ufuk2020 AB Yeşil Mutabakatı Çağrı

Çağrı Alanı	Çağrı Konusu	Çağrı Kapsamında Ele Alınacak Sorunlar	Amacı	Desteklenecek Faaliyetler		Bütçe (Milyon €)	Proje Başına Bütçe	Proje Türü ve Hibe Destek Oranı	Özel Koşullar
1: İklim Değişikliği ile Mücadele:Ortak Kesişen Alanlar (Increasing climate ambition: cross-sectoral challenges)	1.1. Preventing and fighting extreme wildfires with the integration and demonstration of innovative means	• reduce the incidence and extent of forest fires • to boost the EU's ability to predict and manage environmental disasters	• research, demonstration and deployment of innovative means and methods tailored to extreme wildfire behaviour •proactive governance, change of forest management practices	Accelerate & demonstrate holistic solutions adapted to the new context of wildfires, integrating: • Environmental, climate & socio-economic research, forecasting & strategy (eg biomass) • Research, innovation & pre-deployment of better ground & aerial systems, techniques and capabilities (physical & digital) to prevent, predict, monitor, extinguish & recover. • Proactive governance, large-scale & community-based risk assessments, education / training, preparedness & adaptation – key: citizens, forest sector, first respondents. Tailor and demonstrate the integrated solutions on the field with end-users in pilot sites across Europe in different contexts (forest/bush/peat; wildland-urban interfaces/alpine/coastal; cross-border areas ...)	Subtopic 1: Speed up the pan-European adaptation process to extreme wildfires by advancing and applying research and innovation, including demonstration pilot sites	72	15-20	Inovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	In line with the strategy for EU international cooperation in research and innovation, multilateral international cooperation is encouraged, in particular with United States, Canada, Australia, Russia, Brazil, South America, Indonesia, Japan and South Africa to leverage knowledge, resources and best practices, as well as to decrease risks and increase impact worldwide.
					Subtopic 2: This action aims to ensure that the demonstration of innovative and integrated approaches fulfils the expected impacts, by coordinating and supporting the Innovation Action projects funded under this topic.	2-3 (Sadece bir proje)		Destek ve Koordinasyon Eylemleri (CSA) projeleri: %100	Participating cities and/or local communities are expected to engage the necessary resources and commit to the deployment of their action plan and the achievement of the expected impacts stated below. The consortium must possess, among others, good knowledge and expertise in EU urbanrelevant programmes and initiatives, urban planning, state-of the-art in technological innovation for climate neutrality, social innovation and stakeholders engagement, financing programmes (such as the, Horizon 2020, EU European structural and investment funds, EIB, EBRD...) and European / international umbrella organisations (such as the C40, CIVITAS, POLIS, EU Covenant of Mayors/ Global Covenant of Mayors, ICLEI etc.).
1: İklim Değişikliği ile Mücadele:Ortak Kesişen Alanlar (Increasing climate ambition: cross-sectoral challenges)	1. 2. Towards climate-neutral and socially innovative cities	• achieving significant progress towards climate neutrality at a large (European) scale by fostering climate-neutrality and social innovation in cities	• to develop a one-stop shop platform providing the necessary technical, regulatory, financial and socio-economic expertise as well as assistance to cities for developing and implementing their climate action plans, and related social innovation action plans. • to support cities into using Green Deal-targeted social and technological innovation to co-create, test and implement holistic & integrated solutions with citizens and trigger changes in social practices and behaviour	• Support the development of climate action plans in cities (and local communities) • Combine existing results of EU R&I with social innovation, and take advantage of the digital transformation to co-create and test solutions with local communities, including changes in social practices and behaviour • Establish a one-stop shop in partner cities to help them implement their climate action plans • Support twinning and mentoring on Green Deal objectives between cities from different countries and different sizes and creating a European ecosystem of social innovation hubs and local communities making the Green Deal happen • Support large scale pilots of systemic solutions combining technological, social, cultural, regulatory and/or financial aspects, inspired by good practices available at local, national and/or European level **The proposal should address all of the following four activities:** Activity 1: Climate action plans and Green Deal innovation Activity 2: Investment project preparation and finance: Activity 3: Social innovation and citizens' engagement: Activity 4: Research and Innovation for climate-neutral transformation of cities		53	at least 60% should be allocated to activities covered under Activity 4 for the financial support to third parties (0.5 mEUR - 1.5 mEUR)	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	
1: İklim Değişikliği ile Mücadele:Ortak Kesişen Alanlar (Increasing climate ambition: cross-sectoral challenges)	1.3. Climate-resilient innovation packages for EU regions	•to scale up and demonstrate at large scale systemic solutions to trigger behavioural change and new ways of decision-making, while accounting for local and regional contexts.	•test, evaluate and scale-up a range of adaptation solutions with the aim to trigger societal transformations among key community systems that are central to resilience building and sustainable growth.	Subtopic 1: Innovation Packages for transformational adaptation of European regions and communities.		42	15-20	Inovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	Proposals should address only one of the subtopics.
