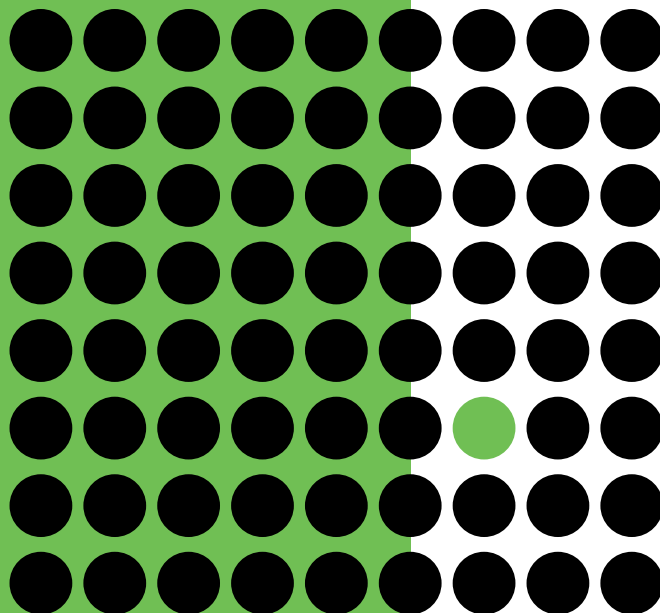




INOVACIJE in **pika**

Moč in vloga družbenih inovacij

The Power and Role of Social Innovation

Moč in vloga družbenih inovacij
The Power and Role of Social Innovation

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Nagovor rektorice Univerze na Primorskem

prof. dr. Klavdija Kutnar

Inovacije so eden temeljnih gradnikov napredka, razvoja in trajnostne prihodnosti.

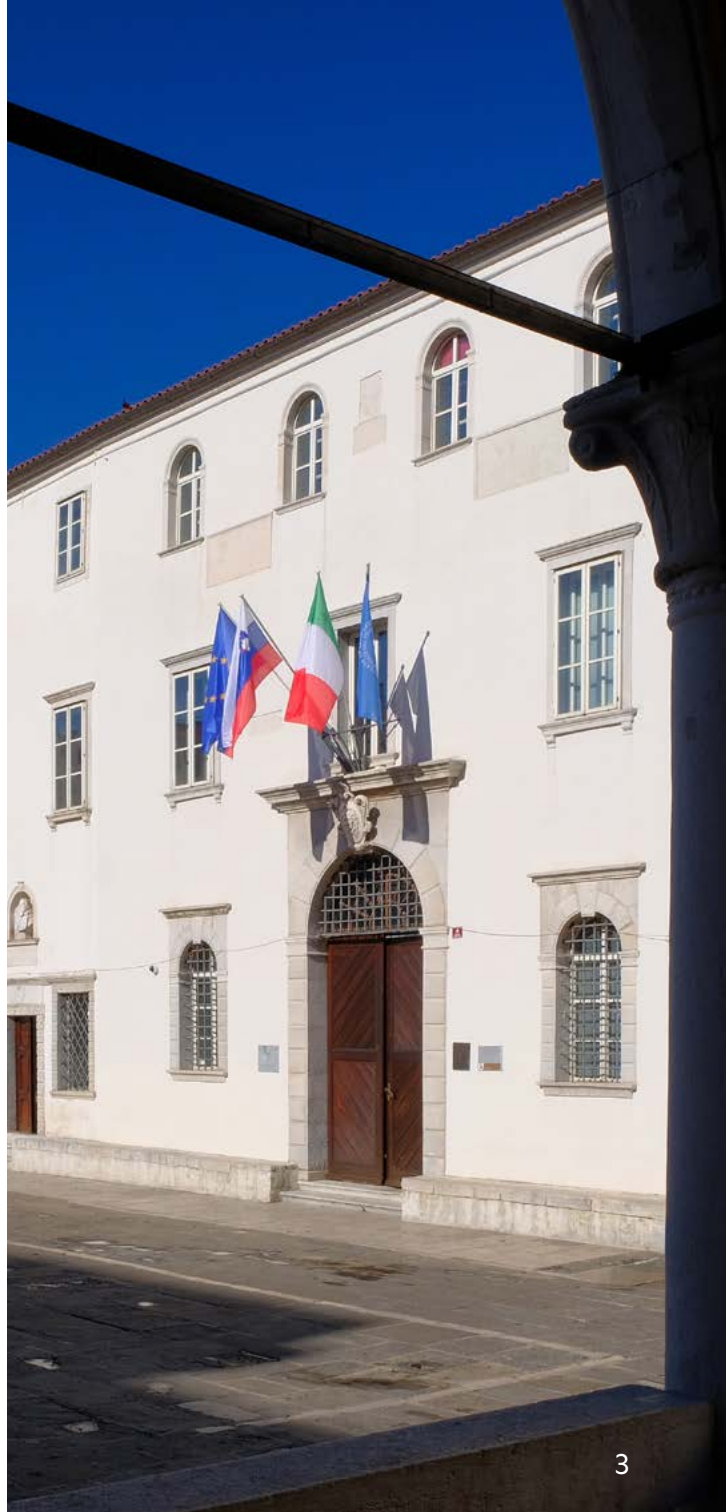
Na Univerzi na Primorskem se zavedamo, da imajo poleg tehnoloških tudi družbene inovacije poseben pomen, saj oblikujejo vključujočo, pravično in okolju prijazno družbo.

Naša univerza s svojo interdisciplinarno usmerjenostjo, z odprtostjo in s povezovanjem z lokalnim ter mednarodnim okoljem ustvarja spodbudno okolje za razvoj inovativnih rešitev, ki odgovarjajo na sodobne izzive.

Projekt *Inovacije in pika* predstavlja pomemben prispevek k spodbujanju ustvarjalnosti, podjetnosti in sodelovanja med študenti, raziskovalci ter širšo družbo. Upam, da se boste o vsem tem lahko prepričali tudi skozi vsebino te publikacije, v kateri so zajeti prodorni projekti družbenih inovacij, ki smo jih v letih 2023 in 2024 izvajali na naših članicah.

Univerza na Primorskem je in bo tudi v prihodnje zavezana ustvarjanju pogojev za razvoj inovativnih idej, prenos znanja v prakso ter krepitev sodelovanja s širšo skupnostjo in z gospodarstvom.

Naj inovacije postanejo most med znanjem in družbenim napredkom!





Innovations are one of the fundamental building blocks of progress, development, and a sustainable future.

At the University of Primorska, we are aware that, in addition to technological innovations, social innovations are also of particular importance, as they shape an inclusive, fair, and environmentally friendly society.

With its interdisciplinary approach, openness, and connections with the local and international environment, our university creates a stimulating environment for the development of innovative solutions that respond to contemporary challenges.

The Inovacije in pika project is a big deal in encouraging creativity, entrepreneurship, and co-operation among students, researchers, and the wider community. I hope that you will be able to see this for yourselves through the content of this publication, which covers the insightful social innovation projects that we carried out at our member institutions in 2023 and 2024.

The University of Primorska is and will continue to be committed to creating conditions for the development of innovative ideas, the transfer of knowledge into practice, and the strengthening of cooperation with the wider community and the entrepreneurship.

Let innovation become a bridge between knowledge and social progress!

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Address by the Rector of the University of Primorska

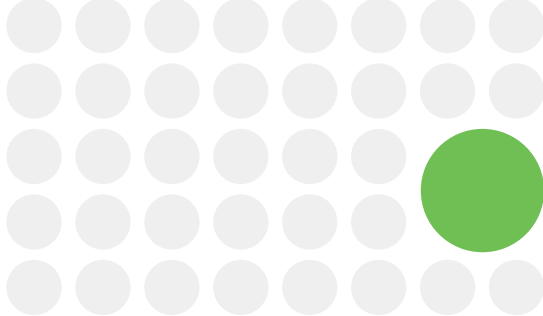
Prof. Dr. Klavdija Kutnar



Moč in vloga družbenih inovacij

*Projektom družbenih inovacij »Inovacije in pika«
Univerze na Primorskem 2023 in 2024 na pot*

Prof. dr. Simona Kustec



Če ljudje ne bi bili inovativni, ne bi preživel. Tako je bilo od samega začetka življenja dalje.

Na nek način lahko med prve človekove inovacije štejemo načine uporabe različnih danosti, ki jih je človeški vrsti za preživetje omogočala narava. Udar strele, ki omogoča ogenj, ta pa gretje, zaščito pred nevarnostjo, pomoč pri širjenju bivanjskega prostora in pripravo hrane, je možno šteti kot sploh primarno silnico narave, ki jo je človeška vrsta na inovativen način uporabila za lastno preživetje. Podobno kot tudi vodo, moč sonca, rastline, naravne minerale, kovine in vse druge naravne vire (Meidenbauer 2004, 2021).

Ideje zakaj, s kakšnim namenom je možno uporabiti naravne danosti za preživetje, bi v današnjem času označili kot primere družbenih inovacij. Tako kot bi načine, kako jih uporabiti, opredelili kot primere tehnoloških inovacij.

Razvoj inovacij je vedno sledil razvojnim potrebam in razvojnim sposobnostim človeške vrste. Človek je na podlagi svojega razuma, znanja ter tudi izkušenj in potreb začetne naravne danosti vse umneje in vse bolj premišljeno prilagajal ter tudi izkoriščal za svoje namene in nadaljevanje vrste. Človek je začel vire v svoji okolici izkoriščati za napredek in ekonomičnost življenja. Vse ostalo je nadgradnja tega. Tako je npr. s pomočjo ognja uporabil les za gretje, za lov in obrambo je iz lesa izdelal lok ter puščice, na lesu je naredil zarez,

ki so služile kot prvi način štetja, kasneje za poslikave, pa za izdelavo papirja, tisočletja kasneje za knjige. Na soroden način je uporabljal tudi ostale naravne vire in jih skupaj s svojimi razvojnimi možnostmi vedno bolj sofisticirano nadgrajeval. Kot npr. rabo naravnih mineralov ter kovin in iz njih pridobljenih kemijskih prvin, ki so omogočali vedno nove vire preživetja, nadaljnega razvoja in napredka, a hkrati ves čas tudi vire za varovanje ter nove oblike vojskovanja, ki so prav tako povezani s človekovim naravnim nagonom in močjo za preživetje. Iz obdobja okoli 3,3 milijona let nazaj tako prvo zgodovinsko zabeleženo obliko tehnološko-družbene inovacije povežemo z izdelavo orodja in orožja iz za to primernih kamnin, ki so jo najverjetneje izumili *Australopithecus afarensis*, predhodniki rodu *Homo*, kamor je spadala tudi znamenita Lucy (Wood, 1991). Verjetno imamo lahko prav to litično oz. kamnito industrijo za prvo največjo tako tehnološko kot družbeno inovacijo v zgodovini (pred)človeške vrste.

Kadar sta obe obliki družbenih in tehnoloških inovacij hodili z roko v roki, je bila formula za uspeh pri nadaljnjem razvoju ljudi in civilizacij vedno uspešnejša, kot če se je opirala na zgolj eno od njiju. Bolj kot postajajo inovacije tehnološko dodelane in dovršene, več možnosti in priložnosti za njihovo uporabo dajejo človeški vrsti – tako v dobrem kot tudi v slabem tako za človeka kot za naravni prostor, v katerem se jih uporablja. To velja vse do današnjih dni.

Odnos do inovacij torej ni nujno zgolj pozitiven, saj lahko s svojimi rezultati za napredek, a skupaj s človekovim naravnim nagonom po preživetju z nadvlado moči prinaša tudi več škode kot koristi. V tem pogledu so npr. že stari misleci v antiki in vse do poznega srednjega veka svarili pred inovacijami, češ da so nekaj slabega, nezaželenega, celo bogokletnega in toksičnega, saj v obstoječi red vnašajo nemir, strah, nadvlado, odmik od

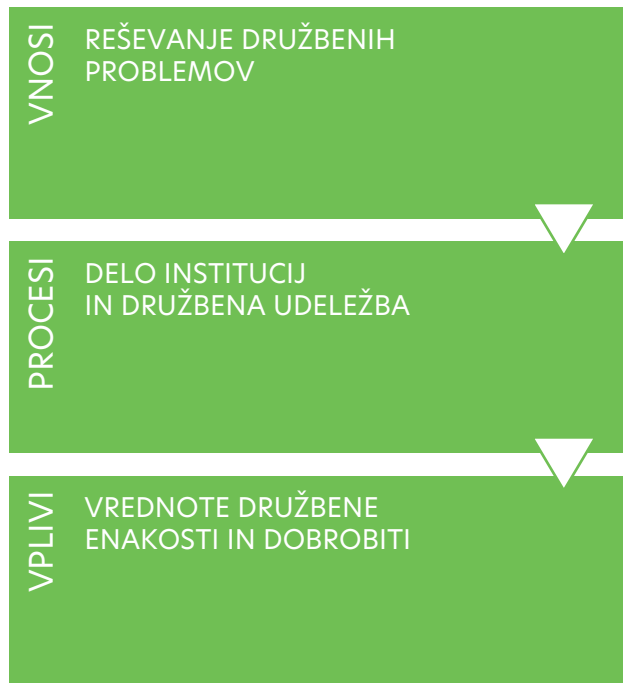
predvidljivega, poznanega in stabilnega (Ayob idr., 2016). To je še posebej veljalo za družbene inovacije, ki se jih je še vse do konca 18. stoletja v prvi vrsti povezovalo z revolucionarnim spreminjanjem obstoječih stanj, razmer, dogovorov v družbi in pri vodenju držav s silo ali pa tudi z revolucionarnim prevzemom oblasti. Podobno so v negativnem smislu številne sodobne inovacije, sicer uspešno vzpostavljene za reševanje nekaterih problemov civilizacije, hkrati povzročale številne nove, pogosto še večje in usodnejše probleme, kot je to primer npr. izuma dinamita, jedrske energije pa vse do aktualnega razcveta umetne inteligence.

