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JLU IN DIALOGUE

PERSPECTIVES FOR COMMUNICATION AND ADVICE
AT JUSTUS LIEBIG UNIVERSITY GIESSEN

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CONTENT

SUMMARY

Justus Liebig University Giessen (JLU) promotes a fruitful dialogue between academic research and society at large: As the 2020s progress, JLU is going to systematically expand its communications and advice activities, strengthening, in particular, science communication in order to publicise research findings more fully and, at the same time, reaffirm the importance of arts and sciences for society and policy-making alike. JLU's framework for communications and scientific advice serves to further develop the University as an organisation, reinforcing these two important dimensions of transfer in view of the diverse challenges and opportunities we are facing in a world of constant change.

Set out in this document are JLU's concrete goals for the period through 2030, including a detailed specification of the measures necessary to achieve them; these are in line with the university-wide development plan “JLU 2030”. This planning concerns, on the one hand, the level of institutional action, at which both central and decentralised JLU institutions are involved (e.g., through the communications activities of the executive board, faculties, research centres or departments). On the other hand, it relates to the level of individual action, and thus to all members and affiliates of JLU (e.g., scientists who communicate their research in popular science lectures, on social media or in advisory bodies).

One of JLU's goals is to align its institutional structures and processes more effectively towards the kind of integrated and strategic communication that reinforces both an understanding of and trust in research and its institutions while, at the same time, highlighting JLU as a distinguished place of study and research – ranging from a regional to an international level. To this end, JLU will continue to strengthen the central areas of science communication, digital communication (including social media) and (student) marketing. JLU is also intent on being more mindful still of the needs of internal and external target groups alike, factoring these needs into its institutional communication. This pertains to (novel) digital/participatory formats as well as to the selection and presentation of topics covered. At the same time, JLU will take care to provide and support places of encounter both inside and outside the University. This is also going to actively promote networking between central and decentralised JLU institutions, thus enabling a more effective use of synergies in communications and scientific advice activities.

As an integral part of its university culture, JLU appreciates and strongly supports the individual commitment of its researchers and other members and affiliates, who share their knowledge with the general public, with policy-makers and those representing the business community and the cultural sector. JLU is determined to offer the best possible conditions for those who, on their own initiative, communicate scientific activity or provide scientific advice. To this end, JLU offers a portfolio of support and training opportunities, including continuing education and training (e.g. interview and media training), personal counselling and information offers (e.g. a service platform, information sheets, toolboxes). In addition, JLU aims to provide material and temporal freedom for its members (e.g. through grants and funds), so that they can engage and develop their skills in science communication and scientific advice.

The framework for this approach has been developed in close coordination with JLU's governing bodies by means of a university-wide reflection process on communications and scientific advice. This included an intensive exchange and participation phase with various formats involving different university bodies, as well as a comprehensive analysis of the current situation and the relevant literature. JLU's strategic planning for the current decade is based on a review of external conditions and an analysis of the University's strengths and weaknesses. The implementation and success of this concept will be subject to regular review and are integrated into JLU's comprehensive and established quality cycle.

1.INTRODUCTION

Whether it is public health issues, analyses of international conflicts or best-practice models for a sustainable agriculture –**research** provides a sound basis for meeting the challenges of a changing world. It acts as a driving force for societal, political, cultural and economic development, progress and innovation. Public participation in scientific research and its findings, as well as an understanding of how researchers work and how knowledge is created, are essential for any democratic, responsible and sustainable society. Even after the experiences of the global COVID-19 pandemic, and in the light of growing anti-democratic and anti-science movements, a comprehensive strengthening of **science communication** is increasingly becoming the focus of political attention (e.g. German Bundestag, 2024; BMBF, 2019/2021; Federal Coalition Agreement, 2021–25; Coalition Agreement of the State of Hesse, 2024–29).

From a higher-education standpoint, comprehensible, transparent and dialogue-oriented (science) communication has become increasingly important in the current decade, as **universities** depend on a strongly developed communicative capacity for the realisation of their **democratic responsibility**. The development of such a capacity, moreover, is an important **strategic task** with regard to, for instance, university profile development (HRK, 2022; German Council of Science and Humanities, 2021a). In order to be able to work freely and in a way that will give rise to further findings, scientific institutions and researchers depend on the informed trust of the public in their professional competence and integrity as well as in the sensible use of the resources made available to them (Alliance of Science Organizations, 2020). An open, dialogue-based and trusting communication culture within universities themselves is of fundamental importance for such external communication to be successful (HRK, 2022).

At JLU, the exchange of research-based ideas, knowledge and technologies with actors outside of academia is a key element of our institutional self-image (Strategic Mission Statement on Transfer, 2022). In addition to its traditional tasks of research and teaching, JLU has declared this communicative transfer of ideas into a wider public to be its third performance dimension ("**Third Mission**"; JLU 2030, 2020; see the box on p. 10). The state of Hessen also considers knowledge and technology transfer to be a central task of its universities (Section 3 par. 3 HessHG). Setting a framework for **communications and scientific advice** thus is an important component in the differentiation of JLU's strategic positioning in the performance dimension of transfer. Following the German Council of Science and Humanities (2016), JLU has a broad understanding of "transfer", which, in addition to the "classic" forms of knowledge transfer and technological transfer, also includes the communication of research findings and the provision of advice to policy-makers and society at large.

The transfer dimension "**communications**", JLU has defined as an exchange between the University and the lay public (or segments of that public) about scientific findings gathered from research and/or teaching (Strategic Mission Statement on Transfer, 2022). This means that the term, as understood here, is broadly synonymous with the concept of "**science communication**" (cf. Chapter V, Glossary; note that science communication, as it is used here, refers to the variety of academic disciplines including arts, humanities and sciences). This document focuses on science communication, but also broadens the perspective to include other aspects of the multifaceted communication of universities, including their marketing efforts. **University communication** at JLU includes, then, the University's public communication (external communication) on a wide range of topics, including non-scientific ones, as well as communication within JLU, e.g. with its students or employees (internal communication).

According to JLU's understanding of transfer, "**scientific advice**" includes the formal counselling of decision-makers in fields other than the sciences, for example from politics, public administration and civil society, who receive advice on a variety of topics (Strategic Mission Statement on Transfer, 2022). This kind of advice-giving or consulting is thus also to be understood as a communicative act and, in a broader sense, as an application-oriented kind of science communication with a narrowly defined section of the public. This is why all considerations about communication presented below, in particular those regarding science communication by individual scientists (Chapter III.A), also apply, by and large, to scientific advice as well. However, since targeted interaction with decision-makers sometimes implies special requirements or conditions, an additional chapter will discuss those particularities the advice-giving process.

The transfer dimension of "**application**" is considered separately at JLU and will only be introduced briefly below. Nevertheless, it should be noted that the transfer dimensions of "communicating", "advising" and "applying" do not exist in isolation. Rather, they are interwoven and may mutually enrich each other. For example, science communication aimed at a wider public can also reach individuals from business and politics and draw their attention to a given research topic, a technology, a particular expert or JLU as an institution. Conversely, a specific need for advice or a novel research-based application may also provide an opportunity for communication about relevant topics.

The course JLU has set in terms of its communications and consulting activities, which factors in aspects of science communication, digital communication and student marketing, among others, is based on a **university-wide reflection process**. During this process, development needs and potentials as well as existing plans were compiled and discussed in various exchange and participation formats across the University; among others, university committees and JLU researchers already active in science communication were involved. This process was initiated in December 2021 on behalf of the University executive board, was managed by the Office of the President and Vice Presidents, and coordinated by JLU's Press, Communications and Marketing team.

OVERVIEW: A BRIEF PROFILE OF JUSTUS LIEBIG UNIVERSITY

RESEARCH: JLU is a strongly research-intensive university: In 2023, our researchers raised around 115.6 million euros in third-party funding for research projects. Research at JLU is carried out across the entire spectrum of academic subjects by researchers working on in individual projects or in collaboration with scientific and/or non-university cooperation partners, experts and laypeople (e.g. in living labs or citizen-science projects). JLU's research profile is shaped primarily by large and internationally renowned collaborative research units equipped with ample third-party funding, such as the focus areas “Cardiopulmonary System (Heart/Lungs)” and “Mechanisms of Perception and Adaptation” as well as solid-state battery research. However, other high-performance research units also shape JLU, including those from so-called “small disciplines”.

STUDIES AND TEACHING: JLU offers over 100 different degree courses to students at the bachelor's, master's and state-examination levels, an integrated degree programme (combining university coursework with professional qualification elements) and 15 vocational training courses as well as opportunities for obtaining doctorates and habilitation degrees. Another university-wide focus in both research and teaching is on teacher training: JLU offers university courses for 28 teaching subjects and for all types of schools and thus can boast the most extensive range of teacher training courses in the state of Hessen. Overall, the range of courses offered at JLU is continuously being updated and expanded to include new courses, such as Justicia y desigualdades - Estudios comparativos culturales (“Justice and Inequalities – Comparative Cultural Studies”, a master's degree taught in Spanish) or the bachelor's degree “Liberal Arts and Sciences”, which combines the fundamentals of academic/scientific work and interdisciplinary knowledge on future topics such as sustainability, digital transformation and social change.

