"Establishment of National framework of Key Performance Indicators for good governance and quality towards inclusive, digital and green oriented higher education in Armenia" (KPI4HE)

ERASMUS + Project#101128552

«Հայաստանում ներառական, թվային ու կանաչ ուղղվածությամբ բարձրագույն կրթության պատշաճ կառավարման և որակի գործունեության առանցքային ցուցանիշների (ԳԱՑ) ազգային շրջանակի ստեղծում» (KPI4HE)

ԷՐԱԶՄՈՒՍ + ՆԱԽԱԳԻԾ ԹԻՎ 101128552

"Fact-finding on the HEIs' institutional analytical capacity"

«Բուհերի ինստիտուցիոնալ կարողությունների վերաբերյալ իրավիճակի վերլուծություն»

WORK PACKAGE WP1 –
CAPACITY BUILDING ON IR FOR SP
ԱՇԽԱՏԱՆՔԱՅԻՆ ՓԱԹԵԹ (ԱՓ) 1 –
«ԿԱՐՈՂՈՒԹՅՈՒՆՆԵՐԻ ԶԱՐԳԱՑՈՒՄ ԻՆՍՏԻՏՈՒՑԻՈՆԱԼ ՀԵՏԱԶՈՏՈՒԹՅՈՒՆՆԵՐԻ (IR) ՀԻՄԱՆ ՎՐԱ ՌԱԶՄԱՎԱՐԱԿԱՆ ՊԼԱՆԱՎՈՐՄԱՆ (SP) ՀԱՄԱՐ»

WORK PACKAGE 1 –
"CAPABILITY DEVELOPMENT FOR STRATEGIC PLANNING BASED ON INSTITUTIONAL RESEARCH (IR) "

"Establishment of National framework of Key Performance Indicators for good governance and quality towards inclusive, digital and green oriented higher education in Armenia" (KPI 4 HE) "Establishment of National framework of Key Performance Indicators for good governance and quality towards inclusive, digital and green oriented higher education in Armenia" (KPI4HE) project aims at improving higher education system governance, university strategic planning and management contributing to quality and inclusive, digital and green oriented higher education in Armenia through development and implementation of National framework of Key Performance Indicators (KPIs) for higher education (NF-KPI), operationalization of Institutional Research and Planning Services (IRPS) and revision of State Institutional Accreditation Standards in line with NF-KPI.

Capacity building of national and institutional administrators, decision and policy makers, educators and researchers to integrate the Sustainable Development Goals targeting environmental issues into NF-KPI as tool for higher education steering and university practices of governance, strategic planning, management and quality assurance will be the core of the project.

The following project outcomes are expected to be sustainable after the end of the Erasmus+ programme funding:

1. Training Kit on European experience of Institutional Research (IR) for improvement of higher education governance, university strategic planning, management and quality within the context of digitalization and green transition,
2. Trained staff from involved institution in charge of strategic planning, management of information system, quality assurance, educational and administrative management,
3. National framework of KPIs for higher education (NF-KPI) and its digital platform based on context and supporting transition to inclusive, digital and green higher education in Armenia
4. Operations Manuals of IR (OMIR) in application of NF-KPI fitting the size, mission and objectives of the involved HEIs,
5. Functional Institutional Research and Planning Services (IRPS) with necessary infrastructures and regulatory framework in involved higher education institutions
6. Reports on pilot Institutional Research (IR) and strategic planning activities in involved HEIs,
7. Revised and adopted State Institutional Accreditation Standards in line with NF-KPI.

The project expected impact is foreseen on:

Institutional level: Teaching and administrative staff with increased and reinforced competencies on IR for digitalization and green transition, functional IRPS and set of KPIs for collection, analysis and utilization of relevant institutional data in support of daily management and strategic planning, monitoring and control, quality evaluation and decision making for the sake of university efficient and green functioning and development.

National level: Implementation of National framework of Key Performance Indicators (KPIs) for higher education (NF-KPI), digital platform supporting NF-KPI and revised State Institutional Accreditation Standards in line with NF-KP as tools for effective steering of higher education system towards inclusive, digital and green-oriented higher education in Armenia.

European level: sparked experience sharing, networking and promotion of long-term cooperation between the involved partners leading to convergence in line with EU developments and standards and towards fostering the integration of the HEIs from Armenia into the EHEA.

1st working day of the project with the package analysis is planned universities institutional abilities regarding such as are data recruitment and analysis informational systems management, strategic planning, university management, teaching and education, quality providing how also individual lessons development.

The purpose of the analysis is to identify the existing resources, application structures and methods of institutional research capabilities of universities, to contribute to the process of development of GAS for Armenian universities to work more effectively, as well as to clarify the methodology and direction of the application of key performance indicators.

The analysis carried out on the basis of questionnaires is aimed at the collection of general information, joint discussion and the creation of prerequisites for the development of further structures in order to form an understanding of the existing practice of Institutional research-capabilities (including the higher education management information system-HEMIS) and strategic planning in Armenian universities and partner EU universities.

The Institutional Research (RI) analysis will enable the development of a training package (including HEMIS) designed for the management of higher education, university strategic planning, management and quality improvement in the context of digitization and green transition.

The materials of this analysis of the situation regarding the current practice in the field of IR in Armenian universities will be developed and distributed in Armenian and English languages. Materials will be published only in digital format.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	**Yerevan State University (YSU-AM)**
	Partner #	**1 (PROJECT COORDINATOR)**
	Person (s) completing the questionnaire	**Arsen Aproyan** **Armen Budaghyan** **Marie Santurjian** **Anna Babajanyan** **Armen Sargsyan** **Marine Stepanyan**
	A date	**April 05, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

Yerevan State University operates various automated systems of institutional data collection, coordination and analysis. These are the SuperVision, Intranet, E-learning and Registrar systems, where various data related to the educational process, students and professors are collected and coordinated.

YSU Quality Assurance Center collects data on a number of processes related to the quality of education, including:

1. The results of student surveys on the quality and effectiveness of teaching.
2. Results of graduate satisfaction surveys.
3. Results of focus group interviews with students.
4. Monitoring results regarding the quality of implementation of educational programs.
5. Data required for institutional accreditation.
6. Data required for software accreditation.

According to the center's functions/planned actions, the types of data to be collected are first identified, based on them, formats are developed in accordance with the defined goals and needs, and then these formats are supplemented. For the purpose of the latter, YSU's existing electronic tools (Supervision, Intranet, AS, Mulberry, E-learning, Registrar) are used for data collection, according to availability, the data filled by departments (Annual action plan, monitoring and evaluation, report, budget, YSU data collection , formats of the deans' report, available and available documents in other departments (electronic and paper), interviews, focus group discussions, YSU reports compiled for previous years, data of the Statistical Committee of the Republic of Armenia, as well as available data of other state and international structures, organizations and universities of the Republic of Armenia according to need and availability.

Based on the collected data, in accordance with the predefined objectives of the process, an analysis of the current situation and possible trends is carried out, reports/reports are drawn up, and recommendations are presented.

All data (quantitative and qualitative), analyzes and reports collected by the YSU Strategic Planning Center are available in the center's electronic folder. They are classified according to the respective processes with their own sub-sections.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

The data collected at the institutional level through the systems and tools listed in the first section serve as the basis for the further development, analysis and formulation of key indicators of the University's activity. These GAPs later serve as a basis for strategic planning.

The data mentioned in points 1 and 2 are collected as a result of online surveys and are placed in the university's electronic database of student surveys, from where they become available to the relevant users. The questionnaire and the procedure of the surveys are approved by YSU SC.

The data mentioned in point 3 is collected as a result of processing the results of a face-to-face focus-group survey/interview with small groups of students enrolled in each educational program. The FC interview questionnaire is provided by the NAO.

The data referred to in point 4 is collected from the reports submitted by the educational program monitoring groups, which include both quantitative and qualitative data on all aspects of program implementation. The format of the reports is approved by YSU Central Committee.

The data presented in points 5 and 6 are collected from the reports prepared by the working groups created for the purpose of institutional and programmatic self-evaluation. The format of the reports is defined by the accrediting organization.

- **YSU strategy monitoring format:** On the basis of the goals, problems and indicators defined by YSU's current development strategy, the types of necessary data were separated according to the data-bearing units (both educational and administrative). Based on this, **separate data formats were prepared** , which were filled in by the departments. The collected data were inserted into a single format according to years. On the basis of that, **the preparation of YSU rector's report,** the form of the progress recorded in the direction of the goals defined by the strategy, was carried out **.**

- **YSU Comprehensive Action Plan:** A unified (consolidated) format of action plans of all divisions included in the planning process, which completes the actions of individual YSU divisions developed in the planning process, classifying them according to the goals of the YSU 2021-2026 strategy (high-quality education, science and innovation, public involvement) and an analysis is carried out on its basis.

- **Unified (consolidated) format of YSU annual action plans reports.** As part of the planning, monitoring and evaluation process, various data related to the activities of the units are collected according to the KPIs (for example, the number of event participants, the number of partners, etc.). Monitoring of defined actions is carried out on a quarterly basis, and at the end of the planning cycle, a report is completed by the units and inspection measures are presented. After that, the center prepares a unified (consolidated) format that completes all the data, where based on the collected data, the results of monitoring and evaluation of YSU units' action programs are summarized, the main trends are

highlighted, the existing problems are revealed, as well as recommendations are presented for the improvement of the overall process.

- **Budget format of YSU departments** according to the operation codes of the annual plan, the intended source of funding. On the basis of individual parameters **, a united (consolidated) budget** is drawn up according to various parameters.
- **Formats for analysis of financial inputs and outputs of YSU.**
- **Dean's Report Database Format.**

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

Different divisions are responsible for the collection and analysis of YSU institutional data due to their functions.

✓ The educational department collects and analyzes data related to the educational process, including students, professors, and educational workload.

✓ The Quality Assurance Center uses various means and tools to collect and analyze information related to educational programs, both at the institutional and at the program level.

✓ The scientific policy department collects and analyzes the data on the scientific research activities carried out in the educational units.

The employees of the above-mentioned departments have undergone various trainings in famous European universities, as well as regularly cooperated with different Armenian universities within the framework of the dissemination of best practices in the mentioned fields.

