



ΠΡΩΤΟΚΟΛΛΟ ΓΙΑ ΕΚΠΟΜΠΕΣ ΚΑΙ ΑΤΥΧΗΜΑΤΑ
ΣΤΗΝ ΤΡΟΦΟΔΟΣΙΑ ΚΑΙ ΔΙΑΚΙΝΗΣΗ
ΚΑΥΣΙΜΩΝ & ΠΕΤΡΟΧΗΜΙΚΩΝ

Raising Awareness of Response Bodies on Health, Safety & Environmental Risks and Accident Prevention in Supply / Distribution of Fuels and other Dangerous Substances: The PROTEAS Protocol

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The European Project PROTEAS (LIFE+ 09/ENV/GR/291) aims at developing a PROTOCOL of GOOD PRACTICES with the essential Health, Safety and Environmental (HSE) provisions, procedures, obligations and recommendations useful to all stakeholders involved in the management of chemical risks related to the supply and distribution of fuels, petrochemical products and other dangerous substances. Project's primary goal is to raise the awareness of stakeholders, civil protection bodies, employees and the public on HSE risks and accident prevention.

PROTEAS ACTIONS

- ➔ Recording and assessment of existing situation related to HSE regulatory framework and best industrial practices
- ➔ REACH framework on HSE parameters: Safety Data Sheets and on-site measurements
- ➔ Life Cycle Analysis (LCA) framework and case studies
- ➔ Assessment of results of LCA and REACH analysis
- ➔ Development and Validation of a GOOD-PRACTICE PROTOCOL
- ➔ Hazardous Chemicals Information Centre: e-tools and functional specifications
- ➔ Dissemination and Training Activities

METHODOLOGY

- ➔ Overview of HSE Regulations, BATs, BREFs, industrial practices and procedures in the supply and transportation stages of fuels and selected hazardous chemicals as implemented in Greece.
- ➔ Analysis of ~25,000 international transportation accidents involving dangerous substances of all Classes.
- ➔ 700 Measurements and analyzed samples (water, soil and air) in 400 loading/unloading sites and highly frequented locations of fuels around Greece
- ➔ Life Cycle Analysis (LCA) for all transportation stages of primary fuels in Greece and environmental impact assessment based on LCA results
- ➔ Operation of three experts Working Groups regarding "ADR-Road Transport of Dangerous Goods", "Implementation of SEVESO - REACH/CLP" and "Hazardous pipelines".

