

**Expression of interest for participating in
the COST Action 530 “Sustainable Materials Technology”
- Life Cycle Inventories for Environmental Conscious Manufacturing
Processes**

1.1 Title of Project Theme.

**LIFE CYCLE ASSESSMENT OF WASTE HAZARD MATERIALS AS A SEQUENCE OF
NDT TECHNOLOGY AND THEIR ENVIRONMENT EFFECTS**

1.2 Full name of proposes, address

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1.3 Outline of activity or theme of work to be undertaken.

In Bulgaria work successfully more then 120 NDT laboratories, accredited according European norms, with approximately 1500 specialists I, II and III level. Application of NDT methods guaranties a high level of safety under an investigation.

Some materials applied in penetrant (PT), magnetic (MT) and leak testing (LK) have some special characteristics – toxic and flammability. Specialists work in area with ultraviolet light and high intensively electromagnetic field.

Some part of materials after NDT goes to the water and soil. The standards in the domain of NDT get some severe as the environment, the health and the safety.

The aim of this study is to compare the different technologies and materials in connection of their influence of the environment.

The study has also the aim to propose some new technical decision to reduce influence of those materials to the water and soil and the operators health.

1.4. Resources available:

The name of laboratory is “Mechanics, diagnostics and nondestructive testing” has more 20 years experience in the field of nondestructive testing (NDT) with application of radiation, ultrasonic, magnetic, penetrant, visual and eddy current method. During this period the specialists have more than 250 publications concerning the investigation of steel, powder metallurgical and composite materials, rocks, plastics materials, as well as standards in the area of NDT. The laboratory is the scientific center in area of NDT in Bulgaria. The laboratory has collaboration with Technical University – Israel and scientific institutes in Byelorussia, Poland, Slovakia, Russia. The laboratory team take part in the international projects of IAEA and DTI – UK in the field of NDT of Nuclear Power Station.

1.5 Skills or expertise sought from other partners

The partners in this project could be the radio-biggest, NDT laboratories in the nuclear power station, thermal power stations and chemical enterprises .

We would like to collaborate with other partners to constitute a group dealing with LC about NDT.

We also opened to work with an environmental expert.