YSU NAO is responsible for the collection and analysis of a number of data on the quality/efficiency of the educational process, which are presented in point 1 of this questionnaire. The connection of the NAO with other structural divisions of the university is reflected in the image below.

Organizational structure of YSU internal quality assurance system .

In 2012-2013, trainings for the employees of YSU NAO were carried out in the field of institutional and program accreditation processes, their self-assessment reports, in 2013-2014, in the field of development of national and sectoral frameworks of qualifications, effective educational programs and courses, in 2019-2020. .: within the framework of interactive teaching and learning methods, etc.

YSU RPC is often a hub that combines primary and secondary data for data collection and coordination through cooperation with units that generate data and/or collect primary data in specific sectoral directions. At the same time, the center itself is responsible for the collection and/or coordination of some data, namely:

- **Data needed for strategy development** (previous years' data and trends related to the fields of education (admissions and applicants, educational process), science and innovation, environment and infrastructure, governance and internationalization.
- **Contextual data:** data about contextual external factors that may affect the effectiveness of the university's operations. For example: data related to socio-demographic, economic, political, environmental, cultural and various aspects of life, legislative field, study of international experience, etc.).
- **Data necessary for the collection, analysis and use of GAS** .
- **Qualitative and quantitative data on the activities of the departments** (resources allocated to the activities provided by the annual plans, including financial, human resources, equipment and materials, implementation schedules, success indicators, starting points, targets and their quantitative data, for example, number of workshops, number of beneficiaries, etc.).
- **Data collected during monitoring and evaluation** (quantitative and qualitative (causal) data on performance indicators or measures used to measure progress and results against planned targets).
- **Financial indicators:** data on the main typology and trends of YSU's financial activity indicators, budget inputs and outputs in recent years.
- **Other quantitative and qualitative data:** Data collected through interviews, focus groups, or individual case studies, surveys to collect feedback on the various processes of the center and the experiences of the participants, based on which the lessons learned are distinguished.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

All the quantitative and qualitative data mentioned in the previous point serve as a basis for making data-based decisions at the institutional level and their further implementation. The mentioned data, as well as the GACs, serve as a basis for effective strategy planning.

The presented quantitative and qualitative data collected by the NAO regarding the implementation of educational programs and the quality and efficiency of teaching (see above) are the basis for operational/current (short-term) planning and the implementation of relevant measures. Their connection with long-term (strategic) planning is very weak.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

Taking into account the fact that YSU is a traditional university, and programs are implemented in different directions: natural science, humanitarian, social science and socio-economic, as well as there are various departments that coordinate educational, scientific and organizational work. Due to this circumstance, different types of data are collected by different departments and sometimes it is difficult to combine the existing information, which is the main difficulty at the institutional level.

There are the following problems related to the collection and use of the above data presented in point 1 related to ensuring the quality of education:

➢ The results obtained from student and graduate surveys are not always reliable and trustworthy, due to the very low participation of students, as well as their disinterested and unbiased approach.

➢ Focus-group interviews with students give a more objective picture, but it is an extremely time-consuming and expensive process.

➢ Monitoring of educational programs is a more comprehensive process of data collection and analysis, but the groups implementing it are not always competent, interested/motivated and often show a formal approach.

➢ The data collected for the institutional accreditation process is reliable and comprehensive, but its use generally does not lead to real improvements, especially in the educational sector.

➢ The data collected for the program accreditation process is quite useful and helps in the development of measures to evaluate and improve the quality of educational programs.

- **YSU Data chain analysis** : Based on the study of the previous international experience, in the direction of data management systems and university practices in particular, qualitative data collection (interviews and study of documents (regulations, reports, forms, etc.) and analysis, objective description of the current state and highlighting of existing problems was carried out. Based on the methodology, relevant departments were identified [1], with whom interviews were conducted regarding data collection and analysis practices, according to the logic of the developed questionnaire. The latter includes information about what data the units possess, how they are processed and stored, for what purposes and by whom they are used. The data were separated into their subcategories. Then, their structural mapping was carried out with the following differentiation:

1. A student
2. Education:
3. Science
4. Employee
5. Finances
6. Environment:

- **Analysis of financial indicators of YSU:**
- **The new 2025-2030 year of YSU development. strategy development.**
- Non-availability of data in electronic form (only paper or local databases), consequently, difficulty, time-consuming, and in some cases, impossibility of using them.
- Incompleteness and often lack of data provided by departments.
- Collection of the same data by different departments, collection/calculation in different formats, resulting in inconsistent data on the same category.
- Not having all the data in one unified platform.

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[1] YSU Educational Methodology Office, International Cooperation Office, Doctoral Education Center, Accounting Office, Financial Analysis Office, Alumni and Career Center, Personnel Management Office, Quality Assurance Center, Continuing Education Center, Student Affairs Center, Scientific Policy Office, Library, Admissions and the center for work with applicants, Marketing Office, Vice Rector for General Affairs, Strategic Planning Center, Information Technology Office, IT Education and Research Center, Publishing House, Procurement Office, Head of Staff, Legal Service, Educational Units (Faculty, Institute, Center)

- Very low level of ability to work with electronic tools among the staff of the units.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The links to the documents regulating the collection of data on the processes presented in point 1 related to the quality of education are presented below.

1. Student surveys on the quality and effectiveness of teaching.

https://www.ysu.am/node/8367

2. Alumni Satisfaction Surveys:

https://www.ysu.am/node/8372

3. Randomized focus group interviews with students.

https://docs.google.com/document/d/17-UQvjA28tHtjBKLLfgb4RTaNYo0Wxy_/edit?usp=drive_link&ouid=106240197258769192149&rtpof=true&sd=true

4. Monitoring of the quality of implementation of educational programs.

https://www.ysu.am/node/317

5. Institutional Accreditation Process:

https://www.ysu.am/node/8378

6. Program Accreditation Process:

https://docs.google.com/document/d/1M872f2O3f6DTWUx0L2n-FQAAEPenyJHe/edit?usp=drive_link&ouid=106240197258769192149&rtpof=true&sd=true

https://docs.google.com/document/d/11AYWZgBYBZJLOWN2HbFNd85ds6LIsm2m/edit?usp=drive_link&ouid=106240197258769192149&rtpof=true&sd=true

1. Order of educational process organization:
http://documentation:ysu:am/wp-content/uploads/2022/04/Us_karg_new:pdf
2. SuperVision electronic control system
3. Internet internal domain of YSU employees:
https://intranet : ysu : am/
4. Registrar electronic system.

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

The institutional data collection and analysis system of Yerevan State University can be improved with the help of the following measures/mechanisms:

1. By data standardization. it is necessary to ensure that data is collected, stored and analyzed using standard formats and procedures. This will facilitate the comparison of data received from different departments and at different times.

2. By integrating different systems. In order to get a comprehensive picture of the university, it is necessary to integrate various data systems into one unified system (such as student information systems: SuperVision, Registrar; financial system: AC-2; academic systems: Intranet, e-Learning; and other systems: e -request etc.).

3. By ensuring data quality. implement processes to ensure the accuracy, completeness and timeliness of data. This includes regular audits and validation checks.

4. Using advanced analytics: Use of advanced analytical tools and techniques/methods (eg predictive analytics, machine learning, etc.) to extract insights from data and make informed decisions.

5. Data Security and Privacy: ensure the security of data storage/storage and management, comply with privacy rules (eg General Data Protection Regulation/ GDPR , Health Insurance Portability & Accountability Act/ HIPAA, etc.) to protect sensitive information.

6. Data Management Framework: create a data management framework that defines University-wide data management roles, responsibilities and processes.

7. Data-driven decision making: encourage a culture of data-driven decision-making among the University's stakeholders, from administrators to faculty and administrative staff.

8. Regular report: Provide key stakeholders with regular reports/reports and tools to keep them informed of key metrics and trends.

9. Feedback: Create a feedback loop where data users can provide feedback on the usefulness and relevance of the data being collected and analyzed.

10. Continuous improvement: continuously review and improve data collection and analysis processes based on feedback and changing needs.

Implementing these improvements can help the University better understand its operations, identify areas for improvement, and make more informed decisions to increase efficiency and quality.

1: Ensuring the flexibility of electronic platforms operating at YSU.

2: Wider access to the collected data to the relevant departments.

3 : Trainings aimed at the development of the abilities and skills of the specialists of the relevant units.

Availability of a unified, common access to data electronic system, which will allow to significantly reduce the time spent on the data collection process, as well as simplify the process itself, enabling departments to enter one data into the system only once, after which other university departments, according to the need and their functional scope at the level of the relevant department head and/or relevant employee/s will have access and the opportunity to use that data. As a result, we will avoid requesting the same data from the same department several times. In terms of avoiding the practices of collecting the same data by different departments, it will be very important to study and

analyze the business processes of the departments, based on that, to separate clear functional frameworks and the types of data to be collected arising from the latter.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

In the above-mentioned directions, the NAO did not implement significant processes. The collection of necessary data, such as the 1st and 2nd of those mentioned in point 1, is carried out online (digitally). For the rest of the processes, the collection is done as a result of face-to-face meetings and/or in paper form (although all data is ultimately saved in electronic form and is available on the YSU website, see point 6).

1. All YSU bachelor's educational programs include the "Fundamentals of Ecology and Environmental Protection" course as a mandatory component.

2. YSU is involved in Erasmus+ program T-Green, KPI4HE, RE-GRAD and In four T4GREEN projects, within the framework of which new educational programs are being developed, where issues related to inclusiveness, green orientation and digitalization are taken into account.

3. The control of the entire educational process, starting from the applications, takes place through an electronic system and is centralized.

4. In the 3rd question of YSU 2021-2026 strategic development plan, relevant actions are mentioned, which are: *Create a "Digital Campus" by developing the digital skills of the teaching and teaching staff, ensure access to digital resources for every student. To develop and expand the functions and educational resources of the digital library of the university* .

5. Inclusivity is fixed as a fundamental value in YSU's 2021-2026 strategic development plan. Problem 1 is formulated as follows: *Attract high-potential applicants, ensuring the principle of inclusiveness*. Action 5: Develop services for students and employees with special needs (action 7). In Request 4: High Quality Human Resources, there is also a fixed action to provide group and individual psychological counseling services to lecturers and students (action 4).

