INFORMATIVE BULLETIN



APRIL 2019 R + I IN THE EUROPEAN UNION N° 6





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"LA PAZ Y LA UNIDAD DEPENDE DE TODOS"

CLIMATE CHANGE IS CAUSING FISH TO DISAPPEAR



Fish are a major source of food and income for millions of people worldwide. Climate change is here to impact both negatively.

According to findings published in the journal 'Science' climate change is endangering fish around the world reducing populations by up to 35 % in coastal regions near China and Japan. Ocean warming has led to a 4 % global decline in sustainable catches. This is the largest amount of fish that can be caught without depleting stocks long term.

"That 4 percent decline sounds small but it's 1.4 million metric tons of fish from 1930 to 2010" lead researcher Dr Chris Free a quantitative ecologist at the University of California Santa Barbara told 'The New York Times'.

RELATED DOCUMENT:



"Fish provide a vital source of protein for over half of the global population and some 56 million people worldwide are supported in some way by marine fisheries."

East Asia supports the fastest-growing populations and has very big seafood demands. Shrinking fish stocks in these regions are troubling because as stocks continue to plummet, East Asian countries could start importing fish from other parts of the world. This will drive up prices. Overfishing also intensifies climate change effects. Removing the largest fish diminishes a population's reproductive capacity and makes it more vulnerable to global warming over time.

Research shows that not all fish suffered from ocean warming. In fact, some species have benefited from warming waters. There were gains among fish populations in the Labrador-Newfoundland region, the Baltic Sea, the Indian Ocean and the north-east US shelf.

FULL NEWS:



PUSHING THE BOUNDARIES OF TRANSNATIONAL BIODIVERSITY RESEARCH



Addressing biodiversity challenges and providing scientific support requires coordinated interdisciplinary research at national regional and international levels. BiodivERsA an EU network of national and local ministries and agencies supports this effort via programming and funding research on biodiversity and nature-based solutions.

Building on the previous experiences of BiodivERsA1 and 2 and NetBiome, the BiodivERsA3 project is an ERA-NET co-funded by the EU Horizon 2020 programme, bringing together 36 organisations from 23 European countries. As project coordinator, Dr Xavier Le Roux explains, "the scope of this network is to strengthen the cooperation between programmers and funders of biodiversity research to achieve synergy and resource efficiency, with a strong integration at the local, national and transnational levels."

BiodivERsA3 benefits from a successful collaboration history among countries in the European Research Area (ERA) since 2005 established and consolidated by the first two editions of the network. This ERA-NET has served as the foundation for ambitious funding calls on biodiversity ecosystem services and nature-based solutions in particular the 2015 call on 'Blue and Green Infrastructures' and 2018 call on 'Biodiversity and Health'. Among its major achievements is the efficient mobilisation of local national and EU resources for implementing these calls for EUR 44 million in cash. Additional EUR 28 million funding has emerged through the COFUND initiative BiodivScen between BiodivERsA and the Belmont Forum.

FULL NEWS





INFORMATIVE FILE

The EU nature directives





NEWS - ENVIRONMENT

PHARMACEUTICALS IN THE ENVIRONMENT: COMMISSION DEFINES ACTIONS TO ADDRESS RISKS AND CHALLENGES



The "Strategic Approach to Pharmaceuticals in the Environment" that the Commission presents today, identifies six action areas concerning all stages of the pharmaceutical life cycle, where improvements can be made. The text addresses pharmaceuticals for human as well as for veterinary use. The areas cover all stages of the lifecycle of pharmaceuticals, from design and production to disposal and waste management, in line with the principles of the staff working document of the Commission on Sustainable Products in a Circular Economy. The six areas identified include actions to raise awareness and promote prudent use, improve training and risk assessment, gather monitoring data, incentivise "green design", reduce emissions from manufacturing, reduce waste and improve wastewater treatment.

Pharmaceuticals discarded in the environment have been shown to pose a risk to fish or other wildlife, for example by affecting their ability to reproduce, by altering their behaviour in ways jeopardising their survival, or through direct toxic effects. In addition, incorrectly disposed medicinesmay contribute to the serious problem of antimicrobial resistance.

The Action Plan emphasizes the need for a unique health approach that takes into account the interconnections between human and animal health and the environment.

The Commission will monitor the actions set out in the Communication and invites Member States and other interested parties to act as well.

