



European City of Science Leiden2022

An analysis of how Leiden European City of Science 2022 contributed and contributes to bringing science and society closer together, fostering innovation and development of new research agendas, creating a sustainable label for European City of Science, and Leiden's establishment as a City of Knowledge.

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CIGARBOX



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Executive Summary

Every two years, EuroScience in Strasbourg awards the title of European City of Science to a new European city. For 2022, Leiden was awarded the title and set out to address four pathways towards impact, coordinated with the European Commission:

1. Bringing science and society closer together.
2. Fostering innovation and development of new research agendas by stimulating scientific exchange.
3. Creating an 'established' and sustainable label for European City of Science.
4. Establishing Leiden as a City of Knowledge.

About the programme

Leiden European City of Science 2022 embraced a new approach: a 365-day science festival of lectures, workshops, excursions, exhibitions, and events, *designed for anyone with a curious mind*.

Leiden was the first European city to offer a year-round science programme. It encompassed six main components: three targeted scientific offerings including the flagship EuroScience Open Forum (ESOF), the recurring European Union Contest for Young Scientists (EUCYS) and the inaugural edition of EU TalentOn for young scientists.

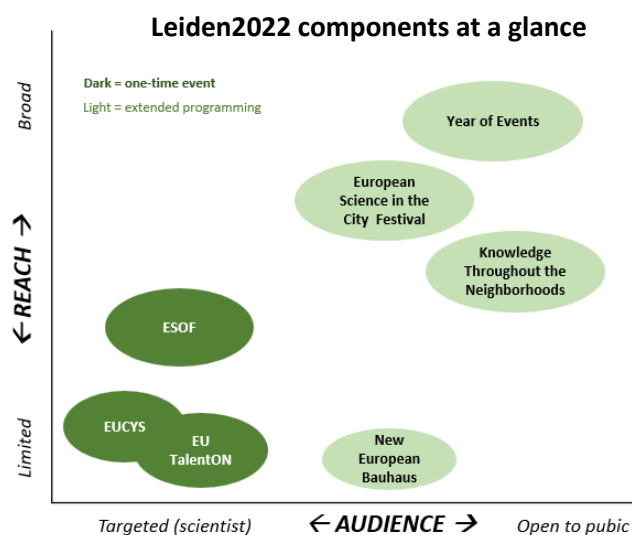
Programming for a broader audience included The European Science in the City Festival; Knowledge throughout the Neighbourhoods; and a year-round calendar of tangential activities, the Year of Events, including the New European Bauhaus programme.

During the year, Leiden European City of Science 2022 tallied between 400,000 and 500,000 engagements (visits, participants, or unique visitors) with guests – both local and visiting.

Findings and conclusions correspond to the four pathways outlined above.

Leiden European City of Science 2022 was successful in stimulating participating scientists and researchers to consider the intersection of their work and societal impact, as well as in engaging the public with the sciences.

ESOF, EUCYS, and EU TalentOn were successful in stimulating participating scientists and researchers to *think more about the societal impact of their work* and to *make more of a contribution to societal impact*. Though these outcomes were more pronounced in the younger audiences of EUCYS and EU TalentOn, which could reflect their impact-driven nature of the programming or possibly generational belief-systems, the more experienced participants of ESOF and scientific presenters in public programming also reported a shift in thinking around how their work intersects with society.



Leiden2022's model of public programming—as seen in Knowledge throughout the Neighbourhoods and European Science in the City Festival, for example—offers a best practice for stimulating personal interaction between the local public and its knowledge institutions and scientists. Elements of “meeting people where they are,” eschewing traditional scientific spaces, and encouraging playful formats and co-creation with local stakeholders resulted not only increased connections, but also in outcomes of increased appreciation for, interest in, and trust in the sciences.

The pan-European and interdisciplinary connections made via Leiden2022 lay the groundwork for future collaboration but provide no guarantee of future outcomes. There may be an opportunity to nurture young talent to future influence.

Leiden2022 brought together diverse European scientists and facilitated connections between peers in different countries and disciplines. These connections are a first step toward future collaboration on future innovation, publications, or agenda setting, for example.

Networking results were more pronounced in the “young scientist” audiences of EUYCS and EU TalentOn. Despite being small groups (in the area of 100 on-site participants), these motivated and talented participants may have outsized influence as future decision-makers and agenda-setters in European science, if European City of Science can help nurture the relationships launched via its platform.

Through its pilot of a full year of programming that connected the dots between multiple initiatives, Leiden2022 offers a model for an ‘established’ European City of Science label. Future host cities can build on Leiden2022’s thoughtful approach to sustainability.

Leiden2022's approach of a year-long festival benefited participating institutions in the form of new, different, and more customer engagement and resulted in positive economic results for the region, to the tune of €20+ million. By these measures, the Leiden2022 model of year-round programming, with novel elements of public outreach, appears to offer a best practice for an ‘established’ European City of Science model.

The audience and economic impact results demonstrated by Leiden2022 serve as advertisements for the European City of Science label, as do positive Net Promoter Scores (NPS) of participating scientists. If NPS, an indicator of goodwill/loyalty, can be extended from the specific events to the overarching label, it will have brand advocates across Europe.

Leiden2022 took Sustainable Development Goals (SDGs) into consideration during planning and in operational decisions and communicated these efforts to their audiences to build awareness. These efforts, though not moving the needle toward Sustainable Development Goals (SDGs) directly, can inform the approach of future host cities.

Leiden European City of Science 2022 contributed to Leiden’s reputation as a City of Knowledge by strengthening the bonds between the city and her knowledge institutions and showing by example how “science works alongside citizens.”

Leiden2022 led to stronger connections between the municipality and local knowledge institutions. By one measure, 73% of participating local businesses, museums, theatres, community centres and other local organizations “feel more connected to Leiden as a city of knowledge” as a result of Leiden2022.

Leiden2022 also resulted in partnering between local knowledge institutions: 89% of organisations affiliated with Leiden2022 collaborated with new partners during their participation.

Programming clearly supported “science alongside citizens,” as evidenced by thousands of touchpoints between citizens and scientists—in non-traditional, interactive and non-hierarchical ways—that came about through Leiden2022’s public programming.

Legacy for host-city Leiden and foundations for impact in European City of Science 2024

The learnings and conclusions above can help Leiden not only look back, but also continue to build a legacy from this once-in-a-lifetime investment for stakeholders and residents. It also offers food for thought for future title holders for European City of Science and other institutions and bodies who seek to connect science with society.

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Introduction

This report is an analysis of the results and impacts of Leiden European City of Science 2022, a 365-day science festival—lectures, workshops, excursions, exhibitions, and events—designed *for anyone with a curious mind*.

By nature of this scope—multiple investments, a long timeline, and diverse audiences—it can be a challenge to understand outcomes and return on impact investment. This document captures an attempt to do just that, in a digestible manner intended to help current and future stakeholders from diverse backgrounds to learn from this experience.

In the early stages of the festival, the organisers engaged Cigarbox, an independent research and advisory agency specialising in societal impact, to help plan for impact assessment. This report is the end deliverable of this engagement, and intends to:

1. Summarize the goals, design, and key stakeholders of Leiden European City of Science 2022;
2. Identify overarching learnings and insights from multiple data sources; and
3. Assess progress toward (impact) objectives.

Data sources

The report is largely based on visitor feedback collected by Cigarbox in partnerships with owners of different festival components. Data was also collected from publicly available sources and supplemented with information from Leiden&Partners, a city marketing organisation, and the four ‘founding’ institutions responsible for the festival.

For more information on sources, methodologies, and Cigarbox, please see the appendix.

How to read this document

Results are presented in four chapters, aligned with the festival’s core impact objectives, or *pathways*, created in coordination with the European Commission.

A final section of the report discusses the economic impacts on the host region.

These sections each conclude with a reflection on what the findings indicate about progress toward each pathway. The authors have proposed learnings and highlighted gaps and questions to explore via *food for thought* text boxes:



Leading questions and discussion starters have been included throughout the document as inspiration for Leiden2022 stakeholders as well as for future host cities and other bodies working to connect science and society.

European City of Science (ECS)

Ongoing science programme; every two years, EuroScience in Strasbourg awards the ECS title to a new European city.

Leiden European City of Science 2022

Full name of the 2022 ECS programme.

Leiden2022

Cooperation body of the four founding partners responsible for the planning and execution of Leiden European City of Science 2022: Municipality of Leiden, Leiden University, Leiden University Medical Center (LUMC) and University of Applied Sciences Leiden.

[Leiden2022](#) has also been used throughout this document as shorthand for [Leiden European City of Science 2022](#).

Progress trackers for Leiden2022’s event goals and evaluation criteria are included in the appendix, with indicators toward progress as could be estimated from the findings captured in this analysis.

Additional objectives and goals related to Leiden European City of Science 2022, such as those set by individual founding partners or organizers of a specific component, are out of scope for this analysis.

Programme overview: Leiden2022

Every two years, EuroScience in Strasbourg awards the title of European City of Science to a new European city. The title is awarded as part of Europe's largest biennial multidisciplinary science conference: the EuroScience Open Forum (ESOF). For 2022, Leiden was named the European City of Science and host of the 10th edition of ESOF.

Four founding partners, the Municipality of Leiden, Leiden University, Leiden University Medical Center (LUMC), and the University of Applied Sciences Leiden, came together as Leiden2022 in support of this initiative.

Pathways towards impact

Leiden European City of Science 2022 was designed to address four pathways towards impact, coordinated with the European Commission:

1. Bringing science and society closer together.
2. Stimulating scientific exchange.
3. Creating an 'established' and sustainable label for European City of Science.
4. Establishing Leiden as a City of Knowledge.

A short overview of each pathway is included at the beginning of each chapter.

Founding Partner Goals Leiden2022

As a complement to these main pathways, Leiden2022's four founding partners together defined an additional seven goals to guide the organisation and strategy of Leiden European City of Science 2022.

1. Allow citizens of Leiden and surrounding municipalities to experience the benefits of science, art, and knowledge as a frontrunner and European example.
2. Show the "richness" and diversity of the European scientific community.
3. Create long term sustainable local, regional, national, European, and international collaborations.
4. Profile Leiden as an international city of knowledge as a whole and promoting her individual scientific institutions separately on a regional, national, and international level.
5. Foster new talent and increasing the appeal of Leiden for students and researchers.
6. Leiden2022 will be organized in line with the Sustainable Development Goals and is determined to set an example for how such an event can be organized in a sustainable manner.
7. Promote an inclusive platform: science for and by everyone.

A new model for 2022

With the support of EuroScience and the European Commission, Leiden2022 adopted a new approach for the 2022 edition of European City of Science.

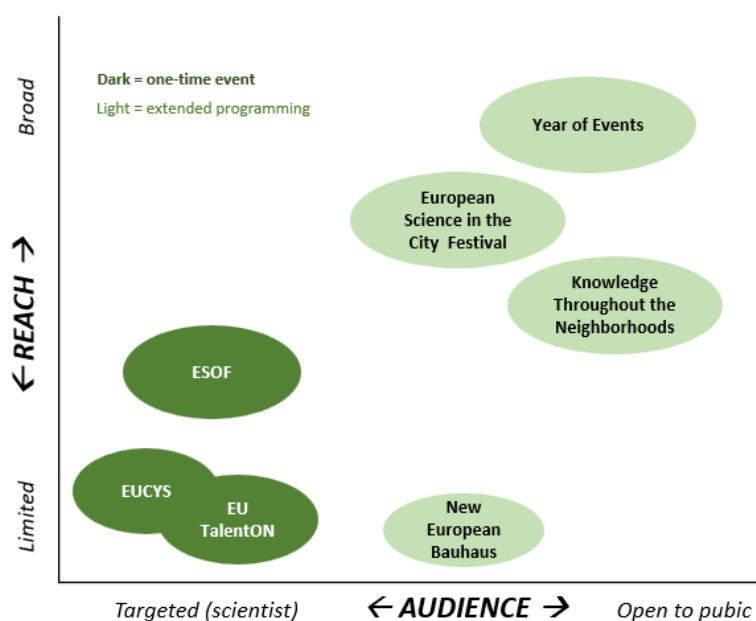
The 2022 edition set out to connect the dots between multiple scientific events, building on the flagship EuroScience Open Forum (ESOF) event for scientists. The new approach also included a pilot of a full year of public scientific programming, while experimenting with new models for public engagement to allow the citizens of Leiden to engage with the scientific community and to break down the barriers between community and academia.