4. In accordance with the relevant order of the rector, assistants are assigned to students with special needs at YSU.

5. YSU provides partial compensation in the form of student benefits to socially disadvantaged, one-way orphans, students with disabled parents, living in border areas.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	**IIAP NAS RA**
	Partner #	**02**
	Person (s) completing the questionnaire	**Hrachya Astsatryan** **Hasmik Sahakyan**
	A date	**April 05, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

IIAP data collection and analysis system is based on the strategic research and educational goals of the institute, namely, to increase the efficiency of research conducted at IIAP, to strengthen the science-education-industry connection, to contribute to the integration of IIAP into the international scientific and educational area; and includes the ways to achieve them and resources available: staff, infrastructure and programs.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

An information system is created, where the collected data are aimed at certifying the level of academic qualification by positions and are collected according to the indicators of qualification requirements for scientific positions, including the quality and number of publications, carried out scientific research programs, etc.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

The HR department collects and analyzes IIAP's institutional data concerning educational, research, administrative, and other activities. This department is a central hub for coordinating data collection and liaises closely with the leadership to facilitate seamless data flow and integration.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

The data collection and analysis system drives decision-making and strategic planning. For instance, we use it to track researchers' academic records, like publication productivity and collaboration networks. This helps us identify top performers and allocate resources strategically.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

At our institute, critical challenges in data management include the incompleteness of collected data, the complexity of evaluating diverse scientific topics and ensuring the security and privacy of sensitive information. To address these issues, we are improving data collection processes, developing specialized analytical tools for diverse research areas, and implementing robust data governance frameworks.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The infrastructure and services are built and supported by IIAP, a member of GÉANT. Consequently, the whole e-infrastructure conforms to the GÉANT Data Protection Code of Conduct. More https://asnet.am/about.php?art=data_protection&lang=hy which include the GDPR link: https://geant3plus.archive.geant.net/Pages/uri/V1.html.

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

We focus on enhancing our institutional data collection and analysis system to bolster institute governance, management, and quality assurance. One key initiative involves developing digital repositories that adhere to the FAIR principles: Findable, Accessible, Interoperable, and Reusable. By adhering to these principles, we ensure that our data is easily discoverable, accessible to all stakeholders, interoperable across systems, and reusable for various purposes.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

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KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	**KHACHATUR ABOVIAN ARMENIAN STATE PEDAGOGICAL UNIVERSITY**
	Partner #	**03**
	Person (s) completing the questionnaire	**Samvel Asatryan** **Tigran Mikayelyan** **Marianna Harutyunyan**
	A date	**April 05, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

The data circulation proceeds through electronic messaging, social networking, online quizzes, and online data recording systems.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

Gmail mailing system (KPIs, announcing and keeping track of accountability), Facebook and Messenger, ams.aspu.am (KPIs, students' scoring and academic trajectory, teaching staff's workload), Whatsapp private groups (instant messaging, urgent cases, direct feedback).

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

- Electronic Education Management Unit: uploading quizzes and questionnaires and collecting feedback from University administrative units (faculties, departments, and units), as well as from students and outer stakeholders accountable to the Department for Education Management and Reforms;
- Department for Education Management and Reforms, comprising an E-management Unit, Education Quality Assurance and Management Unit, Students' Academic Mobility unit, and Teaching Staff's (professorship and lecturer's) management unit: coordinating, informing, professionally developing, monitoring, reporting, accountable to the Vice-rector for Education;
- Research Center: in charge of informing, coordinating, and monitoring scientific research affairs, accountable to the Vice-rector for science;

- Centre of Finance, Procurement, and Supply management: collecting information on current needs, reporting on the annual needs, shaping up the University budget, keeping inventory records, coming up with the respective suggestions on filling the current needs;
- Staff (Human Resource) Management Unit: announcing recruitment, preparing work agreements, collecting data on human resource needs and human resource churn, accountable to the Vice-rector for HR Management and International Cooperation;
- Faculties' Deans Offices – collecting the necessary information on all the points stated above and passing it on to the respective department or unit.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

For short- and mid-term decisions: the information collected by the respective departments and units is processed and reported to the Rector of the University. Upon the reports, the corresponding decisions are made.

For long-term decisions: the information reflected in the respective reports is submitted to the Board of Trustees of the University in order to make the necessary strategic changes.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

Despite the transparency of the information circulating within the university, there appears to be no unified platform for final overall data analysis visible to every stakeholder (inner and outer). Such a platform would facilitate the efficiency of quality monitoring, immediate feedback incorporation, and engagement of a higher number of stakeholders in making final decisions.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The regulatory principles are reflected in the regulations/codes of each unit/department (the regulatory documents are available online on the respective pages of each department/unit at www.aspu.am).

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

The regulatory principles are reflected in the regulations/codes of each unit/department (the regulatory documents are available online on the respective pages of each department/unit at www.aspu.am).

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

✓ **Inclusion: professional** support (ASPU is the only HEI in Armenia specialising in all the aspects of inclusive and special education), contributing to the development, dissemination and improvement of progressive methodology nationwide;

✓ Green Deal/Greening: promoting the awareness of environmental and sustainability issues within all the degree programs taught at the university, contributing to the municipal community efforts in tackling environmental issues (maintaining and incrementing green areas in the city, contributing to the struggle against land pollution, etc.);

✓ **Digitalization:** there is a locally developed and set up system of digital records (with scoring, workload, and individual development trajectory modules).

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

The Organization/ the University	**EURASIA INTERNATIONAL UNIVERSITY**
Partner #	**04**
Person (s) completing the questionnaire	**Ruben Markosyan, Mariam Jilavyan**
A date	**April 08, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

EIU has utilized outcome-based management as a guideline to define its strategic goals across target directions and has employed the Balanced Scorecard as a tool for strategy performance management. This entails identifying strategic goals and objectives, delineating clear actions, as well as establishing key performance indicators (KPIs) for the short-term, medium-term, and long-term. The annual action plans, developed based on the Strategic Plan, serve as the foundation for departmental annual planning at EIU. Department heads submit quarterly reports on planned actions, while vice-rectors compile annual reports on strategic KPIs, which are then reviewed and approved by the rector. The indicators encompass both quantitative and qualitative measures.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

A variety of mechanisms have been developed and implemented at EIU to evaluate the progress of the Strategic Plan goals. Specifically, the Balanced Scorecard approach approach clearly outlines milestones, timeframes, responsibilities, and KPIs, enabling continuous oversight of the Strategic Plan's realization and serving as a foundation for planning annual activities within structural subdivisions. One of the objectives of the EIU Strategic Plan is to automate all university processes and establish an informative platform for stakeholders. Moreover, providing accessible mechanisms for decision-makers to receive data and analysis, while reducing document circulation, is considered significant for implementing paperless administration. To achieve these goals, the following systems have been implemented: the Ebuh system (Internal Information System for Educational Process Management), financial management platform, electronic communication, planning and monitoring tools, etc.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic

The main structure responsible for the collection and analysis of institutional data at EIU is the Quality Assurance Center. The center is studying and analyzing the data affecting the University, periodically carrying out qualitative and quantitative research (Assessment of academic programs and courses, Faculty member assessment, Institutional Capacity Analysis, Needs assessment, etc.), as well as by assessing the implementation of quality assurance system implementation and its efficiency. In recent years, the Office of the Registrar has also been established, which not only supports and guides students but also collects and analyzes all data related to students, primarily through the Ebuh system. Employees regularly participate in both international program capacity-building and training opportunities, as well as on-campus training based on identified needs. The EIU Research Center and HR Department utilize the Ebuh system for collecting and analyzing data on faculty members' research achievements and professional advancement. In this system, lecturers individually input their data.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

The university's Quality Assurance Manual clearly defines the methods for assessing both internal and external factors influencing university activities. A thorough examination of these factors is conducted primarily during the development and review of strategic plans. Various tools are employed, including SWOT analysis, PEST analysis, surveys, discussions among stakeholders, and statistical data analysis. Additionally, the accountability system, which includes quarterly and annual reports from subdivisions, reports on strategic indicators from vice-rectors, and reports from the Rector, serves as another mechanism for assessing and monitoring EIU's mission and goals across all management levels. Heads of departments and chairs also submit relevant reports to the Scientific Council.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

Mechanisms for cost analysis of various educational and administrative processes (such as the cost of educational programs and the implementation of separate administrative processes) are still imperfect. Conducting cost analysis will facilitate more efficient financial planning, including the preparation of budgets and cost forecasting. Another issue is establishing effective feedback mechanisms with graduates and employers and enhancing data collection. Additionally, we emphasize the importance of observing summarized data related to the attendance of individual courses, their evaluation, provision of feedback, and course improvement, among other issues.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

EIU adheres to the guidelines outlined in the EIU Quality Assurance Manual, which serves as the cornerstone for data collection and analysis regulations. This comprehensive manual provides detailed guidance on the processes, methodologies, and standards for collecting, analyzing, and interpreting institutional data. The EIU QA guide is available on the university's official website: LINK.

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

To effectively implement the system for analyzing the costs of educational and managerial processes, it's essential to enhance the functionality of the existing accounting system and align strategic planning budgets with financial planning efforts as closely as possible. Improving the Ebuh system and leveraging the indicators (data) stored in the database can also enhance the analysis of educational processes. Another crucial aspect is to ensure continuous access for university management to the summarized data and analyses available in the current information systems. Updating feedback tools with alumni and employers is also imperative to stay current.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

- **Inclusion:**

EIU was a member of the consortium of the "Access of People with Special Needs to the Society" (ASPIRE) project, implemented within the framework of the TEMPUS IV program. To this day, EIU continues to organize education for students with physical limitations (special needs). Additionally, the Public Relations and Marketing Department of EIIU has initiated the creation of a new website, which will be inclusive, allowing beneficiaries with special needs to easily navigate it. Upholding its principles of inclusiveness, the newly established MediaLab of EIU also develops educational program videos and other promotional materials with sign language translation.

- **Green Deal/Greening:**

The value of sustainable development is enshrined in EIU's strategic development plan and is reflected in several innovative university initiatives and programs. Specifically, the university serves as a co-coordinator for the EU-funded Erasmus+ T-GREEN project "Transforming Graduate Education for a Green and Sustainable Future." As part of this initiative, a roadmap for "Higher Education for Sustainable Development" has been developed, the list of master's educational programs in RA is under review, and plans are underway to implement "green" joint master's programs in approximately a dozen universities. Since 2023, EIU has been implementing a double degree program specializing in the Circular Economy in collaboration with the University of Tuscia in Italy.

