

Horizon Europe Cluster 6 2026-2027

We have sorted the calls for projects from Horizon Europe Cluster 6 2026-2027 according to the impact that microfluidics can have on the calls for projects and related topics. We are sharing our analysis in case it can help you with project funding efforts. And, of course, if our expertise can be of use to you, we would be delighted to discuss it further.



How to read the stars in terms of the % of microfluidic technologies' relevance for the call:

By microfluidic relevance, we mean the relevance of using microfluidic technologies for the topic cited. But also, to a lesser extent, what a microfluidic laboratory or SME could contribute to the topic (mainly for calls with low relevance to microfluidic technologies).

Relevance (%)	90-100	80-89	70-79	60-69	50-59
Relevance (*)	*****	****	***	**	*

Administrative dates per call:

2026-01-BIODIV, 2026-01-CIRCBIO, 2026-01-ZEROPOLLUTION: Opening 17 Apr 2026; Deadline 17 Sep 2026

2026-02-FARM2FORK, 2026-02-CLIMATE, 2026-02-COMMUNITIES: Opening 14 Jan 2026; Deadline 14 April 2026

2026-03-GOVERNANCE: Opening 14 Jan 2026; Deadline 15 Apr 2026

2026-04-GOVERNANCE-01: Opening 25 Aug 2026; Deadline 26 Nov 2026

2026-01-CIRCBIO-two-stage, 2026-01-BIODIV-two-stage, 2026-01-ZEROPOLLUTION-two-stage:

Opening 12 Feb 2026; Deadlines 16 Apr 2026 (Stage 1), 23 Sep 2026 (Stage 2).

2026-02-FARM2FORK-two-stage: Opening 12 Feb 2026; Deadlines 14 Apr 2026 (Stage 1), 15 Sep 2026 (Stage 2).

2026-03-GOVERNANCE-two-stage: Opening 12 Feb 2026; Deadlines 15 Apr 2026 (Stage 1), 30 Sep 2026 (Stage 2).

2027-01-BIODIV, 2027-01-CIRCBIO, 2027-01-ZEROPOLLUTION, 2027-02-FARM2FORK, 2027-02-CLIMATE, 2027-02-COMMUNITIES: Opening 20 Apr 2027; Deadline 22-23 Sep 2027

2027-03-GOVERNANCE: Opening 04 Feb 2027; Deadline 11 May 2027

2027-01-CIRCBIO-two-stage: Opening 04 Feb 2027; Deadlines 08 Apr 2027 (Stage 1), 16 Sep 2027 (Stage 2).

2027-02-FARM2FORK-two-stage, 2027-02-CLIMATE-two-stage: Opening 04 Feb 2027; Deadlines 08 Apr 2027 (Stage 1), 14 Sep 2027 (Stage 2).

******* HORIZON-CL6-2027-02-FARM2FORK-07 - TOWARDS COMMERCIALIZATION OF FOOD SYSTEMS****MICROBIOME SOLUTIONS**

- **Type of action:** IA
- **Budget (M€):** 17.50; **Expected EU contribution/project (M€):** 8.75; **# projects:** 2
- **Scientific focus:** Push promising microbiome-based solutions along the last translational mile: pilot manufacturing, validation in operational environments, regulatory and safety dossiers, consumer/market readiness, and integration in food value chains. Prioritizes demonstrators that reduce environmental footprint and improve resilience/health aspects of food systems.
- **Why microfluidics matters:**
 - **High-throughput screening and optimization** of microbial consortia in **droplet microfluidics** to accelerate strain/consortium selection and formulation robustness.
 - **Miniaturized bioprocess development** (parallelized micro-bioreactors) to de-risk scale-up and map design space (pH, oxygen, feed strategies) under industry-relevant conditions.
 - **On-chip analytics** (metabolites, viscosity, rheology, live/dead, biofilm propensity) to compress iteration times from weeks to days.
 - **Regulatory-aligned QC** workflows (sterility, contamination, batch consistency) using lab-on-chip methods that can port to GMP environments.
 - **Encapsulation/micro-delivery** formats (e.g., microgels) to stabilize live microbes or post-biotics in real matrices.

