



International Network for
Professional Education
and Research in Process
and Project Management

PMUni

PMUni
International
Conference on
Project
Management

Budapest
Hungary
17 November
2022

PMUNI 2022 WORKSHOP CONFERENCE PAPERS



MISKOLCI
EGYETEM
UNIVERSITY OF MISKOLC

PMUni - International Network for Professional Education and Research in
Process and Project Management
H-1093 Budapest, Fővám tér 8.

PMUni International Conference on Project Management

PMUni 2022 Workshop

Conference papers

Budapest
17 November 2022
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PMUni

INTERNATIONAL NETWORK FOR PROFESSIONAL EDUCATION AND RESEARCH IN
PROCESS AND PROJECT MANAGEMENT

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Conference papers

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PREFACE

Projects and project management has always been important, and the new situation which was created by COVID-19, further increased this. Lockdowns created the need for advanced IT infrastructure which makes employees capable of working remotely, while maintaining a same or at least similar efficiency as it has before. Financial programs were initiated to counter the negative sides of the lockdowns. New and innovative products were needed by customers, which could meet their requirements in those online-heavy environments. Both of them are developed or implemented in the course of projects, thus, their effective management is a considerable success factor on micro and macro level.

PMUni began its operation 15 years ago with the aim of providing a network for those higher education institutions that teach project management, initiate researches in this discipline, or help to improve companies' project management policies. As a result of this network, members can increase the level of education or could find partners for their researches. Most members are from Central-Europe, the organization has partners throughout Europe and overseas. The management of PMUni has always been dedicated to help members propagate their latest results, thus a conference is organized in each year, which could be useful for every member.

This year, the conference was organized by Corvinus University of Budapest. This book contains the slide-shows of the presentations held on 17th November, 2022. The presentations encompassed various topics, like risk management, maturity, innovation, or competencies.

Slideshows of presentations

REASONS FOR NEW PRODUCT DEVELOPMENT FAILURE: THE APPROACH OF THE INEXPERIENCED

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Reasons for new product development failure: the approach of the inexperienced

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Institute of Management Science
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17th November 2022



Reasons for project failure

- accelerated technological changes
- shortened lead times of new products to the market
- company-university collaborations

- Reasons for failure:
 - inappropriate project scope definition,
 - lack of the competencies of project manager and project team



Research design

- Survey among higher education students
 - 80 engineering student
 - 45 business students
 - 31 State science students
- Missing expeerience in NPD

- 12 items evalauted on a 5 -point scale
 - To what extent can the following factors contribute to failure?
- Sporadic significant differences by
 - Gender, study level, study type

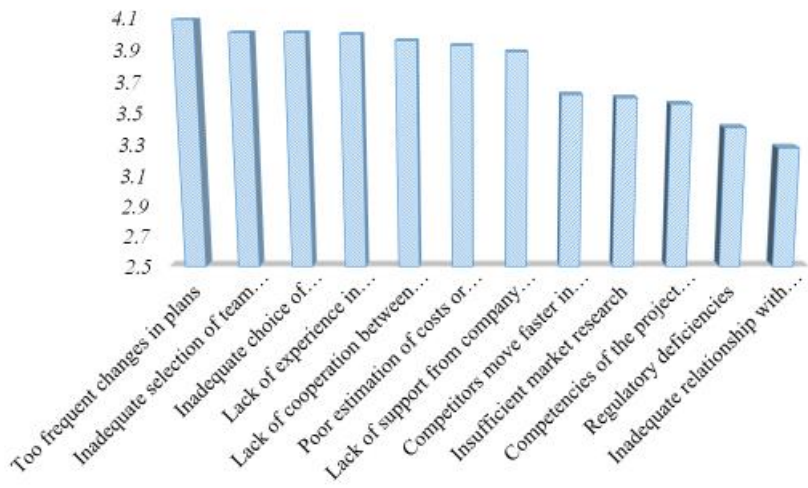


Research design

- Items for evaluation:
 - Too frequent changes in plans,
 - Competitors move faster in development,
 - Lack of experience in development tasks,
 - Poor estimation of costs or deadlines,
 - Lack of support from company management,
 - Competencies of the project management,
 - Regulatory deficiencies,
 - Inadequate selection of team members,
 - Inadequate choice of communication solutions between team members,
 - Lack of cooperation between company management and project team,
 - Inadequate relationship with external partners,
 - Insufficient market research.

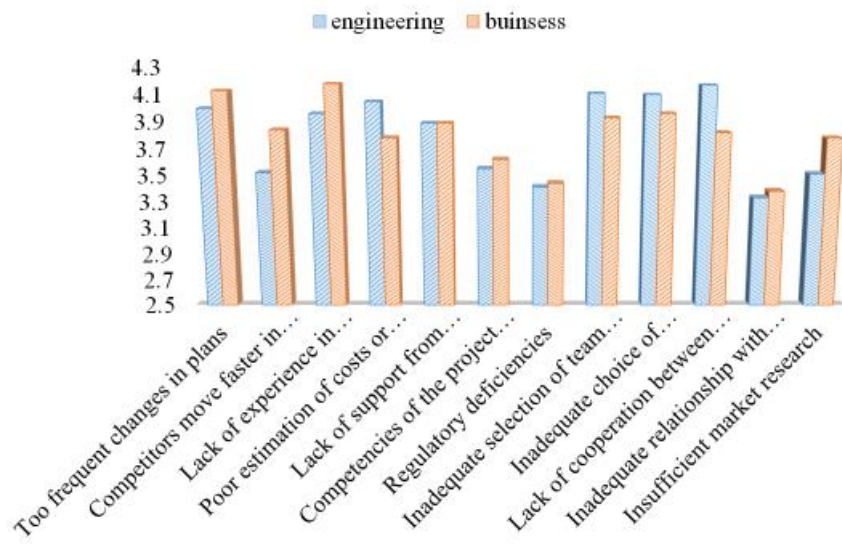


Results





Results





Principal component analysis

	Component	Mean	Rank
Too frequent changes in plans	1	4.09	1
Lack of support from company management	1	3.89	7
Competencies of the project management	1	3.56	10
Inadequate selection of team members	1	4.01	2
Inadequate choice of communication solutions between team members	1	4.01	3
Lack of cooperation between company management and project team	1	3.96	5
Regulatory deficiencies	2	3.41	11
Inadequate relationship with external partners	2	3.28	12
Insufficient market research	2	3.6	9
Competitors move faster in development	3	3.62	8
Lack of experience in development tasks	3	4	4
Poor estimation of costs or deadlines	3	3.93	6

Project management issues

External issues

Competencies



Conclusions

- Limited presentation of the results, but relevant information for course development
- Engineering students:
 - Organization and collaboration emphasized
- Business students:
 - External factors emphasized

- Soft factors generally over-evaluated
- Critical issues show similar results to expert opinions



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**Reasons for new product development failure:
the approach of the inexperienced**

Acknowledgments

The study was conducted as part of the OTKA T139225 project entitled "Management readiness level towards Strategic Technology Management Excellence".

PREFERRED PROJECT MANAGEMENT TEACHING METHODS: STUDENTS' OPINION IN 2022

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PREFERRED PROJECT MANAGEMENT TEACHING METHODS: STUDENTS' OPINION IN 2022



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NIKOLETT DEUTSCH

BACKGROUND

- Research goal:
 - to contribute to a better understanding of the digital change in education boosted by the pandemic and other factors by monitoring the changes in preferred project management teaching methods by the students.
- Analysis method
 - 5-point scale evaluation
 - Pairwise comparison
 - Guilford method
- Focus of the study:
 - Preference in project management teaching methods among business students
 - Data collection period is 2022
- OTKA-support
 - OTKA T139225 "Management readiness level towards Strategic Technology Management Excellence"

RESEARCH SAMPLE

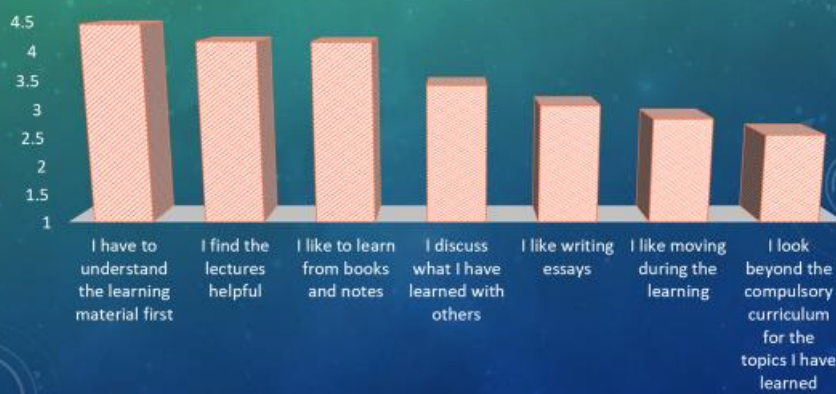
Grouping factor	Option	Number of respondents
Gender	female	49
	male	29
Level of Studies	bachelor	27
	master or post-gradual	51
Type of education	full-time	19
	part-time	59

- The research uses an online survey managed by the EvaSys Survey Automation Software.
- Data processing was supported by IBM SPSS and Microsoft Excel.
- Two questions groups are highlighted for analysis:
 - learning habits and
 - preferred teaching methods.
 - evaluation of the learning habits uses a 5-point scale (1: not typical at all, 5: typical).

SURVEY QUESTIONS

- Learning habits:
 - I like to learn from books and notes,
 - I find the lectures helpful,
 - I look beyond the compulsory curriculum for the topics I have learned,
 - I like writing essays,
 - I like moving during the learning,
 - I have to understand the learning material first
 - I discuss what I have learned with others.
- Evaluation of teaching methods:
 - lectures: listening to lectures,
 - problem-solving: samples, numerical calculations solved during seminars,
 - presentation: individual presentation or mini-lecture of a given topic,
 - case study: solving a case study,
 - simulation: solving simulation tasks or presentations with role-playing

RESULTS: LEARNING HABITS



COMPARISON OF FULL-TIME AND PART-TIME STUDENTS



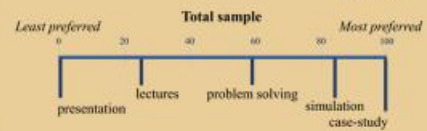
LEARNING HABITS BY GROUPING FACTORS

Significant results highlighted

	total sample	female	male	bachelor	master	full-time	part-time
I like to learn from books and notes	4.14	4.29	3.9	4.07	4.18	4.21	4.12
I find the lectures helpful	4.15	4.04	4.34	3.96	4.25	3.53	4.36
I look beyond the compulsory curriculum for the topics I have learned	2.55	2.59	2.48	2.15	2.76	1.79	2.8
I like writing essays	3.06	3.22	2.79	2.85	3.18	2.68	3.19
I like moving during the learning	2.83	2.67	3.1	2.59	2.96	2.74	2.86
I have to understand the learning material first	4.44	4.51	4.31	4.59	4.35	4.26	4.49
I discuss what I have learned with others	3.41	3.61	3.07	3.56	3.33	3.74	3.31

PAIRWISE COMPARISON MATRIX

2018



	problem-		case				
	lectures	solving	presentation	study	simulation	a	Z
lectures		42	60	25	40	167	70
problem-solving	36		62	34	44	176	76
presentation	18	16		15	13	62	0
case study	53	44	63		53	213	100
simulation	38	34	65	25		162	67

CONCLUSIONS

- Case study is the most preferred method
 - Supports to learn about the unique characteristic of a project
- Presentations are the least accepted methods
- Lectures become relatively more important compared to 2018
 - Covid-19 lockdown impact?
- 68% of the respondents have a clear preference order
 - But: the level of concordance is low (19.4% for respondents with a clear preference order)
- Fluctuating tendencies in the results require the analysis of longer trends



PREFERRED PROJECT MANAGEMENT TEACHING METHODS:
STUDENTS' OPINION IN 2022



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*THE PRESENTATION WAS CONDUCTED AS PART OF THE OTKA T139225 PROJECT ENTITLED
"MANAGEMENT READINESS LEVEL TOWARDS STRATEGIC TECHNOLOGY MANAGEMENT EXCELLENCE".*

PROJECT MATURITY IN HIGHLY INNOVATIVE CONTEXT

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Project Maturity in Highly Innovative Context

PMUni Workshop
Budapest, 2022



The presentation was conducted as part of OTKA 139225 entitled 'Management readiness level towards Strategic Technology Management Excellence'

1

Maturity models I

- Standard methodologies and related processes for achieving project success (Kerzner, 2001)
- 5-point scale is applied usually (Demir & Kocabas, 2010)
- Could be critical for organizations initiating projects (Andersen & Jessen, 2003; Görög, 2016) & increase overall performance (Nenni, Arnone, Boccordelli & Napolitano, 2014).
- Maturity is not enough in itself (Judgev & Thomas, 2002).



Maturity models II

- Focus of evaluation (see e.g. Cooke-Davies & Arzymanov, 2003; Gareis & Huemann, 2007; PMI, 2018):
 - PM & Team
 - Project,
 - Program,
 - Portfolio.
- Two categories:
 - Ladder
 - Spider-web
- Most common is the knowledge-area-based models and Capability Maturity Model based 5-point-scale (cf. Kwak & Ibbs, 2002).

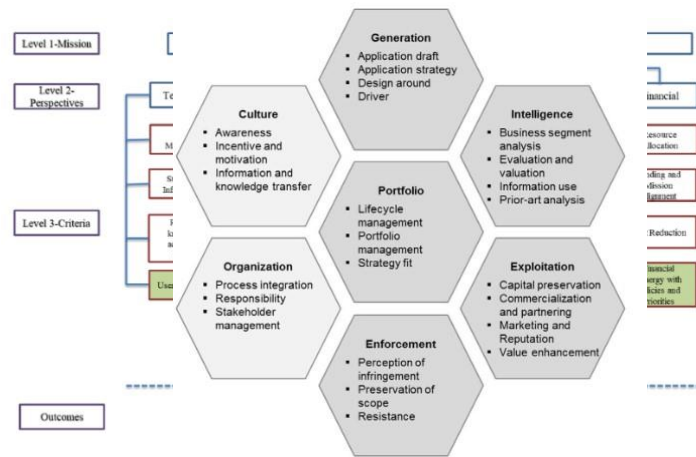


Highly innovative context

- Could be extremely important in this case as well (Moehrle, Walter & Wustmans, 2017)
- Applying the same evaluation for project (see e.g. Santos & Martino, 2020)
- Criteria beyond project management (see e.g. Moehrle et al., 2017)

Source: Cooke-Davies & Arzymanov (2003, p. 474-475)

4



Source: Moehrle et al. (2017, p. 29); Santos & Martino (2020); Shaygan & Daim (in press) 5

Research & methodology

- Research question: Which project management maturity models can be applied in innovative context?
- Context:
 - (Semi-)public sector
 - Analysis of 2 companies initiating numerous relatively innovative projects
- Four key areas from project management perspectives:
 - Role of project management and top management support
 - Maturity of project management processes
 - Support for project managers or top management
 - Recognition of project management

Key findings

Area	Characteristics
Role	Usually proper initiation Not just project, but program and portfolio management as well Top management understands importance
Processes	Professional methodology and processes Project management vs. Operative management
Support	Usually lack of separate organizational unit dedicated to support project (like PMO)
Recognition	Understand importance of project management Trainings & certifications

Conclusions

- The developed project management models are applicable for assessing project management maturity
- Separate evaluation is needed for assessing the project management and the innovative capability of the company, however, the assessment of the processes should be enhanced by the features of the turbulent environment



**Thank you
for your attention!**

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INNOVATION-DRIVEN PROJECTS IN THE ART WORLD – USER EVALUATION OF KINGS OF LEON’S NFT PROJECT

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NFTs in the music industry - user evaluation of innovative solutions

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Management

Introduction

Blockchain technology was born and was the result of a process of innovation. Initially used to operate cryptocurrencies, the technology has now matured and is being used successfully in other areas. This is no different in the arts. To define a work of art, it could be defined as an expression of imagination and skills, embodied in aesthetic objects, environments and experiences (Bakhshi - Throsby, 2009). In recent years, digitisation has also left a significant mark on the arts industry. Artists and businesses have come up with new business models that aim to better match supply and demand by finding new markets and customers (Samdanis, 2016). One direction of this is the shift towards NFTs. NFTs (Non-Fungible Tokens) based on blockchain technology are a new way forward for various art forms and creations (Chohan, 2021). There is no uniform definition of NFTs by regulators and business professionals. NFTs are inherently digital, they cannot be reproduced and they are not interchangeable (Trautman, 2021), but they are certainly innovative solutions.

The essence of NFTs is that they can be used to acquire any artwork, image, video or even a music album that exists in digital form. Thanks to the blockchain technology, the work itself is ours, but anyone can see it, save it for themselves, but we can claim it as our own in terms of ownership. But these solutions are very divisive among members of society. Whoever invents it will make a lot of money from his invention, creating a new playground in the market for those who are interested. All these solutions work as long as supply and demand match. What is considered art in terms of solutions depends on the demand side. As long as there is an intersection of the two sides, these solutions will work, generating more and more ideas. NFTs and other similar, as yet not fully tangible solutions have also given birth to the concept of responsible innovation (Teece, 2018; Stilgoe et.al, 2013). All this means that scientific research and innovative solutions must be done in a spirit of sustainability, based on societal needs. It is essential to innovate in a way that is morally irreproachable and strives to meet societal expectations, while maintaining the ideals of safety and sustainability (Mei - Chen, 2019).

Material and method

The NFT project presented in this paper is ranked 8th on the list of 2021 priority projects published by the Project Management Institute (PMI, 2021). The selected project is the final result of the digitalisation process discussed above, which is also taking place in the music industry, and is evaluated from the perspective of ordinary people as users. There was no prerequisite for inclusion in the sample, neither educational qualifications nor previous project management knowledge, so the questionnaire on which the evaluation is based could be filled in by anyone. Respondents were asked to rate the selected project on the basis of a number of factors related to the scope of the project.

Respondents rated the factors on a scale of 1 to 4, with a value of 1 indicating a very weak factor and a value of 4 indicating a very strong factor. Respondents were then also asked to rate the project overall on a scale of 1 to 5, with 1 being the weakest and 5 the best. Finally, it was also investigated whether there was a correlation between the specific scope characteristic and the overall assessment of the project. The questionnaire was completed by 198 respondents, but only 172 of these responses were fully rated. In the survey, 14 projects were evaluated by respondents, including priority projects in the fields of transport, environment, energy, digitalisation and architecture. 39.5% of the sampled respondents had a tertiary level education, while 60.5% had a secondary level education. 12.2% of respondents are Generation Y, 23.3% are Generation X and 64.5% are Generation Z. The survey was conducted in April and May 2022.

Results

NFTs are a series of codes linked to images, animations, videos, sound files, used to prove authenticity, are digital assets similar to cryptocurrencies, but their volume is much more limited, making them sought after and unique. The mass cancellations of concerts due to the coronavirus epidemic in 2020 have put performers and bands alike in a very difficult situation. The band Kings of Leon was the first major music artist to offer an album in the NFT format in order to survive. The content of the album "When You See Yourself" was released in early 2021, and three tokens were made available to fans from 5 March (PMI, 2021):

- The first was a \$50 token that offered a specially minted album bundle with enhanced media elements, digital download of music and a limited edition vinyl record,
- The second included six elaborate audiovisual art kits, ranging in price from \$95 to \$2,500,
- Finally, the team also created 18 "golden ticket" value tickets, which included four front row tickets to each of Kings of Leon's concerts on current and future tours, plus backstage passes, doorman, chauffeur, and other VIP experiences (six of which were sold, the rest were placed in a vault to be upgraded in price) - \$2m was donated,

Fans are getting used to using the crypto wallets and are ready to exchange and share assets. This is becoming more and more commonplace, which is proving to be the industry's saving grace in this aspect of the industry in similar situations. The success of the initiative is also helped by the fact that for 20 years fans have had nothing to buy, except perhaps a ticket or a T-shirt. So now fans have something to buy in a digital universe that is particularly relevant and attractive to the younger generation.

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Figure 1: The scope of the project
 Source: own research, 2022, N = 172

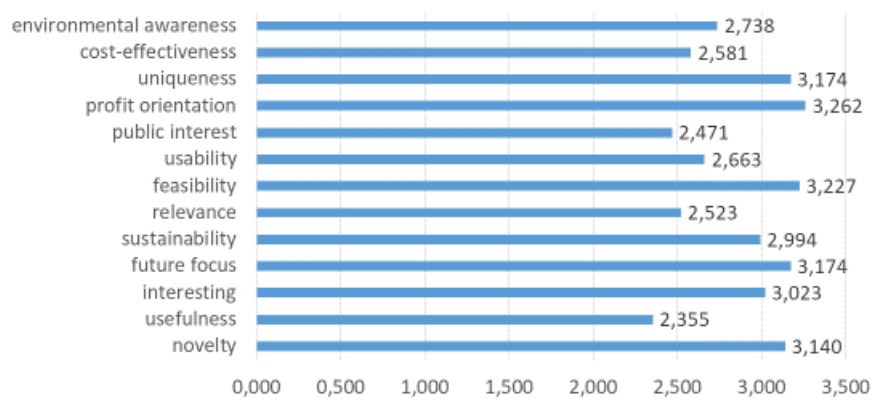


Figure 2: Evaluation of the project scope
 Source: own research, 2022, N = 172

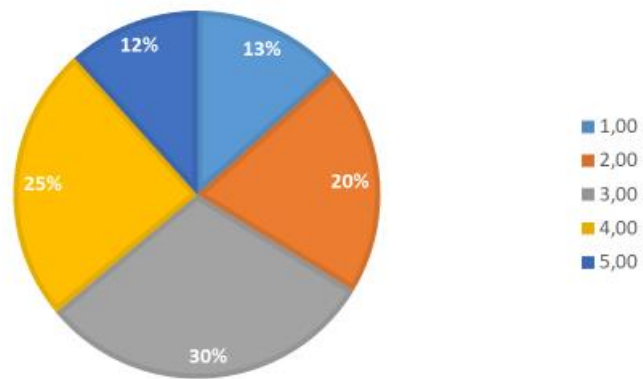


Figure 3: Average project rating
Source: own research, 2022, N = 172

	F	Sig.
novelty	1,933	0,107
usefulness	8,035	0,000
interesting	15,825	0,000
future focus	9,446	0,000
sustainability	8,970	0,000
relevance	1,582	0,181
feasibility	1,880	0,116
usability	9,723	0,000
public interest	3,239	0,014
profit orientation	5,684	0,000
uniqueness	4,126	0,003
cost-effectiveness	7,041	0,000
environmental awareness	1,178	0,322

Table 1: Correlation of scope elements with project evaluation
Source: own research, 2022, N = 172 (method: One-way ANOVA)

Summary

The coronavirus epidemic has brought many new things into our lives, taught us to adapt to unexpected situations and brought a new focus to our lives in many areas. Generation Z, open to cryptocurrencies (Csiszárík-Kocsir et.al, 2022a; 2022b; Garai-Fodor, 2022; Pintér et.al, 2021; Pintér - Bagó, 2021), has been the basis for the value judgement of the project presented here. The results show that its novelty value and uniqueness definitely caught the respondents' attention, they considered it interesting and novel. However, this novel solution, the release of the album in the form of an NFT, still divided the respondents, as the overall evaluation of the project shows. The lessons learnt from the project show that the initiative itself is certainly exemplary, but in many cases society is not yet at a stage where it is properly appreciated in all cases. It was certainly a good and unique solution for the fans, and one of the appropriate responses to the situation was to launch the product. Future similar initiatives could learn a lot from this project, better tailoring it to the users and perfecting it.

Thank you for your kind
attention!

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PMUni 2022 WORKSHOP

Budapest, 17th November, 2022



Future of PMUni - Back to 2007

PMUni Objectives

The objective of PMUni is the promotion of professional education and research in process and project management internationally by ...

- ▶ exchanging experiences between education and research institutions as well as process and project-oriented companies
- ▶ creating cooperation potentials between the partners in education and research
- ▶ performing education quality management projects and research projects

PMUni deals with the topics process and project management, but also programme management and management of the process and project-oriented company.



Future of PMUni

Lao Tzu,
Taoist:

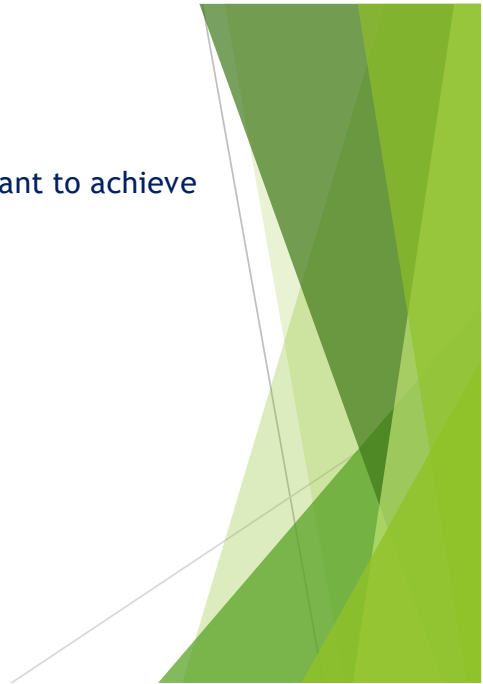
*A journey of a thousand miles
must begin with a single step.*

Future of PMUni

1. WHY? - Why we want to change? What do we want to achieve with the changes?
2. WHAT? - What we can give to PMUNlers? (Services?)
3. WHO? - Who is our target group? (Students, PhD Students, young or experienced teachers, researchers?)
4. WHERE? - Which continents, regions, countries, channels?
5. WHEN? - When do we want to introduce it?
6. WHICH? - Criteria does the innovations have to meet?

Future of PMUni

- ▶ WHY? - Why we want to change? What do we want to achieve with the changes?



Future of PMUni

- ▶ WHAT? - What we can give? Services?



Future of PMUni

- ▶ WHO? - Who is our target group? Students, PhD Students, young or experienced teachers, researchers?



Future of PMUni

- ▶ WHERE? - Which continents, regions, countries, channels?



Future of PMUni

- ▶ WHEN? - When do we want to introduce it (changes, services)?



Future of PMUni

- ▶ WHICH? - Criteria for mesurment



Selection



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Future of PMUni -
Let we create a Developing Assignment for
PMUni!

1. WHY? WHAT? WHO? WHERE? WHEN? WHICH?



Future of PMUni - Activities 2023

- ▶ PMUni Workshop 2023 -
- ▶ Publication?
- ▶ Common articles?
- ▶
- ▶ ...