TRANSFER: JLU continuously exchanges research-based ideas, knowledge and technologies with actors from civil society, business, politics and culture. JLU regards this dialogical transfer as its “third mission” alongside research and teaching. Its various transfer activities can be grouped into three distinct transfer dimensions, expressed by the University's commitment to “communicate”, “advice” and “apply”. This document provides comprehensive information, examples and key figures for the former two transfer dimensions (see Figure 1). The dimension of “application" includes transfer activities aimed at transmitting knowledge and technology into non-university areas, in which spin-off companies and patent applications play an important role. For example, JLU researchers have successfully developed a new drug for pulmonary hypertension; start-up innovations connected to JLU include an app designed to motivate children to read more; a chocolate aimed at alleviating menstrual cramps and an opinion research company that specialises in the public sector.

II. STATUS QUO

The basis on which JLU is now setting the course for the years to come has been an evaluation of its status quo, as well as of external framework conditions, carried out in the years 2022 and 2023. This includes an analysis of the challenges and opportunities for (science) communication at German universities, which is based on literature research, surveys, specialist discussions and events (see the first subchapter). Following this, the main focus is on the current status of (science) communication and scientific advice-giving at JLU (see the second subchapter) as well as an analysis of the University's strengths and weaknesses (see the third subchapter). Development needs identified in this context are summarised into thematic fields of action that provide the structure for planning (Chapter III). All JLU-specific evaluations and thematic settings are based, among other things, on qualitative interviews, quantitative analyses of key parameters, the involvement of university committees and various participation and dialogue formats within the University.

FRAMEWORK CONDITIONS: CHALLENGES AND OPPORTUNITIES

The German Council of Science and Humanities considers **science communication** and **policy advice** to be among the key challenges for German universities and other research institutions after the COVID-19 pandemic (German Council of Science and Humanities, 2021b), since this historic turning point revealed, as under a magnifying glass, the increased demands that scientists and scientific institutions are now facing: they have to communicate knowledge that is often highly complex, always provisional and subject to revision through

further research; knowledge, furthermore, that is fraught with uncertainty and might even be controversial in pluralist scientific discourse. Communicators, moreover, are facing a society that perceives science selectively and from different – sometimes sceptical – points of view, not to mention administrators and politicians, who must take responsibility for decisions that are both balanced and fit the situation at hand.

At the same time, in a world of constant upheaval facing global challenges such as climate change, species extinction and wars, there is at all times a high demand for solid, evidence-based knowledge. Science and research still enjoy great public confidence in wide segments of **society** (Science in Dialogue / Kantar, 2023). Many members of the public also argue that political decisions should be based on scientific findings. Through public **participation** in research activities (e.g. in citizen-science projects or dialogue-oriented, discursive formats of science communication), social concerns can be fed back directly to researchers, mutual understanding can thus be increased and enthusiasm for research can be strengthened (Alliance of Science Organizations, 2022).

The majority of **scientists** see science communication as an important part of their work, a recent survey of the German science sector has indicated (WiD, DZHW, NaWik, 2021). Although many respondents pointed out that in their everyday work, they were often lacking the time, resources or opportunities for individual communicative engagement, this was not always the case. On the whole, more than 80 per cent of respondents said they would happily engage with the public more strongly in the future if they received more support from their respective institutions. In particular, the following were said to be needed: additional financial resources, prompts to engage in science-communication activities, opportunities for further training and support in the event of a crisis.

The #FactoryWisskomm initiative, launched by the German Federal Ministry of Education and Research (BMBF), brings together individuals from the spheres of science, communications, politics, business and the media, as well as from civil society, providing them with concrete perspectives for new **courses of action** in science communication. Its multifaceted recommendations include, among other things, offering “communication skills” training for scientists at all career levels and institutional communicators alike, as well as giving science communication the recognition and standing it deserves, ultimately creating a “culture of science communication”, including the necessary governance and resources. The same paper also recommends measures for quality assurance and participation in science communication. The German Council of Science and Humanities advises scientific institutions to examine these options for possible implementation (2021a).

The (science-)political focus on science communication is also reflected in research funding: Many calls for proposals now state that an “exchange with society” or project-specific communications concepts are desired; quite often they are even required. Accordingly, science-communication measures can be co-funded (e.g. by the Federal Ministry of Education and Research, German Research Foundation, Volkswagen Foundation, Robert Bosch Foundation). Science communication is also considered an important performance and evaluation dimension in the Excellence Strategy of the German Federal and State Governments for promoting science and research, which was reinforced even further in its most recent call for proposals.

The conditions for science communication have changed significantly in the course of **digital transformation**, and, in particular, following profound changes in the **media and communications landscape**. Classic media houses are bound to come under economic pressure when adequate digital revenue models are lacking, and they thus cannot always fully fulfill their main functions of prioritisation, evaluation and classification, especially with regard to complex scientific topics and discourses. At the same time, social media and other digital formats in which content is published directly and often without editorial quality control have become more relevant for the exchange of information and for opinion formation. Public communication has therefore become more complex, personal and global – with all the positive and negative consequences this entails. For example, misinformation spreads more quickly and is more difficult to distinguish from serious information than it used to be. At the same time, access to the public for researchers and institutions is easy, direct and dialogic; this requires communicative sensitivity, because the tone in digital public discourse is often harsh, not stopping short even of hate posts and threats.

For universities as for communicating scientists, new requirements are also arising as a result of digital transformation – both in direct contact with the public and when interacting with the press and other media (German Council of Science and Humanities, 2021a; Alliance of Science Organizations, 2020). **Quality standards** in institutional science communication have become more relevant, for example with regard to the comprehensibility, transparency and integrity of the materials presented, which are now increasingly benchmarked against strict scientific standards. This is reflected, for example, in the guidelines of the German Federal Association of University Communication and the “Science in Dialogue” initiative (2016) as well as in the guideline of the German Council for Public Relations (2022). Successful influencers in the field of science communication are already working with their own editorial teams and are gaining media reach through their quality and credibility.

Trying out new things, getting involved, getting into a conversation – JLU offers a wide range of opportunities for all of these, bringing civil society and science together in a purposeful manner.

Digital media open up direct, low-threshold interaction channels, especially with young people, specialised forums and interest groups. This can facilitate public access to (scientific) information and offers new opportunities for improving transparency while intensifying exchange and participation. However, dialogue-oriented exchange also requires an appropriate, at times complex community management and can increase the need for internal support and coordination. This is particularly true for **social media**, through which universities and researchers can enter into dialogue more directly, quickly, more frequently and more personally than through any of the traditional media. Overall, given the high frequency and availability of digital communication services, it has become more important to orient any communications strategy towards the interests and habits of clearly defined target groups in order to gain their attention.

In order for a university to be successful in the (international) competition for research funding, highly qualified staff and students, an **integrated communications approach** and **target group-oriented marketing** are becoming increasingly important. This innovative kind of communication, which is perfectly coordinated at all levels and distributed through a variety of (digital) channels, aims to convey consistent messages and a coherent identity. In comparison with commercial enterprises, universities have a lot of catching up to do in this regard – which might be due, among other things, to their complex organisational structure (Drowatzky, 2021). Nonetheless, many universities have now adapted their organisational structures and communications processes to the diverse challenges and opportunities they are facing. University press offices – which in many cases used to be quite small – have become strategically aligned and highly specialised communications departments that can adequately address the complexity of the topics, target groups and channels they are now dealing with (Federal Association of University Communication/DUZ Spezial, 2019).

Open Campus Day at JLU's Seltersberg campus area: New, different and forward-thinking – JLU's faculties, departments and other facilities demonstrate the significance of those words as applied to the lived realities of study and research, offering exhibits, laboratory tours and trial lectures to prospective students.

COMMUNICATIONS AND SCIENTIFC ADVICE AT JUSTUS LIEBIG UNIVERSITY GIESSEN

With around 25,700 students (in the 2023/24 winter term), Justus Liebig University Giessen (JLU) is the second largest university in the state of Hessen. As of November 2023, JLU employed around 5,800 staff in science, teaching and administration. Since its founding as "Ludoviciana" over 400 years ago, JLU has provided groundbreaking impulses in research, teaching and knowledge transfer – a tradition of innovation captured in the University's slogan, "**New Paths. Since 1607**". Inspired by its namesake, the chemist, professor in Giessen and publicist Justus Liebig, the University aims to combine outstanding achievements in research and teaching with a clear commitment to social responsibility. This aspiration is as important at JLU today as it was in Liebig's day, and of course involves a strong commitment to science communication and scientific advice.

JLU systematically pursues the goal of making findings from research and teaching public and entering into a dialogue about them with society at large. JLU's **science communication** efforts follow an ideal of being honest, relevant, relatable, comprehensible, transparent and dialogue-oriented in order to permanently and sustainably strengthen the public understanding of science – with all its possibilities and limitations – through continuous exchange. **Scientific advice**, in particular, can offer well-aimed support to decision-makers in politics, public administration and civil society, using well-founded results, data and expertise. Moreover, it can accompany and evaluate the implementation of that advice (Strategic Mission Statement on Transfer, 2022).

