

X-omics helpdesk

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The Netherlands X-omics Initiative



- Partially funded by NWO
- National Roadmap Large Scale Research Infrastructure

*Quality
Best practice
Expertise*

*Standards
FAIR data*



X-omics objectives

1. Advance X-omics technologies far beyond state-of-the-art
2. Realize a genuinely integrated X-omics infrastructure in NL

X-omics consortium



The X-omics core team consists of:

Prof. dr. Alain van Gool X Coordinator, Radboudumc	Prof. dr. Edwin Cuppen Genomics, UMC Utrecht	Prof. dr. Albert Heck Proteomics, Utrecht University
Prof. dr. Thomas Hankemeier Metabolomics, Leiden University	Prof. dr. Peter-Bram 't Hoen Data analysis, integration & stewardship, Radboudumc	

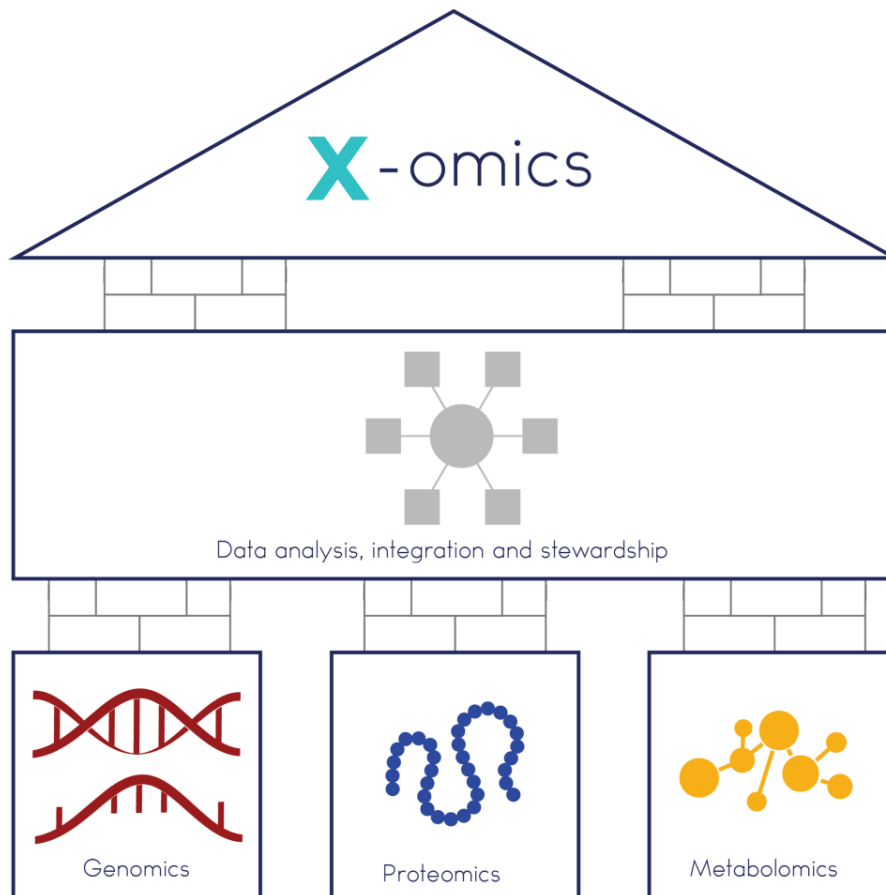
Partners involved and management

The partners of the Netherlands X-omics Initiative are:

Radboudumc	 university of groningen
 UMC Utrecht	 umcg
 Utrecht University	 NETHERLANDS CANCER INSTITUTE
 Universiteit Leiden The Netherlands	 VU UNIVERSITY AMSTERDAM
 Leiden University Medical Center	 lygature
 ERASMUS UNIVERSITY ROTTERDAM	 SURF SARA



X-omics research infrastructure



Outreach

- Helpdesk
- Training
- Community
- Demonstrators
 - Cell
 - Individual
 - Population

X-omics approach

- Data analysis
- Data integration
- Data stewardship
- Study design
- Sample handling

Pushing omics technologies

- Resolution, sensitivity, coverage
- Harmonisation, standardisation, data FAIR-at-source





X-omics helpdesk



- Research questions: expert assistance to help design your X-omics experiment.
- Technical questions: assistance with sample preparation and protocols.
- Outsourcing questions: analysis of samples in one of the facilities.
- Collaboration questions: Join the X-omics community!
- Go to www.x-omics.nl and fill out an application form!



