



**citizen
science lab**

Margaret Gold

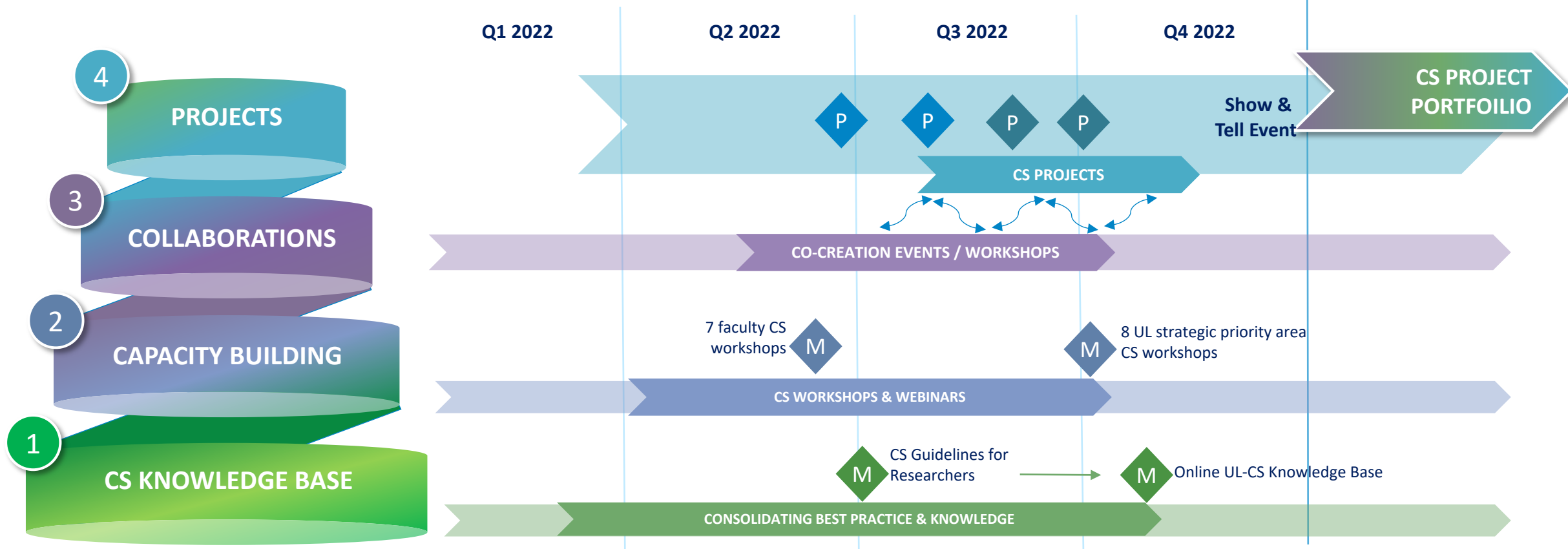
m.gold@biology.leidenuniv.nl



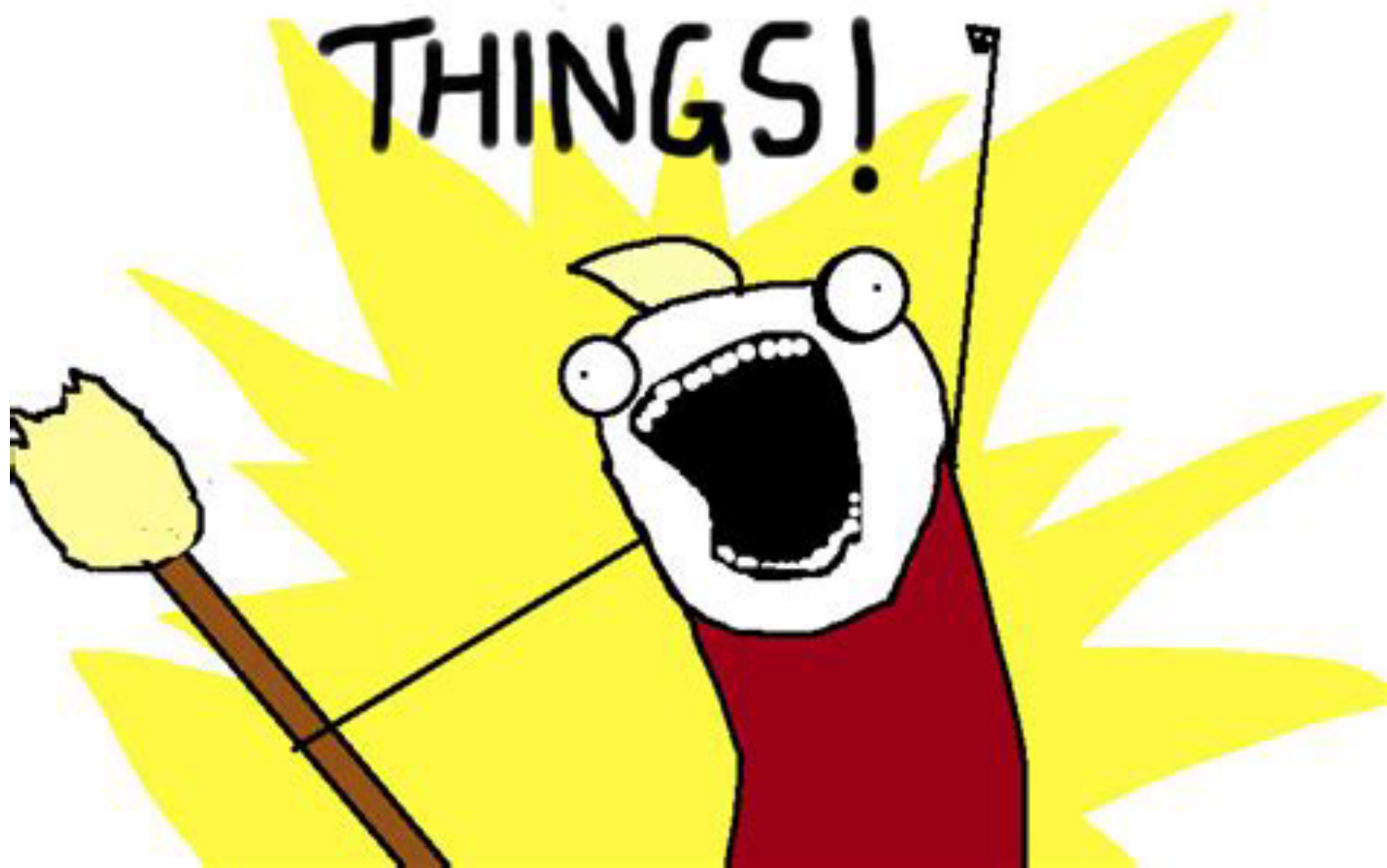


European
City of Science
Leiden 2022

+ Programme Coordination 0.1 FTE
+ Project Staff 1 x 0.5 FTE



DO ALL THE
THINGS!



- UNESCO
- Citizen Science Global Partnership
- UNESCO OS & CS Community of Practice

GLOBAL

- EU-Citizen.Science / ECSA
- Horizon Europe Criteria
- Mutual Learning Exercise

EUROPE

- NPOS – National Programme Open Science
- CS-NL – Citizen Science Nederland
- Rewards & Recognition Movement

NETHERLANDS

- Grassroots Movements
- Citizen Participation
- European City of Science Leiden
2022

LOCAL / PROVINCIAL



United Nations
Educational, Scientific and
Cultural Organization



Open Science



**citizen
science lab**

OPEN SCIENCE is defined as an inclusive construct that combines various movements and practices aiming to

- make multilingual scientific knowledge openly available, accessible and reusable for everyone,
- to increase scientific collaborations and sharing of information for the benefits of science and society, and
- to **open the processes of scientific knowledge creation, evaluation and communication**
 - to **societal actors beyond the traditional scientific community.**
- It builds on the following key pillars: open scientific knowledge, open science infrastructures, science communication, **open engagement of societal actors** and **open dialogue with other knowledge Systems**



[HOME](#)

[ABOUT US](#)

[PROJECTS](#)

[NETWORK](#)

Supporting Partners



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LOCAL / PROVINCIAL

CITIZEN SCIENCE ELEVATING RESEARCH & INNOVATION THROUGH SOCIETAL ENGAGEMENT



Interaction between citizens, scientists and policy makers is essential to enrich research and innovation, and reinforce trust of society in science. I am proud of the hundreds of thousands involved citizens that already contributed to research and innovation and look forward to continue opening up research towards society and the world.

