

# EU-aamukahvit: rahoitusta kiertotalousprojekteille Horisontissa

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**HORISONTTI EUROOPPA**

— EU:N TUTKIMUS- JA INNOVAATIO-OHJELMA —

# Horisontti Eurooppa 2021-2027 (n. 95 mrd. €)



# HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

- Institutionalised Partnerships (Art 185/7)
- Institutionalised Partnerships / EIT KICs
- Co-Programmed
- Co-Funded

\* Calls with opening dates in 2023-24  
 \*\* Calls with opening dates not before 2022

# PILLAR III - Innovative Europe

EIT (KNOWLEDGE & INNOVATION COMMUNITIES)	SUPPORT TO INNOVATION ECOSYSTEMS
InnoEnergy	Innovative SMEs
Climate	<b>Eurostars</b>
Digital	
Food	
Health	
Raw Materials	
Manufacturing	
Urban Mobility	
Cultural and Creative Industries	

## CROSS-PILLARS II & III

European Open Science Cloud



# Horizon Europe Climate / Digital

“Climate” incl. circularity

## Horizon Europe

Climate action ~37% in 2021-22 and 34% in 2023-24 – 35.5% for the first four years

Digital agenda ~34% in 2021-22 and 36.5% in 2023-24 – 35% for the first four years

## Cluster 4

Climate ~40% in 2021-22 and 49% in 2023-24

Digital agenda ~55% in 2021-22 and 59% in 2023-24

AI ~21% in 2023-24



# Cluster 4: Digital, Industry, Space 2024 “circular” topics

HE Strategic Plan; expected impacts in CL4 e.g. *“Global leadership in clean and climate-neutral industrial value chains, circular economy and climate-neutral digital systems and infrastructures (networks, data centres), through innovative production and manufacturing processes and their digitization...”*

## D1: Twin Green and Digital Transformation (176 M€)

### **Manufacturing topics 2024:**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-03: Manufacturing as a Service: Technologies for customised, flexible, and decentralised production on demand (Made in Europe Partnership) (35 M€)**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-05: Technologies/solutions to support circularity for manufacturing (MiE) (36 M€)**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-01: Bio-intelligent manufacturing industries (MiE) – two stage call (25 M€)**

### **Energy Intensive Process Industries:**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-34: Renewable hydrogen used as feedstock in innovative production routes (Processes4Planet Partnership) (20 M€)**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-35: Turning CO2 emissions from the process industry to feedstock (P4P) (30 M€)**

**HORIZON-CL4-2024-TWIN-TRANSITION-01-38: Hubs for circularity for industrialised urban peripheral areas (P4P) (40 M€)**

## D2: Increased Autonomy in Key Strategic Value Chains for Resilient Industry (139.2 M€)

### Strategic Innovation Markets Driven by Advanced Materials:

HORIZON-CL4-2024-RESILIENCE-01-35: **Biodegradable polymers for sustainable packaging materials (31 M€)**

HORIZON-CL4-2024-RESILIENCE-01-36: **Advanced biomaterials for the Health (31 M€)**

### Raw Materials for EU open strategic autonomy and successful transition to a climate-neutral and circular economy

HORIZON-CL4-2024-RESILIENCE-01-04: **Technologies for processing and refining of critical raw materials (22 M€)**

HORIZON-CL4-2024-RESILIENCE-01-08: **Rare Earth and magnets innovation hubs (32 M€)**

HORIZON-CL4-2024-RESILIENCE-01-10: **Addressing due diligence requirements in raw materials supply chains (2.2 M€)**

HORIZON-CL4-2024-RESILIENCE-01-11: **Technologies for extraction and processing of critical raw materials (15 M€)**

### Improving the resilience of EU businesses, especially SMEs and Startups

HORIZON-CL4-2024-RESILIENCE-01-41: **'Innovate to transform' support for SME's sustainability transition (10 M€)**

