



MARTIN-LUTHER-UNIVERSITÄT HALLE-WITTENBERG

## Imprint

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#### Sales tax identification number according to § 27a UStG:

DE 811353703

# Responsible for content in the sense of § 5 TMG and § 18 paragraph 2 MStV

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#### Supervisory authority

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### 1 Preamble

The present transfer strategy represents a further development of the strategic transfer concept of 2014. It is the result of a participatory process that was steered by the Rectorate and partly facilitated by the Stifterverband für die Deutsche Wissenschaft e.V. as part of the Transfer Audit<sup>1</sup>. A work group under the leadership of the Prorector for research, internationalisation and transfer, was set up to develop the transfer strategy. Based on the results of surveys and analyses as well as key recommendations from the Transfer Audit, this transfer concept opens up targeted development perspectives for the research-based transfer of ideas, knowledge and technologies at Martin-Luther-Universität Halle-Wittenberg (MLU) in the period 2022-2032.

MLU has systematically developed its transfer-related structures and offerings since 2014 and continues this momentum with the present transfer concept. The development process is integrated into the academic profiling of the entire university, including the broad spectrum of subjects in the humanities, social sciences, natural sciences and life sciences. The purpose of further development is to integrate both the changed social perspective on the importance of the transfer of ideas, knowledge and technologies for answering questions about the future and the variety of transfer acitivities at MLU as well as to involve its researchers into the development of the strategy.

The present transfer strategy is based on a comprehensive understanding of transfer that takes into account both the diverse research- and teaching-based transfer activities of the entire university with its broad spectrum of subjects and the regional needs of society, business, culture and politics.

### 2 Vision

In the period 2022-2032, MLU will develop into a key agent in shaping social change in the region of southern Saxony-Anhalt. Under the motto "Shaping the Change", MLU positions itself as a reliable partner with a transparent performance profile for mastering the complex future-oriented challenges of structural change in the Central German lignite mining region and the associated comprehensive social transformation processes. It is receptive to the concerns and needs of society, business, culture and politics. The university thus acknowledges its social responsibility and strategically develops the transfer of ideas, knowledge and technologies in exchange with regional and supra-regional actors along its research and teaching profile. MLU's reputation is based on successes in research and teaching and relies on particular achievements in the research-based transfer of ideas, knowledge and technologies. MLU sees the support of start-ups based on research results as a special contribution to strengthening the innovative power of society.

In the effective interplay of interdisciplinary research, an inclusive culture of innovation and empowerment, and outstanding competencies for the future, MLU is raising the transfer of ideas, knowledge and technologies to a new level, making an effective contribution to meeting regional needs and

<sup>&</sup>lt;sup>1</sup> The Transfer Audit is a service offered by the Stifterverband für die Deutsche Wissenschaft e.V. that supports universities in developing their profile in the research- and teaching-based transfer of knowledge and technologies. For more information, click here: *https://www.stifterverband.org/transfer-audit* 

developing into an innovation powerhouse in Saxony-Anhalt. MLU is firmly rooted in Halle (Saale) and in the city's society. The city of Halle and the region are part of the Central German lignite mining area and will therefore be particularly affected by the social and economic transformation processes of the initiated energy policy turnaround in Germany over the next two decades. MLU's transfer potential is also being tapped in the form of national and international cooperation to answer global questions about the future.

Through its strength in research in the humanities, social sciences, natural sciences and life sciences and its excellent networking in the region, MLU is helping to shape future-oriented social changes and is living up to its responsibility for the region. Research into the transformation processes accompanying structural change is an important concern for the university. In order to achieve a sustainable strengthening of society, all regional stakeholders must work together intensively.

## 3 Understanding of transfer

The essential contribution of a university to society is the transfer of knowledge. The university trains highly qualified individuals whose skills will enable them to solve future problems that we cannot even anticipate today. Practice-oriented teaching and the preparation of young scientists for careers outside and within the academic system form an essential basis for the transfer of ideas, knowledge and technologies. Furthermore, MLU focuses on research transfer in the sense of making research results from the university's broad range of subjects useful to society and the economy by transferring ideas, knowledge and technologies to society, the economy, culture and politics.

At MLU, transfer is understood as the mutual exchange of science with society, business, culture and politics in order to bring about organisational, social and technological innovations<sup>2</sup>. Innovations have the potential to affect all sectors of society. The university and society are aligned with each other in terms of competencies and issues and generate mutual benefits in cooperation in addition to gaining knowledge. On the one hand, new, effective knowledge is generated by applying existing findings from research in practice and making them useful for society in the form of innovations. On the other hand, field-tested experience triggers new, practical research, teaching approaches and collaborations. All activities involving transfer are committed to the goal of achieving social equality, equal opportunities and social inclusion.