Mariya Gabriel Commissioner for Innovation, Research, Culture, Education and Youth



Mutual Learning Exercise on Citizen Science

Mutual learning exercises (MLE) focus on **specific R&I challenge** of interest to **MSs and ACs**



MLE on Citizen Science (CS) proposed from MSs to

- ✓ **strengthen their CS national policies and initiative** by exchanging lesson learnt and best practice
- ✓ exploit synergies and **upscale suitable (cross-) national CS initiatives** across the ERA

Exercise supported by EC Policy Support Facility and external experts

11 MSs/ACs: Germany, Slovenia, Austria, Belgium, France, Hungary, Portugal, Romania, Italy, Sweden and Norway

CS MLE Topics:

1. Introduction and overview on citizen science
2. Ensuring good practices and impacts
3. Maximising the relevance and excellence of citizen science
4. Enabling environments and sustaining citizen science
5. Scaling up citizen science

“

What is an Enabling Environment?

the factors that enable Citizen Science initiatives to be launched, sustained, grow and thrive – and ultimately achieve their aimed-for impacts and outcomes



”



Legal & Policy Frameworks

Internal Policies & Culture

Societal Dialogue

Capacity Building & Networks

Supporting (Data) Infrastructure

FUNDING



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LOCAL / PROVINCIAL

NPOS Ambition 2030

2013 - 2021

2022 - 2030

2030

key lines of action

strategic goals

**2013
Ambitie 100%
Open Access**

The Dutch government takes the position that publicly funded research should be freely accessible.

**2018
Launch EOSC**

The symbolic launch of the European Open Science Cloud, a trusted, virtual, federated environment for sharing research data.

**2022
Launch NPOS
2030 Programme**

The NPOS2030 Programme marks a new phase in the transition to Open Science in the Netherlands.

**2017
Nationaal Plan
Open Science**

The presentation of the National Plan Open Science marks the launch of the NPOS.

**2021
UNESCO
recommendation
on Open Science**

UNESCO published their global Recommendation on Open Science to be adopted by the 193 Member States.

Towards societal engagement and participation

Towards inclusive and transparent scientific processes

Towards open scholarly communication

Towards FAIR and open research outputs



Close collaboration between knowledge institutions, government, industry, and citizens to strengthen science and optimise the processes of creating, sharing, and communicating knowledge for the benefit of society.



Inclusive, efficient, and transparent processes of scientific (co-)creation, evaluation, quality assurance and communication



Removal of barriers to reading and reusing all scientific output, so everyone can access scientific knowledge in a sustainable way and benefit from it



Products of and for knowledge creation, like data and software, being findable, accessible, interoperable, and reusable (FAIR), and open in as far regulations allow