JLU's **research and teaching profile** is a central, content-based source for creative ideas as well as for technological and social innovations, which are transferred to society at large and discussed with members of the public. JLU comprises a broad spectrum of disciplines and is thus capable of nuance in its setting of priorities for research and teaching within this framework. Across JLU's eleven faculties, this spectrum includes the traditional humanities and social sciences (including law and economics), psychology and sports science as well as the natural and life sciences (including human and veterinary medicine).

Researchers who impart their expert knowledge directly are the protagonists of science communication and scientific advice. Those doing research at JLU communicate their findings, for example, in media interviews, as guest authors contributing popular science articles to newspapers and magazines (including distinguished periodicals such as "Frankfurter Allgemeine Zeitung" or "Spektrum der Wissenschaft" and local newspapers in Giessen), in schools (e.g. on the subject of the Russian invasion of Ukraine) or at science slams (e.g. Security Slam, Berlin). JLU researchers also act as advisors, for example to the National Academy of Sciences Leopoldina, the German Ethics Council or the German Federal Government's Future Council. **Students, technical employees and other associates and staff of JLU** also make a significant contribution to knowledge transfer, for example at events such as "Open Campus Day", at other university open days, student labs or in projects such as the Refugee Law Clinic (with students offering free legal advice on asylum and residence law issues), JLU's "Teddy Clinic", offered by JLU medical students to address younger children's "fear of the doctor", or the student-run podcast "(P)Ostkutsche" on Eastern European history.

JLU has **central organisational structures** that specifically support and promote an exchange with those outside the University – both in terms of individual communication processes and on an institutional level. The **Press, Communications and Marketing** team within the Office of the President and Vice Presidents is the central point of contact for all matters relating to university communication. In addition to press and media work, this also includes photo-editing and consulting, social-media management and the conception and editing of various JLU publications as well as handling the University's in-house communication. Institutional crisis communication has become increasingly important in view of complex problem situations. The Press, Communications and Marketing team also maintains the profile and identity of JLU, including through strategic marketing activities and the use of a corporate design; student marketing in particular has been promoted more strongly since 2022. This is done in cooperation with relevant "in-house players" such as the university faculties, the Central Student Advisory Service or the Staff Division Studies, Teaching, Further Training and Quality Assurance, as well as internationally through JLU's International Office. In order to support researchers in their science-communication efforts, Press, Communications and Marketing team has begun to set up support and training offers as part of two state-funded projects in 2021/22. In this, the focus is on personal consultations as well as on needs-based workshops, training and coaching offers for different internal target groups (professors, early career researchers, women in science). This is done in close cooperation with JLU's Human Resources Development division, especially the Postdoc Career and Mentoring Office (PCMO) and the Staff Division Research and Graduate Studies (including the Science Support network), as well as across universities, as in the "Science meets Media" network of Hessian universities. **Cultural and event management** is also supervised by the Office of the President and Vice Presidents, which organises public events concerning the University as a whole and advises JLU members on organising their own events. The Alumni Service maintains contact with former JLU members and offers internal advice to the faculties (and others) on maintaining contact with – and planning events for – former members and alumni. In addition, there are **decentralised organisational structures** and institutions in various faculties, research centres and other parts of the university structure that promote an exchange with the public, e.g. JLU's Botanical Garden, the Hermann Hoffmann Academy for young scholars and researchers (with its highly popular sperm whale skeleton), the collection of antiques in the Upper Hessian Museum or the German-Colombian Peace Institute (Instituto CAPAZ, see Chapter III.B). In addition, the Giessen University Association promotes contacts between the University and the public by organising lecture series, social events and concerts. The Faculty Club, also, offers opportunities for exchange.

Chemist and JLU namesake Justus Liebig (1803-1873) is known for pioneering inventions such as mineral fertiliser, meat extract and baking powder. And Liebig was also a committed science communicator and 'influencer', as a reading in the Botanic Garden's Palm House shows.

JLU communicates externally (with the general public) as well as internally (within the University) in a variety of ways. On the one hand, institutional communication is based on the reach and audience of traditional media such as newspapers, radio and TV, which are addressed through press releases and active expert referral. On the other hand, JLU uses its own **public-communication tools**, e.g. the University's newspaper "uniforum", its science

magazine “forum forschung”, the annual series of President's Lectures and a wide range of events and formats originating across the University, e.g. the “Planetary CineScience” series of film screenings hosted by the Panel on Planetary Thinking in collaboration with the Kinocenter Giessen cinema or the traditional Christmas lecture offered by the Faculty of Biology and Chemistry. In addition, there are digital communication tools that are used both centrally and decentrally, such as social media channels (e.g. Instagram, Facebook, X, LinkedIn, YouTube), websites (www.uni-giessen.de) and formats such as podcasts (e.g. “Materials' World - Podcast of the Centre for Materials Science”) and videos (e.g. the GCSC's “PhD Spotlight Series”).

Some communication formats are strongly geared towards specific **target groups**, e.g. “Justus University for Children", the informational lectures offered by the Faculty of Medicine to senior citizens or the practitioners' seminar in environmental law held at JLU's law school. As a matter of principle, local target groups play an important role in JLU's communications strategy – after all, the University is the single largest employer, and the largest educational and research institution in Central Hessen. JLU not only acts as a place of knowledge, but also as a cultural institution within the city and the wider region, e.g. through the “Culture in the Garden” series of concerts and readings in JLU's Botanical Garden or the “Theatermaschine” and “Diskurs” theatre festivals. Other communications efforts specifically address (former) members of the University, for example via internal email formats (such as the periodic JLU circulars or alumni newsletters), as well as through participation and exchange formats; in addition, the University's mobile app “myJLU” offers useful information about campus life, and is currently aimed primarily at students.

Direct dialogue with individuals from civil society, politics, business and culture as well as **participation** in research are highly valued at JLU, where researchers and interested laypeople work together on scientific and social issues in various citizen-science projects. Examples include the participatory experiment “Millions of Moments” on eye movement at Mathematikum, the Giessen Mathematics Centre, in which around 14,000 visitors have already taken part, and the “coronarchive” online portal, which citizens can use to document their personal experience of the COVID-19 pandemic in texts, images and sound. This public engagement also feeds back into scientific discourse, providing new impulses and serving as a compass for societal needs.

STRENGTHS, WEAKNESSES AND FIELDS OF ACTION

JLU is aware of its social responsibility and in its development plan has set itself one particular priority goal: to take responsibility for bringing science and society into dialogue with one another (JLU 2030, 2020, Goal 4.2, Indicator 1). To achieve this, the areas of **science communication** and **digital communication** are to be systematically strengthened with respect to the transfer dimensions of “communicating” and “advising”. In addition, the field of **student marketing** needs to be addressed. These three areas are also considered in JLU's differentiated strategies regarding performance and cross-sectional dimensions. For example, the strengthening and professionalisation of science communication is included as a measure in JLU's overall research strategy (The Liebig Concept – Leading Science, Serving Society, 2021). Student recruitment and retention is an important field of action included in the University's most recent development plan “JLU 2030” (2023, p. 27). In addition, JLU's “Digital Transformation Strategy” (2023) frames objectives for the development of digital communication tools.

The framework for JLU's communications and advice-giving activities builds on the **strategic decisions and action-guiding proposals** set down in the performance and cross-sectional dimensions already in place at the University, updating, expanding, organising and refining them: both from a communications perspective and by facilitating exchange across the University (e.g. through committee participation in the University's (Extended) Executive Board, Senate, University Council and Strategy Council); through guideline-based interviews with JLU's communications experts and researchers (including in needs analyses for the Hessian science communication network "Science meets Media"); and through other participation and dialogue formats (e.g. the dialogue format of the Executive Board). In the **university-wide reflection process** coordinated by the Office of the President and Vice Presidents, the status quo has been discussed and analyzed, and JLU's specific strengths and weaknesses have been identified (for an overview > **Table 1**).

In principle, JLU as an organisation is already well positioned in the field of **communications and scientific advice**, and considers both to be relevant fields of action for transfer. This understanding of transfer has been reaffirmed in JLU's 2022 Strategic Mission Statement on **Transfer** (ST1). In addition, JLU's central **press and public relations** work is well established, covering current needs, for example with regard to outside (media) and internal inquiries, and fulfilling a wide range of other communications tasks (ST2). In some cases, **decentralised communications structures** and positions are also being strengthened and developed, for example in some faculties, in Collaborative Research Centres or research and graduate centres; this is done both with their own resources and as part of external project and research funding (ST3). From a communications perspective, the differentiation of these institutional structures offers an enormous potential, especially if the **exchange between central and decentralised units** is promoted more systematically than has previously been the case (SW2).