## D3: Digital & Emerging Technologies for Competitiveness and Fit for the Green Deal (60 M€)

HORIZON-CL4-2024-DIGITAL-EMERGING-01-04: **Industrial leadership in AI, Data and Robotics boosting competitiveness and the green transition (AI Data and Robotics Partnership) (60 M€)**

## D6: A human-centred and ethical development of digital and industrial technologies (6 M€)

HORIZON-CL4-2024-HUMAN-03-04: **Facilitate the engagement in global ICT standardisation development (6 M€)**

# Cluster 5 – Climate, Energy, Mobility 2024 “circular” topics

## D1: Climate sciences and responses for the transformation towards climate neutrality (5 M€)

### Climate change mitigation, pathways to climate neutrality:

**HORIZON-CL5-2024-D1-01-06: The role of climate change foresight for primary and secondary raw materials supply (5 M€)**

## D2: Cross-sectoral solutions for the climate transition (47 M€)

### A competitive and sustainable European battery value chain:

**HORIZON-CL5-2024-D2-01-01: Advanced sustainable and safe pre-processing technologies for End-of-Life (EoL) battery recycling (Batt4EU Partnership) (21 M€)**

**HORIZON-CL5-2024-D2-01-02: Non-Li Sustainable Batteries with European Supply Chains for Stationary Storage (Batt4EU) (21 M€)**

**HORIZON-CL5-2024-D2-01-03: Development of technical and business solutions to optimise the circularity, resilience, and sustainability of the European battery value chain (Batt4EU) (5 M€)**

## D3: Sustainable, secure and competitive energy supply (176 M€)

### Global leadership in renewable energy

HORIZON-CL5-2024-D3-01-02: **Low-power PV (6 M€)**

HORIZON-CL5-2024-D3-01-04: **Improvement of light harvesting and carbon fixation with synthetic biology and/or bio-inspired//biomimetic pathways for renewable direct solar fuels production (8 M€)**

HORIZON-CL5-2024-D3-01-05: **Development of carbon fixation technologies for biogenic flue gases (8 M€)**

HORIZON-CL5-2024-D3-01-07: **Development of hydropower equipment for improving techno-economic efficiency and equipment resilience in refurbishment situations- (8 M€)**

HORIZON-CL5-2024-D3-01-08: **Demonstration of sustainable wave energy farms (38 M€)**

### Energy systems, grids & storage

HORIZON-CL5-2024-D3-01-16: **Demonstration of innovative pumped storage equipment and tools in combination with innovative storage management systems (8 M€)**

HORIZON-CL5-2024-D3-01-17: **Development and integration of advanced software tools in SCADA systems for High, Medium and Low voltage AC/DC hybrid systems (12 M€)**

HORIZON-CL5-2024-D3-02-03: **Development of smart concepts of integrated energy driven bio-refineries for co-production of advanced biofuels, bio-chemicals and biomaterials (7 M€)**

HORIZON-CL5-2024-D3-02-04: **Critical technologies for the future ocean energy farms (8 M€)**

HORIZON-CL5-2024-D3-02-07: **Resource Efficiency of PV in Production, Use and Disposal (3 M€)**

HORIZON-CL5-2024-D3-02-08: **Minimisation of environmental, and optimisation of socio-economic impacts in the deployment, operation and decommissioning of offshore wind farms (10 M€)**

HORIZON-CL5-2024-D3-02-09: **Demonstrations of innovative floating wind concepts (30 M€)**

### Carbon Capture, Utilization and Storage (CCUS)

HORIZON-CL5-2024-D3-02-11: **CCU for the production of fuels (15 M€)**

HORIZON-CL5-2024-D3-02-12: **DACCS and BECCS for CO2 removal/negative emissions (15 M€)**



## D4: Efficient, sustainable and inclusive energy use (32 M€)

### Highly energy-efficient and climate neutral European building stock

HORIZON-CL5-2024-D4-02-01: Industrialisation of sustainable and circular deep renovation workflows (Built4People Partnership) (16 M€)