The result: a 365-day science festival of lectures, workshops, excursions, exhibitions, and events, *designed for anyone with a curious mind*. The programme consisted of six components:

1. EuroScience Open Forum (ESOF),
2. European Union Contest for Young Scientists (EUCYS),
3. EU TalentOn,
4. The European Science in the City Festival,
5. Knowledge throughout the Neighbourhoods, and
6. a year-round calendar of tangential activities: Year of Events, including the New European Bauhaus programme.

Placing Leiden2022 components: reach and audience type

Chart is not to scale; for overview purposes only.



Each element is described here in brief; please see the appendix for a side-by-side comparison of features and key satisfaction results.

EuroScience Open Forum

EuroScience Open Forum (ESOF) is a recurring conference designed to offer the scientific community a platform for interdisciplinary and intersectional debate about scientific culture, scientific research, and innovation, for and with society. It has become the largest conference of its kind of the continent. The 2022 edition was a four-day conference with a theme of “Crossing Borders, Engaged Science, Resilient Societies”.

European Union Contest for Young Scientists

European Union Contest for Young Scientists (EUCYS) is an international competition for young scientists between the ages of 14 and 20, showcasing the “best of student scientific achievement from the European Union.” Each year, the event brings together promising, talented students and bright young minds to present their projects to a panel of international judges.

EU TalentOn

The inaugural edition of EU TalentOn, a competition for talented scientists between the ages of 21 and 35, was commissioned by the European Commission and developed and hosted by Leiden2022. The framework for the event was a science-hackathon centred on five EU Missions, facilitating young people in finding innovative solutions to problems in the world of today and tomorrow.

European Science in the City Festival

The European Science in the City Festival (ESCF) presented a month-long, festive programme for all curious minds. The programme included mobile exhibitions, art, pop-up museums, workshops, award ceremonies, music, and excursions and concluded with an open-air science festival during ESOF.

Knowledge throughout the Neighbourhoods

Knowledge throughout the Neighbourhoods encouraged local, bottom-up activities in the 101 neighbourhoods in and around Leiden, with the aim of sparking curiosity in the sciences in an approachable and playful way. Activities were organised by neighbourhood associations, residents, the education sector, or representatives of social organisations and had only two criteria for participating scientists. First, *step outside of your institution or place of work* and second, *no lectures*.

Tangential programmes and initiatives

Outside of the Leiden2022-facilitated activities introduced above, activities were organized in coordination with the Leiden2022 organization (Year of Events) or arose spontaneously from the local community (Community Bonus).

In addition, Leiden2022 was also partner of the New European Bauhaus Leiden; a future-oriented programme which focuses on culture, science, and society with the goal of “reenforcing and accelerating a sustainable transition, while integrating the interests of future generations.”

The following sections capture results and outcomes across all components, as they pertain to the four impact pathways described above.

The audience in numbers

The following chapters refer to *visits* and *visitors* who participated in Leiden2022; here we attempt to put these in context. During the year, Leiden European City of Science 2022 tallied between 400,000 and 500,000 engagements (visits, participants, or unique visitors) with guests – both local and visiting. This number is based on:

- Complete Leiden2022 and community programming (as shown in table below) was responsible for 300.000 to 350.000 *visits*.
- An additional 100.000 to 150.000 *visits* were tallied by Leiden-area museums (14 in total) also as net-increase due to European City of Science awareness and/or programming (see explanation below)
- Where unique visitor or participant numbers are known, they are captured below.

<i>Component</i>	<i>Scope</i>
EuroScience Open Forum (ESOF)	3.138 unique participants
European Union Contest for Young Scientists (EUCYS)	132 unique on-site competitors out of 65.000 participants
EU TalentOn	104 unique on-site competitors, 700+ participants overall
European Science in the City Festival (ESCF)	Approximately 95.000 visits
Knowledge throughout the Neighbourhoods	Approximately 10.000+ visits
Year of Events and Community Bonus	175.000 – 225.000 visits, based on 87 reported events
The New European Bauhaus Leiden	100 unique participants
Leiden museums (14, including science and crafts)	Approximately 100.000 – 150.000 related to Leiden2022

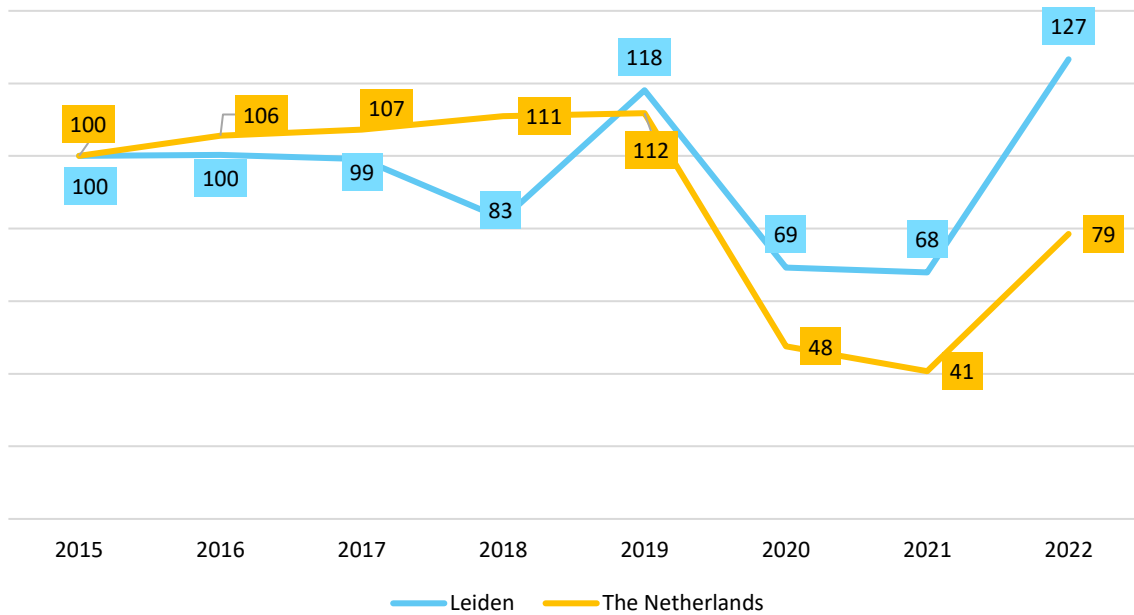
Leiden Museum visits

Leiden museums, specifically, counted a record breaking 1,3 million visits in 2022, 10% higher than pre-COVID numbers of 2019. This is particularly noteworthy in the context of a drop of 27% in visits for museums in the Netherlands overall, for the same timeframe,¹ as they struggle to get back to pre-COVID visitor numbers.

¹ The total number of museum visitors in 2022 in the Netherlands (23,8 million) is an estimate from the Museumvereniging, final numbers will be available in October 2023.

Index museum visits

Index total number of museum visits Leiden vs The Netherlands 2015 - 2022



If Leiden museums had followed the national trend (-27%), they would have seen 400,000 fewer visits in 2022 (closer to 850,000 instead of 1,3 million). It is important to note that though the overall outcome was very positive, not all of the 14 Leiden museums experienced this level of growth.

If we assume that at least some of this bump (400,000 more visits than expected) is due to a Leiden2022 halo effect or special European City of Science programming we could say (conservatively at 25%), that the museums have 100,000 net-new visits thanks to Leiden2022. A more aggressive estimate (37%) would indicate a bump of 150,000 visits due to Leiden2022.

Pathway 1: Bringing science and society closer together

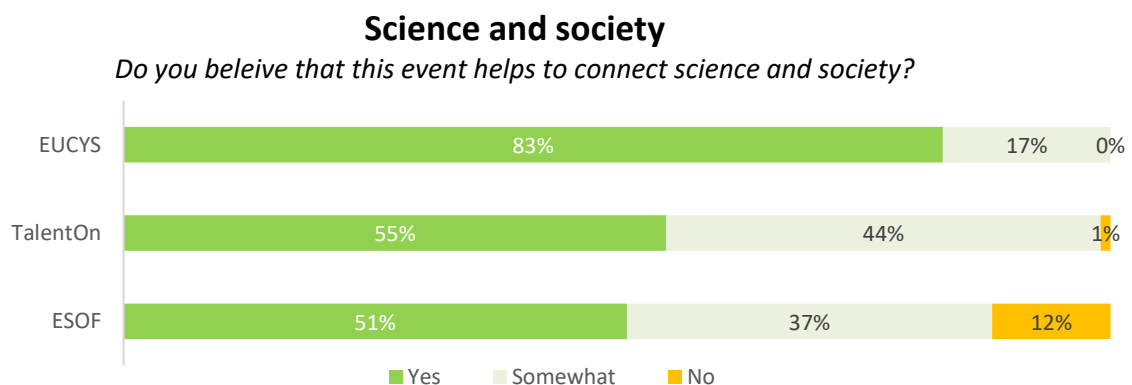
European Commission/Leiden2022 pathway 1 centres on the idea of “including citizens, enhancing dialogue and exchange on science and its role in society.” Practically, that translates to “engaging smart scientists who are curious about societal issues and critical citizens wondering what science means to them.” The pathway references, among other things: personal meetings between citizens and scientists, reinforcing and empowering local and regional civic and scientific ecosystems, and experiential knowledge.

The first part of this chapter (1.1) considers the scientists’ perspective in addressing societal challenges. The second part of the chapter (1.2) considers the flipside; bringing individual members of society in closer contact with science.

1.1 Engaging scientists in societal challenges

Participants in the three events for a scientific/research audience, EuroScience Open Forum (ESOF), European Union Contest for Young Scientists (EUCYS), and EU TalentOn, share a perception that their event helps connect science and society. This perception is held most strongly by the youngest participants (EUCYS) and least by the most experienced audience (ESOF).

EUCYS and EU TalentOn programmes had a clear focus on societal challenges, which resonated in the participants’ perception of the event in terms of connecting science and society.

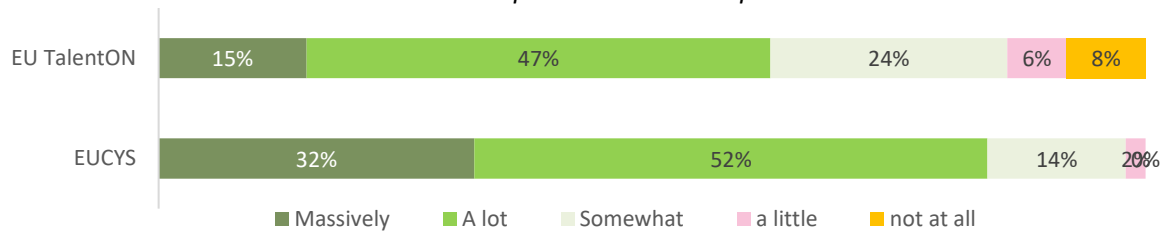


How can this success – belief in value of the event in connecting science and society - be translated from a specific event to the overarching European City of Science label? Is there an existing benchmark for this belief with regards to European City of Science?

EU TalentOn and EUCYS participants reported that the events *inspired contributions to positive societal impact* “massively” or “a lot” (62% and 84%, respectively).

Impact accelerator (EU TalentOn, EUCYS)

To what extent did your participation inspire you / your future career to make a contribution to positive societal impact?

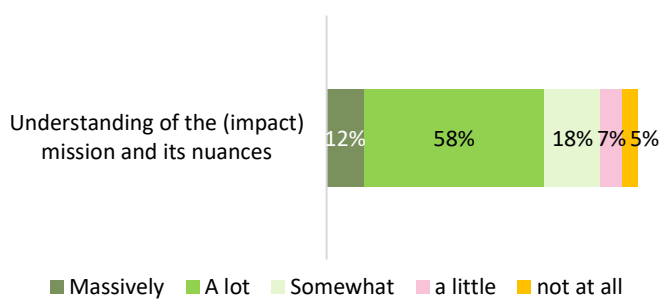


Consider possibilities to create a ‘ripple effect’ from these results. How to support scaling the connection to societal impact experienced by these scientific participants to their home community and broader networks after leaving the European City of Science ‘bubble’?

More than three-quarters of EU TalentOn participants reported a deeper understanding of their mission (a societal challenge) more fully after participating, and nearly 60% plan to continue working on their project.

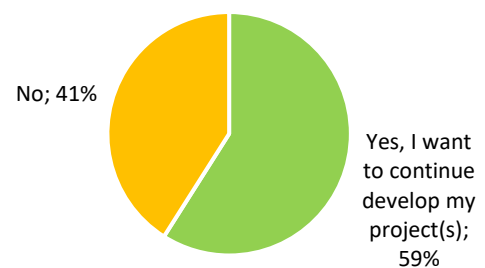
Understanding societal challenges (EU TalentOn)

To what extent did your team and project develop with regards to...



