Der Senat

19. März 2024

Stellungnahme zu
Schloss Dagstuhl - Leibniz-Zentrum für Informatik, Wadern (LZI)

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Vorbemerkung

Die Einrichtungen der Forschung und der wissenschaftlichen Infrastruktur, die sich in der Leibniz-Gemeinschaft zusammengeschlossen haben, werden von Bund und Ländern wegen ihrer überregionalen Bedeutung und eines gesamtstaatlichen wissenschaftspolitischen Interesses gemeinsam außerhalb einer Hochschule gefördert. Turnusmäßig, spätestens alle sieben Jahre, überprüfen Bund und Länder, ob die Voraussetzungen für die gemeinsame Förderung einer Leibniz-Einrichtung noch erfüllt sind.[1]

Die wesentliche Grundlage für die Überprüfung in der Gemeinsamen Wissenschaftskonferenz ist regelmäßig eine unabhängige Evaluierung durch den Senat der Leibniz-Gemeinschaft. Die Stellungnahmen des Senats bereitet der Senatsausschuss Evaluierung vor. Für die Bewertung einer Einrichtung setzt der Ausschuss Bewertungsgruppen mit unabhängigen, fachlich einschlägigen Sachverständigen ein.

Vor diesem Hintergrund besuchte eine Bewertungsgruppe am 26. und 27. Juni 2023 das LZI in Wadern. Ihr stand eine vom LZI erstellte Evaluierungsunterlage zur Verfügung. Die wesentlichen Aussagen dieser Unterlage sind in der Darstellung (Anlage A dieser Stellungnahme) zusammengefasst. Die Bewertungsgruppe erstellte im Anschluss an den Besuch den Bewertungsbericht (Anlage B). Das LZI nahm dazu Stellung (Anlage C). Der Senat der Leibniz-Gemeinschaft verabschiedete am 19. März 2024 auf dieser Grundlage die vorliegende Stellungnahme. Der Senat dankt den Mitgliedern der Bewertungsgruppe und des Senatsausschusses Evaluierung für ihre Arbeit.

1. Beurteilung und Empfehlungen

Der Senat schließt sich den Beurteilungen und Empfehlungen der Bewertungsgruppe an.

Schloss Dagstuhl – Leibniz-Zentrum für Informatik (LZI) in Wadern ist ein international hoch angesehenes *Institute for Advanced Studies*.[2] Als soziale Forschungsinfrastruktur mit eigenen Tagungsräumen und Gastunterkünften leistet es einen herausragenden Beitrag für die Vernetzung der informatischen Fachgemeinschaft. Das LZI bietet Wissenschaftlerinnen und Wissenschaftlern die Möglichkeit, Veranstaltungen unter eigener Federführung durchzuführen bzw. daran teilzunehmen. Außerdem unterhält das LZI die für das Fach zentrale bibliographische Datenbank dblp und bietet *Open-Access-Publishing*-Dienstleistungen an.

Diese **Aufgaben** verantwortet im Rahmen von drei Abteilungen jeweils ein Steuerungsgremium, in denen ehrenamtliche Mitglieder und der Direktor des LZI zusammenarbeiten. Sie werden dabei von den Beschäftigten der LZI-Geschäftsstelle unterstützt. Die Leistung der drei Abteilungen wird in zwei Fällen als „exzellent" und in einem Fall als „sehr gut" bewertet.

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[1] Ausführungsvereinbarung zum GWK-Abkommen über die gemeinsame Förderung der Mitgliedseinrichtungen der Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e. V.

[2] Wissenschaftsrat: Entwicklungsperspektiven von Institutes for Advanced Studies (IAS) in Deutschland. Köln 23.04.2021.

Die wesentliche Aufgabe der Abteilung *Seminare und Workshops* ist es, adäquate **Veranstaltungsformate** zu entwickeln, bereitzustellen und die wettbewerbliche Auswahl exzellenter Anträge zu gestalten. Die zentralen Formate sind *Dagstuhl Seminars* zu bestimmten wissenschaftlichen Fragen und *Dagstuhl Perspective Workshops* zur weiteren Entwicklung eines Forschungsgebiets. Anträge stellen Forschende, die eine Veranstaltung verantworten möchten. Neben dem Thema schlagen sie vor, wer zur Teilnahme eingeladen werden könnte. Etwas mehr als 60 % der Anträge werden angenommen. Jährlich besuchen knapp 2500 Gäste das LZI, 75 % davon aus dem Ausland. Das kompetente technische und administrative Personal des LZI sorgt für einen reibungslosen Ablauf des Veranstaltungsbetriebs in Wadern.

Die Einschränkungen während der Corona-Pandemie haben den Veranstaltungsbetrieb ab 2020 erheblich beeinträchtigt. Bis der vollständige Regelbetrieb 2023 wieder aufgenommen werden konnte, wurden verschiedene digitale Formate eingesetzt. Das LZI sollte in Zukunft digitale Veranstaltungsformate weiterentwickeln, um Reisetätigkeiten zu vermindern und Personen zu entlasten, für die die Umstände einer persönlichen Anreise schwierig wären.

Das LZI sollte ein noch breiteres Interesse an einer Antragstellung und Teilnahme in der gesamten Breite der Informatik wecken und auch vor diesem Hintergrund wie angestrebt die Zahl von Veranstaltungen zu anwendungsbezogenen Forschungen erhöhen. Es wird begrüßt, dass das LZI den Anteil von Frauen unter den Mitwirkenden wie empfohlen erhöht hat (28 % in 2022). Das Institut sollte diesen positiven Trend fortsetzen. Ein erfreulich hoher Anteil von ca. einem Viertel der Teilnehmenden steht in einer frühen Karrierephase. Sie kommen häufig aus dem unmittelbaren Arbeitsumfeld der Organisatoren, so dass zur weiteren Öffnung der Veranstaltungen empfohlen wird, verstärkt Initiativbewerbungen anzuregen. Die verschiedenen Aspekte in Bezug auf Inhalte und Mitwirkende der Veranstaltungen sollten für die interne Steuerung gut dokumentiert werden.

In einer zweiten Abteilung unterhält das LZI die bibliographische Datenbank ***dblp Computer Science Bibliography***. Sie wurde ab 2010 unter Beteiligung des LZI an der Universität Trier entwickelt und 2018 mittels einer Erhöhung der institutionellen Förderung in das LZI integriert. Die Datenbank hat sich zum wichtigsten bibliographischen Arbeitsmittel für die internationale Fachgemeinschaft entwickelt. Dies zeigt sich u. a. an den erheblich gestiegenen Nutzungszahlen. Die Zahl der Personen, die das Angebot pro Monat nutzen, stieg von 435.000 (⌀ 2013–2015) auf 887.000 (⌀ 2019–2022), die der monatlichen Seitenabrufe von 14,5 Mio. (2015) auf 45,4 Mio. (2022).

Die dritte LZI-Abteilung bietet Dienstleistungen im Bereich des ***Open-Access-Publishing*** an. Ermöglicht wird eine qualitätsgesicherte, preisgünstige Publikation von Konferenzbänden und Zeitschriften als Alternative zu kommerziellen Angeboten. Das LZI ist in einer ausgezeichneten Ausgangslage, um wie geplant die Entwicklung von *Open Science* in der Informatik voranzutreiben, z. B. mit neuen Angeboten zu *Open Data* und *Open Software*. Zudem ist die angestrebte Zusammenführung von vorhandenen Daten in *research knowledge graphs* vielversprechend. Auf diesem Gebiet besteht eine enge Kooperation mit der *TIB – Leibniz-Informationszentrum Technik und Naturwissenschaften und Universitätsbibliothek* im Rahmen eines NFDI-Konsortiums. Zur Umsetzung seiner Pläne strebt das LZI

eine Erhöhung der institutionellen Förderung um 360 T€/Jahr ab 2027 an. In einem Antrag sollte der Aufgabenzuschnitt der vorgesehenen fünf Stellen noch klarer herausgearbeitet und außerdem die Ausgestaltung der Kooperationen mit anderen Einrichtungen dargestellt werden.

Das LZI wird hervorragend geleitet. Verantwortlich sind die mit international ausgewiesenen Forschenden besetzten Steuerungsgremien gemeinsam mit der Leitung des LZI. Dies sind der wissenschaftliche Direktor, der Professor an der Universität des Saarlandes ist und das LZI nebenamtlich leitet, sowie die hauptamtliche technisch-administrative Geschäftsführerin. Gremien und Leitung werden von den Beschäftigten in der Geschäftsstelle in Saarbrücken/Trier sowie im Veranstaltungszentrum in Wadern ausgezeichnet unterstützt. Die ruhestandsbedingt neu zu besetzende Stelle für die **wissenschaftliche Leitung** wurde kurz nach dem Evaluierungsbesuch zum 1. April 2025 ausgeschrieben. Wie im Bewertungsbericht angeregt ermöglicht die Ausschreibung für die nebenamtliche Tätigkeit sowohl wie bisher die Entsendung von einer Universität in der Region als auch eine neue Anstellung an einer Universität in angemessener räumlicher Nähe zum LZI.

Die **drei Steuerungsgremien** des LZI sind das mit der Institutsgründung eingerichtete und für die Veranstaltungsauswahl zuständige *Wissenschaftliche Direktorium* sowie das später etablierte *dblp Advisory Board* (2011) und das *Publishing Advisory Board* (2021). Neben diesen drei Gremien wurden außerdem *Editorial Boards* für die unterschiedlichen Publikationsorgane etabliert. Es sollte geprüft werden, ob die Zahl der Gremien reduziert werden kann, um Synergien zu erzeugen. Zudem sollte für das *Wissenschaftliche Direktorium* eine Regelung verankert werden, die die erneute Berufung von Mitgliedern begrenzt, so wie es in den anderen beiden Steuerungsgremien mit jeweils zwei mal vier Jahren der Fall ist.