Open
Infrastructures

Support &
Training

Community
Engagement

Recognition &
Rewards

Policies &
Regulations

2020



*Kennis en krachten gebundeld –
citizen science in Nederland*

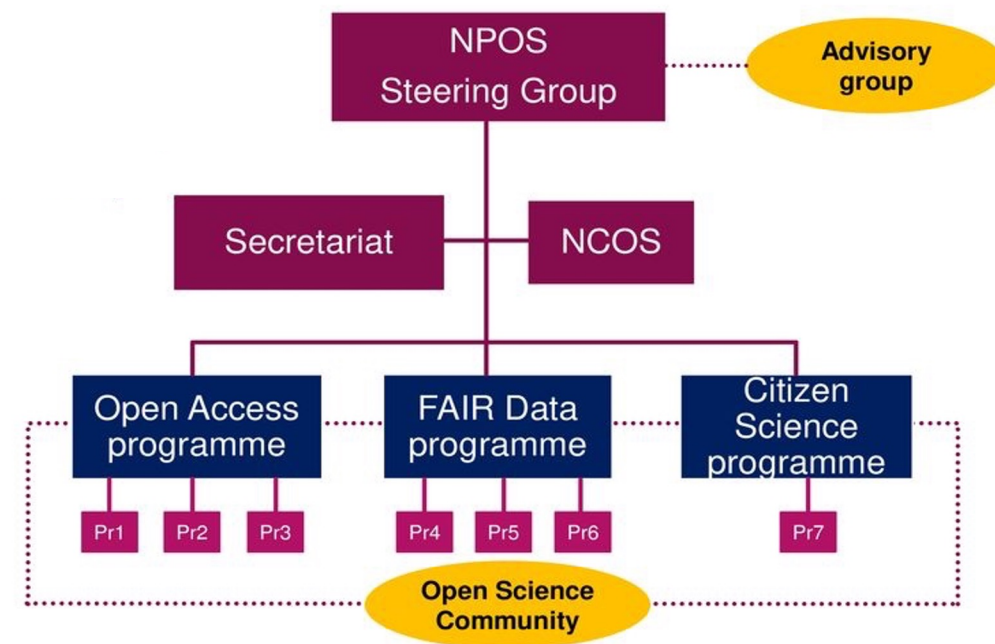
Wetenschap en samenleving in cocreatie

Eindverslag van de werkgroep Citizen Science

26 oktober 2020

NPOS (2020) Kennis en krachten gebundeld – citizen science in Nederland

tinyurl.com/nposreport

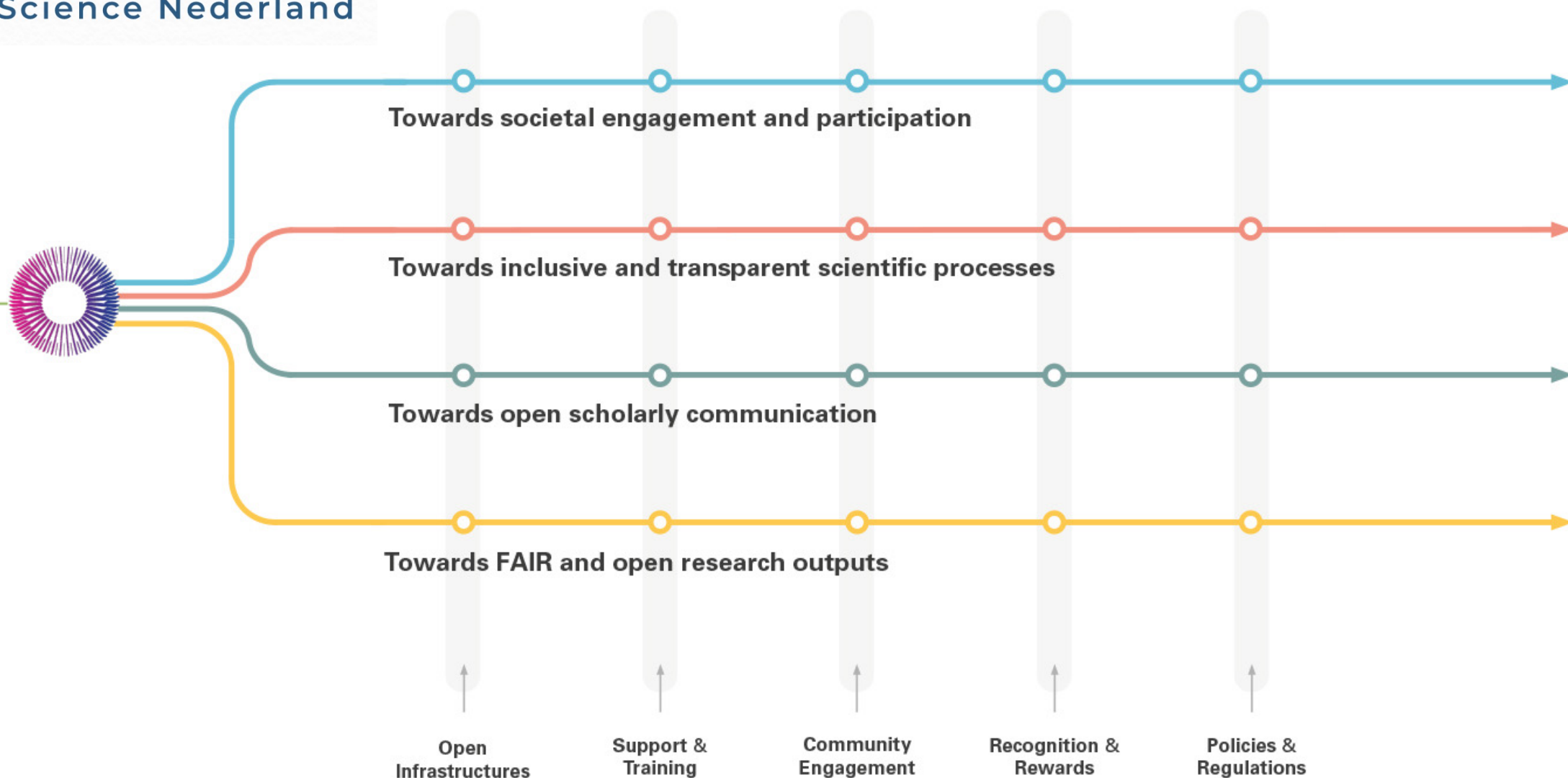




CS-NL

Citizen Science Nederland

key lines of action

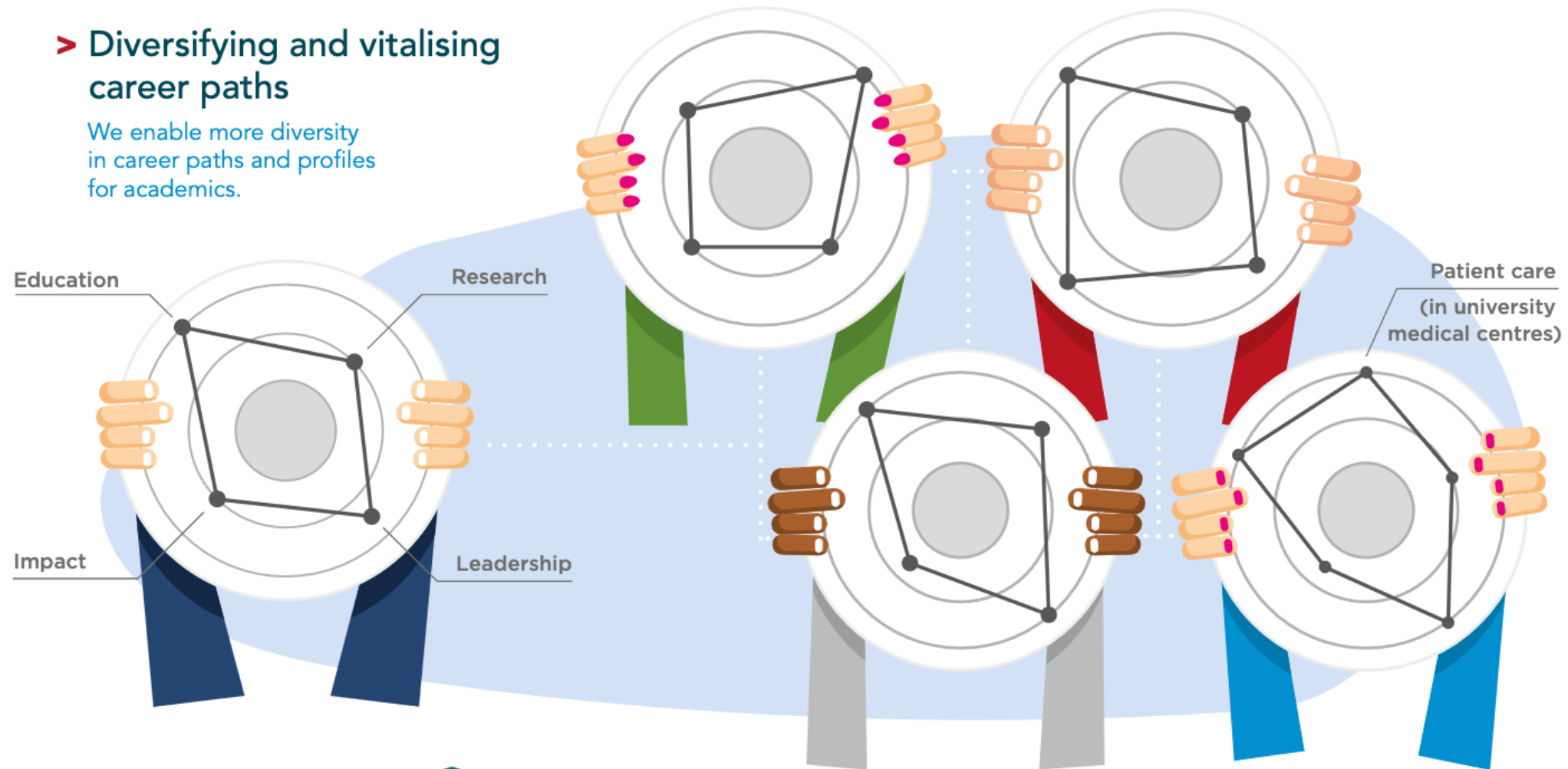


Room for everyone's talent

towards a new balance in the recognition and rewards of academics

> Diversifying and vitalising career paths

We enable more diversity in career paths and profiles for academics.



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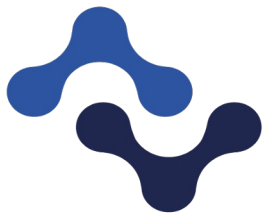
LOCAL / PROVINCIAL

Creating and circulating Knowledge in Resilient Societies

Open Science @ Leiden University

- 1 A transformation of the way we create and circulate knowledge
- 2 Why is a change necessary?
- 3 Our ambitions
- 4 Developing open knowledge practices: the five key areas
- 5 How are we going to do this?
- 6 Members of the Open Science Working Group
- 8 Best practices





**citizen
science lab**

AGENDA

Vision

The CS Lab Strategic
Plan 2021 - 2025

Creating Space

Building Foundations

Embedding

2018

Founded

2019

0.2 fte staff

2020

2021

*1 fte Coordinator
Strategic Plan*

2022

*0.4 fte Coordinator
0.5 fte staff*

new home in CWTS



launched in 2018







BN DESTEM DINSDAG 9 JULI 2013

Puttling / de Volkskrant

gaan de lucht in

VANDAAG 3

50

De overheid heeft de maximaal toelaatbare hoeveelheid fijnstof per kubieke meter in de atmosfeer vastgesteld. De dagelijkse norm is 50 microgram en die mag hooguit 35 dagen per jaar worden overschreden.



■ René Martens had verwacht een hogere concentratie fijnstof te meten
foto Ron Magiels/het fotoburo

'Minder fijnstof in Breda dan verwacht'

door **Maartje Huijben**
.....

BREDA - Nee, eerlijk gezegd had hij meer fijnstof verwacht dan dat woon relatief dicht bij de snelweg en de spoorlijn. Ik ging ervan uit dat er daarom meer fijnstof in de lucht zou zitten. De hoeveelheid die ik tot nu heb ervaren is heel laag.

fijnstof van weinig tot veel. In de rest van West-Brabant is het verplekken ook schone lucht wordt gemeten.

„Ik ben geïnteresseerd in de wetenschap”, verklaart Marten de Boer.

fijnstof van weinig tot veel. In de rest van West-Brabant is het vergelijkbaar, zij het dat op sommige plekken ook schone lucht wordt gemeten.

Vlotje

FOTOX:

...het voor mij belangrijker om te weten, omdat Tata Steel mijn baas is." Het resultaat: Ook heel helder.

Hans Korn

Reportage
Fijnstofonderzoek

Reportage
Fijnstofonderzoek

Het was lang wachten
een zo strakblauwe
dat fijnstof meten
duizenden smart
tegelijk zin zou t
Maandag was t

Van onze versl
Bard van de

LOPIK U
in het fl
de 213

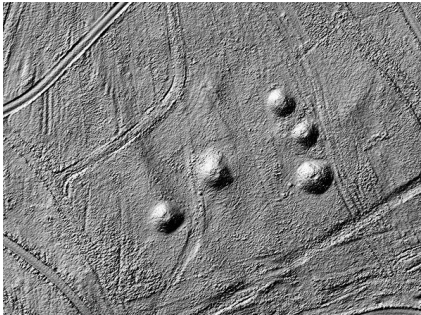
Oeverplanten



Plastic Spotter



Erfgoed Gezocht



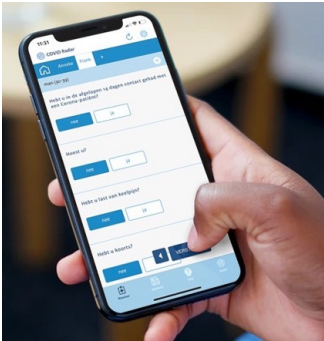
The Global Microplastic Project



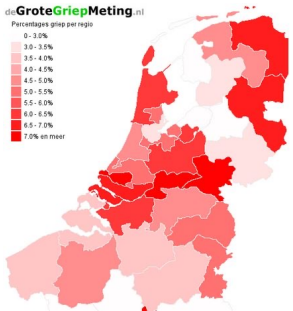
Maps in the Crowd



COVID Radar



De Grote Griepmeting





SETTING A VISION



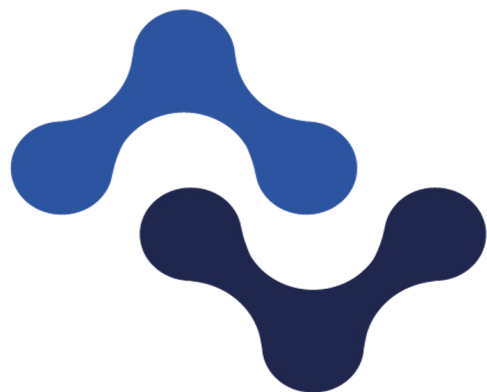
STRATEGIC PLAN 2021-2025

MARCH 2021

Citizen Science Lab, Leiden University
Frans Snik, Anne Land, Pedro Russo & Margaret Gold