HIT BACK TO STRESS: TEAM SENSEMAKING AND TEAM RESILIENCE IN YOUTH BASKETBALL

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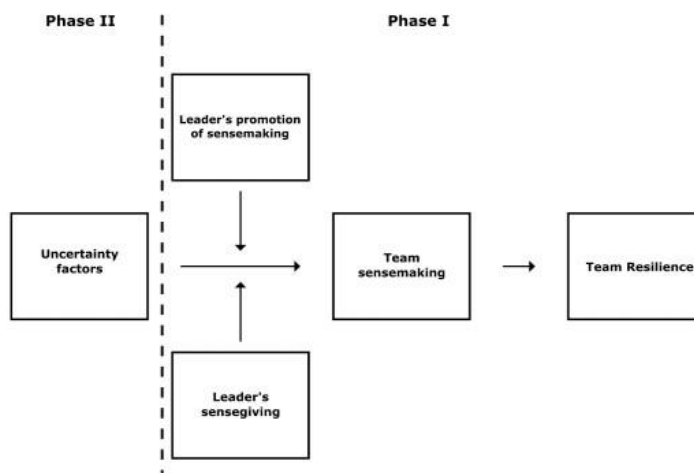
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Hit back to stress: Team Sensemaking and Team Resilience in Youth Basketball

Soma Eötvös BCE Doctoral School of Business and Management
Fanni Cziráky BCE Communication Doctoral School



Main concept



Self developed model - F. Cziráky and S. Eötvös; 2022

Sample and measures

- One U14 Hungarian Boys Basketball Academy Team
- 3 coaches (attack coach and head coach, transition coach, defence coach)
- Surveys and questionnaires (all surveys have been adapted to team or sport context)
 - Leader's sense-giving (based on Morgeson, DeRue, & Kram, 2010; see at Broda, 2017)
 - Leader's promotion of sensemaking (based on Morgeson, DeRue, & Kram, 2010; see at Broda, 2017)
 - Team sensemaking (questions developed by us)
 - Team resilience (based on Sinclair & Wallston, 2014)
 - Perceived team performance (McClelland Leachm, Clegg, McGowan, 2014)
 - Team satisfaction and Leader's perceived team satisfaction (Standifer et al., 2015; see at Broda, 2017)

Leader's sense-giving, Leader's promotion of sensemaking (DeRue, & Kram, 2010)



Leader's sense-giving scale

Cronbach's alpha $\alpha=.733$

Leader's promotion of sensemaking

Cronbach's alpha $\alpha=.603$

Scale	N	D	p	Mean	Std. Deviation	Minimum	Maximum
Leader's sense-giving	20	0,106	0,200	3,742	,683	2,17	4,83
Leader's promotion of sensemaking	20	0,196	0,043	4,185	,575	2,80	4,80

D value based on Kolmogorov -Smirnov test

Perceived Team Performance Membership satisfaction



Perceived Team Performance

Cronbach's alpha $\alpha=.764$

Membership satisfaction

Only one item

Scale	N	D	p	Mean	Std. Deviation	Minimum	Maximum
Perceived Team Performance	20	0,207	0,025	4,533	,438	3,67	5,00
Membership satisfaction	20	0,424	<.001	4,650	,587	3,00	5,00

D value based on Kolmogorov -Smirnov test

Team resilience (based on Sinclair & Wallston, 2014)



- We have decided to follow Talat and Riaz (2020) suggestion of consensus method of data collection
- We have the voice recording and the transcript of the discussion of the members
- A team -level results of the survey

Some examples...

- - "We believe we can grow ways by dealing with difficult situations?
 - Right, this is five. Five. Five.
 - Five.
 - Yes, five.
 - We are being naive about it, but we believe.
 - Right, then."
-
- - "We actively look for ways to get up after a loss Otherwise, these discussions are really like that. And the team talks.
 - Not really.
 - What about the discussion after a lost match in the changing room?
 - What could have we done better, how could have we done better.
 - I think it's 4. Who votes for 4?
 - Four, rather 4.
 - (Noise)
 - Right, let's discuss how it is usually when someone does not care after we lose a game .
 - It happens, that we have lost, and someone starts telling jokes...
 - Yeah, like when later M starts crying.
 - Okay, let's agree, who votes for 4?
 - It depends how we lose.
 - That does not matter.
 - Then I think four."

Team sensemaking

- We have asked them questions about:
 - What happened on the last match?
 - What do you think what led you to win at the end?
 - What are your strength as a team?
 - What are your shortcomings?
 - How is it to make a mistake here?
 - When there is a conflict in the team , what happens?
 - What is your goal?

Findings of team sensemaking

- Positive characteristics:
 - "otherwise, we are **capable**",
 - "being able to win despite we played bad** , proves that we are a good team",
 - "true, we were thriving",
 - "we **get into flow** very often",
 - "perhaps that **we trust each other**",
 - "being a very **good team in defence** , I am proud of that",
 - "we get to the **same understanding** , we discuss **together** who does what and everyone **does the same** "
 - "you **can make a mistake, but** you have to try to make up for it"
- Negative characteristics:
 - "we become **overconfident**",
 - "we let our hair down on Saturday",
 - "we did **not prepare** too much",
 - "bench did **not live together with** the game", (We-narrative, we-ness is key)
 - "having significantly **selfish people** in the team", (We-narrative, we-ness is key)
- Organisational goal: **"firstly, get into the national final, and then win. To have our poster in the Laszlo Gabanyi basketball hall."**, **"Simply to be the best"**



**Thank you for
your attention!**

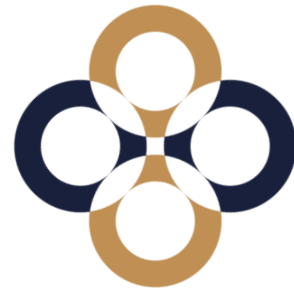
THE EXPERIENCES OF THE INTRODUCTION OF THE RISK MANAGEMENT SYSTEM IN AN ORGANIZATION

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István Fekete: The experiences of the introduction of the risk management system in an organization

PMUni Workshop
Vienna, 2022



The goal of the research

- The goal of the research is to demonstrate how risk management may be used efficiently to support strategic and project level decision-making, if there are no past data available, or not in sufficient quantity.

Theoretical background

- The ISO/IEC 31000: 2018 standard states that the purpose of risk management is value creation and value preservation.
- This purpose may be implemented with the fulfilment of the following principles:
 - Risk management must cover every activity of the given organization
 - The involvement of the concerned parties in appropriate manner and time facilitates the sharing of their knowledge, opinion and intuition
 - Risks may change, new risks may arise or cease to exist as a result of the changes of the environment.
 - Inputs used during the management of risks are based on past information and information available at the time of the assessment or on future expectations
 - Human behavior and its culture fundamentally influence the quality of risk management implemented at the different levels and areas of the organizations
 - Risk management must be continuously improved by processing the experiences and by learning.

Theoretical background (2)

- Connecting the risk management system and the targets of the organization
- Efficiency significantly depends on how well risk management is integrated into the responsible corporate governance of the organizations including the decisionmaking activity.
- The first task associated with risk management is the identification of the factors and sources of risks.
- The next step is the assessment of identified risks for example with qualitative methods. The main goal of the qualitative risk analysis processes is to prioritize risks for example for quantitative further analysis.
- The output of these methods is the list of critical risks which should be treated in any way. There are different options which can be selected

Key messages

- The operation of the risk management system will only be efficient if it is supported by the top management of the given organization.
- The integrated nature of the risk management system must be ensured, which, on the one hand, means that it covers every activity of the given organization .
- It is important that risk assessment must always be performed in the context of the targets .
- The availability of information in appropriate quality and in time for risk assessment must be ensured.
- It is of key importance that risk management actions specified according to the result of the risk assessment must be implemented

Experiences related to the implementation of risk management system in a large company

- The large company is MVM Paksi Atomerőmű Zrt. (MVM Paks Nuclear Power Plant Ltd.), a member of the MVM Group .
- The questions were the following :
 - Why do you deem the establishment of the risk management system important at the organization where you work?
 - What steps have you managed to take during the establishment and what steps will still be necessary in the future?
 - Is the established system in compliance with the contents of the Directives?
 - What are the experiences concerning the operation of the system so far?
 - What should be pointed out to those planning to establish the risk management system to comply with the Directives?

6

Factors supporting the introduction of risk management system according to the results of the research

- Attention must be continuously called to this: the first and outstanding factor is the support of the top management.
- Implementation may be significantly facilitated by the close cooperation of compliance, internal audit, and integrated risk management.
- Furthermore, it is important to mention that the established system must be really integrated
- It may help the implementation significantly if a procedure clear to everyone and a methodology facilitating its implementation and easy to use in practice are elaborated.
- Easy learning of the contents of the methodology description by the persons performing the risk assessment and management must be ensured

Factors supporting the introduction of risk management system according to the results of the research(2)

- No system implementation may be efficient if it is not supported by the staff affected by the process.
- Another supporting factor may be the implementation of a motivation system covering every manager and subordinate staff member participating in the establishment and operation of the risk management system, guaranteeing the successful implementation .
- The provision of IT tools to facilitate the operation of the risk management system may also be mentioned among the supporting factors.

Factors hindering the introduction of risk management system according to the results of the research

- The conclusion may be drawn that the added value represented by the implementation of a formalized risk management procedure is not clear, either, for the managers or the subordinates.
- There are only a few managers who know the result of risk assessment may directly be built in the decision -making process .
- There are only a few managers who know the result of risk assessment may directly be built in the decision -making process .
- There is no higher education training in Hungary, the expressed purpose of which is the training of risk managers .

Factors hindering the introduction of risk management system according to the results of the research(2)

- The number of companies offering risk management advice to potential customers in good professional quality is also low in Hungary.
- The number of IT tools to be used by the potential users to perform professional risk assessment, to monitor the implementation of risk management actions and to back test their efficiency is limited in Hungary.
- The readiness and willingness of Hungarian organizations to require risk assessment and risk management performed at a professionally higher level according to the approach presented in the ISO 31000: 2018 Standard.

Suggestions

- It is worth considering the establishment of professional forums that would be suitable for the presentation of best practices and for the risk management experts to share their experiences.
- By presenting the good practices, every decision -maker must be encouraged to view risk management not as an administrative task, but as an opportunity to receive help for successfully performing the work in the long run.
- It may be helpful to practicing experts to avoid the detection, evaluation and management of risks becoming administrative tasks. They must instead contribute to the long -term successful operation of the using organization.

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**Thank you
for your attention!**

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THE ROLE OF PERSONALITY TYPES IN SOFTWARE PROJECT PLANNING

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The role of personality types in software project planning



Peter Harta

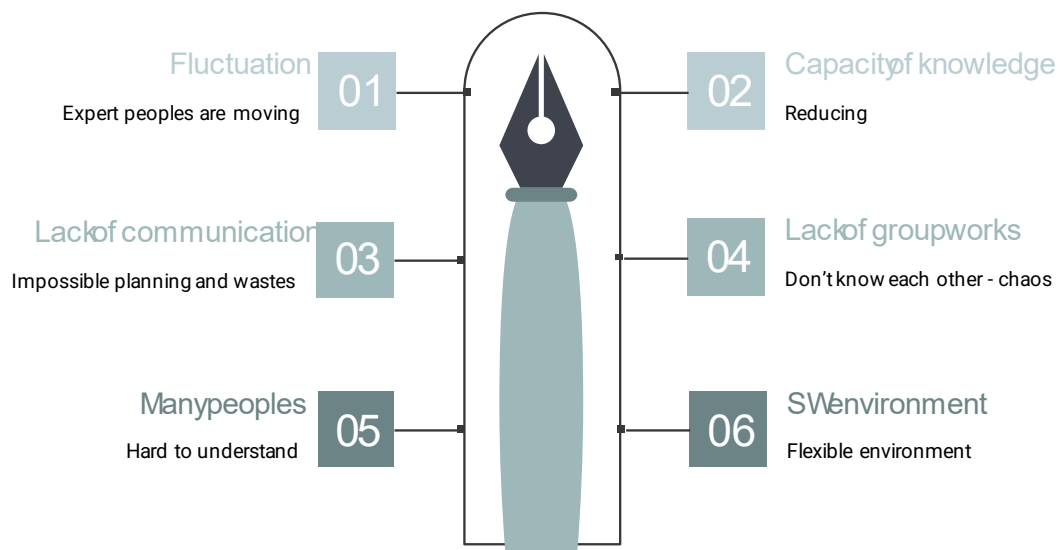
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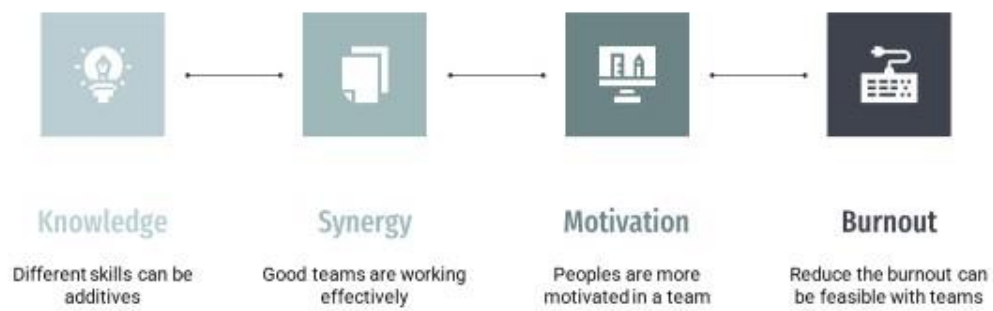


Motivation

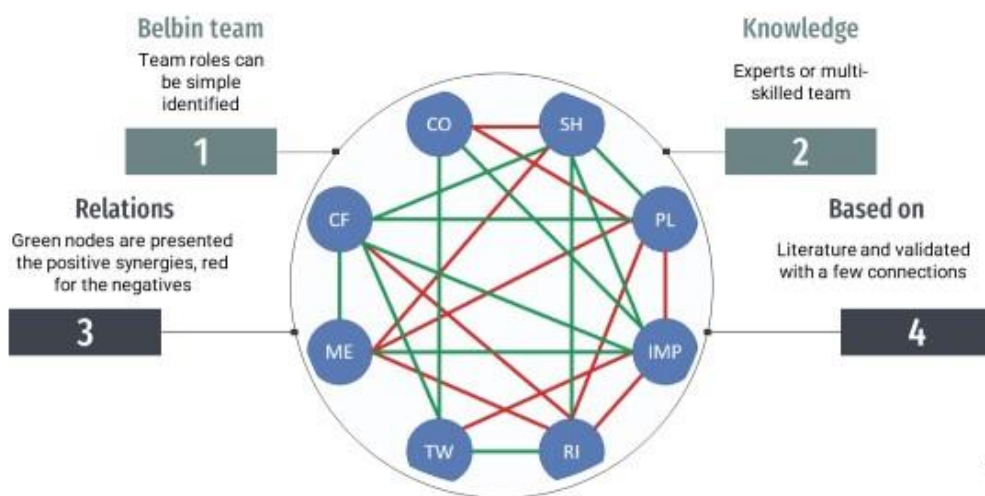


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Team benefits

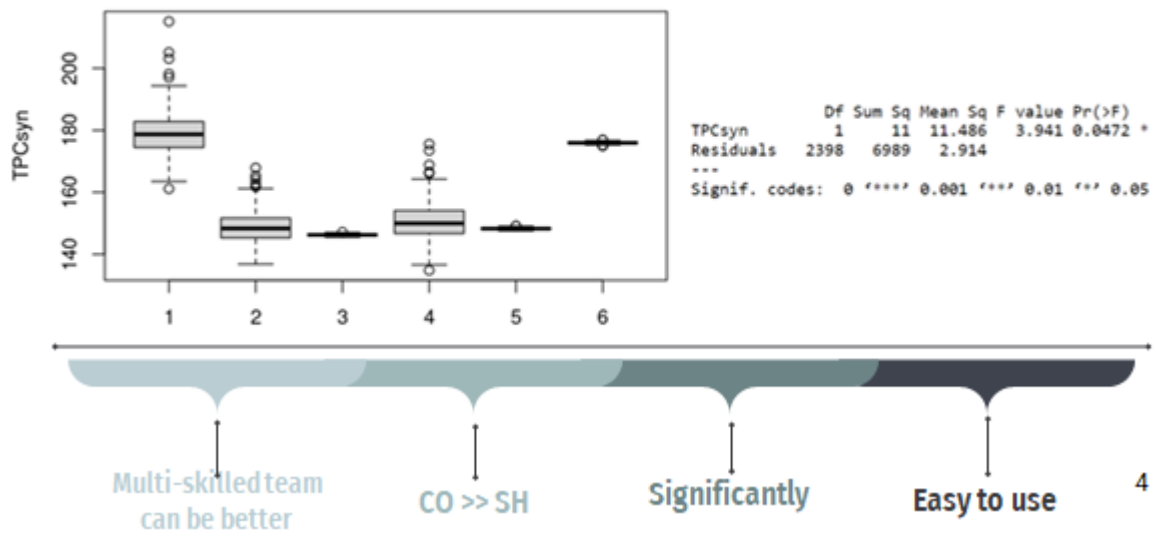


Synergy structure idea III.



3

Results and benefits



Future researching ideas



5

Thank you for your attention!



THE IMPLICIT ACCEPTANCE AND ITS PITFALLS IN PROJECTS

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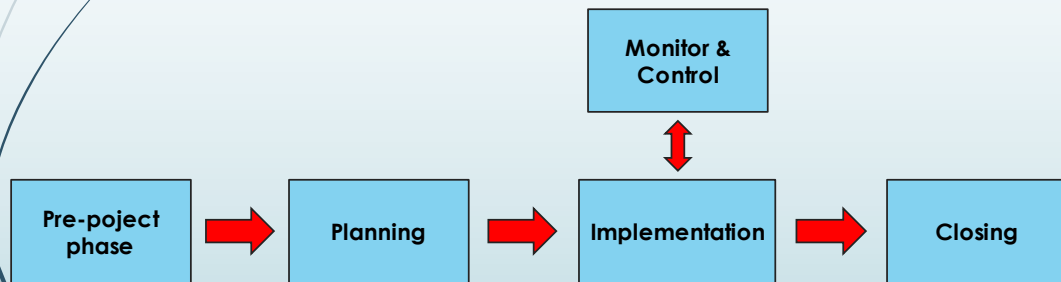
The implicit acceptance and its pitfalls in projects

A specialty legal term

dr. Zsombor Kádár

The location of the implicit acceptance in projects

- Projects should have a result orientation, i.e. projects always create something and delivering it could be at least as important as the constraints.
- Projects should be derived directly or indirectly from corporate strategy.
- Projects are always carried out in the course of a project organization .



First part – The definition

- ▶ Hungary contract law is regulated by the Civil Code (in Hungarian Ptk.).



- ▶ "A legal declaration can be made in words, in writing and **in implicit acceptance**." – Ptk. 6:4. § (2)
- ▶ "If the party expresses its legal declaration **with implicit acceptance**, the making of the legal declaration is deemed to be evidence of **implicit acceptance**." – Ptk. 6:4. § (3)

First part – the definition



- ▶ The concept is made by the Supreme Court. The Supreme Court's single decisions and verdicts fill it with content.

"If the other party must clearly recognize the contractual intention from some behaviour, then we are talking about implicit acceptance."

First part – the definition

The most important things:

"behaviour"



"clearly recognizable"



Second part – How does it work in practice?

Let's look an example!

Speed Lp.



Original bid with low price

Answer with additions

Bid with higher price

Answer with different opinion

Bid with higher price

Accepted the performance

Implicit acceptance

YOU

Second part – How does it work in practice?

- **The behaviour:** The one of the contracting parties begins the work
The other contracting party has accepts the finished performance



- *Can we clearly recognize the contractual intention from some behavior?*

Third part – Common mistakes

- ▶ I haven't said neither yes nor no.



YES



NO

- ▶ We are old business partners, we can talk about later.

Third part – Common mistakes

- We didn't even put the conditions in writing, so it doesn't apply.



- I didn't recognize any contractual will. Why should understand the law so good?



The research questions

- ▶ What are those mechanism that help or hinder the acceptance of the project from legal perspective?
- ▶ What are those key documents and their content that help or hinder the acceptance of the project?

Planned methodology:

1. Secondary data: project documentation (legal)
2. Primary (if needed): interview with key informants



Thank you for your
attention!

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COMPARING RISKS OF EU-FUNDED PROJECT PORTFOLIOS

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Comparing risks of EU-funded project portfolios

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Tibor Csizmadia¹ – Kurt Kuppens² – Andreas Nachbagauer³

11/17/2022

Agenda



European Union's R&D&I strategy

The Seventh Framework Programme (FP7) 2007-2013

The Eighth Framework Programme (FP8,H2020) 2014-2020

Goals

Multilevel project management

Structure conversion

Distances and similarities

Cluster memberships

Prepositions

Results

Structures

Tradeoffs

FP7 vs. H2020

Further researches - Structure prediction

Summary and Conclusions

European Union's R&D&I strategy



- ▶ The European Union launched its First Framework Programme in 1984
 - ▶ Aims: coordinating R&D activities and promote cross-border research collaboration

European Union's R&D&I strategy



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 - ▶ Aims: coordinating R&D activities and promote cross-border research collaboration
- ▶ Lisbon European Council in 2000: establishing a European Research Area
 - ▶ Preparing for a transition to a knowledge-based economy
 - ▶ Achieving sustainable economic growth
 - ▶ Research activities at national and Union level must be integrated and coordinated
 - ▶ Developing mechanisms for networking national and joint research programmes

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 - ▶ Preparing for a transition to a knowledge-based economy
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 - ▶ Research activities at national and Union level must be integrated and coordinated
 - ▶ Developing mechanisms for networking national and joint research programmes
- ▶ Since 1984, the EU has launched 8 Framework Programmes (several projects in H2020 is still running)

European Union's R&D&I strategy

The Seventh Framework Programme (FP7) 2007-2013



- ▶ Promoting scientific excellence and strengthening EU's competitiveness

European Union's R&D&I strategy

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- ▶ Supporting transnational collaborative research and investigator-driven research

European Union's R&D&I strategy

The Seventh Framework Programme (FP7) 2007-2013



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- ▶ Supporting transnational collaborative research and investigator-driven research
- ▶ Specific focusing on career development of individual researchers, their training and mobility

European Union's R&D&I strategy

The Seventh Framework Programme (FP7) 2007-2013



- ▶ Promoting scientific excellence and strengthening EU's competitiveness
- ▶ Supporting transnational collaborative research and investigator-driven research
- ▶ Specific focusing on career development of individual researchers, their training and mobility
- ▶ 4+1 main area
 - ▶ Cooperation: 28,7 billion euro
 - ▶ Promoting collaborative research
 - ▶ Ideas: 7,7 billion euro
 - ▶ Promoting "frontier research" on the basis of scientific excellence
 - ▶ People: 4,8 billion euro
 - ▶ Supporting researchers' mobility
 - ▶ Capacities: 3,8 billion euro
 - ▶ Strengthening research capacities
 - ▶ +1 Nuclear Research

European Union's R&D&I strategy

The Eighth Framework Programme (FP8,H2020) 2014-2020



- ▶ Horizon 2020 aims to strengthen the competitiveness of “excellent science”, “industrial leadership”, and “social challenges”.

European Union's R&D&I strategy

The Eighth Framework Programme (FP8,H2020) 2014-2020



- ▶ Horizon 2020 aims to strengthen the competitiveness of “excellent science”, “industrial leadership”, and “social challenges”.
- ▶ It provides specific strategic objectives for each field.

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- ▶ Horizon 2020 aims to strengthen the competitiveness of “excellent science”, “industrial leadership”, and “social challenges”.
- ▶ It provides specific strategic objectives for each field.
- ▶ It aims to invest in R & D for the sustainable development of science and technology in the EU.

