European Social Innovation Competition

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I/we enter the competition as:*	An individual
If you're a representative, please name the organisation/company	Private
Language of entry *	English
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Website	http://www.spawhe.eu
Project Name *	LINEAR DIGESTERS, DEHYDRATORS, COMPOSTERS (LDDC).
Tweet your idea! *	The linear digester dehydrator composter recovering waste heat from a power plant, can double the ower production producing biomethane and o
Choose the field to which your idea relates mainly: *	Energy

Provide a summary of your idea, highlighting how it solves a social need or societal issue. *

To recover waste heat from power plants, we have studied LDDC that consists in a long linear wet digestion tank inground, separated by compartments that allow at the same time many processing of different types of biomass; each compartment is separated from its neighbour by bumps in the lower zone and the walls in the upper zone. the intermediate zone in the height of the bath digestive is open and in common to all the sections to equalize the mesophilic temperature (about 37 oC). The loading and unloading of the material is from above by means of hoppers; the heating takes place by means of hot water pipes that contains the water used to cool the power plant. The digestate sludge is lifted by a submersible pump in the peripheral zone of hopper and aerated, after is raised by other sludge lift pump, to section of dehydration, and composting where the processes made directly in bagged compost. The biogas produced, is filtered by biogas cyclone filter and sent by electric blowers to gasometer; the sewage overflow, and the liquid digestate is sent to â€œbiological covered superimposed vertical ponds (BCSVP) to be purified as described in other tab of competition.

Explain why your idea is innovative in the context and in the country where it will be implemented. Alternatively, if your idea is based on an existing concept, explain how your idea differs from this. *

The linear digester dehydrator composter is a novelty that has been awarded an international patent (Patent No. WO2014 / 076 725) because for the first time proposes a rational use of waste heat into the

environment from a thermal power plant, which has an average yield of 36%, therefore, 66% of the heat is dispersed in the air and the atmosphere. It is very simple and economical heat recovery a few feet away with large bundles with linear paths directly immersed in the liquid to be heated. Furthermore, this solution, as mentioned, combined with BCSVP allows to centralize the purification of all the polluted water and mud in the area near the central heat and therefore, the creation of a single energy system, fossil-biological and purifying water in large quantitiesBut this system would also allow the sustainable production of compost for agriculture in an industrial process and a biogas very similar to bio methane, as poor in the percentage o f CO2, which is heavier than methane can be aspirated from the surface of the slurry in digestion and sent to the parallel vertical covered limestone mechanized greenhouse (VCLMG) which makes alkaline the purified water, treated in other tab of competition,

Describe clearly how your idea is expected to have an impact. *

We already have enough technology to defeat pollution and global warming for a new industrial revolution that protects the environment. The linear digesters dehydrator compost (LDDC), are a key element, because they have huge potential than other digesters and can recover waste heat from other fossil fuels, geothermal and industrial to produce biological energy and also natural manure for fertilization of sustainable earth. But along with chimneys CPC, biological overlapping ponds and greenhouses limestone (described in other pats of the competition), can participate in the complete closure of the cycles of carbon nitrogen phosphorus sulfur, so that nothing goes into the atmosphere and water crossing installations global, for reasons purifying or cooling leave plants in alkaline conditions to combat acidification of lakes and seas. Infatti, anche se in futuro svilupperemo energie pulite e competitive (as hydropower with re cycling or submerged , treated in other tab of the competition) is required to produce in parallel biological energy, but achieving complete cycles in global facilities. It is not enough to transform farmers into energy producers, that realize only a small part of the process. They not increase the CO2, but neither reduces it; o not recover the heat, not produce alkaline water.

In‹Indicate at what scale your idea will operate initially and how it could be implemented at a larger scale in your country or in Europe in the future *

Today it is possible to produce energy which is not neutral but protective of the environment, through the combination of fossil and biological, but to realize the whole system â€œglobal synergy plants for depuration, biomass production and thermoelectric cogeneration (GSPDPTC)â€ requires that environmental authorities gradually dismantle the big power plants and purifying and implement complete systems that are both energy and purification, of low power but that complete biological and chemical cycles of organic and inorganic elements involved. In fact, power plants, fossil and biological, can not be placed at random on the territory. To enable the production of fossil energy and biological protective environment, we must first make sure that the available water resources are sufficient to heat recovery and transport of CO2 in the water as soluble bicarbonate. If the waters are not enough, or you create the engineering work to bring them on site, or the plant produces only producible energy by recycling the same water, sweetened and making it alkaline until the point of saturation precipitating carbonates In both cases the LDDC are indispensable, since they carry out the task of heat recovery and the production of biogas which precedes these choices

Specify how your idea could be sustained over the next three years. *

In three years can be realized pilot plants demonstrative of efficiency, purifying water and air together also including LDDC, which can not be understood unless we realize the system GSPDPTC: Global Synergy Plants for Depuration, Biomass Production and Thermoelectric Cogeneration . After it is necessary to adapt existing regulations, outlawing fossil plants, biological and purification can not be connected directly or indirectly to the above system (described gradually in fifteen tabs of this competition, and one in particular called GSPDPTC). It is necessary that all elements come back to their place. The regulations can be changed only if authorities accept to experience global innovations that can not be based on individual inventions, but related inventions. The LDDC are fundamental but they play only a part of the global purification and energetic cycle that links the biologic and fossil energy processes. Environmental designers, public and private, have to manage a capillary action of modification of existing facilities, create plants that lack in the territories according to the mentioned system. The new civil construction, industrial, cleansing must have the characteristics of "connectability to the system GSPDPTC" with separate lines for sludge and water. The sludge must get all to the LDDC.