

Intelektualni izsledek 7

Vodnik in ocena učinka na izobraževanje in usposabljanje RMA na visokošolskih ustanovah, podprtta s priporočili politike

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Seznam kratic

EC	Evropska komisija
FP	Okvir programa
HEI	Visokošolske ustanove
IO	Intelektualni izsledek
KPI	Ključni kazalnik uspešnosti
NCP	Nacionalna kontaktna točka
PolS	Strokovnjaki za stik z znanostjo
RMA	Mendžement in administracija raziskav
RMAs	Raziskovalni menedžerji in administratorji
RFO	Organizacija za financiranje raziskav
RPO	Organizacija, ki izvaja raziskave
RSO	Pisarna za podporo raziskavam
R&I	Raziskave in inovacije
USP	Enotna točka prodaje
UVP	Enotna vrednost predloga

1. Povzetek

foRMation je bil namenjen podpori študentom v visokošolskem izobraževanju kot potencialnim raziskovalnim menedžerjem in administratorjem (RMA) s krepitvijo visokokakovostnih spremnosti vsepočez, potrebnih za razvoj in menedžment odličnih evropskih raziskovalnih, inovacijskih in izobraževalnih projektov. Iz tega razloga je forRMation skušal doseči naslednje cilje:

- Zbiranje in vrednotenje dobrih praks na področju usposabljanja RMA iz različnih držav EU;
- Razvoj inovativnih orodij, metod izobraževanja in usposabljanja za opolnomočenje potencialnih študentov kot RMA med študenti visokošolskih ustanov za pridobitev potrebnega znanja in veščin (tako mehkih kot trdih) ter za podporo njihovemu kariernemu razvoju;
- Narediti poklic upravljanja in administracije raziskav privlačnejši in ozaveščati o pomenu RMA, prispevati k pripravi in izvedbi odličnih evropskih izobraževalnih in raziskovalnih projektov.

Eden od glavnih ciljev IO7 je oceniti rezultate, pridobljene izkušnje, kratkoročne rezultate in vplive foRMation. forRMation je za analizo kompleksen projekt, ker vključuje več dobro povezanih in medsebojno odvisnih delov. Učinek projekta je torej zahteval različne pristope.

Metodologija

Najprej je bila izvedena obsežna začetna ocena učinka projekta, v kateri so razpravljali o možnih rezultatih in vplivu na širšo družbo. Nato so bili deli projekta podrobneje analizirani – po zaporedni, raziskovalni mešani metodi, ki je vključevala kvantitativne spletne ankete pred in po njih, v nekaterih primerih pa so jim sledili kvalitativni intervjuji. Nazadnje je bilo izvedeno naknadno vrednotenje glede na vse kratkoročne rezultate.

Enote analize:

- modul foRMation na partnerskih višješolskih ustanovah,
- oblikovanje mednarodnega kurikuluma (IO) in učnega gradiva (IO3) za tečaje,
- mentorski program foRMation / kombinirana učna mobilnost (C4-9) in Metodološki vodnik za mentorski program (IO4),
- spletni učbenik za foRMation in orodje za samorazvoj (IO6),
- RMA študentska sezonska šola (C10).

Rezultati ocene učinka

Izvedba projekta je bila uspešna: v večini primerov je daleč presegla prvotne cilje: forRMation je postala vodilna pobuda znotraj skupnosti RMA, ki jo je podprla tudi Evropska komisija prek akcije ERA 17.¹

¹ Več o akciji tukaj: <https://earma.org/news/action-17/>

Projekt je na splošno močno vplival na različne skupine:

- udeleženci, kot so študenti, učitelji, mentorji in RMA s partnerskih univerz;
- organizacije, vključene v partnerstvo;
- dodatne ciljne skupine, kot so RMA in združenja RMA, visokošolske ustanove zunaj partnerstva, oblikovalci politik in druge vključene zainteresirane strani.

foRMation izobraževalni modul

Poučevanje modula foRMation je izpolnilo prvotna pričakovanja študentov in jim omogočilo bolje razumevanje dejavnosti podporne raziskovalne pisarne in stroke RMA. Predmet je prispeval tudi k razjasnitvi, ali je to možna poklicna izbira za študente ali ne. S tem se je modul izkazal za uspešnega, saj je dvignil zavest o poklicu, motiviral študente in zagotovil potrebne veščine in kompetence za opravljanje te poklicne možnosti.

Tečaji so tudi izboljšali znanje študentov na vseh ciljnih področjih. Poleg tega so se študentje bolj zavedali svojega obstoječega znanja in veščin, pomembnih za RMA, in poročali so o izboljšavah na nekaterih področjih, tudi v prvem semestru: komunikacija, timsko delo, iskanje informacij. Za drugi semester so bila ta področja predvsem: iskanje informacij o specifičnih temah, uporaba digitalnih orodij za učenje, pisna komunikacija na splošno. V zvezi s temi veščinami smo študente prosili, da ocenijo prvotno raven znanja pred tečajem in trenutno stanje po tečaju. Njihova samoocena je včasih povzročila znižanje določenih veščin ali kompetenc, kar bi si lahko razlagali kot rezultat boljšega razumevanja veščine ali kompetence, njenega pomena in ravni, na kateri jo študenti izvajajo. Na splošno je potrebno poudariti, da bi lahko vsako od njih izboljšali, četudi ne na ravni, ki bi si jo študenti želeli.

Med prvotnimi načrti je bilo izpopolnjevanje znanja učiteljev usmerjeno tudi na področje EU financiranih R&I programov, metod vodenja projektov ter uporabe inovativnih, digitalnih, neformalnih in visokokakovostnih orodij in metod. Vsi učitelji so potrdili samoizpopolnjevanje na večini teh področij. Poleg tega so intervjuji z učitelji potrdili ustreznost modula v vsaki državi, pa tudi ustreznost mednarodnega obsega modula, ki bi ga bilo potrebno ohraniti tudi po koncu projekta.

Poleg tega je uvedba tečaja povečala ozaveščenost tudi na univerzah. Ne samo, da se je razširila ponudba tečajev, ampak se je povečala pozornost na poklic in potrebo po takšnih strokovnjakih tudi na institucionalni ravni. Vse te kratkoročne vplive lahko štejemo za izredno pomembne in popolnoma v skladu s prvotnimi cilji modula in projekta kot takega.

Po drugem semestru so težave, povezane s trajnostjo modula, razkrile pomembno pomanjkljivost: če tečaj izvajajo RMA-ji, bo morda težje pridobiti potrebno podporo za njegovo izvajanje. To vprašanje se je pojavilo tudi, ko so se začele razprave o možnem prevzemu modula s strani subjektov zunaj partnerstva: tudi če so bili RMA nad tem navdušeni, so za vključitev

predmeta v ponudbo univerzitetnih tečajev potrebovali podporo akademikov in vodstva. To nakazuje, da mora priznanje stroke in strokovnjakov še vedno preseči obstoječe ovire znotraj univerz.

foRMation mentorski program

V večini primerov se je samoocena študentov po mentorskem programu izboljšala. Predvidevamo, da intenzivna narava mentorskega programa, podporno okolje, ki so ga zagotovili mentorji, in uspešno izpolnjevanje delovnega načrta niso le motivirali študente, ampak so prispevali tudi k pozitivnejši samooceni študentov. Rahlo znižanje samoocene študentov je bilo opaziti pri točnosti, delu z roki (oz. učinkovitosti) in sposobnostih ustnega komuniciranja. Kar so potrdili tudi mentorji: med slabostmi so upravljanje s časom, spretnost pisne komunikacije, učinkovitost in kritičnost. To nakazuje, da je mentorstvo kot prva zaposlitvena izkušnja študentov razkrilo, da so te veščine izjemno pomembne in da jih še niso osvojili.

Študenti so se močno strinjali, da je njihov mentor vplival na to, da so pridobili kariero v RMA. Poleg tega se je pet od šestih študentov (83,3 %) močno strinjalo, da je bil njihov mentor med programom vzornik. Ti rezultati poudarjajo pomembnost takšnih programov pri promociji poklica, saj so študentje imeli priložnost videti RMA v njihovem resničnem delovnem okolju, razumeti njihovo delo, njihove odgovornosti in njihov potencialni vpliv. To lahko vpliva na njihovo poklicno izbiro na način, da lahko končajo kot RMA ali na podobnih delovnih mestih v ekosistemu raziskav in inovacij.

Poleg tega so študenti izpostavili pomen resničnega delovnega okolja: medtem ko so med poukom teoretično spoznavali RMA, so sedaj lahko videli praktično plat poklica. Poudarjeno je bilo tudi, da so študentje po končanem programu bolje pripravljeni na začetek dela po diplomi, privajanju na delovno kulturo in vzdušje na delovnem mestu.

foRMation sezonska šola

Sezonska šola je po njihovi samooceni pomembno vplivala na znanje študentov o RMA kot dejavnosti. Najbolj impresivna pozitivna sprememba je bila izmerjena pri kulturnih veščinah in veščinah raznolikosti, dobrem komuniciraju lastnih idej, timskem delu, upravljanju časa in iskanju informacij o specifičnih temah. To nakazuje, da bi lahko dejavnosti sezonske šole in spletni učni viri resnično pozitivno vplivali na študente.