European Union's R&D&I strategy

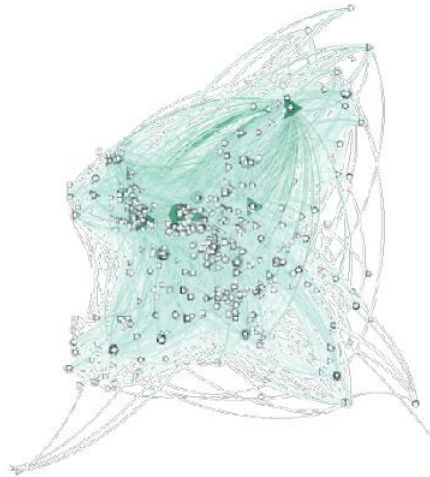
The Eighth Framework Programme (FP8,H2020) 2014-2020



- ▶ Horizon 2020 aims to strengthen the competitiveness of “excellent science”, “industrial leadership”, and “social challenges”.
- ▶ It provides specific strategic objectives for each field.
- ▶ It aims to invest in R & D for the sustainable development of science and technology in the EU.
- ▶ 3 main area
 - ▶ Excellent science: 24,5 millions of euro
 - ▶ Encourage high quality research in Europe through competitive funding
 - ▶ Industrial leadership: 17,9 millions of euro
 - ▶ Developing European industrial capabilities
 - ▶ Social challenges: 31,7 millions of euro
 - ▶ Helping address major concerns shared by all Europeans

Goal of the research

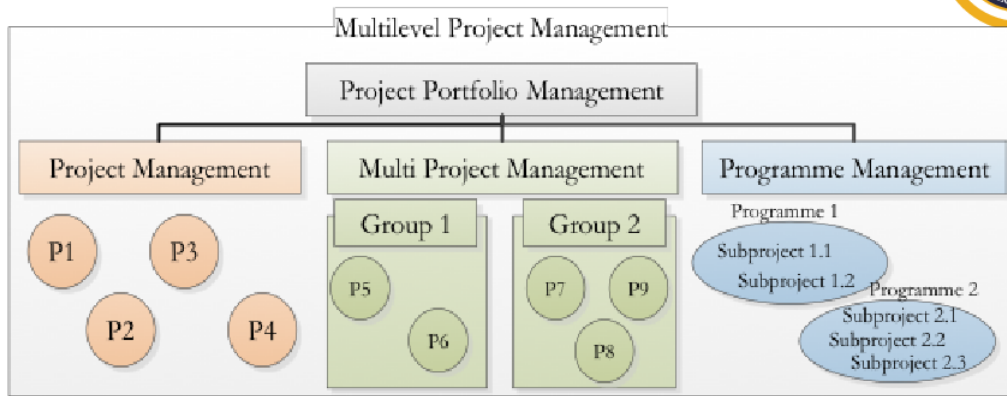
collaboration network \Rightarrow project portfolio



Collaboration network \Rightarrow project portfolio

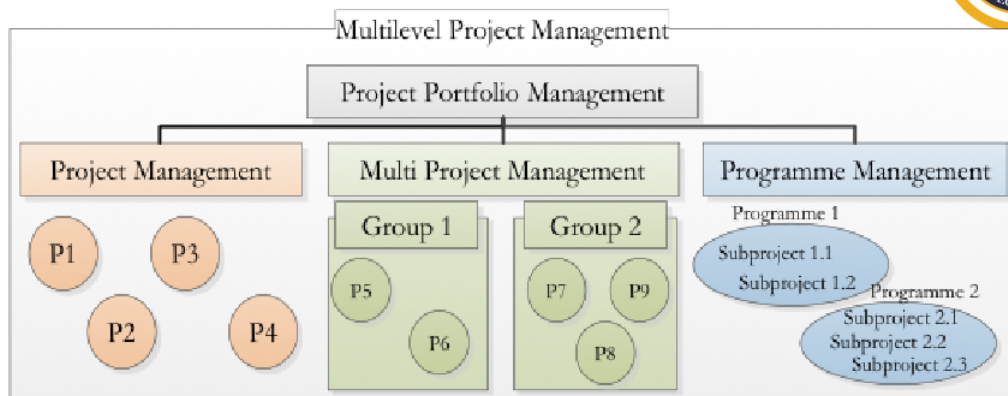
Multilevel project management

Single projects, Programmes, Multiprojects



Multilevel project management

Single projects, Programmes, Multiprojects



Single projects

- ▶ No interdependencies
- ▶ No common resources

Multiprojects:

- ▶ No interdependencies, BUT
- ▶ Common resources

Programmes:

- ▶ Interdependencies between projects

Multilevel project management

Pros vs cons



Single project (Hans et al., 2007; Dahlgren and Söderlund, 2010)

Pros

- ▶ Independent from other projects ⇒ No risk spread

Cons

- ▶ Smaller added value (as proxy: publication output)

Multilevel project management

Pros vs cons



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Programme (Iamratanakul et al., 2008)

Pros

- ▶ Interdependencies ⇒ more added values

Cons

- ▶ Interdependencies ⇒ risk of delays

Multilevel project management

Pros vs cons



Single project (Hans et al., 2007; Dahlgren and Söderlund, 2010)

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Programme (Iamratanakul et al., 2008)

Pros

- ▶ Interdependencies ⇒ more added values

Cons

- ▶ Interdependencies ⇒ risk of delays

Multiproject (Azimian et al., 2013; Hans et al., 2007)

Pros

- ▶ Common resources ⇒ more effective budgeting

Cons

- ▶ Common resources ⇒ risk of delays

Structure conversion

Distances



1. **Distance of overlapping in duration (d_t).** Denote $t(p_i)$ as the time interval of project p_i .

$$d_t(p_i, p_j) = 1 - \frac{t(p_i) \cap t(p_j)}{t(p_i) \cup t(p_j)}, d_t(p_i, p_j) \in [0, 1]. \quad (1)$$

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2. **Distance of ownership (d_o).** Denote $o(p_i)$ as the set of organizations dealing with project p_i

$$d_o(p_i, p_j) = 1 - \frac{o(p_i) \cap o(p_j)}{o(p_i) \cup o(p_j)}, d_o(p_i, p_j) \in [0, 1]. \quad (2)$$

Structure conversion

Distances



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3. **Distance of the context (d_x).** Denote $desc(p_i)$ as the description of p_i and $y(p_i)$ as the type of the subprogram of project p_i . Denote $\cos(T, \tau)$ as the cosine similarity of text T and text τ .

$$d_y(p_i, p_j) = \begin{cases} 0, & \text{if } y(p_i) = y(p_j) \\ 1, & \text{if } y(p_i) \neq y(p_j) \end{cases} \quad (3)$$

$$d_x(p_i, p_j) = \cos(descr(p_i), descr(p_j)) \quad (4)$$

$$d_{xy}(p_i, p_j) = d_x(p_i, p_j) \cdot d_y(p_i, p_j) \quad (5)$$

Structure conversion

Cluster memberships



1. Membership of multi-project: (Milošević and Patanakul, 2002)

$$\mathcal{M}_m(p_i) = \max_j \{(1 - d_t(p_i, p_j)) \cdot (1 - d_o(p_i, p_j)) \cdot (1 - d_y(p_i, p_j))\} \quad (6)$$

Structure conversion

Cluster memberships



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2. Membership of programmes: (Mikkola, 2001)

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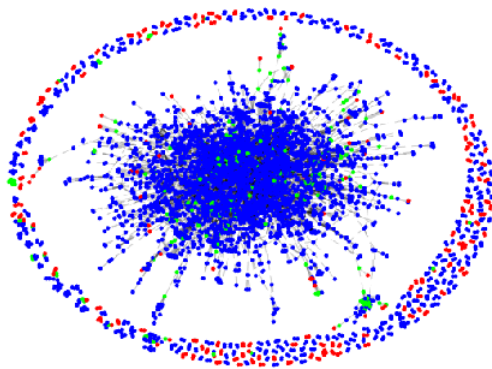
3. Membership of single project: (Milošević et al., 2009)

$$\mathcal{M}_s(p_i) = 1 - \max \{\mathcal{M}_m(p_i), \mathcal{M}_p(p_i)\} \quad (8)$$

Results of structure conversation



Programs + Multi-projects +
Multi-projects&Programs

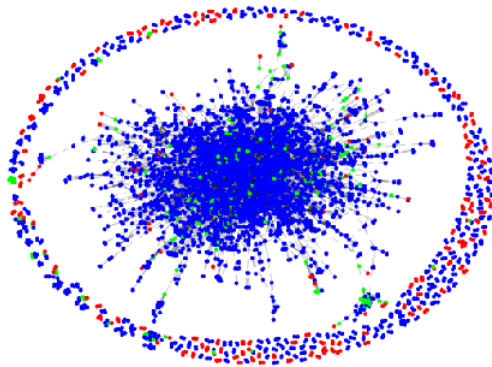


Structure of the multi-projects and programs in EU FP7 projects (links mean common resources in case of multiprojects and dependencies in the case of programs)

Results of structure conversation

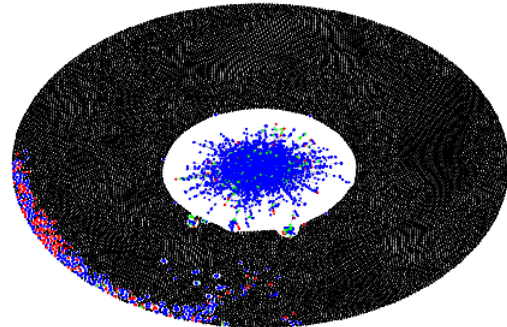


Programs + Multi-projects +
Multi-projects&Programs



Structure of the multi-projects and programs in EU FP7 projects (links mean common resources in case of multiprojects and dependencies in the case of programs)

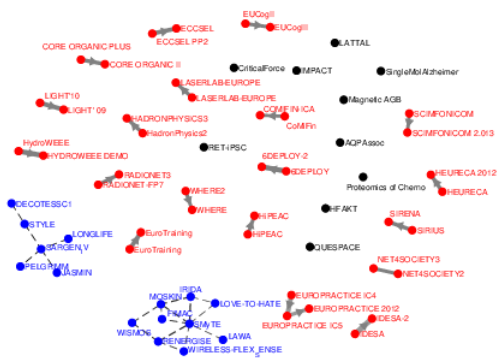
Single projects + Programs +
Multi-projects +
Multi-projects&Programs



Entire structure of the multi-projects and programs in EU FP7 projects including single projects (links mean common resources in case of multiprojects and dependencies in the case of programs)

Results of structure conversation

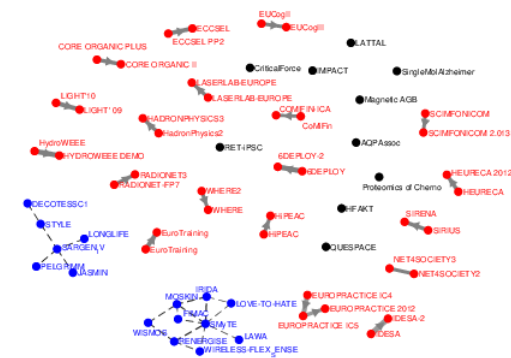
Validation



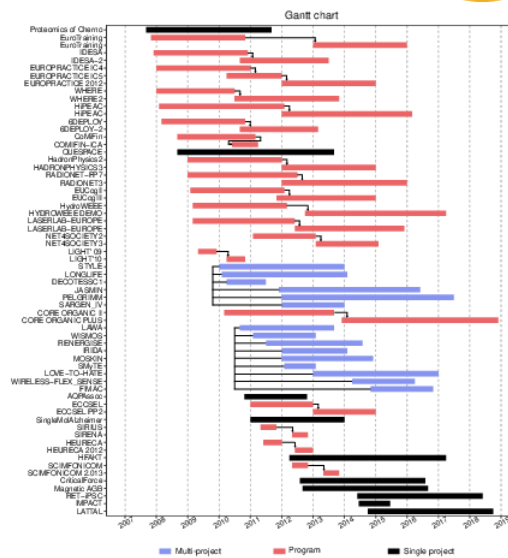
Network structure of projects as a sample from CORDIS FP7 database

Results of structure conversation

Validation



Network structure of projects as a sample from CORDIS FP7 database



Schedule of projects as sample from CORDIS FP7 database

Prepositions



1. Mean of membership values of single projects / multi-projects / programmes \sim number of single projects/multi-projects / programmes

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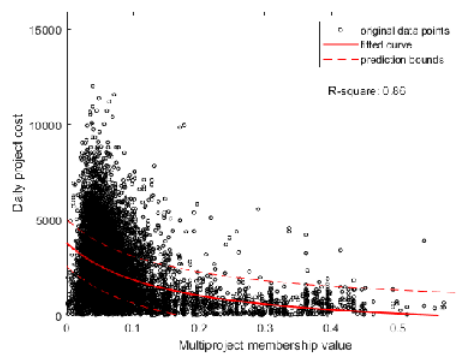
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3. If number of programmes $\nearrow \Rightarrow$ duration \nearrow , but publication output \nearrow
 \Rightarrow Estimation of the time-publication output curves for the growing number of programmes.

Results - FP7

Time-cost tradeoffs



Cost demands vs. membership of multi-projects

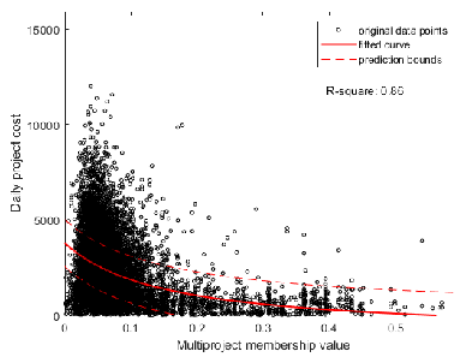


Results - FP7

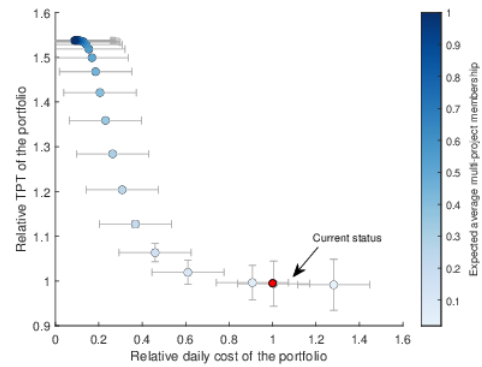
Time-cost tradeoffs



Cost demands vs. membership of multi-projects



What happened, if the rate of multiprojects is changed

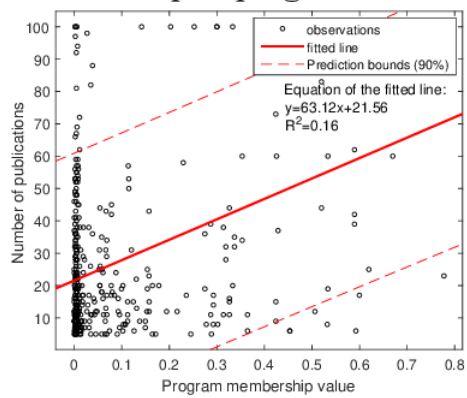


Results - FP7

Time-publication tradeoffs



Publication outputs vs. membership of programs

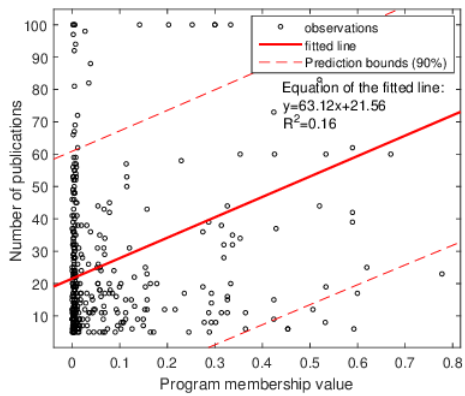


Results - FP7

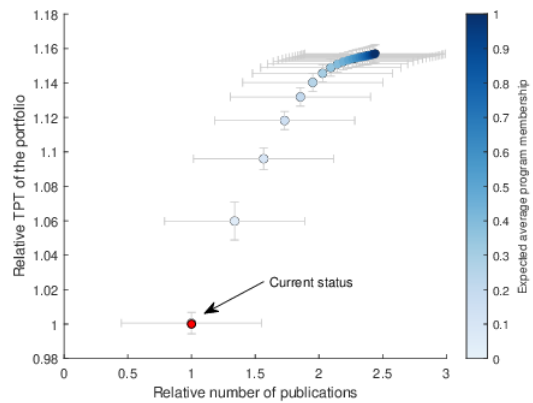
Time-publication tradeoffs



Publication outputs vs. membership of programs

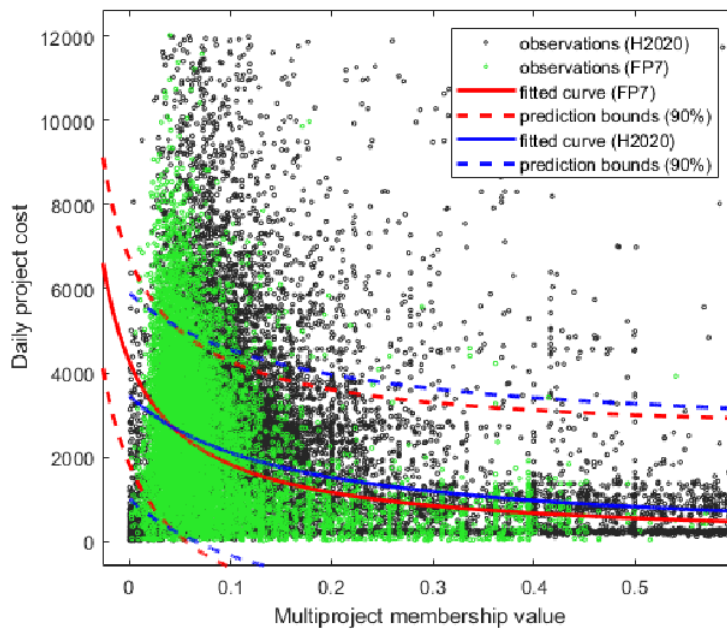


What happened, if the rate of programs is changed



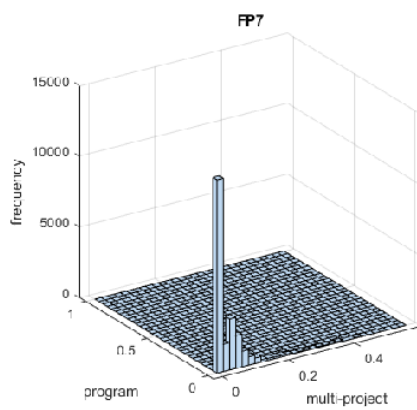
FP7 vs. H2020

Time-cost tradeoffs



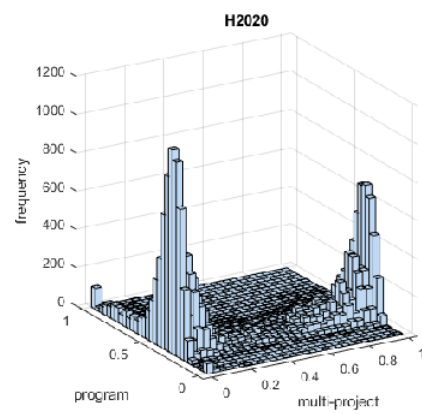
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Distribution of memberships



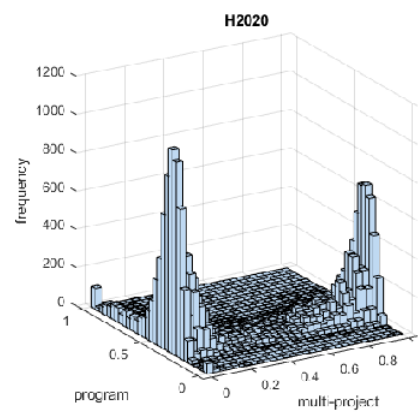
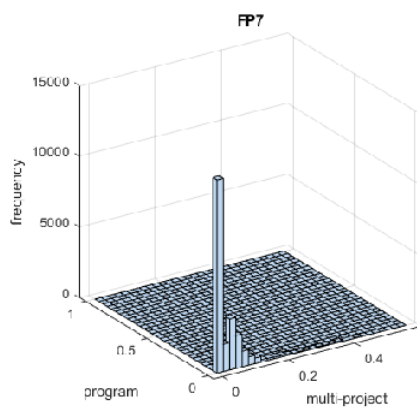
FP7 vs. H2020

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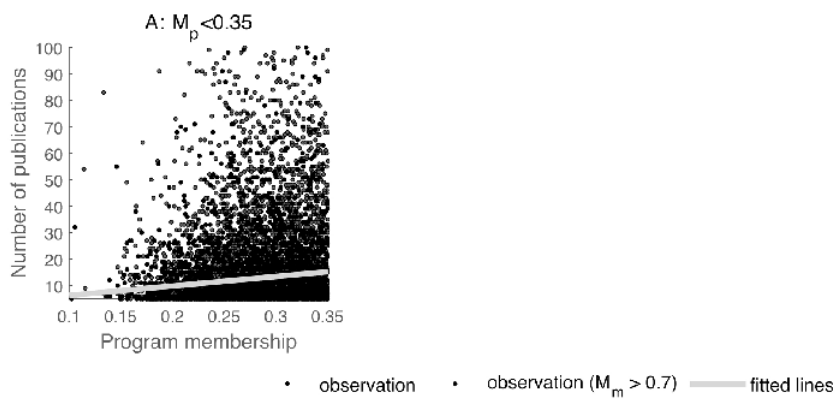
FP7 vs. H2020

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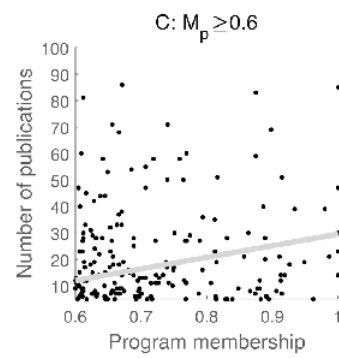
H2020

Program memberships and number of publications



H2020

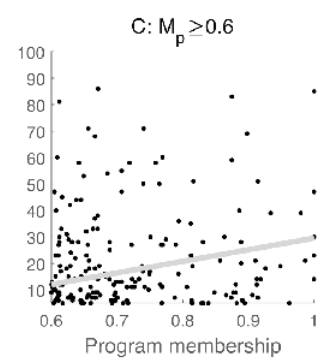
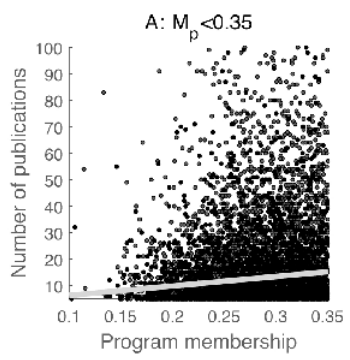
Program memberships and number of publications



- observation
- observation ($M_m > 0.7$)
- fitted lines

H2020

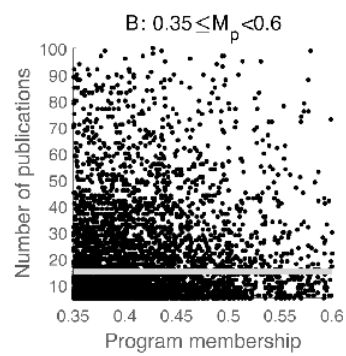
Program memberships and number of publications



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H2020

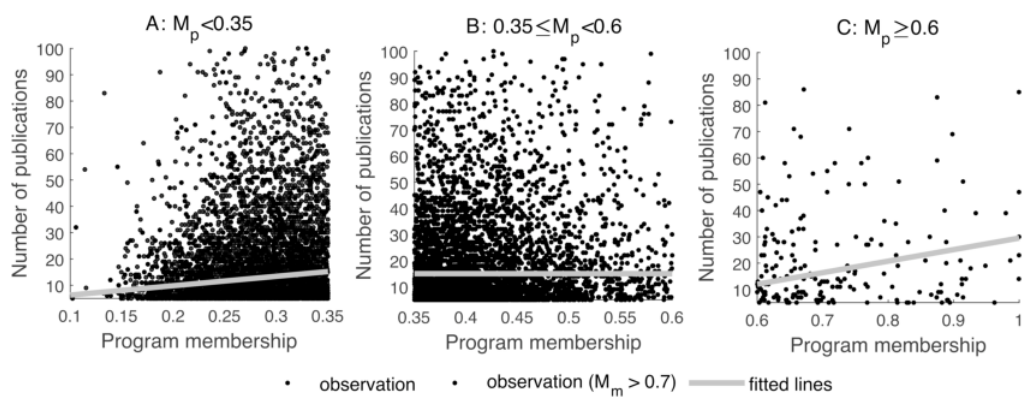
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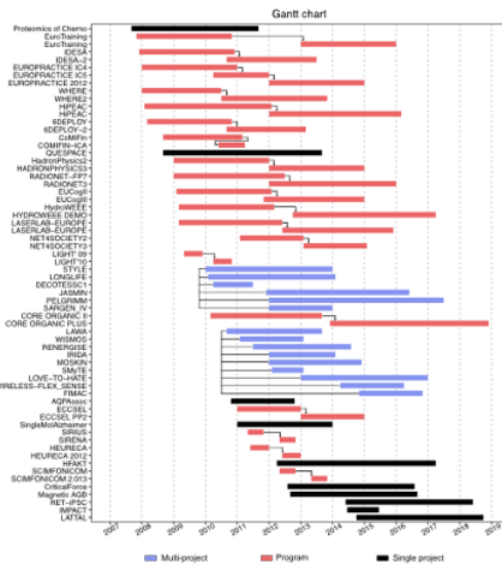
H2020

Program memberships and number of publications



Further researches

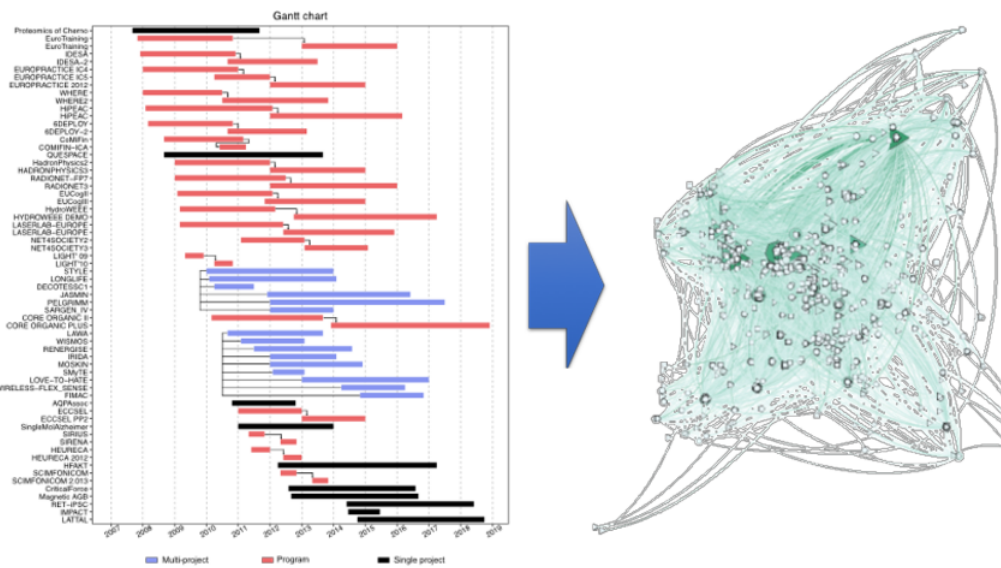
project portfolio \Rightarrow collaboration network



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Further researches

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prediction of collaboration network



$$a_{ij} \sim p_{ij} \quad (9)$$

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$$\text{logit} p_{ij} = \beta_0 + \sum_{k_i} \beta_{k_i} m_{k_i} + \sum_{k_j} \beta_{k_j} m_{k_j} \quad (10)$$

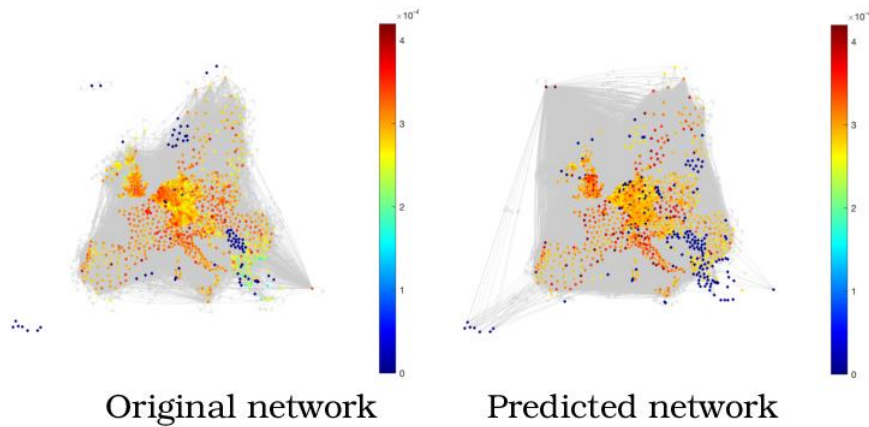
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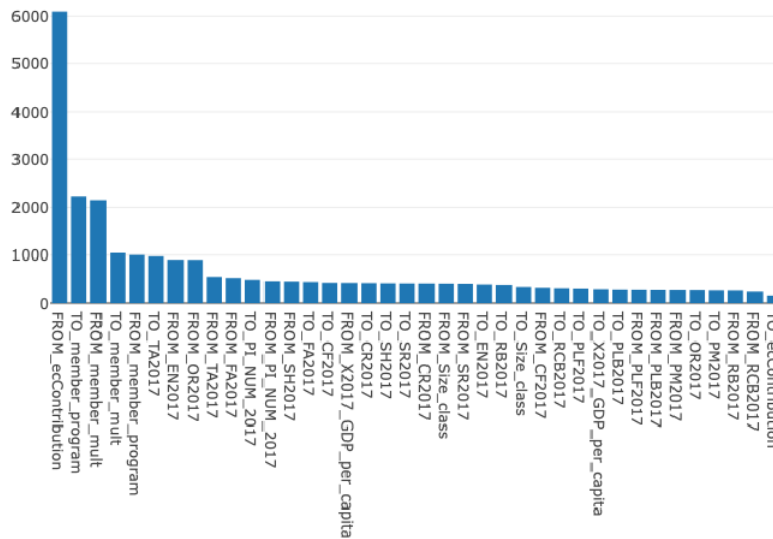
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Further researches prediction of collaboration network



Variable importance



accuracy 0.84

Summary and Conclusions



- ▶ Main results of structure conversion
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- ▶ Main results of structure prediction
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- ▶ Main results of structure prediction
 - ▶ Mathew effect: a rich will be richer
 - ▶ Importance of former experiences
project ⇒ program





**Thank You For Your
Attention!**

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Acknowledgements



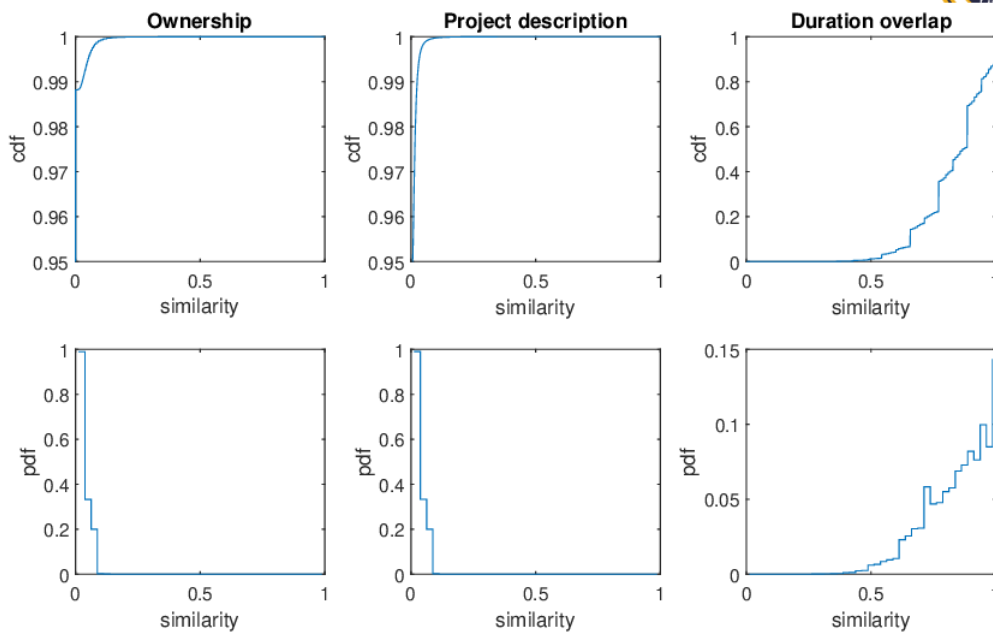
This publication/research has been supported by the European Union and Hungary and co-financed by the European Social Fund through the project EFOP-3.6.2-16-2017-00017, titled "Sustainable, intelligent and inclusive regional and city models".