				Subtopic 2: Support the design, testing and upscale of Innovation Packages		3		Destek ve Koordinasyon Eylemleri (CSA) projeleri: %100	

2:Temiz, erişilebilir ve güvenli enerji (Clean, affordable and secure energy)	2.1. Demonstration of innovative critical technologies to enable future large-scale deployment of offshore renewable energy technologies (with the possibility to address also hydrogen applications)	•the development of land-based renewable energy technologies and their integration into the energy system •demonstration of innovative technologies to enable future large scale deployment of offshore renewable energy	•develop innovative solutions for either district heating and/or cooling systems or CHP, combining different highly efficient land-based renewable energy sources. •demonstrate at sea critical offshore renewable energy innovations	Demonstration of critical offshore renewable energy innovations at sea considering the efficiency, reliability and sustainability that is needed in all areas of the offshore renewable energy system notably: -Offshore renewable energy power generating systems: innovative large scale integrated systems, floaters and substructures, mooring and anchoring systems specifically conceived for floating offshore systems. -Grid infrastructure: demonstration of innovative High Voltage Direct Current (HVDC) technologies and systems (like multi-vendor Multi Terminal HVDC (MT HVDC) systems, grid forming converter, and DC circuit Breaker); for floating renewable energy technologies innovative dynamic inter-device/inter-array cables and connections to converter stations at sea or offshore hubs have to be considered. -Power to X /storage systems: innovative storage and/or green power to X (including hydrogen) systems to maximise the use of offshore resources.	Subtopic 1: Development of land-based renewable energy technologies and their integration into the energy system	68	3-6	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	Proposals shall address at least the offshore renewable power generating systems and the related energy system integration requirements, and may address grid infrastructure and/or power to X/storage systems. Multi-functional platforms can be considered. Proposals shall address also the following: • Industrial design and manufacturing processes, installation methods, transport, operation & maintenance, supply chains and the related digital infrastructures. • Circularity, regulatory, market and financial challenges. • Marine spatial planning issues (making multi-use of the seas possible, but also considering optimising environmental impacts) as well as currently known barriers such as costs, public acceptance and vulnerability to changing climate conditions in offshore areas. Teknolojiler TRL 7 Seviyesine getirilmesi beklenmektedir • Projects are requested to demonstrate the technologies at sea while respecting existing environmental regulatory framework • Present an environmental monitoring plan to be implemented during the demonsration activities
					Subtopic 2 (Innovation Action): Demonstration of innovative technologies to enable future large scale deployment of **offshore renewable energy**	60	20-35	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	
2:Temiz, erişilebilir ve güvenli enerji (Clean, affordable and secure energy)	2.2. Develop and demonstrate a 100 MW electrolyser upscaling the link between renewables and industrial applications	•to develop larger modules than the state of the art, with reduced balance of plant, managing efficiently the input power, the output hydrogen and oxygen streams, as well as the heat flows, while ensuring the reliability of the system and reducing the footprint through a more compact design.	to install and operate a 100 MW electrolyser to produce renewable hydrogen, as energy carrier or as a feedstock.	Proposed activities: 1. Develop modules of 4-5 MW (or larger) with reduced balance of plant, managing efficiently the input power, the output hydrogen streams and the heat flows, while ensuring the reliability of the system and reducing the footprint 2. Assemble the modules into a 100MW electrolyser system 3. Test and demonstrate the 100MW electrolyser in real life conditions, operating flexibly to harvest maximum renewable power and provide gridbalancing services, and supplying renewable hydrogen to a commercial/industrial application 4. Assess the performance and the durability of the electrolyser operating dynamically 5. Address potential safety issues		60	20-35	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	•Projects should have a duration of 5 years, with at least 2 years of operation. Combination with other EU or national financing instruments will be incentivised, namely the usage of financial instruments to de-risk the operational activity. The project has to include a clear go/no go decision point ahead of entering the deployment phase (committee of independent experts will assess all deliverables and will give advice on the go/no go decision) •Funding rate is reduced to 50%.
3: Temiz ve döngüsel ekonomi için sanayi (Industry for a clean and circular economy)	3.1. Closing the carbon cycle in industry: renewable energy driven reduction of CO2 using innovative catalytic materials and technologies	Greening of industrial and energy production, storage and distribution by use of CO2 emissions from industrial processes.	Develop and deploy highly innovative and recyclable catalytic material systems Develop innovative, renewable energy driven, catalytic processes Demonstrate the full value chain for industrial production (including SMEs) of synthetic fuels and chemicals, whilst reducing greenhouse gas emissions; Address financial, regulatory, environmental, land and raw material (including critical raw materials) constraints.	Develop and deploy highly innovative catalytic materials and renewable energy driven technologies for the production of synthetic fuels, polymers and chemicals from industrial waste gas emissions (CO2 and CO streams) • with a 50% increase in the overall efficiency compared to the state-of-the-art • at a sufficiently large scale with a demonstrated cost effectiveness • with a demonstrated exploitability of the developed technology through the full value chain		80	40	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	duration of up to 5 years
3: Temiz ve döngüsel ekonomi için sanayi (Industry for a clean and circular economy)	3.2. Demonstration of systemic solutions for the territorial deployment of the circular economy	How to effectively apply the circular economy concept beyond traditional resource recovery in waste and water sectors at the territorial level.	•Proposals funded under this topic will form part of the demonstration projects for the implementation of the European Commission's Circular Cities and Regions Initiative (CCRI). •Each proposal is expected to implement and demonstrate circular systemic solutions for the territorial deployment of the circular economy in one 'circular territorial cluster'. •systemic solutions implemented should also help to create critical mass for public and private investments and public procurement pull for new solutions, and should contribute to overcoming market failures. •systemic solutions implemented and their business models have a high replicability and scalability potential.	Build sustainable, regenerative and just circular economy to reconcile with the limits and boundaries of our planet; • focus on local and regional levels as suitable for closing material loops and creating sustainable circular ecosystems; • demonstrate concrete systemic solutions for the territorial deployment of the circular economy in at least three territorial clusters in Europe; • facilitate their replication. **Proposed activities:** • engage, train, support, coordinate and facilitate the cooperation between key actors constituting each cluster: administrations, industry (including SMEs), scientific community and civil society; •develop and demonstrate science, technology, governance, economic, social and environmental solutions to increase the circularity in key economic sectors such as waste, water, food, feed, wood, terrestrial and aquatic bio-based value chains, textile, plastics, electrical and electronic equipment, construction and buildings; • ensure the exchange of relevant information and experiences within and across clusters and also with other actors not involved in the proposals.		60	10-20	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	Criteria: • sustainability, inclusiveness, and social justice at the heart of each systemic solution; •replicability potential of each solution is essential; • totality of the territorial clusters should reflect a geographical spread within Europe and should be of different sizes and socio-economic structures; • TRL 7-8 at the end of the project.