Z razvojem humanističnih in družboslovnih znanstvenih pogledov na družbene inovacije, ki se najprej pojavijo konec 19. stoletja, intenzivnost in končno pozitivno konotacijo pa pridobijo šele po drugi svetovni vojni, inovacije postanejo deležne potrebne pozornosti in obravnave tudi skozi zorni kot družbe, kulture, gospodarstva, upravljanja ter nenazadnje politike. Po tem obdobju, še prav posebej pa tudi v aktualnem času, v katerem se pojavljajo nizi raznolikih civilizacijskih sprememb z visoko noto kritičnosti, se diskurz o družbenih inovacijah ne pojavlja zgolj v strokovno-znanstvenem, ampak tudi pri vsakodnevnem političnem delovanju. V obeh svetovih so družbene inovacije videne kot pozitiven fenomen oziroma priložnost sprememb na boljše. Tesna povezanost v današnjem odnosu med teorijami in vsakodnevnim delovanjem se odraža tudi v opredelitvi razumevanja družbenih inovacij kot »razvoja in izvajanja novih zamisli – v obliki izdelkov, storitev in/ali modelov – za zadovoljevanje družbenih potreb in ustvarjanje novih družbenih odnosov ali sodelovanj z namenom izboljšanja ter opolnomočenja življenjskih pogojev« (Evropska komisija, 2013; Mulgan idr., 2007; Jing in Gong, 2012; Godin, 2016; Phillips idr., 2024; Solis-Navarrete et al. 2021, 2025).

Danes se tako osrednja pozornost družbenih inovacij vrti okoli naslednjih treh temeljnih vsebin »novosti« ter »originalnosti«, ki se pojavljajo na samih začetkih, vmesnih točkah, in/ali pa v končnih fazah vsakega družbenega procesa:

1. novi prispevki k reševanju družbenih problemov (faza vnosa);
2. novi procesi institucionalnega dela in družbene udeležbe (faza procesa);
3. novi dolgoročnejši učinki na vrednote širše družbene enakosti in dobrobiti (faza vpliva).

Slika 1: Vsebine »novosti« družbenih inovacij



Rečemo lahko, da se družbene inovacije današnjega časa pojavijo kot: odgovor na nastajajoče ali že nastale probleme (a), za katere se v sodelovanju med mnogimi različnimi skupinami družbe z raznolikih področij delovanja (b) ter s ciljem iskanja novih in trajnih rešitev (c) zagotavlja nadaljnji razvoj družbe in njene dobrobiti (d).

O vsem navedenem pričajo tudi izbrani prispevki dejansko izvedenih projektov v letih 2023 in 2024 na Univerzi na Primorskem, katerih ideje, procese in/ali pa spoznanja je na podlagi prikazanih opisov možno opredeliti kot družbene inovacije, saj vsaka na svojem področju v dosedanje delovanje ljudi vnaša pomembne pozitivne novosti – najsibo skozi nove ideje, procese ali storitve, ki na kurativni način rešujejo že obstoječi problem, ali pa preventivno preprečujejo nastanek le-tega.

Ob prebiranju predstavljenih projektov, predstavljenih v formatu plakatov v slovenskem in angleškem jeziku, vam želim prijetno in iskrivo prebiranje ter pridobitev vpogleda v različnost pogojev, načinov njihovega delovanja ter končnih rezultatov, ki pa imajo vsi isto skupno lastnost – inovativnost. V luči navedenega zato velja tudi velika zahvala vsem nosilcem in udeležencem v projektih ter (so)financerjem, ki verjamejo ter zaupajo, da se bodo naše prvotne miselne ideje razvile v nekaj dobrega in koristnega za ljudi ter družbo jutrišnjega dne.

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The power and role of social innovation

*The social innovation project 'Inovacije in pika'
of the University of Primorska 2023 and 2024
is on its way*

Prof. dr. Simona Kustec



If people were not innovative, they would not survive. This has been the case since the beginning of life.

In a sense, the first innovations of humankind can be considered as the ways in which they made use of the various resources that nature has provided for the survival of the human species. The strike of lightning, which makes fire possible, which in turn makes it available for heating, protection against danger, and aids in the expansion of living space and food preparation, can be seen as the primal force of nature that the human species used in an innovative way for its own survival. The same applies to water, the power of the sun, plants, natural minerals, metals and all other natural resources (Meidenbauer, 2004).

Ideas about why, for what purpose, it is possible to use natural resources for survival would be considered examples of social innovation in our times, just as ways of using them would be examples of technological innovation.

The development of innovation has always followed the evolutionary needs and capabilities of the human species. Humans, on the basis of their intellect, knowledge, and also experience and needs, have increasingly adapted and exploited the initial natural conditions more and more intelligently and deliberately for their own purposes and for the continuation of the species. Humans began to exploit the resources in their surroundings for the progress and econo-

*my of life. Everything else is an extension of this. For example, they used fire to heat wood, they made bows and arrows out of wood for hunting and defence, they made notches in wood which served as the first way of counting, then later used it for paintings, then papermaking, and millennia later for books. In a similar way, they used other natural resources and, in tandem with their own evolutionary capacities, built on them in ever more sophisticated ways. For example: the use of natural minerals and metals and the chemical elements derived from them, which have supplied ever new sources of survival, development and progress, but at the same time provide sources of protection and new forms of warfare, also linked to humankind's natural instinct and power to survive. Thus, from around 3.3 million years ago, the first historically recorded form of technological and social innovation is linked to the production of tools and weapons from suitable rocks, most likely invented by *Australopithecus afarensis*, the ancestors of the genus *Homo*, which included the famous Lucy (Wood, 1991). It is probably this lithic or stone industry that can be considered the first major technological and social innovation in the history of the (pre)human species.*



When social and technological innovation have gone hand in hand, the formula for the further development of people and civilisations has always been more successful than when relying on one of them alone. The more technologically sophisticated innovations become, the more they provide possibilities and opportunities for their use to the human species – for good and for bad, both for humans and for the natural environment in which they are used. This is true to this day.

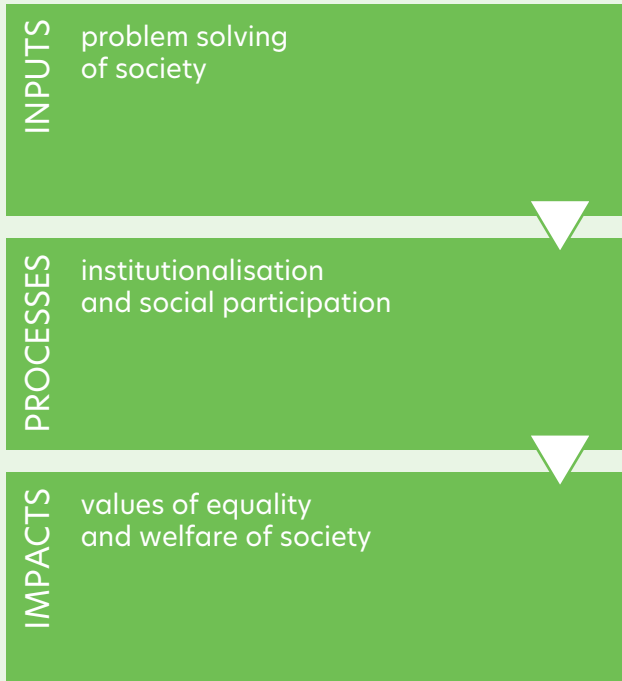
Attitudes towards innovation are therefore not necessarily positive, as they can result in progress, but together with humans' natural instinct to survive through the exercise of power, they can also do more harm than good. In this respect, for example, ancient thinkers in antiquity and up to the late Middle Ages warned against innovation as something bad, undesirable, even blasphemous and toxic, as it introduced disorder, fear, domination, and a departure from the predictable, the familiar and the stable into the existing order (Ayob et al., 2016). This was especially true for social innovations, which until the end of the 18th century were still primarily associated with revolutionary changes in existing conditions, situations, and arrangements in society and in the governance of states, either by force or in the revolutionary seizure of power. Similarly, in a negative sense, many modern innovations, while successfully proven to solve some of the problems of civilisation, have at the same time created many new, often even greater and more fatal problems, as is the case, for example, with the invention of dynamite, nuclear energy, right up to the current boom in artificial intelligence.

With the development of humanistic and social science perspectives on social innovation, which first emerged at the end of the 19th century, and then finally gained intensity and a positive connotation only after the Second World War, innovation also received the necessary attention from the perspective of society, culture, economy, governance and, last but not least, politics. After this period, and especially in the current era, in which a series of diverse civilisational changes with a high degree of criticality are taking place, the discourse on social innovation is not only a matter of professional-scientific debate, but also of everyday political action. In both worlds, social innovation is seen as a positive phenomenon or an opportunity to change for the better. The close connection in today's relationship between theories and everyday action is also reflected in the definition of social innovation as 'the development and implementation of new ideas – in the form of products, services and/or models – to meet societal needs and to create new social relationships or collaborations in order to improve and empower living conditions' (European Commission, 2013; (Mulgan et al., 2007; Jing & Gong, 2012; Godin, 2016; Phillips et al., 2024; Solis-Navarrete et al., 2021, 2025).

It can be said that today the focus of social innovation revolves around the following three core themes of 'novelty' and 'originality', which emerge at the very beginnings, intermediate points, and/or final stages of any social process:

1. new contributions to solving societal problems (input phase);
2. new processes of institutional work and social participation (process phase);
3. new long-term effects on the values of wider social equality and well-being (impact phase).

Figure 1: The 'novelty' content of social innovation



Hence, social innovation can be defined as: (a) a response to emerging or pre-existing problems, (b) through cooperation between many different groups of society from diverse fields of action, (c) with the aim of finding new and lasting solutions, and (d) ensuring further development of society and its well-being.

All of the above is also evidenced by selected contributions from projects actually implemented in 2023 and 2024 by researchers at the University of Primorska, whose ideas, processes and/or insights can be defined as social innovations. Each of them introduce significant positive innovations that solve an existing problem in a curative way, or predict, and thus prevent, its occurrence.

As you get acquainted with the selected projects, presented in poster format in Slovenian and English, I wish you a pleasant and sparkling read and an insight into the diversity of conditions, methods of their operation and final results, which all have the same common feature – innovation. In light of the above, a big thank you goes to all project leaders and participants, as well as (co) financiers who believe and trust that our original ideas will develop into something good and useful for people and society of tomorrow.

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Znanstveni slam



Pogost stereotip je, da znanstveniki niso vešči pri komuniciranju o svojem delu s širšo javnostjo. Čeprav to ne velja za vse znanstvenike, obstajajo dokazi za takšno stališče (Sutter, 2022). Miro Pušnik, direktor Centralne tehniške knjižnice Univerze v Ljubljani (2023), je nedavno komentiral: »Ugotavljamo, da je znanstvena pismenost v Sloveniji slaba. Komuniciranje znanosti bi morali podpreti na vseh ravneh izobraževanja, od vrtca preko osnovne in srednje šole pa do tretjega življenjskega obdobja. Tudi otroci v vrtcu so že lahko raziskovalci.« Kako lahko izboljšamo znanstveno komunikacijo?

Znanstveni slam (»Science Slam«, 2025) je inovativna oblika znanstvene komunikacije, ki je pridobila popularnost predvsem v Nemčiji in več evropskih državah. Bistvo znanstvenega slama je v tem, da (mladi) znanstveniki svoje raziskave predstavijo v kratkih, 10-minutnih predstavitev, ki niso le informativne narave. Slam mora biti tudi zabaven in dostopen širši javnosti. Ti dogodki se pogosto odvijajo v kulturnih domovih, gledališčih, kinematografih ipd.

Prvi znanstveni slam, ki je bil organiziran v Nemčiji leta 2006, je potekal v Darmstadtu (Science Slam, b. l.). Hitro je dobil zagon tudi v drugih mestih, kot sta npr. Braunschweig in Hamburg. Sčasoma je znanstveni slam postal sestavni del znanstvenega komuniciranja v Nemčiji in se začel širiti v druge evropske države. Vrhunec je bil prvi evropski znanstveni slam v Kopenhagenu leta 2014. Znanstveni slam je namenjen predvsem mladim znanstvenikom, ki pogosto predstavljajo svoje doktorsko delo. Gre za odmik od učbenikov, pri čemer se znanstveniki osredotočajo na razlago osnov svojih raziskav, kar omogoča, da se znanost odvija pred očmi občinstva. Leta 2021 je bil dogodek organiziran tudi v Sloveniji, v sklopu Evropske noči raziskovalcev (Znanstveni slam v sklopu Evropske noči raziskovalcev 2021, b. l.).

