



Irzada Taljić Alen Mujčinović Muhamed Brka

### COVID-19 PANDEMIJA KAO "PROZOR MOGUĆNOSTI" ZA PRIJELAZ PREMA NOVOJ I INKLUZIVNIJOJ INTERNACIONALIZACIJI PUTEM VIRTUALNE MOBILNOSTI 2.dio

Sarajevo, mart 2022. godine





Projekat pod nazivom "COVID-19 pandemic as an "opportunity window" for the transition towards new and more inclusive internationalisation through virtual mobility" je projekat u sklopu programa Erasmus+: KA2 - Cooperation for innovation and the exchange of good practices, KA226 - Partnerships for Digital Education Readiness, Project number: 2020-1-CZ01-KA226-HE-094453.

Projekat je počeo 01.03.2021. godine i završava 28.02.2023. godine.

Glavni koordinator projekta je Česká zemědělská univerzita v Praze, Czech Republic (CZU).

Partneri su: Szent Istvan University, Godollo – Hungary; Szkola Glowna Gospodarstwa Wiejskiego, Warszawa – Polsko; Univerzitet u Sarajevu, Sarajevo, Bosna i Hercegovina; Univerza v Ljubljani, Ljubljana, Slovenija; Sveučilište u Zagrebu, Zagreb, Hrvatska; Slovenska Polnohospodarska Univerza v Nitre, Nitra, Slovensko; Universitatea Agrara de Stat din Moldova, Chisinau, Moldovsko; Universitaet fuer Bodenkultur Wien, Wien, Austria.

Partner u projektu sa Univerziteta u Sarajevu je Poljoprivredno-prehrambeni fakultet i predstavnici: prof.dr. Muhamed Brka, voditelj projekta; prof.dr. Irzada Taljić i doc.dr. Alen Mujčinović.





## **Steering Committee**



	University	Contact person	Email
1	Czech University of Life Sciences Prague (CZU)	Michal Lošťák	lostak@pef.czu.cz
2	University of Natural Resources and Life Sciences (BOKU)	Andreas Zitek	Andreas.zitek@boku.ac.at
3	Warsaw University of Life Sciences (SGGW)	Marta Mendel	marta_mendel@sggw.edu.pl
1	Slovak University of Agriculture in Nitra (SUA Nitra)	Adriana Kolesárová	adriana.kolesarova@uniag.sk
,	Hungarian University of Agriculture and Life Sciences (MATE)	Zsuzsanna Tarr	tarr.zsuzsanna@szie.hu
5	University of Zagreb (UNIZG)	Darko Vončina	dvoncina@agr.hr
7	University of Sarajevo (UNSA)	Muhamed Brka	m.brka@ppf.unsa.ba
3	State Agrarian University of Moldova (SAUM)	Elena Scripnic	e.scripnic@uasm.md
9	University of Ljubljana (UNI-LJ)	Anton Poje	anton.poje@bf.uni-lj.si

Slika 1. Upravni odbor projekta

Pandemija COVID-19 značajno je uticala na obrazovanje širom svijeta. To je također, slučaj tercijarnog obrazovanja. Dovedene su u pitanje ustaljene prakse u obrazovanju i izmijenjene su na mnogo načina. Zabrane međunarodnih putovanja i interna ograničenja pandemije značajno su uticali na međunarodnu mobilnost studenata i internacionalizaciju općenito. U takvim okolnostima, COVID-19 je, međutim, otvorio "prozor mogućnosti" za inovacije (novosti) u praksi visokog obrazovanja. Ipak, svakoj novosti je potreban određen vremenski period da postane ustaljena praksa, ako se to uopće dogodi. Da bi postale dio "business as usual", inovacije zahtijevaju ne samo odgovarajuće tehnologije, već i društveno prihvaćanje. Posljednje znači ne stvarati nove barijere. Ovaj projekat koristi takav "prozor prilika". Njegov je glavni cilj uspostavljanje foruma surađujućih univerziteta za korištenje sinergija takve mreže radi odražavanja tranzicije prema novim oblicima on-line učenja među osobljem i studentima.

Projekat također, ima za cilj korištenje takvog foruma za podršku uključivanja studenata i univerzitetskog osoblja kako bi se uspješno nosili s prijelazom na on-line obrazovanje i bili spremni za buduću situaciju koja zahtijeva intenzivnu upotrebu on-line obrazovnih i on-line suportivnih aktivnosti. Takav cilj uključuje i pitanje virtualne mobilnosti studenata i osoblja unutar međunarodnog prostora. To u konačnici znači da projekat ima za cilj testiranje raznih elemenata





virtualne mobilnosti u okviru stvarnog međunarodnog zajedničkog programa univerziteta sudionika. Saradnja univerziteta koji djeluju u različitim nacionalnim kontekstima olakšava takav prijelaz.

Projekat podržava studente i osoblje s 9 univerziteta u srednjoj i istočnoj Europi (uključujući zemlje izvan EU, ali sa značajnim doprinosom zadatku projekta zbog svojih specifičnosti) s fokusom na prirodne nauke i srodne discipline (uključujući društvene nauke) za korištenje on-line obrazovanja i virtualne mobilnosti u situaciji kada je to prikladno i potrebno (kada aktivnosti u kampusu moraju biti zamijenjene on-line aktivnostima). Projekat koristi desktop istraživanje reakcija visokog obrazovanja na pandemiju u smislu njihovog obrazovanja. Na temelju takvog istraživanja, pripremiti će se niz različitih scenarija koji se provode u različitim nacionalnim kontekstima. Ovi će scenariji biti neka vrsta menija koji pokazuje koje mjere i aktivnosti može provesti univerzitet u različitim kontekstima uzrokovanim ograničenjima zbog pandemije (ali to se može dogoditi i kada se suoči s drugim dalekosežnim prirodnim katastrofama koje onemogućuju fizičko prisustvo obrazovanju "licem u lice"). Slično scenarijima koji pokazuju kako bi univerziteti trebali djelovati u različitim okolnostima koje onemogućavaju njihove normalne aktivnosti (neka vrsta scenarija upravljanja krizama), pripremiti će se priručnik najboljih praksi prijelaza na on-line obrazovanje tokom pandemije COVID-19 u sektoru tercijarnog obrazovanja.





## **Project Management**



Country	University	Project Management and implementation	
		Lukáš Pospíšil	pospisill@rektorat.czu.cz
Czech Republic	CZU	Mikuláš Josek	josek@rektorat.czu.cz
		Dana Výlupková	vylupkova@rektorat.czu.cz
Austria	BOKU	Margarita Calderón-Peter	margarita.calderon- peter@boku.ac.at
Poland	SGGW	Katarzyna Specjalska	Katarzyna specjalska@sggw.edu.pl
Polaliu		Konrad Frączak	krystian fraczak@sggw.edu.pl
Slovakia	SUA	-	-
Hungary	MATE	Zsuzsanna Heltai	Heltai.Zsuzsanna@uni-mate.hu
		Szilvia Papp	Papp.Szilvia@uni-mate.hu
Croatia	UNIZG	-	_
Bosna and Hercegovina	UNSA	Prof. Dr. Irzada Taljić	i.taljic@ppf.unsa.ba
	SAUM	Svetlana Petrascu	s.sasu@uasm.md
Moldova		Aurelia Litvin	aurelia.litvin@gmail.com
Moldova		Elena SIMCIUC	simciuc.elena@gmail. Com
		Irina BLINDU	i.blindu@uasm.md
Slovenia	UNI-LJ	Vasja Leban	Vasja.Leban@bf.uni-lj.si

Slika 2. Kontakt osoblje univerziteta sudionika

Zasnovano na meniju scenarija i zborniku najboljih praksi univerziteta će se izraditi materijali za učenje i obuku osoblja i studenata olakšavajući njihovo uključivanje u on-line obrazovanje. Sve ove aktivnosti (scenariji, zbornik i obuka) rezultirat će pripremom alata za virtualnu mobilnost (koristeći virtualnu mobilnost) za korištenje na univerzitetima, sudionicima u projektu, ali i izvan njih jer mreža univerziteta uključenih u ovaj projekat upravlja zajedničkim studijskim programom (Master program DanubeAgriFood /DAFM/ ugrađen je u CASEE /Srednja i Jugoistočna Europa/ mreža univerziteta prirodnih nauka). Ovaj studijski program bit će svojevrsni laboratorij za testiranje virtualne mobilnosti i obuke.

