



**Call for Applications for Experts for Urban Innovative
Actions projects in the framework of the 2nd Call for
Proposals**

14/05/2018 – 23/05/2018



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1. Call for Applications

The Urban Innovative Actions (UIA) Initiative is an instrument of the European Commission managed via indirect management and its main objective is to support urban authorities to test bold and innovative solutions to the main urban challenges.

All UIA projects, selected through Call for Proposals, shall appoint one expert whose key role is to provide support and advice, capture knowledge from the project as well as help in its sharing and transfer. UIA Experts will provide support and advice to projects on an ongoing basis throughout the implementation phase (three years plus one year for knowledge transfer activities).

As defined in annex 1 of the Delegation Agreement (Article 8) signed between the Conseil Regional Hauts-de-France (Nord-Pas de Calais-Picardie), the Entrusted Entity for the implementation of the Urban Innovative Actions Initiative and the European Commission, the Entrusted Entity shall select a number of UIA Experts to be appointed by selected UIA projects

In this framework, the Conseil Regional Hauts-de-France, has issued a Call for Applications for the selection of UIA Experts for the projects approved in the framework of the second UIA Call for Proposals (call opened from XX till XX). All projects except one received a satisfactory number of application from relevant candidates. The project that did not receive enough applications is Urban Infra Revolution (led by the municipality of Lappeenranta) under the topic Circular Economy. Therefore the Conseil Regional Hauts de France is issuing the following additional Call for Applications to select an UIA Expert only for the above mentioned project. The overall context, the tasks required to UIA Experts as well as the criteria and procedures for selection remain the same and are described in the present document.

The present Call for Applications will remain open until 23 May 2018.

2. Urban Innovative Actions – Background

2.1 Context

To answer the increasingly complex challenges they face, urban authorities need to go beyond traditional policies and services - they need to design and experiment bold and innovative solutions.

Although research on urban issues is well developed, the most innovative solutions are not always put into practice because urban authorities are reluctant to use their money to pilot new, unproven and hence risky ideas in a real urban setting.

The UIA Initiative offers urban authorities with the possibility to take a risk and experiment the most innovative and creative solutions. The main objective of UIA is to provide urban areas throughout Europe with resources to test, at real scale, innovative solutions to the main urban challenges, and see how these work in practice and respond to the complexity of real life.

The UIA initiative is based on Article 8 ERDF and its implementation is delegated to the Conseil Regional Hauts-de-France, the Entrusted Entity. A Permanent Secretariat (PS) has been set up to ensure the management of the Initiative.

The UIA Initiative has a total ERDF budget of around EUR 372 million. UIA projects will be selected through annual calls for proposals from 2015 to 2020 on one or more topics proposed by the

Commission. Each action can receive up to a maximum of EUR 5 Million ERDF co-financing. Project implementation must take place within a maximum period of three years.

The UIA Initiative selects and supports projects that are:

- **Innovative:** Projects should be new, bold, creative and experimental. Urban authorities should propose projects that might not have been financed under a mainstream Programme and are not merely part of normal local activities. Building on research and benchmarking, urban authorities should be able to demonstrate that the proposed project has not been previously tested and implemented on the ground in the urban area or elsewhere in the EU. The level of innovation requested is therefore to be considered at EU level.
- **Of good quality:** Projects should meet key quality standards such as clear and logical interrelation of objectives/activities/outputs, evidence of preparatory work, realistic ambitions, effective management structures and procedures and be of good value for money.
- **Participative:** Urban authorities should seek to benefit from sources of external expertise such as universities, NGOs, businesses, citizens and other levels of government both in the design and in the implementation of the project. To ensure the participative approach they need to define effective mechanisms of consultation, coordination and co-design. Each project can involve several Delivery Partners in position to bring experience and expertise in the implementation of the project.
- **Measurable:** Urban authorities should be able to clearly explain what the changes are that they want to achieve in the local context as a result of their projects. They need to demonstrate how any change in the local situation is directly attributable to the new solution developed and how the results can be measured, quantified and evaluated.
- **Transferable:** Solutions developed in the framework of the projects should be applicable and replicable by other organisations throughout Europe. Urban authorities should demonstrate that the challenge addressed has a Europe-wide relevance and that the resources needed for the implementation of the projects can be found in other local contexts.

