

Survey on the Status of Digitization at German Higher Education Institutions



EUNIS20 Virtual Congress

10.06.2020

Harald Gilch, Anna Sophie Beise, René Krempkow, Marko Müller, Friedrich Stratmann, Klaus Wannemacher
HIS-Institut für Hochschulentwicklung, Hannover, Germany, www.his-he.de

Introduction

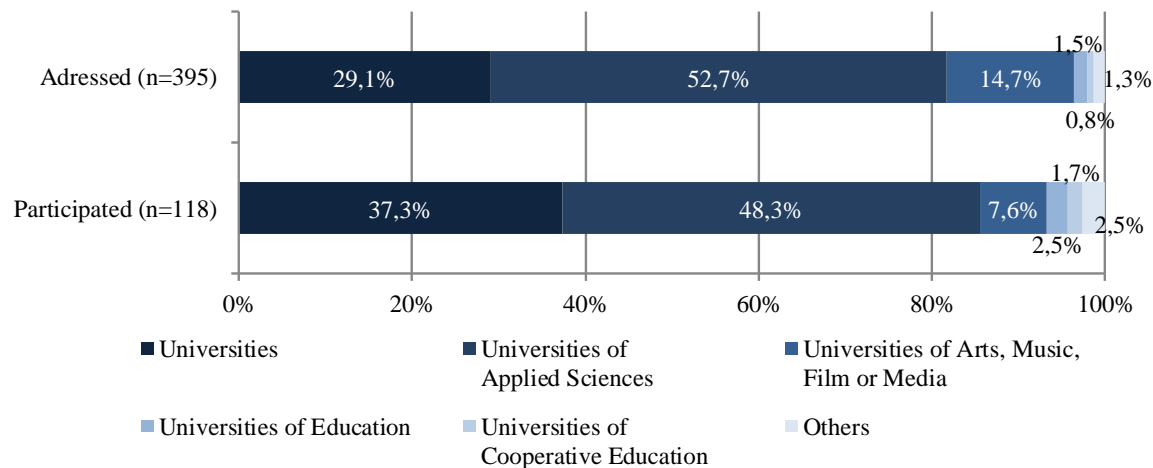
Exemplary Results

Conclusion

Key data of the project

Focus study "Digitization of universities", commissioned by the EFI*

- **Objective:** Nationwide analysis of the process of digitization at universities (dimensions research, teaching, administration and infrastructure)
- **Questions:** Significance, status, governance and implementation, framework conditions and recommendations for action
- **Methodology:** literature analysis, online survey (n=119, response rate: 30.1 %), case studies, expert workshops, external data



Participating universities by university type

* EFI =
German Expert Commission
for Research and Innovation

Significance and Status of Digitization

Focus study "Digitization of universities",

The subject of the study is,

- if and in what ways visions, strategies and implementation concepts for the digital university are present in the higher education institutions,
- how these are embedded in the organization of the universities,
- how the university leadership assesses the status of implementation and
- the importance of different incentive, competence and funding structures for the development of digitization in higher education.