- **Digitalization:**

EIU has initiated short-term micro-qualification programs with various IT companies, as well as the development of educational programs in the fields of cybersecurity and blockchain. Additionally, the development and utilization of various tools for managing educational processes, along with enhancing distance learning tools and implementing hybrid educational programs, are also strategic directions of EIU.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	NORTHERN UNIVERSITY
	Partner #	05
	Person (s) completing the questionnaire	Lusine Fljyan, Susanna Avagyan, Armen Tsughuryan, Arusyak Ivanyan, Liana Yeghishyan, Anahit Mukuchyan
	A date	April 01, 2024

1) Please describe the system of institutional data collection and analysis at your university:

The collection of institutional data of Northern University takes place in 2020. through an implemented accountability policy, a set of mechanisms and procedures. According to which the data is collected in the defined formats of the Reports, which include the annual plan of the units activities, composed of the key actions of the University's Strategic Plan, the Improvement Plan and the improvement proposals presented as a result of the evaluation of the previous report. the performance of the activities of the period, the report on the implementation of the strategic plan is drawn up based on the annual reports of the departments during the period of activity of the strategic plan. A working group is formed for the implementation of measures to ensure the University's Strategic Plan report and the responsibilities and powers are defined accordingly.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

The monitoring of the activities of the departments of the Northern University, the assessment of compliance with the University's Strategic Plan, work plans and established procedures are carried out with the use of the appropriate evaluation tool: performance indicators of the PIEI /planning-implementation-evaluation-improvement/cycle and/or performance indicators defined in accordance with the Strategic Plan (EAIs – efficiency assessment indicators). - performance indicators). The rector's report is drawn up on the basis of the annual reports of the departments. The rector of the university submits an annual report to the academic council of the university and the assembly of participants for each academic year.

Clear and measurable performance indicators have been developed by the Quality Assurance Department of the Northern University to evaluate the work done in all departments of the University. The performance evaluation indicators express the level of implementation and effectiveness of the

actions planned in the work plan in the cycle of PIEI /planning-implementation-evaluation-improvement/ (Accountability Policy /Table 1: page 21 /).

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

Institutional data collection and analysis is carried out by a working group, where representatives of various departments are involved, the group is formed and the head of the working group is appointed by the order of the rector, according to the established procedure, the process is coordinated by the Quality Assurance Department.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

The data collection system provides measures of effectiveness as a result of the evaluation of actions and the presentation of proposals, which according to the procedure are the basis for the development of actions in new plans, as well as institutional data are subjected to analysis according to the same procedure: SWOT, qualitative, quantitative and other analyzes that make it possible to forecast the future trends and challenges, enabling proactive decision making. By identifying emerging opportunities or potential risks, accordingly, proposals are turned into decisions, finding a place both in annual work plans, and they can be of a more strategic nature and find a place, in strategic plans, improvement plans or as a basis for action in other legal acts or documents in force to ensure our the long-term success and sustainability of the university.

Data analysis also enables us to assess the impact of previous decisions and initiatives, guiding future planning efforts. By tracking key performance indicators, we can measure progress toward our strategic goals and make data-driven adjustments to our programs as needed. Overall, the systematic collection and analysis of institutional data is an important foundation for informed decision-making and strategic planning, ensuring that our university is responsive to the needs of our students, faculty, and stakeholders. The University's data collection is multi-polar in nature and, in addition to the data provided by the departments at the basis of the reports, a variety of information is collected from external and internal stakeholders: educational programs, graduate capabilities, employer satisfaction or demands, resource utilization and the effectiveness of all institutional areas, we gain valuable insights into the current situation and identify areas for improvement.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

Ensuring competitive conditions, publicity, accountability, improvement of professional abilities, acquisition of necessary skills, alternative educational process management system, in particular, launching of electronic management and automation system, are formulated as priorities and priority tasks of the university's management and administration system. and the continuity of activities aimed at expanding the sphere of influence, the realization of the full cycle of the PIEI /planning-implementation-evaluation-improvement/ cycle in terms of the process. Also, for the institutional data and necessary analysis, more global studies that could be a private basis for the decisions are often missing, for example, studies conducted at the national or regional scale on the labor market, required professions, employment level or a number of issues of strategic importance. Problems sometimes arise in attracting external stakeholders, providing incentives and showing adequate participation in the works, to overcome which either serious financial investments or certain interventionist approaches of the state are required.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The toolkit for increasing the efficiency of management and administration in the Northern University and the procedures ensuring the continuity of their improvement are fixed in the university charter, department charters, procedures regulating administrative relations, improvement of the university aimed at eliminating the considerations recorded by the results of the university's external examination, strategic plans of the university for 2020-2025.

Activities aimed at collecting information on the evaluation of the effectiveness of the professional educational programs of the Northern University, including other processes, on the mentioned processes, are carried out in accordance with the regulations on the development, monitoring and evaluation of educational programs and plans, other internal legal documents, procedures and reports, and in parallel with the mentioned actions, in accordance with with the use of studies, surveys, consultations and other necessary tools, the quality assurance department of the Northern University monitors the effectiveness of the implementation of these processes, making appropriate analyzes and recommendations within its powers. In particular, in the process of collecting information aimed at evaluating the effectiveness of professional educational programs, discussing them with interest, and aiming at their possible improvement, more inclusion of internal and external stakeholders is ensured, as a result of which a number of professional educational programs of the Northern University have been modernized in the recent period

(Based on surveys of enterprises).

Accountability Policy

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

Improving the institutional data collection and analysis system for university management as well as quality assurance can include several strategies, many of which are already included in the strategic plans of the Northern University:

Streamlined data collection processes - implementation of automated data collection systems to reduce manual errors and save time, maintenance problems of their large databases, in line with evolving needs and technological advances.

Addressing the challenges of time: Using the latest research tools to quickly identify trends, problems and opportunities for improvement, as well as require as few resources as possible, time and human.

Data Security Measures: Provide robust data security measures to protect information.

Ensuring data objectivity, establishing procedures for verifying the accuracy and reliability of collected data, more refined to ensure decision-making and improvements in line with socio-moral, legal norms.

Interest of partner institutions to conduct benchmarking and benchmarking, as well as appropriate opportunities for continuity of linkages.

Improving feedback mechanisms to collect information from stakeholders and to make their views or research conducted by them, if any, available and incorporated into decision-making processes.

8) *If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:*

Inclusion:

The strategic plan of the University is mainly drawn up by a small number of employees of the administration, without a high activity of inclusiveness of the stakeholders. It is proposed to develop a regulation of the strategic development program, clearly recording not only the participation quotas of the beneficiaries (students, employers, professorial staff, partner academic structures), but also their functions and scope of responsibility in the process of developing the program.

Green Deal/Greening:

Green education at the university is done in a cursory format, teaching only one or two environmental subjects. In this case, students approach sustainable development and green lifestyle with insufficient understanding. Therefore, we consider it expedient to make additions of topics as much as possible in several teaching programs, which will be included in the objectives of the subject on the one hand, and on the other hand will include elements of green practices. In addition, the university should also clearly record in its strategic plan what measures it takes for green development, in the direction of supporting environmental protection with its activities.

Digitalization:

Starting from 2020, the Northern University uses the EBUH electronic system, which is intended only for managing the educational process. It makes the document circulation of the university management more operative and ensures the transparency of the educational process. It is used by the employees of the administrative staff who provide and organize the educational process. The system is monitored by

distance learning and technology management staff. The system automatically prepares and prints newsletters, references, exam schedules, class lists, summaries, diploma cores and other documents related to the educational process.

Northern University also uses the MOODLE e-learning platform. The Moodle distance learning electronic system was used by the Department of Economics and Management. Where they used a number of tools: Forum, Assignment, 'Stock". New students have been logged in to take courses.

The use of systems does not ensure high efficiency, it is necessary due to the insufficient computer equipment, as well as due to the fact that the technologies to be used in this period of continuous improvement have not yet undergone quantitative improvements and the efficiency has decreased as a result of continuous use.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	GAVAR STATE UNIVERSITY (GSU)
	Partner #	06
	Person (s) completing the questionnaire	Nelli Kutuzyan Lilit Torchyan Kanakara Hayrapetyan Olga Ghazaryan
	A date	April 08, 2024

1) Please describe the system of institutional data collection and analysis at your university:

In accordance with its mission, Gavar State University collects, analyzes and publishes the results of University's institutional data, informing the stakeholders about the ongoing processes.

Quantitative and qualitative data of the university are submitted to the Rectorate by the Faculty Deans, Academic Policy Department, Quality Assurance Department, Human Resource Management Department, Accounting, and other structural departments, then reported to the GSU Academic Council, and in the form of an annual report, the data is presented to the GSU Board of Trustees.

Based on the analysis of institutional data, improvement measures are developed, the results of which are reflected in strategic plans, annual development concepts and implementation action plans of structural divisions. The required resources and possible obstacles, the implementation dates, the indicators of the effectiveness evaluation of the actions are mentioned in the action plans. Through monitoring, the level of effectiveness of actions is identified and appropriate decisions are made. The mentioned processes are periodic in nature and, as necessary, reforms take place in the Plan-Do-Check-Act cycle.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

Various mechanisms and tools are used to collect and analyze the University institutional data. In particular, the University emphasizes conducting surveys among external and internal stakeholders, taking into account the opinions, considerations and recommendations of representatives of employers, schools, secondary professional educational institutions, research institutes, as well as the implementation of benchmarking and comparative analysis as a result of studying the experience of leading Armenian and European universities during the workshops and mutual visits held within the framework of international mobility programs and partnership projects. The collection of institutional data of the university is followed by the corresponding analysis according to priority directions based on long-term, medium-term and short-term planning of actions. Based on the university's five-year

strategic plan, in accordance with its priority directions, the structural divisions also carry out long-term planning of actions, after which mid-term planning is carried out, and from which short-term annual planning of actions is derived.

Afterwards, an annual monitoring of the action plan is carried out, where the performance indicators of the effectiveness of the actions are reflected, through which the effectiveness of the work performed for each set goal is evaluated, the problems that are partially solved are identified, their reasons are discussed, and plans to meet the challenges and ensure stability are developed.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities?   Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

At Gavar State University, all structural units are responsible for the collection and analysis of institutional data, including the departments of Accounting, Academic Policy, Quality Assurance, Foreign Relations and Media, Human Resources Management, Information Technology, and others, each performing within the scope of their functions.