Kao takav će predstavljati koncept živih laboratorija koje je skovala EU. Takav rezultat će se postići kroz desktop istraživanje i istraživanje inventara (scenariji, priručnik); primjere dobre (i loše) prakse (scenariji, priručnik); razvijanje materijala za učenje i obuku poštujući metodološka načela on-line materijala, osposobljavanje osoblja i studenata za bolje prihvatanje on-line obrazovanja bez narušavanja zahtjeva prema znanjima, vještinama i kompetencijama u visokom obrazovanju, te testiranje novih praksi on-line obrazovanja kroz virtualnu mobilnost implementiranu u virtualnoj stvarnosti, uključujući dokumentaciju o njihovim uticajima na osoblje i studente.

Projekat će proizvesti materijale koji će biti od koristi kad god se univerziteti suoče sa sličnim ograničenjima kao u slučaju pandemije COVID-19. Kao takvi, oni ne samo da odražavaju iskustvo,





već pružaju i određene smjernice u budućnosti, posebno u smislu prirodnih nauka sa tradicionalno velikim fokusom na fizičko prisustvo edukaciji (nastavi).

Projekat se sastoji iz 4 intelektualna outputa (ishoda):

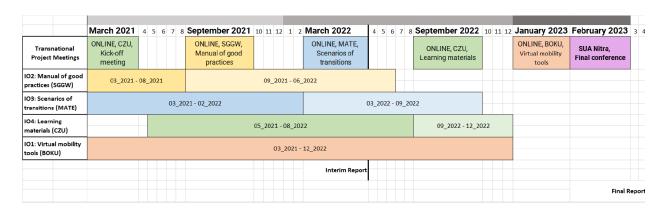
Intelektualni output 1 (IO1) – Alati virtualne mobilnosti;

Intelektualni output 2 (IO2) – Internacionalno uputstvo o primjeni dobrih praksi korištenja virtualnih alata u učenju i podučavanju;

Intelektualni output 3 (IO3) – Scenario odgovora visokoškolskih institucija;

Intelektualni output 4 (IO4) – Edukativni materijali koji olakšavaju uključivanje u on-line sistem obrazovanja.

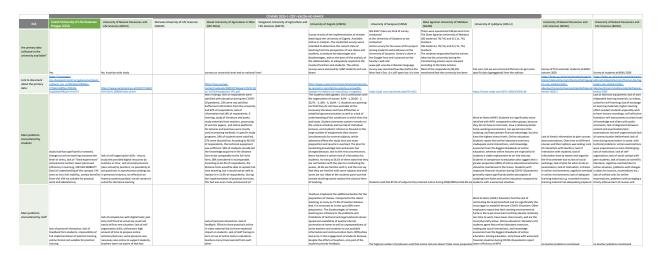
### **Project Timeline**



Slika 3. Vremenski okvir projekta







Slika 4. Prikaz ključnih rezultata

Objašnjenje slike prikaza ključnih rezultata je navedeno ispod. Uključeni univerziteti su trebali odgovoriti na 4 postavljena pitanja:

- 1. Da li prikupljena literature dostupna na univerzitetima (Are primary data collected at the university available)?
- 2. Link za prikupljenu dokumetaciju (Link to document about the primary data):
- 3. Glavni problemi sa kojima se susreću student (Main problems encountered by students)
- 4. Glavni problem sa kojima se susreće osoblje (Main problems encountered by staff)

Odgovori su prikazani prema univerzitetima kako slijedi:

#### **Czech University of Life Sciences Prague (CZU)**

- 1. Yes
- 2. <a href="https://czuvpraze-my.sharepoint.com/:w:/g/personal/josek\_rektorat\_czu\_cz/EZeHiqspYB1Dpu-CTHWelsIBf9ou7QXmB-KcpGaKyHP8Cg?e=1YcFVF">https://czuvpraze-my.sharepoint.com/:w:/g/personal/josek\_rektorat\_czu\_cz/EZeHiqspYB1Dpu-CTHWelsIBf9ou7QXmB-KcpGaKyHP8Cg?e=1YcFVF</a>
- study load has significantly increased, changes to online teaching increased the level of stress, lack of "lived experiences" and personal contact, lower percieved efficiency in learning, VIRTUAL MOBILITY (lack of understanding of the concept, VM seen as not a full mobility, unclear benefits from VM, VM not suitable for practical work and laboratories)





#### **University of Natural Resources and Life Sciences (BOKU)**

- 1. No, Austrian wide study
- 2. https://www.parlament.gv.at/PAKT/VHG/XXVII/III/III 00420/index.shtml
- 3. lack of self organization skills also to study the provided digital resources by teachers in time; lack of social presence (also virtual) by teachers; no possibility to ask questions in asynchronous settings (as in presence lectures); no reflection on learned content possible; not all content is suited for disctance learning
- 4. lack of competence with digital tools; part time staff hired at university could not easily shift to new situation; lack of self organization skills; unforeseen high amount of time to prepare online activities/lectures; social presence was necessary also online to support students, teachers were not aware of that fact

#### Warsaw University of Life Sciences (SGGW)

- 1. -
- 2. -
- 3. -
- 4. -

#### Slovak University of Agriculture in Nitra (SPU Nitra)

- 1. surveys on university level and on national level
- 2. https://srvs.eu/wp-content/uploads/2020/07/Dopad-COVID-19-na-%C5%A1tudentov-SPU.pdf
- 3. Main findings: 65% of respondents were satisfied with education during the COVID-19 pandemic, 23% were not satisfied. Sufficient information from the university had 67% of respondents, lack of information had 14% of respondents. E-learning, study of literature and books, study materials from teachers, processing of seminar papers and online platforms for lectures and exercises were mostly used as teaching methods. In specific study programs, 54% of students were satisfied, 27% were dissatisfied. According to 96.15% of respondents, the technical equipment was sufficient. 50% of students considered the knowledge acquired in the distance form to be comparable to the full-time form, 38% considered it incomparable. According to 42.3% of respondents, the distance form would be able to replace full-time teaching, but it would not be able to replace it in 51.9% of respondents. During the implementation of practical exercises, this fact was even more pronounced (in 57.7% of respondents, the distance form would not be able to replace practical training). 57.7% of respondents would be able to continue studying in the combined form, but 38.5% would not be able to imagine studying in the combined form. The examination was carried out mainly in distance forms (orally and in writing via video call, using online tests and preparation of seminar papers).





4. Lack of personal interaction, lack of feedback. Effort to show practical online in video material did not have expected impact on students. Lack of staff trainings in term of use of online tools in education - teachers many times learned from each other.

#### **Hungarian University of Agriculture and Life Sciences (MATE)**

- 1. -
- 2. –
- 3. -
- 4. -

#### **University of Zagreb (UNIZG)**

- Survey results of the implementation of remote teaching at the University of Zagreb. Available
  online in Croatian. The conducted surveys were intended to determine the current state of
  teaching from the perspective of vice-deans and students, to analyze the advantages and
  disadvantages, and on the basis of the analysis of the obtained data, to adequately respond to
  the needs of teachers and students. The online surveys were accessed by 3,067 students and vicedeans
- 2. <a href="http://www.unizg.hr/nc/vijest/article/priopcenje-za-javnost-o-rezultatima-anketa-o-provedbi-nastave-na-daljinu-na-sveucilistu-u-zagrebu/">http://www.unizg.hr/nc/vijest/article/priopcenje-za-javnost-o-rezultatima-anketa-o-provedbi-nastave-na-daljinu-na-sveucilistu-u-zagrebu/</a>
- 3. The students rated (grades 1 to 5) satisfaction with the organization of classes: 9,4% 1, 20,6% 2, 33,7% 3, 26% 4, 10,4% 5. Students are pointing out that they do not have available all the necessary literature and have difficulties in establishing communication as well as a lack of understanding of the conditions in which they live and study. Student comments contain remarks on the unclear schedule and overlap of individual lectures, and students' criticism is focused on the large number of assignments they receive simultaneously for several subjects, which adversely affects the study time and exam preparation and results in overload. The plan for conducting knowledge tests and exams has changed because, due to the new circumstances, there has been a certain lack of information for students. As many as 56.1% of them state that they are not familiar with the plan for conducting the exams, 32.6% are familiar with it, and the rest say that they are familiar with some subjects and with some are not. Most of the students point out that remote teaching cannot replace the classical form of teaching.
- 4. Teachers emphasize the additional burden for the preparation of classes. Compared to the classic teaching, as many as 71.4% of teachers believe that it is necessary to invest up to 50% more preparation. The disadvantages of remote teaching are reflected in the problems and limitations of technical and organizational nature: speed and availability of quality Internet connection at home as well as unpreparedness of some teachers and students to use available information and communication tools. Difficulties also arise in the engagement of students because, despite the efforts of teachers, only part of the students provide feedback.