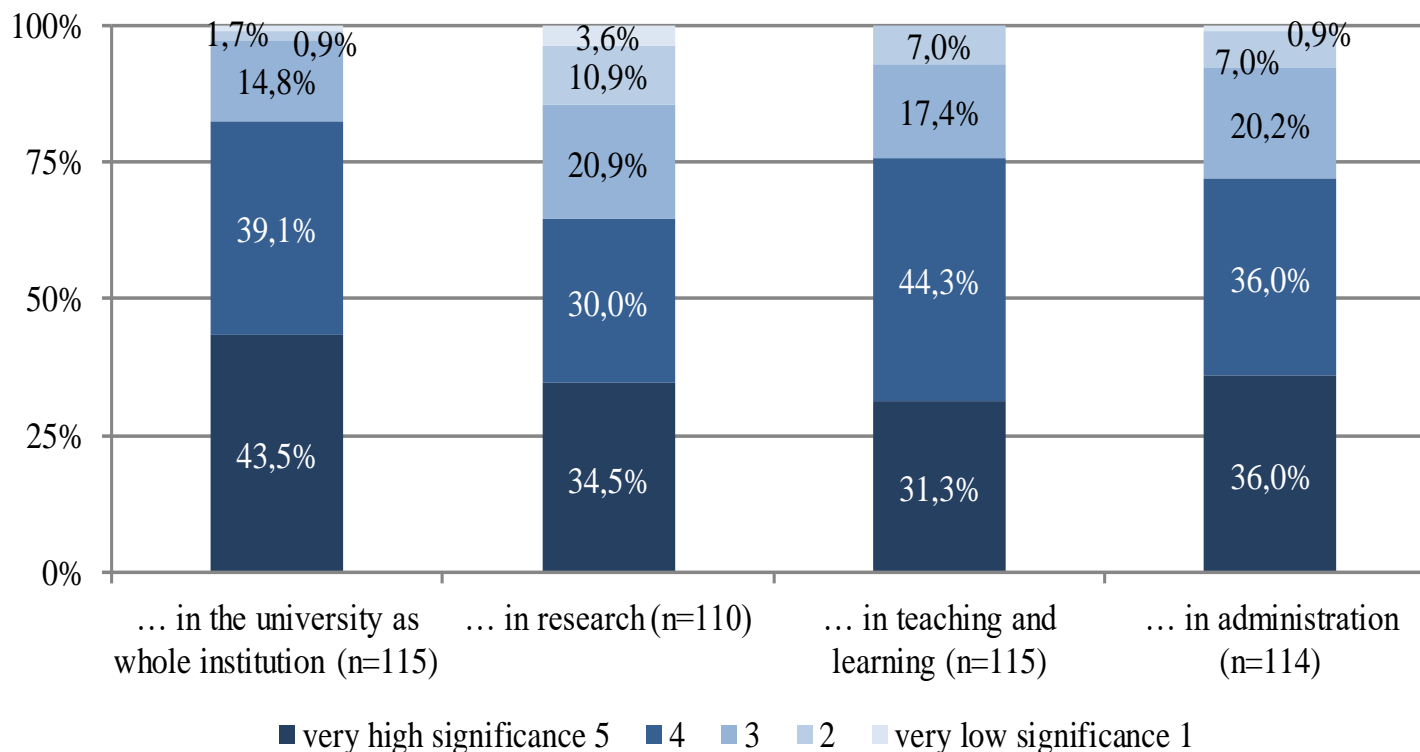
Introduction

Exemplary Results

Conclusion

Significance and Status of Digitization

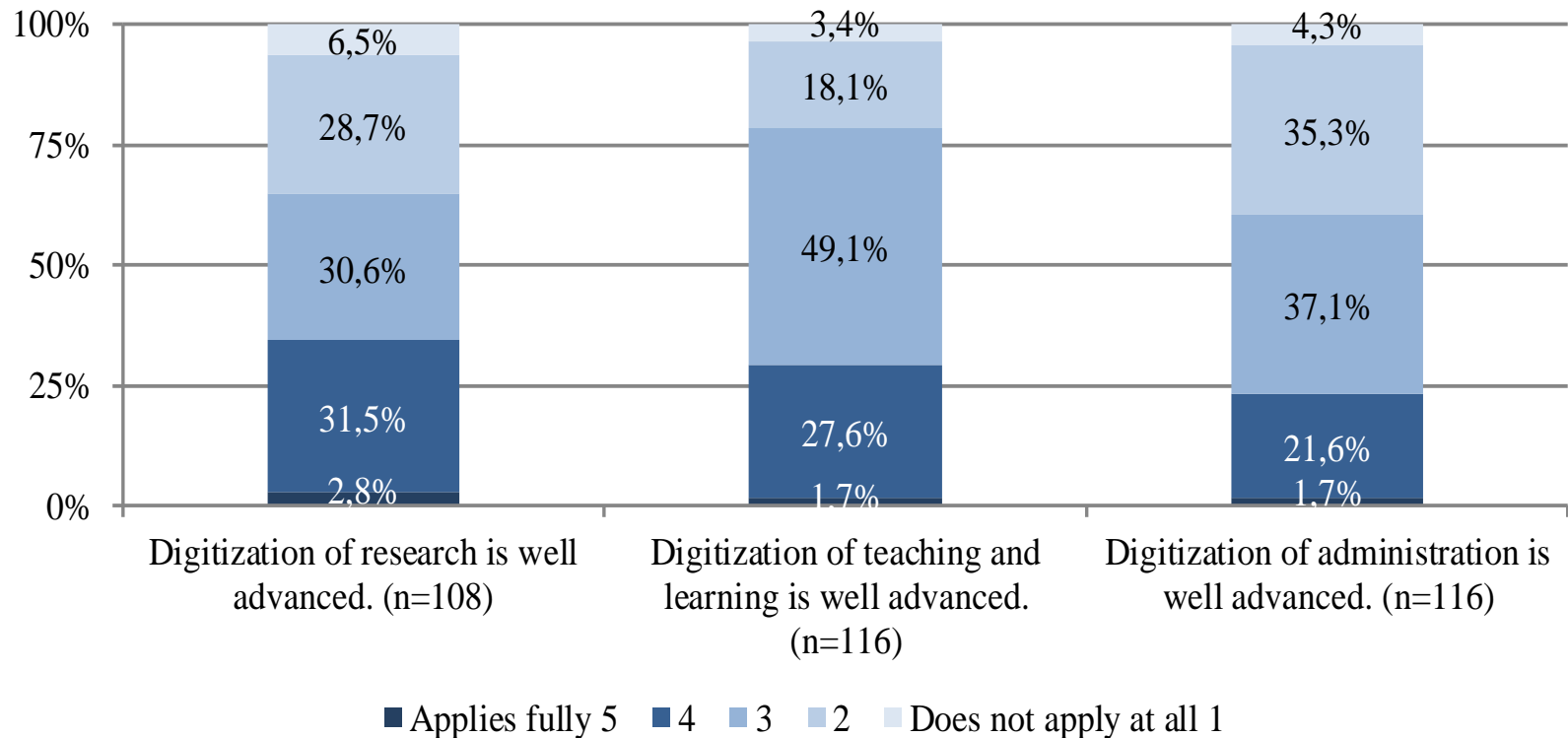
Significance of digitization by dimension



