POSITIONING CATALOGUE FOR EUROPEAN UNION FUNDING 2023_2024

This catalogue gathers all positioning information on the selected European funding pillars
"SECURITY", "CLIMATE, ENERGY AND MOBILITY","DIGITAL,INDUSTRY AND SPACE ".

The information corresponding to the following tables are :
- ↗ Destination : corresponds to the selected theme/strategic pillar
- ↗ Title : corresponds to the sub-themes present in each pillar
- ↗ Topic : contains the link to the sub-theme, as well as the objectives of this sub-themes
- ↗ Partnership announcements for the topic : corresponds to the partnership announcements available for the different sub-themes

Find previous catalogue and presentation regarding Horizon Europe organisation in the wiki : https://wiki.campuscyber.fr/Financement

EUROPEAN FUNDING PROJECTS 2024

Destination	Title	Topic	Partnership announcements for the topic
Cybersecurity	Approaches and tools for security in software and hardware development and assessment	**HORIZON-CL3-2024-CS-01-01** + **BUDGET :** 32 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES** : • Improved hardware and software security engineering; resilient systems design; • Improved access to testing of hardware and software in virtual, closed and secure environments; • Systematic and, where possible, automated study of vulnerabilities, software analysis, vulnerability discovery, and dynamic security assessment; • Trustworthy certifiable hardware and software; • AI-based security services e.g. predictive security, advanced anomaly and intrusion detection, system health checks.	Partnership-CL3-2024-CS-01-01
	Post-quantum cryptography transition	**HORIZON-CL3-2024-CS-01-02** + **BUDGET :** 18,9 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES** : • Increasing the maturity of current post-quantum cryptographic algorithms and contribution to further standardization; • Easy-to-use tools for the large-scale implementation of post-quantum cryptographic algorithms, based on state-of-the-art standards; • Secure and efficient transition from pre- to post-quantum encryption through tools implementing a hybrid approach combining recognized pre-quantum public key algorithms and additional post-quantum algorithms; • Phase-in of post-quantum algorithms or protocols to new or existing applications; • Demonstrators and good-practice implementations of post-quantum cryptographic algorithms on varied hardware and software platforms;	Partnership-CL3-2024-CS-01-02

Destination	Title	Topic	Partnership announcements for the topic
Border Management	Interoperability for border and maritime surveillance and situational awareness	HORIZON-CL3-2024-BM-01-02 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Research and Innovation Actions + **OUTCOMES :** • Increased border surveillance capability, better performing and more cost-efficient, with data and fundamental rights protection by design; • Improved surveillance and situational awareness of sea borders, but also of maritime infrastructures as harbor's and commercial and civilian maritime security, including in key areas such as the Arctic; • Improved multi-level, multi-authority and cross-border (among Member States and Associated Countries practitioners) collaboration thanks to better interoperability of sensing, analysis and C2 systems.	Partnership-CL3-2024-BM-01-02
	Advanced user-friendly, compatible, secure identity and travel document management	HORIZON-CL3-2024-BM-01-03 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES :** • Improved capabilities to validate breeder and identity documents as well as ICAO Type 1 and Type 2 digitalized travel documents; • Improved compatibility among tools for verification of travel documents and identity, while guaranteeing not sharing (beyond what's strictly necessary) or compromising personal data; • Enhanced integration with EU current or planned architecture(s) for digital identity frameworks; • Contribute to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders.	Partnership-CL3-2024-BM-01-03

Destination	Title	Topic	Partnership announcements for the topic
Border Management	Integrated risk-based border control that mitigates public security risk, reduces false positives and strengthens privacy	HORIZON-CL3-2024-BM-01-04 **+ BUDGET :** 6 M€ per project **+ TYPE OF ACTION :** Innovation Actions **+ OUTCOMES :** • Improve assisted border crossing control systems, coordinated between border, customs and security controls; • Allocate more efficiently border check resources, maintaining security while minimizing time and hassle for crossings and false positives; • Allocate flexibly border check resources, when and where needed, depending on changing needs (for example seasonally, and/or in the case of roll-on-roll-off ferries); • Contribute to capabilities that strengthen the Schengen area, by providing security at its external borders that also reassure on maintaining the free movement within its borders.	Partnership-CL3-2024-BM-01-04
	Detection and tracking of illegal and trafficked goods	HORIZON-CL3-2024-BM-01-05 **+ BUDGET :** 6 M€ per project **+ TYPE OF ACTION :** Innovation Actions **+ OUTCOMES :** • Contributing to development of fully automated customs control checkpoints; • Enhancing detection capabilities for customs security, while facilitating trade.	Partnership-CL3-2024-BM-01-05