Odzivi tudi nakazujejo, da ko študenti dobijo širši pregled in nekaj praktičnega znanja na področju RMA, jih vsaj polovica ostaja zainteresirana za to področje – četudi ne kot RMA, temveč z uporabo znanja in strokovnega znanja v drugih prihodnjih poklicih. Drugi pomemben rezultat je, da skoraj vsi, ki dobijo vpogled v vsakdanje življenje menedžerjev raziskav in administratorjev (RMAs), začnejo ceniti in priznavati njihovo strokovnost in poklic. Na podlagi tega je pomen vseh

programov, ki ozaveščajo in dajejo uvod v menedžment in administracijo raziskav, pomemben na dolgi poti, ki vodi do priznanja poklica.

Naučene izkušnje, dobre prakse in področja za izboljšave

Zahvaljujoč strukturi projekta med njegovo življenjsko dobo partnerji niso le razvili rezultatov, ampak so po fazi testiranja te rezultate dokončali na podlagi pridobljenih izkušenj in zbranih povratnih informacij. Spodnja preglednica povzema ugotovljene dobre prakse, ki jih je potrebno upoštevati med trajnostnim razvojem, in morebitne pasti, ki jih je potrebno odpraviti.

	Dobre prakse	Področja za izboljšave
foRMAtion izobraževalni modul	Mednarodni pouk	Natančna razлага nalog
	Vabilo gostujočih predavateljev	Skupnost učiteljev
	Širok izbor in kombinacija orodij brez povezave in spletka	Preklop med spletnimi platformami ali preklop nanje
	Projektno učenje	
	Spoznavanje zaposlitvenih možnosti v ekosistemu R&I	
foRMAtion mentorski program	Preživljanje mentorstva v tujini	Možna vmesna revizija delovnega načrta
	Dva mentorja iz različnih institucij oziroma oddelkov	Skupnost praktikov
	Mentorstvo na daljavo	Ocena strokovnega izpopolnjevanja mentorjev
	Posebna naloga za študente	
Sezonska šola & spletni učbenik	Spoznavanje zaposlitvenih možnosti v ekosistemu R&I	Certifikat po modularni postavitvi učbenika
	Izboljšanje medosebnih in medkulturnih veščin	
	Brezplačno potrdilo RMA	

Ciljne skupine

Trajnost projektnih rezultatov in njihovo morebitno sprejemanje s strani organizacij zunaj partnerstva je povzročilo potrebo po identifikaciji glavnih ciljnih skupin, kanalov za dosego le-teh in ustvarjanju sporočil za njihovo naslavljjanje. Projektni partnerji so zato vložili veliko truda v mapiranje vseh možnih ciljnih skupin, razumevanje njihovih potreb in najboljših načinov povezovanja z njimi.

Te ciljne skupine so naslednje:

- visokošolski zavodi,

- univerzitetne zveze in univerzitetne mreže,
- strokovne organizacije RMA,
- mreže in združenja raziskovalcev in/ali učiteljev,
- organizacije za učenje odraslih,
- organizacije za financiranje raziskav,
- RMA posamezne in raziskovalno podporne pisarne RPO,
- oblikovalci politike na področju raziskav, inovacij in izobraževanja,
- profitna podjetja, dejavna na področju raziskav, inovacij in izobraževanja,
- nacionalne kontaktne točke.

Za vsako od teh ciljnih skupin so bile razvite edinstvene prodajne točke po meri (USP).

Najpomembnejši vidiki teh USP so naslednji:

- prosto dostopna gradiva,
- prilagodljiv, inovativen in edinstven pristop,
- enostavno prilagajanje različnim učnim okoljem,
- zadovoljevanje potreb trga dela,
- posledica razvoja znanja, spretnosti in kompetenc,
- podpora lažjemu zaposlovanju, lažjemu usposabljanju novincev,
- prispevanje k boljši in učinkovitejši raziskovalni podpori,
- prispevanje k večji konkurenčnosti RPO.

Trajnost

Konzorcij je dal velik poudarek prepoznavanju glavnih komponent trajnosti, zato je bil vsak rezultat zasnovan tako, da omogoča dolgoročno uporabo s strani partnerjev, pa tudi njihovo sprejetje in prilagajanje s strani subjektov zunaj partnerstva, kadar je to potrebno. Za zagotovitev nadaljnje uporabe rezultatov projekta sta bili izdelani dve glavni smeri. Prva je zagon zavezništev forRMAtion, druga je izdelava potencialnih projektov, ki temeljijo na mreži, izkušnjah in rezultatih forMAtion.

S ciljem vzpostavitev dolgoročnega sodelovanja med partnerstvom foRMAtion in raziskovalnimi organizacijami, ki so pripravljene sprejeti izobraževalni modul in/ali mentorski program, je jeseni 2022 partnerstvo ustanovilo dve zavezništvi in objavilo odprt poziv za pridružitev k tema zavezništвoma. Poleg sprejemanja in morebitnega prilagajanja rezultatov projekta je partnerstvo pripravljeno nuditi podporo na področju metodologij in zagotavljanja kakovosti za organizacije, ki se želijo pridružiti.

Poleg tega je partnerstvo za foRMAtion ocenilo izvedljivost razvoja novih projektov, da bi podprlo širšo uporabo in po možnosti nadaljnji razvoj rezultatov foRMAtion. Identificirani sta bili dve možni smeri: prva, izdelava gradiva za usposabljanje in izobraževanje za glavne ciljne skupine

foRMAtion, torej za dodiplomske študente ali doktorske študente ali učitelje. Druga smer pa je spremeniti ciljno skupino in RMA postaviti v fokus naslednjega projekta. Nazadnje je potrebno omeniti, da je shema mikro poverilnic, ki jo Evropska komisija še pripravlja, namenjena zagotavljanju sredstev za pobude, ki razvijajo okvire in programe najboljših praks. Potrebne so nadaljnje razprave z zainteresiranimi stranmi; vendar bi lahko rezultati foRMAtion bili katalizator razprave o izobraževanju in profesionalizaciji na tem področju.

Priporočila

V prid trajnosti rezultatov projekta in večje ozaveščenosti o stroki so bila oblikovana naslednja priporočila:

Menedžerji raziskav in administratorji (RMAs) & Pisarne za podporo raziskavam (RSOs)

Priporočila kolegom iz vse Evrope, da:

- zagovarjajo pridružitev zavezništev in dajejo pobudo za uvedbo izobraževalnega modula in programa mentorstva v svojih RPO, da bi razširili izobraževanje in usposabljanje bodočih RMA,
- se pridružijo skupnosti praktikov,
- uporabljajo spletne učne vire za usposabljanje novincev ali za razvoj posebnih usposabljanj za kolege, ki delajo v podpori raziskavam oziroma v raziskovanju in poučevanju,
- za uporabo značk in logotipov za promocijo izsledkov in rezultatov foRMAtion pri dodatnih RPO in prispevajo h krepitvi blagovne znamke foRMAtion,
- si prizadevajo za priznanja posebnih veščin in kompetenc RMA.

Vodenje in menedžment raziskovalnih organizacij (RPO)

Sodelavcem na vodilnih in vodstvenih položajih se priporoča, da:

- priznajo posebne spretnosti in kompetence RMA,
- dajo soglasje za vstop v zavezništva,
- integrirajo izobraževalni modul foRMAtion in program mentorstva kot takega v ponudbo predmetov na univerzah in zagotovijo njihovo ustrezno promocijo,
- razširjajo obstoječe izobraževalne programe z vključitvijo nekaterih elementov RMA,
- omogočajo interno usposabljanje RMA in možnosti raziskovalcem ali učiteljem, ki temeljijo na spletnih učnih virih foRMAtion, z namenom izboljšanja konkurenčnosti RPO,

- spodbujajo možnost opravljanja prakse/mentorstva v tujini za študente, da bi zapolnili vrzel med univerzitetno ponudbo in potrebami trga dela ter prispevali k ozaveščenosti o stroki.

Organizacije za financiranje raziskav (RFO) in oblikovalci politik

Skupaj tako strokovnjakom, ki delajo na področju podpore raziskav RFO kot oblikovalcem politik priporočamo, da:

- raziščejo možnosti financiranja izobraževanja in usposabljanja za bodoče RMA in RMA, ki že delajo v stroki z različnih področij in ravni,
- spodbujajo zavezništva med organizacijami za financiranje raziskav, da bi razširili izobraževanje in usposabljanje prihodnjih RMA ter premagali vrzel med potrebami trga dela in ponudbo univerzitetnega izobraževanja,
- še naprej financirajo vodilne projekte, ki v svojem obsegu in dejavnostih obravnavajo teme RMA,
- uvajajo foRMAtion kot referenčno točko za usposabljanje potencialnih RMA ali novincev v prihodnjih razpisih in programih,
- ustvarjajo priložnosti za mreženje, mobilnost, izmenjavo znanja na regionalni in nacionalni ravni za RMA ter priznajo posebne spremnosti in kompetence RMA,
- vzpostavljajo pravne okvire za priznavanje poklica na institucionalni in nacionalni ravni.

