



# Higher education institutions towards digital transformation

The West University of Timisoara case

# Team



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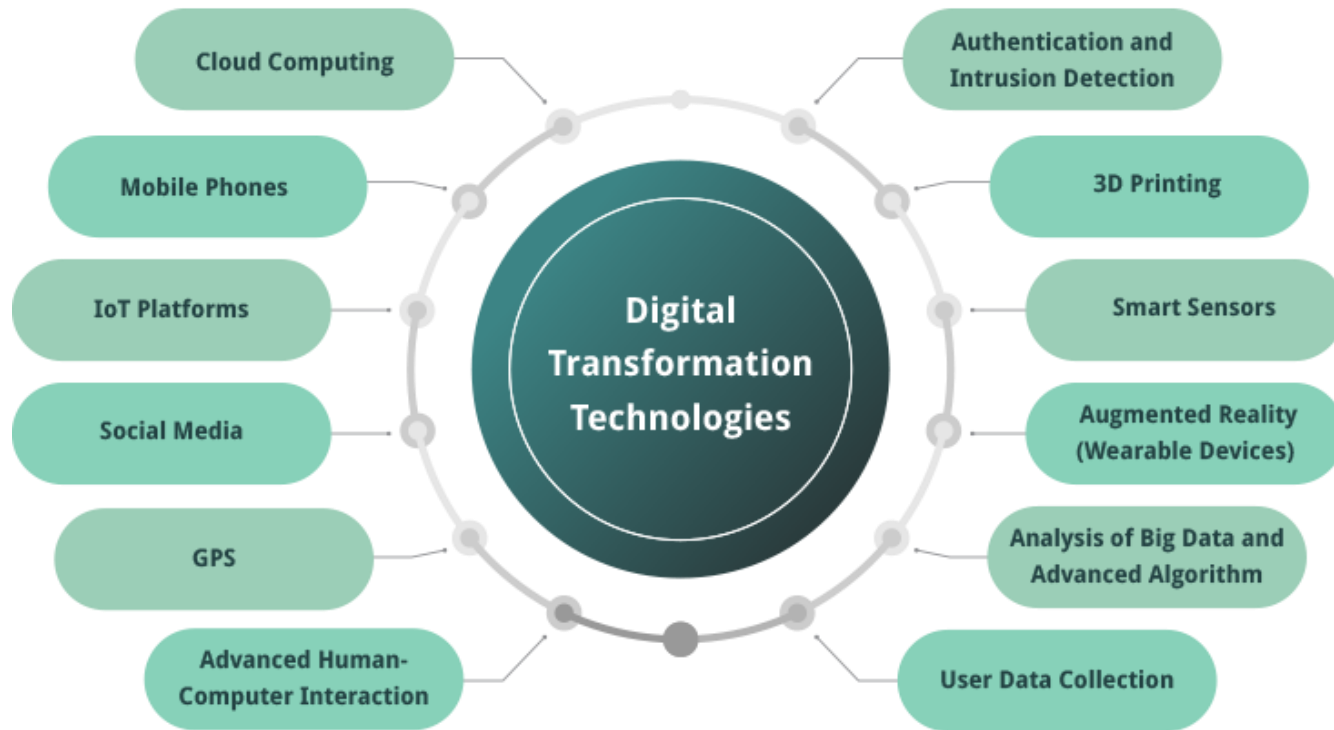
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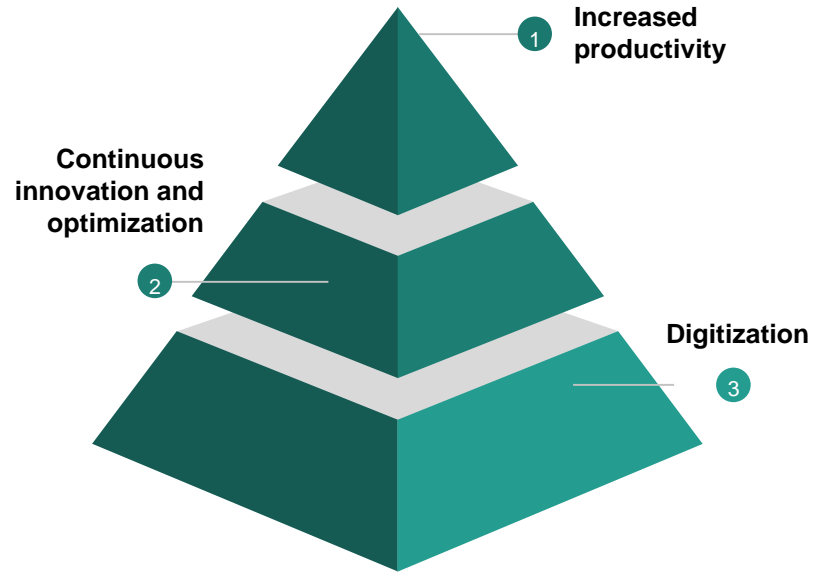


How **prepared** are the universities to  
**embrace** the 4.0 digital (r)evolution?