Destination	Title	Topic	Partnership announcements for the topic
Resilient Infrastructure	Resilient and secure urban planning and new tools for EU territorial entities	HORIZON-CL3-2024-INFRA-01-02 **+ BUDGET :** 6 M€ per project **+ TYPE OF ACTION :** Innovation Actions **+ OUTCOMES** : • Evaluation of the resilience of an urban and peri-urban environment, identification of weaknesses and recommendations for changes to organizational processes; • Creation of new tools and cost-efficient security upgrades of urban infrastructures with possibilities of pooling and sharing of complex security systems, taking into account limited budgets of local authorities; • Improved efficiency of the security forces and emergency services (police, firefighters, paramedics ...) for the benefit of the European citizens and residents; • Promotion of best practices, creation of EU sovereign trusted decision support tool/solution and spreading of effective tools and capabilities across entities in different EU territories despite their size and location.	Partnership-CL3-2024-INFRA-01-01
	Advanced real-time data analysis used for infrastructure resilience	HORIZON-CL3-2024-INFRA-01-03 **+ BUDGET :** 5 M€ per project **+ TYPE OF ACTION :** Innovation Actions **+ OUTCOMES** : • Improved capabilities to identify risks and faulty events in infrastructure networks and smart cities through real-time analysis; • Improving tools to identify, analyze, assess and continuously monitor risks and monitoring risks and boosting adaptive capacity; • Rapid and continuous real-time identification, classification and monitoring of in infrastructure networks and supply chains; • Interoperable interfaces and improved collaboration • Real-time mapping of risk factor sources	Partnership-CL3-2024-INFRA-01-02

Destination	Title	Topic	Partnership announcements for the topic
Disaster-Resilient Society for Europe	Prevention, detection, response and mitigation of chemical, biological and radiological threats to agricultural production, feed and food processing, distribution and consumption	HORIZON-CL3-2024-DRS-01-01 **+ BUDGET :** 8 M€ per project **+ TYPE OF ACTION :** Research and Innovation Actions **+ OUTCOMES :** • Increasing EU capabilities to assess risks, detect, alert, mitigate and respond to feed and food intentional and accidental contamination from chemical, biological and radiological (CBR) agents, through the entire food chains • Increasing the understanding on food terrorism threats and on food chain vulnerabilities to intentional and accidental contaminations; • Raising awareness among feed and food companies and authorities to CBR threats as critical infrastructure arising from the misuse of dangerous agents that pose a danger to animal and public health. • In addition to raising awareness, proposals should develop possible preparedness, mitigation and response plans for national authorities and the private sector.	Partnership-2024-DRS-01-01
	Harmonized / Standard protocols for the implementation of alert and impact forecasting systems as well as transnational emergency management in the areas of high-impact weather / climatic and geological disasters	HORIZON-CL3-2024-DRS-01-03 **+ BUDGET :** 6 M€ per project **+ TYPE OF ACTION :** Innovation Actions **+ OUTCOMES :** • Enhanced links between scientific community and first and second responders promoting user-targeted research and faster transfer of science results into best practices; • Enhanced adoption of Earth observation space technologies in practices and tools for prevention and prevention and management • Improvement of meteorological input (wind, temperature, precipitation, soil humidity) for extremes related to heat and drought • Improved methods for cross-border and cross-sectoral knowledge transfer about risk, vulnerability, exposure, and monitoring methods;	Partnership-CL3-2024-DRS-01-03