Tisto, kar odlikuje znanstveni slam, je njegov podarek na neposredni interakciji med znanstveniki in občinstvom. To sodelovanje znanstvenike spodbuja, da predstavijo svoje delo na povezljiv in privlačen način ter ustvarijo okno v svet raziskav, ki je le redko odprto širši javnosti. Aktivno se spodbujajo eksperimenti v živo in ustvarjalne vizualne predstavitve, zaradi česar so ti dogodki zelo interaktivni in prijetni.

Občinstvo igra osrednjo vlogo pri uspehu znanstvenih slamov, saj glasuje za najboljše predstavitve. Ta element ne spodbuja le diskusije o

predstavljeni znanosti, ampak tudi socialno interakcijo med udeleženci.

Znanstveni slami se lahko organizirajo kot del konferenc ali drugih dogodkov. Format je ključnega pomena pri tem, da znanost postane dostopnejša in zanimivejša za javnost ter služi kot most med znanstveno skupnostjo in javnostjo.

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Science Slam



It is a common stereotype that scientists are not inherently skilled at communicating their work to a general audience. While it is not universally true for all scientists, there is some hard evidence for this perception (Sutter, 2022). Miro Pušnik, director of the Central Technical Library at the University of Ljubljana, commented recently (2023): 'We are observing that scientific literacy in Slovenia is poor. The communication of science should be supported at all levels of education, from pre-school through primary and secondary school to the third phase of life. Even children in kindergarten can be researchers.' How can we improve science communication?

Science slam ('Science Slam', 2025) is an innovative science communication format that has gained popularity, primarily in Germany and several European countries. The essence of a science slam lies in (young) scientists presenting their re-

search in short 10-minute talks that are not just informative but also entertaining and accessible to the general public. These events often take place in cultural centres, theatres, cinemas, etc.

Originating in Germany in 2006, the first science slam was held in Darmstadt (Science Slam, n.d.). It quickly gained momentum, with events in cities like Braunschweig and Hamburg. Over time, science slams have become an integral part of science communication in Germany and have begun spreading to other European nations, culminating in the first European science slam in Copenhagen in 2014. Science slam primarily caters to young scientists, often presenting their PhD projects. It is a departure from textbook knowledge, with scientists focusing on explaining specific aspects or fundamentals of their research, enabling the audience to experience science as it unfolds. In 2021, a science slam was also organised in Slovenia as part of the European Researchers' Night (Znanstveni slam v sklopu Evropske noči raziskovalcev 2021, n.d.).

What sets science slam apart is its emphasis on direct interaction between scientists and the audience. This engagement encourages scientists to present their work in a relatable and engaging manner, creating a window into the world of research that is seldom revealed to the general public. Live experiments and creative visual presentations are actively encouraged, making these events highly interactive and enjoyable.

The audience plays a central role in the success of science slams, acting as judges by voting for the best presentations. This element not only drives

discussions about the science presented but also fosters social interaction among attendees.

Science slams can be organised as part of conferences or other events. The format has been instrumental in making science more accessible, engaging, and enjoyable for the public, ultimately serving as a bridge between the scientific community and the general population.

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Živi laboratoriji za kulturno dediščino

Delo na področju kulturne dediščine UP FHŠ vključuje preplet raziskovalnega dela in visokošolskega poučevanja. S ciljem, da bi študentom prenesli aktualna znanja in jim omogočili kakovostne temelje za delo v stroki, smo razvili vrsto izobraževalnih dejavnosti, ki omogočajo interaktiven in praktičen način učenja in poučevanja, sodelovanja z družbo ter različnimi deležniki in realno okolje študija kot živi laboratorij za prenos ter preverbo teoretičnega in praktičnega znanja o dediščini. Fokus dela in ključni točki tega živega laboratorija sta Arheološki park Simonov zaliv in staro mestno jedro Kopra.

Upravljanje z Arheološkim parkom Simonov zaliv vključuje tudi izvedbo dejavnosti, med katerimi študentski projekti omogočajo neformalno izobraževanje in kreativno ustvarjanje različnih vsebin v realnem delovnem okolju. Projekti kreativno posegajo na različna področja, tudi takšna, ki izstopajo iz klasičnega pogleda in dojemanja dediščine. Ob delu in oblikovanju programov za različne ciljne skupine se študenti pripravljajo na delo v realnem okolju. Pomemben dosežek je dvostranski proces učenja, kar predstavlja dodano vrednost izobraževanja.



Dosedanje dejavnosti so delo z dediščino kakovostno povezale s prepletanjem različnih tem in znanj, kot so konservatorstvo, restavratorstvo, dediščina športa, poučevanje tujih jezikov in kreativna interpretacija.

V mestnem okolju takšno delo vključuje aktivno sodelovanje z lokalnimi inštitucijami in upravo na promociji arheološke dediščine Kopra. Ciljna publika in ključni deležniki številnih dejavnosti so prebivalci mesta, kar študentom omogoča spoznavanje participativnih pristopov raziskovanja dediščine. Dejavnosti študentov so namenjene tudi začasnim prebivalcem mesta – študentom in zaposlenim na UP ter turistom. Študenti se v okviru projektnih in študijskih dejavnosti učijo o arheološki dediščini Kopra in jo na različne načine poskušajo približati javnosti z vključujočim pristopom ter v skladu z njihovimi potrebami in željami. Rezultati se kažejo na različnih ravneh, v obveščanju javnosti preko časopisov in družbenih omrežij, skozi oblikovanje promocijskih gradiv za različne ciljne skupine, kot so npr. slikanice za otroke, razstave za širšo javnost, družabne igre na temo lokalne dediščine in scenariji za igrano-dokumentarne filme.



OBDODBE/ČAS RAZVOJA:

Od 2008 (kontinuirano, še poteka).

KOMU JE NAMENJENA:

Študentom, lokalni skupnosti.

ODMEVNOST IN USPEH

Uporaba realnega okolja kot živega laboratorija za poučevanje in delo z dediščino je dosegla dober odziv na ravni študentov in primarne ciljne skupine – lokalne skupnosti. Pri študentih se uspešnost izvajanja takšnega načina poučevanja kaže v povečanem obsegu samostojnih in kreativnih produktov v sozvočju z lokalno skupnostjo. Odziv ključnih deležnikov pa se kaže v podpori in spodbujanju študentske kreativnosti ter nenazadnje tudi v prepoznavanju UP kot interaktivne in odzivne članice družbe.

Living laboratories for cultural heritage

Work in the cultural heritage field of UP FHŠ includes research work and higher education teaching. With the intention of transferring current knowledge to students and providing them with a quality foundation for work in the profession, we have developed a series of educational activities that enable an interactive and practical way of learning and teaching, cooperation with society and various stakeholders, and a real study environment as a living laboratory for transfer and verification of theoretical and practical knowledge about heritage. The focus of the work and the critical points of this living lab are the Simon's Bay Archaeological Park and the old town of Koper.

The management of the Simon's Bay Archaeological Park also includes implementing activities, among which student projects enable informal education and creative creation of various contents in a real work environment. The projects intervene creatively in multiple areas, including those that stand out from the classic view and perception of heritage. While working and designing programmes for different target groups, students prepare for work in a real environment. A significant achievement is the two-sided learning process, which represents the added value of education. The activities to date have qualitatively linked work with heritage by intertwining various topics and skills, such as conservation, restoration, sports heritage, teaching foreign languages, and creative interpretation.





IMPACT & SUCCESS

In the urban environment, such work includes active cooperation with local institutions and administration on the promotion of the archaeological heritage of Koper. The target audience and key stakeholders of many activities are city residents, which enables students to learn about participatory approaches to heritage research. Student activities are also intended for temporary residents of the city – students and employees of UP and tourists. As part of project and study activities, students learn about the archaeological heritage of Koper and, in various ways, try to bring it closer to the public with an inclusive approach by following their needs and wishes. The results are manifested on multiple levels in the form of public information through newspapers and social networks, the creation of promotional materials for various target groups such as picture books for children, exhibitions for the public, the creation of social games on the theme of local heritage, and scripts for feature-documentary films.

Using a real environment as a living laboratory for teaching and working with heritage has achieved a good response at the level of students and the primary target group – the local community. For students, the success of implementing such a teaching method is demonstrated in the increased volume of independent and creative products in harmony with the local community. The response of key stakeholders is reflected in the support and encouragement of student creativity and, finally, in the recognition of UP as an interactive and responsive member of society.

DEVELOPMENT PERIOD:

since 2008 (continuous, ongoing).

TARGET AUDIENCE:

students, local community.



Projekt Think XR

Pri projektu razvijamo nove procese in programske module za izobraževanje, ki bodo vključevali tehnologije navidezne in obogatene resničnosti (XR tehnologije).

Vzpostavili smo demonstracijski center XR tehnologij tako v Slovenskih Konjicah kot tudi v Ljubljani, opremljen s sodobno XR tehnologijo. Poleg tega smo oblikovali program XR akademije v obsegu 100 ur, ki omogoča učiteljem in mentorjem pridobivanje potrebnih znanj za poučevanje XR tehnologij (uporaba programskih orodij Blender in Unity za razvoj 3D vsebin v navidezni in obogatene resničnosti). Mentorji so tako usposobljeni za posredovanje potrebnih znanj za poklice prihodnosti, kot so razvijalci 3D digitalnih dvojčkov, Metaversa, video iger ter aplikacij navidezne in obogatene resničnosti.

Aprila 2023 smo izobrazili prvo generacijo mentorjev (15). V teku je tudi izvedba prvih pilotnih izvedb XR vsebin za dijake in študente, ki bodo tako pridobivali nova znanja o sodobnih XR tehnologijah.



OBDODBE/ČAS RAZVOJA:

Od julija 2022 do konca aprila 2024.

KOMU JE NAMENJENA:

Slovenskim učiteljem (mentorjem) ter dijakom/študentom.

ODMEVNOST IN USPEH

V teku je vzpostavljanje nacionalnega XR in Web 4.0 partnerstva, znotraj katerega povezujemo strokovnjake, izobraževalne ustanove, mentorje, podjetja, organizacije in vodilne strokovnjake na področju XR tehnologij za razvoj digitalnih kompetenc. Trenutno je memorandum partnerstva podpisalo 22 organizacij (podjetja, fakultete, srednje šole ipd.).



Project *Think XR*

The project is developing new processes and modules for education that will include virtual and augmented reality technologies (XR technologies).

We have set up an XR technology demonstration centre in both Slovenske Konjice and Ljubljana, equipped with state-of-the-art XR technology. In addition, we have created a 100-hour XR Academy programme that enables teachers and mentors to acquire the necessary skills to teach XR technologies (using Blender and Unity software tools to develop 3D content in virtual and augmented reality). Mentors are thus trained to impart the necessary skills for the jobs of the future, such as developers of 3D digital twins, Metaverse, video games and virtual and augmented reality applications.

In April 2023, we trained the first generation of mentors (15). We are also piloting the first XR content for high school and university students, who will learn new skills in modern XR technologies.



DEVELOPMENT PERIOD:

From July 2022 to the end of April 2024.

TARGET AUDIENCE:

Slovenian teachers (mentors) and students.



IMPACT & SUCCESS

A national XR and Web 4.0 partnership is underway, bringing together experts, educational institutions, mentors, companies, organisations and leading practitioners in the field of XR technologies to develop digital competences. So far, the partnership memorandum has been signed by 22 organizations (companies, faculties, high schools etc.).



Naprava in postopek za upravljanje pozornosti in kakovostne interakcije v dvosmernih avdio-videokomunikacijskih platformah

Predstavljeni izum je namenjen zagotavljanju povratnih informacij o pozornosti uporabnikov v dvosmernih avdio-videokomunikacijskih platformah, ki vključujejo agenta, ki je sposoben sprejemanja, sledenja in/ali analize stanja uporabnikov na podlagi podatkov – te zagotavljajo senzorji in nameščene digitalne naprave, ki tvorijo enega ali več kanalov:

- sistemski kanal za uporabe miške in tipkovnice ter uporabe drugih programov,
- motorični kanal za spremljanje podatkov o gibanju uporabnikov,
- fiziološki kanal za spremljanje fizioloških odzivov uporabnikov, kot so krvni tlak, oksigenacija, telesna temperatura,
- nevrološki kanal za sledenje nevrološkim podatkom, pridobljenim s prenosnimi napravami EEG ali podobnimi napravami.

Kazalniki nizke budnosti vključujejo: pogosto gledanje stran od zaslona ali kamere, pogosto zevanje, daljše govorjenje brez uporabe mikrofona, uporabo drugih programov ali aplikacij, gibanje oči v različne smeri, pogoste gibe celotnega telesa, spremembe fizioloških in/ali nevroloških parametrov, daljšo odsotnost izpred kamere, Medtem je visoka budnost stanje aktivne pozornosti, ko npr. uporabniki večinoma gledajo v zaslon ali

kamero, se hitro odzivajo na vprašanja, sporočila in/ali naloge, redko ali nikoli ne zevajo, nikoli ali redko izginejo izpred kamere.

OBDODBE/ČAS RAZVOJA:

Konceptualno od leta 2005, intenzivno od leta 2020 do danes (podeljen slovenski patent, evropski patent v teku).