4: Enerji ve kaynak verimliliği sağlanmış binalar (Energy and resource-efficient buildings)	Building and renovating in an energy and resource efficient way	•a transition in designing and constructing buildings to reduce their embodied emissions and to increase the energy efficiency of their operation; •a transition to energy positive buildings (producing electricity, covering their heating and cooling needs and contributing to the energy grid stability) with sustainable, renewable energy technologies.	To design and construct new or retrofit existing buildings as zero-emission/zeropollution, positive energy powerhouses. The multiplication of such buildings in green neighborhood "living labs" with additional urban functionalities (e.g. shared EV charging facilities) will enable the market and consumer uptake potential of the innovations	•Proposals are expected to deliver at least two (residential and non-residential, new and/or retrofitted) large-scale, real-life demonstrations of promising technology, process and social innovations, in different regions of Europe. •The objective of the demonstrations is to test, in view of scaling up and wide replication, the proposed innovations across the whole value chain. **Proposed activities:** •Scalability design of positive energy neighborhoods well embedded in the spatial, economic, technical, environmental and social context of the sites • High energy efficiency building designs (incorporating thermal design and orientation), adapted to local environments; highly efficient building operation. • Innovative and more energy efficient integrated renewable electricity technologies in the buildings and urban service facilities. • Innovative and sustainable highly energy and cost efficient RES heating and cooling solutions. • Energy storage systems (e.g. using second life batteries from electric vehicles) without limiting the use of living space (e.g. neighbourhood optimized storage). • Digital technologies for system monitoring at neighbourhood scale, as well as digital solutions to increase energy efficiency of building systems' and appliances' operation. • Education and training for sustainability, conducive to competences and positive behaviour/good habits for a resource efficient and environmentally respectful energy use. • Accelerating innovation spread through involvement of the whole buildings value chain and coordination on standards and regulatory aspects for efficiency of buildings and heating and cooling technologies.	60	10-20	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	
5: Sürdürülebilir ve akıllı ulaşım (Sustainable and smart mobility)	Green airports and ports as multimodal hubs for sustainable and smart mobility	=Large-scale, real-life demonstrations of green airports, maritime and inland ports =green airports and ports, as multimodal hubs in the post COVID-19 era for sustainable and smart mobility have a great potential to immediately contribute to start driving the transition towards GHG-neutral aviation, shipping and wider multimodal mobility already by 2025	Building on best practices (technological, non-technological and social), as well as ongoing projects and planned initiatives in European airports and ports, actions should address the activities EITHER under area A) Green Airports OR under area B) Green Ports Each consortium should include a leading "Lighthouse" airport or port, which will demonstrate the novel concepts and solutions and a further three (at most) "Fellow" airports or ports that will be actively associated in helping to define and incorporate their specificities in the more general approach and solutions, follow closely the demonstration actions and are committed to implement the best practices identified and results produced by the project.	Proposed activities: • Pilot/demo plants of zero-emission energy production and supply at ports and airports (electricity, hydrogen, sustainable alternative fuels) • On-shore supply systems, storage, distribution and power/re-charging/alternative re-fuelling infrastructure for aircrafts and ships • Large-scale, real-life high TRL demonstrations of green maritime and inland ports, of different sizes, across 3 airport dimensions: transport; energy supply; terminals • Integration with operations and green logistics, innovative construction, dredging, infrastructures, effective and green land use • New tools and optimisation mechanisms for multimodal access, passenger and freight flows into / out of ports and airports, facilitating access and reducing traffic from / to the city • Non-technological framework conditions, new multi-actor governance and investment analyses	100	15-25*	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	*Max. 20% of the requested EU contribution should be for the Fellow airports or ports
6: Tarladan sofraya (Farm to Fork: testing and demonstrating high impact innovations to address food system challenges in a place-based context)	Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy	to feed a fast-growing world population and steer food systems within a safe and just operating space - encompassing planetary health, economic viability and social welfare, and including human health	A. Achieving climate neutral farms by reducing GHG emissions and by increasing farm-based carbon sequestration and storage B. Achieving climate neutral food businesses by mitigating climate change, reducing energy use and increasing energy efficiency in processing, distribution, conservation and preparation of food (IA) C. Reducing the dependence on hazardous pesticides; reducing the losses of nutrients from fertilisers, towards zero pollution of water, soil and air and ultimately fertiliser use D. Reducing the dependence on the use of antimicrobials in animal production and in aquaculture E. Reducing food losses and waste at every stage of the food chain including consumption, while also avoiding unsustainable packaging F. Shifting to sustainable healthy diets, sourced from land, inland water and sea, and accessible to all EU citizens, including the most deprived and vulnerable groups	Projects shall test, pilot and demonstrate innovative systemic solutions (TRL 5-8) to one of the following five urgent and pressing food systems' challenges: 1) Achieving climate neutral farms (on land, water and sea) by reducing GHG emissions and by increasing farm-based carbon sequestration and storage; 2) Achieving climate neutral food businesses by mitigating climate change, reducing energy use and increasing energy efficiency in processing, distribution, conservation and preparation of food; 3) Reducing the dependence on contentious pesticides and antibiotics; reducing the use and increasing the efficiency of fertilisers; reducing the losses of nutrients from fertilisers, towards zero pollution; 4) Reducing food losses and waste, while avoiding unsustainable packaging; 5) Shifting to sustainable healthy diets , sourced from land, water and sea, and accessible to all EU citizens, including the most deprived and vulnerable groups. Successful projects should go well beyond technological solutions. They should focus on systemic innovations that maximise synergies such as with animal welfare and minimise tradeoffs to deliver on the three dimensions of sustainability (social/health, climate/environmental and economic), that increase resilience of food systems to shock and stresses, bring them back in a safe and just operating space and contribute to sufficient, safe, nutritious, and affordable food for all. Projects will: 1) maximise synergies and minimise trade-offs between the three dimensions of sustainability (social/health, climate/environmental and economic) & respect planetary boundaries. 