Destination	Title	Topic	Partnership announcements for the topic
Disaster-Resilient Society for Europe	Hi-tech capacities for crisis response and recovery after a natural-technological (NaTech) disaster	HORIZON-CL3-2024-DRS-01-04 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES :** • Development of a holistic vision of crisis management after telluric (e.g. volcanic, seismic, tsunami, landslide) or extreme climate events (e.g. floods, storms, storm surges, fires, droughts) producing impacts on critical assets (e.g. infrastructures, industries) and creation of new management framework for handling NaTech crises; • Enhanced existing crisis management tools to develop a common platform (shared among public and private operators) allowing cross-border exchanges and decision-making, while respecting legal frameworks and responsibilities; • Demonstrated operational protocols and development of standard operating procedures able to respond to NaTech crises in cross-border configurations, including comprehensive risk modelling of worst-case scenarios taking into account cascading effects and future impacts of climate change, and taking into consideration spatial information and data;	Partnership-CL3-2024-DRS-01-04
	Cost-effective sustainable technologies and crisis management strategies for RN large-scale protection of population and infrastructures after a nuclear blast or nuclear facility incident	HORIZON-CL3-2024-DRS-01-05 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES :** • Based on existing national practices, improved understanding of the radioactive fallout and methodology regarding robust and rapid monitoring of dose rate and nuclide specific determination with purpose of facilitating safe evacuation after a nuclear or radiological event; • Improved tools and methods for risk assessment following a nuclear or radiological event and optimized actions after a disaster that are based on risk analysis rather than probabilities • Protective measures, including medical countermeasures, required after a disaster RN disaster, and improved protection for the population and infrastructure. • Recommendations on integration of improved technologies and assessment methodologies in the RN crisis managements systems.	Partnership-CL3-2024-DRS-01-05

Destination	Title	Topic	Partnership announcements for the topic
Strengthened Security Research and Innovation	Demand-led innovation through public procurement	HORIZON-CL3-2024-SSRI-01-01 + **BUDGET :** 10.5 M€ per project + **TYPE OF ACTION :** Pre-commercial Procurement + **OUTCOMES** : • An identifiable community of EU civil security authorities with common user/functional needs for innovative technology solutions; • Tested and validated capacity of EU technology and industrial base to develop and produce technology prototypes that meet the needs of the EU user community; • Improved delineation of the EU market (including demand and supply) for innovative civil security systems that can articulate alternative options for uptake in function of different industrialization needs, commercialization needs, acquisition needs, deployment needs and additional funding needs (beyond R&I funding).	Partnership-CL3-2024-SSRI-01-02
	Accelerating uptake through open proposals for advanced SME innovation	HORIZON-CL3-2024-SSRI-01-02 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES** : • Development of a mature technological solution addressing EU security policy priorities in the areas addressed by the Cluster 3 work programmed; • Facilitated access to civil security market for small innovators; • Improved cooperation between public buyers and small supply market actors for a swifter uptake of innovation in response to short to mid-term needs; • Stronger partnerships between small and medium EU security industry and technology actors to ensure the sustainability of the EU innovation capacity in the civil security domain and reduce technological dependencies from non-EU suppliers in critical security areas.	Partnership-2024-SSRI-01-01

Destination	Title	Topic	Partnership announcements for the topic
Fighting Crime and Terrorism	Mitigating new threats and adapting investigation strategies in the era of Internet of Things	HORIZON-CL3-2024-FCT-01-01 + **BUDGET :** 5 M€ per project + **TYPE OF ACTION :** Research and Innovation Actions + **OUTCOMES** : • Increased understanding of Police Authorities regarding the emerging (digital and especially physical) threats of the fast-developing environment of Internet of Things; • Modern tools to tackle new and emerging forms of crime pertaining to the development of Internet of Things are provided to European Police Authorities and other relevant security practitioners, which take into account legal and ethical rules of operation, EU fundamental rights such as privacy and protection of personal data as well as cost-benefit considerations; • Lawful access and exploitation of evidence in the environment of the Internet of Things are fortified; • Best practices (legal, organizational, technical) to access and exploit Internet of Things during investigation are strengthened, including by developing relevant tools and training materials.	Partnership-2024-FCT-01-01
	Lawful evidence collection in online child sexual abuse investigations, including undercover	HORIZON-CL3-2024-FCT-01-03 + **BUDGET :** 5 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES** : • Development of safer justice outcomes through an increased understanding of the EU-wide legal aspects of online investigations, including undercover, in the area of child sexual abuse; • Improved understanding of the EU-wide legislative frameworks that impact (undercover) investigations in this area; • Modern and robust methods at the European level are proposed at all steps of an investigative process in this area, overcoming various types of biases and obstacles to the collection of evidence that is admissible in court and respects the dignity, privacy, protection of personal data and anonymity of victims; • Forensic practitioners, Police Authorities and other relevant security practitioners active in online (including undercover) child sexual abuse investigations benefit from innovative guidelines, manuals, education and training curricula.	Partnership-CL3-2024-FCT-01-03