FULL NEWS:





Options for a strategic approach to pharmaceuticals in the environment

NEWS- SPACE RESEARCH

SELF-DRIVING ROVERS EXPLORE MOROCCAN DESERT, SHOOTING FOR MARS



In a successful field trial, engineers test the capabilities of three self-driving rovers on Mars-like terrain in the Sahara Desert.

Ever since the first successful landing on Mars in the 1970s, scientists have striven to deepen their knowledge of the red planet's surface. The first successful rover, the Sojourner, was deployed on Mars's surface in July 1997. Since then, there have been another three successful robotically operated rovers on the planet, collecting information on water, rocks, soils and minerals, and the presence of organic material. Plan European Roadmap and Activities for SPace Exploitation of Robotics and Autonomy) ends in 2019. The project's achievements include key technologies and robotic systems for on-orbit satellite servicing and planetary exploration. Project results will be used to support an orbital robotics space mission planned for 2023.

PERASPERA (PERASPERA (AD ASTRA)

FULL NEWS:







ALL U NEED IS SPACE

Follow Elena and enjoy the trip!

Scientists working on the EU-funded PERASPERA project took up the challenge of creating rovers that can cover greater distances in a day, make their own decisions and work with other rovers to access difficult sites. Coordinated by the European Space Agency (ESA), the project recently conducted Europe's biggest rover field test involving 40 engineers. The trial took place on the northern edge of the Sahara Desert in Morocco, where the terrain is said to resemble that of Mars.

NEWS - HEALTH

PROYECT ABBI UNIQUE BRACELET FOR VISUALLY-IMPAIRED CHILDREN



The Audio Bracelet for Blind Interactions (ABBI) is a pioneering device that is specifically designed with children in mind and thus its simplicity was a key factor worn on the child's wrist and being not much bigger than a wristwatch, the device, once worn, starts sensing body motion, providing the user with spatial information on where the movement is taking place with a series of sounds.

Dr Monica and her team are working on a comprehensive business plan for ABBI's full market penetration. "We've received some interest from an early-stage investor for supporting the commercialisation of ABBI and ABBI-K. We're also currently working to finalise the agreement involving the future startup with my colleague Chiara Martolini," Dr Gori explains. "This result was possibile thanks to the Technology Transfer Office within the Italian Institute of Technology (IIT). Several hospitals and rehabilitation centres in Italy have shown a big interest in our device and general approach."

Even with the great strides towards market entry, Dr Gori and her team are still determined to maximise ABBI's great potential. "Up until now, we've only worked with ABBI on children above the age of three but I'm convinced that the use of ABBI could be crucial to improving spatial, manipulation and social skills for visually-impaired children in the crucial first three years of their lives," says Dr Gori. "I plan to fully explore this notion further, especially due to the fact that, to date, there are only a few technological rehabilitative solutions developed for early interverees of the young visually-impaired children."

FULL NEWS:









NEWS - INNOVATION

AN EDIBLE SUNSCREEN PRODUCT



Many chemicals present in beauty products such as parabens or phthalates cause undesirable toxic effects in humans and the environment. Even UV filter molecules present in sunscreen creams designed to protect against sunlight exposure are absorbed by the body causing disruptive effects on the endocrine system.

The Taramar team of scientists generated a method for producing water-based skincare products utilising unique compounds with beneficial properties for skin and body. The science has been conducted in collaboration with European and USA universities and research institutes. Most of the results have been published in scientific journals.

Research results showed that the Icelandic seaweed has antioxidant powers similar to green tea and cranberries. Seaweed extracts have the capacity to stimulate immunomodulating responses and protect skin cells from aging.

After overcoming a number of research and development challenges, Taramar scientists successfully produced a UV filter that avoids the toxic and harmful chemicals currently used in most beauty products in the market. At the same time, they discovered safe and natural methods to preserve the functional properties of the seaweed bioactive molecules while prohibiting microbial growth with the NoTox[™] technology.

As a result, the TARASÓL UV filter lacks conventional preservatives and is 100 % safe for skin and body. The antioxidant and anti-inflammatory properties of seaweed provide additional and clearly visible benefits to the skin. Researchers observed that some organic compounds such as collagen and vitamin C cannot be easily transferred over cell membranes. Therefore, they encapsulated the seaweed components in a liposome-based delivery system that stabilises and releases the bioactive UV filter upon sunlight exposure.



