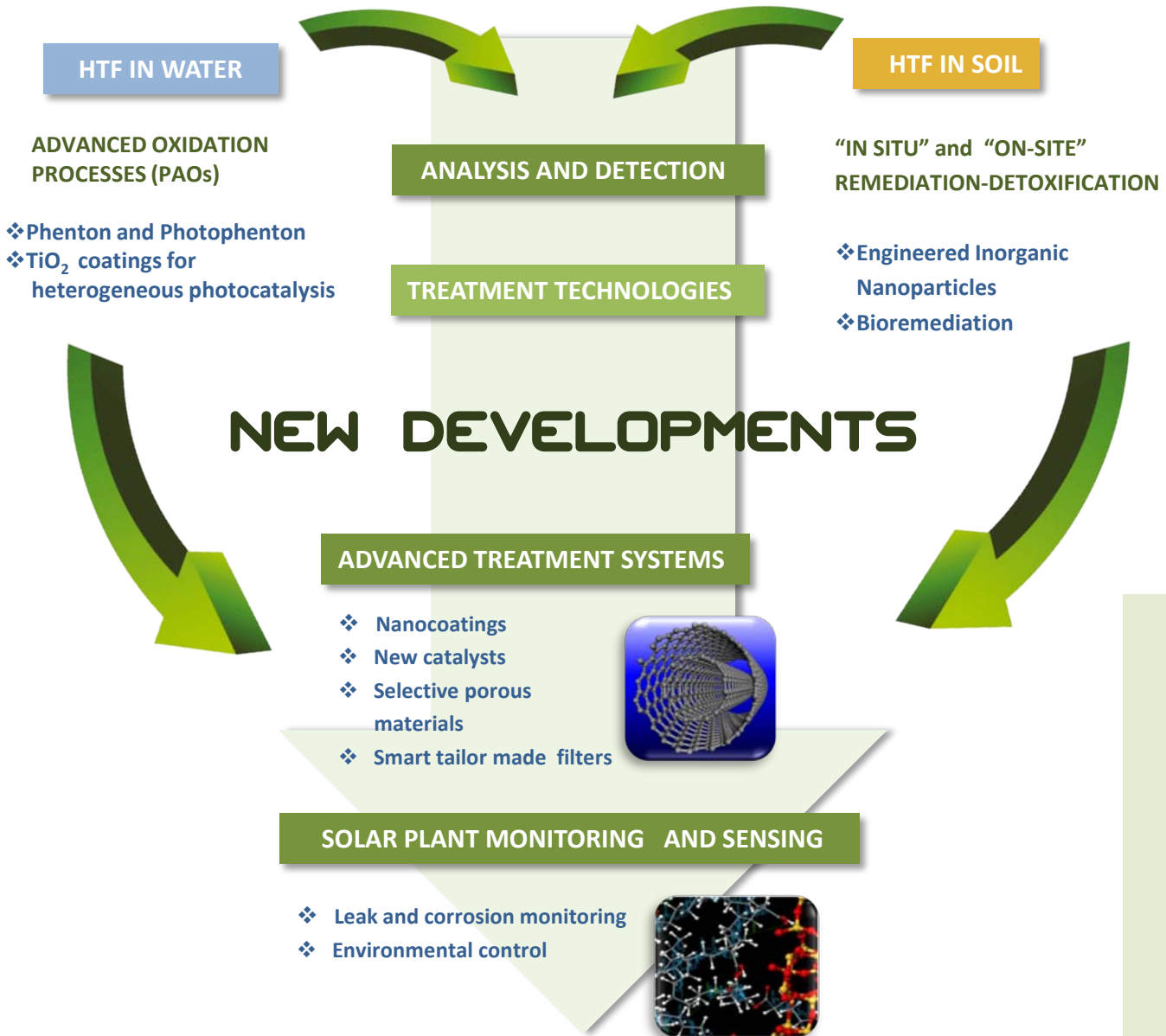


Environment Unit

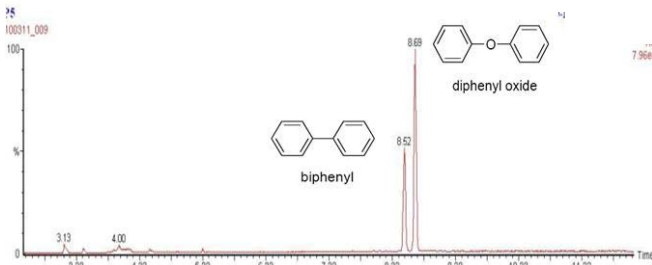
HTF DETECTION AND TECHNOLOGICAL SOLUTIONS



The **biphenyl/diphenyl oxide mixture** (CAS number 8004-13-5) are used as heat transfer fluid (HTF) in current parabolic trough solar plants. In case of spillage into the water and soil, these used fluids and the degradation products could cause environmental damage, being suitable to treat these potential wastes and study their toxicity.

ANALYSIS. HTF detection in water and soils

Quantitative determination of biphenyl, diphenyl oxide by gas chromatography (GC), using static headspace method



TREATMENT TECHNOLOGIES

WATER

- **Advanced Oxidation Processes**
 - ❖ Fenton and photofenton heterogeneous processes
 - ❖ Heterogeneous photocatalysis: TiO₂ photocatalyst coatings

SOIL

- **"In situ" and "on-site" remediation**
 - ❖ Bioremediation
 - ❖ Engineered Inorganic Nanoparticles



NEW DEVELOPMENT FOR NEW CHALLENGES

NANOTECHNOLOGY

- ❖ Nanocoatings
- ❖ New catalysts
- ❖ Selected porous materials
- ❖ Smart filters

MONITORING AND SENSING

- ❖ Environmental control
- ❖ Condition monitoring: leaks, corrosion, ...

