

Appendix V  
To the Instructions for the Teams of experts-evaluators

### FINAL REPORT

<b>I</b>	<b>The Name of the Institution to be evaluated</b>	National Research and Development Institute for Gas Turbines (COMOTI– Bucharest)
<b>II</b>	<b>Evaluation Period</b>	1-3 October 2012
<b>III</b>	<b>Members of the Team</b>	
	<b>1<sup>st</sup> Evaluator information</b>	
<b>A</b>	<b>Name, Surname</b>	Alberto D' Amore
<b>B</b>	<b>Affiliation</b>	Second University of Naples
	<b>2<sup>nd</sup> Evaluator information</b>	
<b>A</b>	<b>Name, Surname</b>	George Papanicolau
<b>B</b>	<b>Affiliation</b>	University of Patras
	<b>3<sup>rd</sup> Evaluator information</b>	
<b>A</b>	<b>Name, Surname</b>	Vasileios Kostopoulos
<b>B</b>	<b>Affiliation</b>	University of Patras
	<b>4<sup>th</sup> Evaluator information</b>	
<b>A</b>	<b>Name, Surname</b>	Emil Alexandru Brujan
<b>B</b>	<b>Affiliation</b>	University Politehnica Bucharest
	<b>5<sup>th</sup> evaluator information</b>	
<b>A</b>	<b>Name, Surname</b>	Liviu Marin
<b>B</b>	<b>Affiliation</b>	Institute of Solid Mechanics, Romanian Academy

## **Justification of the marks awarded**

### **The quality of R&D activities and their results (mark awarded: 2.8)**

*Justification:* There is a lack of publications in important journals in their field and international patents. There are also a small number of national patents. No start-ups and spin-offs. On the other hand, the institute is very competent in attracting international and private funds.

### **Human resources quality (mark awarded: 3.7)**

*Justification:* The average age of research and development personnel of this institute is high and just a few researchers with PhD degree were employed in the last years. As a positive aspect we note the high number of research and development personnel as compared to the total number of personnel. As a negative aspect we note the relatively good scientific performance for just a few groups and individuals. The ratio of research and development staff to administrative staff is very good.

### **Quality infrastructure and its rate of exploitation (mark awarded: 5)**

*Justification:* Excellent infrastructure for the type of activities in which this institute is involved and excellent (100%) rate of exploitation of all equipments.

### **Management efficiency and quality of the research environment (mark awarded: 3.9)**

*Justification:* Good management efficiency with some negative points concerning transparency and knowledge of the EU and international codes of best practices. There are no formal and rigorous evaluation procedures for staff evaluation and, therefore, motivation is not totally based of scientific achievements. In most of the cases the decisions are not transparent concerning employment, evaluation procedures and promotions.

### **Quality and credibility of the institutional development plan (mark awarded: 3.3)**

*Justification:* A good prospect in the near future with respect to development activities but there is a need to improve the quality of the development plan for the research activities. In other words, the development direction in manufacturing, production and testing is clearly defined but there is no clear evidence for research development. There is a potential to establish critical mass in most of research and development groups, especially in manufacturing and testing, but there is a need for improving hiring of young researchers with promising prospects.

## **Conclusions and recommendations**

The general conclusion is that this research and development institute has a well defined focus area in which it is internationally competitive. The institute performs very well in the case of development activities, with significant funds from international and private sources, but it has only a poor record of achievements as long as the research activities are concern. The institute has an excellent infrastructure for the type of activities in which it is involved. In most of the cases the decisions are not transparent concerning employment, evaluation procedures and promotions and, as a result, motivation is not totally based of scientific achievements.

### **Recommendations:**

- Increase quality and number of scientific publications, especially in internationally recognized journals
- Better participation in international conferences
- Attract more young researchers and PhD holders
- Staff evaluation as well as staff motivation should be highly improved based on scientific achievements
- The administrative procedures should be clearly defined
- The involvement of the staff in decision making is limited and should be improved in the near future
- Improve the quality of the development plan for the research activities

**Team E1: C111 Research and Development for compressors and fans. Compressors and fans testing bench**

Excellent infrastructure but just a few publications, most of them in Romanian conferences. The existing infrastructure of this team is suitable for attracting new funds (both at national and international level) for development activities

## **Team E2 C112 Dynamic gas calculation Polytechnic University Branch in Bucharest**

Some of the results obtained by this group are very good but, unfortunately, there is only a small amount of published results. Even so the research results are published mainly in Romanian conferences. Good infrastructure that has the potential of attracting new funds.