"Which significance has digitization for your university ...?"

Significance and Status of Digitization

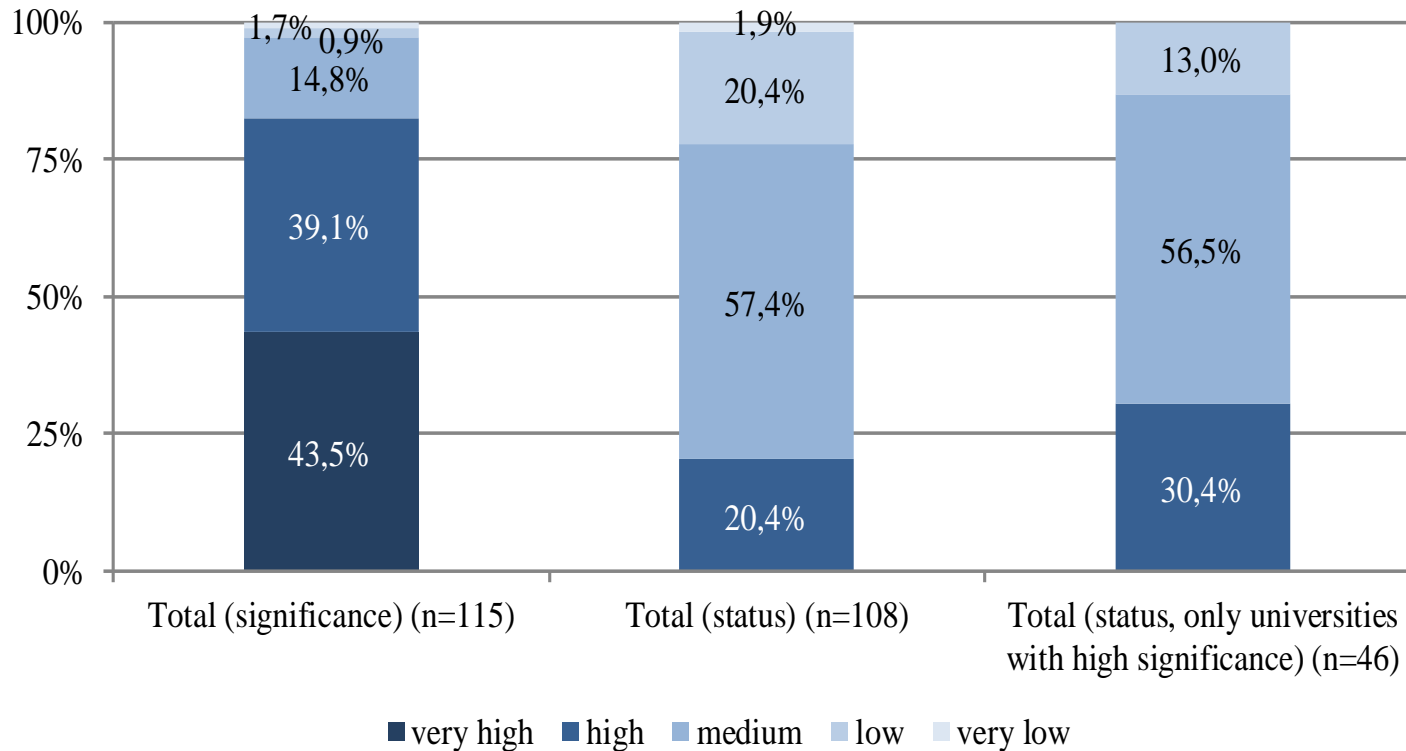
Status of digitization by dimension



"Please rate the status of digitization at your university using the following statements..."