A broad repertoire of **communications instruments** is in use throughout the University (ST4; see also Chapter II.2). Traditional (university) formats are well established, such as public lectures, seminars and panel discussions; JLU's newspaper "uniforum" (and its research magazine "forum forschung"); as well as press releases and events. Although representatives of some disciplines have taken to communicate via more unconventional (digital) formats such as podcasts, blogs and virtual tours, the communicative **possibilities of digital and social media** are far from exhausted, and communicators' orientation towards the interests and habits of defined target groups may, likewise, be improved still (SW3). Starting from the project-based development of a **training and support offer** for researchers, JLU has begun to support individual scientific communication in this regard. (STS; see also Chapter II.2). However, an institutional orientation framework for university-**wide quality assurance in (scientific) communication** – also fostering a science communication-friendly culture across the University – is thus far still lacking. This might take the form, for example, of a transparent catalogue of criteria or service-oriented recommendations for communicative practice (SW5).

Overall, an analysis of JLU's communications strengths and weaknesses shows that the **central organisational structure and orientation of institutional communication** in place at the University have so far only partially reflected their strategic potential (SW1). For example, targeted individual support for researchers engaged in science communication or scientific advice is not yet firmly anchored in JLU's organisational structure. The relevance of proactive and strategic communication for the University's profile, tasks and goals is also not yet fully reflected in the relevant institutional infrastructure. This affects, for example, the visibility of profile-building research areas in JLU's central (science) communication, but also the sharpening of its identity in the marketing-based competition for students and specialists.

From the status quo as outlined and the analysis of JLU's communicative strengths and weaknesses, four **fields of action** can be derived, in which the specific development needs of the University are grouped thematically (**Table 2**). These may be assigned to two action levels, for which different requirements apply: The **institutional level** of communication of central and decentralised JLU institutions (e.g. of the Executive Board, faculties, individual research centres or departments) is usually associated with corresponding organisational structures; it often integrates various actors and tends to be more regulated or controlled internally. The **individual level** of communication of individual JLU members (e.g. of researchers on social media or at popular science lectures) is strongly influenced by the commitment of individuals who act autonomously and at times independently of institutional structures. In the sense of application-oriented science communication with a narrowly defined partial public, this also includes advising decision-makers (e.g. in political advisory bodies; see Chapter III.B). For each of the two levels, two fields of action have been defined in which JLU has set itself concrete goals for the years to come.

***Table I:** Status quo of (science) communication at JLU: an overview of the University's strengths and weaknesses. The strengths and weaknesses analysis was carried out as part of a university-wide reflection process in the 2022–2023 period.*

STRENGTHS	WEAKNESSES
• Communications and advice-giving activities are firmly established as relevant fields of action in the performance dimension of transfer (ST1) • JLU's central press and public relations efforts cover current needs and fulfil a wide range of communications tasks (ST2) • Decentralised communications structures are partially being strengthened and expanded (e.g. in some faculties and centres) (ST3) • A wide range of communication instruments are in use (e.g. events, university newspaper, research magazine, social media) (ST4) • Training and support services for researchers communicating about their work are being developed (ST5)	• The organisational structure and overall orientation of JLU's institutional communication have so far only partially reflected their strategic potential (SW1) • The exchange between central and decentralised communication structures has not yet been promoted in a sufficiently systematic manner (SW2) • Opportunities of digital and social media for internal and external communication have not yet been optimally exploited (e.g. through the JLU website, social media channels, apps) (SW3) • JLU's profiling and strategic focus in (science) communication needs to be improved (SW4) • Quality assurance in (science) communication has not yet been fully established – also with a view to a science communication-friendly culture across the University (SW5)

Field of action 1: Governance and Communication takes into account the organisational structures of JLU as well as the control and regulation processes of institutional communication presently in place. This includes the planning and orientation of central communications efforts, including those relating to goals and standards, as well as the exchange between central and decentralised JLU units.

Field of action 2: Institutional instruments and content addresses operational aspects of strategic organisational communication, such as the setting of thematic priorities (e.g. with regard to social relevance or JLU's profile), clear target group orientation and the selection of appropriate (possibly novel/digital) formats, channels and products.

Field of action 3: Competence-building and support considers different aspects of the University's development needs to support individual science communication. This includes, among other things, offers preparing scientists as effectively as possible for this role, such as further training and continuing education, individual support (e.g. personal advice) and JLU's central information infrastructure.

In **Field of action 4: Acknowledgement of science-communication efforts**, the focus is on recognising and appreciating the communicative commitment of individual JLU members. This includes many aspects of university culture as well as the interaction of individual and institutional communication, and offering resource support for such endeavours.

These fields of action are not always as clearly separable from one another as shown in this heuristic breakdown. For example, regulations on resource support for individual science communication (field of action 4) could also be viewed as part of university governance (field of action 1). However, the system is less oriented towards individual topics of communication and more towards the levels at which communication originates, i.e. from institutional sources in JLU's central or decentralised units (fields of action 1 and 2) or from individuals (fields of action 3 and 4): With this differentiation, JLU aims to emphasise that it recognises, values, and supports the autonomous science communication efforts of its members.

Since its founding as “Ludoviciana” over 400 years ago, JLU has provided groundbreaking impulses in research, teaching and knowledge transfer – a tradition of innovation captured in its slogan: “New Paths. Since 1607”.

Table 2: Fields of action for (science) communication at JLU. The fields of action each bring together, thematically, development needs that have been identified as part of the strengths and weaknesses analysis.

INSTITUTIONAL LEVEL	INDIVIDUAL LEVEL
FIELD OF ACTION 1: GOVERNANCE AND COMMUNICATION • Organisational structures • Goals and standards • Internal exchange	**FIELD OF ACTION 3: COMPETENCE-BUILDING AND SUPPORT** • Further training and continuing education opportunities • Individual support • Central information infrastructure
FIELD OF ACTION 2: INSTITUTIONAL INSTRUMENTS AND CONTENT • Strategic priorities • (Digital) formats, channels and products • Target groups/participation	**FIELD OF ACTION 4: ACKNOWLEDGEMENT OF SCIENCE-COMMUNICATION EFFORTS** • University culture • Recognition and appreciation • Provision of resources

III. PLANNING AND PERSPECTIVES

JLU's communications **planning** aims to promote development in the areas of (science) communication and scientific advice in a systematic and far-sighted manner, in order to realise the overall vision and goals the University has set itself. This also includes securing JLU's existing strengths and expanding them where possible, as well as reducing identified weaknesses (see Chapter II.3). At the same time, JLU is focusing on the external framework conditions for university (science) communication and scientific advice in order to be well prepared for both present and future challenges and to make effective use of any opportunities arising (see Chapter II). To this end, JLU has formulated communications goals in four fields of action (see Chapter II, Table 2). With a view to implementation, these goals are broken down into more **specific sub-goals**, for each of which JLU has planned **concrete measures**. This framework refers to a time horizon up to 2030 (based on the University's development plan “JLU 2030”) and integrates previous strategic decisions. This planning is the result of a university-wide reflection process, coordinated and driven by the Press, Communications and Marketing team of the Office of the President and Vice Presidents.

The **communications** objectives defined below **(A)** relate to all of JLU's external communication as well as to communication within the University (internal communication). Principally, they aim to further develop the institutional communication (including science communication) of all central and decentralised JLU units (fields of action 1 and 2) and to optimise the conditions at JLU for individual science communication, e.g. by researchers (fields of action 3 and 4). In line with JLU's broad understanding of “transfer”, a particular focus is on public science communication and thus on the exchange of scientific findings from research and teaching with a non-specialist public or partial publics.

The strategic decisions made in terms of science communication, particularly in fields of action 3 and 4, in many cases are also effective for advising policy-makers, administrators and leading representatives of civil society (transfer dimension “Advise”; Strategic Mission Statement on Transfer, 2022), and for this reason are included in the respective planning provisions of Chapter (A). In addition, special conditions for targeted interaction with decision-makers are covered in Chapter **(B)**, “**Scientific Advice**”.

A. COMMUNICATION

FIELD OF ACTION 1
GOVERNANCE AND COMMUNICATION

GOAL 1
The organisational structures and processes of JLU are oriented towards an integrated and strategic communication highlighting the University's broad societal relevance and impact – from the regional to the international level.

JLU considers communication as a bridge for exchanging knowledge and information, thus further strengthening informed trust in universities and scientific research. This also applies, and particularly so, to institutional communication, which unites JLU internally and at the same time connects it to the world around it. In its “extramural” variety, this communicative effort includes making visible and tangible how science influences all areas of life in the university town of Giessen, in (Central) Hessen, nationally and internationally (see JLU's Internationalisation Strategy 2.0, 2016). Suitable control systems and organisational structures are essential for JLU's ability to act and develop strategies in the communicative arena. The corresponding sub-goals and measures concern concrete processes of control and exchange in institutional communication as well as the central and decentralised organisational structures relevant to them. This planning is intended to help strengthen JLU's organisational units internally, which in turn will improve their joint, corporate self-presentation in external communication.

SUB-GOAL 1.1
JLU's **institutional communication**, both internal and external, is consistent, transparent, relatable and readily comprehensible, and is based on **shared goals and standards**.

