COST Actions approved by the Committee of Senior Officials on 17 May 2024

Open Call - collection date 25 October 2023 (OC-2023-1)

LIST OF 60 SELECTED PROPOSALS

CA23101
Building Opportunities for Participation and Accessibility through lifelong community Mobility
(OC-2023-1-26268)

SUMMARY
As people live longer, societies must use ageing-in-place strategies enabling healthy ageing. Community mobility is essential to age-in-place, as older adults need to access medical facilities, stores, and other activities in their communities to maintain their health and well-being and to support their social participation. The aim of this Action is to develop an overarching framework to guide European and country-specific processes in the areas of driving, driving retirement, and usable accessible transportation for older adults. This action will co-ordinate a cohesive program of tasks in four interlinked working groups mobilising international and cross-cultural development in the areas of: a) assessing driving fitness and retraining of driving capacities; b) driving retirement and transition planning to maintain community mobility; and c) usability and accessibility of alternative transportation modes, including walking and public transport.

Reviewing available evidence and relevant advancements will enable the Action to undertake cross-country comparative studies and analyses of policies, interventions, and best practices, compile up-to-date resources and toolkits with dissemination via publications, public conferences, workshops, and production of online resources. The Action's outputs will provide guidance for professionals and stakeholders across Europe and internationally on how to implement methods of enabling older adults' community participation through effective and safe use of all available transportation options. A roadmap for knowledge transfer will be developed, including post-graduate research student exchange. The Action will contribute to the development and sustainability of communities of practice that will continue to function after the Action has come to an end.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Health Sciences: Public and environmental health 2. Other social sciences: Qualitative methods for the social sciences 3. Other engineering and technologies: Sustainability for other engineering and technologies 4. Psychology: Social psychology	1. Social participation 2. Community Mobility 3. Transportation usability 4. Driving assessments 5. Walkable neighbourhood

COST Members
Main Proposer: Switzerland
Network of Proposers:
Full Member: Austria, Bulgaria, Croatia, Czech Republic, France, Greece, Ireland, Poland, Portugal, Serbia, Sweden, Switzerland, Türkiye, United Kingdom
Cooperating Member: Israel
Partner Member: South Africa

Main and secondary proposers: 24.4% YRI / 75.6% Women / 53.33% ITC

International Cooperation
International Partner: Australia, Canada, South Korea, United States

CA23102
Linking euroscepticism and populism: causes and consequences
(OC-2023-1-26275)

SUMMARY
Populism and euroscepticism are frequently studied together as the two phenomena often appear inextricably intertwined in contemporary European politics. The main objective of the proposed COST Action entitled Linking Euroscepticism and Populism: Causes and Consequences (EUPopLink) is to increase the scholarly competence by analyzing the linkage between Euroscepticism and populism in a comparative, innovative (conceptually, methodologically, and empirically) and longitudinal perspective. The empirical analysis will be based on the collection of additional fresh data, but also on a comprehensive re- examination of existing data. This will be accomplished through four Working Groups, namely WG1 on Conceptualising populism and Euroscepticism, WG2 on Data collection, WG3 on Studying the linkage between populism and Euroscepticism and finally, WG4 on Outreach and Dissemination. Young scholars will be involved in different deliverables, while a plan for training opportunities, short-term scientific missions, COST Inclusiveness Target Countries conference grants is foreseen. Special attention is given to a mutual collaboration with stakeholders, policy makers and the civil society. The broader aim of EUPopLink is to produce cutting edge research on the interplay between populism and Euroscepticism, to identify its causes and the consequences both for each national political arena of the EU member-states and the supranational one and to provide policy briefs on ways to mitigate their negative impact in times of multiple crises (the Eurozone crisis, the pandemic, the immigration and refugee crises, the war in Ukraine and more recently the Israel-Gaza conflict).

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Political Science: Databases, data mining, data curation, computational modelling 2. Other social sciences: Quantitative methods for the social sciences 3. Political Science: European studies	1. populism 2. eurroscepticism 3. data

COST Members
Main Proposer: Greece
Network of Proposers:
Full Member: Austria, Belgium, Bulgaria, Cyprus, Estonia, Finland, France, Germany, Greece, Hungary, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 27.27% YRI / 43.2% Women /54.55% ITC

Industrial Dimension
SMEs: Belgium, Sweden

CA23103
Life, liberty and health: ensuring universal protection of human rights at sea

(OC-2023-1-26360)

SUMMARY

While the oceans are attracting growing attention, people at sea still receive little consideration by stakeholders, scholars and the public at large. The frequent violations of their most basic human rights, which safeguard their life, liberty and health, often go unseen and unpunished. This happens all over the world, including in European seas.

Thus, death, slavery, unlawful arrest and other human rights violations result in practical negation of the universality of human rights – the idea that all persons are equally entitled to human rights – advocated by the European Union and the United Nations. The Action aims to assess, from a legal perspective, how human rights can be enjoyed also by people at sea and by all people at sea. It will answer two fundamental questions: What is the content and scope of the rights to life, liberty and health when applied at sea and who is responsible for protecting them and how? The Action will create an international, multidisciplinary, cross-sectoral and cross-institutional network, which will engage in depth with the conceptual and practical issues that arise from the need to protect these human rights of people at sea. Using the most appropriate means, including conferences, open and closed workshops, Training Schools and Short-Term Scientific Missions, the Action will bring together scholars and stakeholders working in this area, raising awareness about people at sea and their most basic rights, elaborating the theoretical framework within which to locate legislative efforts, and producing ready-to-use tools for governments, industry and civil society.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Law: International law 2. Law: Criminal law 3. Law: Labour law	1. human rights law 2. law of the sea 3. right to life 4. right to liberty 5. right to health

COST Members

Main Proposer: Switzerland

Network of Proposers:

Full Member: Belgium, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Kingdom

Cooperating Member: Israel

Partner Member: South Africa

Main and secondary proposers: 41% YRI / 50.7% Women / 53.13% ITC

International Cooperation

Near Neighbour Country: Egypt, Morocco

International Partner: Japan, United States

Specific Organisations

EU Institutions, Bodies, Offices and Agencies (EC/EU): European Commission ; European Court of Human Rights

International Organisation: ITLOS; Legal Branch; Food and Agriculture Organization of the United Nations; Directorate General of Shipping (Ministry of Ports, Shipping and Waterways, Government of India

Industrial Dimension

SMEs: France, Italy, United Kingdom

Large companies: Georgia, Italy, Norway

CA23104
Mainstreaming water reuse into the circular economy paradigm
(OC-2023-1-26368)

SUMMARY
Water4Reuse aims to integrate, in an interdisciplinary and intersectorial approach, the entire wastewater treatment chain to improve water management and promote the recycling and reuse of treated wastewater and by-products, under territorial, health, social, economic, and environmental constraints.
By adopting a multi-actor approach, the action aims to develop tools and methods, such as innovative biorefineries to satisfy all potential water uses and finally contribute to the improvement of water reuse within the circular economy paradigm. To this end, it advocates an integrated and multi-disciplinary vision of wastewater reuse, a major lever in the water-energy-food nexus, particularly in urban and peri-urban areas.
Water4reuse mobilises many complementary skills: starting not from a technical and technological inventory but from the needs expressed by the key actors and end-users (farmers, local authorities, industrialists, service providers, etc.). In particular, it mobilises modelling to assess and control the associated risks and to overcome obstacles for mainstreaming water reuse. It will contribute to preserving resources, meeting the challenges of treatment costs, reducing conflicts of uses, and, through the involvement of all stakeholders, improving the lives of citizens by promoting human development, social interaction taking into account all climate change effects. Ultimately, it will contribute to the paradigm shift that accompanies the change in status of wastewater from a waste product treated for discharge into the environment, to « new » resources to be processed following the new “water on demand” concept.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Earth and related Environmental sciences: Hydrology, water resources 2. Environmental biotechnology: Environmental biotechnology, e.g. bioremediation, biodegradation 3. Environmental engineering Sustainable engineering 4. Economics and business: Consumer choice, behavioural economics 5. Economics and business: Sustainability	1. water recycling and reuse 2. water resource management 3. wastewater treatment technology 4. sanitary and environmental risk assessment 5. water stress

COST Members
Main Proposer: France
Network of Proposers:
Full Member: Bosnia and Herzegovina, Bulgaria, Cyprus, Finland, France, Greece, Italy, Malta, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland
Partner Member: South Africa

Main and secondary proposers: 17.24% YRI / 55.2% Women /60% ITC

International Cooperation
Near Neighbour Country: Algeria, Lebanon, Morocco, Tunisia
International Partner: Brazil, Burkina Faso, Chile, Saudi Arabia, Singapore

Specific Organisations
International Organisation: Mediterranean Agronomic Institute of Bari

Industrial Dimension
SMEs: France, Italy, Switzerland
Large companies: Spain

CA23105
Language Plurality in Europe's Changing Media Sphere
(OC-2023-1-26383)

SUMMARY
Protecting Europe's linguistic plurality and increasing multilingualism is a clear aim of the European Union and the Council of Europe, balanced against the concern of increasing dominance of larger languages – most prominently English. The challenge is also present in the media which is facing increased global competition and changing consumption trends, threatening media spheres in official national languages and even more so for regional and minority languages.

PLURIMEDIA intends to advance collaboration and bring coherence to the field of European media from the perspective of language plurality, encouraging involvement of scholars in related disciplines and facilitating knowledge transfer between academics and practitioners. This incorporates the digitalisation shifts affecting consumption and provision of media, providing opportunities and threats to journalists, as well as influencing policymakers, educators and other stakeholders. Academics working on these topics mostly work on singular linguistic spheres and there remains a deficiency of knowledge transfer across the dimensions of academic discipline, career-stage, geography and industry.

Spreading instances of good practice will be of particular relevance to smaller linguistic spheres and lesser-funded media outlets, who may be able to benefit from certain elements of digitalisation. Moreover, involving individual content creators with institutional actors will also bring further plurality to media spheres, aiming to determine the benefits of this convergence of actors on the same platforms and share methods of reaching younger audiences. Through all of this, PLURIMEDIA plans to demonstrate the plurality of a given regional or minority language sphere, empowering use of the language through media.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Media and communications: Media and communications, social aspects of information science and surveillance, socio-cultural communication 2. Languages and literature: Use of language: form, pragmatics, sociolinguistics, discourse analysis, lexicography, terminology 3. Sociology: Identity studies 4. Law: International law	1. Regional and Minority Languages 2. Media 3. Language plurality 4. Social Media 5. Journalism

COST Members
Main Proposer: Germany
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Moldova, North Macedonia, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Türkiye, United Kingdom

Main and secondary proposers: 45.16% YRI / 67.7% Women /72% ITC

Industrial Dimension
SMEs: Romania, Slovakia

CA23106
An Evolutionary View to Understanding Affective States across Species
(OC-2023-1-26392)

SUMMARY
Understanding the affective states (emotions and moods) of non-human animals is crucial to understand their needs, improve their welfare, and assess the effects of treatments for affective disorders in animals, be they preclinical models of human disorders, or patients in their own right. Existing knowledge regarding affective states across species is limited and fragmented. For example, it is unclear: (1) whether and to what extent different affective states occur in different species; (2) if these states are expressed and experienced in similar ways by different species; (3) which physiological mechanisms of affective states are shared across species; and (4) which indicators of affective states are valid across more than one species.

AFFECT-EVO brings together an interdisciplinary network of scholars in philosophy, psychology, humanities, social, computational, and natural sciences, with relevant stakeholders from industry, advocacy organizations, and governments. This network will apply an evolutionary framework to evaluate collaboratively and systematically what we know about affective states in non-human animals. This approach will (1) identify gaps in our knowledge, guiding future research; (2) provide a basis for developing strategies to reliably generalize knowledge about affective states across species; (3) develop better methods to assess affective states to improve animal welfare; and (4) develop better treatments for both animal and human affective disorders. We will also explore how the public and policy makers engage with the concept of affective states in animals and how this interacts with the implementation of new laws and policies that affect animals.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Biological sciences: Zoology, including animal behaviour 2. Basic medicine: Evolution of mind and cognitive functions 3. Basic medicine: Comparative physiology 4. Basic medicine: Cognition (e.g. learning, memory, emotions, speech) 5. Philosophy, Ethics and Religion: Epistemology, logic, philosophy of science and technology	1. Evolution of Affective States 2. Comparative Psychology 3. Affective Science 4. Animal Welfare 5. Affective Disorders

COST Members
Main Proposer: United Kingdom
Network of Proposers:
Full Member: Albania, Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, North Macedonia, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 28.73% YRI / 52.3% Women /54.84% ITC

International Cooperation
International Partner: Hong Kong SAR, United States

Specific Organisations
European RTD Organisation: Stem Cell and Brain Research Institute, U1208; Leibniz- Institut für Agrartechnik und Bioökonomie e.V.

Industrial Dimension
SMEs: France, Germany, Spain

CA23107
Network for Evidence Synthesis in The Agri-Food Sector
(OC-2023-1-26417)

SUMMARY
This COST Action aims to address the need for increased productivity, efficiency, and environmental sustainability in agri-food systems, driven by global population growth. To achieve this, agri-food decision-making has to be informed by the best available evidence.

The proposed action seeks to establish an international, European-based hub and network dedicated to supporting and promoting the use of evidence syntheses (ES) in agri-food systems. ES methods systematically collate and evaluate existing evidence to inform new studies and decision-making, ensuring validity, efficiency, and accessibility. By embracing the ES approach, stakeholders can enhance the quality of decision-making processes -underpinned by robust and unbiased evidence - while saving valuable time in achieving sustainability. ES is increasingly used to support agri-food decision making, but the community is disparate and unconnected, impacting on the efficiency of methods and uptake.

The objectives of NESA are to raise awareness among decision-makers and academia about the value of ES; to enhance the European capacity for delivery of robust evidence syntheses; and to facilitate their use for informed decision-making. This initiative will enable all parties to make informed decisions and contribute to the broader context of the agri-food sector's development. The proposal emphasizes the involvement of various stakeholders in prioritizing and utilising ES to guide the transition towards sustainable development in the agri-food sector.

NESA recognizes the rapid development and significant impact potential of ES in addressing the challenges faced by the agri-food sector. The establishment and activities of NESA action will foster collaboration and knowledge exchange to drive sustainable practices.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Agriculture, Forestry, and Fisheries: Sustainable Agriculture 2. Computer and Information Sciences: Theoretical aspects of data curation, data mining and database handling	1. evidence synthesis 2. systematic review 3. agri-food systems 4. knowledge synthesis 5. decision making

COST Members
Main Proposer: United Kingdom
Network of Proposers:
Full Member: Albania, Bosnia and Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, France, Greece, Italy, Lithuania, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Türkiye, United Kingdom
Partner Member: South Africa

Main and secondary proposers: 19.91% YRI / 56.8% Women /75% ITC

International Cooperation
International Partner: United States

CA23108
Seasonal-to-decadal climate predictability in the Mediterranean: process understanding and services
(OC-2023-1-26434)

SUMMARY
Climate forecasting has enormous potential influence in different socio-economic sectors, such as agriculture, health, water management, and energy. Actionable climate information is particularly relevant at seasonal-to-decadal timescales, where predictability is linked to slow fluctuations of the system such as those in the ocean, sea-ice and land- surface, thus bridging weather/sub-seasonal predictions (mainly relying on atmospheric initial condition) with future projections (mainly based on atmospheric radiative forcing).
Seasonal-to-decadal climate forecasting has progressed considerably in recent years, but prediction skill over the Mediterranean is still limited. Better understanding the drivers of regional climate anomalies as well as exploring untapped sources of predictability constitute a much-needed and timely effort.