Destination	Title	Topic	Partnership announcements for the topic
Fighting Crime and Terrorism	Radicalization and gender	HORIZON-CL3-2024-FCT-01-04 + **BUDGET :** 3 M€ per project + **TYPE OF ACTION :** Research and Innovation Actions + **OUTCOMES :** • Improved understanding of motivation of women and girls for supporting extremist ideologies, such as grievance and stigmatization; • Improved understanding of the role of masculinity in men and boys' motivation for the support of extreme ideologies; • A better understanding of group dynamics during radicalization processes • Development of strategies aimed at enhancing the use of motivation factor in detection, prevention and de-radicalization; • European Police Authorities, Prison Authorities, social care workers, teachers and other P/CVE practitioners benefit from modern and validated tools, skills and training curricula to identify early symptoms of radicalization; • Identification and assessment of best practices that are transferable across Member States improving and developing modules and trainings, strengthening adaption of local community policing in diverse communities; and • Design girls and women's empowerment approaches through legal, financial and/or cultural means aimed at tackling the root causes of radicalization and extremism.	Partnership-CL3-2024-FCT-01-04
	Combating hate speech online and offline	HORIZON-CL3-2024-FCT-01-05 + **BUDGET :** 5 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES :** • Provide improved, modern and validated tools, methods and training programmes to combat hate speech activities • Develop common European approaches and make them available to political decision-makers and security practitioners, to analyze risks/threats, collect data on hate speech collect data on hate speech, collect forensic evidence and the attribution of crimes to and attribution of crimes • Enhancing citizen's security perception and the hate speech prevention by preparing education and training materials on cultural and societal impacts of hate speech and hate crime.	Partnership-CL3-2024-FCT-01-05

Destination	Title	Topic	Partnership announcements for the topic
Fighting Crime and Terrorism	CBRN-E detection capacities in small architecture	HORIZON-CL3-2024-FCT-01-07 + **BUDGET :** 6 M€ per project + **TYPE OF ACTION :** Research and Innovation Actions + **OUTCOMES :** • Improved vulnerability assessments by law enforcement and local managers of public spaces by detection of chemical, biological, radiological, nuclear and explosive (CBRN-E) threats in the public spaces and flow of public transport, in order to provide broader situational awareness to practitioners in the field; • Enhanced planning capabilities of security practitioners and policy-makers due to the access of new data and identification of potential vulnerabilities connected to the design/refurbishment and improvement of different public spaces; • Recommendations are provided for further improving safety and security-by-design approach to public spaces and mass transportation systems; • Improved training for Police Authorities in collaboration with various public and private players • Enhanced modelling capabilities for security practitioners and policy-makers due to the identification of potential new vulnerabilities and data available, and improved support to planning of respective resources and activities.	Partnership-CL3-2024-FCT-01-07
	Tracing of cryptocurrencies transactions related to criminal purposes	HORIZON-CL3-2024-FCT-01-08 + **BUDGET :** 5 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES :** • The attractiveness of use of cryptocurrencies by criminals and terrorists is limited, with better tractability of cryptocurrency transactions; • Lawful tools and methods for Police Authorities to better trace virtual currency transactions related to criminal activities; • Recommendations are provided for better regulation of the cryptocurrencies market as well as for better regulation of the exchange of transnational information on funds transfers, harmonizing and promoting standards to enhance the tracing of money flows in the context of criminal investigations; • Modern training curricula for Police Authorities, Prosecutors, as well as judicial actors are developed on tracing, seizing and handling cryptocurrencies during investigation.	Partnership-CL3-2024-FCT-01-08

