

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

**Inhaltsverzeichnis**

1. Beurteilung und Empfehlungen .....	2
2. Zur Stellungnahme des LZI.....	4
3. Förderempfehlung .....	4

**Anlage A: Darstellung**

**Anlage B: Bewertungsbericht**

**Anlage C: Stellungnahme der Einrichtung zum Bewertungsbericht**

## 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 gefördert. Turnusmäßig, spätestens alle sieben Jahre, überprüfen Bund und Länder, ob die Voraussetzungen für die gemeinsame Förderung einer Leibniz-Einrichtung noch erfüllt sind.<sup>1</sup>

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 5. und 6. Juli 2016 Schloss Dagstuhl – Leibniz-Zentrum für Informatik (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 9. März 2017 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) ist eine international hoch anerkannte **soziale Forschungsinfrastruktur**<sup>2</sup>, deren zentrale Aufgabe die Organisation und Durchführung eines Seminar- und Workshop-Programms sowie weiterer Veranstaltungsreihen ist. Dazu stellen Forschende der Informatik und angrenzender Fachgebiete in einem wettbewerblichen Verfahren Anträge und kommen im Rahmen bewilligter Veranstaltungen zu einem intensiven wissenschaftlichen Austausch zusammen. Mit seinem Veranstaltungsprogramm sowie weiteren, vom Zentrum angebotenen Dienstleistungen unterstützt Schloss Dagstuhl die Informatikforschung auf einem weltweit herausragenden Niveau.

Schloss Dagstuhl hat sich seit der letzten Evaluierung mit großem Erfolg weiterentwickelt. Dabei gelang es, das bereits in der Vergangenheit sehr renommierte **Seminar- und Workshop-Programm** als den Kern der Aktivitäten bedarfsgerecht auszubauen und weiter voranzubringen. Die Veranstaltungen zeichnen sich durch innovative Fragestellungen und Themen aus. Sie sind sehr gut etabliert. Jährlich nehmen etwa 3000 Per-

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<sup>1</sup> Ausführungsvereinbarung zum GWK-Abkommen über die gemeinsame Förderung der Mitgliedseinrichtungen der Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e. V.

<sup>2</sup> Zur Begriffsbildung vgl. Wissenschaftsrat: Empfehlungen zu den Forschungsinfrastrukturen in den Geistes- und Sozialwissenschaften (28.01.2011, besonders S. 20. – Der Begriff wird inzwischen auch von der Leibniz-Gemeinschaft verwendet, vgl. Leibniz-Gemeinschaft: Forschungsinfrastrukturen. Berlin [2014]).

sonen, davon ca. dreiviertel aus dem Ausland, an den verschiedenen Veranstaltungen teil.

Die Bewertung und Auswahl der Anträge verantwortet das Wissenschaftliche Direktorium, ein derzeit fünfzehnköpfiges Gremium renommierter Informatikerinnen und Informatiker. Es ist das zentrale Gremium von Schloss Dagstuhl und steuert dessen Programm in enger Zusammenarbeit mit der LZI-Leitung. Die damit verbundenen Prozesse sind bestens strukturiert. Das Veranstaltungsprogramm wird insgesamt als „exzellent“ bewertet. Um eine noch höhere Anzahl von Vorschlägen für Seminare und Workshops zu generieren, empfiehlt der Senat, deren Ausschreibung noch systematischer bekannt zu machen und dafür die zur Verfügung stehenden Kontakte weitergehend auszuschöpfen.

In der Gestaltung und Steuerung der Diversität der Seminargruppen erzielt Schloss Dagstuhl mit Blick auf den wissenschaftlichen Nachwuchs und die geographische Herkunft der Teilnehmenden bereits gute Erfolge. Jedoch wirken nach wie vor Frauen nur mit einem Anteil von 13 bis 17 % als Organisatorinnen und Teilnehmerinnen an Veranstaltungen mit. Als international herausragende Institution muss Schloss Dagstuhl auch auf diesem Gebiet eine Vorreiterrolle einnehmen, die Beteiligung von Wissenschaftlerinnen erheblich steigern und konsequent Maßnahmen einführen, um dieses Ziel zu erreichen. Ein geeignetes Mittel könnte zum Beispiel sein, eine Beteiligung von Frauen in den Organisationsteams regelmäßig vorzusehen, wie dies im Bewertungsbericht angeregt wird. Der Beirat wird gebeten, die Entwicklung und Umsetzung solcher Maßnahmen intensiv zu begleiten. Im Rahmen des Seminarprogramms wird der wissenschaftliche Nachwuchs sehr gut gefördert. Es sind 25 % der Plätze für junge Wissenschaftlerinnen und Wissenschaftler vorgesehen, die von den Organisationsgruppen vorgeschlagen werden. Das LZI sollte jedoch dem wissenschaftlichen Nachwuchs die Möglichkeit eröffnen, sich eigenständig für die Teilnahme an Veranstaltungen zu bewerben. Insbesondere wird empfohlen, junge Wissenschaftlerinnen zu einer Bewerbung zu motivieren.

Neben seiner Kernaktivität griff Schloss Dagstuhl in den letzten Jahren gezielt Bedarfe aus der Informatik auf und erschloss sich mit einer Beteiligung an der **bibliographischen Datenbank *dblp*** sowie im Bereich des ***Open Access*** neue Tätigkeitsfelder, die als „exzellent“ bzw. „sehr gut“ bewertet werden. Diese Angebote sind von herausgehobener Bedeutung für die internationale Informatik, werden sehr gut nachgefragt und sollten zukünftig noch offensiver als genuine Angebote des Zentrums unter der Marke ‚Schloss Dagstuhl‘ gebündelt werden. Es ist sehr überzeugend, *dblp* in den kommenden Jahren vollständig und dauerhaft in das Zentrum zu integrieren. Der Bedarf für zusätzliche Mittel auf der Grundlage eines Sondertatbestandes ist dafür sehr gut begründet.

Schloss Dagstuhl verfügt über eine Vielzahl von Kontakten zu wissenschaftlichen Einrichtungen, Verbänden und Gesellschaften weltweit. Auch bettet sich das Zentrum hervorragend in das **institutionelle Umfeld in Saarbrücken** mit seinen zahlreichen computerwissenschaftlichen Einrichtungen ein, darunter zwei Institute der Max-Planck-Gesellschaft sowie das Deutsche Forschungszentrum für Künstliche Intelligenz (DFKI). Der Direktor des LZI, der diese Leitungsaufgaben mit 30 % seiner Tätigkeit wahrnimmt, ist zudem als Hochschullehrer der Universität des Saarlandes berufen und sichert wich-

tige Verbindungen zur universitären Informatik. Gemeinsam mit der Technisch-administrativen Geschäftsführerin leitet er das Zentrum mit großem Engagement. Beide werden von einer schlanken Geschäftsstelle unterstützt, deren Personal die Veranstaltungen äußerst kompetent und mit einer außerordentlich hohen Serviceorientierung begleitet.

Die Ausstattung mit **Mitteln** der institutionellen Förderung ist für die derzeitigen Aufgaben auskömmlich. Zudem intensivierte Schloss Dagstuhl seine Anstrengungen um die Einwerbung von Drittmitteln und erreichte vor dem Hintergrund seines besonderen Aufgabenspektrums sehr gute Erfolge. Es wird begrüßt, dass die **räumliche Ausstattung** des Seminarzentrums insbesondere durch den Neubau eines weiteren Gästehauses von den Sitzländern und dem Bund weiter verbessert wurde. Der Senat erwartet, dass die vorgegebene **Verbindlichkeit des Stellenplans** im tariflichen Bereich vollständig aufgehoben wird, um gemäß den entsprechenden Vereinbarungen von Bund und Ländern eine globale und flexible Steuerung des Personals zu ermöglichen.

Der **Wissenschaftliche Beirat** bringt sich engagiert und kritisch in das Qualitätsmanagement des Zentrums ein. Das Industrielle Kuratorium und der Aufsichtsrat kommen ihren jeweiligen Aufgaben sehr gut nach. Der Senat empfiehlt, die Beteiligung von Wissenschaftlerinnen in den Gremien des Zentrums deutlich zu steigern. Dies gilt insbesondere auch für das Wissenschaftliche Direktorium, in dem zum Evaluierungszeitpunkt lediglich eine Wissenschaftlerin mitwirkte. Der Senat empfiehlt darüber hinaus, die Mitwirkung im Wissenschaftlichen Direktorium auf zwei Amtszeiten zu begrenzen.

Mit dem weltweit hoch angesehenen Seminar- und Workshop-Programm und seinen weitergehenden, neu aufgegriffenen Dienstleistungs- und Informationsangeboten unterstützt Schloss Dagstuhl den interdisziplinären Austausch und die Kooperation in der Informatik und den daran angrenzenden Disziplinen. Die Erfüllung der von Schloss Dagstuhl wahrgenommenen Aufgaben ist an einer Hochschule nicht möglich. Eine Eingliederung des LZI in eine Hochschule wird daher nicht empfohlen. Als Seminar- und Veranstaltungszentrum verfügt es über ein international herausragendes Renommee und fungiert darüber hinaus heute selbst als Vorbild für vergleichbare Einrichtungen weltweit. Schloss Dagstuhl erfüllt die Anforderungen, die an eine Einrichtung von überregionaler Bedeutung und gesamtstaatlichem wissenschaftspolitischem Interesse zu stellen sind.

## 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.

## Annex A: Status report

### Schloss Dagstuhl - Leibniz Centre for Informatics, Wadern (LZI)

#### Contents

1. Structure, Tasks and Institutional Environment .....	A-2
2. General concept and profile.....	A-5
3. Subdivisions of LZI .....	A-8
4. Collaboration and networking.....	A-14
5. Staff development and promotion of junior researchers.....	A-15
6. Quality assurance .....	A-16
Appendices:	
Appendix 1: Organisational chart .....	A-20
Appendix 2: Output of Schloss Dagstuhl .....	A-21
Appendix 3: Revenue and Expenditure .....	A-22
Appendix 4: Staff.....	A-23

## 1. Structure, Tasks and Institutional Environment

### Development and funding

Schloss Dagstuhl – Leibniz Centre for Informatics (LZI) was founded in 1990, modelled after the Oberwolfach Research Institute for Mathematics (Mathematisches Forschungsinstitut Oberwolfach, MFO). After an evaluation of the German Council of Science and Humanities in 2002 LZI became a member of the Leibniz Association in 2005. Joint federal and state funding commenced in January 2006.

LZI was last evaluated in 2009. On the basis of the Senate's recommendations and a joint statement by the responsible departments at Federal and *Länder* level, in May 2010 the Joint Science Conference determined that LZI still met the requirements for joint funding.

#### Responsible departments at *Länder* level:

- State Chancellery of Saarland, Saarbrücken
- Ministry of Education, Science, Further Education and Culture of Rhineland-Palatinate, Mainz

#### Responsible department at federal level:

- Federal Ministry of Education and Research, Bonn

### Mission and tasks

Following its statutes, Schloss Dagstuhl's **mission** is “to promote basic 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.”

On the basis of its mission, LZI promotes the following objectives:

1. informatics research at an internationally recognised level
2. interdisciplinary discussion and cooperation
3. encouraging the participation of young scientists in all scientific forms and providing incentives for further training
4. new developments in the field of informatics becoming effective
5. transfer of knowledge

Schloss Dagstuhl pursues its mission by facilitating communication and interaction between researchers by organising and hosting seminars – this is the main activity of LZI Schloss Dagstuhl. However, in the recent past, the institute has expanded its operation and also contributes to bibliographic services (*dblp computer science bibliography*) and open access publishing. Hence, LZI's **programme** is implemented in three fields of operations (cf. chapter 3): “Seminars and Workshops”, “Bibliographic Services”, and “Open Access Publishing”.

