NATURE SOURCE OF INSPIRATION FOR IK4-TEKNIKER

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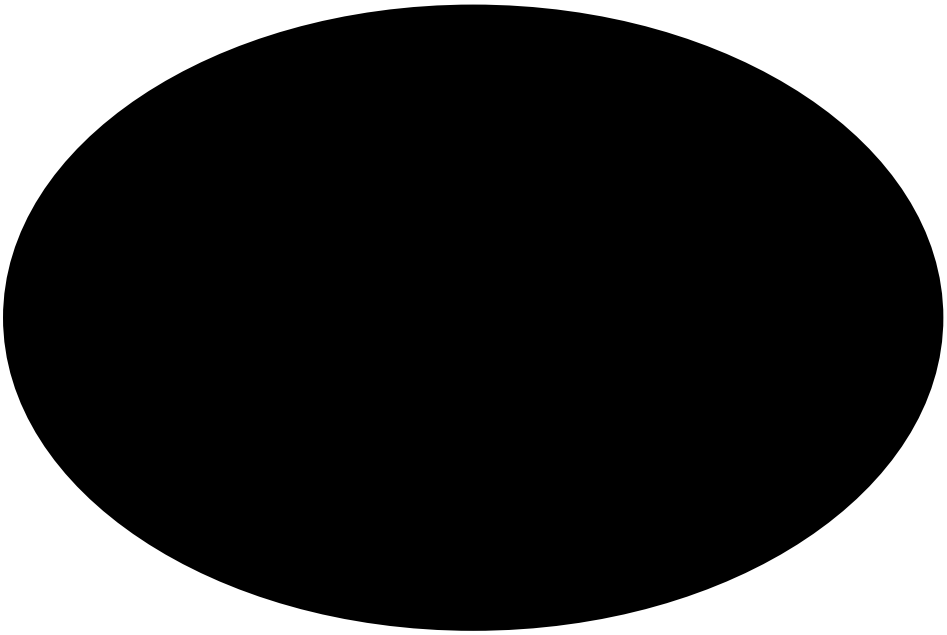

The European project Local4 Global, in which the Basque Technology Center IK4-TEKNIKER participates, focuses on providing Information and Communication Technologies (ICTs) with greater intelligence so that they can act locally in global optimization systems. The European project incorporates properties of natural systems into the smart home or smart traffic networks. Specifically, he pays attention to nothing less than bees.

To optimize the overall performance of these systems, Local4Global proposes incorporating properties of bee swarms to enrich artificial intelligent systems with variables such as cooperation or evolution. For this, recent advances in decentralized optimization are applied, used to solve large distributed optimization problems with uncertainty. This will allow smartphones and other devices to not only provide information in real time and calculate the right decisions at all times, but also to be able to adapt optimally to continuous changes in the environment. For example, the orders that must be sent to the air conditioning devices, or the orders to the traffic lights and drivers, are automatically calculated to optimize the overall operation.

The project considers that in this way it will be possible to develop systems that manage to reduce between 20% and 80% of energy consumption in homes and up to 70% in traffic networks. This means a saving of €3M in a community of 100,000 people.

We hope that the results, which are expected in 2016, will make these saving measures a reality.

There are no comments yet.