2. Uvod

Cilj Intelektualnega izsledka 7 (IO7) – Vodnik in ocena učinka na izobraževanje in usposabljanje RMA na visokošolskih ustanovah, podprta s priporočili politike, je trojen:

- zbiranje vseh pridobljenih izkušenj, dobrih praks, ugotovljenih in razvitih v projektu forRMAtion;
- merjenje vpliva IO2-IO6 in povezanih projektnih dejavnosti, zlasti na razvoj spremnosti in znanja študentov in učiteljev, povečanje ustvarjalnosti, digitalnih veščin, kritičnega razmišljanja in njihovega znanja, da postanejo RMA;
- zagotavljanje priporočil za uporabo rezultatov projekta (IO1-IO6) kot tudi za nadaljnje zagovarjanje izobraževanja, usposabljanja in priznanja RMA – in tako prispevati k trajnosti oblikovanja.

Ta vodnik se začne z:

1. izdelavo metodologije učinkov ocenjevanja;
2. povzetkom rezultatov;
3. identifikacijo dobrih praks in možnih področij za izboljšave;
4. identifikacijo, karakterizacijo ciljnih skupin;
5. glavnim sporočilom projekta za nagovaranje teh ciljnih skupin;
6. ukrepi in priporočili, ki prispevajo k trajnosti in široki uporabi rezultatov projekta;
7. poglobitvijo v podrobnosti, analizo in oceno učinka posamezne projektne aktivnosti (priloge).

3. Metodologija

3.1. Učinek ocenjevanja

Eden od glavnih ciljev IO7 je oceniti rezultate, pridobljene izkušnje, kratkoročne rezultate in vplive forMATION. forMATION je kompleksen projekt za analizo in vključuje več dobro povezanih in soodvisnih delov. Učinek projekta je torej zahteval različne pristope. Najprej je bila izvedena obsežna predhodna ocena učinka projekta, ki je obravnavala tudi možne rezultate in vplive na širšo družbo. Nato so bili deli projekta analizirani – po zaporednem, raziskovalnem oblikovanju mešanih metod, ki vključuje kvantitativne spletne ankete pred in po njih, katerim so v nekaterih primerih sledili kvalitativni intervjuji.

Na koncu je bilo izvedeno še vrednotenje glede na vse kratkoročne rezultate. Metodologijo ocene učinka je izdelala HETFA, nato pa je HETFA izvedla tudi vajo. Nujen je bil tudi prispevek projektnih partnerjev, ki so vodili analizirane aktivnosti: učitelji so med študenti razdelili predhodne in naknadne ankete, mentorji so podprli izpolnjevanje obrazcev, pomembnih za mentorski program, ISINNOVA & SPI sta razvila in dala na voljo ankete, povezane s spletnimi platforma.

Za oceno napredka celotnega projekta smo spremljali kvantitativne in kvalitativne kazalnike, opredeljene v Prijavnici in navedene v Prilogi 5. Podatke o kvantitativnih kazalnikih smo zbrali neposredno od partnerjev in ocenili v skladu s prvotno zastavljenimi ciljnimi številkami. Ocena o doseganju prvotno zastavljenih kvalitativnih kazalnikov je bila izvedena s kvalitativnimi metodologijami, to je z anketami in intervjuji.

Kot splošno pripombo je potrebno omeniti, da je bil prispevek članov svetovalnega odbora za oblikovanje, ki so prinesli pomembno strokovno znanje iz raziskav in RMA, strateško vključen v oceno vseh intelektualnih rezultatov. Povabljeni so bili na dogodke in dejavnosti forMATION in nenehno obveščeni o napredku projekta (vključno z razvojem različnih rezultatov). Z njihovim aktivnim in kontinuiranim sodelovanjem sta bili zagotovljeni tudi kakovost in relevantnost strokovnih gradiv. To visoko kakovost je dodatno okrepil zunanji strokovnjak, odgovoren za zagotavljanje kakovosti, ki je izvajal celotno preverjanje kakovosti tako za konceptualne zapiske kot za končne različice rezultatov v dveh krogih.

Med različnimi deli ocene učinkov so bile v središču pozornosti glavne ciljne skupine, saj je potrebno večino relevantnih vplivov realizirati v zvezi z njimi.

Enote analize:

- modul forMATION na partnerskih visokošolskih ustanovah,
- oblikovanje mednarodnega kurikuluma (IO) in učnega gradiva (IO3) za tečaje,

- mentorski program foRMAtion / mešana učna mobilnost (C4-9) in Metodološki vodnik za mentorski program (IO4),
- spletni učbenik za formacijo in orodje za samorazvoj (IO6),
- RMA študentska sezonska šola (C10).

Ciljne skupine:

- modul za foRMAtion:
 - o učitelji modula,
 - o študenti modula;
- učno gradivo in mednarodni kurikulum za tečaje:
 - o učitelji modula,
 - o sodelujoči študenti foRMAtion tečajev;
- mentorski program foRMAtion / mešana učna mobilnost in Metodološki vodnik za mentorski program (IO4):
 - o sodelujoči študenti,
 - o mentorji;
- spletni učbenik za foRMAtion in orodje za samorazvoj (IO6):
 - o registrirani uporabniki spletnega učbenika;
- RMA študentska sezonska šola (C10):
 - o udeleženci poletne šole.

Ocena učinka mednarodnega modula forMAtion na partnerskih univerzah

Ocena učinka mednarodnega modula je bila izvedena ob podpori univerzitetnih partnerjev (NOVA, Corvinus in Sapientia). Natančen vpliv mednarodnega modula je bil ocenjen z uporabo dveh virov informacij:

- znanje, motiviranost in spremnosti prihajajočega študenta pred univerzitetnim semestrom in ob koncu semestra.
- ocena učiteljev o napredku pri pouku.

Na začetku vsakega semestra je bila med **študenti** izvedena **spletna anketa**, katere namen je bil pridobiti informacije o njihovem znanju, spremnostih in motivaciji². Anketo so sestavljala vprašanja o njihovih obstoječih izkušnjah z raziskavami in njihovim vodenjem. Spremnosti in

² Ankete so dostopne na povezavah: 1) prvo semester, predhodna aneketa:

<https://forms.gle/HT8JkLEongFv9YDb9>; 2) first semester, follow-up survey:

<https://forms.gle/guMbq43qJZ15bs5u6>; 3) second semester, preliminary survey:

<https://forms.gle/Vy3X9Je6otbx72UA8>; 4) second semester, follow-up survey: <https://tinyurl.com/2p85u7e3>.

znanja smo merili s samoizjavo študentov z vprašanji z Likertovo lestvico od 1 do 5. Enako raziskavo smo ponovili tudi ob koncu semestra. Reševanje ankete je bila obvezna obštudijska naloga študentov in pogoj za pridobitev ECTS kreditnih točk po opravljenem predmetu. Kljub temu je v prvem semestru obe anketi izpolnilo 19 študentov. V drugem semestru je obe anketi izpolnilo 24 anketirancev.

Ocena učinka mednarodnega kurikuluma foRMAtion (IO2) in učnega gradiva (IO3)

Kurikulum je bil ovrednoten z obdelavo povratnih informacij učiteljev, ki so poučevali modul na partnerskih univerzah: na koncu vsakega semestra je bil intervjuvan po en učitelj z vsake univerze, tako da je bilo skupno izvedenih 6 strukturiranih intervjujev³. Tako so imeli možnost podati podrobne informacije o svojih izkušnjah, vključno z obsegom znanja, ki so ga pridobili o upravljanju raziskav in samem poklicu RMA, o svojem osebnem razvoju v času poučevanja itd.

Za uporabo metode navzkrižnega preverjanja so morali **študentje** posredovati tudi povratne informacije o strukturi in vsebini učnega načrta prek **spletnega vprašalnika**. Ta vprašalnik – ki bo študentom omogočil ocenjevanje in podajo pisnih povratnih informacij o tečajih – je bil del ankete, ki je bila razposlana med študenti ob koncu semestra (glej 1.1.).

Ocena učinka mentorskega programa foRMAtion / mešane učne dejavnosti in Metodološki vodnik za mentorski program (IO4)

Šest študentov in šest mentorjev, ki so sodelovali v programu, je ocenjevalo samo mentorstvo preko vnaprej izdelanih Ocenjevalnih obrazcev IO4 Metodoloških navodil mentorskega programa foRMAtion. Udeleženci so posredovali povratne informacije o kakovosti, strukturi, izvedbi, vplivu in uporabnosti programa. Poleg tega so mentorji ob zaključku mentorskega programa ocenili praktičnost Metodološkega vodnika (IO4), pri čemer so opozorili na njegove pomanjkljivosti in podali predloge za nadaljnje izboljšave.