Destination	Title	Topic	Partnership announcements for the topic
Digital and emerging technologies for competitiveness and fit for the Green Deal	Fundamentals of Software Engineering (RIA)	HORIZON-CL4-2024-DIGITAL-EMERGING-01-22 + **BUDGET :** 13,5 M€ per project + **TYPE OF ACTION :** Research and Innovation Actions + **OUTCOMES** : • Methods, mechanisms and tools that allow smart intelligent system specification, agile system and code development, advanced code analysis, fault prediction and location and self-repair by using emerging techniques, in particular based on AI and data technologies. This may include environments that allow to automatically derive requirements and produce conceptual and architectural models. Tools should support mastering complex requirements, design-by-contract programming at all levels of integration, semi-automatic creation of pre-conditions, post-conditions and invariants for software modules facilitating automated unit and integration testing. • Methods and tools for the development of dynamic and resilient software for systems running on multiple processing architectures including cross-compilation, run-time self-adaptation and multi-architecture executables.	Partnership-CL4-2024-DIGITAL-EMERGING-01-22

Destination	Title	Topic	Partnership announcements for the topic
Twin green and digital transition 2024	Digital transformation and ensuring a better use of industrial data, which can optimize steel supply chains (Clean Steel Partnership) (IA)	HORIZON-CL4-2024-TWIN-TRANSITION-01-44 + **BUDGET :** 10 M€ per project + **TYPE OF ACTION :** Innovation Actions + **OUTCOMES** : • Increasing awareness and effectivity leading to total safety of steel manufacturing processes and CO2 reduction through digital transition with better use of industrial data; • Extension of inline and real-time tools to monitor and control sustainability of the running process conditions, to set up countermeasures to stay into the optimal process window; this includes, but is not limited to, energy and (intermediate) product quality forecasting, online comparison between forecast and realization, control of metal slag; • Enhancement of the in-line classification of feedstock and intermediate products through the continuous analysis of composition and bulk properties by applying holistic soft sensor approaches considering the assembly of sensors, specific models, and advanced data processing according to SRIA (specifically see page 41, 42 of the SRIA); • Increasing effective and secure data sharing in steel plants to realize the seamless digital integration of the value chain and the interoperability of systems and tools by implementation of existing and enhanced standardized protocols; • Novel sensors and models for real-time process control (see page 41, 42 of the SRIA), such as, but not limited to, metal slag parameters (e.g., composition) and temperature measurement, slag analysis, off-gas analysis, energy forecasting to match demand and offered mix in the power grid considering energy generated from renewable sources; the latter could require cooperation between steel experts and electric power players in the market. The expected outcome is an enhanced merging of planning activities and approaches to run plant processes; • Application of digital technologies such as, for example, Digital Twins and/or enhanced statistical analysis, machine learning (ML) algorithms, or artificial intelligence (AI) to develop decision-supported planning and process monitoring tools operable in offline or online modes; • Traceability of materials and process information throughout the value chain to promote improved product quality, efficiency and process integration control (including multi-scale modelling of structure, and structure vs. properties correlations).	Partnership-CL4-2024-TWIN-TRANSITION-01-44

Destination	Title	Topic	Partnership announcements for the topic
Cross-sectoral solutions for the climate transition	Development of technical and business solutions to optimize the circularity, resilience, and sustainability of the European battery value chain (Batt4EU Partnership)	HORIZON-CL5-2024-D2-01-03 **+ BUDGET:** 5 M€ per project **+ TYPE OF ACTION:** Research and Innovation Actions **+ OUTCOMES :** • European economic base which is stronger, more resilient, competitive and fit for the green and digital transitions, by reducing strategic dependencies for critical raw materials by promoting a circular approach to manufacturing and resource efficiency. • Advancing circular and sustainable design and business practices relating to advanced batteries and associated value chains. • Improving the life cycle sustainability performance of batteries produced in the EU, both in terms of reducing environmental impacts and maximizing socio-economic benefits, including increased closed-loop practices. • Enhancing European strategic independence in terms of battery raw materials, the competitiveness of European industry, and maximizing socio-economic benefits at the EU level and beyond. • Supporting the achievement of established EU recycling efficiency targets for 2030 and beyond.	Partnership-CL5-2024-D2-01-03
	Emerging energy technologies for a climate neutral Europe	HORIZON-CL5-2024-D2-01-04 **+ BUDGET:** 10 M€ per project **+ TYPE OF ACTION:** Research and Innovation Actions **+ OUTCOMES :** • Demonstration of knowledge and scientific proofs of the technological feasibility of concepts on high risk/high return (i.e. high technological and economic risks) technologies for transition to climate neutral economy by 2050 and beyond. • Assessment of environmental, social, and economic benefits to contribute to R&I strategy, as well as the EU climate and energy targets. • Contribution to establishing a solid long-term dependable innovation in Europe.	Partnership-CL5-2024-D2-01-04