HORIZON-CL5-2024-D4-02-03: BIM-based processes and digital twins for facilitating and optimising circular energy renovation (Built4People) (8 M€)

HORIZON-CL5-2024-D4-02-04: Design for adaptability, re-use and deconstruction of buildings, in line with the principles of circular economy (Built4People) (8M€)

## D5: Clean and competitive solutions for all transport modes (69.7 M€)

### Zero-emission road transport

HORIZON-CL5-2024-D5-01-02: Integration and testing of next generation post-800V electric powertrains (2ZERO Partnership) (15 M€)

### Aviation

HORIZON-CL5-2024-D5-01-08: Competitiveness and digital transformation in aviation – advancing further composite aerostructures (16 M€)

HORIZON-CL5-2024-D5-01-10: Towards a flying testbed for European leadership in aviation (16 M€)

### Waterborne transport

HORIZON-CL5-2024-D5-01-11: Achieving high voltage, low weight, efficient electric powertrains for sustainable waterborne transport (ZEWT Partnership) (15 M€)

HORIZON-CL5-2024-D5-01-15: Advanced digitalisation and modelling utilizing operational and other data to support zero emission waterborne transport (ZEWT) (7.7 M€)

# Horizon Europe Cluster 6

(Food, bioeconomy, natural resources, agriculture and environment)

D3: Circular economy and bioeconomy sectors – one stage call

- HORIZON-CL6-2024-CircBio-01-1 Circular Cities and Regions Initiative's project development assistance (CCRI-PDA)
- HORIZON-CL6-2024-CircBio-01-2 Circular solutions for textile value chains based on extended producer responsibility
- HORIZON-CL6-2024-CircBio-01-3 Innovative circular solutions for furniture
- HORIZON-CL6-2024-CircBio-01-4 Systemic circular solutions for a sustainable tourism
- HORIZON-CL6-2024-CircBio-01-5 Programmed biodegradation capability of bio-based materials and products, validated in specific environments
- HORIZON-CL6-2024-CircBio-01-6 Digital information systems for bio-based products
- HORIZON-CL6-2024-CircBio-01-7 Demonstrating the fair and just transition from GHG-intensive economies facing challenges towards circular bioeconomy model regions
- HORIZON-CL6-2024-CircBio-01-8 Bioeconomy project development assistance
- HORIZON-CL6-2024-CircBio-01-9 Circular bioeconomy start-up villages
- HORIZON-CL6-2024-CircBio-01-10 Targeting aquatic extremophiles for sourcing novel enzymes, drugs, metabolites and chemicals



**Horizon Europe 2024  
call for proposals**

Calls close on 22 February 2024



**16 topics**

e.g.: Increasing the circularity in electronics, plastics and textiles value chains; Innovative circular solutions for furniture



**147,5 million**

Overall indicative budget

# Horizon Europe Cluster 6

D3: Circular economy and bioeconomy sectors – two-stage call 2024  
(1st stage DL 22 Feb - 2nd stage DL 17 Sep 2024!)

HORIZON-CL6-2024-CircBio-02-1 **Circular solutions for textile value chains through innovative sorting, recycling, and design for recycling**

HORIZON-CL6-2024-CircBio-02-2 **Increasing the circularity in plastics value chains**

HORIZON-CL6-2024-CircBio-02-3 **Increasing the circularity in electronics value chains**

HORIZON-CL6-2024-CircBio-02-4 **New circular solutions and decentralised approaches for water and wastewater management**

HORIZON-CL6-2024-CircBio-02-5 **Circular design of bio-based processes and products**

HORIZON-CL6-2024-CircBio-02-6 **From silos to diversity – small-scale bio-based demonstration pilots**

# Circular Bio-based Europe Joint Undertaking (CBE JU)

## 2024 Call (211 M€) - [www.cbe.europa.eu](http://www.cbe.europa.eu)

CBE is a €2 billion partnership between the European Union and the Bio-based Industries Consortium (BIC) that funds projects advancing competitive circular bio-based industries under Horizon Europe, the EU's research and innovation programme.

