Communiqué de presse

8 December 2021

Sustainable city

Cooling urban neighbourhoods during summer is a priority now for local authorities: Egis innovates with ICE, a solution to measure urban overheating

Egis teams have developed ICE, a tool for measuring urban overheating, available in open source. Increasing the number of cool places or improving existing ones by creating urban cool spots is vital. Cool spots make it possible to better protection of vulnerable populations (children, elderly) during hot or heat waves.

Urban overheating, a public health issue

Have you experienced difficulties in the summer in finding cool places in the city to breathe and feel better? Temperatures in some urban areas, compared to outside the city, can be up to 10°C higher! These places are called **urban heat islands** (UHI). *Their higher temperatures are due to the materials chosen and the lack of vegetation*, and are exacerbated by climate change. These urban heat islands are generating increasing negative impacts on health and even mortality, as demonstrated by a *study carried out by the Institut de Veille Sanitaire* (InVS) after the 2003 heat wave in France.

Creating cool islands to strengthen the resilience of territories

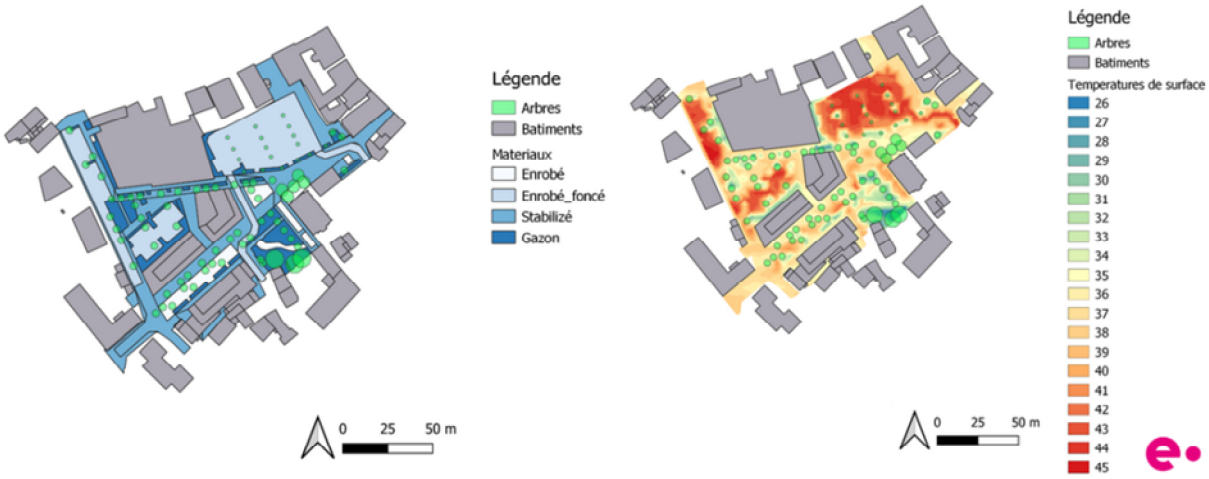
Strengthening the resilience of territories and infrastructures is one of the five commitments made by Egis in the face of the climate challenge, in line with *Impact the Future* business plan.

Adapting to heat waves that increase in both in frequency and intensity, local authorities and communities must be able to identify heat islands and then find solutions to reduce them or transform them into cool islands. This requires having decision-making tools as early as possible, from the design phases of urban projects. For local authorities, the reflection must start now to adapt our cities to climate change.

ICE, an open source decision-making support tool developed by Egis

ICE responds to the need for a quick, scientific and visual assessment of the heat island phenomenon. The tool allows to quickly and simply visualise the temperature of neighbourhoods, by indicating some data (materials, shadows...). It also allows you to simulate simple changes (changing the type of asphalt, irrigating more and changing the grass, planting more trees, etc.) to see if they help lower the temperature. This is a unique tool on the market at this stage, which Egis has chosen to make available as an open source tool in order to distribute it as widely as possible: *https://gitlab.com/elioth/ice*

More details on the ICE tool (in French) [*here*]



Legend: Visualisation of ground temperature differences for public spaces in urban areas (simulations performed with ICE)

About the Egis group

IMAGINE. CREATE. ACHIEVE.
a sustainable future

A major international group in the construction engineering and mobility services sectors, Egis creates and operates intelligent infrastructure and buildings capable of responding to the climate emergency and addressing the major challenges of our time by helping to achieve more balanced, sustainable and resilient territorial development.
A 75%-owned subsidiary of Caisse des Dépôts, with the remaining 25% held by partner executives and employees, Egis places its multiple fields of expertise at the disposal of the community and makes cutting-edge innovation accessible to all projects throughout their lifecycle: consulting, engineering, operation.
Through its wide-ranging fields of activity, Egis is a central player in the collective organisation of society anc the living environment of its inhabitants all over the world.

€1,07 Bn turnover in 2020
16,000 employees

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