In addition to its own development strategies, the most important management instruments of JLU include the external **target agreement** made with the Hessian Ministry of Science and Research, Art and Culture (HMWK) and the internal target agreements between JLU's Executive Board and the University's eleven faculties. In these, the university management and its respective partners have set goals and agreed measures for a period of five years.

In addition to research, teaching and studies, this also affects the performance dimension of transfer. By specifically identifying concrete, context-specific measures for its target agreements, JLU will assume its responsibility to bring science and society into dialogue even more actively in the future.

JLU aims to make visible, both internally and externally, selected **transfer activities** helping to systematically introduce the knowledge generated and available at the University into public discourse. Relevant fields of action for the performance dimension of transfer also include various science communication activities (e.g. lecture series and exhibitions) and advisory activities (e.g. in political committees). Similar to other performance dimensions, JLU will present corresponding transfer activities on its (relaunched) **website** and thus also highlight their relevance for the entire university.

It is essential for JLU to have a clear **self-image** on which to base an integrated institutional communication transporting core messages shared by the whole university. To provide orientation for institutional communication and for current and future JLU members (e.g. in staff recruiting and student acquisition), JLU will therefore provide, by 2025, an **executive summary** of the University's identity-forming profile features and goals in a multi-language format (e.g. as an image brochure). JLU is also updating its style guide with regard to corporate language.

The qualitative requirements for institutional **science communication** have increased significantly against the backdrop of existential challenges and ongoing profound changes in the communications and media landscape. In the future, JLU will implement its **quality standards** for integrity-based, relevant, relatable, readily comprehensible, transparent and dialogue-oriented science communication even more conscientiously (see field of action 2). This commitment is expressed on its website, for example by reference to the “Guidelines for good science PR” issued by the Federal Association of University Communication and the “Science in Dialogue” initiative (2016), or the “Science PR Guideline” of the German Council for Public Relations (2022), and it ensures that these standards are known to all JLU members engaged in science communication.

Different communicators from both JLU's central and decentralised units cooperate in their public relations work.

SUB-GOAL 1.2

Optimal **organisational structures** for strong and innovative institutional communication are available in both JLU's central and decentralised units.

Well-positioned and appropriately aligned **organisational structures** are a fundamental prerequisite if a university's communication efforts are to cover needs within that university as well as external demands and, at the same time, are to work proactively, strategically and in keeping with present-day concerns. In order to ensure this in the future, JLU is optimising its **central communications structures**. In the course of this, JLU will expand and strengthen the areas of **digital media** (including its social media activities, website, and production of audiovisual media), **science communication** (including digital communication, [international] press/public relations) and marketing (including [international] student marketing and the University's corporate identity). JLU is currently examining a possible expansion of these efforts to include research marketing.

Due to its high importance, JLU initiated organisational development of its communications efforts already during the strategy development phase. As part of this, JLU has implemented a central social media management system, raised state funds for the development and expansion of science communication, launched a cross-departmental, university-wide project for campaign planning in the area of student marketing and created a position for international student marketing in its International Office; in 2024, moreover, an online editorial group was set up in JLU's central Press, Communications and Marketing team. As a result, in 2025 JLU will have **central organisational structures for communications and marketing** that are marked by short communication and decision-making channels. These new, central structures will be the starting point for topic- and event-related cooperation between those in charge of press and public relations, science communication, marketing and event management, as well as other JLU structures relevant to the University's communications efforts, e.g. those working in human resources development, science support or the IT-Service Centre (HRZ).

JLU is also working to establish, in its larger **decentralised units** (such as faculties and research centres), **communications officers** and/or "**topic scouts**", e.g. administrative or scientific staff employed (or partly seconded) to handle communications or marketing. At the interface with the central communications division, these staff members will contribute to the visibility of their respective research areas or study programs and will receive tailored support from JLU's central communications division to assist them in their institutional communication (see sub-goal 1.3).

SUB-GOAL 1.3

Central and decentralised **organisational units** are dynamically **networked** in communication. JLU offers a suitable framework for this and promotes **professional development**.

JLU will promote the exchange between central and decentralised units more systematically in order to use synergies in (digital) communication more effectively and to meet an increased need for internal coordination: **Networking meetings** for institutional communicators have been offered, monthly or as required, since 2024. These meetings are initiated by the University's central communications division. They are participatory, practice- and dialogue-oriented and facilitate an exchange about current social media

activities, research topics, communications events and other relevant matters. Decentralised organisational units, such as faculties and centres, which are either already active in communication or plan on becoming so, can take advantage of this opportunity, be it through their communications officers or topic scouts or by participating in other ways.

Public and internal (self-)perception of JLU is largely shaped by members of the university community who communicate on behalf of central or decentralised JLU institutions. This includes not only the central communication channels and administrative bodies of JLU, but also, for example, a faculty's social-media activity, a video series produced by a graduate centre or a podcast produced by a research centre. In the future, JLU will specifically promote the professional development of all individuals involved in this kind of institutional communication: From 2025, JLU will offer **internal training and continuing education** with (external) experts twice a year on current topics of institutional communication, e.g. on innovative digital or participatory formats. In addition, JLU is expanding its information offerings on institutional communication: By 2026, at least three new **digital toolboxes** and/or **guidelines** will be available, e.g. on corporate design, on filming permits or student marketing.

The presidential lecture series addresses socially relevant topics and invites the public to discuss them. The invited speaker in the winter semester 2023/24 is science journalist and television presenter Ranga Yogeshwar; he will speak about life in a changing world.

FIELD OF ACTION 2
INSTITUTIONAL INSTRUMENTS AND CONTENT

GOAL 2
JLU sets specific priorities regarding the content and instruments of central communication, especially with a view to selected target groups and participatory exchange.

In times of the (digital) information flood, increased competition for students, specialists and research funding, and a high demand for scientifically sound solutions to social challenges, it is vital for JLU to make its various stakeholders understand what it stands for and what it can offer. JLU already uses a wide range of communication tools to transport relevant topics from across the University through the use of central formats, channels and products. In order to enable a participatory dialogue and to better assert itself in the attention marketplace, JLU will do this even more strategically in the future: with a view to selected target groups, and aiming to make use of the possibilities of (new) digital and social media more specifically as low-threshold ways of exchange, interaction and participation. The following sub-goals and measures for institutional communication relate to what (and in which ways) JLU communicates, indicating also how these ways of communication will be further developed, strategically and operationally, by 2030.

SUB-GOAL 2.1
In its selection and preparation of **content**, JLU's central communication is based on the University's profile and identity as well as on the needs of internal and external target groups.

JLU continuously communicates **profile-forming topics** relating to its performance dimensions of **research, teaching and transfer** (and their unity) via its central channels, without losing sight of the breadth and diversity of the University as a whole (see The Liebig Concept – Leading Science, Serving Society, 2021). In order to coordinate and manage this in a targeted manner, JLU will establish suitable planning and monitoring tools in its central communications efforts by 2026. In addition, JLU will communicate content that illustrates its institutional self-image even more systematically, both within the University and externally, including with regard to its strategic **cross-sectional dimensions** (equality, personnel development, internationalisation, digital transformation, sustainability; see the University's Sustainability Strategy JLU 2030, 2023). To this end, increased use will be made of cross-departmental dynamic coordination channels.

In addition, the **exchange between the public and the University** will be intensified in order to identify **relevant topics** and prepare corresponding content to be communicated to those the respective societal contexts. JLU's institutional communication is aimed at target groups from civil society, politics, business and culture, at the media and other communications multipliers as well as at JLU members and associates (e.g. students, employees), always taking into account JLU's anchoring in the city and region. JLU puts a particular focus on strengthening the public's understanding of and trust in science and its institutions. This concerns society as a whole, but especially **children and young people**.

Another main concern is to make JLU (internationally) visible both as an attractive place to study or train and as a research institution (see Strategy 2030. Study and Teaching at JLU Giessen, 2023). In order to address relevant target groups, JLU is also considering audiovisual, concise, humorous and fictional forms of presentation.

SUB-GOAL 2.2

JLU is developing **instruments** for (digital) communication with a wide public, sharpening its established formats, channels and products and setting strategic priorities with regard to input and output as well as to current developments in technology and communications.

JLU is testing **new instruments of institutional (science) communication and marketing**: As pilot projects, JLU's central communications division will produce a podcast series by 2026, significantly expand the audiovisual side of its social media presence and test at least one new participatory/interactive format (e.g. an interactive tour or AMA [ask me anything]). In doing so, JLU will also meet its development goal of offering new, innovative events and formats to the general public (JLU 2030, 2020, Goal 4.2, Indicator 2). The University will also continuously explore the communicative possibilities of new technological solutions, such as artificial intelligence or applications using a virtual environment. On the communications side, these plans correspond to JLU's "Digital Transformation Strategy" (2023), which, among other things, focuses on the (technical) upgrading and expansion of JLU's IT infrastructure.

