PERIN Portugal in Europe Research and Innovation Network

CLUSTER 5 – CLIMATE, ENERGY AND MOBILITY

Topic Reference	Title	Area	Type of Action	TRL	M€ per project	Available Budget (M€)	# of projects expected to be funded	Deadline	NCPs		
Destination 1 – Climate sciences and responses for the transformation towards climate neutrality											
HORIZON-CL5-2022-D1-01-01-two-stage	Carbon Dioxide Removal (CDR) approaches	**Climate science**	RIA	-	**7**	21	3	**10/02/2022 (1st) 27/09/2022 (2nd)**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-01-02-two-stage	Socio-economic risks of climate change in Europe	**Climate science**	RIA	-	**5**	10	2	**10/02/2022 (1st) 27/09/2022 (2nd)**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-01-03-two-stage	Social science for land-use strategies in the context of climate change and biodiversity challenges	**Climate science**	RIA	-	**6 – 7**	20	3	**10/02/2022 (1st) 27/09/2022 (2nd)**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-02-01	Verification and reconciliation of estimates of climate forcers	**Climate science**	RIA	-	**5**	15	3	**10-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-02-02	Development of high-resolution Earth system models for global and regional climate change projections	**Climate science**	RIA	-	**10**	20	2	**10-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-02-03	Improvement of Integrated Assessment Models in support of climate policies	**Climate science**	RIA	-	**5**	15	3	**10-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-02-04	Supporting the formulation of adaptation strategies through improved climate predictions in Europe and beyond	**Climate science**	RIA	-	**10**	20	2	**10-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D1-02-05	Let nature help do the job: Rewilding landscapes for carbon sequestration, climate adaptation and biodiversity support	**Climate science**	RIA	-	**8 – 9**	17	2	**10-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
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Destination 2 – Cross-sectorial solutions for the climate transition											
HORIZON-CL5-2022-D2-01-01	Sustainable processing and refining of battery grade graphite (Batteries Partnership)	**Batteries**	IA	6 - 7	**10**	5	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-02	Interface and electron monitoring for the engineering of new and emerging battery technologies (Batteries Partnership)	**Batteries**	RIA	3 - 4	**10**	5	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-03	Furthering the development of a materials acceleration platform for sustainable batteries (combining AI, big data, autonomous synthesis robotics, high throughput testing) (Batteries Partnership)	**Batteries**	RIA	3 - 4	**20**	20	1	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-04	Towards creating an integrated manufacturing value chain in Europe: from machinery development to plant and site integrated design (Batteries Partnership)	**Batteries**	IA	6 / 7	**15**	7 – 8	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-05	Next generation technologies for High-performance and safe-by-design battery systems for transport and mobile applications (Batteries Partnership)	**Batteries**	RIA	5	**15**	5	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-06	Embedding smart functionalities into battery cells (embedding sensing and self-healing functionalities to monitor and self-repair battery cells) (Batteries Partnership)	**Batteries**	RIA	2 - 4	**15**	5	3	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-07	Digitalisation of battery testing, from cell to system level, including lifetime assessment (Batteries Partnership)	**Batteries**	RIA	5 - 6	**15**	5	3	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-08	Coordination of large-scale initiative on future battery technologies (Batteries Partnership)	**Batteries**	CSA	-	**3**	3	1	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-09	Physics and data-based battery management for optimised battery utilisation (Batteries Partnership)	**Batteries**	RIA	4	**15**	5	3	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-10	Streamlined collection and reversed logistics, fully automated, safe and cost-efficient sorting, dismantling and second use before recycling (Batteries Partnership)	**Batteries**	RIA	5 - 7	**15**	5	3	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D2-01-11	CIVITAS 2030 – Coordination and support for EU funded urban mobility innovation	**Communities and cities**	CSA	-	**5**	4 – 5	1	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
Destination 3 – Sustainable, secure and competitive energy supply											
