

## **New pilot project for climate-smart cities gains traction: South Pole Group, Telefónica NEXT, and Teralytics pioneer smart pollution monitoring system in the transport sector**

**Zurich, Switzerland, 12 April 2017** - Fighting increasing air pollution in cities in a concentrated manner requires an extensive amount of data. For the first time, as part of a pilot project in Nuremberg, an innovative method has been developed to enable the analysis of traffic flows and, subsequently, air quality, by using anonymised mobile network data. The project is a collaboration between sustainability expert **South Pole Group**, **Telefónica NEXT**, the data analysis expert **Teralytics** and the **city of Nuremberg**. Supported by the **EU programme Low Carbon City Lab (LoCaL)** under the **Climate-KIC**, the new methodology will be further developed in a follow-up project.

### **Spearheading smart, tailor-made climate solutions**

The accurate measurement of CO<sub>2</sub> and short-lived air pollutants in cities is a complex task. **Through the pilot project in Nuremberg, South Pole Group has, together with the project partners, developed an entirely new approach to assist cities in measuring and mapping out rapidly increasing emissions.** The basis of the approach was mobile network data generated in August and September 2015 in the Telefónica Deutschland network. Using a three-level, TÜV-certified process, said data was fully anonymised; all personal information has been removed. The data analysis expert Teralytics transformed the data into mobility flows using their unique algorithms, thus identifying over 1.2 million routes. Finally, South Pole Group used a dispersion model to model the pollution levels, doing so by taking into consideration information on pollutants from individual traffic carriers from the Federal Ministry for the Environment and meteorological data. This new method will significantly contribute to ensuring more focused climate protection in the urban space

*“Approximately 70 percent of global greenhouse gas emissions are generated in cities, meaning that they play a key role in climate protection. We see great potential in the use of daily generated data, such as mobile network data, to reduce pollution levels in cities. Data-based analyses and innovative measures can contribute to even more efficient support for cities in future for the implementation of their ambitious climate and clean air objectives”,* states **Renat Heuberger, CEO of South Pole Group.**

The pilot project helps to inform decision-makers in Nuremberg to create tailor-made solutions to best counter hotspots by, for example, having means of transport with high emissions replaced with low-carbon alternatives. Being able to compare current data to data from 2015 will also allow project partners to

evaluate the effectiveness of measures taken to combat poor air quality.

*“We are very interested in improving the air quality in our city of Nuremberg and are very open to new methods to achieve this. Accordingly, we were very pleased to support this research project as a pilot city. Especially relevant for us are the findings as to how we can situationally better manage traffic. The findings obtained as part of the pilot project could lead to a realistic assessment of such regulation mechanisms. Additionally, further research efforts are planned to be geared towards the examination of traffic-minimising measures. We will continue to eagerly follow the development of further research with mobile network data”,* says **Dr Peter Pluschke, City Councillor and Head of the Department for Environmental Policy and Health.**

**Maximilian Groth, Business Developer at Teralytics,** says: *“Algorithms often appear very abstract. This joint pilot project shows how, with the help of data and algorithms, real social issues and challenges can be tackled”.*

*“The pilot project in Nuremberg has clearly shown the specific added value of anonymised mobile network data for the environment. This is data from people for people. We see great potential in the results and will start the next phase of our research. The goal is to develop a product that German cities, German states and the German federal government can use to better face the challenges of emissions pollution,”* emphasises **Florian Marquart, Managing Director of Telefónica NEXT for Advanced Data Analytics.**

### **Further development of innovative methodologies to reduce urban emissions**

Measures to reduce emissions at city-level can create the necessary tipping point to reach climate change mitigation goals and sustainable economic growth. Following the successful conclusion of the pilot project in Nuremberg, the project team will expand and improve the methodology in a second research project in order to improve the accuracy of the results. This project will also be developed under the Low Carbon City Lab.

*“Creating strategy to design inclusive, sustainable, and low-carbon cities is a collaborative effort. We’re excited to put our expertise in [results-based, climate-smart city solutions](#) to work to take this project forward,”* says **Denis Jorsch, Project Lead, South Pole Group.** *“Each urban challenge is different, which is why it is important to tailor monitoring and advisory solutions for cities.”*

**Victor Gancel, Programme Manager of the Low Carbon City Lab (LoCaL) of Climate-KIC** continues:

*“We are pleased that the pilot project has provided such extensive data. We want to continue to financially support the project, thereby contributing to helping cities improve their air quality in a targeted manner in future”.*

**### ENDS ###**

For more information on the Low Carbon City Lab (LoCaL): <http://local.climate-KIC.org/>

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## About the project partners

**South Pole Group** is a leading provider of global sustainability solutions and services. The company has delivered climate-proven solutions to a wide range of public, private and civil society organisations for over a decade. Areas of expertise cover key areas of corporate climate action, investment climate risks, sustainable supply chains, green finance, as well as renewable energy and energy efficiency. A pioneer in emission reduction and renewable energy projects, South Pole Group has been consistently rated by Environmental Finance's Voluntary Carbon Market Survey as one of the most successful carbon market service providers in the world.

Within **Telefónica Germany NEXT GmbH** based in Berlin, Telefónica Deutschland has bundled its digital growth areas "Advanced Data Analytics" and "Internet of Things". The new company acts as an independent entrepreneur on the market and develops digital products and services under CEO Nicolaus Gollwitzer. As a partner to other industries, Telefónica NEXT enables companies to make better use of the growth opportunities provided by digitalisation. With "Advanced Data Analytics", Telefónica NEXT focuses on the social and economic advantage that can be obtained from analysing large volumes of data. In addition, Telefónica NEXT is working on solutions for the Internet of Things. The new software platform [geeny.io](http://geeny.io) helps companies to offer connected solutions for end users. Telefónica NEXT imposes strict data protection standards on all products and applications, and often goes even further, because people should be able to retain control over their data and shape their digital lives as they choose.

**Teralytics** is the trusted data monetization partner for some of the largest telecom operators in North America, Europe and Asia. Using technology built for operators by data scientists, we have perfected the ingestion, modelling and transformation of raw signals from subscriber actions and movements on operator networks to deliver meaningful and actionable insights, that delivers new value to our mobile operator partners. By unlocking and processing a massive scale of device movement and consumer intelligence data from location and behavioural signals, we can analyse people, places and things and offer actual insights to help city planners, venue owners, retailers and media companies make informed decisions, optimize operations and maximize ROI. Headquartered in Zurich, Teralytics has offices in New York, and Singapore. For more information, visit [www.teralytics.net](http://www.teralytics.net)

**Climate-KIC** is the largest European innovation initiative for climate-friendly technologies. Launched as

EU program 2010, climate-KIC supports with offices in 15 European countries innovation projects, startups and young innovators. Numerous partners from industry and commerce, science, public sector and civil society work in Climate-KIC on groundbreaking, scalable innovations to fight climate changes.

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