#### **University of Sarajevo (UNSA)**

- 1. We didn't have any kind of survey conducted at the University of Sarajevo so we conducted online survey for the cause of this project among students and professors at the University of Sarajevo. Survey is done in the Google form and is present on the faculty's web site: www.ppf.unsa.ba in Bosnian language. Survey was launched few days before the New Year's Eve, it is still open but it is time to have some data from our University for this action and those are: 65.8% students and 34.2% of professors participated in the survey. 94.5% had organized lectures online during 2019/2020 and during 2020/2021: 64.4.% have in-class lectures, 31.1.% have hybrid and the rest have online teaching. 53.4% used Google Meet, 43.8% depending on professor and the subject and the rest had online lectures on Moodle and Teams. 32.9% are very satisfied with the online classes (mark 5 as the most satisfying), 31.5% marked online classes with the mark 3 and 24.7% were also satisfied. 60.3% said that lectures were organized according to the schedule and 35.6% said that the schedule was minimally changed.
- 2. <a href="https://ppf.unsa.ba/clanak.php?ID=1412">https://ppf.unsa.ba/clanak.php?ID=1412</a>
- 3. –
- 4. The highest number of professors said that online lectures doesn't take more preparation (34.2%), 30.1% said that it takes up to 20% more of preparation and 20.5% said that it takes up to 50% more of preparations. 45.2% professors said that they were prepared for the online lectures, 41.1% said that they were partially prepared and only 13.7% said that were not prepared. Regarding online classes in the future, 54.8% said that they would do some of the classes online, 26% said that they would do everything online and 19.2% said that they wouldn't do anything online in the future. Advantages from the professors' point of view are: can hold lecture from wherever (76.7%); it's easier to show video materials (46.6%); it's better and easier communication with the students (20.5%) and it's higher involvement of the students than in the classical model of teaching (20.5%). Regarding disadvantages, professor said: can't do lab work (75.3%); lack of interaction with the students (57.5%); can't do practical exercises (54.8%); all students don't attend the classes (38.4%); poor internet network (37%); lack of technical equipment (30.1%); lack of computer knowledge (16.4%); lack of licenced programmes (21.9%). Professors are mostly satisfied with the online exams (31.5%); very satisfied are 27.4% and 19.2% classified satisfaction with the highest mark. When asked about how much effort professors put into online teaching, 45.2% said that they tried more, 27.4% said that it depends on the subject, 19.2% said that they tried harder sometimes and 8.2 % said that they didn't try more. And the last question for the professors was if they were more creative in the online regime and 38.4% said yes, 26% depending on the subject, 23.3% were sometimes more creative and 12.3% were not more creative.





#### State Agrarian University of Moldova (SAUM)

- 1. There were questioned 235 persons from The State Agrarian University of Moldova 185 students (78,7%) and 51 (21,7%) teachers. 185 students (78,7%) and 51 (21,7%) teachers. The students responded that the actions taken by the university during the transitioning process were released according to the State Actions. Most of the respondents (50,2%) mentioned that the university has been into the process of transition to the online studies during one month. The main problems encountered by the students during this period were as mentioned: 36,2% mentioned that they did not have quality internet access. The lack of appropriate skills in how to use online learning systems consisted 22,1%. 17,4% has meet problems with data confidentiality. 21,7% of respondents mention that they did not have access to the gadgets used for online learning and the lack of sufficient motivation consisted 34, 5%. The lack of appropriate skills in how to use online learning systems consisted 22,1%. 17,4% has meet problems with data confidentiality. Only 0,9% responded that they did not face any problems in the period of transition to the online learning.
- 2. There were questioned 235 persons from The State Agrarian University of Moldova 185 students (78,7%) and 51 (21,7%) teachers. 185 students (78,7%) and 51 (21,7%) teachers. The students responded that the actions taken by the university during the transitioning process were released according to the State Actions. Most of the respondents (50,2%) mentioned that the university has been into the process of transition to the online studies during one month. The main problems encountered by the students during this period were as mentioned: 36,2% mentioned that they did not have quality internet access. The lack of appropriate skills in how to use online learning systems consisted 22,1%. 17,4% has meet problems with data confidentiality. 21,7% of respondents mention that they did not have access to the gadgets used for online learning and the lack of sufficient motivation consisted 34, 5%. The lack of appropriate skills in how to use online learning systems consisted 22,1%. 17,4% has meet problems with data confidentiality. Only 0,9% responded that they did not face any problems in the period of transition to the online learning.
- 3. –
- 4. -

#### University of Ljubljana (UNI-LJ)

- 1. Not sure, but we are convinced that we can get some specific data (agreggated) from the authors.
- 2. https://www.mdpi.com/2071-1050/13/9/5118
- 3. Work at Home (WHF): Students are significantly more satisfied with WFH compared to other groups, because they do not have to commute, have a relatively better home working environment, can spend more time studying, and have greater financial advantage, but also have the highest stress levels. Online education: Students report that online laboratory exercises, inadequate social interactions, and knowledge assessment are the biggest drawbacks





of online education, whereas online lectures are especially for students a viable replacement to onsite lectures. Students in comparison to educators also suggest that a greater proportion (40%) of online educational activities should be maintained in the future. Students with improved financial situation during COVID-19 pandemic generally report significantly better perception of studying from home and online education compared to students with a worsened situation.

4. Work at Home (WHF): Educators find the lack of commuting the least beneficial and are significantly the most eager to establish the pre-COVID-19 system. Other employees report that their working environment at home is the least convenient and they devote relatively less time to work, have lower stress levels, and are the most physically active. Online education: Educators and students agree that online laboratory exercises, inadequate social interactions, and knowledge assessment are the biggest drawbacks of online education. Among educators, only those with worsened financial situation during COVID-19 pandemic report lower efficiency at WFH.

#### **University of Natural Resources and Life Sciences (BOKU)**

- 1. Survey of first semester students at BOKU autumn 2020
- 2. <a href="https://boku.ac.at/universitaetsleitung/rektorat/stabsstellen/qm/themen/befragungen-von-studierenden-absolventinnen/erstsemestrigenbefragung-herbst-2020-1">https://boku.ac.at/universitaetsleitung/rektorat/stabsstellen/qm/themen/befragungen-von-studierenden-absolventinnen/erstsemestrigenbefragung-herbst-2020-1</a>
- 3. Lack of timely information to plan courses and examinations; Overview on different courses and their options was lacking; Lack of interaction with teachers; lack of interaction with students; lack of information how to master and organize the first semester due to lack of social exchange; lack of plan for when to do an examination; lack of motivation; irritation in online environments; cognitive overload in online environments; lack of adequate learning materials e.g. recorded lectures; learning material not adequately prepared
- 4. no teacher problems mentioned

#### **University of Natural Resources and Life Sciences (BOKU)**

- 1. Survey of students at BOKU 2020
- 2. <a href="https://boku.ac.at/universitaetsleitung/rektorat/stabsstellen/qm/themen/befragungen-von-studierenden-absolventinnen/studierendenbefragung-herbst-2020">https://boku.ac.at/universitaetsleitung/rektorat/stabsstellen/qm/themen/befragungen-von-studierenden-absolventinnen/studierendenbefragung-herbst-2020</a>
- 3. Lack of technical equipment; lack of well elaborated learning materials, as videos, suited for self-learning; lack of exchange on learning materials; higher learning effort needed; students especially wish to have lecture recordings, self reflective formative self-assessments to check level of knowledge and slides with audio-comments; lack of alignment between content and examination/test; examinations not well organized and lack of communication beforehand; lack of time during examination in comb. with technical problems; online examinations were experienced as more challenging; lack of motivation; lack of self-organization; lack of social contact with peer students; lack of access to scientific literature; cognitive overload due to online





situation; problems with changes in dates for courses, examinations etc.; lack of unified rules for online examinations; problems with arranging a timely achievement of courses and course certificates.

#### 4. no teacher problems mentioned

PROJECT TITLE: COVID-19 PANDEMIC AS AN "OPPORTUNITY WINDOW" FOR THE TRANSITION TOWARDS NEW AND MORE INCLUSIVE INTERNATIONALISATION THROUGH VIRTUAL MOBILITY

Task: Compiling reports on the key results from the partner universities – of main problems encountered by students and staff when transitioning to the online.