Backup slides

Structure conversation

Density function of similarities (similarity=1-distance)



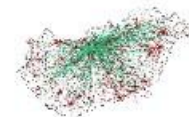
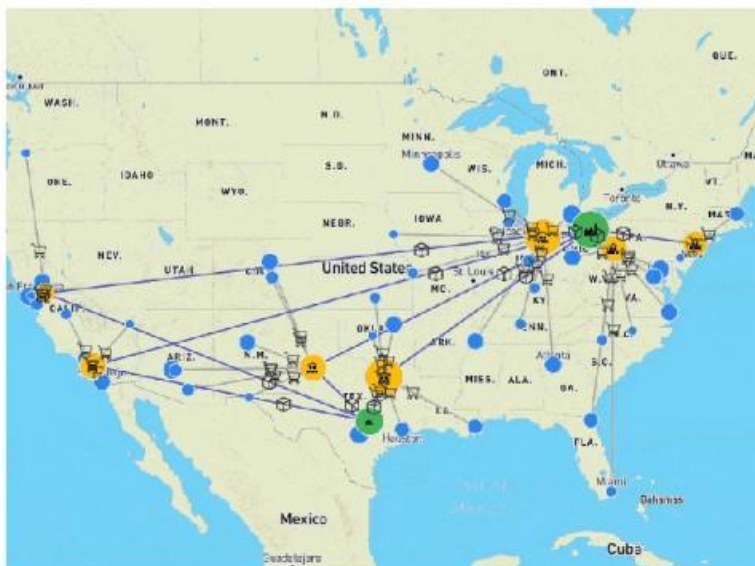
Cumulative and probability distribution of the similarity metrics

Development of Network Science

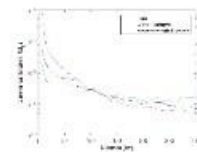
Distant Deterrence



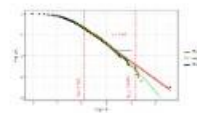
- Spatial Networks: (e.g. Boccaletti et al., 2006)



Co-ownership network*



Distance deterrence*



Distribution of degree*

*Gadár et al. (2018)

MANAGING SPORT CLUBS WITH PROJECT MANAGEMENT APPROACH

Máté Molnár

Corvinus University of Budapest, Budapest, Hungary
molnarm.mate@gmail.com

Managing sport clubs with project management approach

PMUni Workshop
Budapest, 2022



Motivation for the research

- Have been around sports for 15 years
- Have been working in sport's environment for 7 years
- Have researched the topic earlier:
 - Balanced ScoreCard for sport teams in BA thesis
 - Managing teams by sport KPIs in MSc thesis

- Planning to work in sport management and develop how Hungarian sport clubs are led and managed

Foundation of research:

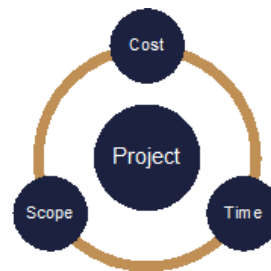
Nature of sport clubs through the lenses of project management

- Business operation of professional sport teams
- Organizational chart of clubs show functional structures
- Significance of the general manager role emerges
- Budgets and salary caps
- Seasons as operation cycles
- Sport performance as indicator of business success
- Still managed by sport experience and intuition

Source: Badenhausen (2020 & 2021),
Miami Heat (2021), NBA (2017)

Foundation of research: Nature of seasons through the lenses of project management

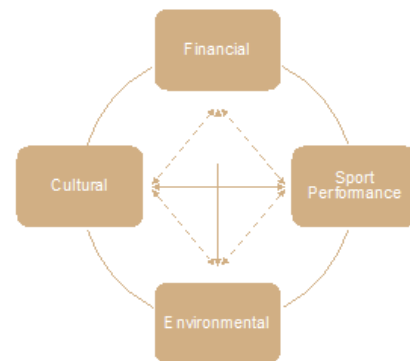
- Unique, each season has different circumstances:
 - Stakeholder expectations change
 - Regulations change
 - Opponents change
- Given budget with limitations
- Time frame to reach organisational goals



Source: Adams (2019), Görög (2013),
Miller (2019), NBA (2017), PMI (2017)

Managing projects and teams by KPIs

- S.M.A.R.T. KPIs
- Provide ...
 - ...guidance for project team
 - ...motivation for individuals
 - ...opportunity to lead for the manager
- Build a holistic KPI structure
- Connections between different categories



Source: Bryde (2005), Kerzner (2015 & 2017)

Research & methodology

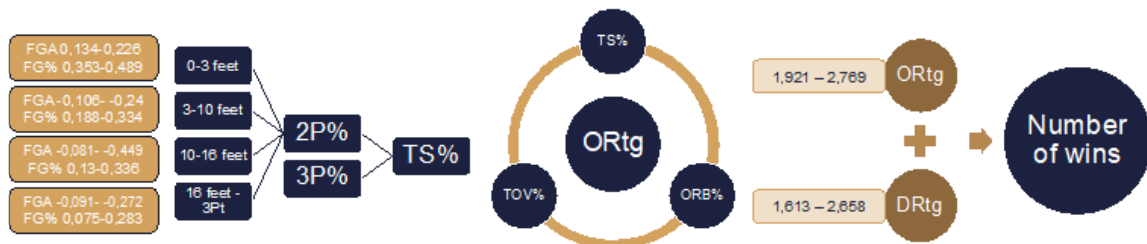
- Research question #1: Can project management approach be applied to how sport teams operate and how they are managed to be successful?
- Research question #2: Can sport statistics be used as key performance indicators in order to manage the organization ?
- Focus of the research: Basketball, National Basketball Association (NBA)
- Duration: Seasons since 2015

Research & methodology



Key findings of earlier researches

- Business performance is impacted by sport performance
- Sport performance can be monitored by advanced statistics
- Sport KPI structures can be built via SPSS, using linear regression modeling, correlation and benchmarking



8



**Thank you
for your attention!**

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EVALUATING THE EFFECTS OF FLEXIBILITY ON PROJECT PLANNING DATABASES AND INDICATORS

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gergely.novak@continental.com



PMUni



Evaluating the effects of flexibility on
project planning databases and indicators

PMUni Conference
17.11.2022

Gergely Novák^{1,2}

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²Software Chief Architect, Continental Automotive Hungary Ltd.

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Supervisor: Dr. Zsolt Tibor Kosztyán



M Methodology
R G Research Group

Outline

- Relevance and goals
- Combining project databases
- Project indicators
- Effects of flexibility
- Summary

Internal

2



Relevance

- Flexible approaches (agile, hybrid, extreme) are conquering non-software areas
 - Still, no support for flexible methods by databases or indicators
 - Research and benchmarking of new/existing algorithms is complicated
 - Artificial vs. real project database showing differences
 - Can lead to biased results
- Need to better understand projects with a flexible nature



M Methodology
R G Research Group

Goals

- Create a uniform model for databases
 - Collect existing databases and extend them with flexibility
 - Collect, adapt and extend project indicators for flexibility
- Analyze effects of flexibility for topology, time and resources using indicators

Internal

4



A unified model

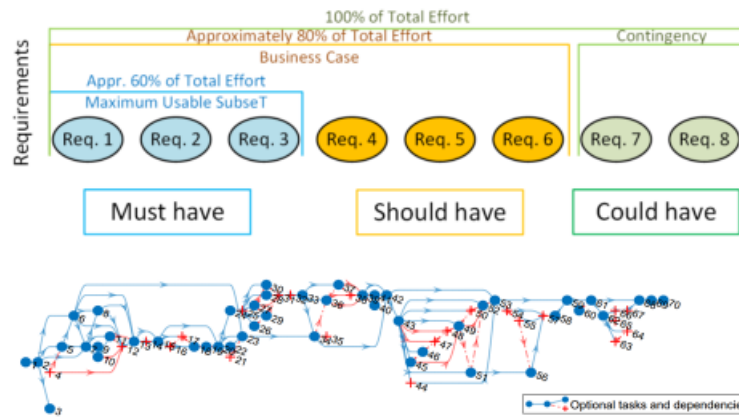
- Contains all the necessary domains to represent **multilevel** project plans and their attributes.

UMP'	Logic domain [LD]				Time domain [TD]	Cost domain [CD]	Quality domain [QD]	Nonrenewable resource domain [ND]					Renewable resource domain [RD]																			
	Project _x		Project _z					T ₁	...	T _k	C ₁	...	C _k	Q ₁	...	Q _k	N ₁₁	...	N _{1k}}	...	N _{1k}}	...	N _{1k}}	R ₁₁	...	R _{1k}}	...	R _{1k}}	...	R _{1k}}		
Project _x	P _{A1}	...	P _{Aa}	...	P _{Z1}	...	P _{Za}	t ₁₁	...	t _{1k}} <td>c₁₁</td> <td>...</td> <td>c_{1k}} <td>q₁₁</td> <td>...</td> <td>q_{1k}} <td>β₁₁₁</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>β_{111}}</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td></td></td></td></td></td>	c ₁₁	...	c _{1k}} <td>q₁₁</td> <td>...</td> <td>q_{1k}} <td>β₁₁₁</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>β_{111}}</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td></td></td></td></td>	q ₁₁	...	q _{1k}} <td>β₁₁₁</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>β_{111}}</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td></td></td></td>	β ₁₁₁	...	β _{11k}} <td>...</td> <td>β_{11k}} <td>β_{111}}</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td></td></td>	...	β _{11k}} <td>β_{111}}</td> <td>...</td> <td>β_{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td></td>	β _{111}}	...	β _{11k}} <td>...</td> <td>β_{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td></td>	...	β _{11k}} <td>r_{111}}</td> <td>...</td> <td>r_{11k}} <td>...</td> <td>r_{11k}} </td></td>	r _{111}}	...	r _{11k}} <td>...</td> <td>r_{11k}} </td>	...	r _{11k}}	
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The Unified Matrix-based Planning (UMP) matrix



Flexibility in projects





Applied indicators

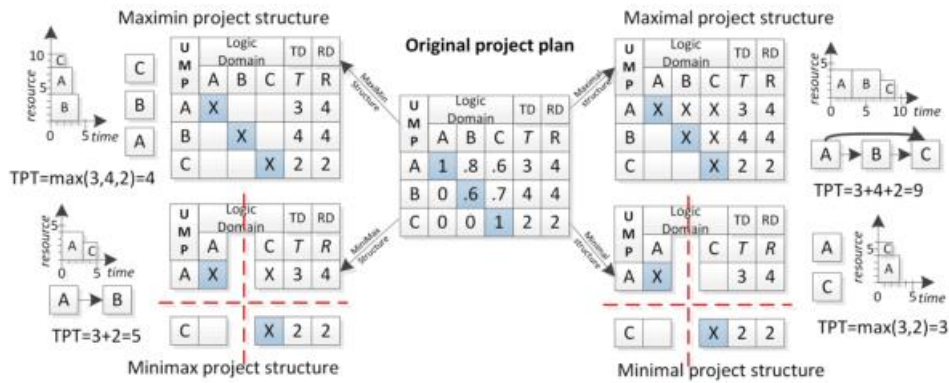
Name	Short description
Structural indicators	
I1	number of nodes (i.e., tasks)
I2	serial or parallel structure
I3	task distribution
I4	rate of short arcs
I5	rate of long arcs
I6	topological float
T-DENSITY	total activity density
XDENSITY	average activity density
C	network complexity
CNC	coefficient of network complexity
OS	order strength
Time related indicators	
TPT	total project time
XDUR	average activity duration
VA-DUR	variance in activity duration
PCTSLACK	percent of activities possessing positive total slack
XSLACK	average total slack per activity
TOTSLACK-R	total slack ratio
XSLACK-R	average slack ratio
PCTFREESLACK	percent of activities possessing positive free slack
XFREESLACK	average free slack per activity
Renewable resource-related indicators	
RF	resource factor (i.e., density of RD)
PCTR _j	percent of activities that require resource type <i>j</i>
RU	resource use
DMND _j	the average demand resource type <i>j</i>
RC	resource constrainedness
RS	resource strength
UTIL	utilization of resources
TCON _j	constraints of resource <i>j</i> over time
OFACT _j	obstruction of resource <i>j</i>
UFACT _j	underutilization of resource <i>j</i>
UTIL	utilization of resources

internal



Generating flexible structures

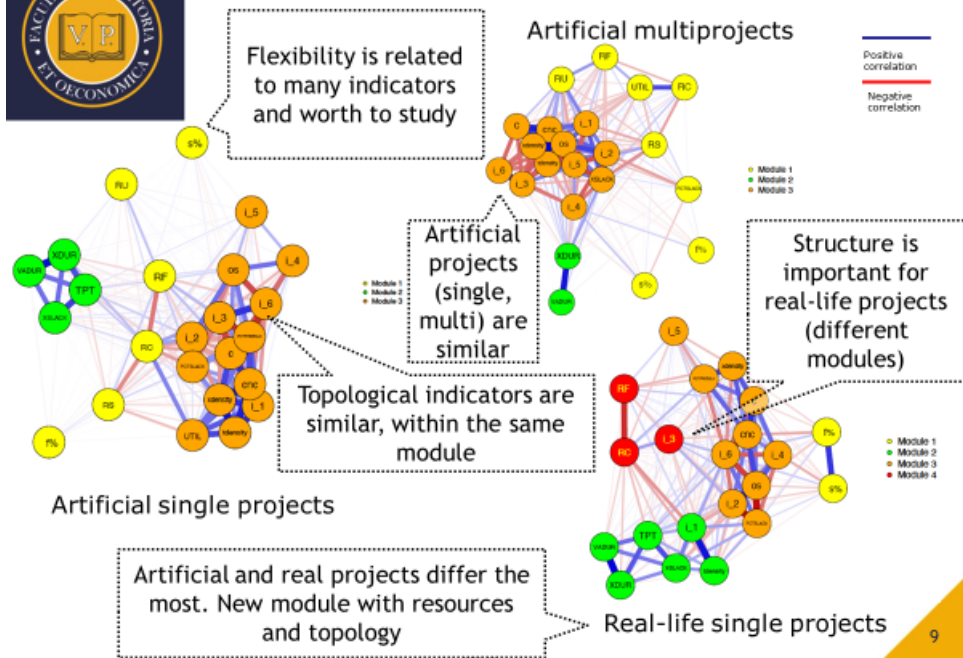
- Flexibility parameter (fp) specified:
 - $s\%$, ratio of supplementary tasks
 - $f\%$, ratio of flexible dependencies



→ indicators are used to characterize the fixed and flexible structures

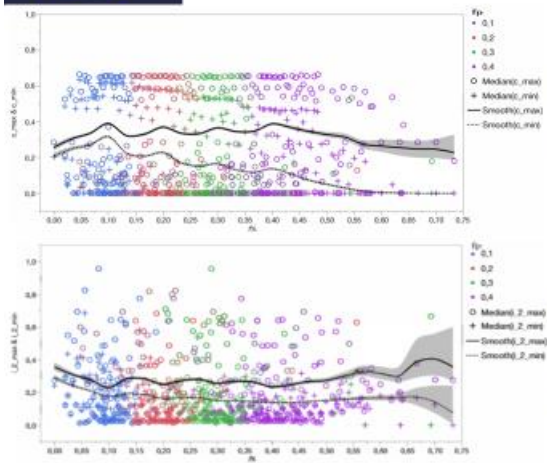


Indicator interdependencies





Flexibility effect on topology

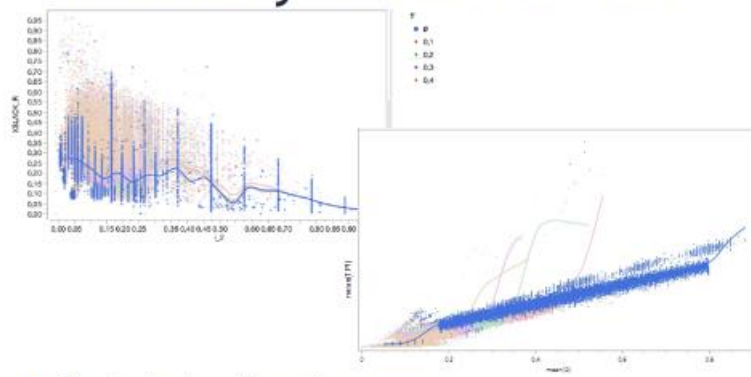


Flexibility reduces complexity

Flexibility increases parallelity



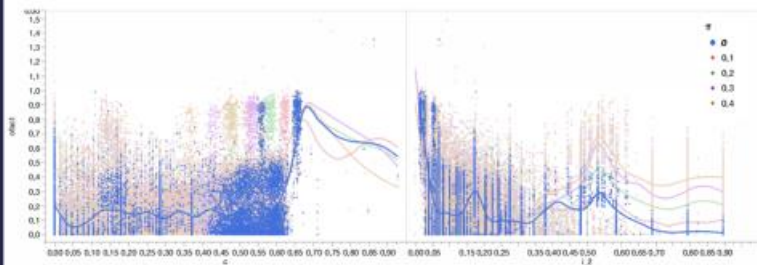
Flexibility effect on time



- Project duration decreases;
- Slack ratio increases → more room for scheduling decisions



Flexibility effect on resources

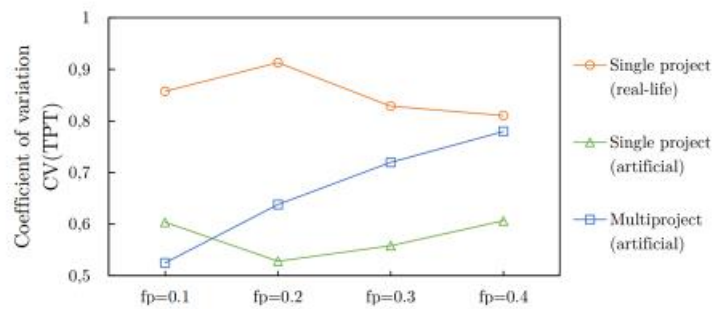


- Resource demands increase
 - Risk of resource overload, especially for multiprojects



Flexibility effect on (multi)project duration

- Variance in duration increases with flexibility
- Increases uncertainty in planning of (sub)projects



Internal



Summary

- Current research
 - combines existing heterogeneous project databases into a compound database
 - generates minimal, minimax, maximin and maximal structures to test and evaluate planning decisions
 - gives flexibility-dependent complexity, time- and resource-related indicators
 - tightens the gap between simulated and real-life databases with flexibility
 - gives insight to the effects of flexibility in different settings
 - provides a large set of open database to test both traditional and new flexible algorithms



**Thank you for your
attention!**

PROJECT MANAGER'S ABILITIES AT PROJECT BASED COMPANIES

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PROJECT MANAGER'S ABILITIES AT PROJECT BASED COMPANIES

Melinda Pápai

PhD student at the University of Pannonia



AGENDA

1. Project manager's tasks
2. Project manager's abilities
3. Comparison of project organizations
4. Research relevance, objective, questions, methodology
5. Findings&Explanations
6. Conclusion, Future



PROJECT MANAGERS' TASKS

T1

Managing the implementation of a project

T2

Managing the project team

T3

Managing the achievement of beneficial change implied in the strategic objectives



PROJECT MANAGERS' ABILITIES

Technical

Griffin (1987), PMI (2000), Roóz (2006), El-Sabaa (2009), Görög (2013)

Human

Griffin (1987), Roóz (2006), El-Sabaa (2009), Görög (2013)

Leadership

PMI (2000)

Conceptual

Griffin (1987), Roóz (2006), El-Sabaa (2009)

Strategic&business management

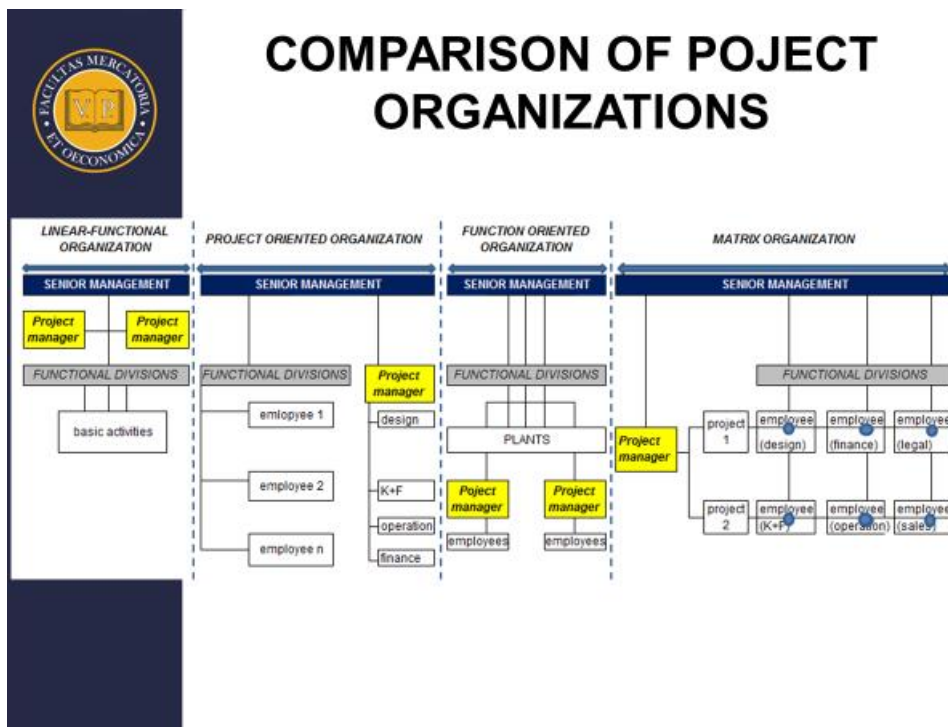
PMI (2000)

Project

Görög (2013)



COMPARISON OF PROJECT ORGANIZATIONS





RELEVANCE&OBJECTIVES

R1

Literature mostly on project oriented companies

R2

The major part of enterprises at building industry are project based companies

O1

To reveal the most important project manager abilities at project based companies

O2

To compare the results with the literature



RESEARCH QUESTIONS

Q1

Which project manager's abilities are considered the TOP 5 most important by project managers working at project based companies?

Q2

What are the experienced differences between the results of this pilot study and the connected literature?



RESEARCH METHODOLOGY

SAMPLE

31 project managers of 4 project based companies from building industry

QUESTIONNAIRE

17 abilities of 3 groups (technical, human and project)

TASK

Choosing and ranking the significance of the TOP 10 most important abilities



RESEARCH METHODOLOGY

ABILITIES

Converting the results in proportion

ABILITY GROUPS

Using the following formula:

$$\sum \beta = \frac{\text{no of ranking given in a group}}{\text{abilities (group)}} \\ * \frac{\text{abilities (total)}}{\text{ability groups}} / \text{samples}$$



FINDINGS&EXPLANATIONS

ABILITY GROUPS - Q1

RANK	ABILITY GROUP	PROPORTION
1	Human abilities	43,01%
2	Project abilities	41,81%
3	Technical abilities	15,18%



FINDINGS&EXPLANATION

ABILITIES - Q1; Q2

RANK	ABILITY	GROUP	SCORE	CONNECTED RESEARCHES
1	Problem solving	Human	14,19%	Görög (2013), El-Sabaa (2001), PMI (2000)
2	Decision	Human	10,21%	Görög (2013)
3	Prioritization	Project	8,97%	PMI (2000)
4	Planning	Project	8,74%	El-Sabaa (2001)
5	Self-knowledge	Human	8,33%	Non of them, only El-Sabaa (2001): self-confidence



FINDINGS&EXPLANATION

ABILITIES - Q2

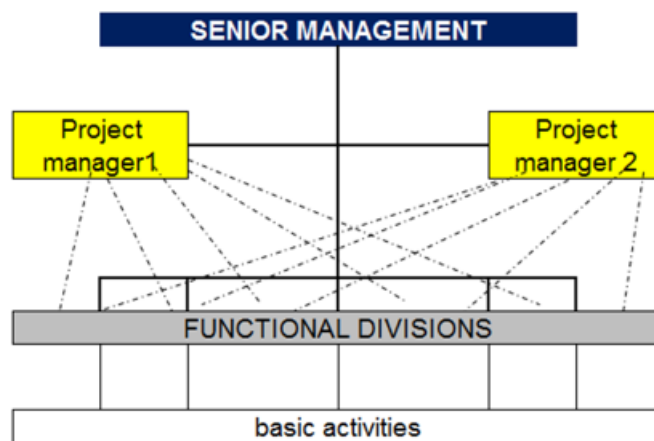
RANK	ABILITY	GROUP	SCORE	CONNECTED RESEARCHES
7	Communi- cation	Human	14%	Griffin (1987), PMI (2000), El-Sabaa (2001), Roóz (2006), Görög (2013)
15	Motivation	Human	10%	Griffin (1987), PMI (2000), El-Sabaa (2001), Roóz (2006), Görög (2013)

Motivation - as a project manager's competence - has high effect on project success (Müller&Turner, 2010)



EXPLANATION

TYPICAL PROJECT ORGANIZATION AT PROJECT BASED COMPANIES - Q2





CONCLUSION, FUTURE

C1

Requirement of distinguish project manager's abilities within project organizations

F1

More detailed studies with higher number of samples



CONCLUSION, FUTURE

C2



Motivation and communication are really not so important abilities?

