



CIBUS-Food

The goal of the project is to investigate Additive Manufacturing (AM) as a novel and sustainable production process for food products.

AM, popularly known as 3D printing, has been called the next industrial revolution and is currently employed for many manufacturing steps using traditional materials like plastics and metals. AM of food will be the next big step, allowing a completely new method of production. AM of food will offer

a range of potential sustainability advantages, among which the following:

- The high material efficiency of AM will enable a "zero-waste" production process.
- AM will be able to transform a wide range of ingredients, including alternative, low carbon footprint ingredients, into tasty, healthy foods.
- The AM process offers a high flexibility with respect to the materials it can use, the products it can make and the volumes it can produce, thus allowing fast responses to market requirements.

Within this transnational project, research will be carried out that will enable the in silico design of complete food products based on knowledge from existing food products and structures. Based on the design, suitable food materials will be selected or produced that can be used in the AM process. AM research will subsequently allow the transformation of these designs into actual food products.

The food products will be characterized with state of the art imaging and mechanical characterization technologies to validate the design and product properties. In addition, the project will comprise consumer acceptance studies to get insights in consumer attitudes towards the technology and its resulting food products. These insights will contribute to 3D food printing becoming a commercial success in the future..