



2nd Call for Proposals

List and description of the selected projects

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1. Circular Economy

1.1 City of Antwerp (Stad Antwerpen)

ERDF budget: € 4,979,239.40

The **Antwerp Circular South** project aims to position circularity as a community challenge for the New South district (a newly created district in Antwerp) and engage its new residents in co-creating online and offline initiatives. A number of advanced technical solutions covering different resource streams (energy, water and waste) will be tested. 200 Circular South inhabitants will experiment with the so-called 'behavioural nudging', receiving cues to adapt their consumption behaviour of energy, water and waste in the most ideal circular way. Circular behaviours will be automatically rewarded by an alternative online currency, the Circular Coin, through a block chain-based reward and exchange system. The most engaged Circular South participants will form a local Energy Cooperative sharing an innovative collective energy system. In addition, a Circular South Community Centre will be set up to host a number of initiatives related to sharing, repairing and reusing activities. The project will finally deliver a community platform (both technological and social) in which future circular economy initiatives can be integrated after the project.

Partnership:

City of Antwerp; **2 higher education and research institutes:** VITO; Imec; **1 energy cooperative:** Ecopower; **1 infrastructure and service providers:** Digipolis; **1 NGO:** Kringwinkel; **2 SMEs:** Pantopicon; EnergieID



1.2 City of Heraklion (Δήμος Ηρακλείου)

ERDF Budget: € 3,130,359.00

A2UFood aims to establish a holistic and coordinated management scheme to address food waste in the hospitality sector (hotels and restaurants) in the municipality of Heraklion. It wants to reduce avoidable food waste and use unavoidable food waste as raw materials through a broad range of innovative integrated tools and activities. For example project partners will develop a software to improve households' food management, making use of data stemming from supermarket loyalty cards. A second opportunity restaurant will use leftover food from the hospitality sector (collected through a pilot source separation scheme) to prepare meals for those in need. The project will also set up a pilot bio-plastic bio-refinery production system to produce compostable bags. A range of state-of-the-art autonomous composting units, using the aforementioned compostable bags, will be installed to maximize food waste valorization in the municipality. Citizens and local companies will be informed and engaged through a city-wide information campaign to ensure their large participation.

Partnership:

City of Heraklion; **1 regional waste authority:** United Association of Solid Waste Management in Crete; **1 waste management company:** ENVIROPLAN S.A; **4 higher education and research institutes:** University of Crete; Technological Educational Institute of Crete; Harokopio University; University of Stuttgart



1.3 City of Kerkrade (Gemeente Kerkrade)

ERDF budget: € 4,712,765.24

The **Super Circular Estate** project will test new circular economy processes aimed at 100% reusing, repairing and recycling of the materials acquired from the demolition of an outdated social housing building. The project will experiment with and evaluate innovative reuse techniques for decomposing a high-rise tunnel formwork concrete building in Kerkrade. The demolition materials will be used to build 4 pilot housing units with 5 different reuse/recycle techniques to be compared in order to assess their viability and replicability. Besides the project will experiment with innovative techniques for water reuse in a social housing context by testing closed water cycle. Social tenants will be strongly involved in the co-design, operation and monitoring of new collaborative economy services/facilities (aiming at reducing the need for vehicles, tools, spaces etc.) to support the transition towards a sharing, reuse and repair community model.

Partnership:

Municipality of Kerkrade with two neighbouring municipalities Brunssum and Landgraaf; **1 regional authority:** Stadsregio Parkstad Limburg; **2 construction companies:** VolkerWessels Construction; Real Estate Development South and Dusseldorp Infra; **2 water management infrastructure providers:** Water Board Company Limburg; Limburg Drinking Water Company; **2 higher education and research institutes:** IBA Parkstad B.V; Zuyd University of Applied Sciences; **1 social housing corporation:** HeemWonen; **1 advocacy organisation:** Association of Demolition Contractors (VERAS)