NEWS - HEALTH

EPIGENETIC THERAPY! SWITCHING OFF YOUR OWN CANCER GENES



Cancer, particularly acute myeloid leukaemia (AML), is aggressive and also resistant to anticancer therapy, resulting in poor patient outcomes. Understanding how genes can be switched on and off without affecting their DNA sequence is paramount for the development of new anti-cancer therapies.

To identify epigenetic regulators and investigate the molecular mechanisms behind them, scientists performed loss-of-function forward genetics screens. They used the CRISPR interference genome editing technology to generate a library capable of targeting 1 046 genes of all the known and putative chromatin-associated proteins.

Collectively, the work by NovLeuReg alongside technological advancement provides novel knowledge in the field of malignant haematopoiesis. The identification of these new proteins that contribute to AML development and maintenance sheds new light into the process and mechanism underlying leukemogenesis and unveils novel therapeutic targets.

Overall, the reversible nature of epigenetic marks has raised optimism for the development of new therapies in leukaemia by pharmacological inhibition of chromatin-modifying enzymes. New therapies are much needed for this type of cancer that presents with high mortality rates and no unified treatment. Long-term, it will be possible to develop personalised therapies for AML patients following detailed molecular analysis of leukemic cells..

FULL NEWS :







NEW INTRAOPERATIVE PROBE FOR BREAST CANCER TISSUE



As with most cancer operations, breast conserving surgery aims to completely remove cancer with clear surgical margins while maintaining the natural shape of the breast. However, this is not always possible, leading to breast deformity and residual cancer in 20-30 % of patients who require reoperation after a partial mastectomy. Apart from patient dissatisfaction this contributes to increased health care costs and poorer cosmetic results.

ONCOscanner is an innovative solution that enables intra-operative recognition of collected tissues during surgical removal of cancerous breast tissue. As the coordinator of the EU-funded ONCOscanner project Dr Stanislaw Rogozinski explains, "the ONCOscanner probe supports surgeons by allowing them to assess margins of the breast cancer tissue during operation."

The ONCOscanner probe has the capacity to identify cancerous tissue during surgery. Through the dielectric technique, it measures the electric conductivity and permeability of normal and malignant tissue. Electric properties are lowest in fat tissue and high in cancerous tissue, allowing the differentiation between healthy and malignant breast tissue.

Importantly, the ONCOscanner probe has been designed to overcome the influence of components with high electrical conductivity such as blood, plasma and electrolytes. It can be used repeatedly during operation without the need of irradiation or special training. The probe has also been validated in many medical experiments and demonstrated absolute safety, very high sensitivity (87 %) and specificity (99 %).



NEWS - HEALTH

IMMINENT ANTI-METASTATIC VACCINE FOR PROSTATE CANCER



The majority of prostate cancer patients are diagnosed at the localised, pre-metastatic stage of the disease. They have to undergo primary tumour excision by surgery or radiotherapy followed by active monitoring to ensure cancer relapse doesn't occur. Despite the frequent incidence of metastasis formation, there is currently no treatment available post-surgery to directly limit micro-metastasis formation.

Available treatments exhibit serious side effects, mainly focus on later stages of cancer progression and almost always develop resistance. There is an urgent need for therapeutic strategies that act early on in prostate cancer before cancer returns and cancer cells start to spread, making the treatment far more difficult and expensive.

So far, the vaccine has been tested in prostate cancer patients after removal of the primary tumour and before metastasis formation to address the challenge posed by the high incidence of metastasis following primary tumour excision. Results from the phase I/II clinical trial, which involved 22 patients after prostatectomy, demonstrated the excellent tolerability and safety of RV001. Importantly, the majority (86 %) of patients showed a significantly positive immune response.

RV001 holds important competitive advantages such as targeting a stage of the disease where there is currently no treatment available coupled with high safety and costeffectiveness. At the same time, scientists are confident it will work against multiple types of metastatic cancer.



MINI ROBOTS TO CREATE PATTERNS INSPIRED BY NATURE



Scientists have demonstrated how tiny robot swarms could be programmed like cells to form shapes together by relying on interactions with their neighbours.

Imagine a future where hundreds or thousands of tiny robots explore the scene after a natural disaster. Picture yourself being operated on by nano-sized robots that perform an internal surgery. It may sound like science fiction, but one day such technology could be available thanks to research implementing the biological principles of self-organisation in swarm robotics.

Supported by the EU-funded SWARM-ORGAN project scientists have shown how hundreds of mini robots could use genetic and cellular mechanisms governing the biological early morphogenesis. Their results were published recently in the journal 'Science Robotics'.

