

Fact sheet for Danish Technological Institutes' "test bed services" for Piloting Innovation Vouchers to SMEs in the bioeconomy

Danish Technological Institute (DTI) covers the whole value chain from field trials, innovative plant production, cultivation and handling of different biomasses, to pre-treatment, conversion and refining of food, feed and ingredients for new product development and reuse of materials in circular and cascade perspectives. DTI can offer a wide variety of services within developing new bio-based products and processes. An overview is given below of pilot scale, bench and laboratory scale research and innovation services. In relation to each topic, we offer advanced characterisation tools and top level technical experts. DTI services are available across the whole value chain:



[MARINE BIOMASS and MICRO ALGAE \(Blue\)](#)
[STRAW / GRAIN \(Yellow\)](#)
[PLANT BIOMASS \(Green\)](#)
[PLANT PRODUCTION](#)
[EXTRUSION](#)
[CASCADE BIOREFINING](#)
[FEED, FOOD & INGREDIENTS](#)
[RESIDUES FROM FOOD PRODUCTION](#)
[INSECTS](#)
[BIOMATERIALS and BIOCOMPOSITES](#)
[BIOGAS](#)

Examples of DTI's services in business innovation for SME's:

- Extraction of oils, vitamins, and removal of toxins from e.g. fish oil by short path distillation
- Refining of biomass and setting up business cases based on the achieved results
- Microalgae as biological factory for ingredients to the medical industry
- Insect-conversion of organic household waste into valuable feed for mink
- Extrusion of biomass, feed and food e.g. snacks, pet food, fish food
- Texturization of plant proteins for production of plant-based alternatives to meat

[DTI testbed infrastructures and equipment](#) especially suitable for SMEs in the bio economy are listed below. Main contact: amah@dti.dk, more contacts in e-mails addresses below.

[Biorefining pilot plant](#) Generic pilot plant for bio-refining. By extracting the different building blocks within the biomass, the individual components can achieve a higher value.

Contact: acha@dti.dk, Anne C. Hastrup

[Pilot scale equipment for processing biomass, food, feed and ingredients](#) e.g. grinding, pelleting, extrusion, texturization, coating, milling and air separation.

Contact: pls@dti.dk, Per L. Sørensen

[Insect production facilities](#) Cultivation, and laboratories for characterization of substrate for insect production and insect-based products. Furthermore, DTI is experienced in up-scaling of insect production.

Contact: lh@dti.dk Lars-Henrik Lau Heckman

[Microalgae](#) Our upscaling facilities cover microalgae production from single cell to continual production in 750L photo bio-reactors, permitting us to advise from research scale to pilot production and harvest.

Contact: lrj@dti.dk Lars Jørgensen

[Biomaterial products](#) Biocomposite development, compounding and processing, fiber analysis and SEM verification of material, testing of thermal and mechanical properties.

Contact: nmlh@dti.dk Natanya Hansen