1.4 City of Lappeenranta (Lappeenrannan kaupunki)

ERDF Budget: € 3,386,638.40

Urban infra revolution will test new solutions to reduce CO₂-emissions in urban construction development. Sidestreams from industry (ashes, green liquor dregs, tailings, construction waste) will be utilized in urban construction by combining them into a high-value material to replace concrete. Novel material formulas will be created containing suitable side streams to be used as geopolymer binder (replacing cement) and as inorganic aggregates in geocomposites. An innovative bio-fibre reinforced geo-composites will be developed to achieve the high standards of construction industry. Automated, on-site, fast and versatile additive manufacturing construction system, without molds, will be tested in comprehensive urban scale. The material and the piloted technology will be multifunctional and enable aesthetic design with revolutionary shapes with very low CO₂ emissions. Selected pilot structures will be manufactured within the urban infra and their properties are tested in real climate conditions. To implement and finally benefit locally the project results, a viable sustainable business ecosystem will be designed and environmental and socioeconomic impacts assessed.

Partnership:

Municipality of Lappeenranta; **4 SMEs:** Apila Group Ltd.; FIMATEC Finnish Intelligent Module Apartments Oy; Design Reform Ltd.; Totaldesign Ltd.; **5 private enterprises:** UPM-Kymmene Oy; Outotec Ltd.; Nordkalk Corporation; Metsäliitto Cooperative; Stora Enso International Oy; **2 higher education and research institutes:** Lappeenranta University of Technology; Saimaa University of Applied Sciences; **1 Region Development Company:** Imatra



1.5 City of Ljubljana (Mestna občina Ljubljana)

ERDF Budget: € 4,162,071.80

ApPLAuSE (Alien PLAnt SpEcies) - from harmful to useful with citizens' led activities will experiment a completely new approach to IAPS (Invasive Alien Plant Species) treatment. IAPS will be considered as a resource and starting point of a new business model. A big effort is dedicated to new green technologies in all aspects of IAPS treatment (e.g. pilot enzymatic processing of IAPS fibres instead of chemical) as well as circular economy principles in development of new products (re-use). Through a large-scale educational and awareness raising campaigns, citizens are encouraged to participate in IAPS harvesting and re-use. ICT technology will be used to address target groups and to produce open data, new knowledge and develop new services like IAPS monitoring. Collected IAPS biomass will feed three main ways of further transformation: at home (e.g. food, dyes), at tutored workshops (e.g. to produce wood or paper articles) and in craftsman laboratories (e.g. to manufacture innovative products with market potential in social enterprises and employing vulnerable groups).

Partnership:

City of Ljubljana; **1 waste management public utility:** SNAGA; **4 higher education and research institutes:** University of Ljubljana; Jozef Stefan Institute; National Institute of Chemistry and Pulp; Paper Institute; **3 local businesses:** Company for arboriculture and forestry (TISA); GDi GISDATA d.o.o. Ljubljana; Centre of Excellence for Space Sciences and Technologies (SPACE-SI); **2 NGOs:** Association for the development of sustainable design (TRAJNA); TipoRenesansa.



1.6 City of Maribor (Mestna Občina Maribor)

ERDF Budget: € 2,998,120.00

The **URBAN SOIL 4 FOOD** will test a model of urban soil-based economy circle in order to increase local food self-sufficiency and to minimize the city's environmental footprint. The aim is to use cities' internal waste – particularly excavated materials from construction sector – as input material to produce recycled, standardized and certified soil for meeting cities' needs, and notably to be reintroduced to the ground in order to improve soil quality and increase food production. A pilot system for urban soil production including wastes from different sectors will be tested, and urban community gardens will be developed using the standardized soil produced. In parallel, food distribution will be structured around the creation of an urban food chain and local urban food labels, and an Agri Living Lab will be set up where different experiments relating to social innovation, urban environment and agriculture will take place.

Partnership:

City of Maribor; **3 NGOs:** Institute for Innovation and Entrepreneurship; E-institute for comprehensive development solutions; AKTIVIRAJ SE Development of social projects and promotion of active life association; **2 Infrastructure and Public Service Providers:** Snaga; Wcycle Institute Maribor; **1 service and consulting company:** Deltaplan; **1 Higher Education and research Institute:** Slovenian National Building and Civil Engineering Institute (ZAG).



