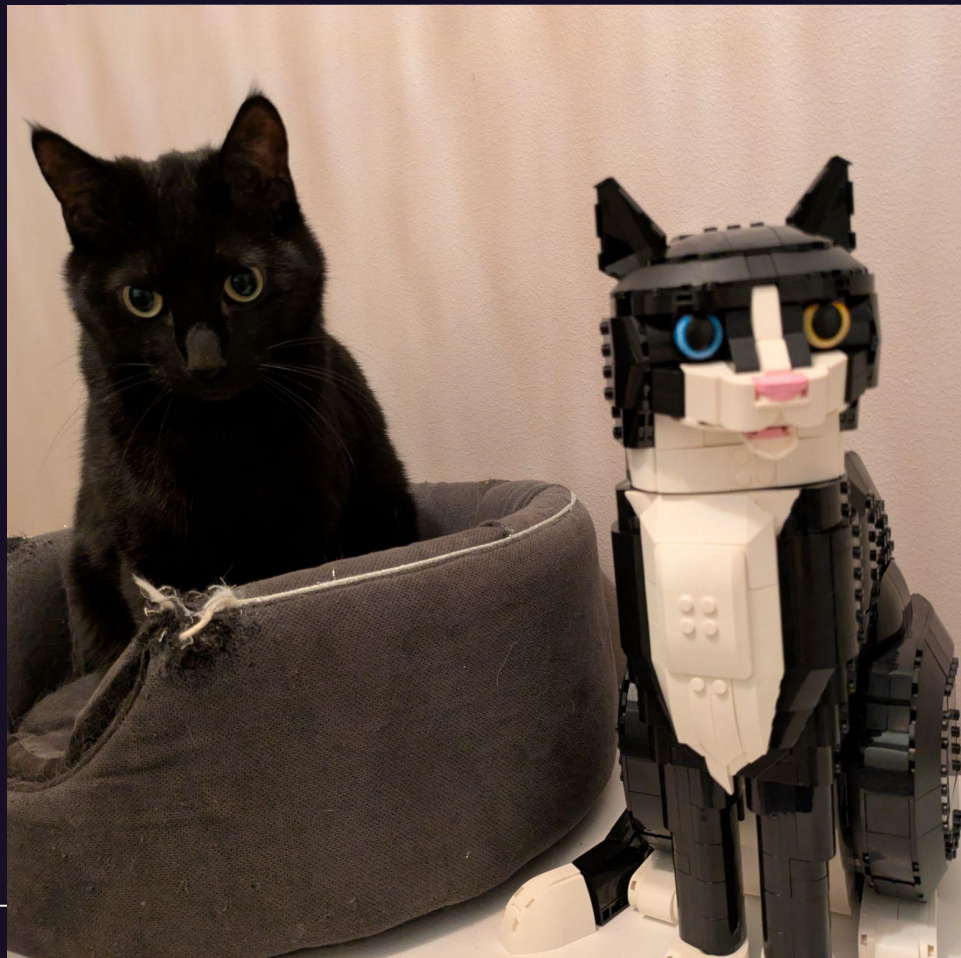


Dataflow

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SciLifeLab | National Genomics Infrastructure
nf-core

ANF - workflow et reproductibilité

2025-11-25..27



The Challenge of Reproducibility

Hidden reproducibility issues are like an iceberg



First, we tried to re-run the analysis with the code and data provided by the authors.

Second, we reimplemented the whole method in a Python package...



Experimenting with reproducibility:
a case study of robustness in bioinformatics
<https://doi.org/10.1093/gigascience/giy077>

The five pillars of computational reproducibility:
bioinformatics and beyond
<https://doi.org/10.1093/bib/bbad375>