2.2 Beneficiaries

The following authorities may apply for support to undertake UIA projects:

- any urban authority of a local administrative unit defined according to the degree of urbanisation as city, town or suburb and comprising at least 50 000 inhabitants;
- any association or grouping of urban authorities of local administrative units defined according to the degree of urbanisation as city, town or suburb where the total population is at least 50 000 inhabitants; this can include cross-border associations or groupings, associations or groupings in different regions and/or Member States.

2.3 Thematic coverage

In the framework of the consultation on the Urban Agenda for the EU, it was agreed by all key stakeholders (urban authorities, Member States, the Commission and the European Parliament) that in order to achieve meaningful and measurable results at local level, one of the central aims of the Urban Agenda for the EU shall be to better target the funds, initiatives and efforts of the Commission towards those urban challenges that local authorities and inhabitants feel are most pressing.

Moreover, the Urban Agenda for the EU should also contribute to enhancing the knowledge base on urban issues and exchange of good practices and knowledge in order to facilitate cross-fertilisation across urban actors but also evidence based urban policy-making.

The Commission strongly believes that the UIA Initiative should concretely contribute to these operational aims of the Urban Agenda for the EU. As a consequence, the topics that urban authorities can address within the frame of the UIA Initiative should be closely aligned to those of the Urban Agenda for the EU.

More particularly, for each Call for Proposals for the selection of UIA projects, the Commission will select a limited number of topics that urban authorities can address.

In the framework of the second call for proposals (launched in December 2016) the following three topics have been identified:

- Circular economy
- Inclusion of migrants and refugees
- Urban mobility

More details on the three topics identified are provided in the Terms of Reference of the second Call for Proposals that experts interested in the present Call for Applications are strongly recommended to read.¹ A presentation of the three topics is also available in the UIA website².

In the context of the present additional Call for Applications only the topic Circular Economy is relevant.

2.4 Selection process of UIA projects

UIA projects are selected through annual calls for proposals, each focused on a limited number of topics proposed by the Commission.

Eligible Urban Authorities are requested to submit their project proposals in the form of an Application Form.

Application Forms received within the deadline are subject to a selection process organised along the following steps:

1. Eligibility and admissibility check
2. Strategic Assessment
3. Operational Assessment

Upon closure of the Call for Proposals, a check is carried out by the PS as to the compliance of the received Application Forms and their annexes with the formal eligibility and admissibility criteria listed in the Terms of Reference of the Call for Proposals.

Application Forms that are declared eligible and admissible are subject to a Strategic Assessment carried out by a Panel of External Experts. The Strategic Assessment accounts for 80% of the weighting given to the overall project assessment and consists the following criteria:

¹ Terms of Reference – Second Call for Proposals – http://www.uia-initiative.eu/sites/default/files/2016-12/ToR_2ndCall_UIA_16_12_2016_EN_0.pdf

² UIA topics - <http://www.uia-initiative.eu/en/12-topics-for-a-better-urban-environment>

- Innovativeness (40% of weighting) – To what extent is the applicant able to demonstrate that the project proposal is new and that has a clear potential to add value
- Partnership (15% of weighting) – To what extent is the involvement of key stakeholders relevant for the implementation of the project
- Measurability (15% of weighting) – To what extent will the project deliver measurable results
- Transferability (10% of weighting) - To what extent will the project be transferable to other urban areas across Europe

Once the Strategic Assessment is completed, a shortlist of projects is selected to move on to the final step: the Operational Assessment. This assessment is carried out by the PS and accounts for 20% of the weighting given to the overall project assessment. Its main objective is to assess the quality of the proposal by looking at if the project is justified, realistic, consistent, coherent, well managed and has value for money.

Once the Operational Assessment is completed, a Selection Committee comprised of the Entrusted Entity and the Commission makes the final selection. Please see in section 2.5 (below) the list of approved projects in the framework of the second Call for Proposals.

2.5 The selected projects in the framework of the second UIA Call for Proposals

As a result of the abovementioned assessment process, the European Commission and the Entrusted Entity formed a Selection Committee and selected 16 projects to receive funding across the three topics of the second Call for Proposals. Please see Annex I for the full list of projects with the description of the main challenge and solution proposed.

