



South East European Research Association on Geo Sciences - "Geo - SEE"

*Str. Dzhon Kenedi, 25/4-d3; 1000 Skopje; MACEDONIA*

[www.geo-see.org](http://www.geo-see.org)

[info.geosee@gmail.com](mailto:info.geosee@gmail.com)

**Bashkim IDRIZI**  
**Subija IZEIROVSKI**

# **INSPIRE DIRECTIVE IN HIGH EDUCATION SYSTEM OF MACEDONIA**

A banner for the INSPIRE conference 2011 in Edinburgh. The background features a silhouette of the Edinburgh skyline against a dark sky, overlaid on a light-colored, semi-transparent map of the city. The text is white and positioned in the lower-left corner of the banner.

INSPIRE conference 2011  
EDINBURGH • 27 June - 1 July



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info.geosee@gmail.com

**Presenter: Prof.Dr. Bashkim IDRIZI**, *bashkim.idrizi@unite.edu.mk*  
"INSPIRE directive in high education system of Macedonia"  
*Edinburg, June 2011*

## Overview:

- *Geo-SEE association*
- *Objectives of research project*
- *Target groups*
- *Questioner*
- *Process of research*
- *Types of obtained results*
- *Results from research*
- *Further activities of Geo-SEE in SEE*
- *Conclusions*



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## Geo-SEE association

**The South-East European Research Association on Geo Sciences “Geo-SEE”** is nongovernmental, non-political, non-profit, and secular organization, which deals with research, science, education, training and promotion of Geo sciences in the region of South-East Europe (SEE). The association aims to give positive impact on advancement and further development of all geo sciences and geo data-information in the SEE region, through the cooperation and exchange of experiences, as well regional-international cooperation between the relevant institutions in the countries of South-East Europe.



The screenshot shows the homepage of the South-East European Research Association on Geo Sciences (Geo-SEE). The website has a green and white color scheme. At the top, there is a navigation menu with links for Home, Association, Projects, Membership, Publications, News, Events, Links, and Contacts. Below the menu, there is a search bar and a logo for Geo-SEE. The main content area is divided into two columns. The left column features a section titled "Ongoing projects" with two project cards: "Plan 4 all" (ECP-2008-GEO-318007) and "International Steering Committee for Global Mapping of Kosovo GlobalMap Dataset". The right column has a "Home" section with a search icon and a paragraph of text describing the association's mission. At the bottom of the right column, there is a "Follow us on:" section with icons for Facebook and LinkedIn.



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## **Geo-SEE objectives:**

- Strengthening of cooperation and friendship between the geo sciences through the organization of scientific meetings, conferences, congresses, conferences, roundtables, and publishing of scientific and professional journals, publications, collections and books;
- Strengthening the capacities available through the dissemination of knowledge, academic and professional expertise of members of the Association with the interested audience from Southeastern Europe and beyond;
- Improve knowledge and skills of Government, NGOs and other social structures in Southeast Europe in order to upgrade the institutional structures of geo-fields and geo information-data through organization of dedicated trainings in cooperation with institutions and experts from the region and beyond;
- Enhancing regional cooperation through networking and communication with other geo associations and organizations with similar goals and objectives in the countries of Southeast Europe and all countries all over the world through the exchange of practices, experiences and joint organization of events with a regional-international-global importance.



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## Geo-SEE projects:

<http://LandAM.geo-see.org>



[www.iscgm.org](http://www.iscgm.org)



Developing Kosova's  
GM dataset

[www.plan4all.eu](http://www.plan4all.eu)



[www.sdi2010.geo-see.org](http://www.sdi2010.geo-see.org)