University of Sarajevo, Contact person: Irzada Taljić (i.taljic@ppf.unsa.ba).

Date, 8.3.2022. Sarajevo

Feedback from University of Sarajevo representatives towards the main problems encountered by students and staff when transitioning to the online.

A common conclusion is that most of the professors were prepared or partially prepared for online lectures. Half of them didn't need extra preparations and half of them are willing to do online classes in the future. Disadvatages are regarding lab work/practical work, lack of interaction with the students, poor internet network, lack of technical equipment and lack of licenced programmes.

Students said that advantages are listening the lectures from whereever they are and deficiencies are bad internet connection, can not do lab work/practical exercises, missing interactions with the colleagues, missing interactions with the professors. Also, studentes emphasized that most of the professors showed more creativity.

A more detailed overview of identified problems encountered by students and staff when transitioning to the online is presented in the next table.

104	University of Sarajevo
Are primary data collected at the university	We didn't have any kind of survey conducted
available?	at the University of Sarajevo so we conducted
	online survey for the cause of this project among
	students and professors at the University of
	Sarajevo.
	Survey is done in the Google form and is present
	on the faculty's web site:
	www.ppf.unsa.ba in Bosnian language.
	Survey was launched few days before the New
	Year's Eve.





window	
	Data from our University for this action is: 65.8% students and 34.2% of professors participated in the survey. 94.5% had organized lectures online during 2019/2020 and during 2020/2021: 64.4.% have inclass lectures, 31.1.% have hybrid and the rest have online teaching. 53.4% used Google Meet, 43.8% depending on professor and the subject and the rest had online lectures on Moodle and Teams. 32.9% are very satisfied with the online classes (mark 5 as the most satisfying), 31.5% marked online classes with the mark 3 and 24.7% were also satisfied. 60.3% said that lectures were organized according to the schedule and 35.6% said that the schedule was minimally changed.
Link to document about the primary data	https://ppf.unsa.ba/clanak.php?ID=1412
Main problems encountered by students	Students said that 87.5% of subjects they listened online during 2019/2020 and 64.6% are inclass this year and 27.1% of subjects they listen online. Small % listen everything online also during this year. 75% don't have seminars, lab excercises and similar online and 14.6% have also those methods of learning in online regime.  Advantages are: 83.3% can listen the lectures from whereever they are; 37.5% have better and easier communication with the professor; 33.3% express themselves easier; 29.2% have better and easier communication with the professors. Deficiencies are: 60.4% have bad internet connection; 79.2% can not do lab work; 56.3% can not have practical exercises; 39.8% missing interactions with the colleagues; 33.3% missing interactions with the professors; 27.1% missing technical equipment; 18.8% don't have computer skills; 18.8% don't have programme licences. 50 % say that they would continue with the online lessons in the future, 31.3% would listen to some of the subjects online and 18.8% said that they wouldn't like to listen anything online. Regarding exams: 31.5% were held online, 41.7% said that some were held online and 20.9% were held classically, inclass. 29.2% were satisfied by





window	T
	online exams, and 27.1% were very sastisfied.
	Students said that professors (31.3%) showed
	creativity and (62.5%) showed some creativity in
	the online regime. Also, 29.2% of students said
	that professors tried more and 56.3% said that
	some of them tried more.
Main problems encountered by staff	The highest number of professors said that online
, , , , , , , , , , , , , , , , , , ,	lectures doesn't take more preparation (34.2%),
	30.1% said that it takes up to 20% more of
	preparation and 20.5% said that it takes up to
	50% more of preparations. 45.2% professors said
	that they were prepared for the online lectures,
	41.1% said that they were partially prepared and
	only 13.7% said that were not prepared.
	1
	Regarding online classes in the future, 54.8% said that they would do some of the classes online,
	•
	26% said that they would do everything online
	and 19.2% said that they wouldn't do anything
	online in the future.
	Advantages from the professors' point of view
	are: can hold lecture from wherever (76.7%); it's
	easier to show video materials (46.6%); it's better
	and easier communication with the students
	(20.5%) and it's higher involvement of the
	students than in the classical model of teaching (20.5%).
	Regarding disadvantages, professor said: can't do
	lab work (75.3%); lack of interaction with the
	students (57.5%); can't do practical exercises
	(54.8%); all students don't attend the classes
	(38.4%); poor internet network (37%); lack of
	technical equipment (30.1%); lack of computer
	knowledge (16.4%); lack of licenced programmes
	(21.9%).
	Professors are mostly satisfied with the online
	exams (31.5%); very satisfied are 27.4% and
	19.2% classified satisfaction with the highest
	mark. When asked about how much effort
	professors put into online teaching, 45.2% said
	that they tried more, 27.4% said that it depends
	on the subject, 19.2% said that they tried harder
	sometimes and 8.2 % said that they didn't tried
	more. And the last question for the professors
	was if they were more creative in the online





regime and 38.4% said yes, 26% depending on
the subject, 23.3% were sometimes more
creative and 12.3% were not more creative.













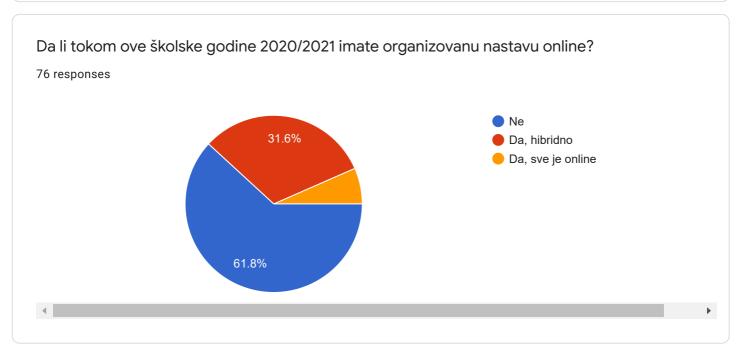


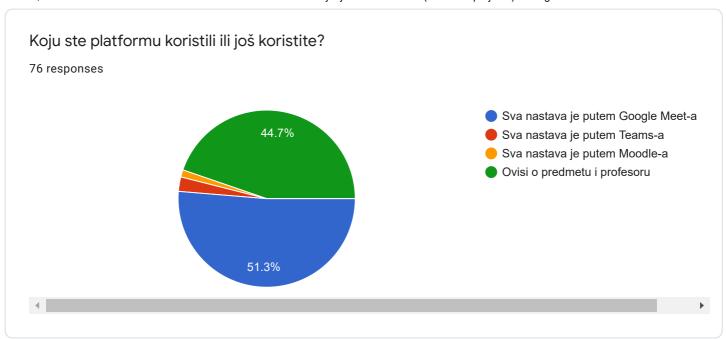
Anketa o odvijanju online nastave (COVIMO projekat)