Vpliv na izboljšanje študentov

Pred začetkom mešane mobilnosti so morali študenti izpolniti prilogo II kontrolnega seznama spremnosti in kompetenc IO4, da bi ocenili svojo raven spremnosti in kompetenc, potrebnih za področje RMA. Po koncu mešane mobilnosti so študenti izpolnili isti dokument, ki ga je pregledal njihov mentor, da bi analiziral izboljšanje študenta kot vpliv mešane učne mobilnosti.

³ Povezava do vodnika za razgovor je na voljo v prilogi 6.

Žal v metodologijo niso bila vključena orodja za oceno vpliva na mentorje, čeprav bi bila koristna tudi za oceno njihovega osebnega in poklicnega razvoja.

Spletni učbenik za foRMAtion in orodje za samorazvoj (IO6)

Spletna oblika učbenika je zasnovana tako, da deluje in vrednoti na eksakten način, s podatki v realnem času. **Registracija** naj bi na primer postregla z veliko koristnimi informacijami: številom zainteresiranih, osnovno motivacijo in osebnimi izkušnjami v zvezi z RMA. Poleg tega je spletna stran sama sestavljena iz orodij, ki omogočajo opazovanje prometa in obnašanja na strani⁴. Poleg tega je bila za tiste, ki končajo spletni učni načrt, v skladu z vpisnico organizirana **kratka naknadna anketa**, ki zagotavlja samoocenjevanje uporabnikov spletnega orodja⁵. Vendar pa zaradi zakasnjene objave različnih elementov učbenika in orodij za samoocenjevanje poglobljeno ocenjevanje uporabnikov ni moglo potekati do konca projekta.

foRMAtion sezonska šola (C10)

Pred sezonsko šolo so bile opravljene **vstopne ankete** o ravni spretnosti in kompetenc udeležencev. Ista **anketa** je bila izvedena s študenti na koncu kratkega programa, da bi ocenili njihov napredek in učinek dejavnosti⁶. Obe anketi je izpolnilo 10 udeležencev, čeprav je bila to za študente obvezna naloga. Zaposleni študentje so dobili tudi priložnost preizkusiti orodje za samorazvoj (IO6). Ker je bila platforma dodatno razvita na podlagi njihovih povratnih informacij, bi lahko resnično zadovoljila potrebe (bodočih) uporabnikov.

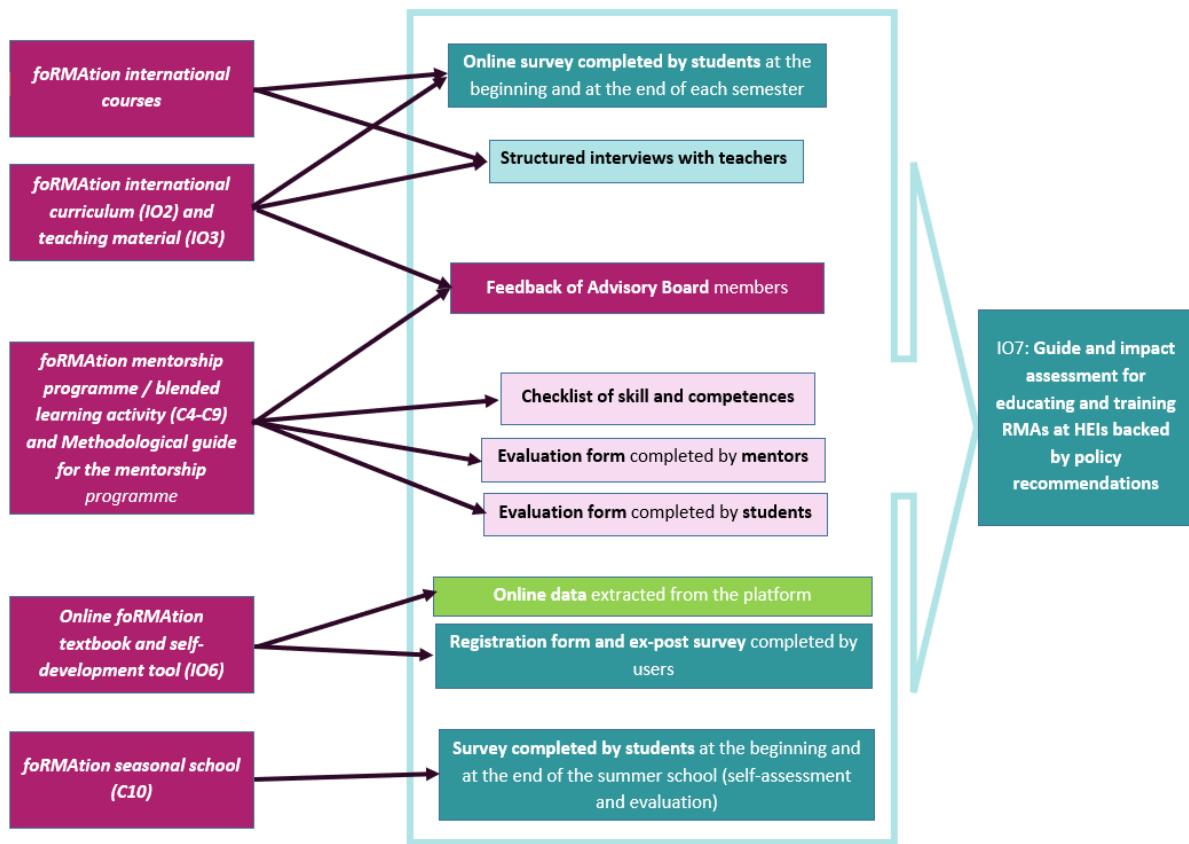
Poleg tega so bili sodelujoči študenti ob koncu sezonske šole pozvani, da preko vnaprej pripravljenega vprašalnika izrazijo svoje mnenje in podajo predloge glede organizacijskih in strokovnih značilnosti sezonske šole.

Spodnja slika povzema različna orodja, uporabljena za oceno učinka različnih dejavnosti in rezultatov projekta.

⁴ Stran za registracijo najdete tukaj: <https://it.surveymonkey.com/r/XJWCTRK>

⁵ Anketo lahko najdete tukaj: <http://survey.spi.pt/index.php/228977?lang=en>

⁶ Predhodno anketo si lahko ogledate tukaj: <https://forms.gle/ervSwk3czvcZrcP9> naknadna anketa je na voljo tukaj: <https://forms.gle/LYZJt168xc1KVfGc6>



Slika 1: Predmeti in orodja analize

3.2. Zbiranje pridobljenih izkušenj in oblikovanje priporočil

Poleg ocene učinka je bil cilj IO7 zbrati vse pridobljene izkušnje, dobre prakse, ugotovljene in razvite v okviru projekta foRMAtion, ter oblikovati priporočila za:

1. uporabo rezultatov projekta;
2. usmerjanje projektnih rezultatov v evropske raziskave; kot tudi za
3. nadaljnjo krepitev izobraževanja, usposabljanja, profesionalizacije in priznavanja RMA.

Ta cilj je bil tesno povezan s prizadevanjem za razvoj specifičnih in realističnih ukrepov, ki prispevajo k trajnosti rezultatov projekta. Da bi to dosegli, so ugotovitve ocene učinka in pridobljene izkušnje, zaključene za IO7, zagotovile osnovo za končno posodobitev IO2-I06, ki zagotavlja široko sprejemljivost in prenosljivost teh rezultatov v evropskem merilu.

Nenehni dialog s partnerji projekta IO Leader in predstavitev predhodnih rezultatov ocene učinka sta bila namenjena zagotavljanju platforme za izmenjavo njihovih idej in izkušenj. Poleg tega so bili člani svetovalnega odbora in drugi vključeni strokovnjaki RMA pozvani, naj potrdijo oblikovana priporočila politike in zagotovijo nadaljnje prispevke.

Rezultati in **povratne informacije, pridobljene s komunikacijskimi in diseminacijskimi aktivnostmi** (npr. med multiplikatorskimi dogodki in drugimi dogodki, kjer so projektni partnerji predstavili in promovirali intelektualne rezultate in projektne aktivnosti), so bili uporabljeni tudi za zbiranje dobrih praks. Ti dogodki so zagotovili dodatne možnosti za doseganje in pridobivanje povratnih informacij od ciljnih skupin zunaj udeležencev projekta.

4. Ocena učinka

4.1. Projekt na splošno

Zagotavljanje kakovosti in ocena učinka projekta je bila stalna dejavnost. Iz tega vidika je mogoče poudariti, da je bila izvedba projekta uspešna, saj je v večini primerov ne le dosegla prvotne cilje, ampak jih je močno presegla. Z gradnjo na kompleksnem pristopu, razvoju inovativnih rezultatov in dejavnosti je foRMATION po prvem letu postala vodilna pobuda v skupnosti RMA. Bolj ko so bili strokovnjaki, učitelji, študenti, ustanove in društva seznanjeni s projektom, večja je bila njihova želja po angažiranju. Obsežno delo partnerjev skupaj z njihovim entuziazmom za razvoj visokokakovostnih in široko uporabnih rezultatov je vzbudilo veliko pozornost ciljnih skupin in relevantnih deležnikov takoj, ko so bili prvi rezultati predstavljeni javnosti.

