Leibniz Gemeinschaft

Der Senat

4. Juli 2023

Stellungnahme zum Leibniz-Zentrum Allgemeine Sprachwissenschaft, Berlin (ZAS)

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Vorbemerkung

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

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

Vor diesem Hintergrund besuchte eine Bewertungsgruppe am 10. und 11. November 2022 das ZAS in Berlin. Ihr stand eine vom ZAS 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 ZAS nahm dazu Stellung (Anlage C). Der Senat der Leibniz-Gemeinschaft verabschiedete am 4. Juli 2023 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.

Das Leibniz-Zentrum Allgemeine Sprachwissenschaft erforscht die menschliche Sprachverwendung sowie Spracherwerb, -strukturierung und -verarbeitung. Dabei greift es auf empirische Methoden zurück, die von Korpuslinguistik über Feldforschung bis hin zu verschiedenen laborexperimentellen Studien reichen. Neben linguistischen Subdisziplinen sind am Zentrum auch benachbarte Fächer wie Kognitions- und Erziehungswissenschaften vertreten. Es wird vom Verein „Geisteswissenschaftliche Zentren Berlin“ getragen, der eine effiziente gemeinsame Verwaltung für drei Forschungseinrichtungen ermöglicht.

Das ZAS wurde 2017 in die gemeinsame Bund-Länder-Förderung aufgenommen und hat sich seitdem ausgezeichnet entwickelt. Die institutionelle Förderung stieg **seit der vergangenen Evaluierung** erheblich von 0,8 Mio. € (2014) auf 3 Mio. € (2021) und ist nun für die derzeitigen Aufgaben auskömmlich. Das Zentrum nutzte diesen Aufwuchs hervorragend, um seine langfristigen Perspektiven und forschungsinfrastrukturellen Aktivitäten zu stärken. Es wirbt außerdem äußerst erfolgreich kompetitive Drittmittel ein. Durch den Umzug in ein anderes Gebäude werden die räumlichen Gegebenheiten weiter verbessert.

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

Die wissenschaftlichen Arbeiten des ZAS sind in vier Forschungsbereiche untergliedert. Diese erzielen vielfach hervorragende **Ergebnisse**, die sehr sichtbar publiziert werden. Zunehmend werden sie auch in die Anwendung überführt, insbesondere im Kontext von Sprachkontakt und Mehrsprachigkeit sowie Multimodalität und Sprachdokumentation. Mit seinen drei experimentallinguistischen Laboren sowie den bereitgestellten Datenbanken betreibt das ZAS außerdem international intensiv genutzte Infrastrukturen. Zwei Forschungsbereiche wurden als „sehr gut bis exzellent", zwei als „exzellent" bewertet.

Für die kommenden Jahre plant das ZAS die Einrichtung eines **fünften Forschungsbereichs** für „Language and Speaker Diversity" und möchte in diesem Zusammenhang eine dauerhafte Erhöhung seiner institutionellen Förderung um jährlich 874 T€ beantragen. Das Vorhaben, mit dem auch die Forschung und Datenerhebung zu kleinen und bedrohten Sprachen gestärkt würde, wird nachdrücklich befürwortet. Bei der für 2025 vorgesehenen Antragstellung sollten die Hinweise zur Ausarbeitung im Bewertungsbericht beachtet werden. Die im Rahmen des Vorhabens geplante Anstellung wissenschaftsunterstützenden Personals in der statistischen Datenanalyse ist von großer Bedeutung für die empirischen Arbeiten des ZAS und sollte so bald wie möglich aus Haushaltsmitteln erfolgen.

Im Jahr 2022 ging der langjährige Direktor, der das Institut mit ausgezeichnetem Erfolg geleitet und in seiner Entwicklung nachhaltig geprägt hat, in den Ruhestand. Das ZAS wird nun von einer sehr ausgewiesenen Wissenschaftlerin geführt, die zuvor als Professorin der Humboldt-Universität zu Berlin einen Forschungsbereich am ZAS im Nebenamt leitete. Für die Position der Bereichsleitung muss nun zügig eine dauerhafte Nachfolge gefunden werden. Institutsleitung, Beirat und Aufsichtsgremium sollten auch für diese zweite **Leitungsebene** gemeinsame Berufungen mit der HU Berlin anstreben.

Promovierenden und Postdocs bieten sich am ZAS sehr gute Arbeits- und Entwicklungsbedingungen. Die Promotionszeiten sind mit etwas über drei Jahren erfreulich kurz. Mit Blick auf anstehende ruhestandsbedingte Wechsel unter den wissenschaftlichen **Beschäftigten** sollte ein Personalentwicklungsplan erarbeitet werden, in dem eine Entfristungsstrategie festgehalten ist. Am ZAS besteht insgesamt ein ausgeglichenes Geschlechterverhältnis, auch die Bereichsleitungen sind derzeit zur Hälfte mit Frauen besetzt.

Die **Gremien** des ZAS nehmen ihre Aufgaben sehr gut und engagiert wahr. Zur Vermeidung von Rollenkonflikten sollten Beschäftigte von Instituten, mit denen das ZAS mittlerweile institutionell eng verbunden ist, künftig nicht mehr im Beirat oder im Aufsichtsgremium mitwirken.

Das ZAS **kooperiert** seit langer Zeit und intensiv mit der HU Berlin (unter anderem in einem Sonderforschungsbereich und über ein ERC Synergy Grant). Darüber hinaus ist die Einrichtung nicht nur im Berliner Umfeld hervorragend vernetzt, sondern genießt auch national und international einen ausgezeichneten Ruf und sehr große Sichtbarkeit. Das ZAS kooperiert in Projekten wie der deutsch-französischen Sprachdokumentationsinitiative *DoReCo* ausgesprochen erfolgreich mit häufig deutlich größeren Partnerinstitutionen im In- und Ausland. Dabei gelingt es dem Zentrum in hervorragender Weise, seine spezifischen Ressourcen und Kompetenzen strategisch klug und gewinnbringend einzusetzen.

2. Zur Stellungnahme des ZAS

Der Senat begrüßt, dass das ZAS 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 ZAS als Einrichtung der Forschung und der wissenschaftlichen Infrastruktur auf der Grundlage der Ausführungsvereinbarung WGL weiter zu fördern.

26 October 2022

Annex A: Status report

Leibniz Centre General Linguistics, Berlin (ZAS)

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1. Key data, structure and tasks

Key data

Year established:	1996
Admission to joint funding by Federal and *Länder* Governments:	2017
Admission to the Leibniz Association:	2017
Last statement by the German Council of Science and Humanities:	2016
Legal form:	Non-profit association (eingetragener Verein)
Responsible department at *Länder* level:	Berlin Senate Department for Higher Education and Research, Health, Long-Term Care and Gender Equality
Responsible department at Federal level:	Federal Ministry of Education and Research (BMBF)

Total budget (2021)

€ 2.98m institutional funding

€ 3.65m revenue from project grants

€ 1.4k revenue from services

Number of staff (2021)

56 individuals in research and scientific services

5 individuals in service sector

11 individuals in administration

Mission and structure

The research goal of the Leibniz-Zentrum Allgemeine Sprachwissenschaft (ZAS) is to explore the human faculty of language, linguistic communication, and its manifestation in individual languages, communities, and individuals. The centre aims to better understand language and its biological, cognitive, and social underpinnings by investigating how it is used, structured, acquired, and processed. The knowledge gained here is applicable in the fields of speech diagnostics, therapy or speech technology.

Research at ZAS is organised in four **research areas**, termed FB (*Forschungsbereiche*) that are connected by an overarching themes strategy (see chapter 2).

Together with another two Berlin-based centres of the Leibniz Association (*Leibniz-Centre Modern Orient* – ZMO and *Leibniz Centre for Literary and Cultural Research* – ZfL), ZAS is a member of the *Geisteswissenschaftliche Zentren Berlin e. V.* (GWZ), a non-profit association that provides a shared administrative framework and Board of Trustees (*Kuratorium*) for all three centres.

2. Overall concept and core results

The purpose of ZAS is to investigate how language is used, structured, acquired, and processed. The theory-guided research is based on empirical methods, such as native speaker judgments, psycholinguistic experiments, linguistic corpora, and field work. ZAS aims to provide foundations for application in education, technology, and social cohesion.

In addition to general linguistics, the **disciplines** represented in the centre include acoustics, anthropology, neuroscience and cognitive science, educational science, logic and mathematics, social science, philology, philosophy, physiology, and psychology. ZAS has three laboratories for experimental research, a phonetics laboratory, a motion capture laboratory, and a psycholinguistic laboratory for reaction time and eye-tracking studies.

ZAS is organised into **four research areas** that correspond to different linguistic subdisciplines:

- Research area 1 – Laboratory Phonology (FB1)
- Research area 2 – Language Development & Multilingualism (FB2)
- Research area 3 – Syntax & Lexicon (FB3)
- Research area 4 – Semantics & Pragmatics (FB4)

The research areas are connected by an overarching **themes strategy** which was installed in 2019. The themes are meant to promote collaboration among the four research areas of ZAS. At the same time, they are seen as a tool to acquire and tie in third party funded projects and to attract, select and integrate visitors and fellows.

At present, ZAS has **eight research themes.** These are scheduled to be investigated for a total of roughly six years and researchers at ZAS are expected to devote the bulk of their working time to research which is connected to one or more of the themes:

- *Meaning and cognition* explores the interface between cognition and linguistically encoded meaning.
- *Domains across linguistic modules* explores the basic organising principle of human language to break down complex expressions into smaller units.
- *Multimodality, motion, production, and perception* views communication as the result of dynamically interacting modes involving acoustic, articulatory, gestural, respiratory, and bodily signals.
- *Social meaning* explores how linguistic choices at all levels – from semantics/pragmatics to morphosyntax to fine phonetic detail – convey information about speakers' social constellations or social identity like ethnicity, group affiliation, or ideological orientation.
- *Language documentation and archiving* targets the professional documentation of small and often endangered languages, and the use and standardisation of existing corpora for theory-based linguistic comparative analyses at different linguistic levels.

- *Language contact* targets language (assessment) of bilinguals and contact phenomena on an individual and societal level with particular attention to code-switching.
- *Speech acts and perspective* focuses on the development of a syntactic, semantic, and prosodic model for the representation of speech acts.
- *Speaker's choice and language use* views linguistic utterances as a multitude of choices in a labyrinth of possibilities and investigates which paths are used to navigate through this system.

Results

ZAS provides the following list of ten most important results in the fields of research, research infrastructures and knowledge transfer since the last evaluation:

1. Based on experimental evidence, the authors of *Numerals under negation: empirical findings* (**Solt, Stephanie** & Brandon Waldon, 2019, in *Glossa*, Article 113) propose a novel theoretical direction to account for the behaviour of negated bare cardinals.

   (FB4, theme *Meaning and cognition*)

2. The volume *Nominalization: 50 years on from Chomsky's Remarks* (ed. by **Alexiadou, Artemis** & Hagit Borer, 2020, Oxford University Press) revisits the original agenda of Chomsky's 1970 "Remarks on Nominalization" and aims to expand it with a view of previously unstudied languages.

   (FB3, themes *Meaning and cognition* and *Domains across linguistic modules*)

3. In their study *Finiteness in early but-clauses in German L1-acquisition* (**Bittner, Dagmar** & **Damaris Bartz**, 2017, in *First Language* 38(4), 337-358), the authors explore whether adversative *aber* (*but*) affects the realisation of functional finiteness by analysing the morpho-syntactic development in the first 12 months of *aber*-production in monolingual German children.

   (FB2, themes *Meaning and cognition* and *Speaker's choice and language use*)

4. The *ZAS Database of Clause-embedding predicates* documents the clausal complementation patterns of lexical predicates in several languages and makes curated and pre-processed corpus data available through a search interface. Numerous ZAS researchers contributed to the database. The web-based search interface stems from a collaboration with the 'Abteilung Lexik' at the *Leibniz-Institut für Deutsche Sprache*, IDS. (2018: https://www.owid.de/plus/zasembed/)

   (FB3, themes *Meaning and cognition*, *Domains across linguistic modules* and *Speech acts and perspective*)

5. The paper *A large-scale cross-linguistic investigation of the acquisition of passive* (Armon-Lotem, Sharon*, Ewa Haman*, Kristine Jensen de López*, Magdalena Smoczynska*, **Kazuko Yatsushiro***, Marcin Szczerbinski, …, **Uli Sauerland** et al., 2016., *Language Acquisition 23(1)*, 27-56. [* = joint first authors]) stands as one

example for ZAS' concentrated and long-standing efforts towards establishing experiment-based study of first language acquisition on larger numbers of languages, including under-investigated ones.