FULL NEWS:



The article explains the concept: "Morphogenesis allows millions of cells to self-organize into intricate structures with a wide variety of functional shapes during embryonic development. This process emerges from local interactions of cells under the control of gene circuits that are identical in every cell, robust to intrinsic noise, and adaptable to changing environments." As noted in the same article, these attributes offer "an important opportunity in swarm robotic applications ranging from construction to exploration."



A theoretical framework for swarms of GRN-controlled agents which display adaptive tissue-like organisation

NEWS - AGRICULTURAL POLICY

FAIRER, SIMPLER, MORE FLEXIBLE EU FARM POLICY



The Agriculture Committee approved the first and second batch of proposals to improve EU farm policy so that it better meets farmers' and consumers' expectations after 2020.

Member states should cap annual direct payments to farmers at the level of €100.000, but they could allow farmers to deduct 50% of agriculture-related salaries from the total amount before the reduction, MEPs say. They also want to channel at least 5% of national direct payments to small and medium-sized farmers through a special per-ha top-up.

MEPs want to dedicate at least 30% of the rural development budget to environmental and climate-related measures and not less than 20% of direct payments to eco-schemes. These voluntary eco-schemes should support not only the environment, but also animal welfare.

The text approved by Agriculture Committee MEPs has to be scrutinised by the Parliament as a whole. This can happen only after the 23-26 May European elections. The Conference of Presidents (EP president and leaders of political groups) may decide then to forward the text to the full House. Otherwise, the new Agriculture Committee will have to look into the matter again.

FULL NEWS:





EUROPEAN SOCIAL INNOVATION COMPETITION 2019



The European Commission has launched the European Social Innovation Competition in memory of Diogo Vasconcelos.

Based on the theme "Challenging plastic waste", the 2019 edition calls for ideas and projects that reduce plastic waste and littering through changing and improving existing processes or through introducing brand-new products and initiatives.

The competition is open to individuals, groups and organisations across the European Union and in countries participating in the Horizon 2020 programme.



Launched by the European Commission, the RegioStars Awards 2019 aim to identify good practice in regional development and to highlight original and innovative projects that could be an inspiration to other regions.

Project managers (public or private) from all European regions, if their project has received support from the European Regional Development Fund, the Cohesion Fund, the European Social Fund or a project which has received EU funding under Interreg IPA-CBC or Interreg ENI-CBC programmes, after 1 January 2007.

Deadline: 9 May 2019, midnight CET.

FURTHER INFORMATION:

WEB SITE	(hr)
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EYA - JOIN THE MOVEMENT!



The European Youth Award (EYA) selects and promotes the best innovative European students, social entrepreneurs, emerging companies, designers, producers, application developers, journalists and writers, who create digital projects with an impact on society that address the objectives defined by the Council of Europe, Europe 2020 and the Sustainable Development Goals (SDGs) of the United Nations.

Innovative students and young people under 33 years old (born as of January 1, 1986) or living in one of the member states of the Council of Europe or Union for the Mediterranean, Belarus, Kosovo or Syria.



PROJECT TR@NSENER (INTERREG-SUDOE)



The project is led by the French university Toulouse III Paul Sabatier and has a total of 8 partners from France, Spain and Portugal. In addition to CTA, there are 3 other Spanish partners: the Foundation for Energy and Environmental Sustainability (Funseam), the Polytechnic University of Madrid (UPM) and the Energy Resources and Consumption Research Center Foundation (CIRCE).

The objective of the project (36 months) is to generate synergies between companies, laboratories and technological infrastructures at the service of companies in the three countries, in order to create innovations in the field of energy efficiency.

FURTHER INFORMATION: WE

WEB SITE

CALLS AND AWARDS

SUSTAINABLY YOURS PHOTO COMPETITION



Launched by the European Environment Agency, the photo contest "Sustainably Yours" invites the citizens of the member countries and the cooperating countries of the Western Balkans, from the age of 18, to reflect on the environmental and climatic impact of the food, energy and mobility.

Participants can send photographs that represent any of the following three categories: Sustainable food; Sustainable energy; Sustainable mobility

FURTHER INFORMATION: WEB SITE

THE EUROPEAN CAPITAL OF INNOVATION (ICAPITAL) AWARD



This is an annual cash prize awarded to the European city that is able to demonstrate its ability to take advantage of innovation to improve the lives of its citizens.