Commitment to projects (EU TalentOn)

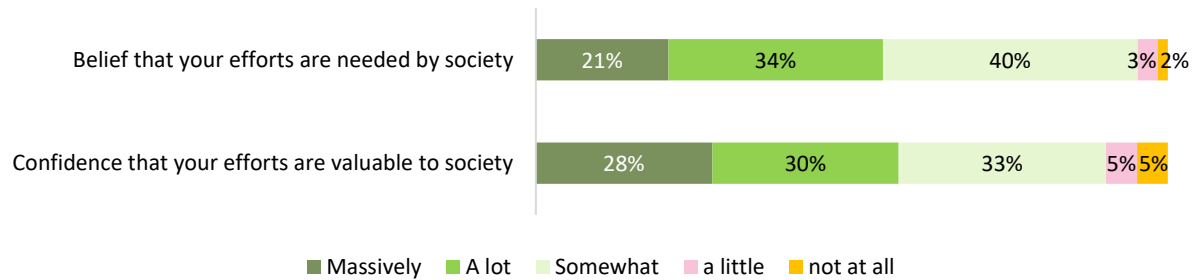
Do you plan to continue to develop your project(s)?



What is behind the 12% of EU TalentOn participants who left the event with only “a little” or “not at all” deeper understanding of the impact mission and its nuances. An understanding of this foundational roadblock could help fix this issue and perhaps lift other outcomes.

In the case of EU TalentOn, there was also a shift in feelings of personal ability and responsibility toward society: 58% of the participants felt their participation “Massively” or “A lot” increased *confidence that your efforts are valuable to society*.

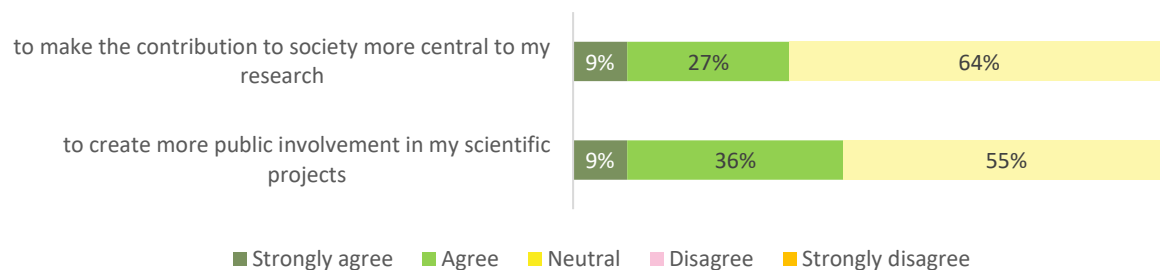
Impact activator (EU TalentOn)
To what extent did your participation develop



Scientists who led neighbourhood activities experienced a *moderate positive* shift about how that experienced influenced their thinking about their work and its intersection with society. More than one-third of ‘presenting’ scientists and researchers were encouraged to *create more public involvement in their scientific projects* (45% “Strongly agree” or “Agree”) and to *make the contribution to society more central in their research* (36%).

Connecting science and society (scientists who led neighbourhood activities)

By my contribution to the activity I have been encouraged...



Conclusions: Pathway 1.1

Did Leiden2022 facilitate the connection between scientists and societal challenges?

A majority of participants from Leiden2022’s three main scientific events—ESOF, EUCYS, and EU TalentOn—believe their respective event helps to connect science and society.

These three events were successful in stimulating participating scientists and researchers, from teenagers to experienced professionals, to think more about the societal impact of their work and to make more of a contribution to societal impact.



Is practical engagement and/or connecting to 'society' relevant or helpful for all scientists and researchers? Perhaps 100% is not the target.

How can Leiden2022 understand if these shifts will translate to changes in work and outcomes?

These outcomes were more pronounced in the more impact-driven events with younger audiences (EUCYS and EU TalentOn), which may reflect those events' structure around very specific societal themes or challenges, for example programming focused on specific EU Missions.



These shifts in thinking about, and increased interest in, connecting scientific work to societal challenges are limited to the finite group of participants, and the young scientists events were small-scale. How can organisers scale these results?

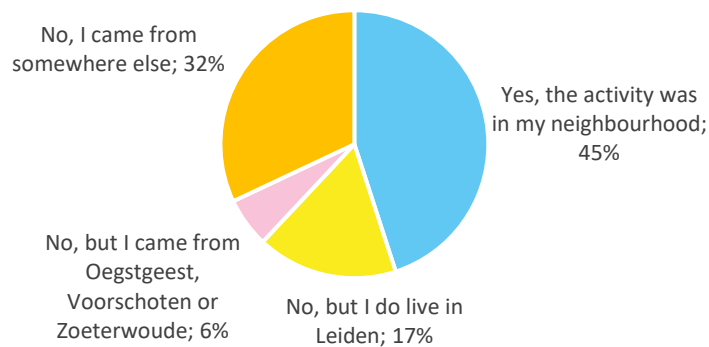
1.2 Bringing society in contact with science

Knowledge throughout the Neighbourhoods and European Science in the City Festival were designed for the local and visiting public. Other activities for Leiden citizens and the public included Year of Events activities as well as extras that developed organically, considered “Community Bonus.”

Forty-five per cent of Knowledge throughout the Neighbourhoods visitors attended within walking distance of their home and 23% from elsewhere in Leiden or neighbouring town or village. Local presence led to local participation.

Proximity (Knowledge throughout the Neighbourhoods)

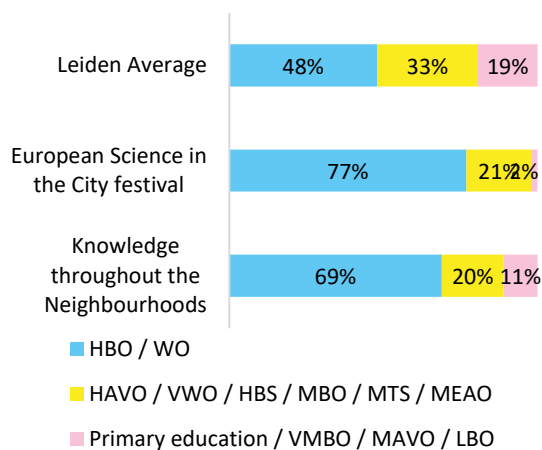
Do you live close (walking distance) to the (science) activity you attended?



As with many scientific events, overall participation skewed to the more highly educated, with a majority of post-secondary educations (HBO/WO) in the participant group. For Leiden2022 public programmes, however, the range of education backgrounds tracked roughly to Leiden’s own demographic², as did age.

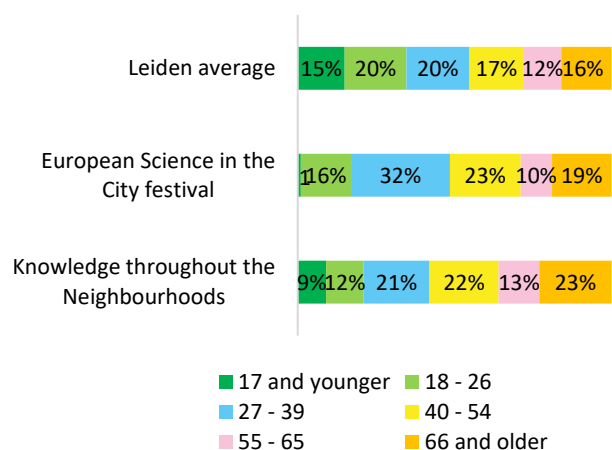
Level of Education

What is your highest level of education?



Age per event

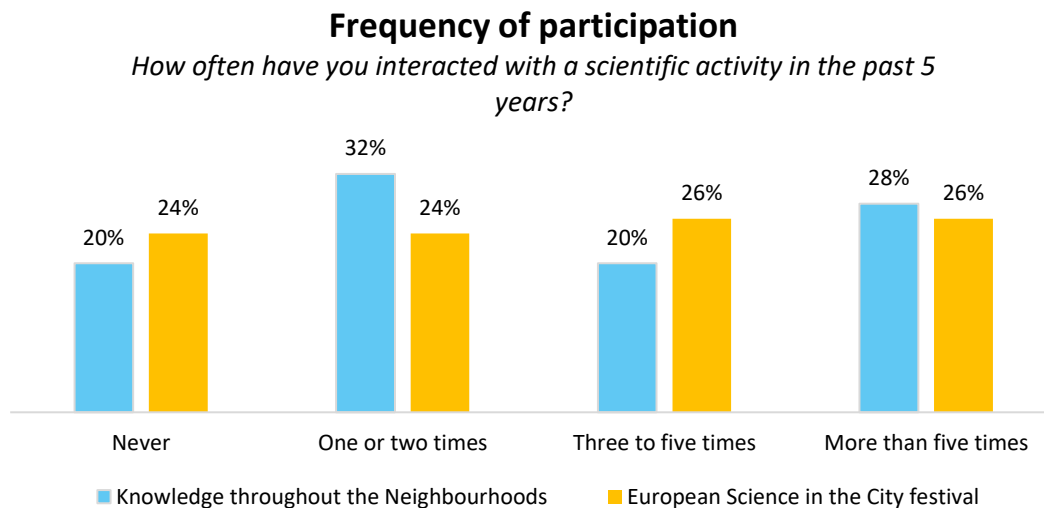
How old are you?



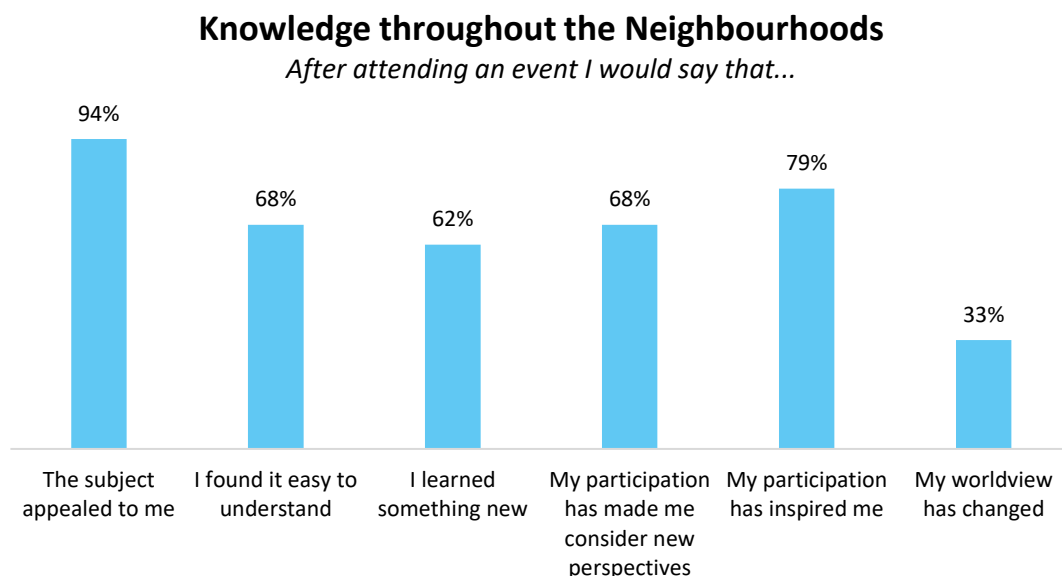
² It should be noted that the higher-educated populations may be over-represented. The research method (a 7-minute, written survey) can form a barrier people with lower literacy rates.

One-fifth (20%) of Knowledge throughout the Neighbourhoods and 24% of European Science in the City Festival participants were attending a scientific activity for the first time in at least five years.

Thirty-two per cent and 24%, respectively, had only attended something similar one or two times in the last five years. These percentages of “new to the genre” participants are in a range similar to benchmarks for cultural events, for example attendees new to the genre at literary festivals (31%) or classical music festivals (22%)³.



Across the board, Knowledge throughout the Neighbourhoods participants appeared to have experienced the programme as intended (approachable, playful). For example, 94% of participants found the subject matter appealing and 68% indicated that the event was easy to understand. Seventy-nine per cent walked away feeling inspired.