F2

Is it a general point of view, or a typical to project oriented companies?

F3

Deeper understanding of this result by personal interviews and more detailed questionnaire



**Thank you for your
attention!**

PILOT STUDY ON CHANGES IN GROUP PROCESSES AND INTERACTIONS DURING THE LIFE CYCLE PHASES OF UNIVERSITY COURSE PROJECTS

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17th November 2022

PILOT STUDY ON CHANGES IN GROUP PROCESSES AND INTERACTIONS DURING THE LIFECYCLE PHASES OF UNIVERSITY COURSE PROJECTS

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PhD student and lecturer at Corvinus University, Institute of Marketing and Communication Sciences

INTRODUCTION

"TODAY'S ORGANIZATIONS HAVE RESPONDED TO GROWING UNCERTAINTY BY TURNING INCREASINGLY TO WORKGROUPS."

(Navarro et al., 2015, p. 928)

Photo: Corvinus
University of Budapest





RESEARCH AIMS

PILOT STUDY SEPTEMBER – DECEMBER 2022

- Fostering competence -based learning, focusing on skill development and labour market requirements (Bodnár & Sass, 2020)
- applying internationally developed research methods to a Hungarian environment (Ujhelyi, 2011)
- understanding team dynamics in project management with the research methodology of communication science, pedagogy , and psychology



THEORETICAL BACKGROUND



group interaction and processes

- entitativity (Lickel et al., 2000)
- topic management, conversational coherence (Cornelius & Boos, 2003)
- individual flow (Csíkszentmihályi, 1997; Oláh, 2005)

education

- teaching method development
- applying the project based learning methodology in teaching project management skills and methods
- focusing on project management courses

project management

- project life cycle (PMI, 2017)
- project as a temporary organization (Lundin & Söderholm, 1995)
- project roles (Pinto, 2019)
- project management competencies (Crawford, 2005; IPMA, 2015; PMI 2008)
- project success theories (Müller & Turner, 2007; Görög, 2013)

RESEARCH QUESTIONS

1.

How does the level of entitativity, individual flow and conversational coherence change during the life cycle phases of university course projects?

2.

Do the group processes and interactions have an effect on the project outcome, namely the successful completion of the project and the successful project management process?

Methodology

1

OBSERVATIONAL METHODS

- *video recording of meetings*
- **COCO**: *Coherence in Conversation* (Boos, 2018)
- **GEOC**: *Groupness Entitativity Observational Coding* (Navarro & Meneses, 2018)

2

SURVEY METHODS

- *self-reporting immediately after the meetings*
- **LGD**: *Level of Group Development Questionnaire* (Navarro et al., 2015)
- **flow**: *situation-specific Flow Questionnaire for education* (O'lah, 2005)





Photo: Corvinus
University of
Budapest

SAMPLE AND CONTEXT

*CORVINUS, COMMUNICATION AND MEDIA
SCIENCE MA PROGRAM*

- 3 self-managed, temporary project teams (15 members from 6 countries)
- timing: september - december 2022
- task: organise an event and media campaign
- objectives: practice team work, learn PM and PR methods
- evaluation: sponsorship, execution, PR and media campaign, utilized PM methods

CHARACTERISTICS OF THE SAMPLE



Photo: Corvinus
University of
Budapest

- non-profit course projects
- organizational context is educational, not strategic projects
- autonomous, self-managing teams
- classical project roles are not determined
- previous experiences may influence group dynamics and team roles
- phases of the project life cycle may mix and blur

CURRENT STATUS OF THE RESEARCH

- recording of the 1st and a mid-term project meeting in every group (5 hours of footage)
- results of the 1st phase (Initiation and Planning):
 - individual flow: high values because of the creative idea-generation process
 - entitativity: higher values from questionnaire than from the observation
- feedback after every phase for the groups to reward them for participation

NEXT STEPS

- recording of the last meetings of the teams
- deciding on measurement methods of success
- analyzing final evaluations by the instructor and the professional jury team
- end results by the middle of December 2022

**FUTURE PLANS FOR FALL
2023: DEVELOPING
RESEARCH PROJECT
BASED ON THE PILOT
STUDY**



NEW ASPECTS:

- identifying the roles and responsibilities of the project team members based on their behaviour
- understanding the leadership emergence
- measuring group flow in projects

EXTENSION OF THE SAMPLE:

- involving postgraduate, MA and
- BA project teams

C O N T A C T



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of BUDAPEST

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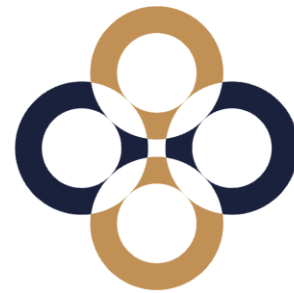
OPPORTUNITIES AND CHALLENGES OF NEW TECHNOLOGIES IN SERVICE INNOVATION CONSIDERING PROJECT CONTEXT

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Opportunities and challenges of new technologies in service innovation considering project context

Éva Pintér, Ph.D, dr. habil
Associate Professor, Corvinus University of Budapest

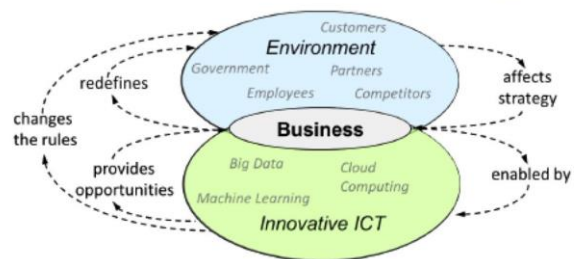


The Presentation was conducted as part of the OTKA 139225 project entitled "Management readiness level towards Strategic Technology Management Excellence".

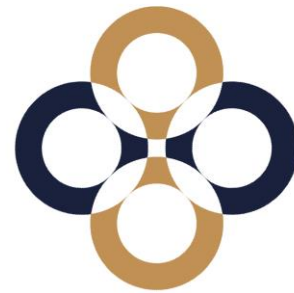
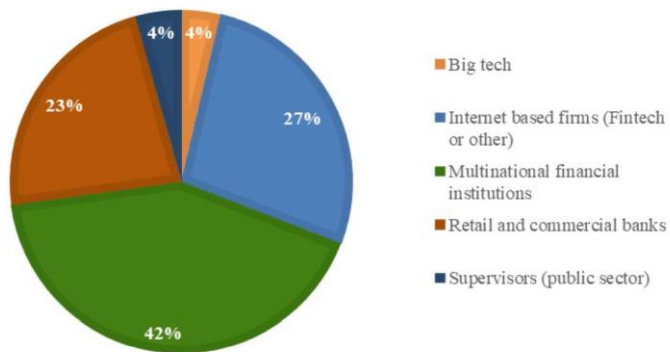
New technologies and digital transformation effects

- AI
- Distributed ledger technology
- Application Programming Interfaces (APIs)
- Machine learning
- Natural Language Processing and soft computing
- Digital Solutions for Customer Due Diligence

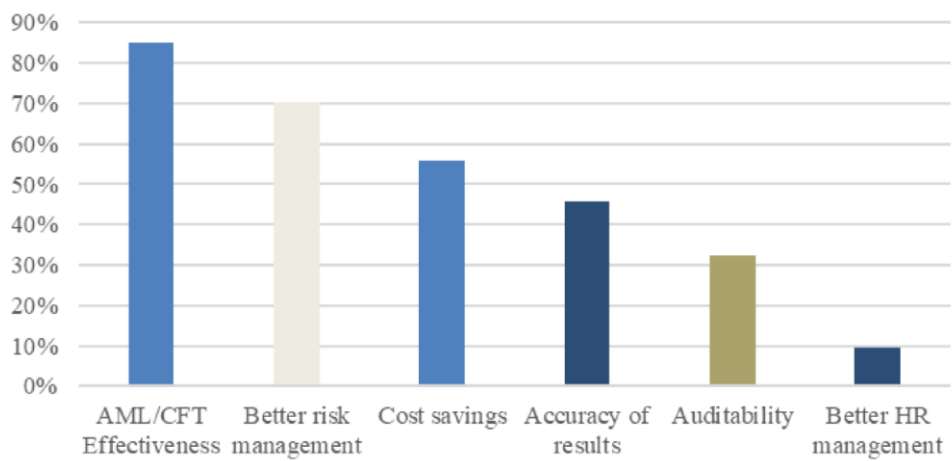
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Main users of new technologies

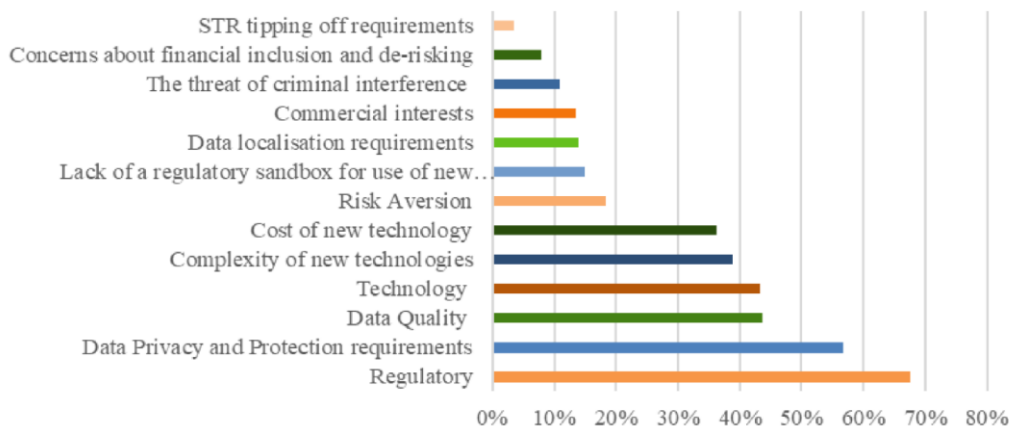


Main benefits of the use of new technologies



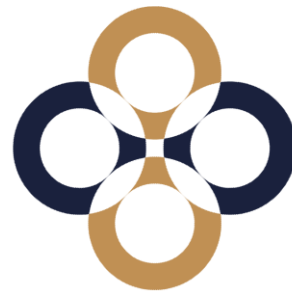
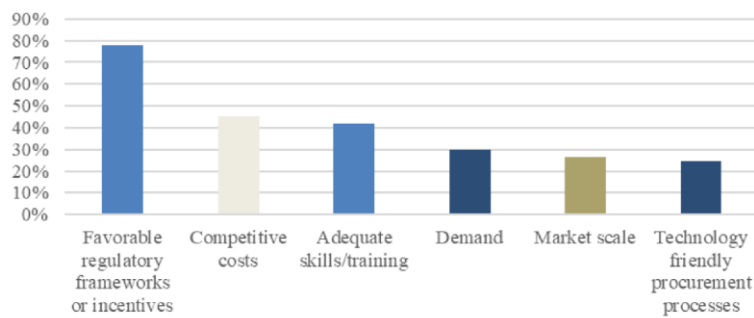
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Challenges in the Development and/or Implementation of New Technologies



12/7/2022

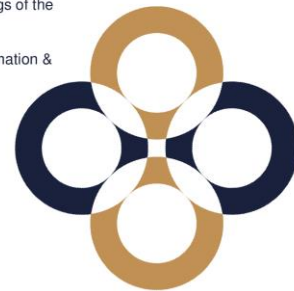
What Preconditions Enable the Adoption and Use of New Technologies?



12/7/2022

Literature

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**Thank you
for your attention!**

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The Presentation was conducted as part of the OTKA T139225 project entitled "Management readiness level towards Strategic Technology Management Excellence".

STRATEGIC PROJECT PORTFOLIO MANAGEMENT – THE LINK BETWEEN THE FIRM’S DAILY OPERATION, STRATEGY AND INNOVATION

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Strategic Management



Strategic
Project Portfolio
Management

The Link between the Firm's daily
operation, Strategy and Innovation

Avny Ronnen

My Research Topic

- **Innovation in the light of the fourth industrial revolution**

- Recently, the pace of technology has **accelerated significantly**.
- The **adoption rate** of new technology speed up.
- the **ability to develop new technology** products and systems **increased** subsequently.
- The **barrier to create Innovative technology** become **much lower** than in the past (before the fourth industrial revolution).

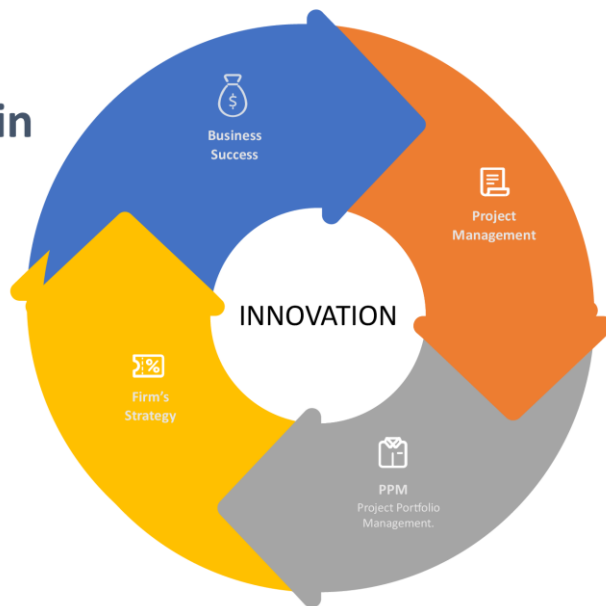
- The main RQs are:

- What are the **changes** in the attributes and characteristics of the innovation due this major movement?
- What is the **effect on the leadership in innovative** firms?



Subject -
The Business Success Chain

What is the Link between Business Success, firm's Strategy, and Projects, and all may promote innovation?



Outline

- **The Problem**
 - Success rates (Firm's strategic implementation and Projects)
- **Definitions**
 - Firm's strategy, Portfolio management, Project management, Strategic Project Portfolio
 - How to measure success – project and strategy.
- **The link** - Projects, Projects Portfolio and Firm's Strategy.
- **Models** for strategic project portfolio management
- How to **implement strategic project portfolio management** inside organization.
- **Promoting Innovation** through Portfolio Project strategy
- **Further research** – Agile projects, the future of “waterfall project PMO”



The Problem

Strategy implementation and project success rates low

- it is more difficult to **make strategy work** than to make strategy.

66% of corporate strategy is **never implemented**

- Only **65% of projects aligned** to the strategy.
- Only **33%** of top managers stated **high benefits** from project to strategy (PMI 2018).
- Projects success rates **consider as a problem** and well **below 50%...**

Hrebiniak (2006) ; Johnson (2004) ;
PMI (2018) ; The Chaos Report 2015

World of Projects

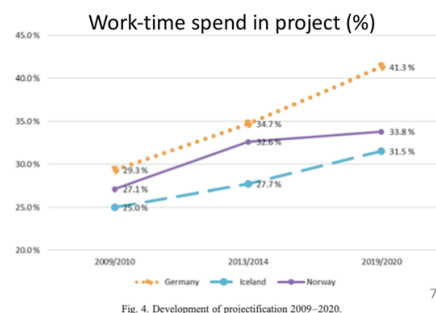
- A **project** is a temporary endeavor undertaken to create a unique product, service, or result. (PMBOK, 2017)
- Projects are **critical to the success** of any organization, result in new or changed products, services, environments, processes and organizations.
- Projects increase sales, reduce costs, improve quality and customer satisfaction, enhance the work environment, and result in many other benefits.
- **“powerful strategic weapons”** - central building block in implementing the intended planned strategy.

(Cleland, 1999; Dietrich and Lehtonen, 2005; Grundy, 2000 ; Shenhar et al. , 2001 ; *Kezner, 2001* ; Wald et al., 2015)

World of Projects (cont.)

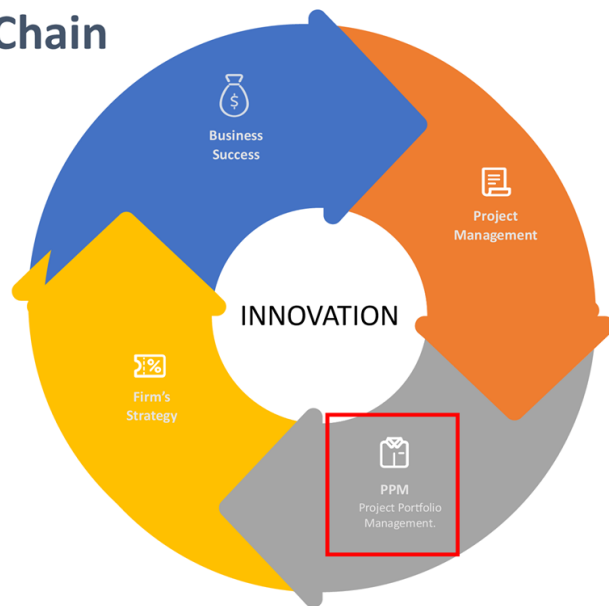
- “**Projectification**” - Projects have become a universal means of organizing work not only within industrial firms and professional sectors—such as research, education, health care, culture, sports, politics and public administration—rather the methods of project management—are also used in our private life.
- An implication of this trend is that we spend **more time in projects and that more value is created or destroyed by projects**
- Innovation should arise from Project initiatives.

(Schoper et. al, 2017)



The Business Success Chain

The Link between
Business Success,
Firm's Strategy,
and Projects.



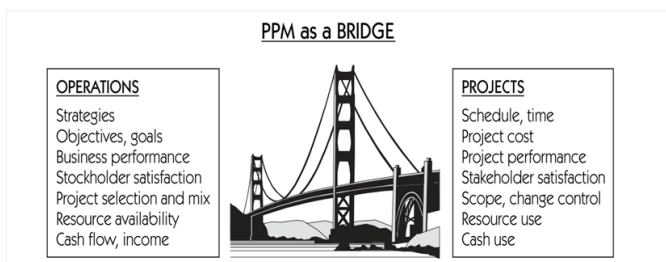
Project Portfolio management

- “The **simultaneous management** of the whole collection of projects as one large entity”
- “a **collection of projects, programs**, subsidiary portfolios, and operations managed **as a group** to achieve **strategic objectives**”
- PPM means the coordination and control of the group of multiple projects where managers prioritize amongst projects, allocate resources to achieve strategic benefits, and terminate low value adding projects.
- **PPM deals with the firm’s strategic choices and consequently can bring significant changes to the firm.**
- **Organizational strategy** is increasingly delivered **through the project portfolio**
- PPM a core **research theme** in the general field of project management, and strategic management.

Clegg, Killen, Biesenthal & Shankaran, 2018; Cooper, Edgett & Kleinschmidt, 1999 ; Unger, Gemünden & Aubry, 2012) Cooper, Edgett & Kleinschmidt, 1997; Meskendahl (2010) ;PMI (2017)

Project Portfolio management (cont.)

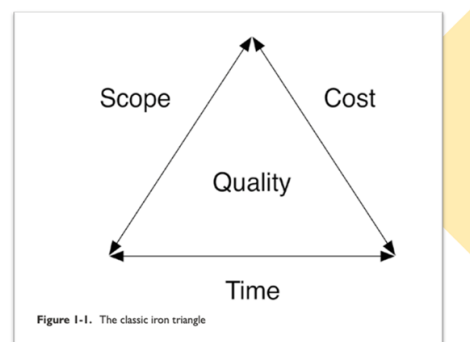
- PPM acts as a **bridge** between **strategy** and **projects**.
- PPM - the **overall organizational ability** to manage the project portfolio strategically and holistically, the better to **support the success of the organization**.



Killen and Hunt, 2010
Clegg, 2018

How to measure success?

- **Measure Project Success**
 - 'The iron triangle' - on time, within budget and according to performance specifications.
 - Examine project effectiveness, the support of corporate strategy and stakeholders' interests.
 - Goals determined by a project's stakeholders.
- **Measure Project Portfolio success**
 - Strategy implementation, alignment to business strategies
 - Future preparedness
 - Portfolio balance
 - Average economic project success
 - Synergy exploitation
 - Improvement in decision making
 - Maximizing resource usage
 - Organizational risk management
 - Key performance indicators (KPIs)



(Deák, 2006; Szabó and Gaál, 2006 ; Kopmann et. al, 2015 ; Turner and Cochrane, 1993 ; Judgev and Müller, 2005).

How to measure success ? (cont) The Balanced Scorecard

- **Measure Strategy Success**

- Balance Score Card technique (BSC)
- HOSHIN KANRI
- Diagnostic controls and interactive Dashboards

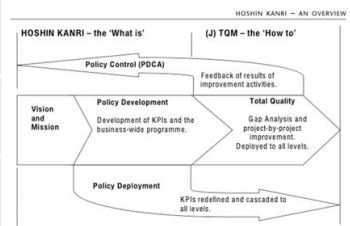
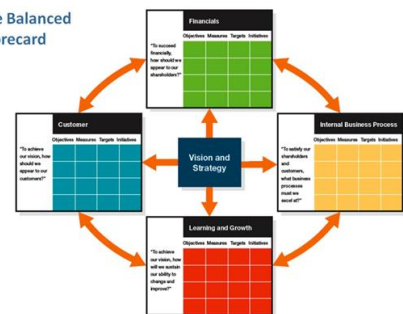
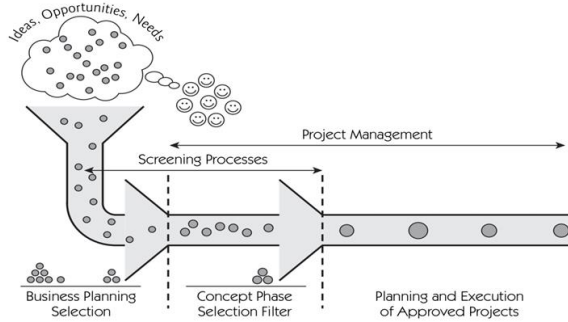


Figure 1.1 The four key elements of Hoshin Kanri

Hutchins, M. D. (2012)

Models for project portfolio management

FIGURE 1.1-1 First Three Steps of the Project Portfolio Life Span



Source: R. M. Wideman, *A Management Framework for Project, Program and Portfolio Integration* (New Bern, N.C.: Trafford Publishing, 2004), p. 169.

Table 7: Comparison of most common and most important attributes

Project	
Scope	<ul style="list-style-type: none"> More than \$400,000 Less than \$400,000
Product	<ul style="list-style-type: none"> Information Production Telecommunications Transmission Buildings and Airports
Subproduct	<ul style="list-style-type: none"> New Facilities Refurbishment Life Station Maintenance Buildings

Figure 2: Hierarchical categorization system

Models for project portfolio management (cont.)

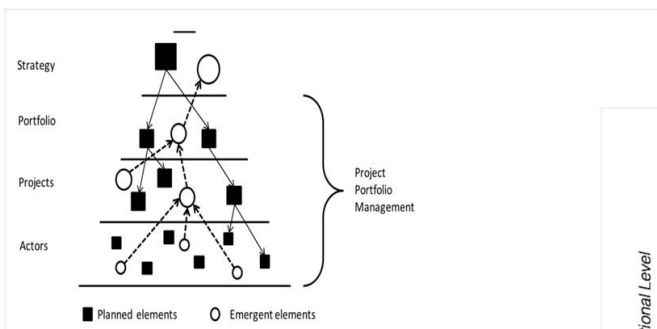
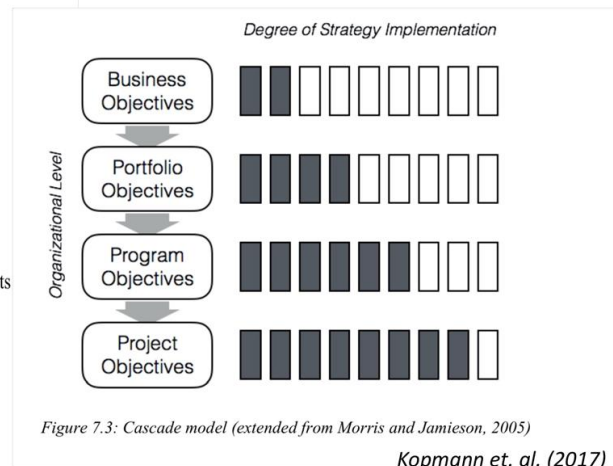


Figure 7.2: A project portfolio perspective of planned and emergent strategic elements



Models for project portfolio management (cont.)

Business Case Control

TABLE II
BCC ALONG THE PROJECT PORTFOLIO MANAGEMENT PHASES

Phase	Challenges	Role of BCC	Contribution
Structuring	Project business cases suffer from flawed information, incomparable statements, and inaccurate estimates	Existence and monitoring: Ensuring existence of the business case and scrutinizing reviews across all project proposals	Increased portfolio value by informed investment decisions (based on improved validity and accuracy of business cases) Related success dimensions: —Average economic project success —Portfolio balance
Resource allocation	Optimal resource allocation is aggravated by a lack of transparency, regarding the relative priority and urgency of projects	Existence and Monitoring: Establishing common requirements and quality standards for business cases aiming for comparability	Improved resource allocation in accordance to priorities (based on transparent and comparable project benefits) Related success dimensions: —Synergy exploitation —Strategy implementation
Steering	Go/no-go decision can be flawed due to unseen changes of environmental developments and late detection of (creeping) deviations from project plans	Monitoring: Ongoing monitoring of the validity of business cases in regards to changing internal and external conditions	Enhanced responsiveness and capability of early detection of unprofitable investments Related success dimensions: —Average economic project success —Synergy exploitation —Strategy implementation
Learning and exploitation	Organizational learning lacks motivation and sufficient effort, and output exploitation suffers from the transition between project and customer organization.	Tracking: Postproject tracking of business case realization	Increased business case planning capabilities through organizational learning and improved effort for project exploitation through increased transparency. Related success dimensions: —Average economic project success —Future preparedness

Kopmann, 2015

What is the role of Project Portfolio Management Office (PPMO)?



- Three phases for project portfolio management
 - 1) the **prioritization** and **selection** of projects
 - 2) **resource allocation** to and across projects
 - 3) **portfolio steering** (i.e. the re-prioritization or **termination** of projects, **re-allocation** of resources, **exploitation of synergies**)
- PPMO **implements** the **business strategy through coordinating decision-making about project investments**, balancing risk and resources and maximizing the value of the project portfolio
- PPMO is an organisational business unit, The PPMO is seen as a dynamic entity 'to solve specific issues within dynamic organizations'
- **"Governance**, as it applies to portfolios, programs, projects, and project management, coexists within the corporate governance framework. It comprises the value system, responsibilities, processes and policies that allow projects to achieve organizational objectives and foster implementation that is in the best interests of all the stakeholders ... and the corporation itself"
- **PPMO** - **authoritative** style in resource management, or a **consolatory** stance when mediating or **coaching** parties to improve collaboration.