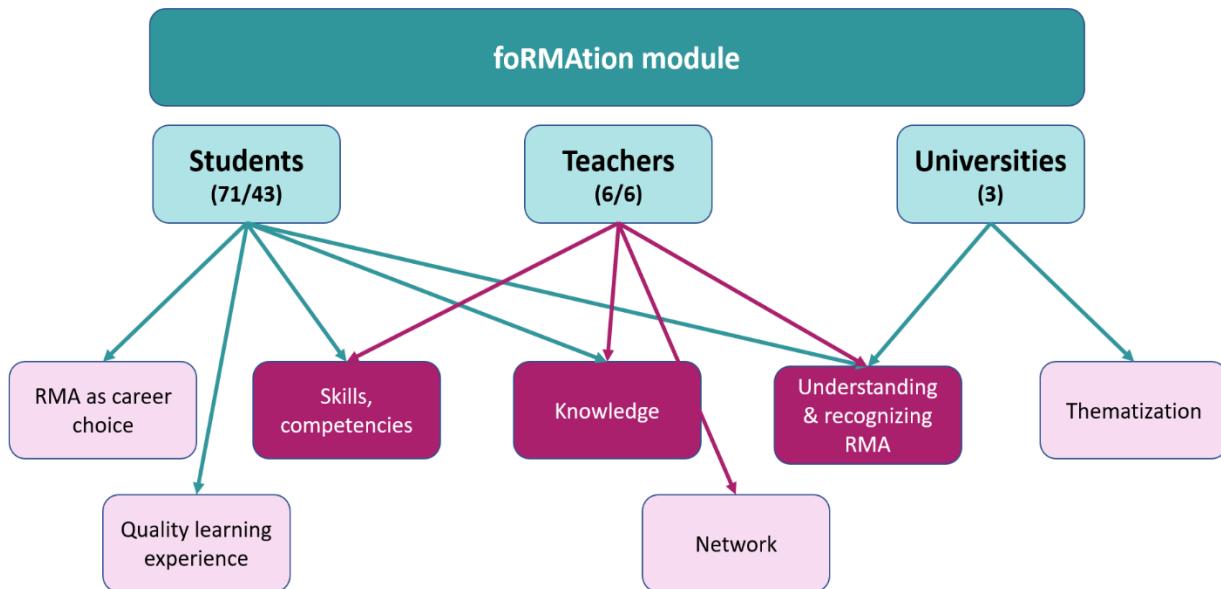
Izpostavimo pa lahko dve glavni težavi, ki sta negativno vplivali na izvedbo projekta, zaradi česar je bilo potrebno dodatno prizadevanje koordinatorja, da bi projekt dosegel prvotne cilje:

- Pandemija COVID-19: nekatere dejavnosti so bile prestavljene na splet (poučevanje prvega semestra modula foRMATION oziroma usposabljanje mentorjev C3), nekatere pa so bile prestavljene (program mentorstva C4-9, sezonska šola C10) za pol ali eno leto kasneje ker je partnerstvo vztrajalo pri ohranitvi prvotno načrtovane oblike. To pa je zahtevalo, da je bil projekt preložen za 4 mesece in da so se nenehno razvijali načrti ukrepov ob nepredvidljivih dogodkih. Kljub temu je bila na podlagi povratnih informacij in zbranih kazalnikov preložitev razumna in je izpolnila prvotna pričakovanja.
- PRORAČUN: Omejen proračun projektov Erasmus+ KA2, dejstvo, da je bil projekt odobren z zmanjšanim proračunom, kot tudi pomanjkanje namenske proračunske vrstice za komuniciranje in razširjanje so zahtevali pomemben znesek dodatnih naložb od vseh partnerjev, zlasti od koordinatorja in partnerja, odgovornega za komuniciranje in diseminacijo.

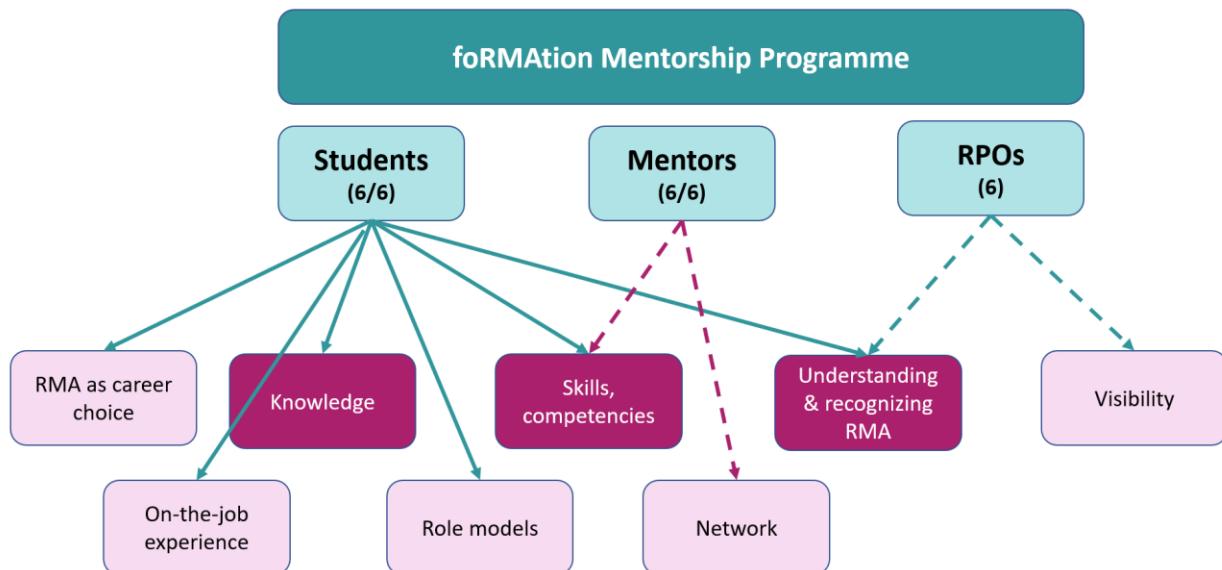
Kljub temu je projekt močno vplival na različne skupine:

- neposredni udeleženci projekta, kot so študenti, učitelji, mentorji in RMA s partnerskih univerz,
- organizacije, ki sodelujejo v partnerstvu,
- dodatne ciljne skupine, kot so RMA in združenja RMA, visokošolske ustanove zunaj partnerstva, oblikovalci politik in druge vključene zainteresirane strani.

Sliki 2 in 3 prikazujeta vplive modula foRMATION in mentorskega programa na udeležence.



Slika 2: Vpliv modula foRMAtion na udeležence



Slika 3: Vpliv mentorskega programa foRMAtion na udeležence

Kar zadeva kvalitativne kazalnike, so v naslednji preglednici prikazani prvotno načrtovani in realizirani KPI.

	<i>Prvotno načrtovani</i>	<i>Realizirani do 30. dec 2022</i>
Št. neposredno vključenih univerz - partnerjev	3	3
- - vključno z univerzami, ki so se uradno pridružile zavezništvu za oblikovanje	ni podatka	3
Št. neposredno vključenih raziskovalnih organizacij - partnerjev	5	5
- - vključno z RPO, ki so se uradno pridružili foRMAtion zavezništvom za oblikovanje	ni podatka	5
Št. učiteljev, vključenih v poučevanje učnega načrta	9	6
Št. študentov, ki se udeležujejo testiranja mednarodnega modula	30	71
Št. študentov, ki sodelujejo v kombinirani učni mobilnosti v kombinaciji z mentorским programom	6	6
Št. udeležencev poletne šole	12	12
Št. vključenih mentorjev	12	12
Št. članov svetovalnega odbora	7	7
Št. vključenih oblikovalcev politik	40	46
Št. vključenih strokovnjakov	40	123
Št. skupnih izobraževanj osebja - partnerjev	3	3
- vključno z osebjem drugih RPO, ki sodeluje na dveh izobraževanjih, organiziranih za potencialne člane zavezništev	n.a.	2
Št. mešane mobilnosti študentov	7	7
Št. večkratnih dogodkov	5	5
Št. držav zunaj partnerstva, ki je bilo doseženo prek množičnih dogodkov in dejavnosti razširjanja	16	42
Št. doseženih združenj vodij raziskav in administratorjev (ARMA)	10	12+
Št. mesečnih obiskovalcev platforme za mešano učenje	50	tbc
Št. spremeljevalcev finalnega multiplikatorskega dogodka (E5) prek spletjnega prenosa	240	340
Št. nadaljnjih dejavnosti, ki jih bo ustvaril projekt	12	12
Št. izdanih potrdil za študente, ki so opravili modul	30	71
Št. izdanih potrdil za študente, ki opravljajo program mešanega učenja	12	12
Št. prihodnjih sodelovanj med visokošolskimi ustanovami in raziskovalnimi inštituti prek mobilnosti pripravnosti Erasmus+	6	6
Št. povezanih dogodkov, kjer bo foRMAtion predstavljen in razširjan	8	16

4.2. Prvi semester modula foRMAtion ⁷

Tudi če je bil kurikulum oblikovan in napovedan kot odprt za vse študente s katerega koli znanstvenega področja, je na podlagi anketirancev predhodne in naknadne ankete največ vpisanih študentov prihajalo iz študijskih programov mednarodnih odnosov in evropskih študij.

