Abstract

This paper discusses the challenges and opportunities that emerge from new ICT platforms which can provide sustainable waste management, raise the awareness and increase the recycling performance. New multimedia tools are used to communicate, exchange information, easily, quickly and interactively. Smartphones now offer new opportunities that can be exploited in the modern citizens' needs.

New potentials are arising in recycling sector, offering a novel field for innovation, changing the way waste practices are applied. Mobile and web applications can become valuable tools for authorities, companies, civilians and other stakeholders, integrating these technologies in the battle for environmental protection, waste prevention, recycling, etc.

This paper examines a case study of Greece regarding a new technology platform named "GRE-cycle". This platform allows citizens to obtain information directly, easily and responsibly for specific recycling issues.

The "GRE-cycle" consists of a web and mobile app with an online searchable database of all recycling points within the Greece territory. The tool is available in free of charge for the public, in both on PCs(web application) and mobile devices (smartphones and tablets).

The web application displays a map of the collection points of interest, shorted by individual waste streams. The mobile app also provides general information on the waste flows and the recycling materials. Mobile users can also send their suggestion or their complains using a crowd sourcing system which allows them to send their photos in a few seconds and commentary in a specific interface.

The ICT platform "GRE-cycle" was developed by D-Waste in cooperation with the National Recycling Organization in Greece, which is the competent body of the Ministry of Environment for the design and the implementation of recycling policy in Greece. The project was under the implementation and monitoring of
the act: “Support of the National Organisation for the Alternative Management of Packaging and Other Products) to implement the policy for the alternative management of packaging waste and other products.