MLU sees transfer as a cross-sectional task in research and teaching for the entire university, for which the university management is strategically responsible. The research-based transfer of knowledge and technologies to society, the economy, culture and politics is a productivity dimension of scientific work. The transfer opens up a wide range of practice-related potential applications for research and teaching services, increases the employability of students and young academics, and brings to bear the university's social responsibility for the region. With the transfer of knowledge and technology, the university

<sup>&</sup>lt;sup>2</sup> The concept of transfer is based on a broad interpretation of innovation that is compatible with MLU's wide range of specialist research competencies and includes not only technological innovations but also social innovation, collaborative innovation and user-centred innovation.

expands its options for shaping society beyond research and teaching and, as a competent partner, gets actively involved in social development processes.

## 4 Status quo analysis

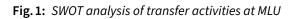
In order to support the goal of "Shaping the Change" with strategic goals and measures, MLU's existing transfer potential must be systematically captured, further developed and tapped for the purpose of profile building with a view to the regional challenges. The present transfer strategy is based on a SWOT analysis<sup>3</sup>, in which the internal and external factors are captured using the categories of strengths / weaknesses and chances / risks, and strategic fields of development are derived for the improvement of transfer activities at MLU. The following overview presents the results of the analysis in tabular form.

	Cultural and strategic transfer aspects		
Internal Factors	<ul> <li>Strengths</li> <li>Transfer anchored at level of Rectorate</li> <li>Transfer and IP strategy exist</li> <li>Systematic cooperations with schools</li> <li>Regulations for the dealing with IP with process workflows</li> <li>Focus setting on the support of starting up a business</li> </ul>	<ul> <li>Weaknesses</li> <li>Systematic development of the transfer potentials in Humanities and Social Sciences</li> <li>Visibility/Awareness of the strategy and offers</li> <li>Professional transfer profiling</li> <li>Incentive mechanisms</li> <li>Degree of standardization in transfer processes and cooperations</li> </ul>	
Analysis of environment	<ul> <li>Chances</li> <li>Need for innovations in the municipal- ities, rural areas for mastering the struc- tural transformation and the demographic change, including side effects</li> <li>Positioning of the university as a partner and pilot in the region</li> <li>Need for exchange and dialogue formats with economy, society</li> </ul>	<ul> <li>Risks</li> <li>Fit of brand essence with regional needs</li> <li>Location competition</li> <li>Structural transformation is perceived as threatening scenario in parts of the population, low participation and lacking trust in science</li> </ul>	

<sup>&</sup>lt;sup>3</sup> The strengths and weaknesses analysis was carried out as part of the Transfer Audit, the regional environment analysis with the chances and risks assessment was carried out during the development of the transfer strategy by a work group appointed by the Rector's Office.

<ul> <li>integrated start-up service with professionally organized IP management</li> <li>Embedding into the regional innovation system</li> <li>Regional and national contact and competence network of the transfer-supporting bodies</li> <li>Consultancy services from the idea to the foundation</li> <li>Chances</li> <li>Weak networking of decentralized transfer actors and offers</li> <li>Weak networking of decentralized transfer actors and offers</li> <li>Expandable process- and result- orientation in administrative project management</li> <li>Current full-cost calculation leads to proviitive fees for economic transfer cooperation</li> <li>Spaces for transfer-oriented research and idea incubation</li> </ul>	Transfer structures		
Chances       Risks         • Identification of undiscovered innovation potentials in science and society       • Fit of the fundamental science profile with the regional, technology-dependent innovation strategy and funding policy	<ul> <li>Service office for integrated start-u sionally organize</li> <li>Embedding into t</li> <li>Regional and nat network of the tr</li> <li>Consultancy serv</li> </ul>	ip service with profes- d IP management the regional innovation syst ional contact and competer ansfer-supporting bodies rices from the	<ul> <li>Project character of the founding support</li> <li>Weak networking of decentralized transfer actors and offers</li> <li>Expandable process- and result- orientation in administrative project management</li> <li>Current full-cost calculation leads to prohib- itive fees for economic transfer cooperations</li> <li>Spaces for transfer-oriented</li> </ul>
with the City of Halle (Saale) • Measures which are partly poorly coordin	<ul> <li>Identification of a potentials in scie</li> <li>Focussing on reg</li> <li>Transfer-related of with the City of H</li> <li>Increase of reven</li> <li>Need for further so of structural tran</li> </ul>	nce and society ional needs cooperations lalle (Saale) ues out of third-party funds scientific training in terms sformation topics, such	• Fit of the fundamental science profile with the regional, technology-dependent