In the future, JLU will use **social media** in an even more differentiated way, reaching out to clearly defined target groups (including a younger demographic than is currently the case), and it will establish comprehensive community management. In addition, JLU is increasingly relying on systematic analyses of usage data and trends and has been producing regular reports for internal briefings since 2024. After a relaunch in 2029, JLU's online presence will be state-of-the-art in terms of its structure, content and design (see Digital Transformation Strategy, 2023) and will be optimised with regard to search behaviour and mobile use (following a "mobile first" approach). This future website will consider different target groups (e.g. current and future students and employees, representatives from the media, politics or academia, and in particular reviewers in [inter-]national review processes), guiding them in a targeted manner throughout the JLU website and on to other JLU communications channels (e.g. social media).

In general, JLU promotes the (digital) use of **visual media**: A new JLU image database is in the process of being established, in which JLU members and external interested parties can independently search for JLU-related images online, download them (subject to licensing) and use them in accordance with the respective usage rights. This database integrates the internal image archive of the Press, Communications and Marketing team and the existing public image gallery available on the JLU website.

By 2028, JLU will have expanded its "toolbox" for addressing the **press and other media**, particularly in **science communication**. Complex research topics will be presented more comprehensively for media use (e.g. with a view research methods, processes and uncertainties), and the resulting media packages will be checked internally according to the principle of dual control. In the future, JLU will also offer selected press releases in English for international use (including on the press portal "EurekAlert!"), to better reflect their global

Truly marvelous science: JLU chemical scientists Prof. Dr. Richard Göttlich (left) and Prof. Dr. Siegfried Schindler present a fascinating experimental lecture as part of the Justus University for Children event.

relevance. Journalists (including those from popular-science media) will be addressed in an even more differentiated manner in the future, and new approaches to media and contact databases will also be tested (e.g. by using the Zimpel database).

With a view to JLU's **internal communication** vis-à-vis its members and associates, instruments are being further developed and integrated into existing structures: In the future, the "myJLU" app will not only be used by students (see Digital Transformation Strategy, 2023), but will also be made available to employees. Information e-mail circular and participatory dialogue formats already existing at JLU will be revised and optimised. The instruments of internal communication will be coordinated and revised to include existing and, where appropriate, newly introduced technical solutions, e.g. university-internal chat programmes, video conference systems or information screens.

The various **JLU publications** (including "uniforum", "forum forschung", flyers and brochures) will be optimised to better address their intended target groups (e.g. alumni, prospective students) and will be made available digitally. If available in physical form, the JLU publications fully exploit their potential as print products, for example through their design or through their visibility in real space.

At the interface between university research and the public, JLU uses interactive tools in **digital events** and involves a national/international audience as well as high-profile speakers. Its in-person events make a point of integrating personal experience and direct exchange. To this end, JLU strengthens **(meeting) places** both within and outside of the University (e.g. JLU's Botanical Garden, Hermann Hoffmann Academy, the Upper Hessian Museum, the Mathematikum) as well as the corresponding cooperations, opening up new spaces and opportunities for (scientific) communication and exchange.

FIELD OF ACTION 3: COMPETENCE-BUILDING AND SUPPORT

GOAL 3
JLU supports autonomous scientific communication addressing society at large as well as representatives from politics, business and culture. To this end, the University promotes the development of corresponding skills among its members.

Researchers at JLU often consider sharing their findings with a non-academic public as a social contribution, which some of them pursue with great passion. JLU scientists and other university members from various disciplines regularly share their knowledge and enthusiasm for research with the public – e.g. in popular-science lectures and articles, on social media, in press interviews, in laboratory tours, in political or business consulting. Increasingly, the communication of scientific work and research results as well as concepts for science communication are also an element of funding lines and calls for proposals. JLU actively supports its members in developing the relevant skills and in designing their communication in an optimal, self-determined manner in accordance with the university-wide development plan "JLU 2030" (2020) and JLU's personnel development concept (2018), in keeping with the principles of "qualifying, inspiring and enabling".

SUB-GOAL 3.1
JLU offers target-group and needs-oriented **training and continuing education opportunities** for science communication so that its members can sharpen and develop their skills and knowledge in these areas.

JLU creates opportunities for scientists and other members of the University to receive training and continuing education in science communication in order to prepare themselves for leading a self-directed dialogue with the public and the media. These training and continuing-education efforts include, for example, raising communicators' awareness of different stakeholders and their needs, equipping them with a knowledge of the methods and inner logic of the media, and related skills. At the same time, it is imperative to promote a reflexive understanding of the conditions, prerequisites and challenges in communicating science in social contexts – also with a view to the roles of different actors, e.g. in policy advice. In offering a range of training opportunities, JLU is mindful of the specific needs of its members (e.g. in terms of their qualification level or prior knowledge of professional [science] communication). This approach is based on prior experience in project-based training and support for science communication in the areas of press, communications and marketing.

From 2024, JLU has begun to establish a regular continuing education and training programme on science communication, offered to **early career researchers** and other interested JLU members as part of the University's personnel development effort. This offer highlights aspects of target group-specific (digital) science communication and provides opportunities to reflect on individual communications goals and strategies, also with a view to personal career development (e.g. in cooperation with JLU's Postdoc Career and Mentoring Office and graduate centres). JLU is also considering introducing a certificate for science communication as a career-building qualification by 2026.

For JLU's **top personnel from profile-building areas as well as researchers for whose research topics there is current interest in wider society**, the University develops tailor-made training courses according to individual training needs. To this end, JLU cooperates with other Hessian universities and partner organisations as part of the "Science meets Media" network (funded from the Hessian innovation and structural development budget until 2025; a continuation beyond this is currently being examined). Irrespective of this, JLU will have a contingent of media training courses available from 2026, which can be awarded to the University's members on an ad-hoc basis.

JLU also works to sensitise **students** to science communication through appropriate offers in degree programmes and in the acquisition of non-academic skills (including in the form of microcredentials or certificates). In addition, student formats such as debating clubs or podcasts are highlighted in institutional communication.

In order to promote equal opportunities in science communication, JLU is testing and evaluating, over a period of two years, a range of workshops, networking meetings and training courses for **female researchers of all qualification levels** (funded as part of the federal and state governments' Women Professors' Programmes). In addition, JLU continuously offers science communication courses in English for (internal) **international target groups**. The need for additional or more extensive courses for internal target groups will be assessed by 2026, including offerings e.g. for people from non-academic backgrounds or for people with disabilities.

JLU researchers and other university members from different disciplines regularly share their knowledge and enthusiasm for science with the public, for example in media interviews.

SUB-GOAL 3.2
JLU commands a comprehensive range of **services and information** on science communication, made freely available to all of its members.

To its members who communicate science publicly, JLU offers comprehensive support: in personal contact for individual concerns and in the form of digital information that can be accessed at any time. The relevant digital **service platform** (www.uni-giessen.de/wissenschaftskommunikation) will be expanded into a central hub bundling an expanded range of information and services on science communication at JLU; it is prominently visible on the JLU website (e.g. under the "direct links" heading). By 2026, at least three **digital toolboxes** and/or **handouts** on topics of individual (science) communication will be available in German and English, e.g. on the topics of social media or giving interviews. In this same context, JLU is strengthening gender-sensitive communication through both words and images (see JLU's Equality Concept 3.0, 2024).

From 2024, JLU has been offering its members **advice on science communication** (in German and English); in cooperation with the Science Support Network, this has been broadened to include advice on research funding. JLU continuously supports its members with regard to media inquiries, arranges **contacts with media** and disseminators and also optimises its proactive expert placement, including through The Science Information Service (idw). JLU also provides individual, coordinated and timely support both in the event of **communication crisis situations** and regarding their prevention, for example in the case of controversial research topics or hostility on social media. In addition to this, and especially during off-peak times (e.g. on weekends and in the evenings), JLU refers to the new telephone advice service "Scicomm Support", offered by the Federal Association of University Communication.

JLU is also expanding its support offering with regard to visual science communication: support and advice on **(digital) image research and use** as well as on commissioning photographers for individual assignments is offered on an ongoing basis and will be integrated into the digital service platform in the future.

FIELD OF ACTION 4: ACKNOWLEDGEMENT OF SCIENCE COMMUNICATION EFFORTS

GOAL 4
JLU strengthens the recognition and standing of the voluntary commitment of JLU members in science communication as an integral part of the University's culture.

As a bridge between science and society, science communication is highly valued at JLU – both in an ideal sense and strategically, i.e. as part of the performance dimension of transfer. JLU recognises and expressly supports researchers and other university members who actively participate in public exchange about science and thus appear in public in the service of the University and of the scientific and academic community as a whole.

To this end, JLU is working towards an appreciative, open and participatory communication culture that inspires and motivates commitment. Those who would like to get involved in science communication will find that JLU offers optimal conditions for this. The following sub-goals and measures illustrate what this may look like in concrete terms.

SUB-GOAL 4.1

Science communication is ever more explicitly recognised at JLU as an important **aspect of academic and research work**.

There are many ways to recognise science communication at JLU. The measures presented here should therefore by no means be seen as exhaustive, but rather as suggestions for an appreciative university culture to which every member of the University can contribute. One example of this is the **explicit recognition** of the science communication achievements of JLU members by management and superiors as well as by colleagues, e.g. in the report of the executive board as well as in speeches, welcome addresses or in personal exchanges.