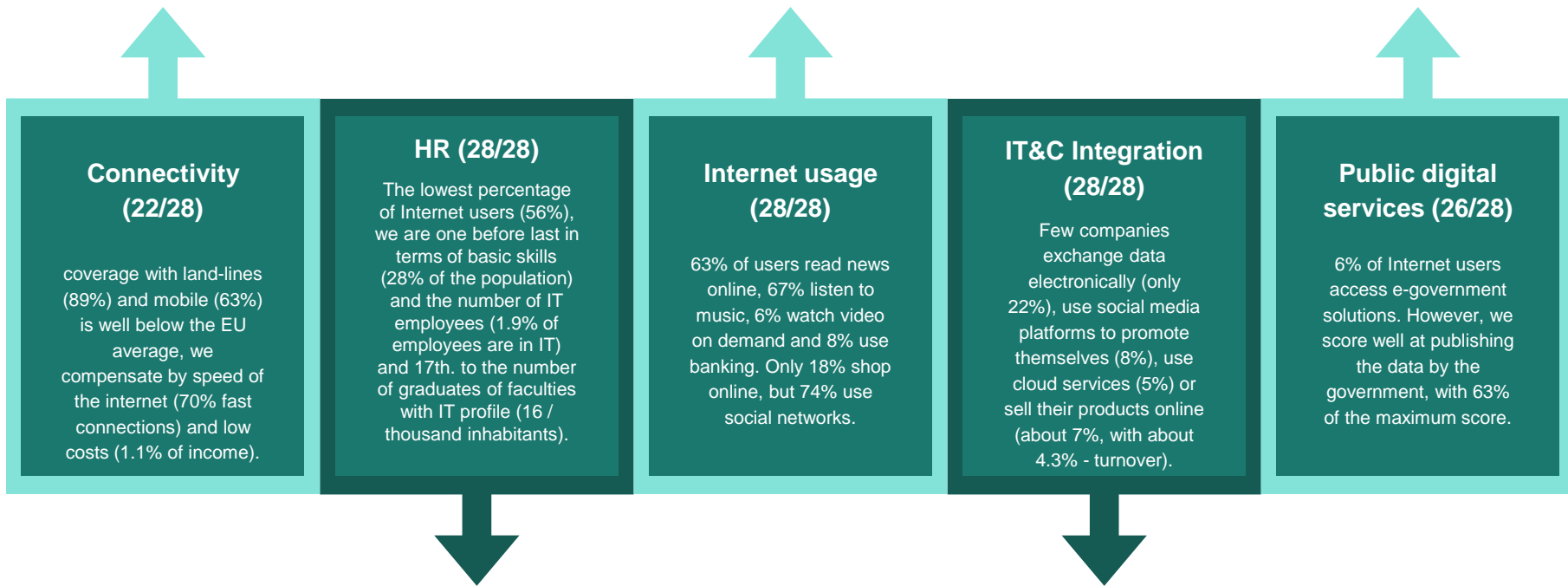


# International context

- By 2022,> 60% of global GDP will be digitized, generating growth in every industry where offers, operations and relationships are digitally enhanced (IDC).
- Countries which are in an advanced stage from a digital perspective (ie: Estonia, Lithuania, Latvia) have had a relatively constant annual average growth (over the last 20 years) with about 1 pp higher than Romania.
- The most digitized countries (Denmark, Norway, Holland, Germany, France) have a productivity more than double compared to the productivity in Romania of 55 USD / h. vs 25 USD / hr.



# DESI\* study – how is Romania performing @ EU level



\*EU Digital Economy and Society Index 2018-2019

# Degree of digitization of Romanian universities

- 20 of the 49 state public universities in Romania use institutional email addresses... in parallel with email addresses on free servers (Yahoo or Google).
- In 2018, public universities spent 16,324 million lei (approx. 4 million EUR) for the development and maintenance of IT platforms and had intangible assets (software) of over 280 million lei (about 60 million EUR).
- Each university tries to develop its own system by investing a certain effort to solve the problems faced by the other universities.



# Digital transformation is happening



# WUT digital portrait

Serviciile **eUVT**  
disponibile

Serviciile **eUVT**  
disponibile

E-Mail

Microsoft  
Azure

Liste e-mail

Contacte  
UVT

Propuneri

QuestionPro

E-Learning

Sesizari IT

ANELIS

StudentWeb

Intranet

Acoperire  
Sali

E-Mail

Microsoft  
Azure

Liste e-mail

Contacte  
UVT

Propuneri

QuestionPro

Licente  
Office365

E-Learning

Sesizări IT

SIMD

SAP

Facilitati  
angajati

ANELIS

Site  
SOCIO

# e-uvt services available for students

## (academic, support, career)



MAIL E-UVT

....

[Detalii...click aici](#)



GOOGLE SUITES  
FOR EDUCATION

....

[Detalii...click aici](#)



G SUITES  
MARKETPLACE FOR  
EDUCATION

....

[Detalii...click aici](#)



WE LEARN

....

[Acceseaza](#)



RETEAUA WI-FI  
EDUROAM

....

[Detalii...click aici](#)



INTRANET

....

[Detalii...click aici](#)



MICROSOFT AZURE

....

[Detalii...click aici \(fost  
DreamSpark\)](#)



OFFICE 365

....

[Detalii...click aici](#)



PASAPORT CULTURAL

....

[Detalii...click aici](#)



STUDENT WEB

....

[Acceseaza](#)



PLATI ONLINE

....

[Acceseaza](#)



CAZARI ONLINE

....

[Detalii...click aici](#)



SPATII UVT

....



SOCIAL MEDIA

....



SUPPORT IT

....

[support@e-uvt.ro](mailto:support@e-uvt.ro)



# NOU!

VEZI NOTELE,  
TAXELE, SITUATIA  
SCOLARA ACUM  
SI DE PE MOBIL

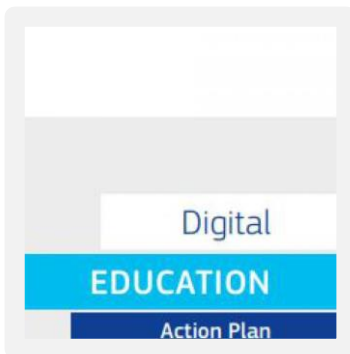
ACCESEAZA  
[UVT.UMS.RO](http://UVT.UMS.RO)  
SAU SCANEAZA:



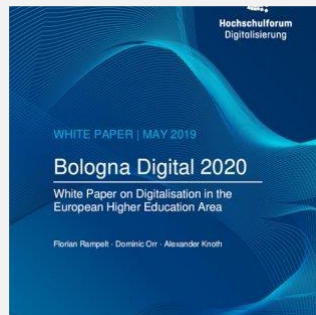
# Methodology



Europe 2020  
Strategy



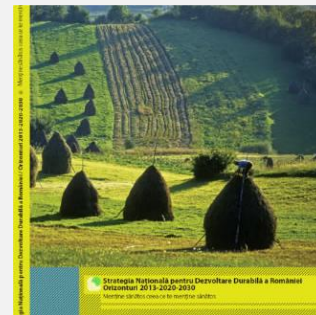
Digital Education  
Action Plan



EU Agenda  
For Higher Education and Bologna Process



National Competitiveness Strategy  
2014-2020



National Strategy  
of Romania  
2020 – 2030

# Research questions

- Is WUT creating an **inspiring digital environment for students**? (What are the tools, apps and technologies that help them do their work more effectively in a digital ecosystem?)
- How is WUT **engage** and **communicate** with its students in a digital way?
- Do students **find easily information** about courses and drill down into richer course content and communities?
- Do students have **a range of options** about where to learn and how **to consume learning** materials?
- **Are teachers digitally prepared?**