## Legal form and organisation

LZI Schloss Dagstuhl is a company with limited liability (*gemeinnützige Gesellschaft mit beschränkter Haftung* (gGmbH)).

## Organs of the institute

Schloss Dagstuhl's **management** is executed by the Scientific Director and a Technical-Administrative Director. While the Scientific Director is responsible for the drafting of the scientific goals and the event planning, the Technical-Administrative Director assumes responsibility for executing the management's technical and administrative tasks.

The **Scientific Advisory Board** advises LZI's management with regard to research as well as development planning, comments on the draft of the programme budget, and recommends on the use of resources. It also assists the Supervisory Board with regard to LZI's future development as well as with the acquisition of management staff. It carries out an audit of the entire institute between two external evaluations. The Scientific Advisory Board consists of six to twelve academics from Germany and abroad; term of office is four years and can be prolonged once. The board convenes once a year. Members are appointed by the Supervisory Board in accordance with suggestions of the Scientific Advisory Board. Currently, the board has six members.

The **Industrial Curatory Board** (*Industrielles Kuratorium*) performs a transitional function between the Schloss Dagstuhl and the industrial R&D departments and laboratories. According to the institute, it helps to identify current R&D topics for seminars and locate attractive organisers from industry. The board members are appointed by the Supervisory Board. It consists of at least five members, whose term of office is four years, one reappointment being possible. Currently, it has seven members.

The **Supervisory Board** (*Aufsichtsrat*) supervises the management to make sure that the company's objectives are realised in a lawful, expedient, and financially sound manner. It participates in all significant company matters concerning research and financial planning.

The **Shareholders' Meeting** (*Gesellschafterversammlung*) decides on all changes to the company, in particular the inclusion of new associates, the revision of the Shareholders' agreement and the dissolution of the company. Also, shareholders confirm new members forwarded by them to the Supervisory Board and the appointment or recall of the managing directors. Currently, there are eleven shareholders, among them several universities in the southwest of Germany, the German Informatics Society (*Gesellschaft für Informatik*), the Max Planck Society, the research organisation INRIA (*Institut national de recherche en informatique et en automatique*) from France, and CWI (*Centrum voor Wiskunde & Informatica*) from the Netherlands.

The **Scientific Directorate** (*Wissenschaftliches Direktorium*) is responsible for reviewing proposals for Dagstuhl Seminars and Dagstuhl Perspectives Workshops. In doing so, it determines LZI's research, seminar and event programme, and also monitors its execution. The Scientific Director, who chairs the directorate, recommends the number of Scientific Directorate members to the Supervisory Board. Candidates may be suggested

by the shareholders, the Scientific Directorate and the Scientific Advisory Board. The selection is carried out in a joint consultation of the Scientific Advisory Board and the Scientific Director. The term of office is three years. Multiple re-elections are possible. Currently, there are 15 members.

### **National and international scientific environment**

According to Schloss Dagstuhl, a number of institutions world-wide offer **seminar programmes** similar to its own, all of which rely on an application process, *i.e.* the *Bertinoro International Center for Informatics* in Italy, *The National Institute of Informatics* in Shonan (Japan) or the *Simons Institute for the Theory of Computing* at UC Berkeley in California (USA). However, these processes differ from each other in the composition of the board reviewing the applications as well as in the seminar format to apply for. As Schloss Dagstuhl remarks, it is the only infrastructure in computer science with its own dedicated facilities for seminars, meals, and housing.

In terms of its **bibliographic services** (*dblp*), Schloss Dagstuhl refers to the niche *dblp* is occupying in computer science between scholarly search engines like *Google Scholar* and traditional research information services such as the *Zentralblatt MATH* service of FIZ Karlsruhe. However, unlike general search engines that harvest and aggregate large amounts of data algorithmically, the editorial work of the *dblp*-team creates an added value to raw bibliographic metadata, by cleaning and normalising data, and by adding semantic information. Also, *dblp* uses smart algorithms similar to the techniques of search engines to pre-process bibliographic records in large numbers, which are examined and manually edited wherever necessary. According to LZI, this semi-automated approach allows for efficient error correction and semantic enrichments of a large number of metadata records daily.

**Open Access Publishing** ranges from traditional, commercial publishers to not-for-profit institutional publishers and grassroots initiatives. However, as Schloss Dagstuhl points out, none of them offered options for conference proceedings in the past. In the course of discussions, meanwhile several Open Access publishing venues have emerged, among them the series offered by LZI Schloss Dagstuhl (c.f. chapter 3.3). According to the institute these are among the most popular Open Access venues for computer science conference proceedings worldwide.

### **National interest and justification for funding as a non-university institution**

With respect to its national interest, LZI refers to its services and infrastructures which complement universities. While a university's mission is the advancement of science through teaching and research, Schloss Dagstuhl advances science by providing an infrastructure for the organisation and implementation of seminars and workshops in computer science. Also, LZI provides services such as the indexing of computer science literature and acts as a neutral publisher of peer-reviewed results.



## 2. General concept and profile

### Development of the institution since the last evaluation

Since the last evaluation in 2009, LZI has undertaken three major developments:

- (1) Extension and enhancement of the **seminar programme**. Since 2009, lead times of seminars increased (*e.g.* a Dagstuhl Seminar with 45 participants from 550 days in 2009 to 621 days in 2010). In order to reduce the time between 'being accepted' and 'taking place' of a seminar, LZI Schloss Dagstuhl expanded its facilities. An additional guest house facility was completed in early 2012, so that it became possible to host two events concurrently. Since then, LZI was able to reduce a typical lead time for seminars by about 100 days. In terms of guests and numbers of seminars ("volume") LZI's programme has seen an increase in the range of 10 % to 20 % since 2009, as Schloss Dagstuhl points out.
- (2) In 2008, the centre established a second division for **Open Access Publishing** with a special focus on peer-reviewed conference proceedings – as a strategic initiative towards a more open, more transparent, and more cost-effective publishing culture in computer science.
- (3) Collaboration with University of Trier (since 2010) in **Bibliographic Services** for the maintenance and development of the *dblp computer science bibliography*, a literature database in computer science. This project, which also resulted in the establishment of a third division, has attracted funding of € 1,4 million since then. LZI Dagstuhl contributes various full time positions to *dblp*. Today *dblp* lists more than 3,2 million publications and – as LZI points out – has grown to be the most comprehensive, open bibliographic service in the field.

### Results, Impacts, Achievements

LZI provides services and infrastructure for research in computer science; it mainly facilitates research for its users rather than creates original research itself. According to the institute, this makes it difficult to attribute research results directly to its work. However, the institute takes the following observations as indicators for its impact and achievements:

- Schloss Dagstuhl's seminar concept inspired others: the *National Institute of Informatics* in Japan (2011) and the *Simons Institute* in California (2012) provide seminars that share a lot with the principles pioneered at LZI Schloss Dagstuhl.
- LZI continues to see strong demands for its seminar programme attested by high-quality proposals. In response, it increased the number of seminars held as well as the number of participants. As a result, the programme was able to attract some of the most celebrated minds in computer science.
- The centre was able to attract over € 3,2 million of funding in addition to its regular budget since 2009 for ongoing and new operations. Of these extra funds, about € 2,0 million came from special expense funds for the construction and maintenance of the conference facilities, while about € 1,2 million came from third-party project funds and donations (cf. appendix 3).

- *dblp* has indexed more than a million new records in the last three years, and sees heavy usage, answering on average about 4 queries per second.
- The open accessing division has seen strongly increased demand for its services and it has published about 1.500 articles in the last three years.

While LZI Schloss Dagstuhl provides **scientific service and infrastructure** it also offers **scientific consultancy** as part of its seminar programme (*Dagstuhl Perspectives Workshops*), which are intended as meetings of senior scientists to reflect about the state of a field and to define future directions. Also, it facilitates **knowledge transfer** between academia and industry through its seminar programme with approx. 9 % of LZI's guest having an industrial affiliation.

### Public relations

Public relations at Schloss Dagstuhl has three missions: (1) to inform and to educate the general public and decision makers about research in computer science, (2) to support organisers of seminars with PR work, and (3) to inform the general public about LZI's work. In order to do so, LZI has various instruments at its disposal: a website and social media accounts (Twitter, LinkedIn), annual reports (bilingual), press releases and press reports (disseminated through *Informationsdienst Wissenschaft*), open house days as well as annual workshops for journalists and for science teachers.

### Strategic work planning for the next few years

In the coming years LZI's **seminar programme** will remain its core activity, which in Dagstuhl's assessment has achieved an adequate size with the amendments of the past, also with respect to available boarding facilities. Subsequently, Schloss Dagstuhl does not intend any further growth. However, it aims to ensure that no invitee has to turn down invitations due to financial limitations and thus will seek to expand external funding to support this goal.

In recent years, the centre has adopted the strategic goal of moving the publication culture in computer science towards affordable **open access publishing**. While it has no intentions of becoming a major publishing house competing with commercial companies (and does not intend to solicit further new journals published by Schloss Dagstuhl), it plans to concentrate its efforts on the publication of the *Leibniz International Proceedings in Informatics (LIPIcs)* as an open access venue for proceedings of leading computer science conferences, with numbers rising from currently 23 to up to 50 conferences in 2020 (cf. chapter 3.3).

Schloss Dagstuhl intends to expand its activities in **bibliographic services** significantly and take the *dblp computer science bibliography*, which has been jointly operated with University of Trier in the past, organisationally completely under its roof. As LZI points out, both *dblp* and the seminar programme have profited from each other tremendously. Hence, LZI aims to substantially increase the resources that are dedicated to *dblp*. In the long run, LZI seeks to enhance the services offered by *dblp* by providing semantic enrichment and by further increasing data quality. In particular, it plans to add affiliation information, further improve the quality of the author information by networking with

established and nascent international persistent identifier schemes, introduce references to research data and artefacts, and expand the coverage of *dblp* with respect to monographs, theses, and older references.

In order to do so, LZI intends to apply for an **extraordinary item of expenditure** ("*Kleiner strategischer Sondertatbestand*" – *Kategorie B1*) in the amount of approx. 390 k€ (including approx. 90 k€ own contribution). With this it aims to increase *dblp*'s staff (currently 3 FTE, 1,5 FTE of which will run out in 2016 and 2018, respectively) by additional 5,5 FTE (3,5 postdoctoral positions, 1,5 positions for researchers, and 0,5 positions in IT support; out of these additional positions, LZI intends to finance 1,5 FTE as part of its own contribution). Altogether, LZI seeks additional permanent yearly funds in the amount of 304 k€.

### **Appropriateness of facilities, equipment and staffing**

In 2015, LZI's **total revenues** were approx. € 3,6 million including € 2,5 million institutional funding (cf. appendix 3).

In the same year LZI attracted € 141k **third party funds**, mainly coming from the Klaus Tschira Foundation, Leibniz Competition (2011–2012, 2015–2018), and the National Science Foundation. In the period 2013–2015, project funding grants accounted for between 5,4 % (2013) and 4,3 % (2015) of the institute's revenues.