The first prize will be 1 million euros to the city named European Capital of Innovation of the year, \in 100,000 to each of the five cities runners-up. It also recognizes several finalist cities especially recognized for their efforts in promoting innovation.

FURTHER INFORMATION:



WTO ESSAY AWARD FOR YOUNG ECONOMISTS



The World Trade 'd for Young Economists aiming at promoting high-quality research on trade policy and international trade co-operation among young economists and to reinforce the relationship between the WTO and the academic community.

Applicants must have or be engaged in the completion of a PhD degree and, if over 30 years of age, be no more than two years past a PhD defense. In the case of a co-authored paper, this requirement shall apply to all authors. They will have to write an essay of maximum 15,000 words addressing the issues related to trade policy and international trade co-operation.

The winner author will get a prize of CHF 5,000 and have the essay published in the WTO Working Paper Series.



The James Dyson Award is an international student design award running in 26 countries. It is run by the James Dyson Foundation, James Dyson's charitable trust, as part of its mission to encourage the next generation of design engineers to be creative, challenge and invent.

The aim of the award is to support current and recent graduates of design or engineering who have a problem-solving idea.

FURTHER INFORMATION:

WEB SITE



FISHING INDUSTRY

THE EU FISH MARKET



SUMMARY: "The EU fish market" aims at providing an economic description of the whole European fisheries and aquaculture industry. PUBLICATION DATE: 27-03-2018 AUTHOR: Directorate-General for Maritime Affairs and Fisheries (European Commission) ISBN / ISSN: 978-92-79-66561-5 / 2363-4111 LINK: CLICK HERE () KEY WORDS: aquaculture , consumer , EU market , fish , fisheries policy , fishery product , regulation (EU) , supply



THE EU FISHING FLEET

SUMMARY: This paper provides additional insight on recent trends in economic performance of the EU fleet and the potential drivers behind them, with supplementary analyses by main fishing region and type of fishing activity.

PUBLICATION DATE: 13-03-2019

AUTHOR: Directorate-General for Maritime Affairs and Fisheries (European Commission), Joint Research Centre (European Commission)

ISBN / ISSN: 978-92-79-98379-5 / 2529-2986

LINK: CLICK HERE

KEY WORDS: common fisheries policy , Community fisheries , economic analysis , economic indicator , economic situation , EU Member State , fishing fleet , fishing statistics , short-term economic prospects



THE EU FISH PROCESSING INDUSTRY

SUMMARY: In broad terms, the fishing industry can be divided into harvesting (from either captures in wild fisheries or fish farms), commercialisation and the fish processing industry. The latter is an important contributor to the blue economy because it can add significant value to the raw fish and is a central source of employment, particularly for women.

PUBLICATION DATE: 27-02-2019

AUTHOR: Directorate-General for Maritime Affairs and Fisheries (European Commission) **ISBN / ISSN:** 978-92-79-94157-3 / 2599-8307

LINK: CLICK HERE

KEY WORDS: economic analysis , EU Member State , fish , fish product , meat processing industry

CIRCULAR ECONOMY

A CIRCULAR ECONOMY FOR PLASTICS



SUMMARY: The current plastics system demands fundamental change in which research and innovation, enabled and reinforced by policymaking, play a crucial role. Moving towards a circular economy, we can harness the benefits of plastics, while achieving better economic, environmental and social outcomes.

PUBLICATION DATE: 27-02-2019

AUTHOR: Directorate-General for Research and Innovation (European Commission) ISBN / ISSN: 978-92-79-98429-7

KEY WORDS: circular economy , environmental impact , environmental protection , financing , health risk , innovation , packaging , plastics , pollution control measures , report , research and development , sustainable development , waste management , waste recycling



ACCELERATING THE TRANSITION TO THE CIRCULAR ECONOMY

SUMMARY: The transition to a circular economy is at an early stage in the EU. Regulations, markets, investment tools and practices, including financial risk assessment, are adjusted to linear models. Externalities linked to linear business models are largely not taken into account. **PUBLICATION DATE:** 12-03-2019

AUTHOR: Directorate-General for Research and Innovation (European Commission) ISBN / ISSN: 978-92-79-99324-4

LINK: CLICK HERE

KEY WORDS: business model , circular economy , consumer behaviour , financial risk , financing , financing method , tax incentive



A EUROPEAN STRATEGY FOR PLASTICS IN THE CIRCULAR ECONOMY LOCAL AND REGIONAL DIMENSION: STUDY

SUMMARY: This report was prepared to support the preparation of an Opinion of the Committee of the Regions on the European Strategy for Plastics in a Circular Economy prepared by the Commission and adopted in January 2018.