	Transfer activities	
Internal Factors	<ul> <li>Strengths</li> <li>Broad range of transfer activities</li> <li>High transfer potential in research and teaching</li> <li>Great open-mindedness of scien- tists towards transfer</li> </ul>	<ul> <li>Weaknesses</li> <li>No systematic capture of transfer activities</li> <li>Involvement of scientists of international origin</li> <li>Relation management with regard to potential transfer partners in the region</li> <li>Active needs assessment in the region</li> <li>Practical relevance in teaching and further scientific training</li> </ul>
Umfeldanalyse	<ul> <li>Chances</li> <li>High innovation pressure with regard to the exploitation of post-fossil energy sources</li> <li>Need for professional specialists due to depopulation and fewer people at working age</li> <li>Future major industrial settlements in the region with R&amp;D capacities</li> </ul>	<ul> <li>Risks</li> <li>Structurally low acceptability for transfer on the part of the regional small and medium- sized companies due to little R&amp;D intensity</li> <li>Partial lack of openness of the companies and the social actors for cooperation offers made by the university</li> </ul>



MLU has not yet been able to fully exploit its transfer potential and thus falls short of its opportunities for effective transfer with society and the regional economy. This presents MLU with a chance to use its strengths for transfer and to distinguish itself in relation to the economic, ecological and social requirements of social change in Saxony-Anhalt and the region of structural change in the southern part of the state. The Saxony-Anhalt structural development programme provides a suitable orientation framework for MLU's transfer profiling. The areas of activity of economy and innovation, greenhouse gas- neutral energy industry and environment, education and securing skilled workers, district appeal including public welfare, are fully compatible with the research and teaching profile of the university. In addition to the research and teaching services provided by MLU academics, the SWOT analysis identified the following topics that are particularly suitable as transfer profile topics due to their interdisciplinarity, existing transfer activities and fit with social challenges:

#### Social cohesion

Research-based transfer activities and collaboration to develop new approaches to inclusive and reflective forms of society and cooperation as well as solutions for shaping fair transitions

#### Health and nutrition

Research-based transfer activities and collaboration for solutions for digitalised healthcare, for new methods for disease prevention and treatment as well as sustainable approaches for healthy nutrition

#### Sustainability, energy and climate

Research-based transfer activities and collaboration for the expansion of the material basis for (bio) plastics economy, the development of regenerative storage materials/cycles, solutions for the protection of biodiversity as well as for the preservation of cultural heritage, furthermore the development of sustainable future-oriented concepts for information technology as well as the stimulation of social discussion processes on the relationship between humans and nature.

#### Economy and labour

Research-based transfer activities and collaboration for digital applications and technologies for sustainable value chains as well as for innovative approaches for new forms of labour and for maintaining employability

In particular, these four transfer profile topics and their alignment with the innovation strategy of the state of Saxony-Anhalt are seen as an opportunity to provide strong impetus for innovation, value added and quality of life in the region and to contribute to the development of new growth and employment prospects for the time after the phase-out of fossil raw material extraction.

## 5 Transfer profile

MLU's transfer profile is based on three essential requirements: the nationally and internationally recognised professional expertise of its researchers and their diverse collaborative relationships with society and industry, the excellent education along the academic qualification phases, as well as its more than 500-year history as an academic institution and the cultural heritage that has developed over this period, which manifests itself in MLU's extensive academic collections, among other things.

Profiling MLU in transfer is necessary in order to make an effective contribution to solving the regional issues of the future and to be perceived as a structurally decisive innovation pole in Saxony-Anhalt. Transfer profiling includes cultural and structural aspects as well as transfer activities.

Shaping social change requires MLU to encourage its academics and students even more to transfer ideas, knowledge and technologies. Scientists and students should be facilitated to transfer findings from research and studies into society and the economy and to advance them in a user-centred way. The university supports the systematic development of transfer potential in the humanities, social sciences, natural sciences and life sciences, promotes subject-specific transfer profiling and optimises transfer processes. Transfer is clearly represented as part of the university's brand essence and is an integral part of all central communication activities.

From a structural point of view, it is necessary to improve cooperation between the decentralised organisational units within the university and to develop effective structures for the uncomplicated initiation of collaboration with local and regional companies in particular, as well as civil society actors, educational, cultural and social institutions. Sustainable development and research spaces are needed for research-based translational and start-up incubation.