LZI operates at three sites: the main site is **Dagstuhl Castle** in Wadern. In addition, the administrative office and the scientific staff operating the Dagstuhl Workshops and Seminars are located on the **campus of Saarland University** in Saarbrücken, while scientific staff operating the Bibliographic Services is located on the **campus of University of Trier**. Staff operating the Dagstuhl Publishing services is distributed over the sites at Wadern and Saarbrücken.

The main site in **Wadern** has 71 rooms, including 18 double rooms, for a total capacity of 89 participants staying overnight. In 2012, a new guest house facility was put into operation. Meetings take place in two main lecture halls with a capacity of 35 or 60 seats. In addition, Schloss Dagstuhl offers meeting rooms of various sizes, a cafeteria, a wine cellar and a few leisure facilities like a sauna and a small gym, and outside volleyball court and bikes. The kitchen serves three meals a day for up to 92 people. Facilities at Wadern are managed by LZI's own staff (this includes cleaning, technical management, renovations and repairs, and gardening). In its own assessment, LZI's facilities for hosting seminars are adequate for the current size and scope of the programme.

The Dagstuhl Office in **Saarbrücken** is located on the campus of Saarland University housing some administrative and most of the scientific staff. According to LZI, the offices are adequate for the tasks and could even be slightly expanded if needed.

Scientific staff working on the *dblp computer science bibliography* is located at the office at University of **Trier**. This is based on the cooperation between LZI and University of Trier that started on November 2010 and has been renewed by a 3-years cooperation agreement in 2013. The facilities provided by University of Trier are adequate; members of scientific staff at Saarbrücken and Trier regularly work and meet in Wadern.

The **IT service** provides support for all internal operations at all three sites. Moreover it provides the IT infrastructure, services, and support for all guests. Based on a recommendation from the last evaluation, data storage and backup is highly redundant and distributed over several facilities for increased resilience against failure.

In Wadern, LZI maintains a **research library** for computer science which is part of the national network of libraries. It is permanently open for researchers on site and accessible for outside users during business hours. Currently, the library holds approx. 32.200 textbooks and monographs. It subscribes all relevant conference proceedings electronically. Furthermore, it provides access to more than 1.000 scientific electronic journals as well as access to more than 4.000 national and international newspapers and magazines from more than 100 countries.

### 3. Subdivisions of LZI

#### 3.1. Seminars and Workshops

[29,75 FTEs, thereof 2,6 FTE Research and scientific services, 24,05 FTE Service positions, 0,8 FTE Administration, 0,3 FTE Student assistants, 2 FTE Trainees]

Scientific seminars and workshops are at the core of LZI Schloss Dagstuhl's scientific programme. LZI Schloss Dagstuhl offers the following types of events (totalling in 113 events in 2013, 112 events in 2014, and 107 events in 2015):

##### **(1) Dagstuhl Seminars and Perspectives Workshops**

Dagstuhl Seminars and Perspectives Workshops are at the focus of Dagstuhl's scientific management and oversight and account for over 80 % of the institute's hosting capacity. Since 2009, the institute implemented only minor changes, *e.g.* the introduction of small seminars of up to 30 participants (in contrast to large seminars of up to 45 people). In the years 2013 to 2015 between 72 and 75 seminars and workshops took place annually with an average of 2.567 participants per year (approx. 35 participants per seminar). Altogether ten workshops took place in the same period of time.

Twice a year LZI solicits proposals for future Dagstuhl Seminars and Dagstuhl Perspectives Workshops. Since 2010 the targeted group was extended with approx. 3.000 people being addressed in March 2016.

Seminars and Workshops are proposed by a team of two to four researchers assumed to have a significant scientific standing with regard to the proposed theme. According to the institute, LZI Schloss Dagstuhl strongly encourages female scientists to (co-)submit proposals. Proposed topics are expected to have a clear thematic focus on timely and relevant subjects within computer science research, although interdisciplinary and multi-disciplinary proposals are also highly appreciated. In particular, as LZI points out, applications in- and outside industry are welcomed.

Seminar proposals are reviewed by the Scientific Directorate (with each proposal receiving at least three reviews) and discussed at the directorate's half-yearly meetings. During these meetings, the directorate decides about proposals and thus LZI's upcoming scien-

tific programme. Results, recommendations, as well as remarks are communicated to proposal authors in a personal letter by the Scientific Director. If the proposal was accepted, the letter also informs about the scheduled date for the seminar. Between 2013 and 2015, LZI received between 98 and 107 proposals annually of which two thirds on average were accepted.

The administrative process is handled by Schloss Dagstuhl's event management team in close consultation with the organisers. This includes mainly the invitation process. Also, each seminar is supported by a member of LZI Schloss Dagstuhl's scientific staff to give advice and to assure the quality of the seminar from a scientific point of view. On average, almost 50 % of the invitees accept the invitation. About six weeks prior to the event, seminar organisers receive further instructions. – In 2015, 41,9 % of the participants came from Europe (excluding Germany), 26,6 % from Germany, 23,7 % from North America, and 5,6 % from Asia. The remaining 2,2 % came from the rest of the world.

Since 2011, Dagstuhl Seminars and Perspectives Workshops are documented by a report which is openly accessible through the *Dagstuhl Reports* series. The executive summary of the report is published on the seminar webpage and in Dagstuhl's annual report. Dagstuhl Perspectives Workshops organisers are to publish their results as an article in the *Dagstuhl Manifestos* journal that is intended for a broader audience. The open access *Dagstuhl Follow-Ups* format provides an optional venue for publications of peer-reviewed collections emerging from a Dagstuhl Seminar or Perspectives Workshop.

In total, 208 articles have been published in the *Dagstuhl Reports* series between 2013 and 2015 ( $\emptyset$  approx. 69 articles annually). In the same time, altogether six articles were published in the *Dagstuhl Manifesto* series (two articles annually).

## **(2) GI-Dagstuhl Seminars**

GI-Dagstuhl Seminars aim at bringing advanced Ph.D. students and post-doctoral researchers together for reviewing a research topic under the supervision of a senior organiser team.

LZI hosts two to four seminars each year that are jointly supported and financed by the *German Informatics Society* (GI) and Schloss Dagstuhl. Proposals for such seminars are reviewed by a committee of professors in computer science that are organised in the GI. In contrast to Dagstuhl's main seminars, the invitation process of GI-Dagstuhl Seminars is managed by the seminar organisers. Often, there is an open call for participation. According to LZI, these seminars bind few resources outside the hosting itself but are part of Dagstuhl's effort to support junior researchers with dedicated seminar formats.

Between 2013 and 2015 altogether six seminars (176 participants) took place.

## **(3) Summer Schools and Graduate School Meetings**

LZI hosts summer schools in computer science as part of its mission to support junior researchers. A summer school introduces about 30 junior researchers to the state of the art of a research area through a series of lectures held by senior researchers over three to five days. The centre hosts two or three summer schools per year.

A summer school is proposed informally by its organisers and gets reviewed by LZI's Scientific Director, approval depending also on the capacities. The promotion of the school, the selection of participants, and the invitation process is managed by its organisers.

In order to support junior researchers, LZI hosts also joint meetings of graduate schools. The goal is to connect young researchers and to provide a venue for exchanging experience. Since 2007, each year such a common workshop took place at Schloss Dagstuhl, hosting approximately 70 guests for about 3 days.

#### **(4) LZI Schloss Dagstuhl's Workshop Programme for Science Teachers and Journalists**

LZI aims to promote the understanding for computer science in the general public. Hence, it has introduced (1) three-day workshops for science journalists for introducing them to current research in computer science and (2) three-day workshops connecting about 60 teachers with computer science researchers who present fundamentals and new developments suitable for teaching at school. LZI's main task is finding the right topics and researchers that represent them within this workshop (and, of course, hosting the event).

Between 2013 and 2015 altogether eleven educational events took place reaching almost 500 people.

#### **(5) Research Group Meetings**

These events account for approx. 10 % of LZI Schloss Dagstuhl's programme and are typically requested by research group leaders for off-site meetings, collaborative meetings with other groups, or small scientific workshops. Most meetings last fewer than three days and have fewer than 17 participants. These meetings comprised about 1.500 overnight stays in 2015. Research meetings do not undergo a review and are not supported by LZI's scientific staff. They are processed on a first-come, first-serve basis and are subject to capacity available. In the years 2013, 2014 and 2015 altogether 96 meetings with 1.847 attendants took place (approx. 615 people annually).

In addition, LZI Schloss Dagstuhl offers research stays: Extended stays of one or two individual researchers who, for example, wish to work on a book project. This offer is used rarely and its implementation neither constrains the other events nor does it require special resources.

#### **Work planning for the next few years**

LZI Schloss Dagstuhl's seminar programme will remain at the core of its activities. As the institute points out, it strives to attract the best researchers to organise and attend Dagstuhl Seminars and Dagstuhl Perspectives Workshops. LZI sees neither room nor need to grow its programme much further. Hence, it will continue to concentrate on selecting a high-quality programme that comprehensively covers computer science as a field with participants mainly coming from Germany, Europe, and North America in

about equal parts. Furthermore, LZI will continue to promote the participation of junior researchers and seek to extend available funds for this.

### 3.2. Bibliographic Services

[4,3 FTEs, thereof 3,6 FTE Research and scientific services, 0,6 FTE Service positions, 0,1 FTE Administration]

The *dblp* service (*Digital Bibliography and Library Project*) provides, among other tools, means for searching and finding research articles in the web, curated researcher profiles and bibliographies with disambiguated homonymous and synonymous author names, as well as curated venue profiles and histories for more than 6.000 computer science journals and conference series.

The *dblp computer science bibliography* was started in 1993 at the University of Trier as a simple test of emerging web technologies. Over the years, with the help of various project grants and occasional donations the endeavour grew gradually. In 2010, *dblp* was indexing more than 1,5 million computer science publications coming from all disciplines. The cooperation between LZI and University of Trier started in 2011 – being consolidated by a two-year grant of the Leibniz Association and supported by annual donations of the Klaus Tschira Foundation since 2010. Since then, a core *dblp* team was established at Schloss Dagstuhl that maintains and improves *dblp* in close cooperation with the University of Trier. Furthermore, a *dblp* Advisory Board was built to provide scientific supervision and expertise for the development of the *dblp* data set (currently eleven members). In its current version, the cooperation agreement runs from 2014 to the end of 2016.

Today, *dblp* lists more than 3,2 million publications and has grown, as LZI points out, to the most comprehensive, open bibliography in computer science. In 2015, more than 350.000 records were added (cf. appendix 2). The *dblp* website is visited by more than 30.000 users daily. In 2013, a large-scale survey about the usage of publication venues among German computer scientists was conducted.

#### **Work planning for the next few years**

LZI has committed itself to maintain, consolidate, and improve *dblp* as the central tool for reference, documentation, and exploration of the research publications in computer science. This will be achieved in accordance with the key principles of *dblp*: openness, neutrality of the data set, data quality, semantic enrichment, enabling of research, and user orientation.

Future development of *dblp* will focus on catching up with a number of recent shifts in the publication landscape as well as in improving the meaningfulness of its profiles and the coverage of neglected areas. Topics that LZI would like to address are as follows: implementation of scalable state-of-the-art author disambiguation methods (addressing the problem of correct attribution of scholarly material to their unambiguous authors), adding affiliation data and institutional profiles, networking with international persistent identifier (PID) initiatives or providing references for research data and artefacts. In

order to do so, the institute aims to substantially increase the resources that are dedicated to *dblp*. In the long run, LZI seeks to double the size of the current staff (cf. chapter 2).