»Ta tečaj je bil najsodobnejši tečaj, ki sem ga opravila. Naši profesorji so poskušali vključiti nova orodja za učenje in poučevanje, zaradi česar je bil celoten tečaj zelo praktično usmerjen. Pravzaprav smo se skozi cel semester v bistvu pretvarjali, da smo profesionalci in pridobljene veščine in znanja korak za korakom implementirali v svoje projekte. Prepričana sem, da sem se naučila stvari, ki bodo koristne v prihodnosti – tako ali drugače.“

LILI MARÓTI, CORVINUS UNIVERZA V BUDIMPEŠTI

Študenti, ki so se odzvali, so se prijavili na tečaj, ker so želeli izvedeti nekaj novega in koristnega za nadaljnji študij in kariero; nekaterim pa se je zdela dejavnost in poklic RMA zanimiva, želeli so razširiti svoje znanje, s tem povezane veščine in kompetence, bili pa so tudi študenti, ki so to obravnavali tako pred kot po tečaju kot potencialno karierno priložnost.

Predmet je izpolnil prvotna pričakovanja študentov in jim omogočil boljše razumevanje dejavnosti RMA in stroke. Predmet je prispeval tudi k razjasnitvi, ali je to izbirna poklicna izbira za študente ali ne. S tem se je na podlagi teh prvih rezultatov modul izkazal za uspešnega, saj je dvignil zavest o poklicu in motiviral študente, ki imajo potrebna znanja in kompetence za to.

Kurikulum je bil prvotno namenjen zagotavljanju splošnega znanja o delovanju izobraževalnih, raziskovalnih in inovacijskih projektov, ki jih financira EU, ter razvoju trdih in mehkih veščin ter digitalnih veščin sodelujočih študentov. Učno gradivo je bilo

»Tečaj foRMAtion je bil tudi zame odlična učna izkušnja! Inovativna narava učnih dejavnosti, ki temelji na problemsko temelječem učenju s številnimi spletnimi interaktivnimi orodji, je zagotovila zelo dinamično učno okolje, kjer so se morali študenti (in učitelji!) resnično posvetiti predmetu in rešiti številne naloge iz resničnega primera, zagotavljati okus poklica RMA. Poleg tega sem lahko sodelovala s številnimi mednarodnimi kolegi iz RMA, kritično razmišljala in razpravljala o dejavnostih RMA, ki so moje vsakodnevne dolžnosti, z zanimivimi vprašanji in izzivi, ki so jih postavljali moji študenti ... je bilo vsekakor trdo delo, a zelo koristno.« Cristina Oliveira, univerza NOVA v Lizboni

⁷ Podrobna ocena je v prilogi 1.

načrtovano interaktivno, z uporabo različnih orodij za neformalno izobraževanje in digitalno razvijanje veščin.

Glede na odzive je predmet v prvem semestru izboljšal znanje študentov na vseh ciljnih področjih. Študenti so postali tudi bolj ozaveščeni o svojem obstoječem znanju in spremnostih, pomembnih za RMA, in so poročali o izboljšanju nekaterih posebnih, vključno s komunikacijo, timskim delom, iskanjem informacij itd.

Med prvotnimi načrti je bilo izpopolnjevanje znanja učiteljev usmerjeno tudi na področje EU financiranih R&I programov, metod vodenja projektov ter uporabe inovativnih, digitalnih, neformalnih in visokokakovostnih orodij in metod. Na podlagi izkušenj prvega semestra so vsi učitelji potrdili samoizpopolnjevanje.

Študenti in učitelji so izboljšali razumevanje delovnih vlog RMA in raziskovalcev ter potrebo po strokovnjakih za uspešno pisanje predlogov in vodenje projektov. Poleg tega je uvedba tečaja povečala ozaveščenost tudi na univerzah. Ne samo da je razširil ponudbo tečajev, temveč je opozoril na poklic in potrebo po takih strokovnjakih na institucionalni ravni. Vsi ti kratkoročni vplivi se lahko štejejo za izjemno pomembne in popolnoma v skladu s prvotnimi cilji modula in projekta kot takega.

4.3. Drugi semester modula foRMAtion⁸

V 2. semestru so bila študijska ozadja vpisanih študentov bolj raznolika: le 42 % jih je prišlo iz mednarodnih študij ali odnosov, 8 % iz evropskih študij, 17 % jih je spremljalo komunikacijske in medijske študije, 13 % poslovno upravljanje in administracijo ter 4 % mednarodno posovanje. Humanistika je bila zastopana tudi s poučevanjem angleščine (8 %).

Kar zadeva predhodna pričakovanja, se je zdelo, da le nekaj študentov dobro razume poklic ali ga opisuje kot potencialno poklicno izbiro. Zdelo se je, da so različni vidiki predmeta privlačni za študente; nekateri so poudarjali povezavo predmeta z izvajanjem raziskovanja samega, drugi so želeli pridobiti nova znanja ali veščine, medtem ko so nekateri želeli pridobiti praktično znanje na področjih, povezanih z njihovim študijskim ozadjem. Samo dva študenta sta omenila vse večji pomen poklica, celo potencial vplivanja.

Po tečaju jih je 87,5 % potrdilo, da **se jim zdi dejavnost RMA še vedno zanimiva in pomembna**. Nekateri med njimi so poročali, da so bolje spoznali poklic in z njim povezane dejavnosti, drugi pa so potrdili pomen dejavnosti in s tem povezanih znanj. Nekateri so odgovorili pritrtilno, vendar so dodali, da to morda ni potencialna poklicna izbira zanj ali zanjo. Če primerjamo

⁸ Podrobna ocena je v prilogi 2.

zadovoljstvo študentov z zanimanjem za poklic, se zdi, da so s predmetom veliko bolj zadovoljni tisti študenti, ki jih poklic zanima.

Študenti, ki so bili s predmetom nekoliko ali zelo zadovoljni, so izpostavili različne vidike poklica in tem, ki so se jih učili. Omenjeni vidiki so bili med drugim povsem novi v primerjavi s tistimi, omenjenimi v 1. semestru, saj so se študenti sklicevali na možnost pridobivanja praktičnih znanj, predvsem skozi pogovore s strokovnjaki; pridobivanje znanja in morebitnega vpliva stroke RMA; poglobljeno poznavanje vodenja raziskovalnih projektov; poklicne možnosti v znanosti itd.

Na podlagi ankete se je znanje študentov o težiščih predmeta bistveno izboljšalo. Pri večinah in kompetencah, pomembnih za RMA, je slika bolj raznolika: o pozitivnem izboljšanju so poročali pri iskanju informacij o določenih temah, uporabi digitalnih orodij za učenje, pisni komunikaciji na splošno, medtem ko so študenti dali nižje ocene pri samooceni v primeru upravljanja s časom, večin ustnega komuniciranja in znanja angleščine. Vendar je potrebno poudariti, da tudi če so v svoji samooceni navedli zmanjšanje določenih veščin ali kompetenc, je to lahko posledica boljšega razumevanja veščine ali kompetence, njenega pomena in ravni, na kateri jo študentje izvajajo. A na splošno je potrebno poudariti, da bi lahko vsako izboljšali, četudi ne na želeni ravni. Intervjuji z učitelji so potrdili ustreznost modula v vsaki državi. Njegova fleksibilnost je omogočala celo refleksijo nacionalnih okoliščin in posebnosti. Vsak učitelj je potrdil ustreznost mednarodnega obsega modula, ki ga je potrebno ohraniti tudi po koncu projekta.

“Management is everything. Research is about development. The two combined are the future.”

NORBERT-SANDOR NAGY, Sapientia Hungarian University of Transylvania

»Raziskovalni vodja kot poklic v ekosistemu EU je bil nov, zahteven in vznemirljiv tečaj za študente Univerze Corvinus. Brez obotavljanja bi ga štela za enega najboljših predmetov v svojem semestru: z veseljem sem sodelovala pri njem in z velikim veseljem opravljala domače naloge, projekte in skupinsko delo. Izpostavljena sem bil novim in zahtevnim informacijam ter opremljena s pomembnimi raziskovalnimi orodji, ki sem jih uporabljala tudi pri dokončanju svojih drugih tečajev.«

YERKEZHAN MYRZAKHMETOVA, CORVINUS UNIVERZA V BUDIMPEŠTI

Vsi učitelji so se strinjali, da lahko študentii razvijejo pomembne prečne spretnosti, kompetence in stališča. Študenti bi lahko izboljšali tudi več medosebnih veščin. Povečale so se tudi sposobnosti, usmerjene v njihovo osebno izboljšanje. Poleg tega se je študent seznanil z njihovo definicijo, pomenom in nadaljnji možnostmi za njihov razvoj.