Significance and Status of Digitization

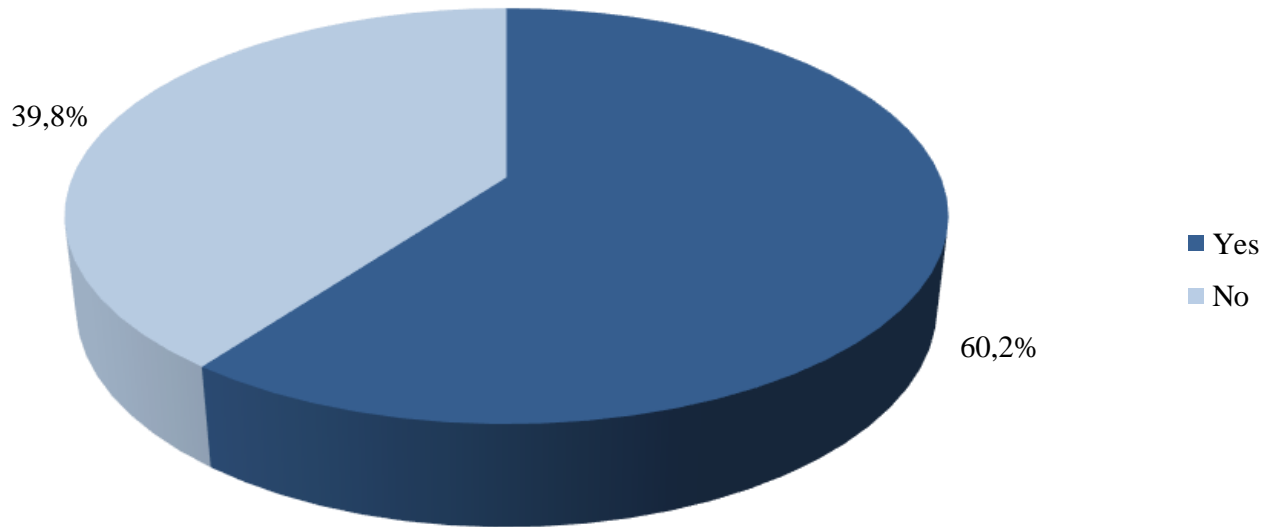
Significance and Status of Digitization, Universities with high significance



Significance of digitization, compared to "Which status has digitization at your university?"