### 3.3. Open Access Publishing

[1,8 FTEs, thereof 1,1 FTE Research and scientific services, 0,6 FTE Service positions, 0,1 FTE Administration]

LZI's open access activities and services are operated under *Dagstuhl Publishing*. The portfolio is split into **(1)** seminar-focused series that are intertwined with LZI's seminar and workshop programme and **(2)** service-focused series offering a publishing service for workshops and conferences that are independent from LZI's seminar programme.

#### **(1) Seminar-focused series**

- **Dagstuhl Reports** (Periodical, 12 monthly issues in 1 annual volume, approx. 70 articles/1.700 pages per volume)

The periodical started in January 2011 (before, the series *Dagstuhl Seminar Proceedings* (2004–2010) and *Dagstuhl Seminar Reports* (1990–2003) were used to disseminate the documentation of seminars and workshops). The *Dagstuhl Reports* series publishes in monthly issues reports on seminars and workshops. Typically, a report includes an executive summary written by the seminar organisers along with abstracts from talks. Often this is complemented by summaries from working groups and plenary discussions. Reports in this periodical serve mainly as documentation; the content is not peer-reviewed. As LZI points out, the Scientific Directorate, however, is acting as editorial board, since it has reviewed and accepted the proposals of the underlying seminars and workshops. In 2013, 2014 and 2015 Schloss Dagstuhl published 84, 62, and 62 *Dagstuhl Reports* respectively.

- **Dagstuhl Manifestos** (Periodical, 1–2 issues in 1 annual volume, 2–4 articles/40–50 pages per volume)

The *Dagstuhl Manifestos* series was established in 2011 as an open access periodical for publishing the manifestos that are an expected result of Perspectives Workshops. The Scientific Directorate acts as the editorial board of the periodical. A manifesto aims at describing visions and perspectives of a research area, based on an assessment of the state-of-the-art, thereby highlighting shortcomings that need to be addressed in the future. Between 2013 and 2015 two manifestos were published annually.

- **Dagstuhl Follow-Ups** (Book/collection, 1–3 volumes/year, 10–15 articles/200–300 pages per volume)

Established in 2010, the *Dagstuhl Follow-Ups* book series is devoted to peer-reviewed collections of original research works that are rooted in a dedicated Dagstuhl Seminar. The series enables seminar organisers (who also act as book editors) to provide a coherent collection of articles describing the state-of-the-art in the underlying research area(s) along with pointers to the current research frontiers. In order to publish Dagstuhl Follow-Ups, organisers need to submit a proposal which is evaluated by



the Scientific Directorate acting as editorial board for the series. In 2013 LZI Schloss Dagstuhl published 3 books of Follow-Ups with a total of 25 articles.

## **(2) Service-focused series**

***OASlcs (Open Access Series in Informatics)*** (Proceedings, 6–8 volumes/year, approx. 15 articles/120–200 pages per volume)

The *OASlcs* proceedings series (founded in 2006) aims at publishing peer-reviewed proceedings of computer science workshops, symposia, or small conferences. In order to publish in this series, workshop organisers are asked to submit a proposal describing the workshop's topic, the setup of its programme committee, and the timeline for publishing the proceedings. There is an editor-in-chief, an editorial board (consisting of four European researchers from different research areas), and various guidelines for the selection of proposals, *e.g.* a standard peer-review process, a minimum number of articles, and articles written in English only. The *OASlcs* series charges an article-processing charge (APC). In 2013, 2014, and 2015 LZI Schloss Dagstuhl published 6, 8, 7 proceedings in this series with 117, 116, and 66 contributions, respectively. LZI Schloss Dagstuhl expects the work load to remain the same in the next few years.

***LIPlcs (Leibniz International Proceedings in Informatics)*** (Proceedings, 22–24 volumes per year, 35 articles/500 pages per volume on average)

The *LIPlcs* proceedings series aims at publishing peer-reviewed proceedings of renowned and established computer science conferences that have a leading role in their respective area. According to LZI, *LIPlcs* is the institute's main vehicle to support the computing research community with a high-quality open access publishing venue and to promote *open access* in general. Founded in 2008, its first issues were published in 2009. As part of its operative mission, *LIPlcs* has statutes clarifying the structure of the editorial board, procedures for evaluating and reviewing proposals, and the way open access is implemented. The *LIPlcs* series charges an article-processing charge (APC).

*LIPlcs* currently publishes 23 conferences, some of them in a biennial mode, with a turnaround of about 1.000 articles. In 2013, 2014, and 2015 altogether 194, 204, and 516 contributions to proceedings were published in this series. In the future, LZI has set itself a limit of 40 to 50 conferences. Hence, the work plan for the next few years will focus on soliciting 15 to 20 conferences and adapting the operational procedures to this increased workload.

***LITES (Leibniz Transactions on Embedded Systems)*** (Journal,  $\geq$  2–4 issues in 1 annual volume, 2–7 articles/70 pages on average per volume)

The *LITES* journal aims at publishing peer-reviewed articles covering all aspects of embedded computing systems. It forms a joint endeavour of LZI, the *European Design and Automation Association* (EDAA), and the *Embedded Systems Special Interest Group* (EMSIG). The series started its operation in 2013 by (1) building the editorial board (currently 16 members) and nominating the editor-in-chief, (2) starting to work out the legal basis, and (3) soliciting article submissions. First articles were published in early 2014.

The *LITES* series charges an article-processing charge (APC), which is reduced due to external funding. In 2014 seven issues were published; in 2015 three issues appeared. As LZI points out, the series is still in its infancy and needs to grow up in the next few years, especially with regard to number of submission and the number of published articles.

***DARTS (Dagstuhl Artefacts Series)*** (Periodical, ≥ 1–2 issues in 1 annual volume, 2–7 articles/70 pages on average per volume)

The *DARTS* series publishes evaluated research data and artefacts. It is organised as a periodical. In 2015, one first volume containing one issue with twelve artefacts was published. With *DARTS*, LZI Schloss Dagstuhl is on its own account aiming to support the computing research community with a publishing venue dedicated to research data and artefacts. *DARTS*, as LZI points out, currently is in an experimental phase.

### **DROPS – Dagstuhl Research Online Publication Server**

In 2004, DROPS was established as electronic publishing server. It is the main entry point for readers to access the articles published in the series of *Dagstuhl Publishing*.

## **4. Collaboration and networking**

### **Collaboration with universities**

LZI maintains operational collaborations with **Saarland University** in Saarbrücken and **University of Trier** – collaborations that are mainly given by the fact of physical proximity, as LZI points out. Since its beginning, LZI's administration office, which is responsible for event management, is located on the Saarbrücken campus of the Saarland University, and, since 2010, the University of Trier houses the scientific staff of LZI Schloss Dagstuhl's Bibliographic Service division. Furthermore, through the organisation of various events that take place in the computer science centre, the office maintains a close cooperation with many research groups.

From 2011 to 2013 LZI collaborated with the University of Trier (Leibniz Competition) from which the *Bibliographic Services* division emerged. The collaboration is still ongoing and contributes to the development and improvement of *dblp*.

In particular, together with the Leibniz Institute for Psychology Information (ZPID, Trier), the *Trier Center for Digital Humanities* (TCDH), and the University of Trier LZI through *dblp* is participating in a research cluster in Trier. They are partners in the *Research Lab for Digital Research Methods and Bibliographic Metadata* at the new *Center for Informatics Research & Technology* (CIRT), which is currently in the process of being set up at the University of Trier. The centre is dedicated for interdisciplinary research, explicitly including humanities and social sciences, and bundles – among others – the university's existing competences in the field of managing research data and metadata.

LZI also maintains collaboration with the **Academy of Fine Arts Saar** for the curation of its art exhibitions and also for the occasional exhibition of works.

## Collaboration with other domestic and international institutions

LZI collaborates with a wide range of institutes within the **Leibniz Association** in the framework of the exchange of electronic publication data (FIZ Karlsruhe – Leibniz Institute for Information Infrastructure), of organisational and governing aspects (MFO), and within a project on author disambiguation in literature databases (FIZ Karlsruhe, Heidelberg Institute for Theoretical Studies, funded in Leibniz Competition 2015–2018). Schloss Dagstuhl is also a member of the Leibniz Research Alliance “Science 2.0” which has 39 institutional members. As LZI points out, there are also close collaborative links to the **German Informatics Society** (GI) as a professional association representing computer science in academia and industry in Germany.

Further collaborations exist in the context of Schloss Dagstuhl’s **research library** which is participating in numerous computer science library databases. Since 2015, bilateral data delivery arrangements have been established with various **publishers** in order to feed *dblp*. In the context of the open access journal *LITES*, the institute collaborates with the *European Design and Automation Association* (EDAA) and the *Embedded Systems Special Interest Group* (EMSIG).

## 5. Staff development and promotion of junior researchers

### Staff development and personnel structure

As of April 2016, LZI Schloss Dagstuhl employed 47 people (35,54 fulltime equivalents; FTE), eight of whom were assigned to “Research and scientific services”, including the director (0,3 FTE). 36 people worked in service positions, i.e. IT, library, indexing service, event management, and facilities. There are two trainee positions (cf. appendix 4). Almost all positions at the institute are permanent. For comparison: As of April 2009, LZI Schloss Dagstuhl had employed 40 people (27,2 FTE), of which seven were assigned to “Research and scientific services”.

In 2014, the contracts of the Scientific Director and of the Technical-Administrative Director ended. In May 2014, the new Scientific Director took office, in July 2015 a new Technical-Administrative Director, too. For *dblp*, three new academic positions were created that initially were funded from a grant acquired in the Leibniz Competition (2011–2013) and third party funds but were integrated over time into the main budget.

LZI Schloss Dagstuhl’s staffing plan is binding for non-pay-scale employees as well as for managers.

### Promotion of gender equality

LZI Schloss Dagstuhl underwent the audit *berufundfamilie* in 2011. In 2015, the institute was re-audited successfully confirming measures that support gender equality and work-family balance, e.g. flexible working hours and timekeeping, family-oriented company holiday, health promotion, and teamwork. Also, the audit outlines future measures, such as the improvement of internal communication and information, an analysis of a telecommuting project, and the development of a working hours’ time model.

Due to the nature of the institute, as LZI points out, most staff members work in kitchen and housekeeping. All members of staff in these departments are female, including department head and deputies. In “Research and scientific service” one of eight employees was female (12,5 %).

### **Participation of women in LZI’s programme**

According to institute, the share of women participating in LZI Schloss Dagstuhl’s main events, Dagstuhl Seminars and Dagstuhl Perspectives Workshops, has varied in the last seven years between 13,7 % and 16,1 %. In about half of all events, the share of women was between 10 % and 20 %. In around one half of all teams organising seminars and workshops at least one woman was involved since 2010. As Dagstuhl points out, these shares reflect numbers of female graduates in computer science which reached 17 % in Germany and 16,8 % in the European Union in 2012, respectively.

### **Promotion of junior researchers**

LZI feels a strong imperative to promote junior researchers in the computer science community and has made it a part of its mission and programme. Its primary tool to achieve this is the requirement of at least 25 % junior researchers as participants of Dagstuhl Seminars (in a questionnaire distributed among participants of Dagstuhl Seminars, since 2009 between 25 % and 30 % identify themselves as junior researchers). According to LZI, about 600 to 800 junior researchers participate in Dagstuhl Seminars every year. LZI supports attendance of junior researchers by offering the possibility to attend with a partner and to engage professional child care during the day.