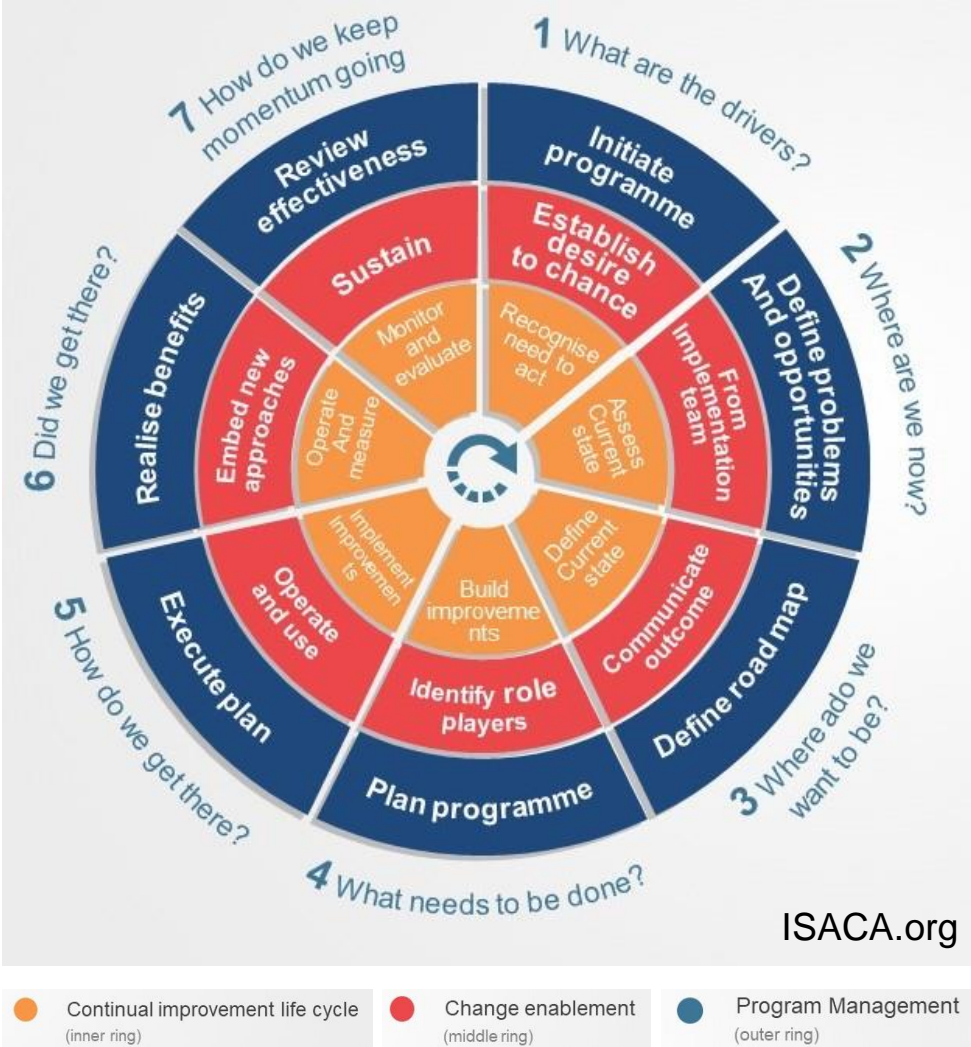
# Research questions

- Are there **digital channels** that **support** students with **academic attainment** and **achievement**?
- Do students **understand** their **performance** and **potential** from collated **data**?
- Are there **possibilities** to initiate a **research**, **track** their **progress** and **collaborate** with other students? Do WUT **encourage digital collaboration** across disciplines for research?
- Are there **platforms** highlighting **student communities**, extra-curricular activities or discounts in the local area?
- Are **students prepared** for a digital life after their undergraduate degree?

# Method

exploratory study, students' opinion,  
CORBIT model

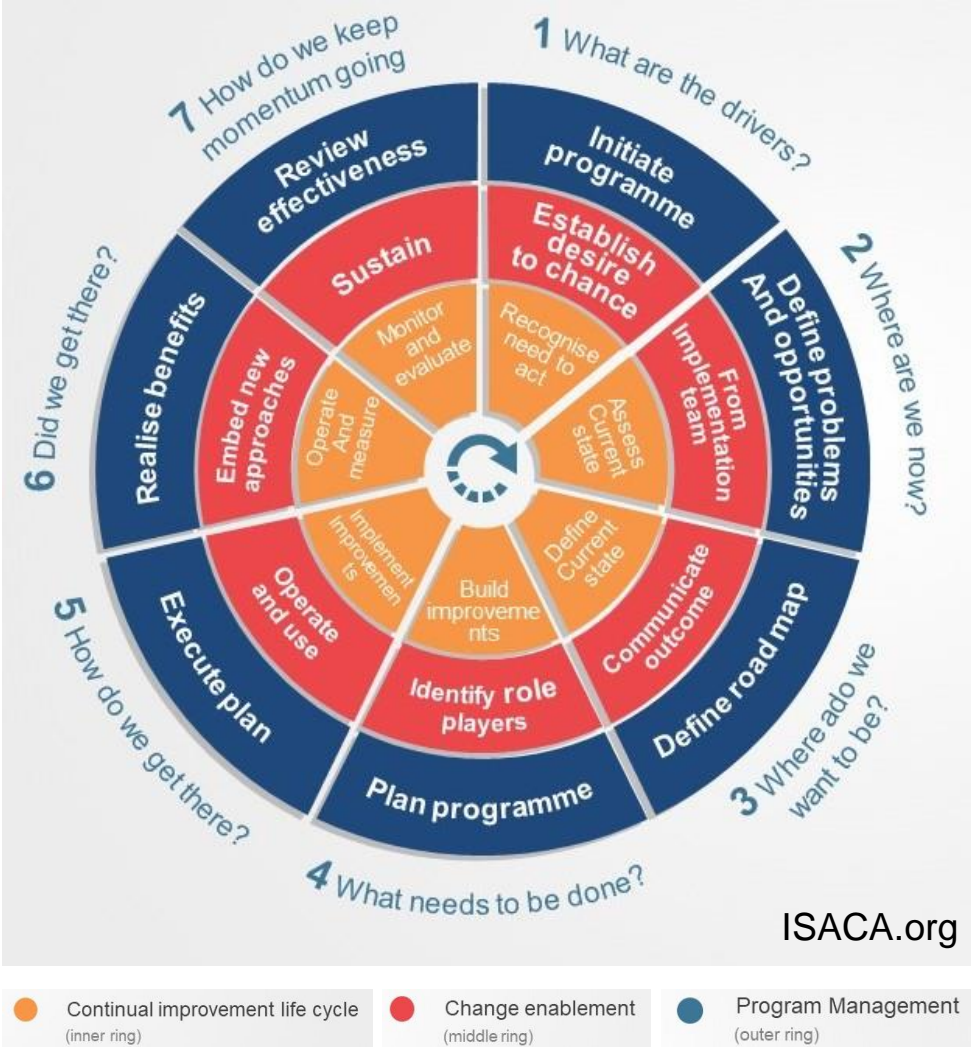
- What are the drivers?
- Where are we now?
- Where do we want to be?
- What needs to be done?
- How do we get there?
- Did we get there?
- How do we keep the momentum going?



