GUIDELINES FOR TRANSFORMING LABOR MARKET INTELLIGENCE INTO HIGHER EDUCATION CURRICULA

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Purpose of the Guidelines

Driving economic development through skills enhancement is crucial because skills are, and will be, needed to respond to the new economic structures that will emerge and to fill the new jobs that will be created in the current innovation and knowledge-driven economy in the Republic of Azerbaijan. Labor market intelligence (LMI) is information used to support decision making on a national and institutional levels that may be freely accessed, reused, modified and shared. These Guidelines outline key issues and make suggestions for integrating LMI into higher education system. Their purpose is to encourage decision makers in government institutions and universities to support and invest in the systematic production, development of competence based approach, adaptation and use of LMI in order to improve the quality of higher education and teaching and to reduce costs.

Rationale of the Guidelines

The higher education context. The higher education plays one of the major roles in national economic competitiveness. However, it faces immense challenge in meeting the rising labor market demands. Universities in Azerbaijan are incorporating information and communication technologies into their management and study process in order to serve their students, cooperate with industry and public institutions while preparing students for future integration into the labor market. It is therefore critical to adapt teaching approaches and learning materials to competence based approach while ensuring high quality and relevant educational opportunities.

Increased access to LMI will further promote student-centered learning, improve curricula, encourage targeted decision making at both national and institutional level, including individual (university staff, students) as well, and create opportunities for educational innovations.

The transformative potential of labor market intelligence. The growing demand for higher education have created unique challenges for higher education institutions in period of tight resources for employers. It has become increasingly important for the Ministry of Education of the Republic of Azerbaijan to support universities, in a planned and systematic manner:
- Development of curricula and learning outcomes;
- Supporting research and innovation activities;
- Improvement of curricula and teaching quality;
- Integration of effective assessment tools;

- Links with the economic development and labor market.

LMI makes a significant contribution to these processes. However, LMI does not automatically lead to quality, efficiency and cost-effectiveness and much depends on the procedures put in place in higher education eco-system:

- Improving the quality of teachers' education;
- Emphasizing openness for quality improvement in universities;
- Building capacity for the creation and use of LMI;
- Serving the needs of students, academic staff and employers;
- Involving employers in higher education;
- Gathering data and monitoring the development of the whole higher education system.

The potential of LMI also includes the benefits of sharing and collaborating among government institutions and universities, and the creatively disruptive role of LMI in opening up new educational approaches.

Scope of the Guidelines

These Guidelines have been developed under EU Twinning Project "Support to strengthening the higher education system in Azerbaijan" with regard to the given potential of LMI to improve higher education system in the Republic of Azerbaijan after broad consultations with the Ministry of Education of the Republic of Azerbaijan and representatives of state universities. It aims to support government institutions, universities, academic staff, students and quality assurance bodies.

Guidelines for Government

The Government of the Republic of Azerbaijan plays a crucial role in setting policies for higher education system. It has a defined interest in ensuring that public investments in higher education make a useful and cost-effective contribution to socio-economic development of the state.

In this context, it is suggested that the Government:

[1] Consider establishing intergovernmental Committee on Human Capital Development.
One effective way to accelerate labor market intelligence and develop competence based higher education approach would be to adopt, within education, socia and labor, economy policy frameworks, a national human capital framework. This might form part of an overarching policy framework on labor market demand, higher education supply, economic prognosis, demographic issues. Linked to the above it could be the establishment of intergovernmental

Committee on Human Capital Development. The role of the Committe would be make recommendations and provide insights to the President and the Government on human resource strategy and on economic developments with regard to capitalising on future opportunities within the region.

[2] Consider initiating a National Strategy for Research and Innovation.
Key to strengthening the quality of higher education will be supporting higher education institutions, individually and collectively, in their efforts to cooperate with Academy of Sciences. This could include initiating a National Strategy for Research and Innovation, which would aim at improving the public administration of research and innovation, better funding mechanisms and support for research and innovation system, while meeting the need for educational reforms. There is no single strategy that will work for every university and each institute, but a coordinated approach through national strategy would likely yield the best results in higher education, research and innovation.