HORIZON-CL5-2021-D3-02-01	Demonstration of wave energy devices to increase experience in real sea condition	**Renewable energy**	IA	-	**15**	15	1	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-02	Sustainability and educational aspects for renewable energy and renewable fuel technologies	**Renewable energy**	CSA	-	**2.5**	10	4	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-03	Market Uptake Measures of renewable energy systems	**Renewable energy**	CSA	-	**2**	10	5	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-04	Novel tandem, high efficiency Photovoltaic technologies targeting low cost production with earth abundant materials	**Renewable energy**	RIA	5	**5**	20	4	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-05	Energy Sector Integration: Integrating and combining energy systems to a cost-optimised and flexible energy system of systems	**Energy systems, grids, storage**	IA	6 - 8	**9 – 10**	30	3	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-06	Increasing energy system flexibility based on sector-integration services to consumers (that benefits system management by DSOs and TSOs)	**Energy systems, grids, storage**	IA	7 - 8	**8**	25	3	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-07	Reliability and resilience of the grid: Measures for vulnerabilities, failures, risks and privacy	**Energy systems, grids, storage**	IA	5 - 6	**7 – 8**	15	2	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-08	Electricity system reliability and resilience by design: High-Voltage, Direct Current (HVDC)-based systems and solutions	**Energy systems, grids, storage**	RIA	5 - 6	**7 – 8**	15	2	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-09	Demonstration of superconducting systems and elpipes	**Energy systems, grids, storage**	IA	8	**15**	15	1	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-10	Demonstration of advanced Power Electronics for application in the energy sector	**Energy systems, grids, storage**	IA	5 - 6	**5**	10	2	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-11	Reinforcing digitalisation related know how of local energy ecosystems	**Energy systems, grids, storage**	CSA	-	**4**	4	1	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-12	Integration of CCUS in hubs and clusters, including knowledge sharing activities	**CCUS**	CSA	-	**2**	2	1	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-13	Cost reduction of CO2 capture (new or improved technologies)	**CCUS**	RIA	6	**10 – 15**	30	2	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-14	Support to the activities of the European Geological Services	**Energy - Cross-cutting**	CSA	-	**20**	20	1	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-02-15	Support to the activities of the ETIPs and technology areas of the SET Plan	**Energy - Cross-cutting**	CSA	-	**1**	9.8	10	**5-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-01	AU-EU Water Energy Food Nexus	**Renewable energy**	RIA	4	**2.5**	5	2	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-02	Next generation of renewable energy technologies	**Renewable energy**	RIA	3 - 4	**3**	33	11	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-03	Hybrid catalytic conversion of renewable energy to carbon-neutral fuels	**Renewable energy**	RIA	3 - 4	**3.3**	10	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-04	Physics and aerodynamics of atmospheric flow of wind for power production	**Renewable energy**	RIA	5	**6**	18	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-05	Wind energy in the natural and social environment	**Renewable energy**	RIA	5	**3**	10	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-06	Novel approaches to concentrated solar power (CSP)	**Renewable energy**	RIA	4 - 5	**3**	9	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-07	Stable high performance Perovskite Photovoltaics	**Renewable energy**	RIA	5	**5**	15	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-08	Cost-effective micro CHP and hybrid heating systems	**Renewable energy**	RIA	5	**3 – 5**	10	2	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-09	Carbon-negative sustainable biofuel production	**Renewable energy**	RIA	4 - 5	**5**	15	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-10	Innovative foundations, floating substructures and connection systems for floating PV and ocean energy devices	**Renewable energy**	RIA	4 - 5	**3.5**	10	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-11	Development of hydropower equipment for hidden hydropower	**Renewable energy**	RIA	5	**3 – 5**	10	2	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-12	Innovation on floating wind energy deployment optimized for deep waters and different sea basins (Mediterranean Sea, Black Sea, Baltic Sea, North-east Atlantic Ocean)	**Renewable energy**	IA	7	**16**	50	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-13	Demonstration pilot lines for alternative and innovative PV technologies (Novel c-Si tandem, thin film tandem, bifacial, CPV, etc.)	