1.7 City of Sevran (Ville de Sevran)

ERDF Budget: € 4,885,025.36

The **EARTH CYCLE** project seeks to foster a new urban planning development model based on the use of locally excavated soil from major construction sites. Project partners will develop a full industrial process and ecosystem to produce certified earth construction materials from the reuse of soil extracted as part of two major subway stations' construction works. The project will design an experimental mobile production plant which will produce four different pilot building materials (bricks, panel of clay, wall coating and earth with fibers) to be tested in local urban development projects. Partners will set up an Earth Cycle Observatory to assess the materials flow and provide evidence to foster the replication and upscaling of the industrial process. Along with technical and engineering works, Earth Cycle partners will closely involve citizens throughout the project and train local companies and entrepreneurs to create further circular economic opportunities.

Partnership:

City of Sevran; **2 public urban developers:** Great Paris Developer - GPA; Greater Paris Transportation - SGP; **1 real estate company:** Quartus; 2 earth building specialist companies: Antea Group; Joly&Loiret; **5 higher education and research institutes:** IFSTTAR (French institute of science and technology for transport, development and networks); Sciences-Po Paris; ENSAG (Architecture, Environment and Building Cultures); CSTB (Scientific and Technical Centre for Building); CRATERRE; **1 NGO:** Skills for Employment.



1.8 City of Velez-Malaga (Ayuntamiento de Vélez-Málaga)

ERDF budget: € 4,040,240.00

The **BRICK-BEACH** project seeks to use construction and demolition waste to regenerate a disappeared beach in Velez-Malaga through the development of a circular economy model. The project will create a debris treatment plant and will design an innovative process that will allow the output materials to have the granulometry and softness needed to regenerate damaged sandy beaches such as the Mezquitilla beach. Debris from local illegal dumps will be treated and used for the integral beach regeneration and its surroundings, as well for experimenting together with local businesses other innovative circular economy products. An integrated set of socio-economic and environmental restoration programmes will be implemented to complete the beach regeneration. The newly created urban space next to the regenerated beach will also be used as an opportunity to generate new tourism-related as well as environmental leisure services and activities.

Partnership:

City of Velez-Malaga; **1 Ministry:** Spanish ministry of agriculture, food and environment; **1 regional authority:** Andalusian Regional department for the environment and land planning; **1 higher education and research institute:** University of Malaga; **1 NGO:** Aula del Mar de Málaga; **1 business sector representative:** Spanish Federation of Business Associations of Construction and Demolition Waste recovery (VALORIZA).



2. Integration of migrants and refugees

2.1 City of Athens (Δήμος Αθηναίων)

ERDF Budget: € 4,999,748.80

The **Curing the Limbo** project targets newly arrived refugees and vulnerable locals that are unemployed and without a role in society as well as tackling the issues surrounding the large number of buildings that have become vacant since the economic crisis. Therefore, the project will empower refugees to interact with local citizens while addressing various city and social needs in exchange of access to affordable housing. These actions are especially important for those under-skilled refugees. The project will capitalise on the strong civil society in Athens to help them overcome the state of inertia they find themselves. The city will pilot different and tailored pathways to access affordable housing in exchange for limited hours of community service, providing them in addition with language learning, psychological support as well as knowledge on their rights and duties.

Partnership:

Municipality of Athens; **1 metropolitan level development agency:** Athens Development and Destination Management Agency S.A; **1 higher education and research institute:** National and Kapodistrian University of Athens; **2 international organisations:** Catholic Relief Services - United States Conference of Catholic Bishops Greek Branch; International Rescue Committee (IRC Hellas)



2.2 Coventry City Council

ERDF Budget: € 4,885,025.36

The **MiFRIENDLY CITIES** project aims to facilitate and recognise the positive contribution of refugees and migrants to the city's civic, economic and social fabric. Refugees and migrants are key actors playing an important role in deciding what makes a "migrant friendly city" and driving the change on job creation, social entrepreneurship & innovation, active citizenship and communication.

Through the creation of a Business Leaders' Forum, a toolkit for employers and intensive training in advanced digital manufacturing, the project aims to create the condition for new job opportunities for migrants and refugees and better match their skills with employers.

