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Co-ordination of Research Policies with the Western Balkan Countries

Questionnaire for preparation of the national background report

This questionnaire aims at producing an inventory of research structures, current and future R&D priorities, and policies for cooperation between Western Balkan Countries in the field of R&D in the domain of *Energy.* **Please use data of the closest year available.**

Theme: Energy

Country name: Kosovo*

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Section A: Main R&D resources in the field of Energy

In this section please provide data necessary for identification of main actors.

A 1. List of institutions / organisations: main RESEARCH PERFORMERS in the PUBLIC sector in the S&T field of Energy (*such as national universities, government laboratories, institutes etc.*)**:**

	Name	Postal address	Web-site
1.	Faculty of Mechanical Engineering-Department of Thermotechnics and Thermoenergetics	Kodra e Diellit pn 10 000, Prishtina, Kosovo	http://fim.uni-pr.edu
2.	Faculty of Electrical Engineering-Department of Electroenergetic Systems and Department of Industrial Electroenergetics	Kodra e Diellit pn 10 000, Prishtina, Kosovo	http://fiek.uni-pr.edu
3.	Faculty of Mining and Metallurgy-Department of Mining	PIM Trepça 40 000 Mitrovicë	http://fxm.uni-pr.edu
4.			
5.			
6.			
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12.			
13.			
14.			
15.			

* This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo declaration of independence.

A 2. List of institutions / organisations: main RESEARCH PERFORMERS in the PRIVATE sector in the S&T field of Energy (*such as national universities, government laboratories, institutes etc.***):**

	Name	Postal address	Web-site
1.	Institute INKOS	Termocentrali str, Kosova A, Gate 2	http://www.inkos.info
2.	RIINVEST Institute	Universiteti AAB-Riinvest, Ndërtesa nr. 2, K/4 Zona Industriale 1000 Prishtinë Kosovë	www.riinvestinstitute.org
3.	American University in Kosovo	American University in Kosovo Nazim Gafurri St. Nr. 21 Germia Campus 10000 Pristina, Kosovo	www.aukonline.org
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

A 3. Which organisations are responsible for financing R&D in the field of Energy:

	Name	Web-site	Financing R&D–Year 2010: Total amount in national currency (000)	Financing R&D–Year 2010: Total amount in EUR (000)
1.	Ministry of Education, Science and Technology	http://www.masht-gov.net		
2.	Ministry of Economical Development	http://mem.rks-gov.net		140.000
3.				
4.				
5.				
6.				
7.				
		TOTAL:		140.000

A 4. How is research performed? (*please indicate all that apply***)**

	Lead participating body (please use numbers from question A 3)	Other relevant bodies (please use numbers from question A 3)
In own institutions	1	
Published calls for tenders, open to all researchers	1,2	
Restricted tenders to preferred suppliers		
Co-funding with other national bodies		

Co-funding with other countries		
Other approaches – please fill in: _____		
Other approaches – please fill in: _____		
Is support restricted to national bodies (Y / N)		

A 5. R&D capacity* in S&T field:

	1990	2005	2010	*2015*
Total number of research organizations	1	3	4	
Of which universities	1	3	3	
Of which public research organizations	1	1	1	
Of which private research organizations		2	3	
Number of PhD students graduated				
Total number of R&D personnel			118	
Percentage of women in the total number of R&D personnel			25%	
Total number of employees on a Full-Time-Equivalent (FTE) basis			104	
Total number of researchers			97	
Percentage of women in the total number of researchers			23%	
Total number of researchers on a FTE basis			91	

Number of researchers with Ph.D. degree or higher			19	
Number of researchers with Ph.D. degree or higher on a FTE basis			16	
Number of researchers under the age of 35			8	
Number of researchers under the age of 35 on a FTE basis			6	

* Please use OECD - Frascati Manual definitions if possible.