(FB2 and FB4, theme *Domains across linguistic modules*)

6. The results presented in the article *The bouba/kiki effect is robust across cultures and writing systems* (**Ćwiek, Aleksandra, Susanne Fuchs**, Christoph Draxler, Eva Liina Asu, Dan Dediu, ..., **Sabine Reiter**, **Manfred Krifka**, et al., 2021, *Philosophical Transactions of the Royal Society, Series B 377*, 20200390, pp. 1-13) were obtained cross-linguistically and cross-culturally, based on translations provided by a network of international scholars and an online study with almost 1000 participants in 25 languages. They were featured in various national newspapers, magazines, shows, and podcasts.

   (FB1, theme *Multimodality, motion, production and perception*)

7. Based on an IAT study combining visual and auditory stimuli, the authors of *The social meaning of contextualized fricative alternations in Berlin German* (**Weirich, Melanie**, **Stefanie Jannedy** & **Gediminas Schüppenhauer**, 2020, *Frontiers in Psychology*, Article 566174) explore the contribution of social factors like age, ethnicity, or gender, on the production and processing of speech.

   (FB1, theme *Social meaning*)

8. Based on reference corpora from DoReCo (see chapter 6), a collaborative language documentation initiative between ZAS and the Laboratoire Dynamique Du Langage in Lyon, a cross-linguistic analysis of morpheme length in nine typologically diverse languages was carried out and led to the publication *Optimization of morpheme length: a cross-linguistic assessment of Zipf's and Menzerath's laws* (Stave, Matthew, **Ludger Paschen**, François Pellegrino & **Frank Seifart**, 2021, in Levshina, Natalia & Steven Moran (eds.), Linguistics Vanguard 7(s3). Efficiency in human languages: corpus evidence for universal principles, Article 20190076). DoReCo itself was published in 2022 and provides audio recordings as well as annotations of mostly narrative texts (10,000 words in 50+ languages). Subcorpora and annotations are treated as citable publications under a CC BY 4.0 license.

   (FB1 and FB3, theme *Language documentation and archiving*)

9. *New language versions of MAIN: Multilingual Assessment Instrument for Narratives – Revised* (ed. by **Gagarina, Natalia** & **Josefin Lindgren**, 2020, *ZAS Papers in Linguistics (ZASPiL 64)*, Berlin: ZAS) presents ZAS' instrument MAIN as an implementation of a multidimensional model of story organisation which was developed and tested at ZAS to explain child narrative acquisition cross-linguistically. MAIN uses pictorial stimuli to assess comprehension and production of narratives in several languages and is intended for application in research, but also in evaluation, dynamic assessment, and intervention. Materials and research results are available in open access.

   (FB2, theme *Language contact*)

10. The authors of *Probabilistic pragmatics explain gradience and focality in natural language quantification* (**van Tiel, Bob**, Michael Franke & **Uli Sauerland**, 2021, Proceedings of the National Academy of Sciences 118 (9), e2005453118) implement an integrated computational model to compare two different semantic theories of quantifiers.

    (FB4, theme *Speaker's choice and language use*)

In the period 2019-2021, ZAS research results were **published** in an annual average of 2.3 monographs, 24.7 individual contributions to edited volumes, and 75 articles in peer reviewed journals. Furthermore, ZAS researchers published on average 17.7 articles in other journals. The centre was also responsible for the editorship of an average of 5.7 edited volumes per year.

Beyond its expressed focus on fundamental research, ZAS maintains **research infrastructures** for the scientific community, namely the above-mentioned database, a reference corpus and assessment tool (see core results 4, 8 and 9), as well as three laboratories and a research library (see chapter 4).

The centre's efforts in **knowledge transfer** include advising political decision makers and educators on various aspects of multilingual societies which, i. a., lead to expert reviews, statements or position papers (in total three in 2019-2021). The centre also participates in transfer activities like *Lange Nacht der Wissenschaften*, and it organises the German participation in the International Linguistics Olympiad.

3. Changes and planning

Development since the previous evaluation

ZAS was admitted to joint federal and *Länder* funding as a member of the Leibniz Association in January 2017, following a positive evaluation by the German Council of Science and Humanities (*Wissenschaftsrat*). This resulted in changes of organisational nature:

A joint **Board of Trustees** (*Kuratorium*) was established for ZAS and the other two centres under GWZ administration (see chapter 4).

The long-standing Director of ZAS and regular Professor at Humboldt-Universität became full-time Director. Two Vice Directors were appointed. As part of the reorganisation of the centre's **internal structure**, four research areas (FBs) were created as working units. Each of them addresses specific research fields within the scope of linguistics. A middle management was put into place by appointing a Head to each of the research areas, and permanent staff positions were introduced. ZAS also established several internal structures and committees, as well as spokespersons for the different staff groups (see chapters 4 and 5).

In terms of **scientific development**, ZAS reacted to recommendations from the German Council of Science and Humanities by strengthening the involvement of its Scientific Advisory Board (SAB) in the planning of research. From 2008 until 2019, ZAS had carried out research under the BMBF-funded research programme on 'Embedding, Linkage and Constituent Boundaries in Speech, Grammar and Discourse'. Upon the admission to the

Leibniz Association in 2017, research at ZAS became centred around research themes (see chapter 2). During 2017 and 2018, nine different research themes were explored, seven of which were approved by the SAB and two were discontinued for lack of external funding. One additional theme (*Speech acts and perspective*) was added in 2019. ZAS claims to continue to have a strong focus on theory-oriented research including theory-driven empirical work, but also to identify possible applications (in particular in its work on multilingualism) and also to increase its involvement in research infrastructures (see chapters 2 and 6).

Strategic work planning for the coming years

At the time of reporting, ZAS is undergoing two major changes: A relocation of the centre is planned for spring 2023 (see chapter 4) and a leadership change is under way (see chapter 5).

Overall, the centre aims to **continue** its theory-based, empirically grounded and society-oriented research on all levels of language analysis and language development. Against the backdrop of our diverse societies, and urban spaces like Berlin in particular, that face many language issues such as the linguistic integration of migrants, gender biases in language, and the need for improved language technologies, ZAS aspires to take on an important mission here.

As the 6-year life-cycle of the current **research themes** is about to come to an end in 2024, an evaluation of the research theme mechanism itself and the current themes in particular is scheduled for 2023. Following this, ZAS is planning to determine which old themes to continue and which new themes to add in the next cycle.

In view of the many languages and different language families studied at ZAS, the centre sees itself in a position to identify generalisations of linguistic theories on large scale crosslinguistic foundations. Consequently, the centre aims to build on its experience with large networks of international partners and to integrate them into an infrastructure open to the discipline. Further envisaged is a strengthening of statistical and computational **modelling.** Also, research on **predictors for language disorders** is to be intensified. On a service level, the centre plans to develop ways of making its audio-visual databases **Open Access** without violating personal data. Finally, it intends to continue investigating the importance of **speaker diversity** in language use, language contact, cognitive processing, acquisition, and multilingualism.

Planning for additional funds deriving from institutional funding

ZAS is preparing to apply for a permanent increase of its institutional funding (‘*kleiner Sondertatbestand inhaltlich-strategischer Natur*’, minor extraordinary item of expenditure) in 2025. With the expansion it intends to strengthen its research on language and speaker diversity. Structurally, the plan consists of two parts:

1. A new, fifth **research area** targeting the diversity of languages and speakers is to be installed under the working title ‘Language and Speaker Diversity’ *(‘Diversität von Sprachen und Sprechern*’, FB5).

2. The **acquisition, evaluation, and dissemination of linguistic data** in all research areas is to be supported.

In terms of **language diversity**, ZAS aims to contribute to theoretical research on small and endangered languages by applying and further developing state-of-the-art methods. Doing this, it plans to build on its existing experience from work on numerous typologically, areally, and genetically diverse languages. The centre also intends to expand its network of collaborators beyond the already existing cooperations, improve the available data and develop standards for further data collection.

Speaker diversity, on the other hand, addresses the linguistic behaviour and competence of different speaker groups on which relevant metadata are collected. With the expansion, ZAS intends to further develop this research topic in the existing research areas as well as in the new one. Particular attention is to be given to the dissemination of data on speaker variability and to interdisciplinary collaboration with research networks within and outside the Leibniz Association.

As for productive intersecting points between **language and speaker diversity** in the new research area, ZAS highlights two aspects in particular: Firstly, research on multilingual speakers, and secondly, the collection of data on small languages where speaker variation may have a particularly strong effect but has not yet been investigated in depth. The use of audio-visual recordings, transcriptions and annotations, as well as the collection of relevant metadata are deemed to be suitable methodical approaches in both cases.

Eleven new positions (9.5 FTE) are to be created at the centre:

<u>Scientific positions within the new research area</u>

- 1 Head of Research Area (E14, permanent)
- 1 Researcher (E13, permanent or tenure track)
- 1 Postdoctoral Researcher (E13, temporary)
- 1 Doctoral Researcher (0.65 E13, temporary)

<u>General science support positions with particular relevance for the new research area</u>

- 1 Laboratory Manager (E12, permanent)
- 1 Global Laboratory Coordinator and Ethics Officer (E11, permanent)
- 1 Transfer Officer (E11, permanent)
- 1 Open Data and Statistics Officer (E12, permanent)
- 1 IT Officer (0.65 E12, permanent)
- 1 Administrative / Early Career Support (E9, permanent)
- 1 Student Assistant (40h / month)

Additional costs are foreseen for digital infrastructure (including software, hardware and data security) as well as for research-related activities (publications, cooperations, workshops, travel).

„Extraordinary item of expenditure“: summary of funds planning

	2027	2028	2029	Permanently
Own funds + additional funds = „extraordinary item of expenditure“	*870 k€*	*965 k€*	*968 k€*	*968 k€*
Own funds from existing funding by institution (at least 3 % of core budget)	*89 k€*	*91 k€*	*94 k€*	94 *k€*
Additional funds of institutional funding	*781 k€*	*874 k€*	*874 k€*	*874 k€*

4. Controlling and quality management

Facilities, equipment and funding

Funding

Between 2019 and 2021, ZAS had an average annual **revenue** of €5.6m. Due to the acquisition of large sums in third-party funding, the budget increased significantly over recent years to €6.6m in 2021. Institutional funding amounted to €3m thereof, while the revenue from project grants was €3.7m (55 % of the overall budget).

The majority of **third-party funds** stemmed from the EU/ERC (67 % of the revenue from project grants in 2021) and the DFG (28 %). According to the centre’s strategy, all funded projects have to be associated with a research theme and, in turn, each research theme has to be supported in the long run by a funded project. This is to ensure both coherence and external quality control.

Facilities and equipment

Currently, ZAS is located in the *Mossezentrum* in Berlin Mitte. A move into a **new office building** in Berlin-Wilmersdorf is planned for spring 2023. The relocation, which became necessary due to the end of the rental contract and a following threefold increase in the rent for the current premises, is seen by the centre as an opportunity to access additional workspace and redesign its laboratory setup.

ZAS currently operates three **laboratories** which are to be installed as one shared complex in the new location:

- The phonetics/acoustics laboratory consists of a low-reflection, sound-insulated, and electromagnetically shielded recording room with a rare array of specialised studio equipment as well as a preparation and control room with several computer workstations. Technologies include a specially developed recording system for intraoral pressure measurements and an optopalatographic system, as well as a portable ultrasound imaging device. ZAS can perform electro-optical stomatography (EOS) and ultrasound imaging of the speech production organs during speech. A high-performance computer allows for Bayesian modelling and data processing of field research databases. For parallel processing of different analogue systems, a new data acquisition system was procured.