Upon request, the centre offers free lodging (not just for junior researchers). Also, in 2014 LZI was awarded a three year travel grant from the US National Science Foundation in 2014 with an annual budget of 100k € covering travel expenses and lodging for junior researchers from the US.

In addition to seminars, the centre hosts on average three events that explicitly address juniors every year: summer, winter or autumn schools. These are attended by about 90 researchers annually. LZI hosts at least one joint workshop for graduate schools.

### **Vocational training for non-academic staff**

Schloss Dagstuhl offers vocational training in Information Technology and Domestic services. Since 2009, the institute’s annual budget includes 2 or 3 vocational training positions which were always filled. Furthermore, LZI offers internships for students that are interested in either starting vocational training or studying computer science.

## **6. Quality assurance**

### **Internal quality management**

Schloss Dagstuhl is committed to scientific and operational excellence and manages quality in its three divisions: seminars and workshops, bibliographic services, and open access publishing.

The scientific quality of **Dagstuhl's seminar and workshop programme**, *i.e.* the overall shape of the programme, its topics, participants etc., is managed by the Scientific Directorate. The operational quality of Dagstuhl's programme is secured and controlled by various measures, such as in-house seminars addressing legally mandated procedures for food preparation, hygiene, health, safety, and privacy, a step-by-step invitation process to achieve the desired composition with respect to topics, seniority, female participants, and geographical location, or anonymous questionnaires asking about organisational, operational and scientific aspects of events.

Efforts to guarantee the quality of the ***Bibliographic services*** cover means to manage the quality of the publication venue selection process, means to improve the quality of the existing live corpus, and means to improve the utility of the *dblp* web service.

The internal quality management practices for LZI's **open access publishing services** are incumbent on the editorial office team. The scientific quality control is mainly done by the editorial board of each individual series.

### **Quality management by boards**

Scientific recommendations for LZI are provided by the Scientific Advisory Board, the Industrial Curatory Board and the Scientific Directorate. Also, *Bibliographic Services* and *Open Access Publishing* have associated boards that provide advice and decide acceptance of publication proposals. LZI's Scientific Advisory Board and Industrial Curatory Board meet once a year. Their recommendations are forwarded to the Supervisory Board.

### **Implementation of recommendations from the last external evaluation**

LZI Schloss Dagstuhl responded to central recommendations made by the Senate of the Leibniz Association in the last evaluation (highlighted here in *Italics*, see also Statement of the Senate of the Leibniz Association from 17 March 2010, in German only):

- 1) *"Themes, ideas, research topics and concepts coming mainly from the computer science community itself are contributing to the originality and scientific relevance of the programme and are constituting the unique character of LZI. This approach is highly appreciated and should be principally maintained."*

LZI keeps on its specific character and profile.

- 2) *"To better satisfy the notable growth in the importance of LZI and its increasing internationalization, it is recommended cancelling the existing constitutional rule that exclusively associates have the right to recommend a list of nominees for the members of the Scientific Directorate to be appointed by the Supervisory Board. Instead, the right to make recommendations for the Scientific Directorate should be considerably expanded. (...)."*

LZI's company contract was changed in March 2014. The size of the Scientific Directorate is now flexible (currently 15 members). It is proposed by the Scientific Director and approved by the Supervisory Board. Candidates for the Directorate can now be proposed by LZI's associates, the Scientific Directorate, and the Scientific Advi-

sory Board. Proposed candidates are compiled into a list by the Scientific Director in collaboration with the Scientific Advisory Board.

- 3) *“It is very important for a harmonic change and convincing planning that the new Scientific Director should act together with the officiating Scientific Director during an extensive period of job adjustment.”*

The new Scientific Director took office in May 2014, while his predecessor stayed on both as a member of the Scientific Directorate and of the *LIPICs* editorial board.

- 4) *“Within its already successful efforts towards interdisciplinary cooperation, LZI is encouraged to – as far as possible – further commit itself to the demands and needs of other fields searching for computer science solutions. Although it is also necessary to obtain suggestions and stimulation from other fields, the computer science community and especially the Scientific Directorate of the LZI are still requested to stay attentive and open-minded towards scientifically interesting points of contact, in order to create proposals for further innovative seminar topics.”*

According to LZI Schloss Dagstuhl the institutes continues to solicit and attract interdisciplinary topics for its seminar and workshop programme. Hence, the number of accepted events that are in part or in total interdisciplinary, comprised between 40 % and 50 % up to 2012. Since then it has passed the 50 % level. As Dagstuhl points out, attracting interdisciplinary topics, and in particular attendees from other communities, is regularly discussed by the Scientific Advisory Board and the Scientific Directorate, and specifically mentioned in LZI’s call for proposals.

- 5) *“LZI should continue to strive for acquiring third-party funds within the bounds of its possibilities and duties. Dedicating effort towards this goal is reasonable as long as the necessary input stays efficient. This should further on be kept in mind for the future.”*

LZI refers to the substantial increase of its third party funds since 2009 (see chapter 2 - appropriateness of facilities, equipment and staffing).

- 6) *“Reasonably, the LZI is already planning to consult suitable partners such as the specialized libraries and information centres of the Leibniz Association regarding its considerations to establish a new range of online publications (Leibniz International Proceedings in Informatics – LIPICs). There is a long range of additional questions to be kept in mind e.g. regarding the accessibility of the online publications to the related community, the qualified support, the data storage as well as the long-term preservation.”*

According to LZI, the focus of the newly established division *open access publishing* is the publishing of (1) seminar-related series aiming at disseminating results from seminars and workshops, (2) peer-reviewed and quality-managed conference proceedings organised in several series, and (3) scholarly journals (for respective collaboration see chapter 4).

- 7) *“LZI should keep making efforts to increase the participation of computer scientists from industry (...).The composition of the Industrial Curatory Board could be optimized*

*to have a better balance of different companies and industries within the bodies and boards in order to appeal more potential seminar participants.”*

According to a questionnaire gathering feedback since 2012, on average about 10% of the participants identified their main occupation outside academia, as LZI points out. The number varies between seminars and can reach over 50 % for individual seminars indicating that industry participation depends on seminar topics. Accordingly, calls for proposals explicitly ask for such topics. The question, whether and how to increase participation from industry, is discussed regularly by the boards.

- 8) *“LZI should keep an observant eye on its position within the global competition with newly founded comparable institutions from abroad.”*

To the knowledge of LZI Schloss Dagstuhl, only *Shonan Meeting* in Japan – as an institution focussing exclusively on computer science – is operating on similar principles as Dagstuhl.

- 9) *“If necessary refurbishments or replacement purchases regarding the infrastructure require allowances, the LZI is encouraged to concretise these requirements in time and to define them in the draft budget.”*

- 10) *The basic ideas related to the optimisation of the centres utilisation are appreciated. To realize them, the construction of a new small guesthouse (seven additional rooms are being planned) is mandatorily required.”*

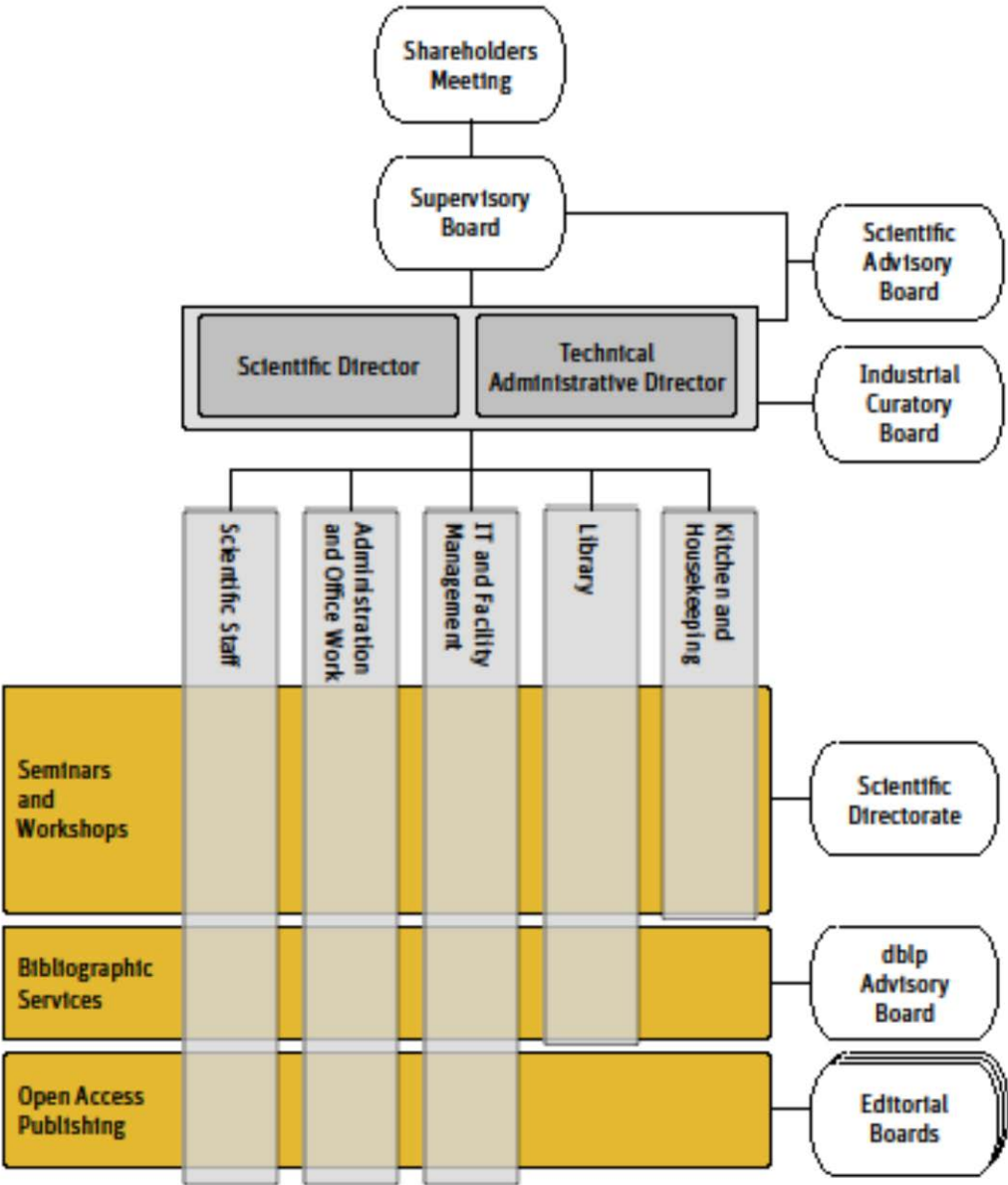
Since 2009, LZI Schloss Dagstuhl made investments in existing and new facilities, e.g., renovations and replacements, and the construction of a new guest house.

- 11) *LZI is recommended to improve the data storage and to verify reasonable possibilities to mirror the database. For this purpose either the Saarland University or a cooperation partner in the USA could be chosen. In addition the fire precautions should be improved, particularly regarding the rooms for server and IT equipment.*

According to the institute, it improved its data storage and backup. Servers are backed up nightly to two automated tape libraries. Fire safety of the server room was improved as well. Long-term backup media are stored in a new safe. The DROPS publication server is mirrored at RWTH Aachen and at FIZ Karlsruhe.