Guidelines for Ministry

The Ministry of Education of the Republic of Azerbaijan (hereinafter the Ministry) has leading role in policy development for education at all levels ; it provides necessary financial support to state universities and defines national quality and standards for higher education system. Therefore, the Ministry is in a position to require that the quality of study process and learning outcomes would meet the international standards and develop effective competence-based higher education system by facilitating the integration of LMI with minimal additional investment.

In this context, it is suggested that the Ministry:

[3] Consider developing occupational standards (profession or group of professions) for higher education.
 An occupational standard defines the basic requirements for professional qualifications (knowledge, skills, attitudes and professional competences) that are necessary for the performance of the main tasks in the respective profession.
The quality of professional higher education could be significantly improved if the social partners actively participate in the development of occupational standards, in the assessment of quality of higher education and in the design of the programme curricula. Therefore, all stakeholders (employers, educators, ministries and other relevant experts) should participate in the development of occupational standards. However, the Ministry could take leading role and coordinate this process.

The occupational standards could be developed for each profession (or group of professions) in all sectors in Azerbaijan, for example, for teachers, engineers, financial analyst, architect, etc., specifying systemic understanding of performance that students are expected to achieve in their future work, also the knowledge and skills the need to perform effectively.

Occupational standards could include :
- *Brief overview* of the profession (summary of tasks and responsibilities for professional performance)
- *Level of qualification* in accordance with National Qualifications framework (European Qualifications framework)
- *Requirements to professional qualification* (for example, are there any specializations possible)
- *Professional knowledge, skills and competences* (could be distinguished on the level of notion, understanding and usage, what the individual needs to know and be able to do)
- *General knowledge, skills and competences* (could be distinguished on the level of notion, understanding and usage, what the individual needs to know and be able to do)
- *Attituteds and values (*the personal attributes an individual is expected to demonstrate within the the performance of professional activity)
- *Stakeholders* involved in the elaboration of standard

[4] Consider amending standards for national study programmes (national educational standard).

The design of study programme should lie on the autonomy of universities. Therefore, national educational standard should provide framework instead of study programme curricula. The national educational standards define goals for what students should know and be able to do at each level (bachelor, master or doctor). Universities in cooperation with other stakeholders design their own curricula with regard to <u>how</u> students will achieve learning outcomes.

The national educational standard may comprise of:
- *Reference to the National Qualifications* framework (European Qualifications framework)
- *Strategic aim and main tasks* of study programme

Example for state education standard for professional bachelor and professional master programmes:
The strategic aim of the study programmes is to provide professional studies which are relevant to the economy, culture, national defense and security and social needs, as well as studies which are based on the science field theory and occupational standards.
The main tasks of the study programmes are:
- to educate students, ensuring the acquisition of the [certain level] professional qualification, as well as to promote their competitiveness in the changing socio-economic conditions and in the international labor market;
- to ensure the achievement of the learning outcomes (knowledge, skills and competences) in accordance with the knowledge, skills and competences set in the European Qualifications Framework level 6 and 7 knowledge, skills and competences described in the Latvian Education Classification.

- *Compulsory content of the study programme* (separately for bachelor and master), including:
  - Minimum scope of study programme (in credit points)
  - Structure of study programme (study courses (subjects), internship, state examination)
  - The minimum scope in credit points for comprehensive study courses
  - The minimum scope in credit points for theoretical courses for respective field and information technology courses (necessary for professional activity)
  - The minimum scope in credit points for professional specialisation courses for respective field (necessary for professional activity)
  - The minimum scope in credit points for selective study courses
  - The minimum scope in credit points for internship
  - The minimum scope for state examination, part of which is diploma thesis

- *Occupational standard* prescribes the selection of study courses, the scope and content of study courses, the content of internship in accordance with professional qualification
- *General admission requirements*
- *General principles and procedures* for assessment of programme acquisition
- *Awarded degree and qualification level*
- *Rights to further studies*

It is essential that study programme curricula is based on occupational standard and educational standard. Therefore, both of these standards could not be contradictory, but rather complementary each other. Educational standard should be more general and provide framework setting the common learning outcomes for certain level (or certain field), but not detailed curricula as it should be responsibility of university, while the occupational standard should include description of knowledge, skills and competences which are necessary for certain profession.

Linked to the above, the proposal is to establish joint working groups or committees for reviewing all standards in order to ensure that they are in compliance with needs of labor market and educational sector.