- The motion capture laboratory contains an Optitrack motion capture system with twelve cameras recording in the infrared range. With the help of reflective markers on the body, movements or facial expressions and gestures are recorded by the cameras. According to the centre, the parallel recording and analysing options available here are unique in Germany.
- The psycholinguistics laboratory contains six working cabins for development, programming and execution of experimental designs and subsequent data evaluation. Each cabin is equipped with a loudspeaker, headphones, a DVD drive, computers with internet access, as well as current software for linguistic work. Stationary and portable eye-tracking systems are available for measuring reaction time and eye movements during language processing (Tobii T-60, Tobii X2-60, Tobii Pro Fusion).
- The laboratory complex is to also include a child language laboratory. Experiments and consulting in this respect are currently still carried out in regular office space. The new laboratory is to serve as general child-related research facility for ZAS and is to be used for both offline and online experiments. It will be equipped with tests for cognitive function and language (proficiency), with language-supporting games and other materials for consulting.

In terms of quality management measures for its laboratories, ZAS collaborates with research institutions as well as technology manufacturers in order to maintain internationally competitive research conditions.

ZAS operates a **library** with about 60,000 volumes which is also open to the general academic public as a reference and research library. Digital access to journals is available by default, while articles and book chapters can be made available online on request. All subscribed journals are accessible online in the IP area of ZAS. Required articles and book chapters are made available online on request. The library also oversees the centre's activities in Open Access (see below). It is a member of several specialty library working groups. Its catalogue is integrated into the Lin|gu|is|tik portal of the University Library Frankfurt/Main.

Information Technology

The centre describes its **IT concept** as based on a triad between cost efficiency, user experience and data security. An IT department and an external Data Protection Officer handle matters of consulting, support, data processing and protection.

At the moment, ZAS uses cloud-based storage where data is automatically backed up every 24 hours for the last 14 days in the local data centre. Plans are under way to create a server room for on-site backup and providing of data. This is to be implemented in the course of the planned move to a new location.

Data protection is achieved through centrally administered filter and firewall rules. External access to internal data is only possible via a secure VPN connection.

Organisational and operational structure

As detailed in chapter 1, ZAS is one of three Berlin-based Leibniz centres within the shared legal body of the association *Geisteswissenschaftliche Zentren e. V.* (GWZ). The GWZ with its **Managing Director** takes over the administrative management of all three centres.

ZAS itself is headed by a **Director** who also holds a professorship at Humboldt-Universität zu Berlin, and two **Vice Directors**. The positions of the Vice Directors are to rotate every two years among the Heads of the Research Areas. All three Directors represent ZAS externally and take on administrative and representative tasks that affect the entire centre.

The Director, the four Heads of the Research Areas and one elected representative of the science supporting staff form the **Executive Committee** (*Leitungsgremium*). This committee convenes at least once every month and decides on the distribution of resources as well as, with involvement of the Scientific Advisory Board, on further appointments at the centre.

Each **research area** (*Forschungsbereich* – FB) is managed by a Head of Research Area and is assigned its own budget. The Heads of the Research Areas are authorised to issue instructions in their research area (excluding externally funded projects), but follow the decisions of the Director and the Executive Committee. The research areas hold monthly internal meetings.

As part of the GWZ, ZAS is administered by a joint **administration** that provides a personnel department, a finance department, and accounting. The GWZ administration is currently funded in equal parts by each of the three centres. At ZAS itself, additional employee-related tasks are taken care of. The **science supporting staff** reports to the Director of the centre and is represented in the Executive Committee by its elected representative.

Quality Management

ZAS subscribes to the "Guidelines on Safeguarding **Good Scientific Practice** in the Leibniz Association" and the "Guidelines for Safeguarding Good Research Practice" issued by the DFG. Cases of suspected scientific misconduct are reported to the elected **Ombudsperson** or their deputy. Should a further examination of allegations be found necessary, the case is forwarded to the central Ombudspersons of the Leibniz Association.

The centre points to the high relevance of ethics questions in all its research areas, particularly in research with minors and in linguistic field work. It regularly obtains ethical reviews from the **Ethics Review Board** at the "Deutsche Gesellschaft für Sprachwissenschaft" (German Linguistic Society).

A Data Protection Officer, who is externally contracted by the GWZ, makes sure the centres meet the regulations of the EU General Data Protection Regulation. All researchers at ZAS are encouraged to practice open science and ZAS has held sessions on good practices for open research data. **Research data management** is currently ultimately the responsibility of the researchers with the exception of the LeibnizDream project. This project participates in the open data trial of the European Research Council (ERC). To oversee the anonymisation and reusability of the research data, the project employs a data manager (0.5 FTE).

ZAS's **publication strategy** aims to make the centre's research results accessible to the scientific community and the general public. It puts its focus on research articles in peer-reviewed scientific journals, but also welcomes monographs, chapters in books, and proceedings. Supervisors monitor the publication activities of their staff and support the development of individual publication strategies, especially with young researchers. Staff members are encouraged to use an ORCID iD to ensure a correct attribution of publications to themselves and to ZAS. Co-authorship within and beyond the centre is encouraged, and so is the publication of research data for reuse by other researchers, wherever possible.

ZAS aims to steadily increase the amount of **Open Access** publications, and, as far as possible, to use fair and sustainable Open Access models in particular. It follows the 'Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities' as well as the 'Open Access Policy of the Leibniz Association' and has adopted its own Open Access policy in 2017. The share of Open Access publications was increased from 34% percent of all ZAS publications in 2016 to 71% in 2021. The implementation and monitoring of compliance with the Open Access Strategy take place in the Library of ZAS: It offers information on publishing options, participates in Open Access projects, contributes to the centre's funding of Open Access publications and provides funding for ZAS's DEAL publications. The *ZAS Papers in Linguistics – ZASPiL* are available through an Open Access web presence via the library.

Since it entered the Leibniz Association, ZAS has introduced budget management via the **programme budget**, following the general guidelines of the Leibniz Association.

Quality management by advisory board and supervisory board

According to the charter of the GWZ, the centre's **Scientific Advisory Board** consists of "up to nine internationally renowned, active scientists who are experts in at least one of the centre's areas of work". Members are appointed by the GWZ board of trustees (see below) after consulting with ZAS. The Board is to offer advice in terms of scientific concepts and strategic planning, cooperation, staff development, the promotion of young scientists and quality assurance. It advises the Board of Trustees on the recruitment of management personnel and comments on the draft programme budget. The Board visits ZAS once every year and performs an audit once between two external evaluations, most recently in September 2019.

ZAS shares its **General Assembly** and its **Board of Trustees** with two other Leibniz centres through the GWZ. The General Assembly as the highest decision-making body convenes annually and decides on the admission of members, the election of the Board of Trustees, the annual report, the statutes and the dissolution of the GWZ. The Board of Trustees, which is chaired by the representatives of the Berlin Senate and the Federal Ministry of Education and Research (BMBF), meets twice a year. It is responsible for the supervision of all essential scientific, programmatic, and economic matters of GWZ, insofar as they are not reserved for the General Assembly.

5. Human Resources

ZAS introduced a **human resources concept** in 2017 which, together with the Leibniz Guidelines for Career Development, forms the basis for the centre's personnel planning and hiring policy. A detailed and constantly updated **employee handbook** informs about processes and guidelines at ZAS. There are annual structured one-on-one meetings between each ZAS employee and his or her immediate supervisor.

Upon joining the Leibniz Association, it became possible to offer researchers permanent positions. The initial selection of tenured positions was made by the Executive Committee with advice from the Scientific Advisory Board and approval from the Board of Trustees. The centre is now planning to take up discussion for future tenure track procedures.

Leading scientific and administrative positions

As mentioned above, ZAS is currently undergoing a change in leadership. The former Director retired at the end of September 2022, and his successor was appointed on 1 October 2022. Both hold professorships at Humboldt-Universität zu Berlin. The director's position was advertised nationally and internationally. A joint committee from HU Berlin and ZAS including external members decided on the appointment.

ZAS generally aims for all leadership personnel (Directors as well as Heads of Research Areas) to have a teaching qualification at a university in the Berlin area (for example in the form of a private lecturer position, Honorary Professorship, or S-Professorship).

Future Appointment of the Managing Director of the GWZ will be a matter of the GWZ.

Staff with a doctoral degree

Postdoctoral positions at ZAS can be offered to researchers within four years after finishing their dissertation. Extensions of contracts beyond the initial two years are possible. ZAS distinguishes **postdoctoral researchers** (corresponding to the Leibniz Association's orientation and consolidation phases) from **senior researchers**, whose dissertation lies at least six years back in time. As of December 2021, 15 postdoctoral researchers and 20 senior researchers were employed at the centre.

All postdoctoral researchers are assigned to individual research areas and take part in the regular working meetings, presentation formats and opportunities for discussion within the respective units. They also participate in ZAS' annual one-on-one employee meetings with their immediate supervisor, Head of Research Area, Project PI or Director. These meetings, in which results and goals are discussed, are seen as a tool for **employee development** and **career support measures**.

There is a network of postdoctoral researchers, and an elected **spokesperson** represents their interests at the centre. Postdocs partake in a **mentoring programme** at ZAS where they are paired with an experienced researcher. They themselves can in turn be mentors for doctoral candidates.

Between 2016 and 2022 15 former ZAS staff members were appointed to professorships at universities in Germany and seven other countries.

Doctoral Candidates

ZAS currently hosts 15 doctoral researchers financed by institutional funding and third-party funded projects as well as two who are at the centre with a doctoral fellowship. It points out that most of its **doctoral researchers** are doing their doctorate in externally funded projects. They are integrated into the centre's research areas according to the assignment of the respective project. Doctoral positions which are funded by ZAS are typically awarded for three years with a possible extension to a maximum of four years. Supervision is to be provided at least in part by a ZAS staff member. All doctoral candidates at ZAS must be enrolled at a university as the centre is not a degree-granting institution.

Similarly to postdoctoral researchers, doctoral researchers are networked at ZAS and hold institution-wide meetings as a status group. They have two elected **spokespersons** at the centre, and one doctoral researcher from ZAS acts as a spokesperson for the doctoral researchers in the humanities within the Leibniz Association. As mentioned above, beyond their immediate exchange with their supervisor, doctoral researchers also partake in the ZAS **mentoring programme**. Additionally, target training is offered by senior researchers or external lecturers. It typically addresses scientific skills, but also more general topics such as mental health.

Five doctoral theses were completed by ZAS employees between 2019 and 2021. Four of the theses were supervised by members of more than one FB, while one in FB2 was supervised by colleagues at the University of Potsdam. The average **doctoral duration** is estimated at 3.25 years.

Science supporting staff

ZAS currently employs a total of 7 persons (5.75 FTE) in **science support**, including a non-permanent project manager for the evaluation. Normally, science supporting positions are permanent. An additional non-permanent 2.5 FTE are currently funded through the third-party funded project LeibnizDream.

Similarly to the other status groups at the centre, the science supporting staff is self-organized in monthly meetings. They are also active in the respective working groups of the Leibniz Association. Upon interest, they are eligible for payment and support for further qualification or trainings.

ZAS states that the employees in science support currently handle a significant workload. The centre hopes to increase its staff in this area in the future to keep up with the increasing number of scientific employees. At the moment, **Student assistants** play an important role in fulfilling numerous support tasks from helping to organise events, researching literature, creating experimental material and helping to carry out experiments to maintaining databases. As of December 2021, there were 37 students working at ZAS (19.8 FTE).

Equal opportunities and work-life balance

ZAS subscribes to the Leibniz Association's **goals of equal opportunities and diversity** as well as the DFG's 'Research-Oriented Standards on Gender Equality' and acts in accordance with the General Equal Treatment Act (AGG). Since 2019, there are two **Equal Opportunity Commissioners** at the centre.

According to the centre, the implementation of equal opportunities is observed in every employee selection procedure and research projects are staffed with gender parity. As of December 2021, the overall percentage of **female scientists** among the ZAS staff was 52% (60% among the Directors and Heads of Research Areas, 41% among researchers in non-executive positions, and 73% among the doctoral researchers).

ZAS offers its employees flexible working hours and the possibility of mobile working. Support structures exist for **parents of young children** (among others, subsidies for childcare costs can be applied for and doctoral researchers receive a monthly child supplement in addition to a possible extension of their doctoral scholarships). In May 2022, the centre was awarded the **audit '*berufundfamilie*'** certificate, which assesses family friendly working conditions, gender equality, career advancement and work-life-balance.