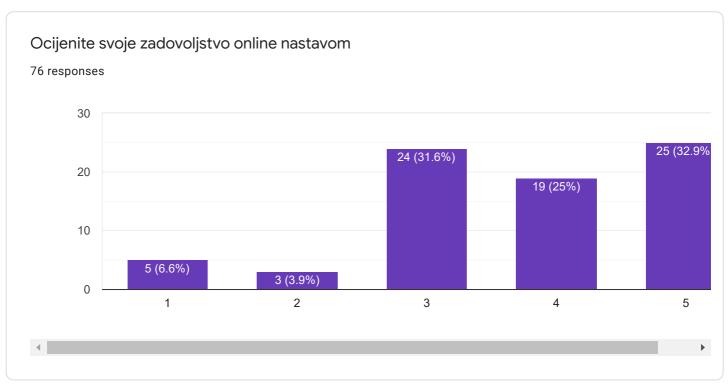
Questions Responses 76 Settings

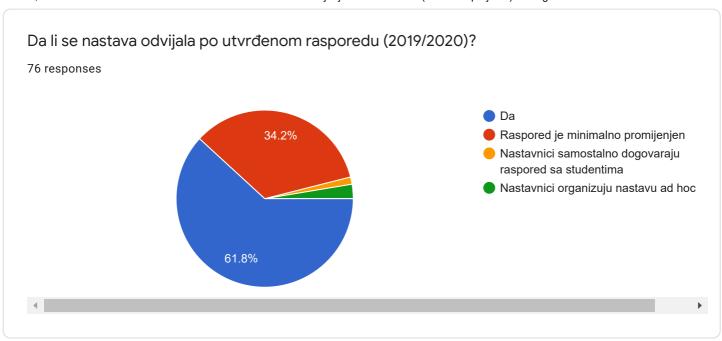


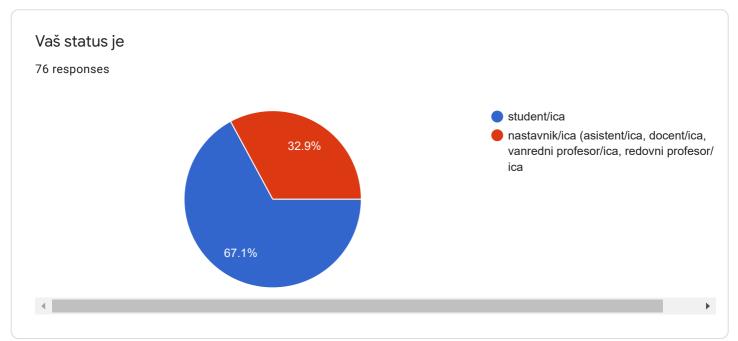




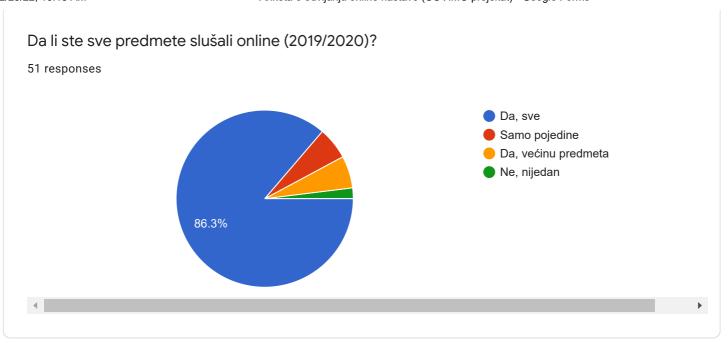


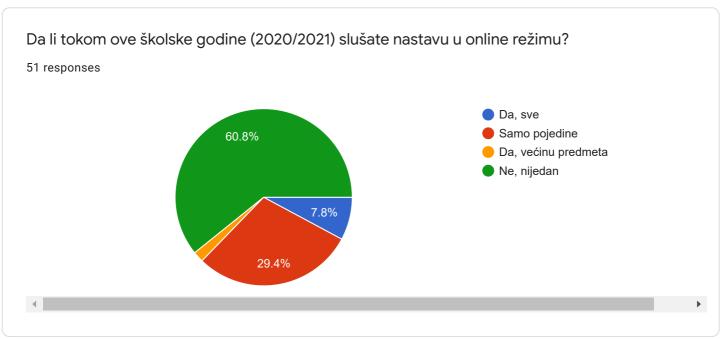


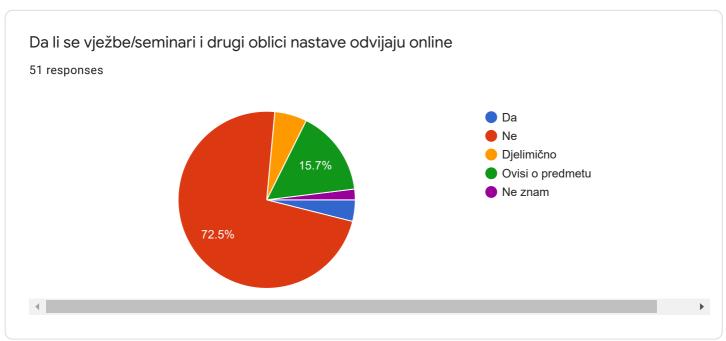


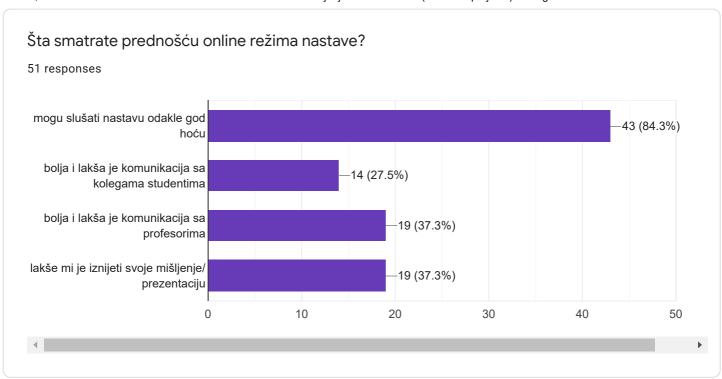


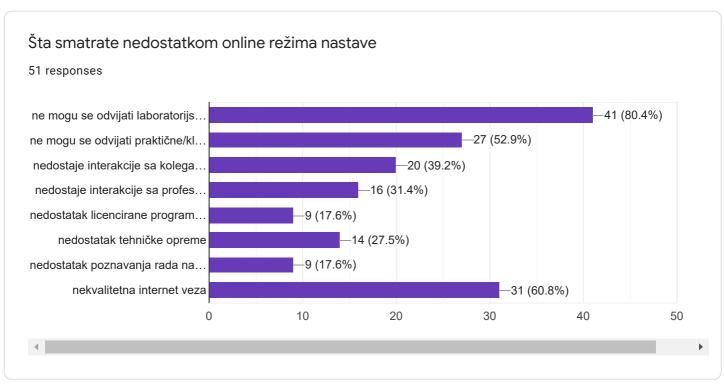
Studenti

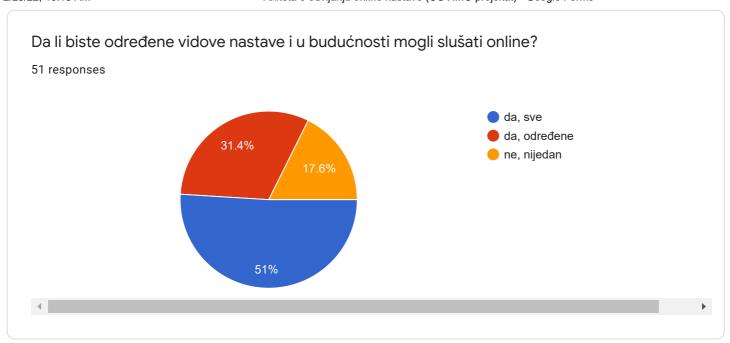


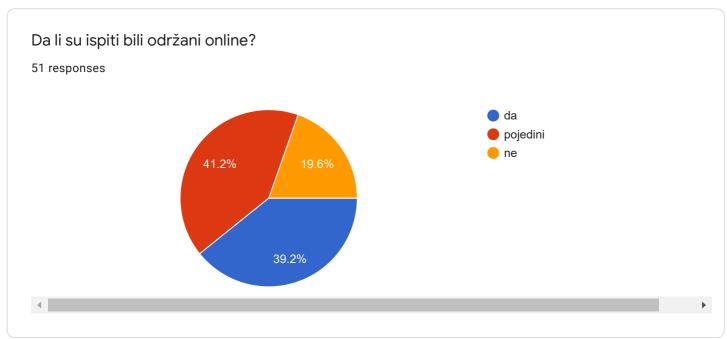


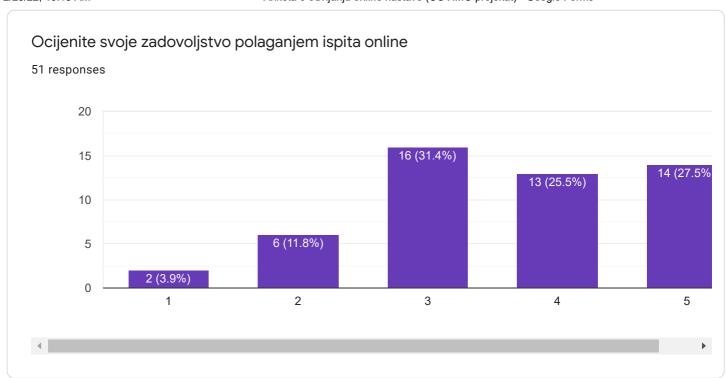


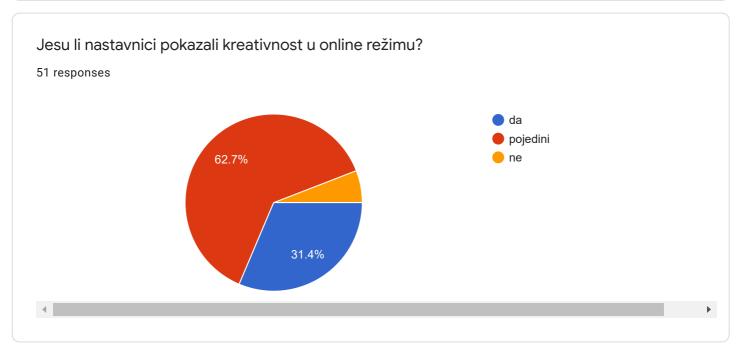


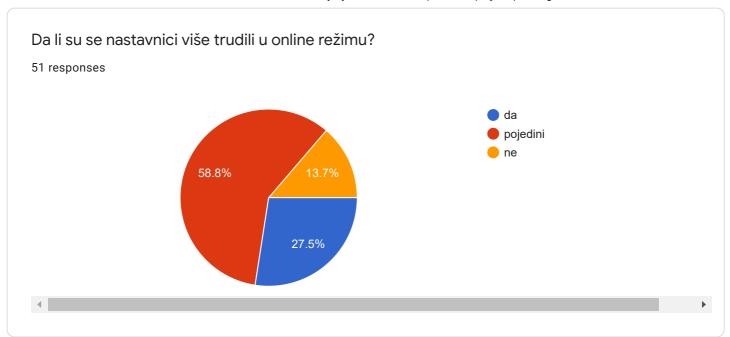




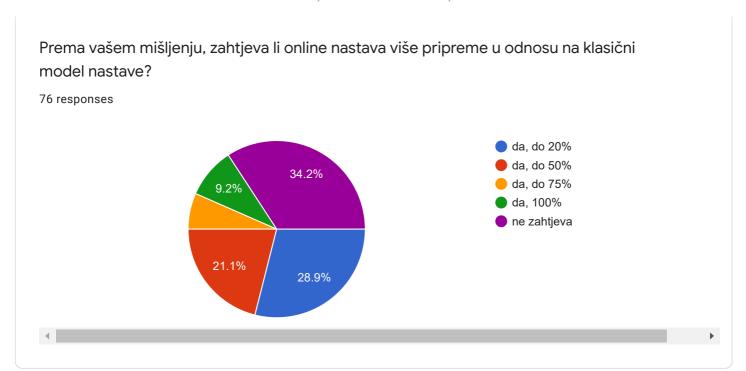




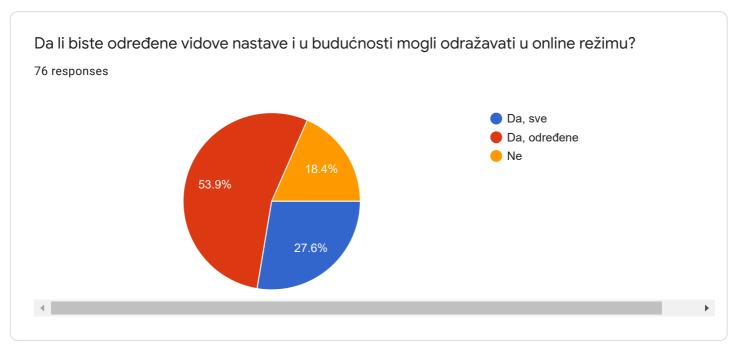


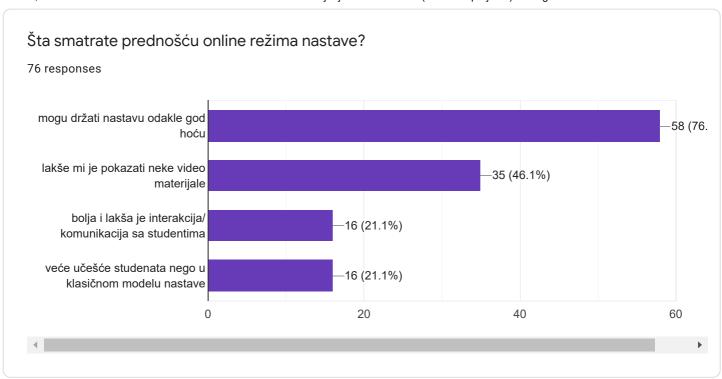


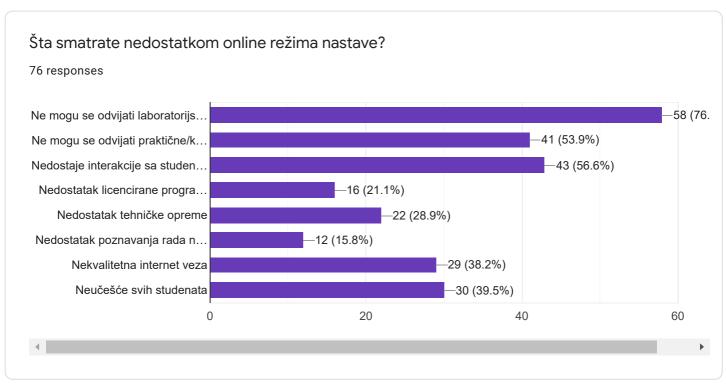
Nastavnici (asistenti, docenti, vanredni profesori, redovni profesori)

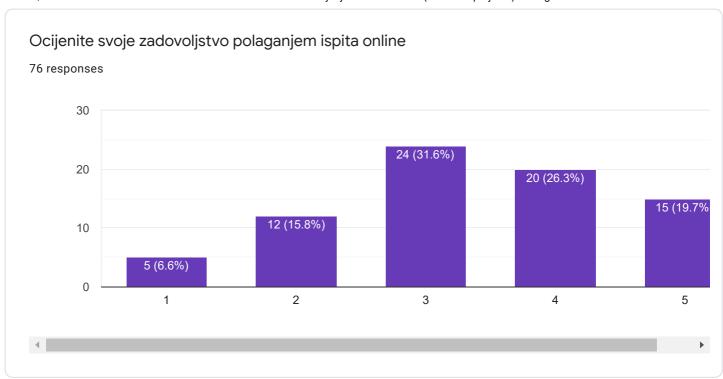


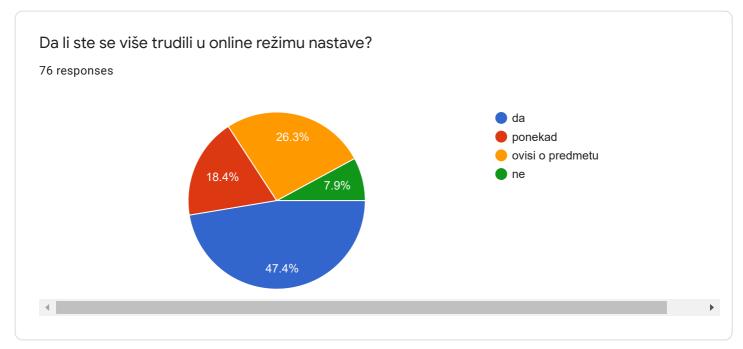