Climate variability and change pose significant challenges to society worldwide. As a result, there is a growing demand to develop improved climate information products and outlooks to help decision making and sustainable development. This is particularly critical in the Mediterranean, a region sensible to natural hazards (e.g. droughts, floods) and vulnerable to climate stress (i.e. global warming). Such an improvement can only be achieved by coordinating efforts of research groups with different expertise and trans- disciplinary. In this Action, both the scientific challenge and societal challenge will be addressed by establishing a network of experts on climate variability, predictability, prediction and application. The Action will provide support to increase awareness and capability, and guidance to suitably evolve climate knowledge into services. Specific objectives include cross-cutting training and collaboration, empowering national meteorological agencies, and fostering a continuous communication between climate researchers and stakeholders.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Earth and related Environmental sciences: Climatology and climate change 2. Earth and related Environmental sciences: Meteorology, atmospheric physics and dynamics	1. climate variability 2. climate predictability 3. climate prediction 4. climate services

COST Members
Main Proposer: Spain
Network of Proposers:
Full Member: Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, France, Greece, Italy, Moldova, North Macedonia, Portugal, Romania, Serbia, Spain, Türkiye
Cooperating Member: Israel

Main and secondary proposers: 36% YRI / 50% Women /73.33% ITC

International Cooperation
Near Neighbour Country: Algeria, Egypt, Morocco, Tunisia
International Partner: South Korea, United States

Industrial Dimension
SMEs: Italy
Large companies: Italy, Portugal

CA23109
Fatigue Benchmark Repository
(OC-2023-1-26447)

SUMMARY
Fatigue damage is the key factor in 80-90% of in-service failures of structural components. In any design, it is essential to be able to estimate the potential fatigue damage safely and expertly. Commercial fatigue solvers are program tools dedicated to allowing even a not very expert user to perform a straightforward fatigue life prediction. However, the fatigue damage process is very complex. It involves a large number and a large range of variables. The computation process is based mostly on empirical experience. Currently- used fatigue solvers are based on experimental evidence acquired during first two thirds of the 20th century. Although very many experiments have been conducted in the meantime, the computational basis has remained fixed, and little effort has been dedicated to a redefinition. The lack of interest of academia in the topic, the tendency of fatigue solver developers to implement computational strategies without understanding the problem adequately, the use by inexperienced and inexpert users, and final warranty denial for the results of fatigue solvers have led to a critical mass of problems, which can be marked as a loss of responsibility. Our project focuses on preparing a database of experimental fatigue data, which will be easily accessible for creating benchmark sets. Users from academia and from engineering sectors will be able to adopt the data quickly for testing various prediction hypotheses and various computational tools. An open-source fatigue software will be prepared. Only such joint action can restore a responsible attitude for the computational results presented by fatigue solvers.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Mechanical engineering: Applied mechanics, thermodynamics	1. Fatigue life estimation 2. benchmark 3. loss of responsibility 4. fatigue database

COST Members
Main Proposer: Czech Republic
Network of Proposers:
Full Member: Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Ireland, Italy, Lithuania, Malta, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Switzerland, Türkiye, United Kingdom

Main and secondary proposers: 30.95% YRI /19 % Women /57.14% ITC

International Cooperation
International Partner: India

Industrial Dimension
Large companies: Czech Republic

CA23110
International networking on in vitro colon models simulating gut microbiota mediated interactions
(OC-2023-1-26491)

SUMMARY
Scientific literature is shedding light on the centrality of GI for human health and wellbeing. Indeed, the physiologic effects of nutrients, bioactives and even toxic compounds (including foodborne pathogens) are mediated by their absorption rate in the intestine and by their interaction with gut microbiota and its host ecosystem. Testing food, feed, supplements or drugs in clinical studies gives rise to ethical issues, and the transferability of animal data across species is often problematic because of differences in physiology, metabolism and chemical susceptibilities. According to a recent survey of European Commission (EURL ECVAM, 2021), complex in vitro models (CIVMs) approaches should be adequate not only for regulatory use-contexts, but also for application in the research field provided that standardized CIVMs are developed, enabling a consensus on their use. A new COST Action would fill the knowledge gap on in vitro colon models providing consensus protocols and robust data sets to improve our knowledge of the events taking place in the intestinal milieu, including the complex interactions between the microbiota and the host. Moreover, innovative educational tools will be suggested to increase knowledge on gut models in young researchers and widen to society to avoid any unhealthy consumer choices coming from misleading messages. Bringing together different experts in Gastroenterology, Microbiology, Physiology, Nutrition, Food Science, Biochemistry, Bioinformatics, Biotechnology etc., the new COST Action could represent an effective strategy for the development of healthy food and for the counteraction of diseases.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Health Sciences: Nutrition and dietetics 2. Clinical medicine: Gastroenterology and hepatology 3. Biological sciences: Biological systems analysis, modelling and simulation 4. Clinical medicine: Bacteriology 5. Biological sciences: Metabolomics	1. in vitro gut microbiota colon models 2. 3R principles 3. personalised medicine 4. omics 5. bioinformatic tools

COST Members
Main Proposer: Italy
Network of Proposers:
Full Member: Albania, Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Türkiye, United Kingdom

Main and secondary proposers: 25.33% YRI / 46.7% Women /54.17% ITC

International Cooperation
International Partner: Canada

Industrial Dimension
SMEs: France, Italy
Large companies: France, Italy

CA23111
Searching for Nanostructured or pOre fOrming Peptides for therapY
(OC-2023-1-26499)

SUMMARY
The COST Action SNOOPY will bring together a network of experts and young innovators from diverse disciplines (chemistry, biology, biochemistry, materials science, nanotechnology, medicine, physics) to overcome existing barriers to predict and implement bioactive peptides' ability to self-assemble into functional nanostructures, including those at the interface with membranes, potentially forming pores and channels. This is a fast-growing field with enormous potential for therapy (including targeted cancer therapy, drug delivery, amyloidosis inhibition, regenerative medicine, membrane channels, and antimicrobials), and for the development of nanotechnological tools that could include potential use in diagnostics, optics, catalysis, and bioelectronics. Theoreticians and experimentalists of the SNOOPY Action will synergize to enable in silico predictions of self- assembly behavior, as well as to develop new advanced characterization methods, and to produce them and test them too. The expertise gathered by the Action will be applied to train and build the career of younger members. The geopolitical balance of the Action is strategically set to level the gap between COST Members, and to make of its diversity a tactical asset to boost creativity and foster new ideas. The Action will have socioeconomical impact through the search for new diagnostic and therapeutic solutions to address some of the most formidable challenges of our society (e.g., advance our understanding of amyloidoses and antimicrobial resistance), to assist scientists and industry in the development of new technologies (e.g., peptide nanostructures as vaccine adjuvants) and to develop more sustainable processes (e.g., greener peptide synthesis, or using peptides as biodegradable substitutes to polluting alternatives).

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Chemical sciences: Supramolecular chemistry 2. Nano-technology: Nano-technology for pharmaceutical applications 3. Biological sciences: Biophysics	1. peptides 2. nanostructures 3. antimicrobial 4. amyloids 5. self-assembly

COST Members
Main Proposer: Croatia
Network of Proposers:
Full Member: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, Germany, Greece, Italy, Latvia, North Macedonia, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Ukraine
Cooperating Member: Israel
Partner Member: South Africa

Main and secondary proposers: 52,22% YRI / 53,1% Women /66,67% ITC

Specific Organisations
European RTD Organisation: Instituto de Parasitología y Biomedicina López Neyra

Industrial Dimension
SMEs: Germany, Italy, Latvia, Slovenia, Spain
Large companies: Belgium

CA23112
Critical perspectives on career and career guidance
(OC-2023-1-26513)

SUMMARY
Critical perspectives on career and career guidance (CPCCG) will gather scholars across Europe and beyond to explore how careers are changing in the contemporary world and consider what response is required from public policy and practice. It will explore the following research questions. (1) How can the challenges and changes that are happening to careers in the contemporary world be understood? (2) How can policymakers respond to contemporary challenges to individual's careers? (3) How can career guidance practice adopt a more critical stance to address the changing world more effectively?

CPCCG will foster debate around these questions by stimulating publication projects, brokering relationships between researchers and developing new research and funding bids addressed to the three research questions and other key issues. It will also support the public communication of research insights, findings and projects to policymakers and practitioners.

Capacity building is at the heart of the aims of CPCCG. It will support the career development of early career researchers within the field by providing the opportunity to build international networks, co-publish with more experienced researchers, and participate in funding bids and research projects, and by participating in a wide variety of capacity-building activities. It will also support collaboration between the COST Member Countries, Near Neighbour Countries (NNC) and International Partner Countries (IPC), particularly engaging and supporting researchers from smaller states. Finally, it will support practitioners and policymakers engagement with research and theory in the area and the mutual exchange and expansion of knowledge and expertise.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Educational sciences: Education: training, pedagogy, didactics 2. Sociology: Social structure, inequalities, social mobility, social exclusion, income distribution, poverty 3. Psychology: Social psychology	1. career 2. career guidance 3. social justice 4. education 5. Labour market

COST Members
Main Proposer: Norway
Network of Proposers:
Full Member: Albania, Bulgaria, Croatia, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Malta, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Kingdom

Main and secondary proposers: 38.58% YRI / 66.9% Women /55.17% ITC

International Cooperation
Near Neighbour Country: Kosovo*, Morocco
International Partner: Australia, Canada, United States

Specific Organisations
European RTD Organisation: European Molecular Biology Laboratory
EU Institutions, Bodies, Offices and Agencies (EC/EU): European Molecular Biology Laboratory

Industrial Dimension
SMEs: United Kingdom

CA23113
Climate change impacts on mental health in Europe
(OC-2023-1-26531)

SUMMARY
Mental health problems are a major issue in Europe and climate change is a force majeure that poses a tangible risk with unforeseeable consequences. Yet, **the link between climate change and mental health remains largely unexplored**, especially with respect to impact assessment at individual and societal level, and treatment possibilities. CliMent aims: **a)** to better understand how climate change affects mental health in Europe; **b)** to explore the coping strategies and further develop them; **c)** to implement short-term behavioural interventions to instigate societal action; and **d)** to implement long-term ways to promote sustainability. This will be achieved through **four working groups (WGs)** working in coordination to conduct systematic and scoping reviews, produce surveys and reports, and organise knowledge dissemination activities. WG1 will assess **mental health impacts of climate change**; WG2 will identify **adaptive strategies and treatment possibilities**; WG3 will map out **short-term behavioural interventions to instigate societal actions**; while WG4 will assess **long-term strategies to enable sustainability**. CliMent will harness the potential of the European network and will bridge multiple disciplines to tackle climate change-related mental health challenges. The expected outcomes are manifold and multifaceted including (but not limited to): accumulation and consolidation of scientific evidence; career support for mental health scientists and care providers; empowerment of citizens, educators, and policymakers via Communities of Practice specialised in dealing with the effects of climate change on mental health. As such, **CliMent will help Europe maintain its individual and societal well-being** amidst the challenges posed by climate change.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Health Sciences: Public and environmental health 2. Psychology: Social psychology 3. Earth and related Environmental sciences: Climatology and climate change 4. Clinical medicine: Psychiatry	1. Climate Change 2. Mental Health 3. Public Health 4. Europe

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain,
Sweden, Switzerland, Türkiye, Ukraine, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 36.04% YRI / 64% Women /53.57% ITC

International Cooperation
Near Neighbour Country: Kosovo*
International Partner: Argentina, Australia

Specific Organisations
International Organisation: United Nations University (CRIS)

Industrial Dimension
SMEs: Italy, Portugal

CA23114
Regaining linkage? Digital technologies improving civic engagement, political organisations and democracy
(OC-2023-1-26556)

SUMMARY
The RELINK2 Action will intensify existing networking efforts of scholars from different disciplinary backgrounds from different European regions, addressing two problems:

(1) How can democracies regain legitimacy and rebuild the link between representative institutions and citizens using benefits of digital technologies?

(2) How can political organisations connect with digitally marginalised but politically active groups (the elderly) and with digitally active but politically marginalised ones (young citizens).

In this regard, RELINK2 aims to find answers to three research gaps: a) the main organisational consequences of the digital transformation and their impact on re-linkage strategies, b) effectiveness of digital transformations in re-connecting intermediary structures with society, c) implementation of political organisations' re-linking strategies to marginalised groups based on responsible use of digital tools. This requires an interdisciplinary and coordinated analytical framework.

The network will tackle challenges through research coordination objectives. Four Working Groups will be formed to bring in expertise on: theoretical and methodological challenges, empirical analysis, engagement, and dissemination.

RELINK2 will provide new opportunities to strengthen the career development of specific target groups and disseminate knowledge to countries and political organisations with less capacity in the field of the Action.