6. Cooperation and environment

Collaboration with universities

ZAS cooperates most closely with the **Humboldt-Universität zu Berlin** (HU). Both the retiring and the future Director of ZAS hold a professorship at the Faculty of Language and Literature of HU. One further Head of Research Area is an Honorary Adjunct Professor and two ZAS employees hold the status of PD (*Privatdozent*). ZAS participates with four projects in the Collaborative Research Centre 1412 *Register: Language Users' Knowledge of Situational-Functional Variation* located at HU. ZAS and HU cooperate in the DFG Research Group RUEG1/2 *Emerging Grammars in Language Contact Situations*, in the ERC Synergy Grant *Realizing Leibniz's Dream* (see below), and in the European Marie Curie ITN *Conversational Brains* (COBRA). Collaboration also spans to the joint use of ZAS' platform LingEx for recruiting participants for experiments and to co-organised events.

Beyond HU, ZAS also cooperates with the **Freie Universität** and **Technische Universität Berlin**, as well as with the **Universität Potsdam**, where one Head of Research Area is an Honorary Adjunct Professor. Together with all four universities and the **Berlin-Brandenburgische Akademie der Wissenschaften (BBAW)**, ZAS is collaborating on the DFG excellence cluster pre-application *Language in Mind and in Life*. Further cooperation exists with numerous other universities in Germany and abroad, ranging from regular teaching activities to technology development and joint projects.

In addition to affiliations at German universities, one ZAS researcher has a guest professorship at Uppsala University and one an honorary senior research fellowship at Osaka University.

In 2019-2021, 62 ZAS researchers taught 139 semester hours per week at universities in Germany and abroad, with an annual average of 10 ZAS employees teaching 23 semester hours per week.

Involvement in and coordination of alliances

ZAS highlights the following alliances and joint activities of recent years:

- **DFG priority programme XPrag.de: New Pragmatic Theories based on Experimental Evidence** (SPP 1727, second phase 2017-2022; together with the University of Cologne, coordinated at ZAS). The project applied experimental methods (e.g., reaction times, eye tracking, brain imaging) to research questions in semantics and pragmatics.
- **ERC Synergy Project Realizing Leibniz's Dream: Child Languages as a Mirror of the Mind** (together with HU Berlin and the Università degli Studi di Milano-Bicocca; ZAS is the coordinating host institution; 36 partner institutions worldwide) – The project investigates typical patterns in the utterances of children in a wide variety of languages.
- **Multilingual Assessment Instrument for Narratives (MAIN)**, an instrument which was initiated in 2009 and is maintained by ZAS. MAIN is a part of LITMUS (Language Impairment Testing in Multilingual Settings). Its interdisciplinary network consists of researchers from over 60 countries working with 92 languages. MAIN is being used by over 2800 researchers worldwide.
- **DoReCo: Language Documentation Reference Corpora**, a German-French DFG/ANR project that started in 2019 in which ZAS collaborates with 50 researchers worldwide that contribute annotated audio recordings of linguistic fieldwork.
- **Conversational Brains (COBRA)**, within which ZAS and HU are part of the Marie Skłodowska-Curie Innovative Training Network for 15 international doctoral researchers (training them to accurately characterize and model the linguistic, cognitive and brain mechanisms that allow conversation to unfold in both human-human and human-machine interactions).
- **The pragmatic status of iconic meaning in spoken communication: gesture, ideophones and prosodic modulation (PSIMS)**, an international network for the study of iconicity in speech and language.

Cooperation within the Leibniz Association

ZAS cooperates with the **Leibniz-Institut für Deutsche Sprache (IDS)**, for example in the QUEST project on the quality of audio-visual corpora and in the joint preparation of a database on clause-embedding predicates. Furthermore, the centre is in collaboration with the **Leibniz-Institut für die Pädagogik der Naturwissenschaften und Mathematik (IPN)** in the area of child logical language and cognition. It is also a member of three Leibniz Research Networks (**Education Research Network LERN, Biodiversity** and **Mathematical Modelling and Simulation**).

Further cooperation with other non-university research institutions

Beyond the Leibniz Association, the centre points to cooperations with the **Berlin-Brandenburgische Akademie der Wissenschaften** (BBAW) and the **Humboldt Forum** in Berlin. It also cooperates with numerous European research institutions, for example within the above-mentioned International Training Network COBRA (including the **Max Planck Institute for Psycholinguistics** in Nijmegen, **the Institute of Informatics of the Slovak Academy of Science** in Bratislava and the **Fondazione Istituto Italiano di Tecnologia** in Ferrara, as well as several international companies, e.g. Furhat robotics). Other cooperation partners include several CNRS-laboratories (**Laboratoire de Phonétique et Phonologie, Laboratoire Language, Langue et Culture d'Afrique Noire** and **Laboratoire d'Informatique),** the **Vanuatu Cultural Centre**, and the **Museu Paraense Emilio Goeldi** in Brazil.

Institution's status in the specialist environment

ZAS lists the **Leibniz-Institut für Deutsche Sprache (IDS)**, the **Max-Planck-Institute for Psycholinguistics** in Nijmegen and the **Berlin-Brandenburgische Akademie der Wissenschaften (BBAW)** as related non-university research institutions dedicated to language. However, it points to their differing objectives and methodologies: While ZAS is mostly employing experimental methods and field work alongside corpus linguistics, IDS is mostly based on corpus linguistics and observation of language use (with a focus on the study of German, while ZAS focuses on theory-oriented research on the faculty of human language in general). Research at MPI, on the other hand, is largely investigating human language with means that are outside of linguistics proper, e.g. in the departments of language and genetics, the neurobiology of language, and psychology of language. Lastly, the BBAW also has large language-related groups. However, their big long-term infrastructure projects are not primarily carrying out research on their own.

In terms of **German universities**, ZAS describes its own mission and contributions as fruitfully complementary to those of German universities. There, linguistics expertise is often spread over different departments and faculties.

Internationally, the **Institut Jean Nicod** and the **Laboratoire de Sciences Cognitives et Psycholinguistique** in Paris are named as two CNRS research laboratories that, while much bigger than ZAS, have an overlap in their research interests.

7. Research Areas of ZAS

Research Area 1: Laboratory Phonology (FB1)

[10.9 FTE, thereof 4.8 FTE Research and scientific services, 3.5 FTE Doctoral candidates, 2.7 FTE Service staff. Furthermore, 4.7 FTE Student assistants]

FB1 is dedicated to interdisciplinary research on the biological, linguistic, and social aspects of speech production, perception, and reception. The development of new research

paradigms and tools is central to its work and provides the basis for answering research questions in linguistics, psychology and social cognition.

ZAS points to the particular methodological and thematic breadth of FB1. Its work relates for the most part to the ZAS **research themes** *Domains across linguistic modules*, *Multimodality* (including the timing and coordination of speech with hand gestures, orofacial expressions, bodily motion, respiration), *Social meaning* (in speech production and perception), *Language documentation and archiving* (annotation of under-documented languages and analysis of universal phenomena), and *Speech acts and perspective*.

The FB's **work** is theoretically informed and based on hypotheses testing and statistical modelling. Investigations combine phonetic, biological, sociological, and psycholinguistic methods. The individual researchers in FB1 link expertise in phonetics/phonology with biology, sociology, and typology, thus providing an interdisciplinary perspective on language. FB1 maintains the **phonetics/acoustics laboratory** and the **motion capture laboratory** at ZAS.

The group **transfers** its results into the public sphere. ZAS points to the FB's results having been featured in national and international newspapers, magazines, radio shows, and podcasts.

FB1 **plans** the relocation of the labs to the new ZAS building and an extension of its efforts for research infrastructures by building an Open Access audio-visual database.

The research area published on average 14.7 articles per year in peer-reviewed journals. Average annual project grants amounted to €316k and were obtained mostly from the DFG (€212k p.a.), the BMBF (€57k p.a.), and the EU (€35k p.a.).

Research Area 2: Language Development & Multilingualism (FB2)

[12.9 FTE, thereof 5.1 FTE Research and scientific services, 1.0 FTE Postdoctoral researchers, 3.7 FTE Doctoral candidates, 1.0 FTE other fellows, 2.2 FTE Service staff. Furthermore, 5.7 FTE Student assistants]

FB2 aims to advance the understanding of language development trajectories and their diversity over childhood to older adulthood with a special focus on discourse organisation and its building blocks, such as pronouns and discourse particles. The main theoretical goal is to model the impact of individual and social factors on discourse development in typologically diverse languages. Focus on diverse populations with (a)typical development grounds the FB's theoretical research on an empirical base and connects it to societal needs to improve the participation of disadvantaged groups of speakers in society.

FB2's research covers four of ZAS's **research themes**: *Meaning and Cognition*, *Domains across linguistic modules*, *Language contact* as well as *Speaker's choice and language use* to various extents.

FB2 studies language development cross-linguistically and experimentally through the life span and manages the **psycholinguistic lab** at ZAS since 2020. FB2's engagement in theoretically based research on text phenomena in the context of **MAIN** created a global interdisciplinary network and, according to ZAS, has innovated traditional large-scale language

acquisition studies. MAIN has been set up in different repositories as an open access research infrastructure. On a national level, the research area also highlights the initiation and development of **BIVEM** which promotes theoretical and practical issues of multilingualism in Germany. FB2's scientific results (both from language acquisition research and from BIVEM) are **transferred** into practice in endeavours to improve children's education.

In the immediate **future**, FB2 will work on a newly acquired project on heritage language teaching evaluation and is expecting to broaden the investigations of oral texts and literacy in bilingual school-aged children. FB2 intends to expand scientific and public synergies through the organisation of educational policy forums and consulting. Further future work is to improve language assessment instruments for multilinguals and to explore pronoun use and anaphora resolution, domain-specific developmental trajectories as well as interaction of language and cognitive skills. The research area is also planning to become involved in cross-linguistic application of novel theoretical approaches to discourse/text analyses in (non-)European contexts.

The research area published on average 10.7 articles per year in peer-reviewed journals. Average annual project grants amounted to €204k and were obtained mostly from the *Land* Berlin (€93k p.a.), the BMBF (€57k p.a.), and the DFG (€ 47k p.a.).

Research Area 3: Syntax & Lexicon (FB3)

[15.6 FTE, thereof 12.8 FTE Research and scientific services, 0.7 FTE Doctoral candidates, 2.2 FTE Service staff. Furthermore, 3.7 FTE Student assistants]

FB3 investigates the means of combining the most basic units of language to build more complex syntactic structures, including individual lexical items. The FB is concerned with exploring not only the mechanisms of composition but also the complex interplay of syntactic, morpho-phonological, as well as semantic factors that underlie this process. In pursuing this, it aims to contribute to the creation of new models at the forefront of linguistic research in syntax and its interfaces.

The **research theme** *Domains across linguistic modules* is of particular importance here, but other themes such as *Meaning and Cognition*, *Language contact*, *Speech acts and speaker's perspective* and *Language documentation and archiving* play a role as well.

In its **work**, FB3 looks at a wide range of phenomena and typologically diverse languages. Research is formally oriented and motivated by theoretical questions, but also makes use of corpora, fieldwork, and experimental methods. In collaboration with FB1, it combines corpus phonetics and documentary linguistics to advance corpus-based typology. In collaboration with FB2, FB3 contributes to the study of heritage languages and language contact; in collaboration with FB4, FB3 explores the nature of speech acts and speaker's perspective as well as meaning composition.

In recent years, FB3 has aimed to promote the creation of **research infrastructures** alongside theoretically driven research on endangered languages and best practices for language documentation and archiving. FB3 points to having developed a working collaboration between linguists from very different traditions by identifying common topics to

work on (e.g., domains, multiple exponence and language contact) and by promoting dialogue to further an understanding of linguistic diversity. The research area combines typological and formal insights in studying language and speakers in a variety of settings and via diverse methodologies, aiming to unravel the intricacies of language structure and linguistic diversity.

It is expected that in the immediate **future**, FB3 members will deepen their engagement in research on verbal decomposition, agreement mismatches, gender, emotive language, understudied languages, language contact and multilingual grammars, while further curating the ZAS Database of Clause-Embedding Predicates.

The research area published on average 19.3 articles per year in peer-reviewed journals. Average annual project grants amounted to €670k and were obtained mostly from the DFG (€513k p.a.) and the BMBF (€150k p.a.).