A 6. Research infrastructure in S&T field of Energy:

(a) Please assess the physical research infrastructure (without office equipment)

The R&D institutions in general have an internationally competitive research infrastructure and are able to conduct top research in cutting-edge research topics	☐
The R&D institutions in general have top research infrastructure, the infrastructure enables regular international research co-operation but are not competitive if compared with the 'best in this research field'	☐
The R&D institutions in general have good quality research infrastructure, probably one of the most up-to-date in the country, but are not good enough to join in international research on a regular basis	☐
The R&D institutions in general have a rather obsolete research infrastructure if compared with international organisations and this is an obstacle to international research co-operation	☒
The R&D institutions in general have a rather obsolete research infrastructure and it is an obstacle to more domestic contracts	☐
The R&D institutions in general have no substantial infrastructure, but they have access to it and can participate in top research both nationally and internationally	☐

(b) Please indicate most important physical research infrastructure in S&T field of *Energy:*

1. Laboratories of the Faculty of Mechanical Engineering, University of Prishtina
2. Laboratories of the Faculty of Electrical And Computer Engineering, University of Prishtina
3. Laboratories of the INKOS Institute

A 7. Large and/or National R&D projects in S&T field of Energy (Please provide a list of large national R&D projects in S&T field in annex of this report):

	ongoing /started in 2010	**completed in 2010**
Number of **large** R&D projects**		1
Of which: the number of projects in collaboration with industry		
the number of projects in which the national organisation co-ordinates		
the number of EU FP projects in which national institutions participate		
the number of EU FP projects in which national institutions coordinate		
Number of **national** R&D projects***		
Of which: the number of projects in collaboration with industry		

** the total project budget is above EUR 100 thousand and the national institutions' share is at least EUR 20 thousand
*** projects funded in some proportion (10-100%) by the national agency / ministry

A 8. Source of financing of R&D activities in S&T field of Energy:

	Year 2010– Share in %:
a) Private companies?	
b) International sources (such as the EU, UN, OECD, NATO etc.)?	60 %
c) Not competitive* government financing?	
d) Competitive* government financing?	40 %
e) Other sources (foundations, non-profit organisations, etc.)?	

*Projects won after competitive bidding procedures – so that the organisation can actually lose the funding targeted at the end of the procedure – count as source on a competitive basis. If the organisation participates in a money-allocation mechanism so that the money cannot be lost (but e.g. 'only' reduced), it counts as source on a non-competitive basis of research funding even if the procedure itself is called 'competitive bidding'.

Section B: Qualitative assessment of the S&T field

In this section please provide comprehensive description of the following issues:

B 1. Current situation, priorities and co-operation in S&T field:

B 1.1 Current situation:

a) What are the main national development policy priorities?

Kosovo is facing serious problems in energy supply for the entire last decade. The almost daily basis electricity outages are consequence of ca. 8.5 % annual rate growth of electricity consumption, insufficient electricity generation and high technical and commercial losses. Approximately 89% of electricity demand within Kosovo is covered from two lignite coal-fired thermal power plants (TPP), "Kosovo A & B". The rest of 8 % of electricity demand is covered by import while the remaining of 3 % of net electricity demand is covered by two existing hydro power plants "Ujmani/Gazivoda" and "Lumbardhi".

Apart of limited generation capacities, the availability of existing TPP is low due to frequent system failures, disconnections and repairs. The unstable and inadequate energy supply is considered as one of major obstacles to the country's economic development. Therefore the reliable energy supply is one of top national priorities identified in the government Midterm Expenditures Framework 2012-2014. In order to increase the generation capacities, the priority is given to construction of new generating capacity, power plant "Kosova e Re". Seeking for the short term improvement in energy supply, energy efficiency and participation of renewable energy sources in the meeting of energy demands are also identified as other national priorities. As party to Energy Community Treaty (ECT), Kosovo continues to align the legislation and develop the energy sector, in line with the EU's Acquis.

b) What are the main R&D priorities?