The practical implication of the Action is to create impact beyond the network. RELINK2 will develop a strong cooperation with stakeholders to integrate a non-academic point of view, identify good practices, and prepare recommendations. The Action aims to meet its objectives through a knowledge production and exchange with relevant stakeholders.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Political Science: Democratization, social movements 2. Political Science: Political systems and institutions, governance	1. political organisations 2. digitalisation 3. democracy 4. civic engagement

COST Members
Main Proposer: Poland
Network of Proposers:
Full Member: Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, France, Germany, Hungary, Italy, Latvia, Poland, Portugal, Romania, Serbia, Slovenia, Spain, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 36.66% YRI / 53.3% Women /55.56% ITC

CA23115
Relativistic Quantum Information
(OC-2023-1-26559)

SUMMARY
The Relativistic Quantum Information (RQI) Action seeks to understand the relationship between Quantum Information Science (QIS) and the other major major paradigm of modern physics, namely, the theory of relativity. The latter describes physical processes as taking place in a spacetime that is subject to fundamental symmetries, and it also accounts for the description of gravitational phenomena. RQI will apply quantum information concepts to fundamental problems of relativistic physics, as they appear in diverse research fields, but it also aims to incorporate the fundamental principles of relativistic theories into the foundations of QIS, in order to create novel opportunities for theory and technological applications. The domain of the Action cuts across different research fields of the physical sciences, including quantum information science and technology, high-energy physics, quantum foundations, quantum gravity, mathematical physics, quantum optics, and space science. RQI create a strong network that will bring together researchers from different disciplines, both theorists and experimentalists, to share their perspectives, in order to advance both fundamental physics and quantum technologies. The Action will develop a common conceptual framework that overcomes the limitations of existing specializations, it will promote visionary experiments to settle foundational issues in physics, it will work together with the industry and space agencies, and it will construct a roadmap for the longer-term development of the research field.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Physical Sciences: Quantum physics 2. Physical Sciences: Relativity 3. Physical Sciences: Fundamental interactions and fields (theory) 4. Physical Sciences: Metrology and measurement (theory) 5. Computer and Information Sciences: Quantum information processing	1. Quantum Information 2. Relativity 3. Entanglement 4. Gravitational quantum physics 5. Quantum Field Theory

COST Members
Main Proposer: Greece
Network of Proposers:
Full Member: Armenia, Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

Main and secondary proposers: 41.53% YRI / 29.2% Women / 51.72% ITC

CA23116
Open Palaeoecological Data - analysing the past building foresight
(OC-2023-1-26573)

SUMMARY
Restoring and managing nature during times of rapid environmental change requires knowledge of ecosystem response to climate and land use change on timescales of decades to millennia. Different palaeoecological disciplines have collected relevant, site- specific data during the last decades. Much of the palaeoecological data are currently dispersed across different repositories, databases and largely not publicly available. This Action aims to meet the challenge of bringing much of these data into the public domain, harmonise their taxonomy and metadata, and make them relevant to nature conservation. By combining domain specific repositories and databases, the Action will unlock these data collections and make them available for palaeoecological meta-analysis of ecosystem interactions on a continental scale. This will permit integrated analysis of terrestrial and aquatic ecosystem responses to natural and anthropogenic environmental change for the first time. The Action will overcome the barriers between palaeoecologist, macroecologists and nature conservation practitioners by developing and engaging with a new research agenda. Scientific workshops in different parts of Europe will provide formats to interact with local nature conservation practitioners. The research agenda will address the knowledge gaps in nature conservation as well as the need to understand continental scale interactions of ecosystem components, including lagged or threshold responses. A dedicated outreach working group will ensure that the new knowledge is also accessible to the public. Moreover, the group will develop educational material for schools and universities based on the collected data.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Earth and related Environmental sciences: Paleoclimatology, paleoecology	1. Quaternary 2. Ecosystem analysis 3. Global change 4. Open Data

COST Members
Main Proposer: Netherlands
Network of Proposers:
Full Member: Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom

Main and secondary proposers: 25.75% YRI / 53% Women / 52.17% ITC

International Cooperation
International Partner: United States

CA23117
Connecting Critical Pedagogies, Inclusive Art Forms and Alternative Barometers for Urban Sustainability
(OC-2023-1-26578)

SUMMARY
CIRCUL'ARTs develops an innovative methodology to stimulate the emergence of solutions towards more circular and sustainable cities, based on a 'dynamic ecology of knowledge'. This implies new ways of co-creating knowledge, sharing it and transforming it into action, orientating our learning towards more practical action. Most of all, this new methodology consists in stepping out of a Euro-centric perspective and taking into consideration plural voices and needs, ancestral and indigenous knowledge, creative micro-strategies developed at a local level - a body of information that has remained hitherto unconsidered.
We envision bringing this knowledge into a global circulation, appealing to artistic practice - as a form of creating information exchange in a participative and creative way and of producing topic solutions. Art, and the de-colonisation of thought and knowledge will allow us to develop a methodology that is in itself sustainable and circular.
This innovative methodology will be applied to 3 working areas in urban circular economies, according to the analysis of particular case-studies (in the locations of our members and partners) . Our project is therefore organised around 6 thematic working groups (corresponding to our three working areas plus 3 creative methodologies), and a 7th one that brings together recommendations for the development of innovative creative methodologies in the field of circular economies and disseminates them:
1. Food systems
2. Construction process/housing
3. Public spaces
4. Visual arts - creative methodlogies in Circular Food/Habitat/Public Space
5. Performative Arts - creative methodlogies in in Circular Food/Habitat/Public Space
6. Urban Design - creative methodlogies in in Circular Food/Habitat/Public Space
7. Recommendations and Dissemination through critical pedagogies.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Arts: Preservation of cultural heritage 2. Social and economic geography: Socio-economic aspects of environmental sciences 3. Educational sciences: Education: training, pedagogy, didactics 4. Social and economic geography: Socio-economic aspects of agriculture, agriculture and environment, urban agriculture, gardens, agricultural economy 5. Arts: Visual arts	1. Circular cities 2. Sustainability 3. Art forms 4. Critical Pedagogies

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Albania, Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Germany, Greece, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Spain

Main and secondary proposers: 15% YRI / 57,5% Women /68,75% ITC

International Cooperation
International Partner: Chile, Colombia, Peru

Industrial Dimension
SMEs: Germany

CA23118
Futures-oriented Governance of Outer Space: Towards Peace, Equity, and Environmental Integrity
(OC-2023-1-26591)

SUMMARY
Europe faces rapidly rising geopolitical, socio-economic, and environmental stakes in outer space. The European space industry is crucial for economic growth and innovation.
European scientific organizations are at the forefront of the global space sciences. Orbital satellite infrastructures play diverse and essential roles for European telecommunications and navigation.
In the future, further exploration of the solar system holds vast potential for scientific discoveries and socio-economic development, possibly including by tapping various types of space resources.
The COST Action “Futures-Oriented Governance of Outer Space: Towards Peace, Equity, and Environmental Integrity” (FOGOS) brings together researchers from Europe and beyond that work on diverse aspects of space governance and space futures across scientific disciplines. Starting from a comprehensive concept of sustainability that encompasses peace, equity, and environmental integrity as its core components, the aim of FOGOS is to improve the understanding of governance mechanisms and processes that can facilitate the attainment of sustainable space futures towards the middle of the 21st century for Europe. FOGOS will engage in a stocktake of existing governance mechanisms and processes; evaluate their potential deficits, gaps, and inconsistencies; and propose policy recommendations towards a grand political bargain aligned with the achievement of sustainable space futures over approximately the next three decades. The Action will do so by engaging policymakers and stakeholders from industry, science, and civil society. Through its networking and capacity-building activities, FOGOS will put Europe center stage in the contemporary global debate on outer space and its futures.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Political Science: Political systems and institutions, governance 2. Economics and business: Sustainability 3. Political Science: International studies, strategic studies, human rights, global and transnational governance 4. Social and economic geography: Socio-economic aspects of environmental sciences	1. outer space 2. governance 3. futures

COST Members
Main Proposer: Lithuania
Network of Proposers:
Full Member: Austria, Czech Republic, France, Germany, Greece, Lithuania, Netherlands, Poland, Portugal, Romania, Switzerland, Ukraine, United Kingdom

Main and secondary proposers: 56.52% YRI / 52.2% Women /53.85% ITC

International Cooperation
International Partner: Canada

CA23119
SENESCENCE2030: Targeting Cell Senescence to Prevent Age-Related Diseases
(OC-2023-1-26592)

SUMMARY
Preventing or alleviating aging associated diseases, collectively rather than individually, is the challenge to extend the human healthspan. The knowledge on cellular and molecular mechanisms identified so far as "hallmarks of aging" allow experimental strategies to prevent aging anticipation and extend the healthspan. A body of evidence indicate that cell senescence is a targetable hallmark of aging, typically associated with metabolic disorders, cardiovascular diseases, neurodegeneration and cancer. The Action SENESCENCE2030 aims at rooting in Europe the vision of cells senescence and its targeting at center for the prevention of aging related disorders.
Through the engagement with international partners, SENESCENCE2030 generates an interdisciplinary and intersectoral network of experts in geroscience and senescence, facilitating the acquisition of new skills and knowledge among young researchers, medical personnel and innovators from Inclusiveness Target Countries.

SENESCENCE2030 goes beyond the state-of-the-art by opening vibrant knowledge exchange on senescence and senotherapy, trying to overcome the difficulties that prevent in Europe the clinical application of these knowledge for the identification of feasible diagnostics paths, more efficient clinical trials, and effective interventions on lifestyle and nutrition.
SENESCENCE2030 will highlight the socio-economic impact of therapeutic approaches and cost-effectiveness of timing interventions to define innovative processes, measures and products of impact on industries, funders and policy makers interested in addressing healthcare and socioeconomic challenges related to the aging.

Overall, SENESCENCE2030 will empower the transition from a disease-centered therapeutic approach to a balanced preventive and personalized treatment to avoid aging anticipation and promote individuals healthspan extension for the next decade.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Biological sciences: Cell signalling and cellular interactions 2. Basic medicine: Metabolism, biological basis of metabolism related disorders 3. Clinical medicine: Non-communicable diseases 4. Economics and business: Public economics, political economics diseases	1. ageing 2. healthspan 3. gero-diagnostic 4. senotherapies 5. cell senescence

COST Members
Main Proposer: Italy
Network of Proposers:
Full Member: Armenia, Austria, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Malta, Netherlands, Poland, Portugal, Romania, Spain, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 13.43% YRI / 44.8% Women / 52.38% ITC

International Cooperation
International Partner: Australia, Canada, United States

Specific Organisations
EU Institutions, Bodies, Offices and Agencies (EC/EU): Centre de Recherche des Cordeliers - UMRS1138

Industrial Dimension
SMEs: Canada, Italy, Netherlands

CA23120
Religious Identity, Bullying and Wellbeing at School: A Transnational Collaboration
(OC-2023-1-26614)

SUMMARY
The search for wellbeing has been expressed in different ways over time. In recent years wellbeing both as concept and lived reality has gained increasing prominence in international education literature.
Although frequently neglected in wellbeing research, there is an emerging body of research that connects human wellbeing and religion. Overall, this research shows that religion is good for wellbeing, with certain aspects of religion better correlated with certain aspects of wellbeing. However, religious identity can be stigmatised at school and at work, and this is often supported by narratives in mainstream media that represent those of a religious identity as naïve, uncaring, and/or fanatical. Further, the experiences of those from a traditionally majority religious position which goes into rapid decline are a subject of some concern internationally.
When students feel forced to conceal or deny their religious identity, both personal and communal (school community) wellbeing are compromised. Moreover, societies with declining levels of religious engagement could be at risk of declines in personal and societal wellbeing. This COST Action delves into the correlation between religious identity, bullying, and wellbeing, and the implications for students, school communities, and European societies. It provides a conduit for researchers, policy makers, and educators to consider the relationship between religious identity, wellbeing and inclusion. Through the objectives of each Working Group, the members of the Action can examine how religious identity contributes to the wellbeing of individuals, family, communities, and societies.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Philosophy, Ethics and Religion: Theology and religious studies 2. Psychology: Social psychology 3. Sociology: Identity studies 4. Educational sciences: Education: training, pedagogy, didactics	1. education 2. religion 3. bullying 4. wellbeing 5. identity

COST Members
Main Proposer: Ireland
Network of Proposers:
Full Member: Ireland, Lithuania, Malta, Netherlands, Norway, Poland, Serbia, Slovenia, Switzerland, United Kingdom

Main and secondary proposers: 16.66% YRI / 58.3% Women /50% ITC

CA23121
Genetic Nature Observation and Action
(OC-2023-1-26617)

SUMMARY
Genetic diversity is fundamental for adaptation and essential to species survival, hence for nature's contributions to people. Furthermore, genetic knowledge supports the effective use of resources to ensure the holistic protection of biodiversity. While genetic diversity data and indicators are available, they are often not integrated into species management and monitoring schemes in Europe due to a lack of capacity. Furthermore, current national policies and practices have not yet 'adapted' to the new Global Biodiversity Framework. In order to better understand genetic diversity in species and their populations and actively use it to monitor and safeguard biodiversity, there is an urgent need to refine, assess, inform and facilitate the implementation of genetic diversity data and indicators across European countries. This implementation of genetic diversity data should be achieved by including practitioners, companies, policymakers and the wider public. The needs of all these stakeholders should be investigated and taken into account in order for collaborations to be inclusive and effective, as such, building knowledge, capacity and trust among partners. Hence, GENOA will co-create and improve the procedures, methods and data on genetic diversity (indicators) and co-develop tailored dissemination packages to reach out to and exchange with targeted stakeholders to enable a better understanding of genetic diversity information. In addition, the monitoring, reporting and application of genetic data will improve, which will contribute to the conservation of biodiversity at all levels.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Biological sciences: Conservation biology, ecology, genetics 2. Biological sciences: Population biology, population dynamics, population genetics, plant-animal interactions 3. Biological sciences: Biodiversity, comparative biology 4. Biological sciences: Environmental and marine biology	1. Genetic Diversity 2. Biodiversity Monitoring 3. Ecosystem Resilience 4. Capacity Building 5. Co-creation

COST Members
Main Proposer: Romania
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Italy, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 12.5% YRI / 62.5% Women /55% ITC

CA23122
Utilizing 10,000 genomes of European Lepdioptera
(OC-2023-1-26618)

SUMMARY
The **10kLepGenomes COST Action** aims to take advantage of the massive amount of data being produced by genome initiatives, in order to understand pressing issues of biodiversity loss, pest control, and effects of climate change on local populations of organisms. With genomes available soon for close to 1000 species, and intiatives underway to provide genomes for a further 9000 species in Europe, Lepidoptera (butterflies and moths) are poised to be a model group for how we can manage and utilise large amounts of data. Lepidoptera play an important role as pollinators, herbivores, and prey for a range of predators. Their genomes are conserved, small, and easy to sequence and assemble to chromosome level, thus making them a target for several large genome sequencing initiatives. Lepidoptera are also model groups for evolutionary, ecological, and developmental biological studies.