CONTACT

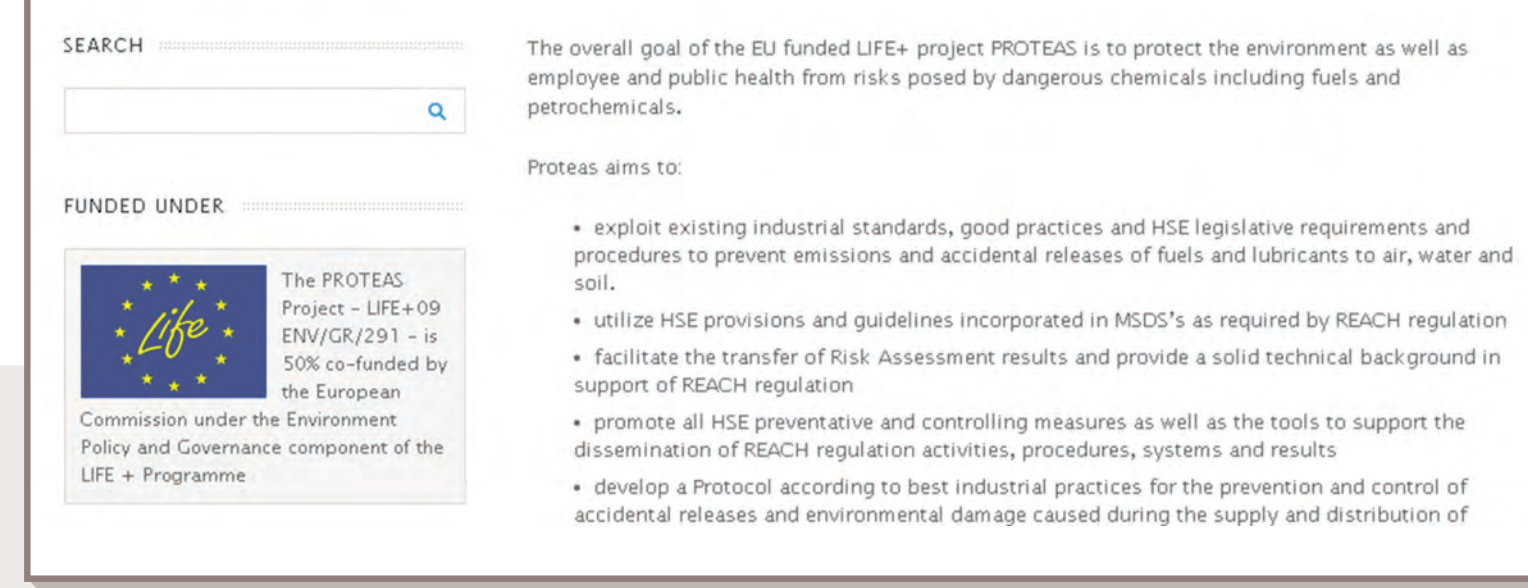
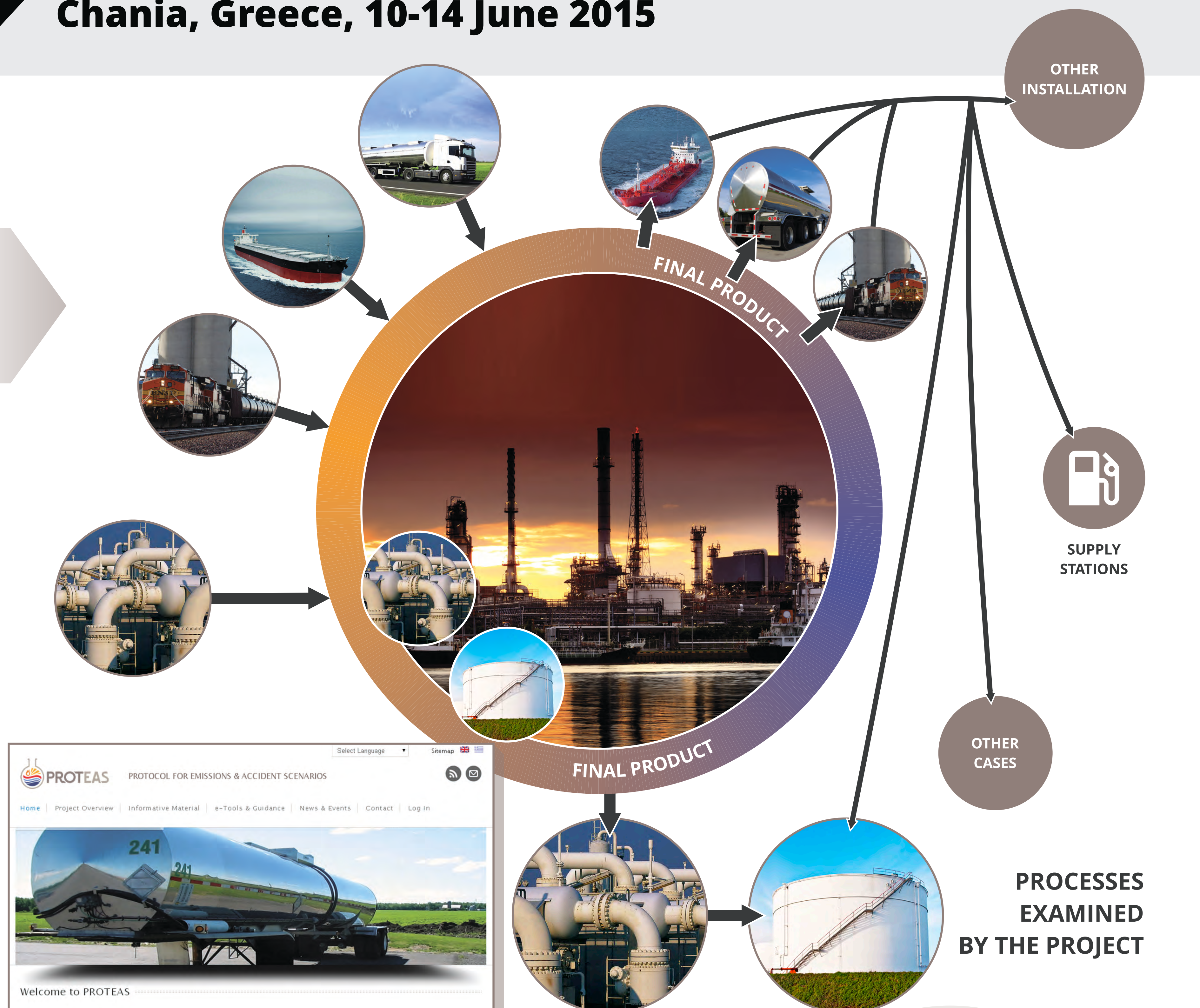
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The European Project PROTEAS (LIFE+09 ENV/GR/291) is 50% co-funded by the European Commission under the Environment Policy and Governance component of the LIFE + Programme and has a duration of 5 years (2011-2015).