*"All supported activities must also demonstrate the potential of bio-based solutions in terms of climate and environmental performance, and circularity. Activities that do not meet the agreed requirements of climate and environmental performance will not be supported. In line with the circularity objective, attention will be given to activities that enable the conversion of bio-waste, residues and side-streams into added-value circular bio-based solutions."*

Uusi 2024 vuoden työohjelma julkaistaan vuoden 2024 alussa. Haku aukeaa huhtikuussa ja päättyy syyskuussa 2024

Hakuaiheita tulossa auki parikymmentä – kiertotalouden periaate läpileikkaavana elementtinä kaikissa. Aiheita mm.

**Circular and SSbD bio-based construction & building materials with functional properties**

**HORIZON-JU-CBE-2024-IA-05 Innovative bio-based adhesives for circular products meeting market requirements**

jne. (aiheet tarkentuvat työohjelman valmistuessa)

# Other than “Circular Economy” box...

## Cluster 1 Health

**HORIZON-HLTH-2023-CARE-04-03: Environmentally sustainable and climate neutral health and care systems (20 M€)**

Research and innovative solutions for increased circularity of hospitals or other care providers that integrate the zero-pollution ambition: such as solutions to reduce waste, improved waste management practices (with a possible focus on water effluents and Antimicrobial Resistance (AMR)), increased circularity (for example sustainable use of linen).”

## Cluster 2 Culture, Creativity and Inclusive society

**HORIZON-CL2-2024-HERITAGE-01-01: New European Bauhaus – Innovative solutions for greener and fairer ways of life through arts and culture, architecture and design for all (16 M€)**

Use of renewable materials (e.g. nature-based materials produced sustainably) with a circular economy mind-set  
Regeneration, life extension (i.e. smart monitoring, conservation and restoration), re-use and transformation of cultural heritage buildings and landscapes, while ensuring attentive cultural interpretation of the original buildings and respecting their cultural contents and contexts.



# Cluster 3 Civil Security for Society

*"Equipment and technologies enabling border surveillance should contribute to cost and energy efficiency, limit their environmental impact and be more and more sustainable once operational in the future. This may be addressed, for example, by integrating opportunities of circular economy, self-sustained equipment, lower emissions and/or environmental footprints."*

**HORIZON-CL3-2024-BM-01-02: Interoperability for border and maritime surveillance and situational awareness (6 M€)**

**HORIZON-CL3-2024-BM-01-04: Integrated risk-based border control that mitigates public security risk, reduces false positives and strengthens privacy (5 M€)**

**HORIZON-CL3-2024-BM-01-05: Detection and tracking of illegal and trafficked goods (6 M€)**

Kaikkien Horisontti Eurooppa-ohjelman hakuaiheiden tarkemmat tiedot [Funding&Tender –portaalista](#)

Lisätietoa suomenkielisiltä nettisivuiltamme [www.horisonttieurooppa.fi](http://www.horisonttieurooppa.fi)

Sekä Horisontti Eurooppa -ohjelman kansallisilta yhteyshenkilöiltä:

<https://www.businessfinland.fi/suomalaisille-asiakkaille/palvelut/rahoitus/horisontti-eurooppa/miten-voimme-auttaa#ncp>

# Horisontti ja EDF –projektien valmistelurahoitus

## Yrityksille

- ✓ jotka ovat mukana EU-konsortioprojektin valmistelussa
- ✓ joiden de minimis -kiintiössä on tilaa