Archer and Ghasemzadeh, 2004 ; Engwall and Jerbrant, 2003; Killen et al., 2008 ; Blichfeldt and Eskerod, 2008; Blomquist and Müller, 2006; Kock and Gemünden, 2016; Unger et al., 2012 ; Cooper et al., 2001; Jonas et al., 2013; Voss and Kock, 2013). (Aubry, Hobbs, Müller & Blomquist 2010

The PPMO Challenges

- Sensitivity analysis and Uncertainty
- Dependencies
- Decision Traceability
- Simplicity
- Quantitative and Qualitative analysis technique
- Conflict management

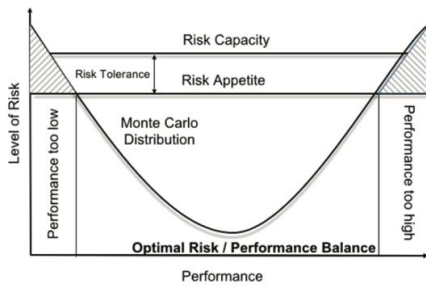


Figure 5.5 Balance between the Level of Risk and Performance

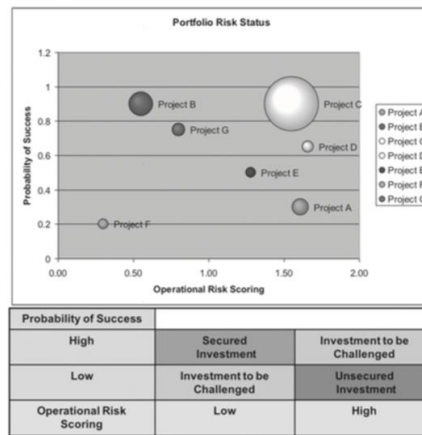


Figure 5.9 Portfolio Risk Profile (Reproduced from Lazar, O. The Bricks for Building Your Portfolio: Risk, Benefits and Value, Portfolio Experience Conference, Warsaw, Poland. © 2015 Olivier Lazar)

Danesh et. al, 2018

Promoting Innovation by leadership

- PPMO as a **pivot** point for organizational resource base, act as the Innovation leader
- Future-oriented and pro-active.
- Build **better structures** and **processes** for project portfolio management - higher transparency, recognize opportunities and threats, allocate resources to pursue their project options.
- Build **innovation pipeline** and generate better and more ideas, and processes how to select the best ones.
- **Choose among higher valued projects** with more mature and better tested business plans.
- Respond **more quickly** and more consequentially to the information he receives.
- Be **more responsive** to react upon unexpected risks and opportunities, and do this more consequentially.

(Gemunden et. al. 2017 ; Teece 2007 ; Wysocki, 2019)

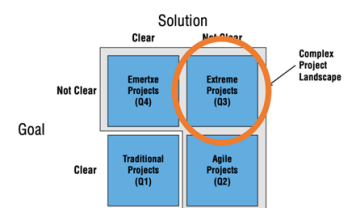
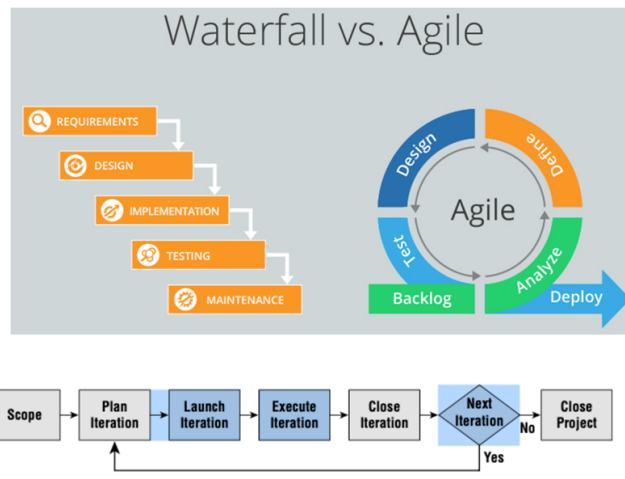
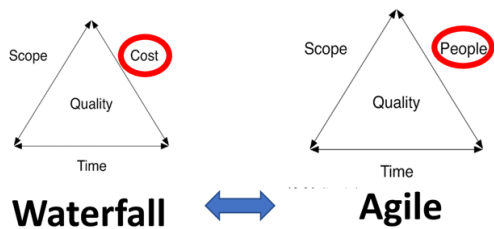


Figure 14.4: The complex project landscape

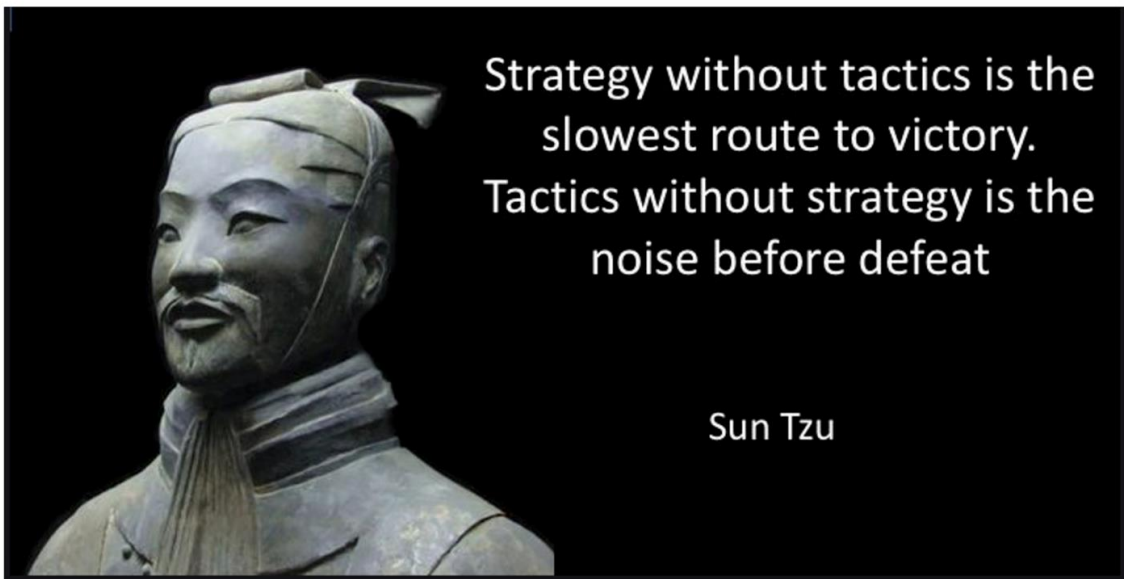
PPM in Agile projects

- Waterfall vs Agile project
- Hybrid PPM
- The role of the Product manager
- **Continuous alignment** process



Summary and Take- Aways

- Project is the **tactical tool** for improving the organization, and achieve goals
- In order to minimize the failure rates, measurement and control is necessity, but also alignment to the strategic goals of the firm
- PPMO is act as the "Captain of the Ship", and should **act wisely** in very complex environment.
- This role is **crucial in order to promote innovation**, and should be investigated further in agile projects.



The presentation was conducted as part of OTKA 139225 entitled 'Management readiness level towards Strategic Technology Management Excellence'

MODULARIZATION IN PRODUCT DEVELOPMENT: STUDENTS' EVALUATION

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MISKOLCI
EGYETEM
UNIVERSITY OF MISKOLC

Modularization in product development: Students' evaluation

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Machine Automation

László Berényi
University of Miskolc



17th November 2022



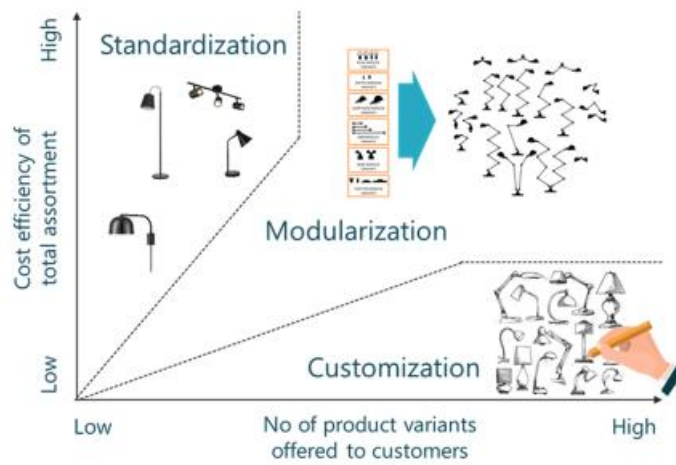
Pressure on new product development

- Reduced lead time
- Cost savings
- Quick response to market needs
- Targeted action
 - Better utilization of lessons learned
 - Opportunities of modularization





Modularization

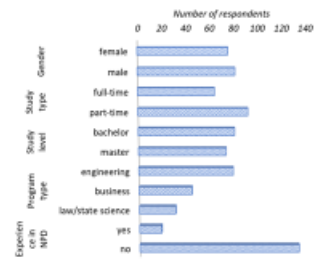


* <https://www.modularmanagement.com/blog/all-you-need-to-know-about-modularization>



Research design

- Voluntary online survey was designed for anonymous data collection about new product development projects.
- Modularization was included as a question group
- Engineering, business and state science students involved (n=156)
- 8 items evaluated on a 5-point scale





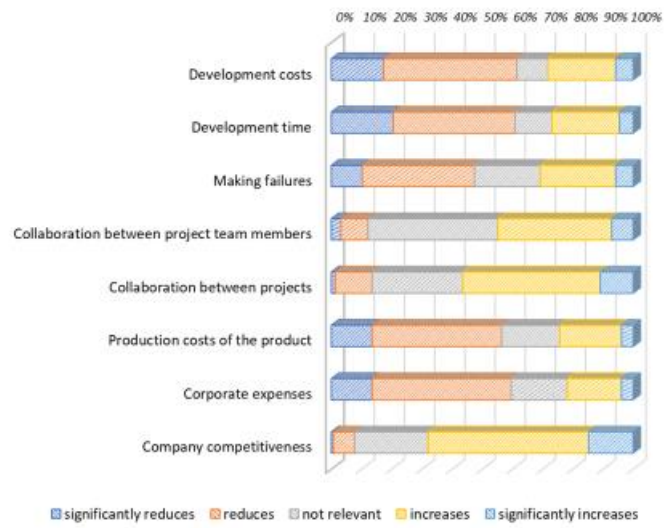
Research design

- Items for evaluation:
 - Development costs
 - Development time
 - Making failures
 - Collaboration between project team members
 - Collaboration between projects
 - Production costs of the product
 - Corporate expenses
 - Company competitiveness

- Bi-directional evaluation (5-point scale):
 - 1. significantly reduces
 - 2. reduces
 - 3. not relevant
 - 4. increases
 - 5. significantly increases

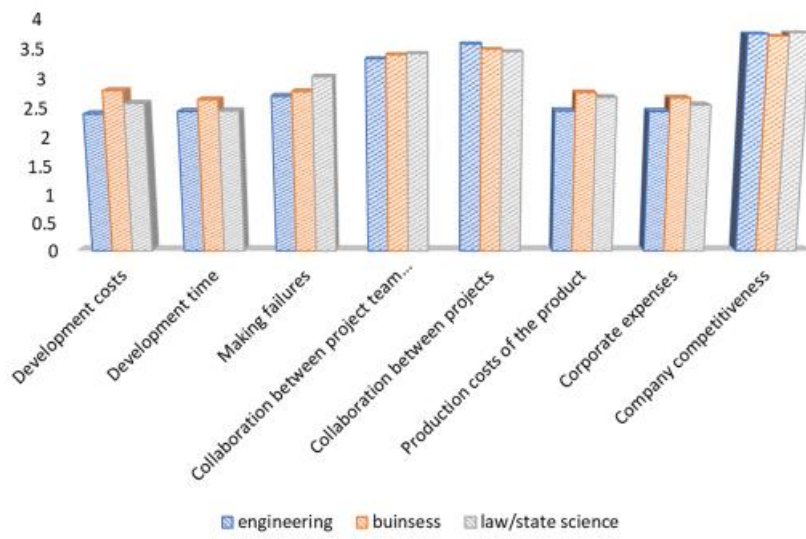


Results



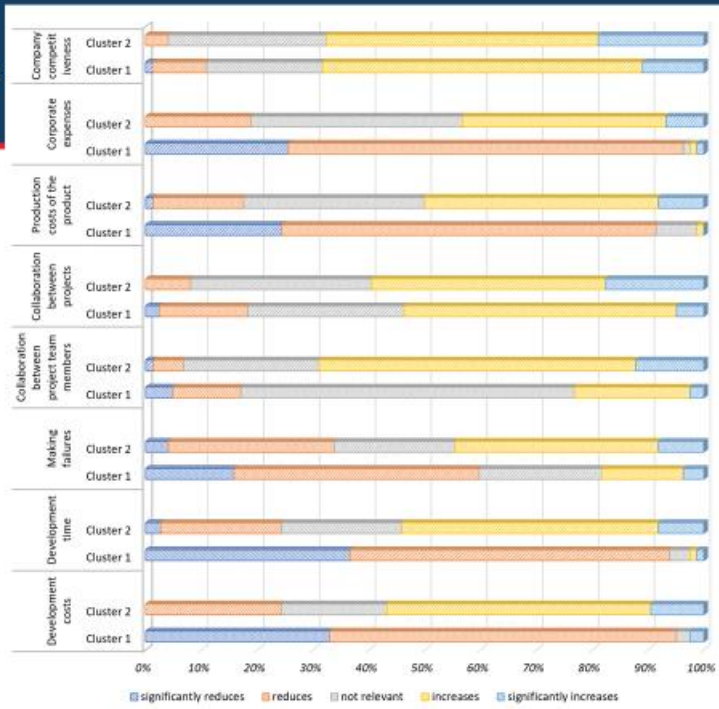


Results





Results





Conclusions

- Few significant differences by the grouping factors
 - Attitudes to modularization are partly independent from the profession and other factors

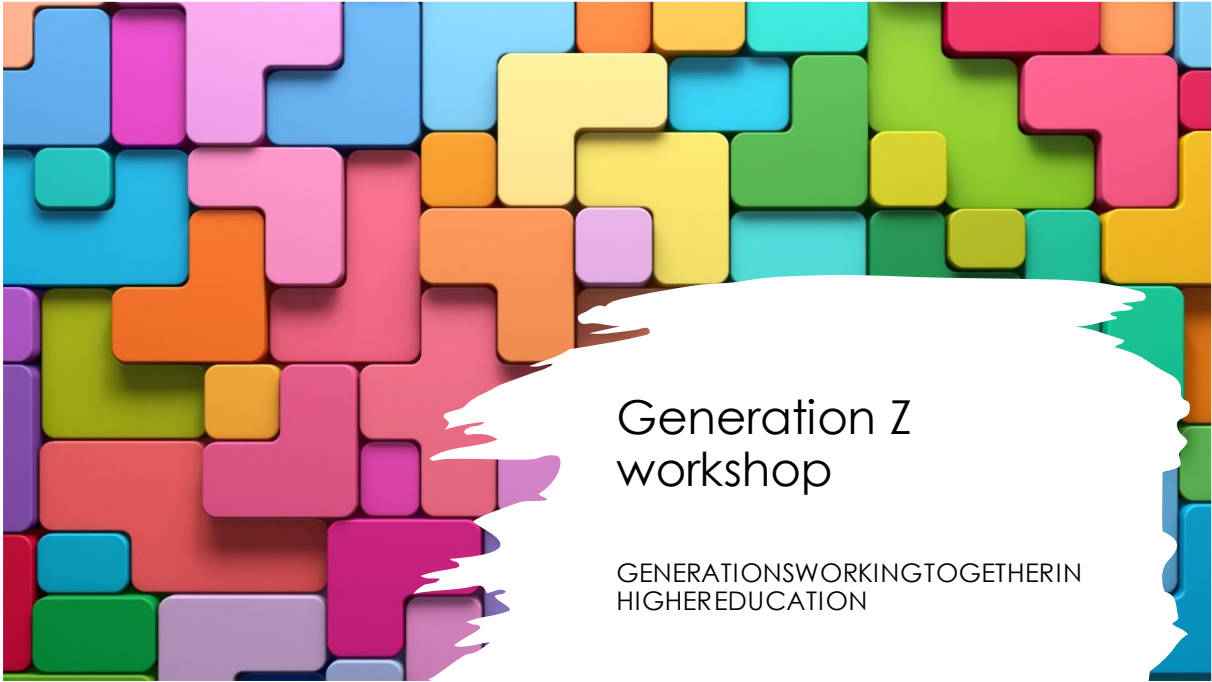
- Limited interpretation of the results
 - But basic changes can be expected with a new generation of managers and product development engineers

- Two clusters identified with different approach to modularization
 - Improving trust is sharing information is important

GENERATION Z WORKSHOP

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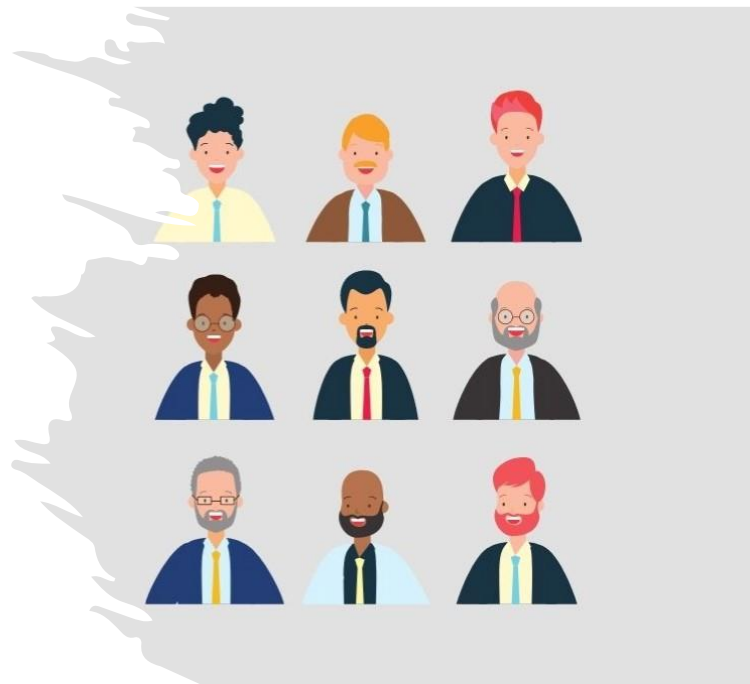


Generation Z workshop

GENERATIONSWORKINGTOGETHERIN
HIGHEREDUCATION

agenda

- Social categorization: age-stereotypes and generations
- Students changing needs
- Lifespan development: Changing abilities & goals

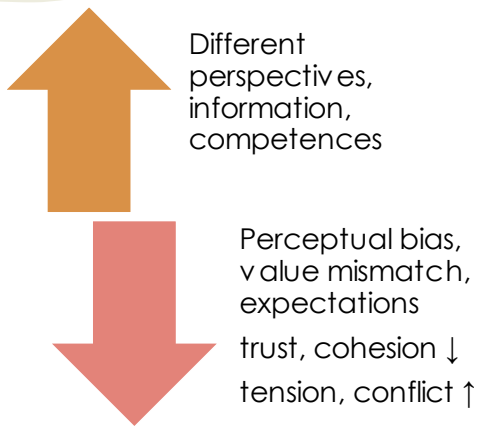




*When is someone
considered „old”?*

Hungary 65, Spain 62, Poland 73

Advantages and disadvantages of differences



„Employee-gens” in Hungary: Meretei (2017)



Age stereotypes

Categorization is unavoidable—
cognitive limits but simplification,
inaccuracy → orient behaviour &
biases („old" vs „young")



? Stereotypes from work context
Old people are
Young people are

Age stereotypes

Unavoidable social categorisation
→ simplification inaccuracy →
expectations, biases („old" vs
„young")

Possible - consequences:
competition, power imbalance →
reduced cohesion, conflicts

PERFORMANCE: older people are less skilled, motivated and productive than younger people

DEVELOPMENT: older people are harder to train, less adaptable/flexible, more resistant to change, → lower return on training

RELIABILITY: older people are more reliable, stable and committed than young people

PRODUCTIVITY: younger people are more productive, creative, ambitious, enthusiastic and efficient

FLEXIBILITY: younger people are better able to cope with stress at work, more likely to ask for immediate feedback on performance

Posthuma & Campion, 2009: Age stereotypes in the workplace

Generations' work values	
Baby boomer	equality , optimism, involvement, team spirit, " hard-working , loyal, doesn't understand technology, resistant to change, financial interest "
X	independent, skeptical, trustworthy, high job expectations, fun-loving, „ lazy , tech-savvy , WLB, non-loyal, hard-working , well-educated" →
Y	self-confident, assertive, tolerant , competitive , practical, spirituality, wants it now, ambitious, " tech-savvy , communicative, multitasker, WLB, empowered: impatient, arrogant"
Z	Success, financial interest , career (Tari), connection, SM Autonomy, enjoyment from work, security, equal treatment & opportunities (Törőcsik, PTE) Flexible working hours, stability and predictability, high salary (PwC, 2019 - 16-28 y!).

teamwork

Individual



Last attempt to engage your students?

Students changing needs in HE

Why is learning important for student?

→ „Personal and intellectual growth“ (cognitive challenge) (56%)

→ other: acquiring specific skills, knowledge (high-paying-jobs), or postpone adult responsibilities (social motive) (Berger, 2016)

„Most people tire of the lecture in ten minutes; clever people can do it in five. Sensible people never go to lectures at all!“ (Leacock id Chadbury, 2011:13)

Increased need of / for

- interaction, teamwork, constant communication
- active, collaborative learning , practice
- use of technology
- immediate acquisition of knowledge
- personal engagement (as catalyst),
- fulfillment of their goals

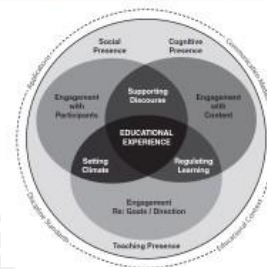
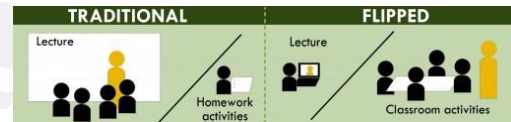
Teaching
PM-competences

Bates et al, 2017

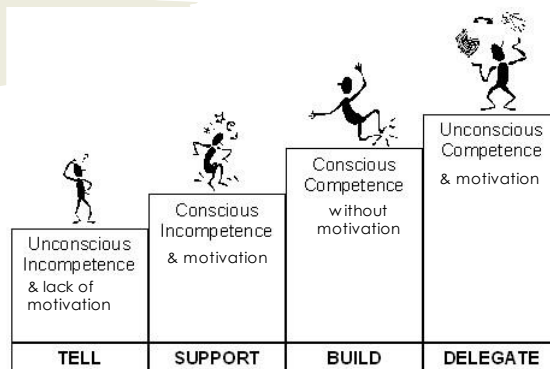
Solutions in HE

„a sage on the stage” → „guide on the side”

- More teamwork, problem solving
- Methods facilitating interaction, involvement
- Integration of technology
- MOOC, FlippedClassroom, Blended-learning, Gamification



Hersey and Blanchard's situational leadership



- Abilities
 - Motivation
- from lifespan perspective

Key factors:

- ability – task maturity
- willingness – psychological maturity

Narrow focus, but low maturity followers benefit from directive behavior

Lifespan development: changing cognitive abilities

Early 20s peak

Different pattern of decline - intelligence (I), memory (M):

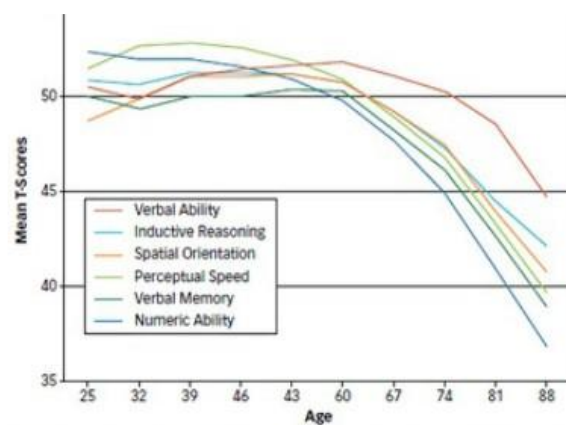
→ Crystallized I (facts, info), LTM (retrieve info), semantic M (meaning of words) – stable increases, slower decline

→ Fluid I (capacity to connect ideas, draw inferences), working M (hold info) – faster decline

Decline may due to

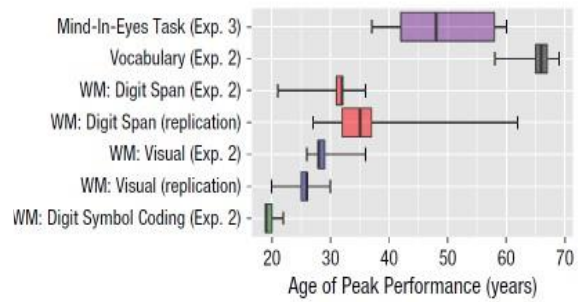
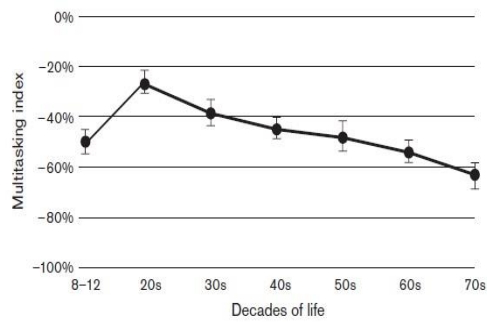
→ Biological, functional decline (e.g. brain)

→ environment (e.g. stimulation, digital usage)



Seattle Longitudinal Study (Schaie, 1993, 2013)

Lifespan development: changing abilities



Hartshorne & Germine, 2015

„NeuroRacer“ Gazzaley & Rozen, 2016 :91
 Multitasking → reduced accuracy and speed of task completion

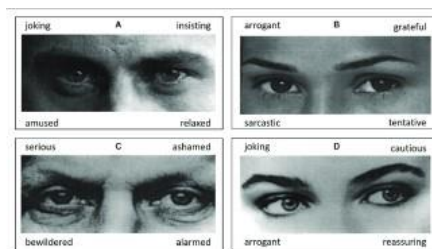
methods

NeuroRacer → resistance to distraction, goal interference, interruption on task performance

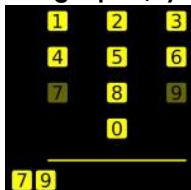


“single-task version” - target sign
 “distraction version” – car driving along
 “multitasking version” – target & navigate
 dependent Variables: how accurately, rapidly perform this task

Mind-in-the-eye → empathy



Digit span/symbol → WM capacity



1	2	3	4	5
\$	%	<	>	=

Digit Symbol Test

4	2	3	5	1

Vocabulary

For each initial word, find the other word which means the same or most nearly the same.

beast

- afraid
- words
- large
- animal
- separate

COHORT-effect

Schaie: with generations (1889 → 1973)

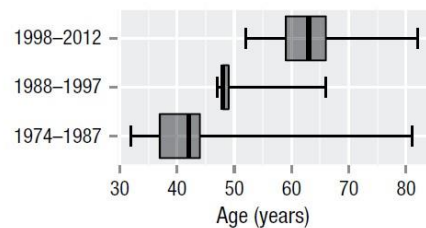
→ Numeric ability lower (← less computation)

→ Verbal memory, inductive reasoning higher scores

Reasons: education, complex work problems, more cognitive stimulation, digitalization

Gens: different attitude

genZ: dependence, transformed brain activity with usage, decision & concentration fatigue, overloaded WM → „distracted mind“



Vocabulary test, Hartshorne & Germine, 2015

goal-oriented behaviour distracted by (too much/ continuous) external info that needs attention for decision of usefulness → fatigue (Gazzaley & Rosen, 2016)
Cognitive load (Sweller et al, 2019) new info limited WM, after processing → LTM

Principles (suggestions) for instruction

- Information is stored in LTM – help to get info into this storage
- Borrowing and reorganising – info comes from others (instructor, students) via communication, cooperation
- Randomness as genesis – if info unavailable from others → generate it using problem solving (random generate and test)
- Narrow limits of change - limitations of working memory with fixed capacity → needs recovery & support (visualisation)
- Environmental organising and linking – limit of WM ↔ unlimited LTM → facilitate integration of stored and new info, skill

Sweller et al, 2019

Why do you participate in the workshop?