******* HORIZON-CL6-2026-02-FARM2FORK-11 - INTEGRATING A HOLISTIC PERSPECTIVE IN MICROBIOME RESEARCH FOR RESILIENT, COMPETITIVE AND SUSTAINABLE FOOD SYSTEMS**

- **Type of action:** RIA
- **Budget (M€):** 13.50; **Expected/project:** 6.00-7.00; **# projects:** 2
- **Scientific focus:** Advance integrative microbiome science across the food system (soil-plant-animal-human interfaces), bringing together multi-omics, longitudinal field studies, and system-level modelling to derive actionable interventions for resilience, competitiveness, and

sustainability. Emphasis on harmonized methods, data interoperability, and translation across sectors.

- **Why microfluidics matters:**
 - **Single-cell & droplet-based culturomics** to access uncultured taxa and quantify interaction networks.
 - **Lab-on-chip perturbation platforms** to test diet, stressors, or agrochemical exposures on complex communities.
 - **Ultra-low-volume library prep** and **on-chip sample handling** reduce bias/costs for metagenomics/metabolomics.
 - **Standardization:** microfluidics can contribute interoperable on-chip SOPs and reference materials for cross-study comparability.
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****** HORIZON-CL6-2026-01-BIODIV-02 - DEVELOPING METHODS TO ASSESS THE PRESENCE, FUNCTIONS, AND SENSITIVITY OF GROUNDWATER ECOSYSTEMS**

- **Type of action:** RIA
 - **Budget (M€):** 10.00; **Expected/project:** ~5.00; **# projects:** 2
 - **Scientific focus:** Develop robust methodologies to detect and characterize **groundwater biota and functions**, link ecological status to pressures, and build **risk indicators** and sensitivity thresholds to inform policy. Includes method harmonisation and integration in monitoring frameworks.
 - **Why microfluidics matters:**
 - **In-situ and portable chips** for **eDNA/eRNA capture**, pre-concentration and qPCR/CRISPR-based detection from low-biomass samples.
 - **On-chip micro-ecosystem assays** to probe functional responses (e.g., redox cycling, nutrient turnover) under controlled gradients mimicking aquifer conditions.
 - **Droplet & digital assays** for sensitive quantification of rare taxa and AMR genes.
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**** HORIZON-CL6-2026-01-ZEROPOLLUTION-01-TWO-STAGE - DECONTAMINATE AND
BIOREMEDIATE AQUATIC POLLUTION

- **Type of action:** RIA
 - **Budget (M€):** 23.00; **Expected/project:** 7.00-8.00; **# projects:** 3
 - **Scientific focus:** Deliver **effective solutions - especially life-science/biotech-based - to bioremediate and decontaminate** marine, freshwater, and **groundwater** pollution, focusing on **PFAS, antimicrobials, and microplastics**; integrate **effect-based** and **high-resolution** monitoring and demonstrate pollutant pathways to guide management actions.
 - **Why microfluidics matters:**
 - **High-throughput screening** of strains/enzymes/sorbents against PFAS & CECs in droplet reactors.
 - **Chip-integrated effect-based assays** (cell-on-chip, organ-on-chip) to quantify toxicity reduction.
 - **Microfluidic fractionation** of micro-/nanoplastics and **on-chip sensors** for in-line monitoring during pilots.
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**** HORIZON-CL6-2026-01-CIRCBIO-07 - ADVANCING THE EUROPEAN BIO-BASED INNOVATION
ENABLED BY BIOTECHNOLOGY AND BIOMANUFACTURING CONCEPTS

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 4.00; **# projects:** 3
 - **Scientific focus:** Develop next-gen **biomanufacturing concepts** (strain engineering, continuous bioprocesses, modular units), with attention to productivity, robustness, standardization, and sustainability metrics in bio-based value chains.
 - **Why microfluidics matters:**
 - **μ-bioreactor arrays** for design-build-test-learn at minimal volumes;
 - **On-chip PAT** (optical/impedance/chemistry) for real-time control;
 - **Scaling laws** from chip-to-pilot using microfluidics 's multiphase/segmented-flow expertise.
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**** HORIZON-CL6-2027-02-FARM2FORK-03 - MICROBIOME FOR TERRESTRIAL LIVESTOCK SUSTAINABILITY AND HEALTH WITHIN A ONE HEALTH APPROACH