2) address one of the 4 challenges & integrate the following elements: • Systemic approach at the basis of a plan to tackle the challenge: from identifying drivers and root causes of systemic challenge to assessing impact of solutions • Multi-actor approach, engaging partners to co-create, test and demonstrate solutions • Most appropriate mix of innovations: technologies, business models, governance models, and social innovations, taking into account the placebased context • An action plan for communication and engagement, in and beyond the regions where the activities take	72	9-12	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	Projects should pay particular attention to: • Applying system thinking/systems approaches to define the challenge, including in-depth systemic analyses of its drivers and root causes; to identify possible innovative systemic solutions; to develop approaches and roadmaps to promote their uptake and upscaling in the EU; to assess their expected and actual impact including risks, synergies, and trade-offs with regards to the three pillars of sustainability (social/health, climate/environmental and economic), food and nutrition security, food system resilience and the objectives outlined in the Farm to Fork Strategy and the Green Deal. • Adopting a multi-actor and cross-sectoral approach engaging practitioners (primary producers, processors, retailers, consumers), public and private institutions (NGO and governmental institutions) and citizens from farm to fork to co-create, test and demonstrate solutions in practice, on a European scale but with attention for geographic and sectoral needs and contexts. Foster collaboration, building bridges and breaking silos between actors of the food chain and between primary sectors as well as collective action. Take specific care to engage young professionals (e.g., young farmers, young fishers, young researchers, young entrepreneurs, etc.), SMEs and citizens. •Including the most appropriate mix of innovations, such as novel and digital technologies, new business and supply chain models, new governance models, ecological and social innovations while taking into account geographic and sectoral contexts (including environmental) and needs, both for production and consumption. The projects shall focus on upscaling innovations (TRL level 5-8), and can include limited research activities to address specific gaps for solution building, testing and demonstration. Particular attention should be given to understand behaviours, motivations and barriers, with a view to maximizing the uptake of solutions. • Where appropriate, federating existing testing and demonstration facilities to strengthen their capacity to address the challenge and showcase solutions. • Delivering and implementing an action plan for dissemination, communication and engagement, for building awareness, education and skills relevant to the solutions on a European scale, in and beyond the regions where the activities take place, among businesses, investors, entrepreneurs, institutions, stakeholders and citizens. Promote their widespread uptake, realize behavioural change, and stimulate

7: Ekosistem ve Biyoçeşitlilik (Restoring biodiversity and ecosystem services)	7. Restoring biodiversity and ecosystem services	to show how investing in nature restoration can explicitly help vulnerable regions and communities to improve their resilience to social and environmental shocks, when rapid changes in climate and environment, economies and social conditions occur.	Actions should demonstrate how restoration (in biodiversity richness and abundance, structure, function and connectivity) of ecosystems and their services can be scaled up, in collaboration with stakeholders, so that opportunities for substantial biodiversity and ecosystem services gains will be realised, which in turn deliver social and economic benefits This pilot is a European Green Deal enabler and can be used as a testbed for further green infrastructure/nature-based solution investment by the European Investment Bank (EIB), for LIFE SNAPs, and relevant further budget lines in the next Multiannual Financial Framework. Actions should also test and evaluate innovating approaches for creating value with human communities undergoing transformative change, avoiding negative externalities and improving their living conditions by restoring their terrestrial and/or aquatic environment.	Test, demonstrate and promote systemic solutions for up-scaling the restoration of biodiversity and ecosystem services : Proposed activities: • Restore degraded ecosystems at sea and on land at large scale • Test innovative methods for upscaling restoration • Replicate deployment of restoration towards resilient ecosystems and their services at regional, national and cross-border levels • Address barriers to the implementation of nature-based solutions • Showcase in practice how to maximize synergies and avoid trade-offs between priorities for restoring biodiversity, mitigating and adapting to climate change • Support the development of specific demand and supply chains in restoring ecosystems • Work for communities in transition affected by transformative change through the restoration of their degraded terrestrial and marine environment • Developing answers on how to frame transformational change, which supports a just transition by investing in nature, to explicitly help vulnerable regions and communities to improve their resilience when rapid changes in climate and environment, economies and social conditions occur. • Generate knowledge on how enabling transformative change can be beneficial for biodiversity and climate change, and bring this information into IPBES and IPCC processes	80	16-25	I-İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	The projects will develop a scalability plan, diffusion of solutions, and a process for commitments in adopting large-scale restoration within existing governance and financing systems, so relevant communities can replicate the upscaling across the EU and internationally. It should seek guarantees for the non-reversibility of restoration activities after the end of the projects. Activities of this topic related to improving ecosystem condition must be integrated into best practice or innovative monitoring activities within relevant monitoring governance schemes (no new restoration monitoring approaches should be developed within the projects). The projects must explicitly foresee deliverables which allow monitoring schemes to apply (or test, if necessary) efficiency and output indicators related to restoration, its benefits and trade-offs. This topic should respond to the urgency for addressing upscaling restoration challenges, restoration potential of degraded ecosystems, significance of research for supporting EU policy needs and contribution to the international biodiversity agenda, technical and economic feasibility of proposed actions, EU added value, co-benefits across multiple sectors, addressing identified knowledge gaps, and synergies/complementarity with R&I Partnerships and Missions, and with MFF programmes.
8: Sıfır kirlilik, toksiklerden arınmış çevre (Zero-pollution, toxic-free environment)	8. 1. Innovative, systemic zero-pollution solutions to protect health, environment and natural resources from persistent and mobile chemicals	Pollution from **persistent and mobile chemicals** is often a systemic problem, as it is driven by factors closely related to the **prevailing ways of production and consumption** and is reinforced by **missing appropriate technical solutions.**	To advance our knowledge on health impacts and environmental effects and to address and preferably prevent a specific pollution problem involving contamination of environmental resources (such as soil, sediments, air, food and drinking water). The solutions developed should lead to: cost-effective prevention, monitoring and to, as a last resort, mitigation or elimination of the issues (e.g. mitigation or remediation efforts in particularly affected geographic areas). better understanding of environmental fate and help proactively prevent negative impacts from persistent and mobile chemicals (and, where relevant, their precursors) on humans and the environment.	Proposed activities: • Research and development of remediation technologies of contaminated soil and water for persistent and mobile substances; • New methods to measure persistent and mobile chemicals in different media; • Develop and carry out environmental and human (bio)monitoring of persistent and mobile substances; • Gather toxicity and toxico-kinetic information in order to allow characterising all risks to human health; • Develop best practices for the management of waste containing persistent and mobile substances	40	8-12	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	The successful projects shall include elements, such as research and development of (bio)remediation technologies of contaminated soil and water for persistent and mobile substances, including sources of drinking water for persistent and mobile chemicals; development of new cost-effective high-resolution methods to measure and separate persistent and mobile chemicals in different media; environmental and human (bio)monitoring of persistent and mobile chemicals; gathering of toxicity and toxico-kinetic information in order to allow characterising all risks to human health, arising from the exposure to the entire group of these substances, including effects on the immune system; development of best practices for the management of waste containing persistent and mobile substances; and detection and identification of specific pollution problems. Proposed solutions should be cost-effective and easily implementable to encourage their uptake. Therefore, close consultation with potential end-users during the project life-time is recommended.