Der **Wissenschaftliche Beirat** und der **Industriebeirat** begleiten das LZI engagiert. Beide Gremien tagen gemeinsam und verabschieden gemeinsame Empfehlungen. Der Frauenanteil unter den Mitgliedern beider Gremien liegt derzeit bei 18 % und sollte gesteigert werden. Es sollte im Blick behalten werden, dass ausreichende Expertise für alle drei LZI-Aufgaben in den Beiräten vertreten ist und zwischen den Beiräten und den drei Steuerungsgremien ein regelmäßiger Informationsaustausch stattfindet.

2. Zur Stellungnahme des LZI

Der Senat begrüßt, dass das LZI beabsichtigt, die Empfehlungen und Hinweise aus dem Bewertungsbericht bei seiner weiteren Arbeit zu berücksichtigen.

3. Förderempfehlung

Der Senat der Leibniz-Gemeinschaft empfiehlt Bund und Ländern, das LZI als Einrichtung der Forschung und der wissenschaftlichen Infrastruktur, die in erheblichem Umfang wissenschaftliche Infrastrukturaufgaben wahrnimmt, auf der Grundlage der Ausführungsvereinbarung WGL weiter zu fördern.

30 May 2023

Annex A: Status report

Schloss Dagstuhl – Leibniz Center for Informatics, Wadern (LZI)

Contents

1. Key data, structure and tasks

Key data

Year established: 1990

Admission to joint funding by Federal and   2006
Länder Governments:

Admission to the Leibniz Association: 2005

Last statement by the Leibniz Senate: 2017

Legal form: limited liability company (GmbH)

Responsible departments at *Länder* level: Ministry for Economics, Innovation,
                                                     Digital Affairs, and Energy, Saarland

                                                     Ministry of Science and Health,
                                                     Rhineland-Palatinate

Responsible department at Federal level: Federal Ministry of Education and
                                                     Research (BMBF)

Total budget (2022)

> € 3.2m institutional funding
>
> € 0.2m revenue from project grants
>
> € 0.6m revenue from services (mostly seminar fees)

Number of staff (2022)

> 15 individuals in "research and scientific services"
>
> 35 individuals in "science supporting staff (room and board services, editorial support, etc.)"
>
> 4 individuals in "science supporting staff (administration)"

Mission and structure

Statutory mission

"The object of the company is to promote basic research and application-oriented research in the field of informatics, to support advanced, scientific vocational training and to further education in the field of informatics, to promote the transfer of knowledge between research into informatics, and application of informatics, and to operate an international forum and research institute for informatics."

Organisation

The LZI is managed by the Scientific Director and the Technical-Administrative Director. Its units are defined along the three infrastructure types offered: scientific meetings, bibliographic services, and publishing services. Members of staff may be part of different subdivisions (see appendix 1).

Overall concept and core results

Overall concept

Schloss Dagstuhl – Leibniz Center for Informatics (LZI) seeks to support and advance research in computer science by facilitating communication and interaction between researchers. To this end it develops, maintains, and operates social and information research infrastructures:

- a workshop centre in the historic Schloss Dagstuhl castle,
- the *dblp computer science database* online bibliography,
- a scientific publishing house, Dagstuhl Publishing.

The <u>workshop program</u> has been the center piece of the institute's work since its inception. There are two main workshop formats, namely *Dagstuhl Seminars*, which are meetings to advance research on a given topic, and the much less frequent *Dagstuhl Perspectives Workshops*, which are intended to discuss the state and future of a research field. Either format has about 30 or about 45 participants, lasts 3 to 5 days, and takes place at the LZI's facilities at Schloss Dagstuhl, which provide an environment that is designed to encourage interaction between the participants and keep outside distractions to a minimum. Workshops must be proposed by a small group of researchers. Proposals are selected on the basis of a peer-review process that is conducted by the *Scientific Directorate*, which is composed of the scientific director and currently another sixteen external computer scientists from academia and industry. About 75 such workshops take place every year with about 2,500 researchers attending in total.

The dblp bibliography and the publishing services were integrated into the LZI only after it was admitted to the Leibniz Association. According to the LZI, the <u>dblp computer science bibliography</u> is the most comprehensive open bibliographic database, search engine, and knowledge graph of computer science research publications. It currently lists more than 6.5 million articles. Its servers are visited by more than 850,000 users every month. There is a dedicated dblp advisory board.

The main focus of <u>Dagstuhl Publishing</u>, which is purely open access, is on publishing conference proceedings and journals in computer science in an affordable manner. It is divided into the seminar-related *Dagstuhl Reports* and *Dagstuhl Manifestos* series, which compulsorily publish Dagstuhl seminar and workshop results, and service series, which are open to researchers in general. Among the service series, the LZI considers the *LIPIcs* series, which publishes conference proceedings, to be its flagship product. 1444 articles appeared last year in the *LIPIcs* series alone. All series and journals are supervised by international editorial boards, and there is a dedicated publishing advisory board.

Results

Regarding the most important results that it has achieved since the last evaluation, the LZI refers to the following (for details, see chapter 7 and appendix 2):

Workshops and Seminars

    – The Covid-19 pandemic had a severe impact on Schloss Dagstuhl's seminar program. The facilities reopened late in 2020 with hygiene measures in place. In 2021 and 2022, hybrid seminars, smaller on-site seminars, and some purely online seminars allowed a reduced routine operation of seminars under pandemic conditions. The LZI has returned to almost fully on-site operation since the end of 2022.

    – The LZI has improved its seminar facilities. Schloss Dagstuhl now has a second large lecture hall. Other measures include renovating the largest lecture hall, improving the acoustics in the common rooms and areas, and installing hybrid meeting technology. The pandemic allowed to carry out such work without detriment to a running seminar centre.

    – The share of women among participants and organisers at seminars and workshops has risen. In 2022, it stands at 24 % (up from 18 % in 2016) for participants and at 29 % (up from 24 %) for organisers (see chapter 5).

dblp

    – Following a recommendation of the last evaluation, the bibliographic service dblp was integrated into the LZI (see chapter 3). This was made possible by additional institutional funding since 2019. The database was previously maintained in cooperation with the University of Trier and supported by third-party funds.

    – Since then, the database has expanded its services and more than doubled in size (see chapter 7).

Dagstuhl Publishing

    – Dagstuhl publishing has seen an increase in publications and access to them (see chapter 7).

    – The LZI increasingly participates in research and infrastructure projects such as the national research data infrastructure, NFDI (see chapter 6).

Changes and planning

Development since the previous evaluation

There were no major changes to the LZI's concept and general strategic goals since the previous evaluation. The seminar and workshop program has seen little programmatic change, despite its being severely affected by the pandemic. The biggest change was the enlargement of the dblp team made possible by additional institutional funding since 2019. The Dagstuhl Publishing team was strengthened by modestly shifting staff. This has improved the capacity for creating specialised software, which has led to improvements, for instance in the automatic metadata extraction from documents or supporting manual typesetting.

In earlier years, the research library holdings were a major attraction for LZI guests. However, except for a few special collections the <u>library</u> has become less relevant since. From 2023 onwards, the physical holdings will be concentrated in two floors, yielding space for office facilities for the LZI scientific staff and for seminar coffee breaks. Electronic resource subscriptions will be reduced, as they are used mainly by dblp staff (for whom less expensive solutions can be found) and only to a limited extent by seminar guests.

Strategic work planning for the coming years

The LZI has identified challenges and set goals for its <u>seminar program</u> in the coming years.

- The first one is the question of sustainability, in particular how the goals to have participants from around the world at in-person meetings and to reduce carbon emissions can be reasonably combined. Possible approaches are (i) making longer stays in Germany or Europe possible and (ii) having coordinated meetings at the same time at different places. However, the LZI intends to keep on promoting in-person events at Dagstuhl, avoiding hybrid meetings as far as possible.

- The second challenge is to remain open to researchers from all the world, although various LZI seminars deal with sensitive and security issues. Therefore, it must be decided whether, and how, researchers of states that fail to meet western standards or even are in conflict with western states can continue to participate in Dagstuhl meetings.

- It aims to further increase the participation of women at its events by unceasingly reminding and encouraging organisers to invite more women. It has decided against setting fixed quotas. The LZI also aims to integrate more researchers from Africa, but believes this will require more effort than consistent reminders.

The <u>dblp computer science bibliography</u> will further expand its services and information offerings. In future, beyond published papers, it should also target other computer science artefacts and open research data sets. It will also move towards incorporating more external information and to providing more enriched information and aggregates, e.g. researcher affiliations.

A strategic task is to combine the open data sources available at the LZI and release them as <u>research knowledge graphs</u> (RKG), which is a form of semantic knowledge representation that describes the complex relationships between entities within the research domain. Thereby the LZI will be able to identify relevant information within its data, explore and analyse connections between entities, and discover new insights. This will allow to create open services and tools that will benefit both workflows at the LZI and the computer science community in general. Maintaining and releasing an open RKG will also be a main contribution of the LZI to the national research data infrastructure (NFDI).

The current director is a professor at Saarland University and employed at the LZI part-time (see chapter 5). His current contract will expire in 2024, and he will have reached the retirement age by then. The Supervisory Board granted a one-year extension to this

contract that is renewable until a successor is found. The search for a successor to be employed under comparable regulations will start in 2024 and is expected to be completed within a year.

Planning for additional funds deriving from institutional funding

The LZI intends to apply for additional institutional funding for "Advancing and Facilitating Open Science in the Informatics Research Community". The LZI plans to make its expertise, software, and infrastructure in open-access publishing available to the computer science community. To this end, it intends to become a facilitator that enables others to conduct their own open-access publishing in the conference-centred field of computer science and become independent of external commercial interests. These plans are supported by the Supervisory and Scientific Advisory Boards.

The application deadline is January 2025, and funding would take effect from 2027. In detail, the LZI proposes to (1) adapt and develop open research data infrastructures to the needs of computer science and to integrate them into existing, e.g. publishing processes; (2) develop and adapt infrastructures to the needs of computer science to support and promote methods for archiving, describing, referencing, and citing (research) software; (3) develop and adapt open-source conference management tools that cover all aspects of conference management; (4) build and augment research knowledge graphs that show the interconnectedness of the entities that are involved in performing and publishing research; and (5) offer open-access and open-science consulting services for computer scientists.