PUBLICATION DATE: 15-06-2018

AUTHOR: European Committee of the Regions

ISBN / ISSN: 978-92-895-0964-0

LINK: CLICK HERE

KEY WORDS: environmental impact , environmental law , environmental protection , EU regional policy , local authority , packaging , plastics , pollution control measures , regional authority , sustainable development , waste management , waste recycling

AGRICULTURE

AGRICULTURAL POLICY DEVELOPMENTS AND EU **APPROXIMATION PROCESS IN THE WESTERN BALKAN COUNTRIES**



SUMMARY: This report provides an analysis of agricultural policy developments and the EU approximation process in the Western Balkan area. The report concludes that in WB countries/territories, agriculture is an important sector for the national economies, but with a declining tendency.

PUBLICATION DATE: 06-03-2019 AUTHOR: Joint Research Centre (European Commission) ISBN / ISSN: 978-92-79-98107-4 / 1831-9424 ۲ LINK: **CLICK HERE** KEY WORDS: agricultural policy, aid to agriculture, budget, cooperation policy, European



ORGANIC FARMING

SUMMARRY: This publication is an informative document intended for organic farmers, processors and retailers. It aims at presenting support measures under the common agricultural policy and within the European Maritime and Fisheries Fund in favour of organic producers and gives an overview and useful references on the rules applicable to organic production, processing and trade, including the rules applying to conversion.

PUBLICATION DATE: 20-03-2019

AUTHOR: Directorate-General for Agriculture and Rural Development (European Commission) ISBN / ISSN: 978-92-79-39199-6

رالم LINK: **CLICK HERE**

KEY WORDS: aquaculture , common agricultural policy , common fisheries policy , ecological balance, guide, labelling, organic farming, organic product, guality control of agricultural products, regulation of agricultural production, rural development

THE CONTRIBUTION OF PRECISION AGRICULTURE TECHNOLOGIES TO FARM PRODUCTIVITY AND THE MITIGATION OF GREENHOUSE GAS EMISSIONS IN THE EU

JRC TECHNICAL REPORTS





SUMMARY: Agriculture in the EU has to cope with global challenges such as climate change mitigation and making farming more efficient. PUBLICATION DATE: 27-02-2019 AUTHOR: Joint Research Centre (European Commission) ISBN / ISSN: 978-92-79-92834-5 / 1831-9424 2 **CLICK HERE** LINK: KEY WORDS: agricultural productivity, European Union, farming sector, greenhouse

gas, means of agricultural production, reduction of gas emissions, research report

ENVIRONMENT

Europon Commission	
Environmental im assessments of inne bio-based prod	vative
Task 1 of "Study on Support to R&I Pol Bio-based Products and Serv	cy in the Area of rices "
Written by GDWS (AV) and Utracht University December - 3018	EN.

ENVIRONMENTAL IMPACT ASSESSMENTS OF INNOVATIVE BIO-BASED PRODUCT

SUMMARY: The biologically based sector is among the most prosperous sectors of the European bioeconomy. Industry players in this sector use biological resources to create innovative, greener value-added products.

PUBLICATION DATE: 25-02-2019

awareness campaign, waste management

AUTHOR: Directorate-General for Research and Innovation (European Commission) **ISBN / ISSN:** 978-92-79-98485-3



KEY WORDS: Climatev change, biodiversity , ecological footprint , environmental impact , eutrophication , fossil fuel , greenhouse gas , innovation , packaging product , petroleum product , plastics , reduction of gas emissions , supply , sustainable development , toxic substance



GUIDELINES ON POSITIVE ENVIRONMENTAL INITIATIVES TO BE TAKEN BY THE FISHING SECTOR

SUMMARY: Conservation policy environment and health PUBLICATION DATE: 20-02-2019 AUTHOR: Directorate-General for Maritime Affairs and Fisheries (European Commission) LINK: CLICK HERE KEY WORDS: common fisheries policy , data collection , environmental impact , environmental monitoring , environmental protection , fishing industry , public

JRC TECHNICAL REPORTS Suggestions for updating the Product Environmental Footprint (PEF) method



