

TEHNOPOL GREENTECH CLUSTER OVERVIEW

Tehnopol links international and local competences and opportunities in energy and environmental technologies. We offer companies support in finding partners for going on international markets, applying for international programs, developing joint projects and raising investments in Europe and beyond.

In 2014 Tehnopol in collaboration with [PAKRI Science and Industrial Park](#) (PAKRI) launched the energy and environmental technology sector (green technologies or greentech in short) with the aim to draw together local and international knowledge, skills and related organizations and through this co-operation provide greentech companies business development services, international and local business creation and development programs, network of mentors and investors, organize joint projects, training programs, foreign missions, workshops etc. In addition, PAKRI, as also focused on greentech, offers bigger industrial companies testing grounds in a variety of sizes for testing new solutions. PAKRI is making efforts to establish a Greentech Technology Development Centre in 2016 that will be supported with business and technology development services from Tehnopol and research competence from the biggest universities in Estonia (Tallinn University of Technology, Estonian University of Life Sciences and University of Tartu).

Green technologies can be divided into two: technologies that make it possible to save energy and other natural resources and technologies that enable the clean-up of already polluted areas and waste.

The community started with a couple of growth companies and start-ups and is growing fast. In the portfolio we have companies developing smart streetlights, smart bike locker parks, intelligent control systems for buildings, novel energy services, renewable energy solutions, energy storage systems, power plants, energy monitoring and metering systems, remote control and monitoring systems of electric power distribution, remote sensing systems for the sea and ports, passive houses, product interior design, automation of processes and many other areas. Besides finding new collaboration partners outside Estonia Tehnopol also supports cooperation and synergy between client companies in the community.

COMPANY	SOLUTIONS/ PRODUCTS	KEYWORDS	WEBSITE
Bikeep	Secure bike parking systems to lock your bike with phonecall, RFID card or mobile app	IoT, smart facilities, bicycle parks	http://bikeep.com/
Brikett Faktor	Charcoal briquettes,	Biomass fuel	

	torrefaction pellets, heating briquettes, charcoal powder		
Cityntel	Smart streetlight control	IoT, Plug & Play, sensors, controllers	www.cityntel.com
FlyDog	Marine/oceanic buoys, smart data-loggers and software solutions.	sensors, software & hardware, marine and other environmental data collection	www.flydogmarine.com
Fututec	Real estate maintenance and security risks visualization software	IoT, smart management of buildings	http://www.fututec.com/
Green Fuel Energy	Cogeneration plant	Energy production, wood chips	http://www.gfe.ee/
Hoiame Kokku Grupp	Energy saving SmartHome and building automation solutions, energy monitoring and energy consumption analysis for buildings	SmartHome, hardware for smart home solutions	http://www.hoiamekokku.ee/slider/
Kruunu	Wooden element houses, windows, doors and timber frames	manufacturing, element houses	www.kruunu.fi/cms/english/home
Martem	Solutions for remote control and monitoring of the electric power distribution and stations	SCADA, RTU equipment, Telecontrol Systems, Electronical network supervision, power stations	www.martem.ee
Polarsol Global	Autonomous solar heating system	Solar energy, solar heating system, heat exchange system	http://www.polarsol.com/en/
ReWild	Three-dimensional modeling and mapping of animal populations	Environmental monitoring and data collection	http://rewild.com/index.htm
Scale Innovations	Innovation projects, R&D, e.g. Smart Copter	Innovation, R&D, Smart Copter	
Smart Load Solutions	Innovative optimization service for electricity consumers and	IoT, cloud-based service, energy consumption optimization	www.smartloadsolutions.eu