KOMU JE NAMENJENA:

Univerze, šole, oddelki za trženje, organizatorji konferenc.

TRŽNE DEJAVNOSTI

V teku je pridobivanje finančnih virov za operativno implementacijo (kot samostojna aplikacija ali pa preko API), interes sta izrazili dve slovenski podjetji (eno od njiju je izum pripravljeno vključiti v svoj izdelek, ki je že dobro prisoten na trgu).

A device and a process for managing alertness and quality interaction in two-way audio-video communication platforms

This invention is aimed at providing feedback about alertness of users in two-way audio-video communication platforms comprising an agent arranged to receive, track and/or analyse data from the users based on data provided by sensors and deployed digital devices forming one or more channels:

- *system-processes channel for following speech, mouse and keyboard use, use of other programs,*
- *motor channel for following locomotion data of users,*
- *physiological channel for following physiological responses of users such as blood pressure, oxygenation, body temperature,*
- *neurological channel for following neuro-related data obtained via portable EEG devices or similar.*

Low alertness indicators include: frequent looking away from the screen or camera, frequent yawning, longer-lasting speaking without microphone use, use of other programs or applications, eye movements in different directions, frequent whole-body movements, changes in physiological and/or neurological parameters, or longer absence from the camera. High alertness is a state of active attention when, for example, users mostly look at the screen or camera, promptly react to questions, messages and/or tasks, rarely or never yawn, or never or rarely disappear from the camera.

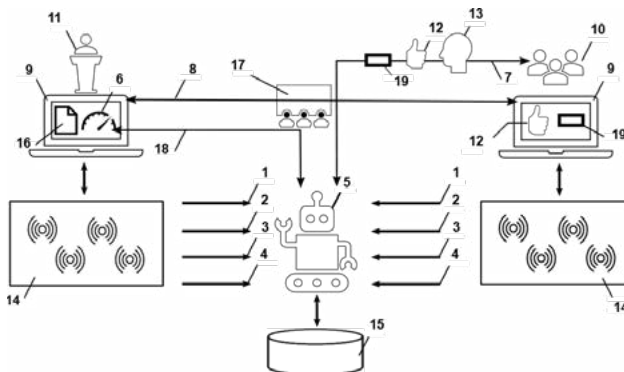


DEVELOPMENT PERIOD:

Conceptually since 2005, intensively from 2020 to date (national patent, EPO application in progress).

TARGET AUDIENCE:

Universities, schools, marketing departments,
conference organisers.ç



MARKETING ACTIVITIES

Financial investments are in progress for an operational implementation (standalone and via API), and an interest has been expressed by two Slovene companies (one of them prepared to incorporate the invention into its product that is already visibly present on the market).



Ergonomsko streme

Projekt sta zasnovala in izvedla doktorski študent Marc Elmeua González (Španija) in njegov mentor prof. dr. Nejc Šarabon na Univerzi na Primorskem (Slovenija). Izhaja iz obsežnega sklopa raziskav o vzorcih mišične aktivacije in mehanizmih prenosa udarcev med konjem ter jahačem. Pridobljena raziskovalna spoznanja so bila sistematično uporabljena pri razvoju te inovacije, da bi na koncu prišli do sedanje zasnove. Ključne tehnične rešitve inovativnega stremena so nastavljen položaj stremenske zanke ter naklon stopalke v obeh ravninah, gibljiv in razklopi zunanji navpični element ter blažilni mehanizem. S temi lastnostmi streme omogoča vsestransko varnost/ergonomijo med jahanjem ter zmanjšuje verjetnost resnejših poškodb v primeru padca s konja.

OBDOBJE/ČAS RAZVOJA:

2021-2023.

KOMU JE NAMENJENA:

Športnim in rekreativnim jahačem konj.



ODMEVNOST IN USPEH

Preko deset objav znanstvenih in strokovnih prispevkov s področja biomehanike jahanja v kontekstu varnosti/obremenitev konja in jahača. Postopek pridobitve mednarodnega patenta WO2023147909 (A1). Osebna promocija v uglednih sredinah tekmovalnega jahanja, socialni mediji, ciljni strokovni dogodki.



Ergonomic stirrup

The project was designed and implemented by doctoral student Marc Elmeua González (Spain) and his mentor prof. dr. Nejc Šarabon at the University of Primorska (Slovenia). It emerged from an extensive body of studies on muscle activation patterns and shock transmission mechanisms between horse and rider. The research insights gained were systematically used in the development of this innovation to ultimately arrive at the current design. The key technical solutions of the innovative stirrup are the adjustable position of the stirrup loop and the inclination of the pedal in both planes, a flexible and unlockable external vertical element and a damping mechanism. With these properties, the stirrup enables all-round safety/ergonomics while riding and reduces the likelihood of serious injuries in the event of a fall from the horse.

IMPACT & SUCCESS

Over 10 publications of scientific and professional contributions in the field of the biomechanics of riding in the context of safety/loads of horse and rider. The process of obtaining the international patent WO2023147909 (A1). Personal promotion in prominent competitive riding environments, social media, and targeted professional events.



DEVELOPMENT PERIOD:

From July 2022 to the end of April 2024.

TARGET AUDIENCE:

Slovenian teachers (mentors) and students.

Trajnostna valorizacija oljčnih listov v sklopu projekta OLEAF4VALUE

Projekt OLEAF4VALUE si prizadeva izkoristiti potencial oljčnih listov preko pametne dinamične multivalorizacijske poti biorefinerije, naslavljajoč globalno neizkoriščenost približno 4,5 milijona ton oljčnih listov letno. Ti listi vsebujejo dragocene spojine, kot so polifenoli, triterpenoidi in eterična olja. Projekt vzpostavlja trajnostno dobavno verigo za ekstrakcijo teh spojin, rešuje težave z odstranjevanjem listja in izboljšuje ekonomsko upravičenost oljgarskih aktivnosti.

VEČ KOT SAMO PROJEKT

OLEAF4VALUE je gibanje, ki spodbuja skupnost učencev in inovatorjev. Z gostovanjem delavnic o valorizaciji biomase seje semena znanja in partnerstva na rodovitnih tleh področja bioekonomije. Priznanje, prejeto na fotografskem tekmovanju #CBEimpact leta 2023, je nadaljnji dokaz rastočega vpliva in prepoznavnosti v skupnosti.

Z visokimi cilji projekt usmerja svoje poglede v povečanje izkoriščenosti oljčnih listov s skromnih 0,2 na ambicioznih 15 %. Ključna zavezništva, kot je tisto z Oleícola El Tejar, so ključnega pomena za to prizadevanje. Razvoj metode dinamične



obdelave za ekstrakcijo je del načrta za izboljšanje valorizacije biomase oljčnih listov, kar odpira nove dimenzije njihovega potenciala.

ZGODBA

Zgodba OLEAF4VALUE je pripoved o raziskovanju, inovacijah in sodelovanju, ki deležnike spodbuja, da gledajo preko obzorja in si predstavljajo prihodnost, v kateri oljčni list ni zgolj stranski proizvod, temveč vir neizkoriščenega potenciala.

CILJI

Cilji OLEAF4VALUE so tako raznoliki kot ambiciozni, in zajemajo vse od raznolikosti nians oljčne kulture in optimizacije logističnih stroškov do pionirskega razvoja senzorja za indeks kakovosti in ustreznosti. Projekt je skupek inovacij z že identificiranimi 24 biološkimi izdelki in postopki, od katerih jih je 16 na trgu novih. Validacija šestih novih vrednostnih verig, predstavitev koristi bioloških izdelkov, zagotavljanje varnosti potrošnikov in trajnosti so že doseženi mejniki. Načrt je jasen; gre za maksimiziranje izkoristka z identifikacijo novih tržnih obzorij, trajnostnih vrednostnih verig in podpiranje angažiranosti med deležniki za agende komercializacije. Obetavnosti pri učinkoviti dostavi bioaktivnih spojin. To partnerstvo odraža komercialno preudarnost projekta, saj si prizadeva premostiti vrzel med raziskavami in tržno uporabnimi rešitvami.

DOSEŽKI

Projekt OLEAF4VALUE je v sodelovanju z Mowi Feed začel s prelomnim poskusnim delom z lososi na Inštitutu za morske raziskave (IMR). Podvig je raziskal potencial oljčnih listov v akvakulturi, s čimer je ustvaril inovativno uporabo biomase oljčnih listov za krepitev zdravja živali. Ta projekt ni samo korak proti bolj zdravi akvakulturi, temveč tudi velik dosežek v okviru okoljske odgovornosti. Bistvo raziskav na IMR je okrepiti odpornost lososov na bolezni z uporabo ekstraktov oljčnih listov, korak, ki je v skladu z širšo vizijo negovanja bolj zdravega ekosistema akvakulture.

Mibelle Biochemistry se je pridružil projektu in raziskoval komercialni potencial dragocenih bioaktivnih spojin v oljčnih listih. Poudarek je na liposomalnih formulacijah, ki so znane po svoji obetavnosti pri učinkoviti dostavi bioaktivnih spojin. To partnerstvo odraža komercialno preudarnost projekta, saj si prizadeva premostiti vrzel med raziskavami in tržno uporabnimi rešitvami.

OBDOBJE/ČAS RAZVOJA:

Julij 2021–junij 2024

KOMU JE NAMENJENA:

Deležniki oljčne in oljarske industrije, kmetijstvo ter različni sektorji, kot so nutracevtika, kozmetika in farmacija.

Sustainable valorisation of olive leaf biomass through OLEAF4VALUE

OLEAF4VALUE aims to harness the potential of olive leaf biomass through a Smart Dynamic Multi-Valorisation-Route Biorefinery, addressing the global underutilisation of about 4.5 million tons of olive leaves annually. These leaves have valuable compounds like polyphenols, triterpenoids, and essential oils. The project sets up a sustainable supply chain to extract these compounds, resolving disposal issues and enhancing economic viability.



MORE THAN A PROJECT

OLEAF4VALUE is a movement fostering a community of learners and innovators. By hosting biomass valorisation workshops, it is sowing seeds of knowledge and partnership in the fertile grounds of the bioeconomy realm. The acknowledgment received in the #CBEimpact photo competition in 2023 is a testament to its growing multidisciplinary influence, and recognition in the community.

Aiming high, the project sets its sights on promoting olive leaf utilisation from a mere 0.2% to an ambitious 15%. Key alliances like that with

Oleícola El Tejar are the cornerstones in this endeavour. The development of a 'dynamic processing' extraction method is a part of the blueprint to enhance the valorisation of olive leaf biomass, unlocking new dimensions of its potential.

THE STORY

OLEAF4VALUE is a narrative of exploration, innovation, and collaboration, emboldening the stakeholders to look beyond the horizon and envisage a future where the olive leaf is more than just a byproduct but a vessel of untapped potential.

OBJECTIVES

The objectives of OLEAF4VALUE are as diverse as they are ambitious: from diving into the nitty-gritty of olive cultivation and optimising logistic costs to pioneering in developing a Real Time Suitability Index Sensor. The project is a crucible of innovation, with 24 bio-based products already birthed, 16 of which are novel entrants in the market. The validation of six new value chains via a biorefinery cascade approach, showcasing the benefits of bio-based products, and ensuring consumer safety and sustainability are the milestones already achieved. The roadmap is clear; it is about maximising impact by identifying new market vistas, sustainable value chains, and sowing seeds of engagement among stakeholders for commercialisation agendas.

ACHIEVEMENTS

The OLEAF4VALUE project, in collaboration with Mowi Feed, embarked on a groundbreaking salmon trial at the Institute of Marine Research (IMR). The venture explored the use of olive leaves in aquaculture, with innovative use of olive leaf biomass for bolstering animal health. This endeavour is not just a stride towards healthier aquaculture but also a leap towards environmental stewardship. The essence of the research at IMR is to strengthen the disease resilience of salmon using olive leaf extracts.

Mibelle Biochemistry has also joined hands with the project, diving into the commercial potential of precious bioactive compounds in olive leaves. The spotlight is on liposomal formulations, which promise an efficient delivery of bioactive compounds. This partnership is a reflection of the project's commercial foresight, aiming to bridge the gap between research and marketable solutions.

DEVELOPMENT PERIOD:

July 2021-June 2024

TARGET AUDIENCE:

Olive oil industry stakeholders, agriculture, and diverse sectors like nutraceuticals, cosmetics, and pharmaceuticals.

Raziskovalno-razvojna enota predšolske vzgoje

Univerze na Primorskem, Pedagoške fakultete (RA-RA)

ZNAČILNOSTI inovativnega modela RA-RA PV UP PEF

1 Ohranja in razvija organiziranost predšolske vzgoje v slovenskih vrtcih kot celovitega (povezanost skrbi/varstva, vzgoje) in enovitega (povezanost vzgoje in izobraževanja v prvem in drugem starostnem obdobju) sistema predšolske vzgoje.

2 Teoretična izhodišča razvoja novih pristopov na področju predšolske vzgoje so utemeljena v naravi otrokovega učenja – igri in akciji – skem, razvojno-raziskovalnem pristopu.

3 Upošteva značilnosti dvo-/večjezičnega okolja in zagotavlja medkulturne ter večjezične vzgojno-izobraževalne interakcije z okoljem.