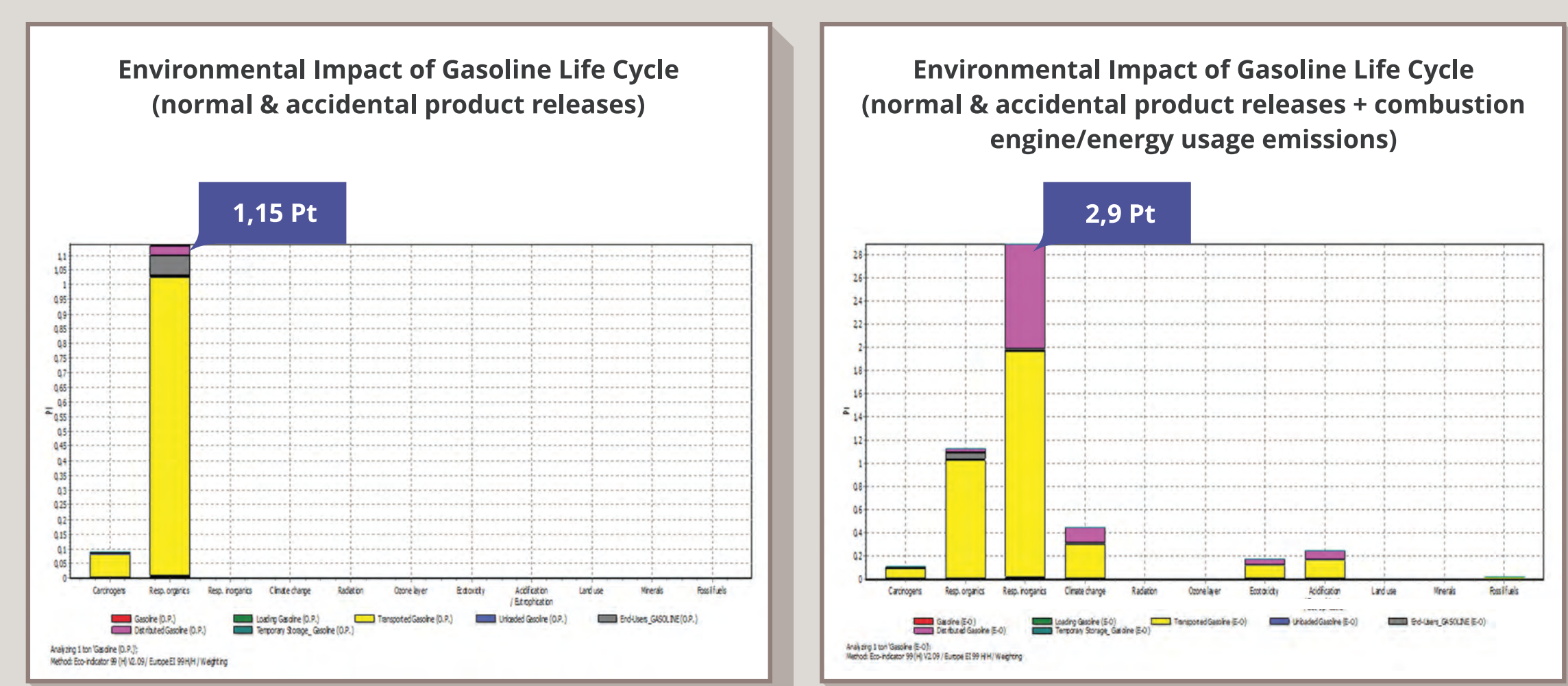
1. MEASUREMENTS AND LABORATORY ANALYSES OF EMISSIONS AND SPILLS TO WATER, SOIL AND THE ATMOSPHERE IN LOADING/UNLOADING SITES AND HIGHLY FREQUENTED LOCATIONS OF FUELS

Water, soil and air samples taken from 400 sites around Greece were analyzed for PAHs, n-alkanes, VOCs and BTEX, and evaluated with fingerprinting methods. The results of 700 measurements in loading/unloading sites and highly frequented locations of fuels (ports, truck & petrol stations, etc.) showed that concentrations of pollutants are well within regulatory limits with soil and sediments keeping a better pollution memory than surface water.