**Renewable energy**	IA	7	**15**	45	3	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-14	Demonstration of large-scale CHP technologies for a shift to the use of biogenic residues and wastes	**Renewable energy**	IA	7	**10**	10	1	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-15	Solutions for more sustainable geothermal energy	**Renewable energy**	RIA	5	**5**	10	2	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D3-03-16	Innovative biomethane production as an energy carrier and a fuel	**Renewable energy**	IA	6 - 7	**10**	20	2	**23-Feb-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-01	Demonstration of cost-effective advanced biofuel technologies utilizing existing industrial plants	**Renewable energy**	IA	6 - 7	**10**	20	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-02	Demonstration of innovative materials, supply cycles, recycling technologies to increase the overall circularity of wind energy technology and to reduce the primary use of critical raw materials	**Renewable energy**	IA	6 - 7	**13**	40	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-03	Advanced manufacturing of Integrated PV	**Renewable energy**	IA	7	**16**	32	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-04	Demonstrate the use of high temperature geothermal reservoirs to provide energy storage for the energy system	**Renewable energy**	IA	7	**20**	20	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-05	Demonstration of innovative plug-and play solutions for system management and renewables storage in off-grid applications	**Renewable energy**	IA	8	**10**	10	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-06	Novel Agro-Photovoltaic systems	**Renewable energy**	IA	7	**5**	10	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-07	Demonstration of innovative rotor, blades and control systems for tidal energy devices	**Renewable energy**	IA	7	**10**	10	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-08	Supporting the action of consumers in the energy market and guide them to act as prosumers, communities and other active forms of active participation in the energy activities	**Energy systems, grids, storage**	IA	6 - 8	**5 - 6**	18	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-09	Real Time Demonstrator of Multi-Vendor Multi-Terminal VSC-HVDC with Grid Forming Capability (in support of the offshore strategy)	**Energy systems, grids, storage**	IA	6 - 7	**55**	55	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-10	Interoperable solutions for flexibility services using distributed energy storage	**Energy systems, grids, storage**	IA	5 - 7	**2 - 3**	7	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-11	Demonstration of innovative forms of storage and their successful operation and integration into innovative energy systems and grid architectures	**Energy systems, grids, storage**	IA	6 - 7	**7 - 8**	30	4	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-12	Replicable solutions for a cross sector compliant energy ecosystem	**Energy systems, grids, storage**	IA	6 - 7	**8 - 9**	35	4	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-13	Energy system modelling, optimisation and planning tools	**Energy systems, grids, storage**	RIA	-	**6**	6	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-14	Thermal energy storage solutions	**Energy systems, grids, storage**	IA	6 - 7	**7 - 8**	30	4	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-01-15	Decarbonising industry with CCUS	**CCUS**	IA	7 - 8	**29**	58	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-01	Digital solutions for defining synergies in international renewable energy value chains	**Renewable energy**	RIA	5	**3**	9	3	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-02	AU-EU Energy System Modelling	**Renewable energy**	RIA	-	**2.5**	5	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-03	Innovative renewable energy carrier production for heating from renewable energies	**Renewable energy**	IA	7	**10**	10	1	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-04	Technological interfaces between solar fuel technologies and other renewables	**Renewable energy**	RIA	4	**3 – 5**	10	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-05	Renewable energy carriers from variable renewable electricity surplus and carbon emissions from energy consuming sectors	**Renewable energy**	IA	7	**10**	20	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-06	Direct renewable energy integration into process energy demands of the chemical industry	**Renewable energy**	RIA	4 - 5	**3 – 5**	10	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-07	Renewable energy incorporation in agriculture and forestry	**Renewable energy**	IA	6 - 7	**7.5**	15	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-02-08	Demonstration of complete value chains for advanced biofuel and non-biological renewable fuel production	**Renewable energy**	IA	6 - 7	**10**	20	2	**27-Oct-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-01	Innovative components and/or sub-systems for CSP plants and/or concentrating solar thermal installations	**Energy Supply**	IA	6 - 7	**5.5**	16.5	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-02	Best international practice for scaling up sustainable biofuels	**Energy Supply**	RIA	4 - 5	**3**	9	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-03	Efficient and circular artificial photosynthesis	**Energy