Strategy and Governance of Digitization

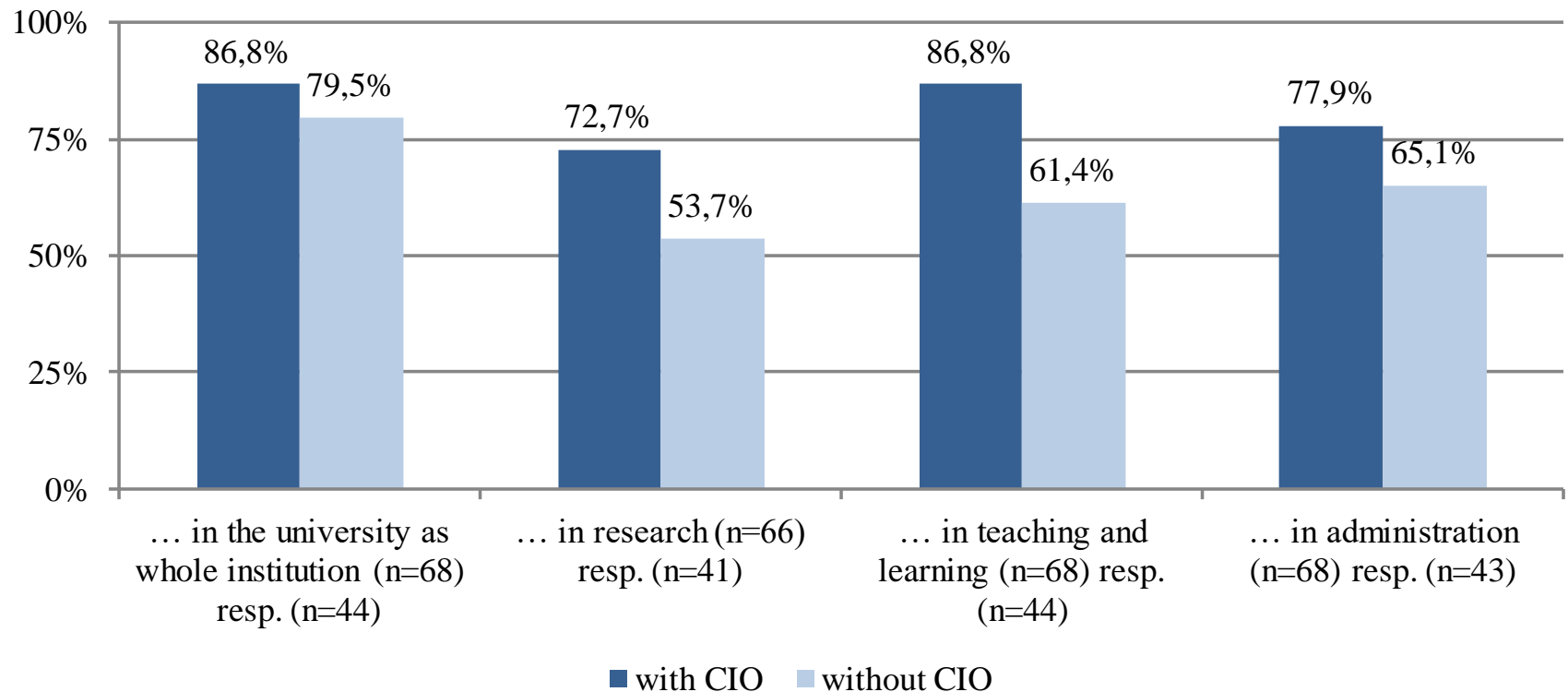
Presence of a CIO or CIO committee



„Does your university have a CIO (Chief Information Officer) or a CIO committee“

Strategy and Governance of Digitization

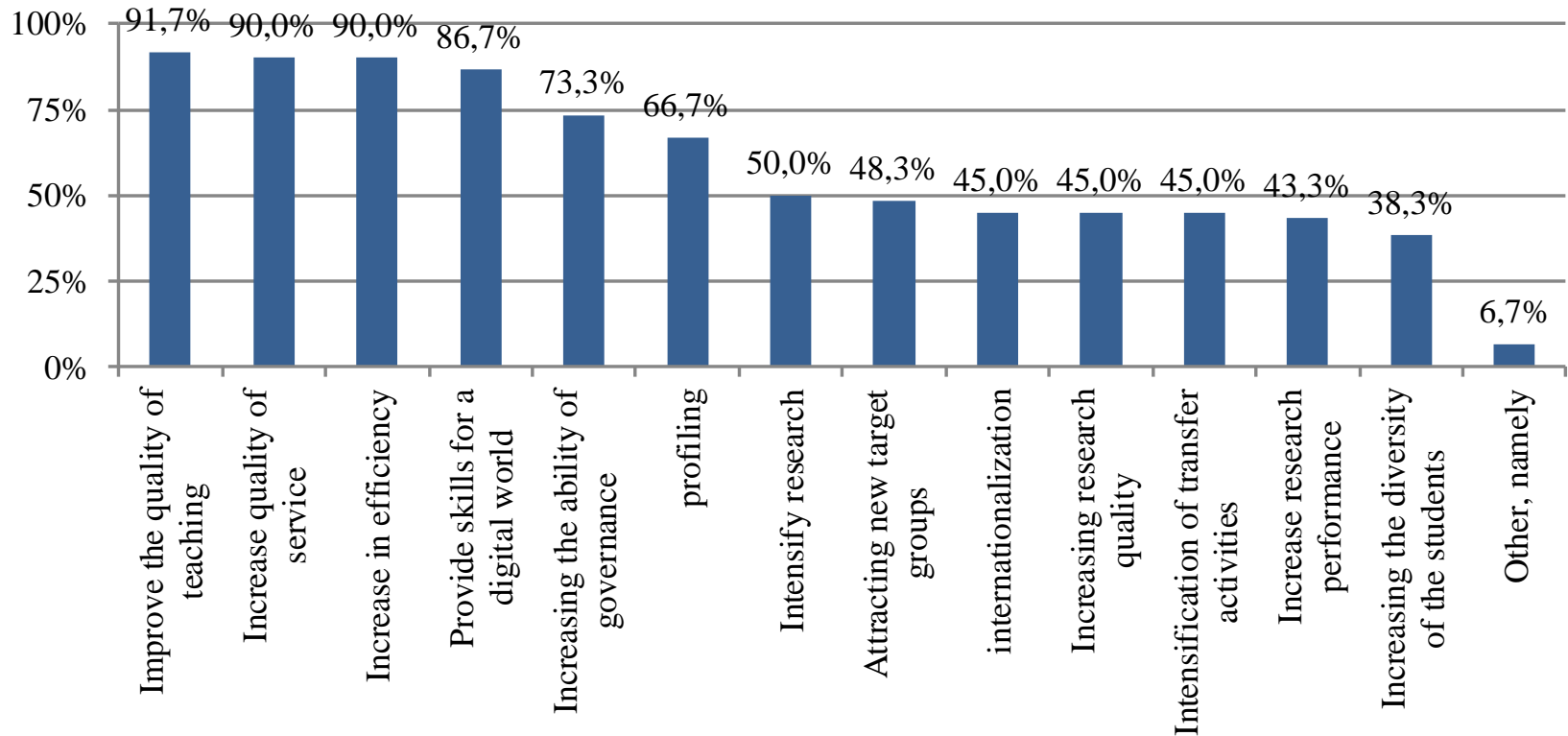
Significance of digitization in relation to the presence of a CIO