The university supports the diverse transfer activities along the following six transfer paths<sup>4</sup>:

#### **Research Cooperation & Exploitation**

The transfer path research cooperation & exploitation describes the way in which research results are systematically transferred into beneficial applications in society and the economy. Researchers are supported by the university in particular in securing and exploiting intellectual property, maturing marketable technologies and conducting R&D collaborations. The university supports structured collaboration with external transfer agents and networking with nationwide industry clusters.

#### Entrepreneurship

The Entrepreneurship transfer path describes the way in which research results are transferred to society and economy through spin-off. The university encourages students and academics to think and act like entrepreneurs and offers its members support in acquiring entrepreneurial skills. In addition,

<sup>&</sup>lt;sup>4</sup> The transfer paths are based on the transfer systematics of the transfer barometer of Stifterverband für die Deutsche Wissenschaft e.V. and have been adapted in relation to MLU's transfer activities. *https://www.stifterverband.org/transferbarometer* 

start- up teams will receive support with project management, business model development and the acquisition of funding for the pre seed and seed phase.

#### Transfer via Infrastructure

The university facilitates research-based transfer with non-academic target groups via spatial and technical infrastructures (e.g. student labs, workshops, active learning spaces, incubators, real labs, academic collections, etc.).

#### Scientific Dialogue

Dialogue-oriented science communication is a transfer path that generates follow-up communication and new contacts with civil society stakeholders, educational, cultural and social institutions as well as companies. This transfer path is an integral part of all communication activities of the university and improves the social involvement of diverse stakeholders in research and innovation.

#### Practice-oriented Teaching and Academic Higher Education

The transfer path Practice-oriented Teaching and Academic Higher Education strengthens the skilled labour base in the region. Students and researchers are encouraged to transfer their knowledge to society and the economy. In addition, the transfer path bundles further training offers for external experts and managers in the region.

#### **Scientific Consulting**

The Scientific Consulting transfer path bundles the formalised activities to support science-based decisions in institutions and companies. The university contributes to meeting societal challenges and strengthening the capacity for social debate thanks to the personal expertise of its academics. For example, the latest methods and findings are made available to politicians, educational institutions as well as companies and other social institutions on a case-by-case basis in the form of expert reports, expert advice and recommendations for action to answer complex questions and for decision-making.

## 6 Fields of Development and Strategic Goals

MLU's strategic development will take place in three development fields in the period 2022-2032:

- **Development field I:** Innovations to overcome the challenges in the structural Change Region Saxony-Anhalt
- Development field II: Culture of Innovation and Empowerment
- Development field III: Future Competences

The strategic goals in Development Field I are aligned with four transfer profile fields of the university.

# Raising transfer potentials

Development of transfer pathways

Stronger networking with society

Further development of (infra-) structures

#### Social cohesion

- New approaches for inclusive and reflecting society and cooperation forms
- Solutions for shaping fair transitions

Sustainability, energy and climate

- Development of the substance basis for (bio) plastics economy
- Development of regenerative storage materials / cycles
- New concepts for information technologies
- Solutions for the protection of biodiversity
- Preservation of the cultural heritage
- Reflection processes about the role of humans in nature

#### Health and nutrition

- Solutions for the digitalized healthcare provision
- New methods for the prevention and treatment of diseases
- Sustainable approaches for healthy nutrition

#### Economy and labour

- Digital applications and technologies for sustainable added value chains
- Approaches for new working forms and the preservation of employability

**Fig. 2:** Diagram of MLU's transfer strategy (Vision, Development fields, Strategic goals with Sub-goals and Transfer profile topics)

# INNOVATIONS FOR OVERCOME THE CHALLEN-GES OF THE STRUCTURAL TRANSFORMATION



#### Bringing knowledge to impact

 Improvement of the visibility of the transfer structures and activities, as well as optimization of the support processes for the research transfer

#### Strengthening entrepreneurial spirit⁵

 Sensitization for starting up a business, support of company foundations, provision of rooms / laboratories, use of IT infrastructures and libraries

#### Using knowledge and innovation networks

 Support of transdisciplinary cooperation and networking between science, society, and economy

<sup>5</sup> The strategic goal of "Strengthening Entrepreneurship" is explicitly supported by the legal framework of the Saxony-Anhalt Higher Education Act.