Research Area 4: Semantics & Pragmatics (FB4)

[28.9 FTE, thereof 15.0 FTE Research and scientific services, 3.3 FTE Doctoral candidates, 3.0 FTE External fellows, 3.0 FTE other fellows, 4.7 FTE Service staff. Furthermore, 5.8 FTE Student assistants]

FB4 develops formal models of the human capacity to communicate complex thoughts via the use of language.

Thematically, FB4's work is centred around the **research themes** of *Meaning and cognition*, *Speaker's choice and language use*, *Perspective and speech acts*, and most recently *Social Meaning*. Methodologically, it sees its particular strength in the integration of experimental and formal approaches to questions of meaning.

Ongoing **work** in the group has led to contributions on polarity sensitivity, numerical and scalar meaning, quantification, measurement, implicature, modality, as well as methodology. FB4 is leading one DFG Priority Programme (SPP 1727 **XPrag.de**), one ERC advanced grant (**SPAGAD**, in cooperation with FB1 and FB2), and one ERC synergy grant (**LeibnizDream**). In addition, the unit pursued further third-party projects to either retain or attract talented young scholars and to develop new topics in collaboration with university partners. In particular, through participation in **CRC-1412** ***Register*** (2020-2023), group members are aiming to integrate the study of Social meaning into formal semantic/pragmatic theory.

One **future** focus will be semantic models capturing core cognitive areas using data from child language. A further intended focus is the application of advanced mathematical modelling into semantic and pragmatic theory. FB4 also sees itself in a position to lead work on diversity of languages and speakers with its expertise in experimental methods, child language, autism, and diverse and endangered languages in collaboration with other FBs. Topically, new areas of focus are anticipated to include the semantic/pragmatic foundations of socio-emotive communication and constraints on possible lexical meanings.

The research area published on average 36.7 articles per year in peer-reviewed journals. Average annual project grants amounted to €1,606k and were obtained mostly from the EU (€741k p.a.), the DFG (€755k p.a.), and the BMBF (€57k p.a.).

8. Handling of recommendations from the previous evaluation

ZAS responded as follows to the core recommendations of the last external evaluation (highlighted in italics, see also full statement of the German Council of Science and Humanities issued on 15 April 2016, pages 12-17):

Overall concept and results

1) *"The efforts of ZAS to thematically expand the field of **lexical semantics** are understandable; however, the feasibility of a programmatic expansion should be critically examined against the background of the available resources."*

   ZAS states that it has not significantly expanded into the area of lexical semantics due to the available resources. However, it investigates properties of lexical semantics in interaction with other grammatical phenomena, in particular in its large-scale investigation of clausal-embedding predicates. In collaboration with IDS Mannheim, ZAS has made the database accessible to scholars. The centre explains that its focus of research was reoriented towards the investigation of the interaction between roots and functional structure, which reflects common interests in FB3 and FB4. These are taken to be the basic units of meaning composition and ZAS states that their study in diverse constructions, languages, and in mixing varieties has proven relevant for current discussions in the field.

2) At the time of the last evaluation the establishment of a fifth Research Area had been planned (see also below, Recommendation 7): *"Research Area 5 with its **language archive** and associated activities, especially the further development of documentation software and annotation standards, has the potential to provide valuable service for linguistic field research. In order to provide the expansion of technical expertise that is absolutely necessary for this, human resources must be increased through cooperations and third-party funded projects."*

   In close exchange with the Scientific Advisory Board, ZAS shifted the focus of investigation in a future area V from 'Research Area V: Language Documentation and Language Archiving' to 'Research Area 5: Language and Speaker Diversity'. Due to application procedures, the earliest time for an application is in the beginning of 2025, with a realization in 2027.

   ZAS explains that in the meantime, two linguists were hired from institutional funding to carry out research in Papua New Guinea and West Africa. Within the CRC-1412 Register (DFG), the centre carries out a documentation project on two creole languages, Bislama and Morisien. Furthermore, ZAS employed a researcher on a Heisenberg position (funded by the DFG). This resulted in two collaborative projects: DoReCo and QUEST (see chapter 6). Furthermore, ZAS offered guest scientist status to the Director of the Endangered Languages Archive (ELAR) and the Endangered

Languages Documentation Programme (ELDP), and cooperated with her in the QUEST project and in conferences and training sessions. Cooperation possibilities increased further when ELAR/ELDP moved from London to the BBAW Berlin in 2020; for example, ZAS and BBAW have a common lecture series on language documentation and theory. Hence ZAS deems its efforts to realise the recommendation of the German Council of Science and Humanities as successful to a great extent. The activities in this area feed research in FB1, FB2, FB3 and FB4 as well as the extension proposal on diversity of languages and speakers.

3) *"In the combination of theoretical and applied research that is planned for the future, ZAS should urgently ensure that the actual core substance of theoretical-linguistic* ***research*** *is not affected and is only supplemented by such applied research oriented towards public benefit that convincingly expands the portfolio of the centre."*

ZAS points out that its focus on theory-driven, basic research has not changed. It also continues to consider possible applications, in particular in the areas of language contact and multilingualism, multimodality and language documentation. ZAS attempted to establish two additional research themes with an applied bent: text comprehension and language and aging. However, as external funding could not be acquired, these research themes were discontinued for the time being. Still, ZAS sees great potential in FB3 and FB4 for more applied research in the context of e.g. databases, language contact and the LeibnizDream Synergy grant; however, the major focus of the activities in these FBs is to remain on theoretical research.

4) *"In the interest of institutional accountability of publications and the associated profiling, ZAS should make sure that the* ***publications*** *of staff members clearly indicate their affiliation to the Centre. Furthermore, care should be taken to ensure that research papers prepared internally and ready for publication are actually published."*

ZAS has further worked on its publication strategy and takes care that scientists indicate their affiliation to ZAS. This is specified in the employee handbook of ZAS.

<u>Controlling and Quality Management</u>

5) *"The rather high share of* ***third-party funding*** *of ZAS with 34 % of the available funds in 2014 requires a consistent third-party funding strategy that is closely linked to the research programme. In future, ZAS should therefore orient the selection of externally funded projects even more consistently to its research priorities in order to ensure long-term programmatic coherence."*

According to ZAS, it is now mandatory that all externally funded projects are associated with a research theme in order to achieve coherence and synergy in the activities at the centre. In turn, each research theme has to be supported in the long run by an externally funded project to ensure external quality control. Also, scientists that plan to join ZAS with outside funding or as guests have to be approved by the Executive Committee, where their fit to the research themes is assessed.

6) *"It should be ensured that the Geisteswissenschaftliche Zentren Berlin e.V. (GWZ) can also take over the complex **administrative services** required in the event of admission to the Leibniz Association. It is welcome that a separate financial budget is already maintained for ZAS within the GWZ. The planned introduction of a programme budget should be consistently pursued*."

The centre states that the administration located at GWZ maintains a separate programme budget for ZAS which undergoes yearly auditing and approval through the Scientific Advisory Board.

7) *"Especially in the very dynamic field of language technology, the involvement of **external technical expertise** (software development, administration for archiving) is indispensable."*

ZAS points to having hired a new and more experienced person responsible for IT. It has the intention to further increase expertise for IT in the planned institute extension. For about 1,5 years, ZAS has worked with two persons. The centre has contracted additional expertise for a flexible server-based experiment platform for the project LeibnizDream and for a cell-phone application within FB1.

8) *"A stronger involvement of the **Advisory Board** in fundamental decisions of ZAS is necessary. This applies in particular to the consultations on the research programme and the further scientific development of the Centre, which the Advisory Board should actively and critically accompany."*

According to ZAS, the Board was and is crucial in recommending the eight (originally ten) research themes and in permanent hiring decisions. It gives detailed comments to individual FBs and to the research in general, and it discusses and approves the programme budgets before they come into effect.

<u>Personnel</u>

9) *"It is structurally not sustainable that the position of **Director of ZAS** is currently held as a part-time position. If the Centre becomes a member of the Leibniz Association […] a full-time Director position must be established."*

Upon joining the Leibniz Association, the Director of ZAS became full-time Director with additional funding by the State of Berlin, with a teaching obligation of 2 semester hours per week. This format is to be continued with his successor, who will be employed at Humboldt-Universität zu Berlin following the 'Berliner Modell'.

10) *"In view of the function of ZAS, a significant and qualitatively assured increase in institutional positions is necessary."*

ZAS points to its decision to offer a high percentage of tenured positions to researchers in comparison to other institutions when it became part of the Leibniz Association. As new positions become available due to retirement, ZAS plans to establish tenure track procedures.

11) *"It would be desirable to fill one to three divisional directorships of ZAS with new appointments (W2 professorships) jointly with universities in the Berlin area."*

The new director holds a full Professorship at HU Berlin, and two FB leaders hold adjunct professorships at HU and Potsdam University respectively, a number that can increase with new hirings or other developments.

Cooperation

12) *"The cooperation potential of the Berlin Interdisciplinary Network for Multilingualism **BIVEM** is not yet exhausted. ZAS should systematically expand cooperation in this network in the future and thus strengthen its integration into the network."*

ZAS states to have kept up the activities of BIVEM and expanded cooperation (cf. chapter 7, FB2). However, support by the Senate of Berlin ended in 2016 and was taken up in 2017-2021 in form of the *Interdisziplinärer Forschungsverbund* (IFV). Nevertheless, activities continued to be carried out within the well-established BIVEM network. Thus, activities related to multilingualism and language contact were integrated into the planned institute extension (see chapter 3), which asks for funds for research on speaker diversity and for transfer activities specifically in the area of multilingualism in society. ZAS mentions MAIN, LeibnizDream, DoReCo, and XPrag.de, as examples for other large cooperative projects which require continuous attention and effort. The planned institute extension also includes a support position of a "Global laboratory" manager.

13) *"Cooperation between IDS and ZAS in the area of research infrastructure has so far mainly consisted of exchange activities, such as the joint organisation of conferences, which means that the synergy potential of cooperation has not yet been exhausted. The newly planned research area V 'Language Documentation and Language Archiving' at ZAS gives rise to expectations for the development of a high-quality infrastructure for linguistic field research. However, development and implementation can only be achieved in close cooperation with suitable institutions such as the IDS."*

ZAS points to its cooperation with IDS on the release of the database of clause-embedding predicates and within the QUEST project on quality standards of audio-visual corpora. It also lists two attempted joint Leibniz SAW projects in 2018 and 2019 with the goal of establishing a citizen science participation for data on language use that should complement and supplement corpus data. However, these applications were not successful.