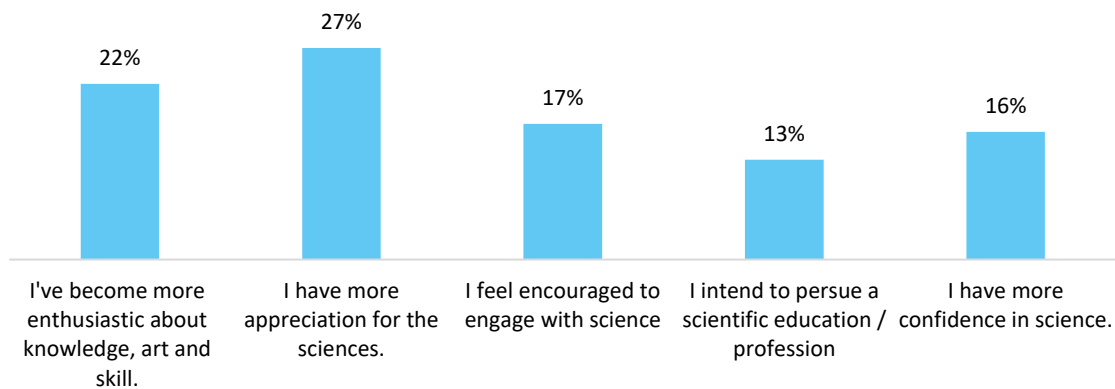


³ Benchmark data Cigarbox of approximately 20 classical music and literary festivals

This engagement appears to have translated to positive outcomes, in some cases, as well. Participants reported *more appreciation for the sciences* (27%) as well as feeling *encouraged to engage with the sciences* (17%) and *confidence in science* (16%).

Science and the Local Community (KttN, ESCF)

Due to my participation in this event...



Those who were further away from science to start with may have more opportunity to benefit. As an example, more than half of Knowledge throughout the Neighbourhoods participants who were (re-)connecting with science after at least five years reported *increased confidence in science* (55%) compared to the average of 17%.

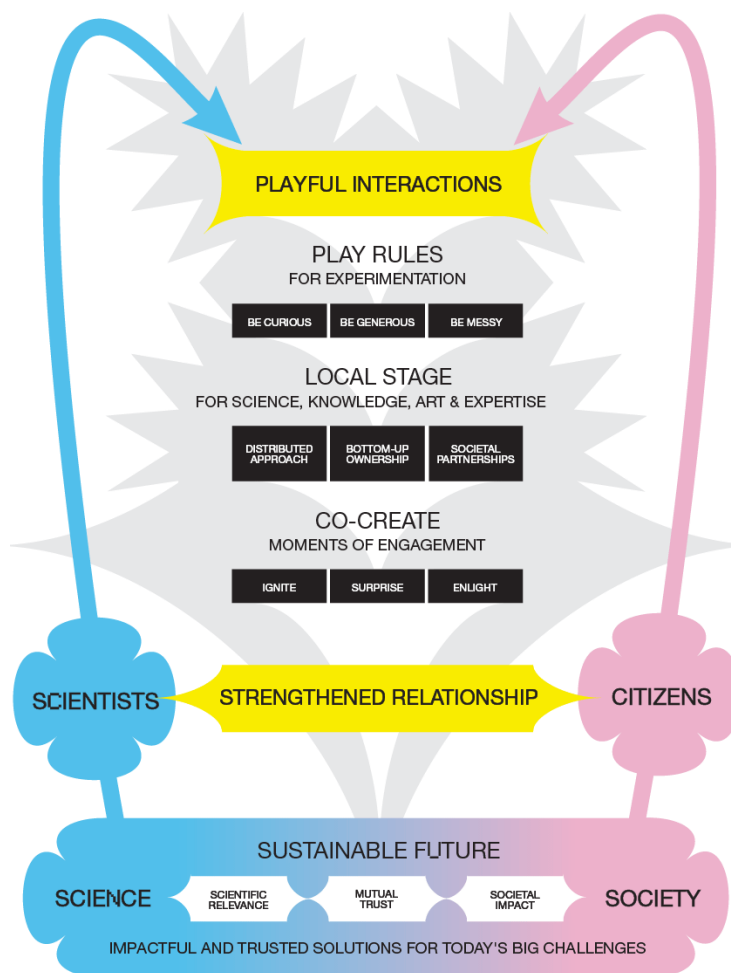


Is there a takeaway for European City of Science / EU around this model of engagement and the hot topic of trust in science (surrounding COVID, for example)?

Conclusions: Pathway 1.2

Did Leiden2022 help the public connect with, appreciate, and better understand the sciences?

Leiden2022's model of public programming (see graphic) resulted in personal interaction between the local public and its knowledge institutions and scientists. Elements of "meeting people where they are (in the neighbourhood)," eschewing traditional scientific spaces, and encouraging playful formats and co-creation with local stakeholders can be seen as best practices for further development.



Leiden2022's public programmes—Knowledge throughout the Neighbourhoods and European Science in the City Festival, for example—were successful in connecting with the local community, with representative demographics in location, education, and age.

The majority of these 'representative' audiences experienced their participation very positively; this translated, for a smaller percentage of the audience, to outcomes of increased confidence, appreciation, or interest in the sciences.



How can the European Union and European Research Area Policy Agenda use the Leiden2022 model to support public engagement practices?

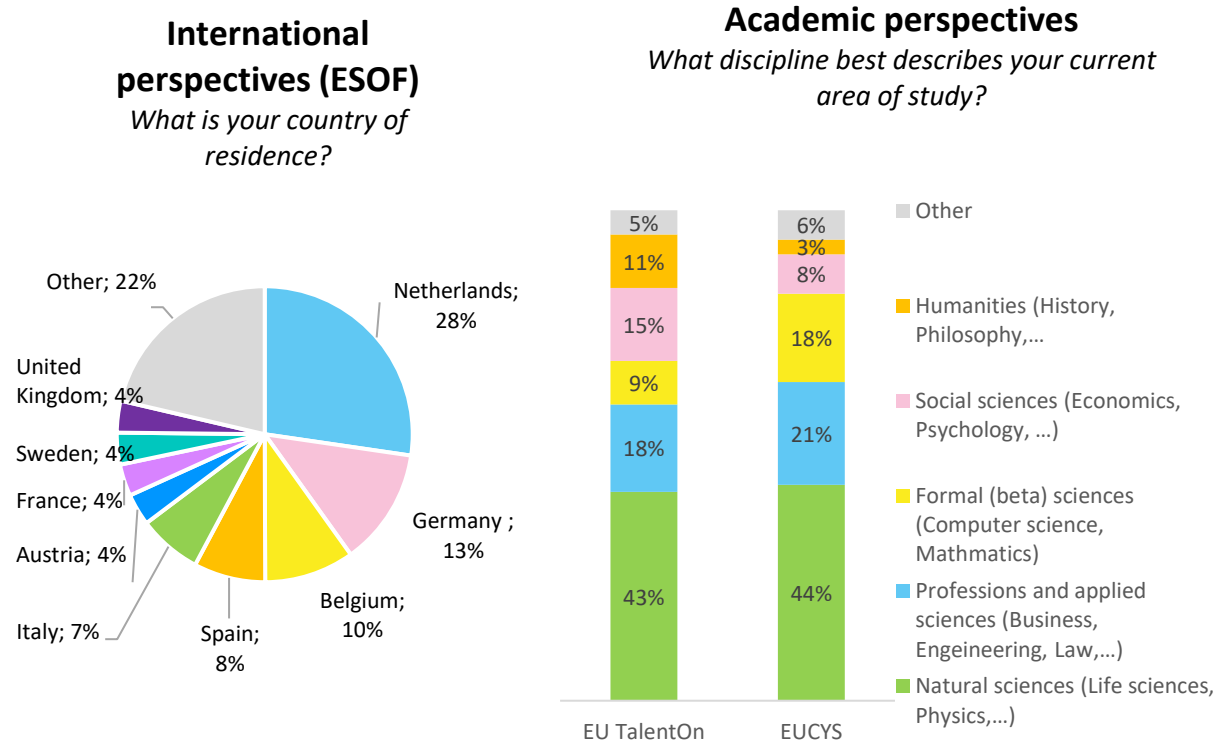
Pathway 2: Stimulating scientific exchange

European Commission/Leiden2022 pathway 2 centres on Leiden2022 as a source of inspiration for scientific discovery and innovation. The focus is on knowledge exchange within the European research and innovation community, via, for example, multi-disciplinary debates, with the intent of influencing research topics, new discoveries, publications, and innovations.

Diversity of scientists and researchers

EuroScience Open Forum (ESOF), excluding the naturally high representation from the host country of the Netherlands, saw representation from western, northern, and southern Europe, as shown below. Though the “other” category included a long tail of total 87 countries, representation from eastern Europe was shallow.

EU TalentOn and European Union Contest for Young Scientists (EUCYS) attracted distributed backgrounds and disciplines, with the natural sciences in the majority.

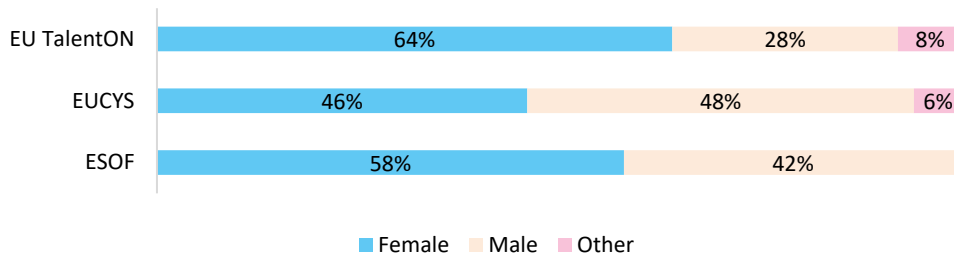


26% of Dutch students study Natural Sciences (DUO), this contrasts with the 43% and 44%, respectively, participating in EUCYS and EU TalentOn. Is there an opportunity to engage differently with disciplines, aligning more with the complexity of current societal transitions?

As the chart below illustrates, a significant percent of respondents from the scientist-audience events identified as female.⁴

Gender per event

With which gender do you most identify?



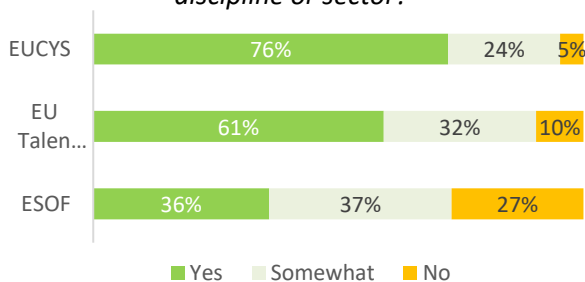
The results on participation by gender contrasts with Dutch academia, where 22% of professors and 44% of PhD students are female (VSNU) as well as global trends that skew toward men in research and science.

Connections and project support

Participating scientists made connections to collaborate across borders and disciplines.⁵ The youngest participants (EUCYS) experienced extremely positive increases in their networks; ESOF the least. Despite having the lowest result, ESOF attendees were positive (73% “Yes” or “Somewhat” increased network geographically; 69% “Yes” or “Somewhat” increased network across disciplines).

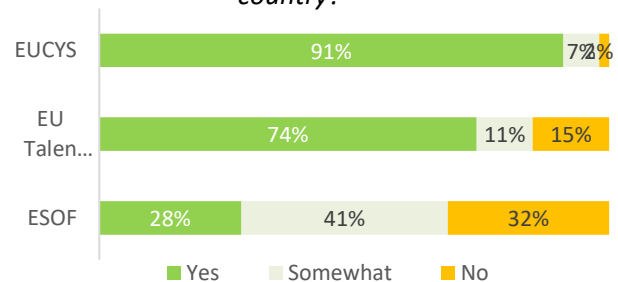
X - discipline

Did your attendance strengthen your scientific network outside of your own discipline or sector?



X - country

Did your attendance strengthen your scientific network outside of your country?



⁴ There is evidence that females are more likely to complete surveys, in general. To confirm this finding, Leiden2022 can do an analysis of registration data, where gender information may have been collected for the actual audiences.

⁵ The data for these charts was collected in slightly different wording for ESOF and EU TalentOn/EUCYS; for the purposes of this overview, we made a connection between the two. Exact results can be found in the respective event analyses.