The **10kLepGenomes COST Action** will organise workshops and training courses for Early Career Researchers, short term scientific missions, conferences, and more through five Working Groups. These groups will survey the societal needs for genomic information, identify stakeholders in the public and private domains, bring together species experts and genomics experts in field workshops. Working Groups will come up with best practices for genome assembly and study, at the reference genome level, and at the population genomic level, identify applications of genomic information relevant to society, and draw up recommendations for best practices. The 10kLepGenomes COST Action will set a precedent for collaborative efforts between citizen scientists, expert societies and genomics leaders.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Biological sciences: Genomics, comparative genomics, functional genomics 2. Biological sciences: Biodiversity, comparative biology 3. Biological sciences: Systems evolution, biological adaptation, phylogenetics, systematics	1. Lepidoptera 2. evolutionary genomics 3. population genomics 4. conservation genomics

COST Members
Main Proposer: Sweden
Network of Proposers:
Full Member: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, France, Georgia, Germany, Italy, Poland, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom

Main and secondary proposers: 28.94% YRI / 31.6% Women /52.94% ITC

CA23123
Non-chemical weed management in medicinal and aromatic plants (MAPs)
(OC-2023-1-26623)

SUMMARY
Weed management is generally one of the most challenging aspects of crop production. If not optimally managed, weeds pose a serious competition for nutrients, water or light and therefore often lead to lower yields and higher levels of pests and diseases. The sector of medicinal and aromatic plants (MAPs) is particularly affected by weeds, as herbal raw materials are strictly standardised according to pharmacopeia requirements, for example with regards to the content of organic contamination, as well as pesticides or other toxic residues. This creates numerous challenges for cultivation, but also further down the value chain. There is a strong need to establish a proper strategy for sustainable weed management for these groups of plants; especially with regards to the EU Green Deal, which aims to reduce chemical pesticides by 50% by 2030. Farmers involved or interested in the cultivation of MAPs need clear support and easy access to training, information and exchange of experiences with regards to new technologies and the application of non- chemical tools and methodologies. Intensifying collaboration, sharing knowledge and research outcomes more widely and more efficiently along the entire value chain, while at the same time creating an environment for innovation (not exclusively in technological terms) is one of the main goals of this COST Action. The clear value of this network is its strongly emphasised interdisciplinary and multi-actor approach, which comes to fruition by considering not only the strictly agricultural and technological aspects, but also the socio- economic scientific factors.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Agriculture, Forestry, and Fisheries: Sustainable Agriculture 2. Agriculture, Forestry, and Fisheries: Agriculture related to crop production, soil biology and cultivation, applied plant biology, crop protection 3. Mechanical engineering: Product design, ergonomics, mechanical engineering aspects of man-machine interfaces	1. mechanical weeding 2. innovative weeding technologies 3. organic herb production

COST Members
Main Proposer: Switzerland
Network of Proposers:
Full Member: Albania, Austria, Bulgaria, France, Germany, Greece, Ireland, Italy, Latvia, Poland, Serbia, Slovakia, Spain, Switzerland, Türkiye

Main and secondary proposers: 36.11% YRI / 58.3% Women /53.33% ITC

Industrial Dimension
SMEs: Albania
Large companies: Austria

CA23124
Social, biological and climatic impacts of salt ages
(OC-2023-1-26632)

SUMMARY
Salt and its deposits are valuable for Human Society and play a role in modifying the Earth System. Giant salt deposits have accumulated repeatedly throughout Earth's history in restricted evaporitic basins formed by the opening or closure of ocean basins. The precipitation and weathering of these massive evaporites alter the physical and chemical properties of the ocean, driving regional and global climate change, and the distribution and evolution of biota. The exploitation of these huge salt deposits has also played an important role in the development of human civilization as these minerals are essential for life. They remain critical for the planet's sustainable future as storage places for hydrogen, carbon dioxide and nuclear waste. Despite this, salt-related geohazards, such as sinkholes and landslides, are poorly understood, particularly offshore. The purpose of SaltAges is to connect geoscientists, biologists, archaeologists, sociologists, historians, economists, engineers and artists to: 1) investigate the causes of salt giant formation and its role in local, regional and global climatic and biological events; 2) explore the role of salt deposits in the evolution of human society and culture in the past, present and future; and 3) develop a network of young researchers and innovators with appropriate skills and experience to lead the future scientific, industrial and societal development in this and other challenging topics.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Earth and related Environmental sciences: Sedimentology, soil science, palaeontology, earth evolution 2. Environmental engineering: Mining and mineral processing 3. History and Archeology: Preservation of cultural heritage 4. Earth and related Environmental sciences: Biogeochemistry, biogeochemical cycles 5. Earth and related Environmental sciences: Paleoclimatology, paleoecology	1. salt giants 2. salt exploitation 3. evaporites

COST Members
Main Proposer: Austria
Network of Proposers:
Full Member: Albania, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Greece, Italy, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Türkiye, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 44.66% YRI / 46.6% Women / 64% ITC

International Cooperation
Near Neighbour Country: Morocco
International Partner: Brazil, United States

Specific Organisations Industrial Dimension
SMEs: Norway, Portugal, United States
Large companies: Austria, United Kingdom

CA23125
The mETamaterial foRmalism approach to recognize cAncer
(OC-2023-1-26638)

SUMMARY
Early detection and effective treatment of cancer is of critical importance for increasing the chances of patient survival. The rapid development of machine learning (ML) and particularly deep learning has made significant improvements in the accuracy of cancer screening, detection, and monitoring a possibility. However, despite the advantages offered by ML, it has one significant disadvantage, that is the tremendous amount of computing resource required for analysis and interpretation of images. The TETRA Action brings together experts in biophotonics, computer science, imaging instrumentation, cell biology and pathology to explore the application of an alternative approach to automated cancer detection, based on the metamaterial formalism approach. This approach uses constructed artificial tissue-like metamaterials for phantom creation and requires much less computing resource. Members of the TETRA network will work together to optimise methodologies for experimental visualisation of biomedical tissues, develop new theories enabling digitisation and interpretation of biological tissues, and develop and test classification algorithms for automatic detection of cancerous zones. With the ultimate goal of the Action being the creation of the knowledge base needed for the future development of breakthrough technologies that exploit the metamaterial formalism approach for the fast and cost-effective detection of cancer, and the emergence of the novel field of material medicine.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Computer and Information Sciences: Computing on unconventional substrates, e.g. DNA and molecular computation 2. Computer and Information Sciences: Machine learning algorithms 3. Clinical medicine: Oncology 4. Physical Sciences: Nanophysics: nanoelectronics, nanophotonics, nanomagnetism or classify	1. Metamaterial 2. Disorder 3. Artificial Intelligence 4. Machine Learning 5. Permittivity

COST Members
Main Proposer: Lithuania
Network of Proposers:
Full Member: Belgium, Czech Republic, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Spain, Türkiye, Ukraine, United Kingdom

Main and secondary proposers: 16% YRI / 33.3% Women /52.94% ITC

Industrial Dimension
SMEs: Belgium, Finland
Large companies: Latvia

CA23126
AlertHub: Warning Communication Knowledge Network
(OC-2023-1-26653)

SUMMARY
Societies worldwide are faced with extreme weather events at an increasing scale, with climate change as a key driver of this development. Against this backdrop, the COST Action aims to establish a European interdisciplinary network to facilitate international collaboration and knowledge transfer among scholars and practitioners whose work involves warning communication and disaster management. The Action uses a risk and crisis communication lense to advance knowledge, promote cooperation, and contribute to reducing risks and harm posed to the public by climate change-related disasters. The Action seeks to enhance the overall effectiveness of disaster response efforts and promote cross-border cooperation among scholars and practitioners in this key field.

To achieve this, the COST Action will (1) develop an open-access knowledge platform focused on warning systems, relevant legal and political frameworks, challenges in effective warning communication, (2) identify best practices and governance recommendations for effective warning communication, and (3) create new formats for knowledge exchange and networking between key stakeholders in Europe.

The interdisciplinary approach and the focus on warning communication is what sets the Action apart from previous initiatives, knowledge resources and research projects. At the same time, as climate change-related disasters are typically cross-border phenomena, it is crucial to exchange expertise and best practices internationally. This way, the Action seeks to create lasting impact in research and practice and to contribute to reducing harm caused by increasingly challenging environmental conditions.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Media and communications: Media and communications, social aspects of information science and surveillance, socio-cultural communication	1. warning communication 2. disaster communication 3. disaster management 4. crisis communication in Europe 5. risk and crisis communication

COST Members
Main Proposer: Romania
Network of Proposers:
Full Member: Denmark, Estonia, Finland, Germany, Greece, Lithuania, Netherlands, North Macedonia, Norway, Portugal, Romania, Serbia, Sweden, Switzerland, Türkiye

Main and secondary proposers: 46.15% YRI / 50% Women /53.33% ITC

CA23127
Group on Insect Nutrition: To Open Nutritional Innovative Challenges
(OC-2023-1-26666)

SUMMARY
The current global food system faces several challenges. These include producing sufficient high quality protein, decreasing environmental impact, and managing waste and by-products. Certain insect species are able to upcycle waste streams and valorize underutilized industrial by-products. As approximately 70% of production costs, and about 50% of the environmental costs are associated with feed production optimizing this element is an essential step in maturing the insect industry.

If nutritional and dietary requirements of insects are understood, this decreases financial and environmental costs, and increases yields. In this way, high quality protein is produced, associated environmental impact decreases and waste cannot only
be managed, it can be valorized. Hence, a thorough understanding of insect nutritional physiology is needed to further develop insect production systems. In the last 15 years the number of studies on insect nutrition has grown exponentially. To a large extent these studies tested a small set of ingredients to determine optimal inclusion percentages.
Although this has furthered our understanding, the required fundamental knowledge on nutritional requirements is largely lacking, and more importantly, it is fragmented.

This project creates a platform on which this fragmented knowledge is gathered from academic and industrial partners, synthesized and made publicly available. Besides creating an overview of the state of the art, it identifies gaps in knowledge fueling the creation of new projects to fill these gaps by partners within this open network. It functions as a linking pin between applied and fundamental research, furthering our collective knowledge and fostering business opportunities.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Animal and dairy science: Agriculture related to animal husbandry, dairying, livestock raising, animal welfare 2. Other agricultural sciences: Sustainable production 3. Biological sciences: Zoology, including animal behaviour 4. Agricultural biotechnology: Other bioproducts (products manufactured using biological material as feedstock)	1. Circular economy 2. Animal nutrition 3. Nutritional requirements 4. Entomology

COST Members
Main Proposer: Netherlands
Network of Proposers:
Full Member: Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Serbia, Spain, Switzerland, Türkiye
Cooperating Member: Israel

Main and secondary proposers: 55.10% YRI / 51% Women /50% ITC

International Cooperation
International Partner: Colombia

Industrial Dimension
SMEs: Bulgaria, France, Lithuania, Netherlands
Large companies: France

CA23128
Connecting Landscape Architecture Archives to enhance European landscape practice, research and education
(OC-2023-1-26685)

SUMMARY
Landscape Architecture (LA) has been linked together by numerous historical and contemporary connections and interdependencies across Europe and beyond. Its archives will now be used as a resource to create a comprehensive pan-European narrative of landscape history. The COST Action 'Connecting Landscape Architecture Archives to enhance European landscape practice, research and education (ConnectLAA)' will, for the first time, bring together information on the content of European LA archives and make it available worldwide on a digital platform. The involvement of different disciplines such as landscape architecture, cultural studies, art history, archival science, and IT will ensure that the highest scientific and technical standards are achieved in archival management, access, and cultural heritage preservation, and that the archives can be used as knowledge sources for innovative research and education. The focus will be on using advanced technologies to improve the quality, sustainability, use, and reuse of data. The mix of Proposers from different institutions and NGOs, the involvement of practitioners, and the development of innovative learning materials and a common thesaurus will ensure the promotion of promising careers and the development of groundbreaking international research projects that will support heritage agency and reveal previously undiscovered histories concerning places beyond Europe, addressing issues related to the migration and decolonization of collections. It is the basis for building a community of practice to continue to promote international access to data and support the creation of new archives and collections, particularly in ITCs, where the majority of the team are based.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Other humanities: Cultural heritage, cultural memory 2. Arts: History of art and history of architecture	1. landscape architecture 2. archives 3. cultural heritage 4. community of practice 5. landscape design

COST Members
Main Proposer: Austria
Network of Proposers:
Full Member: Albania, Austria, Belgium, Czech Republic, France, Hungary, Latvia, Lithuania, Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 25% YRI / 75% Women / 56.25% ITC

International Cooperation
International Partner: China, United States

CA23129
Peace Research Community Europe
(OC-2023-1-26686)

SUMMARY
The world currently faces a number of significant challenges to peace and security. Violent conflict and related victims doubled over the last decade. The Global Peace Index, trying to quantify peace on a global level, deteriorated for the ninth consecutive year. The war in Ukraine and the new levels of violence in the Israel-Palestine conflict raise fundamental questions on how to prevent violent conflict from erupting. Moreover, climate change and polarization also pose grave challenges to peace and security, even in more 'peaceful' contexts. Building peace, reducing insecurity and preventing violent conflict demands us to fundamentally rethink peace. That is why this PEACE Action unites a trans-European and interdisciplinary research community that expands and strengthens a network of peace and conflict research centres and researchers from across Europe. The main challenge for the PEACE Action is to improve our understanding of the current challenges to peace and security on the European continent and beyond, thereby inspiring new research, policy and practice. The focus areas will be on Peace & Climate, Feminist Peace, Peace & Emerging Technologies, Local Peace and a new Peace and Security Architecture in Europe. In addition, the network will support a new generation of peace and conflict researchers in developing their careers.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Political Science: Violence, conflict and conflict resolution 2. Political Science: International studies, strategic studies, human rights, global and transnational governance	1. Peace 2. Conflict 3. Security 4. Europe

COST Members
Main Proposer: Belgium
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Czech Republic, Finland, Germany, Norway, Portugal, Romania, Slovenia, Sweden

Main and secondary proposers: 25% YRI / 37.5% Women /50% ITC

CA23130
Bridging high and low energies in search of quantum gravity
(OC-2023-1-26690)

SUMMARY
Recent advances in both high-energy astrophysics and high-precision table-top experiments are pushing our capability to test nature in regimes where gravity meets quantum physics. Astrophysical observations are now potentially sensitive to tiny residual effects of Planck-scale physics, while table-top experiments are reaching the precision needed to test the interplay between gravity and quantum systems at ultra-low energies. Investigations of these regimes, in particular once they are combined, will provide important clues towards the understanding of the full-fledged theory of quantum gravity.

The main aim of the Action is to bring together scientists with a variety of complementary expertise: theorists working on quantum gravity or the interplay between gravity and quantum physics with quantum information and quantum optics tools, and experimentalists involved in astrophysical searches for quantum gravity, or investigating the effects of gravitational interactions on quantum systems. The resulting interdisciplinary collaboration will develop a common language and a shared framework which will boost investigations at the interface between high-energy quantum gravity and quantum aspects of gravity in the weak-field regime. The network will also facilitate cross-disciplinary training and exposure of students and postdocs to different communities with a common goal, serving as a career accelerator. The synergy within this newly-formed community will be essential to systematically search for quantum gravity on all scales, and possibly find the first signatures of new physics.

The topics covered by BridgeQG are particularly suited for outreach. The Action will promote interest in fundamental physics among the general public and in particular school pupils.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Physical Sciences: Quantum physics 2. Physical Sciences: Fundamental interactions and fields (theory) 3. Physical Sciences: Ultra-cold atoms and molecules 4. Physical Sciences: Relativity 5. Physical Sciences: High energy and particles astronomy, X-rays, cosmic rays, gamma rays, neutrinos	1. Phenomenology of quantum gravity 2. Gravity in quantum systems 3. Multi-messenger astrophysics 4. Lorentz invariance violation and deformation 5. Table-top gravity measurements

COST Members
Main Proposer: Italy
Network of Proposers:
Full Member: Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Türkiye, United Kingdom

Main and secondary proposers: 45% YRI / 28 % Women / 53.13 % ITC

International Cooperation
International Partner: Canada, United States

CA23131
ISO compatible, efficient and reproducible protocols/equipment for mICro-nanoPLASTIC detection through machine-learning
(OC-2023-1-26694)

SUMMARY
Within the EC's initiative of "Measures aiming to reduce the presence in the environment of unintentionally released microplastics from tyres, textiles and plastic pellets" knowledge gaps for micro and nanoplastics (MNPs) in environmental, drinking and bottled water have been acknowledged for correction including: Risks and occurrence; harmonised methods for sampling, processing, data analysis and reporting. Imminent new ISO standards for the sampling of microplastics in water and the spectroscopic methods for their analysis, and environmental legislation for microplastics in water, that began with the EU's 'Towards Zero Pollution for Air, Water and Soil' of 2021, were joined in 2022 by a standard for microplastics in drinking water in the state of California.
The 'ISO compatible, efficient and reproducible protocols/equipment for mICro- nanoPLASTIC detection through machine-learning' (ICPLASTIC) Action will create a broad and skilled transdisciplinary network of instrument/equipment makers, their end-users and relevant academics/technologists. It will, through scientific discussion and elaboration, converge on the necessary key parameters (and their value ranges) for user and design specifications of protocols and equipment that can support the aforementioned standards and legislation, and produce a risk analysis.

