Industrial Research Centers NETWORK

Introduce your challenge!

Looking for scientific measurements of materials for your product?

Developing a strategic master-plan and wishing to expand the product portfolio by making measurements of the available material and analyzing their features on a micro-, nano- or molecular scale?

Searching for information on what analytical research facilities and expertise are out there?

Wondering where to start and how to get in contact with the analytical centers?

The Industrial Research Centers Network is a short-cut to consider!

How to contact the Network of IReCs?

Find your local IReC at:
www.baltic-tram.eu

What is an IReC?

The Industrial Research Centers (IReCs) are business-support units that can help your organisation from formulating a product or process challenge to designing follow-up activities that support you in identifying the right expertise (which is also currently available), consulting you about applying the knowledge gained in your product or manufacturing processes. Through consultations with IReCs you will get a tailor-made advice and get support in reaching out the right expertise.

The Network of IReCs links businesses to industry-focused material research services

Based on the Science Link network, conceptualized and developed by the Baltic TRAM, Network of IReCs supports the innovation initiatives driven by companies in the Baltic Sea Region and beyond. Embracing the expertise in the Baltic Sea Region geographies, the IReC Network has interregional collaborations by optimizing the outreach and availability of the leading analytical infrastructures to industry. The IReCs Network fulfils its mission by offering especially for SMEs an easy and fast access to macro-regional set of research facilities.

The Network of IReCs is a distributed multi-disciplinary research infrastructure network which offers a competitive combination of research methods covering all material research services from bio- and advanced materials to engineering sciences.

RADIOMETER

Radiometer Turku Oy develops and manufactures immunoassay test kits. The solid phase of the immunoassay designs consists of antibodies coated onto the polystyrene surface of microtiter wells (cups). By applying the Atomic Force Microscopy (AFM) method, the Analytical Research Institute performed experiments to investigate how the antibodies are oriented and packed onto the polystyrene surface of microtiter wells. With AFM it was possible to characterize and measure the morphology of coated surfaces which enables further development of the production process.

WERRO WOOL

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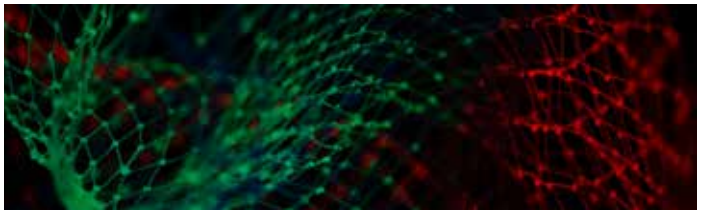
The company engaged in the experiment in order to determine the optimal structure and density of the cellulose fibre wool to achieve the highest thermal insulation properties. The experiment was about determination of thermal resistance by means of guarded hot plate and heat flow meter methods – according to the Estonian standards. The company comments: "The experiment result was found useful because it provided input for the most efficient use of raw material, work and resources for future work."



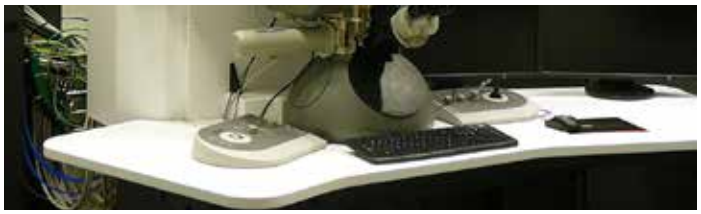
ATi Profiil

The experiment improved the knowledge of the company about the Mohs and Vickers hardness of the burnt oil shale ash fractions. The technique for Mohs testing was to scrape the surfaces of the minerals with a metal file and then use the fractions of oil shale ash to remove markings from reference mineral surfaces using the ash powder material for scraping. The company comments: "The Mohs values were very useful for the business since no-one else had ever been able to measure the concrete values."

NAFEN

Enhancing the world with nano

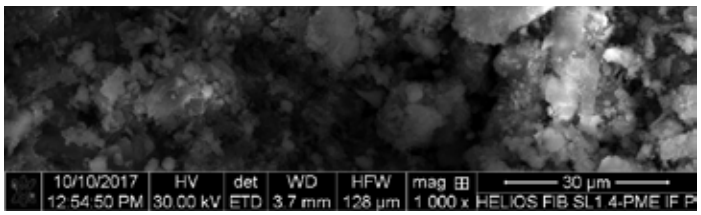
The research investigated structural properties of novel nanocomposites and distribution of alumina nanofibers in resin systems. Applying the SEM-FIB method, samples were measured by Transmission Electron Microscope with increasing resolution in the areas, where the fibres were expected to be found and where the structural defects of the cured resin were expected to be seen. The company found a local partner to continue their product development.



Baltic TRAM supported a company with the experiment to find out the possibilities to use a side flow material from stone cutting and handling to create a new product. The mineral composition of samples was studied by means of X-ray diffractometry and bulk chemical composition was measured using X-ray fluorescence spectrometer. The initial measurements and feasibility study within the Baltic TRAM framework, proved to be valuable for a micro company, for which the start of new product development process can be a big step.

COSSI FULEREN

The experiment was aimed at investigating the phase and elemental contents of carbon mineral, particularly to determine fullerene content, by applying spectroscopic and diffraction methods. The chromatographic experiments were recommended to confirm existence of fullerenes. The company comments: "Results will be very useful regarding future work on Cossi's products development. No doubts, the measurement reports we received will be the background to the next analysis."



These companies are already collaborating with the Network of IReCs

BALTIC TRAM

Interreg Baltic Sea Region

EUROPEAN REGIONAL DEVELOPMENT FUND
EUROPEAN UNION