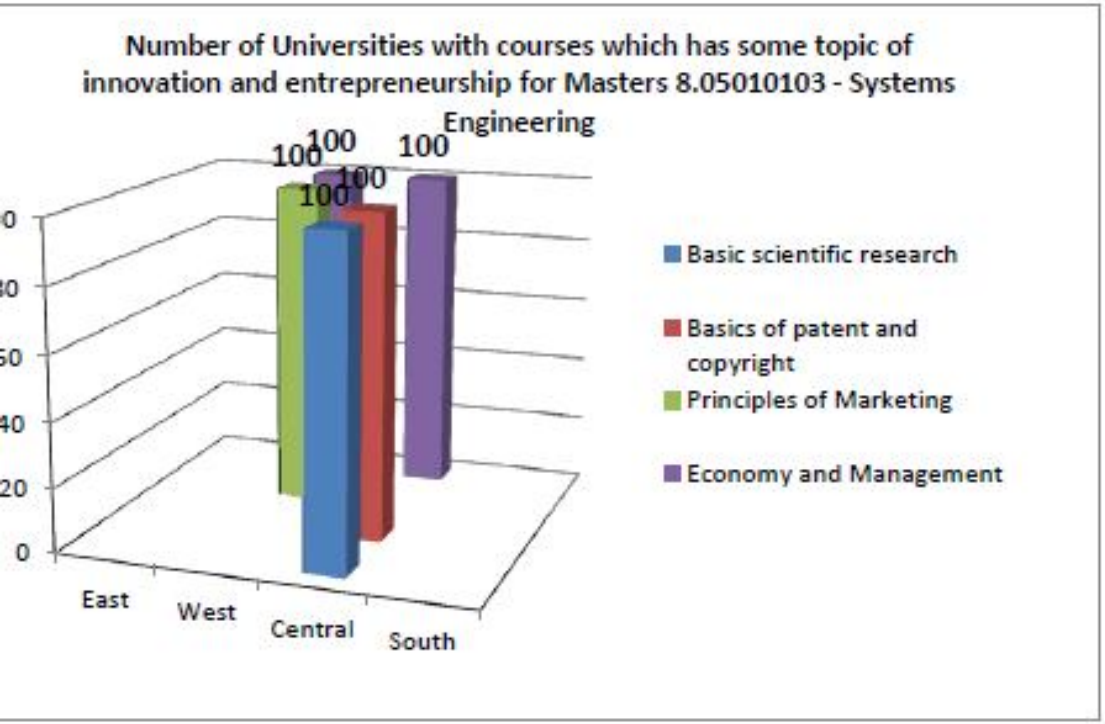
Basic scientific research (methodology and organization of science)
Principles of Marketing
Economy and Management
Basics of patent and copyright


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010103 - Systems Engineering
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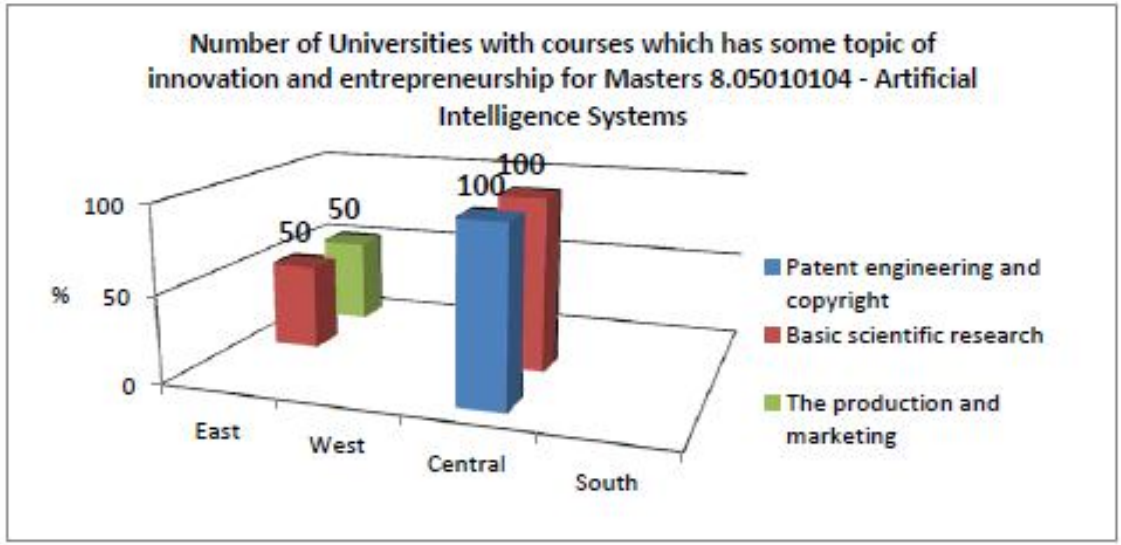
Basic scientific research
Basics of patent and copyright
Principles of Marketing
Economy and Management


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010104 - Artificial Intelligence Systems
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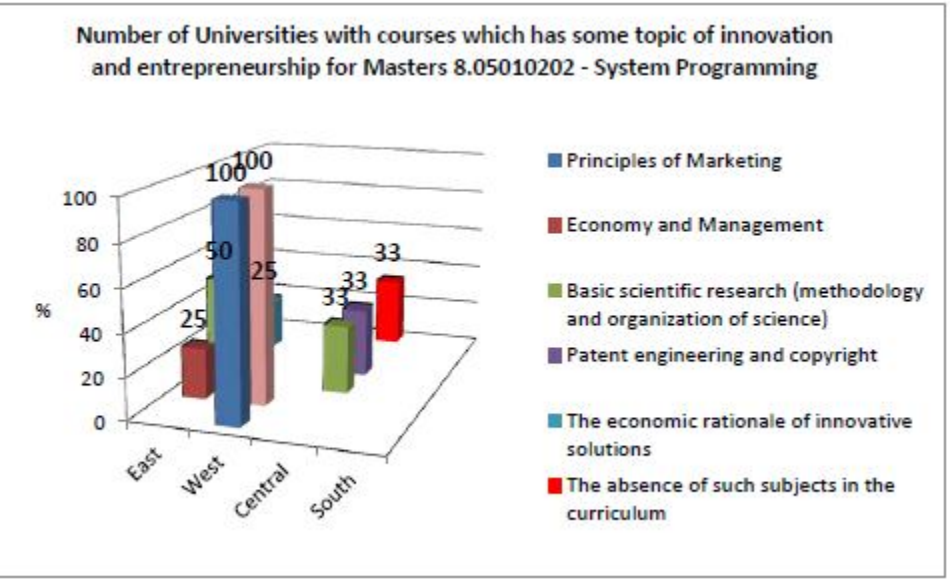
Patent engineering and copyright
Basic scientific research
The production and marketing


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010202 - System Programming
100
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East
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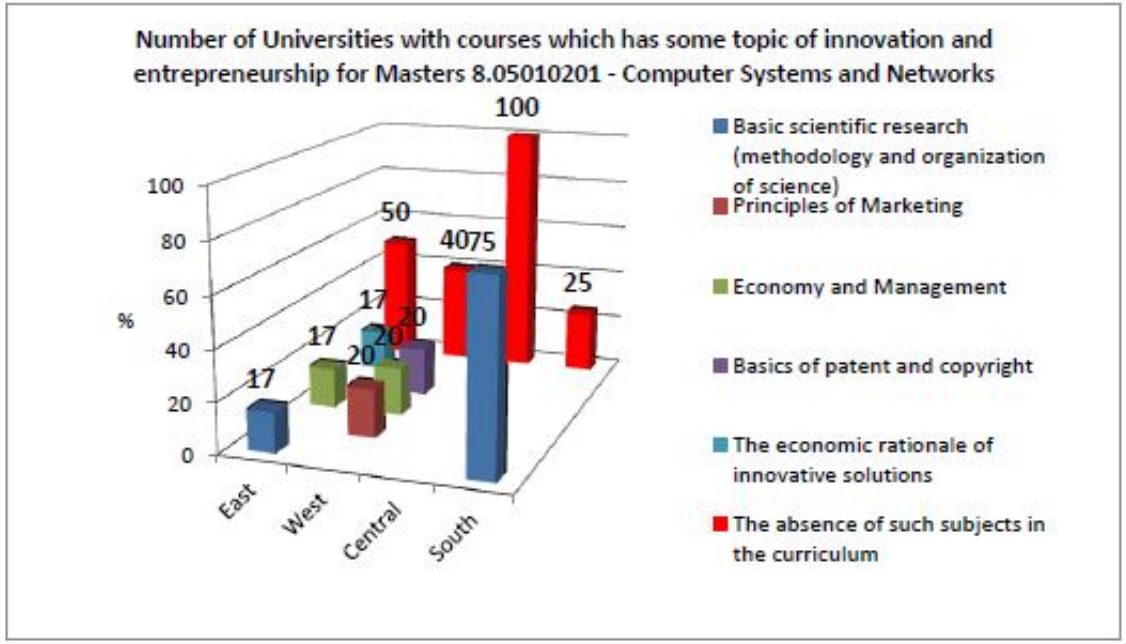
Central
South
Principles of Marketing
Economy and Management
Basic scientific research (methodology and organization of science)
Patent engineering and copyright
The economic rationale of innovative solutions
The absence of such subjects in the curriculum


Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010201 - Computer Systems and Networks
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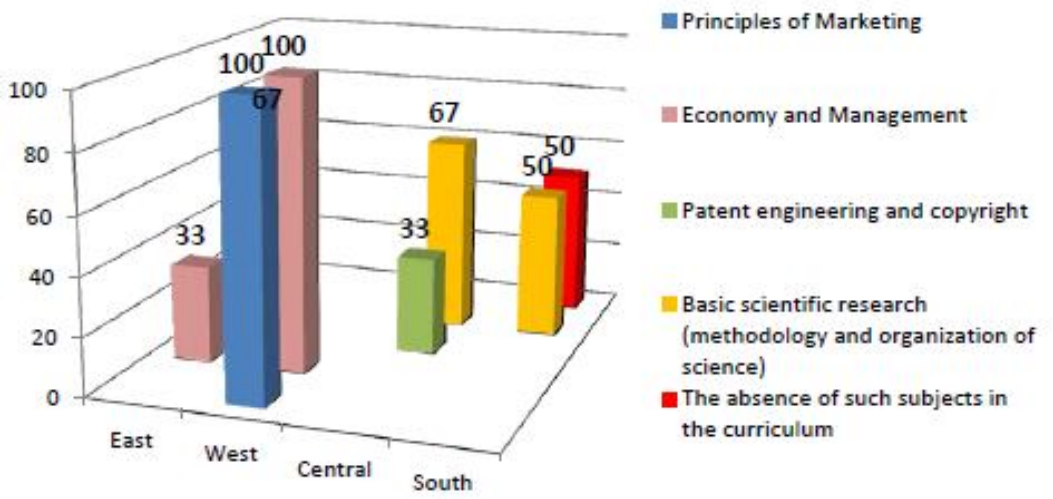
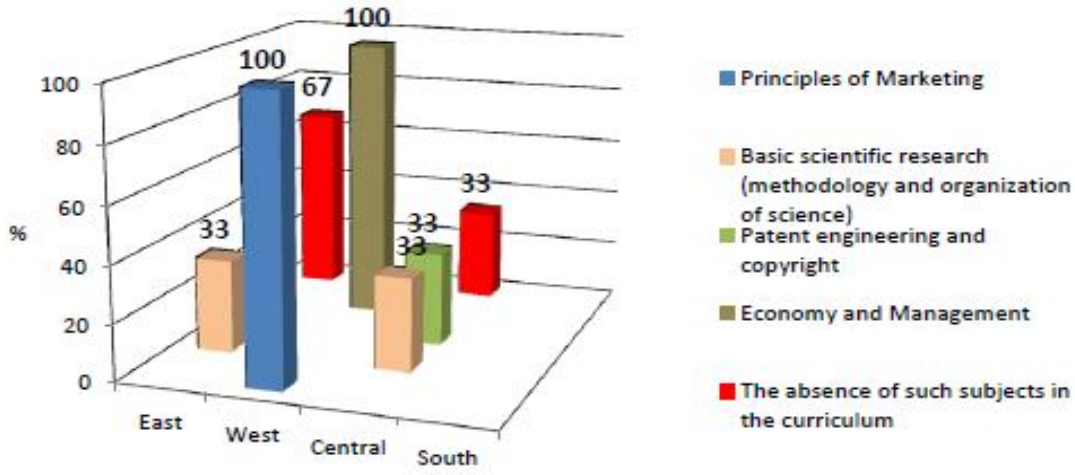
East
West
Central
South
Basic scientific research (methodology and organization of science)
Principles of Marketing
Economy and Management
Basics of patent and copyright
The economic rationale of innovative solutions
The absence of such subjects in the curriculum

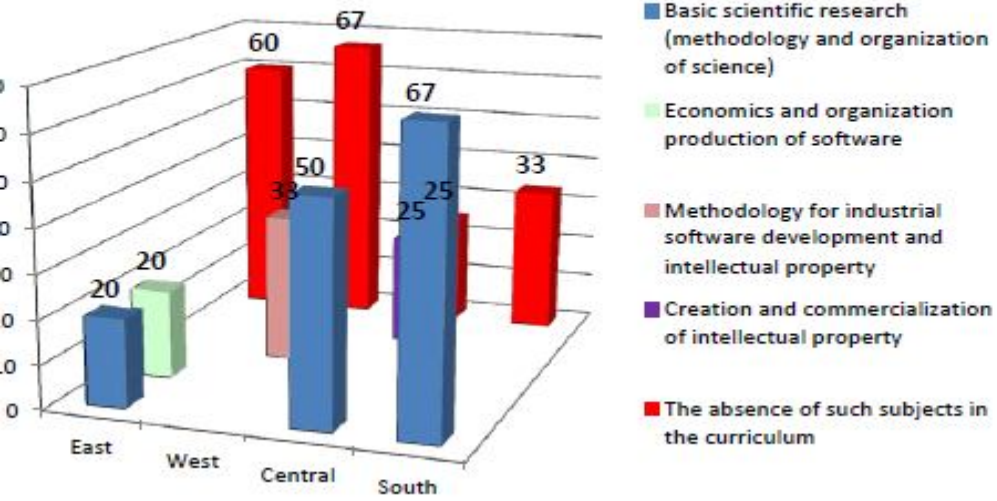
Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.05010203 - Specialized Computer Systems



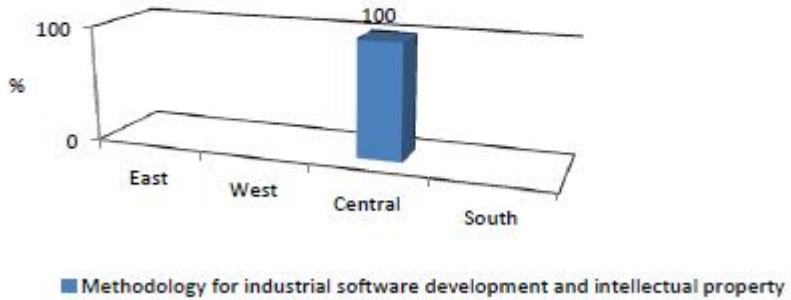
Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.17010101 - Information Security and Communication Systems