Appendix 1

Organisational Chart





## Appendix 2

## Output of Schloss Dagstuhl

	Period		
	2013	2014	2015
<b>Seminars and Workshops</b>			
Dagstuhl Seminars and Perspectives Workshops (Number of events)	75	75	72
Dagstuhl Seminars and Perspectives Workshops (Number of participants)	2.639	2.590	2.473
Other (Number of events)	38	37	35
Other (Number of participants)	864	819	825

	Period		
	2013	2014	2015
<b>dblp</b> (New records indexed per year)	<b>324.393</b>	<b>353.213</b>	<b>367.890</b>
Books and Theses	789	718	784
Journal Articles	147.869	131.267	152.131
Conference and Workshop Papers	153.329	196.287	182.077
Parts in Books and Collections	3159	1.671	1.808
Editorship	2650	3430	3.976
Reference Works	1	1665	4414
Data and Artefacts	–	–	12
Informal Publications	16.596	18.275	22.688

	Period		
	2013	2014	2015
<b>Open-Access Publishing</b> (Number of Articles per year)	<b>422</b>	<b>391</b>	<b>661</b>
<b>Seminar-focused Series</b>	111	64	64
Dagstuhl Reports	84	62	62
Dagstuhl Manifestos	2	2	2
Dagstuhl Follow-Ups	25	–	–
<b>Service-focused Series</b>	311	327	597
OASICS [ <i>Open Access Series in Informatics</i> ]	117	116	66
LIPICs [ <i>Leibniz International Proceedings in Informatics</i> ]	194	204	516
LITES [ <i>Leibniz Transactions on Embedded Systems</i> ]	–	7	3
DARTS [ <i>Dagstuhl Artefacts Series</i> ]	–	–	12

## Appendix 3 Revenue and Expenditure

Revenue		2013			2014			2015 <sup>1)</sup>		
		K€	% <sup>2)</sup>	% <sup>3)</sup>	K€	% <sup>2)</sup>	% <sup>3)</sup>	K€	% <sup>2)</sup>	% <sup>3)</sup>
<b>Total revenue (sum of I, II. and III.; excluding DFG fees)</b>		3.199			3.398			3.636		
<b>I.</b>	<b>Revenue (sum of I.1., I.2. and I.3)</b>	3.138	100 %		3.023	100 %		3.274	100 %	
1.	<u>INSTITUTIONAL FUNDING (EXCLUDING CONSTRUCTION PROJECTS AND ACQUISITION OF PROPERTY)</u>	2.328	74,2 %		2.331	77,1 %		2.525	77,1 %	
1.1	Institutional funding (excluding construction projects and acquisition of property) by Federal and <i>Länder</i> governments according to AV-WGL	2.328			2.331			2.525		
1.2	Institutional funding (excluding construction projects and acquisition of property) not received in accordance with AV-WGL	–			–			–		
2.	<u>REVENUE FROM PROJECT GRANTS</u>	170	5,4 %	100 %	75	2,5 %	100 %	141	4,3 %	100 %
2.1	DFG	–		–	–		–	–		–
2.2	Leibniz Association (competitive procedure)	97		57 %	–		–	55		39 %
2.3	Federal, <i>Länder</i> governments	–		–	–		–	–		–
2.4	EU	–		–	–		–	–		–
2.5	Industry (Google)	8		5 %	7		9 %	–		–
2.6	Foundations (Klaus-Tschira-Foundation)	65		38 %	68		91 %	70		50 %
2.7	National Science Foundation	–		–	–		–	16		11 %
3.	<u>REVENUE FROM SERVICES</u>	640	20,4 %		617	20,4 %		608	19,4 %	
3.1	Revenue from commissioned work	–			–			–		
3.2	Revenue from publications	4			6			10		
3.3	Revenue from exploitation of intellectual property for which the institution holds industrial property rights (patents, utility models etc.)	–			–			–		
3.4	Revenue from exploitation of intellectual property without industrial property rights	–			–			–		
3.5	Revenue from business seminars	636			611			598		
<b>II.</b>	<b>Miscellaneous revenue (e.g. membership fees, donations, rental income, funds drawn from reserves)</b>	61			59			46		
<b>III.</b>	<b>Revenue for construction projects (institutional funding by Federal and <i>Länder</i> governments, EU structural funds, etc.)</b>	–			316			316		
<b>Expenditures</b>		<b>T€</b>			<b>T€</b>			<b>T€</b>		
<b>Expenditures (excluding DFG fees)</b>		3.199			3.398			3.584		
1.	Personnel	1.834			1.782			1.836		
2.	Material expenses	176			192			192		
2.1	<i>Proportion of these expenditures used for registering industrial property rights (patents, utility models etc.)</i>	–			–			–		
3.	Equipment investments	142			138			250		
4.	Construction projects, acquisition of property	–			316			316		
5.	Other operating expenses (if applicable, please be specific)	1.047			970			990		
DFG fees (if paid for the institution – 2.5% of revenue from institutional funding)		–			–			–		

<sup>1)</sup> Preliminary data: no

<sup>2)</sup> Figures I.1, I.2 and I.3 add up to 100 %. The information requested here is thus the percentage of "Institutional funding (excluding construction projects and acquisition of property)" in relation to "Revenue from project grants" and "Revenue from services".

<sup>3)</sup> Figures I.2.1 to I.2.7 add up to 100 %. The information requested here is thus the percentage of the various sources of "Revenue from project grants".

## Appendix 4

## Staff

(Basic financing and third-party funding / proportion of women (as of: April 2016))

	Full time equivalents		Employees		Female employees	
	Total	on third-party funding	Total	on temporary contracts	Total	on temporary contracts
	Number	Percent	Number	Percent	Number	Percent
<b>Research and scientific services</b>	<b>7,3</b>	<b>27,4 %</b>	<b>8</b>	<b>25 %</b>	<b>1</b>	<b>–</b>
Professors / Direct. (C4, W3 or equivalent)	0,3	–	1	100 %	–	–
Scientific staff (E14)	5,0	20 %	5	–	1	–
Scientific staff (E13)	2,0	50 %	2	50 %	–	–
<b>Service positions</b>	<b>25,24</b>	<b>4.0 %</b>	<b>36</b>			
Head of IT and Facilities (E13)	1,0	–	1			
IT (E9 to E12, upper mid-level service)	1,0	–	1			
IT (E5 to E8, mid-level service)	1,0	–	1			
Library (E9 to E12, upper mid-level service)	1,0	–	1			
Editorial Assistance (E9 to E12, upper mid-level service)	0,5	100 %	1			
Indexing Service (E9 to E12, upper mid-level service)	0,5	100 %	1			
Event Management (E13)	1,0	–	1			
Event Management Assistance (E9 to E12, upper mid-level service)	2,0	–	2			
Event Management Assistance (E5 to E8, mid-level service)	2,09	–	4			
Event Management Assistance (E1 to E4)	0,15	–	1			
Facilities (E9 to E12, upper mid-level service)	1,0	–	1			
Facilities (E5 to E8, mid-level service)	1,0	–	1			
Hospitality (E9 to E12, upper mid-level service)	1,0	–	1			
Hospitality (E5 to E8, mid-level service)	1,6	–	2			
Hospitality (E1 to E4)	10,4	–	17			
<b>Administration</b>	<b>1,0</b>	<b>–</b>	<b>1</b>			
Technical-administrative Director	1,0	–	1			
<b>Student assistants</b>	<b>0,3</b>	<b>–</b>	<b>1</b>			
<b>Trainees</b>	<b>2.0</b>	<b>–</b>	<b>2</b>			

## Annex B: Evaluation Report

### Schloss Dagstuhl - Leibniz Centre for Informatics, Wadern (LZI)

#### Contents

1. Summary and main recommendations .....	B-2
2. General concept and profile .....	B-3
3. Subdivisions of Schloss Dagstuhl .....	B-6
4. Staff at LZI .....	B-9
5. Collaboration by LZI staff .....	B-10
6. Quality assurance .....	B-11

#### Appendix:

Members of review board and guests; representatives of collaborative partners

## 1. Summary and main recommendations

Schloss Dagstuhl – Leibniz Centre for Informatics (LZI) promotes international research in informatics by providing a social infrastructure and services as a motor for scientific dialogue. Its outstanding portfolio targets computer scientists and researchers in neighbouring disciplines.

Since the last evaluation, LZI has continued to develop with great success. It has managed to appropriately expand and drive its core activity: the renowned seminar and workshop programme (Subdivision 1). These events are extremely popular and very attractive for scientists from all over the world (approx. three-quarters of all participants come from abroad). With its programme of events, Schloss Dagstuhl plays a prominent role in the computer science dialogue. It is rated as “excellent”.

Moreover, since the last evaluation, LZI has responded to other needs in the computer science community and has convincingly embarked on new activities: involvement in the bibliographic database *dblp* (Subdivision 2) and open access publishing (Subdivision 3), which are rated as “excellent” and “very good” respectively. These services are of major importance to the international computer science community and are in great demand worldwide. They are a logical addition to the centre’s main portfolio and contribute to enhancing its reputation as a social research infrastructure for international informatics. With regard to its open access activities it is pleasing to note that LZI’s management does not plan to further expand the existing series.

LZI maintains multiple contacts with scientific and non-scientific institutions around the world; in the future, it should use these contacts for drawing even greater attention to its events and other services. The centre is very successful at involving junior researchers in its events. More attention should, however, be paid to equal opportunity issues when putting together the seminar groups.

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

### General concept and profile (Chapter 2)

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.
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.

### Seminars and Workshops (Chapter 3)

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.

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.
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.

#### Staff at LZI (Chapter 4)

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.

#### Quality assurance (Chapter 6)

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

## **2. General concept and profile**

Schloss Dagstuhl – Leibniz Centre for Informatics (LZI) promotes international research in informatics by providing a social infrastructure and services as a motor for scientific dialogue. Its outstanding portfolio targets computer scientists and researchers in neighbouring disciplines. In addition to organising and holding events, for some years now it has provided other scientific services in the field of open access and, in cooperation with the University of Trier, a bibliographic database: *dblp*.

Schloss Dagstuhl has a unique, internationally-visible profile. Established on the recommendation of the German Council of Science and Humanities on the model of the Oberwolfach Research Institute for Mathematics in 1990, LZI is itself today a model for many comparable informatics institutions that have emerged around the globe in the last two decades. Schloss Dagstuhl remains, however, the globally preeminent institution of its kind.

## Development of the institution since the last evaluation

Schloss Dagstuhl has continued developing very successfully in the last few years. The centre has managed to appropriately expand and drive its core activity: the renowned Seminar and Workshop Programme. These events are extremely popular and prestigious. And they are very attractive for scientists from all over the world (approx. three-quarters of all participants come from abroad). With its programme of events, Schloss Dagstuhl plays a prominent role in the computer science dialogue.

Moreover, since the last evaluation, LZI has responded to other needs in the computer science community and has convincingly embarked on new activities: involvement in the dblp bibliographic database and open access. These services are of major importance to the international computer science community and are in great demand worldwide (see Chapter 3). They are a logical addition to the centre's portfolio and contribute to enhancing its reputation as a social research infrastructure for international informatics.

It is welcomed that these new activities have not been to the detriment of the seminar programme; rather, notable synergies can be observed. Use-related development of the *dblp* database, for example, is promoted excellently by ideas-sharing with guests attending the programme of events. The documentation of events in the open access series, which is managed by the centre, is also outstanding. They are recorded on the *dblp* and can easily be researched by the international computer science community. **It will, however, 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 proactive in marketing LZI's portfolio in order to even further enhance its international visibility.**

## Strategic work planning for the next few years

The plans presented by Schloss Dagstuhl for the coming years are convincing. After implementing well-considered modifications, it is now quite plausible to continue the programme of events in its current form. In the field of open access, LZI would like to restrict itself to the publication series that have already established themselves and to regularly assess their competitiveness (see Chapter 3).