**citizen
science**
lab



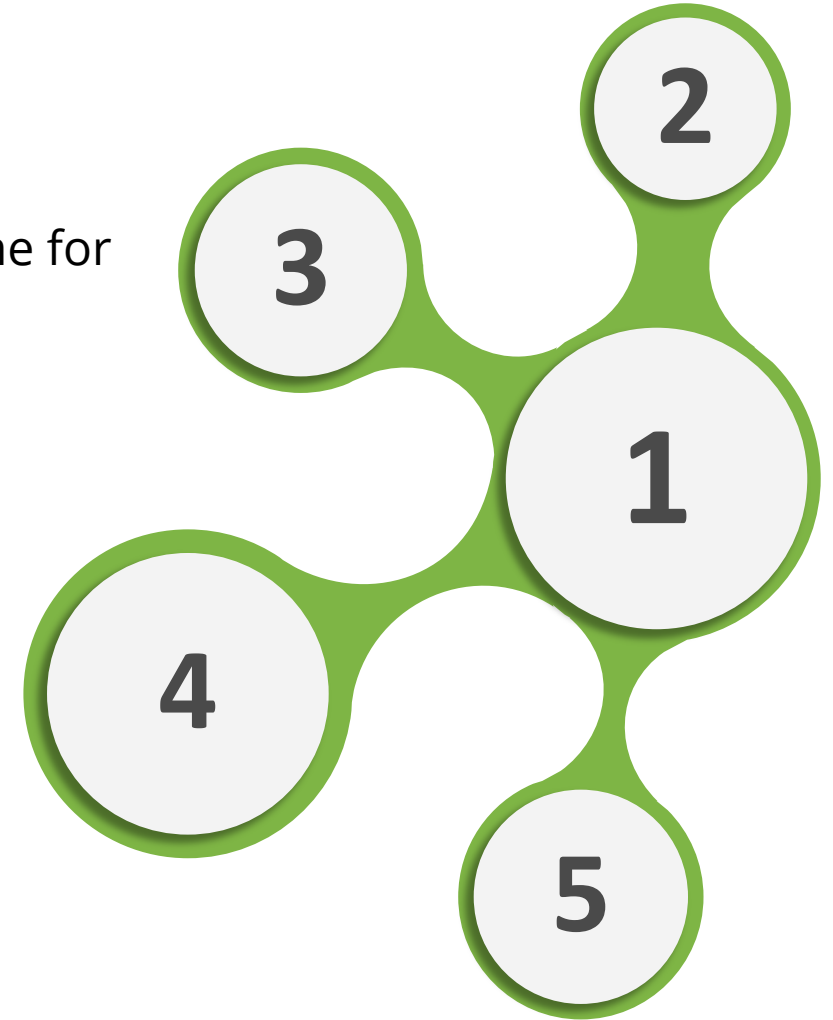
citizen science lab

The Citizen Science Lab brings together scientists, policy makers, citizens, and other stakeholders in **participatory research projects** that address scientific questions and/or urgent societal issues that can only be solved by actively involving volunteers in the scientific process.

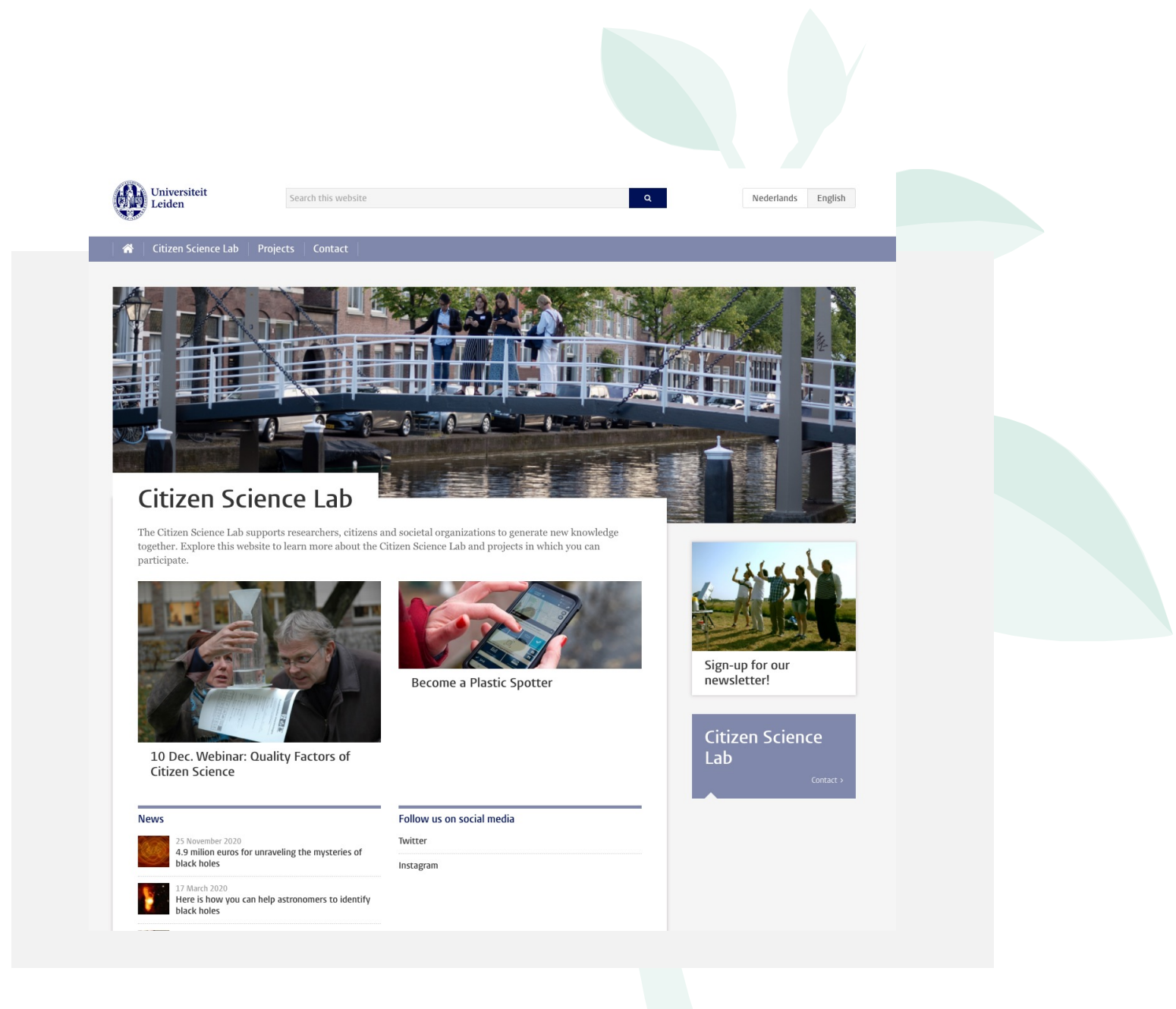
We act as a **facilitator and incubator** to co-create new citizen science projects that connect society with science. And we function as a **knowledge hub** to build a collaborative and **transdisciplinary** knowledge-sharing network for citizen science practices in Leiden and across the Netherlands.

STRATEGIC PLAN 2021-2025

- 01** Establish a Leiden University knowledge hub and project incubator for citizen science
- 02** Design and implement the citizen science programme for the European City of (*Citizen*) Science 2022.
- 03** Co-create a transdisciplinary research initiative to address the UN SDGs
- 04** Embed CS practices into education, research and societal activities within Leiden and the surrounding region, for the long term
- 05** Establish the CSLab as a cornerstone of the nascent Dutch National Platform for Citizen Science



CREATING SPACE 2021



01

We have established a knowledge hub and project incubator for citizen science, currently based within the Astronomy & Society Group, that supports colleagues across all faculties of the University. Publications in 2021 include Royal Society Open Science, Springer Sustainability Science, Journal of Science Communication, and the Journal of Environment Management

02

We are leading the CS Programme of 'Seeing Stars in Leiden', the Postbus 71 initiative to channel science Q&A, and a 'Participate' programme of activities to promote existing and new Citizen Science projects and initiatives that are relevant to the 365-day themes, during the European City of Science Leiden 2022 festivities.