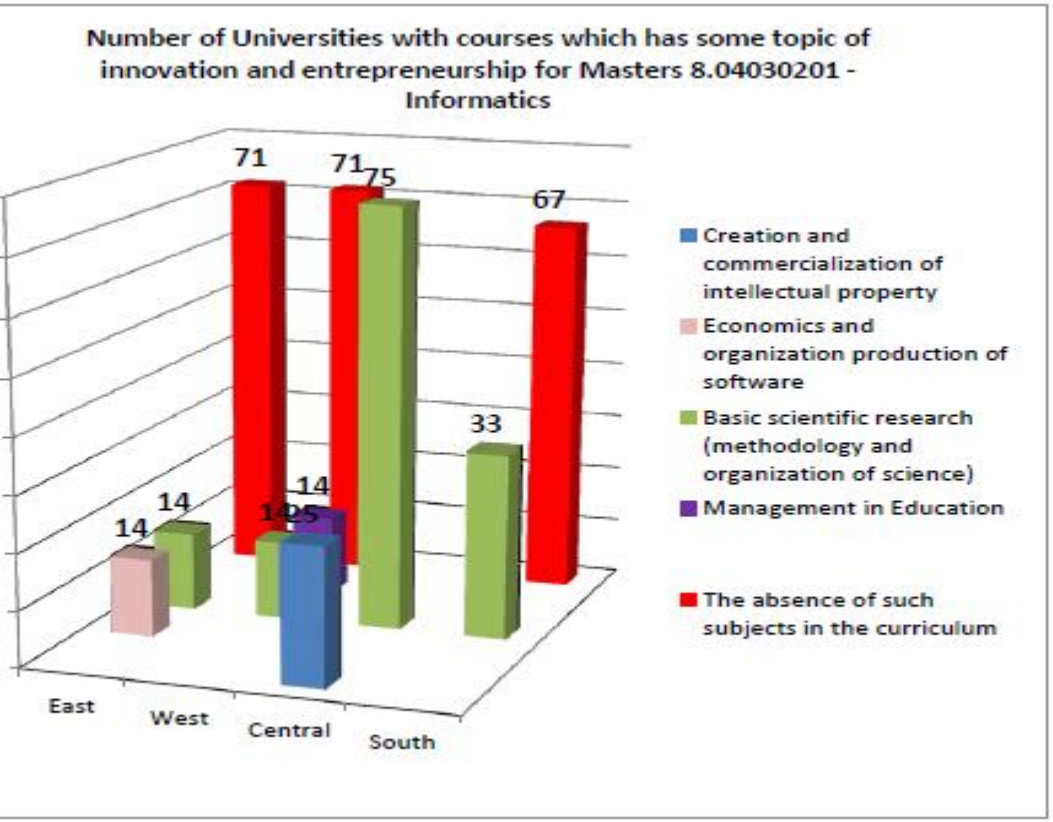


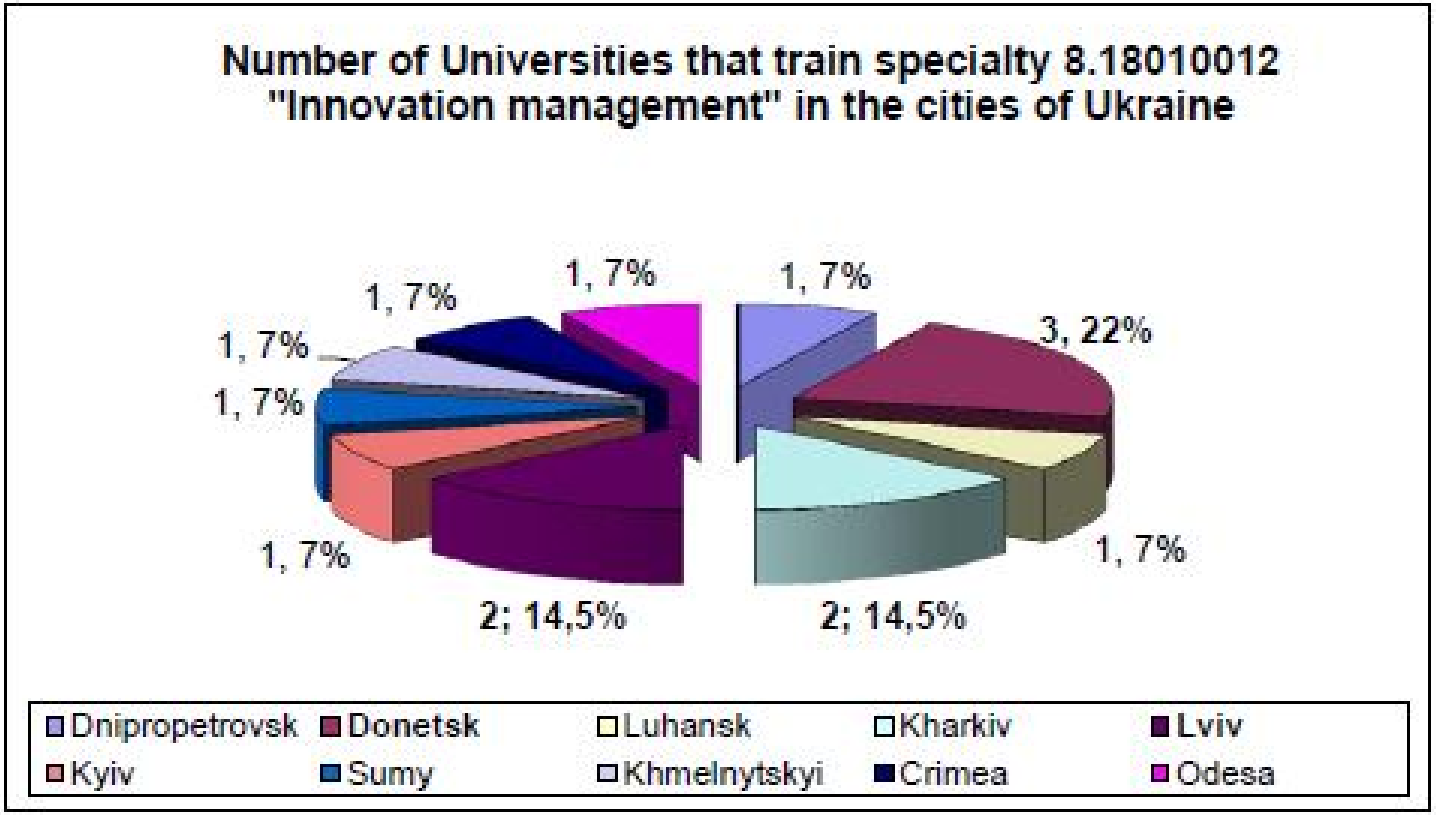
Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.04030101 - Applied Mathematics



Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.04030103 - Mathematical and Computer Modeling




Number of Universities with courses which has some topic of innovation and entrepreneurship for Masters 8.04030201 - Informatics
71
71
75
67
33
14
14
14
14
5
East
West
Central
South
Creation and commercialization of intellectual property
Economics and organization production of software
Basic scientific research (methodology and organization of science)
Management in Education
The absence of such subjects in the curriculum


Number of Universities that train specialty 8.18010012
"Innovation management" in the cities of Ukraine
1, 7%
1, 7%
1, 7%
1, 7%
1, 7%
1, 7%
1, 7%
3, 22%
1, 7%
2; 14,5%
2; 14,5%
Dnipropetrovsk
Donetsk
Luhansk
Kharkiv
Lviv
Kyiv
Sumy
Khmelnytskyi
Crimea
Odesa

1. At universities that train bachelors for IT industry, the disciplines dealing with innovation and entrepreneurship were not found in the curricula. If the curricula contain economic subjects, then the issues of innovation and entrepreneurship take up to 0.5 -2 hours of the total class time, which is obviously not enough.
2. While training specialists for IT industry, only 2 of the 97 universities (2%) have disciplines that according to working programs fully cover the issues of innovation and entrepreneurship in the curricula for specialties 7.05010301 - Software Systems and 7.05010101 - Information Management Systems and Technologies. At other universities this issue is a part of economic courses.
3. While training masters for IT industry, only 5 of the 97 universities (5%) have disciplines that according to working programs fully cover the issues of innovation and entrepreneurship in the curricula for specialties 8.05010301 - Software Systems and 8.05010101 - Information Management Systems and Technologies. At other universities this issue is a part of economic courses.

It should be noted that 3 universities are in Kiev (the central region), 1 university is in Berdyansk (the southern region), 1 university is in Donetsk (the eastern region). At universities in the western region the disciplines dealing with innovation and entrepreneurship were not found in the curricula.

4. Only 14 universities, which makes 14.4%, deliver master training in specialty 8.18010012 "Innovation management".

ANALYSIS OF UNIVERSITY SURVEY OF INNOVATION AND ENTREPRENEURSHIP POWER OF UKRAINE UNIVERSITIES

For a complete analysis of innovation and entrepreneurship in universities in Ukraine was developed a surveys for universities with bachelors and masters programs in IT. University was proposed questionnaire with a list of questions, which were analyzed.

CONCLUSIONS FOR THIS PART OF ISSUE

1. In most high schools **key persons does not provide adequate attention** to the development of student's innovation and entrepreneurship.

2. In most universities **innovative work or not involved, or it belongs to the divisions which in its core** activities have nothing to do with it.

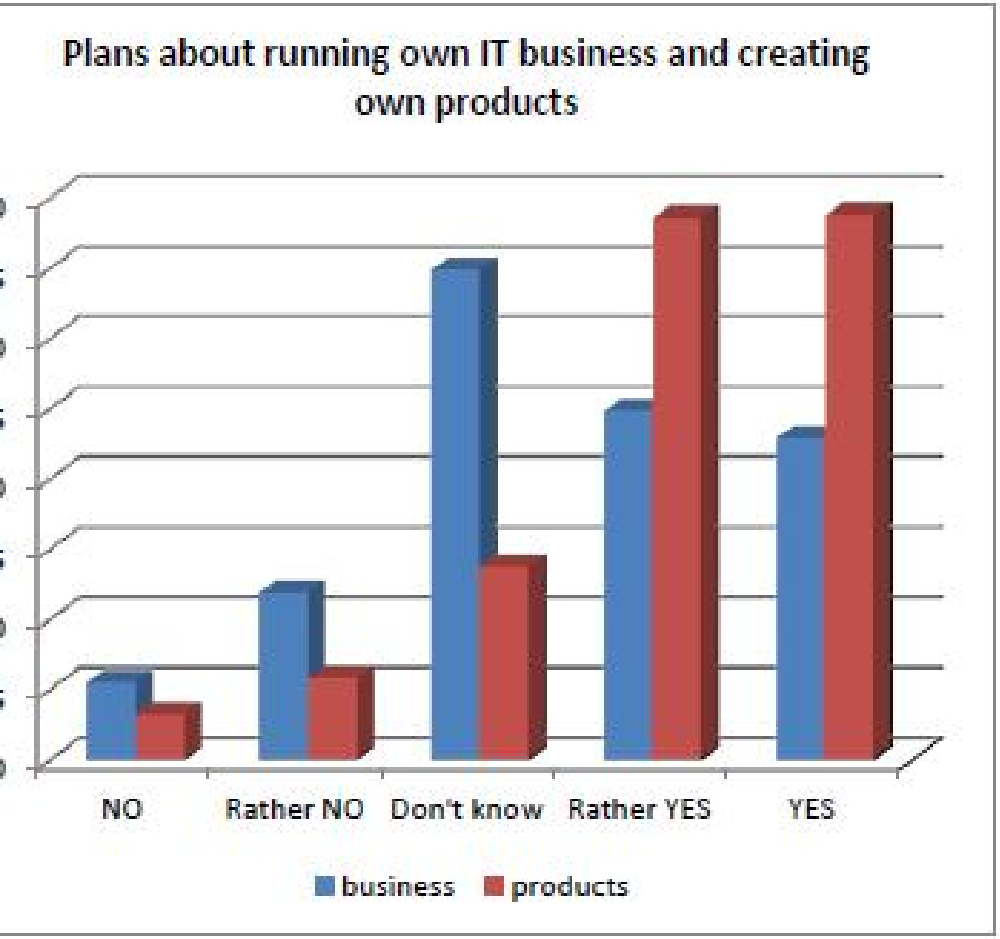
3. In most universities innovative and entrepreneurial work associated exclusively as research work under the guidance of teachers, **not paying attention to the independent student's work** development.

