Erasmus+ CBHE Project: "Developing Interdisciplinary Postgraduate Programmes and Strengthening Research Networks in Geoinformation Technologies in Armenia and Kyrgyzstan (GeoTAK)"

Co-funded by the Erasmus+ Programme of the European Union

Dear Participant of the Questionnaire Survey!

This questionnaire is part of the GeoTAK project, which is an Erasmus+ project aiming to develop postgraduate Higher Education programmes in Geoinformation Technologies (GIT) and strengthen the links in research and innovation between Higher Education Institutions (HEI), industry and administration in Armenia and Kyrgyzstan. The questionnaire forms the foundation for identifying the market needs and significant development trends in the geospatial domain in the countries.

We believe that you are an important expert and/or stakeholder in the spatial data & geoinformatics domain. We would really appreciate if you could invest your time in completing this questionnaire, as only with your help we will be able to collect data and information relevant for our further planning and implementation of advanced postgraduate Higher Education programmes in Geoinformation Technologies (GIT) and strengthen the research and innovation activities in the domain.

Your participation in this survey is voluntary. If you decide to answer the questionnaire, we will consider this as your consent to participate in the survey. You can withdraw your participation at any time. We will take all possible measures to keep your personal information confidential. All the data collected will be aggregated and used exclusively for the purpose of the GeoTAK project.

We request you to answer questions by writing, typing or marking the specific checkbox ☒.

We would greatly appreciate if you could complete the questionnaire as soon as possible and return it to GeoTAK staff or by e-mail: geotak.kg@gmail.com

If you have any questions, remarks, or comments about this questionnaire or any other issues regarding data collection and privacy protection, do not hesitate to contact us by email: geotak.kg@gmail.com.

Kind regards,

GeoTAK project team

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QUESTIONNAIRE FOR ADMINISTRATION AND COMPANIES

1. Name of your organisation/company: _____

2. Your name and telephone/email (not required): _____
   _____

3. What is the ownership status of your organisation/company?
   ☐State   ☐Private   ☐NGO   ☐Other _____

4. What is the total number of employees?   ☐ 1-15   ☐ 15-100   ☐ more than 100

5. Is the organisation/company satisfied with its human resources in the field of GIT?
   ☐Sufficient   ☐Strong need for improvement   ☐Insufficient

6. Do you use internal or/and external geodatabases, spatial analysis, surveys or models during the decision-making procedure?   ☐Yes   ☐No

7. Is the geodata processing and analysis accomplished by your own organisation/company or external organisation is involved?   ☐Our organisation/company   ☐External   ☐Mixed

8. Do you currently use GIT in your organisation? If not, go to question 11.

9. For what purpose do you use GIT?
   Choose all the relevant option(s) (more than one option is possible).
   ☒ Scanning and geo-referencing topographic and thematic maps
   ☐ Digitization of scanned maps
   ☐ Creation of geodatabase and GIS
   ☐ Geospatial data collection and storage based on surveying, geodetic observations
   ☐ UAV-based geospatial data data acquisition and modelling
   ☐ Photogrammetric data acquisition and modelling
   ☐ Delivering courses on GIS and/or remote sensing (RS)
   ☐ Download satellite images for digitizing maps
   ☐ Download satellite images for land use and land cover classification
   ☐ Spatial analysis
   ☐ Location based services/navigation using digital maps
   ☐Others_____

10. What is the reason that GIT has not been used in your company?
    ☐ Lack of expertise   ☐ Lack of interest   ☐ Other_____

11. Would you like to apply GIT / GIS software in the future?   ☐ Yes   ☐ May be   ☐ No

12. What type of surveying /remote sensing / photogrammetric equipment do you use?
    Choose all the relevant option(s) (more than one option is possible).
    ☒ Leveling   ☐ Total stations   ☐ GNSS   ☐ Terrestrial Laser scanners   ☐ UAV
    ☐ Aerial LiDAR   ☐ Aerial optical cameras   ☐ Mobile mapping

    ☐ Other_____

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13. **What type of surveying /GIS / photogrammetric software do you use?**
    Choose all the relevant option(s) (more than one option is possible).