SUGGESTIONS FOR UPDATING THE ORGANISATION ENVIRONMENTAL FOOTPRINT (OEF) METHOD

SUMMARY: The product environmental footprint (PEF) is a life cycle assessment (LCA) based method to quantify the environmental impacts of products (goods or services). It builds on existing approaches and international standards. **PUBLICATION DATE:** 11-03-2019

AUTHOR: Joint Research Centre (European Commission) ISBN / ISSN: 978-92-76-00654-1 / 1831-9424 LINK: CLICK HERE (KEY WORDS: eco-label , ecological footprint , energy efficiency , environmental

economics , environmental impact , EU environmental policy , product life , reduction of gas emissions , research report , waste management

ECOSYSTEM AND BIODIVERSITY

INVASIVE ALIEN SPECIES OF EU CONCERN



SUMMARY: This brochure presents at a glance the currently listed invasive alien species of Union concern, offering brief, non-technical and informal summaries of their origin, their present distribution in the EU, how they threaten our native biodiversity, and how the applicable restrictions and obligations will help mitigate their negative impacts.

PUBLICATION DATE: 11-03-2019

AUTHOR: Directorate-General for Environment (European Commission) **ISBN / ISSN:** 978-92-79-70168-9

LINK: CLICK HERE

KEY WORDS: biodiversity, conservation of resources, ecology, ecosystem, environmental protection, EU environmental policy, European Union, invasive species, protected species, protection of animal life, protection of plant life, regulation (EU)



LIFE IMPROVING NATURE

SUMMARY: El programa LIFE es el instrumento de financiación de la UE para el medio ambiente y la acción climática. Período 2014-2020. Financiación de la UE disponible de aproximadamente € 3,46 billones. Asignación de fondos De los € 3,46 billones asignados a LIFE, € 2,59 billones corresponden al subprograma de Medio Ambiente, € 0,86 mil millones son para el subprograma de Acción Climática.

PUBLICATION DATE: 04-02-2019 AUTHOR: Dirección General de Medio Ambiente (Comisión Europea) ISBN / ISSN: 978-92-79-98410-5 / 2314-9329 LINK: CLICK HERE

KEY WORDS: biodiversidad, instrumento económico medioambiental, programa de la UE, protección de la fauna, protección de la flora, protección del medio ambiente, proyecto de interés común, reserva natural



THE EU NATURE DIRECTIVES

SUMMARY: THE EU birds and habitats directives – the EU nature directives – lie at the heart of the EU's biodiversity strategy. They aim to protect the EU's most vulnerable habitat types and species both on land and at sea. Through the Directives an EU-wide Natura 2000 network of protected sites has been created spanning 28 EU Member States.Certain marine species are also protected across their entire range, both inside and outside Natura 2000. **PUBLICATION DATE:** 05-04-2019 **AUTHOR:** Directorate-General for Environment (European Commission)

ISBN / ISSN: 978-92-76-01766-0

LINK: CLICK HERE () KEY WORDS: biodiversity , bird , coastal protection , directive (EU) , EU programme , habitat , marine ecosystem , protected species , protection of animal life

SUSTAINABILITY

BIO-BASED PRODUCTS



SUMMARY: The bio-based sector is amongst the most thriving sectors in the European bioeconomy. Industry players in this sector use biological resources (including residues and waste) to make innovative greener value added products.

PUBLICATION DATE: 13-02-2019

AUTHOR: Directorate-General for Research and Innovation (European Commission) ISBN / ISSN: 978-92-79-98486-0

LINK: CLICK HERE

KEY WORDS: biomass , ecology , environmental impact , environmental industry , industrial policy , innovation , market , multinational force , plastics , product life , report , sustainable development



The potential role of H₂ production

in a sustainable future power system An analysis with METIS of a decarbonised system powered by renewables in 2050



THE POTENTIAL ROLE OF H2 PRODUCTION IN A SUSTAINABLE FUTURE POWER SYSTEM

SUMMARY: The power system is dimensioned in order to provide adequate electricity to a fleet of electrolysers, whose purpose is to produce hydrogen at quantities adequate to supply industrial processes and transport.