At the same time it aims to enhance participation and active citizenship by providing a financial scheme, mentoring and support for up to 50 social enterprises and social innovation projects. Strong attention is given to communication and evaluation of the approaches tested. Over 100 refugees and migrants will be trained as Citizen Journalists to engage with the mainstream media, create their own stories and media channels while 30 will be mentored and supported to become Citizen Social Scientists in charge the project's qualitative evaluation.

Partnership:

Coventry City Council with two neighbouring municipalities Wolverhampton City Council and Birmingham City Council; **1 higher education and research institute:** Coventry University; **1 multinational company** Interserve; **1 local migration network** Migrant Voice (MV), **2 refugee and migrant centres** Coventry Refugee and Migrant Centre (CRMC); The Refugee and Migrant Centre (RMC); **1 specialist enterprise agency** Coventry University Social Enterprises (CUSE); **2 NGO's** Central England Law Centre (CELC); Migration Work (MW)



2.3 City of Fuenlabrada (Ayuntamiento de Fuenlabrada)

ERDF Budget: € 3,593,342.20

The MILMA Project aims at increasing migrants' integration perspectives through access to employment, with the creation of practical experiences specifically targeted at market niches with present and future potential to create employment opportunities. The project will test an experimental formative process directly connected to the development of products and services demanded on the market through "Business Challenges" (BCs) created in 7 specific areas identified as potential generators of employment, and co-managed by social enterprises and companies. In parallel, integration will be fostered through a collaborative work between locals and migrants in the Experimental Teams of Employment and Integration within BCs Labs. This acculturation process combined with the training program based on Business Challenges will facilitate migrants' employability and skills acquisition in relevant market areas and promote mutual understanding and strengthen social cohesion.

Partnership:

Municipality of Fuenlabrada; **1 public agency:** CIFE- Fuenlabrada Centre for Entrepreneurship and Innovation; **4 NGOs:** Santa María la Real Foundation; ASALMA; CESAL; Fuenlabrada Islamic Community Association



3. Urban Mobility

3.1 City of Albertslund

ERDF budget: € 3,371,296.76

The Transforming Urban Planning Providing Autonomous Collective mobility (**TUPPAC**) project will test electric autonomous shuttle busses as a solution for the first and last mile “mobility gap”. Four driverless vehicles will be tested, for the first time, to ensure the link to and from two pilot Light Rail Transport (LRT) stations built in the framework of the new LRT infrastructure of the Greater Copenhagen Region. During the controlled deployment of the vehicles, partners will be able to design the control systems, demonstrate the overall feasibility in two different urban environments while collecting and analyzing feedback from users on three key aspects such as scheduling, routes and communication. Special attention will be given to how pedestrians and cyclists experience interactions with the autonomous busses as well as to user experiences regarding in-buss safety, service inclusiveness and reliability. The knowledge generated during the testing phase will be used to integrate recommendations and guidelines for urban planning to incorporate autonomous busses as collective mobility services in a new Sustainable Urban Mobility Plan for the metropolitan area.

Partnership:

Albertslund Municipality and the neighbour municipality of Gladsaxe; **2 private companies:** Nobina Denmark; IBM Danmark ApS; **2 higher education and research institutes:** Technical University of Denmark; Roskilde University; **1 strategic collaboration on urban and business development** LOOP CITY; **1 non-profit partner organization** Gate 21.



3.2 City of Ghent (Stad Gent)

ERDF Budget: €3,464,558

In order to reduce the levels of congestion and support the modal shift in the city of Ghent, the **TMaas** project seeks to harmonise mobility between different transport modes as well as inform the citizens of sustainable alternatives to move around the city. The project will create a traffic management system that will crowdsource information from citizens that will match with the true needs of the urban authority. It will organise traffic management as a service using a central cloud platform without investing in expensive hardware.