"Which significance has digitization for your university ...?"

Strategy and Governance of Digitization

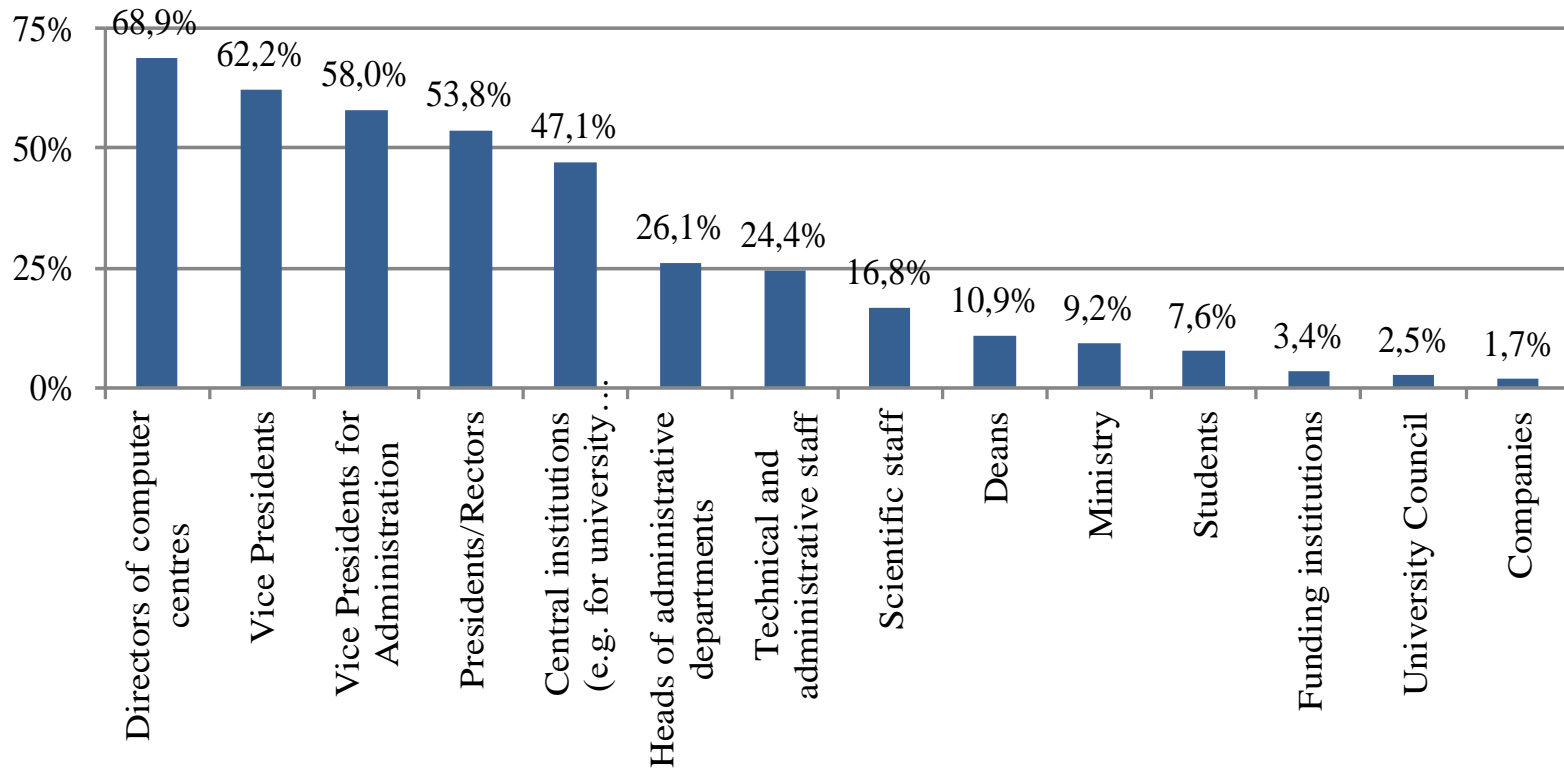
Objectives of digitization strategies



"Which objectives should the university's digitization strategy achieve?"

