

## **Our global offer and solution partners**

Artec focussing on hydrothermal carbonization (HTC) has partners working in other technologies, which help to develop global solution strategies.

Based on the global problems on/in municipal solid waste (MSW), Artec and his partners are offering a system which, starting in separating MSW in all and different fractions, will use all fractions for a specific need and to respect global needs in

- energy production
- agriculture, to increase crop yields AND to save water
- recover valuable materials

Following a description of the total recovery process.

Artec/Renergie was consortium partner in the INCOVER project H2020 and due to this has access to other interesting techniques.



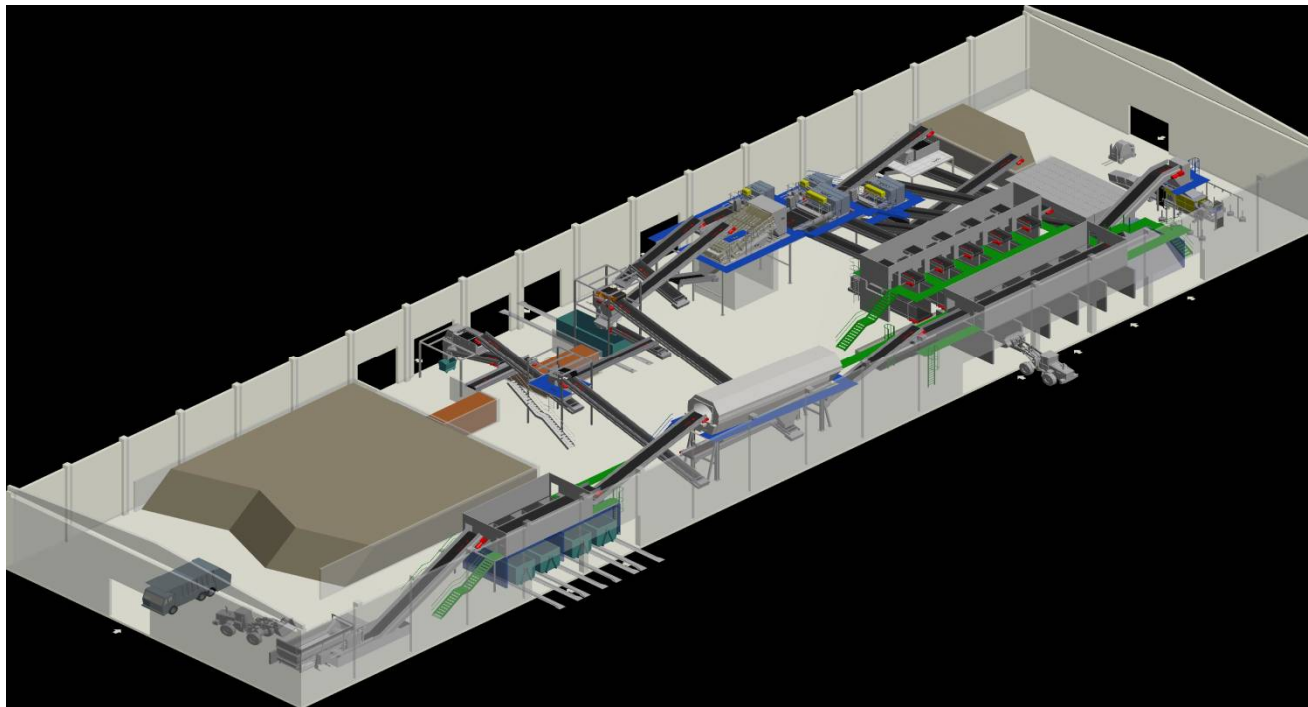
## Our offer for treating MSW, global offer

The success in our offer is the complete treatment and use of all MSW fractions.

The starting point is a sorting unit, volumes could reach up to 400.000 t/year.

Sorting will be made into the following fractions :

organic, plastic, metal, others



## Our offer for treating MSW, global offer

Sorting will be made into the following fractions : **organic fraction**

Use of the organic fraction is to produce biogas.

The biogas digestate after can be treated in a hydrothermal carbonization (HTC) installation in order to produce a HTC biochar. This HTC biochar can be used for energetic purposes (up to 22 Mjoule/kg) or as a perfect fertilizer. This fertilizer can help to increase crop yields by up to 20 % or even be used on nutrient poor soils to convert them into valuable agricultural soils. Another important advantage is that irrigation water can be saved by up to 50 %. below is our HTC installation Art.coal 3000k



## Our offer for treating MSW, global offer

Sorting will be made into the following fractions : **plastic fraction**

Use of the plastic fraction is to produce energy.

By means of a patented pyrolysis system, the plastic fraction will produce energy.



## Our offer for treating MSW, global offer

Sorting will be made into the following fractions : **metal fraction**

Target is to sell all sorted metals.



## Our offer for treating MSW, global offer

Sorting will be made into the following fractions : **‘others’ fraction**

Details have to be seen based on concretely sorted products.



## Our offer for treating MSW, valorization

*Valorization of a possible project depends on a concrete development agreement.*

Only based on a concrete volume of MSW to be sorted, all parts can be calculated.

Based on the volume of an organic fraction, the size of a biogas plant can be seen and a biogas output calculated.

In consequence, if positively decided, the size of a possible HTC installation can be defined as well as the corresponding volume of HTC biochar can be calculated.

Based on the volume of the plastic fraction, the size of a pyrolysis installation can be defined as well as the energy output calculated.

The metal fraction income will depend on the kind of metal as well as the volumes.

For all others, it has to be seen, for what kind of use they can be taken.



## **Our offer for treating waste water to produce Biomethan for cars**

Renergie Systeme GmbH was consortium partner of the INCOVER project, funded by the European Union program H2020.

Just watch the overall INCOVER project video :

<https://www.youtube.com/watch?v=7CPb6xe8Pxs>

Just watch the Biomethan video and more :

<https://www.youtube.com/watch?v=4ZSjeXj0O88>

<https://www.youtube.com/watch?v=9a5p4crkxq4>

or get more details at :

<https://www.braveblue.world/brave-blue-blog/2019/5/20/visiting-the-algae-all-stars-in-spain>

