

## **COST Action CA17133**

### **Circular City**

#### **Implementing nature based solutions for creating a resourceful circular city**

COST Action CA17133 focuses on the implementation of nature-based solutions (NBS). It unites a heterogeneous group of scientists, researchers and SMEs from across the EU to better understand the circular flow systems that implement the nature based approaches in managing nutrients and resources within the urban biosphere. The domains of the Working Groups lie within the built environments, the urban water, the resource recovery, the urban farming, and transformation tools connecting the WGs and the socioeconomic impact. COST Action CA17133 runs from 22 October 2018 to 21 October 2022. It welcomes participation and collaboration, and also creates opportunities for education and innovation through Short-Term Scientific Missions (STSMs) and Training Schools.

STSMs facilitate scientists going to an institution or laboratory in another country to foster collaboration, to learn a new technique or to take measurements using instruments and/or methods not available in their own institution/laboratory. Eligible are PhD students and Early Career Investigators (ECI, up to 8 years after award of a PhD).

#### **Funded Short-Term Scientific Mission (STSM):**

##### **Circular solutions in Reykjavik**

COST Action CA17133 is offering financial support to eligible applicants to carry out a STSM that will specifically contribute to the scientific objectives of this COST Action.

The city of Reykjavik, Iceland, and its surrounding municipalities, home to about 217.000 inhabitants (Guðjónsdóttir, 2016) collect all organic waste (60% biomass, 40% food waste) in a landfill (a bioreactor is being constructed). The chemical content of the landfill gas is usually around 57% methane (CH<sub>4</sub>), 41% CO<sub>2</sub> and 2% other gases. The collected gas is upgraded, resulting in a top-grad, with up to 98% purity and can be used directly in combustion engines. A pipeline from the landfill delivers the biomethane to gas stations for cars and trucks. About 2% of the personal cars run on biomethane, all of the city garbage trucks and some company trucks. In 2018, the construction of a modern biogas reactor was started and it is estimated that biomethane production will double, providing biofuel for up to 10% of the cars. Methane production at the landfill in 2014 corresponded to 2.2 million litres of petrol ("SORPA's production," n.d.). A switch of the city busses from diesel to biomethane is under discussion. These actions are part of an ambitious climate action plan from the Icelandic government. The current government aims to ban registration of new gasoline and diesel vehicles by 2030 to become carbon neutral by 2040.

We invite interested scientist to apply their methods to work with us on improving the circularity of the waste management in Reykjavik. We can provide good contacts to the local waste company and to local governmental agencies. Expected results from this STSM are: (i) development of a circular solution to recover resources from the waste stream in Reykjavik; (ii) a final meeting with all relevant stakeholders to discuss the results, and (iii) a draft manuscript for a joint publication on the results.

We are looking to award one grant to undertake a Short-Term Scientific Mission (STSM) for a minimum of 30 days (preferably more) in the period of June-August 2019 or October-December 2019 in order to conduct the study outlined above.

The deadline for this open call is **15 June 2019**.

The successful applicants will be informed by **28 June 2019**.

The STSMs should start after **1 July 2019** and be completed by **31 November 2019**.

### **Applicant and Host Institution**

The researchers will be hosted by the University of Reykjavik, School of science and engineering, Iceland. Prof David C Finger will host the STSM fellow and provide scientific support during the STSM.

Applicants should be engaged in a research program as a postgraduate student or postdoctoral fellow, or be employed by or officially affiliated to an institution or legal entity located in a Participating COST country or in an approved NNC Institution which has accepted the Memorandum of Understanding of this Action<sup>1</sup>. Note that the applicant and host must be in two different Participating COST countries. According to COST regulations, STSMs are intended to facilitate scientists going to an institution or laboratory in another country; applicants from institutions in Iceland are therefore ineligible.

PhD students and Early Career Investigators (ECI, up to 8 years after award of a PhD) from Inclusiveness Target Countries (ITC)<sup>2</sup> will be given priority.

The nationality of the applicant is not a bar to eligibility.