# Method

exploratory study, students' opinion,  
CORBIT model

- **What are the drivers?**
- **Where are we now?**
- **Where do we want to be?**
- What needs to be done?
- How do we get there?
- Did we get there?
- How do we keep the momentum going?



# Data collection

“ Online questionnaire  
(33 questions)  
MA and BA students

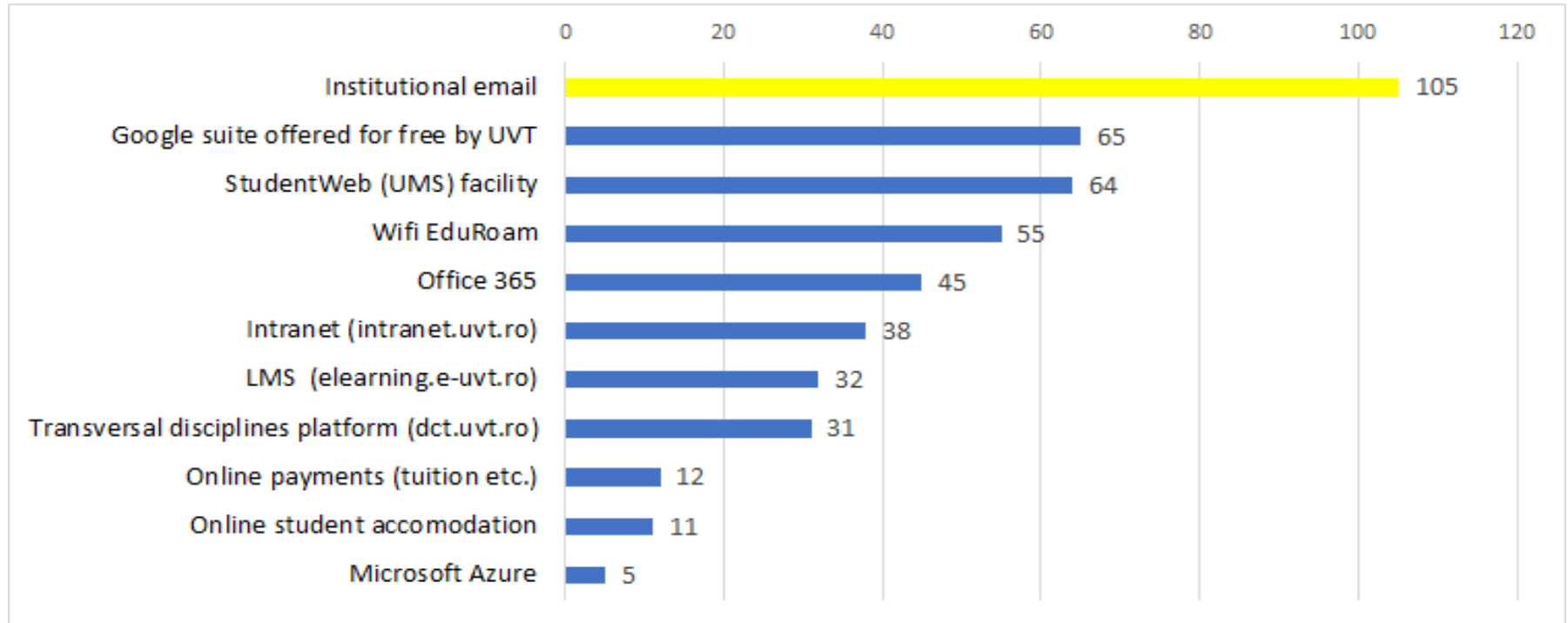
October-November 2019

“ 111 respondents  
(101 BA; 10 Master)