03

We are actively collaborating and 'originating' new transdisciplinary projects with EUniwel partners, Leids Preventie Akkoord partners, Leren Met de Stad,(and more) that are directly relevant to the UN Sustainable Development Goals. Questions from residents coming into Postbus 71 will be filtered for a potential new 'Plastic Spotter' style CS project.

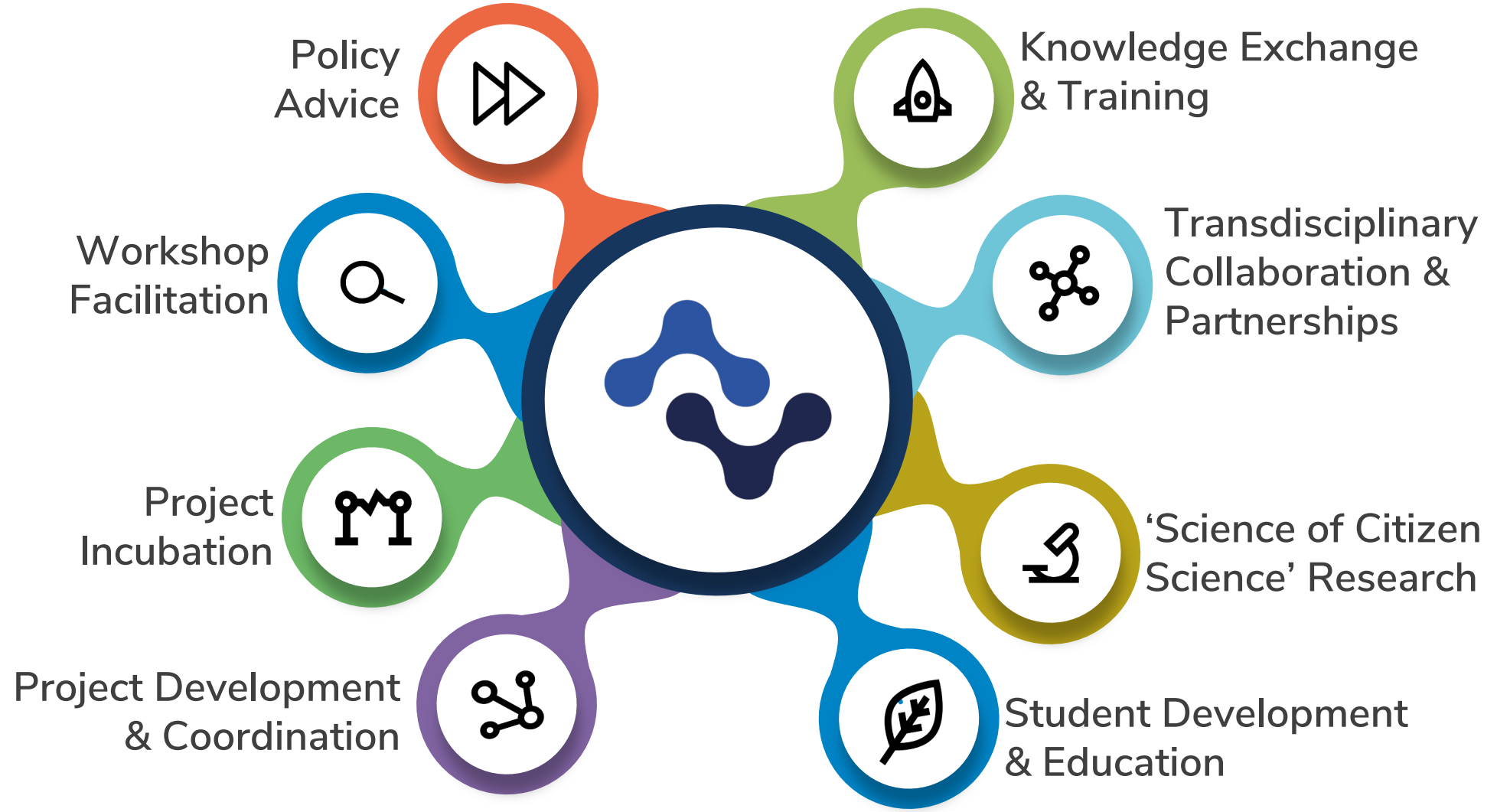
04

The Honours Academy Impact Challenge MsC course embeds CS practices in the curriculum and addresses challenges framed within the 'Duurzaamste Kilometer van Nederland' initiative together with Gemeente Leiden and other local partners. Workshops and training sessions delivered in the faculties support CS practices in research.

05

The Coordinator of the CS Lab also leads the CS Programme Line within NPOS, developing the Citizen Science strategy for the Netherlands towards 2030, and placing Leiden University as a cornerstone of the nascent Dutch National Platform for Citizen Science.

01 **GOAL 1:** Establish a Leiden University knowledge hub and project incubator for citizen science



01 **GOAL 1:** Establish a Leiden University knowledge hub and project incubator for citizen science



BUILDING FOUNDATIONS

2022


Leiden University

Students

Staff members

Organisational structure

Library

 Universiteit
Leiden

Search for subject or person

All categories

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Nederlands

English

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Education

Academic staff

About us

Collaboration


Faculties

Campus The Hague

Alumni

Library

Home > News > A call about: the Citizen Science Lab



A call about: the Citizen Science Lab

11 January 2022

Leiden is European City of Science in 2022 and this will be celebrated under the name Leiden2022. During Leiden2022, various activities will be organised, such as lectures, workshops, excursions and exhibitions. On the occasion of Leiden2022, Postbus 71 will be opened: the place to go if you have any questions about science. Margaret Gold, coordinator of the Citizen Science Lab, answered three questions about the Citizen Science Lab activities during Leiden2022.


What is the Citizen Science Lab, and what is its role during Leiden2022?

The Citizen Science Lab is a Knowledge Hub and Project Incubator that is based within the Science Faculty of Leiden University, but works with all faculties and domains of research to connect citizens and societal actors together with scientists in collaborative research initiatives that have an impact on both knowledge and society. Throughout the year we will be running Postbus 71 – the place for all residents and visitors to send those curiosity-sparked questions that either come from the daily themes of ‘Kennis door de Wijken’ (Knowledge through the Neighbourhoods) or are things that you’ve always wondered about. We’ll play postmaster with those questions to ask research colleagues at the University, share at events throughout the year on those topics, or bring up in the conversations on Radio Weetlust. But we are also keeping our eyes open for questions to which we can answer ‘Let’s go find out!’ We would love to start a new Citizen Science research project in collaboration with Leiden residents on a topic that is relevant to the city and our living environment.

What kind of questions have you already received for Postbus 71?

We are still just getting the word out, but already some fantastic questions have come in. 8 year-old Michiel has asked us why he doesn’t always find his mother’s cooking tasty. We’ll ask these questions of our research colleagues on the 16th of October when the day theme will be *Voedsel*, but in the meantime we’ve shared an interesting article in *WRM? Magazine* about how our tastebuds and other senses (and our brains!) can influence how we experience the taste of food.


Academic staff

 Margaret Gold
Research Staff Member

See also

Leiden European City of Science 2022

Postbus 71



Dossier Leiden2022
Leiden is European City of Science 2022



European
City of Science
Leiden2022





GOAL 2: Design and implement the citizen science programme for the 2022 European City of (Citizen) Science.

02

Who knows the unknown?

The unknown as an infinitely curiosity-inducing source of inspiration for science. We have no view of 97% of the universe. 95% of the oceans are still completely unknown to us. We have not yet mapped 85% of all species on earth. We still know very little about the human brain... A tempting perspective of not yet knowing. Food for big questions.



European City of Science Leiden 2022



22 Big Questions

De 22 grote vragen van 2022

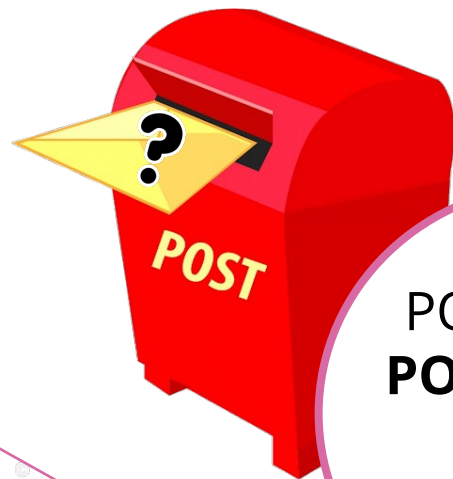
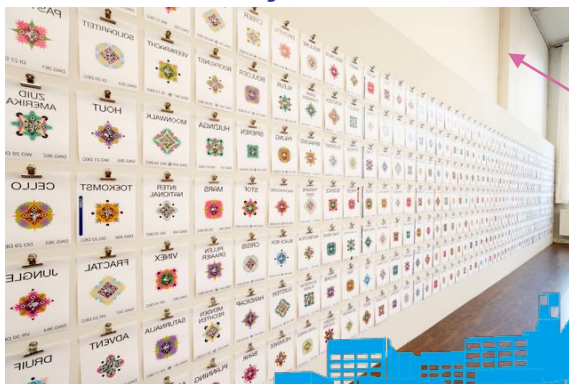
WELKE VRAAG HOUDT JOU BEZIG?
WAAROM WILLEN WE WETEN?
WAT WAS ER VOOR HET BEGIN?
HOEVEEL DIMENSIES ZIJN ER?
KUNNEN WE OOI TIJDREIZEN?