	producers		
Sol Navitas	Solar air heating panels	Solar energy, solar heating system	http://www.solnavitas.eu/index.php
Sympower	Cloud-based platform that uses the flexibility of smart homes for balancing the electricity system in real time	IoT, cloud-based service, energy consumption optimization	http://www.sympower.net/
ZeroLiving	Buildings from sea containers	Construction, recycling, design and modelling	http://zeroliving.ee/
Thinnect	Internet of Things technologies that can be applied in a variety of areas (smart city, smart systems, etc.)	IoT	http://www.thinnect.com/
Tuge Energia	R&D and manufacturing of small wind turbines (2.5, 10, 20, 50KW)	renewable energy, wind	http://www.tuge.ee/
Uniflex	Innovative automation and ICT solutions for cities, transportation, buildings	cloud technology, Linux-based automation controllers	www.uniflex.ee

COMPANY	SERVICE/ASSEMBLY WORKS	KEYWORDS	WEBSITE
AF-Consulting	Energy services, related environmental consulting, owner's engineering services, verification of greenhouse gas emissions	energy, environment, industry, infrastructure and planning, inspection and certification of equipment, IT and product development, sustainable development	http://estivo.ee/en/
Energia Juhtimiskeskused	Electric power consumption optimization services	IoT, cloud-based service, energy consumption optimization	http://juhtimiskeskus.ee/en
Genista Group	Complete solutions and assembly works, production cases	mechanics, prototypes, assembly	www.genista.ee/

	and mechanical components, prototypes, surface treatments, markings		
IB Krates	Process automation from manufacturing equipment to programmers workbench	software development, systems integration, industrial automation	www.krates.ee
Infragate Eesti	Engineering and consultancy in the field of infrastructure. Focus on water and storm water systems, civil engineering, solid waste management, roads, renewable energy systems, electricity and automation.	Engineering, consultancy, design, project management and construction supervision services	www.infragate.ee
MEC Marine Engineering and Consulting	Ship design, marine engineering and advanced structural design and analysis	marine environment, design, engineering	www.mec.ee
MTS HUS	Civil engineering, consulting and other services (drawings, static calculations, central approval, damage assessment)	civil engineering, consulting, central approval	www.mtshus.no/en/
Ruutu Kuus	Interior and graphical design, building design, series production of wooden furniture, production of promotional products (special projects and solutions, small-size CNC, laser cutting, printing, etc.)	Design, interior, wooden furniture, promotional materials	http://ruutu6.ee/
TS Energia	Energy services for ports and industrial parks	services, energy, renewable energy	www.ets.ee

Main services of Tehnopol business and technology development department:

- Business coaching and mentoring, incl. expansion to foreign markets
- Network of experts, mentors and investors
- Bringing globally together companies with similar technological challenges
- Strengthening of the community and joint marketing of the greentech companies
- Clubs, seminars and workshops
- Collaboration with universities and stimulate technology transfer
- Obtain finances from public and private sector for the development of the greentech sector
- Test environment for smaller pilots in Tehnopol and for industrial companies in PAKRI Science and Industrial Park

Under the greentech sector Tehnopol locally collaborates with many enterprise unions like [Estonian Renewable Energy Association](#), [Estonian Wind Power Association](#) and [Wind Power Cluster](#), [Estonian Waste Management Association](#), [Rakvere Smart House Competence Centre](#), [Estonian Wooden House Association](#) and [Wooden Houses Cluster](#), [Smart City Lab](#), etc. and internationally with [Kic InnoEnergy](#), [Climate Kic](#), [Cleantech Scandinavia](#), [LADEC](#), [Cleantech Finland at Finpro](#), etc.

As the energy and environmental sectors are closely related with the public sector through regulations etc. then under the green economy topics we collaborate also with [Norden Estonian Representation](#), [Enterprise Estonia Foundation](#), [Estonian Development Fund](#), [Estonian Ministry of the Environment](#), etc.

In addition due to the closeness of [Tallinn University of Technology](#), both organizationally and physically (situated in the same campus area), we have a good overview of energy and environmental technologies developed in the universities and other research centers.

For further reading see [Tehnopol Greentech page](#).

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