ICPLASTIC's impacts will benefit the scientific community, economy and all European citizens: (1) Marketed equipment for MNP sampling, sample preparation and analysis, compatible with ISO standards and the ICPLASTIC risk analysis; (2) Environmental, drinking and bottled water legislation introduced, compatible with ISO, the ICPLASTIC risk analysis and the aforementioned equipment; (3) Dissemination of information from non- ITCs to ITCs, and from senior to junior researchers, for regional MNP monitoring and legislation, and career development.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Environmental engineering: Water management and technology 2. Nano-technology: Optics, non-linear optics for nano-technology applications 3. Chemical sciences: Spectroscopic and spectrometric techniques 4. Chemical engineering: Characterization methods of materials 5. Chemical sciences: Electrochemistry, electrodialysis, microfluidics, sensors	1. Microplastics 2. ISO 3. Machine learning 4. envrionmental, drinking and bottled water 5. analytical techniques

COST Members
Main Proposer: United Kingdom
Network of Proposers:
Full Member: Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Latvia, Montenegro, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, United Kingdom

Main and secondary proposers: 32% YRI / 48% Women /52.38% ITC

Industrial Dimension
SMEs: Czech Republic, France, Slovenia
Large companies: France, Germany, Hungary, Poland, Spain, United Kingdom

CA23132
Magnetic Particle Imaging for next-generation theranostics and medical research

(OC-2023-1-26722)

SUMMARY

Non-invasive assessment of the inner-body is one of the major medical advances in the 20th century. Magnetic particle imaging (MPI) is a relatively young biomedical imaging modality offering opportunities for clinical diagnosis, therapy, monitoring and prediction of treatment outcomes, which are unattainable with other imaging modalities. MPI employs non-toxic magnetic nanoparticles and involves no ionising radiation. The technique offers detailed, real-time, quantitative imaging of the location and concentration of the nanoparticles, their flow state, binding state, local viscosity and temperature. Supralinear information can be obtained by using nanoparticles with distinct properties simultaneously. Furthermore, the nanoparticles can be functionalized for truly theranostic approaches.
MPI has the potential to give a new impetus to nanomedicine, whose successes have yet to match early expectations. Pre-clinical MPI has already been implemented in oncology, stem cell research, vascular imaging, neuroimaging, imaging of lung perfusion, in vivo tracking and quantification of inhaled aerosols, imaging of the heart, on-the-spot biopsies etc.

NexMPI will create the **first** European network of MPI scientists, including physicists, chemists, biologists, engineers, clinicians and others, employed at hospitals, academic institutions, and small and medium enterprises. The network will provide **increased access to MPI systems** (fewer than 10 are currently available in Europe); **foster close collaboration** among the small but rapidly growing MPI community; put Europe at the forefront of MPI research and development; help **define a roadmap** for the translation of pre-clinical research to the clinic; and raise public **awareness of MPI enabled opportunities**, including its application in the field of nanomedicine.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Nano-technology: Electromagnetism for nano-technology applications 2. Nano-technology: Nano-technology for pharmaceutical applications 3. Medical engineering: Diagnostic tools (e.g. genetic, imaging) 4. Clinical medicine: Radiology, nuclear medicine and medical imaging 5. Physical Sciences: Databases, data mining, data curation, computational modeling	1. Magnetic Particle Imaging 2. Magnetic Nanoparticle 3. Image reconstruction 4. Nanomagnetism 5. Computational modelling

COST Members

Main Proposer: Greece
Network of Proposers:
Full Member: Austria, Belgium, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Türkiye, United Kingdom

Main and secondary proposers: 21.15% YRI / 48.1% Women /65.22% ITC

International Cooperation

International Partner: Australia, Japan, United States

Specific Organisations

International Organisation: International Iberian Nanotechnology Laboratory

Industrial Dimension

SMEs: Australia, France, United States

CA23133
Large-scale Interdisciplinary Alliance on Nature-based SoLutions and Health: Indicators, InequalitY and Innovation
(OC-2023-1-26744)

SUMMARY
Nature-based Solutions (NbS) are instrumental in European climate change mitigation and adaptation strategies. Through creating ecosystems, NbS can have positive and negative impacts on the health of people, animals and the environment, i.e. co-benefits and unintended consequences. As NbS are increasingly integrated into policy and implemented on the ground, it is urgently needed to adopt evidence-based approaches to their design and implementation, which minimize maladaptation and mislabeling practices, particularly in the health domain. This Action (LILY) focuses on NbS impacts on health (NbS-Health) and addresses: (i) the lack of a comprehensive framework outlining health outcomes and underlying pathways, (ii) gaps in NbS-Health indicators, (iii) vulnerability and inequality, (iv) NbS-Health monitoring, (v) NbS-Health gaps in NbS platforms. LILY comprises 69 interdisciplinary partners from 18 COST Countries, with 10 being COST Inclusiveness Target Countries and one-third young researchers. LILY will engage scientists, implementers, stakeholders, and community in participatory approaches and produce (i) a conceptual NbS-Health framework, (ii) best-practice guidelines for spatio- temporal NbS-Health indicators considering vulnerability and inequality, (iii) recommendations on novel data streams and methodology for indicator-based monitoring and evaluation, and (iv) a network and data platform for proficient information sharing.
LILY will empower young scientists through summer schools, knowledge exchange workshops, and arranging the first NbS-Health conference. The outcomes will be translated into policy briefs, materials for Lancet Countdown, EU-Horizon projects and clusters, and public dissemination. LILY commits to excellence and innovation through co- production among scientists and stakeholders, transdisciplinarity, One Health concept, Exposure-Vulnerability-Risk framework, and inclusive and gender balance approaches in its governance.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Health Sciences: Public and environmental health 2. Earth and related Environmental sciences: Databases, data mining, data curation, computational modelling 3. Civil engineering: Sustainable engineering, adaptation to long-term environmental changes 4. Biological sciences: Ecology 5. Political Science: Environmental regulations and climate negotiations (policy and political aspects)	1. One Health, health co-benefits and unintended consequences 2. Nature-based Solutions, monitoring, assessment, evaluation 3. Climate change, mitigation, sustainability, adaptation 4. Vulnerabilities, inequalities, spatio-temporal indicators 5. Technology-based monitoring, data and network platform

COST Members
Main Proposer: Germany
Network of Proposers:
Full Member: Bulgaria, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Italy, Lithuania, Netherlands, North Macedonia, Norway, Portugal, Serbia, Slovenia, Spain, Sweden, Türkiye

Main and secondary proposers: 36.23% YRI / 42% Women /55.56% ITC

International Cooperation Specific Organisations
European RTD Organisation: CERTH

Industrial Dimension
SMEs: Greece

CA23134
Topological textures in condensed matter
(OC-2023-1-26747)

SUMMARY
The mathematical concept of topology is now widely applied in condensed matter systems providing a fresh perspective for the understanding and prediction of many physical phenomena. We focus on techniques for the creation and annihilation of topological textures and on their static and dynamic properties that form a vibrant field of research.

A variety of topological textures are observed and are ubiquitous in the sciences (physics, materials, biology, chemistry). Examples are domain walls, vortices, skyrmions, and hopfions in bulk materials, with a big challenge now posed by the complexity added by the third dimension. Their dynamics and response to external probes are often counter- intuitive and they are linked to topology in surprising ways. These properties make them promising for applications in sensors, logic and non-Boolean devices, logic-in-memory computing, and neuromorphic or quantum computing applications. Related physical systems include magnets, ferroelectrics, optics and topological light, ultra-cold atoms and superfluids, superconductors, liquid crystal and similar systems, quantum systems with a topological band structure, and others.

The area of condensed matter benefits greatly from the interaction between experiments, theory, and computations on topological textures. Improved techniques allow for observations at the nanoscopic and picosecond scales. However, progress is driven by small and fragmented communities of physical scientists and by a separate community of applied mathematicians. This network will bring together in a wider network the separate sub-communities working on the various physical systems, it will combine expertise
and boost synergies. It aims to develop a unified framework for topological condensed matter systems.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Physical Sciences: Nanophysics: nanoelectronics, nanophotonics, nanomagnetism or classify 2. Physical Sciences: Non-linear physics	1. topological solitons 2. skyrmions 3. hopfions 4. topological defects

COST Members
Main Proposer: Greece
Network of Proposers:
Full Member: Austria, Croatia, Cyprus, Czech Republic, France, Georgia, Germany, Greece, Hungary, Italy, Latvia, Netherlands, Norway, Poland, Romania, Serbia, Slovenia, Sweden, Türkiye, Ukraine, United Kingdom

Main and secondary proposers:45.23 % YRI /40.5 % Women / 61.90% ITC

Industrial Dimension
SMEs: Germany

CA23135
Bringing Digital Data and Reality Together - Augmented Reality in Forestry
(OC-2023-1-26755)

SUMMARY
Digital transformation is significantly impacting the forest sector, with the proliferation of digital data enhancing a range of applications from remote sensing to Industry 4.0. A lot of data is currently being collected and assessed in the forest sector. However, there is a widespread lack of applications to use this digital data and a lack of coordinated, interdisciplinary research. Augmented Reality (AR), a futuristic technology that integrates digital elements into the real world, has become essential for visualising and interacting with these data. AR is a promising solution for transforming forestry practices, from fieldwork to the timber trade. Challenges include unreliable network coverage in remote forests, the need for robust and durable devices and solutions, and inaccurate positioning under the forest canopy. Europe's diverse forestry sector requires effectively implementing region-specific AR solutions and standardised data formats, interfaces and terminology across regions. There is a communication gap between scientists and end-users, requiring user-friendly translation of information. To overcome these challenges, interdisciplinary networks need to be formed to develop robust technologies, standardise data and data processing methods, and improve knowledge transfer to end-users. The main objective of this COST Action is to establish a network of researchers from various disciplines together with industry partners and forest stakeholders. This collaborative effort will ensure the successful integration of AR into European forestry and the need for coordinated efforts to unlock its full potential.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Agriculture, Forestry, and Fisheries: Forestry: fauna and flora 2. Other engineering and technologies: Sustainability for other engineering and technologies 3. Agriculture, Forestry, and Fisheries: Sustainable forest management 4. Agriculture, Forestry, and Fisheries: Biomass production from forestry	1. Forestry 2. Augmented Reality 3. Digital Transformation 4. Digital Forest Twin 5. Industry 4.0

COST Members
Main Proposer: Germany
Network of Proposers:
Full Member: Austria, Czech Republic, Estonia, Finland, Germany, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine
Partner Member: South Africa

Main and secondary proposers: 43.75% YRI / 40.6% Women / 52.94% ITC

International Cooperation
International Partner: Canada

Specific Organisations
International Organisation: Slovenia Forestry Institute

Industrial Dimension
SMEs: Austria, Estonia, Hungary, Slovakia
Large companies: Austria

CA23136
Magnetism and chirality: twisting spins, light, and lattices for faster-than-ever spintronics
(OC-2023-1-26762)

SUMMARY
The ability to switch magnets between two stable states has become the fastest and most widely used means to store information on devices. For information processing however, the standard von Neumann architecture is rapidly becoming obsolete, driven by the modern demands of computational resources for ultrahigh-speed mobile networks, machine learning and artificial intelligence. Recent years have witnessed a strong surge in research on symmetry-driven phenomena in magnetism, concentrated on the effects introduced by chirality. Chiral magnetic states, with their flexibility and topological protection, have great potential to become the building blocks for processing and storage of information. However, the area of chiral magnetism is still in its infancy, with many fundamental challenges to be solved and numerous obstacles to overcome before applications can be realised. The ultimate challenge is to discover ultrafast and energy-efficient ways to control magnetic topological states, the main aim of CHIROMAG. This will be achieved using an open and inclusive approach that will join the existing expertise and capabilities of scientific communities across Europe dealing with ultrafast magnetism, spintronics, magnonics, photonics and advanced spectroscopy, and by sharing the new knowledge arising from the exchange between them. This Action will result in disruptive achievements in the area of ultrafast chiral magnetism in particular, and in the quality and effectiveness of research in Europe in general, by bridging the existing gaps between these areas. A new generation of scientists will be trained at the interfaces of the involved disciplines, translating scientific breakthroughs into innovative technological solutions.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Physical Sciences: Magnetism (theory) 2. Physical Sciences: Spintronics (theory) 3. Physical Sciences: Nanophysics: nanoelectronics, nanophotonics, nanomagnetism or classify	1. Topological magnetism 2. Ultrafast magnetization dynamics 3. Chirality

COST Members
Main Proposer: Netherlands
Network of Proposers:
Full Member: Belgium, Croatia, Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 28.26% YRI / 28.3% Women /50% ITC

Specific Organisations
International Organisation: INL - International Iberian Nanotechnology Laboratory

Industrial Dimension
Large companies: France

CA23137
Print Culture and Public Spheres in Central Europe 1500–1800
(OC-2023-1-26771)

SUMMARY
The past decade's media revolution has profoundly changed the relationship between public speech and political authority: An unlimited virtual audience is gradually being recognised as an heir to the public sphere forming the modern state's basis on its way to democracy during early modernity. If we as a society wish to address its ongoing transformation, this public sphere needs to be understood in its historical dimension.

The COST Action deploys the following working groups to analyse the interactions between print and public spheres in Central Europe from 1500 to 1800: (a) Public and Legal Spheres; (b) Materialities; (c) Texts and Ideas. The focus on Central Europe has three reasons: (1) Central Europe is often presented as a discursive ancillary to Western Europe, simultaneously reinforcing an imbalance of sources, data, and research; (2) Central Europe's nonconformity to standard national paradigms, its interplay of different 'centres' and 'margins' offers valuable insights into the still relevant de-centrality of public discourse; (3) since many Central European countries figure among the ITC, the Action will contribute to asserting a historical consciousness of multiple public spheres.