Main R&D priorities identified in two important development documents: the Kosovo Energy Strategy 2009-2018 and the National Research Program 2010-2015 are:

- *Promoting the energy as an instrument for socio-economic development*
- *Optimization of existing power generation capacities*
- *Modernization of transmission system and international integration*
- *Upgrading of district heating generation capacities*
- *Optimization of the utilization of the existing energy resources*
- *Improvement of energy end-use efficiency and transformation of energy market*
- *Fundamental investigation of potentials and developing of technology for utilization of renewable energy sources (hydro, geothermal, solar, wind)*
- *Developing of liquid fuel sector and establishing of gas supply network*

c) How would you put identified R&D priorities in EU research topics?

Security of supply, promotion of investments in the sector, preserving of environment and further development of the energy market are the main strategic goals of the new European strategy for

the EU energy sector. A number of important objectives derive from these goals, including the so-called 20% - 20% - 20% targets.

B 1.2 Future priorities:

Describe how your future R&D priorities are selected and priorities agreed (e.g. foresight)? Are these driven by national policy priorities?
The future R&D priorities are strongly driven by national policy priorities provided in the Kosovo Energy Strategy 2009-2018 (KES). KES describes basically development priorities based on the comprehensive analysis of the energy sector, the Energy Strategy 2005-2015, Program of the Government 2008-2011 as well as Kosovo commitment for integration in the EU as soon as possible. The scientific research in the field of Energy has also been identified among the first priorities in the National Research Program 2010-2015 (NSP) key development document for R&D in Kosovo. The priorities in the NSP are identified based on the civil "key technology" concept completed by the "system's oriented approach" and also by considering of the socio economic problems („new mission oriented paradigm"). The following criteria were used to set the priorities:

- *Relevance to economic and social development of the country,*
- *Number and quality of human resources for within the country and Diaspora,*
- *Condition of research infrastructure,*
- *Contribution to preservation and promotion of national identity of Kosovo,*
- *Potential to achieve research results and apply them within the country and abroad,*
- *Existing international cooperation in a field.*

a) Over the next 10 years, what will be the main R&D policy issues in this S&T field?
   - *Development of clean energy technologies including carbon capture and storage*
   - *Development of smart energy network*
   - *A more integrated energy and climate policy*
   - *Establishing of a sustainable and regionally integrated energy supply system*

B 1.3 What national policy and R&D priorities should be the subject for establishment of specific co-operation with other Western Balkan Countries?
- *Establishing of fully integrated transmission network*
- *Co-operation in fund raising for financing of twining research activities*
- *Investigation of potentials for alternative energy resources*
- *Co-operation in developing of new generation capacities*
- *Establishing of integrated gas supply network*

B 1.4 It is hoped that this exercise will identify areas for future collaboration and R&D co-operation in this S&T field, probably leading to a possible WBC R&D co-operation proposals under FP7. These projects foresee four levels of co-operation. They range from:

a) The minimum – exchange of information and results;
b) Systematic exchange and development of complementary programmes;
c) Development of common approaches to agreed R&D priorities;
d) The maximum – full joint approaches, common programmes and pooled funds with open access to researchers from participating countries.

So, with this in mind, what levels of co-operative actions would your country be able to support in the future in this S&T field?
Despite the recent progress Kosovo made in establishing of co-operation with Western Balkan Countries, this does not yet offer a solid basis for an extensive collaboration in the energy sector. Hence, Kosovo currently would be able to participate in development of common approaches to agreed R&D priorities

B 1.5 A suggestion is to have a high level meeting once or twice a year; where WBC could decide upon themes on which to co-operate. This may lead to a proposal for a project or other forms of co-operation. Would your country be willing to participate in a high level meeting with other WBC to decide upon these themes?

Yes, Kosovo will be willing to participate in high-level meetings with other WBC to decide upon Energy R&D themes of common regional interest

Thank you very much for your effort!

ANEX

PROJECTS OF KOSOVO GOVERNMENT (Appropriations)
Ongoing /Started in 2010

Completed in 2010

Nr	Project name	Value (€)
1	Evaluation of hydro energy potential for mini HC	140.000

References:

Budget of Kosovo, Tables Reviewed budget 2010