8: Sıfır kirlilik, toksiklerden arınmış çevre (Zero-pollution, toxic-free environment)	8. 2. Fostering regulatory science to address combined exposures to industrial chemicals and pharmaceuticals: from science to evidence-based policies	There is a need to advance regulatory science to **provide policy-makers and risk assessors with validated and practically applicable approaches** , methods and tools and to study the effectiveness and efficiency of different policy approaches.	Applied research studies, demonstrating how new tools and methodological approaches from regulatory science that are workable in a regulatory context and are based on the latest scientific evidence, can be applied to identify, quantify and prevent harmful co-exposures to industrial chemicals and pharmaceuticals. Selected projects under this topic are strongly encouraged to continuously share information and participate to joint activities to optimise synergies to address policy-relevant knowledge gaps.	Proposed activities: • Demonstration of innovative solutions to quantify and prevent the most harmful co-exposures to industrial chemicals and pharmaceuticals. • Advanced solutions for the establishment of causality between co-exposures and effects • Development of targeted and non-targeted high-throughput technologies for screening, and advanced bioinformatics approaches, such as artificial intelligence and other data mining methodologies, to identify the most representative real-life mixture scenarios in humans • Identification of lead components in mixtures, responsible for the impact on human health and the ecosystems	20	4-6	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	The applicants can address some or all of the following: (i) Evidence-based solid case studies of which safety margins would actually protect people, including vulnerable groups, and ecosystems, while taking accumulated exposure into account over a longer time scale; (ii) Develop and apply modelling, statistical approaches and other relevant methods to study the impacts of chemical mixtures on human populations and the environment, e.g. through linking particular cases identified and effects on the wider population and on ecosystems; (iii) The possible effects on humans of (chronic) exposure to low levels of pharmaceuticals via the environment, taking account of the potential for combined effects from multiple substances, and of vulnerable sub-populations (iv) Improvement of models for (chronic) exposure to mixtures, which can be applied in a premarket stage (risk assessment, authorisation and restriction of chemicals), and possibly already at the design phase of chemicals and materials, to predict contribution to combined and overall exposure/risk/toxicity; (v) Validation of models for (chronic) exposure to mixtures through actual testing and sampling; (vi) Estimations of the degree to which current regulatory practices/approaches underestimate (or possibly occasionally overestimate) risks related to chemicals exposure (based on particular case studies, modelling and overall estimations); (vii) Comparisons of different possible regulatory approaches to manage chemical mixtures with current situation, including regarding effectiveness (improved protection of health and the environment), workability, cost-effective methods and benefits to society and business; (viii) Improvement of the knowledge base on mixtures and their health and environmenta
9:Avrupa Araştırma Alt Yapılarına destek için bilginin güçlendirilmesi (Strengthening our knowledge in support of the European Green Deal)	9. 1. European Research Infrastructures capacities and services to address European Green Deal challenges	The urgency and the scale of Green Deal challenges require the mobilisation and advancement of world-class scientific capacities and resources such as those offered by European Research Infrastructures. ::Mobilisation and advancement of world-class capacities and resources such as those offered by European Research Infrastructures (RIs) for energy storage and climate/environment observation.	•Proposals will address one of the following sub-topics: ••Support Europe leadership in clean energy storage technologies (7 mEUR) ••Enhancing European research infrastructures for greenhouse gases observation in and around cities (13 mEUR) ••Enhancing observations for air quality and citizens' health in urban areas (8 mEUR) •For grants awarded under this topic beneficiaries being 'access providers' must provide virtual access to research infrastructures or installations.	Proposed activities: The activities will focus on: • transnational and virtual access to advanced R&I infrastructures, including users' training and scientific and technical support and data analysis to accelerate the transition toward a decarbonised energy/transport EU system • provision of integrated and customised services and innovative solutions for the observation and monitoring of GHG emissions, ultrafine particles and air quality, in particular in and around urban areas: interoperable data, tools/equipment and models for the scientific community and public authorities/decision makers • development of synergies between research infrastructures and relevant local, European and global initiatives in different disciplinary areas, including health and social sciences	28	7-13	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	