4 Zagotavlja skladnost programa dela v vrtcu z nacionalno zakonodajo, s predpisi in standardi ter Kurikulumom za vrtce.

5 Raziskovanje poteka v skladu z etičnimi pravili in s standardi Univerze na Primorskem ter v skladu s predpisi, ki določajo organizacijo in izvedbo predšolske vzgoje v vrtcih.



TEMELJNI STEBER	DRUGI STEBER	TRETJI STEBER
- slovenščina kot prvi jezik, slovenščina kot drugi jezik - vzgojiteljica in pomočnica govorita slovensko - komunikacija v slovenščini skozi vse kurikularne dejavnosti	- italijanščina kot drugi jezik po principu "en jezik en učitelj/sopoučevanje" - vzgojiteljica govori samo italijansko (postopno uvajanje podporne strategije) - komunikacija v italijanščini (vse dejavnosti, dnevna rutina, ipd.)	- angleščina kot tuji jezik (Jezikovni vlak) - dejavnosti za uvajanje tujega jezika in razvijanje večjezičnosti (skozi igro, petje, ples, medpredmetno povezovanje ...) - dodatni program v sodelovanju s Pedagoško fakulteto UP



CILJI

1. Razvoj pedagoških in raziskovalnih pristopov na področju predšolske vzgoje, zgodnjega učenja in poučevanja.
2. Uvajanje pedagoških pristopov z namenom podpore strokovnim, svetovalnim in vodstvenim delavcem vrtcev pri zagotavljanju kakovosti predšolske vzgoje ter razvoja predšolske vzgoje.
3. Podpora in usposabljanje strokovnih, svetovalnih in vodstvenih delavcev vrtcev na lokalni in regionalni ravni.
4. Razvoj modela večjezičnega vrtca.
5. Ekspertna podpora pri razvoju politike, zakonodaje, standardov in normativov na področju predšolske vzgoje na nacionalni ter mednarodni ravni, utemeljena v teoretičnih in empiričnih spoznanjih.

OBDOBJE/ČAS RAZVOJA

Senat Pedagoške fakultete Univerze na Primorskem je na svoji 2. redni seji dne 1. 9. 2023 sprejel Akt o organiziranosti in delovanju Raziskovalno-razvojne enote predšolske vzgoje Univerze na primorskem, Pedagoške fakultete.

Od 1. septembra 2023 poteka raziskovalno-razvojno delo v enoti Vrtca Koper, v sodelovanju z otroki, s starši, strokovnimi delavci, z raziskovalci Pedagoške fakultete UP in vodstvom Vrtca Koper.

KOMU JE NAMENJENA

Sodelovanja med tremi deležniki: visokošolskim izobraževanjem (Pedagoško fakulteto Univerze na Primorskem), predšolsko vzgojo in izobraževanjem (Vrtec Koper) in lokalno skupnostjo (Mestna občina Koper).

ODMEVNOST IN USPEH

Uporaba realnega okolja kot živega laboratorija za poučevanje in delo z dediščino je dosegla dober odziv na ravni študentov in primarne ciljne skupine – lokalne skupnosti. Pri študentih se uspešnost izvajanja takšnega načina poučevanja kaže v povečanem obsegu samostojnih in kreativnih produktov v sozvočju z lokalno skupnostjo. Odziv ključnih deležnikov pa se kaže v podpori in spodbujanju študentske kreativnosti ter nenazadnje tudi v prepoznavanju UP kot interaktivne in odzivne članice družbe.

Research and Development Unit of Early Childhood Education, University of Primorska, Faculty of Education (RA-RA PV UP PEF)

FEATURES of the innovative project model RA-RA PVV UP PEF

1 *It fosters the organisation of pre-school education in Slovenian kindergartens as a comprehensive (linking care and education) and unified (integration of education in the first and second age period) system of pre-school education.*

2 *The theoretical basis for the development of new approaches in the field of pre-school education is grounded in the nature of children's learning - play and an action-oriented, developmental-research approach.*

3 *It takes into account the characteristics of a bilingual/multilingual environment and ensures intercultural and multilingual educational interactions with the environment.*



4 *It ensures that the kindergarten programme complies with national legislation, regulations and standards, as well as the National Kindergarten Curriculum.*

5 *Research is conducted in accordance with the ethical rules and standards of the University of Primorska and in accordance with the regulations governing the organisation and delivery of pre-school education in kindergartens.*

OBJECTIVES

1. A development of pedagogical and research approaches in the field of early childhood education, early learning and teaching.
2. The introduction of pedagogical approaches in order to support the professional, advisory and managerial staff of kindergartens in ensuring the quality and development of pre-school education.
3. Support and training of professional, advisory and managerial staff of kindergartens at local and regional level.
4. Development of a multilingual kindergarten model.
5. Expert support for the development of policy, legislation, standards and norms in the field of early childhood education at national and international level, grounded in theoretical and empirical knowledge.



TARGET AUDIENCE

The aim of the RA-RA PV UP PEF is to design an innovative integrative model of higher education, research and pedagogy for the development of effective pedagogic approaches in early childhood education based on the co-operation between three shareholders: higher education (Faculty of Education, University of Primorska), pre-school education (Koper Kindergarten) and the local community (Municipality of Koper).

IMPACT & SUCCESS

The success of the Development and Research Unit of Pre-school Education of the Faculty of Education of the University of Primorska lies in the coherent and integrated action of the local environment (the Municipality of Koper), pre-school education as an organised activity (the Koper Kindergarten), and the university environment (the Faculty of Education of the University of Primorska), with the aim of developing and researching pre-school education and thus ensuring the quality of education for all children.

DEVELOPMENT PERIOD

The Senate of the Faculty of Education of the University of Primorska adopted the Act on the Organisation and Operation of the Research and Development Unit of the University of Primorska, Faculty of Education at its 2nd regular meeting on 1 September 2023.

Research and development activities in the Koper Kindergarten Unit, in collaboration with children, parents, professionals, researchers from the UP Faculty of Education, and the leadership of the Koper Kindergarten started on 1 September 2023.

UP FTŠ sTOUdio Turistica

Študentski studio za trajnostni razvoj in inovativnost v turizmu UP FTŠ Turistice je pilotni program R&R, ki od leta 2019 povezuje študente, gospodarstvo in akademijo.

Naše poslanstvo je spodbujanje sodelovanja študentov pri razvojnih projektih s fokusom na analitiki, svetovanju, inoviranju in praktičnem delu v gospodarstvu. Skozi našete aktivnosti študenti razvijajo nove veščine pod nadzorom strokovnjakov iz prakse ter pedagoških in raziskovalnih sodelavcev UP FTŠ Turistice, partnerskega konzorcija FromZero in mednarodnega združenja AIRTH (Alliance for Innovators and Researchers in Tourism and Hospitality).

Pri svojem delu še posebej spodbujamo:

- eksperimentalno učenje,
- raziskovanje kariernih in življenjskih slogov,
- grajenje dolgotrajnih mednarodnih prijateljstev.



Med letoma 2019 in 2023 se je pod znamko sTOUdio Turistica zvrstilo 50 aktivnosti, ki smo jih oblikovali in poimenovali z naslednjimi formati dogodkov in projektov: sTOUdio Zmenki, sTOUdio Pogovori, sTOUdio Izleti, sTOUdio Vikendi, sTOUdio Projekti, sTOUdio Startupi, sTOUdio Potopisi, sTOUdio Podkast.

sTOUdio Pogovor je dogodek v obliki predavanja za študente UP FTŠ Turistice o aktualnih turističnih razvojnih trendih in inovacijah, na katerega povabimo gostujoče predavatelje in splošno javnost. Tvrstne dogodke uvajamo in spodbujamo, ker stremimo k deljenju znanja ter ustvarjanju priložnosti za povezovanje in diskurz vseh turističnih deležnikov.

SsTOUdio Zmenki želimo spodbujati priložnosti za srečevanje in povezovanje sedanjih ter bivših študentov in gospodarstva. Njihov glavni namen je, da ostajamo v stiku drug z drugim, kaj novega izvemo in iščemo priložnosti za nova sodelovanja. Kje se dobimo? Kjer koli v Sloveniji boste predlagali.

S sTOUdio Izleti želimo spodbujati priložnosti za srečevanje in povezovanje sedanjih ter bivših študentov in gospodarstva. Njihov glavni namen je druženje in ogled dobrih praks na terenu.

Na sTOUdio Vikendih povezujemo študente in gospodarstvo z metodami, kot sta Lean Startup and AIRTH Experience (Re) Design.

Ideje za sTOUdio Projekte se utrinjajo med in po naših sTOUdio Zmenkih, Izletih In Vikendih, ko se pogovarjamo o naslednjih korakih našega sodelovanja.

sTOUdio Startupi so naš veliki cilj in največje zadovoljstvo: uresničevanje idej v lastnih organizacijah, skozi katere aktivni in bivši sTOUdio študenti počnejo to, kar hočejo. Samostojno, razburljivo in čisto ZARES!

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S sTOUdio Potopisi imajo študenti priložnost z drugimi deliti svoje izkušnje s potovanj, sTOUdio Podkast pa ponuja platformo za javno objavljane pogovorov študentov s predstavniki turističnega gospodarstva.



Z rezultati in načrti sTOUdio projekta se je UP FTŠ Turistica leta 2021 postavila ob bok 12 organizacijam, ki so bile med več kot 800 prijavitelji izbrane v sklopu izziva Google.org Impact Challenge za države srednje in vzhodne Evrope. Družba Google organizacijam, ki predstavljajo najobetavnejše dobrodelne projekte, podeljuje finančna sredstva in podporne storitve za pomoč pri spodbujanju vse bolj digitaliziranega gospodarstva, s poudarkom na nujnosti družbene vključenosti.

Eden od uresničenih projektov UP FTŠ sTOUdia Turistice je družbeno odgovoren startup Locals-FromZero. Startup si je s pomočjo Googla in domačih ter tujih partnerjev UP FTŠ sTOUdia Turistice utrl pot v mednarodno okolje ter pritegnil pozornost mednarodne kooperative Fairbnb, ki ga je vzela pod svoje okrilje.

UP FTŠ sTOUdio Turistica

Student sustainable TOURism Development & Innovation Office (sTOUdio) is a pilot R&D programme connecting students, business and academia since 2019.

Our mission is to promote the participation of students in development projects focused on analytics, consulting, innovation and practical work in the real economy. Through these activities, students develop skills under the guidance of experts in the field as well as teaching and research staff from UP FTŠ Turistica, partner consortium FromZero, and the Alliance for Innovators and Researchers in Tourism and Hospitality (AIRTH).

In our work we particularly promote

- *Experimental learning*
- *Exploration of careers and lifestyles*
- *Building long-term international friendships*



Between 2019 and 2023, 50 activities were organised and carried out under the sTOUdio Turistica brand, designed and named as the following event formats and projects: sTOUdio Dates, sTOUdio Talks, sTOUdio Trips, sTOUdio Weekends, sTOUdio Projects, sTOUdio Startups, sTOUdio Travelogue, sTOUdio Podcast.

With sTOUdio Dates we want to promote meeting opportunities between current and former students and the business community. The main goal is to stay in touch with each other, learn new things and look for opportunities for new collaborations. Where shall we meet? Anywhere in Slovenia you suggest.

sTOUdio Talk is a lecture event for students of UP FTŠ Turistica on current trends and innovations in tourism development, to which we invite guest speakers and the public. This type of event has been introduced and promoted because we strive to share knowledge and create opportunities for networking and discourse among all tourism stakeholders.

With sTOUdio Trips we want to promote meeting opportunities between current and former students and the business community. The main purpose is to establish contacts and learn about good practices in practice.

At sTOUdio Weekends we connect students and businesses with methods like Lean Startup and AIRTH Experience (Re)Design.

Ideas for sTOUdio Projects emerge during and after our sTOUdio Dates, Trips and Weekends, when we discuss the next steps in our collaboration.

sTOUdio Startups is our greatest goal and satisfaction: to implement ideas in our own organisa-

tions, where active and former sTOUdio students do what they really want to do. Independent, exciting and FOR REAL!

With sTOUdio Travelogue, students have the opportunity to share their travel experiences with others, and sTOUdio Podcast provides a platform for publishing conversations between students and representatives of the tourism industry.

On this basis, in 2021, UP FTŠ Turistica, with its sTOUdio project, stood alongside 12 organisations selected from more than 800 applicants in the Google.org Impact Challenge for the countries of Central and Eastern Europe. Google awards funding and support services to organisations that represent the most promising non-profit projects to drive an increasingly digital economy, with a focus on the imperative of social inclusion.

One of the standouts of sTOUdio is the socially responsible startup LocalsFromZero. With the help of Google and domestic and foreign partners of UP FTŠ sTOUdio Turistica, this startup has found its way onto the international stage and attracted the attention of the international cooperative Fairbnb, which has taken it under its wing.