By 2028, JLU will have examined the possibility of honouring researchers (and other university members) for their outstanding commitment to science communication, for example through an award offered within the University. JLU makes use of its **alumni service** to specifically integrate former JLU members and employees who communicate science as their main job (or as an important part of their work) into university events, for example as speakers or at networking events for professional exchange.

JLU's communication-friendly culture already comes into play during **onboarding**, as newly appointed professors are actively introduced to JLU's wide range of services in the area of science communication. JLU is also examining whether outstanding science communication activities might be taken into account in **recruitment, appointment and retention procedures** in order to better and more systematically recognise this commitment in keeping with its great importance.

SUB-GOAL 4.2

JLU increases the **visibility** of its members who appear in public in the service of the University and of academic and research work in general.

Individual science communication is strengthened, more specifically, through institutional profiles on **social media**, for example by creating playlists and expert lists (e.g. on X, YouTube and Spotify) and by interlinking individual profiles. This will enable JLU to better reflect its diversity and variety in institutional communication in the future. In addition, both the University and individual actors may benefit from synergies and low-threshold exchange channels.

The JLU **website** also highlights different forms of individual science communication even more strongly: From 2024, its home page has been displaying various science topics in images and/or text, with researchers also being shown or named. In addition, suitable photos submitted by JLU members will be published on the central website.

From 2026 at the latest, JLU **publications** (such as “uniforum” and “forum forschung”) will increasingly contain, in addition to established information-oriented announcements or reports, entertaining and narrative forms of presentation referring to individuals, such as portraits and interviews of researchers engaging in science communication, as well as guest contributions from JLU members on current topics. JLU will also examine possibilities of creating greater attention, within the University, for **media coverage** in which JLU researchers either reflect on their work or are themselves portrayed.

SUB-GOAL 4.3
At JLU, researchers and other university members enjoy **material and temporal freedom** to develop their science communication skills.

Science communication costs time – and often money, too: both are factors that can limit researchers' commitment. JLU will create freedom for its employees in this regard, which is also meant as a token of recognition and appreciation. JLU now recognises **participation in qualification and further training measures** in the field of science communication (e.g. social media training, communication courses) as part of academic performance and therefore as part of working hours.

If possible and sensible, aspects of science communication will be integrated **into internal funding offers and calls for proposals**, e.g. in the “Early Career Researcher Grant” for young scholars. In order to strengthen the mobility and freedom of researchers with family responsibilities, JLU is considering opening its “**Travel Expense** Fund for official/work-related trips with children” and its “Additional **childcare subsidy** fund” to also cover involvement in science communication.

In order to support employees active in science communication in the **professional illustration** of their research, for example by commissioning a photographer, JLU will have funds available for this purpose from 2025, which will be allocated via the University's central communications division. JLU also has available the appropriate **media technology** for professional sound and image recordings, as well as an expert team that may be called upon to support individual science communication from 2025 onwards.

B. SCIENTIFIC ADVICE

To offer qualified advice to decision-makers from politics, public administration and civil society – in the sense of science communication aimed at a narrowly defined target group – JLU has defined strategic development goals and measures under the heading of (A) Communication (see, in particular, fields of action 3 and 4). Special conditions apply, however, when it comes to interacting with decision-makers and contributing knowledge to the democratic opinion-forming and decision-making process in a consulting or advisory capacity. This has recently become clear in the context of the COVID-19 pandemic and has shone a spotlight on scientific policy advice, both in terms of its public perception and of politicians' and scientists' own awareness of the matter. Building on the planning outlines presented above, this chapter will focus on the specifics of scientific consulting and advice, and of policy advice in particular.

Scientific advice must be clearly distinguished from the **political communication** of universities (HRK, 2022). Political communication is usually the responsibility of university management and aims to ensure that the interests of the University are heard (e.g. in financial or legal matters), which in turn helps shape the political framework for research and teaching. **Scientific advice** for politicians, administrators or leading representatives of civil society, on the other hand, focuses on the communication of research results and is usually performed by researchers themselves. Scientific advice ideally provides decision-makers with the fact-based, differentiated and interdisciplinary foundations necessary for important socio-political decisions.

JLU considers the provision of advice to decision-makers from politics, public administration and civil society an important transfer dimension.

The two levels of **scientific knowledge and political action** should be clearly distinguished from one another (German Council of Science and Humanities, 2021a): on the one hand, to protect the freedom of science (enshrined in Article 5, Section 3 of Germany's Basic Law), but on the other hand, to take into account the independence and complexity of the democratic process. The credibility and reputation of researchers and their findings are also at risk if the dividing lines between politics and science become blurred in the public perception. For this reason, science-based policy advice in particular requires all those involved to have a clear understanding of their respective roles, and to act accordingly. This applies not only to consulting or advisory talks or meetings, but also to the subsequent communication of the results into the wider socio-political discourse.

In addition, there are firmly established **formal settings for an exchange between politics and science** – in which JLU is variously involved – at both the German federal and state levels: for example in scientific expert committees such as the National Academy of Sciences Leopoldina or the German Ethics Council, the Senate Commissions of the German Research Foundation (DFG), in parliamentary hearings and reports, or through government-commissioned and impact research. A prominent example from JLU is the German-Colombian Peace Institute (Instituto CAPAZ), which is partly funded by the Federal Foreign Office and the German Academic Exchange Service. The Institute, coordinated on the German side by JLU, aims to network German and Colombian universities and research institutions while at the same time supporting the Colombian peace and post-conflict process in cooperation with political and civil-society actors.

In order to effectively support policy-makers, administrators and decision-makers from civil society on a solid scientific basis, it makes sense to focus on the needs of these specific target groups. In concrete terms, this means offering a **practice- and solution-oriented approach** that is as concise as possible and as comprehensive and elaborate as necessary. Answering to this description, so-called “policy briefs” have been established for some time now: compact information documents focusing on a specific scientific topic. At JLU, such position papers are published at regular intervals, for example as part of the SDGnexus Network, which is based at the Centre for International Development and Environmental Research (ZEU). Not only in terms of content, but also considering their presentation, research results should be provided in a way that meets the requirements of administrative and political processes and can be communicated quickly when scientific expertise on a topic is required on short notice.

In the context of scientific advice, it is helpful to maintain a **permanent and trusting contact** between those engaged in research and their respective counterparts in politics, public administration and civil society. JLU actively supports its researchers in building bridges between science and research, on the one hand, and politics, administration and civil society, on the other. The JLU **Alumni Service**, for example, maintains contact with former university members and offers opportunities, through various institutional channels, to make university-based research visible and thus place it at the disposal of socio-political discourse at large. JLU's membership in the **European university alliance EUPeace** also opens up various new opportunities for offering science-based advice to political and civil-society actors at the European level.

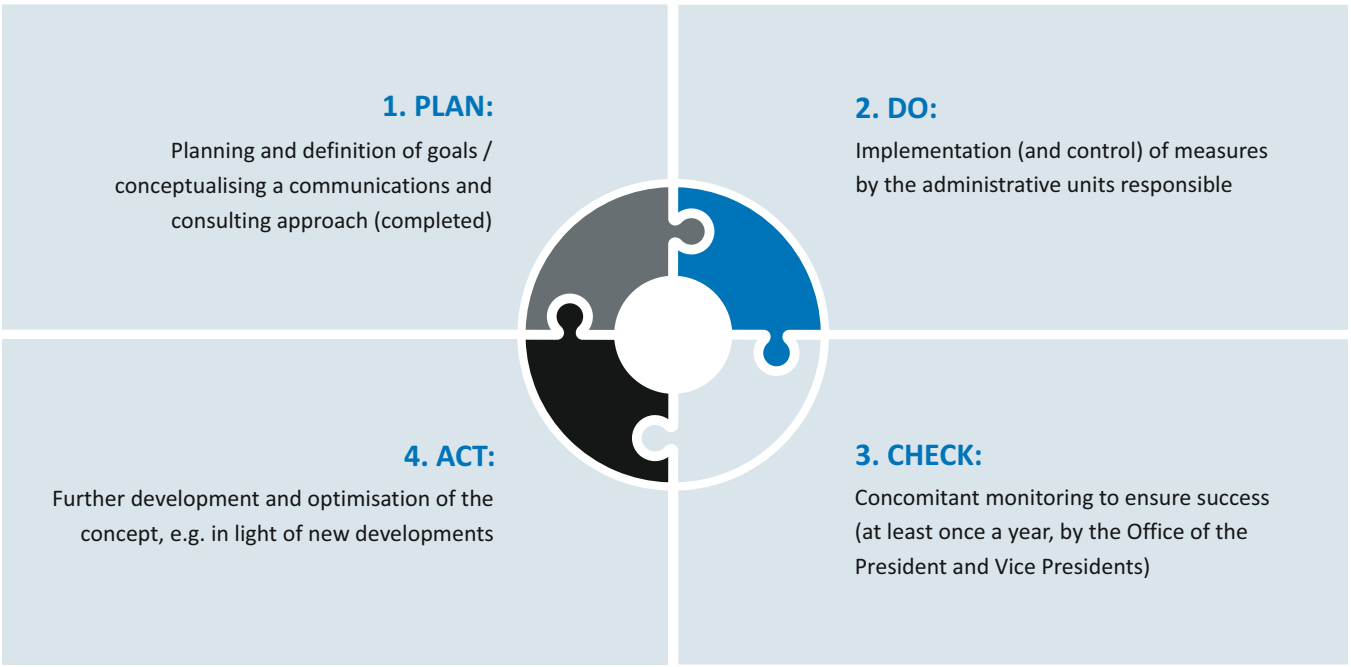
IV. IMPLEMENTATION AND MONITORING

This concept paper sets goals for university development in the areas of communications and scientific advice (in the sense of application-oriented science communication), based on a time horizon up to the year 2030. Some of the associated sub-goals and measures are to be achieved earlier. In order to implement the framework, adapt it if necessary, and ensure long-term success, JLU relies on structured quality management in four phases (Figure 2). Accordingly, strategic planning and a definition of goals (1) is followed by a phase of implementation and the associated control efforts (2). Implementation is also accompanied by progress monitoring (3), with the strategic plans being updated and optimised (4).