26 male, 80 female, 5 NR

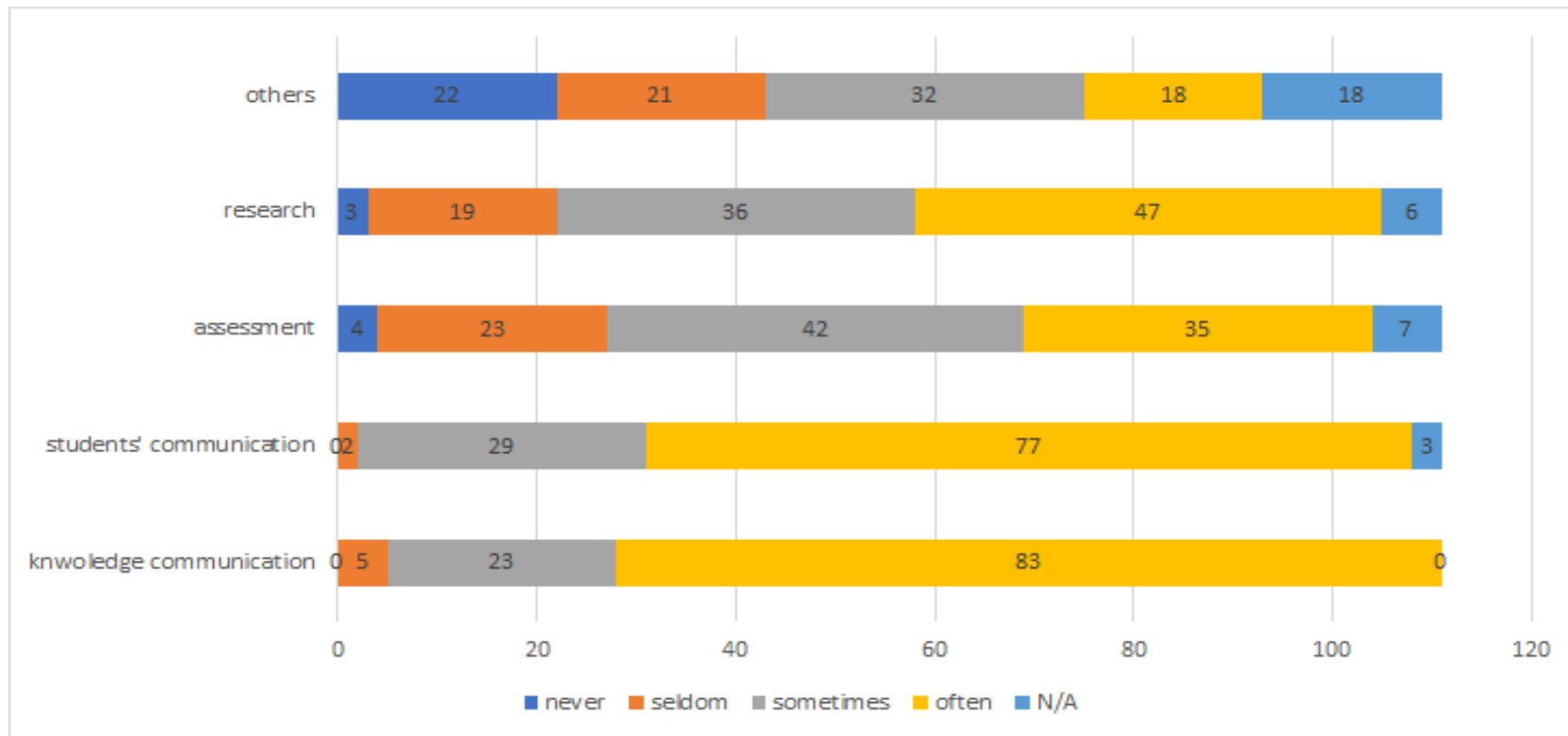
“ 81 Sociology and  
Psychology  
20 Communication

Students are **savvy**, **better connected**, **digital sophisticated**, bring their own digital world expectations to university and **more vocal than ever**



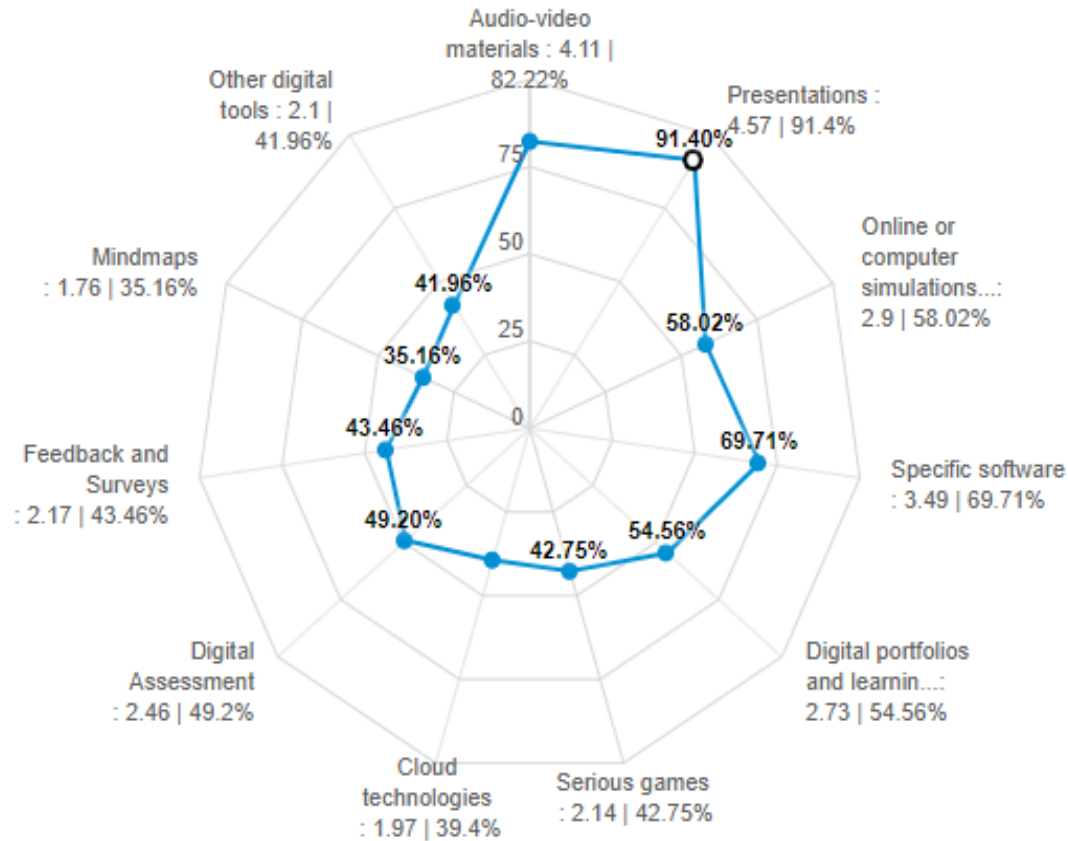
Use of institutional ICT services by students

