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LifeWatch, e-science and technology infrastructure for biodiversity data and observatories

While we are exploring other planets, it is surprising how little we still know about our own planet Earth. This is certainly true for our understanding of the living world, the biological diversity of ecosystems, species and their genetic composition. We only know a fraction of the probably millions of species, especially of the insects, microorganisms and other small species which are in different ways crucial for goods and services such as pollination, health or biotechnology. Scientific developments have already generated knowledge about some components of biodiversity, but the research community absolutely needs a new methodological approach to understand the biodiversity system.

The LifeWatch infrastructure for biodiversity research addresses exactly these huge gaps we face in our understanding of life on Earth. Its innovative design supports a large-scale methodological approach to data resources, advanced algorithms and computational capability. LifeWatch will not only serve to support the scientific research, but will also be an essential tool for local and global policy makers in the understanding and the rational management of our ecosystems.

LifeWatch will construct and bring into operation the facilities, hardware, software and governance structures for research on the protection, management and sustainable use of biodiversity.

The LifeWatch architecture allows for dynamic linkages to other resources and associated infrastructures. As such, LifeWatch will be the first example of a new generation of research infrastructures that form a cooperating fabric.

Auteur principal: M. VAN MUYLEM, Koen (LifeWatch)

Orateur: M. VAN MUYLEM, Koen (LifeWatch)