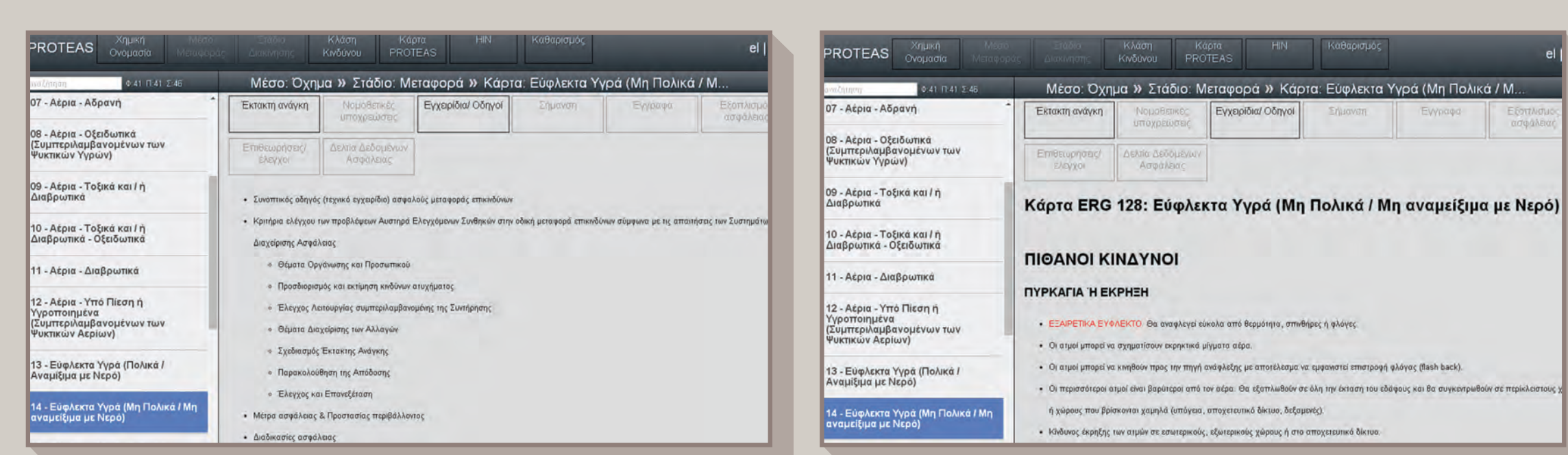
2. LIFE CYCLE ANALYSIS (LCA) FOR ALL TRANSPORTATION STAGES OF PRIMARY FUELS (GASOLINE, DIESEL, LPG) IN GREECE - ENVIRONMENTAL IMPACT ASSESSMENT BASED ON LCA RESULTS

Life Cycle Analysis (LCA) performed for all transportation stages of primary fuels in Greece (Gasoline, Diesel and LPG) showed that the environmental impact of normal transportation releases and accidents is low compared to the emissions from combustion engines and electricity usage relevant to transportation.



3. PROTEAS PROTOCOL OF GOOD-PRACTICES BASED ON BEST AVAILABLE TECHNIQUES

A web application of the Protocol in Greek and English language developed including practical HSE guidelines on the control of accidental releases and the safe handling of fuels and selected hazardous chemicals per Transportation mode, Life Cycle stage and substance Hazard Class. The guidelines cover user- and product-specific: Regulatory requirements, SMS procedures and provisions, HSE prevention and protection measures and Emergency response plans for more than 1,500 chemicals.



4. INSPECTION ADR E-TOOL IN COLLABORATION WITH THE HELLENIC MINISTRY OF TRANSPORT FOR ADR ROADSIDE CHECKS OF VEHICLES CARRYING DANGEROUS GOODS

For each UN No., a Dangerous Good Form is displayed with all proper data under ADR according to the mode of transport (tank, in bulk, package/container).

UN Number: 1845
underlined: ΔΙΑΦΑΝΗ ΠΛΗΡΗΣ, ελαφρύ
Class: 3
Label: 3
Packing Group: III
Limited Quantity: 5 L
Transport Category: 3 (EQ)

Gross Weight:
Net Weight:
Flashpoint (°C):
Hazard Pictogram:

Special Provisions: 112

IBC types 31H22 (31H22, 31H22, 31H22) will be transported in closed vehicles or containers.

The user can access to all special provisions and additional transportation requirements under ADR (CV, S, etc.).

RESULTS

- ➔ PROTEAS PROTOCOL OF GOOD PRACTICES based on Best Available Techniques for the control of accidental releases and the safe handling of fuels and other hazardous chemicals.
- ➔ An Inspection e-tool for ADR roadside checks of vehicles carrying dangerous goods in collaboration with the Hellenic Ministry of Transport.
- ➔ Generalized Safety Data Sheets (SDSs) for each substance Hazard Class.
- ➔ A web-based intelligent tool "Find your legislation relevant to your industry".
- ➔ A Discussion e-Forum for the exchange of information on issues related to the handling of hazardous chemicals.
- ➔ Hazardous Chemicals Information Centre: specifications of five (5) functional tools for systematic support of stakeholders.
- ➔ A project web platform (<http://proteas-reach.gr>) including all project deliverables, guidelines, studies and e-tools.
- ➔ Dissemination/Training activities (e.g. Informational Events, Seminars, etc.) with the participation of Authorities and Industry.