In addition, the centre is keen to make the *dblp* database, which is currently maintained in cooperation with a scientist at the University of Trier, into a full and permanent feature of the centre. In the past, LZI has already been successful in acquiring third-party funding for its expansion and development. These additional resources led to a major boost in technical development as well as in the number of datasets entered (see Chapter 3).

**Schloss Dagstuhl's plans for integrating the *dblp* database and for funding it permanently are very convincing and are fully endorsed.** They are clearly structured in terms of content, organisation and staffing, and create the best preconditions for maintaining and continuing *dblp* as a fundamental service for the international computer science community. There are also excellent factors connecting it with other infrastructure providers in the Leibniz Association and beyond. **Very good arguments exist for grant-**

**ing additional funding (small, strategic extraordinary item of expenditure, Category B1) for this purpose.**

### **Appropriateness of resources**

For LZI's portfolio of activities, institutional funding is adequate. In line with recommendations, the centre intensified its efforts to acquire third-party funding. Given its particular spectrum of activities, the success of these efforts is welcomed. The funding acquired, including significant funding raised under the Leibniz Competition, has ideally helped to support the activities launched in the last few years, especially the expansion of *dblp*. The centre should continue to actively pursue these options in the years to come.

It is pleasing that, for the first time in the recent past, it has been possible to acquire funding for travel assistance for American researchers. This illustrates Schloss Dagstuhl's outstanding worldwide prestige. Plans to acquire further funding to support foreign visitors are basically endorsed; they should not, however, take precedence in efforts to raise third-party funding.

The distribution of locations in which LZI's various working units are housed, the campus of Saarland University in Saarbrücken (administration, scientific staff operating the seminar programme, open access publishing), the campus of the University of Trier (Bibliographic Service, *dblp*) and the main site at Schloss Dagstuhl in Wadern (Seminars and Workshops, open access publishing), has functioned smoothly in the last few years. Communication between the units is well organised.

In Wadern, LZI has excellent facilities which ideally underpin the programme of events. In accordance with recommendations, the strategy presented at the last evaluation was implemented and a new building for accommodating additional guests was constructed. Since 2012, it has thus been possible to use the resources at the disposal of the seminar centre more efficiently. It makes sense that Schloss Dagstuhl would like to maintain the scale of its seminar programme: with some 3,400 guests per year now it has reached an ideal size. Plans to build a second lecture theatre are very convincing and implementation is expressly endorsed.

The library, which is located at Wadern, is excellently stocked and provides fundamental library services for participants attending events at Schloss Dagstuhl. Its offer to provide access to the published works of seminar participants during the events is greatly appreciated. It is welcomed that LZI monitors the information needs and user behaviour of its guests very carefully and regularly assesses the library portfolio in relation to demand and resource efficiency.

The IT service holds all the tools necessary for running the seminars as well as the other services offered by Schloss Dagstuhl. It is efficiently organised and very well equipped. LZI responded appropriately to the recommendation made at the last evaluation to secure its data by mirroring it on other, external servers.



### 3. Subdivisions of Schloss Dagstuhl

#### 3.1 Seminars and Workshops

[29.75 FTE, of which 2.6 in research and scientific services, 24.05 in the service sector, 0.8 in administration, 0.3 student assistants, 2 trainees]

With its globally-recognised seminar and workshop programmes, Schloss Dagstuhl provides excellent services for national and international computer science. The various event formats are the core activities at the centre, a significant part of which are the prestigious Dagstuhl Seminars and Perspectives Workshops (approx. 75%). Other formats include the GI-Dagstuhl Seminars, Summer Schools and Graduate School Meetings, which essentially target junior researchers, as well as the Workshop Programme for Science Teachers and Journalists. The remaining capacity is directed into Research Group Meetings (approx. 10%-20%). The event formats offered by LZI are well established, very popular and renowned for innovative issues and topics.

It is convincing that the programme of various seminars and types of workshops has in essence been retained since the last evaluation. The new guesthouse, opened in 2012, has enabled LZI to optimise the utilisation of the facility. As expected at the last evaluation, it has been possible to reduce the waiting times between application and event and to continue increasing the number of events. It has also been possible to introduce a two-track course programme. Moreover, in addition to the established five-day seminars, shorter, smaller events can be offered, and LZI is better equipped to respond to event requests at short notice. The concomitant slight expansion of the seminar programme has been managed very well.

The processes involved in running the event programme are efficiently designed and very well structured. Applications are processed according to a competitive procedure by the Scientific Directorate, a committee currently composed of fifteen eminent computer scientists who assess the applications and make recommendations to LZI's management as to which should be implemented. Calls for applications for the various event formats are published twice a year. The practice of allowing the applicants to determine the design of the event formats has proven very effective and, in accordance with recommendations, has been retained as a special characteristic of LZI. Schloss Dagstuhl thus achieves a high degree of originality and relevance, and also manages to cover the different areas of informatics appropriately. Efforts to promote topics on the edges of established informatics in the context of selection are welcomed. The call to take even greater account of requests and needs hailing from other subjects and to offer interdisciplinary and multidisciplinary events, as well, has been implemented effectively.

In the years 2013 to 2015, the Scientific Directorate approved an average of two-thirds of applications. Whilst this is taken as an indication of the high quality of the selection process, seen in conjunction with the outstanding international reputation of Schloss Dagstuhl, the total number of applications is, however, too low. **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** (see Chapter 5).

Based on the criterion, “appropriateness and balance of the list of invitees”, the Scientific Directorate does not only comment on content questions but also on the potential participants suggested by the applicants. As such, it has a considerable influence on the design and control of diversity within the seminar groups. It is positive that this means particular account is taken of issues relating to the promotion of junior researchers and the geographical origin of potential participants. In this context, good progress has been made. Moreover, the proportion of individuals from industry who take part in Dagstuhl events averaged nine per cent; in some cases, depending on topic, the figure exceeded 50 per cent. In future, Schloss Dagstuhl should try to attract a larger number of individuals who are not part of known networks.

The proportion of women researchers who were involved in the seminar programme as organisers or participants has only increased slightly in the last few years. Whilst it is pleasing that now more than half of the organisational teams include women (2015: 40 out of 72 teams), in 2015 overall, only an average of 15.8 per cent of organisers were female (45 out of 284 individuals). In the period 2009 to 2015, the quota of female participants was between 13.7 per cent and 16.1 per cent. **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.** Various measures that have already proven effective at institutions similar to LZI are conceivable: It could become mandatory, for example, that at least one woman should be involved in the organisation of the respective events with Dagstuhl also setting clear rules to all-male-organising committees to explicitly explain why women are not involved in workshop planning. Furthermore, travel funds should be introduced exclusively for women. LZI must agree with its boards (Supervisory Board, Scientific Advisory Board, Industrial Curatory Board, and Scientific Directorate) which tools would be most suitable and could be implemented in order to improve the situation.

In the framework of the event programme, Schloss Dagstuhl convincingly promotes junior researchers. The GI-Dagstuhl Seminars as well as the Summer Schools and the Graduate School Meetings are well-established and well-received event formats. **In addition to this, 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 centre could publish a call to apply for some of the relevant places when the programme of events is announced.

“Seminars and Workshops” are rated as “excellent”.

### 3.2. Bibliographic Services

[4.3 FTE, of which 3.6 in research and scientific services, 0.6 in the service sector, 0.1 in administration]

Bibliographic Services embrace the maintenance and continued development of the *dblp* database, a literature database for the computer sciences. Since 2011, the relevant activities have been conducted in cooperation with a scientist at the University of Trier who has been developing and maintaining the database since 1993. Thanks to this current cooperation, which is contractually binding until the end of 2016, and the successful acquisition of third-party funding and donations, as well as the allocation of 1.5 positions financed from LZI's institutional budget, it has been possible to significantly extend the services associated with the database. In 2015 alone, some 350,000 entries were made in *dblp*; at the end of 2015, the total had reached nearly 3.5 million. *dblp* is thus one of the world's most comprehensive, open bibliographic databases in the field of informatics.

In cooperation with the University of Trier, the centre thus performs highly-attractive, excellent services for international computer science and maintains what is now an indispensable tool for research. In comparison with commercial providers like Google Scholar, Scopus or ScienceDirect, the extremely high quality of the datasets stands out, and it is convincing to restrict the portfolio to metadata.

The outcomes achieved in the last few years are impressive both in terms of quality and quantity. The database can boast of remarkably widespread popularity and, at approx. 30,000 hits per day, enjoys exceptionally high user figures. According to LZI, on average, *dblp* answers four page requests per second. A further outstanding proof of quality is the fact that other commercial and public providers increasingly use the datasets curated by *dblp* for their own services. The contractual arrangements made in the past with various publishing houses on the mutual provision and exchange of data are positive.

In the coming years, Schloss Dagstuhl would like to continue developing *dblp* and establish it permanently at the centre (see Chapter 2). The relevant plans that have been proposed accord coherently with the status already achieved. The ideas for improving both the opening up of previously neglected areas of computer science and particularly the informative value of the author profiles in *dblp*, are very promising. In this context, the increasingly automatic collection of data as well as the scalability, for example in the area of disambiguated authors' names, will play an important role. For this, the centre will, however, require additional resources. The plans to apply for a small strategic extraordinary item of expenditure (Category B1) in order to continue developing *dblp* are very convincing and are fully endorsed. As soon as these plans have been implemented, Schloss Dagstuhl should drive *dblp*'s identification with LZI by strategic re-branding, possibly including "Dagstuhl". There might then be potential for acquiring additional third-party funding for the further scientific and technical development of partial aspects of the database, as has happened in the past. In the longer term, Schloss Dagstuhl should therefore consider whether *dblp* could be an appropriate bibliographical tool and corpus for opening up other areas of science.

“Bibliographic Services” are rated as “excellent”.

### 3.3 Open Access Publishing

[1.8 FTE, of which 1.1 in research and scientific services, 0.6 in the service sector, 0.1 in administration]

With the establishment of various series of open access publications since the last evaluation, Schloss Dagstuhl has taken on a challenging new activity. After introducing a series publishing the proceedings of international conferences (*Leibniz International Proceedings in Informatics – LIPIcs*) in 2008, a step which was welcomed at the last evaluation, the centre embarked on further series in the following years. Today, a total of six series are available, whereby LZI has also picked up on the more recent developments in informatics such as publishing so-called artefacts.

The quality-assured content and the open access to the papers in these series are an important resource for the computer science community. This holds particularly true for the conference proceedings, a publishing format that is fundamental to informatics and for which it was previously impossible to find a commercial provider willing to offer open access. These series, which are editorially supervised with great skill by Schloss Dagstuhl, are achieving increasingly widespread distribution, are used very intensively and enhance LZI’s visibility in the international arena via its brand “Dagstuhl Publishing”. It is pleasing that it has been possible to continually raise the number of contributions in each of the series in the last few years. This trend should continue in the future. The Review Board welcomes Schloss Dagstuhl’s 2015 Strategic Concept which summarises the potential for development in this area.

By establishing the open access publication series, Schloss Dagstuhl responded to the need, both in Germany and abroad, for quality-assured, inexpensive and freely-accessible platforms, for which there is considerable demand. Currently, it is, however, unclear whether its portfolio will continue to be so coveted in the years to come, because LZI is a player in a highly-competitive, dynamic environment of both publicly-funded and commercial providers. It is pleasing to note that LZI’s management is aware of this and does not plan to further expand the existing series but rather intends to regularly assess whether its open access portfolio is still competitive.