Poučevanje modula foRMAtion se je izkazalo kot stalna raziskovalna in učna izkušnja tudi za same učitelje. Poleg same izkušnje poučevanja sta dva učitelja poudarila priložnost za razširitev svoje mreže zahvaljujoč projektu in pridobitvi povratnih informacij izkušenih strokovnjakov zahvaljujoč stiku s svetovalnim odborom.

Dva učitelja sta izpostavila, da je poučevanje modula edinstvena priložnost za začetek tematiziranja problematike poklica RMA, ki je pomemben v vseh državah sodelujočih univerz, saj zaostajajo ne le v priznavanju poklica, ampak tudi v njegovem obstoju. Vsak izmed njih je potrdil, da so študenti postali motivirani in navdušeni nad poklicem, da so poglobljeno razumeli vlogo RMA in pomen opravljenega dela.

Po drugem semestru so težave v zvezi s trajnostjo modula razkrile pomembno pomanjkljivost: če tečaj vodijo RMA, bo morda težje pridobiti potrebno podporo za njegovo izvajanje na univerzah, saj njihov opis delovnega mesta ne vključuje poučevanja in za to bi morali biti zaposleni kot predavatelji ali učitelji. To vprašanje se je pojavilo tudi, ko so se začele razprave o možnem prevzemu modula s strani subjektov zunaj partnerstva: tudi če so bili RMA navdušeni nad tem, so za vključitev predmeta v ponudbo univerzitetnih predmetov potrebovali podporo akademikov in vodstva. To nakazuje, da mora priznanje stroke in strokovnjakov še vedno preseči obstoječe ovire znotraj univerz.

»Izobraževalni modul foRMAtion je pobuda za zapolnjevanje vrzeli: ne daje le teoretičnega znanja, potrebnega za delo pri upravljanju raziskav ali v projektih, ki jih financira EU na splošno, ampak zagotavlja tudi uporabno in praktično znanje. Poleg tega so naši študenti razumeli pomen in priložnosti za razvoj svojih povezovalnih spretnosti in kompetenc.«

Ferenc Török, Sapientia Madžarska univerza v Transilvaniji

4.4. Mentorski program⁹

Mentorski program foRMAtion je bil izveden v obliki mešanega učnega programa z mednarodno mobilnostjo. Šest študentov je bilo izbranih med tistimi, ki so opravili tečaj foRMAtion na treh partnerskih univerzah. Vsak od njih je bil dodeljen mentorju, zaposlenemu v eni od raziskovalnih organizacij v okviru partnerstva – vsak iz druge države kot država, v kateri je študent obiskoval tečaj. Zaradi majhnega števila udeležencev ni mogoče oceniti večjih trendov glede programa; kljub temu lahko rezultati pokažejo spremembe na ravni posameznika, kar je lahko pomembno tudi za prikaz možnega vpliva.

V večini primerov se je samoocena študentov po mentorskem programu izboljšala. Tovrsten pozitiven vpliv je presenetljiv, če ga primerjamo z oceno modula foRMAtion. Predvidevamo, da intenzivnost mentorskega programa, podporno okolje, ki ga zagotavljajo mentorji, in uspešno izpolnjevanje delovnega načrta študente niso le motivirali, temveč prispevali k pozitivnejši samooceni študentov. Rahlo znižanje na podlagi samoocene študentov smo zasledili glede točnosti, dela z roki (oz. učinkovitosti) in sposobnosti ustnega komuniciranja. To so potrdili tudi mentorji: med slabostmi so, če so kaj našteli, potem upravljanje s časom, spretnost pisne komunikacije, učinkovitost in kritičnost. To nakazuje, da je mentorstvo kot prva zaposlitvena izkušnja študentov razkrilo, da se morajo na teh področjih razvijati.

Vsak mentor je poročal, da so študenti izpolnili prvotna pričakovanja, ali celo dodal, da so jih presegli. To nakazuje, da je bil izbor študentov dobro pripravljen, njihov pristop je bil skladen s programom, njihovo začetno znanje o RMA pa je bilo zaradi uspešnosti modula ustrezno. Med močnimi prednostmi študentov so bile izpostavljene predvsem medosebne sposobnosti, timsko delo, analitične sposobnosti, fleksibilnost in ustne komunikacijske sposobnosti.

Študenti so bili o svojem mentorju zelo pozitivni. Vsak od njih se je zelo strinjal, da jim je mentor med mentorstvom pomagal razumeti njihove vloge in odgovornosti, jih seznanil s pričakovanji do njihovega dela, dajal pravočasne in konstruktivne povratne informacije ter bil aktiven poslušalec. Vse to kaže na to, da so bili mentorji na program dobro pripravljeni in so svojo vlogo odlično opravili.

Študente smo vprašali, ali je njihov mentor vplival na to, da so nadaljevali kariero v RMA. Trije študentje so se zelo strinjali, dva sta se s trditvijo strnjala. Z vprašanjem »je bil vzornik(-ca)« se je pet študentov zelo strinjalo, le eden je bil nevtralen. Ti rezultati poudarjajo pomembnost takšnih programov pri promociji poklica, saj so študenti imeli priložnost videti RMA-je v resničnem delovnem okolju, razumeti njihovo delo, njihove odgovornosti in njihov potencialni

⁹ Podrobna ocena Mentorskega programa je v prilogi 3.

vpliv. To lahko vpliva na njihovo poklicno izbiro na način, da lahko končajo kot RMA ali na podobnih delovnih mestih v ekosistemu raziskav in inovacij.

Študenti so izpostavili tudi pomen resničnega delovnega okolja: medtem ko so med poukom teoretično spoznavali RMA, so si sedaj lahko ogledali praktično plat poklica. Poudarjeno je bilo tudi, da so študenti po zaključku tega programa bolje pripravljeni na začetek dela po diplomi, privajanju na kulturo dela in vzdušje na delovnem mestu. Med glavnimi rezultati mentorstva je večina študentov izpostavila izboljšanje več veščin, povezanih z RMA.

4.5. Sezonska šola in spletni učbenik ter orodje za samorazvoj

Sezonska šola je bila organizirana za 12 študentov na partnerskih univerzah, ki jih zanima RMA in niso opravili modula foRMAtion. Potekala je v obliki mešane mobilnosti študentov, vključno s spletnim in fizičnim delom učenja in mobilnosti: slednji je trajal 5 dni.

»Najsodobnejše tehnike poučevanja, interaktivni in obogatitveni razredi, učenje od strokovnjakov, mednarodne izkušnje, spoznavanje novih ljudi ... Nisem si mogla zamisliti boljšega tečaja!«

MARIANA NICOLAU, NOVA UNIVERZA V LIZBONI (SEZONSKA ŠOLA)

Študenti so glede na izobrazbeno raven izpolnili obe anketi (zbranih je bilo deset od dvanajstih odgovorov), sedem študentov (70 %) je obiskovalo dodiplomski študij, trije študenti (30 %) pa magistrskega. Polovica študentov (50 %) je bila iz študijskega programa Mednarodni odnosi, dva iz Znanosti komuniciranja (20 %), eden iz Diplomacije in medkulturnih študij (10 %) ter eden iz Zgodovine (10 %).

Kar zadeva zanimanje študentov za RMA kot poklic, se je po sezonski šoli delež pozitivnih odgovorov povečal za 20 %, zmanjšal pa se je delež negotovih odgovorov.

Na podlagi njihove samoocene je sezonska šola C10 pomembno vplivala na znanje študentov o RMA kot dejavnosti. Samo en študent je imel predhodno znanje o temi. Po sezonski šoli jih je 80 % potrdilo, da se je njihovo znanje zelo izboljšalo.

Le nekaj odgovorov je bilo deljenih o motivacijah in pričakovanjih študentov: večina jih je imela za cilj boljše razumevanje RMA, ki bi ga lahko uporabili kasneje, bodisi v akademski ali poklicni karieri.

Zaradi sezonske šole se je znanje študentov spremojalo in je bilo ocenjeno bodisi na najvišji bodisi na drugi najvišji ravni. Ko so jih prosili, naj delijo najbolj zanimive teme, so bili odgovori precej različni, vendar je mogoče izpostaviti tri vidike:

- 1) priložnost za učenje od strokovnjakov, ki se nanašajo na RMA partnerske ustanove, ki prispevajo k programu z izmenjavo praktičnih izkušenj in primerov iz resničnega življenja,
- 2) proračun, financiranje in finančna vprašanja,
- 3) delo v skupinah (ki so bile kulturno raznolike).

»Obe raziskavi sta zahtevali oceno znanja in večin študentov, ki so bistvenega pomena za menedžment in administracijo raziskav. Najbolj impresivna pozitivna sprememba je bila izmerjena pri kulturnih večinah in večinah raznolikosti (40 % jih je poročalo o boljši oceni), biti dober pri sporočanju lastnih idej, timskem delu, upravljanju časa in iskanju informacij o določenih temah (v vsakem primeru jih je 30 % poročalo o boljši oceni). To nakazuje, da bi lahko dejavnosti sezonske šole in spletni učni viri resnično pozitivno vplivali na študente.

