Competence Centers are associations that are based on innovative cooperation between the public authorities, research and development institutions and enterprises. Their main objective is to provide support for regional business development represented by qualified specialists, various research and trainings, as well as physical environment.
CENTER OF COMPETENCE TSENTER

Innovation leader in the field of wood processing and furniture manufacturing

CENTER OF COMPETENCE TSENTER is:

• providing and developing sector specific knowledge and skills. TSENTER is contributing into increasing the competitiveness and value added of wood processing and furniture manufacturing industries in Estonia;

• a place for wood processing and furniture manufacturing companies to test their ideas. TSENTER helps to conduct research and tests, find partners and experts;

• a partner for research and development organizations for strengthening cooperation with companies.

FOCUS AREAS

• Finishing materials – main focus of development projects is on modern eco-friendly wood finishing materials; water-based finishing materials, oils and waxes
• Product development – building prototypes and helping to prepare entering to new markets
• Production management improvement – helping to identify most promising opportunities for improvement and to evaluate benefits of implementing new machinery, IT-solutions or production management concepts

TECHNICAL CAPABILITIES

• laser cutting machine – laser cutting of timber and plastics, engraving different materials
• 3D printer – powder-based printer for prototyping colored models and small items (e.g. furniture fittings)
• 5-axes CNC (large Z-teig) - CNC service, prototyping, testing
• space and object scanner – precision scanning of large objects (e.g. rooms, machinery, products)
• precision scanner – precision scanning of small objects (e.g. fittings, furniture details, smaller furniture)
• printing machine – printing on hard surfaces with UV Ink
• automatic spraying machine – using automatic spraying method for covering flat surface details with different water-based finishing materials. Material specific machines will be used for drying (e.g. IR, UV, convection)
• grinding machines for pre-finishing treatment
• laboratory for analyzing finishing of wood and wood materials

PARTNERS


You are gladly welcomed to visit us and explore all the cooperation possibilities with Center of Competence TSENTER!
THE COMPETENCE CENTRE OF KNOWLEDGE-BASED HEALTH GOODS AND NATURAL PRODUCTS - PLANTVALOR

Knowledge-based product development support for the entrepreneurs dealing with natural raw materials from raw material to value-added products.

In the extraction, distillation, drying technology, biochemistry and chemical technology laboratories of the Competence Centre of Knowledge-based Health Goods and Natural Products we add value to plant origin raw material applying modern high-technology methods and use the bioactive compounds found in plants in developing health and natural products such as functional foods and drinks, eco-cosmetics and plant protection preparations.

As a structural unit of the Polli Horticultural Research Centre of the Institute of Agricultural and Environmental Sciences of the Estonian University of Life Sciences, an institution that has been the centre of fruit cultivation research and breeding for 70 years, we have competence in plant breeding and primary processing of fruit and berries and are able to offer entrepreneurs support over the whole production chain from breeding to knowledge-based high value product development.

In collaboration with the Estonian University of Life Sciences and its local and international partners we aim at creating an infrastructure that contributes to improving the quality of applied research and facilitates the innovation capacity of the enterprises in the natural and health goods sector.

Fast and flexible analytical capacity of the laboratories that are located close to the trial plots and orchards and research based competence in a wide range of subjects from raw materials to final products is a good prerequisite for collaboration both in research and product development.

THE CONTRACTUAL PARTNERS OF THE COMPETENCE CENTRE are private entrepreneurs and research and development organisations interested in bioactive compounds of plant-origin raw material and processing technologies:

A. Le Coq AS, Birchsap Estonia OÜ, Desintegrator Tootmise OÜ, Eljuõudu OÜ, Karksi Municipality, Loodusvägi OÜ, Mayeri Industries OÜ, MK Loodusravi OÜ, Märia Monte OÜ, Orto AS, Perfect Plant OÜ, Perfect Oil OÜ, Põltismaa Felix AS, Saarek AS, SP Fruitekstaurant OÜ, Tartu Biotechnology Park AS, The University of Tartu, TBD Biodiscovery OÜ, Tervix OÜ, Competence Centre of Food and Fermentation Technologies AS, Vipis OÜ, Õkokosmeetika OÜ

MAIN RESEARCH PRIORITIES OF THE CENTRE ARE:

• Breeding of apple, pear, plum, sweet cherry, black currant and raspberry cultivars;
• Agro-technology and plant protection of fruits and berries in both traditional and ecological farming systems;
• Introducing new cultivars suitable for the region;
• Agro-technology, cultivars and product development of minor fruit and berry crops such as sea-buckthorn, edible honeysuckle and rowan;
• Breeding and research of rootstocks;
• The nutritional quality and preservation of fruits and berries;
• Extraction of bioactive compounds from plant based raw materials, research on methods and processes;
• Dehydration methods and technologies;
• Biochemical and microbiological analysis of plant material and finished products;
• Collection, compilation and dissemination of scientific information related to the field of research.