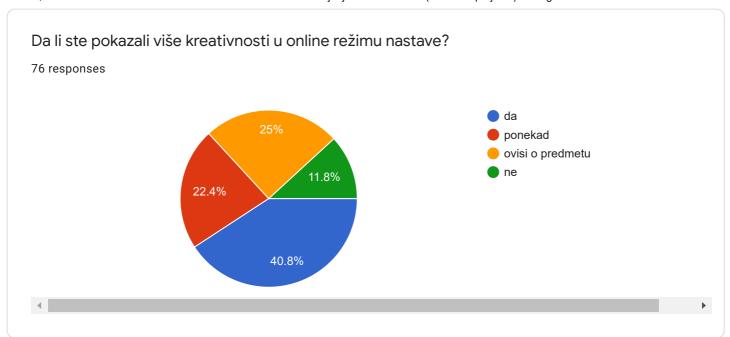














# "Knowledge is power" Knowledge management-based adaptive eLearning platform

Are you satisfied with your company's internal trainings, and your trainings, product and service support for your partners?

Can you see for sure what your employees/partners really know and where they need to improve?

Do you have good methods and tools to deliver a measurably effective training/support?

# THE KNOWLEDGE MANAGEMENT-BASED ASPECT





With SkillToolkit Live! your employees, just as your partners who using your products and services, will be able to constantly develop their knowledge and skills.

# This gives you a competitive advantage in the market!

With our support you can become one of the most successful companies as you will be able to integrate and effectively manage your internal knowledge, accumulated skills and competences.