HOE LANG ZIJN WE NOG ALLEEN?
IS ER EEN THEORIE VAN ALLES?
WAT KUNNEN WE NOG NIET BEREKENEN?
WAT MAAKT DAT DE AARDE DRAAIT?
KUNNEN MENSEN, DIER EN NATUUR IN BALANS MET ELKAAR BESTAAN?

WAT IS EEN VRAAG?
WAAROM IS WETENSCHAP ZO BELANGRIJK?
HOE HOUDEN WE WETENSCHAP GEZOND?
HOE OPEN IS EN KAN ZIJN?
WAT IS DE ROL VAN KUNST?
HOE GEVEN WE DE TOEKOMST VORM?

HOE OUD KUNNEN WE WORDEN?
HOE WERKT ONS BREIN?
WYSIWYG?
WAT MAAKT ONS MENS?
IS IEDEREEN GELIJK?
WELKE VRAAG IS NOG DOOR NIEMAND GEFORMULEERD?

Kennis door de Wijken



POSTBUS 71
POSTMASTER



Q&A on Radio Weetlust
Q&A on @Postbus71
Q&A on Leiden2022.nl
Q&A at Festiwell
Q&A at ESOF2022
Q&A 'Kennis door de Wijken' Events

Questions filtered for CS applicability
Multi-stakeholder engagement

Co-Design

Citizen Science
Voor & Door
de Wijken

Let's go find out !!



citizen science lab

Year of Events

3E5



European
City of Science
Leiden2022



Co-funded by
the European Union

Meta Kno_n
Leiden2022

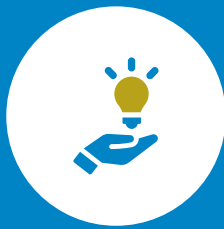




European
City of Science
Leiden2022



Kennis
door de
Wijken



'DHZ' Crowdsourcing
Research Questions

'Moeder Natuur'
Bioblitz

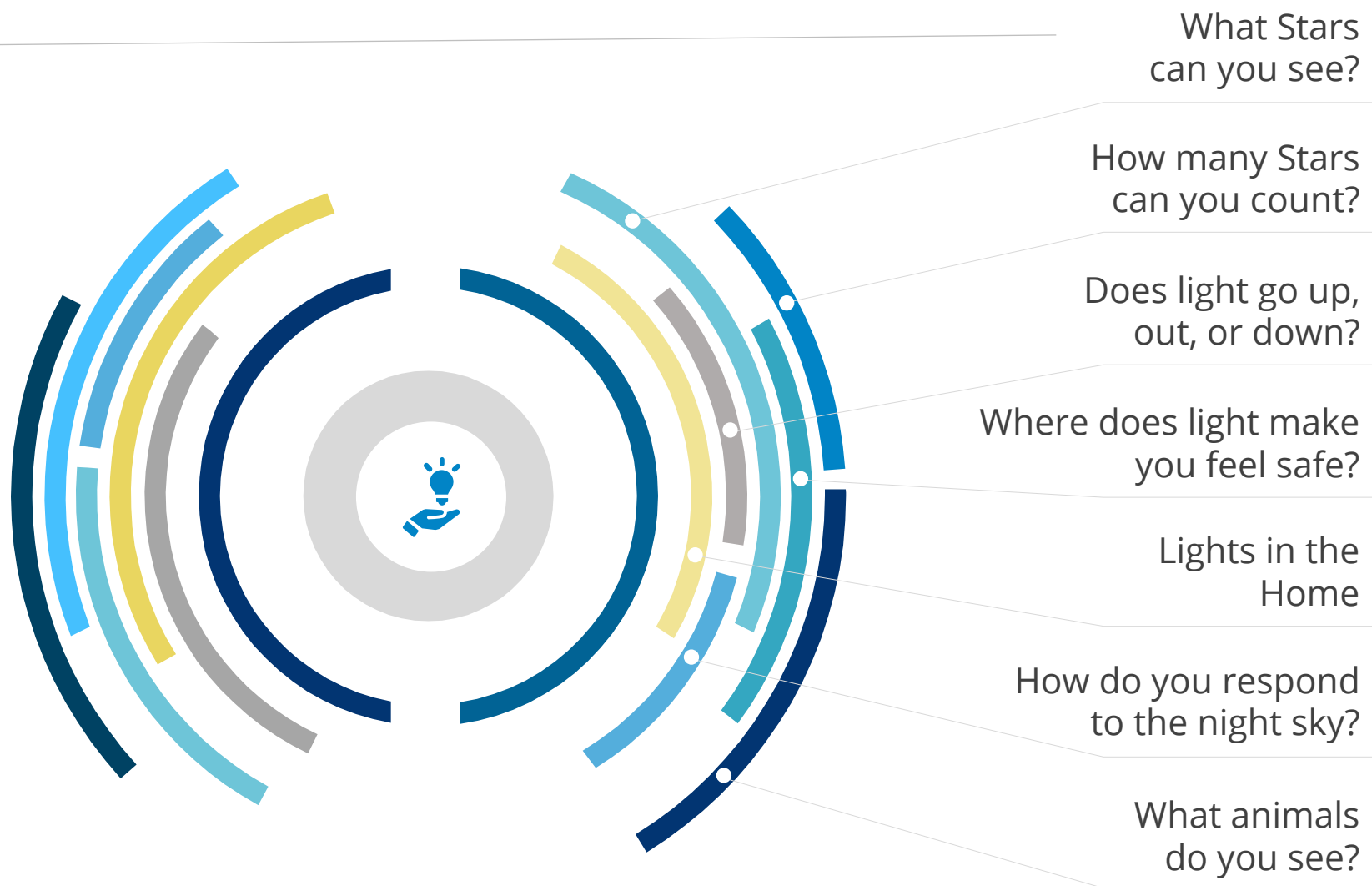
'Citizen Science'
Show & Tell

'Jungle'
Bioblitz

Seeing Stars Leiden

....Lichten Uit, Sterren Aan...

Citizen Science Participation



Astronomy

Dark Sky Experience

Light Pollution

Safety Perception

Human BioClock

Human Well-being

Nature's BioClock

CS for Climate Change Impact on Nature



CS for Sustainable Clothing Consumption

STEM Learning through CS Research in the Classroom



euni
well

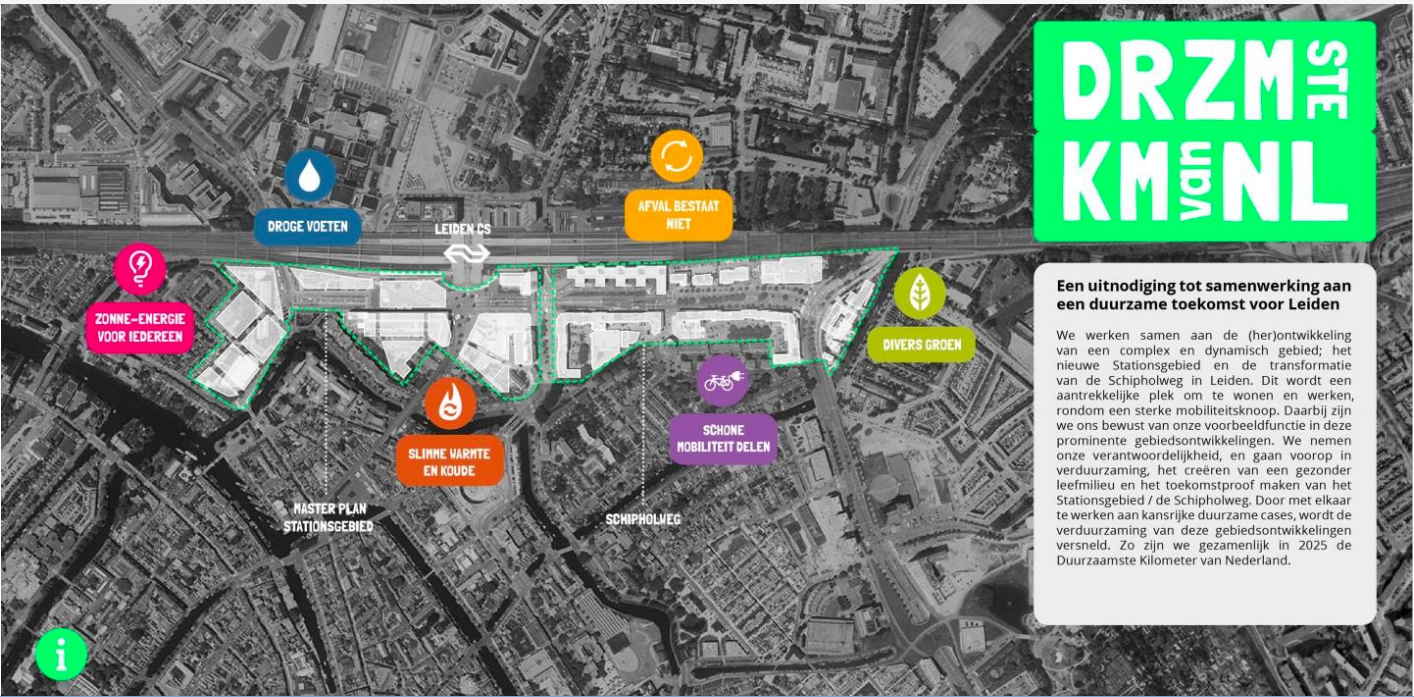
CS for Well Being / Mental Health in collaboration with Students