Because

- it contributes to my professional career.
- I would feel bad about myself if I didn't participate in a professional events.
- it is personally important to me to be active in a professional networks.
- For the pleasure of discovering new ideas in my professional field.

External regulation



Integrated/ Intrinsic motivation

Lifespan development: changing goals

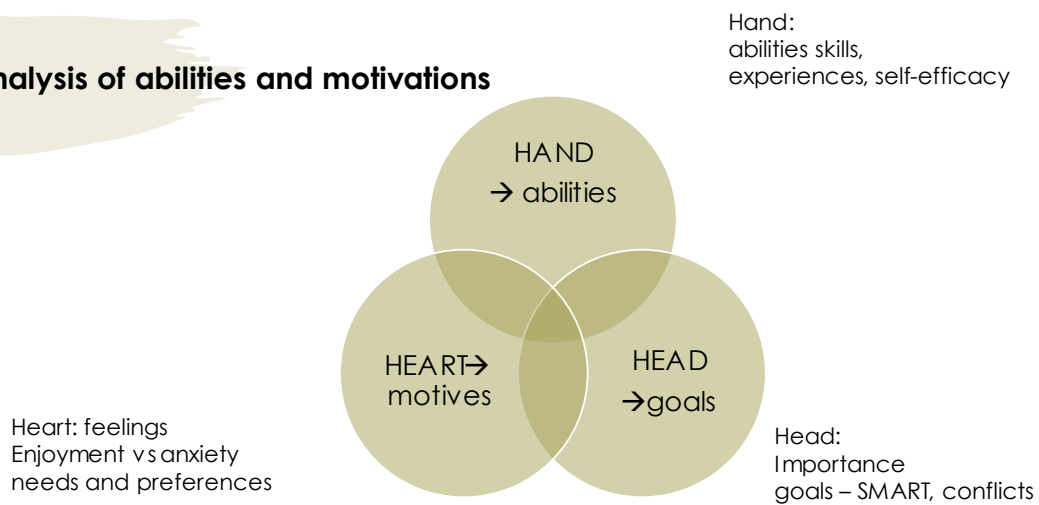


→ Early adulthood long, open time horizon, motivated to invest, achieve knowledge development (info, experience), expanding network; long-term extrinsic objectives (compensation, promotion)

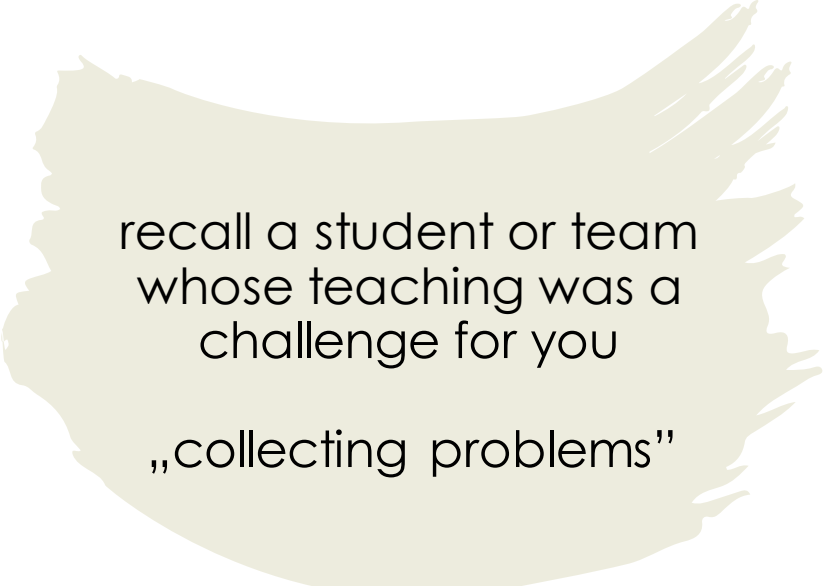
→ With age: limited time horizon, shift toward maintenance & regulation of loss
→ short-term intrinsically oriented goals (emotionally satisfying meaningful tasks & interactions, utilizing skills)

(Carstensen et al., 1999; Heckhausen et al., 2010; Kooji et al., 2011)

Analysis of abilities and motivations



Kehr, 2004 motivation model

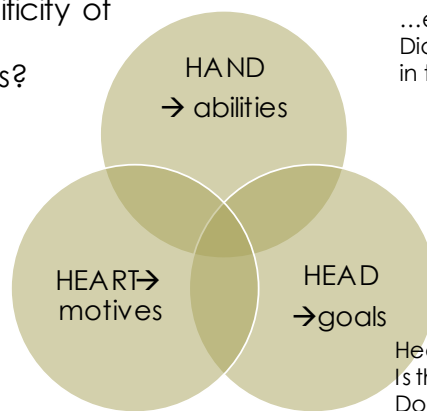


recall a student or team
whose teaching was a
challenge for you

„collecting problems”

Analysis of abilities and motivations

Source of problem?
Derives from the specificity of
teaching PM?
Possible solutions?




Heart Q.:
Does she/ **you**
... really like the task?
...have fun during task engagement?
...feel uneasy/ anxiety, fear?
Is there a fit between her/ **your** needs and
predilections (prefer)?

Hand Q:
Has she/ **you** got the necessary
...abilities & skills?
...experiences?
Did she/ **you** succeed in similar tasks
in the past?

Head Q.:
Is the task really important to her/ **you**?
Does the task fit to her/ **your** goals?
Do the goals meet SMART criteria?
Are there any goal conflicts?
What is the goal behind the goal?

Kehr, 2004 motivation model



Thank you for your
attention!

INNOVATION INDUSTRY 4.0 APPLICATION POSSIBILITIES FOR ROLLER TRACK DESIGN

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INNOVATIVE INDUSTRY 4.0
APPLICATION POSSIBILITIES FOR
ROLLER TRACK DESIGN

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Prof. Dr. habil. Péter Tamás, university professor

2022.11.17.

STRUCTURE OF A PRESENTATION

- INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0
- ROLE OF ROLLER TRACKS IN MATERIAL FLOW
- ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS
- SUMMARY

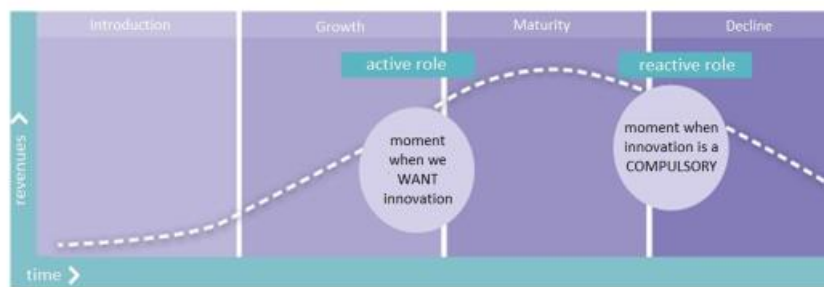
INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Without the tools of Industry 4.0, manufacturing companies would not be able to cope effectively and cost-effectively with today's rapidly changing requirements and ad hoc problems. This chapter deals with these innovative technologies. There are two prominent moments in the life of companies when innovation initiatives are more common. The first such moment is when the company is still growing, its performance has not yet reached its peak, but it is already close to it. The desire for innovation is then driven by inner will and passion, and it is motivated by maintaining a competitive position and gaining an advantage. The second moment occurs when the company's performance declines. In this case, innovation is influenced by the compulsion due to survival [1].

3

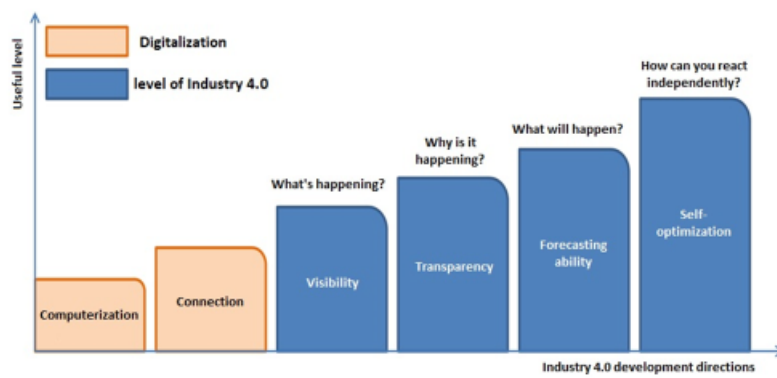
INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

The best moments for innovation [2]:



INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Development stages of Industry 4.0 [3]:



5

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Internet of Things:

There is no clearly established position regarding the exact wording of the Internet of Things, and there are even disputes regarding the translation of the English Internet of Things into Hungarian (dolgok internete vs. tárgyak internete). As an introduction to this chapter, let's examine some definitions, some of which come from professional sources, while others were formulated on news portals and forums [3].

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Internet of Things:

"The Internet of Things essentially means different, clearly identifiable electronic devices that are able to recognize some essential information and communicate it with another device on an Internet-based network. In other words, the term covers networked "intelligent" devices." [4]

7

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Internet of Things:

"The term Internet of Things (IoT) - describes, on the one hand, that the computer, the personal computer, is increasingly "disappearing" in certain fields of application and its role is being taken over by "intelligent objects, things". Instead of (as currently) the computing device being at the center of a person's attention, the "Internet of Things" should serve people almost invisibly, imperceptibly, without disturbing them. On the other hand, during physical implementation, the "Internet of Things" also refers to the connection of individually identifiable physical objects and devices in a structure similar to the Internet. The network structure not only "connects people", but also things and devices." [5]

8

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Internet of Things:

"In a broader sense, it is the totality of devices connected to the Internet, but increasingly we also include objects that are able to "talk" to each other... The IoT enables closed-chain devices connected to the internal Internet to communicate with others. In this way, different devices can work together not only with nearby devices, but also with devices on other networks, and thus the world becomes more and more "interconnected"." [6]

9

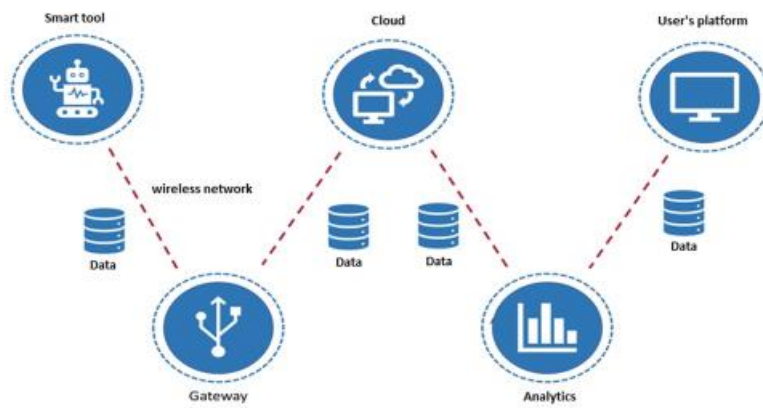
INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Internet of Things:

"The essence of the Internet of Things is that household appliances, cars, and production equipment will be accessible via the Internet and will be able to communicate with each other without human intervention. The flow of data takes place between the machines participating in the system and those connected to the Internet - the engine of this data exchange is the "machine-to-machine" (M2M) technology, which is also much talked about these days." [7]

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

The main components of the Internet of Things [8]:



11

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Big Data:

Big data basically refers to large amounts of real data generated in the physical and cyber world and their processing. This large amount of data is generated on devices and/or sensors integrated into the IoT, and it is a significant task to ensure the storage and processing of this large amount of data at a level that meets user needs [11].

IBM sees many problems in the field of Big Data [12].

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Digital twin:

A digital twin is a set of information that fully describes a potential or existing product from the atomic level to the macrogeometric level. In the optimal case, all conclusions and information can be extracted from the digital twin, which can be obtained by observing the real product. There are two versions of the digital twin, the digital twin instance and the digital twin prototype. The digital prototype contains all the information on the basis of which the real product can be described and manufactured. The digital prototype contains the following information: requirements, 3D model, parts list, manufacturing process. A digital instance is a virtual product connected to a physically existing product, which contains the following information: a 3D model describing the geometric data of a real object with high accuracy, a parts list with current and previous parts, technological operations that were previously performed on the real product, previous measurements and their results, results of previous maintenance, list of replaced parts [13].

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INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

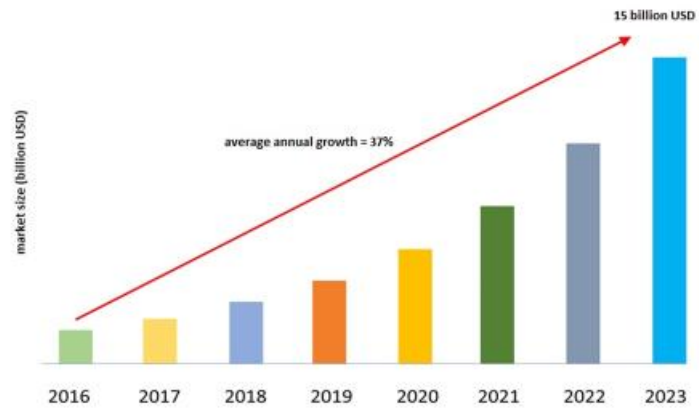
Digital twin [15]:



34

INNOVATIVE TOOLS OF INDUSTRY 4.0 AND LOGISTICS 4.0

Forecasting a large increase in the digital twin market [16]:



35

APPLICATION OF INNOVATIVE TECHNOLOGIES IN MATERIAL FLOW

Simulation modeling in logistics [17]:

If we want to define simulation as a concept, then we interpret it as a method that is suitable for realistic modeling of the operation of processes and systems, so that their state changes can be evaluated. When designing a roller track, there are many challenges in creating the simulation model, as we need to accurately recognize the material flow system of the company operating the system and the operation of the roller track.

APPLICATION OF INNOVATIVE TECHNOLOGIES IN MATERIAL FLOW

The most important steps in preparing the simulation study [18]:

- Determination of the purpose of simulation, delimitation of the examined logistics system
- Getting to know the operation of the examined system
- Determination of the set of logistic indicators necessary to achieve research goals
- Definition of input and output data
- Creation of a simulation model
- Checking and improving the developed model
- Evaluation of examination results, formulation of proposals

ROLE OF ROLLER TRACKS IN MATERIAL FLOW

During roller track goods transport, piece goods are moved through a row of rollers built into a track with a given track. We speak of gravity roller track transport if the goods move on free-running rollers and the driving force of the movement is the force of gravity. The gravity roller row must be placed at a given slope angle, which determines the transport speed [19].

Roller tracks enable continuous transport, which has three different versions:

- gravitational movement,
- driven roller movement,
- external goods movement on free-running rollers.

ROLE OF ROLLER TRACKS IN MATERIAL FLOW

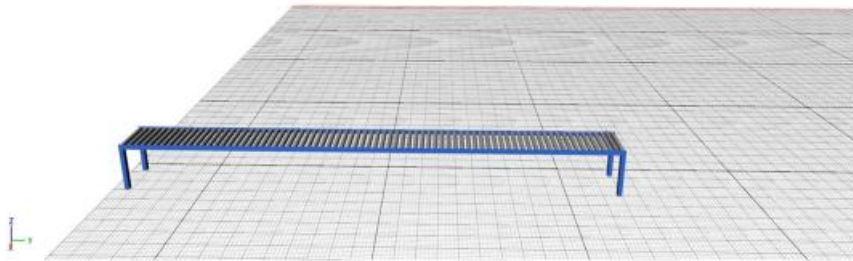
In case of material handling on multiple levels, we have to solve the bridging of the complex material flow system with the help of other material handling equipment. Since elevators can be easily integrated into such systems, it can generally be said that companies use elevators to solve the bridging of the material flow between roller tracks in the case of palletized transport of larger loads. In this case, the capacity of the elevator must be designed in such a way as to avoid these material handling equipment becoming a bottleneck.

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS

Nowadays, it is essential for companies to use methods that implement innovative elements. There are many areas in the entire supply chain where it is impossible to achieve the quick and efficient results expected by the management without these technologies. One of these innovative options for roller track design is simulation modeling using a digital shadow.

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS

The roller track elements in the simulation model must be created in such a way that they have the properties of the real track in terms of size, operation, failure rate, etc.

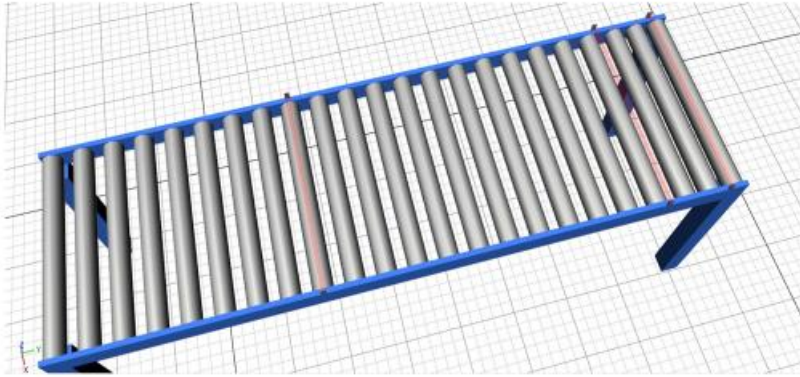


21

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS

Several sensors are placed on the roller track elements, which helps control the operation of the system. These sensors (light and radio frequency) must also be integrated into the virtual twin, as these sensors will facilitate the control program and the operation of the system cannot be realized without them even in the digital space.

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS



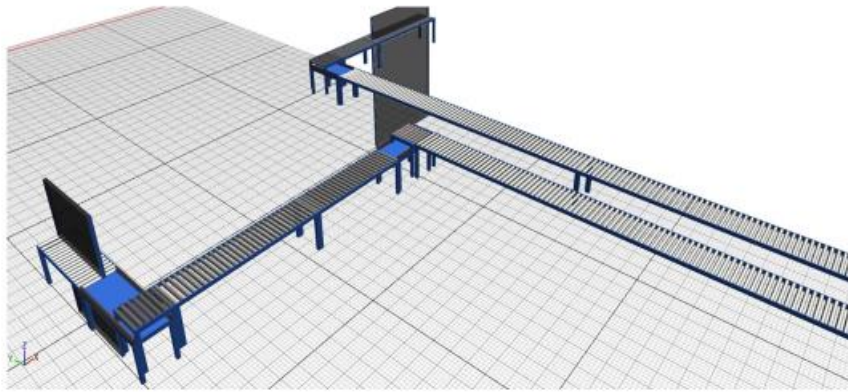
29

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS

The innovative solutions of Industry 4.0 make it possible to create a system built from a set of digital shadows in a simulation space, the system of which is the digital totality. The following figure illustrates such a system built from digital shadows.

24

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS



25

ROLLER TRACK OPERATION AND DESIGN USING INNOVATIVE METHODS

With the help of this simulation, tests can be carried out that can provide answers to the uncertain questions of the planned new system or existing system expansion. These can be:

- sizing issues,
- issue of sensorization,
- operational strategies,
- search for bottlenecks,
- construction of nodes,
- places and amount of pulkings,
- determining the length of a track section,
- etc.

SUMMARY

In the thesis, several tools of Industry 4.0 were presented, as well as the application of a Logistics 4.0 method in the design of a roller track, which simulates reality with innovative digital instances, thus the digital totality in the simulation space can answer important questions at the planning level. The Siemens Plant Simulation software was used for the illustration.

Companies using innovative technologies can gain a competitive advantage and avoid unnecessary investment costs. The innovative Industry 4.0 methods do not only mean the application of the most modern technology in the industry, or the continuous catching up with the latest production trends. These are all about applying new innovative strategies that focus more on reality, thereby improving the accuracy of test results.

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THANK YOU FOR YOUR ATTENTION!

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EXAMINING SUCCESS COMPETENCIES IN PROJECT MANAGEMENT IN RELATION TO THE PROJECT MANAGER

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PhD research topic:

Examining success competencies in project management in relation to the project manager

17.11.2022.

Agenda

01

Research area

02

Project and definition of a
successful project

03

Critical success factors

06

Research objectives and
questions

05

Examination of personality
types

04

Overview of success
competencies in project
management



Project management – Success competencies – Strategic management –
Technological, human and project manager competences –
Personality types – Behaviour – Interests



The concept of project and project management has undergone many changes over the decades since the 1960s .

02 – Project and definition of a successful project

Görög (2013) grouped the critical success factors into three categories:

01
competence-related success factors

02
success factors related to motivation

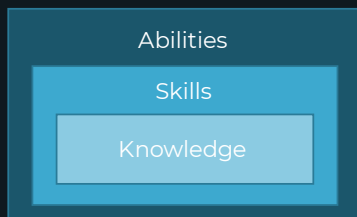
03
success factors related to the project environment

03 – Critical success factors

The image is a 3x3 grid. The top-left cell contains the introductory text. The middle row is dedicated to '01 competence-related success factors', with a central text box and two image panels: a person on a rocky shore and a close-up of a green leaf. The bottom row is dedicated to '03 success factors related to the project environment', with a central text box and two image panels: a sunset over mountains and jellyfish. The right column contains '02 success factors related to motivation', with a top text box and two image panels: a sunset over mountains and a person in a boat with a rainbow. A footer '03 – Critical success factors' is located in the bottom-right corner.

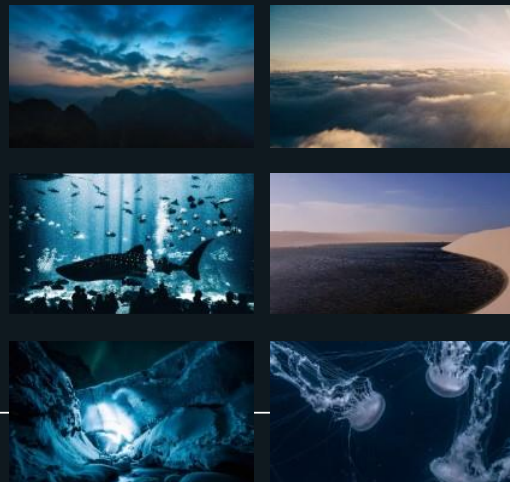
There are different approaches to the issue of competencies for success.

IPMA – ICB 4.0



- 01 – Technical skills,
- 02 – Human skills,
- 03 – Project management specific skills

04 – Overview of success competencies in project management



There are several methodologies for determining personality types, of which I will focus on the MBTI®, DiSC® and ProfileXT® methodologies.



MBTI®

- Extroverts – Introverts
- Sensors – Intuitives
- Thinkers – Feelers
- Judgers – Perceivers



DiSC®

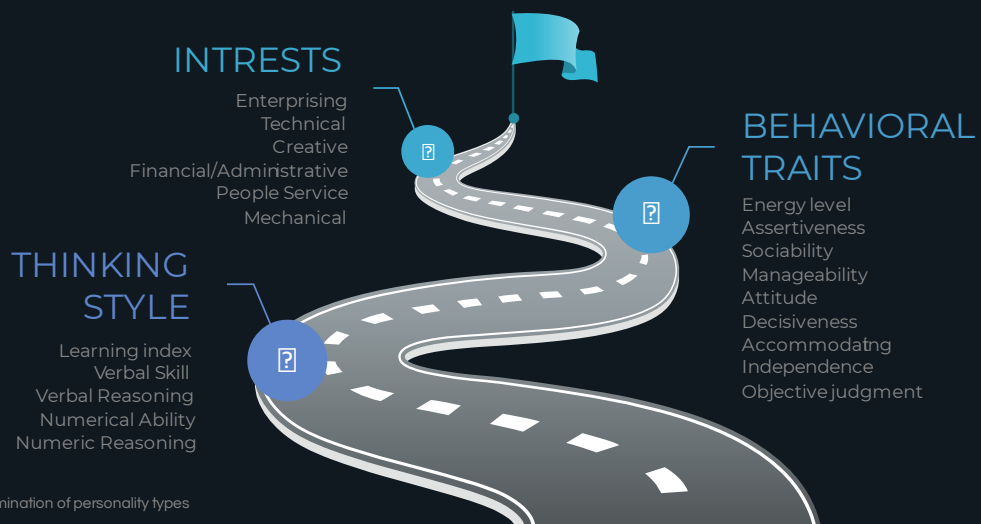
- D= Dominance
- i=Influence
- S=Steadiness
- C=Conscientiousness



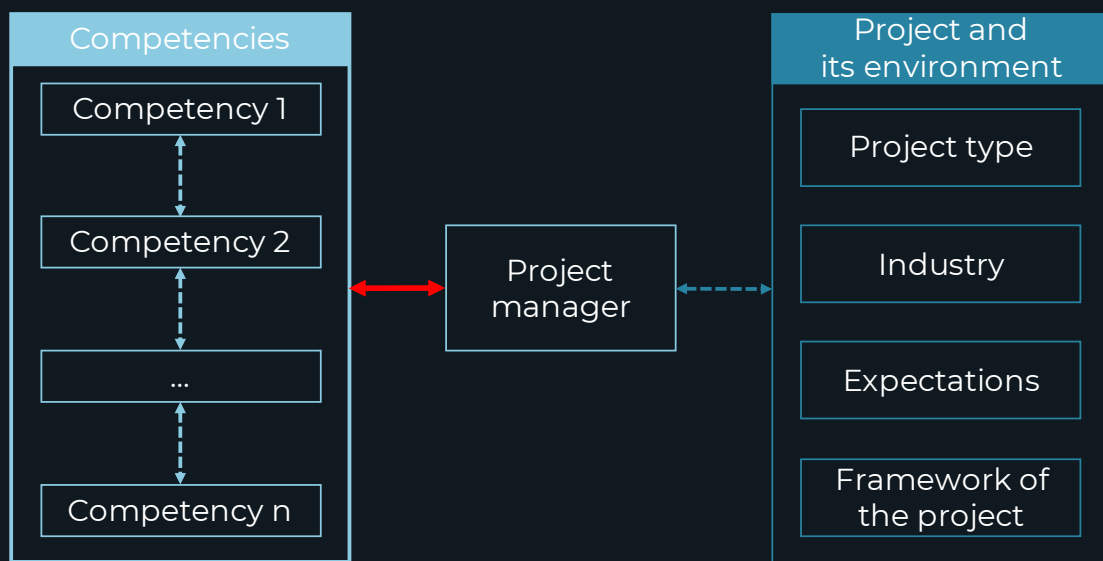
ProfileXT®

- Thinking Style
- Behavioral Traits
- Interests

ProfileXT® elements of the competency map



Research model



By reviewing the national and international literature I would like to answer the following main research questions.