Once the study programme is developed by university and started its implementation, universities should have the right to make amendments in the programme up to 20 % of the total compulsory scope of the study programme using internal procedures. External procedure should be in place if there more than 20 % of changes.

Standards and Guidelines for Quality Assurance in the European Higher Education Area prescribes the following:
Standard 1.2. Design and approval of programmes
Guidelines: […] Programmes:
- are designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes;
- are designed by involving students and other stakeholders in the work;

- benefit from external expertise and reference points;
- reflect the four purposes of higher education of the Council of Europe (cf. Scope and Concepts);
- are designed so that they enable smooth student progression;
- define the expected student workload, e.g. in ECTS;
- include well-structured placement opportunities where appropriate;
- are subject to a formal institutional approval process.
Standards and Guidelines for Quality Assurance in the European Higher Education Area prescribes the following:
Standard 1.9 On-going monitoring and periodic review of programmes
Standard: Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.
Guidelines: Regular monitoring, review and revision of study programmes aim to ensure that the provision remains appropriate and to create a supportive and effective learning environment for students.
They include the evaluation of:
- The content of the programme in the light of the latest research in the given discipline thus ensuring that the programme is up to date;
- The changing needs of society;
- The students' workload, progression and completion;
- The effectiveness of procedures for assessment of students;
- The student expectations, needs and satisfaction in relation to the programme;
- The learning environment and support services and their fitness for purpose for the programme.
Programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date. Revised programme specifications are published.

[5] Support universities in the implementation of annual surveys of students, graduates and employers satisfaction and use results for political decisions

In order to improve the quality of study programmes, universities should receive regular feedback form the stakeholders involved – students, graduates and employers. Programmes shall be reviewed and revised regularly involving students and other stakeholders. The information collected shall be analysed for ensuring that programme is up-to-date.

The Ministry could prepare recommendations for survey on students and graduates satisfaction, which measure students' attitudes not only towards their experience and study process at university, but also the development of higher education system.

The survey template should include the background information (programme, gender, home city, year of study, background of parents, monthly income, etc.), study process and environment at university (recruitment, admission, registration, form of payment, financial aid, counselling, study methods, assessment procedures and methods, study and support facilities, learning environment, library, academic staff, dormitory, medical and sport facilities, student center, catering) and open questions.

The recommendations on template for survey on graduates should additionally include section on employability and use of knowledge and competencies in the working place. [see further at the guidelines for universities]

[6] Consider performing national survey on labour market needs and further developments.

Planned provision of skills to labor market currently and in the future implies some process of decision-making allowing the Ministry to plan the number of students supply and universities

physical capacity to provide programmes, are typically used to guide the allocation of students to different programmes. The Ministry on an annual basis in cooperation with labor exchange institution may perform a survey of employers. The national employers survey could comprise of general information on employers' environment (structure of employers by sector, hiring in a previous year(s), changes in a structure of employment in a previous year(s), structure of new employment, difficulties in hiring, modes of hiring – looking for a new employee, scarce occupations), needs for skills in the future (planned employment in the next year(s), structure of planned hiring, regional distribution of planed hiring, structure of planned open-ended and fix term hiring, planned hiring by occupations, planned hiring by educational level and required competences, expected changes in a number of employed in next year, expected changes in a number of employed by counties/regions), forecasting (reasons for decrease in employment, characteristics of potential excess labour force, occupation of potential excess labour force). The results of the survey will provide evidence based on which the Ministry could plan the admission to universities and improve occupational standards, moreover develop the policies related to strengthening of human capital. Additionally the annual surveys are also performed at universities (see Guidelines for Universities)

[7] Consider improving the annual data collections from universities
Evidence-based policy has become a norm in the current higher education policy-making rhetoric in the Republic of Azerbaijan, affecting also higher education quality assurance. The evidence can also effectively guide quality assurance policies, and quality culture within universities can be encouraged by decisions made on national level. It is crucially important to broaden the scope for useful evidence which could help the Ministry to improve higher education quality and development of competence-based approach on a national and institutional level (see table 1) .