The LZI budgets a total of 5.0 FTE positions, which distribute as follows:

- 0.5 researcher with a doctorate and 0.3 scientist with a master's degree for each of the fields (1), (2), and (4),
- 1.0 scientist with a master's degree (3),
- 0.5 researcher with a doctorate (5),
- 1.0 FTE for IT and administrative support.

„Extraordinary item of expenditure": summary of funds planning

	2027	Permanently
Own funds + additional funds = „extraordinary item of expenditure"	*460 k€*	*460 k€*
Own funds from existing funding by institution (at least 3 % of core budget)	*100 k€*	*100 k€*
Additional funds of institutional funding	*360 k€*	*360 k€*

Controlling and quality management

Facilities, equipment and funding

The LZI's annual institutional <u>funding</u> amounts to € 3.1m (⌀ 2019–2022). The major other source of income is the fees charged to seminar participants, which totalled € 663k before

the pandemic (2019) and € 476k in 2022. The pandemic saw a drop to € 183k (⌀ 2020/2021). In 2019 and in 2022, there was additional revenue from project grants of € 12k and € 188k, respectively. Revenue from publications and commissioned work totalled € 88k (⌀ 2019–2022). See appendix 3 for an overview of the LZI's funding.

The main site from which the LZI operates is Schloss Dagstuhl, Wadern. Besides the historic castle, this site comprises an extension from the 1970s, an additional facility from 1993, which houses, among others, the research library and lecture halls, and a guest house completed in 2012. Except for the new guest house, which is owned by the LZI, these facilities are provided by the Saarland free of charge. The Dagstuhl site has 71 guest rooms, some of them double rooms mainly for accommodating accompanying persons, for a total of about 80 beds. The LZI also uses offices at the universities in Saarbrücken and Trier.

The research library includes 36,000 textbooks and monographs, including a complete collection of Springer's Lecture Notes in Computer Science (LNCS) series, as well as conference proceedings and journals. Access to more recent proceedings and journals is digital only. For every seminar, the library prepares an exhibition with books authored or edited by participants and asks authors to autograph them.

The IT service provides the in-house IT infrastructure. Outside internet connectivity is provided through two redundant 375 Mbit/s connections managed by the DFN (National Science Network). The LZI's servers host the website, the web portals DOOR for guests and DOSA for seminar applications, host-shared slide and text storage and wiki pages for each seminar, and the publishing platforms DSub and DROPS. The main dblp server resides in Schloss Dagstuhl as well.

Technical data security and data protection is ensured through a new high-performance firewall active/passive cluster. Endpoint protection for computers is provided, as is an S/MIME certificate infrastructure for encrypting emails. Control measures, such as password policies, are implemented. The measures are under regular review. Daily (retention time one month), monthly (one year) and annual (indefinite) backups are implemented and executed in two layers: first stored to disks, and in parallel to LTO Ultrium storage tapes for long-term preservation. Disks and tapes are stored in physically separated locations at the Wadern site.

Organisational and operational structure

The Scientific Director and the Technical Administrative Director jointly form the management and represent the LZI in all business matters. The Scientific Director is responsible for setting the scientific goals and program planning of the company; the Technical Administrative Director is responsible for technical and administrative tasks and is the budget officer (*Beauftragte für den Haushalt*).

The work is divided among the subdivisions along the three infrastructure types offered: scientific meetings, bibliographic services, and publishing services. Each subdivision is headed by a member of the scientific staff, who manages it in close consultation with the scientific director. Matters that affect more than one subdivision are decided by the

management together with the scientific staff in regular meetings. Non-scientific aspects of the LZI's work are concentrated in staff units for central services, whose heads consult with the technical-administrative director.

Quality Management

The LZI is committed to the rules of good scientific practice according to the guidelines of the Leibniz Association and the German Research Foundation (DFG). To ensure good scientific practice in the daily administrative, editorial, and scientific work, rules and procedures have been established. The process is accompanied by an elected ombudsperson and scientific advisory boards (see below). The rules of good scientific practice are supplemented by a code of conduct aimed at social interaction between seminar guests, organisers, and staff.

The LZI aims to publish its own research results in open access and encourages participants and organisers to publish the results of their event in the same manner. All works published by Dagstuhl Publishing and all seminar reports and websites are published open access (under a CC-BY licence). Both in the operation of its own research infrastructures and in its own research work, the LZI follows the guidelines for handling research data in the Leibniz Association.

Quality Management and dedicated boards of the Fields of Activity

Scientific quality assurance of seminars rests on a peer-review proposal selection process. Proposals are approved by the Scientific Directorate, with conditions imposed to maximise scientific value where necessary. It reviews and decides on the proposals for seminars and workshops. The scientific director is a member and the chairperson of the Scientific Directorate. Its other members are proposed by the director and the SAB and appointed by the Supervisory Board. They serve three-year terms and may be re-elected, though in practice not more than twice.

Every seminar is assigned to a scientific staff member that offers advice, works towards the seminar's compliance with scientific quality criteria, and pays a visit to the seminar. A report of the visit is filed and shared inside the institute. After the seminar, feedback is obtained from all participants via questionnaires.

Quality management of the dblp database focuses on the selection of new content, which is based on a defined set of criteria and guidelines. In order to detect errors in the data, its semantic content (in particular authorship attributions) is continuously scanned for probable error cases by using specialised data heuristics. Anonymised usage statistics are constantly monitored, and a broad user survey is conducted at least once in five years, with targeted user surveys conducted in between. There is a dedicated advisory board, which currently has nine members, including the scientific director. Members serve two four-year terms at the most. New members are nominated and appointed by the current board in consultation with Schloss Dagstuhl's Scientific Advisory Board.

Quality management of Dagstuhl Publishing includes defining guidelines and standards for including series and journals in the portfolio. Editorial boards decide on the

publication of conference proceedings (LIPIcs, OASIcs, DARTS) and individual works (LITES, Dagstuhl Manifestos), respectively. All articles undergo a structured publication process. Before publication, authors and editors may make final corrections to the document and extracted metadata. Correcting metadata and contents is also possible after publication. Editors and authors can respond anonymously to a follow-up questionnaire. There is a dedicated advisory board, which currently has 6 members, who serve two four-year terms at the most. New members are nominated and appointed by the current board in consultation with Schloss Dagstuhl's Scientific Advisory Board.

Quality management by advisory boards and supervisory board

The Scientific Advisory Board (6–12 members) advises the LZI management on matters such as research and development planning. Between evaluations by the Leibniz Senate, it also conducts an audit of the institute. The Industrial Curatory Board (currently five members) usually convenes together with it in order to facilitate knowledge exchange between the LZI and research and development in industry. Members of either board may serve two four-year terms. They are proposed by the scientific director and the SAB and appointed by the Supervisory Board.

The Supervisory Board is responsible for ensuring that the LZI management complies with the statutes. The board is involved in all essential matters with regard to research and financial planning and must approve all decisions regarding financial issues and company assets. In addition to appointing the board members, the Supervisory Board also appoints and recalls the managing directors. Decisions of importance to research policy, the appointment of the managing directors, as well as resolutions with significant financial implications cannot be passed against the votes of the representatives of federal or state governments. Members of the Supervisory Board are representatives of the shareholders and one representative each of the Saarland, Rhineland-Palatinate, and the federal ministry.

Human Resources

Leading scientific and administrative positions

The LZI is headed by a scientific and an administrative director. The incumbents were first appointed in 2014 on renewable five-year contracts.

The current scientific director is a Saarland University professor, who is employed part-time (38.9 %) at the LZI. In return, his teaching load is reduced to 2 hours/semester. He is expected to have retired by 2026 (see chapter 3).

The current contract of the administrative director is due to expire in 2029; she is employed full-time at the LZI.

The heads of the subdivisions are appointed from the scientific staff by the directors. Since each subdivision concerns running and enhancing an infrastructure, familiarity with its processes and also the ability to lead the team are the main criteria for the appointment.

Scientific Staff

The LZI does not have scientific positions dedicated to carrying out research. Staff with a doctoral degree, therefore, does not focus on an academic career. They are instead tasked with operating and developing the LZI's research infrastructures. The LZI aims to offer non-project staff with a doctoral degree permanent contracts.

Since 2019, the dblp subdivision has had a position for a doctoral candidate. The first candidate decided against an academic career after two years. The second candidate started only recently in 2022. Doctoral training is executed in cooperation with the University of Trier's department of computer sciences.

Science supporting staff

The LZI trains apprentices in kitchen and housekeeping. Between 2016 and 2022, three employees completed their training. All employees are offered professional development and continuing education. Between 2016 and 2022, three advanced vocational qualifications were obtained.

Equal opportunities and work-life balance

Staff

The scientific staff at the LZI, which consists of 15 persons, includes two women, who were the two most recent hires. The four executive scientific positions are held by men.

Since 2012, the LZI has been certified by the *berufundfamilie* audit. Equal opportunities measures include part-time and working-from-home arrangements.

Seminars and workshops

Seminar organisers are required to ensure adequate participation by women, although there are no set quotas. Since 2018, there have been more than 20% women among seminar participants every year. In 2022, the share of women participants stands at 24 % and of women organisers at 29 %. The LZI intends to maintain and possibly increase this level in the future.

The LZI offers subsidised childcare, and participants' children stay free of charge. Participants who need to bring their kids can either arrange for childcare from LZI's contracted professional nanny for a fee or bring a caregiver free of charge. From 2016 to 2022, there were 178 children that accompanied seminar participants.

Cooperation and environment

Universities

The LZI's main university partner is Saarland University, where the scientific director is a professor, as was his predecessor. The LZI cooperates with Saarland University in administrative matters too, and the LZI main office is located on university premises.

The LZI and the University of Trier have been collaborating since 2010 in operating and expanding the dblp database. Since the dblp was wholly transferred to the LZI, a

permanent dblp team of the LZI has been established with offices at the University of Trier, which closely collaborates with its department of computer sciences.