X-omics helpdesk-infograph

X-omics helpdesk

Need help?

Research questions?
Outsourcing questions?
Technical questions?



Contact CROSSY,
your helpdesk assistant!



info@x-omics.nl
www.x-omics.nl

Expert assistance to help design your X-omics experiment

Meeting with X-omics experts (in person or via telcon) and design of (follow up) experiments

Analysis of samples in 1 of the facilities

Assistance with sample preparation and protocols

Facility assistants of the infrastructure

X Experts: Prot, Dana, Crossy, Meta and Geno

Data analysis, integration & stewardship

Genomics

Proteomics

Metabolomics

Results & reports

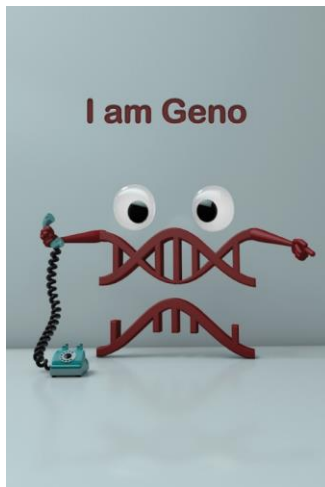
Data

Research Infrastructure



Research questions

- X-omics live Q&A meetings; scheduled monthly
- Pitch your own research project
- Q & A with experts: advice on multi-omics approach



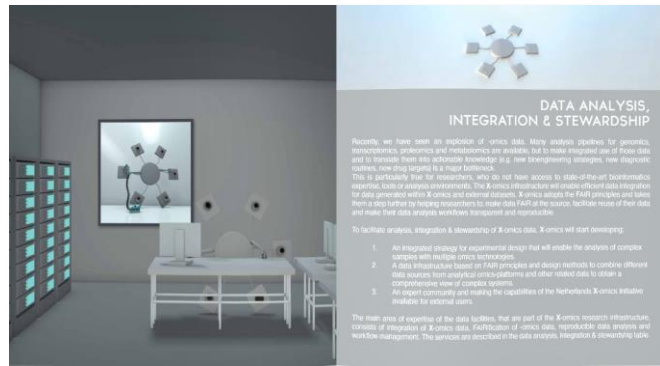
Technical and outsourcing questions

- Referral to facility managers and other experts
- Portfolio of services on website and in brochure



X-omics brochure

- Services (TAT, costs, equipment, tools)