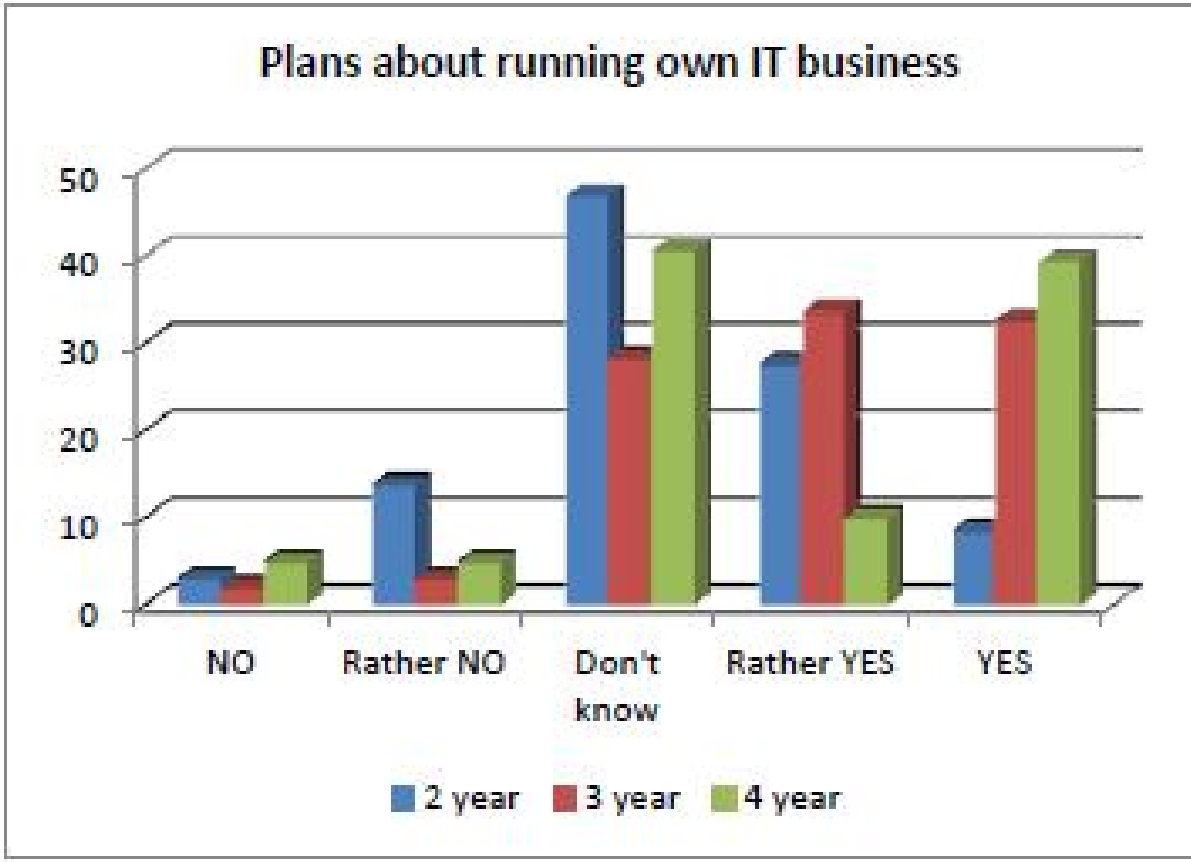
- 4. *Ukrainian students actively and successfully participated in various innovative competitions*. Among the most common: Ukrainian festival of innovative projects (www.startup.kpi.ua), Zavtra.ua, Microsoft ImagineCup, «Iron entrepreneur."
- 5. Universities still paying **not enough attention to the implementation of modern innovations in to the learning process** (development of unified educational information space, "brainstorming", "game design", interdisciplinary ties).
- 6. IT students do not getting enough knowledge and skills during their studies.
- 7. Universities effectively cooperate with both state and international well- known companies in conducting joint activities and training. Unfortunately **very small number of universities has connections with innovative structures and investment funds.**
- 8. In high school has a well organized system of intellectual property protection. At present, most universities do not have the actual mechanisms of payment of royalties for the objects of intellectual property. Very small amount of such documents that get students. Estimation of the ratio is one such document for 50 students.
- 9. Not all universities have completed innovative products that were created with the student's participation. In many cases innovative products creates for own university's needs. Almost none of such innovative products which is known outside of Ukraine
- In universities there is no mechanism helping students with startups
- creating. This is evidenced by the lack of information about student startups in majority of universities.
- Creating of own companies in most cases carried out by students at their own expense without additional funding from the university or investor.
- Total number of startups in Ukraine is very low, despite the high educational and scientific potential of its citizens.

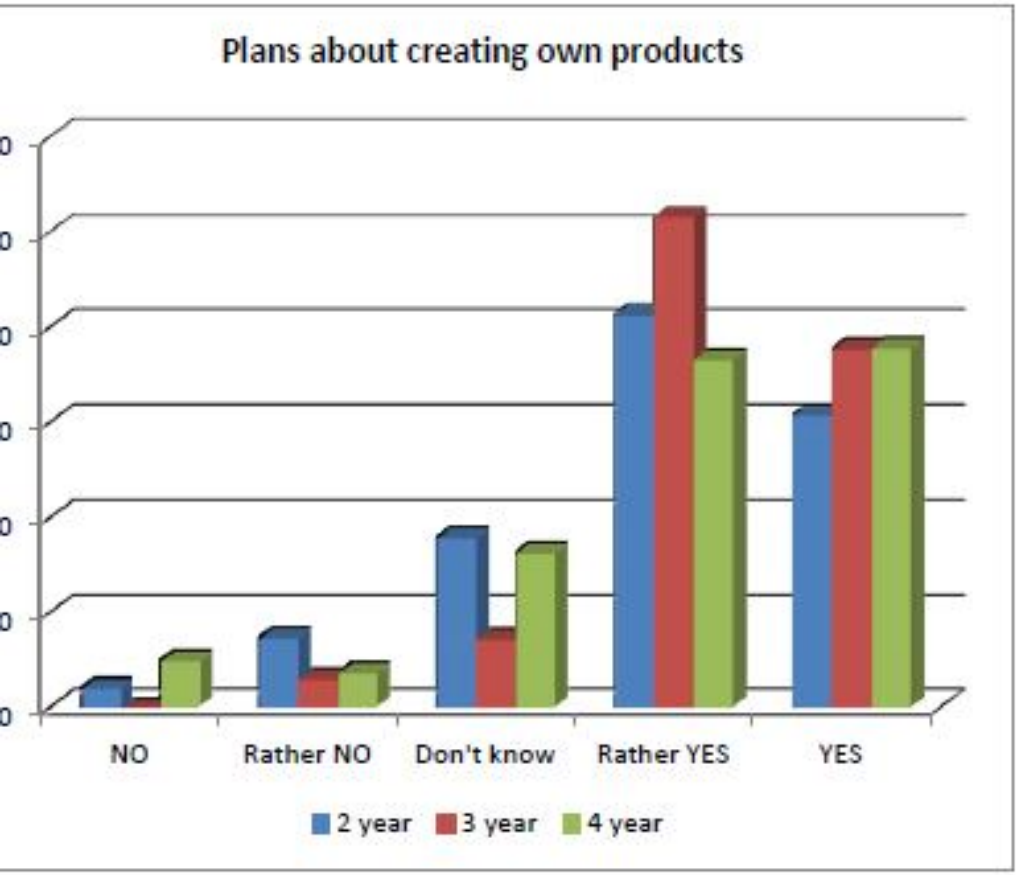
STATISTICAL ANALYSIS OF STUDENTS' SURVEY CONCERNING THE STATE OF INNOVATIONS AT UKRAINIAN UNIVERSITIES