Strategy and Governance of Digitization

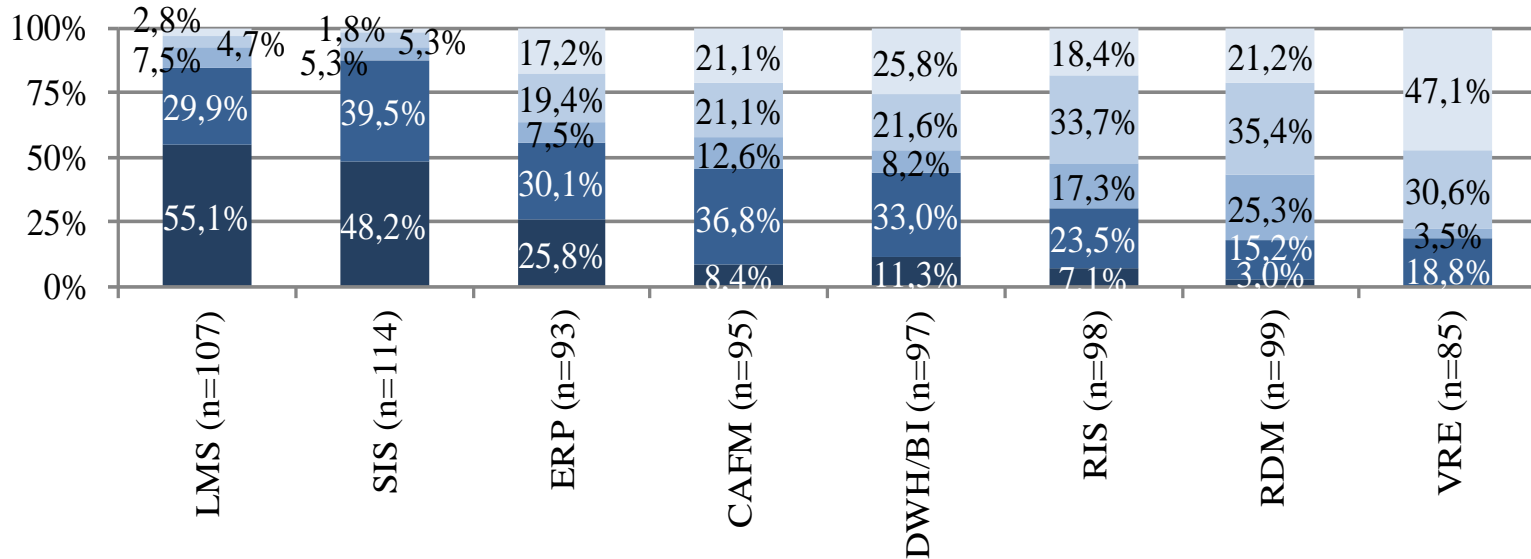
Leading actors in the digitization process