9:Avrupa Araştırma Alt Yapılarına destek için bilginin güçlendirilmesi (Strengthening our knowledge in support of the European Green Deal)	9. 2. Developing end-user products and services for all stakeholders and citizens supporting climate adaptation and mitigation	Actions are needed for relevant and practical climate adaptation and mitigation solutions and information to reach the end users, help them in building the climate-neutral future they want and address environmental challenges posed by climate change.	Provide more detailed information in space and time, relevant to real-world decision-makers to identify which modes of production, consumption and lifestyle are compatible with climate resilience and pathways achieving climate neutrality by 2050 •Contribute to informing citizens and decision-makers about the impacts of climate change in the decades to come, identify adaptation options, and illustrate what pathways towards climate neutrality entail in terms of production, consumption, planning and lifestyle, incorporating behavioural factors. •Building on existing services and frameworks, such as Copernicus, GEOSS, EMODnet and ESA actions. •Multiplying the outreach through scaling up and replication to a number of players in the business and public sector, as well as in less represented areas in Europe and beyond.	Proposed activities: • Advancing climate science and models, and downscaling their findings to improve their user relevance • Delivering the next-generation of climate services for end users (building on GEOSS and Copernicus services, in collaboration with ESA). •Testing these services on demonstrations sites with the provision of guidance services. • Making the above findings accessible to the public, going beyond existing tools in both scientific robustness and user relevance. • Synthesising this knowledge by bridging the gap between the expert tools already generated by European science, and the stakeholders who are making decisions today that will both affect and be affected by climate change and its impacts. • Converting the mitigation pathways that are compatible with our climate goals into clear information on how production, consumption, infrastructure and lifestyle need to change.	25	3-5	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	

9:Avrupa Araştırma Alt Yapılarına destek için bilginin güçlendirilmesi (Strengthening our knowledge in support of the European Green Deal)	9. 3. Transparent & Accessible Seas and Oceans: Towards a Digital Twin of the Ocean	**This topic supports the development of an EU integrated digital ocean, building on existing Copernicus, EMODNET, ERICs assets, addressing concrete cases in local or regional sea basins, and demonstrating their usefulness with regard to several of the Green Deal priorities** :to make a step further by integrating all European assets related to seas and oceans (data, models, physical ocean observatories at sea) with digital technologies (cloud, super HPC capacities, AI and data analytics) into a digital component that represents a consistent high-resolution, multi-dimensional and (nearly) real-time description of the ocean.	•The development of an ocean digital twin needs to fulfil all of the following criteria: ••deliver break-through in accuracy and realism, represent optimal synergy between observations and models; ••fully integrate downstream impact sectors of the socio-economic areas addressed in their test case; ••include a rigorous handling of quality and confidence information. •Proposals for such a development should demonstrate their usefulness with regard to Green Deal priorities	Proposed activities: • digital interactive replicas of the oceans and seas • Build on the integration of existing EU leading-edge capacities in ocean observation, forecasting and data warehousing with innovative IT technology • Concrete cases in local or regional sea basins, demonstrating the use of digital twins with regard to several of the Green Deal priorities, integrated into national infrastructures • Concrete cases: infrastructure vulnerability, development of mitigation, adaptation and replacement plans to deal with climate risks, optimisation of emergency responses to severe events, sustainable fishing, aquaculture, transport, offshore energy, ... • Continuous, timely, transparent monitoring • Identification and digital testing of possible solutions, what-if scenarios • cover the whole knowledge value chain: sensors, modelling, big data and AI applications, user-based services		25	12	İ-İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	
10: Vatandaşların sürdürülebilir ve iklim değişikliğinden arındırılmış bir Avrupa'ya geçiş için hazırlanması (Empowering citizens for transition towards a climate neutral, sustainable Europe)	10. 1. European capacities for citizen deliberation and participation for the Green Deal	Participatory processes in general and citizen deliberation in particular, require different levels of expertise, as well as upfront clarification of ethical and methodological principles and a clear commitment on the side of institutions about the processes' outcomes.	•To stablish transnational networks of experts, researchers, practitioners and relevant civil society organisations specialised in deliberative democracy and civic participation across Europe, including professionals in the field of public engagement. Proposals for such a development should demonstrate their usefulness with regard to Green Deal priorities. •Actions should include several deliberative processes, each of them implemented in a significant number of Member States or associated countries and complemented by a European online multilingual deliberative platform. •Projects under this topic will enable collective design and ownership of the European Green Deal's objectives and means.	Projects retained will: •Establish transnational networks of experts, researchers and practitioners • Implement deliberation processes and behavioural research on priority issues to deliver on the Green Deal •Ensure balanced overall coverage of EU and associated countries, associating national/local governments and administrations • Establish independent boards of guarantors to ensure scientific soundness, ethical and unbiased character of these activities.		10	3-5	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	