Table 1. Indicators for Monitoring National Higher Education Strategy

Students					
General information on students	Number of students in each study programme	Demographic data	Funding: state budget/ study fees	Drop outs	Number of international students; Mobility of home students
Matriculated (first year students)	Number in each study programme	Demographic data	State budget/ study fees	By region	
Qualifications/degree awarded	Number of graduates in each study programme	Demographic data		graduated in time	
Academic staff					
	Position	Scientific degree	Workload (full-time, part-time)	Age	Number of international staff; Mobility of home staff
Research and development					
	Number of doctoral students	Number of researchers	Number of national and international research projects	Number of patents	Number of research projects with business
Funding					
	State budget	Study fees			

For making informed decisions on national level and performing forecasts, regular data collection from universities is the first step for developing labor market intelligence and forecast system. It is beneficial for the Ministry if Statistics Unit of the Ministry prepares template for universities, and prepares annual reports "Higher Education at a Glance", providing basic information on general developments of higher education, for example demographic situation, GDP expenditure, etc., also comparison among universities. . Such information should be publicly available in order to support people for making informed choices, as people need comprehensive information and advice about education and work opportunities and their relevance to labor market.

[8] Adopt unified template for study programmes
Introduction of such templates makes the delivery and evaluation of study programmes more transparent and transferable. Adoption of common guidelines, which becomes compulsory to all newly accredited and reviewed study programmes, would enhance the integration of labor market intelligence into higher education and increase the engagement of stakeholders at universities. The adopted template may comprise of the following major parts: economic profile, labor profile, future demands, structure of study programme (study courses (disciplines), credit points, human resources, teaching methods, assessment etc.), learning outcomes.

In Latvia the description of the study programme shall include:
Part I - Justification of creation of the study programme and compliance with the strategy of the university
Part II - Management of the study programme
Part III - Resources and provision of the study programme
Part IV - Content and implementation mechanism of the study programme
Part V - Employment opportunities of the graduates

[9] Consider improving admission requirements for teacher education by introduction of motivation test

Educated and motivated teacher, who cares about the success of students, devotes more effort to preparing the lectures and thus provides students better conditions for achieving results. The challenge lies in finding not only highly qualified, but also motivated teachers. Different research results show that the developed countries having strict national admission requirements to teacher education and better results in PISA tests are linked to the selection of more capable candidates for teaching profession. Therefore it is beneficial to include the motivation tests in admission process. The motivation tests include questions which help to evaluate attitude and self-motivation of candidates, also their personal and social abilities, eagerness to learn, etc. The need to address teachers' motivation assessment derives not only from teachers' shortage or interlink with quality of teaching, but also teachers ability to professional development and motivation to remain in teaching.

[10] Consider preparing a national framework for professional (career) development of teachers and their continuous education

Teaching-learning processes and learning to teach, can be qualified as social, contextual practices, reflecting ideologies - sets of values about the ideal teacher and citizen, and the function of schooling (Cochran-Smith, 2006). EU Council recalled for teachers requirements more than ten years ago. The competences could be applied with regard to establish national requirements for teachers education: 1) a specialist knowledge of subjects; 2) pedagogical skills, including teach heterogeneous classes, use ICT, teach transversal competences, create safe attractive schools; 3) cultures and attitudes of reflective practice, research, innovation, collaboration, autonomous learning. The science education and innovations in education are developing rather quickly, therefore continuing education of teachers is essential. It is recommended to establish teachers career development framework and enhance the following competences: 1) communication in mother tongue, communication in a foreign language 2) mathematical, scientific, technological literacy, 3) digital competence, 4) learning to learn, 5) interpersonal, civic competences, entrepreneurship.

[11] Encourage and support strong universities for new strategic goals with regard to innovations and regional smart specialisation developments

Universities have generally had a minimal role in national and regional innovation activities in the Republic of Azerbaijan, also a technology push has mostly ignored the potential contribution of arts, humanities and social sciences to regional development and innovation. Regional universities and those having partnership with companies have a potentially pivotal role to play in the social and economic development of the country. They are a critical 'asset' of the country and may be innovation drivers in less favoured regions where the private sector may be weak with low levels of research and development activity. The experience in different European Union countries and beyond shows that the mobilisation of the resources of a university can have a positive effect on regional economies. Link to the above, the ministry could prepare the smart specialisation strategy according to the following key principles (S3platform, EC) :