The above-mentioned structural divisions of GSU actively cooperate both with each other and with faculties and chairs during data collection. Data analysis is carried out mainly by the Quality Assurance and Academic Policy Departments, presented to the Rectorate and then to the Academic Council.

The data are published in the form of the University's annual activity report and self-analysis report and are submitted to the GSU Board of Trustees in the manner prescribed by the Rector.

In recent years, the employees of the structural units of GSU participated in the below-mentioned training courses and workshops.

1. From May 21 to 31, 2022 within the framework of the "Erasmus+" international credit mobility program of the European Union, Hasmik Margaryan, senior accountant of GSU, attended a one-week training course at the University of Evora, Republic of Portugal.
2. From September 12 to 16, 2022, within the framework of the European Union's "Erasmus+" international credit mobility program, the acting head of GSU Quality Assurance Department, Kanakara Hayrapetyan, attended a one-week training course at the University of Evora, Republic of Portugal.
3. On November 23, 2022 Vice-rector of GSU Nelli Kutuzyan, and acting head of Quality Assurance Department (QAD) Kanakara Hayrapetyan, participated in the workshop on "Credible Award of Qualifications" initiated by ANQA.
4. On March 2, 2023, QAD employees participated in the online meeting organized by ANQA, dedicated to the discussion of the issues of development, improvement and localization of best practices of professional educational programs.
5. On May 25, 2023 the employees of the Quality Assurance Department participated in the online meeting organized by ANQA, dedicated to the discussion of the topic on "Ensuring the quality of the class"

6. From July 3-7, 2023, within the framework of the European Union's "Erasmus+" international credit mobility program, Nona Muradyan, the specialist of the Quality Assurance Department, completed a one-week training course at the University of Minho in the Republic of Portugal.
7. From February 19 to 26, 2023, within the framework of the European Union "Erasmus + FLEXWBL" project, chief accountant Gurgen Muradyan participated in a workshop at the Private University of Education, Diocese of Linz, Austria.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

The collection of institutional data at the University, that is to say, the study of internal and external factors affecting the University's activities, and then the implementation of relevant analyzes is of a periodic nature, which provides an opportunity to identify the social and educational needs of internal and external stakeholders. As a result of studying of the factors affecting the university's activity, new regulations and procedures are necessarily developed and adopted, which make it possible to increase the effectiveness of the mechanisms used to identify external and internal factors.

According to the Development Strategic Plan of GSU, processes aimed at the improvement and perfection of the University's activities are planned and implemented. They are proportionally reflected in the five-year, medium-term and annual development plans of other structural divisions of the University. The strategic plan of the university is developed and adopted taking into account not only the legislative procedures governing education and related fields and GSU regulations, but also the results of analyzes made on the basis of annual reports and institutional data, evaluation of the effects of external and internal factors, indicators for evaluating the effectiveness of actions, the deviations of key performance indicators /KPIs/ from effectiveness indicators, their causes, development priorities of Gegharkunik region of RA, the results of monitoring and benchmarking studies of the implementation of the strategic plan of the previous period, clarifying the strengths and weaknesses of the university, internal and external challenges and development opportunities.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

In relation to the collection and analysis of institutional data, there are the following obstacles in the University:

1. The absence of a single information system.
2. The initiative of students is weak, their interest in decision-making processes of governing bodies is weak.
3. Insufficient funds for the development of the management system.
4. The effectiveness of analysis tools in quality assurance processes needs evaluation, which will provide more effective approaches to work with each group of stakeholders.

5. The passivity of internal beneficiaries and external stakeholders in strengthening the quality culture.
6. Availability of insufficient material and technical conditions and facilities for beneficiaries with special needs.
7. Not enough targeted trainings for those in charge of faculty quality assurance of GSU.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The following documentary bases necessary for the collection and analysis of institutional data have been created at GSU:
1. Procedure for development, adoption, publication and amendment of GSU Strategic Plan and intra-university legal acts: http://surl.li/rosrq
2. Action plan for the implementation of GSU Strategic Plan:http://surl.li/rosst
3. Charter of GSU University-employer cooperation, alumni and career center: http://surl.li/rostt
4. Regulation on the organization of events of public significance at Gavar State University, providing information about them and providing feedback to the public: http://surl.li/rovmp
5. The main directions and implementation procedures of the public relations policy of Gavar State University (with amendments):http://surl.li/rovmp
6. Regulations of the Foreign Relations and Information Department of Gavar State University: http://surl.li/rovxa
7. Regulations of the Quality Assurance Department of the Gavar State University (with amendments): http://surl.li/rovxq
8. Manual of ensuring the quality of education in Gavar State University: http://surl.li/roymw
9. Working procedure of the GSU Board of Trustees: http://surl.li/royny
10. Regulations of the Scientific Council of GSU: http://surl.li/royor
11. Regulations of the GSU Rectorate: http://surl.li/royor
12. Regulations of the Faculty Council of Gavar State University (with amendments): http://surl.li/roypc
13. Regulations of Chairs of Gavar State University (with amendments): http://surl.li/royqq
14. Regulations of Academic Policy Department of Gavar State University: http://surl.li/royrh
15. GSU reports http://surl.li/rovyx
16. Analyzes of the quality assurance department of GSU:http://surl.li/rovyx

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

To increase the effectiveness of institutional data collection and analysis system, as well as the university management and quality assurance based on the collected data, in its action plan for the implementation of the strategic plan of 2023-2027, and in the action plan for the elimination of the

deficiencies mentioned in the institutional accreditation expert report, GSU has highlighted the following actions, providing for the relevant indicators expected to evaluate the effectiveness:

1. Development and implementation of the electronic information system of internal management of GSU, which will contribute to the centralization of information, ensuring the implementation and publication of in-depth analysis of the collected quantitative and qualitative data.
2. Development of a system of key performance indicators (KPIs) evaluating the progress of the structural units of GSU and a mechanism for establishing an incentive system based on these results, the national policy of RA education and the strategic priorities of the University.
3. Periodic entry of statistical and other data into the internal management system, analysis and publication of these data.
4. Improvement of the multi-factor system of professional development and evaluation of the performance results of the administrative and teaching staff of GSU and the corresponding mechanisms for ensuring the quality of education.
5. Clarifying the role of the QA department in the process of improving the management system of the University. Improvement of the application of the PDCA cycle in all processes of quality assurance of GSU.
6. Applying a new toolkit for identifying and assessing the needs of GSU beneficiaries, analyzing the effectiveness of its use, choosing the most effective means and approaches for working with each group of beneficiaries.
7. Diversifying the tools for collecting information in quality assurance processes and analyzing the effectiveness of the toolkit, choosing the most effective approaches to work with each group of stakeholders.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

In its action plan for the implementation of the Strategic Plan of 2023-2027, among the priorities, GSU has highlighted the actions aimed at solving the problems mentioned below, with the relevant key performance indicators.

Inclusion:
In the priority of management, financial-economic and resource provision of 2023-2027 Strategic Plan, GSU has defined the goal of "developing the infrastructures of the University, continuous replenishment and modernization of educational, research, material, technical, technological and other resources, creating the necessary conditions for the organization of inclusive education" with the following actions:
1. Renovation and furnishing of GSU infrastructures, halls for cultural events and sports training, in compliance with the requirements of inclusiveness.

2. Provision of accessible educational environment, food and dormitory conditions for students with special needs.

Green Deal/Greening:

As a "priority of educational and socio-cultural activities" of GSU 2023-2027 Strategic Plan, it is envisioned to continuously improve the learning outcome based higher professional educational programs, taking into account the current requirements of the labor market, the universal framework of qualifications of the European Higher Education Area, the national and sectorial qualifications frameworks of RA, educational needs of students, and the latest achievements of science, with the following actions:

1. Improvement and modernization of bachelor's and master's professional degree programs, alignment of the set competences - knowledge, abilities and skills with the national and sectorial qualifications frameworks of the RA, the modern requirements of the labor market, the universal qualification framework of the EHEA, taking into account the principle of "green education" according to the learning outcomes of sectorial qualification framework, to carry out modernization of educational programs, revision of the profession specifications of educational institutions and external evaluation.

2. Ensuring the increase of satisfaction of internal and external stakeholders from the implementation of the outcome-based professional degree programs.

3. GSU is a member the European Union funded ERASMUS+ CBHE PROJECT "Transforming Graduate Education for Green and Sustainable Future" (T-GREEN)) which is a three-year project coordinated by the National University of Architecture and Construction of Armenia (NUACA). "T-GREEN" is a project aimed at the necessary reforms in higher education, the "Green" policy being its key direction. The implementation of the project will give GSU an opportunity of transition from traditional educational programs to future-oriented, "green", interdisciplinary educational programs, promoting the mobility of students, developing structures for the implementation of educational programs that grant joint/double qualification degrees.

Digitalization:

In the GSU 2023-2027 Strategic Plan, the goal of "increasing the efficiency of the University's administration through the latest technologies" is planned as a **"Management, financial-economic and resource provision priority"** with the following actions:

1. Development and implementation of electronic information system of internal management of GSU.

2. Development of a system of key performance indicators (KPIs) evaluating the progress of the structural divisions of GSU and a mechanism for establishing an incentive system based on their results, stemming from the RA national education policy and the university's strategic priorities.

3. Periodic entry, analysis and publication of statistical and other data into the internal management system.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

The Organization/ the University	NATIONAL CENTER FOR PROFESSIONAL EDUCATION QUALITY ASSURANCE FOUNDATION (ANQA)
Partner #	07
Person (s) completing the questionnaire	Varduhi Gyulazyan
A date	April 10, 2024

1) Please describe the system of institutional data collection and analysis at your university:

ANQA uses Electronic Questionnaire to collect data about the TLIs: number of students, graduates' profile and employability, number of teaching staff and their profile, financial data etc. Next, ANQA applies Question Pro system for collecting and analysing data on the effectiveness of diverse processes and thematic research.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?
N/A

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities?   Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

ANQA Internal Quality Assurance Manager is responsible for data collection and analysis. Besides ANQA two divisions: Institutional and Programme Accreditation, Policy development and implementation divisions are engaged in the data collection and analysis.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

According to the IQA planning after each survey and focus group discussions, the data is analyzed and discussed during the staff meetings with the staff and separately with the Director. Afterwards improvement plans are developed, and appropriate decisions are made. Besides, the collected data is used for strategic developments.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

N/A

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

N/A

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

Integrated Data Management Systems: Implement a unified data management system that integrates data from various departments (admissions, finance, academic affairs, student services) to provide a holistic view of university operations. This system should support real-time data access, ensuring that decision-makers have timely and accurate information.