## Geo-SEE publications:

|  |  |
|--|--|
|  | <p>PROCEEDINGS<br/>International conference SDI 2010 – Skopje<br/>15-17 Semptember 2010<br/>ISBN: 978-9989-936-32-6<br/><a href="http://www.sdi2010.geo-see.org">www.sdi2010.geo-see.org</a></p>   |
|  | <p>PROCEEDINGS<br/>International conference SDI 2010 – Skopje<br/>15-17 Semptember 2010<br/>ISBN: 978-9989-936-32-6<br/><a href="http://www.sdi2010.geo-see.org">www.sdi2010.geo-see.org</a></p>   |
|  | <p>CONFERENCE MATERIALS<br/>International Seminar on Land Administration and Management<br/>– Prishtine 2011<br/>12 April 2011<br/><a href="http://LandAM.geo-see.org">http://LandAM.geo-see.org</a></p>   |
|  | <p>PROCEEDINGS<br/>International scientific conference “Importance of developing<br/>National Spatial Data Infrastructure of the Republic of<br/>Macedonia based on INSIPRE directive”<br/>27 March 2009, Skopje<br/>ISBN: 978-9989-9974-5-7</p> |



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## RESEARCH PROJECT:

*Level of including the INSPIRE directive in  
high education system of Macedonia*



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## Research objectives:

Detecting of :

- actual situation with the curricula's of university education in geo sciences,
- including of INSPIRE directive in university curricula's,
- including of SDI (of all levels – subnational, NSDI, GSDI ext.) in university curricula's,
- knowledge of students in the field of SDI of all levels,
- knowledge of students for the INSPIRE directive,
- knowledge of students about the Macedonian governmental responsible institution for powering the NSDI, and
- knowledge of students for another major initiatives as GMES, GEOSS and GSDI.



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## **Target groups:**

### Public universities:

- Geography department – Faculty of Natural Sciences and Mathematics - State University of Tetova; Tetova.
- Geodesy department – Faculty of Civil Engineering – Ss Cyril and Methodius University; Skopje.
- Institute of Geography – Faculty of Natural Sciences and Mathematics - Ss Cyril and Methodius University; Skopje.
- Faculty of Forestry - Ss Cyril and Methodius University; Skopje.
- Faculty of Technical Sciences – University St Kliment Ohridski; Bitola.
- Faculty of Education – University St Kliment Ohridski; Bitola.
- Geology institute - Faculty of Natural and Technical Sciences – University Goce Delcev – Stip.





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## Questions:

1. Do you know what is INSPIRE?
2. What is the INSPIRE directive?
3. How did you get information for INSPIRE directive?
4. What contains the INSPIRE directive?
5. When entered into force the INSPIRE directive for the first time?
6. Do you know what INSPIRE directive should be delivered to potential users and stakeholders?
7. What type of spatial data are included in INSPIRE
8. Which countries are obligated to implement the INSPIRE directive?
9. What is connection of the INSPIRE directive with the science that you are studying in the university?
10. What are the benefits from the implementation of INSPIRE directive?
11. What goals should be achieved by INSPIRE directive?
12. Which institutions are working on defining the standards of INSPIRE directive?
13. Whether in Macedonia is implementing and utilizing the INSPIRE directive?
14. What is Spatial Data Infrastructure (SDI)?
15. What is National Spatial Data Infrastructure (NSDI)?
16. Does the Macedonian NSDI exist?
17. Which governmental institution of Macedonia is responsible for implementing the NSDI for Macedonia?
18. What is GEOSS (write the original name in English and translate it in Macedonian language)?
19. What is GMES (write the original name in English and translate it in Macedonian language)?
20. What is GSDI (write the original name in English and translate it in Macedonian language)?

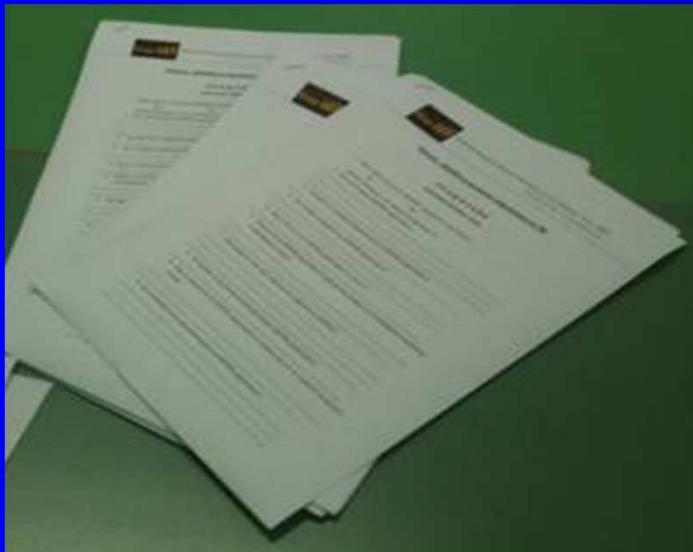


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## Research process:

1. evaluation of geography, geodesy, geology, agronomy and forest students in second/third/fourth year of studies, by using questionnaire with some specific questions for INSPIRE directive;
2. analysing the curriculums of geography, geodesy, geology, agronomy and forest departments, within the public universities in Skopje, Tetova, Bitola and Shtip.





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## Type of obtained results:

Three type of feedback information:

1. **Students** - filled questionnaires,
2. **Lecturers** – INSPIRE and SDI are not implemented in curricula's, and
3. **Unanswered** – lecturers didn't react and didn't organize testing of students!



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## **Results from research:**

1. INSPIRE directive is unknown term for students
2. SDI's (of all levels) are unknown term for students
3. GMES, GEOSS and GSDI are unknown term for students also
4. INSPIRE directive and spatial data infrastructures can not be found in university curricula's
5. Major international spatial data initiatives can not be found in university curricula's
6. European directives, initiatives and standards for SDI can not be found in university curricula's also!



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## Further activities of Geo-SEE in SEE

Expansion of this research project in other South-East European countries, in cooperation with local partners;

Period of implementing: August – December 2011!



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## Conclusions

- Lack of knowledge for INSPIRE among the students;
- Lack of knowledge for SDI among the students;
- Lack of knowledge for international initiatives among the students;
- Lack of knowledge for European directives, initiatives, projects and standards for SDI among the students; ...
  
- University curricula's without European directives and standards for SDI;
- University curricula's without detailed explanation of SDI;
- University curricula's without practical courses for SDI; ...
  
- **Immediately changing of the university curricula's by including the European directives, initiatives and standards related to spatial data!!!**



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**Upcoming event related to NSDI in Macedonia**



**International NSDI Conference**  
**IMPACT OF THE NSDI IN SOCIETY,**  
**CHALLENGES FOR ESTABLISHMENT**

**Macedonia , Skopje, September 19-20, 2011**

[http://www.katastar.gov.mk/nsdi2011/za\\_nsdi.html](http://www.katastar.gov.mk/nsdi2011/za_nsdi.html)



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In behalf of both coauthors,



**Bashkim IDRIZI**



**Subija IZEIROVSKI**

**THANK YOU FOR YOUR ATTENTION!!!**

**Ass.Prof.Dr. Bashkim IDRIZI**

Geo-SEE (South-East European Research Association on Geo Sciences);  
State University of Tetova, Faculty of Natural Sciences and Mathematics.  
Str. Xhon Kenedi, 25-1/D3,  
Skopje, MACEDONIA (FYROM).  
Gsm: + 389 75 712-998  
[bashkim.idrizi@yahoo.com](mailto:bashkim.idrizi@yahoo.com), [bashkim.idrizi@unite.edu.mk](mailto:bashkim.idrizi@unite.edu.mk),  
[info.geosee@gmail.com](mailto:info.geosee@gmail.com)  
[www.unite.edu.mk](http://www.unite.edu.mk), [www.geo-see.org](http://www.geo-see.org)

**MSc. Subija IZEIROVSKI,**

Geo-SEE (South-East European Research Association on Geo Sciences);  
Public enterprise Makedonija Pat, Section in Struga,  
Str. Crni Drim, 7, 6330 Struga, Macedonia (FYROM).  
Phone.: +389 46 788-781, Gsm.: +389 70 212-211, Fax:  
+389 46 781-578.  
[subi42@gmail.com](mailto:subi42@gmail.com), [info.geosee@gmail.com](mailto:info.geosee@gmail.com)  
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