The **progress** made in introducing technology into education is still **low**



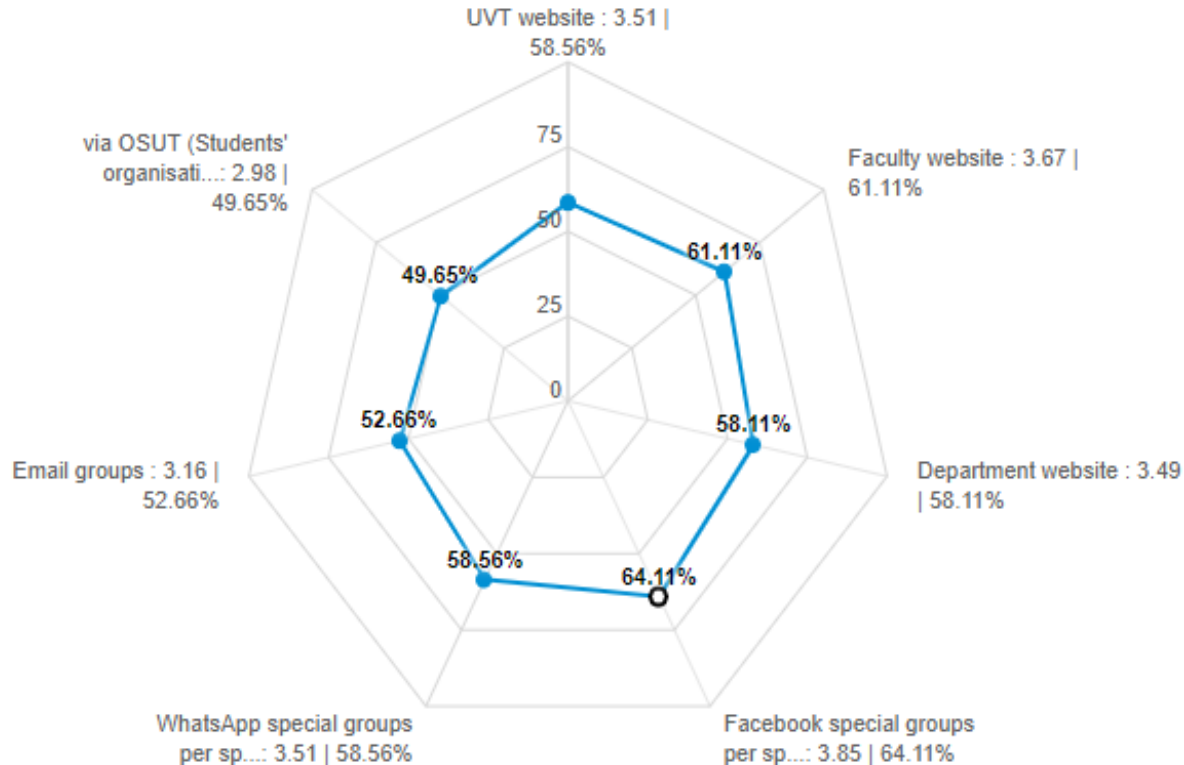
How effectively are teachers integrating digital technologies in their pedagogical practices to enhance student experience?

# Better use of digital technologies in teaching, learning and assessment activities



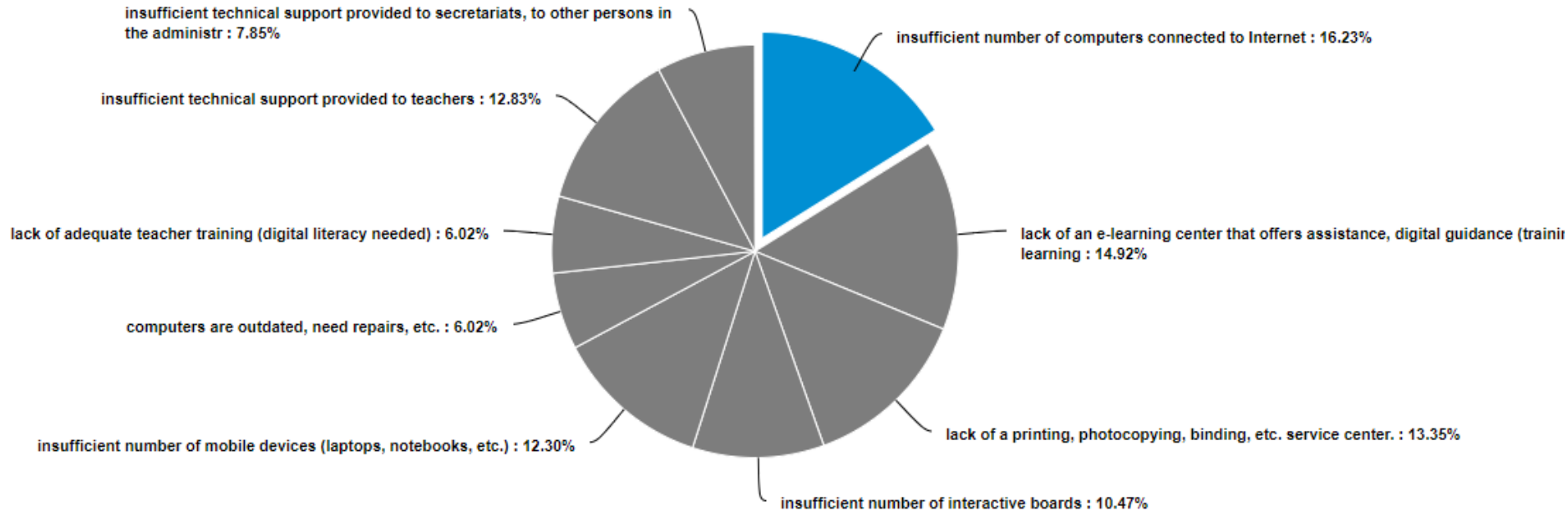
Digital tools and applications used in teaching activities

Students are interested in **certain learning paths** while studying remotely, having **more flexibility** when it comes to their study times



(on a scale from 1 to 5: not at all, slightly, moderately, very, extremely)