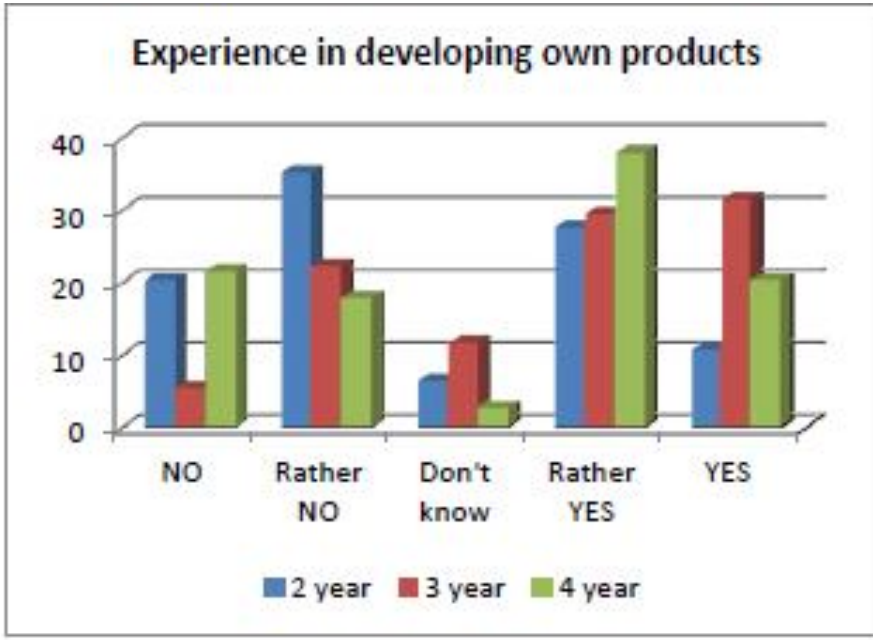
- The survey was conducted at four Ukrainian partner universities: Kharkiv National University of Radioelectronics, Kharkiv, Ukraine; Lviv Polytechnic National University, Lviv, Ukraine; Odessa National Politechnic University, Odessa, Ukraine; Ivano- Frankivsk National Technical University of Oil and Gas, Ivano-Frankivsk, Ukraine, involving the students of all years of educational and professional training level ("bachelor" and "master") of "Software engineering" and "Computer sciences" training courses. The total number of the students completing the survey is 546 persons. Among them there are 83 – the first, 147 - the second, 143 - the third, 128 - the fourth, 38 the fifth and 7 - the sixth-year students respectively.
- The respondents were asked to answer 15 questions to find out if students are aware of the current state of innovation and entrepreneurship in the IT industry sector in Ukraine.
- Three logical sections:

1. current level of students' interest in the development of entrepreneurship and innovation and to learn about their future work prospects after graduating from university.
2. current level of theoretical and practical training of Ukrainian IT students in the field of entrepreneurship and innovation and to identify the potential "bottlenecks" in IT experts training to ensure that competence.
3. the level of innovation potential of Ukrainian IT students and identify the major barriers for entrepreneurial activities and creating own IT innovation business in the current context.

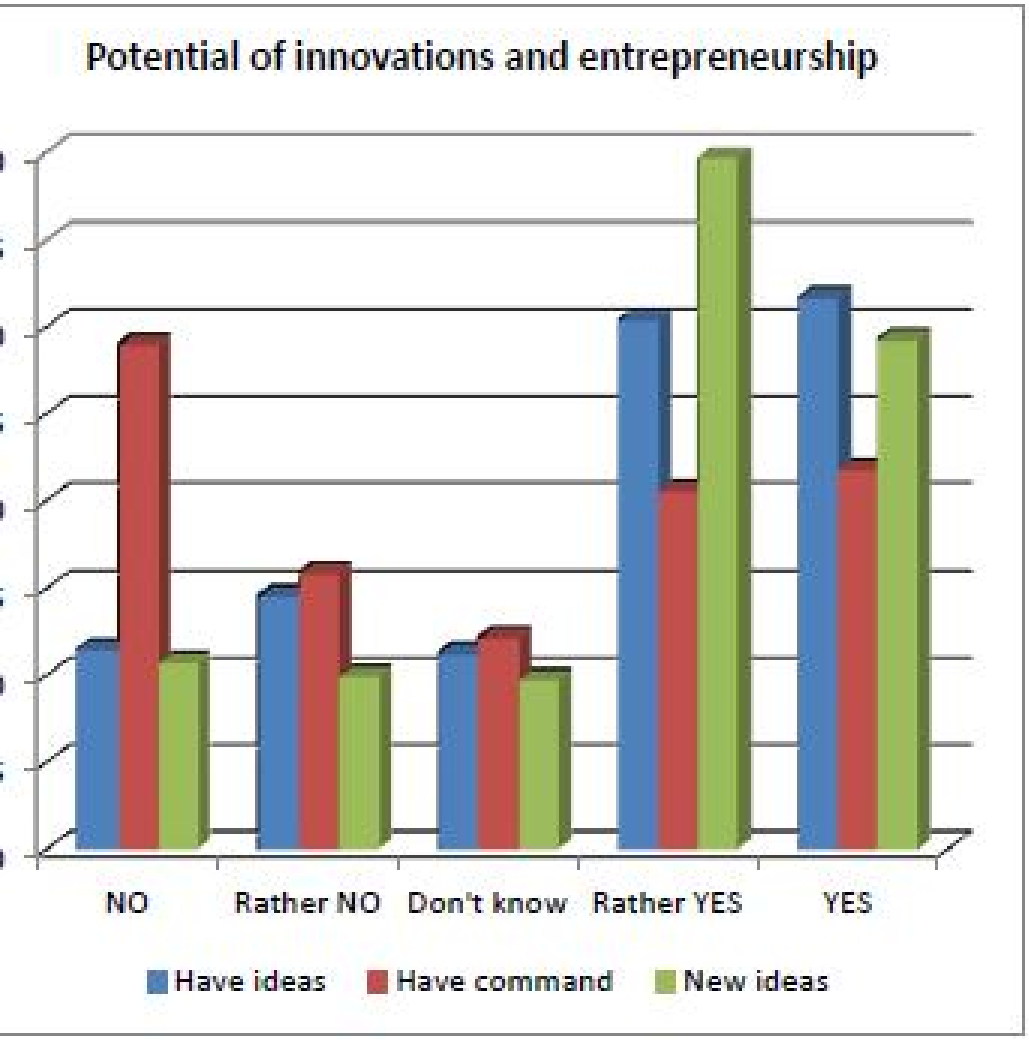

Plans about running own IT business and creating own products
NO
Rather NO
Don't know
Rather YES
YES
business
products

