

# Hukseflux participation in EU projects

Heat transfer and thermal properties expertise at an academic level

*Hukseflux offers measurement solutions for the most challenging applications. We take measurement to the next level. With our expertise in determining heat transfer and thermal quantities, we contribute as a partner to research projects funded by the European Union (EU). We are innovators and join these projects to speed up our product development, get in touch with potential users and bring our ideas from lab to market faster.*

## Introduction

Hukseflux' main area of expertise is measurement of heat transfer and thermal quantities. We are known as a leading manufacturer of heat flux sensors, radiometers and a range of thermal conductivity measuring systems. We apply our expertise to related fields such as measurement of temperature differences, thermal contact resistance and to flow sensors, fouling sensors and corrosion sensors. Highlighted in this brochure are some examples of EU-funded research projects in which we acted as a partner.

## What we do as a partner

- design customer-specific experiments, for example to characterise materials or determine thermal properties such as thermal contact resistances
- build custom-made equipment, for example to test thermal properties
- design and supply complete measuring and control systems, for example for use in the production or quality assurance processes
- design application-specific sensors

## What we contribute

- our people, many with degrees in engineering and physics, have many years of accumulated experience performing measurements, designing experiments and building practical equipment
- custom-made sensors (for heat flux and differential temperature) as well as measuring systems that make it possible to quickly and efficiently perform our first testing and prototyping
- infrastructure for product validation and calibration



**Figure 1** becoming a partner of Hukseflux gives access to many years of accumulated experience performing measurements, designing experiments and building practical equipment

## Why we like to participate

- we get to know new applications for applying our heat transfer expertise
- we use funding to speed up product development
- we meet new user groups with whom we can quickly test product performance and from whom we get feedback

Table 1 (next page) shows you some EU funded research projects Hukseflux has contributed to or contributes to as a partner.

## Example projects overview

**Table 1** Hukseflux as a partner in research projects funded by the European Union, list of projects

HUKSEFLUX AS A PARTNER IN EU FUNDED RESEARCH PROJECTS		
Field of application	Purpose	Project
Production of plastics with nanoparticles	Measurement of the thermal properties of plastic melts with nanoparticles, consistency monitoring	Thermal conductivity sensor working at high pressures and temperatures in extrusion environment. Funded by E.U., FP7 <b>NanoOnSpect</b> project 2011-2015.  Result: commercial product for the plastics processing market and spinoff to other areas
Coal fired boilers, biomass cofiring	Measurement of boiler wall corrosion rates	Continuous long-term corrosion monitoring system, using an accurate electrical resistance measurement. <b>CERUBIS</b> project 2014-2018 (Corrosion and Emission Reduction of Utility Boilers through Intelligent Systems). Funded by the EU <b>CORDIS</b> program
Energy efficient buildings, building envelopes, passive solar components	Thermal characterisation of building envelope systems and advanced building components	EU funded CEC <b>PASSYS</b> project, Passive Solar Components and Systems Testing, 1986-1992. Heat flux sensor design was obtained by Hukseflux from TNO via a technology transfer project.  Result: commercial product for the research market

## References



## About Hukseflux

Hukseflux Thermal Sensors offers measurement solutions for the most challenging applications. We design and supply sensors as well as test & measuring systems, and offer related services such as engineering and consultancy. With our laboratory facilities, we provide testing services including material characterisation and calibration. Our main area of expertise is measurement of heat transfer and thermal quantities such as solar radiation, heat flux and thermal conductivity. Hukseflux is ISO 9001:2008 certified. Hukseflux sensors, systems and services are offered worldwide via our office in Delft, the Netherlands and local distributors.

## Contact Hukseflux

We offer creative solutions as well as highest quality products at an acceptable price level. If we cannot offer you an acceptable solution ourselves, we will tell you who can. Please **contact** us to discuss if our engineering and consultancy services can offer a solution for your needs.

Challenging heat transfer or thermal measurement problem?  
E-mail us at: [info@hukseflux.com](mailto:info@hukseflux.com)