The object of the present additional Call for Applications is to select and recruit one UIA Expert for the selected project Urban-Infra-Revolution led by the municipality of Lappeenranta under the topic Circular Economy.

Candidate UIA Experts applying in the framework of the present additional Call for Applicants shall provide evidence of relevant expertise related to the specific policy challenge addressed.

3. UIA Experts

3.1 Role of UIA Experts

The main aim of UIA projects is to test innovative solutions which have not been tried before in a city context and see how they will react to the complexity of real life before deciding if and how to upscale them in local mainstream policies.

While implementing their UIA projects, urban authorities will face several challenges linked to the experimental nature of the project as well as to the specificities of the methodological approach for an integrated and sustainable urban development.

The main implementation challenges will notably include (the list is not exhaustive):

- 1. Leadership for implementation:** New leadership ensuring collaboration across a wide range of people in different departments and organisations i.e. what does leadership mean in an innovative project? How does it work down all the chains of levels?
- 2. (Smart) Public Procurement (using public spending to leverage more local innovation):** Public

procurement can be a counterproductive on innovation by over specifying the method by which results should be achieved and by the domination of the large market players i.e. how can urban authorities specify results in the terms of reference in such a way as to leave freedom for innovation in the mode of delivery? How can urban authorities ensure other local benefits (e.g. social inclusion, local employment, environment, etc.) in the commissioning and procurement process?

3. Organisational arrangements within urban authorities to deliver integrated innovative projects (cross-department working): There are sometimes difficulties involving departments that do not lead the project. While projects are rarely totally integrated themselves, they need to link with other actions (e.g. do they depend on other actions? How are they linked?) i.e. what type of group within the urban authority is most effective to deliver the integrated aspects of the projects? What type of coordination mechanisms are most effective? How to link the UIA project with other existing (and complementary) actions delivered by other departments?

4. Participative approach for co-implementation (incl. private partners): Although engagement can be secured for the project during the bidding process sometimes this is only a paper commitment by the partner i.e. How to secure a genuine and ongoing engagement by Delivery Partners and wider stakeholders (trust, co-responsibility, mechanisms and procedures)?

5. Monitoring & evaluation (measurement): Measuring outputs is relatively easy e.g. sq m of workspace created, but measuring results is more complex i.e. How can the real added value of the project be measured compared to what would have happened without UIA funding? (What techniques such as social return on investment?) How to ensure a learning loop able to continuously improve the quality and effectiveness of the implementation process?

6. Communicating with target beneficiaries: Keeping beneficiaries but also communities need up to date. Digital tools could be relevant here such as social media, but person to person is still important i.e. how will the project team communicate with all relevant stakeholders at local level about progress, benefits and (eventually) problems?

7. Upscaling (incl. resizing/re-planning interventions): UIA project are pilot actions and as such can only have limited impact. The long term impact comes from growing but this is not necessarily by scaling up it can also come from spreading out i.e. how can urban authorities ensure that the approach tested in the project becomes more generalised (mainstream) and has greater impact on the long term or what type of conditions and resources are needed? When should the upscaling process start?

Throughout the implementation of the project, by facing the challenges mentioned above and designing and testing new processes and solutions, urban authorities will also generate an important wealth of knowledge about the experimentation process (what worked, what did not work, what could be done differently). This knowledge will be extremely valuable for urban policy makers and practitioners in Europe and beyond, trying to design and implement innovative solutions to urban challenges.

UIA Experts will join a select group of **urban authority frontrunners** implementing **pioneering UIA projects**.

UIA Experts will play a key role in **guiding and supporting urban authorities** to find bold and effective solutions to the challenges of the implementation process by providing advice and bringing in existing knowledge and good practices from Europe and beyond.

In close coordination with the urban authorities, the UIA Expert will also be the key person responsible for **capturing the knowledge generated** at local level, drawing lessons (notably regarding the abovementioned implementation challenges) and making them available to a wider audience of urban actors in Europe and beyond.

UIA Experts will be contracted for a total of **50 days of expertise** covering the implementation phase

of UIA projects (three years for implementation plus one final year for knowledge transfer).

A detailed work plan will be agreed by the PS, the Urban Authority and the UIA Expert based on the specific experiences and needs of the Urban Authority.