Introducing Nextflow

Nextflow is a language, a runtime, and a community

 **nextflow**
pipeline



 **nextflow**
runtime

Write code
in any language



Orchestrate tasks with
dataflow programming



Define software
dependencies via containers



Built-in version control
with Git

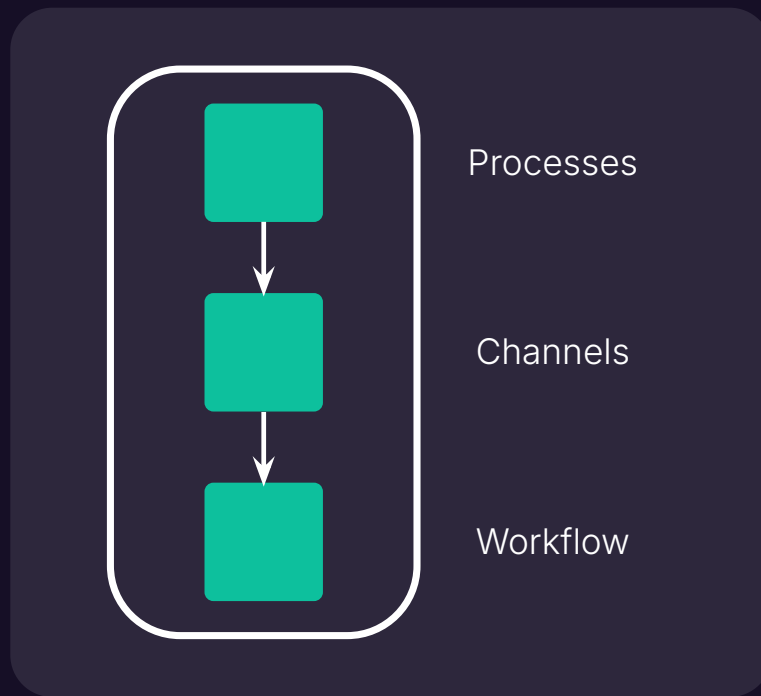


Task orchestration
and execution



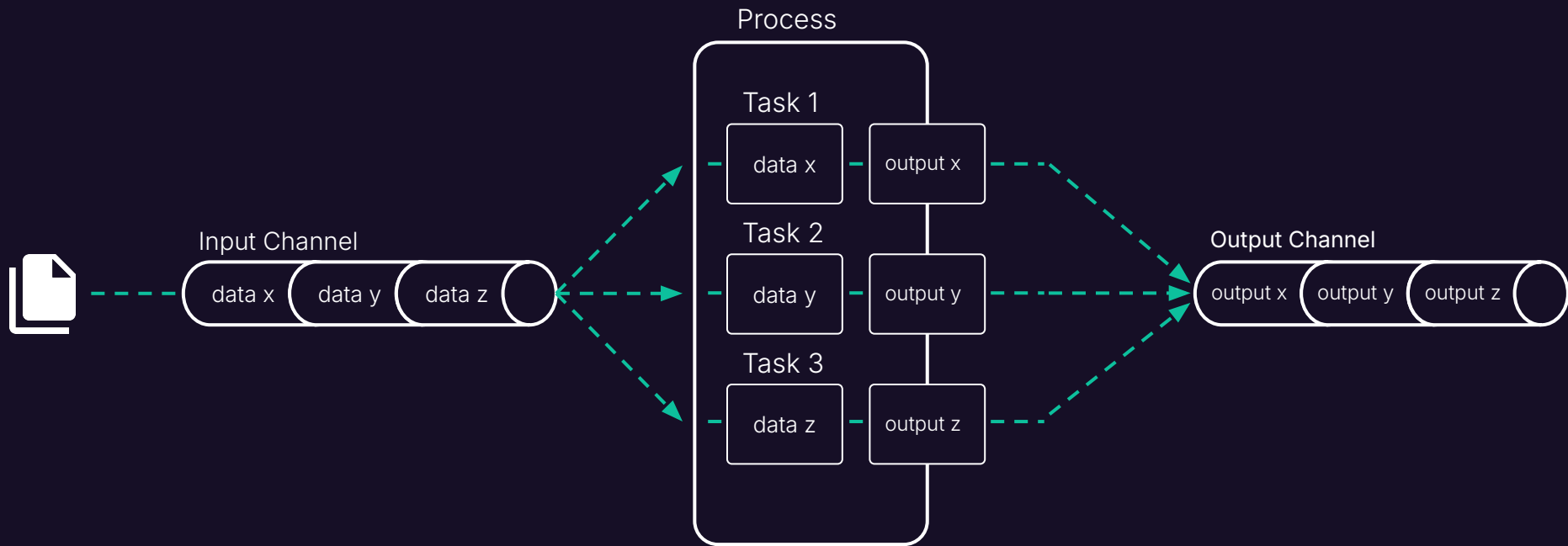
Introducing Nextflow

A reactive workflow framework and a programming DSL



Introducing Nextflow

A reactive workflow framework and a programming DSL



How to handle alternate flux

- Handles optional files
- Skip or disable processes