Besides two long-standing desiderata – an open-access compendium and a database of data and tools – $PCPS_{CE}$ will build a Central European and global network of diverse stakeholders from education, research, and cultural heritage institutions. The Action will work towards a more integrative methodology bringing together experts from different national and disciplinary backgrounds. This initiative will foster a new scholarly and public historical awareness of the diverse, non-national pasts of Central Europe.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. History and Archeology: Early modern history 2. History and Archeology: Databases, data mining, data curation, computational modelling 3. History and Archeology: History of ideas, intellectual history, history of science and technology 4. Languages and literature: History and philosophy of languages and literature 5. Other humanities: Cultural heritage, cultural memory	1. Book History and Digital Humanities 2. Media History and the Emergence of Public Spheres 3. Circulation of Knowledge and Material Culture 4. Premodern Civil Society and Cultural Heritage 5. (Trans)national Consciousness in Central Europe

COST Members
Main Proposer: Austria
Network of Proposers:
Full Member: Austria, Bulgaria, Czech Republic, Germany, Hungary, Italy, Luxembourg, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Ukraine, United Kingdom

Main and secondary proposers: 45.45% YRI / 51.5% Women /62.50% ITC

International Cooperation
International Partner: Australia, Canada

CA23138
Port City Territories in Action: A collaborative Laboratory for Inclusive Energy Transition
(OC-2023-1-26786)

SUMMARY
Ports have long been hubs of energy transport and transformation–notably petroleum–; they are also key to facilitating the energy transition both in terms of transport and in terms of production. These energy hubs have unique safety and security requirements, they are also located in a fragile ecosystem at the edge of sea and land. Ports have facilitated the growth of major metropolises and attracted people and corporations, creating a complex system. At a time of climate change major societal urgencies and a the much-needed shift from fossil fuels to renewable energy, many problems are condensed in these territories, As hubs of economic development, port city territories are developing new approaches to understanding, initiating, and coordinating sustainable and inclusive transitions that require more than technological responses; it necessitates a value-based approach and collaborative, multi-disciplinary action. The COST Action PACT - Port City Territories in Action: A collaborative Laboratory for Inclusive Energy Transition, proposes new methodological responses for knowledge co-production and collaborative planning towards sustainable, inclusive futures by focusing on the spatial and socio-cultural implications of energy transition on port city territories. PACT builds on six main objectives: mapping, reframing, co-creating, including, envisioning, and transmitting. It has identified four pilot studies where cooperation between ports and cities has taken new forms: Le Havre, Livorno, Rotterdam and Cadiz. They will serve to inspire other case studies from Europe to test the PACT Framework through multiple workshops.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Other social sciences: Qualitative methods for the social sciences 2. Other humanities: Cultural heritage, cultural memory	1. port city territories 2. energy transition 3. knowledge exchange 4. knowledge coproduction 5. social justice

COST Members
Main Proposer: Netherlands
Network of Proposers:
Full Member: Albania, Croatia, Cyprus, France, Germany, Greece, Italy, Latvia, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovenia, Türkiye, United Kingdom
Partner Member: South Africa

Main and secondary proposers: 34.78% YRI / 56.5% Women /62.50% ITC

International Cooperation
Near Neighbour Country: Algeria, Egypt

Industrial Dimension
SMEs: Croatia

CA23139
Network for Indoor Air Cleaning
(OC-2023-1-26787)

SUMMARY
Most people breathe more polluted air indoors than outdoors, impairing human health, comfort and productivity. The best approach for providing a healthy indoor air is source identification and elimination with ventilation using clean outdoor air. However, it is not possible to eliminate all indoor air pollution sources in all indoor environments, and ventilation per se cannot be used if the outdoor air is polluted, and can have a negative impact on the energy performance of the building. Thus, air cleaning technologies are seen as promising effective methods to provide clean indoor air and many have been emerging in the market. However, given the sparse public and market information, the technologies' limitations, the lack of standardisation and citizens' understanding, there is a need to consolidate accessible information on existing technologies for indoor air cleaning and to progress beyond the state-of-the-art involving the various stakeholders. Thus, the main aim of Net4CleanAir is to create an international and interdisciplinary network of diverse stakeholders with a shared vision of promoting clean air for healthy and energy- efficient indoor environments throughout Europe. Net4CleanAir will join world-leading experts covering the main disciplines in air cleaning research and innovation which will be a unique opportunity to pave the way for progress beyond the state of the art, namely for future development of standards and regulations, and decision-making systems for indoor air cleaning technologies. Net4CleanAir will promote high-level and multidisciplinary training, along with scientific and societal dissemination to engage citizens at the centre of indoor air cleaning.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Environmental engineering: Air pollution 2. Earth and related Environmental sciences: Atmospheric chemistry and composition	1. Indoor Air Pollution 2. Air Cleaning Technologies 3. Airborne contaminants 4. Healthy Buildings

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Austria, Belgium, Denmark, Germany, Greece, Hungary, Italy, Lithuania, Poland, Portugal, Romania, Serbia, Spain, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 18.91% YRI / 48.6% Women /50% ITC

Industrial Dimension
SMEs: Denmark, Sweden, United Kingdom

CA23140
Boost and secure ATMP for BURN patient
(OC-2023-1-26791)

SUMMARY
Accidental burns are among the main etiologies of trauma and death with 11 million consultations in hospitals and 300,000 deaths per year worldwide. The main aim and objective of ESENBURN COST action is to create, structure and support a network of biomanufacturers, burn centers, pre-clinical validation sites, regulatory bodies R&D departments to evaluate, boost and secure the clinical applications of advanced therapy medicinal product (ATMPs) for burn patients.

In particular it aims at:

- Harnessing all expertise within the network to share and agglomerate all fragmented knowledge and create an ad-hoc information platform compiling and implementing production sites with their regulatory authorizations (cell and/or gene therapy, tissue engineering), with the type of the ATMPs produced (type of cells or biological product, combined or not with a device, gene therapy …), with the clinical indications, facility and environment controls, national regulation application

- Synergizing regulatory experts, selected Patients' Associations, researchers, biomanufacturers and clinicians in order to guide the latter for the successful implementation of efficient and safe clinical applications, backed with a proper regulatory support to lift barriers

- Disseminating knowledge for control, validation, production protocols but also in clinical practices to approach optimal consensus, to define guidelines, and to possibly set inputs for future standards

- Training the medical teams Surgeon/anesthetist/nurses/ reeducation team for knowledge dissemination

- Fostering networking between those who perform in vitro, ex vivo and animal clinical validation tests to propose guidelines combining ethics and regulatory request for efficacy and safety

- Ensuring the longevity of such a network, for patients, research and medical community worldwide.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Medical biotechnology: Gene therapy, stem cell therapy, regenerative medicine for medical biotechnology 2. Clinical medicine: Critical care medicine and Emergency medicine	1. Advanced therapy medicinal product 2. Burn patient 3. cell therapy 4. cultured epidermis

COST Members
Main Proposer: France
Network of Proposers:
Full Member: Croatia, Czech Republic, Finland, France, Greece, Italy, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Ukraine, United Kingdom

Main and secondary proposers: 27.77% YRI / 47.2% Women /50% ITC

CA23141
Managing Artificial Intelligence in Archaeology
(OC-2023-1-26800)

SUMMARY
The advent of Artificial Intelligence (AI) applications within archaeology has brought incredible opportunities but also significant challenges. Only a few years ago, Machine Learning algorithms and Neural Networks were concepts unknown to archaeologists; now, AI has been applied to many archaeological fields, from the detection of archaeological sites, the recognition and reassembling of archaeological pottery, the mining of text from historical documents and epigraphs, the study of human remains, the identification of murals and graffiti, and even robotics. AI has great potential to create a better comprehension of shared archaeological heritage. However, a more profound understanding of which archaeological research questions could be addressed, the availability and creation of the data upon which this research relies, the ethical, epistemological and hermeneutical side of the challenges that AI poses, and the lack of sustainable access to the necessary resources to undertake this work now deserve more in-depth discussion and exploration. The MAIA COST Action will create a community of archaeologists, digital archaeologists and computer scientists who will work together to develop a shared understanding of AI applications in archaeology. This will include meetings and workshops bringing together researchers who wish to create or use digital collections and training data. Key to this will be training opportunities in the field for documenting archaeological resources optimised for AI research and Short Term Scientific Missions, where researchers can work across borders to understand how to create comparative and training data.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. History and Archeology: Databases, data mining, data curation, computational modelling	1. Archaeology 2. Artificial Intelligence 3. Digital Data

COST Members
Main Proposer: Italy
Network of Proposers:
Full Member: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Greece, Hungary, Italy, Lithuania, Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Türkiye, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 32.35% YRI / 50% Women /59.09% ITC

International Cooperation
Near Neighbour Country: Jordan
International Partner: Canada, United States

Specific Organisations
European RTD Organisation: Institute of Information Science and Technologies "Alessandro Faedo" - ISTI-CNR

Industrial Dimension
SMEs: Italy

CA23142
Developing Knowledge involved in diagnosis and control of human-diseases related to Pneumocystis
(OC-2023-1-26801)

SUMMARY
Pneumocystis pneumonia (PcP) remains a major public health problem, especially in developing countries, with high morbidity and mortality among immunosuppressed patients, mainly in those infected with HIV, where it is the first defining cause of AIDS. In developed countries, PcP continues to be a frequent problem among subjects who do not know they are HIV infected, who do not access antiretrovirals, who do not tolerate or do not perform chemoprophylaxis, and in cases where prophylaxis fails, probably due to the development of Pneumocystis jirovecii strains with drug resistance, a phenomenon that is also emerging in a threatening way in developing countries. Furthermore, the greater aggressiveness of current chemotherapy and the more frequent use of immunosuppressants for autoimmune diseases or transplant recipients have meant that the incidence of PcP is increasing in these patients worldwide.

However, today the interest in P. jirovecii transcends immunosuppressed subjects, and increasing data suggest that we know only the tip of the iceberg of the manifestations that Pneumocystis infection can produce in humans. In this sense, primary Pneumocystis infection has been related to Neonatal Respiratory Distress Syndrome and bronchopulmonary dysplasia in infants and seems to play a role in the pathogenesis of Chronic Obstructive Pulmonary Disease (COPD) and Asthma.

The Action will improve prevention, management, diagnostics and treatment of patients with Pneumocystis infection by better integrating clinical knowledge and research. This will be done by developing collaborations between hospitals, non-governmental organizations, academic institutions, and small/medium enterprises through a structured, coordinated, and open European research network.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Clinical medicine: Prevention and treatment of infection by pathogens (e.g. vaccination, antibiotics, fungicide) 2. Medical biotechnology: Medical biotechnology, other 3. Clinical medicine: Respiratory systems 4. Clinical medicine: Paediatrics	1. Pneumocystis 2. COPD 3. Asthma 4. Infants

COST Members
Main Proposer: Spain
Network of Proposers:
Full Member: Czech Republic, France, Greece, Poland, Portugal, Romania, Spain, Switzerland, United Kingdom

Main and secondary proposers: 20.51% YRI / 43.6% Women /55.56% ITC

International Cooperation
International Partner: Brazil, Chile, Colombia, Cuba, Mexico, United States

Specific Organisations Industrial Dimension
SMEs: Spain

CA23143
Participation through Prayer in the Late Medieval and Early Modern World
(OC-2023-1-26806)

SUMMARY
For centuries, prayer has been central to people's worldview, to their education and formation, their experience of religion and the Divine, to the creation of societal communities, and to structuring everyday life throughout Europe. Despite the 'religious turn' in the humanities, prayer is still often seen as ordinary or even self-evident. This has hitherto prevented a thorough understanding of the history of this powerful and complex phenomenon in the late medieval and early modern world. From a European perspective, this period was formative for the role of prayer in public settings and in people's personal lives. The phenomenon is marked by plurality and diversity and the disparate nature of research on prayer calls for a strong collaborative international research network that will move toward creating a shared framework for the study of prayer in the Latin Christianity during the late medieval and early modern period. Studying prayer as a participatory practice on several levels (as a communal or social practice, using a variety of material devices (media, objects) that can evoke a spiralling, amplifying effect in the mind of the devotee) will lead to better understanding of prayer (and with it, the history of imagination, hope, and meditation) in its plurality.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Languages and literature: History and philosophy of languages and literature 2. Philosophy, Ethics and Religion: Theology and religious studies 3. Arts: History of art and history of architecture	1. Medieval and Early Modern Practices of Prayer 2. Medieval and Early Modern Studies 3. Religious History and Devotional Culture

COST Members
Main Proposer: Belgium
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Switzerland, Ukraine, United Kingdom

Main and secondary proposers: 44.77% YRI / 65.7% Women /57.89% ITC

International Cooperation
International Partner: United States

CA23144
Europe's Representations of India: Texts, Images, and Encounters
(OC-2023-1-26815)

SUMMARY
As India and Europe are becoming increasingly important to each other as economic, political, and strategic partners, sensitive issues arise in their encounters. Today, it is crucial to gain insight into the ways in which Europeans have understood India and how this has shaped their interactions with Indians in the past and present. The Action will examine the development of Europe's representations of India and their impact on encounters between the two regions. ESIND will create a multidisciplinary pan-European community of researchers, engaging in comparative research on the crystallization of European representations of India in many different regions and languages. The network will pay special attention to sources from Central, Eastern, and Southern European countries, which remain underexamined today, even though they are essential to understanding how European thinking concerning India took shape, which general limits are shared by it, and where we find crucial divergences. It will also focus on Europe-India contact zones and on authors with extensive experience living in India, who developed alternative ideas about its people and their cultural traditions. ESIND will build a database with a new set of public resources for research and teaching on Europe-India encounters, containing English translations of source material from more than 20 European languages and visual images from historical texts about India. The Action will thus contribute to (a) creating new knowledge in areas of fundamental research, policymaking, intercultural understanding, and education and (b) training a new generation of researchers concerned with the relations between Europe and India.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Philosophy, Ethics and Religion: Theology and religious studies 2. History and Archeology: Colonial and post-colonial history, global and transnational history 3. Social and economic geography: History and philosophy of geography 4. Other humanities: Cultural heritage, cultural memory	1. Europe and India 2. Orientalism 3. European representations of India 4. Intercultural encounters

COST Members
Main Proposer: Czech Republic
Network of Proposers:
Full Member: Belgium, Croatia, Czech Republic, Denmark, Estonia, Germany, Greece, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Ukraine

Main and secondary proposers: 10% YRI / 57.1% Women /65% ITC

CA23145
Architectural and Urban Ambiances of European Cities
(OC-2023-1-26821)

SUMMARY
In the manufacturing process of living spaces, a predominant top-down approach, from project inception to delivery to users, has often led to post-construction issues that are costly to resolve. These issues may include areas overexposed to noise, a lack of cool shaded spaces, and various other challenges that affect the quality of life. This highlights the significance of exploring the lived spaces through ambiances in the missing "bottom- up" flow.
Moreover, ambiences studies, which has evolved since the 1980s, offers a more comprehensive understanding compared to earlier post-project evaluations, including post- occupancy assessments that originated in the 1960s. It encompasses various trends, such as the phenomenological approach, artistic works that utilize ambiences as a creative medium, environmental psychology, ambiance engineering, and architectural achievements by figures like Peter Zumthor. These trends significantly contribute to our understanding of architectural and urban ambiences.
This COST-ACTION project seeks to unite diverse perspectives and methodologies to understand, exchange and harmonize the concepts, definitions, by collecting archives, and defining cooperative objectives by harmonizing the technical language and draw perspectives for the future of architectural and urban ambiences in European cities and beyond. It focuses on holistically integrating the "bottom-up" approach, including sensitive experiences of ambiances, into the design, construction, and management of living spaces. By emphasizing the sensory dimension of ambiences, this aims to highlight solutions that prioritize the human experience in urban planning. One uses a collaborative, interdisciplinary approach to positively influence architectural and urban policies and practices both in Europe and globally