- 1 What is the relationship between project manager competencies and project manager personality type?
- 2 Which industry-specific project manager competencies are related to project manager personality?
- 3 What influences a successful project leadership style?

Summary – Main questions
Please share your ideas, advices and tips...

01 – What do you think
about the research topic?

02 – How could I improve
and develop my research?



Thank you for
your attention!

12

CHARACTERISTICS, READINESS AND DEVELOPMENT NEEDS OF GENERATION Y'S AND Z'S PROJECT MANAGEMENT SOFT SKILLS

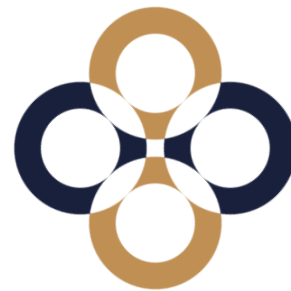
Nikolett Tóth

Corvinus University of Budapest, Budapest, Hungary
nikolett.toth2@stud.uni-corvinus.hu

Characteristics, readiness and development needs of Generation Y's and Z's project management soft skills

-in the Hungarian ICT industry

Tóth Nikolett



Introduction of the topic



- The importance of and demand for projects is growing- Project Economy (Rodriguez, 2021)
- There is an increase in the complexity of projects
- The complexity of projects requires soft skills on the part of PM in addition to hard skills
(Mengel, 2008; Magano, 2020)
- ICT is one of the most important sectors globally in terms of current economic indicators and trends - It is also at the forefront of projectbased industries (PMI, 2017; Maryska, 2012)
- Importance of soft skills in the ICT sector(Stevenson, 2010)

Introduction of the topic

- The multigenerational project environment X, Y, Z
- Individuals of different generations have different strengths and weaknesses in soft skills relevant to project management
- Individuals of different generations prefer different learning styles and skill acquisition methods
(Magano et.al (2020); Tutar (2021); Pishchik (2020); Voelkening (2014); Takács et.al. (2014); Nieradka (2016) ; Yilidrim et.al. (2019); Törőcsik (2014); Wessels (2009); Bencsik és Machova (2016))
- Educational institutions should prepare with new methods fitting new generations
- Employers and employees should prepare to the next generation PMs (Schroth, 2019)

Literature Review – Frequently cited soft skills

 <p>Soft skills</p>	<p>Integrity Communication Courtesy Responsibility Social skills Positive attitude Professionalism</p> <p>Flexibility Teamwork Work ethic</p>
 <p>PM soft skills</p>	<p>Communication Empathy/EI Leadership General Management Overview ability Conflict Management Accountability</p> <p>Networking Skill Team Building Planning organization Problem-Solving Political Savvy Flexibility Foresight</p> <p>Presentation Skills Sense of Humor Cultural Awareness Time Management Decision-Making</p>
 <p>IT PM soft skills</p>	<p>Communication Leadership Conflict Management Thinking Innovativeness Change Orientation Negotiation</p> <p>Motivation Problem solving</p>

Adapted from: Voelkening (2014); Iriarte (2018); Robles (2012)

Literature Review – Generational Comparison



	Generation Y	Generation Z
Main global events, phenomena	<ul style="list-style-type: none"> • 9/11 terrorist attacks • Natural disasters • Fast economic and technological changes • Social media • Google 	<ul style="list-style-type: none"> • Global terrorism • Global crisis • Mobile devices • Arab Spring • Covid-19 pandemic • Social network mobility and multiple realities • Data cloud
Technology	<ul style="list-style-type: none"> • Computer technology 	<ul style="list-style-type: none"> • Smartphones

Adapted from Magan et al. (2020); Tutar (2021); Pishchik (2020); Voelkening (2014); Takács et al. (2014); Nieradka (2016); Yildirim et al. (2019); Töröcsik (2014); Wessels (2009); Bencsik és Machová (2016)

Literature Review — Generational Comparison



	Generation Y	Generation Z
Characteristics	<ul style="list-style-type: none"> • Ability to adapt rapidly to changes • Fond of technology • Daring entrepreneurship and innovative behaviors • Autonomous attitudes and behaviors • High self-confidence • Self-efficient • Success orientation • High competitiveness • Gets bored quickly with monotony • Emphasis on self-development • Socially active • Good at teamwork • Flexible • Analytical 	<ul style="list-style-type: none"> • Value more soft skills • Adaptable to the global world • Realistic • Even greater multitaskers • Responsible • Self-reliable • Entrepreneurial • Flexible • We-centric • Ethical • Not spontaneous • Compassionate and thoughtful • Less interpersonal and social skills • Addicted to technology and speed
Motivation	<ul style="list-style-type: none"> • Interesting projects/tasks • Creativity and innovation • Training esp. management and leadership • Professional development opportunities training esp. management and leadership • Role model, visionary, open-minded leaders • Reward/promotion 	<ul style="list-style-type: none"> • Find their dream job • Entrepreneurial initiative • Creativity and innovation • Opportunities to expand skills • Career-minded • Build a fun, entrepreneurial career

Adapted from Magano et al. (2020); Tuta (2021); Pishchik (2020); Voelkening (2014); Takács et al. (2014); Nieradk (2016); Yıldırım et al. (2019); Töröcsik (2014); Wessels (2009); Bencsik és Machov (2016)

Literature Review — Generational Comparison



	Generation Y	Generation Z
Learning style	<ul style="list-style-type: none"> • Team-work, • Structure • Interactivity • Imagerich environments • Multitasking • Involvetchnology 	<ul style="list-style-type: none"> • Individualized • Technologydriven • Onlineteacher seen as a facilitator • Use of images and visual tools • A desire for practical skills • Groups and many tests • Gamification • Concerned about the cost • Based on interest, informal learning
Knowledge sharing	<ul style="list-style-type: none"> • Only in cases of self interest or if forced 	<ul style="list-style-type: none"> • On a virtual level, easily and rapidly, no stake, publicly

Adapted from Maganoe et al. (2020); Tutar (2021); Pishchik (2020); Voelkening (2014); Takács et al. (2014); Nieradka (2016); Yıldırım et al. (2019); Töröcsik (2014); Wessels (2009); Bencsik és Machová (2016)

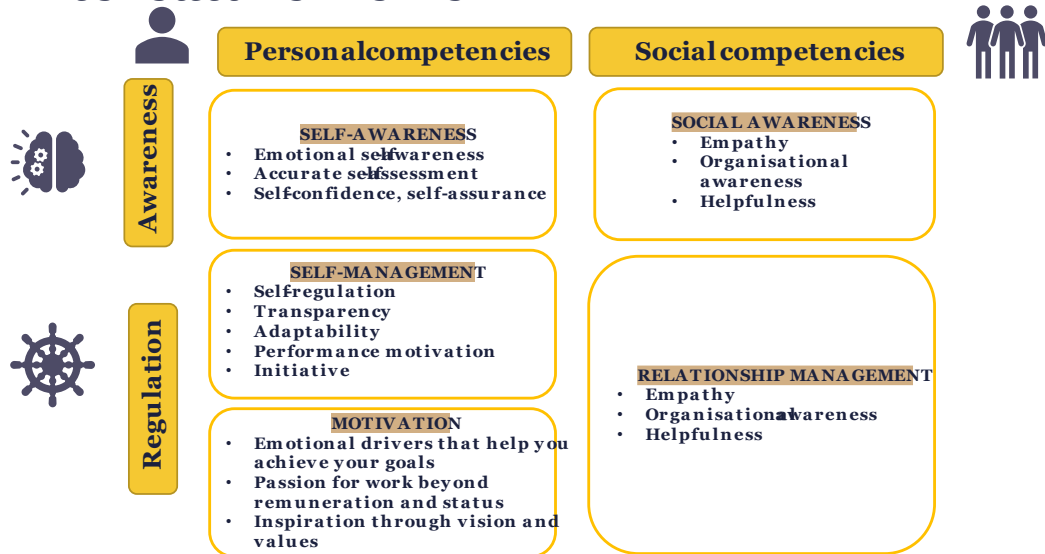
Literature Review — Generational Comparison



	Generation Y	Generation Z
PM related soft skills	<p>STRENGTHS</p> <ul style="list-style-type: none"> • Communication • Empathy • Emotional Intelligence • Leadership • Team Building • Open to Change • Handling stress • Planning skill • Sense of ownership • Time management <p>WEAKNESSES</p> <ul style="list-style-type: none"> • Conflict management • Overview • General management • Foresight • Presentation • Sense of humour • Decisionmaking 	<p>STRENGTHS</p> <ul style="list-style-type: none"> • Organized and methodical • Responsibility • Focus on objectives • Ability to promote and to facilitate the dialog • People oriented • Teamwork • Emotional Intelligence • Empathy <p>WEAKNESSES</p> <ul style="list-style-type: none"> • Expressing the message and sharing problems • Public speaking presentation • Time management achieving deadlines • Attention span • „Starting the work“ • Leadership • Stress management • Self regulation • Self confidence • Dealing with criticism • Prudence level headedness

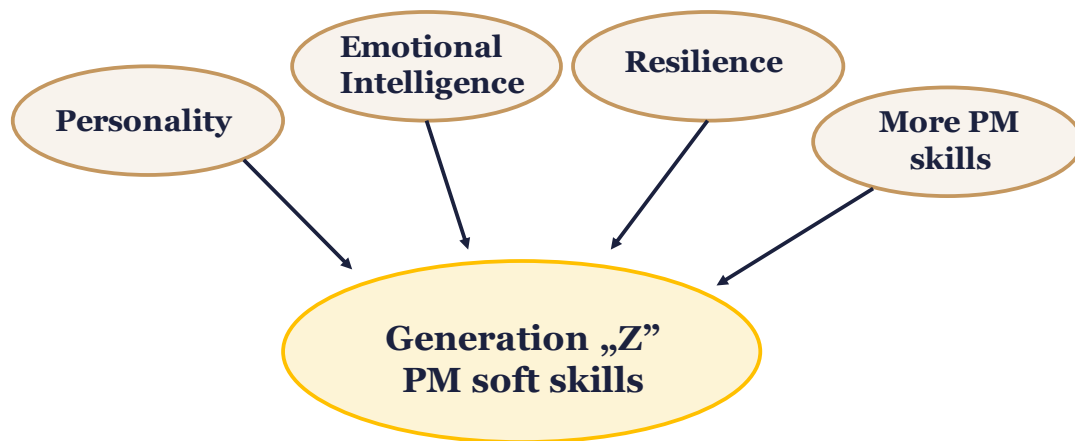
Adapted from Magano et al. (2020); Tutar (2021); Pishchik (2020); Voelkening (2014); Takács et al. (2014); Nieradka (2016); Yildirim et al. (2019); Töröcsik (2014); Wessels (2009); Bencsik és Machova (2016)

Literature Review - EI



Goleman et al. (2002), p.253-257)

Literature Review -



Maganoet.al (2020), p.11.

Problem statement

- The nature of projects and the needs of companies increasingly require soft skills
- Correlation between project success and soft skills
- (PMs of) different generations can have different soft skills and different learning and development needs
(Magano, 2020)
- There is little literature on generational differentiation in PM soft skills and their development, even though a 'box-ticking' approach is not sufficient for skills management and skills development of individuals
- Workplaces and educational organizations should pay more attention to generational differences and gaps in development interventions
- Scope of the research: to compare individuals of generation Y,Z, currently and future working in project management (from PM students to senior PM), based on their level of PM soft skills, their preparedness, their preferences for the development of specific skills (skill development tools, methods) in the IT sector (multi and SME) in Hungary.

Research goals

- To explore the extent and nature of the gap between the expected and existing PM soft skills related to Generation Y and Z in the ICT sector in Hungary.
- To assess how the readiness and development needs of each generation differ and match in terms of project management soft skills.
- The results of the research should provide employers and educational institutions a basis for the management and development of the skills of present and future project managers.



Research questions

- **What are the soft skills that are expected of current and future PMs in the ICT sector in Hungary?**
- What is the extent and nature of the gap in the soft skills expected of PMs in the ICT sector in Hungary?
- **What are the differences and similarities between the abilities, preparedness, and readiness of current and future PMs belonging to Generation Y and Generation Z in terms of PM soft skills in the ICT sector in Hungary?**
- **What are the similarities and differences between the needs of current and future PMs from Generation Y and Generation Z in terms of soft skills development (tools, techniques) in the ICT sector in Hungary?**
- To what extent and in what way is there a gap between the expected and the actual PM soft skills in the ICT sector in Hungary, in terms of each generation?
- **How can companies support the skills development of current and future PMs in a "generation-tailored" way - Hungary IT?**

Methodology



Literature review

Selection of companies



Researchphase I.



Researchphase II.

- **Based on a literature review, identify which PM soft skills are worth investigating**
- **Selection of ICT companies operating in Hungary (multi, SME)**
- **Research Phase I: What soft skills do domestic ICT companies (multi, SME) expect from PMs? –**
 - Interviews with HR staff questionnaire (quantitative) and interview (qualitative, semi-structured questions)
- From the results of the literature review and the results of Phase I of the research, identify which soft skills should be the subject of further investigation – „soft skillset creation”
- **Research Phase II: What are the characteristics, readiness and development needs of Generation Y and Z in terms of soft skills in project management?** Questionnaire-based (quantitative) and qualitative (interview) surveys of project managers and prospective project managers. -
 - Selection of project managers and project management professionals (project assistants, project coordinators) from the ICT companies targeted in Phase I of the research.
 - Selection of students with business, economic related major who studied or studies project management?

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**Thank you for
your attention !**

USING THE ADOODLE ONLINE SERVICE FOR ANONYMOUS VOTING

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USING THE ADOODLE ONLINE SERVICE FOR ANONYMOUS VOTING

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Institute of Automation and Infocommunication

Structure of the Presentation

- Introduction
- Create a survey or vote
- Sending out voting to the participants
- Voters vs Observers
- Voting e-mails
- Voting mechanism
- Weighted votes
- Voting



2

Introduction

ADoodle®

Anonymous Doodle
Free service

Version 2.9.1

English Time zone:
[UTC+01:00] Paris

Latest additions

- Translation & time zones
- Re-sending emails
- Secured connections
- Weighted votes

History

20 Sep 2020: V 2.9.1
5 Sep 2011: Version 2
8 Dec 2010: Version 1
15 Nov 2010: β test
30 Oct 2010: α version

Welcome Create Vote Results Demo FAQ Help

ADoodle is a **simple** service for you to organize an **anonymous** vote or survey among your colleagues or friends. If you have already used **Make a choice** feature at Doodle.com then you may consider ADoodle.org as an **Anonymous** version.

ADoodle.org is a **free** and secured service without any registration. Simply set up a vote with a list of choices and emails and let the participants express themselves freely and anonymously.

Create a new vote

News (Click to open/refresh)

Contact: [contact\[at\]adoodle.org](mailto:contact[at]adoodle.org) or see the end of FAQ tab

ADoodle is a simple service to organize an anonymous vote or survey. The first letter 'A' of the name also refers to anonymity.

ADoodle.org is a free and secured online service without any registration

3

Create a survey or vote

Someone, called the creator, creates the vote or survey by providing:

- a title,
- his/her name,
- a question or subject,
- and a list of possible choices.

The creator also provides a list of

- voters and
- possibly a list of observers (who do not vote).

The set of voters and observers are referred to as the participants.

Create a survey or vote

ADoodle®

Anonymous Doodle
free service

Version 2.9.1

English time zone:

Latest additions

- Translation & time zones

- No sending emails

- Secured connections

- Weighted votes

History

20 Sep 2010 - V 2.9.1

5 Sep 2011 - Version 2

8 Dec 2010 - Version 1

15 Nov 2010 - @test

30 Oct 2010 - a version

Create a survey or vote

It is a good practice to have a look - first - at the recommendations to vote creators in the Help tab.
Then please choose on the left the **language** and **time zone** (sorted by continent) of the interface and of the sent emails. The emails always contain an English version.
Please use only the buttons on this web page, not the Back and Forward buttons of your browser: which functions have been altered for security reasons.

1. General information

Title of the vote/survey

ME - terest szavazás

This will be the subject of the sent emails. Choose a distinctive title.

Creator of the vote

Mátécsó Egyetem

For the information to the participants.

Question which the choice(s) below must answer

Távozat ja = XYZ szennátus1 taguággát?

The voters will select an answer corresponding to this question.

2. List of choices

Text	Choices	Action
<input type="radio"/>	Igen	Remove
<input type="radio"/>	Nem	Remove
<input type="radio"/>	tanfolyamod	Remove

The voter can only choose one of the proposed choices.

- If you want multiple choices with check boxes please click

Create a survey or vote

3. Participants

3.1 Voters

Please give a **list of emails** (one for each line or in comma separated form or short).
The voter will receive an email containing a unique personal vote ticket and two links to vote and to display the results of the vote. **Naturally a voter can only vote ONCE.** All the emails are erased from the vote machine memory after use.
`varga.attila@inf.elte.hu`
`varga.attila.karoly@gmail.com`

NO DUPLICATED EMAILS All emails must exist and be valid and must not blur emails from A2000de.org.
An e-mail address with the bit 1, is for you to send an announcement email to the participants (using your own email account), before creating the vote. It will help you detect defective addresses. Once the vote created, note that the email addresses can no longer be changed. See 'Help' tab about vote creation.

Weighted voters - [Click on to open/used](#)

3.2 Observers

Please give a **list of emails**. The observers will receive an email containing a link to display the results of the survey. An observer does not vote. All the emails are erased from the vote machine memory after use.
If you create the vote and do not vote, then [put your email here](#) to follow the results.

NO: All emails must exist and be valid and must not blur emails from A2000de.org. See 'Help' tab about vote creation.

4. Dates

No dates are defined. Voting and observing the results will be possible at all times.
If you want to limit vote duration and prevent disclosing the results during the vote period of time, please add date limits:
[Add date limits](#)

5. Options

Please review carefully the other parameters of your vote.
A check mark means that the option is active, otherwise the option will not be applied.

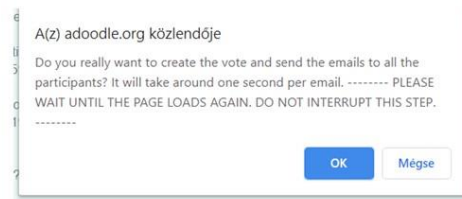
Since no date limits are specified, the **participation rates** will be available at all times.

I don't, the **results** will be available at all times.

Sending out voting to the participants

6. Preview the data

By clicking on the following Previsualize button, the input data will be checked and the vote data will be previsualized.



Sending out voting to the participants

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Latest additions

- Translation & time zones
- Re-sending emails
- Secured connexions
- Weighted votes

History

- 20 Sep 2020: V 2.9.1
- 5 Sep 2011: Version 2
- 8 Dec 2010: Version 1
- 15 Nov 2010: beta test
- 30 Oct 2010: alpha version

Welcome **Create** Vote Results Demo FAQ Help

All 2 emails have been sent with success.
The vote has been successfully created.

Please CLOSE this page NOW or create a new vote by going to the 'Welcome' tab.

For information the proofs of the vote existence are the emails sent to the participants. The emails also contain the unique vote identifier.

This was the last step of the vote creation.

A good and welcome practice for the vote creator is to inform the participants of the creation of this vote or survey. If you have not done so already, please send an email to all the participants (using your own email account) to explain the reasons of the creation of this vote and that they should expect to receive or should have received an email from no_reply@doodle.org.

If a participant did not receive the email from no_reply@doodle.org, please suggest to look first into the spam folder. If the email is not there, you can redirect the participant to the 'Help' tab to have the email resent. Please note that depending on your reception servers, emails may take from a few seconds to several tens of minutes to arrive.

Here is the email emission report:

Sending voter email to vazpa.attila@uni-miskolc.hu has been successful (1/2)
Sending voter email to vazpa.attila.kazoly@gmail.com has been successful (2/2)

In case of success, please note that the emails may take some time to reach their destination. ADoodle.org controls email emission but reception is out of its reach. If a participant does not receive her/his email, please have a look at the [help](#) tab for a solution. Please note that voting is possible only after the end of email emissions (i.e. now), in case some voters would have tried to vote before.

Voters vs Observers

All the participants share exactly the same information

Everyone involved in the vote knows which e-mails belongs to

- the voters,
- the non-voting observers
- And those who can only see the results of the survey.

The vote creator does not know more or less than any other person involved in the survey, the voting mechanism is based on fairness and equality

Voters vs Observers

An email is sent to each observer to look at the results, but not to vote.

With the vote email to the voters comes two links:

- the first link enables to vote and should be kept secret.
- the second link corresponds to the page of results.

The vote machine has no knowledge of the physical identity of the voters. In particular the server, at voting time, has no knowledge of the email address of the voter.

Voting e-mails

Unique vote identifier: 35db4568c2a88dbcf5ad1a5e5413e61

Dear voter,

The vote creator Miskolci Egyetem asks you to participate in an anonymous vote which title is:
ME - teszt szavazás

To participate and vote, click on the following link. The vote is anonymous: no one knows who is voting and who is voting what. Note that you will be able to vote only once. This link should not be given to a third party unless you want to transfer your unique personal vote ticket to someone else.
<https://www.adoodle.org/index.php?action=vote&survey=35db4568c2a88dbcf5ad1a5e5413e61&ticket=c98ea25fe15aa35db09adb2af381cf51&timezone=Europe/Paris>

To observe the results, click on the following link. This shared link is distributed to the voters and to the observers to look at the results.
<https://www.adoodle.org/index.php?action=showresults&survey=35db4568c2a88dbcf5ad1a5e5413e61&timezone=Europe/Paris>

In the time zone "UTC+01:00 Paris" accounting for winter/summer time change:

The vote starts **Thursday 29 October 2020 at 16h 32min 00s**

The vote ends **Thursday 29 October 2020 at 16h 32min 00s**

The vote will last 10 minutes

You will be able to see the results as soon as all the voters have voted or after the end of the vote.

The participation rates are available at all times (use the observer link).

For information the list of 3 voters is

1 - szavazasra_jogosult_01@uni-miskolc.hu

2 - szavazasra_jogosult_02@uni-miskolc.hu

3 - szavazasra_jogosult_03@uni-miskolc.hu

According to ADoodle.org principles, the voters have access to the results, after the end date if defined.

The list of 1 observer is:

1 - megligyelo_01@uni-miskolc.hu

The observers have access to the results, after the end date if defined, but do not vote.

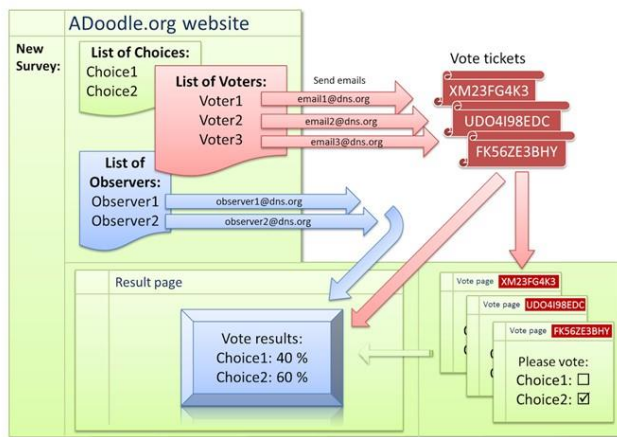
For information, by construction there is no administrator who specifically administers the vote. The vote is managed by the autonomous vote machine. All the participants share the same information. The survey/vote is only accessible to the participants through the links in the sent emails.

Best regards

ADoodle.org vote machine

<https://www.adoodle.org/>

Voting mechanism



Voting mechanism

It is of the utmost importance that:

- the vote machine only keeps track of the number of voters, number of voters attentive to the vote and counts the various vote choices,
- the mechanism is the same for all voters: each voter can vote only once and can no longer vote after having voted,
- the voter can have knowledge of the results of the vote
 - during the vote, if allowed by the vote creator,
 - and at any time after the vote period of time,
- the vote creator does not have special "powers" except the initial one to create a survey.

Weighted votes

In a vote with weighted votes, the creator set an arbitrary weight to the vote of each voter.



Weighted votes

The results are constructed from the relative weight of each choice with respect to the total vote weight.

Weighted votes are an easy way to probe the opinion of represented groups of people.

Weighted votes may be useful in some cases, but should be regarded as bad practice here because full anonymity cannot be guaranteed. - If you choose to define weighted voters, beware the anonymous character of the vote may not be guaranteed.

It is important that that the participants will be informed of the weights of all the voters. Partial anonymity can be increased by maximising the number of identical weights .

In the case of a weighted vote, the participants will be informed that the anonymity cannot be guaranteed

Voting

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Latest additions:

- Translation & time zones
- Re-sending emails
- Secured connexions
- Weighted votes

History

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15 Nov 2010: β test
30 Oct 2010: α version

Welcome Create **Vote** Results Demo FAQ Help

Welcome to the anonymous vote: **ME - teszt szavazás**

created by: **Miskolci Egyetem**

Vote Identifier: d49527a0c596378963d40413a13c68f

In the time zone (UTC+01:00) Paris accounting for winter/summer time change:
Current time is Sunday 15 November 2020 at 19h 19min 35s Refresh

You have not voted yet. Please do so now by choosing about the question or subject.

Támogatja-e XYZ szénátsüti tagságát?

- Igen
 Nem
 Tartózkodom

Select or not your choice(s) and click [HERE](#) to vote

Voting

A(z) adoodle.org közlendője

Are you sure you want to vote what you have selected? You can vote only once.

A(z) adoodle.org közlendője

Thank your for your vote. It is confirmed on the page that is going to appear.

By clicking the 'Select or not your choice(s) and click HERE to vote' button, the voting system will ask if you really want to submit your vote.

By clicking on the 'Cancel' button, we can change our vote, while by clicking on the 'OK' button, our vote will be finalized and sent.



Thank you for
your attention!