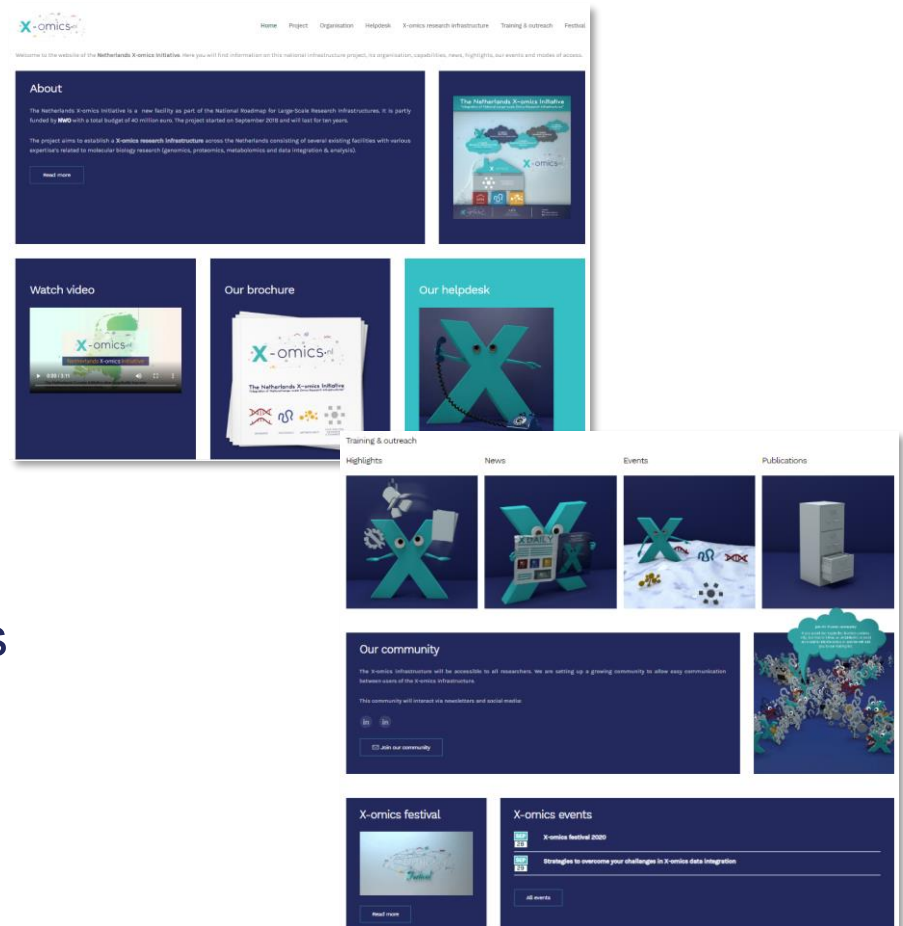
DATA ANALYSIS, INTEGRATION & STEWARDSHIP					
Expertise	Associated pipelines / workflows				
Analysis of genomics, transcriptomics, proteomics and metabolomics data	Whole exome and whole genome analysis pipelines	Metabolite analysis pipeline	RNA-seq analysis pipelines	Proteomics analysis pipelines	Metabolomics analysis pipelines
Integration of X-omics data, statistical and knowledge-based integration	Dimensionality reduction techniques	Pathway and network-based integration	Proteogenomics pipelines	Accurate hypothesis testing for Genomics	Graphical Models
FAIRification of omics data	Guidelines and tools for FAIR representation of omics sample measurement	Machine-readable consent and conditions of use	BBMRI BioBank categories		
Reproducible data analysis	Guides for versioned code, tool and software management	Analysis playbooks for software and tool deployment			
Workflow management	Nextflow	KNIME	Kimble	Galaxy	MOLGENS Compute for large scale data and computational workflow management in a distributed execution environment
ICT Infrastructure					
Digital Research Environment (drew, researchenvironment.org) for secure, collaborative, cloud-based analyses	Local High Performance Computing clusters				