☐ ArcGIS Desktop   ☐ PostgreSOL, PostGis   ☐ Agisoft
☐ ArcGIS Online   ☐ AutoCAD   ☐ SAS Planet
☐ Quantum GIS   ☐ Micromine   ☐ R-studio
☐ Google Earth Pro   ☐ Erdas Imagine   ☐ Collect Earth
☐ Mapinfo   ☐ ENVI   ☐ eCognition
☐ Other _____

14. **What type of surveying /remote sensing / photogrammetric data sets do you use?**
    Choose all the relevant option(s) (more than one option is possible).

☐ Land surveying (GNSS, Totalstation etc.)   ☐ DEM
☐ Landsat 4-8   ☐ Google Earth Pro; Google Map
☐ Sentinel-2   ☐ UAV
☐ WV, QuickBird   ☐ Laser scanning data
☐ MODIS   ☐ Topographic maps (1:10000-1:1000000)
☐ Aster   ☐ Topographic/Thematic plans (1:500-1:5000)
☐ Sentinel-1   ☐ Other_____

15. **What postgraduate level staff members with GIT competencies does your organisation need?**

☐ MSc   ☐ PhD (Candidate of Scs)   ☐ Does not need

16. **Did your company had GIT related project in the last 5 years?**   ☐ Yes   ☐ No
    If yes, in which application areas?
    Choose all the relevant option(s) (more than one option is possible).

☐ Cadastre, land management
☐ Geodesy, cartography
☐ GIS
☐ Environmental studies, Earth observation
☐ Spatial decision making
☐ Deformation monitoring, Engineering geodesy
☐ Mining
☐ Disaster management, Emergency response
☐ Tourism
☐ Cultural heritage
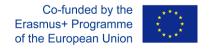☐ Location-based services, navigation, transportation
☐ Other_____

17. **Which GIT related knowledge areas / skills do you find important from the below proposed?**
    Please indicate the importance with a mark on a 1-5 scale (5= means very important, not important at all=1)

№	knowledge areas / skills	Importance
1	Programming skills	
2	Data acquisition and data integration skills	
3	Cadastre and land information knowledge	
4	Spatial data infrastructure knowledge	
5	Spatial database management skills	
6	GIS knowledge and skills	
7	Spatial analysis knowledge	
8	UAV piloting, data acquisition and processing	
9	Geodetic measurements and survey using total stations	
10	Advanced GNSS positioning	
11	Knowledge on the geodetic reference systems	

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12	Remote sensing knowledge	
13	Photogrammetric knowledge	
14	Skills in remote sensing/photogrammetric software	
15	Management skills	
16	Interdisciplinary skills	
17	International experience	
	Other, please specify	

18. Do you have relevant ongoing GIT projects / partnerships / activities at your organisation/company?
    a.
    b.
    c.

19. Would you be interested in joining a National GIT Research Network which brings together universities, GIS scientists, national agencies, NGOs and companies?   ☐ Yes   ☐ No

20. In what way can your organisation/company contribute into this GeoTAK project?
    ☐Advises   ☐Study visits   ☐Research data   ☐Internship   ☐Other_____

21. Would you employ a Geoinformatics MSc/PhD graduate in your company?   ☐Yes   ☒No
    If yes, how many?   ☐ 1-2   ☐ 3-5   ☐ 6 and more

22. Please, identify the main barriers in the use of geospatial information?
    ☐ Lack of GIT professionals   ☐ Lack of education/professional training
    ☐ Expensive software/hardware   ☐ Geospatial datasets are not available

    Other: _____

23. Please, select the application fields that, based on your work and experience, GIT is currently urgently needed in your country and require advanced solutions:
    ☐ Disaster management, emergency response   ☐ Land survey, geodesy
    ☐ Land management and cadastre   ☐ Spatial and urban planning
    ☐ Environmental management   ☐ Agriculture
    ☐ Forestry   ☐ Location-based services, transportation
    ☐ Tourism   ☐ Cultural heritage
    ☐ Other: _____

24. Please, describe the GIT areas that, based on your work and experience, you consider the most promising in your country in terms of employment expectation in the near future

_____
_____
_____

25. Do you like to be actively involved in the GeoTAK project?   ☐ Yes   ☐ No

    If „Yes", please, write your email adress: _____

Your feedback is very important for the further development of GeoTAK project!
The questionnaire is evaluated anonymously. Thank you for participating in our survey!
Please, fill the questionnaire and return it to GeoTAK staff or by email: geotak.kg@gmail.com