The Permanent Secretariat may use the possibility **to add up to 20% of days of expertise** for activities to be carried out by UIA Experts in the interest of the Initiative (i.e. training sessions and coordination meetings organised by the Permanent Secretariat, participation at external conferences/seminars on behalf of the UIA project or of the UIA Initiative, contribution to capitalisation activities of relevant European organisations/networks such as URBACT, Eurocities, etc). This possibility will be used by the Permanent Secretariat on a case by case basis through specific purchase orders.

3.2 The tasks of UIA Experts

The tasks of UIA Experts include the following:

a) Advice and guidance

Each UIA Expert will provide the urban authority with **strategic** as well as **operational** guidance.

At **strategic level** the Expert will provide urban authorities with input and advice on the substance of the project and its innovative content with particular attention on the project's focus, objectives, expected outputs and results and target beneficiaries.

At **operational level**, UIA Experts will provide urban authority with input and advice concerning the main steps and challenges of the implementation of their innovative solutions (i.e. public procurement, participative approach for co-implementation, internal organisation of municipal teams, monitoring and evaluation, operational and political leadership, etc.).

At both levels the support provided by UIA Experts shall include inputs and recommendations based on research and experience, good practices or case studies from Europe and/or elsewhere.

The advice and guidance should be provided through site-visits to the projects as well as through regular contact with the project managers and other key stakeholders involved in the project implementation at local level.

Experts will help to ensure and facilitate links with other urban authorities and organisations/networks dealing with similar topics or that have implemented similar projects through their own professional links or by researching them.

The advice provided by UIA Experts to urban authorities will be captured in the journal on the project's implementation and the zoom in (described below) as well as in more internal working documents (reports of study visits, discussion papers, written answers to specific requests from the urban authorities).

b) Knowledge capture

UIA Experts will assist in the development of documentation and outputs that will capture and

disseminate the lessons learnt and good practices for a wider audience. It will include the capture of results and recommendations from the project with a specific focus on how urban authorities and local key stakeholders have dealt with the main challenges of the implementation process. As part of the knowledge capture UIA Experts will have three main outputs to produce:

- Output 1

The first output generated by UIA Experts will take the form of a written account: **a journal on the project's implementation**. The UIA Expert will be expected to produce two edition/s of this journal each year.

Throughout the project implementation, the Expert will thus regularly inform and reflect on the progress made by the project, the challenges encountered and how these were overcome (i.e. difficulties in putting in place a public procurement procedure, how to work on innovation in partnership, etc). Each journal will include a focus on a specific challenge encountered in a given period of the project's life-cycle in the form of an analytical article (for instance, how to put in place a public procurement procedure for an innovative action). This will include a section on key facts and/or figures on the challenge tackled by the project (i.e. how much does public procurement represent in the city's budget) allowing readers to further understand the context

The written account put together by the UIA Expert will be published on the UIA website and will be aimed at a wide audience including politicians, technicians as well as the general public therefore having a high visibility.

Visits to the project will allow the Expert to gather knowledge through in-situ exchanges with the urban authorities and partners as well as based on documentation produced and facilitated by the project manager.

- Output 2

An in-depth look into a specific part of the project (a '**zoom in**' in the form of a case-study, interview, video, etc) will be the second key output of the knowledge capture. The 'zoom in' shall deepen the knowledge generated by the project concerning the solutions designed and implemented to overcome the main challenges related to the experimentation of innovative projects in a real urban setting. It can include testimonials of those people working on the project or who will benefit from its activities. **This output will be produced once a year**. Due to its analytical nature, the output shall be aimed at a specific and knowledgeable audience seeking to gain further information on innovation in sustainable urban development.

- Output 3

Further to this, UIA Experts will support projects in the preparation of the **Final Qualitative Report**, the compulsory final output to be produced by all urban authorities of approved UIA projects. The template of the Final Qualitative Report will be designed by the Permanent Secretariat in close cooperation with urban authorities and UIA Experts.

c) Sharing knowledge

The findings and the lessons learnt from the implementation of UIA projects will be extremely valuable for policy makers and practitioners dealing with similar challenges and trying to design and experiment innovative solutions.

It is therefore essential that the knowledge captured is shared and disseminated at European level and beyond.