- **Type of action:** RIA
 - **Budget (M€):** 11.80; **Expected/project (M€):** 5.00-6.00; **# projects:** 2
 - **Scientific focus:** Integrate **host–microbiome** knowledge for livestock health, productivity, and reduced emissions/AMR within a One Health frame; combine longitudinal cohorts, multi-omics, and intervention studies.
 - **Why microfluidics matters:**
 - **Gastro-intestinal organ-on-chip** to evaluate feed additives/probiotics under realistic shear, pH and mucus conditions.
 - **Single-cell analytics** to map microbial responders and resistance gene mobility.
 - **Rapid on-farm chips** for pathogen/AMR surveillance (sample-to-answer).
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**** HORIZON-CL6-2026-01-CIRCBIO-11 - HARNESSING THE UNIQUE PROPERTIES OF MARINE ORGANISMS TO DELIVER SUSTAINABLE BLUE BIO-BASED PRODUCTS

- **Type of action:** RIA
 - **Budget (M€):** 10.00; **Expected/project:** 5.00; **# projects:** 2
 - **Scientific focus:** Discover and valorize **marine organisms** for novel bio-based products; upstream discovery to proof-of-concept, with sustainability and standardization aspects.
 - **Why microfluidics matters:** **Droplet-based discovery platforms** for enzyme/metabolite screening, **picolitre culture** of rare marine strains, **on-chip bioassays** for anti-fouling/antimicrobial/biomaterial properties.
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**** HORIZON-CL6-2026-02-FARM2FORK-06 - ADVANCED INNOVATIVE SOLUTIONS FOR IMPROVED COMPETITIVENESS AND SUSTAINABILITY IN CONTROLLED ENVIRONMENT AGRICULTURE (CEA)

- **Type of action:** IA
- **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2

- **Scientific focus:** Demonstrate **advanced CEA** (greenhouses, vertical farming) integrating **sensing, automation, decision support**, and circular resource use to raise efficiency and cut inputs/emissions. Emphasizes interoperability and robust business cases.
 - **Why microfluidics matters:**
 - **Microfluidic nutrient dosing & analysis** loops for hydroponics/aeroponics;
 - **Lab-on-chip plant phenotyping** (phytohormones, nutrient status, pathogens) for closed-loop control;
 - **μ-reactors** for on-site biostimulant production/conditioning.
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***** HORIZON-CL6-2027-01-BIODIV-07 - Health of ecosystems and wild species, predictions and impacts on human health, in the face of existing and emerging stressors, from a One Health approach**

- **Type of action:** RIA
 - **Budget (M€):** 14.00; **Expected/project:** 7.00; **# projects:** 2
 - **Scientific focus:** Link **ecosystem health indicators** and **stressors** to **human health** via One Health surveillance, modelling and early-warning, integrating biodiversity, pathogen dynamics and exposure pathways.
 - **Why microfluidics matters:** **Fieldable microfluidic assays** (eDNA/eRNA, vector/pathogen chips), **point-of-use toxin/biomarker sensors**, and **organ-on-chip models** for cross-species risk assessment.
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***** HORIZON-CL6-2026-02-FARM2FORK-02 - TACKLING PESTICIDE RESISTANCE: EARLY DETECTION, MANAGEMENT STRATEGIES, AND FORESIGHT**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Build **early-warning and surveillance** for resistance, develop **integrated management strategies**, modelling, and foresight to prevent resistance spread.
 - **Why microfluidics matters:** **On-chip genotyping** of resistance markers, **rapid phenotyping** of sensitivity in micro-droplets, and **field-portable sample-to-answer** for advisory systems.
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***** HORIZON-CL6-2026-01-ZEROPOLLUTION-03 - DEVELOPING MANAGED AQUIFER RECHARGE TECHNIQUES (MAR) IN A RURAL CONTEXT**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Develop and demonstrate **MAR solutions** tailored to rural settings, aligned with CIS guidance, addressing hydrogeology, water quality, design/operation, monitoring, and governance.
 - **Why microfluidics matters:**
 - **Porous-media chips** to study clogging, redox fronts, and biofilm dynamics under MAR conditions;
 - **In-situ micro-sensors** for nutrients, metals, and microbial indicators;
 - **On-chip fate/transport assays** for PFAS/CEC attenuation.
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***** HORIZON-CL6-2027-01-CIRCBIO-08 - BIOTECHNOLOGY APPLICATION FOR CCU**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** ~6.00; **# projects:** 2
 - **Scientific focus:** Develop **biotechnological CO₂/CO valorization** routes (microbial, enzymatic) with improved yields, productivity, and integrability into industrial ecosystems, including sustainability and techno-economic assessments.
 - **Why microfluidics matters:** **Gas-liquid microreactors** for mass-transfer-limited CCU, screening of acetogens/methanotrophs in droplets, and on-chip **TEA/LCA data streams** via PAT.
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**** HORIZON-CL6-2026-02-FARM2FORK-01 - DEVELOPING INNOVATIVE PHYTOSANITARY TREATMENTS FOR REGULATED PLANT PESTS TO SUPPORT SAFE INTERNATIONAL TRADE**