− Smart specialisation is a place-based approach, meaning that it builds on the assets and resources available to regions on their specific socio-economic challenges in order to identify unique opportunities for development and growth;

− To have a strategy means to make choices for investment. Azerbaijan ought to support only a limited number of well-identified priorities for knowledge-based investments and/or clusters. Specialisation means focusing on competitive strengths and realistic growth potentials supported by a critical mass of activity and entrepreneurial resources;

− Setting priorities should not be a top-down, picking-the-winner process. It should be an inclusive process of stakeholders' involvement centred on "entrepreneurial discovery" that is an interactive process in which market forces and the private sector are discovering and producing information about new activities, and the Ministry in cooperation with the Academy of Science assess the outcomes and empowers those actors most capable of realizing this potential;

− The strategy should embrace a broad view of innovation, supporting technological as well as practice-based and social innovation. This would allow regions involved to shape policy choices according to their unique socio-economic conditions;

− Finally, a good strategy must include a sound monitoring and evaluation system as well as a revision mechanism for updating the strategic choices.

The above defined key principles should be exhaustively explained in documents and strategy should fit into the overall research and innovation policy and complement the existing national funding measures.

[12] Consider taking a leadership in announcing National Career Week annually

The aim of career events organized at different universities in the Republic of Azerbaijan is to promote the importance of careers in education. The Ministry could assist higher education stakeholders taking the leadership in promoting unique national career week, helping organisers at universities develop and share good practices. The Week organized by different universities in cooperation with employers during the same week could ensure sustained provision of information on career.

Guidelines for Universities

The universities are the main institutions on operational level, and they are the only ones being obviously in direct contact with their students and professors. According to the Ministry's orientations, universities have to bring them the best educational level as well as the skills and competences needed for graduates' efficient insertion in the labor market and continuous professional development. Universities can play a critical role in supporting their teaching staff in the creation of effective teaching and learning environments for students and providing ongoing opportunities for career developments. Identifying and developing learning resources and improving curricula are integral parts in enhancement of competence based approach at institutional level. Institutions should aspire both to improve curricula and to use knowledge and experience elsewhere. Evidence shows that if universities make good quality courses and materials, they can attract new students, expand their institutional reputation and advance their public service role.

In this context, it is suggested that universities:

[13] Establish programme committees
Ongoing awareness-raising, capacity-building and networking can be carried out to develop the full range of competences required to facilitate more effective use of OER (Open Educational Resources). Each study programme should establish a "programme committee", which includes academics, representatives of the socio-economic world, and students. The aim of this committee is to perform an annual activity report, examine the criteria describing the study programme performances (e.g. recruitment, success to exams, employment), suggest corrective actions, and check their efficiency. All the information has to be analysed by the study programme and by the university, through devoted structures (programme committees, pedagogical council) in order to propose ways of evolution and lead to effective improvement.

[14] Aware of the importance of stakeholders opinion within internal quality assurance and competence development processes
In order to have a better knowledge of their efficiency, universities should consider to perform an annual survey of their students, their graduates and employers. These surveys can be based on the Ministry's provided template with regard to institutional, but not national framework of LMI integration (see example below).

The student's point of view will help to manage, on the one hand, the content of study programme and the pedagogical methods, and on the other hand the organization and environment of the studies.

The survey of the graduates will lead to information about, for instance, the fit between the acquired competences and skills and the requirements of the job they occupy.

The employers will give their appreciation on how the graduates are dealing with their jobs, on possible gaps which could have appeared in the study programme, on the trends on short or medium term (competencies, needs in manpower, etc.)

Examples of possible questions for annual surveys for employers:
- How many graduates of the respective programme, who have graduated for the last 5 years, work in the company?
- Are graduates of the respective programme able to use the gained theoretical knowledge and skills for the execution of professional and innovative activity by working individually / in a team?
- Are graduates of the respective programme able to independently raise their scientific qualification / implement research projects / communicate on their scientific activity?
- General characteristics of graduates (offering multiple choices answers, for example: graduates have good practical skills, but low theoretical knowledge, graduates are able to work independently, graduates are able to work under supervision, etc)

Examples of possible questions for annual surveys for graduates:
- The professional activity is related to the awarded degree and/or qualification
- Workplace is in a private or state company, related or not to the awarded degree and/or qualification
- Opinion on the quality of the programme/ selection of study courses/ gained knowledge, skills and competences are relevant to the labor market needs