# Obstacles hindering the digital transformation of WUT



- new methods of teaching, hybrid teaching models, innovative teaching techniques, personalized learning
- relevant experiences in the educational process
- digital literacy
- an e-learning center
- change by teachers
- a vibrant campus with appropriate digital facilities
- different study spaces, redesigning learning spaces
- data protection, security and confidentiality

# A “paperless” university

- to provide **ease of access to the information systems available** in the WUT (13,25%)
- **integration with industry 4.0**
- to have an **online admission** (12,84%)
- to **simplify the enrolment** (15,79%)
- **soft-skills** practices within the curriculum, **digital assessment** (16%)
- **dedicated apps** (17,6%)
- **secure exchange of student data** and academic results (14,74%)
- to **reduce administrative procedures** (18,84%)
- **ERASMUS students want access** to the services to which the Romanian students are entitled (6%)
- **all-in-one platform on** which all kinds of documents can be accessed (18,01%)
- **other** online students’ services (20,63%): cultural passports, city orientation etc.

# Lessons learned – **DIGITAL STRATEGY**

- Creating a new team structure
- Improvement of existing digital platforms
- Working with industry partners
- Using advanced (learning) analytics
- Exploiting innovations in the field of mobile technology
- Reinforcing cyber security
- Developing a digital policy
- Launch of pilot projects using artificial intelligence
- Leverage cloud technologies
- Increase financial allocations
- Continuing to strengthen a climate of digital culture

# Limits

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- exploratory study
- small set of respondents
- the respondents came mainly from one subject group