Leibniz Association

The LZI has been involved in various working groups of the Leibniz Association, including the Open Access Working Group, whose co-speaker has been an LZI employee since 2020. As part of the Leibniz Strategy Forum on Open Science, together with 19 partner institutions, the LZI aims to provide support to and foster collaboration within the Leibniz Association with respect to implementing open science.

There is an exchange with the Oberwolfach Research Institute for Mathematics (MFO) on an administrative level, since the LZI's seminars and workshop concept is similar to Oberwolfach's concept.

Open Science

Dagstuhl Publishing participates in the EU-funded FAIRECORE4EOSC project that develops components for the European Open Science Cloud (EOSC). The LZI focuses on tools for archiving, referencing, describing, and citing scientific software in publications. The LZI is also part of two NFDI (National Research Data Infrastructure) consortia, NFDIxCS and NFDI4DataScience.

Other collaborations

The LZI further collaborates with the *Gesellschaft für Informatik* (GI), which is the professional association that represents computer science in academia and industry in Germany. It is a founding shareholder of Schloss Dagstuhl. The collaboration further includes two GI Dagstuhl seminars per year and GI meetings at the LZI, among them the annual GI Dissertation Award selection meeting. Also, since 2013, the LZI has a joint program with the Heidelberg Laureate Forum (HLF) that allows select HLF attendees to participate in a Dagstuhl seminar.

Institution's status in the specialist environment

Seminars and Workshops

There are three meeting centres in the fields of mathematics and computer science that run programs comparable to the LZI's: When the LZI was founded, Dagstuhl seminars were modelled after MFO Workshops in mathematics, with some adaptations to computer science. The NII Shonan Meeting series (Japan) in computer science was in turn modelled after Dagstuhl Seminars; the main difference being the location and the fact that NII Shonan Meetings do not administer their facilities. The Banff International Research Station (BIRS, Canada), focused on mathematics, consulted heavily with the LZI during its design process. Thus, it also has similarities to the LZI's program. The four centres occasionally exchange experiences and advice, but have not institutionalised exchange.

dblp Computer Science Bibliography

The dblp competes with commercial and non-commercial offers such as Google Scholar, which is an all-field, non-curated academic search engine, and the similar, yet non-profit

Semantic Scholar. Similarities also exist to OpenAlex, a recent open, freemium infrastructure service, which builds on the now abandoned Microsoft Academic Graph and is a massive, cross-disciplinary research knowledge graph, and to WikiData, the collaborative, omnithematic and multilingual knowledge graph of the Wikipedia community. A comparable service to the dblp exists in the field of mathematics, namely the FIZ Karlsruhe-operated zbMATH Open.

Open Access Publications

Open-access publishing services in computer science are also offered, for the main part, by commercial competitors, such as Springer with its LNCS series, and by professional societies, in particular ACM. Among open access-only publishers, the largest competitor in computer science is the diamond open access CEUR-WS, which is run by computer scientists. There are differences between any of these three venues and the LZI's largest conference series, LIPIcs, in terms of, e.g., selectivity, pricing, and publication formats.

Subdivisions of the LZI

Seminars and Workshops

[27.8 FTE, thereof 5.1 FTE Research and scientific services and 22.7 FTE Service staff]

The LZI operates a seclusive seminar centre at Schloss Dagstuhl that can house and board as many as 70 participants and is equipped with amenities for meetings. There are two main types of events: In *Dagstuhl Seminars* 25 to 45 researchers meet in order to discuss, research, and work together. In *Dagstuhl Perspectives Workshops* smaller groups of the international elite of a field gather for the purpose of reflecting on the state and perspectives of research. Seminars and workshops absorb most of the centre's capacity. Together with summer schools and further educational events such as GI Dagstuhl Seminars, Summer Schools, and teacher training, they use 90 % of the about 87 available event slots per year. The remainder is made available for interested academic research groups.

The LZI ensures that the meetings are on topics of high scientific relevance and timeliness and have an appropriate mix of invitees. Special attention is given to interdisciplinarity and to nascent research areas. This is accomplished by a peer-review proposal selection process followed by scientific monitoring and support, which is overseen by the Scientific Directorate and the scientific staff. Obligatorily, the results of every seminar are published with Dagstuhl Publishing.

Even if there are no fixed quotas, over several invitation rounds intended to fill all available seats, the composition of the seminar is optimised under the guidance of the scientific staff. For example, in general about a quarter of a seminar's slots are filled with junior researchers. Furthermore, this approach has led to more women attending (see chapter 5). International participation has increased as well. The share of seminar participants from all foreign regions has risen at the expense of Germany (German participation is down to 24 % for participants, 25 % for organisers). Researchers can also apply on their own initiative to the LZI to participate in a Dagstuhl Seminar. Genuine

applications are discussed with the organisers. From 2018 to 2022, 63 such applications reached the LZI, of which 43 resulted in an invitation (19 to women, 25 to junior applicants). From 2016 to 2022, travel support was granted to 73 participants, 37 of which were junior. Of the support recipients 75 % were women.

Planning

The LZI believes that the success of a seminar rests on its happening on site. Therefore, hybrid events were discontinued in 2023. Video technology remains in place for use in exceptional cases. It will be an important task to develop guidelines to qualify such cases.

Most organisers are happy with the seminar options of 30 or 45 participants and of 2.5 or 4.5 days. Still, there are requests for other formats, mainly to have more participants, e.g., 60, or longer seminars. The LZI intends to experiment with such formats.

Until 2019, the NSF provided up to 100,000 USD per year to bring junior US scientists to Dagstuhl. For several reasons, the LZI has not applied for a new similar NSF grant, but plans to do so in due time.

dblp Computer Science Bibliography

[9.5 FTE, thereof 4.1 FTE Research and scientific services, 1.0 FTE Doctoral candidates, and 4.4 FTE Service staff]

The dblp bibliography is an open bibliographic database, search engine, and knowledge graph on computer science publications. It has evolved from an experimental web server to an online service for the international community. Its mission is to support computer scientists in their daily efforts by providing free access to high-quality bibliographic information and hyperlinks to publications. Since 2018, it is fully integrated into the LZI (see chapter 3).

As of March 2023, the dblp lists more than 6.5 million publications by more than 3.2 million authors. It currently covers about 55,000 journal volumes, more than 53,000 conference and workshop proceedings, and more than 120,000 monographs. Every year, more than 520,000 publications are added in a rigorous, semi-automated and semi-manual data curation process. The dblp editors place particular emphasis on the reliability and quality of the metadata entries, as well as on the correct attribution of authorship. Since early 2022, dblp data is also published as a semantically rich knowledge graph. Hence, dblp has become both a research information infrastructure and a dataset.

The dblp provides insight into the interrelations and semantic networks of international computer science research. All curated data is made publicly available for reuse under an open data licence. Every month, the dblp web servers record more than 45 million page views by more than 850,000 users.

Planning

The aim is to transform the information provided by the dblp website into a semantically rich, machine-actionable research knowledge graph (see chapter 3). The attribution and citation of research data in computer science has recently become a focus and will remain

at the centre of the dblp's attention, particularly as part of the LZI's commitment to national research data infrastructure (NFDI) consortia.

Adding affiliation information and institutional profiles is a frequently requested feature. Such data is only sparsely available for computer science publications, and often only in commercial databases. In a DFG project, the LZI will use web crawling and machine learning technologies for identifying, harvesting, and extracting affiliation metadata. A first proof-of-concept implementation of affiliation metadata in dblp was already started. While still in an early stage, the LZI prepared the dblp data model for handling affiliations as first-class data entities in the future.

Open Access Publishing

[4.9 FTE, thereof 3.6 FTE Research and scientific services and 1.3 FTE Service staff]

Dagstuhl Publishing is a scientific publishing house with a content focus on high-quality research papers in computer science. It is fully committed to the idea of open access. In its own view, Dagstuhl Publishing is distinguished from its commercial and non-commercial competitors by (a) applying extremely high quality standards and manual quality checks at all levels of the publication process; (b) being devoted to affordable open access publishing, with a publication charge of only 60 € per article; (c) putting the needs of the computer science community at the centre of its activities without being driven by commercial interests; and (d) being committed to making the knowledge and software developed in the publishing/open access environment accessible to the public.

Dagstuhl Publishing's portfolio is divided into seminar- and service-related series.

– Seminar documentation is published by the *Dagstuhl Reports* (for Seminars) and *Dagstuhl Manifestos* (for Perspective Workshops) series.

– In addition, there are the service-related *Leibniz International Proceedings in Informatics* (LIPIcs), which is the main series in terms of publication figures, and the *Open Access Series in Informatics* (OASIcs).

– The portfolio is complemented by the *Dagstuhl Artifact Series* (DARTS) and the *Leibniz Transactions on Embedded Systems* (LITES) journal.

All papers published in these series (around 16,000 as of January 2023) are available for free download from the DROPS server. In 2022, an average 130,000 document downloads (by human users) per month were recorded. In the same year, 36 LIPIcs volumes with 1,444 articles were published (for further publication figures, see appendix 2).

Since late 2017, Dagstuhl Publishing has developed software to automatically extract metadata and in part automating the time-consuming and cost-intensive manual typesetting of texts. This resulted in improved editing processes. From 2018 to 2020, the submission interface was redeveloped and, since 2018, the new submission server, DSUB, is in place. Also, the data schema for metadata of published documents has been expanded.

Planning

Further development is guided by the goal of establishing Open Access in computer science. Therefore, Dagstuhl Publishing will continue to address the needs for open access services from the computer science community and expand the portfolio accordingly; will continue the technical development; will add open science to the publishing offer; will initiate consulting activities; and make other open source offers in addition to LaTeX. This includes, inter alia, launching a newly developed publication server, DROPSv2.

