

# scivision: making computer vision tools more accessible

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## What happened?

ASG researchers collaborated with computer scientists and software engineers at the Turing and beyond to develop an open-source, general-purpose toolkit for using computer vision to analyse scientific images quickly and accurately. The tool, called [scivision](#), includes a curated, ever-growing catalogue of pre-trained computer vision models and diverse scientific datasets, bringing new data sources to model developers and providing researchers with well-tested models that are suitable for analysing their data.

## What are the real-world impacts?

- scivision enables researchers without expertise in computer vision to use specialised data-driven software for image classification and feature identification.
- By curating a catalogue of models and data, scivision bridges the work of computer scientists and researchers, enabling the use of computer vision techniques across scientific domains ranging from molecular biology to environmental science.
- The project has engaged with researchers from institutes such as the Centre for Environment, Fisheries & Aquaculture Science (Cefas), where scientists [tested scivision for classifying plankton in the North Sea](#); the British Antarctic Survey; the National Plant Phenomics Centre; the Natural History Museum; the Rosalind Franklin Institute; and the Norwegian Artificial Intelligence Research Consortium.

## Why was the Turing's [ASG programme](#) uniquely placed to do this?

- Developed under ASG's 'Environment and sustainability' banner, scivision has embraced the interdisciplinarity fostered at the Turing. Researchers from a variety of scientific disciplines within ASG have worked together to develop common approaches for applying computer vision to analyse scientific image data.
- Collaborating across the Turing network has enabled the project to connect the sciences and humanities. MapReader, a tool now included in scivision, was originally developed by ground-breaking research project [Living with Machines](#) for use with historic map data.
- Collaborations have extended beyond traditional academic roles, with research software engineers and data scientists from the Turing's Research Engineering Group co-developing the tool and leading some of its implementations.
- An ASG-funded [Research Application Manager](#) has led the community development of the project; the project's first community meeting in November 2022 included attendees from the UK Centre for Ecology & Hydrology, the University of Cambridge and the British Geological Survey.

## What's next?

- scivision has been funded by the Turing until 2026. Future plans include developing the tool's web portal so that it becomes a hub for researchers and developers, creating a thriving, cross-disciplinary community that nucleates new projects.

**“scivision makes it easy for researchers to share datasets for training computer vision models. I contributed a dataset of synthetic transmission electron microscopy images of biological molecules, created as part of a collaboration with the Turing.”**

[James Parkhurst](#), Rosalind Franklin Institute

