EUROfusion

TECHNOLOGY TRANSFER PROGRAMME

INNOVATE WITH FUSION TECHNOLOGIES THROUGH THE EUROFUSION TECHNOLOGY TRANSFER PROGRAMME

Fusion research activities generate an increasing amount of fundamental technologies for the future of energy production. The societal impact of CO2-free, dense energy source for future generations is obvious. In order to increase the short-term return of the investments in fusion and the benefits for the European industries, EUROfusion fosters fusion technology transfer by sourcing and supporting innovative projects.

This dissemination brochure is an overview of the achievements of the EUROfusion Fusion Technology Transfer Activitiies Project (FUTTA II) between 2019 and 2020. Conducted through a network of facilitators and business experts in France, Italy, Belgium, Germany, Spain and the United Kingdom, the project supported the dissemination and exploitation of Intellectual Property Rights from EUROfusion beneficiaries to non fusion industry.

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A FULL RANGE OF ASSETS AND RESSOURCES FOR EUROFUSION BENEFICIARIES AND NON-FUSION INNOVATIVE BUSINESSES

You are a company willing to energize your business with EUROfusion-based technologies & know-how ?

You are a EUROfusion members or Linked Third Parties and you are interesting in exploring further R&D and market opportunities based on your fusion research ?

The EUROfusion Technology Transfer Programme offered extensive support in the identification of the most innovative & cutting- edge fusion technologies with the following results

>30 FUSION TECHNOLOGIES PROMOTED

To highlight the excellence of fusion research and the business value of the technologies developed

> 30 NEEDS COLLECTED FROM INDUSTRY

To increase interest from non-fusion companies through technology matchmaking regarding their needs

8 TECHNOLOGY TRANSFERS...

...and more than 50 mediation meetings organized between fusion scientist and potential industrial receivers

21 SUCCESS STORIES

To highlight the impact and interest of further use innovation towards new applications

4 DEMONSTRATOR PROJECTS FUNDED

An Open Call for Technology transfer demonstrators has been launched as funding support (38k€ per project, 2 projects per year)

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EXAMPLE OF TECHNOLOGY TRANSFER DEMONSTRATOR PROJECTS

Casting mold materials made of Tungsten fibre Composites (Wf/W) for high-temperature die casting

Invented to suppress the propagation of cracks at the surface of wall targets in fusion, tungsten fibres materials could increase the lifetime of molds in die casting applications.

Protective tungsten-based coatings for combustion chamber for aerospace applications

Studied for the plasma-wall interaction in the presence of high thermal loads in fusion, the deposition of thick tungsten and high melting point materials coatings have been adopted to manufacture protective coatings for combustion chamber for aerospace applications

Tungsten alloys for extended life corona discharge electrodes

Several W-based alloys have been investigated for application at the blanket first-wall of DEMO. This promising materials along new coating technologies have been considered to increase the lifetime of corona discharge electrode for applications in surface cleaning, air treatment and cooling electronics.

Towards a better rationalization of fibre optics manufacturing

Developed to carry out truly statistical multi-physics investigations based on the analysis of thousands of tokamak discharges, auto-adaptive algorithms have been implemented for a new concept of high speed and in-line optical fiber quality control.

Did you know ?

The further use of fusion technologies in commercial applications has plenty of social, economic and environmental benefits ? For example: improve energy efficiency of operations, safety in hazard environments, favour low-carbon technology and energy recovery from waste, improve human health through new medical therapies, optimization of car traffic prediction, prepare the future of smartbuilding, monitor the ocean pollution....

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SUCCES STORIES : DISCOVER THE BENEFITS OF FUSION FOR SOCIETY AND INDUSTRY

Extraction of pure hydrogen from olive mill wastewater to feed high efficiency PEM fuel cells

Reduction of charging time of electric cars by more than 66%

Better mirrors for EUV lithography for semiconductor devices

Fast and complete thermal supervision of a large industrial site

Fusion multi-scale modelling tool for smart buildings data analysis

Cancer treatment thanks to sustainable radio-isotope production

Increased reliability and accuracy of materials characterisation

Enhanced the durability of receivers of solar-thermic power plants

See more on
http://techtransfer.euro-fusion.eu/index.php/success-stories/

OUR NETWORK OF TECHNOLOGY TRANSFER BROKERS

CONTACT US AT

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