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[15] Undertake graduates career tracking and capacity building

Monitoring is one of the assessment and verification methods of education process and comparing it to the requirements of the labor market. Universities in Azerbaijan could implement the tracking of their graduates' career. The alumni network thus formed will be an invaluable source of information on the evolution of occupations and jobs. Those data will complete, and should be aggregated with, surveys on graduates, students and employers satisfaction. It implies the development of an efficient tool (information system). To allow an analysis at national level, universities should use a template prepared by the Ministry of Education.

Examples of possible questions for graduates career tracking:
- Where are university graduate student alumni working?
- How does university define post-graduate success?
- Is university preparing its students for the realities of the job market?
- Does the content of the study programme prepare for career changes in the medium term?
- Is university advertising its graduate programs appropriately?
- How do employment trends for universitys' alumni compare to national trends?

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[16] Ensure the engagement of employers in the improvement of the higher education system

Employers should be involved in the whole process of developments on national and institutional level, from the beginning (analysis of the needs of the labour market, conception of the programme, admission of students) to the learning and teaching processes and finally to the assessment of the study programme and its improvement. [also see point [12]].

[17] Review institutional strength and consider establishing smart specialisation action plan

The universities should develop their own strategy, in defining their strengths and their axes of development within the key principles on national smart specialisation strategy on national or regional level. That smart specialization can only occur if university has already reached a sufficient level of cooperation with socio-economic partners and which research is performed in close cooperation with Academy of Science.

Examples of roles/contributions of universities to smart specialisation strategy (S3 platform, EC):
- Universities can play a key role in defining a regional smart specialisation by contributing to a rigorous **assessment of the region's knowledge** assets, capabilities and competencies, including those embedded in the university's own departments as well as local businesses.
- Universities can contribute to the regional entrepreneurial discovery process by bringing **global awareness and partnerships** across regional borders into the frame through evidenced based identification of competitive advantage around which regional strategies and resources can be concentrated.
- Universities can provide **specialist research expertise** and links to national and international networks of knowledge, becoming critical agents in the entrepreneurial discovery process and establishing whether a region has the assets needed to specialise in particular areas.
- Through their **teaching programmes** (including Continuing Professional Development and Lifelong Learning as well as under and post graduate courses) universities can enhance the skills and competencies of staff working in the field of economic development through training, consultancy services and supply of graduates, thus improving the capacity of the region to deliver smart specialisation.
- On the demand side, while a region might possess a strong university or universities there might be limited absorptive capacity in local enterprises, especially SMEs or the branches of multinational companies with no local in-house R&D.
- Universities can contribute to **capacity building on the demand side** through new business formation, student enterprise, and graduate placements as well as encouraging staff to actively engage with local businesses.
- In terms of **institutional leadership and governance**, particularly in regions where local government is fragmented and unable to act beyond its own immediate boundaries, universities as key anchor institutions can play an important role in building the social relations which underpin the regional innovation system for the formulation and indeed, implementation of smart specialisation.
- Furthermore, in meeting major societal challenges that have both global and local dimensions, such as how to move towards a low carbon economy or to meet the needs and realise the opportunities of an ageing population, universities can contribute to **local knowledge creation** and its translation into innovative products and public and private services. In addressing such challenges universities can engage the creative arts and social sciences as well as technical and natural scientists.

Guidelines for academic staff

Academic staff is a core in ensuring the quality of teaching and learning delivered to students. Teachers face a series of challenges, including: 1) preparing curricula and selecting, adapting and developing teaching and learning materials and assessment tools; 2) access to high quality, relevant teaching and learning materials; 3) changing teaching and learning environments to competence-based approaches; 4) the need to cover a broad and growing knowledge and skills base; 5) high student expectations. The teachers at universities must be as efficient as possible, considering both their disciplinary and technical competences, and their pedagogical skills.

In this context, it is suggested that academic staff:

[18] Enhance and promote research excellence. It is suggested that certain percent (proposal is 70%) of teachers at university should have a PhD degree and participate actively in research projects with Academy of Science. This will increase the academic level of the study programmes by allowing teachers to be at the forefront of scientific developments in their research fields.