10: Vatandaşların sürdürülebilir ve iklim değişikliğinden arındırılmış bir Avrupa'ya geçiş için hazırlanması (Empowering citizens for transition towards a climate neutral, sustainable Europe)	10. 2. Behavioural, social and cultural change for the Green Deal	All areas of the European Green Deal, from climate action to zero pollution, require considerable **changes in societal practices and in the behaviour of individuals** , communities, and public and private organisations. Individual change should be addressed in the context of the **collective benefits and cost-sharing arrangements** of the Green Deal and it should be associated to broader **structural measures to support affected groups.**	•Actions should address **behavioural change at individual and collective levels** , including public and private organisations, as well as broader changes in social practices related to the European Green Deal. •Actions should include several experimental studies, each implemented in at least four Member States and/or Associated Countries. •Vulnerable and marginalised people, minorities and various age groups, including both youth and the older generation should be considered.	Projects retained will: • Establish transnational networks of experts, researchers and practitioners • Implement deliberation processes and behavioural research on priority issues to deliver on the Green Deal • Ensure balanced overall coverage of EU and associated countries, associating national/local governments and administrations • Establish independent boards of guarantors to ensure scientific soundness, ethical and unbiased character of these activities.		10	3-5	Araştırma ve İnovasyon (RIA-Research and Innovation Action) projeleri: %100	
10: Vatandaşların sürdürülebilir ve iklim değişikliğinden arındırılmış bir Avrupa'ya geçiş için hazırlanması (Empowering citizens for transition towards a climate neutral, sustainable Europe)	10. 3. Enabling citizens to act on climate change, for sustainable development and environmental protection through education, citizen science, observation initiatives, and civic engagement	A strong emphasis is placed on strengthening environmental awareness of the young generation through education and other forms of youth engagement. Citizen science can strongly contribute to the delivery of environmental data and have real-life impact through adaptations in citizen/consumer personal behaviours.	The aim of this call topic is to empower and directly involve citizens in realising their personal impact on climate and the environment thus leading to a change in their behaviour, reducing their personal carbon footprint and taking action at societal level towards a more sustainable future.	Proposed activities: •Establish a competence framework on climate change and Green Deal implementation, which will serve as a reference tool for the MS, stakeholders, and NGOs to empower citizens to become engaged actors in the Green Deal. Concrete implementation of this framework will be encouraged on demonstration sites (e.g. in schools, universities and identified education communities). • Engage citizens and education systems on climate-related issues, biodiversity, marine pollution and sustainable food through e.g. the European Ocean Literacy platform, the European Atlas of the Seas, citizen science, civic consortia, deliberative democracy initiatives, businesses, NGOs and municipalities • Collect environmental data through individual devices (personal wearable sensors, app registering consumer behavior on carbon footprint, extreme weather community app, marine litter watch, etc.) • Involve citizens in realizing their own environmental impact and empower them with concrete advice for behavioral change	Subtopic 1: Enabling citizens to act on climate change and for sustainable development through education Subtopic 2: Enabling citizens to act on climate change and for sustainable development through better monitoring and observing of the environment and their environmental impacts.	25	3-5	İnovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	TRL sınıflandırmasına uygun değildir TRL sınıflandırmasına uygun değildir

11: Accelerating the clean energy transition and access in partnership with Africa and the Mediterranean	Accelerating demonstration of clean energy solutions in Africa and the Mediterranean	All areas and topics of the Green Deal call are open to international cooperation. In addition to embedding international cooperation to the other topics, a separate topic is proposed with a focus on clean energy solutions in Africa and the Mediterranean.	This topic aims to leapfrog this transition via demonstration projects and coordination and support actions contributing to the Research and Innovation Partnership on Climate Change and Sustainable Energy between the European Union and African Union.All areas and topics of the Green Deal call are open to international cooperation. In addition to embedding international cooperation to the other topics, a separate topic is proposed with a focus on clean energy solutions in Africa and the Mediterranean.	Activities under this topic will include the setting up of dedicated platforms for supporting demonstration of clean energy transition involving a variety of public and private stakeholders at the national and local level while partnering with their counterparts from EU Member States.			Inovasyon Projeleri (IA) projeleri: %70 (Kâr Amacı Gütmeyen Kuruluşlar için %100)	Develop tailored value chain approaches (local contexts), including material supply chains, and skills levels identification of technical, vocational and educational needs, proposed training and qualification activities, definition of market and business strategies • Proposals should include a life cycle analysis • The demonstration installation will be located in Africa, relevant African partners to implement the project are expected to participate in the project.