# Expanding the knowledge and technology base

• Development of low-threshold access to knowledge and data

#### Strengthen the freight workforce

- Design of transitions in the career paths from science to economy
- Demand-driven further scientific training with regard to topics of structural transformation

# Increasing social participation

• Enhancement of social acceptance and of sustainability through research and innovation by society's participation

# **FUTURE COMPETENCES**

## 7 Implementation Strategy

MLU will develop various measures and specific transfer activities in the period 2022-2032 in order to dynamically develop the transfer activities in the development fields and to systematically develop the transfer with the economy and society for profile building.

<b>"SHAPING THE CH</b>	IANGE" MARTIN-LUTHER-UNIVERSITÄT HALLE-WITTENBERG				
Strategic Goals	Measures				
Development field I: Innovations to overcome the challenges in the region of structural change					
Raising transfer potentials Development of transfer pathways Stronger networking	<ul> <li>Positioning MLU as a professional innovation partner by creating interdisciplinary dialogue-oriented forums for society and business in the university's transfer profile topics.</li> <li>Construction of a research building for translative research in the field of bioeconomy and new industries</li> </ul>				
with society Further development of (infra-) structures					
Developmen	t field II: Culture of Innovation and Empowerment				
Bringing out the effect of knowledge	<ul> <li>Renaming of the Prorector responsible for transfer to make the strategic importance visible</li> <li>Creation of an exchange and networking offer for scientists / transfer offices interested in transfer</li> <li>Establishment of a transfer advisory board to provide advisory support to the rectorate and to support internal communication Establishment of spaces for transfer-oriented research and start-up incubation</li> <li>Establishment of a highly visible contact point for the smooth establishment of partnerships with regis- tered contact persons and transfer opportunities.</li> <li>Development of a transfer portal to intensify and improve communication with society as part of the university's internet presence</li> <li>Improvement of the framework conditions for transfer pathways through transparent transfer-friendly regulations, cooperation with utilisation service providers, guidelines and regulations</li> <li>Development of an incentive system taking into account the organisational culture</li> <li>Further development of the Transfer Award as an instrument for project development and incentive setting</li> <li>Systematic central capture of transfer activities and development of a reporting system</li> <li>Building key partnerships</li> </ul>				
Strengthening entrepreneurial spirit					
Using Knowledge and Innovation Networks					

"SHAPING THE CHANGE" MARTIN-LUTHER-UNIVERSITÄT HALLE-WITTENBERG			
Strategic Goals	Measures		
Development field III: Future Competences			
Expanding the knowledge and technology base	<ul> <li>Expansion of low-threshold access to knowledge and data for third parties</li> <li>Development of an overall concept for school laboratories</li> </ul>		
Strengthening the basis of professional specialists	<ul> <li>Development of an overall concept for school laboratories</li> <li>Development of demand-oriented opportunities for continuing academic education</li> <li>Reaching out to international scientists through English-language offerings</li> <li>Optimisation of offers for doctoral students and postdocs within the framework of qualification for research-related tasks</li> <li>Further development of practice-oriented teaching as a supplement to subject-related teaching/qualification and in close interlinking of theory and practice</li> </ul>		
Increasing Society's Participation in Research- Based Innovations			

Fig.3: Measures

## 8 Monitoring and Guidance

The ten-year duration of the strategy's applicability requires a certain flexibility in dealing with the planned measures to implement the strategy. This flexibility makes it possible to anticipate future developments at the university and in the regional environment and to be able to react with adjustments if necessary. The transfer strategy presented is therefore designed as a "living" development instrument. Its implementation requires an accompanying monitoring process to regularly review the development status of the transfer profile in terms of its content-related focus, its alignment with the strategic goals and its effectiveness for the university's regional positioning, and to identify potential for adjustment if necessary. An interim evaluation is planned after five (5) years.

A prerequisite for this is the registration of the various transfer activities on the basis of transfer-related key indicators<sup>6</sup>. Capture of the transfer activities should take place in the university's research information system, be set up in a resource-saving manner and be supported by the responsible offices. Regular reporting by the responsible organisational units should be introduced.

To assist the process, an advisory board for transfer is to be set up to lead the discussion and exchange process on forms, formats and the organisation of the transfer. The advisory board for transfer should also maintain close contacts with external networks in order to identify special structural needs and integrate them as concepts.

<sup>&</sup>lt;sup>6</sup> The university participates in national and international rankings in the field of transfer, such as the Gründungsradar (Foundation Radar) of the Stifterverband für die Deutsche Wissenschaft e.V., the Knowledge and Technology Transfer Survey of the Association of European Science and Technology Transfer (ASTP), the U-Multirank of the European Commission. For the development of the key indicators, the indicator- based queries are to be used and adapted accordingly.