[19] Seek institutional support for skills development

It is suggested that teachers should develop skills in foreign languages and in digital technologies. Also, academic staff needs to acquire skills and competences, such as learning materials design, curricula development, selection and adaptation of teaching methods through a blended strategy of skills development and professional skills support. Therefore, they should receive institutional support for professional development in these areas, both as individuals and as teams. That involves a large training scheme to upgrade their skills, including international exchange programmes.

[20] Encourage student participation
Academic staff can be encouraged to use student feedback on their disciplines to improve their own learning materials and teaching methods and encourage students to publish and contribute to study process.

[21] Leverage networks and communities of practice
Academic staff can benefit tremendously from engaging into different national and international networks to develop, adapt and share their experience, as well as to engage in dialogue about their experiences in teaching and learning. Such communities of practice can also provide an excellent platform for publishing their best practices in conference abstracts or papers.

[22] Develop the working in teams
The development and repurposing of curricula is likely to be more successful and more satisfying for the academic staffs involved, if they adopt a team approach.

Guidelines for student bodies

As the role of universities has evolved, the role of the students too. To promote the changing student roles, student bodies have to play a role in shaping the quality of their educational experience. Although creating teaching and learning environments is primarily the responsibility of academic staff, student bodies should be aware of the relevant issues and integrate them as appropriate into their interactions with other higher education stakeholders.

In this context, it is suggested that student bodies:

[23] Undertake advocacy of competence based approach in study process
Student bodies can actively promote awareness among students of the need to improve the educational quality, based on the understanding of educational and economic benefits.

[24] Encourage students participation in activities of study process improvement

Student bodies can actively support and promote strategies to allow students to assist in revising, adapting and curricula design in partnership with academic staff.

[25] Take an active role in annual surveys of students and graduates

Student bodies can encourage students and graduates to participate in annual surveys, so that they play an active role in assuring the quality of curricula by providing information on what content they are finding useful and why.

Guidelines for quality assurance body

Quality assurance in higher education includes all policies, measures, planned processes and actions through which the quality of higher education is maintained and developed.
According to the Standards and Guidelines for Quality Assurance in the European Higher Education Area (further ESG), quality assurance body operates independently and transparently, it should have clear and explicit goals and objectives that are part of their publicly available mission statement.

ESG consists of three parts: internal quality assurance, external quality assurance and quality assurance agencies. The internal quality assurance mainly refers to the universities, however, it is the task of the quality assurance body to asses it at universities. The standards and guidelines of external quality assurance provide guidance on how to organize and coordinate assessment. It should be kept in mind that all there parts work on complementary basis in universities and quality assurance bodies and also work on the understanding that other stakeholders contribute to this framework.

In this context, it is suggested that quality assurance body shall:

[26] Involve employers representatives and students as experts in the assessment of study programmes and universities; therefore the curricula and learning outcomes of study programmes will be assessed from the point of view of employers in order to ensure that graduates have skills and competences needed in labor market.

[27] Include in the assessment such aspects as:
- Justification of introduction of the study programme and its development process
- Compliance of the study programme with the strategy of the HEI and development trends in the society and national economy
- Compliance of the study programme with the trends of the relevant industry in the countries of the European Union and in the world
- Development prospect of the study programme

- Employers, employers' organisations and other organisations of the relevant industry involvement in the process of design and further improvement of the study programme (including the use of the results of employers survey)
- Students' involvement in the process of design and further improvement of the study programme (including the use of the results of students' survey)
- Results of the student, graduates and employers' opinion surveys - are the results used for improvement of the study quality, and to what extent ?
- Internship system, opportunities, content
- Cooperation with employers and employers' organisations of the relevant industry;
- Graduates employment perspectives
  - o Compliance of the employment opportunities of the graduates with the medium- and long-term demand of the labor market and the relevant industry
  - o Compliance of the skills and competencies acquired by the graduates with the medium- and long-term development trends of the labor market and the relevant industry
  - o Employment of the graduates of the study programme - are the graduates employed in the field of the acquired degree/professional qualification or in other field ?
  - o Employment forecast and opportunities of the graduates of the study programme.