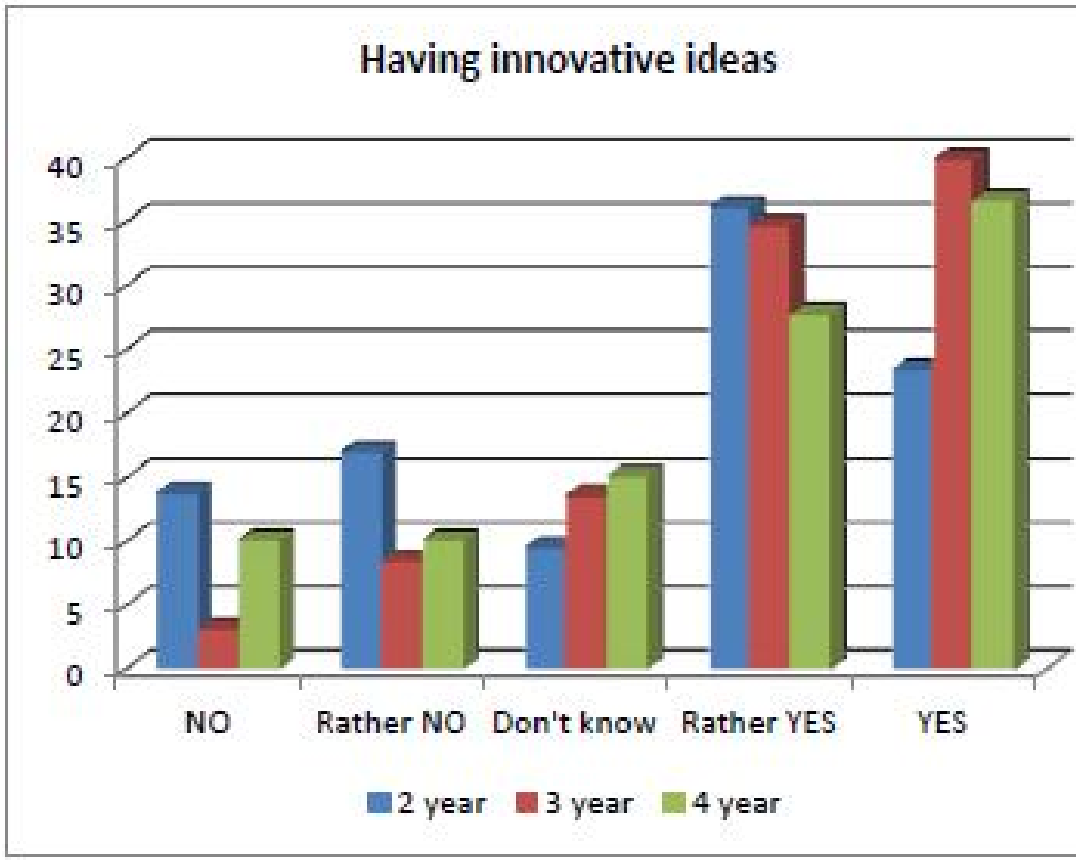

Plans about running own IT business
50
40
30
20
10
0
NO
Rather NO
Don't know
Rather YES
YES
2 year
3 year
4 year



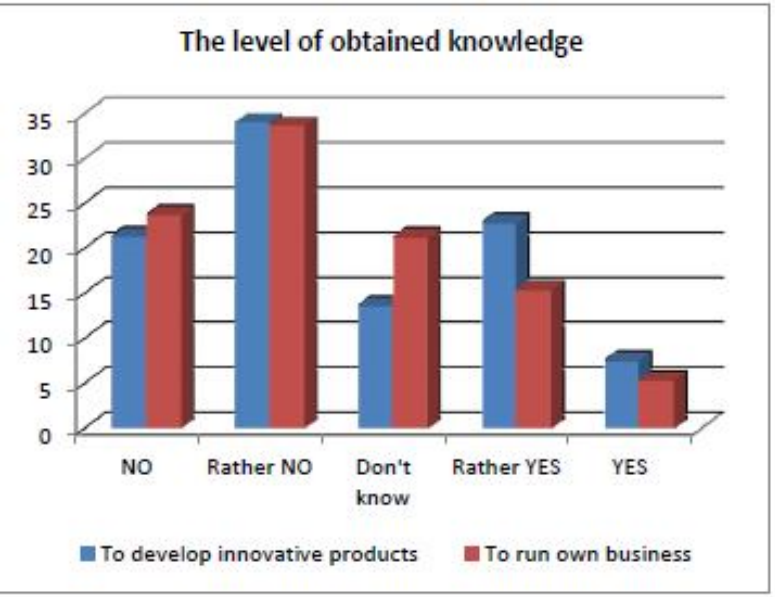


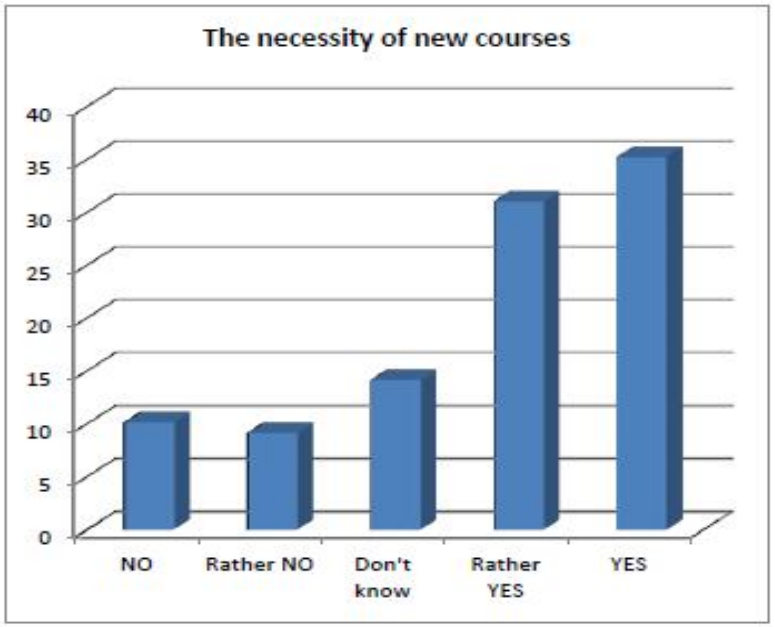
ll the facts prove that there is a tendency of increasing ractical
xperience and innovative and entrepreneurial potential of Ukrainian IT students while studying at university.

