European Commission

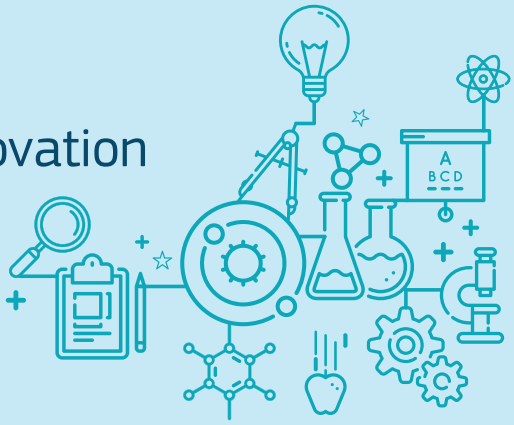
A renewed agenda for Research and Innovation

EU Research and Innovation success stories

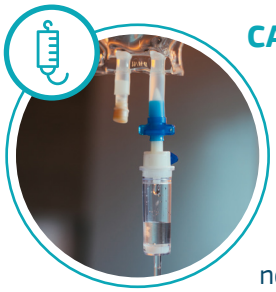
The Commission's Contribution to the Leaders' Agenda

#FutureOfEurope #EURoad2Sibiu

May 2018



Thanks to EU funding, we got incredible results on:



CANCER TREATMENT

What amount of chemotherapy is needed

In developed countries, a woman's chance of getting breast cancer is around one-in-eight. Chemotherapy is effective but can have serious side effects and up to one-in-five early breast cancer patients could be receiving too much chemotherapy. EU-funded research has shown that combining traditional methods for assessing a tumour's aggressiveness with a new laboratory test helps set the amount of chemotherapy needed.

PROTECTION AGAINST EBOLA

1.6 million Ebola vaccine doses have been developed

New life-saving treatments, diagnostics, and a vaccine have been developed thanks to funding the EU mobilised for emergency research at the height of the recent Ebola outbreak. Thousands of people have been protected against Ebola with a vaccine developed under the EU-funded 'EBOVAC' project. Over 1.6 million doses of the vaccine are stockpiled for use in case of emergency.

ANTIBIOTICS OR NOT?

A revolutionary device detects bacteria

A breakthrough medical device that can diagnose bacterial infection in less than ten minutes from a single drop of blood has received a €1 million EU 'Horizon Prize' for innovation. The 'MINICARE HNL' system will reduce the amount of antibiotics prescribed, and so help tackle increasing antimicrobial resistance which is becoming a global health problem.

SOLAR JET FUEL

Researchers have produced 'solar' jet fuel from water and carbon dioxide

EU-funded researchers have successfully demonstrated the entire production chain for renewable kerosene using solar energy. Concentrated sunlight is used to trigger a reaction between CO_2 extracted from air with water to produce avionics grade jet fuel. The technology has the potential to provide secure, sustainable and scalable supplies of jet fuel as well as diesel and gasoline, and even plastics.

CLEAN AIR IN CITIES

Fuel cell powered buses for clean public transport

Road traffic pollution is a major problem in many cities. One carbon free approach being tested in cities across Europe is a fleet of hydrogen fuel cell powered buses. They are just like normal buses but are powered by electricity generated using fuel cell technology developed by industry with EU support. These cells only need hydrogen and air and emit harmless water vapour.

GREENER WATER TRANSPORT

A 100% electric ferry is on the horizon

Europe has around 900 ferries for cargo, cars and passengers, which account for 35 % of the world fleet. For more energy-efficient vessels that emit less carbon dioxide in the future, an EU-funded project will demonstrate a fully electric ferry. It will have a 40-km range, a speed of 25 km/H, and a capacity of some 30 cars and 200 people. The prototype ferry will connect the island of Aeroe (DK) to the mainland.

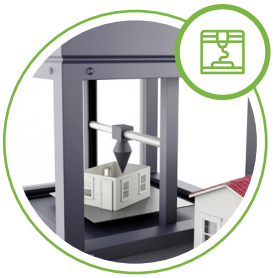
CROPS FOR COSMETICS

EU-industry funded project reclaims barren land to produce oil

Hillsides in the Mediterranean area are often so dry and stony that they can't be used to grow food. However, an industry-led EU project is showing how oil extracted from seeds from a hardy non-food crop can be refined to produce products such as cosmetics and bio-plastics. Turning barren ground into productive farmland is commercially viable and will help regenerate local communities and attract investment.

DREAM HOUSE

A new house printed just for you?



3D printing is set to revolutionise the construction industry by allowing the manufacture of adapted building products. An EU-funded project is working towards producing a commercially viable onsite machine combining design parameters with production. It would make the construction industry more cost-effective and resource efficient.

NEVER ENDING BATTERY

EU funding made possible the development of a super battery

EU funding has helped an Estonian company produce an energy storage device called ultracapacitor, which is a 100 times more powerful than an ordinary battery, and can withstand one million recharge cycles. Skeletons of ultracapacitors are based on graphene – a two dimensional form of carbon with remarkable properties. The company has raised €13 million to build a manufacturing facility in Germany capable of producing millions of these new ultracapacitators a year.