Waar ben je naar op zoek?

2021-2022 ▼

Zoeken

Leiden Municipality Challenge: Citizen Science and The Most Sustainable Kilometre



Periode:

Docenten:

Dr. Anne Land-Zandstra

Dr. Margaret Gold

Researchers of The Young Academy

Leiden

Credits:

10 EC

Niveau:

600

Locatie:

Leiden

Voertaal:

Engels



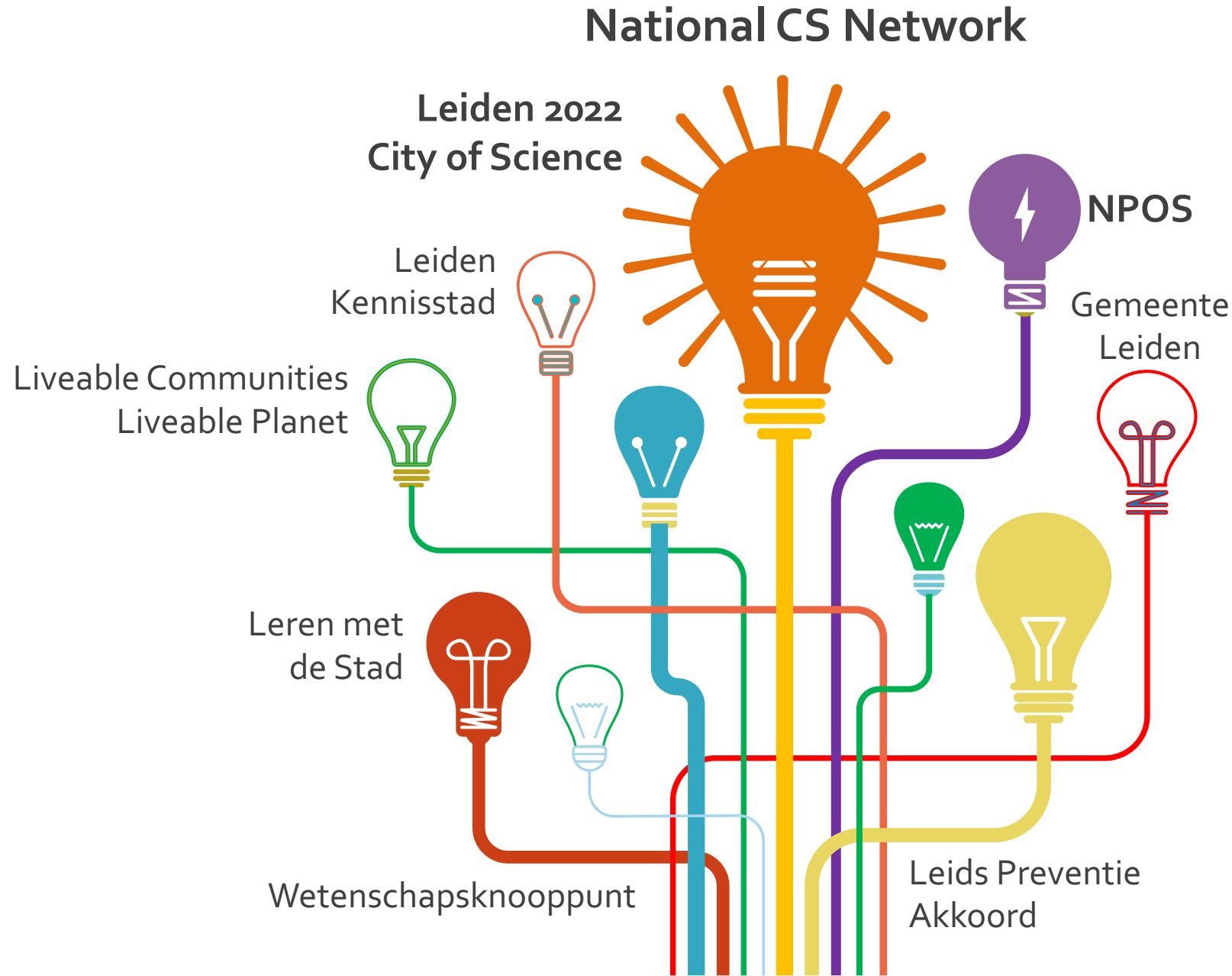
Creating and circulating Knowledge in Resilient Societies

Open Science @ Leiden University

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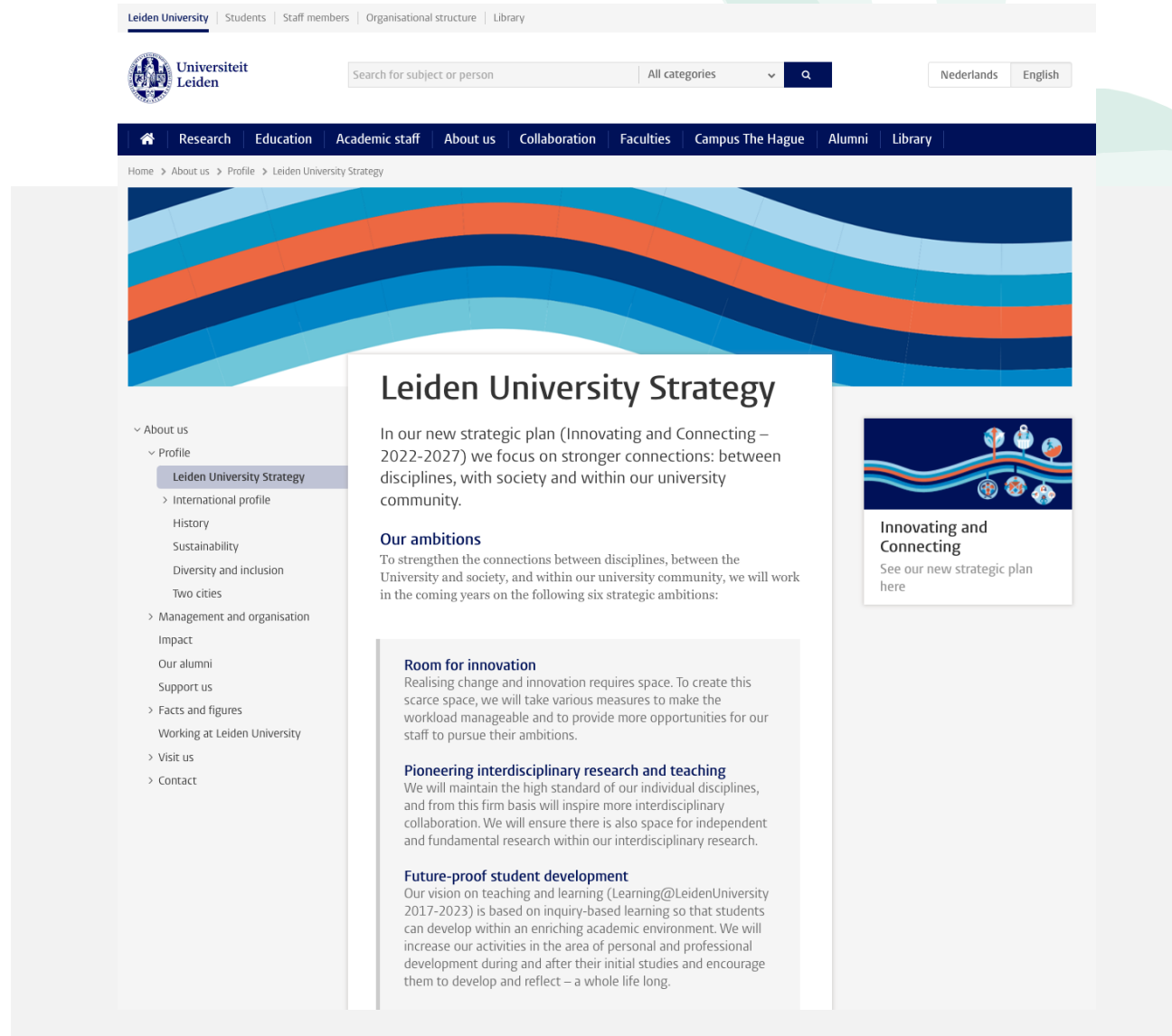