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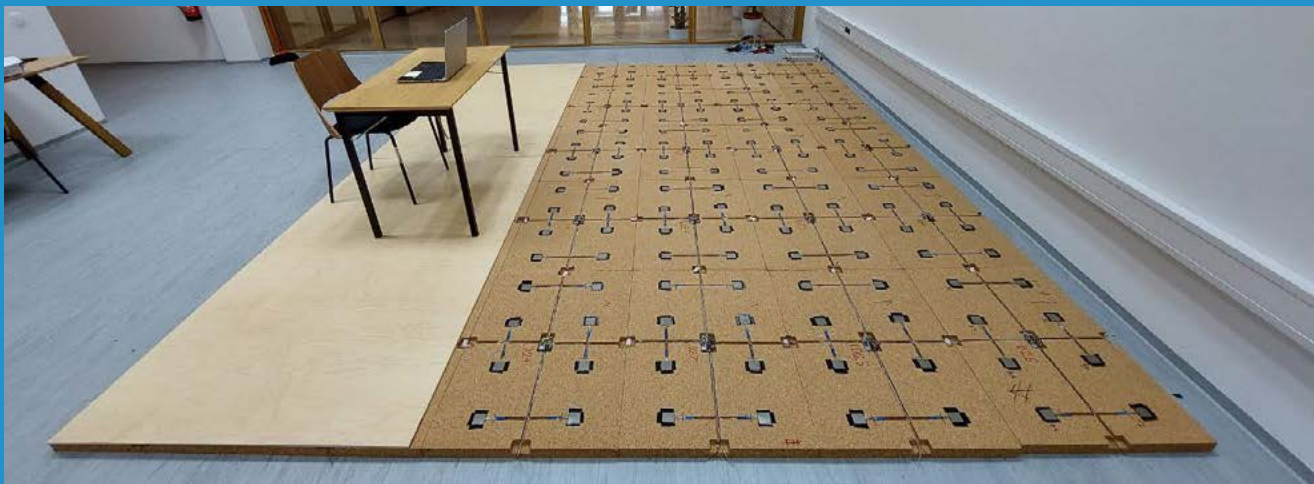
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Pametna tla



Pametna tla predstavljajo inovacijo, ki uporablja vgrajene senzorje pritiska za zaznavanje dejavnosti uporabnikov. Projekt je nastal v sodelovanju med Univerzo na Primorskem in InnoRenew CoE. Razvoj se je začel leta 2019 s poudarkom na testiranju natančnosti senzorjev in izboljšanju učinkovitosti prepoznavanja aktivnosti.

Prva uvedba tehnologije je bila namenjena predvsem raziskavam, usmerjenim v odkrivanje padcev pri starejših, saj so padci najpogostejša oblika poškodb starejših, ki se živijo doma ali v domovih za ostarele. Poleg zaznavanja padca lahko pametna tla prepoznajo druge dejavnosti,

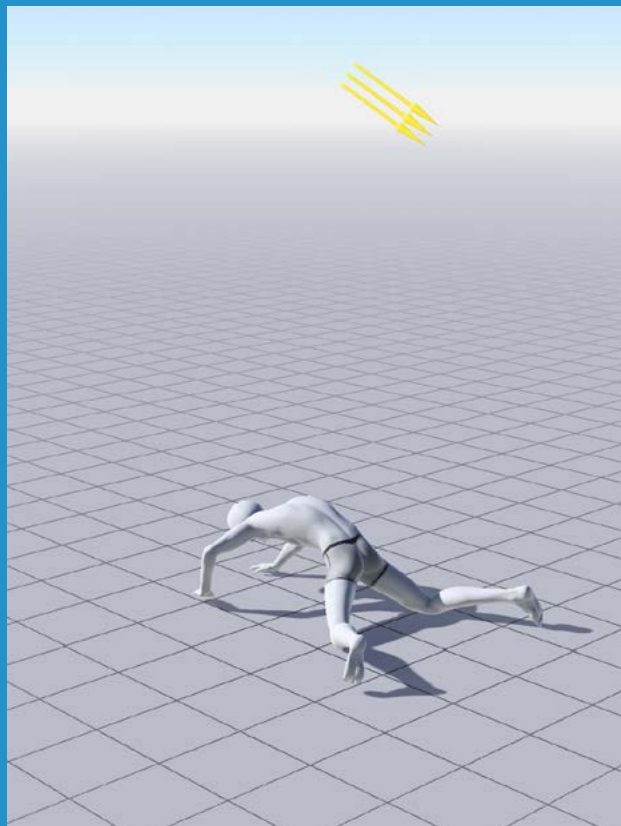
kot so sedenje, hoja, gibanje, prepoznajo pa tudi lokacijo in štejejo korake.

Za prepoznavanje teh vzorcev se uporablja umetna inteligenca, ki izkorišča algoritme strojnega učenja za izboljšanje natančnosti in prilagodljivosti skozi čas. To omogoča hitro in zanesljivo obdelavo podatkov, kar zagotavlja, da prepoznavanje dejavnosti postane natančnejše, saj se sistem uči iz vedenja uporabnikov.

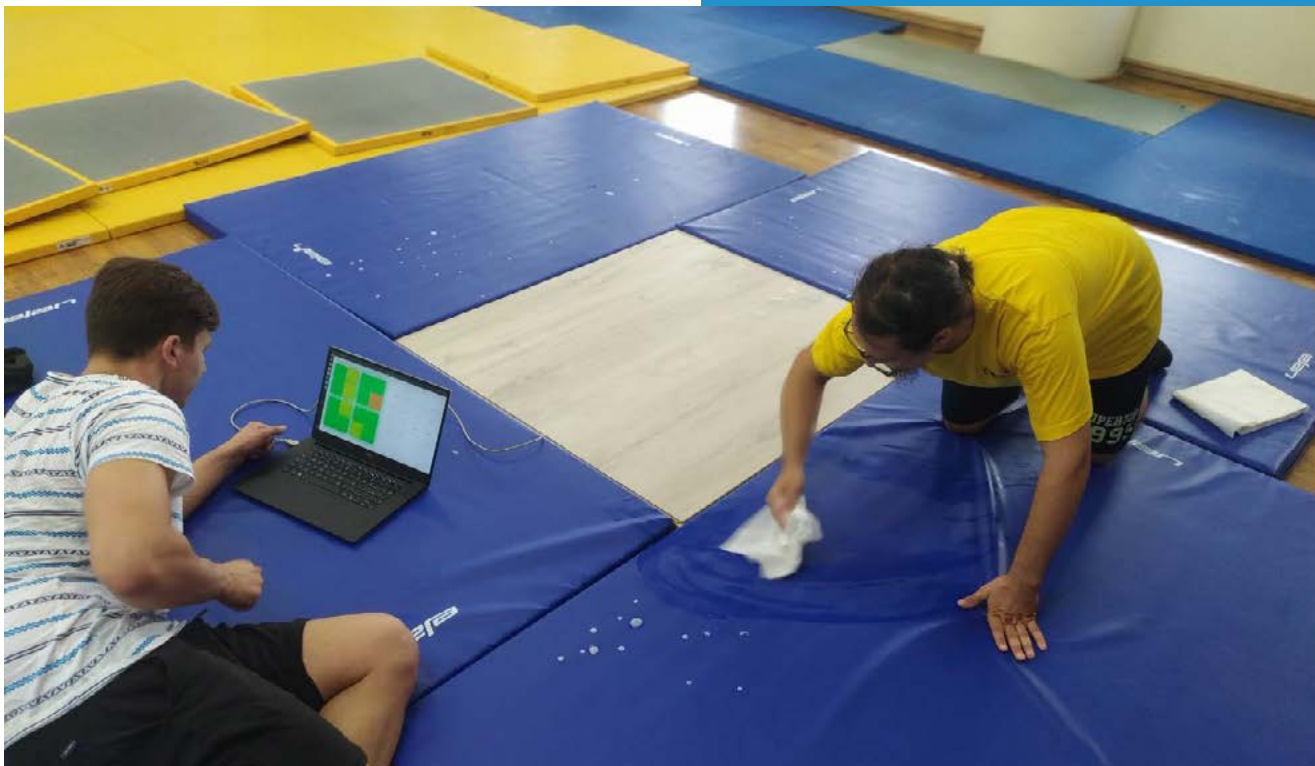
Ugotovljena sta bila dva glavna izziva: visoki proizvodni stroški in zapletenost postopka namestitve. Trenutno potekajo prizadevanja za reševanje teh izzivov s poenostavitvijo postopkov,

zaradi česar bo tehnologija dostopnejša in stroškovno učinkovitejša za široko uporabo.

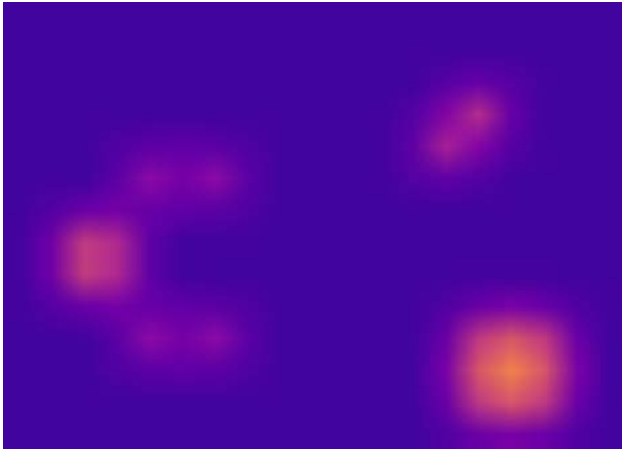
Eden od ključnih rezultatov začetnih poskusov s pametnimi tlemi je zbiranje podatkov o padcih in običajnih dnevnih dejavnostih iz tal, opremljenih s senzorji. Ta nabor podatkov je zelo dragocen, saj predstavlja prvega te vrste, ki zagotavlja edinstven vpogled v vzorce človeškega gibanja. Takšni podatki imajo velik potencial na različnih področjih, od zdravstva – kjer lahko pomagajo pri preprečevanju padcev in ocenjevanju mobilnosti – do industrije iger na srečo, kjer bi lahko izboljšali interakcije in izkušnje, ki temeljijo na gibanju. Prihodnji načrti se osredotočajo na napredek tehnologije z izboljšanjem natančnosti senzorjev in analitike, ki jo poganja umetna inteligenca, hkrati pa širijo aplikacije slednje onkraj zaznavanja padcev. Potencialna področja rasti vključujejo integracijo v sisteme pametnega doma za stalno spremljanje in podporo ter širšo uporabo v zdravstvenih ustanovah za sledenje bolnikom in upravljanje varnosti. Namen tega razvoja je narediti predstavljeno tehnologijo bolj vsestransko in vplivnejšo v različnih panogah.



Smart Floor Technology



Smart Floor Technology is an innovation that utilises embedded pressure sensors to detect user activity. The project is developed in collaboration between the University of Primorska and the InnoRen1ew CoE. Development started in 2019, with a focus on testing sensor accuracy and improving the efficiency of activity recognition.



The first adoption of the technology was primarily intended for research focused on detecting falls among elderly individuals, as falls are the most common form of injury for seniors aging at home or in homes for the elderly. In addition to fall detection, Smart Floors can recognise other activities such as sitting, walking, and movement, as well as location and step counting.

Artificial intelligence is employed to identify these patterns, leveraging machine learning algorithms to improve accuracy and adaptability over time. This enables fast and reliable data processing, ensuring that activity recognition becomes more precise as the system learns from user behaviour.

Two major challenges have been identified: high production costs and the complexity of the installation process. Efforts are currently underway

to address these challenges by simplifying procedures, making the technology more accessible and cost-effective for widespread use.

One of the key outcomes from the initial experiments with Smart Floors is the collection of data on fall events and ordinary daily activities from a sensor-equipped floor. This dataset is highly valuable, as it represents the first of its kind, providing unique insights into human movement patterns. Such data holds significant potential across various fields, from healthcare – where it can aid in fall prevention and mobility assessments – to the gaming industry, where it could enhance motion-based interactions and experiences.

Future plans focus on advancing the technology by refining sensor accuracy and enhancing AI-driven analytics, while also expanding its applications beyond fall detection. Potential areas of growth include integration into smart home systems for continuous monitoring and support, as well as broader use in healthcare facilities for patient tracking and safety management. This development aims to make the presented technology more versatile and impactful across various industries.

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Unescova katedra

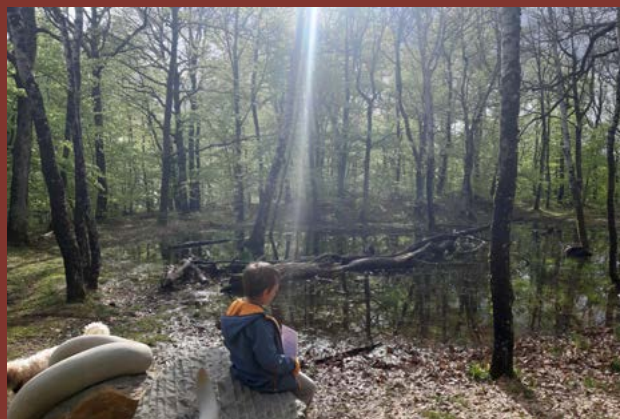
za interpretacijo in izobraževanje za spodbujanje celostnih pristopov k dediščini

Fakulteta za humanistične študije Univerze na Primorskem je v sodelovanju s Parkom Škocjan-ske jame pridobila Unescovo katedro za interpretacijo in izobraževanje s ciljem spodbujanja celostnih pristopov k dediščini. Katedra, ustanovljena avgusta 2021, zapolnjuje vrzel na področju obstoječih Unescovih kateder, saj poudarja vlogo interpretacije in izobraževanja za trajnostno upravljanje kulturne in naravne dediščine. Njene dejavnosti temeljijo na participativnih in na vrednotah osnovanih pristopih, ki vključujejo lokalne skupnosti.