The SkillToolkit Live! Virtual Learning Environment is a 100% Hungarian-developed eLearning platform unique in the global market. On one hand you can create a curriculum quickly and cheaply, only with a few clicks, even from PPT and DOC source documents. Moreover, complex and professional value-added competence-based, knowledge management-based adaptive learning materials, duplication free complete corporate training module system can also be developed with our special methodology.





With SkillToolkit Live! you can multiply your company's training capabilities while making the training tasks easier.

We bring you a solution to create and provide practical electronic learning materials that support your trainers and, when needed, even relieve the burden on them.





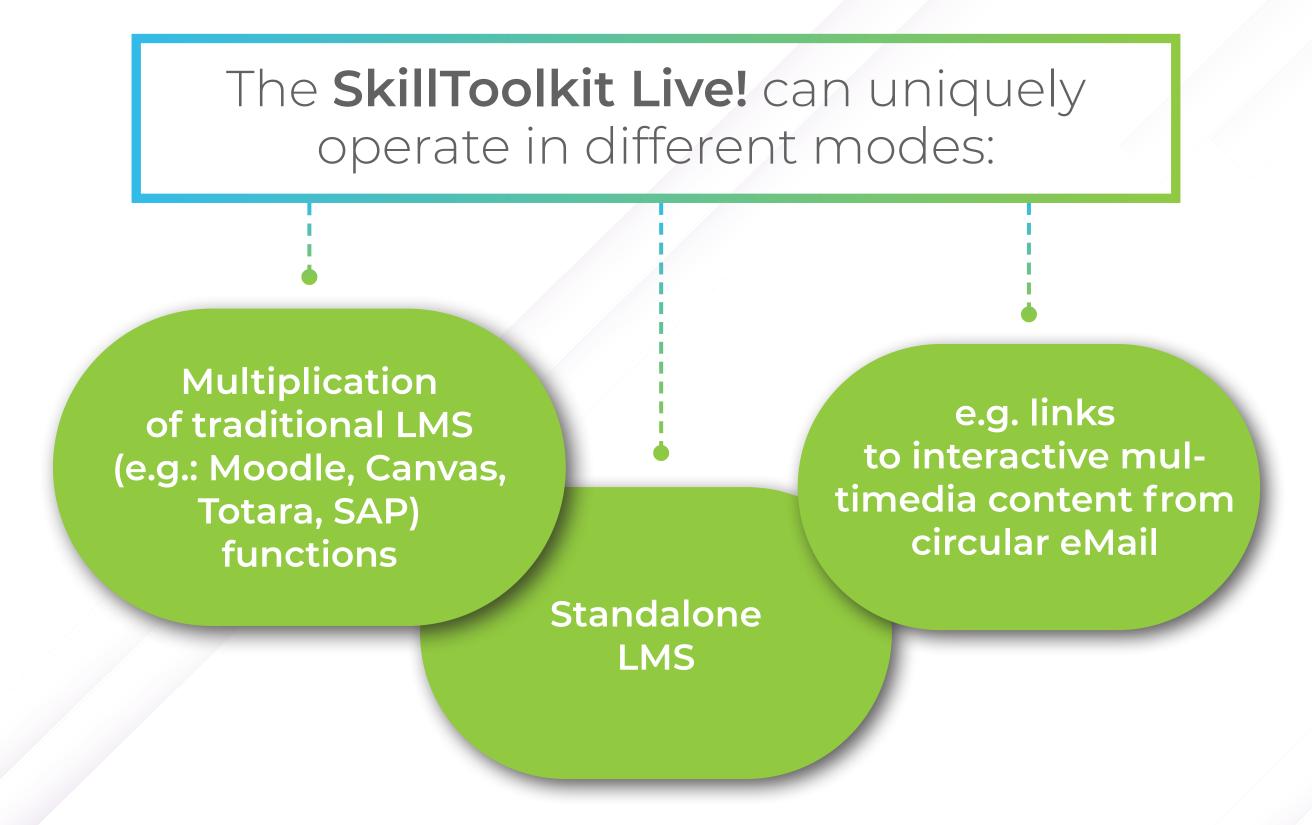
You will be able to provide measurable results for all your clients and partners, and what's more you can use the freed-up resources to develop your business and professional activities.



How can we help your work with the best value for money eLearning solution in the market?

# SkillToolkit Live! is a customizable eLearning platform covering the development/implementation needs of the related training, helping you with several modules and functions:

- The Visual Content Editing Software that allows you to quickly and inexpensively create digital learning materials that you can modify and even develop into personalised, adaptive courses with just a few clicks.
- The Automated Training Organiser module, which allows you to start your courses with several learners and on a variety of topics at the same time, with learners receiving notifications automatically, making your job easier.
- The Content player with Virtual Learning Environment, that supports your learners more than traditional eLearning systems, by giving you the ability to provide personalized learning paths for your learners, making it feel like there is an instructor next to every single learner.
- The BigData report module can track your learners' progress "at click level", you quickly find out about possible learning problems or even print a certificate with customizable reports.
- The Automated courseware creation easy, fast and cheap: for example, you can turn the PowerPoint or Word documents related to your services into eLearning materials that can always be developed into a complex adaptive eLearning material.
- The FAR Data Support module that allows you to easily do the administration work of the trainings that you are required by law to report, or fulfill your data reporting obligations.



Check out our professional solution and see the best value for your money!

# The SkillToolkit Live! Virtual Learning Environment provides 360 degree service with the following modules:



# Professional training services:

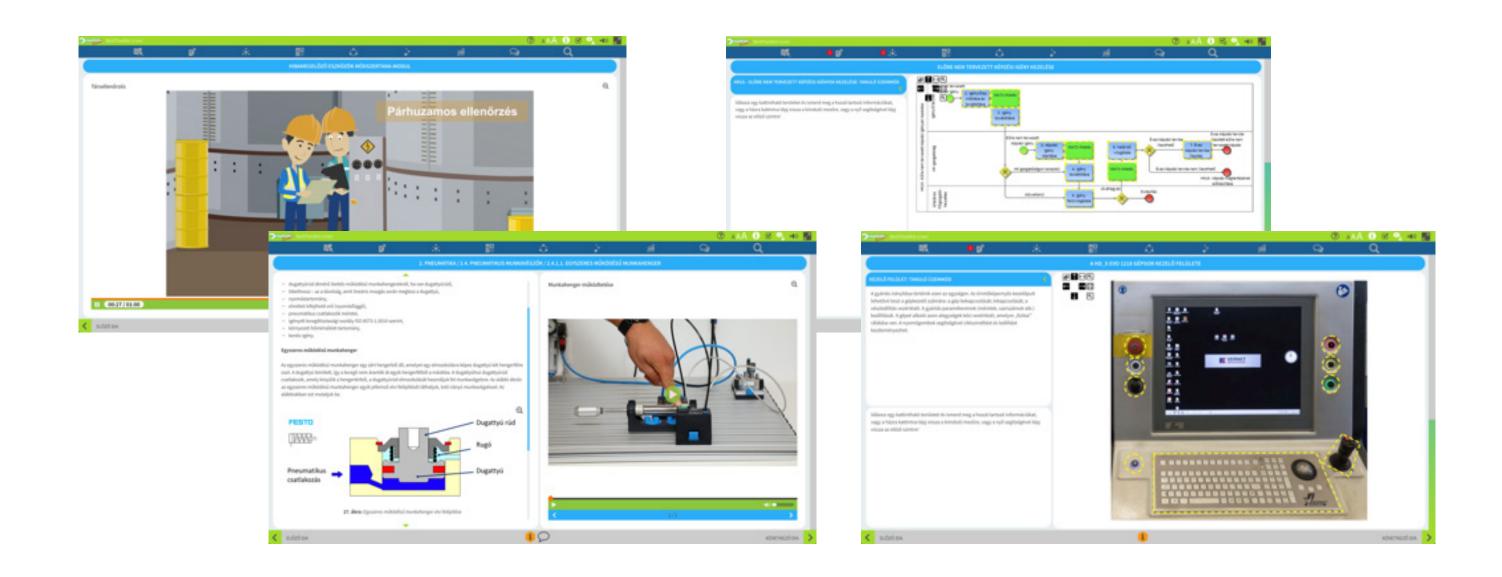
- · Training system analysis and development, adult training management and accreditation (according to Hungarian training law)
- · Training strategy and operational plan development
- · Duplication-free training module system development
- · Blended and eLearning based training program development
- · Soft-skill training, coaching, supervision
- · Training organization and implementation
- · Supporting the fulfilment of training reporting obligations in the FAR system