Discover the world at Leiden University



Embedding in the University

2023



The screenshot shows the Leiden University website's 'Leiden University Strategy' page. The header includes the university's name in Dutch and English, a search bar, and navigation links for Students, Staff members, Organisational structure, and Library. A secondary navigation bar lists Research, Education, Academic staff, About us, Collaboration, Faculties, Campus The Hague, Alumni, and Library. The main content area features a large blue and orange wavy graphic. The left sidebar contains a menu with 'About us' and 'Profile' sections, with 'Leiden University Strategy' highlighted under 'Profile'. The main text area is titled 'Leiden University Strategy' and describes the 2022-2027 strategic plan. It lists six strategic ambitions: Room for innovation, Pioneering interdisciplinary research and teaching, Future-proof student development, and three others. A right sidebar titled 'Innovating and Connecting' links to the strategic plan.

Leiden University | Students | Staff members | Organisational structure | Library

Universiteit Leiden | Search for subject or person | All categories | Nederlands | English

Research | Education | Academic staff | About us | Collaboration | Faculties | Campus The Hague | Alumni | Library

Home > About us > Profile > Leiden University Strategy

Leiden University Strategy

In our new strategic plan (Innovating and Connecting – 2022-2027) we focus on stronger connections: between disciplines, with society and within our university community.

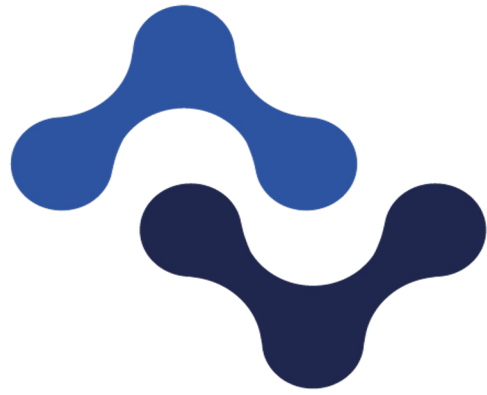
Our ambitions

To strengthen the connections between disciplines, between the University and society, and within our university community, we will work in the coming years on the following six strategic ambitions:

- Room for innovation**
Realising change and innovation requires space. To create this scarce space, we will take various measures to make the workload manageable and to provide more opportunities for our staff to pursue their ambitions.
- Pioneering interdisciplinary research and teaching**
We will maintain the high standard of our individual disciplines, and from this firm basis will inspire more interdisciplinary collaboration. We will ensure there is also space for independent and fundamental research within our interdisciplinary research.
- Future-proof student development**
Our vision on teaching and learning (Learning@LeidenUniversity 2017-2023) is based on inquiry-based learning so that students can develop within an enriching academic environment. We will increase our activities in the area of personal and professional development during and after their initial studies and encourage them to develop and reflect – a whole life long.
- Strengthening connections between disciplines**
- Strengthening connections with society**
- Strengthening connections within the university community**

Innovating and Connecting

See our new strategic plan here



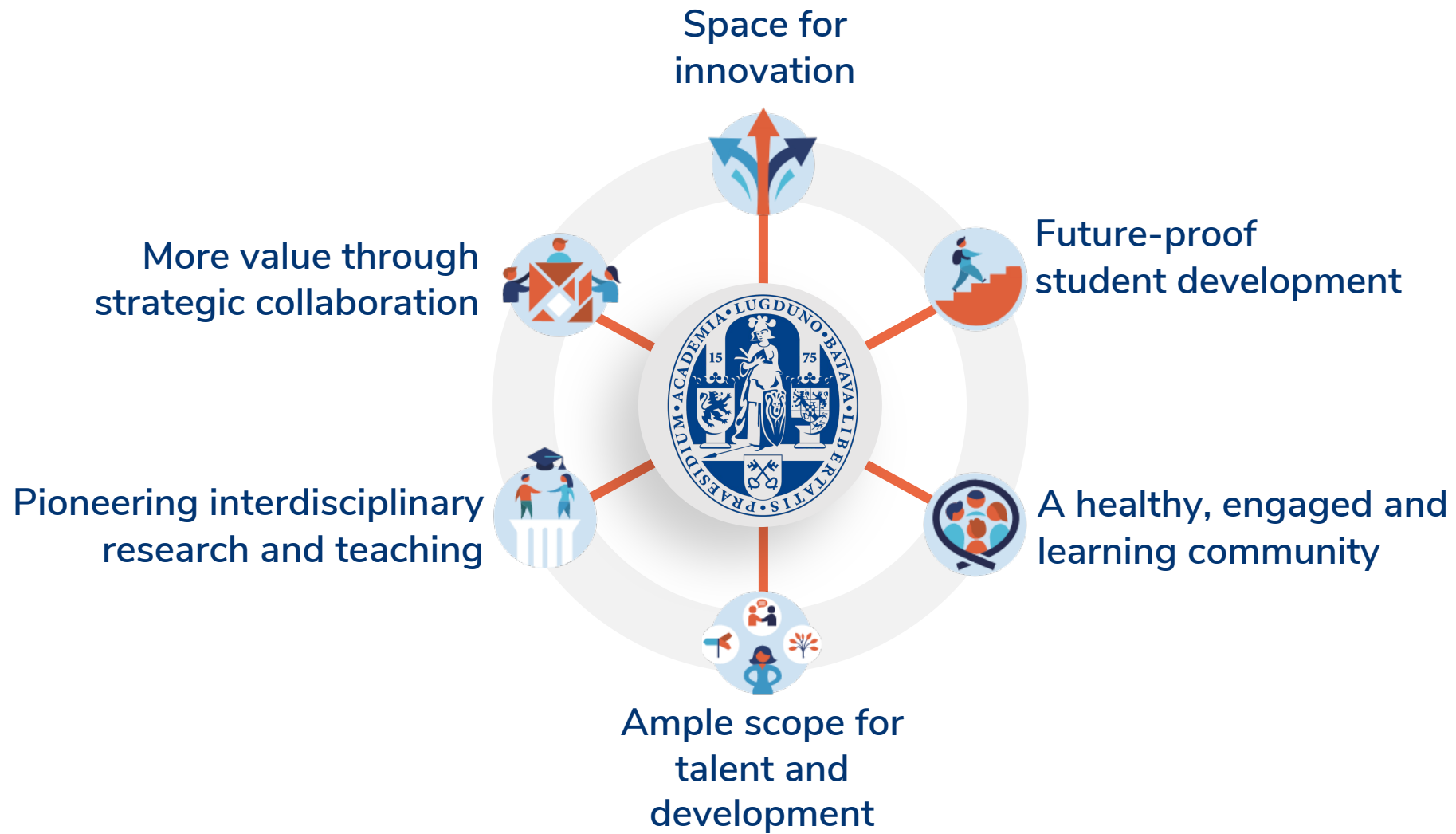
citizen science lab

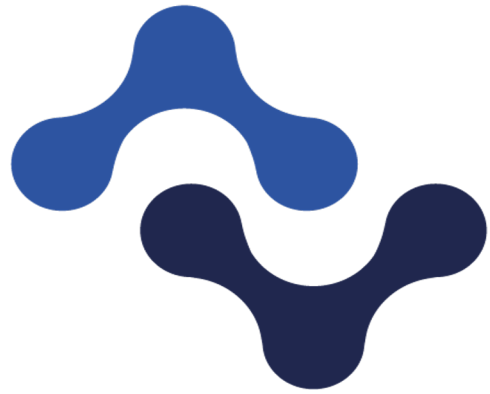
VISION

In **2025**, Leiden University is an *innovative* pioneer of *collaborative citizen science* initiatives that *connect* science and society in *transdisciplinary* research to address urgent scientific & societal challenges together.



citizen
science lab





**citizen
science lab**

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**citizen
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