### **Team E3 C 113 Process centrifugal air compressor and air blower**

Good infrastructure but only for development activities. There is a limited potential for conducting excellent research but it has the potential of attracting private funds or international collaborations.

**Team E4 C 114 LM Gas turbines special components, defense products. Physics and mechanic testing laboratory**

As with the others research groups, this group also have good infrastructure. But again just a few published results (mainly in Romanian conferences). The potential of attracting new funds is high.

## **Team E5 C 116 Automation, gas turbines compressors and electrical engineering**

Some research and development infrastructure do exist but the publication record is quite low. In cooperation with other research groups of Comoti there are good hopes of attracting funds both at the international and national level.



## **Team E6 C118 Resistance and Vibration Calculation**

Good infrastructure but, as before, only a small number of publications. Publications seem to be a marginal aspect of all research groups. It was not clear for me what are their future plans for improving research and publication record.

## **Team E7 C 132 Screw compressors packages**

Very good infrastructure with high potential in attracting new funds. As before, publications are missing.

## **Team E8 C 121 Gas Turbines industrial applications, Co-generation**

Very good infrastructure. In fact this is the main good aspect of Comoti. Again publications are missing but in my opinion there is the potential in attracting new funds.

## **Team E9 C 122 Turbines, Gas turbine package, Gas turbines testing bench**

As with the others research groups this group also have good infrastructure. But again just a few published results (mainly in Romanian conferences). The potential of attracting new funds is high.

## **Team E10 C 123 Environmental protection equipment**

Very good infrastructure which is extensively used for the ongoing projects of Comoti. Again, only marginal publications.

**Team E11 C 124 LC -Physics and chemical testing laboratory C 124 LA - Acoustics and vibrations laboratory**

Basically, the whole evaluation process reveals again and again the same aspect: good infrastructure with bad publication record. This is the case with this particular group.

**Team E12****C 125 Composite materials in aviation research laboratory**

This group is somehow different for the rest of the Comoti's groups. Very good research with good potential for publication of the research results. Involved in an excellent EU project.

**Team E13 C 126 Combustion chambers and unconventional energies, Combustion chambers testing bench**

As with the others research groups this group also have good infrastructure. But again just a few published results (mainly in Romanian conferences). The potential of attracting new funds is high.



**Team E 14 C 127 Gh. Asachi University Branch in Iasi**

The same problems noted in the above are also valid for this research group. Infrastructure is good but the publications are missing.

## **Team E15 C 201 CN Programming and Technology Research**

Good infrastructure with a high rate of exploitation. In fact, all the production equipments are well used at their maximum capacity.

## **Team E16 C202 Semifinishing, casting and forging technologies**

Excellent infrastructure especially suited for development and production activities. Very suitable in attracting new funds.



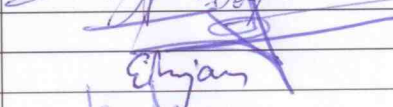
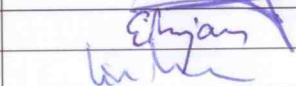

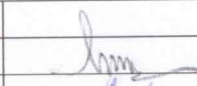


## **Team E17 D 300 Gas turbines and Compressors Assembling- Service**

Good work also involved in development activities. For this particular group the publication record is not a must.

**Overall technical considerations, observations, conclusions:**

On the whole, this research and development institute has a very good infrastructure, especially for micro-production and testing, and the institute was able to attract international funds, most of them from the EU, as well as private funds. On the other hand, the results of the research activities are disseminated mostly in Romanian conferences or Romanian journals and they have only two international patents. It should be also noted the small number of researchers with a PhD degree. In the near future, this institute must increase the number of publications, especially those published in internationally recognized journals. As a general conclusion, this institute performs very well in development activities but has only a poor record of achievements in research activities.

**Proposed certification level: A**

Nr. crt.	Name, Surname	Signature
<b>Evaluation TEAM</b>		
1	Evaluator 1 – Alberto D’Amore	
2	Evaluator 2 – George Papanicolau	
3	Evaluator 3 – Vasileios Kostopoulos	
4	Evaluator 4 – Emil Alexandru Brujan	
5	Evaluator 5 – Liviu Marin	
<b>Observers</b>		
1	Coordinating Authority	
2	CCCDI Representative – Rares Medianu	
3	ANCS Representative – Ruxandra Popescu/Letitia Clara Stanila	

Date: .....