- **Type of action:** IA
- **Budget (M€):** 11.80; **Expected/project:** 5.90; **# projects:** 2

- **Scientific focus:** Pilot **novel phytosanitary treatments** (efficacy, residue, safety), develop **standardized protocols** and demonstration in real supply chains, including regulatory interfaces.
 - **Why microfluidics matters:** **On-chip exposure chambers** for pest/pathogen life-stages, **dose-response** mapping at scale, and **micro-encapsulation** strategies for targeted delivery/reduced residues.
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**** HORIZON-CL6-2027-02-FARM2FORK-08 - AI-POWERED FOODOME CHARACTERIZATION**

- **Type of action:** IA
 - **Budget (M€):** 8.00; **# projects:** 1
 - **Scientific focus:** Build **AI-ready pipelines** for **foodome** (chemical/nutritional/hazard profiles) across real matrices; integrate high-throughput measurement, data fusion, and validation in industry settings.
 - **Why microfluidics matters:** **Front-end sample prep on chip (cleanup, extraction, derivatization)**, **μ-scale separations** feeding MS/NMR, and **inline quality sensors** for factory deployment.
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**** HORIZON-CL6-2026-02-FARM2FORK-04 - ACCELERATING THE DEVELOPMENT OF BREEDING TOOLS FOR PERENNIAL CROPS, SPECIFICALLY FRUIT AND NUTS**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Develop and integrate **breeding tools** (genotyping, phenotyping, speed breeding) for perennials; address climate resilience, pests, and quality traits with interoperable data and field validation.
 - **Why microfluidics matters:** **Single-pollen/seed assays** on chip, **μ-fluidic phenotyping** (hormone/volatile flux), and **ultra-low input genomics** to accelerate selection cycles.
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**** HORIZON-CL6-2026-02-FARM2FORK-13 - BOOSTING PLANT HEALTH AND REDUCING LOSSES ON FARM AND DURING STORAGE FOR SUSTAINABLE GROWTH IN AFRICA (FNSSA)**

- **Type of action:** IA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Demonstrate **practical interventions** that reduce field and storage losses in African contexts (plant health, diagnostics, storage tech, IPM), with capacity-building and local value-chain integration.
 - **Why microfluidics matters:** **Portable microfluidic diagnostics** for pests/ pathogens/ mycotoxins, **low-cost on-chip sensors** for storage conditions (humidity, volatiles), and **micro-encapsulated treatments**.
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**** HORIZON-CL6-2027-01-ZEROPOLLUTION-03 - IMPROVE THE CAPACITY TO MONITOR AND REDUCE AIR POLLUTION FROM AGRICULTURE**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Develop and validate **monitoring/mitigation strategies** for agri-air pollution (e.g., NH₃, PM, VOCs), linking **measurement, modelling, and interventions**.
 - **Why microfluidics matters:** **μ-gas sensors & micro-preconcentrators** for NH₃/VOCs, **aerosol-on-chip** characterization, and **sensor fusion** with data models.
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**** HORIZON-CL6-2027-02-FARM2FORK-01 - INCREASING THE RESILIENCE OF AGRICULTURE IN WATER- AND NUTRIENT-SCARCE ENVIRONMENTS THROUGH DIGITAL INNOVATIONS**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Deploy **digital sensing/decision tools** to manage scarce water/nutrients; integrate agronomy, remote sensing, and farm-level automation.
 - **Why microfluidics matters:** **Soil-pore-scale chips** to study nutrient transport, **sap-flow micro-sensors**, and **on-chip nutrient monitoring** for precision fertigation.
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**** HORIZON-CL6-2026-03-GOVERNANCE-04 - SUPPORTING ALL-ATLANTIC OCEAN RESEARCH AND INNOVATION ALLIANCE**

