



# DEPARTMENT OF MACRO AND MICROECONOMICS

FACULTY OF MANAGEMENT SCIENCE AND INFORMATICS  
ŽILINSKÁ UNIVERZITA V ŽILINE (UNIVERSITY OF ŽILINA)  
SLOVAKIA

# Content

- University, faculty, department
- Ongoing projects & cooperation
- Focus on:
  - Human capital, human capital management process and Industry 4.0
  - Value management and value creation process
- Current and Future research



# University, faculty, department



## University of Žilina

Establishment: 1 953  
Students: 7 800  
Employees: 1 500  
Teachers: 650  
Faculties: 7



## Faculty of Management Science and Informatics

Establishment: 1 990  
Students: 1 500  
Employees: 140  
Teachers: 101  
Departments: 7



## DEPARTMENTS OF

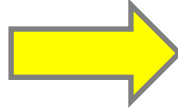
- Informatics
- Information Networks
- Management Theories
- **Macro and Microeconomics**
- Mathematical Methods and Operations Research
- Software Technologies
- Technical Cybernetics





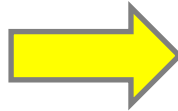
### Study programs Bc.:

- Informatics
- Management
- Computer engineering
- Informatics and management
- Information and network technologies



### Study programs Ing.:

- Computer engineering
- Information management
- Information systems
- Intelligent information systems
- Applied network engineering



### **Subjects:**

- Basic economics,
- Microeconomics, Macroeconomics
- Economic and law aspects of business
- Business economy
- Financial and managerial accounting
- Finance, Financial analysis
- Econometrics, Forecasting
- Tax and budget
- Law ....

# Ongoing projects & cooperation



Coordinator



Participant

**Projects of development and mutual cooperation between various universities and Department of Macro and Microeconomics**

*Cooperation includes:*

- Joint publication activities
- Invited lectures
- Educational exchanges for students
- Organization and participation in video conferences
- Teachers mobility



# Human capital, human capital process and Industry 4.0



## 2 ASPECTS OF EFFECTIVENESS OF HC

1. HC value

Using the HC

Effective using the HC

Expected effects for the enterprise

2. Increasing of HC value  
= investment in the HC

Effective investment  
in the HC

metrics ??

metrics ??

## INDUSTRY 4.0

Industry 4.0 - Technological pillars



Changes in the  
structure and quality  
of human capital

New tools for human  
capital management

# Human capital management process and Industry 4.0



Organization strategy

1. Identifying the key skills and knowledge (key components of HC) for the achieving of KPIs

2. Quantifying the HC value (identifying + designing the metrics)

3. Measuring the HC efficiency in 2 aspects (identifying + designing the metrics)

4. Analysing, assessing and quantifying the impacts on the performance

5. Identifying the shortcomings

6. Taking corrective measures for the increase of the HC efficiency + assessing of them

7. Reporting

Industry 4.0

Industry 4.0

Creation of value for the stakeholders (value management)



# Value management and value creation process



Value management = Management of processes focused on

Products

Uniqueness, quality, innovations, delivery cycle, price

Position on the market

Keeping, increasing market share

Costs

Own product costs, adequate quality, delivery cycle, price, ...

Employees

Support of innovation ability, growth of labour productivity

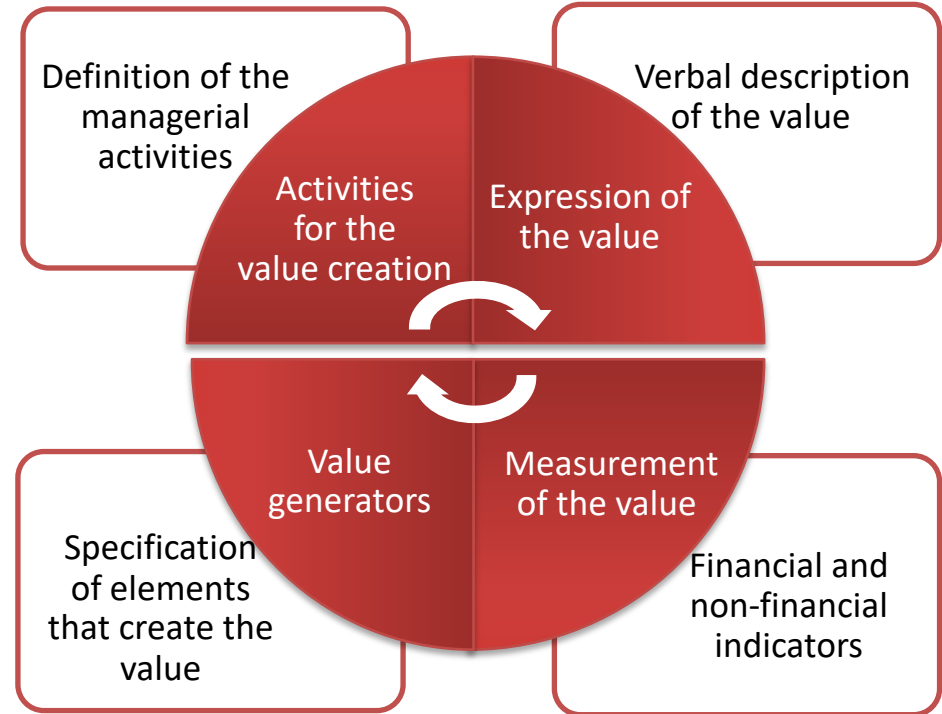
Available resources

Efficient use of material, long-term assets and employees

Expression in the economic results of the enterprise



# Value management and value creation process



## Theoretical basis

EN 1325:2014 Value management – Glossary – Terms and Definitions  
EN 12973:2020 Value management



# Current and Future research

## Value management

Identifying and analysing the value indicators, generators, financial and non-financial metrics, managerial activities in the process of value creation for stakeholders of the company.

## Human capital and Industry 4.0

Identifying and analyzing the impact and links of selected elements of Industry 4.0 on the process of human capital management as a modern concept working with the context of business sustainability and value creation for stakeholders

**We are open to cooperation in the framework of international surveys regarding sustainability, shared economy, circular economy.**





# THANK YOU FOR YOUR ATTENTION



Dana Kušnírová



[dana.kusnirova@fri.uniza.sk](mailto:dana.kusnirova@fri.uniza.sk)