Destination	Title	Topic	Partnership announcements for the topic
Safe, Resilient Transport and Smart Mobility services for passengers and goods	Improved transport infrastructure performance – Innovative digital tools and solutions to monitor and improve the management and operation of transport infrastructure	**HORIZON-CL5-2024-D6-01-08** **+ BUDGET:** 5 M€ per project **+ TYPE OF ACTION:** Innovation Actions **+ OUTCOMES** : • Increase Better interconnection of transport infrastructure and transport means resulting in optimized door-to-door mobility for passengers and goods by assuring at least 30% reduction of average delay (time lost per vehicle per km). • Reduction of transport operation costs by 20% for transport operators along with 20% reduction of fossil fuels consumption in transport. • Assessment and redesign of existing infrastructure (e.g. charging points, parking spaces etc.) to ensure its effective and safe use by different transport modes. Different infrastructure types should be assessed in each of the pilot demonstrations and safe coexistence of various forms of mobility enhanced (e.g. soft, active, shared mobility). • Increase in the robustness of transport infrastructure by reducing the infrastructure failure probability by 30%. • Reduce the transport emissions of greenhouse gases and other pollutants by 30% by 2030 in the pilot demonstrations. • Reduce the number of accidents involving infrastructure users and infrastructure workers by 50% in the pilot demonstrations.	Partnership-CL5-2024-D6-01-08
	Effects of disruptive changes in transport: towards resilient, safe and energy efficient mobility	**HORIZON-CL5-2024-D6-01-11** **+ BUDGET:** 3 or 3.5M€ per project **+ TYPE OF ACTION:** Research and Innovation Actions **+ OUTCOMES** : • Transport systems that are resilient, i.e. prepared for disruptive changes of different kinds, and thereby supporting continuously improved traffic safety. • Resilience to unexpected events (pandemics, natural disasters, political decisions, conflicts, component supply vulnerabilities etc.) as an integrated principle in the design and development of future transport systems. • Increased understanding how sudden changes in the availability of transport means e.g. through dramatic weather events or emission induced ban of certain vehicles in a city, affect the safety of transport system users, and the underlying psychological effects for users' reactions.	Partnership-CL5-2024-D6-01-11

Destination	Title	Topic	Partnership announcements for the topic
Sustainable, secure and competitive energy supply	PV-integrated electric mobility applications	HORIZON-CL5-2024-D3-02-05 + **BUDGET:** 7 M€ per project + **TYPE OF ACTION:** Innovation Actions + **OUTCOMES** : • Open new market opportunities for Vehicle-Integrated Photovoltaics (VIPV) in road transport. • Reduce usage of the electricity grid and increase the range of electric vehicles. • Cost and energy efficient climate-neutral road transport.	Partnership-CL5-2024-D3-02-05
	Resource Efficiency of PV in Production, Use and Disposal	HORIZON-CL5-2024-D3-02-07 + **BUDGET:** 3 M€ per project + **TYPE OF ACTION:** Coordination and Support Actions + **OUTCOMES** : • Reduce the environmental footprint associated to PV technology deployment across all the phases of the system lifetime (production, transport, installation and end of life). • Define design and processing guidelines to optimally address circularity of PV systems for one or several PV technologies (silicon, thin film, organic PV, perovskite PV, etc.).	Partnership-CL5-2024-D3-02-07