Supply**	RIA	5	**3 – 5**	10	2	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-04	Integrated wind farm control	**Energy Supply**	RIA	5	**6**	18	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-05	Novel Thin Film (TF) technologies targeting high efficiencies	**Energy Supply**	RIA	5	**5**	20	4	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-06	Efficient and low-emission technologies for industrial use of combustion and gasification systems from low-value biogenic residues and wastes	**Energy Supply**	RIA	5	**3 – 5**	10	2	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-07	Development of algal and renewable fuels of non-biological origin	**Energy Supply**	RIA	4 - 5	**5**	15	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D3-03-08	Development of digital solutions for existing hydropower operation and maintenance	**Energy Supply**	RIA	5	**4 – 4,5**	9	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia

HORIZON-CL5-2022-D3-03-09	Recycling end of life PV modules	**Energy Supply**	IA	7	**6 – 7**	20	3	**10-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
Destination 4 – Efficient, sustainable and inclusive energy use											
HORIZON-CL5-2021-D4-02-01	Demonstrating integrated technology solutions for buildings with performance guarantees (Built4People)	**Buildings**	IA	6 - 7	**5 – 7,5**	15	2	**25-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D4-02-02	Cost-effective, sustainable multi-functional and/or prefabricated holistic renovation packages, integrating RES and including re-used and recycled materials (Built4People)	**Buildings**	IA	7	**9 – 11**	22	2	**25-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2021-D4-02-03	Strengthening European coordination and exchange for innovation uptake towards sustainability, quality, circularity and social inclusion in the built environment as a contribution to the new European Bauhaus (Built4People)	**Buildings**	CSA	-	**1**	1	1	**25-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-01-01	Demand response in energy-efficient residential buildings	**Buildings**	IA	6 - 7	**4 – 6**	12	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-01-02	Renewable-intensive, energy positive homes	**Buildings**	IA	6 - 7	**4 – 6**	12	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-01-03	Smarter buildings for better energy performance	**Buildings**	IA	8	**4 – 6**	12	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-01-04	Development and pilot demonstration of heat upgrade technologies with supply temperature in the range 150-250°C	**Industry**	RIA	5	**3 – 5**	10	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-01-05	Development of high temperature thermal storage for industrial applications	**Industry**	RIA	4 - 5	**3 – 4**	8	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-02-01	Designs, materials and solutions to improve resilience, preparedness & responsiveness of the built environment for climate adaptation (Built4People)	**Buildings**	IA	6 - 7	**5 – 7,5**	15	2	**24-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-02-02	Solutions for the sustainable, resilient, inclusive and accessible regeneration of neighbourhoods enabling low carbon footprint lifestyles and businesses (Built4People)	**Buildings**	IA	6 - 7	**5 – 7,5**	15	2	**24-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-02-03	Sustainable and resource-efficient solutions for an open, accessible, inclusive, resilient and low-emission cultural heritage	**Buildings**	RIA	5	**4 – 5**	20	4	**24-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-02-04	Smart-grid ready and smart-network ready buildings, acting as active utility nodes (Built4People)	**Buildings**	IA	7	**6 – 9**	18	2	**24-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D4-02-05	More sustainable buildings with reduced embodied energy / carbon, high life-cycle performance and reduced life-cycle costs (Built4People)	**Buildings**	IA	6 - 7	**6 - 9,5**	18	2	**24-Jan-2023**	Cristiana Leandro	Francisca Eiriz	Luís Maia
Destination 5 – Clean and competitive solutions for all transport modes											
HORIZON-CL5-2022-D5-01-01	Exploiting electrical energy storage systems and better optimising large battery electric power within fully battery electric and hybrid ships (ZEWT Partnership)	**Waterborne transport**	IA	7	**8**	16	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-02	Innovative energy storage systems on-board vessels (ZEWT Partnership)	**Waterborne transport**	RIA	5	**5**	15	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-03	Exploiting renewable energy for shipping, in particular focusing on the potential of wind energy (ZEWT Partnership)	**Waterborne transport**	RIA	5	**9**	18	2	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-04	Transformation of the existing fleet towards greener operations through retrofitting (ZEWT Partnership)	**Waterborne transport**	IA	7 - 8	**5**	25	5	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-05	Seamless safe logistics through an autonomous waterborne freight