Launch of the IA-Biodiv Challenge call for proposals: “Artificial Intelligence Research in the Field of Biodiversity”

The French National Research Agency (ANR) and Agence Française de Développement (AFD) are launching a joint call for research proposals in artificial intelligence: the IA-Biodiv Challenge. Built on a collaborative international research approach, the scientific challenge aims to support research projects for the development of AI techniques to predict changes in biodiversity and produce reliable indicators. Open until August 31, 2021, this call for proposals is part of the National Research Strategy in Artificial Intelligence and the National Biodiversity Plan.

The ANR and AFD are launching the IA-Biodiv challenge structured around three objectives:

- optimizing AI methods for research in biodiversity,
- designing innovative prediction models and indicators,
- designing hybrid AI techniques.

The challenge is open to scientific communities in the fields of AI and biodiversity in France and in AFD’s partner countries in Africa.

AI research to better predict changes in biodiversity

Furthering knowledge about biodiversity and its changes is a major scientific and societal challenge that is at the heart of the National Biodiversity Plan. Faced with the complexity of the interactions between ecosystems and the interactions and feedback they involve, and given the heterogeneity of the data, current indicators are limited in their ability to predict changes in biodiversity. AI can offer a significant contribution through new, dedicated solutions. France has implemented a national AI research program to address this major challenge.

Data structuring, a crucial issue

The difficulty of structuring data has been identified as one of the primary hinderances to understanding biodiversity by the “biodiversity IPCC”, the IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services). The IA-Biodiv Challenge has therefore been designed to mobilize the expertise of scientific communities in AI and biodiversity to build a dedicated virtual research environment.

“IA-Biodiv-Net”: to provide datasets and AI modules for research

After the evaluation and selection of the proposals by an international committee, the chosen research teams will work collaboratively over four years on the design and development of this environment.
Called “IA-Biodiv-Net” and developed by and for researchers, it will host datasets and AI modules developed by the consortia taking part in the Challenge, as well as evaluation modules set up by the operational consortium. It will comply to the extent possible with the FAIR principles (Findability, Accessibility, Interoperability, Reusability) and will be designed to be added to outside of the challenge and accessible to all interested scientific communities. It will thus contribute in the long term to the distribution of sustainable datasets for future scientific work in AI and the field of biodiversity.

Collective reflection on scientific challenges and research approaches
The Challenge has been set up in the framework of a specific ANR funding instrument that allows different scientific or technological approaches to a single challenge to be explored at the same time. It aims to compare and share the ideas, approaches and work of the funded consortia and promote the creation of common benchmarks between scientific communities from different backgrounds.

In the IA-Biodiv Challenge, the scientific monitoring of the funded consortia will be coordinated by an operational consortium and their work will be evaluated during annual meetings aiming to characterize and share the IA solutions being studied. This process will also facilitate cooperation among the different consortia.

A Challenge backed by €4.8 million to support research
A total of €4.8 million will be put into funding this scientific challenge, through a partnership between the ANR (€1.5M) and AFD (€1.5M) and a donation by Facebook Artificial Intelligence Research (€1.8M).
AFD receives the technical support of Expertise France to implement this Challenge. Expertise France is a key actor in international technical cooperation, through which it is possible to finance and support African consortia.

Find out more:
Consult the information on the IA-Biodiv Challenge on the dedicated page
Challenge: encourage joint research

About the ANR
The French National Research Agency (ANR) is the project-based funding agency for research in France. A public institution under the aegis of the Ministry for Research, the ANR aims to finance and promote the development of basic and applied research, technical innovation and technology transfer, and partnerships between public and private-sector research teams at national, European and international levels. The ANR is also the main operator for the Investments for the Future programs (PIA 1, 2 and 3) in the field of higher education and research, for which it manages the selection, financing and monitoring of projects, covering in particular the work of initiatives of
excellence, as well as research infrastructures and support for the progress and
development of research. The ANR is ISO 9001 certified for all its processes related to
“project selection”.
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About AFD
Agence Française de Développement Group (AFD Group) implements France’s
policy in the areas of development and international solidarity. It finances, supports
and accelerates transitions towards a more coherent and resilient world. Comprised
of AFD, which finances the public sector and NGOs; Proparco, which finances the
private sector; and soon, Expertise France for technical cooperation, the Group
finances, supports and accelerates transitions towards a more resilient and sustainable
world.
With our partners, we are building shared solutions with and for the people of the
Global South. Our teams are active in more than 4,000 projects in the field – in overseas
France, in some 115 countries and in crisis areas, working to promote the “common
goods” that are climate, biodiversity, peace, gender equality, education and health.
It’s our way of contributing to the commitment France and the French people have
made to achieve the Sustainable Development Goals. Towards a world in common.
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