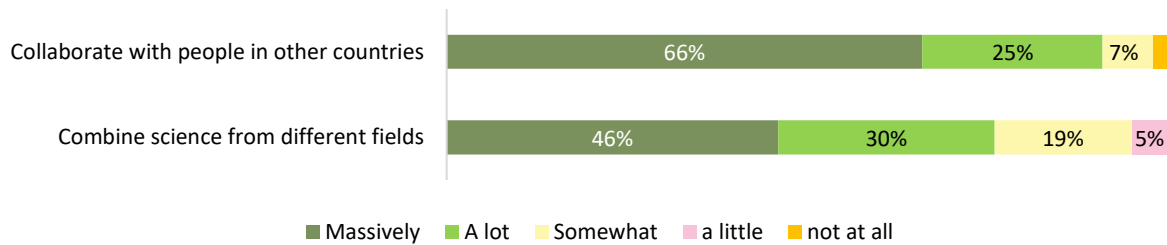
Lower percentages from ESOF may reflect the nature of the events (intensive interactions such as the team activities at EUCYS can amplify connections), facilities (ESOF feedback suggested opportunity for improved networking), or the higher expectations of ESOF’s more experienced audience.

In addition to the connections established above, EUCYS participants were also inspired to make use of them: to *collaborate internationally* (91%) and *combine science from other fields* (76%).

Contestant (18) at EUCYS: “[My favourite memory from EUCYS 2022 is] meeting other contestant of many other countries and learn about their works.”

Exchange Accelerator (EUCYS)

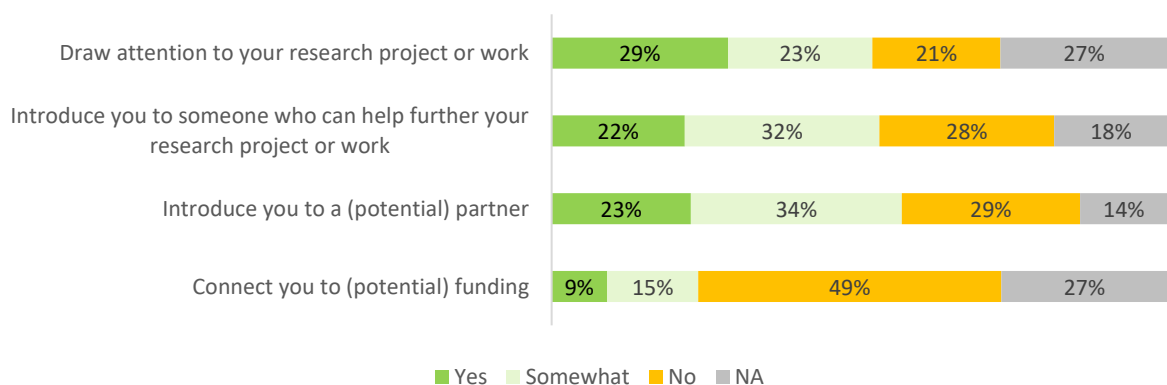
To what extent did your participation inspire you / your future career to...



Results for ESOF participants included *Draw attention for a research project or work* (52% responded “Yes” or “Somewhat”), a *needed support contact* (54%) or *potential partner* (57%) or *connections to (potential) funding* (24%). Overall, these results are slightly lower than more commercial oriented conferences⁶ in the creative / technological industry and align with a theme of networking improvement opportunities in participant verbatim.

Moving science forward (ESOF)

Did your attendance...



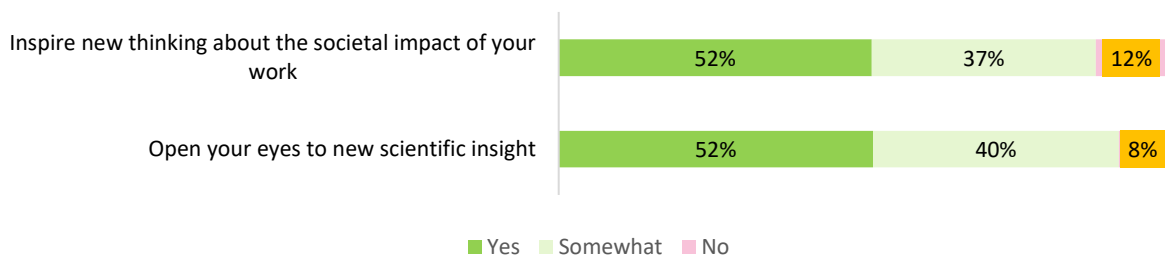
⁶ Cigarbox benchmarks based on analysis for approximately 10 conferences in the technological and creative industry

As shown in the green sections of the table below, a majority of ESOF participants reported that the event both *inspired new thinking about the societal impact of their work* (89% of participants reported “Yes” or “Somewhat”) and *opened their eyes to new scientific insight* (92%).

Student / PhD-candidate (29) at ESOF: “The speakers on the panel all contributed valuable insights and shed light on the intricacies of this complex [heritage] topic.”

New thinking on science and impact (ESOF)

To what extent did your participation...



Conclusions: Pathway 2:

Was Leiden2022 successful in stimulating scientific exchange to support innovation and the development of new research agendas?

Leiden2022 brought together European scientists with different perspectives (as indicated by age, gender, nationality, and discipline diversity). Via their participation in ESOF, EUCYS and EU TalentOn, these scientific participants had their “eyes opened to new insight” and made connections with peers in different countries and disciplines.

In facilitating these connections, Leiden2022 laid the groundwork for future collaboration. Whether this comes to fruition in the form of new research agendas, discoveries, publications, and innovation is unclear due to a much longer horizon and indirect progression toward these outcomes.



How will Leiden2022 and future editions of European City of Science follow the development of these connections to (potential) future results?

What programme offerings could help ‘steer’ toward future outcomes, such as funding to support initiatives sparked during European City of Science?

The networking results were more pronounced in the “young scientist” audiences of EUYCS and EU TalentOn. These are small groups (in the area of 100 on-site participants), but as these motivated and talented young scientists develop into decision-makers and influencers, the connections made at European City of Science could have outsized influence in future.



How can European City of Science help to nurture the relationships launched via its platform?

How can future hosting bodies maximize connections for experienced researchers and scientists (ESOF), who are current influencers? Is there an opportunity to use the “brainpower in the room,” of assembled scientists and researchers to influence research agendas directly?

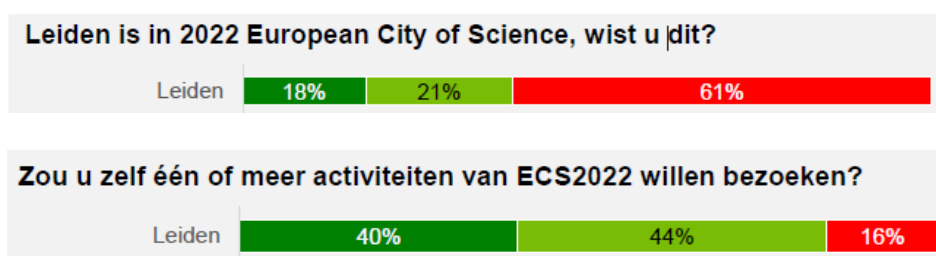
Pathway 3: An ‘established’ and sustainable label for European City of Science

European Commission/Leiden2022 pathway 3 centres on supporting recognition of the European City of Science label for future. The established element focuses on extending the programme to a year of activities to become a model for future editions (establishing the label). The sustainable element references a “future proof concept,” and “including sustainable and green measures as much as possible” into the label.

Awareness and engagement of local community

There are indications that the Leiden community—individuals and institutions—had an appreciation for the European City of Science label in the early phases of planning.

In advance of the festival’s launch, though 61% of Leiden’s residents were not aware of Leiden’s title as upcoming European City of Science host, 84% expressed an interest/intention to participate (Source: Stads- en wijkenquête Leiden 2021, September 2021).



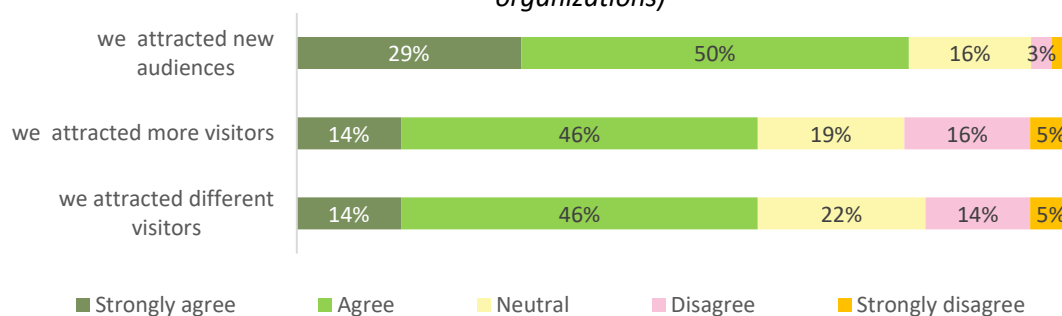
A diverse group of local institutions put resources and energy in to planning an impressive number of scientific-themed events⁷ as part of Leiden European City of Science 2022. A sample of these were captured in 87 responses to a survey of organisers; this sample of 87 activities alone accounted for somewhere between 175.000 – 225.000 visits/interactions (Source: Year of Events survey).

Effect on engagement from association with European City of Science

The interest of these local institutions appears to have paid off. Theatres, museums, businesses, scientific institutions, and other organizations not officially affiliated with Leiden2022 reported attracting new (79%), larger (60%) and different (60%) audiences.

Engagement in Leiden2022 and attracting visitors

Due to our contribution to Leiden2022 ... (local cultural and social organizations)



⁷ These are only events registered with festival organisers; the actual number is likely higher.

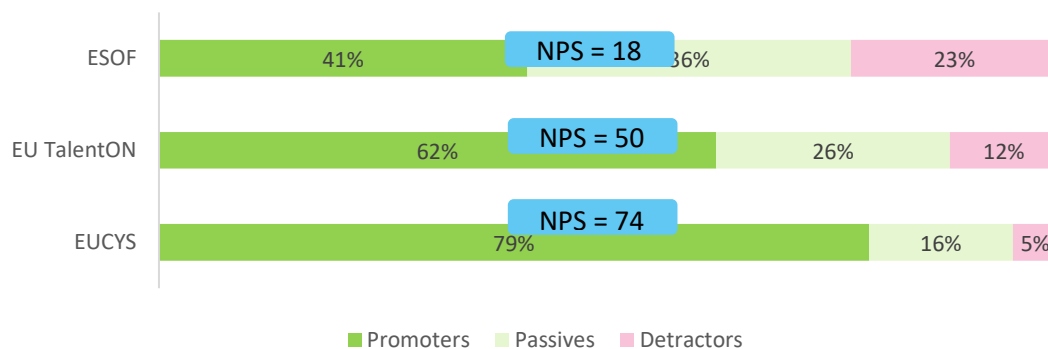


How can the involved Leiden institutions retain these new connections, and how to stimulate making science a permanent part of the programming?

Visitor/customer engagement with European City of Science components

Some components of Leiden2022 received very positive Net Promoter Scores (NPS)⁸, a model that is often used as an indicator for growth, customer engagement, and loyalty. Very high scores for EU TalentOn (50) and EUCYS (74) surpassed an industry-agnostic benchmark of 40 for a very positive result. This indicates that European City of Science has an existing, though latent, network of advocates, if the connection can be made between these specific events and the overarching label.

Net Promoter Score per event
NPS per event based upon overall experience



How to unite 'ambassadors' to elevate not just ESOF or other event, but the European City of Science label. Are there ways to reconnect with ambassadors from previous editions, to tap into possibly dormant brand ambassadors?

⁸ The Net Promoter Score (NPS) is an index ranging from -100 to 100 that measures the willingness of visitors or customers to recommend, in this case a location or event, to others. NPS is determined by subtracting the percentage of customers who are detractors ('Detractors' gave a score lower or equal to 6 on a scale of 1 to 10) from the percentage who are promoters (answered 9 or 10 on a scale of 1 to 10).

Sustainability

Leiden2022 kept Sustainable Development Goals (SDGs) top of mind in developing the programme and supporting activities around it.

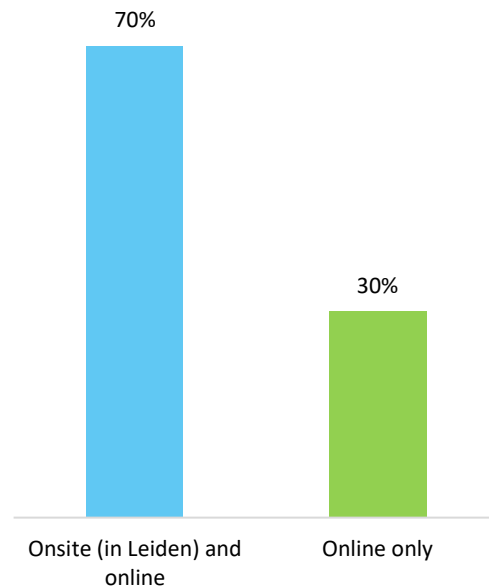
For the first time, ESOF was offered as a hybrid event and 30% of attendees joined the programme exclusively online, allowing for scaling and extension of reach without an equivalent increase in emissions.