feeder loop service	**Waterborne transport**	RIA	5	**15**	15	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-06	Computational tools for shipbuilding	**Waterborne transport**	IA	7 - 8	**7**	7	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-07	Prevent smog episodes in Europe	**Transport - health and environment**	RIA	5	**2,5 - 3**	7	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-08	Modular multi-powertrain zero-emission systems for HDV (BEV and FCEV) for efficient and economic operation (2ZERO)	**2ZERO**	IA	7 - 8	**15 - 20**	58	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-09	Nextgen EV components	**2ZERO**	RIA	5 - 7	**3 – 6**	20	4	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-10	New generation of full electric urban and peri-urban Bus Rapid Transit systems to strengthen climate-friendly mass transport (2ZERO)	**2ZERO**	IA	7 - 8	**20 – 25**	25	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-11	Stimulating Road Transport research and innovation dissemination and implementation in Europe and around the World	**2ZERO**	CSA	-	**2**	2	1	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-12	Towards a silent and ultra-low local air pollution aircraft	**Aviation**	RIA	2 - 4	**2 – 5**	20	5	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-13	Digital aviation technologies for new aviation business models, services, emerging global threats and industrial competitiveness	**Aviation**	RIA	2 - 4	**2 – 5**	20	5	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D5-01-14	European Aviation Research Policy in support to EU policies and initiatives	**Aviation**	RIA	2 - 4	**0,5 – 2,5**	5	3	**26-Apr-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
Destination 6 – Safe, Resilient Transport and Smart Mobility services for passengers and goods											
HORIZON-CL5-2022-D6-01-01	European demonstrators for integrated shared automated mobility solutions for people and goods (CCAM Partnership)	**CCAM**	IA	7	**20 – 25**	50	2	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-02	Reliable occupant protection technologies and HMI solutions to ensure the safety of highly automated vehicles (CCAM Partnership)	**CCAM**	RIA	5	**6 – 8**	8	1	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-03	Human behavioural model to assess the performance of CCAM solutions compared to human driven vehicles (CCAM Partnership)	**CCAM**	RIA	4	**7 - 8**	8	1	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-04	Integrate CCAM services in fleet and traffic management systems (CCAM Partnership)	**CCAM**	IA	6 - 7	**4 – 5**	10	2	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-05	Artificial Intelligence (AI): Explainable and trustworthy concepts, techniques and models for CCAM (CCAM Partnership)	**CCAM**	RIA	5	**5 – 5**	12	2	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-06	Predictive safety assessment framework and safer urban environment for vulnerable road users	**Safety and resilience**	RIA	5 - 6	**4 – 4,33**	13	3	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-07	More resilient aircraft and increased survivability	**Safety and resilience**	IA	6	**4 – 8**	9	1	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-01-08	Safer navigation and tackling containership fires	**Safety and resilience**	IA	7	**3,5 – 6**	12	2	**12-Jan-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-01	Logistics networks integration and harmonisation through operational connectivity to optimise freight flows and drive logistics to climate neutrality	**Multimodal transport, logistics, infrastructure**	IA	6 - 7	**7 – 8**	15	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-02	Urban logistics and planning	**Multimodal transport, logistics, infrastructure**	IA	-	**7 – 8**	15	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-03	Smart enforcement for resilient, sustainable and more efficient transport operations	**Multimodal transport, logistics, infrastructure**	RIA	-	**4**	8	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-04	Accelerating the deployment of new and shared mobility services for the next decade	**Multimodal transport, logistics, infrastructure**	IA	7 - 8	**8 – 10**	20	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-05	Advanced multimodal network and traffic management for seamless door-to-door mobility of passengers and freight transport	**Multimodal transport, logistics, infrastructure**	RIA	5 - 6	**4 – 5**	15	3	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-06	Smart and efficient ways to construct, maintain and decommission with zero emissions from transport infrastructure	**Multimodal transport, logistics, infrastructure**	IA	7	**5**	10	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia
HORIZON-CL5-2022-D6-02-07	New concepts and approaches for resilient and green freight transport and logistics networks against disruptive events (including pandemics)	**Multimodal transport, logistics, infrastructure**	RIA	-	**4**	8	2	**6-Sep-2022**	Cristiana Leandro	Francisca Eiriz	Luís Maia