

HORIZON
2020

Perpetual Sensing in Harsh Environments: Self-powered sensors for the Oil Gas industry

Fact Sheet

Project Information

HarshEnergy

Grant agreement ID: 739797

[Project website](#)

DOI

[10.3030/739797](https://doi.org/10.3030/739797)

Project closed

EC signature date

20 February 2017

Start date

29 September 2017

End date

28 September 2018

Funded under

INDUSTRIAL LEADERSHIP - Innovation In SMEs

Total cost

€ 86 692,50

EU contribution

€ 86 692,50

Coordinated by

INANOENERGY -
CONSULTORIA,
DESIGN,PRODUCAO E
APLICACAO DE SOLUCOES
ENERGETICAS RENOVAVEIS,
LDA



Portugal

Objective

The main objectives of this proposal are the prototyping, testing and implementation of new energy harvesting systems based on nanomaterials able to operate in harsh environments (temperatures above 250 °C and pressures of 10000 psi), particularly relevant for the oil & gas industry. inanoEnergy is a startup company aiming to develop and fabricate innovative products in the field of energy harvesting using high efficiency nanogenerators and that was recently awarded an ESA BIC project from

the European Space Agency. Based on inanoEnergy proprietary technology one seeks to develop innovative solutions to harvest energy to power sensor networks in harsh environments. Using the hybridization of three different energy harvesting technologies (piezoelectricity, triboelectricity and electromagnetic induction) we will optimize prototypes to be implemented inside or around pipes or in a side pocket configuration. The use of complementary energy harvesting technologies in a single devices makes their hybridization and integration in a single project an added value. However, Portugal lacks the human resources with the specialized skills needed to develop the proposed solution. Thus, the possibility to recruit an innovation associate at the European level would be a tremendous benefit for the development of this project and the future prospects of our startup.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electronic engineering](#) > [sensors](#) > **[smart sensors](#)**

[social sciences](#) > [economics and business](#) > [business and management](#) > **[business models](#)**

[engineering and technology](#) > [nanotechnology](#) > **[nano-materials](#)**

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electrical engineering](#) > **[piezoelectrics](#)**

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > **[energy conversion](#)**



Programme(s)

[H2020-EU.2.3. - INDUSTRIAL LEADERSHIP - Innovation In SMEs](#)

MAIN PROGRAMME

[H2020-EU.2.3.2.2. - Enhancing the innovation capacity of SMEs](#)

Topic(s)

[INNOSUP-02-2016 - European SME innovation Associate - pilot](#)

Call for proposal

[H2020-INNOSUP-2016-2017](#)

[See other projects for this call](#)

Sub call

H2020-INNOSUP-02-2016

Funding Scheme

[CSA - Coordination and support action](#)

Coordinator



INANOENERGY - CONSULTORIA, DESIGN,PRODUCAO E APLICACAO DE SOLUCOES ENERGETICAS RENOVAVEIS, LDA

Net EU contribution

€ 86 692,50

Total cost

€ 86 692,50

Address

RUA ALFREDO ALLEN, 455/461

4200 135 Porto

 **Portugal** 

SME 

Yes

Region

Continente > Norte > Área Metropolitana do Porto

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Last update: 15 August 2022

Permalink: <https://cordis.europa.eu/project/id/739797>