### **Financial Support**

STSM in this Call should have a minimum duration of one month, starting on **1 July 2019**, ending on **31 November 2019** and will receive a **maximum of EUR 2 000 in total**.

STSM grants are a fixed contribution based on the budget requested by the applicant and the evaluation of the application by the Action Chair/STSM Coordinator and/or Committee. This grant will not necessarily cover all expenses; it is intended only as a contribution to the travel and subsistence costs of the participant.

The calculation of this contribution for a STSM is based on the rules outlined in the Vademecum of COST<sup>3</sup>.

Please note the grant will only be paid to the grantee after the STSM has been completed and the STSM report, which is submitted by the grantee, has been approved by Chair and the STSM coordinator.

### **Application procedures for an STSM**

1. Obtain the written agreement of the host scientist before submitting his/her application. It is essential that the applicant outline in detail to the host scientist what they would like to do for the STSM, provide a CV, provide the host scientist with the Action web site (<https://www.cost.eu/actions/CA17133/#tabs|Name:overview>), and agree with the host scientist about the details of the proposed STSM that should of course fit into the Action goals.
2. Complete the online application form till **15 June 2019**. For this you have to log in into e-COST and click on the STSM application tab (<https://e-services.cost.eu/stsm>). Note that the on-line system only has room for abbreviated CVs and work plans. The on-line registration tool will create a formal STSM application file, which the applicant can download.
3. Send the application file till **15 June 2019** as an e-mail attachment to the STSM Coordinator Ranka Junge ([ranka.junge@zhaw.ch](mailto:ranka.junge@zhaw.ch)) and in cc to [ca17133@boku.ac.at](mailto:ca17133@boku.ac.at) together with the following supporting documents: CV (max 2 pages), full work plan (between 2-5 pages), list of publications, a letter of motivation by the applicant with a detailed explanation about how the STSM will contribute to the Action CA17133 aims (important), letter of agreement by the host scientist to accept and supervise the applicant to the STSM host institution.

---

<sup>1</sup> The complete list can be found here: <https://www.cost.eu/actions/CA17133/#tabs|Name:parties>

<sup>2</sup> COST Inclusiveness Target Countries: Albania, Bosnia and Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Moldova, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, Republic of North Macedonia, Republic of Serbia and Turkey. More information: <https://www.cost.eu/who-we-are/cost-strategy/excellence-and-inclusiveness/>

<sup>3</sup> For details see COST Vademecum: <https://www.cost.eu/wp-content/uploads/2019/05/Vademecum-May-2019.pdf>

The application will be reviewed till **28 June 2019** and, if approved, an acceptance letter containing the level of financial support will be e-mailed to the applicant. The most important criterion of assessment is how effectively the STSM will contribute to the scientific aims of Action CA17133.

NOTE: For the period of the STSM, neither the Grant Holder of the Action, Management Committee of the Action, etc., nor the COST Office may be considered as the employer of the grantee, and grantees must make their own arrangements for all health insurance, travel insurance, social security, personal security and pension matters as may be needed and appropriate to the grantee.

### **After the STSM**

The STSM Grantee has 30 calendar days from the end date of the mission to submit a scientific report to the host scientist, the Action Chair and the STSM coordinator. The template for the report is available on the eCOST and must be uploaded. It contains:

- General information with applicant's name, affiliation address, e-mail, name of the host scientist and institute
- Purpose of the STSM;
- Description of the work carried out during the STSM;
- Description of the main results obtained;
- Future collaboration with the host institution (incl. foreseen publications resulting from the STSM);

A letter of confirmation by the host scientist of the successful execution of the STSM must be uploaded to the eCOST.

According to the MC decision of CA17133, the Grantee has to send to STSM Coordinator also a short abstract and a photo of the STSM for communication purposes.

The Action Chair and STSM coordinator are responsible for approving the scientific report. The failure to submit the scientific report and the additional documents until the deadline will effectively cancel the grant. Once approved, payment of the STSM grant will be made by bank-to-bank transfer to the grantee.