- **Type of action:** RIA
 - **Budget (M€):** 15.00; **Expected/project:** 5.00; **# projects:** 3
 - **Scientific focus:** Co-design and validate **new ocean observing technologies and system architectures**, improving coverage, interoperability, and sustainability of observing networks.
 - **Why microfluidics matters:** **Lab-on-chip nutrient & pH sensors** for autonomous platforms, **biofouling-resistant micro-analysers**, and compact **micro-samplers**.
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**** HORIZON-CL6-2027-01-BIODIV-01 - INTEGRATING REMOTE SENSING AND IN-SITU OBSERVATIONS OF BIODIVERSITY, TOWARDS A FULLY INTEROPERABLE OBSERVATION AND DATA FRAMEWORK**

- **Type of action:** RIA
 - **Budget (M€):** 10.00; **Expected/project:** 5.00; **# projects:** 2
 - **Scientific focus:** Build **interoperable frameworks** that connect **in-situ** biodiversity observations with **RS** products, enabling indicators and policy-relevant monitoring.
 - **Why microfluidics matters:** microfluidics can supply **standardized on-site sampling cartridges** (eDNA/eRNA/chemistry) that dovetail with **RS** products and data pipelines.
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**** HORIZON-CL6-2027-01-BIODIV-03 - TECHNICAL INNOVATION TO PROTECT ECOSYSTEMS AND TO SCALE UP THEIR RESTORATION**

- **Type of action:** IA
 - **Budget (M€):** 14.00; **Expected/project:** 7.00; **# projects:** 2
 - **Scientific focus:** Demonstrate **restoration technologies at scale** (monitoring, adaptive management, supply-chain tools), with robust ecological and socio-economic KPIs.
 - **Why microfluidics matters:** **In-field micro-assays** for soil/water health and **portable biosensors** to steer restoration actions in near-real time.
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**** HORIZON-CL6-2026-02-CLIMATE-02 - TOWARDS THE WATER INFRASTRUCTURES OF THE FUTURE**

- **Type of action:** RIA
 - **Budget (M€):** 10.00; **Expected/project:** 5.00; **# projects:** 2
 - **Scientific focus:** Design and validate **resilient water infrastructures**, integrating **sensor networks, digital twins, and nature-based options** for droughts/floods/quality.
 - **Why microfluidics matters:** **Networkable micro-analysers** for contaminants/nutrients, and **lab-on-chip early-warning** modules for plant operators.
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**** HORIZON-CL6-2027-02-CLIMATE-03 - CARBON FARMING INNOVATION AND SCALE-UP**

- **Type of action:** IA
 - **Budget (M€):** 12.00; **Expected/project:** 6.00; **# projects:** 2
 - **Scientific focus:** Pilot and scale **carbon-farming practices** with robust MRV, permanence, and economics.
 - **Why microfluidics matters:** **Soil-on-chip** microcosms to quantify carbon stabilization processes and **in-situ microsensors** for soil gases and dissolved organics.
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**** HORIZON-CL6-2027-02-CLIMATE-01-TWO-STAGE - OPEN TOPIC: INNOVATIVE SOLUTIONS FOR THE EUROPEAN WATER RESILIENCE STRATEGY**

- **Type of action:** IA
 - **Budget (M€):** 10.00; **Expected/project:** 5.00; **# projects:** 2
 - **Scientific focus:** Open innovation for **EU Water Resilience Strategy**-deployable tech with measurable resilience gains.
 - **Why microfluidics matters:** **Compact treatment/monitoring modules** (e.g., PFAS pre-concentration + sensor), **micro-scale process intensification** for distributed water systems.
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**** HORIZON-CL6-2027-01-ZEROPOLLUTION-01 - REPLACING HAZARDOUS SUBSTANCES IN BIOCIDAL PRODUCTS**

- **Type of action:** RIA
 - **Budget (M€):** 12.00; **Expected/project:** 4.00; **# projects:** 3
 - **Scientific focus:** Develop **safer, effective alternatives** to hazardous actives in biocides; include mode-of-action evidence and risk/benefit assessments.
 - **Why microfluidics matters:** **High-content micro-bioassays** for efficacy/cytotoxicity, **time-resolved on-chip** kinetics, and **micro-encapsulation** to tune delivery while reducing exposure.
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