“Open Access Publishing” is rated as “very good”.

## 4. Staff at LZI

### Staff development and personnel structure

In April 2016, 47 individuals were employed at LZI, of whom eight (including the LZI Director) were assigned to “Research and Scientific Services”; 36 individuals worked in the various service sectors, 20 of whom in housekeeping, eight in event management. By far the majority of staff has tenured contracts. This personnel structure reflects Schloss Dagstuhl’s portfolio as a social research infrastructure and is appropriate.

The slight increase in personnel in the last few years – in 2010, 40 individuals were employed at LZI, of whom seven were scientific staff – is appropriate. The fact that *dblp* positions that were originally third-party funded have been transformed into institutionally-funded positions is very positive and an important basis for the planned strategic expansion of the centre to fully integrate *dblp* via an extraordinary item of expenditure.

The change in the scientific and administrative leadership of Schloss Dagstuhl in 2014 was managed very efficiently. Both individuals are very good at their jobs. In accordance with a recommendation made in 2010, it is particularly pleasing that their two predecessors were available for consultation during the transition period and thus facilitated a smooth transition. LZI staff is extremely competent in handling the various events and have an exceptional service focus.

At the time of the evaluation visit, Schloss Dagstuhl was still subject to a binding staff appointment plan. **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.**

### **Promotion of gender equality**

If the entire LZI staff (excluding housekeeping and the kitchen) is taken as the basis for calculation, approximately 25 percent of Schloss Dagstuhl's employees are currently female, a respectable quota which should, however, be increased further in the future, especially in the scientific sector. At the time of the evaluation visit, only one female scientist (out of a total of eight) was employed at the centre (see Status Report, Appendix 4, p. A-23). Furthermore, since the change in LZI's technical-administrative leadership in 2014, this position has been held by a woman.

It is welcomed that the centre was awarded the "Audit *berufundfamilie*" certificate in 2011 in recognition of its efforts to implement equal opportunities and better conditions for combining work and family life. The certificate was reconfirmed in 2015.

### **Vocational training for non-academic staff**

It is welcomed that Schloss Dagstuhl offers two traineeships in housekeeping and IT. It is a sign of its success that four individuals have successfully completed their training since the last evaluation.

## **5. Collaboration by LZI staff**

### **Collaboration with universities and regional institutions**

Schloss Dagstuhl cooperates successfully with Saarland University in Saarbrücken as well as with the University of Trier. Working units belonging to LZI are to be found on both university campuses (see Chapter 2). Cooperation with university partners generates significant positive effects and guarantees Schloss Dagstuhl important links to the respective IT departments. The Scientific Director of LZI has been teaching at Saarland University since 1994, and since his appointment at the centre's leadership in May 2014

he spends 30 per cent of his time on his activities there. Schloss Dagstuhl is excellently embedded in the Saarbrücken environment with its various computer science institutions: apart from two Max Planck institutes and the German Research Center for Artificial Intelligence (DFKI), the location also includes a cluster of excellence at Saarland University (“Multimodal Computing and Interaction”). There is close collaboration and very good information-sharing.

### **Collaboration with other institutions in Germany and abroad**

Very good and productive collaboration exists with institutions in the Leibniz Association. With regard to administrative and organisational development there are good contacts with the Oberwolfach Research Institute for Mathematics (MFO). LZI also cooperates with FIZ Karlsruhe – Leibniz Institute for Information Infrastructure in the context of a third-party funded project. Together with the Leibniz Institute for Psychology Information and Documentation (ZPID), Schloss Dagstuhl very promisingly contributes its expertise to the existing Center for Digital Humanities in Trier. In the framework of the Leibniz Association, LZI is also involved in the Leibniz Research Alliance “Science 2.0”. In the past, moreover, it has participated in the Leibniz Competition with great success.

Furthermore, Schloss Dagstuhl fosters many links to institutions, associations and societies in Germany, Europe and beyond. This is highly welcomed and should be strengthened even further in the future, *e. g.* in order to raise awareness of Dagstuhl in European Research Council administration. The ties to the German Informatics Society (*Deutsche Gesellschaft für Informatik*), which is closely linked with LZI’s development in its capacity as a member of the Shareholders’ Meeting, are extremely significant. Schloss Dagstuhl should make yet greater use of all of its contacts in the future in order to further publicise its events and other services.

## **6. Quality assurance**

### **Quality management of programme development**

LZI conducts impressive internal quality management based on excellently organised and structured processes. The statistical surveys of its events are remarkable and are a great asset in monitoring the development of the event programme in detail, drawing the relevant inferences and steering it. The questionnaires used to get feedback from participants after the events also play a very useful part in this. Data are documented in an excellent fashion.

In its capacity as the core body responsible for the design, steering and quality control of LZI’s programme, the Scientific Directorate evaluates and selects the applications for seminars and workshops. It fulfils its tasks with great dedication. In line with a recommendation made at the last evaluation, it is welcomed that the right of proposing members of the Scientific Directorate has been extended. Proposals may now be made by members of the Shareholders’ Meeting, the Scientific Advisory Board and the Scientific Directorate itself. **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.**

In the area of Bibliographic Services/*dblp*, the established, standardised procedures for securing quality are appropriate. In the Open Access sector, the Editorial Boards and advisory boards that, in some cases, are specially appointed for specific series, exhibit exceptionally high quality standards and quality awareness in conducting their work.

### **Quality management by the Scientific Advisory Board, the Industrial Curatory Board and the Supervisory Board**

The Scientific Advisory Board supports Schloss Dagstuhl with great dedication. In the past, it has done very good work and dealt with the centre's development constructively and critically. In the light of the new activities, the Board should support the centre in marketing its integrated portfolio. Interaction between the Scientific Advisory Board and other LZI bodies functions smoothly.

The Industrial Curatory Board fulfils its dual role of promoting contacts to industrial partners, business and administrations, and advising the centre on industry-relevant seminar topics very effectively. The Board's input is very important because a considerable amount of current research work in informatics is conducted by major enterprises and their laboratories.

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

The Supervisory Board performs its duties well in accordance with its mandate. Schloss Dagstuhl also receives very good support from the representations of the two *Länder* in which the centre is located, Saarland and Rhineland-Palatinate. The funders' engagement, in particular in maintaining and improving the infrastructure in Wadern, is particularly welcomed.

### **Implementation of recommendations from the last external evaluation**

Schloss Dagstuhl responded with commitment and conviction to the recommendations (see Annex A, p. A-17ff.) made by the Senate in 2010.

- 1) The bottom-up approach for generating topics, ideas, research questions and strategies for the event programme was continued very successfully (see Chapter 3).
- 2) The right to propose members of the Scientific Directorate was significantly extended and anchored in the statutes in 2014 (see Chapter 6).
- 3) The former Director and the new Director of Schloss Dagstuhl, who was appointed in 2014, managed the transition period in the centre's scientific leadership very efficiently (see Chapter 4).

- 4) As expected by the 2010 Review Board, in the framework of its event programme, LZI convincingly responded to requests and needs expressed by other disciplines (see Chapter 3).
- 5) LZI successfully acquired third-party funding (see Chapter 2).
- 6) In 2008, Schloss Dagstuhl established the open access publication series *LIPICs*. The questions raised by the Review Board in this context regarding accessibility, qualified support and data storage and security as well as long-term preservation have been convincingly addressed (see Chapter 3).
- 7) In 2010, it was recommended to continue increasing participation by computer scientists employed in industry. In the last few years, an average of nine per cent of participants hailed from industry; in some cases, (depending on topic) the participation rate was considerably higher. Schloss Dagstuhl should continue to drive its efforts in this area (see Chapter 3).
- 8) Schloss Dagstuhl has complied with the recommendation to keep a close eye on its position with regard to international competition from newly-established, comparable institutions abroad.
- 9) Refurbishment and replacement purchases have been implemented with the support of the funders, as recommended (see Chapter 2).
- 10) As recommended by the Review Board in 2010, a small guesthouse with seven rooms has been built (see Chapters 2 and 3)
- 11) Data backup has been improved (see Chapter 2).



## Appendix

### 1. Review Board

#### *Chair (Member of the Leibniz Senate Evaluation Committee)*

Elisabeth **Niggemann**      German National Library

#### *Deputy Chair (Member of the Leibniz Senate Evaluation Committee)*

Dagmar **Gerthsen**      Laboratory for Electron Microscopy, Karlsruhe Institute of Technology

#### *Reviewers*

Anja **Feldmann**      Department of Telecommunication Systems, Internet Network Architectures, Technische Universität Berlin

Eric **Gaussier**      Laboratory of Informatics of Grenoble (LIG), Université Joseph Fourier Grenoble, France

Craig **Gotsman**      Center for Graphics and Geometric Computing, Technion – Israel Institute of Technology, Haifa, Israel

Bart **Jacobs**      Digital Security Group, Institute for Computing and Information Science, Radboud University Nijmegen, The Netherlands

Thomas **Melham**      Department of Computer Science, University of Oxford, England, UK

Magnus **Pfeffer**      Faculty of Information and Communication, Stuttgart Media University

Iain A. **Stewart**      School of Engineering and Computing Sciences, Durham University, UK

#### *Representative of the Federal Government*

Alissa **Winter**      Federal Ministry of Education and Research, Bonn

#### *Representative of the Länder Governments*

Michael H. **Wappelhorst**      Ministry of Innovation, Science and Research of the State of North Rhine-Westphalia

### 2. Guests

#### *Representative of the relevant Federal government department*

no participation      Federal Ministry of Education and Research, Bonn

#### *Representative of the relevant Land government department (Saarland)*

Susanne **Reichrath**      State Chancellery of Saarland, Saarbrücken

#### *Representative of the relevant Land government department (Rhineland-Palatinate)*

Christian **Heimann**      Ministry of Education, Science, Further Education and Culture of Rhineland-Palatinate, Mainz

#### *Representative of the Scientific Advisory Board*

Friedhelm **Meyer auf der Heide**      Heinz Nixdorf Institute and Computer Science Department, Paderborn University

#### *Representative of the Leibniz Association*

Brigitte **Voit**      Leibniz Institute of Polymer Research Dresden (IPF)

**3. Representatives of LZI boards and applicants** (for talks with review board and guests)*Representatives of Scientific Directorate*

Bernhard **Nebel** Department of Computer Science, University of Freiburg

Stephan **Merz** INRIA Nancy, LORIA, Equipe VeriDis, Bâtiment B, Villers-lès-Nancy, France

*Representative of Industrial Curatory Board*

Jo **Ebergen** Oracle Cooperation, Redwood Shores, USA

*Applicants at LZI*

Sándor **Fekete** Technical University Braunschweig

Andréa **Richa** Arizona State University, Tempe, USA

Kay **Römer** Technical University Graz, Austria

Christian **Scheideler** Paderborn University

**4. Representatives of partner institutions** (for talks with review board and guests)

Michael Ley Computer Science, University of Trier/DBIS

15 November 2016

**Annex C: Statement of the Institution on the Evaluation Report**

**Schloss Dagstuhl - Leibniz Centre for Informatics, Wadern (LZI)**

Schloss Dagstuhl - Leibniz Center for Informatics would like to thank the evaluation committee and also the Evaluation Division of the Leibniz Association for their work.

We find the extremely positive report very gratifying. We particularly value its constructive recommendations. We look forward to pursuing and implementing them.