Data Quality and Integrity: Establish stringent data quality control measures to ensure accuracy, completeness, and consistency across the institution. Regular audits and validations of data should be conducted to maintain its integrity, making it a reliable basis for decision-making.

Advanced Analytics and Reporting Tools: Leverage advanced analytics tools to analyze collected data, identify trends, predict future outcomes, and generate actionable insights. These tools can help in optimizing resource allocation, enhancing student performance, and improving administrative processes.

Training and Capacity Building: Invest in training programs for staff and faculty to enhance their data literacy skills. This will empower them to effectively use data analytics tools and methodologies, fostering a culture of data-driven decision-making across the institution.

Data Governance and Policy Framework: Develop a robust data governance framework that defines policies, standards, and responsibilities for data management, privacy, security, and usage. This framework should ensure compliance with legal and ethical standards, protecting sensitive information while promoting transparency and accountability.

Stakeholder Engagement and Feedback Loops: Engage stakeholders (students, faculty, staff, alumni) in the data collection and analysis processes. Implement feedback loops to gather insights and recommendations from these stakeholders, which can be used to improve university services, curricula, and administrative processes.

Benchmarking and Continuous Improvement: Use data to benchmark university performance against industry standards and peer institutions. Implement continuous improvement processes to address gaps, enhance quality assurance mechanisms, and drive strategic initiatives towards achieving excellence in education, research, and community service.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

N/A

The Organization/ the University	RA HIGHER EDUCATION AND SCIENCE COMMITTEE, MINISTRY OF EDUCATION, SCIENCE, CULTURE AND SPORT
Partner #	08
Person (s) completing the questionnaire	Arsine Aghajanyan Lusine Grigoryan
A date	April 09, 2024

1) Please describe the system of institutional data collection and analysis at your university:

The data is collected and analyzed on the basis of information received from the relevant departments of higher educational institutions of the Republic of Armenia, surveys within the framework of employers, etc.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

Data is collected on the basis of targets defined by national and university strategies and actions, surveys of employers, targets set in international rating systems, etc.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities?   Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

As part of the action defined by the state program for the development of education of the Republic of Armenia until 2030, within the framework of the program for the merging of higher educational institutions, including military ones, it is planned to establish requirements and descriptions for managers, introduce a legal framework for the system of training and mandatory retraining, as well as establish and implement a legal framework for the retraining of university managers.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

As a result of data collection and analysis, in accordance with the State program for the development of education of the Republic of Armenia until 2030, actions were developed aimed at expanding the mechanisms of student-oriented and participatory education, strengthening the data-based management system, and introducing an inclusive, participatory, autonomous, transparent and accountable management and decision-making system, gradual increase in public funding allocated to the higher education sector through the diversification of forms of public financing and the development of effective mechanisms.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

The State Program for the Development of Education of the Republic of Armenia until 2030 provides for the introduction of a new modern financing Formula with the inclusion of effective higher education, a management system based on key performance indicators (KPIs) and final results, the launch of an information system for education management, full and complete compliance of quality control tools and procedures with international frameworks and quality measurement processes, development and implementation of a reliable and objective system of certification and assessment of the quality of education, including an assessment of both clearly defined end results and the learning environment, process, and existing quality assurance systems.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:
N/A

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

In accordance with the transformation of an effective and creative learning environment in the higher education system, provided for by the State Program for the Development of Education, a data-based management system and digital tools will be introduced. The widespread use of information and communication technologies in education and management systems will contribute to the effective distribution of roles and responsibilities among participants, ensuring a new quality of management and increasing efficiency. Digital platforms will be introduced in higher education institutions, which will ensure a flexible and transparent learning process, improving the quality of educational services, increasing the attractiveness and expanding the framework of cooperation with universities in other leading countries, providing digital management of the mobility process.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

The State Program for the Development of Education in the Republic of Armenia until 2030 is based on the priorities of higher education in the Republic of Armenia, which derives from the Sustainable Development Goals of Armenia, in particular, ensuring quality education, emphasizing the importance of inclusivity, digitalization and green orientation.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	**ARMENIAN CENTER FOR EDUCATION POLICY AND MANAGEMENT NGO**
ACEP ARMENIAN CENTER FOR EDUCATION POLICY AND MANAGEMENT	**Partner #**	**09**
	Person (s) completing the questionnaire	**Arayik Navoyan** **Anush Sargsyan**
	A date	**April 10, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

As a result of the studies carried out by the Armenian Center for Education Policy and Management NGO, it was found that certain institutional data collection systems have been implemented by all Armenian universities, and these systems also allow for certain analyses.
The data is collected and analyzed based on the information received from the relevant departments of RA higher education institutions, surveys conducted among employers and other sources.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

As a result of studies carried out by the Armenian Center for Education Policy and Management NGO, it was found that data is collected based on target indicators defined by national and university strategies and actions, surveys conducted among employers, target indicators formulated in international rating systems, etc.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

Within the framework of the action planned by the state plan for the development of RA education up to 2030, the expansion of higher educational institutions, including military ones, it is planned to define the requirements and descriptions presented to managers, to introduce the legal basis of the requalification and mandatory training system, as well as to define and introduce the legal basis for the training of university managers.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

As a result of the studies carried out by the Armenian Center for Education Policy and Management NGO, it was found that as a result of data collection and analysis, actions were developed in the state program for the development of RA education until 2030, aimed at expanding the learner-centered and participatory mechanisms of education organization, strengthening the data-based management system. the introduction of an inclusive, participatory, autonomous, transparent and accountable system of management and decision-making, the gradual increase of state funding allocated to the higher education sector by diversifying the forms of state funding and developing effective mechanisms.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

The State Program for the Development of Education of the Republic of Armenia until 2030 defines the implementation of a new up-to-date funding formula, implementation of the education management information system, quality control tools and procedures, with the inclusion of an effective management system based on performance indicators and end results, and the KPI component of higher education. complete and full compliance with international quality measurement frameworks and processes, formation and implementation of a reliable and objective system of education quality certification and evaluation, including both clearly defined end results and evaluation of the learning environment, process, and existing quality assurance systems.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

The issue does not concern the NGO.

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

As a result of the studies carried out by the Armenian Center for Education Policy and Management NGO, it was found out that it is necessary to implement a data-based management system, digital tools, equivalent to the transformation of the effective and creative learning environment of the higher education system, provided by the State Education Development Program.
The wide application of information and communication technologies in the management systems of education and training will contribute to the effective distribution of roles and responsibilities among the participants, ensuring a new quality of management, increasing efficiency and quality.
In higher education institutions, it is necessary to introduce digital platforms that will ensure a flexible and transparent learning process, improving the quality of educational services, increasing the

attractiveness and expanding the scope of cooperation with universities of other leading countries, ensuring the digital management of the mobility process.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

As a result of studies carried out by the Armenian Center for Education Policy and Management NGO, it has been found that there are a number of contradictions in the provision of these three priorities set by the EU. First of all, it is necessary to define these three concepts, the relevance and regulation of their provision.

RA education up to and until 2030 is based on the priorities of RA higher education, which derive from the goals of sustainable development in Armenia, particularly the provision of quality education, emphasizing the importance of inclusiveness, digitalization, and green orientation.

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	**UNIVERSITY OF OLDENBURG, DE**
	Partner #	**10**
	Person (s) completing the questionnaire	**Prof. Dr. Jorge Marx Gómez, M.Sc. Ali Akyol, M.Sc. Sven Lampe**
	A date	**April 10, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

Data Collection

- Student Information Systems (SIS): These systems manage data on students, courses, grades, completions, and other academic information. They are a primary source for analyses related to student success and teaching quality.
- Research Management Systems: This capture information on research projects, publications, patents, and research funding. They support the analysis of the university's research performance and capacity.
- Financial Systems: They contain data on budgets, expenditures, and revenues crucial for financial planning and management.
- Human Resources Management Systems: This record information on employees, salaries, benefits, and other personnel matters.
- Learning Management Systems (LMS): They provide data on course interactions, student engagement, and learning outcomes, which can be used to improve teaching methods and learning resources.

Data Analysis

- Descriptive Analysis: To understand the current situation by summarizing data points, such as the number of enrolled students, average grades, or research expenditures.
- Predictive Analysis: Using statistical models and machine learning to forecast future trends, such as student performance or budget needs.
- Prescriptive Analysis: Developing strategies to address identified problems or optimize processes based on data analyses, like changes in curricula or resource allocations.
- Data Visualization: Representing data through dashboards, reports, and other formats to make insights accessible and understandable for decision-makers.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

1. Key Performance Indicators (KPIs):

- Student Success and Retention: KPIs might include metrics on graduation rates, drop-out rates, and job placement rates of graduates.
- Research Impact: Measurement of research output and impact, including the number of publications, citations, and externally funded projects.
- Internationalization: The percentage of international students and staff, as well as international collaborations, could be significant KPIs.
- Financial Health: KPIs such as budget allocation efficiency, funding sources, and financial sustainability measures are crucial.

2. Higher Education Management Information Systems:

These are comprehensive systems designed to collect, store, and analyze data across different departments of a university, including:

- Student Information Systems (SIS): Managing student data from admissions through to graduation.
- Learning Management Systems (LMS): Platforms like Moodle or Blackboard that track course offerings, enrollment, and student performance.
- Research Management Systems: Tools for managing research projects, grants, publications, and intellectual property.
- Library Management Systems: Systems to manage the acquisition, cataloging, and lending of library resources.
- Financial and Human Resources Systems: For managing budgeting, payroll, and employee records.

3. Data Analysis and Reporting Tools:

- Business Intelligence (BI) Tools: Software like Tableau, Power BI, or SAP BI to visualize and analyze data for better decision-making.
- Statistical Analysis Software: Tools such as SPSS, R, or MATLAB for more detailed statistical analysis of academic and administrative data.
- Custom Dashboards: Many universities develop custom dashboards tailored to their specific needs, offering real-time access to KPIs and other important metrics.