X-omics website

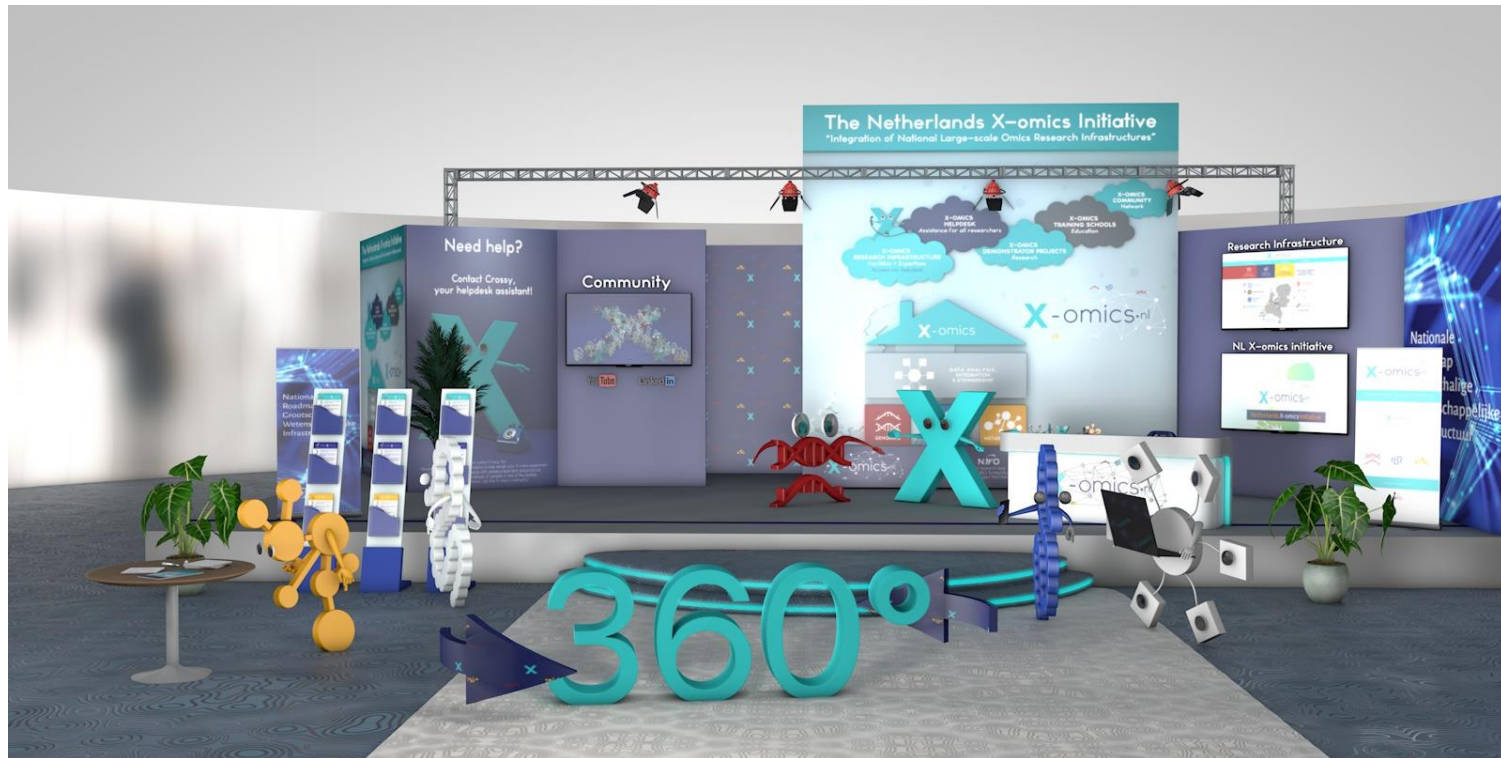
www.x-omics.nl

- Information
- Helpdesk: access to services
- Training: workshops, events
- Highlights, news, publications
- Etc.



Virtual booth

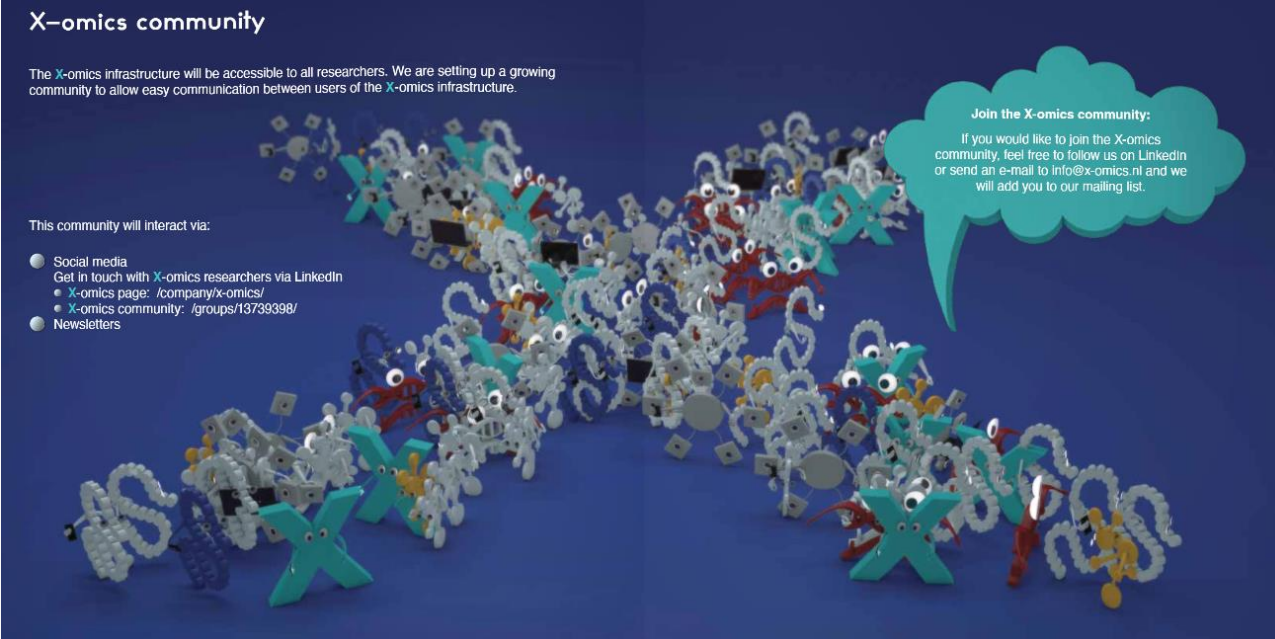
<https://www.x-omics.nl/exhibition/>



X-omics community

- Mailing list
- LinkedIn corporate page
- LinkedIn X-omics community group
- Youtube channel