14) *"ZAS cooperated with the German Institute for International Educational Research (DIPF) in the standardisation of the Russian language proficiency test and the MAIN test on children's narrative skills, as well as with GESIS - Leibniz Institute for the Social Sciences in the project 'Language acquisition as a window to social integration among Russian language minority children'. Independent of the planned admission to the Leibniz Association, ZAS should continue to explore the potential for cooperation with these institutions and actively promote exchange."*

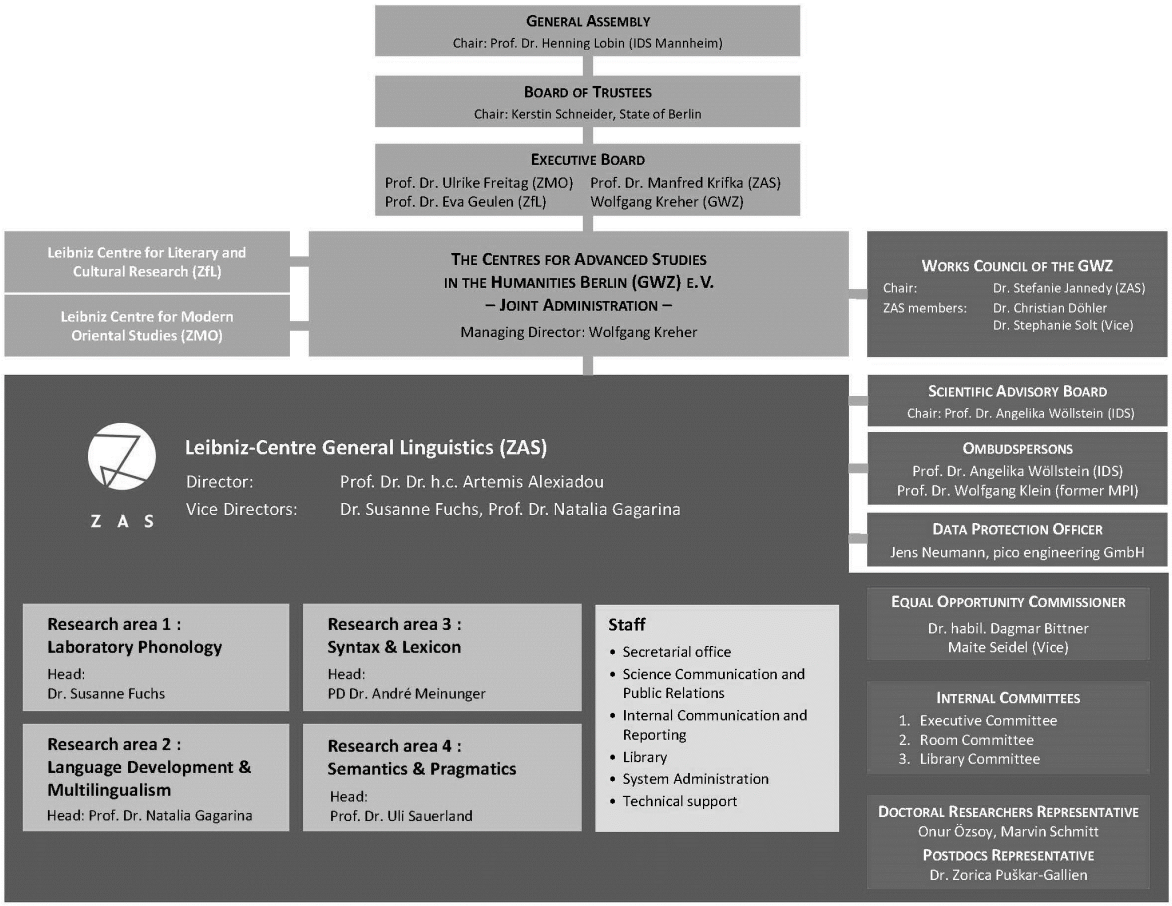
ZAS continues to cooperate with these institutions in the Leibniz Education Research Network (LERN; see chapter 6).

15) *"Due to the existing connections in terms of content, ZAS is also recommended to intensify the scientific exchange with the Max Planck Institutes for the History of Humankind in Jena (MPI-SHH) and for the Study of Religious and Ethnic Diversity (MPI-MMG) in Göttingen. This should be actively initiated by ZAS."*

ZAS has contact with the MPI-SHH in its work on the languages of Vanuatu, as one of its research groups is investigating the diversity of the languages there. The research programme of the MPI-MMG, however, was deemed to be too different from the research interests of ZAS.

Appendix 1

Organisational Chart (as of 10/2022)



Appendix 2

Publications, patents, and expert reviews

	Period		
	2019	**2020**	**2021**
Total number of publications	**134**	**108**	**119**
Monographs	2	3	2
Individual contributions to edited volumes	24	26	24
Articles in peer-reviewed journals	87	55	83
Articles in other journals	14	18	6
Editorship of edited volumes	7	6	4

	2019	**2020**	**2021**
Number of expert reviews	0	1	0
Statements and position papers	1	1	0

Appendix 3 Revenue and Expenditure

Revenue		2019			2020			2021		
		k€	% [2]	% [3]	k€	% [2]	% [3]	k€	% [2]	% [3]
Total revenue (sum of I., II. and III.; excluding DFG fees)		**5.162,3**			**4.925,2**			**6.630,7**		
I.	**Revenue (sum of I.1.; I.2., and I.3.)**	**5.162,3**	100 %		**4.925,2**	100 %		**6.630,7**	100 %	
1.	Institutional Funding (excluding construction projects and acquisition of property)	2.675,3	52 %		2.677,4	54 %		2.976,4	45 %	
1.1	Institutional funding (excluding construction projects and acquisition of property) by Federal and *Länder* governments according to AV-WGL	2.492,4			2.477,9			2.776,8		
1.2	**Institutional funding / additional funding rent**	183,0			199,6			199,6		
2.	Revenue from project grants	2.486,8	48 %	100 %	2.247,4	46 %	100 %	3.652,9	55 %	100 %
2.1	DFG	1.387,8		56 %	1.624,9		72 %	1.565,9		28 %
2.2	Leibniz Association (competitive procedure)	7,2		0 %	0,0		0 %	2,7		0 %
2.3	Land Berlin	72,1		3 %	93,7		4 %	112,2		2 %
2.4	BMBF	694,5		28 %	150,5		7 %	115,9		2 %
2.5	EU	217,3		9 %	341,3		15 %	1.769,6		67 %
2.6	Foundations (AvH, DAAD, VW, Thyssen)	65,0		2%	34,3		2%	80,2		2%
2.7	Other Third-Party Funding	42,8		2 %	2,7		0 %	6,4		0 %
3.	Revenue from services	0,2	0 %		0,4	0 %		1,4	0 %	
3.1	Revenue from publications	0,2			0,4			1,4		

Expenditures		k€	k€	k€
Expenditures (excluding DFG fees)		**5.582,4**	**5.288,7**	**5.295,9**
1.	Personnel	4.489,7	4.217,4	4.299,4
2.	Material expenses	1.092,7	1.057,0	928,6
3.	Equipment investments	0,0	14,3	67,8

DFG fees (if paid for the institution - 2.5 % of revenue from institutional funding)	64,1	65,5	66,5

Appendix 4

Staff

Basic financing and third-party funding / proportion of women (as of: 31/12/2021)

	Full-time equivalents		Employees		Female employees		Foreigners*
	Total	on third-party funding	Total	on temporary contracts	Total	on temporary contracts	Total
	Number	Percent	Number	Percent	Number	Percent	Number
Research and scientific services	**46,6**	56,4	**56**	80,4	**29**	79,3	**35**
1st level (scientific directors)	2,3	0,0	3	33,3	2	50,0	1
2nd level (research area leaders)	1,8	0,0	2	0,0	1	0,0	1
Scientists in non-executive positions (A13, A14, E13, E14 or equivalent)	31,5	63,2	34	79,4	15	73,3	21
Scientists in non-executive positions (non-tariff/ Marie Curie Fellowships)	2,0	100,0	2	100,0	0	0,0	2
Doctoral candidates (A13, E13, E13/2 or equi.)	9,0	48,9	15	100,0	11	100,0	10
Science supporting staff (laboratories, technical support etc.)	**5,0**	20,0	**5**				
Library (E9 to E12, upper-mid-level service)	1,0	0,0	1				
Information technology - IT (E9 to E12, upper-mid-level service)	3,0	33,3	3				
Technical (Phonetic) (E5 to E8, mid-level service)	1,0	0,0	1				
Science supporting staff (administration)	**6,7**	22,3	**11**				
Head of GWZ administration	0,3	0,0	1				
Staff positions and Scientific services (from E13, senior service)	1,0	50,0	1				
Staff positions and Scientific services (E9 to E12, upper-mid-level service)	2,8	36,1	3				
Staff positions and Scientific services (E5 to E8, mid-level service)	1,0	0,0	1				
GWZ administration (financial administration, personnel, etc.) (E9 to E12, upper-mid-level service)	1,6	0,0	5				
Fellowship (externally financed, AvH, DAAD, ...)	**3,0**	100,0	**3**				
Student assistants	**19,8**	56,1	**37**				
Scholarship recipients at the institution	**7,0**	42,9	**7**		**6**		**6**
Doctoral candidates Fellowship	2,0	50,0	2		2		1
Postdoctoral researchers	1,0	100,0	1		1		1
Fellowship (other)	4,0	25,0	4		3		4

The GWZ administration is included with the full number of employees at 1/3 of the full-time equivalents.
*Number includes persons who hold a German and a foreign passport at the same time.

13 March 2023

Annex B: Evaluation Report

Leibniz Centre General Linguistics, Berlin (ZAS)

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Appendix:
Members of review board

1. Summary and main recommendations

The Leibniz Centre General Linguistics (ZAS) explores from a general linguistics perspective how human language is used, structured, acquired, and processed. It very successfully pursues theory-guided research based on a range of empirical methods, including native speaker judgements, psycholinguistic as well as speech production and perception experiments, linguistic corpora, and field work. Its work involves multiple linguistic subdisciplines as well as a number of neighbouring disciplines. ZAS is highly visible and renowned internationally. It holds a central position in its research environment both nationally and internationally. The results also increasingly lend themselves to practical application in various fields, from education to technology.

ZAS staff achieve many excellent research results, which they publish in internationally highly visible outlets and increasingly translate into application, in particular in the areas of language contact and multilingualism, multimodality and language documentation. With its three experimental linguistic labs and its involvement in compiling and hosting linguistic databases, ZAS provides extremely valuable services for the national and international linguistics community. Research activities at ZAS are organised in four research areas (termed *Forschungsbereiche*, FBs) corresponding to linguistic subdisciplines. Two of the FBs have been rated as "very good to excellent", the other two as "excellent" in terms of overall performance.

The centre, formerly an institute of the Academy of Sciences of the German Democratic Republic, has been one of three institutes under the umbrella of the Berlin Centres for Advanced Studies in the Humanities (*Geisteswissenschaftliche Zentren Berlin, GWZ*) since 1996. It was accepted for joint funding by the federal and *Länder* governments as a Leibniz institution in 2017. This provided the necessary planning certainty for the centre to increase its previously small number of permanently employed scientists. ZAS has very successfully managed collaboration between its research areas with the help of its overarching themes strategy. The centre has been extremely successful at securing third-party funding for research projects through competitive procedures.

In autumn 2022, the director, who had led and shaped ZAS with exceptional success for many years, retired. It is extremely good to see that he has been succeeded by an outstanding researcher, who previously led Research Area 3 alongside her primary role as a professor at Humboldt-Universität zu Berlin. The strategic planning for the further development of the research themes and the plans to expand ZAS by adding a fifth research area are welcomed and supported with the recommendations listed below.

In 2023, the centre will move into a new building. This offers welcome opportunities to improve the space available to its three existing laboratories and realise its plans to create a new, fourth laboratory for the study of child language.

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

Changes and planning (chapter 3)

1. ZAS's plans to install a new, fifth research area for 'Language and Speaker Diversity', financed by a permanent increase of its annual institutional funding of €874,000, are expressly endorsed.

   The plans are well thought through and academically innovative. When submitting the proposal, it will be important to emphasise the strategic aspects of the development and to flesh out the goals – including in relation to the existing research areas. Following this, the scientific job profiles should also be specified further.

   Additional support for statistical analysis, as provided for in the proposal (Open Data and Statistics Officer, E12), is absolutely necessary for ZAS to stay at the forefront of empirical linguistic research. Without this support, the development of the existing areas will also be held back. ZAS should therefore fill this position as soon as possible, well before the potential start of additional institutional funding in 2027.

Controlling and quality management (chapter 4)

2. Since 2016, the Scientific Advisory Board (SAB) has been headed by a leading scientist from the Leibniz Institute for the German Language (IDS). It made sense to have academics experienced in the procedures and governance of the Leibniz Association among the board members during this phase. In the meantime, the collaboration between ZAS and the IDS has intensified significantly. Someone new should therefore be found to fill the position to avoid overlaps between advisory and supervisory roles and the cooperation partnership.

Human resources (chapter 5)

3. One immediate task that lies ahead now is the hiring of a new permanent head of Research Area 3. The centre and its boards are considering the implementation of a tenure track model to fill this position permanently. This makes sense. In the context of the aim to recruit an excellent external scholar, the centre should explore the possibility of joint appointments to professorships for positions at the level of research area leaders in future.
4. In terms of senior scientific positions, ZAS has handled its transition to a Leibniz institution very well, providing permanent positions to a number of excellent senior scholars in all of its four research areas. Two important scientists are retiring in a few years. In view of the upcoming new appointments, the centre should put in writing an HR concept and a strategy that organises the conversion of fixed-term contracts into permanent ones without delay.

2. Overall concept, activities and results

Overall concept

The Leibniz Centre for General Linguistics (ZAS) explores from a general linguistics perspective how human language is used, structured, acquired, and processed. It very successfully pursues theory-guided research based on a range of empirical methods,

including native speaker judgements, psycholinguistic as well as speech production and perception experiments, linguistic corpora, and field work, bringing together multiple linguistic subdisciplines as well as a number of neighbouring disciplines. The results also increasingly lend themselves to practical application in various fields, from education to technology.