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Other humanities: Cultural heritage, cultural memory 2. Arts: Performing arts 3. Other social sciences: Qualitative methods for the social sciences	1. Ambiances 2. Quality of life 3. Sensitive space 4. Cultures 5. Urban strategic vision

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Bosnia and Herzegovina, Croatia, Cyprus, Denmark, Finland, France, Greece, Italy, Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Switzerland, Türkiye, United Kingdom
Partner Member: South Africa

Main and secondary proposers: 24.13% YRI / 51.7% Women /52.94% ITC

International Cooperation
Near Neighbour Country: Algeria, Morocco
International Partner: Brazil, Chile, New Zealand

Industrial Dimension
SMEs: Cyprus, Serbia, Spain, Switzerland

CA23146
European vascular liver diseases network
(OC-2023-1-26827)

SUMMARY
Vascular liver diseases are a heterogeneous group of rare disorders characterized by an impaired vascular flow in the splanchnic and/or intrahepatic vasculature. They mainly include recent portal vein thrombosis, portal cavernoma, porto-sinusoidal vascular disorder, Budd-Chiari syndrome and sinusoidal obstruction syndrome.
Vascular liver diseases commonly affect young adults, and follow a yet unpredictable course, potentially leading to severe portal hypertension and reduced survival. There is limited awareness in the medical community on vascular liver diseases, so that these diseases are currently under recognized and often misdiagnosed. EURO-VALDI-NET aims to create a pan-European multidisciplinary co-operative network of stakeholders, bringing together scientists, clinicians, industry partners, and patients associations, to address the vascular liver diseases problems. Through the creation of shared data registries on main relevant basic and clinical aspects, conference calls, meetings, workshops, as well as training schools, this Action will coordinate efforts aiming at advancing the understanding of vascular liver diseases to translate basic research and preclinical findings into clinical practice. For this purpose, EURO-VALDI-NET will be organized into 9 working groups:
- preclinical models
- epidemiology, extensive clinical characterization and harmonization of biosamples collection
- extensive histological characterization
- extensive radiological characterization
- development of screening tools and diagnostic biomarkers
- risk stratification and clinical trial design
- health-related quality of life and patient reported outcomes
- identification of therapeutic targets and development of new therapeutic approaches
- legal and ethics aspects
These groups will work together in order to increase knowledge on vascular liver diseases and improve recognition and management of the patients.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Clinical medicine: Gastroenterology and hepatology 2. Basic medicine: Organ physiology	1. Portal vein thrombosis 2. Porto-sinusoidal vascular disorder 3. Budd-Chiari syndrome 4. Portal hypertension 5. Sinusoidal obstruction syndrome

COST Members
Main Proposer: France
Network of Proposers:
Full Member: Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Denmark, France, Germany, Greece, Hungary, Italy, Latvia, Malta, Netherlands, Poland, Portugal, Romania, Serbia, Spain, Sweden, Switzerland, Türkiye, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 35.07% YRI / 50.7% Women /52% ITC

International Cooperation
Near Neighbour Country: Egypt, Lebanon

Specific Organisations
EU Institutions, Bodies, Offices and Agencies (EC/EU): Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico Milano; HOSPITAL CLINIC BARCELONA; Hospital Pedro Hispano

Industrial Dimension
SMEs: Netherlands
Large companies: Portugal, Spain

CA23147
Global Network on Large-Scale, Cross-domain and Multilingual Open Knowledge Graphs
(OC-2023-1-26835)

SUMMARY
WHAT: The ultimate goal of the Action is to increase and enhance the public open knowledge available in Europe and beyond. The aim is to provide a large-scale, high quality, cross-domain and multilingual knowledge graph technology that is free to use, reuse, and redistribute.

HOW: By bringing people and communities interested in knowledge graphs technologies to work together on topics related to knowledge graphs engineering, knowledge graphs management and knowledge graphs utilization.

WHY: To align and consolidate the research results on open knowledge graphs, and strengthen the links between the involved scientific communities and public and industrial stakeholders. This will result in a comprehensive, open, multilingual and structured knowledge resources. Such resources can aid the creation of innovative businesses and services that deliver social and commercial value.

FOR WHOM: For scientific communities and public and industrial stakeholders, who develop open knowledge graph solutions for domains, such as cultural heritage, food and agriculture, life sciences, and news and media.

BY WHOM: A network consisting of 20 proposers with 13 young researchers and innovators, based in 19 COST full memnber countries and affiliated with academic institutes, enterprises, open knowledge networks and initiatives with complementary research and/or business focus and expertise in knowledge technologies.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Other engineering and technologies: Databases, data mining, data curation, computational modelling for food science and technology 2. Electrical engineering, electronic engineering, Information engineering: Databases, data mining, data curation, computational modelling	1. knowledge graphs 2. open knowledge 3. linked data 4. multilingualism

COST Members
Main Proposer: Germany
Network of Proposers:
Full Member: Albania, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Netherlands, North Macedonia, Slovakia, Slovenia, Spain, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 66.66% YRI / 47.6% Women /55% ITC

Industrial Dimension
SMEs: Albania, Netherlands

CA23148
European Network for the Integrative Approach of Urban Forestry
(OC-2023-1-26869)

SUMMARY
Urban forests have been proposed by European Commission as a strategy to support climate adaptation capacity and sustainable development in the urban areas where over 70% of the EU's population live. Urban forests produce numerous ecosystem services which reach significant levels when trees reach maturity. Unfortunately, urban trees have an average lifespan of 30 years resulting in failing ecosystems services. Urban forestry is a complex discipline because of the required multidisciplinary, the diversity of stakeholders' and the long timeframe of trees. It is therefore essential to approach urban forestry from a sustainable and integrative viewpoint. The current approach is unable to fulfill the strategies of the European Commission due to lack of standardisation and scattering networks. New tools and better integration of different knowledge pools are urgently needed.
The Action will bring together a pan-European network of scientists and stakeholders. The network will 1) integrative assess and benchmark the urban forest, 2) develop frameworks for strategic long-term, science-driven management and 3) stimulate stewardship by building cross-sectoral and inclusive management partnerships. The main pillar of attaining the challenges is by knowledge transfer between group members involved and from the Action to the global community. The Action will enhance networking among European scientists and increase the competitiveness of European research by promoting the exploitation of transnational research outcomes (SMEs). Finally, by knowledge creation and sharing, the Action will train young scientists. Career development of Young Researchers and Innovators and research impulses in Inclusiveness Target Countries (ITC) will be considered as a priority in the Action.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Agriculture, Forestry, and Fisheries: Non wood forest products - environmental services	1. urban forestry 2. green cities 3. urban tree management 4. ecosystem services

COST Members
Main Proposer: Belgium
Network of Proposers:
Full Member: Belgium, Bulgaria, Croatia, Estonia, Finland, Germany, Greece, Italy, Latvia, Netherlands, Poland, Romania, Serbia, Slovenia, Spain, Sweden, Türkiye, Ukraine, United Kingdom

Main and secondary proposers: 28% YRI / 47% Women /58% ITC

International Cooperation
International Partner: Canada, United States

Industrial Dimension
SMEs: Netherlands, Poland, Sweden
Large companies: Slovenia, United States

CA23149
Democratization at stake? Comparing Anti-Gender Politics in CEE and NME countries
(OC-2023-1-26876)

SUMMARY
In the era of globalization after the 1990s, the states of Eastern Europe (EE) as well as the close European neighbours in the Near and Middle East (NME) underwent significant social changes and political developments, especially with regard to democratization.
Political consensus on norms such as "women's rights are human rights" and/or on measures against sexual discrimination appeared as a central component and symbol of democratization and democratic societies. Although these transformation processes had different and unequal impacts within and between the EE and NME states, these states shared some commonalities in their approach to transnational gender equality norms and policies. These commonalities have been contested for about 15 years. In the EE and NME states, current conflicts have focused on so-called "European values," which include, in particular, gender equality and sexual equality, but which are opposed by religious fundamentalism, homophobia, and a neo-traditionalist ideology. Not only democratic values, but also gender and sexual identity equality norms and policies appear to be seriously at stake. The network aims to comparatively research and discuss anti-gender politics in Eastern Europe and neighbouring countries through its academic events and to disseminate these findings, because a systematic uncovering of how the rise of anti- gender and anti-feminist mobilizations is linked to the decline of democratic norms and structures has yet to be done. A total of four working groups will be established, including colleagues from EE and NME countries, as well as early-career researchers, innovators, and NGOs.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Political Science: International studies, strategic studies, human rights, global and transnational governance 2. History and Archeology: History of collective identities and memories, history of gender	1. antigender mobilization 2. anti-feminism 3. women's rights 4. democratization 5. social transformation

COST Members
Main Proposer: Germany
Network of Proposers:
Full Member: Belgium, Bulgaria, Croatia, Czech Republic, Finland, Germany, Hungary, Ireland, Latvia, Poland, Romania, Serbia, Slovakia, Slovenia, Türkiye, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 19.23% YRI / 88.5% Women /64.71% ITC

CA23150
pan-EUROpean BIoGeodynamics network
(OC-2023-1-26882)

SUMMARY
Growing evidence indicates that the Earth's interior and surface evolution is intrinsically interrelated with the evolution of its atmosphere, oceans, landscape and life. This lays down principal foundations of Biogeodynamics – an emerging scientific field that explores the interface of geodynamics, geomorphology, climate, ocean and atmosphere sciences, geobiology and ecology with special focus on how the evolution of the planetary interiors, surface, atmosphere, ocean, climate, and life is intrinsically interrelated. Despite its strong scientific and educational potential, Biogeodynamics has not been yet fully established as a new discipline and the progress in this direction in term of both science and education is relatively slow. An intrinsically cross-disciplinary character of Biogeodynamics creates organisational, educational and scientific challenges due to the necessity of truly collaborative research and education to efficiently combine scientific knowledge, research tools and training approaches from the very different research fields (such as Earth Sciences, Biology, Ecology, Climate Sciences, Planetology), which traditionally evolved independently from each other. To address the identified challenges, EUROBiG will establish the first pan-European Biogeodynamics network. This will accelerate the development of Biogeodynamics as a discipline in Europe and worldwide by supporting and linking the relevant communities, facilitating interactions to address the important scientific, methodological, educational and networking challenges of this new field.
Conducting this COST Action on a pan-European level will allow to establish and maintain European leadership in this new crucial scientific field with great future cross-disciplinary research, educational and societal potential.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Earth and related Environmental sciences: Geology, tectonics, volcanology 2. Earth and related Environmental sciences: Climatology and climate change 3. Biological sciences: Biodiversity, comparative biology 4. Biological sciences: Biogeography 5. Earth and related Environmental sciences: Physics of earth's interior, seismology	1. Geodynamics 2. Life evolution 3. Atmosphere, ocean, climate evolution 4. Landscape evolution 5. Biodiversity

COST Members
Main Proposer: Switzerland
Network of Proposers:
Full Member: Croatia, Czech Republic, France, Georgia, Germany, Greece, Hungary, Italy, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Switzerland, Türkiye, Ukraine, United Kingdom

Main and secondary proposers: 39.18% YRI / 36.5% Women /65% ITC

CA23151
Mediterranean Cancer Screening and Early Diagnosis Network
(OC-2023-1-26902)

SUMMARY
Cancer burden (in particular for breast, cervical and colorectal cancer) represents a compelling issue worldwide, and the Mediterranean area is no exception. In this area, the implementation of cancer control policies is heterogeneous as most high-income countries set up organized programs, while low-middle-income countries (LMICs) face more constrained situations. Either way, a general enhancement, considering implementation, organization, monitoring and participation, is needed. Despite broad differences, commonalities, that go beyond geographical proximity, exist in relation to socio-cultural backgrounds, and they can be successfully exploited in defining common preventive approaches.

The Mediterranean Cancer Screening and Early Diagnosis Network (Medi-CaSE) aims to involve countries bordering the Mediterranean Sea, to foster health systems' capacities in the implementation of effective and sustainable secondary cancer prevention policies.
Further, Medi-CaSE will form a common research platform in cancer screening, for investigating gaps in current knowledge with a specific attention to inclusiveness and innovation.

Medi-CaSE can be valuable in identifying research priorities, collecting best practices, spreading and translating evidence-based interventions into clinical practice. Meanwhile, training and career opportunities for local professionals and young researchers will be provided, favoring a multidisciplinary approach. All tasks will be carried out with the early involvement of local stakeholders and policymakers.