Handling of recommendations from the previous evaluation

The LZI responded as follows to the recommendations of the last external evaluation (highlighted in italics, see also statement of the Senate of the Leibniz Association issued on 9 March 2017, pp. B-2 f.):

*1) "It will be incumbent upon Schloss Dagstuhl to consolidate the new activities that have been launched in the last few years to a greater extent and to be more pro-active in marketing LZI's **portfolio** in order to even further enhance its international visibility."*

According to the LZI, the information exchange and cooperation between the three subdivisions is strong, also because of common staff. It has put effort into redesigning the web pages of dblp and Dagstuhl Publishing in order to make the association to the LZI clear.

*2) "Schloss Dagstuhl's plans for integrating the **dblp database** and for funding it permanently are very convincing and are fully endorsed. Very good arguments exist for granting additional funding (small, strategic extraordinary item of expenditure, category B1) for this purpose."*

The dblp database has been full part of the LZI since 2018 (see chapters 3 and 7).

*3) "In order to boost the **number of proposals** for events and thus further increase the competition, the centre should publicise its bi-annual calls more systematically than it has so far throughout the entire computer science community. Furthermore, it should draw to a greater extent on the many institutions with which it maintains relations or cooperates as well as on their networks."*

The set of mailing lists and newsgroups used for spreading calls for proposals has been expanded. Annual proposal numbers have gone up from 99 (2015) to 153 (2020), and the rejection rate from 34% to 43%.

*4) "Given that LZI is an institution with an outstanding international reputation, it should aspire to lead the way in terms of **promoting female scientists**, too. It should therefore make even greater efforts to implement concrete and pro-active measures to increase the proportion of women at its events."*

The share of female participants and organisers has gone up (see chapter 5).

*5) "It is welcomed that a quarter of the places at Dagstuhl Seminars and Perspectives Workshops are reserved for **junior researchers**. The suggestions as to which junior researchers should be invited are, however, submitted by the organisers of the respective*

events in advance. Schloss Dagstuhl should find a way of enabling junior researchers to apply in their own right to participate in the events."

The LZI states that applications deemed worthy result in an invitation if the organisers do not object. Such objections are common. They are usually motivated by the organisers' desire to fill all available spots with scientists of their choice. The LZI resolves the resulting dilemmas in dialogue with the organisers.

6) "The funders are expected to act in accordance with the Administrative Agreement between the Federal and Länder Governments relating to the Leibniz Association by revoking the binding **staff appointment plan** *and replacing it with criteria which allow independent control of LZI's staff."*

The binding nature of the staffing plans was removed in 2017.

7) "The members of the **Scientific Directorate** *are currently elected for three years without any restrictions on the number of possible re-elections. The Leibniz Association's standards, however, only envisage the option of one single re-election: LZI is expected to make the relevant change to its statutes adapting regulations made for the Scientific Advisory Board. It is, moreover, recommended to enhance the internationality of the committee and the proportion of female members."*

The LZI has approximated the desired policy for the members of the Scientific Directorate (no more than two terms of four years each) with a maximum three terms of three years. As the Leibniz Statutes are intended for advisory boards, the LZI notes that long-term memory may be appropriate for the Scientific Directorate as a more operational body. The share of women is now at 6 out of 17.

8) "Schloss Dagstuhl should significantly increase the number of **women on the Scientific Advisory Board and the Industrial Curatory Board***."*

As of December 2022, two of the six Scientific Advisory Board members are women (2016: 1 out of 6). The Industrial Curatory Board has no female members (2016: 0) after the only woman had to quit her board membership when she was appointed to the Supervisory Board in May 2022.

Appendix 1

Organisational Chart

a)
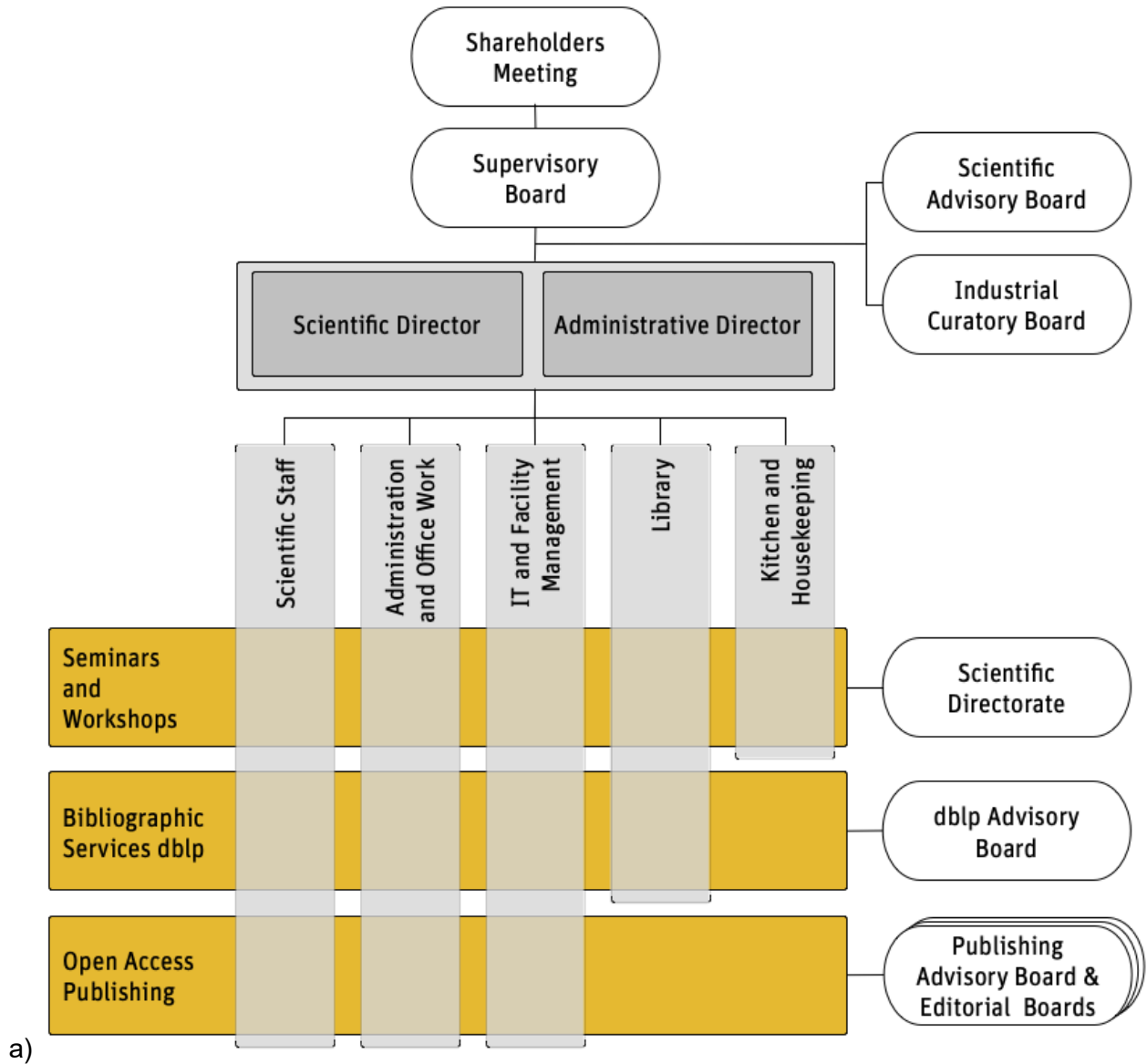
Appendix 2
Quantitative Indicators

Seminars and Workshops	Year			
	2019	**2020**	**2021**	**2022**
Number of seminars	73	13	47	77
Number of seminar participants (thereof: remote)	2,498 (-)	442 (23)	1,894 (1,365)	2,278 (383)
Number of other events	38	24	29	28
Number of participants of other events (thereof: remote)	801 (-)	237 (-)	345 (112)	533 (42)

Bibliographic services (dblp)				
New publication records added	458,836	506,718	520,298	531,692
Bibliography error cases handled	56,144	60,651	72,120	60,125
Average distinct users per month	890,122	1,051,507	753,550	853,223
Average page requests per month	32,279,498	36,451,167	40,615,923	45,415,495

Open Access Publishing (number of articles published)				
LIPIcs	1,208	1,352	1,333	1,444
OASIcs	120	133	161	95
LITES	5	-	3	10
DARTS	22	24	18	33
Dagstuhl Reports	75	49	28	53
Dagstuhl Manifestos	-	1	2	-

Appendix 3
Revenue and Expenditure

Revenue		2019			2020			2021			2022		
		k€	%	%	k€	%	%	k€	%	%	k€	%	%
Total revenue (sum of I., II. and III.)		**3,805**			**3,436**			**3,406**			**4,032**		
I.	**Revenue (sum of I.1., I.2. and I.3.)**	**3,795**	**100 %**		**3,414**	**100 %**		**3,398**	**100 %**		**3,964**	**100 %**	
1.	INSTITUTIONAL FUNDING (EXCLUDING CONSTRUCTION PROJECTS AND ACQUISITION OF PROPERTY)	3,042	80 %		3,105	91 %		3,154	93 %		3,205	81 %	
1.1	Institutional funding (excluding construction projects and acquisition of property) by Federal and *Länder* governments according to AV-WGL	3,042			3,105			3,154			3,205		
2.	REVENUE FROM PROJECT GRANTS	12	- %	100 %	-	- %		-	- %		188	5 %	100 %
2.1	DFG	-			-			-			57		30 %
2.2	Federal, Länder governments	-			-			-			29		15 %
2.3	EU	-			-			-			102		54 %
2.4	NSF	12		100 %	-			-			-		
3.	REVENUE FROM SERVICES	741	20 %		309	9 %		244	7 %		571	14 %	
3.1	Revenue from commissioned work	-			-			8			-		
3.2	Revenue from publications	78			91			88			95		
3.3	Revenue from seminar fees	663			218			148			476		
II.	**Miscellaneous revenue (e.g., membership fees, donations, rental income, funds drawn from reserves)**	**10**			**22**			**8**			**68**		