4. Survey Tools and Feedback Systems:

To gather input from students, faculty, and staff, universities often use survey tools (e.g., SurveyMonkey, LimeSurvey) and feedback systems integrated into their LMS or other platforms. The university of Oldenburg are using StudIP to get Feedback after modules.

5. Quality Management Systems:

Tools and frameworks to ensure educational quality and compliance with accreditation standards. This can include internal evaluation systems and participation in external quality audits.

6. Collaborative Tools:

Platforms like Microsoft Teams facilitate collaboration and communication across departments, enhancing project management and operational coordination. Other tools which we are using are Owncloud (Nextcloud with onlyoffice integration) and GitLab.

At the University of Oldenburg, the Academic Controlling is responsible for data collection, preperation and analysis. On the one hand, Academic Controlling has the task of preparing data in such a way that it enables analyses and evaluations of certain areas and aspects and thus becomes relevant for management. On the other hand, it also has a service function in the sense of collecting and providing data material for internal and external inquiries (including rankings and evaluations). The Academic Controlling team consists of four people, one post doctor position and three other post graduate positions. The areas covered by Academic Controlling are study and teaching, research, human resources, gender equality, international affairs, comparative data and rankings as well as definitions.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

From the perspective of a German university, the system of institutional data collection and analysis plays a crucial role in informing decision-making and strategic planning processes. This integration ensures that decisions are evidence-based, aligned with the university's goals, and responsive to the needs of students, faculty, and other stakeholders. Here's how this system typically connects with decision-making and strategic planning:

 1. Informing Strategy Development:

Data collected through various institutional tools (e.g., student information systems, learning management systems, research databases) provides a comprehensive overview of the university's performance across key areas. This data underpins the strategic planning process by highlighting strengths to build upon, challenges to address, and opportunities for growth.

 2. Goal Setting and KPIs:

Strategic goals are often defined in relation to Key Performance Indicators (KPIs) identified through data analysis. For instance, if data reveals a decline in student enrollment in certain programs, the university may set strategic goals to revitalize these programs through marketing, curriculum updates, or improved student support services.

 3. Resource Allocation:

Data analysis helps in understanding where resources are needed most to achieve strategic objectives. For example, analysis of research output and funding data may lead to reallocating budgets towards more productive or promising research areas or towards acquiring new research facilities.

 4. Risk Management and Compliance:

Data-driven insights support the university's risk management strategies by identifying potential risks and compliance issues before they escalate. This can include financial risks, accreditation risks, and compliance with national and European higher education regulations.

5. Enhancing Academic Offerings:

Analysis of student performance, feedback, and market trends informs the development and revision of academic programs. This ensures that the university's offerings remain relevant, competitive, and aligned with labor market demands.

6. Improving Student Outcomes:

Data on student engagement, retention, and success inform interventions and support services aimed at improving educational outcomes. This could include targeted support for at-risk students, enhancements to teaching and learning practices, and initiatives to improve student life and campus resources.

7. Feedback Loops for Continuous Improvement:

The system of data collection and analysis feeds into continuous improvement cycles, where outcomes of strategic initiatives are monitored and evaluated against set KPIs. This ongoing evaluation informs future decision-making and strategic adjustments.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

1. Data Silos and Integration Challenges:

One of the primary issues is the existence of data silos across different departments and systems. This fragmentation can hinder the seamless integration and analysis of data, making it difficult to obtain a comprehensive view of institutional performance and areas for improvement.

2. Data Quality and Consistency:

Ensuring the accuracy, completeness, and consistency of data across various sources poses a significant challenge. Inaccurate or inconsistent data can lead to flawed analyses and decisions that may adversely affect university operations and strategic initiatives.

3. Data Privacy and Security:

As a German university, we are subject to strict data protection regulations, including the General Data Protection Regulation (GDPR). Balancing the need for comprehensive data analysis with the requirement to protect personal information and comply with legal standards is a complex and ongoing issue.

4. Resource Constraints:

Resources are often limited, and investing in advanced data analytics capabilities, including software, hardware, and skilled personnel, can be challenging. Prioritizing these investments against other needs requires careful strategic planning and justification.

5. Change Management:

Integrating data-driven decision-making into the university culture involves significant change management. Encouraging faculty and staff to adapt to new technologies and approaches for data analysis and to trust data-driven insights for decision-making can encounter resistance.

6. Skill Gaps:

There is a continuous need for training and development to equip staff with the necessary skills for effective data collection, analysis, and interpretation. Keeping pace with evolving data analytics technologies and methodologies requires ongoing education and professional development opportunities.

7. Utilizing Data for Strategic Advantage:

Effectively leveraging data to not only support operational management but also to gain strategic advantage is a sophisticated endeavor. This includes predicting future trends in higher education, identifying emerging research areas, and tailoring academic programs to meet future workforce needs.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

There are no open access documents available at the University of Oldenburg. Nevertheless there are legal regulations and restrictions in terms of privacy, especially the publication of personal data.

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

At the end of each semester a questionnaire is send out to students. The participation rate is quite low and the questionnaire isn't appealing. To make it more attractive to students, the questionnaire should be updated. The facts and figures are already available at the administrative level of the university, although Controlling is dependent on input from the Academic Examinations Office, the Enrolment Office and the Equal Opportunities Office. The process of data collection might be open for improvements.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

Inclusion:

The access to rooms and lecture halls is barrier free to allow everyone to participate in all university activities. People with disabilities are given special consideration in the recruitment process for open positions. Information on the university website are given in German and English to overcome the language barrier.

Green Deal/ Greening:
The university of Oldenburg are using Solar. Almost every building has a solar systems. The university of Oldenburg is giving a high attention to green projects. The University of Oldenburg is exploring possibilities to use the heat from the data center to warm the rooms.
All the food in the cafeteria consists of regional organic products.

Digitalization:
– Lectures/seminars are either in person, online or hybrid
– Paperless academic examinations office
– Almost all of the materials for the students are provided in digital form in StudIP
– Campuscard combines cash less payment, library card, employee time tracking, access to buildings, semester ticket (for public transport), student id, employee id.
– Paperless committees
– Portals for administration documents and staff training

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

	The Organization/ the University	TECHNISCHE UNIVERSITÄT DRESDEN (TU DRESDEN), DE
	Partner #	**11**
	Person (s) completing the questionnaire	**Ute Meyer, Gerard Cullen**
	A date	**April 10, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

TU Dresden is one the German universities of excellence. Below we have given our responses keeping in mind that they have strict data protection and privacy rules. An additional point to keep in mind is that TU Dresden has huge autonomy and is independent from both the Saxon State Education Ministry and the Federal Government.

Since 2012, TUD has been one of eleven "Universities of Excellence" and receives permanent funding within the framework of the Excellence Strategy of the Federal and State Governments as of November 2019. Its core elements are the Excellence proposal "TUD 2028 - Synergy and beyond" with the unique research alliance DRESDEN- concept and the three Clusters of Excellence;

PoL: Physics of Life,

ct.qmat: Complexity and Topology in Quantum Matter, and CeTI: Centre for Tactile Internet.

TUD stands for values such as tolerance and cosmopolitanism and expresses these regularly, publicly and visibly. The Clusters of Excellence "Center for Advancing Electronics Dresden" (cfaed) and "Center for Regenerative Therapies Dresden" (CRTD) continue to exist as research clusters as well as the Graduate School "Dresden International Graduate School for Biomedicine and Bioengineering" (DIGS-BB).

Excellence: Guiding Principle of University Development

https://tu-dresden.de/tu- dresden/profil/exzellenz#intro

Most of the institutional data collection and analysis is conducted via SAP and supporting units.

• Dresden Data Trust Center (supports tertiary and also for non-university research institutions in Saxony)
• Specific Research Database: Database Systems Group (Database Research Group (tu-dresden.de)

This is based on data collected from:

- Organisation practical and research-oriented teaching (student / staff): Startpage Center for interdisciplinary Learning and Teaching — Center for interdisciplinary Learning and Teaching — TU Dresden (tu-dresden.de)

- The central teaching / learning platform (OPAL https://bildungsportal.sachsen.de/opal): lecture material, tests, course enrolment for local and international, conducting of QA

- The central platform for organising study life which is an SAP-supported Platform (SELMA Welcome - Technische Universität Dresden (tu-dresden.de)), organised by the Academic Affairs Offices

o Students: For obtaining personal documents / information, registrations for examination, viewing examination results, printing examination certification, submitting applications for their studies, QA research on semester basis)

o Lecturer: Organising the educational modules at BA/MA/PhD levels, courses and examinations, research activities, QA research each semester

- Research (see below Point 8)

- Administration: Strategic decisions made by the "Steering Committee Digital Administration" and the ''Digital Administration Change Advisory Board" (Responsible: Chief Officer for Digitalization and Information Management) Administration & Digitalization — TU Dresden — TU Dresden (tu-dresden.de))

- IT Services / IT Governance: Responsible for supporting the whole set of digital systems: the https://tu-dresden.de/zih
, https://tu-dresden.de/tu-dresden/organisation/zentrale-universitaetsverwaltung/dezernat- 3-zentrale-angelegenheiten/sg-3-5-informationssicherheit
and https://tu-dresden.de/tu-dresden/organisation/zentrale-universitaetsverwaltung/dezernat-6-planung-organisation

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

The tools are already explained above in the context of SAP, OPAL, SELMA and IT support frameworks.

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities?   Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

- All Teaching / Administration collection and analysis of institutional data on university main

educational, research, administrative: SELMA and OPAL

- The 18 TUD faculties are organized into 5 Schools, each faculty has an Academic Affairs Office for the administration of faculty/school educational matters
- Calendar of capacity training offers (conducted in German/English for in-service teaching and admin. See example April 2020: Calendar of Events — Center for Information Services and High Performance Computing (ZIH) — TU Dresden (tu-dresden.de)

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

The decision making and strategic planning is developed by the University Executive Board using institutional data collection and analysis as a base resulting in (https://tu- dresden.de/tu-dresden/profil/vision-und-strategische-ziele) - TUD 2020–2025: Vision and strategic goals of the Executive Board.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

- There is a strict hierarchization of the flow of information to ensure that employees only receive the information they need and are not overwhelmed by unnecessary information.