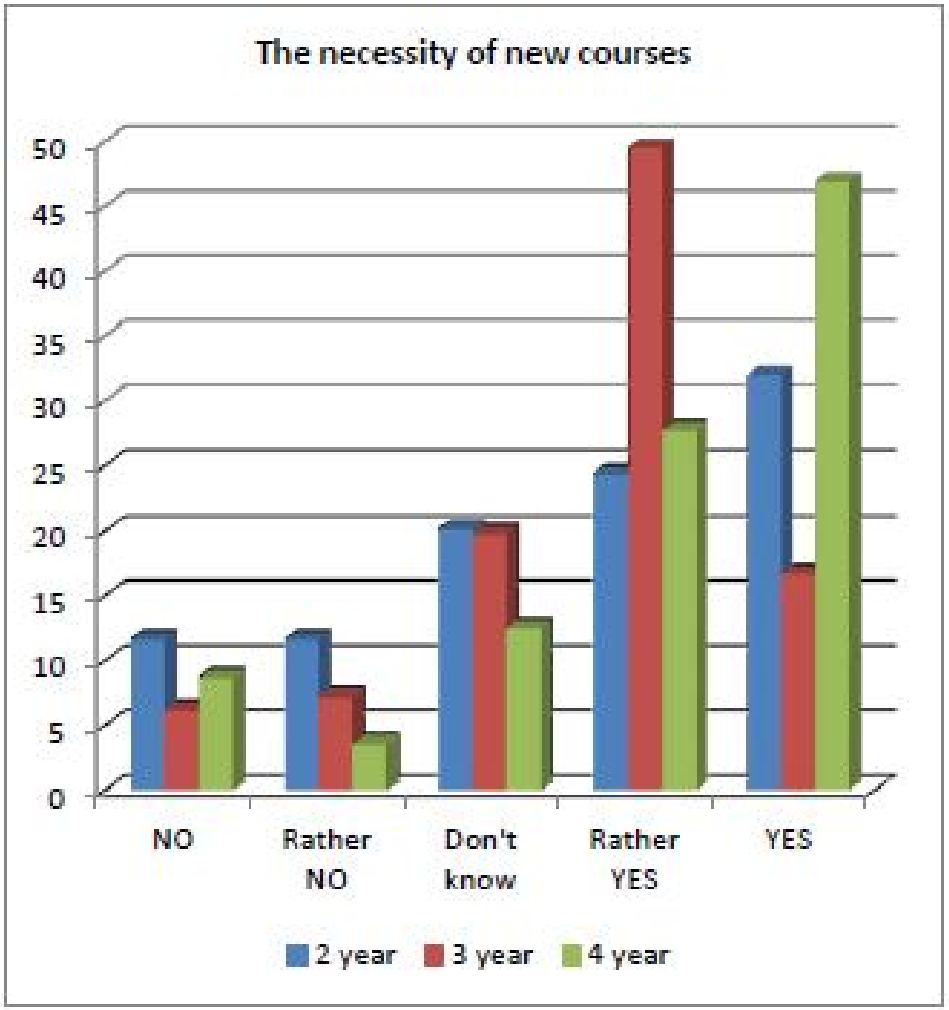




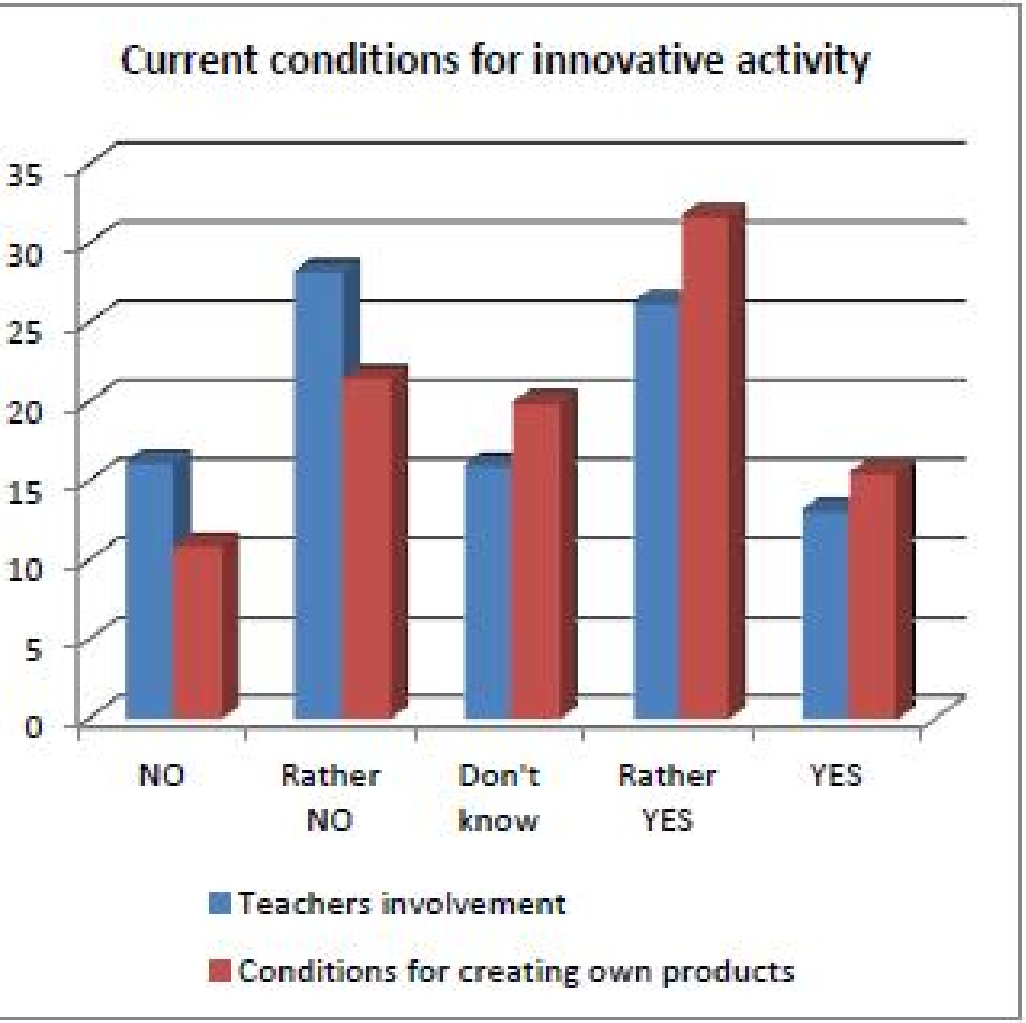
The above mentioned results show that the quality of I
training in Ukrainian universities is high and graduates ha
significant potential in the labor market.