Expenditures		k€	k€	k€	k€
Total expenditures		**3,805**	**3,436**	**3,406**	**4,032**
1.	Personnel	2,442	2,503	2,480	2,692
2.	Material expenses	188	47	44	125
3.	Repair and maintenance	199	251	89	130
4.	Library	179	50	48	53
5.	Occupancy costs (e.g., energy, water, ancillary costs, etc.)	184	121	214	267
6.	Operational costs (e.g., network, software, administration, etc.)	155	135	133	143
7.	Membership fees (e.g., Leibniz, ORCID, etc.)	108	115	120	123
8.	Insurance	22	23	23	26
9.	Depreciation	161	170	170	180
10.	Other operating expenses (e.g., travel costs, vehicle costs, etc.)	45	21	27	53
11.	Profit/loss from economic activities	122	-	58	240

Appendix 4

Staff

(as of 31 December 2022)

	Full time equivalents		Persons		Women		Foreigners
	Total	on third-party funding	Total	on temporary contracts	Total	on temporary contracts	Total
	Number	Percent	Number	Percent	Number	Percent	Number
Research and scientific services	**13.8**	**25.4**	**15**	**40.0**	**2**	**50.0**	**3**
1st level (scientific director)	0.5	-	1	100.0	-	-	1
2nd level (heads of subdivisions)	3.0	-	3	-	-	-	-
Scientists in non-executive positions (A13, A14, E13, E14 or equivalent)	9.3	26.9	10	40.0	2	50.0	2
Doctoral candidates (A13, E13, E13/2 or equiv.)	1.0	100.0	1	100.0	-	-	-

	Full time equivalents		Persons
Science supporting staff (seminars, editorial, technical support etc.)	**24.3**	**-**	**35**
Information technology - IT (from E13, senior service)	1.0	-	1
Information technology - IT (E9 to E12, upper-mid-level service)	1.0	-	1
Library (E9 to E12, upper-mid-level service)	1.0	-	1
Seminars and editorial assistants (E8 to E9, mid-level service)	7.4	-	9
Kitchen and Housekeeping (E8 to E10, upper-mid-level service)	2.0	-	2
Kitchen and Housekeeping (E3 to E5)	10.7	-	19
Technical (large equipment, service) (E5 to E9, mid-level service)	1.2	-	2

	Full time equivalents		Persons
Science supporting staff (administration)	**2.7**	**-**	**4**
Head of the administration (technical administrative director)	1.0	-	1
Internal administration (Reception, Guest-Service, administration) (E8 to E9, mid-level service)	1.7	-	3

	Full time equivalents		Persons
Student assistants/marginally employed	**0.3**	**-**	**3**

	Full time equivalents		Persons
Trainees	**1.0**	**-**	**1**

30 October 2023

Annex B: Evaluation Report

Schloss Dagstuhl – Leibniz Center for Informatics, Wadern (LZI)

Contents

Appendix:
Members of review board

1. Summary and main recommendations

As a social research infrastructure facility, Schloss Dagstuhl – Leibniz Center for Informatics (LZI) in Wadern is classed as an *Institute for Advanced Studies.*[1] The LZI's main service offering for the international computer science community is its seminars and workshops, which enjoy an extremely high global reputation. In addition, the LZI maintains the dblp, the most important bibliographical database for computer science, and provides unique open access publishing services. A separate department is responsible for each of the three services.

The main event formats are the *Dagstuhl Seminars* on specific research questions, and the *Dagstuhl Perspectives Workshops* on the future development of a field of research. Through a competitive procedure, scientists can submit a proposal to run an event at the LZI, which include the topic and a provisional list of participants. The *Scientific Directorate* is responsible for selecting the proposals. It consists of the Scientific Director of the LZI and 16 external scientists with international credentials. The selection process is well organized and efficient. Just over 60 % of the proposals are successful. The motivated and competent technical and administrative staff ensure that the events business runs smoothly, and the events are held in high regard by participants from across the world. This field of activity was impacted particularly severely by the Covid pandemic. LZI handled this phase very well, with events being run either wholly or partially online. The LZI also wisely used this time to make some major structural alterations and improvements to the buildings. Normal operations have now successfully resumed. The *Seminars and Workshops* department is rated 'excellent'.

In addition, the LZI maintains the dblp bibliography database. The LZI had been involved in its development at the University of Trier from 2010/2011 onwards, and in 2018 it was integrated into the LZI, thanks to an increase in institutional funding from the federal and *Länder* governments. The dblp has become established as an indispensable standard bibliographic tool in the global computer science community. The *dblp* department is rated 'excellent'.

Thirdly, the LZI also provides open access publishing services for computer science. These are an important alternative to commercial competitors. They meet the need for quality-assured, low-cost publishing organs for conference proceedings and journals. The *Open Access Publishing* department is rated 'very good'.

The LZI is managed by a Scientific Director and an Administrative Director. Both contribute significantly to the Leibniz centre's success. They are responsible for the performance of the LZI, along with three steering committees (one for each department): the *Scientific Directorate*, the *dblp Advisory Board* and the *Publishing Advisory Board*, in all of which scientists from Germany and abroad work on an honorary basis. The three steering committees receive excellent support from the employees in the three departments.

The LZI maintains close working relationships with the local universities. The current Scientific Director is a professor at Saarland University and works part-time (38.9 %) at the LZI. The LZI head office is located on the university campus in Saarbrücken. The dblp team

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[1] German Science and Humanities Council: Developmental Perspectives of Institutes for Advanced Studies (IAS) in Germany. Cologne 23 April 2021.

is based at Trier University. Within the Leibniz Association there are regular exchanges, in particular with the *Oberwolfach Research Institute for Mathematics* (MFO), which, at the suggestion of the German Science and Humanities Council,[2] served as a model for the establishment of the LZI in 1990.

Special consideration should be given to the following main recommendations in this evaluation report (highlighted in **bold face** in the text):

<u>Overall concept</u> (chapter 2)

1. Nearly 2,500 researchers meet at the LZI each year, with about 75% coming from abroad. However, there are event series with similar titles from the same organisers and recurring participants. The LZI should achieve **even broader participation from the whole computer science community** at its events. A very good way of promoting their value and generating interest in organising or participating in events at LZI would be quality based presentations on the impacts of individual events. Furthermore, LZI should extend the monitoring of the event topics (for approved and also rejected events) and the diversity of participants.

   It is good to see that around a quarter of participants are junior researchers, but they often come from the organisers' immediate work environment and are suggested by them. The centre should achieve a greater number of unsolicited applications from junior researchers.

   As recommended, the LZI has increased the proportion of women among the event participants. It now stands at 28 % (2022). The institute should continue this positive trend.

<u>Changes and planning (chapter 3)</u>

2. The **Scientific Director** will retire in March 2026 at the latest. The Supervisory Board must now rapidly elaborate its initial thoughts on the appointment process for the successor. It makes sense to envisage the LZI leadership role again as a part-time position for a university professor. The previous Scientific Directors have been professors at Saarland University. As planned by the Supervisory Board, the institute should now ensure that the call for applications for the position as head of the LZI remains open to applicants beyond the circle of professors who are already employed at neighbouring universities. The Supervisory Board should start the appointment process as soon as possible.

3. It will be the task of the next Scientific Director to develop the LZI's services further in the long term in order to sharpen **LZI's profile**, building on the existing plans. As envisaged, LZI should increase the number of events with a focus on applied research. In addition, the plan to combine the data held by the three departments into research knowledge graphs (RKGs) offers great potential to link the centre's three activities more closely and to further optimise utilisation of its services. Within the appointment procedure of the

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[2] Wissenschaftsrat (1989): Empfehlungen zur Informatik an den Hochschulen, p. 106.

new Scientific Director, a strong emphasis should be put on the overarching strategy that candidates present.

4. The LZI intends to make its expertise, software, and infrastructure in open access publishing available to the computer science community at large, in order to become a **facilitator in the open-science transformation**. To achieve this, it intends to apply for an increase in institutional funding of €360k per year from 2027 onwards, which would primarily be used to create 5 FTE positions. These plans are supported in principle. Thanks to its role and visibility, the LZI is in an excellent position to advance the important area of openness in computer science. However, the application (application deadline is January 2025) should flesh out the job descriptions for the planned positions in greater detail. In addition, it should show how the centre plans to collaborate with other institutions that are active in the field of open access.

5. The LZI is addressing the balancing act between a justified interest in in-person events and a general interest in reducing travel in view of climate change and sustainability. In this regard, LZI should continue to develop and try **digital event formats**, building on the experiences gained during the pandemic. A promising new format are hybrid events, in which two in-person venues are digitally connected (e.g. the LZI and a partner institution on another continent). Digital formats could also further promote the inclusivity of the events, since they allow participation of researchers who can not travel.

Controlling and quality management (chapter 4)

6. While the *Scientific Directorate* is primarily responsible for supervising *Seminars and Workshops*, two separate **steering committees** being established in 2011 and 2021, respectively, assume this task for the *dblp Bibliography* and *Open Access Publishing* activities. In addition, there are separate *Editorial Boards* for the various publication series of LZI. In order to create synergies, it should be explored under the new Scientific Director, whether the committee structure could be simplified.

7. The term of office for the members of the *dblp Advisory Board* and *Publishing Advisory Board* is four years, with the option to be reappointed for a second term. This regulation leads to an appropriate balance between the need for continuity and the desire for turnover in these two steering committees. As recommended by the *Scientific Advisory Board*, a rule should also be introduced to limit reappointments to the ***Scientific Directorate.*** The stipulations for this in the statutes are currently different.

8. The ***Scientific Advisory Board*** (SAB) is closely involved in supporting LZI's management and Supervisory Board. In view of the aim to create closer links between the LZI's three fields of activity, the centre should ensure that information is exchanged regularly between the SAB and LZI's three steering committees. Regarding the composition of the SAB, it should be ensured that sufficient expertise is represented for all three LZI departments.

2. Overall concept, activities and results

As a social research infrastructure facility, Schloss Dagstuhl – Leibniz Center for Informatics (LZI) in Wadern is classed as an *Institute for Advanced Studies.* The LZI's main service offering for the international computer science community is its seminars and workshops, which enjoy an extremely high global reputation. In addition, the LZI maintains the dblp, the most important bibliographical database for computer science, and provides unique open access publishing services. A separate department is responsible for each of these three services (see also chapter 7).