PUBLICATION DATE: 26-03-2019

AUTHOR: Joint Research Centre (European Commission)

ISBN / ISSN: 978-92-76-00820-0 / 1831-9424

LINK: CLICK HERE

KEY WORDS: electrical energy , energy policy , energy production , energy research , energy technology , greenhouse gas , hydrogen production , reduction of gas emissions , renewable energy , research method , research report



STRATEGIC GREEN INFRASTRUCTURE AND ECOSYSTEM RESTORATION

SUMMARY: This report draws on a range of European-wide datasets, geospatial methods, and tools available for green infrastructure (GI) mapping. PUBLICATION DATE: 27-02-2019 AUTHOR: Joint Research Centre (European Commission) ISBN / ISSN: 978-92-79-97294-2 / 1831-9424 LINK: CLICK HERE KEY WORDS: biodiversity , environmental economics , environmental policy , green area , priority region , quality of the environment , research report , terrestrial

ecosystem, town, urban area, urban infrastructure

TECHNOLOGY

COMMUNICATING EFFECTIVELY



Communicating Effectively: A guide to disseminating knowledge from the European Platform tackling undeclared work

SUMMARY: Created in 2016, the European Platform tackling undeclared work aims to: enhance knowledge sharing and cooperation among national authorities and others involved in tackling undeclared work; - help Member States to deal better with undeclared work; - increase public awareness of undeclared work.

PUBLICATION DATE: 21-03-2019

AUTHOR: Directorate-General for Employment, Social Affairs and Inclusion (European Commission)

ISBN / ISSN: 978-92-76-00176-8 LINK: CLICK HERE







DIGITAL TRANSFORMATION SCOREBOARD 2018

SUMMARY: Digital technologies have created new markets and unprecedented business opportunities. They will open new ways for companies to integrate their customers' needs and preferences into their development and production processes, help them to enhance quality and avoid faults in their production processes and create transparency and flexibility across entire process chains.

PUBLICATION DATE: 26-03-2019

AUTHOR: Executive Agency for Small and Medium-sized Enterprises (European Commission) **ISBN / ISSN:** 978-92-9202-353-9

LINK: CLICK HERE

KEY WORDS: aid to undertakings , company modernisation , digital technology , economic growth , European undertaking , European Union , production , research and development , services company



STATEMENT ON ARTIFICIAL INTELLIGENCE, ROBOTICS AND 'AUTONOMOUS' SYSTEMS

SUMMARY: Advances in AI, robotics and so-called 'autonomous' technologies have ushered in a range of increasingly urgent and complex moral questions. Current efforts to find answers to the ethical, societal and legal challenges that they pose and to orient them for the common good represent a patchwork of disparate initiatives.

PUBLICATION DATE: 08-04-2019

AUTHOR: Directorate-General for Research and Innovation (European Commission), European Group on Ethics in Science and New Technologies (European Commission) **ISBN / ISSN:** 978-92-79-80329-1

LINK: CLICK HERE

KEY WORDS: artificial intelligence , automation , cybernetics , ethics , impact of information technology , innovation , new technology , robotics

RESEARCH



ERA PROGRESS REPORT 2018

SUMMARY: The 2018 ERA Progress Report assesses the current state of the European Research Area (ERA) and the progress made on ERA implementation in 2016-2018. **PUBLICATION DATE: 18-02-2019** AUTHOR: Directorate-General for Research and Innovation (European Commission) ISBN / ISSN: 978-92-79-99188-2 / 2315-2141 ^clm LINK:

CLICK HERE KEY WORDS: activity report, EU Member State, EU research policy, innovation, organisation of research, research and development, research policy, research programme

INNOVATION INVESTMENT IN CENTRAL, EASTERN AND SOUTH-EASTERN EUROPE

Innovation investment in Central, Eastern and South-Eastern Europe: uilding future prosperity and setting the gro for sustainable upward converge



SUMMARY: Building on firm-level data from EIBIS, this paper analyses innovation performance and financing in the countries of Central, Eastern and South-Eastern Europe. **PUBLICATION DATE: 25-03-2019**

AUTHOR: European Investment Bank ISBN / ISSN: 978-92-861-3842-3



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KEY WORDS: applied research, business policy, Central and Eastern Europe, digital technology, EU financial instrument, European Investment Bank, financing, innovation, investment, research and development





INTEGRATION OF SOCIAL SCIENCES AND HUMANITIES IN **HORIZON 2020**

SUMMARY: Monitoring the development of SSH as a cross cutting issue is a commitment made under the Horizon 2020 Programme.

PUBLICATION DATE: 14-02-2019

AUTHOR: Directorate-General for Research and Innovation (European Commission) ISBN / ISSN: 978-92-79-98977-3

LINK: CLICK HERE

KEY WORDS: budget , business policy , EU programme , innovation , report , research and development, research policy, social impact, social sciences, technology

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