Organisers considered responsible consumption and production in planning, which resulted in operational decisions such as digital programs, a sustainable local transportation plan (walk!), vegan catering and stimulating attendees to travel by train.

Resulting reductions in emissions were not captured explicitly, but EUCYS and EU TalentOn tracked participant awareness and appreciation for their efforts. Participants most appreciated organisers efforts to encourage walking, followed closely by communications about train travel. Reactions to catering changes were mixed (not shown).

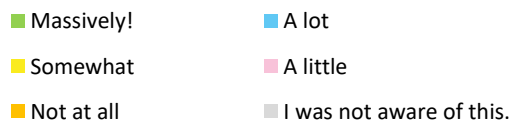
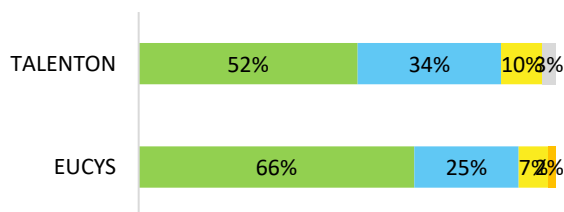
Online Participation

Did you participate in ESOF onsite or online only?



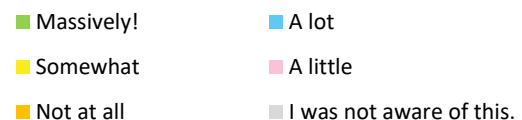
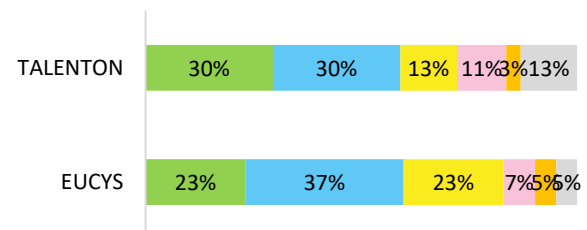
Local Transportation

Did you appreciate the organisation's efforts to minimize impact on the environment by planning all activities within walking distance and scheduling enough time for walking?



Train Encouragement

Did you appreciate the organisation's efforts to minimize impact on the environment by encouraging teams to travel by train?



Does European City of Science have a direct role in addressing Sustainable Development Goals? Or does European City of Science contribute most effectively in an indirect manner, by supporting scientists and researchers in their SDG-related efforts (for example via themed programming or extra match-making support for projects with SDG relevance)

Conclusions: Pathway 3:

Was progress made toward an established and sustainable label for the European City of Science?

Leiden2022's approach of a year-long festival appears to have 'extended the season' for the European City of Science. This extension benefited participating institutions in the form of new, different, and more customer engagement and resulted in positive economic results for the region, to the tune of €20+ million, as outlined in the Economic Impact section of this report.

By these measures, the Leiden2022 model of year-round programming appears to offer a best practice for an 'established' European City of Science model.

At the same time, these positive outcomes (engagement and economic impact) are advertisements for the European City of Science label, attracting the interest of future hosts.



In which audiences must the European City of Science label resonate? For municipalities? For scientific institutions? For the public? Setting a strategy for building a label should follow the aspiration.

The Net Promoter Scores (NPS) of participating scientists, particularly from the younger set, were very positive, indications of goodwill and loyalty toward their event. These attendees are likely to be advocates and (future) influencers in the scientific community.



How can European City of Science transfer the positive NPS from component events (ESOF, EUCYS, EU TalentOn) to the European City of Science label, and convert it to active advocacy across Europe?

Around the world, conference organisers and event bodies are seeking ways to increase sustainability, by nature a challenge in the event sector. Leiden2022 took Sustainable Development Goals (SDGs) in to considering during planning phases, made operational decisions in support of a sustainable event, and communicated these efforts to their audiences to build awareness.

These efforts, though not moving the needle toward Sustainable Development Goals (SDGs) directly, increased awareness of SDG-themes in their audiences and provide a foundation upon which future hosts can build.



How can European City of Science lean in on specific SDGs via programming? To what extent can best practices for sustainability in events be drawn from external bodies?

Can Leiden2022 assess emissions from their programming, offering a benchmark for future editions?

Pathway 4: Establishing Leiden as a City of Knowledge

European Commission/Leiden2022 pathway 4 has two branches. The first concentrates on how Leiden2022 can amplify/support the ongoing effort to strengthen collaborations between knowledge institutions and the municipality and show Leiden residents the great value of their knowledge institutions. The second is to create a city where “science alongside citizens” is the norm; Leiden2022 is a test environment for new ways to work toward this goal.

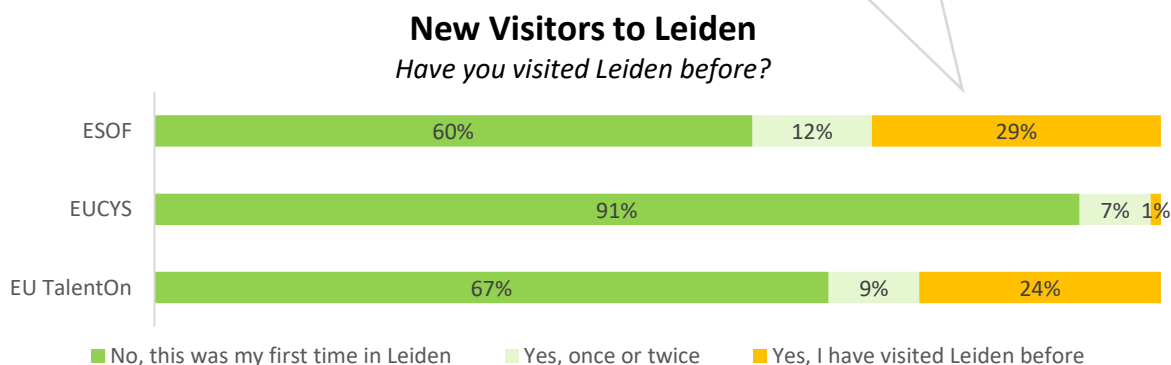
Public engagement with European City of Science activities

During the year, Leiden European City of Science 2022 tallied between 400,000 and 500,000 engagements (visits, participants, or unique visitors) with guests – both local and visiting. See Audience in numbers section, above.

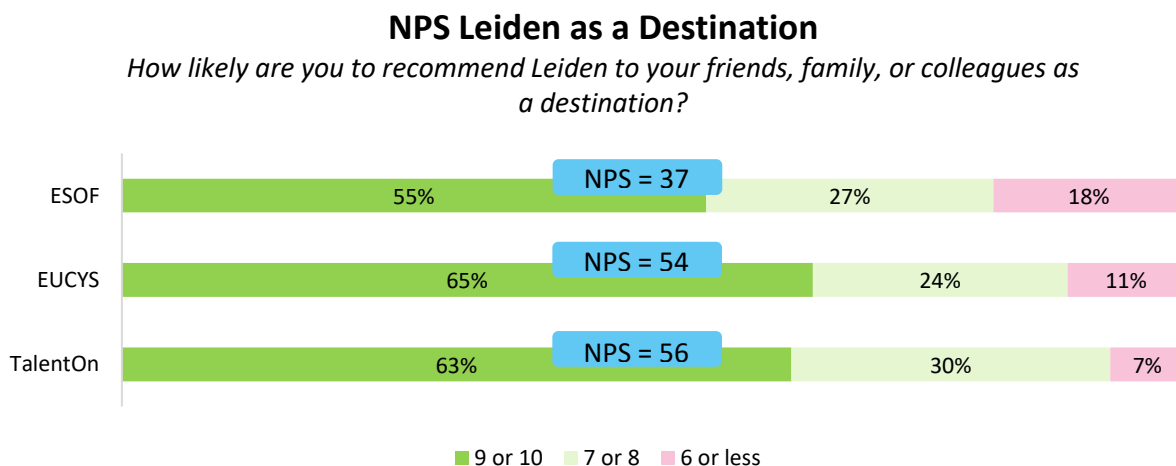
Impressions of Leiden and Leiden perceptions

Many of the scientific/professional visitors were visiting Leiden for the first time. In the case of European Union Contest for Young Scientists (EUCYS), that number was 98%.

Contestant (19) at EUCYS: “It was amazing to dance around Leiden while learning about its culture and history.”



Attendees of these events had very high Net Promotor Scores (NPS) for Leiden, indicating that they are likely to recommend Leiden to their friends, family, or colleagues as a destination.

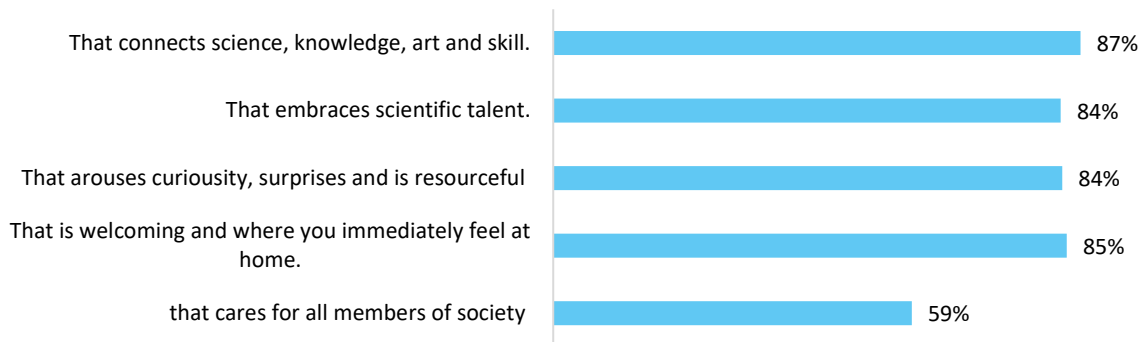


Attendees of each of the events reported similar perceptions of Leiden, in line with the host's aspirations to be seen as a city that *connects science, knowledge, art and skill* (87%), *embraces scientific talent* (84%), *arouses curiosity, surprises and is resourceful* (84%), and is *welcoming* (85%).

The lowest scoring brand perception for Leiden was the statement that *Leiden is a city that cares for all members of society* (59%).

Perception of Leiden (all events)

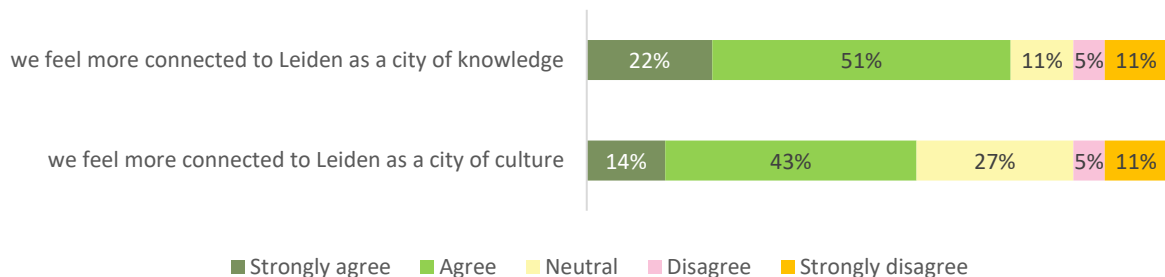
Percentage of visitors who agreed with the statements that Leiden is a city...



Participating local businesses, museums, theatres, community centres and other local organizations feel more *connected to Leiden as a city of knowledge* (73% "Agree" or "Strongly agree") than to *Leiden as a city of culture* (57%).

Connecting organisations to Leiden as a city of knowledge and culture

Due to our contribution to Leiden2022...



The stronger agreement with the statement of 'knowledge' versus 'culture' may reflect the themes and content the participating organisations dealt with during their participation (science and knowledge vs. art and culture).

Day-owner at Photography meets Science and the City (72): "The symposium was a great success (...), all organized by the LAFV, the Fotobond and Leiden University. As far as I'm concerned, a textbook example of how science (...) and the city (...) can work together."