„Which actors take a leading role in the process of digitizing your university?“

Digitization on concrete cases

Implementation level of selected IT systems

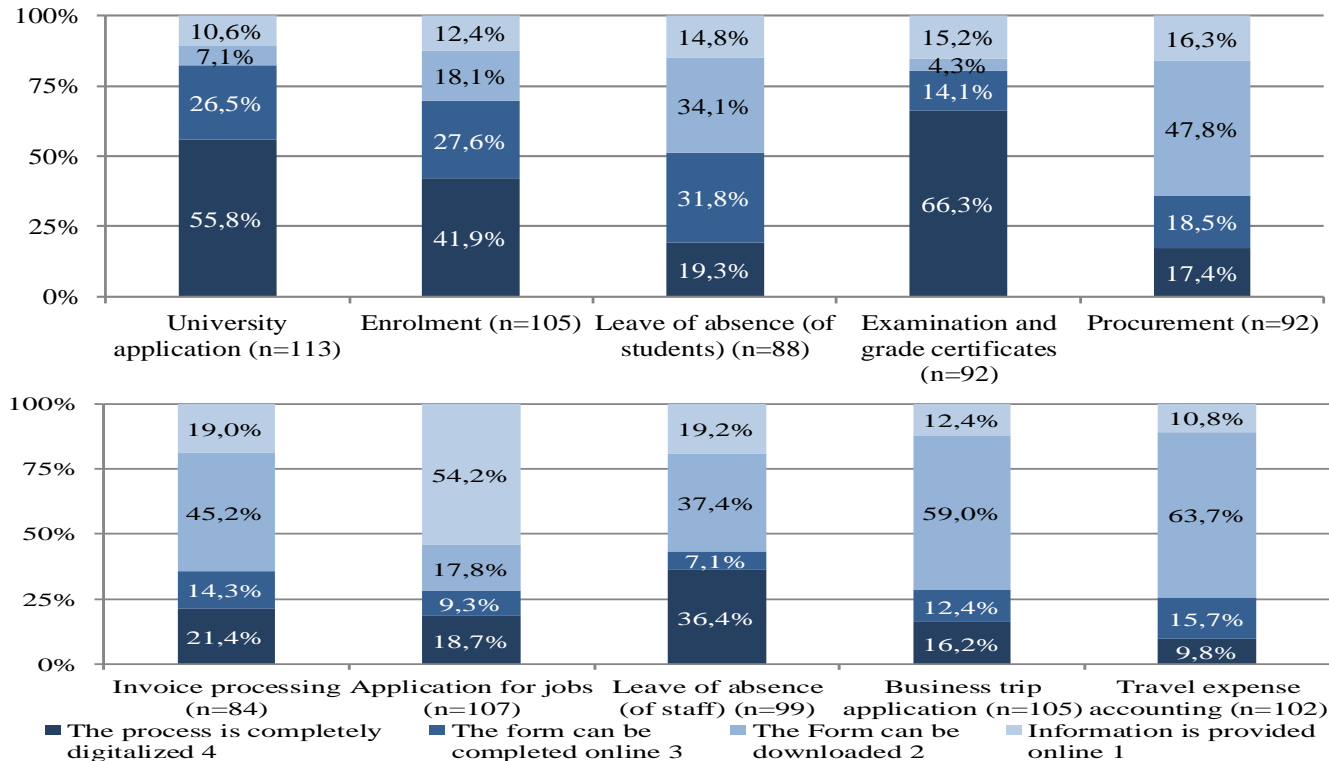


- Fully implemented 5
- Partially implemented 4
- Implementation decided 3
- Implementation under evaluation 2
- No implementation planned 1

„To what degree are the following IT systems implemented at your university?“

Digitization on concrete cases

Digitization levels of selected administrative processes



„Which digitization level is reached by the following administrative processes?“

Introduction

Exemplary Results

Conclusion

Key Findings

- The study is the first comprehensive study to analyze the status of digitization at German universities for all three areas of research, teaching and learning and administration if and in what ways visions, strategies and implementation concepts for the digital university are present in the higher education institutions, the importance of different incentive, competence and funding structures for the development of digitization in higher education.
- The significance of digitization for universities is generally considered to be high or very high, but that the status of digitization still remains considerably behind this high significance.
- A lot has happened in recent years, especially with regard to the implementation of CIOs, which are now established at 60,2% of the universities, as the comparison of the new results to older studies with only 14% CIOs in 2014 shows.

Key Findings

- With regard to the implementation status of digital infrastructures and the implementation level of selected IT systems, fully digital workflows have so far only been offered to users at few universities (9.2%). In most cases (72.3%) a large number of IT systems and applications are in use, but these are only partially, but not fully, integrated.
- Looking at the implementation level of selected IT systems, Student Information Systems are already in use at a well-advanced level almost everywhere, while other administrative systems are in an introduction phase for the most part (e.g. ERP, CAFM, BI). The student management area also includes those processes that are already fully digitized like university application or examination and grade notifications.
- Also relating to the area of teaching and learning, university-wide Learning Management Systems are already in use at most universities. However, the use of more elaborated formats of e-learning is mostly still in the hands of a limited number of innovators and has not yet been anchored in the wide majority of teaching. Such a heterogeneity is apparent in the digitization of research, too.

Digitization of universities

Links to the documents

Harald Gilch, Anna Sophie Beise, René Krempkow, Marko Müller, Friedrich Stratmann & Klaus Wannemacher (2019): *Digitalisierung der Hochschulen*. Berlin: EFI 2019:

https://www.e-fi.de/fileadmin/Innovationsstudien_2019/StuDIS_14_2019.pdf

Annual Report 2019 of the German Expert Commission for Research and Innovation:

https://www.e-fi.de/fileadmin/Gutachten_2019/EFI_Gutachten_2019.pdf

Expert-Statements to the recommendations of EFI at the HFD-Blog:

<https://hochschulforumdigitalisierung.de/de/blog/efi-report-2019-eine-einordnung-von-vier-hfd-experten>

Other analyses and projects of HIS-HE in the field of digitization:

<https://his-he.de/leistungen/studium-und-lehre/digitalisierung-im-hochschulbereich/>

Thank you for your attention