The UIA Initiative will establish relationships with relevant European as well as national institutions and organisations specialised in knowledge management and sharing for sustainable urban development. These include the Urban Development Network (UDN) managed by the European Commission as well as URBACT, Eurocities, Energy Cities, Committee of Regions, etc.

On the other hand urban authorities will also make use of their own networks and transnational relationships in order to disseminate and share the knowledge generated and captured.

UIA Experts will be requested to assist selected UIA projects in their dissemination process by participating in conferences and events organised by relevant institutions and organisations (along with representatives of the urban authorities or on their behalf) but also to increase the possibilities for dissemination by activating their own professional/academic networks.

They will be requested to help prepare or design dissemination materials (PowerPoint presentations, PREZI, video, infographics, etc.).

4. Selection of UIA Experts:

4.1 Applications:

Candidate experts interested in applying shall submit the two following documents:

- A detailed CV in English, using the Europass format³
- A filled in UIA Expert Application Form

The deadline for receipt of the applications is 23 May 2018.

Applications shall be sent by the deadline via email to the Permanent Secretariat at the following address: recruitment@uia-initiative.eu

As the present additional Call for Applications is open only for one selected UIA projects, candidates are not requested to indicate any other project and therefore they are not requested to rank their choices in order of priority.

4.2 Selection procedure

An independent consultancy has been appointed to support the selection of applications of UIA Experts. It will be performed by an independent consultancy firm (Ecorys Netherlands) selected by the Entrusted Entity through an open call for tender. The independent consultancy will assess the cover letters and UIA Expert application forms submitted within the deadline for submission.

The selection procedures will be undertaken in two stages:

- A short list of relevant candidates for each selected UIA project will be elaborated on the basis of

³ The template for the Europass CV can be found at :

<https://europass.cedefop.europa.eu/en/documents/curriculum-vitae>

the assessment of received expert applications by the independent consultant. This list will be drawn up in relation to the candidate's experience and how they would fit with the project/s they have selected. Candidate experts included in the shortlist will be informed by the independent consultancy firm. Candidate experts not included in the shortlist will receive a notification (including comment and reasoning) by the independent consultancy firm.

- Short listed candidates will be interviewed by the urban authorities of approved projects and the Permanent Secretariat during the project's initiation phase. The Main Urban Authority will select the Expert for their project in agreement with the PS.

Interviews will be made via skype or WebEx end of May/first week of June 2018.

4.3 Selection criteria

Selection of applicants will be done along the following criteria:

In depth knowledge (academic and/or based on practical experience) of the urban topics and sub-topics addressed by the selected projects. The list of approved projects and description of topics and sub-topics is available under section 2.5 of the present Terms of Reference. A minimum of seven years of experience in three different EU countries on the topic (and sub-topic) is requested.

Advising

- Good understanding and direct experience of challenges for integrated sustainable urban development in Europe as well as of the potential for experimentation of innovative solutions
- Understanding of the urban dimension of the EU policies, Cohesion Policy in particular
- Good knowledge and experience of mechanisms, tools and methods for the implementation of innovative urban projects (including leadership, public procurement, participative approach, integration of municipal services, measurement of results, etc.)
- Ability to understand specific local situations and adapt mechanisms, tools and methods to different local realities and specificities
- Knowledge of the main policies, initiatives, funding schemes for innovative urban projects in Europe and beyond
- Personal network including contacts with representatives of urban authorities, city-networks and other relevant organisations dealing with urban innovation

Capturing and sharing knowledge

- Ability to draw out, support the verbalisation and documentation of knowledge and practice from urban authorities and the different stakeholders participating in the project
- Ability to produce clear and concise reports that incorporate learning from the implementation process, document the status and practices, put forward good practices and policy messages targeting practitioners and policy-makers
- Possess an understanding of how to maximise the use of project results and lessons learnt for their use in capitalisation activities, policy design, awareness raising, etc.
- Experience of presenting knowledge in creative ways (e.g. use of film, visual narratives, different styles of reporting in both print and digital)
- Excellent communication skills (written and verbal) – UIA Experts must be able to communicate complex concepts to non-English speakers and to different stakeholders ranging from experts to ordinary citizens.

- Good oral communication skills as UIA Experts will be expected to present knowledge from UIA projects in high-level conferences and seminars. Creative and engaging ways of presenting will be expected.