Avrupa Komisyonu Başkanı Ursula VON DER LEYEN'in yeni görevine gelişi ile oluşturulan insiyatif kapsamında Avrupa Birliği (AB)'nin 2050 yılına kadar karbonsuz ekonomiye geçişinin tamamlanması hedeflenmektedir. Bu hedefin gerçekleştirilmesi amacıyla Komisyon "Sürdürülebilir Avrupa Yatırım Planı"nı yayınlamıştır. Plan kapsamında 2027 yılı sonuna kadar 1 Trilyon Avroluk AB bütçesinin sürdürülebilir yatırımlara ayrılması hedeflenmektedir.

Ufuk2020 AB Yeşil Mutabakatı Çağrısı	Kaynak: TÜBİTAK ve Avrupa Komisyonu
11 Çağrı Alanı	**20 Çağrı Konusu - 1 Milyar € Bütçe**
• İklim değişikliği ile mücadele, sektörler arası zorluklar	• Topluma hızlı bir şekilde yansıyacak hızlı ve somut sonuçların elde edilmesi • Yapısının klasik Ufuk2020 çağrılarından farklı olacak olması • İnovasyon ve demonstrasyon odaklı çağrıların ağırlıklı olarak yer alması • Çağrı altında az sayıda başlık olması; böylece etkisi büyük projelerin desteklenmesi • Sosyal Bilimler alanına alt çağrı başlıklarında değinilmesi • Ufuk2020 Değerlendirme Sisteminin Kullanılması • Eylül 2020 çağrının açılması ve Ocak sonu kapanması, 2021 sonu hibe sözleşmesi
• Temiz, ulaşılabilir ve güvenli enerjinin sağlanması	
• Temiz ve döngüsel ekonomide sanayi	
• Enerji ve kaynak verimli binalar	
• Sürdürülebilir ve akıllı ulaşım	
• Tarladan sofraya	
• Biyoçeşitlilik ve ekosistem hizmetlerinin geri kazanılması	
• Sıfır kirlilik, toksik olmayan ortam	
• Avrupa Yeşil Anlaşmasının desteklenmesi için bilgi birikiminin güçlendirilmesi	
• Vatandaşların iklim nötr, sürdürülebilir bir geleceğe geçiş için güçlendirilmesi	
• Uluslararası İşbirliği	

Faydalı Linkler	
Avrupa Komisyonu "Avrupa Yeşil Mutabakatı" (Alanları ve Konuları, Amacı,Kapsamı, Desteklenen Faaliyetler, Beklenen Etkiler ...)	https://ec.europa.eu/info/research-and-innovation/strategy/european-green-deal/call_en
TÜBİTAK-"Avrupa Yeşil Mutabakat Çağrısı" ile ilgili sunumlar	https://h2020.org.tr/tr/haberler/ufuk2020-programi-green-deal-yesil-mutabakat-cagrisi-cevrimici-bilgi-gunu-gerceklesti
Ufuk2020 TÜBİTAK Ulusal İrtibat Noktaları	https://h2020.org.tr/tr/iletisim
Yeşil Mutabakat ile ilgili teknoloji geliştiren start-up'ları araştırıyorsanız...	https://sifted.eu/articles/meet-europes-green-deal-startup-heroes/
Doğayı koruma, iklim değişikliği, çevre konularında faaliyette bulunan kuruluşlara, özellikle de ödüllü LIFE projeleri shipleri için...	https://ec.europa.eu/easme/en/news/2020-life-awards-finalists-announced
Enerji kullanımımızın çevreye ve iklime verdiği zararı azaltmak için gelişmiş ICT teknolojilerini kullanan ortaklar arıyorsanız...	https://ec.europa.eu/digital-single-market/en/programme-and-projects/eu-funded-projects-energy
Tarladan sofraya alanında projelerle ilgili partner belirlemek istiyorsanız...	https://ec.europa.eu/eip/agriculture/en/eip-agri-projects