Info@x-omics.nl

A graphic titled "X-omics community" on a dark blue background. It features a large, stylized 'X' composed of many small, colorful, cartoonish characters and icons. The characters are in various colors (teal, grey, red, blue, yellow) and some have faces. The text "X-omics community" is at the top left. Below it, a paragraph states: "The X-omics infrastructure will be accessible to all researchers. We are setting up a growing community to allow easy communication between users of the X-omics infrastructure." To the right, a teal speech bubble contains the text: "Join the X-omics community: If you would like to join the X-omics community, feel free to follow us on LinkedIn or send an e-mail to info@x-omics.nl and we will add you to our mailing list." On the left, under the heading "This community will interact via:", there is a list of interaction methods: "Social media", "Get in touch with X-omics researchers via LinkedIn", "X-omics page: /company/x-omics/", "X-omics community: /groups/13739398/", and "Newsletters".

X-omics community

The X-omics infrastructure will be accessible to all researchers. We are setting up a growing community to allow easy communication between users of the X-omics infrastructure.

Join the X-omics community:
If you would like to join the X-omics community, feel free to follow us on LinkedIn or send an e-mail to info@x-omics.nl and we will add you to our mailing list.

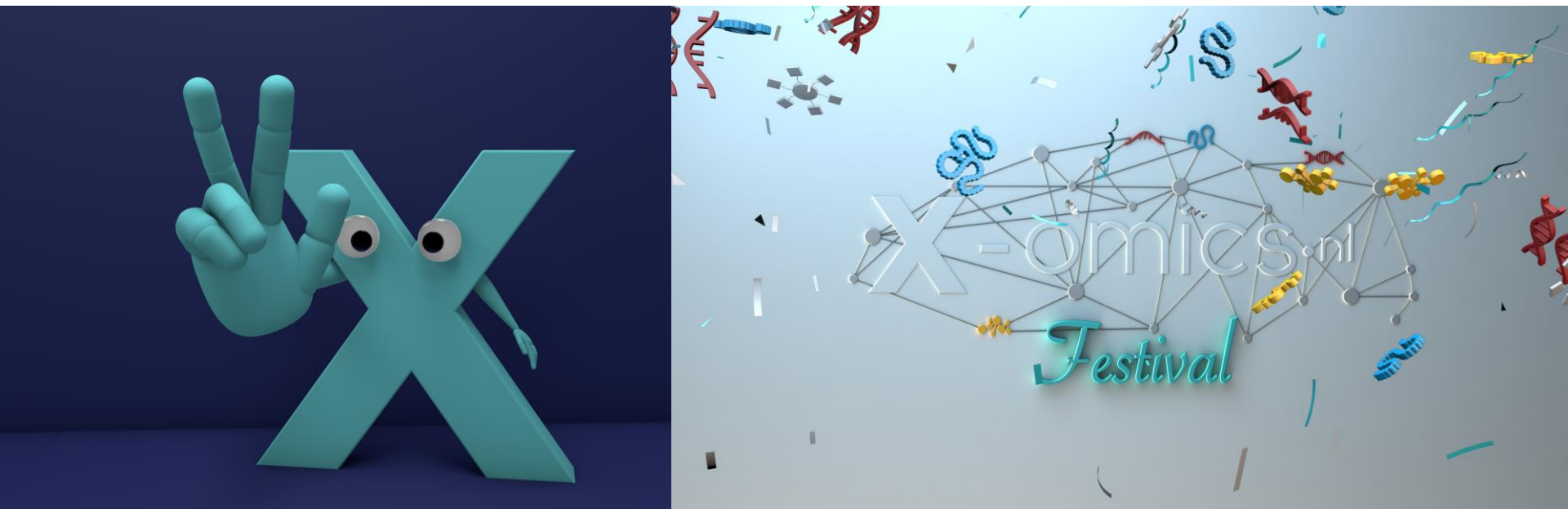
This community will interact via:

- Social media
Get in touch with X-omics researchers via LinkedIn
 - X-omics page: [/company/x-omics/](#)
 - X-omics community: [/groups/13739398/](#)
- Newsletters



X-omics Festival 2021-April 12th 2021

- Registration is open (free of charge)!
- Go to www.x-omics.nl/festival



Questions?