With the publication of this document, the current quality-management phase of initial planning and definition of goals has been completed. The next step will be to implement and control the measures outlined in close coordination with JLU's Executive Board. Those measures affecting central administration are to be implemented by the administrative units responsible in consultation with the Press, Communications and Marketing team in the Office of the President and Vice Presidents. All objectives and measures that lie within the responsibility of decentralized JLU units, such as the faculties and centres, are to be pursued and implemented by the actors responsible – with support from the Press, Communications and Marketing team, if needed.

JLU will continue to monitor the progress made in the areas of (science) communication and scientific advice, keeping in view its objectives and their attainment: In an annual monitoring exercise carried out by the Press, Communications and Marketing team in the Office of the President and Vice Presidents, the extent to which measures have been implemented and goals achieved is recorded and this is reported to the Executive Board. This also includes checking whether the present course of action is still appropriate and making sure that current challenges and opportunities are taken into account. If necessary, the goals and measures formulated initially are to be adjusted or supplemented in consultation with university management for the second half of the planning period. Developments in the fields of communications and consulting that are of relevance to the entire university are presented to university committees.

***Figure 2:** Quality management for the implementation and assurance of success of JLU's communications and scientific advice concept*



V. APPENDIX

GLOSSARY

Citizen science: A collaborative effort between researchers and laypeople without formal scientific or academic training in research activities/scientific projects (see also → participation). For example, citizens might formulate research questions, research relevant information, report observations, carry out measurements, publish or evaluate data. Citizen science can offer opportunities to collect large amounts of data that are otherwise difficult for researchers to access, while at the same time promoting public interest in and understanding of science.

Communication (from the Latin communicatio, meaning a message or announcement): Any exchange of information such as knowledge, insights, experiences or feelings between individuals or groups, either verbal or non-verbal, using language, gestures, writing, symbols or media such as sound, images or video; at JLU, communication as a dimension of → transfer is defined as the exchange of (and debate over) scientific findings from research and teaching with the non-scientific public or partial publics (see also → science communication); communications departments at universities fulfill a wide range of tasks in public relations and internal communication (→ university communication).

a) **institutional communication** originates from central or decentralised units of JLU (e.g. the Executive Board; the Press, Communications and Marketing team; individual faculties, research centres or departments), for example in the form of press releases, articles in the university newspaper or social media posts. Institutional communication is usually associated with organisational structures, integrates various actors and tends to be (internally) regulated or controlled (cf. → individual communication).

b) **individual communication** originates from individual JLU members (e.g. from a researcher delivering a public lecture, posting on social media, giving a media interview or contributing to an advisory board). Individual communication is profoundly shaped by the commitment of individuals who act autonomously and at times independently of institutional structures (cf. → institutional communication).

c) **external communication:** any exchange of communication with actors outside of the institution itself, e.g. JLU communicating with the urban community, with representatives of the media, business, politics, alumni, cooperation partners or potential students (cf. → internal communication). External communication can build positive relationships between the university and the public, convey knowledge and information, promote actors' reputations and rouse interest. Suitable instruments include public events, social media, press releases, PR campaigns and websites.

d) **internal communication:** any exchange of communication within the institution; at JLU, for instance, this would include communication addressed at students, faculty and researchers as well as administrative and technical staff (cf. → external communication). Internal communication can ensure an efficient flow of information, coordinate internal processes, render transparent decisions and promote exchange within the university community. Suitable instruments include events and email formats for JLU members, the JLU website and the campus app “myJLU”.

e) **integrated communication:** This refers to a kind of communication that is optimally coordinated and harmonious across all levels and channels of an organisation or company. Integrated communication aims to convey consistent messages in various ways in order to promote the perception of a coherent, holistic identity. → Internal communication and → external communication may combine to achieve this, but → marketing also plays an important role.

f) **strategic communication:** The planning and implementation of communications or marketing activities by organisations or individuals oriented towards (long-term) goals and contributing to their realisation. Strategic communication of organisations and larger organisational units is generally based on the following: coordinated internal communication plans (possibly a communications strategy or concept), which are based on the respective values and vision of the organisation in question and specify goals, target groups, messages, communication channels, timetables and budgets. The management level usually plays an important role in controlling the strategic communication of an organisation; its goals may be, for example, economic success or a strengthening of reputation. Strategic → scientific communication by researchers or research institutions can, for example, aim to inform those affected, spark enthusiasm or offer support in decision-making.

Marketing: Strategic communicative activities intended to position an organisation or company and its products, programmes and services in a market-oriented manner and to promote their use to relevant target groups (cf. → strategic communication). As part of → university communication, marketing aims to convey and realise the identity and value of the university as an educational and research institution, attract students, secure resources and promote the long-term development and competitiveness of the institution. This includes, among other things, student-marketing activities, branding, digital marketing, events and alumni services.

Participation: Any involvement, participation, active contribution or inclusion of individuals in decisions and activities that concern or affect them; more specifically, in the present context, the active involvement of citizens in research processes, their planning (e.g. by formulating research questions/topics), data collection and interpretation (e.g. in → citizen science projects) and the dissemination of findings (e.g. through dialogue-oriented, discursive formats of → science communication). This can promote mutual understanding, awake enthusiasm for science and aligning research with societal needs.

Science communication: This comprises all aspects of the → communication of research findings and results as well as of scientific work (note that science communication, as it is used here, refers to the whole range of academic disciplines including arts, humanities and sciences). At JLU, it is strategically understood at JLU as an exchange between researchers and the public or partial publics (e.g. representatives from society, politics, business and culture; cf. → transfer, → consulting and advice). This external kind of science communication must be distinguished from the internal kind (scholarly communication or scientific communication), occurring within the scientific community, e.g. at scientific conferences or in peer-reviewed publications (in German both kinds are sometimes summarized as “Wissenschaftskommunikation”). Science communication is initiated by researchers (→ individual communication), by research institutions and their public relations staff (in the form of science PR; see also → institutional communication) or by (science) journalists. Science communication takes place in special institutions (e.g. science museums) and uses a variety of formats (e.g. press releases, articles, public lectures, exhibits, science slams, podcasts, social media). Science communication aims to inform and educate, enable dialogue and → participation, offer → scientific advice and provide a basis

for decision-making, demonstrate the importance of research, spark enthusiasm for science and raise awareness for important issues.

Scientific advice: Any act of → communication in which experts pass on knowledge, information or assessments that help individuals or groups solve problems and make decisions; strategically understood at JLU as formal advice to decision-makers outside of the academic field, for example from politics, public administration or civil society (→ transfer), and as an application-oriented kind of → science communication with a narrowly defined partial public.

Social media: online platforms and technologies that enable users to create and publish content, to interact and communicate with each other (→ communication). These include websites and applications through which texts, images, videos and other content can be shared. Examples of social media are Facebook, Instagram, X, LinkedIn, YouTube and TikTok.

Transfer: At JLU, this is understood in the sense of "transferring" research insights, knowledge and technologies for the benefit of a non-academic/scientific public, including actors from civil society, politics, business and the cultural sector. Transfer activities at JLU are assigned to the dimensions of → communication, providing → scientific advice and applications. In an ideal sense, JLU's transfer activities are also referred to as its "third mission", and strategically as the University's third performance dimension alongside the traditional two of research and teaching.

University communications: The multi-layered communication activities of universities (including → marketing). As part of → external communication, this includes public relations, part of which, on turn, is → science communication, besides other topics such as construction projects, crises and events. Communication within the university (→ internal communication) might be addressed, for instance, at students or staff. At JLU, the Press, Communications and Marketing team in the Office of the President and Vice Presidents acts as the central contact point for all communications concerns.

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JLU IN DIALOGUE

PERSPECTIVES FOR COMMUNICATION AND ADVICE
AT JUSTUS LIEBIG UNIVERSITY GIESSEN