Medi-CaSE has been conceived to face several challenges, considering local scenarios of cancer secondary prevention and current epidemiological frameworks. Actual inquiries on this topic are hampered by fragmentation, limited participation from LMICs, and lack of large cross-countries' investigations. Medi-CaSE aims to deal with such issues, implementing joint experiences and limiting resource scattering.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Health Sciences: Epidemiology	1. Breast cancer 2. Cervical cancer 3. colorectal cancer 4. Early diagnosis 5. Screening

COST Members
Main Proposer: Italy
Network of Proposers:
Full Member: Albania, Cyprus, Greece, Italy, Malta, Montenegro, Serbia, Slovenia, Spain

Main and secondary proposers: 21.42% YRI / 60.7% Women /77.78% ITC

International Cooperation
Near Neighbour Country: Jordan, Lebanon

CA23152
Building Consensus on Biofilm Regulatory Decision Making
(OC-2023-1-26914)

SUMMARY
Regulatory science is the development of research equipment, in vitro and in vivo models, and methods that enable informed decision making. While every country has its own defined pathway for regulatory approval, all regulators rely on regulatory science tools to make decisions as to whether or not a product may enter the commercial market and what label claim the company who sells the product may make. As part of their decision making, regulators must consider how the product improves public health and its impact on the environment. Our challenge is that regulatory science has not stayed current, or even maintained, with what is now considered “standard practice” in research laboratories, creating a large gap between fundamental science and current regulatory guidelines. This COST action will establish a network of individuals from across the European Union from diverse academic biofilm research fields who can develop guidance on what is needed in terms of agreement on the scope and ontology for academic, industrial, and regulatory decision makers to close the gap between academic research and regulatory science.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Medical engineering: Diagnostic tools (e.g. genetic, imaging) 2. Industrial biotechnology: Applied microbiology (others) 3. Industrial biotechnology: Industrial bioengineering, bioreactors 4. Biological sciences: Computational biology 5. Biological sciences: Biostatistics	1. biofilm 2. methods 3. regulatory approval 4. biofilm control 5. biofilm management

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Albania, Belgium, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Latvia, Netherlands, Poland, Portugal, Serbia, Slovakia, Slovenia, Sweden, United Kingdom

Main and secondary proposers: 17.5% YRI / 50% Women /52.63% ITC

International Cooperation
International Partner: Singapore, United States

Industrial Dimension
SMEs: Germany, Sweden, United Kingdom
Large companies: Germany

CA23153
Digital Mental Health for Young People
(OC-2023-1-26918)

SUMMARY
Institutions including the World Health Organisation and European Commission have called for urgent action to address societal challenges in mental health. Young people have been identified as particularly vulnerable and requiring urgent support. The European Commission recently stated: “Europe is witnessing a worsening of the mental health of the younger generations”. YouthDMH is specifically designed to help in addressing this challenge. It will focus on the role that digital technologies can play in supporting the mental health needs of young people. Overall, it will consider the ways in which technology can support mental health from the point at which young people first become aware of the difficulties, through to the delivery of large-scale evidence-based interventions. It will do so in a way that ensures young people and marginalised communities have a voice in envisaging the future. The core aim is to maximise the positive application of technology, whilst also mitigating the potential negative impact. The YouthDMH COST Action will establish a sustainable pan-European network, that is inclusive, interdisciplinary and intersectoral. It will support knowledge transfer, creation and dissemination and lay the foundations for coordinated research on the use of technology to support mental health in young people. Activities throughout the Action will help bridge the gap between research and practice. The Action will also provide policy guidance and recommendations for government, civil organisations and funding bodies.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Psychology: Social psychology 2. Psychology: Clinical Psychology 3. Computer and Information Sciences: Ethics of computer and information sciences 4. Health Sciences: Health services, health care research 5. Computer and Information Sciences: Theoretical aspects of pervasive and ubiquitous computing	1. digital mental health 2. young people 3. human computer interaction 4. help and information seeking 5. assessment and intervention

COST Members
Main Proposer: Ireland
Network of Proposers:
Full Member: Cyprus, Estonia, Ireland, Lithuania, Netherlands, Portugal, Romania, Slovakia, Spain, United Kingdom

Main and secondary proposers: 41.66% YRI / 45.8% Women /60% ITC

Industrial Dimension
SMEs: Spain

CA23154
Environmental impact of anthelmintics in livestock and alternatives to minimize their use
(OC-2023-1-26919)

SUMMARY
Pasture-based animal production systems play a vital role in promoting sustainable farming practices in Europe. These systems rely on grass grazing as an affordable feed source on the farm. However, these systems have certain disadvantages, particularly concerning animal health since grazing livestock are very susceptible to infections caused by helminth parasites. These infections can impose a substantial economic burden on the food production system and the most commonly used method for their control is the administration of anthelmintic drugs. However, these drugs have been considered recently emerging contaminants because their presence in both terrestrial and aquatic ecosystems poses significant environmental risks. Under this context, the objective of ENVIRNAT is to advance, consolidate and disseminate research and knowledge on the environmental occurrence and ecological impact of anthelmintics administered to livestock and to propose more sustainable practices and methods to minimize their use in the control of helminth infections. This proposal aims to (i) to monitor the sale, use and efficacy of anthelmintics in European livestock farming; (ii) to investigate factors related to farming practices, the environment and climatic conditions that favour the persistence of anthelmintics in the environment; (iii) to assess the impact of anthelmintic residues on ecosystems; (iv) to develop sustainable methods to reduce the use of anthelmintics in a variety of European settings; (v) to conduct socio-psychological research on barriers that may arise in the implementation of sustainable methods; (vi) to model the impact of anthelmintic use, considering both animal health benefits and ecosystem risks through benefit-risk assessment.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Veterinary science: Veterinary medicine (miscellaneous) 2. Earth and related Environmental sciences: Environment chemistry	1. Anthelmintics 2. Ecotoxicity 3. Livestock 4. Sustainable methods

COST Members
Main Proposer: Spain
Network of Proposers:
Full Member: Belgium, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Netherlands, North Macedonia, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Türkiye, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 30.13% YRI / 50.7% Women /54.17% ITC

International Cooperation
Near Neighbour Country: Tunisia
International Partner: Argentina, Brazil

Specific Organisations
EU Institutions, Bodies, Offices and Agencies (EC/EU): University College Dublin
International Organisation: Latifa EL HACHIMI; Andres Garcia Campos

Industrial Dimension
SMEs: Belgium, Greece
Large companies: Spain

CA23155
A pan-European network of Ocean Tribology
(OC-2023-1-26925)

SUMMARY
The main aim of this Ocean Tribology Center (OTC) COST Action is to create a pan- European-wide network of countries with a strong offshore affiliation for promoting collaboration and knowledge-sharing towards the development of sustainable, reliable and energy efficient ocean systems. The network will focus on the science and technology of friction, wear, and lubrication of interacting surfaces in motion and operating in a marine environment, hence, coining it as ocean tribology. The network will combine expertise and infrastructure to generate insights that are applicable to different ocean systems or offshore installations, including offshore energy generators (wave, tidal, offshore wind, floating solar), subsea/submersible equipment and machinery on ships. It is driven by the ambition to realize sustainable and energy-efficient systems that can withstand the harsh ocean conditions with minimal ecological impact on the aquatic environment.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Mechanical engineering: Sustainable engineering	1. tribology 2. ocean systems 3. friction 4. wear 5. lubrication

COST Members
Main Proposer: Belgium
Network of Proposers:
Full Member: Belgium, Croatia, Czech Republic, Estonia, Germany, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, United Kingdom

Main and secondary proposers: 19.04% YRI / 11.9% Women /50% ITC

Industrial Dimension
SMEs: Germany, Netherlands, Portugal
Large companies: Belgium, Germany

CA23156
European Network for Sigma-1 Receptor as a Therapeutic Opportunity
(OC-2023-1-26928)

SUMMARY
The sigma-1 receptor (S1R) is a ligand-regulated endoplasmic reticulum chaperone protein and a target for innovative compounds for the treatment of neurodegenerative and inflammatory diseases, cancers and pain diseases. The SIGMA-1 EUROPE network will bring together disciplines and expertises across Europe to advance the exploration and identification of the role of the Sigma-1 receptor in physiology and pathologies, to design innovative S1R ligands for cellular biology and medicine, and ultimately to train young reserachers and innovators to revise our views of the diseases, to think out-of-the-box and explore novel and innovative therapeutic opportunities.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Basic medicine: Pharmacology, pharmacogenomics, drug discovery and design, drug therapy	1. Pharmacology 2. Drug development 3. Translational training 4. Cytoprotection 5. Pain

COST Members
Main Proposer: France
Network of Proposers:
Full Member: Austria, Belgium, Croatia, Estonia, France, Georgia, Germany, Hungary, Italy, Latvia, Poland, Portugal, Romania, Slovakia, Spain, Sweden, United Kingdom
Cooperating Member: Israel

Main and secondary proposers: 10% YRI / 40.5% Women / 50% ITC

Industrial Dimension
SMEs: Hungary

CA23157
European Network for Multiple View Life Cycle Sustainability Assessment
(OC-2023-1-26944)

SUMMARY
MultiViewLCSA aims to bring together academia, industry and policy makers into a pan- European network to advance the research frontier of Life Cycle Sustainability Assessment (LCSA) to facilitate sustainable business models (BM). On the one hand, LCSA is on a relatively immature state which is characterized in terms of varied maturity in the assessment of three sustainability pillars (environmental, economic and social), limited data availability and data quality, unharmonized integration methodology, and manual LCSA tools with high requirements on personal skills. On the other hand, emerging BMs such as servitization BM and dematerialized BM are flourishing. More traditional business sectors are making attempts to explore them to look for new profit growth points. Pushed by the strict sustainability regulations, they are willing to implement sustainable business scenarios with the innovative BMs. However, the current LCSA methodology assess sustainability on basis of product rather than the way of creating value, and are too general to organize data in the view of BMs. With the vision of building sustainable society, this action will build an interdisciplinary community which involve the required expertise across the whole value chain to probe into feasible solutions in terms of multiple view modelling technique for LCSA, data governance framework and automatic LCSA tool. It will strengthen the collaborations between countries across and beyond Europe with concern of less research intensive countries. MultiViewLCSA will have a strong focus on knowledge sharing, and encourage early career researchers to play leadership roles in the Action to accelerate their career development.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Environmental engineering: Environmental impact, Life Cycle Assessment 2. Computer and Information Sciences: Theoretical aspects of data curation, data mining and database handling 3. Economics and business: Sustainability 4. Electrical engineering, electronic engineering, Information engineering: Development of scientific computing, data processing, simulation and modelling tools 5. Sociology: Social structure, inequalities, social mobility, social exclusion, income distribution, poverty	1. Life Cycle Sustainability Assessment 2. Multiple View Modeling 3. Sustainable Business Models 4. Data Governance 5. Sustainable Development Goals

COST Members
Main Proposer: Sweden
Network of Proposers:
Full Member: Austria, Bulgaria, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Spain, Sweden, Türkiye, United Kingdom

Main and secondary proposers: 39.62% YRI / 45.3% Women /50% ITC

International Cooperation
International Partner: Australia

Specific Organisations
EU Institutions, Bodies, Offices and Agencies (EC/EU): SALUBRIS SA
International Organisation: UNEP Copenhagen Climate Centre

Industrial Dimension
SMEs: Denmark, Finland, Greece, Sweden, United Kingdom
Large companies: Norway, Romania

CA23158
Artistic Intelligence - Responsiveness, accessibility, responsibility, equity
(OC-2023-1-26947)

SUMMARY
Artistic intelligence refers to the collective capacity of artistic and practice-based research to generate impact and value beyond the project-specific, singular outcomes of an individual project. This COST Action explores value propositions based on the data, information and knowledge that emerge from the relationships between artistic research projects, research practices, and research cultures that are usually excluded from or ignored by conventional evaluation schemes.

Artistic and practice-based research is increasingly called upon to enable cross- disciplinary research to address complex societal challenges in collaborative ways. However, most of this research is currently conducted in isolation from the work of related or relevant researchers who have already addressed similar questions or come to different conclusions - let alone the potential for linkages with other forms of scientific research.

As a result, even new projects tend to de-prioritise referencing, contextualising their sources and referring to a state-of-the-art that might even include results from other disciplines. On the other hand, the methods and results of research are difficult to trace and access for anyone who has not been involved in the process.

The Action responds to the lack of common standards, challenging isolated, non- referenced research processes across the arts and culture. It aims to link emerging initiatives in practice-based research by exploring current technological possibilities for accessing, linking and validating them within a common framework of artistic intelligence.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Arts: Visual arts 2. Arts: Performing arts 3. Arts: Databases, data mining, data curation, computational modelling 4. Other humanities: Cultural heritage, cultural memory 5. Media and communications: Library science	1. Artistic Research 2. Research Policies 3. Machine Learning 4. Knowledge Transfer 5. Post-disciplinarity

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Austria, Bosnia and Herzegovina, Croatia, Cyprus, Czech Republic, Estonia, Finland, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland, Türkiye, United Kingdom

Main and secondary proposers: 18.75% YRI / 33.3% Women /57.69% ITC

Industrial Dimension
SMEs: Croatia

CA23159
Decarbonising Waterborne Transportation
(OC-2023-1-26957)

SUMMARY
The proposed project, focuses on addressing the challenge of global warming and its connection to rising Earth temperatures, with a particular emphasis on the role of the shipping industry in international trade. It introduces the concept of "green shipping" as a comprehensive approach to enhance environmental conditions within the shipping sector.

The project outlines various technological and operational strategies, including optimizing ship hull design, implementing energy-saving devices, exploring alternative fuels, utilizing wind energy, and employing artificial neural networks (ANN) for predicting fuel consumption and emissions. Additionally, it highlights the use of Automatic Identification System (AIS) data for studying ship emissions' impact on air quality.

The primary objective of the proposed project is to achieve a higher level of sustainability in shipping by reducing CO2 emissions, enhancing energy efficiency, and ensuring compliance with international regulations. This initiative sets clear and ambitious goals, such as developing numerical models, assessing the performance of technology combinations, fostering capacity-building, and influencing transport policy measures to promote sustainable maritime practices.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Environmental engineering: Ocean engineering, sea vessels 2. Environmental engineering: Air pollution 3. Environmental engineering: Sustainable engineering 4. Mechanical engineering: Sustainable engineering 5. Civil engineering: Transport engineering	1. waterborne transportation 2. ship performance 3. energy efficiency 4. decarbonisation 5. greenhouse gas emissions

COST Members
Main Proposer: Portugal
Network of Proposers:
Full Member: Greece, Netherlands, Portugal, Romania, Spain, Türkiye, United Kingdom

Main and secondary proposers: 0% YRI / 25% Women /57.14% ITC

CA23160
Effective Lake management: reducing cyanobacteria by actions in the catchment
(OC-2023-1-26958)

SUMMARY
The increasing occurrence of toxic cyanobacterial blooms as a consequence of anthropogenic nutrient pollution in fresh water ecosystems threatens water security and quality worldwide for humans, animals and severely disrupts ecosystem balance.
Therefore, the implementation of thorough monitoring strategies for cyanobacteria along with evaluation of the risks of bloom incidents and a plan for prevention and control measures are now required in water safety plans by water suppliers. The significant economic losses to water companies, fisheries, recreational activities and businesses caused by cyanobacterial blooms require greater attention from policymakers. A suite of in- lake control methods exists, but there is little guidance on their efficiency. Decreasing nutrient input from the catchment is crucial for long-term prevention/ reduction of blooms and would be possible by the transition towards a more sustainable low nutrient leakage agriculture, but needs implementation strategies. The proposed COST action aims to increase and broaden capabilities throughout Europe for effective and sustainable management of water resources with a catchment wide approach by creating a unique network of experts, end users and stakeholders. Gathering and distributing information on early warning detection methods and experience in the effectiveness on both long and short-term control methods will underpin Decision Support Tools for water managers and authorities ensuring selection of appropriate methods for a specific waterbody. The overarching goal is a close exchange between scientific knowledge and management practices in order to decrease cyanobacteria blooms taking into account the different characteristics of the water body and its catchment and the regulation throughout Europe.

SCIENTIFIC SCOPE

Areas of Expertise	Keywords
1. Biological sciences: Environmental and marine biology 2. Agriculture, Forestry, and Fisheries: Sustainable Agriculture 3. Earth and related Environmental sciences: Terrestrial ecology, land cover change 4. Chemical sciences: Analytical chemistry	1. Cyanobacteria 2. Catchment 3. Bloom control 4. preventive control actions 5. curative control actions

COST Members
Main Proposer: France
Network of Proposers:
Full Member: Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Germany, Greece, Italy, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Spain, Switzerland, Türkiye, United Kingdom

Main and secondary proposers: 24.52% YRI / 50.9% Women /56.52% ITC

International Cooperation
International Partner: Australia, Canada, New Zealand, United States

Industrial Dimension
SMEs: France, Slovenia, Spain
Large companies: Bulgaria, Greece, Netherlands