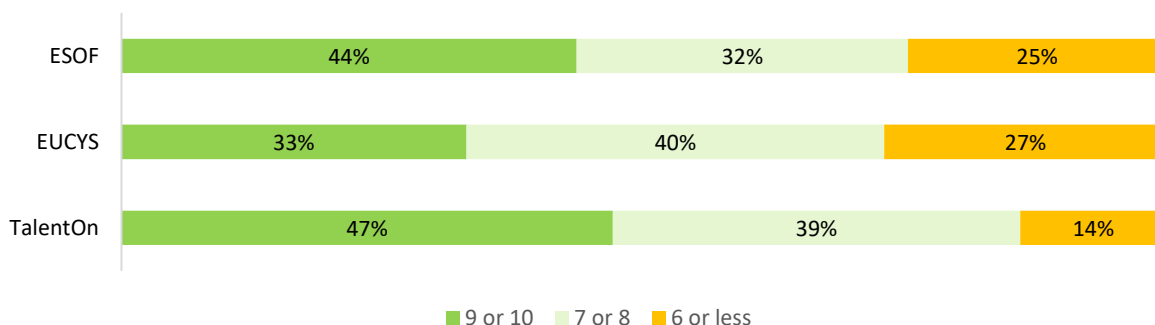
Organizer of Tactile Memory – The Revival of Analogue Filmmaking (age unknown): "Leiden2022 has shown us the power and value of connection between people, knowledge, science and art in many forms!"

Attracting ‘knowledge’ talent

Both the relatively senior audience of ESOF professionals and researchers (44%) and younger researchers (EU TalentOn 47%, EUCYS 33%) find Leiden very attractive (9 or 10 out of 10) for future scientific work or study. These attendees can be considered ambassadors for Leiden *as a city of knowledge*.

Leiden as a place for future scientific work or study

How attractive do you personally find Leiden for future scientific work or study?

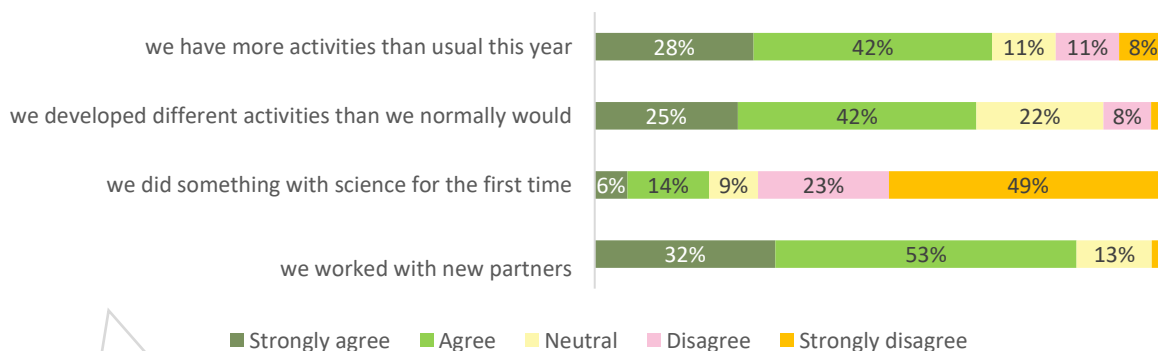


Engagement of local stakeholders

As part of the European City of Science initiative, organisations affiliated with Leiden2022 organized *more activities than usual* (63% “Agree” or “Strongly agree”) and *worked with new partners* (89% “Agree” or “Strongly agree”).

Engagement in Leiden2022 of cultural and other organizations

Because Leiden is European City of Science...

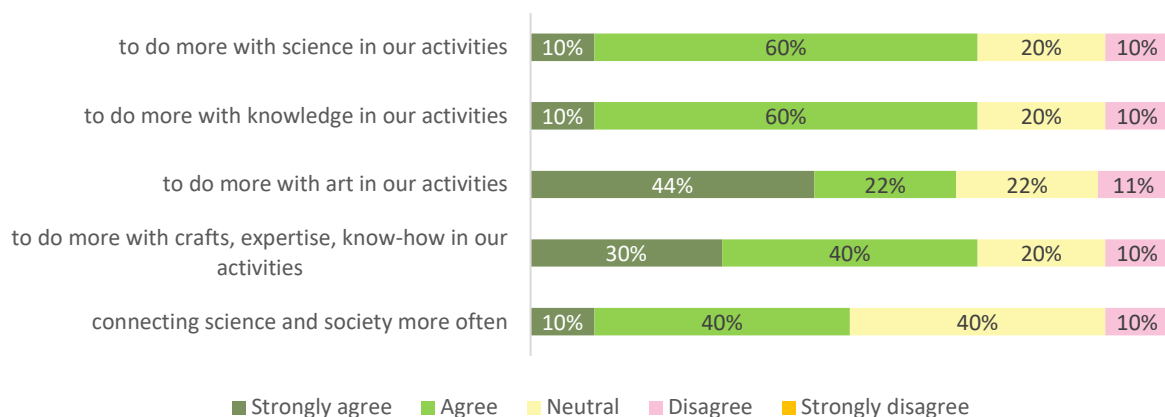


Organizer of LeidenGlobal (age unknown): “City of Science made us think well in advance to organize something different than usual, also something outside of our comfort zone and it has led to a good result.”

The involved organizations expressed a broad interest in future opportunities to do more with science (70% “Agree” or “Strongly agree”), knowledge (70%), arts (66%) and crafts (70%). The expressed interest to do more with other disciplines endorses the playful and inclusive approach Leiden2022 followed.

Encouraging science, knowledge, arts and crafts

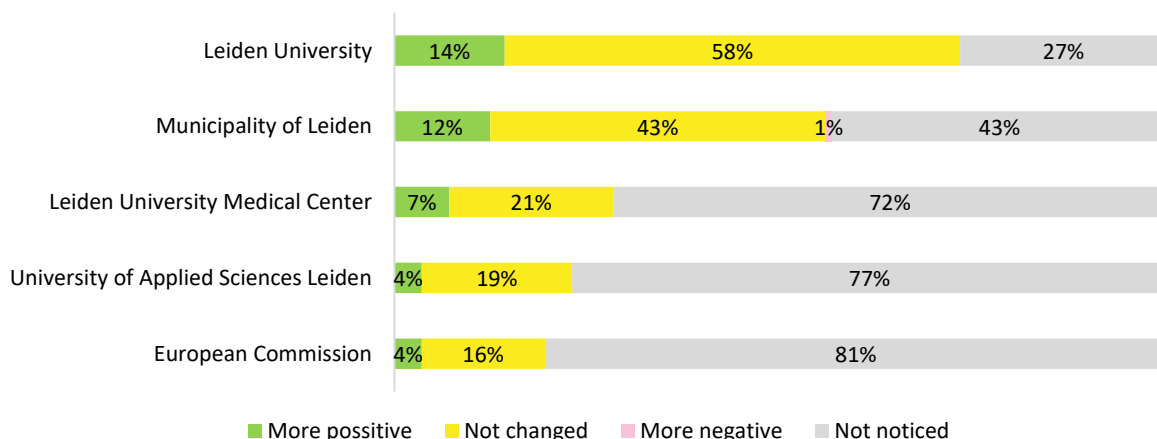
Due to our contribution to Leiden2022, we are encouraged ...



To some extent, investment in Leiden2022 resulted in increased *local* awareness, also, for participating institutions; perhaps contributing to sustainable value to host cities.

Stakeholder Visibility (Knowledge Throughout the Neighbourhoods and European Science in the City Festival)

*Which of these organisations did you notice during the event?
Follow up question: How did this affect your image of the organisation?*



Food for thought: what is the value of this recognition, and how can sustainable value be amplified?

Conclusions: Pathway 4:

Did Leiden2022 support collaboration between knowledge institutions and the municipality? Did it continue to build Leiden as a city where “science alongside citizens” is the norm?

Leiden2022 led to stronger connections between the municipality and local knowledge institutions. This is to be seen, not only in the strong showing by local institutions in Leiden2022 programming, but also via the finding that 73% of participating local businesses, museums, theatres, community centres and other local organizations “feel more connected to Leiden as a city of knowledge.”

Leiden2022 also resulted in partnering *between* local knowledge institutions: 89% of organisations affiliated with Leiden2022 collaborated with new partners during their participation.

Programming clearly supported “science alongside citizens,” as evidenced by thousands of touchpoints between citizens and scientists that came about through Leiden2022’s public programming, such as Knowledge throughout the Neighborhoods. In this example science was accessible to the public where they are, and in playful and interactive ways rather than in a traditional, top-down format. Both locals and visitors had positive impressions of Leiden in the context of knowledge, as for example a city that:

- *connects science, knowledge, art and skill (87%),*
- *embraces scientific talent (84%), and*
- *arouses curiosity, surprises and is resourceful (84%).*

Externally, also, Leiden’s reputation as a City of Knowledge developed due to its role as host for European City of Science. Many scientific guests were experiencing Leiden for the first time and left likely to recommend Leiden as a destination or even for future scientific work or study, themselves.

Economic impact: Leiden region

Leiden European City of Science 2022 had a major economic spin off for the city. Events, conferences, and visitors contributed to an economic impact for the Leiden region of between €20 and 26 million as a result of Leiden2022.

<i>Contribution</i>	<i>Low end</i>	<i>High end</i>
<i>Conference visitor expenditure</i>	€7 M	€9 M
<i>Expenditure by visitors to public events</i>	€12 M	€16 M
<i>Leiden2022 expenditure</i>	€7 M	€7 M
<i>Estimated range, total</i>	€20 M	€26 M

Conference visitor expenditures

- Leiden hosted almost twice as many conferences in 2022 (85 in total, of which 82 scientific and 56 directly linked to Leiden2022), in comparison to the 43 hosted in 2019 (pre-COVID).
- As a result of the 56 conferences linked directly to Leiden2022, Leiden hosted an extra 13.000 visitors. These visitors created an economic impact of €7 - 9 million for the region of Leiden.
- This economic impact estimate is based on average expenses of conference visitors (NBTC). An estimated 80% of the conference visitors came from outside of Leiden and the average duration of the conferences in Leiden in 2022 was 2,1 days (Leiden&Partners).

Expenditure by (non-conference) visitors to public events: €12 – 16M

- Between 400.000 and 500.000 visits were made to one or more of Leiden2022's public programming activities.
- An estimated 70% of these visits came from outside of the Leiden region (Cigarbox benchmark), specifically for Leiden2022.
- On average, 5% of visitors (outside of the host region) stay overnight for cultural events (Cigarbox benchmark) with an average stay of 1,7 nights. These benchmarks indicate between 19.000 and 23.000 overnight stays in the Leiden region due to Leiden2022.⁹
- On average, daytime visitors spend approximately €55 per person, per visit (National Bureau for Tourism and Conferences). For overnight stays, an average of €50 per night per person.
- To estimate the economic impact of the public programming, the number of Leiden2022-specific visits are multiplied with the average spending per person. This results in an additional economic impact ranging from €12 to €16 million.

⁹ Hotel room occupancy in the final nine months of 2022 (80%) was almost back to a pre-COVID peak level (82% in 2019), in part due to Leiden2022. Based on the number of visitors to conferences and public events, approximately 50.000 overnight stays can be attributed to Leiden2022, which equates to approximately 10 - 15% of the total Leiden-area hotel room nights in 2022 (source: Leiden in Cijfers).

Leiden2022 expenditure: €0,7M

- As host of European City of Science, Leiden2022 attracted significant funding from the government, the European Union and other external investors.
- The municipality and local stakeholders also contributed to the organizational budget, to the tune of €1,7 million in sponsorship and subsidies.
- The Leiden2022 organisation spent €2,4 million of its operating budget with local organisations and entrepreneurs.
- The difference between these two numbers (money flowing *from the organisation to the local economy* minus money coming *from the local economy to the organisation*) is the organizational economic impact. For Leiden European City of Science 2022, the organizational economic impact was approximately €0,7 million.

Appendices

A. Source documents

Participants of the different activities during Leiden2022 were asked to complete a questionnaire with the objective of understanding the participant experience, collect input for future editions, and gain insight about event outcomes and impact. This research model, and the deliverables for each festival component were managed by Cigarbox.