The main <u>event formats</u> are the *Dagstuhl Seminars* on specific research questions, and the *Dagstuhl Perspectives Workshops* on the future development of a field of research. Through a competitive procedure, scientists can submit a proposal to run an event at the LZI, which include the topic and a provisional list of participants. The *Scientific Directorate* is responsible for selecting the proposals. It consists of the Scientific Director of the LZI and 16 external scientists with international credentials. The selection process is well organized and efficient. Just over 60 % of the proposals are successful, which means that the acceptance rate has been lowered slightly. The motivated and competent technical and administrative staff ensure that the events business runs smoothly, and the events are held in high regard by participants from across the world. This field of activity was impacted particularly severely by the Covid pandemic. LZI's handled this phase very well, with events being run either wholly or partially online. The LZI also wisely used this time to make some major structural alterations and improvements to the buildings. Normal operations have now successfully resumed.

Nearly 2,500 researchers meet at the LZI each year, with about 75% coming from abroad. However, there are event series with similar titles from the same organisers and recurring participants. The LZI should achieve even broader participation from the whole computer science community at its events. A very good way of promoting their value and generating interest in organising or participating in events at LZI would be quality based presentations on the impacts of individual events. Furthermore, LZI should extend the monitoring of the event topics (for approved and also rejected events) and the diversity of participants.

It is good to see that around a quarter of participants are junior researchers, but they often come from the organisers' immediate work environment and are suggested by them. The centre should achieve a greater number of unsolicited applications from junior researchers.

As recommended, the LZI has increased the proportion of women among the event participants. It now stands at 28 % (2022). The institute should continue this positive trend. Through support services the LZI makes it easier for people to combine participation in a workshop with family responsibilities. It is good to see that the LZI is also keeping an eye on other diversity aspects, striving, for instance, to reach more participants from the Global South.

The <u>dblp computer science bibliography</u> has become established as an indispensable standard bibliographic tool in the global computer science community. It is a well-curated

index of the relevant scientific publications and, as such, is extremely useful for the computer science community. Its international importance can also be seen in the dramatic rise in user numbers over the past few years (see chapter 7).

The LZI's <u>open access publishing services</u> are an important alternative to commercial and semi-commercial competitors. They meet the need for quality-assured, low-cost publishing organs for conference proceedings, which are the primary publication route in computer science. In addition, they offer an appropriate publication forum for the results of the Dagstuhl events.

3. Changes and planning

Development since the previous evaluation

Under the Scientific and Administrative Directors, and with the help of the competent employees, the LZI has developed very well over the past few years. The restrictions introduced during the Covid pandemic had a serious impact on the events business at Schloss Dagstuhl. This period was managed primarily by running events entirely or partially online. Between March and August 2020, it was not possible to hold any seminars on site. By 2022, the centre was already almost back up to pre-pandemic visitor and event numbers, and since 2023 LZI returned to normal operations.

The second big change since the last evaluation concerns the transfer of the dblp database. The LZI had been involved in the development of the dblp database at the University of Trier from 2010/2011 onwards, and in 2018 it was integrated into the LZI, thanks to an increase in institutional funding from the federal and Länder governments. The way the transfer of this infrastructure was managed was excellent.

Strategic work planning for the coming years

The Scientific Director will retire in March 2026 at the latest. The Supervisory Board must now rapidly elaborate its initial thoughts on the appointment process for the successor. It makes sense to envisage the LZI leadership role again as a part-time position for a university professor. The previous Scientific Directors have been professors at Saarland University. As planned by the Supervisory Board, the institute should now ensure that the call for applications for the position as head of the LZI remains open to applicants beyond the circle of professors who are already employed at neighbouring universities. The Supervisory Board should start the appointment process as soon as possible.

It will be the task of the next Scientific Director to develop the LZI's services further in the long term in order to further sharpen LZI's profile, building on the existing plans. As envisaged, LZI should increase the number of events with a focus on applied research (even though one has to acknowledge, that researchers from industry often can not visit LZI due to non-disclosure agreements). **In addition, the plan to combine the data held by the three departments into research knowledge graphs (RKGs) offers great potential to link the centre's three activities more closely and to further optimise utilisation of its services.** Through the RKGs, the LZI aims to develop a form of semantic

knowledge representation that describes the complex relationships between entities such as persons, institutions, research topics, results, data, and events. Such information is already available in the LZI's departments, although not necessarily in an interlinked, structured, and machine actionable way. For example, the *Seminars and Workshops* department provides data regarding the collaboration network of experts and current research challenges, the *dblp* department tracks the authorship of research publications as well as the history and content of publication outlets and conference events, and the *Open Access Publishing* department is working on the interlinkage between research articles and research datasets/software. By organizing this information in interlinked RKGs, the LZI will enable the identification of relevant information within its data, the exploration and analysis of connections between contained entities, and the discovery of new insights. **Within the appointment procedure of the new Scientific Director, a strong emphasis should be put on the overarching strategy that candidates present.**

The LZI is addressing the balancing act between a justified interest in in-person events and a general interest in reducing travel in view of climate change and sustainability. In this regard, LZI should continue to develop and try digital event formats, building on the experiences gained during the pandemic. A promising new format are hybrid events, in which two in-person venues are digitally connected (e.g. the LZI and a partner institution on another continent). Digital formats could also further promote the inclusivity of the events, since they allow participation of researchers who can not travel. The LZI could also consider adding *scientist-in-residence* programmes to its seminar service, where individuals or small groups would conduct research at the LZI over a longer period of time.

LZI seminars cover all areas of computer science, including some that touch on security topics. In view of geopolitical tensions, it is good to see that the LZI is looking at how it can ensure data security at all its events and still remain open to participants from all over the world.

Planning for additional institutional funding

The LZI intends to make its expertise, software, and infrastructure in open access publishing available to the computer science community at large, in order to become a facilitator in the open-science transformation. To achieve this, it intends to apply for an increase in institutional funding of €360k per year from 2027 onwards, which would primarily be used to create 5 FTE positions. These plans are supported in principle. Thanks to its role and visibility, the LZI is in an excellent position to advance the important area of openness in computer science. However, the application (application deadline is January 2025) should flesh out the job descriptions for the planned positions in greater detail. In addition, it should show how the centre plans to collaborate with other institutions that are active in the field of open access.

4. Controlling and quality management

Funding

The LZI is adequately endowed with institutional funding from the federal and *Länder* governments for its current tasks. It received €3.1m per year (Ø 2019–2022). The LZI generates additional funds for operating costs, primarily through attendance and publication fees; these have fluctuated in recent years because of restrictions linked to the pandemic.

Through its involvement in the open science scene, the LZI is now also regularly involved in projects with third-party funding, including the National Research Data Infrastructure (NFDI) and the European Open Science Cloud (EOSC). The DFG and the Leibniz Competition procedure also fund dblp projects. This is highly appreciated. The plans to raise funds for travel support again in future are welcomed. The planned application for an NSF grant (like the one obtained in 2019) is a good first step in this direction.

Facilities

The LZI premises in Wadern comprise Schloss Dagstuhl and its annexes as well as a guest house, built in 2012. LZI is capable of holding two parallel events all year round. The infrastructure is constantly being optimised in line with requirements. Sensibly, the LZI used the period of low capacity utilisation during the pandemic to make some major structural alterations and improvements. For instance, the research library, which has seen a reduction in in-person visits because of digital access options, was recently moved into the basement and onto the upper floor. This enabled an expansion of the conference rooms and communal areas, in which also the acoustics have been improved. The infrastructure is being gradually upgraded in terms of its energy efficiency. Further measures include the installation of solar panels.

The IT services run smoothly and Data security issues are treated as a high priority at the LZI.

Organisational and operational structure

The LZI is managed by a Scientific Director and an Administrative Director. Both contribute significantly to the Leibniz centre's success. The three department heads also perform their roles in a very competent manner.

In addition, scientists work on an honorary basis in steering committees of the LZI: According to the statutes, the *Scientific Directorate* is responsible for realising the objectives of the organization, its members are appointed by the *Supervisory Board* (see below) on suggestions by the *Scientific Directorate*, the *Scientific Advisory Board* and all shareholders of the LZI company. With the expansion of the LZI's activities over recent years, this responsibility has in fact been split between the directorate and two newly established steering committees (staffing by co-optation). **While the *Scientific Directorate* is primarily responsible for supervising *Seminars and Workshops*, the two separate steering committees being established in 2011 and 2021, respectively, assume this task for the *dblp Bibliography* and *Open Access Publishing* activities. In addition, there are separate *Editorial Boards* for the various publication series of LZI. In order to create**

synergies, it should be explored under the new Scientific Director, whether the committee structure could be simplified. Until then and in order to avoid misunderstandings and confusion with the *Scientific Advisory Board* (SAB, see below), the LZI is encouraged to find other names for the *dblp Advisory Board* and the *Publishing Advisory Board.*

The Scientific Director of the LZI belongs to all three steering committees, along with scientists from Germany and abroad, who are appointed on a voluntary basis. The committees receive excellent support from the employees in the three departments. The LZI's day-to-day operations are carried out efficiently at the head office. It is good to see that the proportion of women in the three steering committees is at least 33 % in each case. **The term of office for the members of the *dblp Advisory Board* and *Publishing Advisory Board* is four years, with the option to be reappointed for a second term. This regulation leads to an appropriate balance between the need for continuity and the desire for turnover in these two steering committees. As recommended by the Scientific Advisory Board, a rule should also be introduced to limit reappointments to the *Scientific Directorate.* The stipulations for this in the statutes are currently different** (three-year term of office with no limit on the number of reappointments). The most obvious and common regulation would be a four-year term of office with the option of a second term.

Quality management

The LZI has implemented suitable quality-assurance instruments. There is an elected ombudsperson to safeguard good scientific practice. It is good to see that these regulations are complemented by a suitable *Code of Conduct.*

Quality management by advisory boards and supervisory board

The *Supervisory Board* fulfils its role in an appropriate manner.