Katedra tesno sodeluje z mednarodno priznano Poletno šolo muzeologije ter drugimi izobraževalnimi dejavnostmi fakultete in parka. Z interdisciplinarnim povezovanjem področij, kot so antropologija, arheologija, zgodovina, umetnostna zgodovina, konservatorstvo, muzeologija itd., katedra spodbuja inovativno izobraževanje, ki presega delitve med naravno in kulturno dediščino, snovno in nesnovno dediščino ter med različnimi strokovnimi diskurzi. Namenjena je univerzitetnim študentom, stroki in širši zainteresirani javnosti.



Družbeno inovativen pristop katedre se med drugim kaže v interdisciplinarnih, vključujočih in senzibilnih pristopih k sporni obmejni istrski dediščini. Cilj raziskav in izobraževanj je spodbuditi celjenje družbenih ran obmejne družbe, ki so posledica težkih konfliktov zadnjega stoletja, in spodbujati strpno sobivanje različnih družbenih skupin. Preko mreže T4EU in mednarodnega sodelovanja si prizadevamo tudi ozaveščati širšo javnost ter vzpodbuditi refleksijo o mejah in migracijah. Z inovativnimi in participativnimi pristopi k interpretaciji dediščine presegamo delitve med strokami ter ustvarjamo za javnost privlačne produkte ter izsledke raziskav, ki prispevajo k trajnostni prihodnosti za vse. Uspeh tovrstnih iniciativ se kaže v velikem zanimanju in navdušenju splošne javnosti, kar kaže, da si ljudje želijo čim več tovrstnih konstruktivnih dejavnosti, ki gradijo senzibilno, strpno in trajnostno orientirano skupnost.



Unesco Chair

of interpretation and education for enhancing integrated heritage approaches



The Faculty of Humanities at the University of Primorska, in collaboration with the Škocjan Caves Park, has established a UNESCO Chair in Interpretation and Education to promote integrated approaches to heritage. Established in August 2021, the chair fills a gap in the existing UNESCO

chairs by emphasising the role of interpretation and education in sustainable cultural and natural heritage management. Its activities are based on participatory and value-based approaches that engage local communities.

The chair collaborates closely with the internationally recognised Summer School of Museology and other educational activities of the faculty and the park. By connecting interdisciplinary fields such as anthropology, archaeology, history, art history, conservation, museology, and others, the chair promotes innovative education that transcends divisions between natural and cultural heritage, tangible and intangible heritage, and various professional discourses. The chair is intended for university students, professionals, and the wider interested public.

The socially innovative approach of the chair is reflected, among other things, in interdisciplinary, inclusive, and sensitive approaches to the contested border heritage of Istria. The goal of the research and educational activities is to stimulate the healing of social wounds in the border community that have resulted from the severe conflicts of the last century and to encourage the peaceful coexistence of different social groups. Through the T4EU network and international cooperation, we aim to raise awareness among the general public and stimulate reflection on borders and migration. Through innovative and participatory approaches to heritage interpre-



tation, we transcend divisions among disciplines and create engaging products and research outcomes for the public that contribute to a sustainable future for all. The success of such initiatives is reflected in the great interest and enthusiasm of the general public, which shows that people are interested in constructive activities of this kind that build a sensitive, tolerant, and sustainable community.



Virtualna, obogatena in razširjena resničnost v izobraževanju

Projekt TeachXR predstavlja inovativno pobudo, osredotočeno na raziskovanje in implementacijo naprednih tehnologij virtualne, obogatene in razširjene resničnosti (XR) v osnovnih in srednjih šolah. Cilj projekta je opolnomočiti učitelje z znanjem in veščinami za uporabo ter razvoj vsebin in integracijo teh tehnologij v učni proces, s čimer bodo prispevali k izboljšanju kakovosti izobraževanja in modernizaciji učnih metod. To odpira nove dimenzije učenja in ustvarjalnosti, ki obogatijo tradicionalne izobraževalne vsebine.

Šest učnih laboratorijev bo ustanovljenih po vsej Sloveniji (med njimi Ljubljana, Novo mesto, Slovenske Konjice, Markovci), da omogočijo testiranje XR-tehnologij in seznanjanje z njimi. Razviti bodo učni moduli, podprti z XR-tehnologijami, ki bodo zagotavljali interaktivne izkušnje, varno učno okolje in prilagojeno učenje. Projekt bo prav tako spodbujal razvoj mehkih veščin in izboljšanje tradicionalnih učnih metod.



PROJEKT Teach XR



OBDOLJE/ČAS RAZVOJA:

Julij 2024-april 2026

KOMU JE NAMENJENA:

Učitelji in učenci v osnovnih in srednjih šolah

ODMEVNOST IN USPEH

Pričakuje se, da bo projekt TeachXR preoblikoval izobraževalni proces v Sloveniji. Z vzpostavitvijo učnih laboratorijev in usposabljanjem učiteljev bo zagotovljena trajnost XR-rešitev v šolskem okolju. Projekt bo okrepil sodelovanje med srednješolskimi, višješolskimi in visokošolskimi izobraževalnimi institucijami ter podjetji, kar bo prispevalo k oblikovanju izobraževalnega ekosistema ter redefiniciji poklicnega strokovnega izobraževanja v Sloveniji. TeachXR odpira vrata v prihodnost izobraževanja, ko bodo učenci in učitelji skupaj raziskovali nove dimenzije učenja in ustvarjalnosti.

PARTNERJI

Univerza v Ljubljani, Fakulteta za elektrotehniko ter Fakulteta za računalništvo in informatiko

Univerza na Primorskem, Fakulteta za management

Univerza v Mariboru, Pedagoška fakulteta

Šolski center Novo mesto

Elektrotehniško-računalniška strokovna šola in gimnazija Ljubljana (Vegova)

Inštitut za novejšo zgodovino

Šolski center Slovenske Konjice - Zreče

Osnovna šola Markovci

Center RS za poklicno izobraževanje (CPI)

Virtual, Augmented, and Extended Reality in Education

The TeachXR project represents an innovative initiative focusing on the exploration and implementation of advanced virtual, augmented, and extended reality (XR) technologies in primary and secondary schools. The aim of the project is to empower teachers with the knowledge and skills to use or develop content and integrate these technologies into the teaching process, thereby contributing to the improvement of education quality and modernisation of teaching methods. This opens up new dimensions of learning and creativity that enrich traditional educational content.

Six learning laboratories will be established across Slovenia (among them Ljubljana, Novo mesto, Slovenske Konjice, Markovci) to facilitate the familiarisation with and testing of XR technologies. Learning modules supported by XR technologies will be developed, providing interactive experiences, a safe training environment, and personalised learning. The project will also promote the development of soft skills and the enhancement of traditional teaching methods.





DEVELOPMENT PERIOD:

July 2024–April 2026

TARGET AUDIENCE:

Teachers in primary and secondary schools, as well as students.

IMPACT & SUCCESS

The TeachXR project is expected to transform the educational process in Slovenia. By establishing learning laboratories and training teachers, the sustainability of XR solutions in the school environment will be ensured. The project will strengthen cooperation between secondary, higher, and tertiary education institutions and companies, contributing to the formation of an educational ecosystem and the redefinition of vocational and professional education in Slovenia. TeachXR opens doors to the future of education, where students and teachers will explore new dimensions of learning and creativity together.



PARTNERS

*University of Ljubljana, Faculty of Electrical Engineering and Faculty of Computer and Information Science
University of Primorska, Faculty of Management
University of Maribor, Faculty of Education
School Center Novo mesto
Upper Secondary School of Electrical and Computer Engineering and Technical Gymnasium Ljubljana (Vegova)
Institute of Contemporary History
School Center Slovenske Konjice - Zreče
Primary School Markovci
Institute of the Republic of Slovenia for Vocational Education and Training (CPI)*



Mobilna večnamenska izokinetična naprava za ekscentrično vadbo

Projekt zasnove inovativne mobilne večnamenske izokinetične naprave za ekscentrično vadbo poteka v okviru doktorske naloge študenta Oskarja Cvjetičanina pod mentorstvom prof. dr. Nejca Šarabona. Temelji na znanstvenih dokazih o številnih prednostih ekscentrične vadbe za preventivo in rehabilitacijo mišično-kitnih poškodb. Po sistematičnem pregledu stanja tehnike na področju naprav, ki omogočajo ekscentrično vadbo, je bilo ugotovljeno, da so te naprave cenovno nedostopne, težavne za vsakdanjo uporabo ter večinoma namenjene laboratorijski rabi.

Projekt je trenutno v fazi natančnega testiranja drugega prototipa naprave, namenjene vadbi primikalk kolka. V nadaljevanju projekta je načrtovan razvoj ostalih potrebnih konstrukcijskih rešitev, ki bodo poleg vadbe primikalk kolka omogočale tudi vadbo odmikalk ramenskega sklepa in iztegovalk kolena. Z uspešnim zaključkom projekta bi inovirana naprava postala prva prenosna in cenovno dostopna naprava na trgu, ki omogoča ekscentrično vadbo teh pogosto poškodovanih mišic. Inovativno razvita naprava bi imela tako poleg raziskovalnega tudi velik tržni potencial.

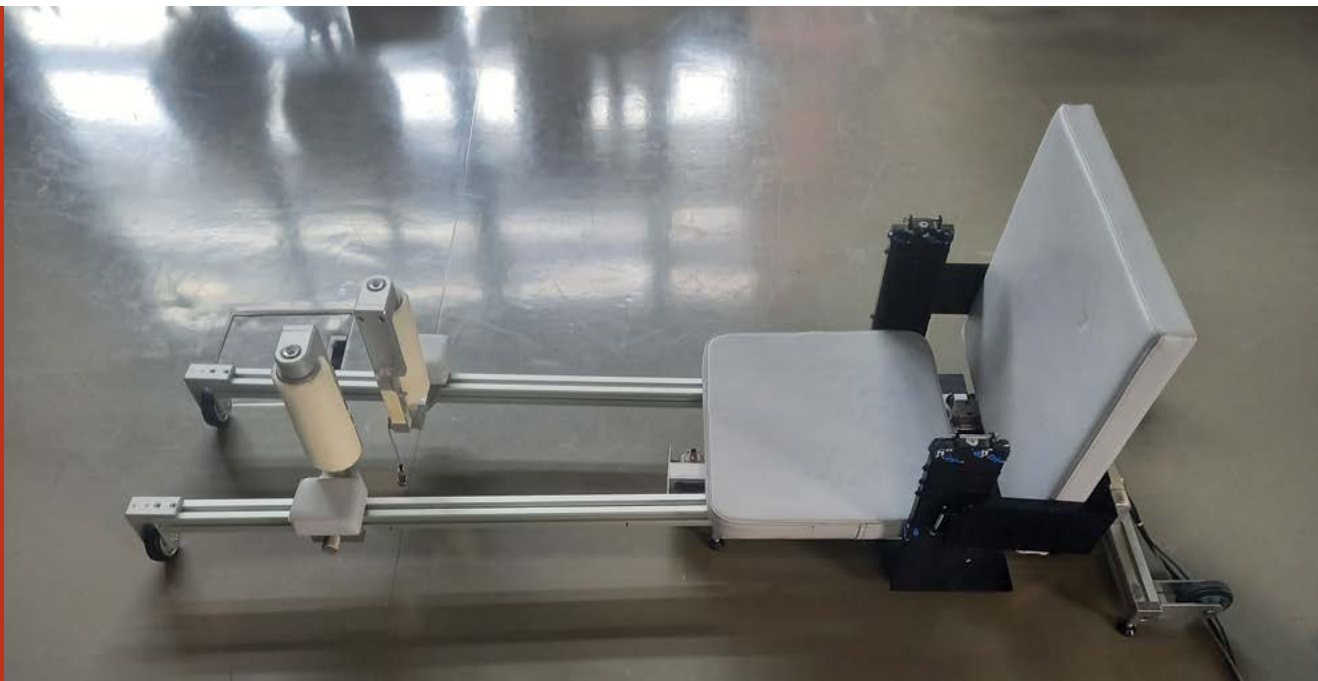


OBDOBJE/ČAS RAZVOJA:

2022-danes

KOMU JE NAMENJENA:

Naprava je namenjena tako profesionalnim športnikom kot tudi posameznikom, ki se ukvarjajo s preventivo in z rehabilitacijo mišično-kitnih poškodb.



ODMEVNOST IN USPEH

Znanstveni in strokovni prispevki, ki potrjujejo ustreznost zasnovane inovativne naprave, so trenutno v fazi sprejemanja. Naprava je bila promovirana in predstavljena na enem izmed največjih mednarodnih dogodkov na področju športne znanosti – kongresu ECSS v Glasgowu julija 2024 (ID prispevka: 1635).