General skills and requirements

- Fluent in English (written and spoken)
- Where possible working knowledge of a third EU language
- IT literate

In the Application Form candidate experts are requested to provide evidence of their skills, competences and knowledge by providing concrete examples of previous relevant experiences. Detailed instructions on how to fill in are provided in each box of the Application Form.

5. Contractual details

5.1 Contractual management

The independent consultancy firm (Ecorys Netherlands), in charge of the assessment of the applications received for the selection of UIA Experts will be also responsible for the contractual management of the selected experts.

Following the decision of the urban authority of the selected UIA project in agreement with the PS, a contract will be signed between Ecorys Netherlands and each selected UIA expert.

The UIA PS will coordinate and support the activities of the independent consultancy firm. The urban authority and the Permanent Secretariat are responsible for the quality control of the activities and deliverables of UIA Experts.

5.2 Number of days of expertise

The number of days to be allocated to each selected UIA expert is 50 covering the implementation phase of UIA projects (three years for the project implementation and one final year for knowledge transfer). **Experts are expected to work with the project/s for their full duration.**

An additional allocation of days (up to additional 20%) for UIA Experts may be commissioned by the PS. This will be done on an ad hoc basis through specific purchase orders.

The indicative breakdown of the 50 days is as follows:

- 14 days per year for the first three years (project implementation)
 - 5 days for site visits
 - 3 days for each journal produced - two per year
 - 3 days per in-depth report ('zoom in') - once per year
- 8 days for the final year (knowledge transfer)

5.3 Fees

The daily rate of experts is fixed at **EUR 750, VAT included**. These payments will be financed in the framework of the Urban Innovative Actions initiative.

Building on the detailed work plan agreed between the urban authority, the UIA Expert and the PS, travel and accommodation costs will be supported by the UIA Initiative according to the refunding

conditions communicated to the experts in advance and after reception by Ecorys Netherlands of the declarations of expenses form and justifications of payments.

UIA Experts will be able to invoice twice per year in accordance to the breakdown of days and with the activities defined in the contract.

5.4 Incompatibility with the position of External Expert in the panel for the Strategic Assessment of UIA proposals

Experts selected as members of the Panel of External Experts (in charge of the strategic assessment of submitted applications) for the second call for proposals will not be able apply for the position of UIA Experts to support project assessed by the Panel.

5.5 Indicative calendar

- **13/10/2017:** Official announcement of UIA projects selected in the framework of the 2nd Call for Proposals
- **09/11/2017:** Launch of the Call for Applicants for UIA Experts and description of projects available on the UIA website
- **23/05/2018:** Deadline for the submission of Application Form by candidate UIA Experts
- **End of May 2018:** Assessment of the Application Forms received and definition of the shortlists for each UIA Project
- **End of May/first week of June 2018:** Interviews organised by urban authorities of UIA projects with shortlisted candidate experts (via Skype)
- **First week of June 2018:** Final decision by urban authorities and PS. Establishment of detailed work plan and contract
- **July 2018:** Kick off meeting with urban authorities and UIA Experts with the EE, EC and PS (in Lille or Brussels)

6. Useful resources⁴

- Terms of Reference for the 2nd Call for Proposals
- UIA Guidance
- UIA Journals of Call 1 projects (to be published on UIA website in November)

7. Contact

For questions regarding the present Call for UIA Experts, please contact us via e-mail at s.forjan@uia-initiative.eu.

⁴ All documents can be downloaded here : <http://www.uia-initiative.eu/en/call-for-proposals>

ANNEX I - Approved UIA Urban Infra Revolution

1. 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.

The project's main implementation activities will include:

- Converting the industrial side streams into recyclable materials than can be utilized in arctic condition construction including the comprehensive physical and chemical characterisation of various side streams considered in the project and tailoring of these materials to achieve the desired properties
- Scaling the technologies developed to industrial scale. This will include designing, building and testing a new additive manufacturing device that will be used for manufacturing the final functional structures made of industrial side streams
- Reforming the methods of urban building, creating a vision of "urban city 2050" with designers, policy-makers, citizens and other participants.
- Designing the implementation of the proposed innovation, additive manufacturing construction elements from geocomposites utilising industrial side streams, conjointly from business and environmental perspectives. As a result, a viable sustainable business ecosystem is designed and environmental impacts are 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