Examples of methodological solutions in the SkillToolkit Live!
Virtual Learning Environment

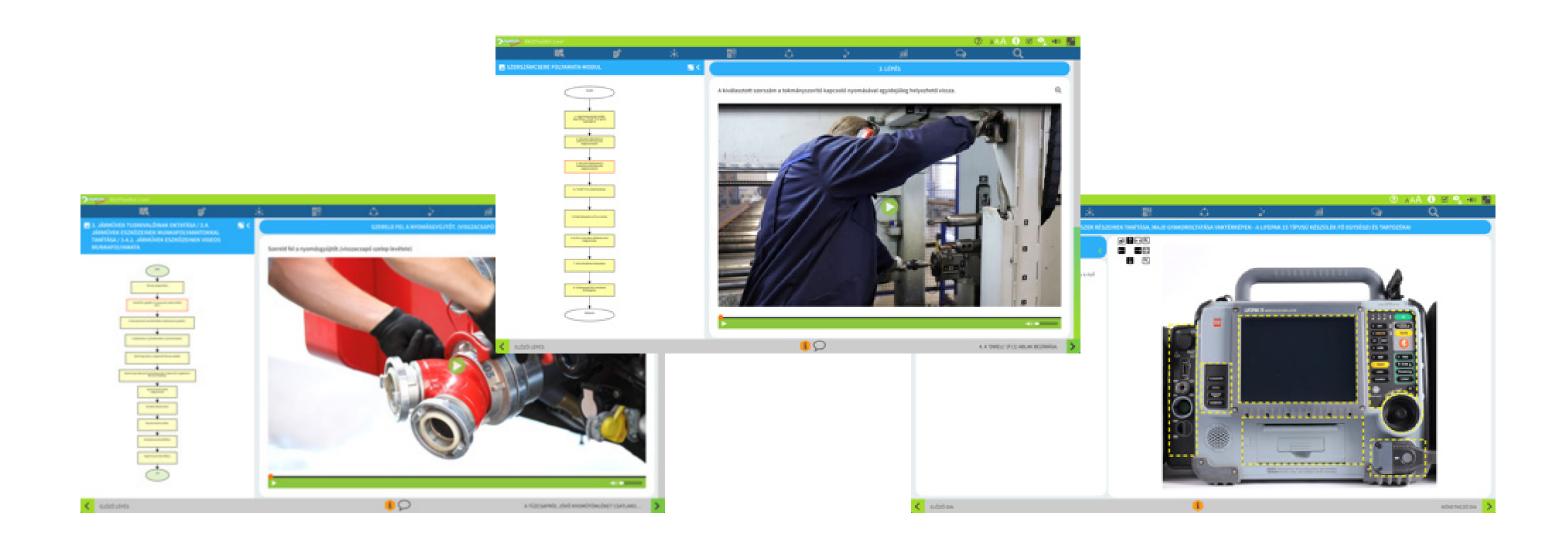
# Training on internal processes

Education of legal regulations, internal regulations and procedures, safety regulations, quality management systems, documentation tasks related to work, where we don't only teach the rules in text form, but draw on the correct application of the rules from real life situations.



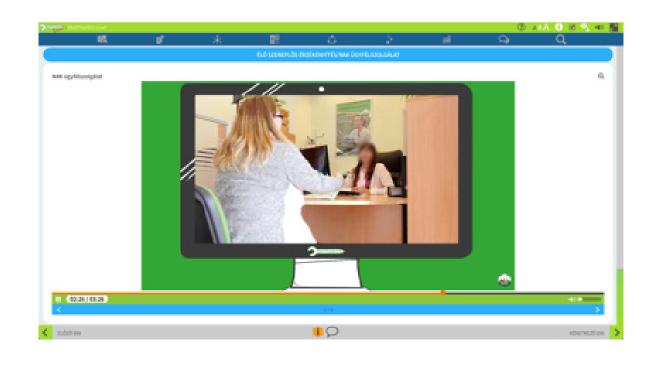
# Workflow training

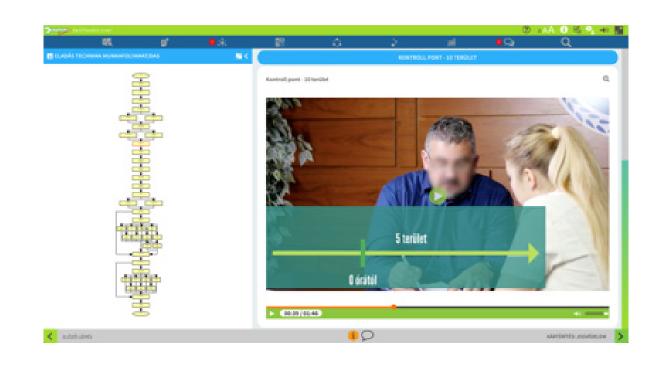
Here we do not only teach the handling of devices, machines and softwares, but also how to perform real workflow steps with the necessary complex tools. We recommend this not only for training internal employees, but also to reduce the personal support necessary for the product/service provided to external partners, and to provide additional information and training support.



## Support for the services provided to external partners

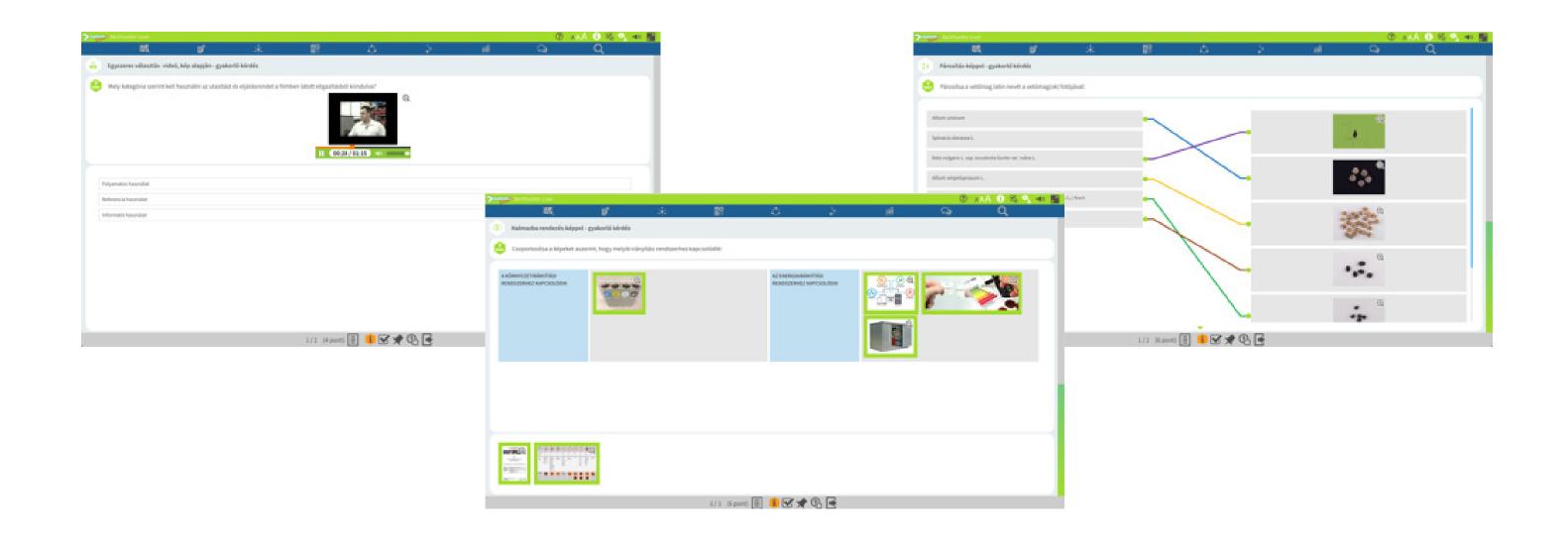
e.g. reducing customer service workload and instructor led training; or negotiation and sales techniques, soft-skill topics can also be taught, even in a blended form of training.





# Preparation for internal and state exams

We have also developed a test system to prepare for internal and state exams which can be customised based on the needs of the customer. According to the experience of our clients, the test system prepares learners for the exam in a verifiably effective manner in accordance with the requirements of the exams.





Learning not just studying!