Research activities at ZAS are organised in four research areas (termed *Forschungsbereiche*, FBs) corresponding to linguistic subdisciplines ('Laboratory Phonology', 'Language Development and Multilingualism', 'Syntax and Lexicon', 'Semantics and Pragmatics'). Two of the FBs have been rated as "very good to excellent", the other two as "excellent" in terms of overall performance (see chapter 7).

An overarching themes strategy leads to outstanding synergies between the research areas, for instance in flagship projects like the study on the *bouba/kiki effect*, which have generated a lot of publicity, and the *LeibnizDream* project, which is financed with an ERC Synergy Grant.

Seven years ago, the German Science and Humanities Council (*Wissenschaftsrat*) recommended that the basic research conducted by ZAS should continue to constitute the centre's core mission in the long term. The aim of this was to ensure an appropriate balance with activities in the areas of research infrastructure and knowledge transfer, which were about to be expanded at the time. ZAS has managed this balancing of activities extremely well.

Activities and results

Research

With its achievements, ZAS is highly visible in the scientific community and occupies a prominent position in its research environment. The staff obtain many excellent research results, which they publish in internationally highly visible outlets. Besides the activities mentioned above, special highlights include the pioneering empirical work on negated bare cardinal numerals, the *DoReCo* collaborative language documentation initiative, and the centre's work on the languages of Vanuatu.

Research infrastructure

The centre currently has three outstanding experimental linguistic laboratories. It is good to see plans for further expansion of these facilities following the centre's upcoming move to new premises (see chapter 4).

The work on small/non-European languages and the databases maintained on them are a unique asset. ZAS's activities form a stronghold for language archiving in the international linguistics community. However, the centre's resources for these activities are limited. It is therefore recommended that the science support team be expanded in this area (see chapter 3).

The instrument that ZAS has developed to assess comprehension and production of narratives in several languages (Multilingual Assessment Instrument for Narratives, MAIN) is an outstanding achievement and a great service to the community: it is available in *Open Access* and is not only widely used in research, but is also employed for assessments and interventions in therapy settings.

Knowledge transfer

It is good to see that the centre is increasingly pushing forward into application fields, in particular in the areas of language contact and multilingualism, multimodality and language documentation. The transfer activities are characterised by long-standing and well-established collaborations that help transport results into other application areas and to the general public. The diverse and valuable activities in FB2 concerning the Berlin Interdisciplinary Network for Multilingualism (BIVEM) stand out particularly here (see chapter 7). The ventures into citizen science, such as the Plapper app in FB1, are also commendable. Current work on the prosody of whispered speech is very valuable and should be expanded further – including the use of motion capture. The connections to the context of disordered speech even offer possibilities for industrial application.

3. Changes and planning

Development since the previous evaluation

The history of ZAS goes back to the Central Institute for Linguistics (*Zentralinstitut für Sprachwissenschaft, ZISW*) which was part of the Academy of Sciences of the German Democratic Republic. Since 1996 the Centre has been, under its present name, one of three institutes under the umbrella of the Berlin Centres for Advanced Studies in the Humanities (*Geisteswissenschaftliche Zentren Berlin, GWZ*). Since 2017, following a positive evaluation by the German Science and Humanities Council, which took account of a position statement by the Leibniz Association Senate, ZAS has been funded as a Leibniz institution by the federal and *Länder* governments.

This gave ZAS institutional stability following many years of short- to medium-term financing. The centre has made excellent use of the opportunities this offers and has increased the previously small number of scientists on permanent contracts. The improved planning certainty enabled the institute to take on innovative themes to a greater extent, and particularly to strengthen research infrastructure activities that need a long-term perspective. It is also good to see that the institute is now able to involve more visiting researchers. This successful activity regularly brings in new impulses and further enhances the international visibility of ZAS.

Strategic work planning for the coming years

After more than 20 years, the director of ZAS, a highly regarded scholar, retired at the end of September 2022. He led the institute with exceptional success and significantly influenced its development. His successor, an outstanding researcher who previously led Research Area 3 alongside her primary role as a professor at Humboldt-Universität zu Berlin, took over on 1 October 2022 (see chapter 5).

The planning focus is now on the further development of the research strategy. The themes strategy of ZAS currently comprises eight research themes, seven of which the centre has been pursuing since 2017, and one since 2019. The centre has made a rule of only continuing with research themes if it manages to secure third-party funding for them. This quality assurance mechanism makes sense in principle. However, in individual cases, the centre

should also weigh whether this expectation is appropriate because novel themes may not always immediately be eligible for third-party funding. With its research themes, ZAS has developed a dynamic instrument for fruitful cross-area collaboration. It is good to see that, after running for six years, they are to be reviewed and updated in 2023. The current number of eight research themes appears reasonable given the number of research areas, and should not be increased.

The upcoming move to a new building (see chapter 4) will enable the centre to realise its plans to establish a new, fourth laboratory for the study of child language. In addition, ZAS may add a fifth research area in 2027 (see next section). In view of these positive changes, the new director and the other leading scientists should continue to keep a close eye on the long-term prospects for strategic development at ZAS.

Planning for additional institutional funding

ZAS's plans to install a new, fifth research area for 'Language and Speaker Diversity', financed by a permanent increase of its annual institutional funding of €874,000 ('*kleiner Sondertatbestand inhaltlich-strategischer Natur*', minor extraordinary item of expenditure) **are expressly endorsed.** The research area would be dedicated to theoretical research on and data collection from small and endangered languages, as well as research on multilingual speakers. Beyond the immediate staffing of the new area (4 FTE), the plans include additional science support staff for the centre as a whole (5.5 FTE) to help handle the acquisition, evaluation, and dissemination of linguistic data. Should the proposal, which is to be submitted in 2025, be successful, funding would start in 2027.

The plans are well thought through and academically innovative. When submitting the proposal, it will be important to emphasise the strategic aspects of the development and to flesh out the goals – including in relation to the existing research areas. Following this, the scientific job profiles should also be specified further.

Additional support for statistical analysis, as provided for in the proposal (Open Data and Statistics Officer, E12), is absolutely necessary for ZAS to remain at the forefront of empirical linguistic research. Without this support, the development of the existing areas will also be held back. ZAS should therefore fill this position as soon as possible, well before the potential start of additional institutional funding in 2027.

4. Controlling and quality management

Facilities, equipment and funding

Funding

When it was last evaluated, ZAS had a total revenue of €3.9m (2014). Only €0.8m of this was provided by the *Land* Berlin as institutional funding. Additional temporary supplementary funding of €1.8m came from the federal government, and another €1.3m was acquired through third-party funding. Since the centre's admission into the joint funding provided by the federal and *Länder* governments, its financial resources have improved significantly.

Now, the total revenue is €6.6m (2021). The institutional funding alone amounts to approximately €3m, a sum which is adequate to cover ZAS's current portfolio of activities. Moreover, the centre is extremely successful at acquiring third-party funding: €3.6m was raised in 2021, amounting to 55% of the total budget. The majority of the grants came from competitive procedures of the EU (67%) and the DFG (28%), including two ERC grants (see chapter 7, FB4) and four projects in a Collaborative Research Centre (SFB). The GWZ's joint administration manages this unusually high level of third-party funding competently.

Facilities and equipment

ZAS is currently located in the *Mosse-Zentrum* in Berlin Mitte. The Leibniz Centre for Literary and Cultural Research (ZfL) and the GWZ occupy office space at the same address. With the current rental contract ending in 2022 and an ensuing threefold increase in the rent, a relocation of the two Leibniz centres and the GWZ to a new building was decided upon and is to take place in spring 2023. It is good to hear that ZAS's new premises will include a dedicated communal area for informal gatherings.

The centre is also seizing the opportunity to improve the space available for its three existing laboratories and has plans to establish a new, fourth laboratory for the study of child language. This is a sensible strategic development which will further increase the scope of what is already an invaluable, one-of-a-kind laboratory setup for experimental linguistic research.

ZAS's research library is well maintained physically and digitally. The librarian also handles the centre's *Open Access* activities competently (see below).

Organisational and operational structure

ZAS is headed by a director and two vice directors. The positions of the vice directors rotate among the heads of the research areas. The directorate is doing an excellent job at steering the centre's overall scientific development. They have made the most of the opportunities that opened up when ZAS was admitted into the Leibniz Association by expertly building on both existing strengths and new assets. A coherent, yet flexible organisational structure was set up (see chapter 3), preparing the ground for ZAS's extraordinarily positive development in recent years.

The GWZ provides a well-functioning shared administration for ZAS and two other Berlin-based Leibniz centres. This lean and efficient setup is highly appreciated by ZAS staff. The way it is structured, with the three centre directors and the managing director forming the Board of the GWZ, makes sense.

Quality management

ZAS ensures good scientific practice in accordance with the relevant Leibniz and DFG guidelines. It is also aware of the importance of ethics, especially in its laboratory research, and handles this topic responsibly.

IT security and data protection, too, are handled appropriately. It is good to see that for data storage ZAS relies on servers in Germany, for example in the context of its *Plapper* app.

The publication strategy is extremely successful (see chapter 2). A strong commitment to *Open Access* in particular has borne fruit in recent years, leading to a steep increase in freely available publications (71% of the centre's output in 2021). The implementation of the *Open Access* strategy is handled well and in a highly informed fashion. It is important to maintain a good sensibility to different standards and OA publication models. The centre's librarian is in charge of coordinating the endeavours in this area.

Quality management by advisory boards and supervisory board

The Scientific Advisory Board (SAB) carries out its duties with great commitment. It has dedicated an impressive amount of time and effort to accompanying ZAS during the period of transformation it went through after its admission into joint funding as a Leibniz institution. **Since 2016, the Scientific Advisory Board (SAB) has been headed by a leading scientist from the Leibniz Institute for the German Language (IDS). It made sense to have academics experienced in the procedures and governance of the Leibniz Association among the board members during this phase. In the meantime, the collaboration between ZAS and the IDS has intensified significantly. Someone new should therefore be found to fill the position to avoid overlaps between advisory and supervisory roles and the cooperation partnership.**

The Board of Trustees fulfils its supervisory role in an adequate manner.

5. Human resources

Leading scientific and administrative positions

The change of scientific director at ZAS (see chapter 3) took place in a transparent, well-organised way. The competitive procedure was set in motion in good time and was carefully planned. It is good to see that the funding authority allowed a transition period of close collaboration between the former director and his successor, which included the time of the evaluation visit. The overlap helped to ensure continuity, while the future of the centre is now in the capable hands of the new director. Like her predecessor, she is jointly appointed with Humboldt-Universität zu Berlin (HU, Institute of German Language and Linguistics, Professor of General Linguistics), where she previously held a regular professorship in the Department of English and American Studies (Professor of English Linguistics).

One immediate task that lies ahead now is the hiring of a new permanent head of Research Area 3. This unit was previously led by the new director, alongside her primary role and is currently under interim leadership. **The centre and its boards are considering the implementation of a tenure track model to fill this position permanently. This makes sense**, as does the centre's requirement that all leadership personnel should have a university teaching qualification**. In the context of the aim to recruit an excellent external scholar, the centre should explore the possibility of joint appointments to professorships for positions at the level of research area leaders in future.**

Staff with a doctoral degree

In terms of senior scientific positions, ZAS has handled its transition to a Leibniz institution very well, providing permanent positions to a number of excellent senior scholars in all of its four research areas. These senior scientists now permanently employed at ZAS are an invaluable asset in terms of the long-term strategic development of the centre as well as its excellent research profile.

Two important scientists (the vice heads of FB2 and FB4) **are retiring in a few years.** The centre's personnel capacities are relatively limited. In upcoming hiring procedures, it will therefore still be important to acquire specific, complementary expertise. Age structures should be kept in mind as well to avoid too much simultaneous turnover when experienced staff members leave and new scientists come on board. **In view of the upcoming new appointments, the centre should put in writing an HR concept and a strategy that organises the conversion of fixed-term contracts into permanent ones without delay.**

ZAS provides its postdoctoral staff with outstanding working conditions and an exceptional academic network. There is a high turnover among postdoctoral researchers, as is to be expected. ZAS aims for its doctoral and postdoctoral researchers to move on to advanced positions elsewhere after the completion of their theses. In this, the centre serves as an excellent platform for the further development of academic careers even beyond its own boundaries. An impressive track record of former staff members who have advanced to leading positions nationally and internationally is evidence of this.