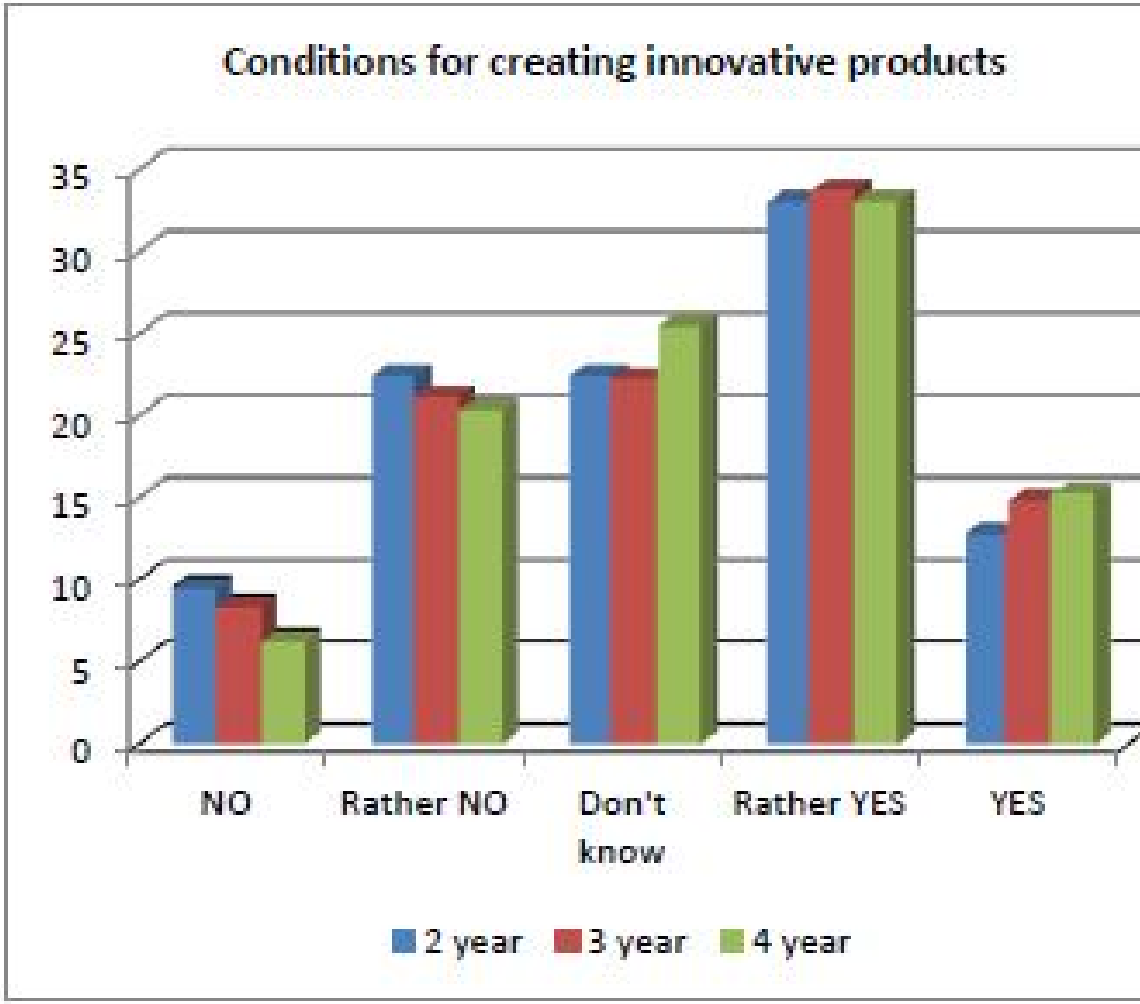


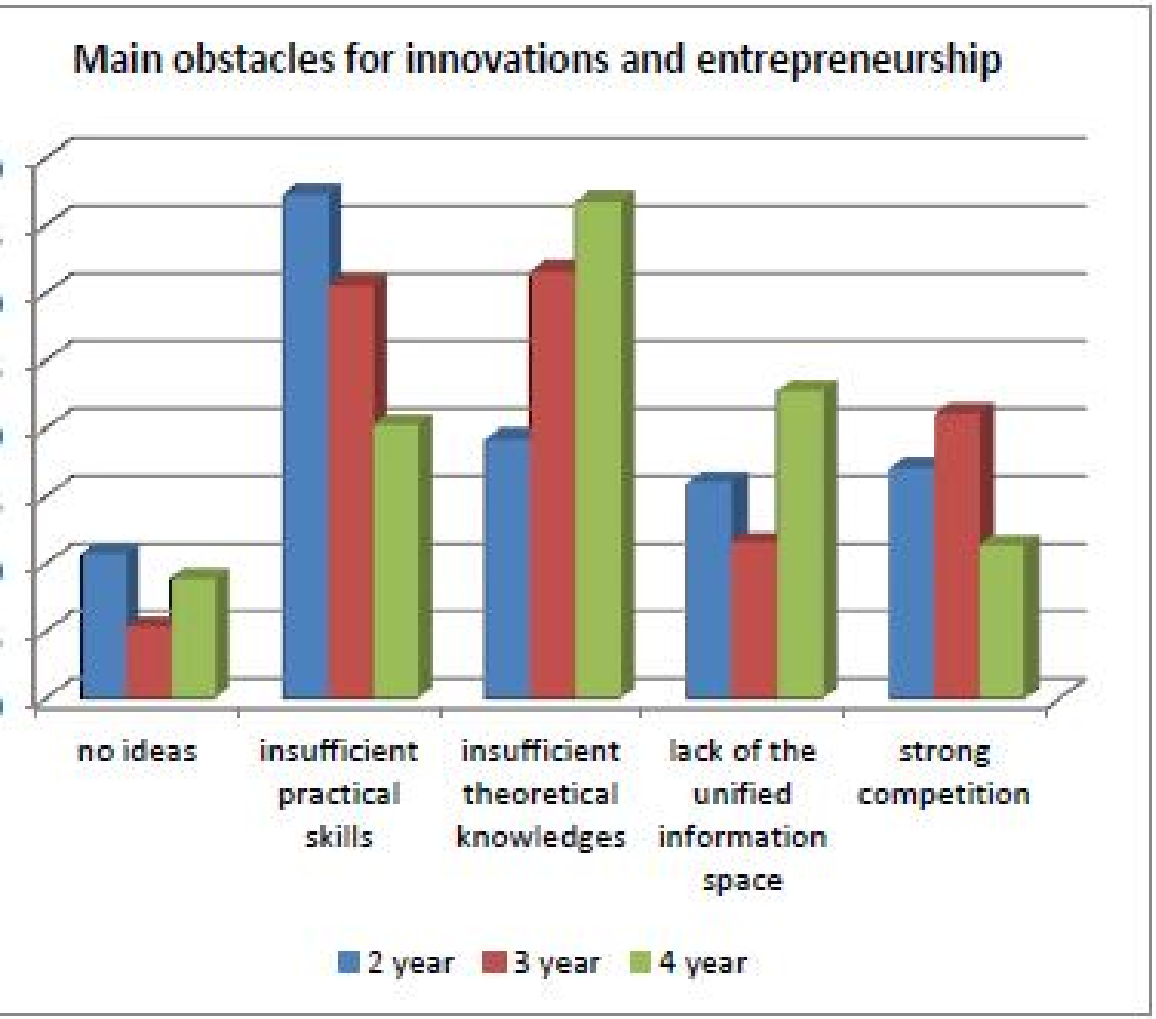




new disciplines on innovation and entrepreneurship should be implemented into educational and vocational academic program for "master" level.


Current conditions for innovative activity
35
30
25
20
15
10
5
0
NO
Rather NO
Don't know
Rather YES
YES
Teachers involvement
Conditions for creating own products


Conditions for creating innovative products
35
30
25
20
15
10
5
0
NO
Rather NO
Don't know
Rather YES
YES
2 year
3 year
4 year



The survey results allow to draw the conclusions about the high entrepreneurial and innovative potential of Ukrainian IT students and the tendency of the growing experience of practical activities and innovative and entrepreneurial potential of Ukrainian IT students throughout their training at university. The analysis of the results of students' responses has shown the overwhelming importance of one of the project objectives related to the development and implementation of the relevant disciplines on innovation and entrepreneurship into the national standard of IT expert training, and this fact testifies the appropriateness of these disciplines in the educational and vocational training programs for "master" level.

Recommendations:

1. Each university should clearly identify the person which will be responsible for cooperation with companies in a field of innovations and entrepreneurship among IT - students.
2. Each university should establish an appropriate unit, the main features of which will be work with companies in a field of innovations and entrepreneurship among IT - students. By name and essentially the most suitable are: Center for Innovation, Commercialization and Entrepreneurship, Business Incubator Center. At the state level should be developed Standard Regulations on innovation, commercialization and entrepreneurship for Universities.
3. The best experience of leading universities should be shared among all Ukrainian Universities.
4. At the governmental level for all IT – programs should be developed an typical syllabus for courses such as: "Economics and Business", "Intellectual Property", "Technical and scientific creativity", "Basic scientific research", "Basics of Business", "Management innovative projects. "
5. Should be taken into account the innovative potential of students for Master and PhD programs.
6. Advice mechanism for the protection of intellectual property, which would have provided the payments of royalties to the students should be developed

2.3 Inter-project coaching

Boosting the knowledge triangle by establishing innovation offices

This report was prepared in 2013 for Tempus project “National Education Framework for Enhancing IT Students’ Innovation and Entrepreneurship”, 530576-TEMPUS-1-2012-1-SE-TEMPUS-SMHES.

GOAL

A report that disseminate the outcomes from the TEMPUS project in the related field. Inter project coaching will be with project UNI4INNO, 159359-2009-TEMPUS-ES-JPHES. Lessons learned from this project will serve as an input for our projects. Synergies with outcomes and visions will help the sustainability of the both projects.

1 PROMOTING UNIVERSITY INNOVATION DEVELOPMENT BY INTERNATIONAL PROJECTS INPUTS BY TEMPUS PROJECT “UNI4INNO” EXAMPLE

2 COMMERCIALIZATION OF UNIVERSITY SCIENTIFIC RESEARCH: MAIN ISSUES AND WAYS TO MAKE SOLUTIONS

3 METHODICAL RECOMMENDATIONS AS TO FORMING OF INNOVATIVE STRATEGY OF INNOVATIVE UNIVERSITY OFFICE

4 TOOLS FOR TRANSFER OF INNOVATIVE TECHNOLOGIES FROM UNIVERSITIES TO ENTERPRISES

PROMOTING UNIVERSITY INNOVATION DEVELOPMENT BY INTERNATIONAL PROJECTS INPUTS BY TEMPUS PROJECT "UNI4INNO" EXAMPLE

- The strategic outputs of the UNI4INNO project include the implementation of structural and organizational reforms in Ukrainian Universities, enhancement of managerial and administrative capacities, and promotion of an innovation culture of University staff and students, relevant authorities and the private sector, through generation of immediate results and "success stories" with a visible impact and dissemination potential.
- Overall objective:
  - to increase the relevance and capacities of Ukrainian partner universities in contributing to knowledge based economic development, and to mobilize their potential as key players in the Ukrainian innovation system, by stimulating structural reforms via the implementation of sustainable innovation support structures and services.
- Specific objectives:
  - To sustainably strengthen strategic, managerial and administrative capacities of 6 Ukrainian universities in identifying, managing and generating value from their intangible assets, and enhancing participation in cooperative research activities, through implementation of a series of targeted capacity building measures.
  - To promote the innovation culture within Ukrainian HEIs through the establishment and implementation of Innovation offices and innovation support services at 6 Ukrainian Universities.

PROMOTING UNIVERSITY INNOVATION DEVELOPMENT BY INTERNATIONAL PROJECTS INPUTS BY TEMPUS PROJECT “UNI4INNO” EXAMPLE

- Outcomes:
  - Stimulation of strategic factors for the implementation of the institutional innovation policies
  - Establishment of sustainable innovation support structures at 6 Ukrainian Universities
  - Enhancement of managerial capacities for the support of innovation in 6 Ukrainian Universities
  - Pilot operations of 6 Innovation Offices
  - Creation of a national networking platform "Universities 4 Innovation"
  - Dissemination & public awareness
  - Sustainability
  - Quality control and monitoring
  - Ongoing management of the project

2 COMMERCIALIZATION OF UNIVERSITY SCIENTIFIC RESEARCH: MAIN ISSUES AND WAYS TO MAKE SOLUTIONS

- On legislative level is reasonable to develop the mechanisms of stimulation the companies which apply in industry the research results.
- On regional level is reasonable to support the development of Centers of advanced experience the main objects of those are the demonstration of progress in different industries and provision of services, and organization of round table meetings for business.
- it is necessarily to conduct more strict control over the using of resources in the domain of intellectual property
- For establishment more close collaboration between business and scientists is reasonable to create information portal
- To increase of workers' enterprise culture is necessary to develop the program of holding the seminars, prepare the expert courses in a project management, marketing and bases of financial activity.

3 METHODICAL RECOMMENDATIONS AS TO FORMING OF INNOVATIVE STRATEGY OF INNOVATIVE UNIVERSITY OFFICE

- Within the project UNI4INNO the methodical recommendations as to forming of innovative strategy of university innovative office are carried out, in particular the strategy of Innovative Office of Lviv Polytechnic National University (NU “LP”)
- Mission of Innovation Office is the assistance of the innovation activity of Lviv Polytechnic National University, the transfer of the research results and engineering developments created by the scientists of Lviv Polytechnic National University on national and international markets, stabilization the development of local industry.

3 METHODICAL RECOMMENDATIONS AS TO FORMING OF INNOVATIVE STRATEGY OF INNOVATIVE UNIVERSITY OFFICE

Goals and strategies:

- Goal 1. Growing of university innovation activity
- Goal 2. Attraction of national and foreign investing's for the research implementation
- Goal 3. Assistance in patenting of research and technologies created by University scientists
- Goal 4. Dissemination of research results and technological developments created in University
- Goal 5. Assistance of collaboration between University and enterprise an d international scientific and technological collaboration
- Goal 6. Assistance in commercialization of research results

Macro goals:

-
- contribution to government policy in the field of innovation and technology transfer
- promote economic development in Western Ukraine.

4 TOOLS FOR TRANSFER OF INNOVATIVE TECHNOLOGIES FROM UNIVERSITIES TO ENTERPRISES

An important criterion for the success of modern research university is the amount of funds received from the implementing of innovative technology and development. For the majority of Ukrainian universities, this criterion still remains rather low. One reason for this situation is the lack of information about these developments.

- the disseminations of research results and attraction of potential investors to finance support, we could call it a technological university matrix
- One of the tools to inform stakeholders about the innovations is their placement in networks of technology transfer.

CONCLUSIONS

- Inter-project coaching demonstrated that despite a number of problems concerning the commercialization of researches, however, there are the strategies and the good practices to improve the innovation financing