SERVICES AND COOPERATION WITH ENTREPRENEURS:

• Training and consultations in fruit and berry cultivation technologies;
• Breeding of fruit and berry cultivars, licences for testing and propagation of cultivars under Plant Breeders Rights;
• Fruit and berry cultivar trials;
• Use of cold and frozen storage chambers for short term storage of fruits and berries;
• Primary processing of fruit and berries, product development and assisted use of processing equipment;
• Laboratory and pilot scale product development focused on using bioactive ingredients of plant origin in functional foods, food additives, eco-cosmetics, household chemicals and plant protection preparations;
• Extraction of bioactive compounds from plant material, biochemical and microbiological analysis of raw material and products;
• Training and consultancy for value-added product development, production processes, storage and preservation technologies;
• Initiation and leadership of joint projects and applied research.

Estonian University of Life Sciences / Institute of Agricultural and Environmental Sciences
Polli Horticultural Research Centre
Competence Centre of Knowledge-based Health Goods and Natural Products - PlantValor
Polli, 69108 Karksi parish, Viljandi county, Estonia / Tel +372 43 31 458 (Pia Pääso)
www.plantvalor.ee / polli@emu.ee
OIL SHALE COMPETENCE CENTER

50 years of innovation

OIL SHALE COMPETENCE CENTER is:

• an internationally recognized advocate of the proper use of oil shale and relevant natural resources;
• an independent expert in the field of oil shale;
• a promoter of the oil shale related business activity and regional development.

PARTNERS


TARGET GROUPS: enterprises, scientific and educational institutions, the public

SERVICES

SCIENCE, RESEARCH AND EDUCATION

• analyses of solid fuels and research into thermal processing
• analyses of the liquid fuels properties and research based on both oil shale and oil
• (motor fuels investigations by Ricardo Hydra diesel motor)
• biofuels investigations
• initiation and realization of applied research targeted at the creation of new knowledge, technologies and products, data analysis and quality control
• management of environmental impacts from enterprises

PRODUCT DEVELOPMENT AND ENTERPRISING

• rent of contemporary chemistry laboratories and equipment
• services of business incubator, including consultancy, team forming service, searching of funding and cooperation partners
• intellectual property services
• trainings, seminars, networking events

KNOWLEDGE AND COMMUNICATION

• organization of the domain conferences
• oil shale field popularization
• organization of informative events for the public
• information exchange in the field of oil shale at the international level
• põlevkivivaldkonna informatsiooni vahetamine rahvusvahelisel tasandil

Oil Shale Competence Center of Virumaa College of TUT
järveküla tee 75, Kohtla-Järve, Ida-Virumaa, 30322
www.pkk.ee / info@pkk.ee
SMART HOUSE COMPETENCE CENTRE

SMART HOUSE COMPETENCE CENTRE is a regional centre of innovation partnership, which helps sectorial enterprises, public sector and research and development institutions to create, develop and implement smart house technological solutions. These solutions in turn make daily living environment more comfortable, energy efficient and safe. The aim of the centre is to develop regional competitiveness and entrepreneurship in the field of building automation and smart house technologies like:

- Home and office equipment management
- Building automation management
- Building administration management
- Smart urban space applications

PARTNERS


SERVICES

Infrastructure rental and usage for testing technologies.

Testing technology and building automation solutions in Smart House Centres test environment and processing, analysing and interpretation of obtained data. Feasibility studies and cost-benefit analysis for the use of smart solutions in buildings.

Managing and participating in Smart House Competence Centre’s cooperation network. Network includes partners from Estonia and abroad. Partner search for enterprises.

Organising training sessions, information days and conferences in aforementioned fields (including international)- for developing, distributing and promoting competence.

Real estate project consultancy for implementing smart house solutions- based on cooperation with partners, involving different stages like designing, construction and configuration.

Consulting the conduction of applied research and development projects. Technical expertise in the field of smart house solutions.