The *Scientific Advisory Board* (SAB) is closely involved in supporting LZI's management and Supervisory Board. It is good to see that the perspectives of industry representatives are also taken on board through the *Industrial Curatory Board* (ICB). The SAB and ICB have joint meetings and issue joint recommendations. **In view of the aim to create closer links between the LZI's three fields of activity, the centre should ensure that information is exchanged regularly between the SAB and LZI's three steering committees. Regarding the composition of the SAB, it should be ensured that sufficient expertise is represented for all three LZI departments.** The LZI should increase the proportion of women in the SAB and ICB. There are currently only two women out of a total of eleven members.

5. Human resources

The regulations for filling the two director positions are appropriate. As a rule, the two directors have five-year contracts that can be extended. The current Scientific Director is a professor at Saarland University and works part-time (38.9 %) at the LZI; in return, his

teaching load is reduced to two hours per week per semester. The Administrative Director is employed full time at the LZI.

The three infrastructure services are run by staff members who have a scientific degree and who are generally on permanent contracts. Only a few of them conduct research. A doctoral researcher is now working in the *dblp* department for the first time, and is being supervised in collaboration with Trier University. In the medium term, the LZI is expected to increase the proportion of women among the staff with a scientific degree, which is still low (2 out of 15).

The motivated and competent technical and administrative staff ensure that the events business runs smoothly. The LZI is very committed to the professional development of its support staff.

6. Cooperation and environment

The LZI maintains close and productive working relationships with Saarland and Trier universities. The LZI head office is on the university campus in Saarbrücken. The dblp team is based in Trier.

Within the Leibniz Association, there are regular exchanges with the *Oberwolfach Research Institute for Mathematics* (MFO), which served as a model for the establishment of the LZI in 1990. The LZI also collaborates with the *TIB – Leibniz Information Centre for Science and Technology and University Library* on content in the area of research knowledge graphs (RKGs). This work is also being pursued jointly within the NFDI. Other collaborations with Leibniz institutes take place through the centre's involvement in working groups e.g. on open access.

The LZI has a number of international contacts, particularly with the *NII Shonan Meetings* in Tokyo (Japan) and the *Banff International Research Station* (BIRS) in Banff, Alberta (Canada). It should further strengthen its collaboration with these and, where appropriate, other partners, especially with a view to developing joint multi-location event formats.

7. Departments of the LZI

Seminars and Workshops

[27.8 FTE, of whom 5.1 FTE research and scientific services staff and 22.7 FTE service staff]

The LZI has been offering seminars and workshops to the international community for over 30 years. These are known worldwide and enjoy an excellent reputation. The *Dagstuhl Seminars* are a central offering. At these, 25–45 scientists at all career stages focus on a question from the field of computer science for up to a week. The *Dagstuhl Perspectives Workshops* bring together established researchers to explore the medium- and long-term development of a research field. Past workshops have often formed the basis for entirely new research fields. Other types of events, e.g. for computer science teachers, are aimed at a broader public. For internal monitoring purposes, the LZI should record the number of rejected event proposals for each research field, in addition to the number of those approved.

It is a great success that the huge restrictions imposed by the pandemic on in-person seminars have not had a lasting impact. During the pandemic, the LZI succeeded quickly in switching a considerable proportion of its programmes to remote participation. Between March and August 2020, it was not possible to hold any events at Schloss Dagstuhl, and afterwards they could only be resumed step by step, as restrictions were gradually lifted. In 2022, visitor and event numbers were almost back up to pre-pandemic levels, and in 2023 LZI returned to normal operations. The number of seminar proposals had been consistently above 100 per year since 2016. Following pandemic-related fluctuations, figures are expected to stabilise at a good level from 2023 onwards.

The LZI is addressing the balancing act between a justified interest in in-person events and a general interest in reducing travel in view of climate change and sustainability. In this regard, LZI should continue to develop and try digital event formats, building on the experiences gained during the pandemic (see recommendation in chapter 3). For the future, it would also make sense to check whether thematically related *Dagstuhl Seminars* and *Workshops* could be run in parallel in suitable cases.

The Seminars and Workshops department is rated 'excellent'.

dblp Computer Science Bibliography

[9.5 FTE, of whom 4.1 FTE research and scientific services staff, 1.0 FTE doctoral candidates, and 4.4 FTE service staff]

The dblp computer science bibliography tool is indispensable for the international computer science community. It was developed at Trier University, was run jointly with the LZI from 2009 onwards and, in 2018, was fully transferred to the LZI (see above). This research infrastructure enjoys a global reputation and is being developed further all the time, including through doctoral projects and projects with third-party funding (DFG and NFDI). A strength of the database worth highlighting is the author disambiguation. The dblp is also offered to external researchers, e.g. at Trier University, as a research object.

The dblp has seen strong growth since the last evaluation. It now has 6.5m entries (2015: 3.2m). The increase in usage is evidence of the dblp tool's practical importance for computer science: the number of distinct users per month doubled from 435,000 (∅ 2013–2015) to 887,000 (∅ 2019–2022), and the number of monthly page requests rose from 14.5m (2015) to 45.4m (2022). This database growth went hand in hand with continuous improvements in the quality of the indexed entries as a result of systematically implemented quality management processes.

The plans for the future make sense. Additional technical improvements will see the dblp entries supplemented by automatically extracted author affiliation metadata. Processing the dblp data as research knowledge graphs also offers particularly high potential (see chapter 3).

The dblp department is rated 'excellent'.

Open Access Publishing

[4.9 FTE, of whom 3.6 FTE research and scientific services staff and 1.3 FTE service staff]

The LZI offers open access publishing services for the computer science community. These services meet the need for quality-assured, low-cost publishing organs for conference proceedings, which are the primary publication route in computer science. In addition, they offer an appropriate publication forum for the results of the Dagstuhl events (*Dagstuhl Reports*, *Dagstuhl Manifestos*).

In recent years, the *Leibniz International Proceedings in Informatics* (LIPIcs) has been developed into the flagship series of the publishing portfolio, as planned, and has managed to attract important conferences from commercial and semi-commercial competitors. The tripling of the LZI's article output to nearly 1,500/year (Ø 2019–2022) is due almost entirely to LIPIcs. The important DARTS series, which publishes computer artefacts, has also grown.

In the publishing field, the LZI operates in a highly competitive market, so it should identify the unique selling points of its publication services more precisely and, where necessary, refine its publishing profile further, as was also recommended by the SAB. Initial ideas, including, for example, a stronger focus on journal-based publication formats, are welcomed. The plans to position the department as a service institution for open science transformation (see chapter 3) offers the potential to expand the collaboration with the other two departments, especially as regards the development of research knowledge graphs (RKGs).

The Open Access Publishing department is rated 'very good'.

8. Handling of recommendations of the last external evaluation

The LZI has successfully addressed most recommendations made by the Leibniz Association Senate in 2016 (see Status Report, pp. A-15f.). Further efforts are needed to increase the board members' diversity (recommendation 8), and it is again recommended to adjust the stipulations in the statutes regarding the term of office of members of the Scientific Directorate (recommendation 7).

Appendix

1. Review Board

Chair (Member of the Leibniz Senate Evaluation Committee)

Katharina **Al-Shamery**	Institute of Chemistry, University of Oldenburg

Deputy Chair (Member of the Leibniz Senate Evaluation Committee)

Ferdi **Schüth**	Max-Planck-Institut für Kohlenforschung, Mülheim an der Ruhr

Reviewers

Alexander **Bockmayr**	Department of Mathematics and Computer Science, Freie Universität Berlin
Carole **Goble**	Department of Computer Science, University of Manchester (UK)
Ken-ichi **Kawarabayashi**	National Institute of Informatics, Tokyo (Japan)
Gabriele **Kotsis**	Institute of Telecooperation, Johannes Kepler University Linz (Austria)
Bart **Jacobs**	Institute for Computing and Information Sciences, Radboud University Nijmegen (Netherlands)
Thomas **Melham**	Department of Computer Science, University of Oxford (UK)
Vivien **Petras**	Department of Library and Information Science, Humboldt University of Berlin
Magnus **Pfeffer**	Faculty of Information and Communication, Stuttgart Media University

Representative of the federal government (member of the Leibniz Senate Evaluation Committee)

Michael **Stötzel**	Federal Ministry of Education and Research

Representative of the Länder *governments*
  no participation

Annex C: Statement of the Institution on the Evaluation Report

Schloss Dagstuhl – Leibniz Center for Informatics, Wadern (LZI)

Schloss Dagstuhl – Leibniz-Center for Informatics would like to express its appreciation and thanks for the work and effort the evaluation committee and the Evaluation Division of the Leibniz Association have expended in the evaluation process and in the production of the report. We are proud of the outcome just as we are proud of our work.

We value the constructive recommendations in the report and offer the following remarks.

- The search for a successor of the current scientific director has already started: a search committee has been formed and the position has been advertised.

- We agree that the current committee structure may appear bewildering. We will address this problem, in particular taking into account naming, specification, compositional, and statutory issues. Moreover, we will attempt to ensure adequate communication between the various committees.

- The organization of our seminar program has undergone more than three decades of development and continual improvements. We take the various pertinent recommendations in the report as possible seeds for further development, fine-tuning, and honing.

- Regarding our plans for becoming a facilitator in the open-science transformation, it is clear to us that the application for increased institutional funding will need to be more detailed and comprehensive than the elaborations in our report. We thank the evaluation committee for its explicit support and for the advice to seek more collaborations with other institutions pursuing the same goals.

- We are particularly proud of the excellent rating of our dblp subdivision only five years after the full transferal over to LZI for which increased institutional funding was granted in the wake of our previous evaluation.

Finally, we want to take the opportunity to express our gratitude towards all who have contributed to LZI's mission, be it as members of our boards and committees, as officials of government agencies, or in other capacities. Without their enthusiasm, dedication, and efforts LZI's success would be impossible.