The whole process is conducted via SAP, OPAL and SELMA

- Responsible for Digitalization / Use and Assurance of IT / IT-Administration: The Chief Officer Digitalization and Information, who is a member of the University Executive Board
- Responsible for organisation and quality of educational courses / digital teaching / training in higher education: Vice Rector Academic Affairs (Member of the University Executive Board)

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

- Regarding regulation documents processing of personal data at TU Dresden is highly sensitive. See: Rahmenordnung über die Verarbeitung personenbezogener Daten an der Technischen Universität Dresden (Rahmenordnung VpbD) (tu-dresden.de) (''Framework Regulation on the Processing of Personal Data at the Technical University of Dresden", available only in German, but we can translate it if desired)
- Data protection declaration / information regulations on the processing of personal data of applicants, students and alumni of TU Dresden: Privacy - Technische Universität Dresden (tu-

dresden.de)
- The process is supervised by the Data Protection Officer of the Data Protection Office

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

This is internal information where the University Executive Board is responsible for together with the Support Center for Digitalization at TU: Support Center Digitalisierung — Center for Interdisciplinary Digital Sciences (CIDS) — TU Dresden (tu-dresden.de)

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

Inclusion: Development of an inclusion-sensitive university
o Accessibilitiy (structural / communicative / organizational etc.; Accessibility   at TU Dresden — TU Dresden — TU Dresden (tu-dresden.de))
o Study
    ▪ E-Learning
    ▪ e.g. Creating barrier-free PDF documents form Word
o Teaching and Research (Accessibility in teaching — TU Dresden — TU Dresden (tu-dresden.de))
    ▪ e.g. E-Teaching
    ▪ Qualifikation of education specialists for "Inclusive education" in Saxony
    ▪ Special Inclusion fund
o Work
o Action Plan

Green Deal / Six key areas, 13 goals:
(TUD Booklet Sustainable Strategy (tu-dresden.de))
o   Sustainability, excellence in research: Pioneering interdisciplinary research projects and close cooperation with non-university research institutions
o   This network is organised as a ''Dresden Concept-Science and Innovation Campus"
(DRESDEN-concept - Alliance)
- Energy and mobility:
o   Research results tested / applied in Dresden or in the region
o   Climate-neutral energy-supply technologies
o   Dresden as a target for the Research Project ''HeatResilient City" (cooperation with other institutions)

o Collaborative project ''OLGA" (optimizing land use involving the town and the region; Home | OLGA (projekt-olga.de))

o Ending TUD paper usage through digitilization

Digitalisation:

o Key aspect of the Excellence Strategy (Digitalization — TU Dresden — TU Dresden (tu-dresden.de))

o e.g. Research and digitalization (Research & Digitalization — TU Dresden — TU Dresden (tu-dresden.de) / Research Portal | TU Dresden (tu-dresden.de))

  ▪ Resrach Information System (FIS Current Research Information System (FIS) — Research & Transfer — TU Dresden (tu-dresden.de))

  ▪ Dresden Technology Portal (DTP)

  ▪ In addition networking regional and national, e.g.

  ▪ National AI Center: ''Center for Scalable Data Analytics and Artificial Intelligence" (https://scads.ai/)

  ▪ ''Center for Information Services an High-Performance Computing" (ZIH; https://tu-dresden.de/zih) is part of the National High-Performance Computing

  ▪ Saxon State and University Library Dresden (https://www.slub-dresden.de/) is a crucial center for innovation in the European library sector. Jointly with this library the TU Dresden promotes Open Access publishing (Die Einrichtung — Research & Transfer — TU Dresden (tu-dresden.de)

KPI4HE PROJECT WP1. 1 SITUATION ANALYSIS QUESTIONNAIRE

The Organization/ the University	**UNIVERSITÀ DEGLI STUDI DI GENOVA**
Partner #	**12**
Person (s) completing the questionnaire	**Angelu Musaio** **Servizio Organizzazione e Programmazione** **Servizio assicurazione della qualità, studi e statistiche**
A date	**April 01, 2024**

1) Please describe the system of institutional data collection and analysis at your university:

In Italy, the collection of data related to teaching, and, to some extent, research is conducted through procedures defined at the national level aimed at creating official national databases. Data related to students' academic careers are entered into an in-house application by University of Genoa's (UniGe) central offices and then, through coded procedures, sent to the national ANS database (National Student Registry) of the Ministry of University and Research (MUR). The data are made available quarterly to all universities by the National Agency for the Evaluation of the University and Research System (ANVUR), through indicators defined within the AVA system. The data are available down to the level of the study program: https://www.anvur.it/attivita/ava/indicatori-di-monitoraggio-autovalutazione-e-valutazione-periodica/

From 2023, ANVUR also collects data related to research and the third mission, which are made available in similar ways. UniGe collects additional data related to teaching, research, and the third mission, as well as personnel and resources. These data are then aggregated and analysed internally.

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

The university detects data through in-house applications from its central offices. Data concerning teaching and academic staff are consolidated and time referred within an internal data warehousing system: data specialists and final users can access the data warehouse by platform" SAP Business Objects BI". Other data are managed with various methods and applications and are made available through online services. By SAP platform data specialists also created a set of executive dashboards available to governance. The university primarily uses the AVA indicators of ANVUR as KPIs, as they allow benchmarking against other universities. The establishment of a set of university KPIs that includes a selection of ANVUR indicators plus others capable of covering accounting and economic aspects, as well as teaching, research, third mission, is underway:

https://unige.it/sites/unige.it/files/2024-01/Sistema%20di%20programmazione%20e%20controllo.pdf

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

Data are collected by the offices managing the single processes, as outlined on the UniGe's administrative structures' webpage:

https://rubrica.unige.it/strutture/tipo-amministrazione

These data are then consolidated and analysed within the SAP system by the Quality Assurance, Studies, and Statistics Service, which can be further explored on their dedicated structure page.

https://rubrica.unige.it/strutture/struttura/100487

Given the top level of expertise of the personnel at the Quality Assurance, Studies, and Statistics Service, there has been no need for capacity building interventions. Training, on-the-job, is ongoing.

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

Some collected data and indicators are used to measure the achievement of strategic and operational mission goals (teaching, research, and third mission), outlined in the Strategic Plan (Piano Strategico 2021- 2026, Piano Strategico 2021-2026 – English Summary) and the Triennial Program (Programma Triennale 2022-2024).

Other data are employed to monitor administrative and technical activities, as detailed in the Integrated Activity and Organization Plan (Piano Integrato di Attività e Organizzazione 2024-2026).

The goal attainment is monitored every semester and reported annually (Rendicontazione delle azioni del Programma Triennale 2022-2024, Relazione sulla performance 2022).

Following the monitoring, the Governing Bodies (Academic Senate and Board of Administration) implement corrective measures to ensure the achievement of objectives. During the reporting phase, deviations are assessed, corrective actions identified, and, if necessary, objectives for the subsequent planning cycle are adjusted.

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

The primary issues related to data detection and analysis concern the dissemination of data culture among both those who work in the offices that collect the data and the data users. In the first case, operators sometimes proceed with data entry without understanding its purposes and the need for accuracy. In the second case, it is not easy for all the subjects for whom the data should provide decision-making elements to understand its value and purposes. Additional technical issues involve the transmission of data to the ANS system and the methods of constructing indicators by ANVUR, which are not always thoroughly documented.

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

UniGe approved is a specific regulation for the collection of students' customer care: https://unige.it/sites/unige.it/files/2023-11/Regolamento_valutazione_didattica.pdf and a broad intent document about the programming, monitoring, measuring, and assessing, called Programming and Controlling System:
https://unige.it/sites/unige.it/files/2024-01/Sistema%20di%20programmazione%20e%20controllo.pdf
National Directives are applied, too:

https://www.anvur.it/attivita/ava/indicatori-di-monitoraggio-autovalutazione-e-valutazione-periodica/

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

UniGe's system of institutional data collection and analysis, could be improved through:
  - Enhanced Data Integration, establishing a centralized data management system that integrates more data from various departments;
  - Advanced Predictive Tools, implementing predictive modelling;
  - Dissemination and engagement, improving data literacy across the institution, in order to enhance data-driven decision making;
  - Feedback Tools, introducing feedback systems based on user experience and outcomes;
  - Collaborative Data Governance, forming a data governance committee with representatives from all university sectors;
  - Stakeholder Engagement, engaging stakeholders, including students and faculty, to understand their data needs;
  - Policy Review, regularly reviewing and updating policies to reflect the changing needs of data management and to incorporate best practices.

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization:

UniGe has taken the following initiatives:

Inclusion (https://cpo.unige.it)

- Establishment of the Committee for Equal Opportunities and the Single Guarantee Committee;
- Approval of the Gender Equality Plan;
- Approval of the Positive Action Plan;
- Approval of a gender budget.

Green Deal/Greening (https://unigesostenibile.unige.it/

- Definition of sustainability governance;
- Definition of a climate strategy for 2022-2030;
- Approval of the Sustainability Report.

Digitalization:

- Extension of digital signature to all staff;
- Implementation of a University ERP system, aimed to digitalize documents and governing processes.

QUESTIONNAIRE ON THE SITUATION ANALYSIS FOR KPI4HE PROJECT WP1.1

1) Please describe the system of institutional data collection and analysis at your university:

2) What tools are in place for data collection and analysis (Key Performance Indicators, higher education management information system, etc.)?

3) What structure is in charge for collection and analysis of institutional data on university main educational, research, administrative and other activities? Please present /describe the link of this structure with the main educational research administrative and other units of university. When was the most recent capacity building/training organized for these employees and on what topic?

4) How is the system of institutional data collection and analysis linked with the decision making and strategic planning of your university?

5) Please describe your university's key issues related to the collection, analysis and use of relevant institutional data to improve the effectiveness of ongoing management, strategic planning, monitoring, quality assurance and decision-making processes at your university:

6) Are there any institutional data collection and analysis regulations/documents at your institution, please provide them if they are open access:

7) How the system of institutional data collection and analysis, as well as the use of collected data could be improved towards university efficient governance, management and quality assurance?

8) If any, please describe University actions addressing the following issues: Inclusion; Green Deal/Greening; Digitalization: