

# Quality of life of citizens is the responsibility of politicians

All politicians are hereby urged to protect the quality of life of citizens by striving for laws that ensure sustainable management of Renewable Organic Material in waste and wastewater. Sustainable methods prevent costly losses of bioenergy and essential elements that currently pollute air, water, soil and crops and have a negative impact on the environment, health and climate.

Renewable Organic Material (ROM) is everything that originates from plant and animal kingdoms.

“The Recovery and Resilience Facility (RRF) will provide up to €672.5 billion to support investments and reforms (in 2018 prices). This breaks down into €312.5 billion in grants and €360 billion in loans.” (10 February 2021)

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_423](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_423)

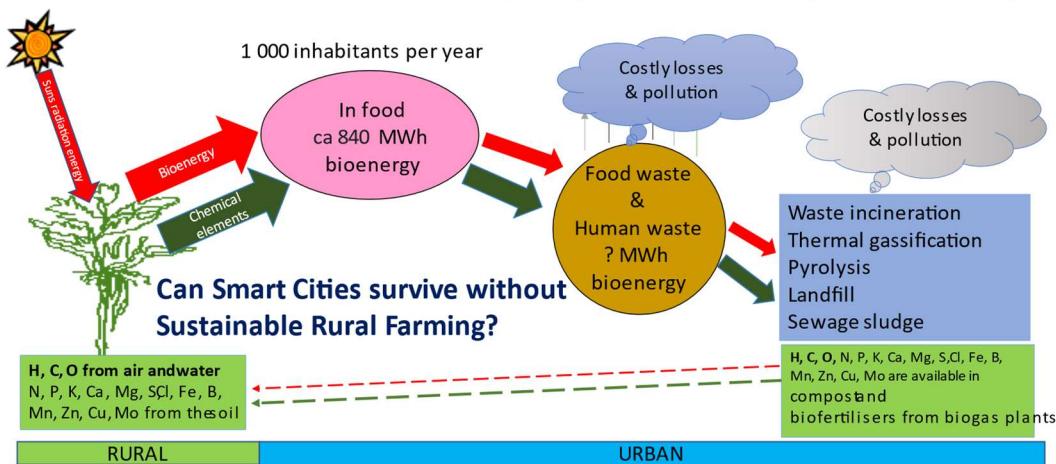
In documentation that deals with RRF, the citizens' quality of life is not at the center. The most important, primary, fundamental thing for the quality of life of citizens is health.

All decision-making politicians must ensure

- that laws make it feasible that there is **safe food, clean air and clean water throughout the EU** and eventually the EU can show the way for the whole world
- that laws only allow sustainable systems and methods for handling Renewable Organic Materials in waste and sewage to prevent emissions that pollute the air, water, soil and crops. No one should be left behind.

Sustainable Rural Farming needs local biofertilizer adapted for cultivation and Smart Cities need safe food and all other materials that come from cultivated land (Fig. 1).

RURAL- URBAN mutual influence. Currently, cooperation is working unsatisfactorily.



All methods of handling Renewable Organic Material in waste are still unsustainable. Composts and biofertilizers are of poor and uncertain quality. Local high-tech biogas plants, hygienic devices and digitized logistics are lacking.

Fig. 1: The basis for human prosperity is cultivated land that is currently being abused using costly and energy-intensive agricultural chemicals. From farms, Cities get raw materials that become food, clothing, furniture, paper, building materials, etc. and farming systems offer many eco-services that are necessary for human survival. Sustainable Rural Farming needs local biofertilizer adapted for cultivation. In Smart Cities sustainable management of Renewable Organic Material in waste will avoid pollutions of air and water.

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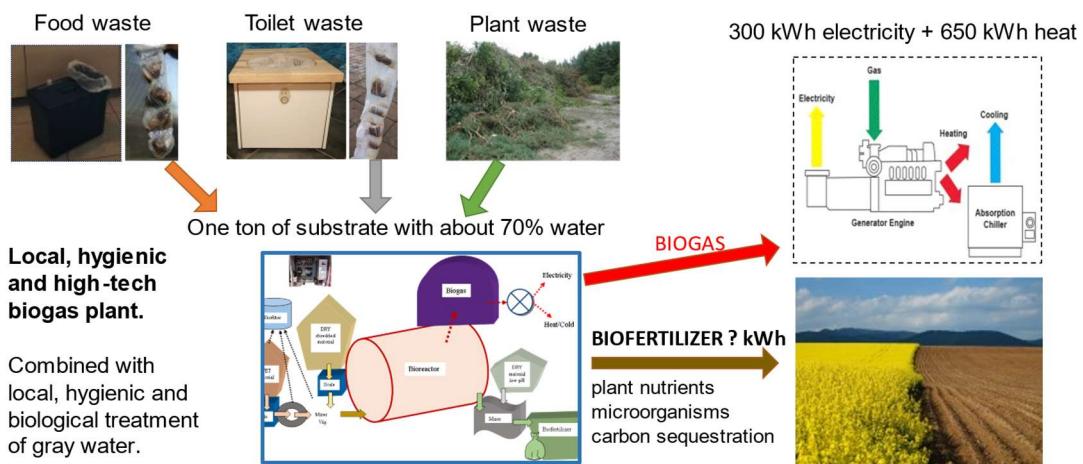
**Circular Bioeconomy** begins with sustainable production on cultivated land where the plants convert solar radiation energy during photosynthesis into **bioenergy** = the life energy that is then used by other living organisms - including people who use **food as biofuel** for their life processes.

The bioenergy is bound in the biomass of the plants in various compounds such as carbohydrates, proteins and fats. For photosynthesis to work, at least **16 chemical elements** are needed: H, C, O, N, P, K, Ca, Mg, S, Cl, Fe, B, Mn, Zn, Cu and Mo. Of these elements, most living organisms, including humans, are composed.

Misuse of water, bioenergy and the essential chemical elements can be prevented in settlements with the introduction of the **SBRS concept** which is the “**Sustainable Biological Recycling System**”. In SBRS, materials and energy flows are controlled with the help of digitization. SBRS consists of two local facilities:

- **Sustainable upgrading of ROM** in the waste with “OSAD method” which is “Optimum Solids Anaerobic Digestion” in hygienic, smart and high-tech biogas plants. - *These are still lacking on the market.*  
For OSAD to function sustainably, easy-to-handle and hygienic equipment is required for the collection of food and toilet waste - *prototypes exist and need to be further developed.*  
Food and toilet waste are then mixed with plant waste and upgraded to two valuable products: biogas and biofertilizer (Fig. 2). Digitized logistics and short transports to local high-tech biogas plants promote profitability (Fig. 3).
- **Biological purification of gray water** from households and the like. Systems were developed as early as the 1970s and were used in horticultural companies that had recirculating irrigation systems.

## “Optimum Solids Anaerobic Digestion” in SBRS-concept



Political decisions formulate a framework for transition to a knowledge -based sustainable society.

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Fig. 2: Food and human waste from 500 people is mixed daily with suitable drier plant material and we get about 1 ton of substrate. With methane fermentation using OSAD biogas and biofertilizer will be produced.

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## Logistics for sustainable production of safe food with an SBRS concept

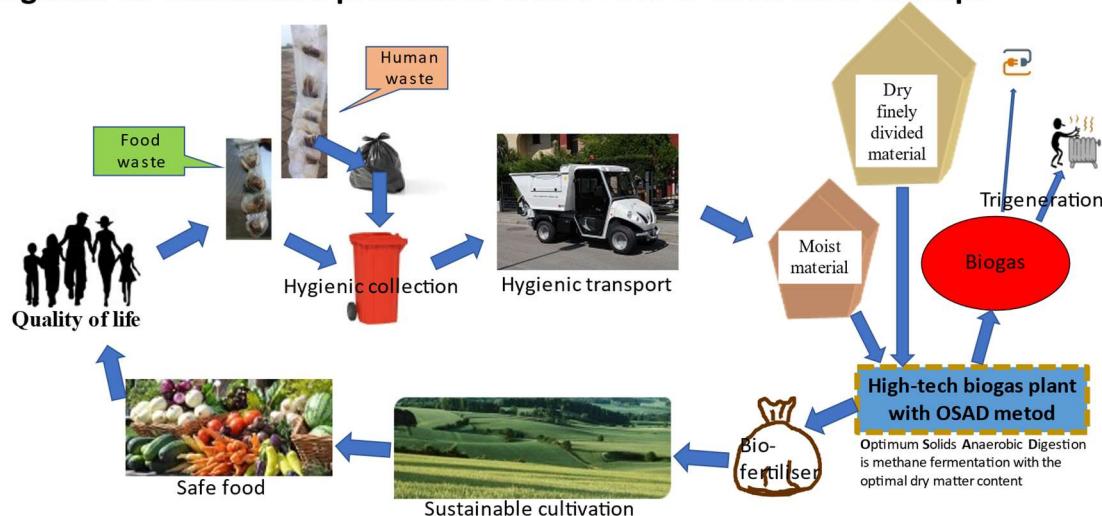


Fig. 3: Municipal politicians are responsible for ensuring that residents have the opportunity to manage Renewable Organic Material in waste in a sustainable way. Air and water must be protected. The municipality's residents must have access to easy-to-use and hygienic equipment that prevents the emission of unpleasant odors and bioaerosols that are dangerous to human health.

**Building and renovating** in the European Green Deal should adapt both old and new buildings to more efficient use of energy during construction, during whole lifetime and to **“easy-to-handle” and “hygienic” management of ROM in the waste**.

All urban and rural residential areas ought to be adapted to the local use of SBRS concept to ensure long-term sustainable management of bioenergy and the all-important chemical elements. Sustainable management of energy and material flows should be a matter of course.

Hygienic, smart and high-tech local biogas plants connected to microgrids **contribute to local access to clean electricity and heat**. Locally produced domestic **biofertilizers contribute to increased biodiversity and carbon sequestration**. They will gradually phase out most of the imported synthetic agrochemicals. **Biofertilizer enables sustainable production of safe and nutritious food** that contains bioenergy, which is biofuel for human cells.

**Biologically purified gray water** from households and the like, **can be used locally** for irrigation, for water play, etc. Water will never be contaminated with drug residues, chemicals, pathogens, etc.

The introduction of the **SBRS concept** positively affects all six RRF pillars: green transition; digital transformation; economic cohesion, productivity and competitiveness; social and territorial cohesion; health, economic, social and institutional resilience; policies for the next generation.

**Most SDGs are also positively affected.**

SBRS concept is suitable for microgrids. **Many local green jobs will be created**, and decentralization will contribute to increased local decision-making and increased security.

More about details can be found at [www.biotransform.eu](http://www.biotransform.eu).