## Rahoitus

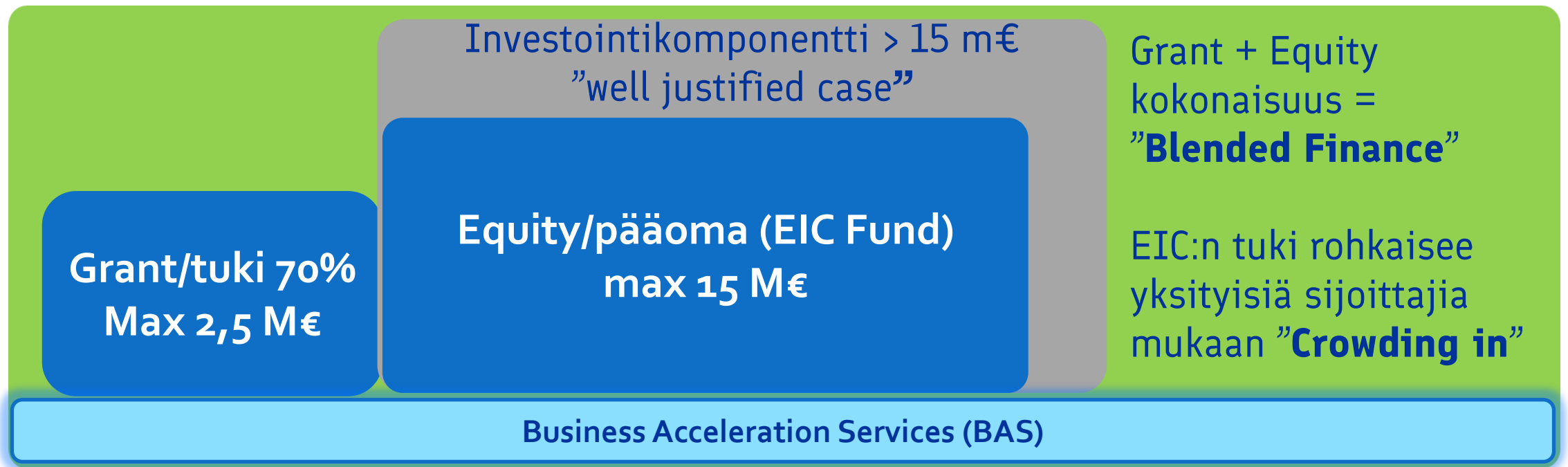
- ✓ BF:n rahoitusosuus on 75 % kustannuksista, enintään 60 000 €
- ✓ jätä valmistelurahoitushakemus heti, kun sopiva hakutopic ja alustava konsortio on tiedossa – kustannuksia hyväksytään aikaisintaan siitä päivästä lähtien, kun olet lähettänyt hakemuksesi BF:ään
- ✓ kustannukset voi tilittää, kun EU-hakemus on arvioitu ja jos se täyttää EU-ohjelmassa määritellyt kynnyksarvot
- ✓ [Lisätietoja](#) valmistelurahoituksesta



Kiinnostuitko? Ota yhteyttä:  
sari.federley (at)  
businessfinland.fi

# Horisontti Euroopan EIC Accelerator

- **Pk-yritysten** läpimurtoteknologioiden tai muiden merkittävien markkinainnovaatioiden skaalaamiseen kv-markkinoille silloin, kun niihin **ei vielä ole saatavilla riittävästi yksityistä rahoitusta (riskielementti!)**
- **Tuki 24 kk:** t&k, pilotit, demonstraatiot, testaus, validointi, kv-liiketoiminnan strateginen suunnittelu ja muut innovaatiotoimet (TRL6-8)
- **Päämaoptio:** kaupallistamisen ja skaalautumisen operatiivisiin toimiin (TRL9)
- **Accelerator Open ja Accelerator Challenges ( "Challenges" -aiheet vaihtuvat vuosittain)**
- [www.eic.ec.europa.eu](http://www.eic.ec.europa.eu), [www.horisonttieurooppa.fi](http://www.horisonttieurooppa.fi) → Mitä on tarjolla yrityksille



# Kiitos

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