Mobile multifunctional isokinetic device for eccentric exercise



The project for designing an innovative mobile multifunctional isokinetic device for eccentric exercise is being conducted as part of the doctoral thesis of student Oskar Cvjetičanin, under the supervision of prof. dr. Nejc Šarabon. It is based on multiple scientific evidences regarding the numerous benefits of eccentric exercise for the prevention and rehabilitation of musculoskeletal injuries. After reviewing the current state of tech-

nology in devices that enable eccentric exercise, it was found that these devices are often overly expensive, difficult for everyday use, and mainly intended for laboratory applications.

The project is currently in the phase of precise testing of the second prototype, designed for hip adductor exercises. In the future, it is planned to develop additional design solutions that will,



DEVELOPMENT PERIOD:

2022–present

TARGET AUDIENCE:

The device is intended for both professional athletes and individuals involved in the prevention and rehabilitation of musculoskeletal injuries.

IMPACT & SUCCESS

Scientific and professional contributions that confirm the suitability of the designed device are currently in the process of being accepted. The device was promoted and presented at one of the largest international events in the field of sports science – the ECSS congress in Glasgow, in July 2024 (abstract ID: 1635).

besides hip adductor exercises, also enable shoulder abductor and knee extensor exercises. Upon successful completion of the project, the innovative device would become the first portable and affordable device on the market that enables eccentric exercises of those frequently injured muscles. The innovatively developed device would thus have not only research potential but also significant market potential.

Pripovedovanje zgodb – (Samo)zagovorništvo oseb s posebnimi potrebami

Študentke oz. študenti z izbrano osebo s posebnimi potrebami sooblikujejo zgodbo in pri tem sledijo vnaprej določenim smernicam (pridobitev informiranega soglasja, izbira teme in zasnova scenarija, prepoznavanje lastnega ableističnega delovanja). Nato oblikujejo videogradivo, ga pripravijo za predvajanje ter ga predvajajo kolegicam in kolegom, ki tako spoznavajo različnost in do nje razvijajo odnos.

Pilotna aktivnost se izvaja v okviru predmeta Specialna pedagogika na prvostopenjskem študijskem programu Pedagogika.

Pripovedovanje zgodb je osnovano na sociološki paradigmi razumevanja posebnih potreb in predstavlja pomembno samozagovorniško spretnost, saj izhaja iz predpostavke, da je oseba, ki ima posebne potrebe, ekspert na podlagi izkušenj in zato tudi najkompetentnejša za deljenje te osebnosti življenjske izkušnje z drugimi. Pripovedovanje je tako najprej v funkciji samorefleksije, izražanja pripadnosti določeni identiteti in zagovarjanja pomena enakih možnosti za posameznikovo realizacijo potencialov. Z naracijo se oseba spomni preteklih dogodkov, o njih pripoveduje in jih tako tudi osmišlja.



S pripovedovanjem življenjskih zgodb prevzema aktivno vlogo v njem. A pripovedovanje zgodb je tudi v funkciji deljenja lastne izkušnje, doživljanja in pogleda na različne situacije z drugimi, saj spodbuja dialog o inkluzivnih temah in obenem ponuja večplasten uvid v kompleksnost položaja oseb s posebnimi potrebami v družbi. Pripovedovalec zgodb je lahko oseba sama ali nekdo drug v njenem imenu. Digitalna tehnologija vsakemu ne glede na oviranost, s katero se sooča, omogoča, da pove svojo zgodbo in se tako opolnomoči.

OBDODBE/ČAS RAZVOJA:

od leta 2022 do danes

KOMU JE NAMENJENA:

Trenutno je pripovedovanje zgodb namenjeno študentkam in študentom, v bodoče želimo zgodbe deliti z javnostjo, ki izraža interes za inkluzivne teme.

DOSEŽKI

Pristop je pri študentih pozitivno prepoznan, saj jim pomaga premostiti predsodke, razumeti kompleksnost posameznika, ki ima med drugim tudi posebne potrebe, in prepoznati ableistične prakse v okolju.



Storytelling – (Self-) advocacy for people with disabilities

Students co-create a story with a selected person with disabilities, following predefined guidelines (obtaining informed consent, choosing the topic and shaping the script, identifying their own ableist agency). They then create a video, prepare it for screening and broadcast it to their colleagues to learn about and develop attitudes towards diversity.

The pilot activity is carried out as part of the first cycle special education course in the first cycle degree programme Pedagogy. Storytelling is based on a sociological paradigm of understanding special needs and represents an important self-advocacy skill, as it is based on the assumption that the person with special needs is an expert by experience and is therefore best placed to share this personal life experience with others.

Narrative is therefore primarily a function of self-reflection, expression of belonging to a particular identity and advocacy for the importance of equal opportunities for individuals to fulfil their potential. Through storytelling, a person remembers past events, recounts them and thus gives them meaning. By telling life stories, they take an active role in them. The purpose of storytelling is to share one's experiences, feelings and perspectives with others as it promotes dialogue on inclusive issues while providing a multi-layered insight into the complexity of the social position of people with disabilities. The storyteller can either be the person themselves or someone else on their behalf. Regardless of the type of disability, digital technology allows everyone to tell their own story and empower themselves.



DEVELOPMENT PERIOD:

2022 to date

TARGET AUDIENCE:

Currently the storytelling is aimed at students, although in the future we would like to share it with the general public who show an interest in inclusive topics.

IMPACT & SUCCESS

The approach is positively received by students as it helps them to overcome prejudices, understand the complexity of individuals who have special needs, among other things, and recognise ableist practises in the environment.



IoT podprt trajnostni prehod turizma

Inovacija je infrastrukturne (tehnološke) in procesne narave. Razvili smo komunikacijsko nadgradnjo klasičnih merilnikov (senzorjev), s specifičnimi komponentami, temelječimi na IoT-tehnologiji, kar omogoča stabilno in neprekinjeno povezavo merilnikov s centralno komunikacijsko bazo (Lo-ran Gateway), kjer se zbirajo anonimizirani podatki. Inovacija omogoča avtomatizacijo merjenja ključnih konceptov (tj. vedenja), kar prispeva k stabilnosti, zanesljivosti in h kredibilnosti monitoringa vedenja ljudi ter posledic tega vedenja.

Konkretno se inovacija nanaša na spremljanje vedenja gostov v nastanitvenih obratih, ki so vse bolj podvrženi pritiskom trajnostnega prehoda (tj. zmanjšanja negativnih vplivov na okolje). Predvsem podjetja v sektorju nastanitvenih in podobnih obratov (SKD 155) imajo zaradi kadrovske podhranjenosti ter specifične delovnega okolja (zagotavljanje kakovosti storitev in ohranjanje zadovoljstva gostov) izjemno velike težave pri vzpostavljanju monitoringa vplivov vedenja gostov. Posledično je izjemno okrnjena sposobnost sektorja, da razvija na podatkih temelječe ukrepe za zmanjšanje okoljskega odtisa. V praksi se zato dogaja, da podjetja kopirajo ukrepe (npr. komunikacijska orodja), katerih učinkovitost je vprašljiva, pogosto tudi dokazano neučinkovita.



Inovacija omogoča merjenje porabe električne energije (pri različnih odjemalcih), porabe vode (pri različnih odjemalcih) in obseg zavržene hrane. Ob tehnologiji, ki omogoča avtomatizirano spremljanje obsega vpliva (npr. zavržene hrane, porabe električne energije v sobah, porabe tople vode v sobah), se uporabljajo tudi senzorji merjenja zasedenosti mest, kjer se vpliv dogaja (npr. kopalnica, restavracija), s čimer se avtomatizirano spremlja tudi dejavnike, ki vplivajo na porabo (npr. število porabnikov, obseg zasedenosti, čas zasedenosti).

Inovacija je del raziskovalnega projekta Low Harm Hedonism Initiative, ki ga vodi prof. dr. Sara Dolnicar (The UQ, Avstralija), finančno pa podpira Australian Research Council (Laureate Fellowship Scheme, FL190100143). Partnerki v projektu sta tudi UP Fakulteta za turistične študije – Turistica in UL Ekonomska fakulteta. Procesne inovacije, ki rezultirajo v razvoju empirično podprtih ukrepov za spodbujanje trajnostnega vedenja gostov, pa je podprla tudi Slovenska raziskovalna agencija (Temeljni raziskovalni projekt, JP-1783).

OBDOBJE/ČAS RAZVOJA:
2022–

KOMU JE NAMENJENA:

Turističnim podjetjem v sektorju nastanitvenih in prehrabnenih gostinskih obratov, ki iščejo rešitve za uspešen trajnostni prehod.

Raziskovalcem (aplikativnim in znanstvenim), ki se ukvarjajo z razvojem ukrepov za spodbujanje trajnostnega vedenja turistov/gostov.

ODMEVNOST IN USPEH

Inovacija je v tem trenutku implementirana v šestih različnih nastanitvenih obratih po Sloveniji, enem obratu na Kitajskem in štirih obratih v Avstraliji. Uspeh in odmevnost pa se kažeta tudi v priznanjih (in nagradah), ki jih je inovacija prejela v mednarodnem prostoru:

1. CETT Alimara Barcelona Award for applied research in responding to the challenges faced by the tourism and hospitality industry (Španija, 2021).
2. Emerald Real Impact Award: Driving the impact agenda which celebrates the efforts and commitment to strategically embed impact within a research environment or to drive impact culture (2022/23). Vodilne znanstvene publikacije s področja trajnosti, turizma in prehrabnenih navad so objavile znanstvene izsledke inovacije. Slednja je omogočila razvoj ukrepov, ki izboljšajo trajnostno vedenje gostov tudi do 50 %.

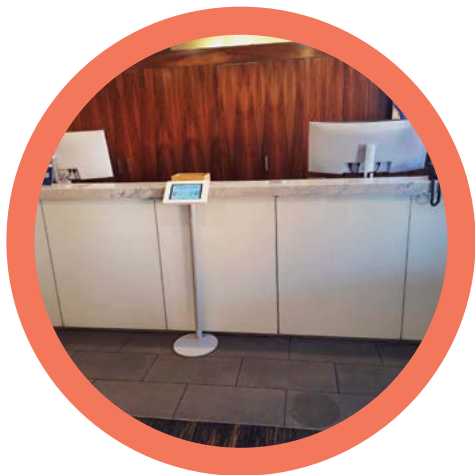
IOT supported sustainable tourism transition

The innovation is of an infrastructural (technological) and process nature. We have developed a communication upgrade of classic meters (sensors), with specific components based on IoT technology, which enables a stable and continuous connection of the meters with the central communication base (Lorawan Gateway), where anonymised data is collected. The innovation enables automated measurement of key concepts (i.e. behaviour), which contributes to the stability, reliability and credibility of monitoring people's behaviour and the impacts of their behaviour.

Concretely, the innovation refers to monitoring the behaviour of guests in accommodation facilities, which are increasingly subjected to the pressures of a sustainable transition (i.e. reduction of negative impacts on the environment). In particular, companies in the sector of accommodation and similar facilities (SKD 155) have extreme difficulties in establishing monitoring of guests' behaviour and the impact of such behaviour, mostly due to staff shortages and the specifics of the working environment (i.e. ensuring the quality of services and maintaining guest satisfaction). As a result, the innovation increases the sector's ability to develop data-driven measures to reduce its environmental footprint and move from typically adopted approaches of copying measures (e.g. communication tools) with questionable effectiveness, often proven to be ineffective.



The innovation enables the measurement of electricity consumption (by different patrons), water consumption (by different patrons) and the amount of wasted food. In addition to the technology enabling automated monitoring of the extent of the impact (e.g. wasted food, electricity consumption in rooms, hot water consumption in rooms), sensors are also used to measure the occupancy of places where the impact occurs (e.g. bathroom, restaurant), which automatically also monitors factors that affect consumption (e.g. number of consumers, extent of occupancy, time of occupancy).



The innovation is part of the Low Harm Hedonism Initiative research project led by Prof. dr. Sara Dolnicar (The UQ, Australia), and is financially supported by the Australian Research Council (Laureate Fellowship Scheme, FL190100143). Partners in the project are also the University of Primorska, Faculty of Tourism Studies Turistica and University of Ljubljana, Faculty of Economics. Process innovations resulting in the development of empirically supported measures to promote sustainable guest behaviour were also supported by the Slovenian Research Agency (Fundamental Research Project, JP-1783).

DEVELOPMENT PERIOD:

2022–

TARGET AUDIENCE:

Tourism accommodation and catering establishments looking for solutions for a successful sustainable transition.

To researchers (applied and scientific) involved in the development of measures to promote the sustainable behaviour of tourists/guests.

IMPACT & SUCCESS

The innovation is currently implemented in 6 different accommodation establishments in Slovenia, 1 establishment in China and 4 establishments in Australia. Success and resonance are also reflected in the recognitions (and awards) that the innovation has received internationally:

- 1 CETT Alimara Barcelona Award for applied research in responding to the challenges faced by the tourism and hospitality industry (Spain, 2021).
- 2 Emerald Real Impact Award: Driving the impact agenda which celebrates the efforts and commitment to strategically embed impact within a research environment or to drive impact culture (2022/23). Leading scientific publications in the fields of sustainability, tourism and food habits have published the scientific findings of the innovation. Innovation supported the development of interventions increasing sustainable tourist behaviour by up to 50%.

INOVACIJE in pika

INOVACIJE in pika

