**OPEN INNOVATION LAB - UDJG**

**Annex 4 – Challenge no. 24**

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| 1. **Name of the challenge** *(short, powerful and inspiring description):*

**Energy conservation in a Sunflower Oil Mill** |
| 1. **Context*:*** *(what is the background information behind the challenge, what is the state of the art of the sectors, the role of the organization in this context, the target group to whom the solution need to be addressed, etc.)*

In a sunflower oil plant, significant amounts of agricultural residues are generated (1kg of seeds contain 14-28% seed husks) that can be used to produce energy. Burning these residues raises a number of problems, such as the boiler slagging, as the ash melting temperature is low. Under these conditions, other energy-efficient and economical -efficient technologies for the use of seed husk for energy production must be found. |
| 1. **Problem:** (*what i*s *the problem that needs to be solved, why is important to solve, impact of this problem in the close future, impact of the problem on local or international area)*

The problem to be solved is the choose of the technology to produce heat and/or electricity from sunflower seed husk in a more efficient and without technical issues way.  |
| 1. **Additional info (for internal use):** *(what is expected to be delivered by the team (idea/concept/prototype), what are the specific tools & instruments that shall be used (e.g. Programing language etc.), what are the asset (as: knowledge, materials) will be given to the team.*

The team should provide a concept about heat/electricity generation system from sunflower seed husk. The system may be a gasifier integrated with gas turbine or internal combustion engine.  |
| 1. **Skills of the team** (optional for the seeker, but useful for internal use)**:** *what specific skills shall the team have in order to address the challenge.*

- The team should possess skills in heat and power generation and thermochemical processing of biomass. |
| 1. **About the Seeker:**
* *Description of company/institution:* **UPB-CETTI**

Center for Electronic Technology and Interconnection Techniques is affiliated to the Faculty of Electronics, Telecommunications and Information Technology at “Politehnica” University of Bucharest and is dedicated to education and training of higly specialized electronics engineers. Also, UPB-CETTI promotes academia and industry common innovative projects.* *Vision: where do you see the company/institution in 5 years?*

UPB-CETTI’s goal is to successfully train and educate engineers in the packaging technologies of the future, to support the innovation in small and medium sizes companies, as well as fostering entrepreneurship. |