[28] During site visits organize interviews with employers and students

In the evaluation process one source of information is analyses of surveys of students and employers satisfaction and another source of information are interviews with employers and students. During these interviews assessment experts could find out additional information on the quality of programme curricula and graduates competences and skills.

[29] Support universities to develop internal quality assurance systems by organizing seminars

The objective of quality assurance body is not only to make assessments but also to promote quality culture at universities, to engage in quality improvement, therefore it could operate also as a competence-center by providing educational trainings and seminars on quality related issues.

Useful references

1. *Guidelines for study programmes in Latvia*
   - *http://www.aika.lv/wp-content/uploads/2017/12/Guidelines_Licensing_study_programme_description_ENG.pdf*
2. *Study descriptors in Lithuania:*
   - *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Mathematics.pdf*
   - *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Geography.pdf*

- *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Physics%20.pdf*
- *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Chemistry.pdf*
- *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Technologies.pdf*
- *http://www.skvc.lt/uploads/documents/files/EN%20versija/Quality%20Assurance/Study%20program%20descriptions/Engineering.pdf*

3. **Standards and Guidilines for Quality Assurance in the European Higher Education**
   http://www.skvc.lt/uploads/lawacts/docs/161_6f14c8cc892d494af31246b39bcf043b.pdf
4. **Description of Experts Selection Precedure in Lithuania**
   http://www.skvc.lt/uploads/lawacts/docs/240_c660cf487a73dfe5539c46b76bfd8a95.pdf
5. **Methodology for evaluation of higher education study programmes**
   http://www.skvc.lt/uploads/lawacts/docs/261_cd79c7ca1bc194d442236daf8756e5bf.pdf
6. **Methodology for Drafting the Description of a New Study Programme, Its External Review and Accreditation; Institutional Review**
   might be found *http://www.skvc.lt/default/en/lawacts*
7. **Procedure for the External Assessment and Accreditation of Study Programmes**
   https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.404519
8. **Centre for quality assessment in higher education quality manual**
   http://www.skvc.lt/uploads/documents/files/EN%20versija/Strategy%20and%20Quality%20Policy/KV_Kokybe%20s%20vadovas_vertrimas.pdf

THE SUMMARY

Driving economic devlopment through skills enhancement is crucial because skills are, and will be, needed to respond to the new economic structures that will emerge and to fill the new jobs that will be created in the current innovation and knowledge-driven economy in the Republic of Azerbaijan. These Guidelines outline key issues and make suggestions for integrating LMI into higher education system. Their purpose is to encourage decision makers in government institutions and universities to support and invest in the systematic production, adaptation and use of LMI in order to improve the quality of curricula and teaching and to reduce costs.

The Government of the Republic of Azerbaijan plays a crucial role in setting policies for higher education system. It has a defined interest in ensuring that public investments in higher education make a useful and cost-effective contribution to socio-economic development of the state.

In this context, it is suggested that the Government:
− *Consider establishing intergovernmental Committee on Human Capital Development.*
− *Consider initiating a National Strategy for Research and Innovation.*

The Ministry of Education of the Republic of Azerbaijan provides necessary financial support to state universities and defines national quality and standards for higher education system.

In this context, it is suggested:
− *Consider amending standards for national study programmes*
− *Consider preparing occupational standards (group of professions) for higher education*
− *Support universities in survey implementation and use results for political decisions*
− *Adopt unified templates for study programmes*
− *Consider enriching annual data gathering at universities with new indicators, adopt unified template and use results for political decisions*
− *Consider improving admission requirements for teacher education by introduction of motivation test*
− *Consider preparing a national framework for professional (career) development of teachers and their continuous education*
− *Support universities in student tracking and use results for political decisions;*
− *Encourage and support strong universities for new strategic goals with regard to innovations;*
− *Consider taking a leadership in announcing National Career Week annually;*

Universities can play a critical role in supporting their teaching staff in the creation of effective teaching and learning environments for students and providing ongoing opportunities for career developments.

In this context, it is suggested that universities:
– *Perform annual surveys of students, graduates, employers;*
– *Establish Programme Committees;*
– *Involve employers in programmes design, assessment and regular review;*
– *Develop institutional smart specialisation strategy*
– *Perform graduate career tracking*

The Guidelines also provide recommendations for ***academic staff, students and institutional bodies in charge of quality assurance.***