# Students and staff

E-Mail

Microsoft  
Azure

Liste e-mail

Contacte  
UVT

Propuneri

QuestionPro

E-Learning

Sesizari IT

ANELIS

StudentWeb

Intranet

Site  
UVT

StudentWeb

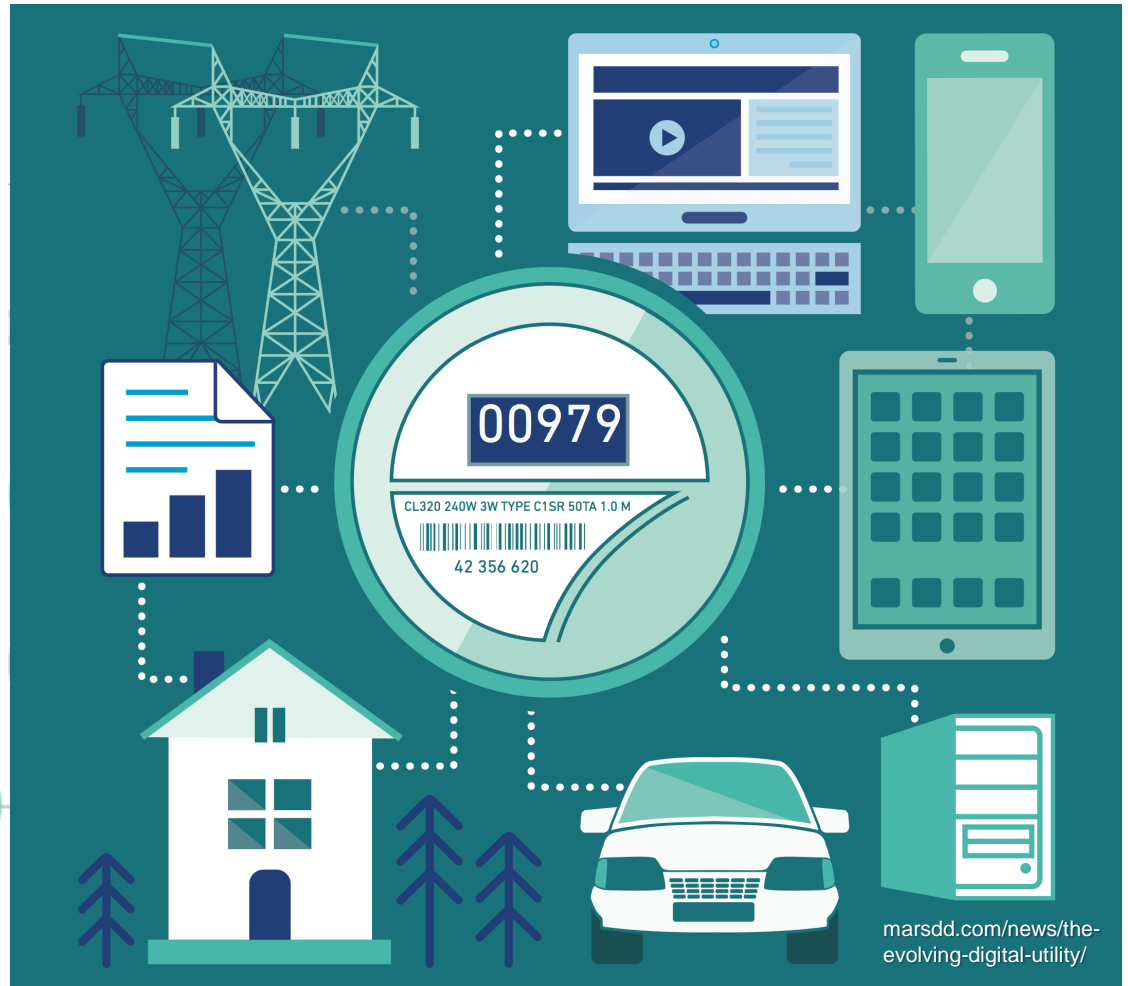
Intranet

# Automating utility controls

IoT Platforms

# Digital payment counters

Advanced Human-Computer Interaction



Mobile Phones

IoT Platforms

GPS

## Lista cladiri din patrimoniul Universitatii de Vest din Timisoara

Sediul central  
Universitatea de Vest  
din Timisoara

BVD. Vasile Parvan nr. 4

Facultatea de Arte si  
Design

Str. Oituz nr. 4, 300086

Facultatea de  
Chimie,Biologie si  
Geografie

Str. Pestalozzi 16A

Facultatea de Drept

Bldv. Eroilor 9A

Facultatea de Muzica si  
Teatru

Piața Libertății nr.1

Sediul Bogdanesti

Calea Bogdăneștilor 69

Facultatea de Economie  
si Administrare a  
Afacerilor

Str. J.H.Pestalozzi, nr. 16

Biobaza

-

Laboratorul Roengen

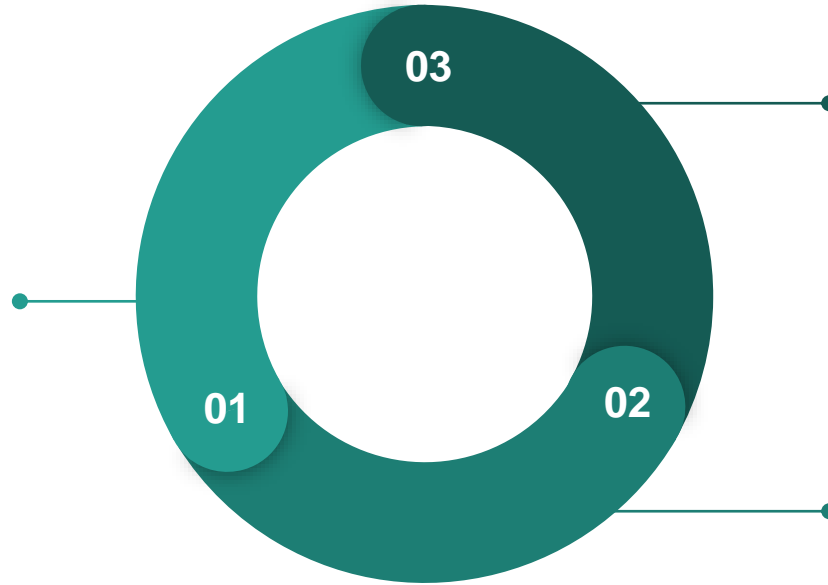
Str. Oituz nr. 2

Ring Bursier

Str. Oituz nr. 4

# The general architecture of the UVT digital ecosystem

**University management systems and unitary and interconnected administrative management systems**, created in up-to-date technologies and using global best practices (eg SAP + efficient databases, **with cloud backup**)



**Electronic file management and archiving**, including digital signature, to streamline response time and ensure traceability.

**A coherent ERP system, designed for efficient planning of resources and processes** in the university, which will work in real time with the mediation of relevant technologies, up to date!

## 1. Platforma comunicatională



### Contacte

Gestionează date despre contactele instituției (alte organizații, instituții, firme sau persoane fizice)



### Reg. Lg. 544/2001 Acces info publice

Gestionează registrul actelor sub incidența legii 544/2001 privind accesul la informațiile de interes public



### Statistici și rapoarte

Generează rapoarte operative, statistici, listări pe baza registrilor de documente



### Reg. electronic I/E

Gestionează registrul electronic de intrare/iesire al instituției (înregistrări, repartizări, rezolvări, expedieri, etc.), precum și circulația documentelor



### Reg. OG 27/2002 Petiții

Gestionează registrul actelor sub incidența OG 27/2002 privind petițiile

## 2. Arhiva



### Arhiva fizică

Gestionează transferul actelor rezolvate în arhiva instituției (cu proces verbal de arhivare, localizare în arhiva fizică, etc.)



ation and  
Detection

3D Printing

Smart Sensors

Augmented Reality  
(Wearable Devices)

ysis of Big Data and  
Advanced Algorithm

Collection

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**WHERE to,  
NEXT?**



# Program managerial

de susținere a candidaturii la funcția de rector  
al Universității de Vest din Timișoara



## OBIECTIVE:

- ▶ asigurarea suportului pentru digitalizarea activității de predare;
- ▶ digitalizarea proceselor gestionate de aparatul administrativ;
- ▶ crearea de platforme suport pentru activitățile de predare, cercetare și raportare a rezultatelor;
- ▶ snriiinirea cercetării proceselor asociate digitali- (social media etc.) și promovarea

## Într-o eră digitală, UVT - smart university



arelor și activităților  
se utilizează produse

denții UVT;

ortare a cercetării;

e" (open science);

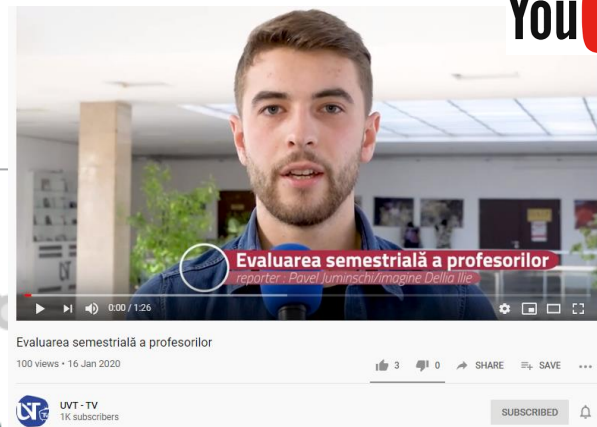
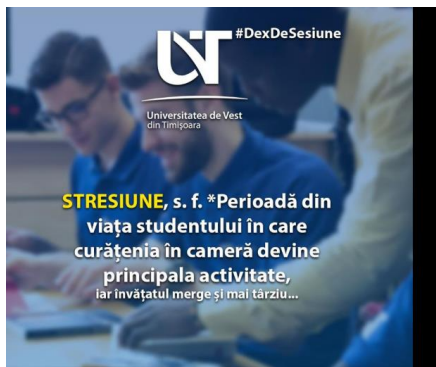
, în timp real, a utili-  
cercetare artistică și

i pentru „date des-

decizii informate, cu  
relevante pentru ma-  
angajabilitate, profil  
relativă în cercetare



Social Media



Numărătoare inversă începe. 🧡 În curând, vom alerga împreună la competiția prin care ducem ideea de libertate mai departe. 🇷🇴

Nu te-ai înscris încă? 🤔

E momentul să îți asiguri un loc. 🧡

[libertymarathon.uvt.ro/events/ma-insc...](https://libertymarathon.uvt.ro/events/ma-insc...) [facebook.com/uvtromania/vid...](https://facebook.com/uvtromania/vid...)



**Thank you  
for your  
attention.**

**Always a step ahead!**  
**Always better!**