The traffic management system will gather data that goes beyond information on private vehicles on the roads. It will collect, process and centralise real-time information about public transport, social media messages, weather data, traffic light status, etc. The platform will be configured to the needs of the city and local mobility practices. Personalised information will also be provided to each citizen depending on their specific user needs recommending the most sustainable and time-efficient way to travel. Citizens will be able to interact with the platform by feeding back to the management control centre as they are best placed to shape the mobility culture in their communities.

Partnership:

City of Ghent; **2 software companies:** WAYLAY NV; NVMB; **4 private companies:** Tom Tom Development Gerny GmbH; BARCO n.v; Be-MobileTech NV; Buro Bloom; **2 higher education and research institutes:** Ghent University; KU Leuven; **1 association:** European Passenger's Federation.



3.3 City of Lahti (Lahden kaupunki)

ERDF Budget: € 3,799,172.80

The **CitiCAP** project will experiment a Personal Carbon Trading (PCT) scheme to promote sustainable and low-carbon urban mobility by promoting and rewarding behavioural changes.

The PCT scheme will be co-designed in the framework of the Sustainable Urban Mobility Plan and through a participatory and user-led process. Different experimental PCT models will be compared, in which citizens will be able to monitor their emission and budget their carbon use via an open mobility data platform. The urban mobility data gathered through the platform will be relevant for public authorities, as well as to foster sustainable mobility services and business opportunities. In parallel, a package of incentives will be put in place to encourage the use of the PCT scheme, and carbon-neutral bicycle highway lanes investments will be carried out in order to support low-carbon choices of transport.

Partnership:

City of Lahti; **1 Business support organisation:** Lahti Region Development LADEC Ltd; **2 Higher Education and Research Institutes:** Lappeenranta University of Technology LUT; Lahti University of Applied Sciences LUAS; **4 private SMEs:** MOPRIM Ltd; Coreorient Ltd; Infotripla Ltd; Mattersoft Ltd.



3.4 City of Szeged (Szeged Megyei Jogú Város Önkormányzata / Szeged Város)

ERDF Budget: € 2,607,378.28

The **SASMob** project aims to tackle congestion, poor air quality and noise exposure by building a data-driven intelligent transport system based on a structured multi-governance model with both public and private companies and transport providers.

It is based on two interconnected pillars: employers mobility pledges coupled with a data driven intelligent transport system. The mobility pledges will adapt a successful practice already in place in Austin (Texas) by creating cooperation agreements between the urban authority and local employers in order to change institutional working arrangements (including commuting and telework deals). The intelligent responsive IT platform will collect and monitor commuting in order to shape a co-designed policy process based on human-vehicle infrastructure communication.

Partnership:

Municipality of the City of Szeged; **3 non-profit organisations:** Szeged Pólus Development Non-profit Ltd; Regional Environmental Center; Urban Management of Szeged Municipality Nonprofit Ltd; **1 higher education and research institute:** University of Szeged; **2 transport providers:** Szeged Transportation Ltd; Centre for South-Alföld Transport Ltd; **4 private companies:** EPAM Systems Ltd; IT Services Hungary Ltd; Pick Szeged Ltd; CAS Software Ltd



3.5 Metropolitan Toulouse (Toulouse Métropole)

ERDF Budget: €4,192,419.48

The **COMMUTE** project looks to tackle the difficulties accessing the aeronautical and airport area where many of the city's jobs are located. This area will experiment an increase in employment opportunities as well as new dwellings in the next decade. Poor accessibility due to the congestion of the transport networks that has led to an increased use of private cars. For this reason, the project will look to engage and create a partnership with the main stakeholders in order to change commuters travel patterns and habits. This will be done through a combination of actions that include a new urban mobility collaborative management system, a digital platform to measure the impact of the measures that will feed into the decision making based on real-time data, new ways of working (teleworking, modular timetables), mobility services (car-sharing) and new infrastructure (autonomous vehicles).

Partnership:

Toulouse Metropolitan Authority; **1 local transport authority:** SMTC Tisséo; **6 private companies:** AIRBUS SAS; SOPRA STERIA; French Standardization Association – AFNOR; Companies Club 'Réussir' – CER; Regional Aircrafts - ATR; SAFRAN; **1 airport:** Toulouse Blagnac Airport - ATB