In order to maintain the ensuing multitude of valuable connections, and to allow later generations of aspiring scholars to benefit from them in a more systematic manner, it is recommended that the centre expands the existing alumni documentation and networking practice into a fully-fledged alumni network.

Doctoral candidates

The average completion time for a doctorate at ZAS is commendably short, at 3.25 years. The doctoral candidates, most of whom are at the centre through third-party funded projects, have an excellent research environment to work in and are very well supervised and supported. ZAS does not have a structured doctoral programme, but doctoral researchers profit from close tutoring under the mentorship of several co-supervisors and are very well embedded in the research community at the centre – more often than not, they are involved in more than one research area. They also have access to the workshops and course programme offered by HU Berlin, as well as a number of self-organised events. As a status group, they are organised in a PhD network and also regularly partake in corresponding network activities within the Leibniz Association.

Science supporting staff

Administrative activities are largely carried out by the joint administration of the GWZ. ZAS only employs a very limited number of staff for science supporting tasks in administration, plus three people in IT, a technician, and a librarian. The performance of this small group is excellent and there is very high job satisfaction here, too. They are, however, at the limit of what they can do in terms of workload. It would be very beneficial if additional permanent

support staff could be hired, especially in the extremely important fields of statistics and data management (see chapter 3).

Numerous student assistants from various universities and from all levels of undergraduate and graduate studies form a substantial additional portion of the supporting staff at ZAS. They work in all areas of the centre and are excellently integrated in their work environments. They also receive good support for their self-organisation as a status group. In the past, being a student assistant here has proved to be an effective stepping stone into career paths in research. It was good to hear that once ZAS has moved into its new premises, the added communal area will provide space for personal meetings and exchange for this group as well.

Equal opportunities and work-life balance

There is a good gender balance at ZAS. In 2021, 52 % of all staff in research and scientific services were female. The directorate is all-female at the moment and half of the research areas are currently headed by women. ZAS's overall commitment to equal opportunities and diversity is commendable and provides a supportive working environment for the impressively diverse staff in terms of nationality and age.

6. Cooperation and environment

ZAS has well-established and strong links with Humboldt-Universität zu Berlin. In addition to the director, who is jointly appointed with HU on a W3 professorship, the head of one of the research areas holds an honorary adjunct professorship, and two senior scientists have the status of private lecturer (PD, *Privatdozent*). Collaborative ventures range from several large joint projects – like the Collaborative Research Centre 1412 *Register*, the DFG Research Unit *RUEG1/2*, and the ERC Synergy Grant *LeibnizDream* – to joint events and regular teaching activities.

Further partners in the region are the Freie Universität and Technische Universität Berlin, the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW), and the University of Potsdam, where the head of one of the research areas holds an honorary adjunct professorship.

Since its admission to the Leibniz Association, ZAS has built close connections to other institutes with similar research interests. Most prominently, the IDS is a strong and highly appreciated collaboration partner. With its focus on the German language, it has a complementary profile in linguistic research. ZAS's cooperation with the IDS and the BBAW in the context of the NFDI consortium *Text+*, for example, is strategically very well thought through and a highly commendable way of contributing the centre's specialist expertise. ZAS's involvement in three Leibniz Research Networks (the Educational Research Network *LERN* as well as the Research Networks 'Biodiversity' and 'Mathematical Modelling and Simulation') is further proof of its successful integration into Leibniz frameworks.

Overall, the centre has made viable strategic decisions concerning its role in its numerous partnerships with highly prestigious national and international partners: often cooperating with bigger institutions, it makes the most of its limited resources and contributes its unique

research expertise in specific, mutually beneficial arrangements (as in the above-mentioned case of *Text+*). The German-French cooperation on Language Documentation Reference Corpora (*DoReCo*) is an excellent example of this on an international scale: technological infrastructures and data hosting are managed by the French partners in Lyon, while ZAS contributes the conceptual framework.

As illustrated in the above-mentioned examples, ZAS is extremely well connected and successful at making its weight count. Both nationally and internationally, it holds a central position in its research environment and is highly visible with its cutting-edge research, methods and laboratories.

7. Research Areas of ZAS

Research Area 1: Laboratory Phonology (FB1)

[10.9 FTE, of whom 4.8 FTE research and scientific services staff, 3.5 FTE doctoral candidates, and 2.7 FTE service staff]

FB1 focuses on different aspects of speech production, perception and processing. The researchers approach this general topic from numerous disciplinary and methodological angles. FB1 also hosts ZAS's phonetics and motion capture laboratories.

The excellent research projects that are currently pursued here cover a wealth of highly relevant topics with the necessary methodological breadth. The researchers' work on, for example, sociophonetics and multimodality, is extremely innovative and has a lot of future potential. The overall output, too, is excellent. The outstanding laboratory facilities of FB1 are world-leading in their own respect and a unique asset to the research field at large.

FB1 is not only highly connected within the framework of ZAS through its implementation of the centre's overarching research themes, but also within the national and international research community, where it boasts an impressive list of outstanding collaboration partners. Its innovative approaches in relation to motion capture have excellent transfer potential as well. The planning for an extended laboratory setup on the new ZAS premises envisions even more laboratory space, which is a highly welcome development given the importance of these facilities.

The research area is rated as "excellent".

Research Area 2: Language Development & Multilingualism (FB2)

[12.9 FTE, of whom 5.1 FTE research and scientific services staff, 1.0 FTE postdoctoral researchers, 3.7 FTE doctoral candidates, 1.0 FTE other fellows, and 2.2 FTE service staff]

FB2 looks into the impacts of individual and social factors on language development over entire lifespans. The researchers study language development cross-linguistically and also have a psycholinguistics laboratory at their disposal for experimental research.

Their research work is deeply theory-driven: it builds on well-made and carefully thought-through theoretical setups in the development of rich materials, which in turn lend themselves to a wealth of applications for testing and experimental use. The storyboards which were developed within the MAIN framework (see chapter 2), for example, are now

used successfully by teams of researchers worldwide. FB2's experimental techniques are themselves state of the art (including sophisticated designs for language production experiments). Output through publications is very good, and so is the interconnectedness of the scientists with other groups within ZAS. What is particularly noteworthy in this research area are the excellent outreach and transfer activities, especially in the context of the Berlin-based BIVEM network. Following a well laid-out, long-term plan, FB2 has succeeded in establishing a substantial network of steady partners in the region, including stakeholders in the education sector as well as in the city government. This allows them to continuously transfer their research results on multilingualism into society as well as into policy making.

Research done in FB2 goes beyond the current overarching ZAS research themes in addressing the highly topical issue of ageing. Putting this on the centre's overall agenda would allow for an even deeper engagement, including in the context of the envisioned fifth research area of the centre. This would tie in very well here, also regarding other aspects of diversity.

The research area is rated as "very good to excellent".

Research Area 3: Syntax & Lexicon (FB3)

[15.6 FTE, of whom 12.8 FTE research and scientific services staff, 0.7 FTE doctoral candidates, and 2.2 FTE service staff]

FB3 explores how syntactic structures are built up, looking into composition mechanisms as well as the interplay of underlying factors of a syntactic, morpho-phonological, and semantic nature.

The researchers bring together formal linguistics and fieldwork-based anthropological work in an impressive way: in combining fieldwork data and high-end, ambitious theoretical thinking, they produce very valuable, innovative results, which they publish in excellent outlets. ZAS's overarching themes are implemented well and the team works on its projects successfully in a highly collaborative fashion. It is apparent that FB3 has come to play a central role in the overall framework of ZAS, performing an essential integrative function as a sort of theoretical backbone for much of what happens in other research areas. Even the outreach activities are commendable for a field so deeply rooted in basic research.

Since the previous evaluation by the German Science and Humanities Council, this research area has developed very dynamically and in tune with the overall development of ZAS. Now that the former head has been appointed scientific director of the centre, and another important senior researcher has recently left for a professorship at Stony Brook University, it is important to ensure the timely hiring of a full-time head for FB3. This will ensure that the unit's strength is consolidated and help realise its potential for developing even further, for example through expanding its promising ventures into experimental work.

The research area is rated as "very good to excellent".

Research Area 4: Semantics & Pragmatics (FB4)

[28.9 FTE, of whom 15.0 FTE research and scientific services staff, 3.3 FTE doctoral candidates, 3.0 FTE external fellows, 3.0 FTE other fellows, and 4.7 FTE service staff]

FB4 works on linguistic meaning – the researchers develop formal models of the human capacity to communicate complex thought through language. In this, they combine linguistic knowledge with cognitive science and computational modelling.

The research area has established itself in an internationally leading position with a team of outstanding scientists working on extremely prestigious, often third-party funded major projects. They publish their results in excellent venues and their activities, like the DFG priority programme *XPrag.de*, have a tremendous impact in the community, further advancing the visibility of the centre as a whole. Other highlights include the leading role in the ERC synergy project *LeibnizDream* and the ERC advanced grant *SPAGAD*. The latter also provides an example of the interconnectedness of FB4 with the other research areas within ZAS, as it is pursued in cooperation with FB1 and FB2.

The excellent work done here displays an impressive breadth of topics and methods. Following the retirement of the former ZAS director, whose contribution to the success of FB4 cannot be overstated, it is important to sustain the unit's current methodological and thematic range. It is very good to see that he will be available to ZAS until at least the end of 2024, as head of SPAGAD.

The research area is rated as "excellent".

8. Handling of recommendations of the last external evaluation

ZAS addressed the recommendations made by the German Science and Humanities Council (*Wissenschaftsrat*) in 2016 (see Status Report, p. A-21ff) in an adequate manner.

Appendix

1. Review board

Chair (Member of the Leibniz Senate Evaluation Committee)

Andreas **Fahrmeir**	Institute of History, Goethe University Frankfurt am Main

Deputy Chair (Member of the Leibniz Senate Evaluation Committee)

Susanne **Renner**	Department of Biology, Washington University, Saint Louis, USA

Reviewers

Barbara **Hemforth**	Laboratoire de Linguistique Formelle, Paris, FR
Petra **Hendriks**	Center for Language and Cognition, University of Groningen, NL
Frank **Kügler**	Institute of Linguistics, Goethe University Frankfurt am Main
Christian **Mair**	English Department, University of Freiburg
Louise **McNally**	Department of Translation and Language Sciences, Pompeu Fabra University Barcelona, ES
Gillian **Ramchand**	Department of Languages and Culture, Arctic University of Norway, Tromsø, NO
Robert **van Rooij**	Institute for Logic, Language and Computation, University of Amsterdam, NL
last-minute cancellation	Morphosyntax, semantics, language documentation

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

Volker **Wiesenthal**	Federal Ministry of Education and Research (BMBF), Berlin

Representative of the Länder *governments (member of the Leibniz Senate Evaluation Committee)*

Christine **Burtscheidt**	Hessian Ministry of Higher Education, Research and the Arts, Wiesbaden

4 April 2023

Annex C: Statement of the Institution on the Evaluation Report

Leibniz Centre General Linguistics, Berlin (ZAS)

The Leibniz- Zentrum Allgemeine Sprachwissenschaft (ZAS) would like to express its gratitude to the members of the evaluation panel, the guests and cooperation partners, as well as the the Evaluation Department of the Leibniz Association for the very well-organized and transparent evaluation process. ZAS is very thankful for the detailed report and for the very helpful recommendations the evaluation panel has provided.

The centre is very pleased to see the excellent marks it received for its past and current research programme, its research areas, its outreach activities as well as its international standing. The centre is excited to see the very strong support of its strategic plan for the coming years by the expert panel, especially the endorsement for our planned Sondertatbestand, which is a significant step in advancing our research strategy. ZAS welcomes the panel's suggestions on how to make it more concrete.

ZAS is very thankful to its Scientific Advisory Board and the GWZ's Board of Trustees for the excellent advice given over the past seven years and to the state and federal funding agencies for their continued strong support of the ZAS.

We will discuss and see how to implement the recommendations of the review panel in the coming years and we are looking forward to further ZAS's role as a prime place for linguistic research in the (inter-)national research landscape.