TARGET GROUPS: Enterprises, educational institutions, local authorities
The idea behind creating the Centre of Excellence in Health Promotion and Rehabilitation is based on two competence areas traditional to Haapsalu and Lääne County:

• curative sea mud and mud treatment,
• mobility and operational capability

PARTNERS
Tallinn University, town of Haapsalu, Haapsalu Neurological Rehabilitation Centre, University of Tartu, Heal AS, Haapsalu Kuurort AS, Tervis Medical Spa, Vär ska Spa Hotel, ICT Demo Centre, Estonian Advice Centre, EQUA OÜ, Tartu University Hospital, Estonian Spa Association, Tallinn Pharmaceutical Plant, GoodKaarma OÜ

THE CENTRE OF EXCELLENCE IN HEALTH PROMOTION AND REHABILITATION

The Centre of Excellence in Health Promotion and Rehabilitation, founded in Haapsalu in 2012, is a region-specific developer of entrepreneurship, as well as a cooperation centre for the public sector, entrepreneurs and universities that functions as the field's innovation centre and is based on a consortium of 15 partners.

PARTNERS
Tallinn University, town of Haapsalu, Haapsalu Neurological Rehabilitation Centre, University of Tartu, Heal AS, Haapsalu Kuurort AS, Tervis Medical Spa, Vär ska Spa Hotel, ICT Demo Centre, Estonian Advice Centre, EQUA OÜ, Tartu University Hospital, Estonian Spa Association, Tallinn Pharmaceutical Plant, GoodKaarma OÜ

The mission and the main objectives of the Centre of Excellence in Health Promotion and Rehabilitation are:

• drawing together and valuing the competences in the fields of curative mud, mud treatment, health promotion and rehabilitation throughout Estonia;
• initiating and implementing development projects in the field;
• supporting knowledge-intensive entrepreneurship and innovation in the field through product and service development.

The services of the Centre of Excellence in Health Promotion and Rehabilitation are based on the system of laboratories:

• Health Promotion Laboratory (health measurements, consultations in case of posture problems, lifestyle counselling, testing of different health products)
• Medical Rehabilitation Laboratory (testing rehabilitation equipment and advising product developers, conducting clinical studies and providing assessments, developing rehabilitation programmes, consultations for adapting living and working environments, consultations for the production, sales and use of medical aid equipment, professional counselling in the field of health care with the view of opening a private practice)
• Mud Products Development Laboratory (laboratory analyses, taking samples, drying mud and grinding it with a mud disintegrator)
• Product Design Laboratory (designing, producing miniatures and models, making prototypes, making presentation materials, producing products and moulds from PVC plastic with vacuum technology, consultations and training in design)
• Equipment rental

TARGET GROUPS of the Centre of Excellence in Health Promotion and Rehabilitation:
enterprises from the western region as well as other regions of Estonia and abroad in the following fields:

• miners, sellers and processors of curative mud
• miners, sellers and processors of peat used in the mixtures
• producers and renters of support equipment such as orthoses
• other producers and mediators of health and medical products (furniture, other specific products)
• drug manufacturers
• cosmetics manufacturers
• spa companies
• other providers of health and welfare services (e.g. massage, physiotherapy)
• software developers (competence in functionality) (kompetents funktsionaalsuse osas)
SMALL CRAFT COMPETENCE CENTRE (SCC) is:
• a developer of the engineering knowhow on small craft building;
• a promoter of the Estonian small craft building and maritime industry;
• a provider of sector-specific R&D and testing services.

The objective of SCC is to develop engineering knowhow and to transfer it in businesses. The Centre provides consultation and model testing services to the small craft and maritime sectors, carries out tests of and develops materials to be used in seawater and maritime climate as well as provides services in the design and test-production of electronics systems. The Centre organises training and seminars for small craft engineers, supports the study programme of Small Craft Building and Maritime Engineering in Kuressaare College of the Tallinn University of Technology and is involved in R&D activities.

PARTNERS
Association of Estonian Boatyards, European Boating Industry, Kuressaare Regional Training Centre, local municipalities of Saaremaa, Saaremaa Development Centre, TUT Maritime Academy, Estonian Maritime Administration.

SERVICES
SMALL CRAFT DESIGN
• model testing of small craft stability, seakeeping and resistance
• analysis and improvement of small craft design
• consultations on designing and certification of small craft
• small craft related training courses

MATERIAL DEVELOPMENT
• materials hygrothermal ageing in seawater environment
• application of non-destructive testing in quality control and defectoscopy, incl portable ultrasonic
• dynamic and static fatigue tests of materials at controlled temperatures

ELECTRONICS TEST PRODUCTION
• design and pilot-production of electronics
• 3D printing of the models of equipment casings
• evaluation of electromagnetic compatibility
• rental of electronics test production lab

TARGET GROUPS: small craft builders and maritime industry, producers and consumers of materials used in the maritime climate, educational and research institutions.

Small Craft Competence Centre  Tallinn University of Technology Kuressaare
Tallinna 19, 93811 Kuressaare
www.scc.ee  /  info@scc.ee