## - THE LIFE PROGRAMME -OVER 20 YEARS SUPPORTING WASTE TO ENERGY IN THE EU

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The <u>LIFE programme</u> was established in 1992 and is the EU's funding instrument for the environment and climate action. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with added value.

With regards to waste management, LIFE has continuously co-funded innovative projects that upgrade waste recycling technologies and processes in a wide range of industrial sectors all over Europe. Out of the <u>4 171</u> <u>initiatives</u> supported by LIFE to date, 617 have been exclusively on waste, with almost  $\in$ 433 million allocated. In fact, waste management is the theme most widely tackled by the programme.

In particular, LIFE has focused on demonstrating innovative technologies for recycling specific materials from waste streams, such as hazardous, agricultural or municipal waste. Many projects co-funded by the programme have linked waste management to other environmental topics, such as climate change or waste to energy. Finally, LIFE has also actively contributed to waste prevention by raising public awareness, promoting the exchange of knowledge and developing information tools for better waste management.

Below you can find some examples of LIFE projects on specific waste to energy themes:

The <u>SMARt CHP</u> project demonstrated a 'mobile' combined heat and power unit that exploits agricultural residues and waste at source. The unit consists of a gasification reactor combined with an internal combustion engine to produce energy and heat. As well as being relatively small and mobile - thus cutting transport costs - the technology reduces the risk of poor weather affecting the exploitation of available agricultural residues. Thus it offers environmental, economic and social benefits, while promoting decentralised electricity production.

The <u>BIOAGRO</u> project developed an innovative method of producing highquality fuel in pellet form from grain, grain waste, seeds and grass. The project produced different environmentally-friendly and combustionefficient pellet mixtures (known as bioagropellets), as well as designing and constructing an integrated furnace system that avoids ash melting and adapts easily to different pellets recipes. It also succeeded in coupling the burning system with seed drying and heating systems, resulting in both energy savings and reduced greenhouse gas emissions.

The <u>Sludge's Wealth</u> project demonstrated a cost-effective and efficient pilot treatment system able to convert biological sludge with 75% humidity into combustible pellets. The novel "mobile structured prototype" achieved both of its goals: firstly, it addressed several environmental problems connected to the disposal of biological sludge to landfills; secondly, it converted this waste into an alternative energy source, generating 280 tonnes of pellets with high heating power from 650 tonnes of organic sludge.

Therefore, in the context of the Tinos 2015 - 3rd International Conference on Sustainable Solid Waste Management, LIFE proposes:

- A presentation of good practices and technologies on waste to energy methodologies and innovations developed by the programme.