Component Data and source info

EuroScience Open Forum (ESOF)	Participant feedback was collected in July and August 2022 via an online survey. 244 surveys had been completed. Source document: ESOF Participant survey results – Factsheet 26 August 2022
European Union Contest for Young Scientists (EUCYS)	Participant feedback was collected in late September/early October 2022 via an online survey. Source document: EU TalentOn 2022 participant factsheet - 14 October 2022
EU TalentOn	Participant feedback was collected in late September/early October 2022 via an online survey. Source document: EUCYS 2022 participant factsheet - 14 October 2022
European Science in the City Festival (ESCF)	Participant feedback was collected in August via an online survey, one month after the festival. Source document: European Science in the City Festival Evaluation Report
Knowledge throughout the Neighbourhoods	Participant feedback was collected once per month from June until December via an online survey. Source document: Kennis door de Wijken overall report and dashboard data
Year of Events, Community Bonus, New European Bauhaus	Organizers of activities external to the Leiden2022 organization (Year of Events, Community Bonus) was collected in January 2023 via an evaluation form (87 responses). Source document: Survey results among project leaders Year of Events, Community Bonus and New European Bauhaus.

B. Side-by-side comparison of festival components

<i>Component</i>	<i>What & when</i>	<i>For whom (average age)</i>	<i>Scope</i>	<i>Average Satisfaction</i>	<i>NPS event/NPS Leiden</i>	<i>First time in Leiden</i>
EuroScience Open Forum (ESOF)	Four-day scientific conference Jul. 13 – 16, 2022	International scientific community (42)	3.138 participants	7,5 / 10	18/37	60%
European Union Contest for Young Scientists (EUCYS)	Five-day science fair and competition Sept. 13-18, 2022	European scientists between the ages of 14 and 20 (18)	Approximately 132 on-site competitors out of 65.000 participants	8,4 / 10	74/54	91%
EU TalentOn	X-day scientific 'hackathon,' addressing EU Missions Sept. 14-18, 2022	European scientists between the ages of 21 and 35 (27)	Approximately 104 on-site competitors, 700+ participants overall	8,1 / 10	50/55	68%
European Science in the City Festival (ESCF)	One month of programming June 17 – July 17, 2022	Local public and visitors from hosting region and abroad (49)	Approximately 95.000 visits	8,0 / 10	-	3%
Knowledge throughout the Neighbourhoods	Year-long programme	Local public (45)	Approximately 10.000 + visits	8,4 / 10	-	3%
Year of Events and Community Bonus	Year-long programme	Local public (unknown)	175.000 – 225.000 visits, based on 87 reported events			
The New European Bauhaus Leiden	Five meetings and programming	Local public (unknown)	100 participants			
Leiden museums 14 museums (including several science and crafts museums)	Extra attention for science in programming Full year	General public (unknown)	1,3 million visits; more than 400.000 above expectation for Leiden museums based on the national trend museum visits.			

C. Leiden2022 founding partner goals: progress indicators

Source: Source: Project: 101052247 — Leiden2022-ECS-ESOF — HORIZON-WIDERA-2021-ESOF-IBA

<i>Goals</i>	<i>Progress</i>	<i>Learnings that support progress indication; some apply to more than one criterion.</i>
1 Allow citizens of Leiden and surrounding municipalities to experience the benefits of science, art, and knowledge as a frontrunner and European example.		Leiden2022 made a huge effort to engage with the non-scientific community. Three of the major event components were intended for citizens of Leiden and the surrounding area and designed to make programming accessible for this audience.
2 Showing the “richness” and diversity of the European scientific community.		Participating scientists appeared to be a diverse European group, and there was a rich program of diverse topics at ESOF. More information needed to make an assessment.
3 Creating long term sustainable local, regional, national, European, and international collaborations.		Individual scientists made connections outside of their own disciplines and countries and local institutions built partnerships for Leiden2022. More information needed to make an assessment of progress about “long-term, sustainable” progress toward collaboration.
4 Profiling Leiden as an international city of knowledge as a whole and promoting her individual scientific institutions separately on a regional, national, and international level.		The desired image of Leiden resonated as a City of Science. More data is needed to understand the effects on her individual scientific institutions.
5 Fostering new talent and increasing the appeal of Leiden for students and researchers.		ESOF professionals and researchers (44%) and younger researchers (EU TalentOn 47%, EUCYS 33%) found Leiden very attractive (9 or 10 out of 10) for future scientific work or study.
6 Leiden2022 will be organized in line with the Sustainable Development Goals and is determined to set an example for how such an event can be organized in a sustainable manner.		SDGs were thoughtfully considered in planning and execution of Leiden2022, and the audience recognized and appreciated a good deal off these efforts. Whether the results are a true example of how to organize a ECS “in a sustainable manner” is unclear.
7 Promoting an inclusive platform: science for and by everyone.		The public that participated in Leiden2022 events was representative of the general public. The subjects of the public programme were deliberately made very accessible and understandable; and were organized in the neighbourhoods (close to the visitors).

D. Evaluation criteria: progress indicators

Source: Strategische doelstellingen Leiden2022, III Evaluatiecriteria. This table references the evaluation criteria to which an answer could be formulated within the scope of this analysis.

<i>Evaluation criteria</i>	<i>Learnings that support progress indication</i>
1b In the programming, special attention has been paid to reaching groups in the city that are not normally present at science events.	Leiden2022 organized scientific events (Knowledge throughout the Neighbourhood and Year of Events) every day of the year to engage with the citizens of Leiden, brought the activities to the neighborhoods, and allowed for co-creation with citizens and a wide variety of local institutions.
2b More than 500.000 visitors took part in the Leiden2022 activities.	It is estimated that between 400.000 and 500.000 <u>visits</u> were made to Leiden2022 activities. The assumption is that many of these were from repeat visitors, meaning the total number of unique visitors would be a significantly smaller number.
4a In 2022, at least 8 conferences, 365 days of activities and 200 (scientific) lectures have taken place.	Leiden hosted 85 conferences in 2022, 56 of which were linked to Leiden2022. There was (at least) one activity each day in 2022; though there is no data about the number of lectures one can assume, including ESOF and other programming, the goal was reached.
5b The activities for which Leiden2022 is responsible are carried out properly, efficiently, and professionally.	It is difficult to say whether this is true, across so many stakeholders and audiences. One indicator may be the satisfaction ratings and Net Promoter Scores for the three scientific components; positive results would align with proper, efficient, and professional organisation. More information is needed from stakeholders and internal teams for a thorough assessment.
6a1 The University of Applied Sciences Leiden is being noticed more.	23% of the public programme visitors noticed University of Applied Sciences Leiden. More information is needed to understand how to assess progress toward this goal.
6a5 The connection with Leiden (municipality, organizations, and residents) has been strengthened.	74% of the organizations involved in Leiden2022 indicated that they felt more connected to Leiden as city of science. The vast majority created new partnerships as part of their participation, and indicated an interest to build on/continue with these efforts.
6d3 Leiden2022 strengthens existing partnerships and initiates new collaborations.	See 6a5
6d4 Leiden2022 reaches broad and diverse new target groups.	Audiences for Leiden2022's broad and accessible public programme appeared to be representative of the Leiden community, and 20% of the visitors of Knowledge throughout the Neighbourhood visited a scientific activity for the first time in five years. In addition, EU TalentOn reached a new group of younger science professionals.
6d5 Leiden2022 has a legacy: in the minds of Dutch people and Europeans, Leiden is an international knowledge city.	A vast majority of Leiden2022 visitors (87%) perceived Leiden as a city that connects science, knowledge, art and skill. 73% of the participating organizations feel more connected to Leiden as a city of knowledge. Scientific professionals found Leiden very attractive for future scientific work or study. More information is needed to understand international perceptions.

E. Awareness and promotion

Content provided by Leiden2022

The organization behind Leiden2022 used social media and traditional media (radio, television, and newspapers) to increase awareness for the European City of Science festival.

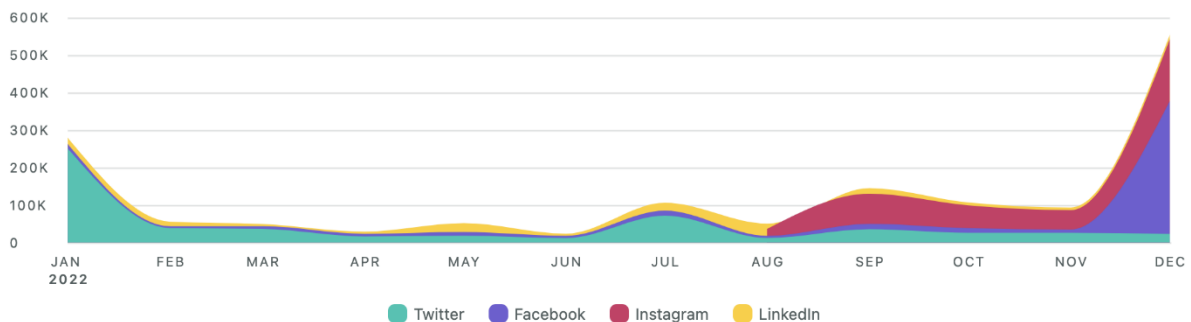
Leiden2022 used four social media platforms (Twitter, Facebook, Instagram, and LinkedIn) with a total of 5.382 followers for all platforms in 2022. More content has been shared by Leiden2022 since August 2022, which had a clear effect on the growth in views, followers, and engagement (especially around events) on the four social media platforms.

In total there were 1.541.480 social media impressions of the Leiden2022 content. Most of these came from Twitter (565.369) and Facebook (454.500), followed by LinkedIn (145.895).

Impressions

Review how your content was seen across networks during the reporting period.

Impressions, by Month



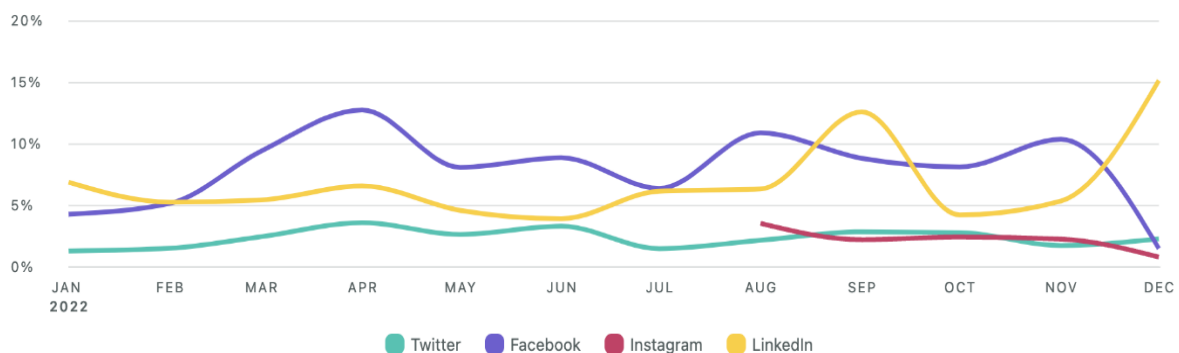
Although LinkedIn had the least impressions of the four social media platforms, it has the highest engagement rate of 7%, versus an average engagement rate of 2,8%. This means that if a post on LinkedIn was viewed 1000 times, 70 of those views included some kind of engagement with the content.

On the contrary, Instagram scores low regarding the engagement rate (2,7%). The difference in engagement rate is likely due to the type of content being shared and the type of platform it is being shared on. LinkedIn is a platform for professionals, which is an important target group for Leiden2022 content.

Engagement Rate

See how engaged people are with your posts during the reporting period.

Engagement Rate (per Impression), by Month



In addition to the content on social media platforms, Leiden2022 also been advertised on Dutch radio. Radio advertisement are used as the main traditional media outlet. The number of Leiden2022 radio advertisements increased since September 2022, which is in line with the increase in social media content around the same period. In September 2022 there were 370 spots, in contrast with the 151 spots in July 2022. Due to the doubling of the number of spots, the range has increased considerably between July and September. In September 2022, approximately 35% of radio listeners had heard the Leiden2022 advertisement at least once. In July 2022 this was 26%.

Sharing more content with more regularity has led to an upward trend across all channels. Towards the end of the year there was more interaction between partners, other parties, participants, and us. This ultimately resulted in more awareness for Leiden2022.

What do we know about the uptick in Leiden / founding partners awareness (not Leiden2022) before, during, after Leiden2022?



What strategies performed better for pan-European, scientific audience awareness vs. driving awareness in local, public audience?

Colophon

This report and the underlying research was conducted by Cigarbox, an independent research and advisory agency specialising in societal impact.

Cigarbox helps public organizations, foundations and businesses optimize investment for social and environmental impact as well as financial results. The advisory agency, located in Rotterdam, the Netherlands, provides program and portfolio managers with the framework and tools necessary to make investment choices with logic, transparency and consistency. www.cigarbox.nl

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Client: Leiden2022

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