Ti odgovori tudi nakazujejo, da ko študenti dobijo širši pregled in nekaj praktičnega znanja na področju RMA, jih vsaj polovica ostaja zainteresirana za področje – četudi ne kot RMA, ampak z uporabo znanja in strokovnega znanja v svoji prihodnji karieri. Pomemben rezultat je tudi ta, da skoraj vsakdo, ki dobi vpogled v vsakdanje življenje vadečih, jih začne ceniti in priznavati njihovo strokovnost in poklic. Na podlagi tega je pomembnost vseh programov, ki ozaveščajo in dajejo uvod v menedžment in administracijo raziskav, pomembna na dolgi poti, ki vodi do priznanja.

»Ta tečaj priporočam vsem, ki jih zanima družba, zagotavljanje vrednosti ali povečevanje znanja v naši družbi. Vaše ozadje ni pomembno, niti če se na koncu odločite, da poklic RMA ni za vas. Ta tečaj lahko razširi vaša obzorja v smislu inovativnega učenja in ponudb za delo! Poleg tega so mednarodne izkušnje več kot plus!«

ANAÍS GUERRA, NOVA UNIVERZA V LIZBONI (SEZONSKA ŠOLA)

5. Pridobljene izkušnje: dobre prakse in področja za izboljšave

Zahvaljujoč projektni strukturi partnerji v 40-mesečnem trajanju niso le razvili rezultatov, ampak so po fazi testiranja te rezultate dokončali na podlagi pridobljenih izkušenj in zbranih povratnih informacij. Ta proces, podprt z nenehnim zagotavljanjem kakovosti in razmišljanji, zbranimi v svetovalnem odboru, bi lahko zagotovil široko uporabnost rezultatov ne le s strani projektnih partnerjev, temveč s strani vseh subjektov v Evropi – s čimer bi se utrla pot za dolgoročno vzdržnost rezultatov projekta.

To poglavje vključuje izkušnje, pridobljene z različnimi metodami ocene učinka. Te pridobljene izkušnje vključujejo tako dobre prakse, ki lahko dajo vpogled v različne inovativne vidike rezultatov, kot tudi obravnavajo tista vprašanja, ki jim je potrebno posvetiti več pozornosti v obdobju trajnosti.

5.1. Modul foRMation

DOBRE PRAKSE

1. Mednarodni tečaj

V prvem semestru so učitelji treh univerz organizirali skupni pouk (na daljavo), v katerem so sodelovali študenti, ki so obiskovali tečaje forMation. Učitelji so se vnaprej skupaj dogovorili o temi in urah vaj, kjer so morali študenti delati v mešanih skupinah. Skoraj vsi študenti so se udeležili tega mednarodnega razreda in uživali v priložnosti, da so srečali 'so-študente' iz različnih držav z različnimi kulturnimi in izobraževalnimi ozadji. Med razgovori so učitelji potrdili, da je potrebno to mednarodno značilnost tečaja ohraniti, saj daje dodatno dodano vrednost celotni učni izkušnji.

2. Vabilo gostujočih predavateljev na predavanja

Učitelji so na podlagi metodologije poučevanja redno vabili k predavanjem vabljene predavatelje. Profil gostujočega predavatelja je bil odvisen od teme: pri določenih vajah so sodelovali tudi RMA, strokovnjaki, specializirani za določene teme, kot so odprta znanost, etika, odnosi z javnostmi, raziskovalci ali knjižničarji. Z namenom, da bi zbrali informacije iz prve roke o določeni temi so jih morali študenti intervjuvati na podlagi predhodno oblikovanih vprašanj. Študenti so cenili to priložnost; ne le z vidika širjenja njihove mreže, temveč tudi zaradi srečanja z ljudmi iz resničnega življenja z velikim strokovnim znanjem v prijaznem okolju.

3. Širok izbor in kombinacija spletnih in nespletnih orodij

Načeloma je bil tečaj prilagojen za osebno poučevanje, vključno z uporabo najrazličnejših inovativnih spletnih orodij, bodisi za delo v razredu ali za domače naloge. Vendar pa je zaradi pandemije COVID-19 prvi semester tečaja potekal v celoti na daljavo, drugi pa v mešani postavitevi glede na možnosti univerze: pouk je potekal tako osebno kot na daljavo. Glede na povratne informacije študentov in učiteljev se je vsaka različica dobro obnesla, tudi če so se učitelji morali vnaprej pripraviti.

4. Učenje na podlagi problemov (PBL)

Glavno načelo, ki je vodilo strukturo kurikuluma in metodologijo poučevanja, je bila konstruktivistična interpretacija učnega procesa, za katero je značilen 1) pristop, osredotočen na študenta, 2) osredotočenost na proces in rezultat ter 3) razvoj veščin kot glavni cilj, pri čemer se teoretične disciplinarne vsebine razumejo kot orodje za doseganje tega cilja. V ta namen je bilo kot glavni pedagoški pristop uporabljeno učenje na podlagi problemov (PBL), vključno z interaktivnimi orodji, kot so igrifikacija in metode zgodbe, ki ustvarjajo prožne učne priložnosti z nenehnimi povratnimi informacijami učiteljev. Ta pristop so zelo cenili študenti, ki so v obrazcu za povratne informacije večkrat omenili, da je to skoraj edini predmet med njihovim univerzitetnim študijem, ki ima tiste praktične elemente, kjer morajo delati na projektih tako kot praktiki.

5. Priložnost za študente, da spoznajo zaposlitvene možnosti, povezane z znanostjo, in sprejemajo bolj zavestne odločitve

Eden od končnih ciljev projekta forMATION je bil predstaviti menedžment raziskav in administracijo kot možno poklicno izbiro za študente. Študenti, ki so zaključili tečaj, so prejeli helikopterski pogled ne le na sam poklic, ampak tudi na celoten ekosistem raziskav in inovacij. Srečanje in razgovori z RMA-ji, delo na nalogah v resničnem življenju in ozaveščanje o veščinah in kompetencah, ki jih imajo in so potrebne za ta poklic, bi jim lahko pomagali pri odločitvi, ali je ta poklic zanje res potencialna kariera ali ne. V nekaj primerih so študentje spoznali, da so bolj raziskovalni tip osebe, vendar je bilo zanje pomembno tudi pridobivanje znanja. Toda v večini primerov so študentje postali motivirani za poklic in so si lahko v prihodnosti predstavljali sebe kot RMA ali druge strokovnjake, ki delajo na Stičišču znanosti.

PODROČJA ZA IZBOLJŠAVE

1. Temeljita razlaga nalog

Ankete študentov in intervjuji z učitelji so poudarili, da morajo učitelji za vsako vajo zagotoviti temeljito razlago, da zagotovijo, da jo študentje razumejo. Predvsem pri skupinskem delu je pomembno, da časa, namenjenega izvedbi vaje, ne vzamemo s tarnanjem možnega razumevanja vaje.

2. Zamenjava med spletnimi platformami ali prehod nanje

Ker je v vsakem razredu vključenih več vaj na različnih platformah, so učitelji imeli nekaj težav. V primeru spletnega poučevanja je bilo včasih težko preklapljati med različnimi platformami (na primer prenehati uporabljati tablo in zagnati mentometer) in zagotoviti, da lahko vsi študenti sledijo temu koraku. Prisotnost dveh učiteljev pa bi zlahka odpravila to težavo, saj sta si razdelila vlogi z namenom, da bi bila sprememba neovirana. V primeru poučevanja brez povezave so nekateri učitelji doživelji, da je bilo težko vse spraviti na splet in tam opraviti vaje. Glede na izkušnje je te izzive mogoče zlahka premagati z vnaprejšnjimi pripravami.

3. Skupnost učiteljev

Za okrepitev priložnosti za mreženje in izmenjavo izkušenj med učitelji, ki poučujejo predmet na treh partnerskih univerzah, je bila vzpostavljena skupna mapa "dropbox", organiziranih je bilo nekaj spletnih srečanj. Kljub tem prizadevanjem je delež snovi in izkušenj ostal omejen, čeprav so učitelji na koncu potrdili, da je potrebno v prihodnje izkoristiti stalno komunikacijo in izmenjavo izkušenj za dvig mednarodnega značaja modula.

5.2. Mentorski program foRMAtion

DOBRE PRAKSE

1. Preživljanje mentorstva v tujini

Študenti so zelo cenili možnost preživetja šestih tednov v tujini, hkrati pa pridobili resnične delovne izkušnje. Skoraj vsi študenti so to potrdili v svojem poročilu, da so uživali v programu tako z vidika svoje kariere – dobili so vpogled v RMA v resničnem raziskovalnem podpornem uradu, sodelovali pri pripravi ali vodenju financiranih projektov, stopili v stik z več strokovnjaki v prijaznem delovnem okolju – kot tudi z osebnega vidika – spoznavanje različnih delovnih navad, mest, držav in kultur. Ker je projekt pokril njihove stroške, je dal priložnost tudi tistim

študentom, ki prej zaradi omejenih sredstev niso mogli biti vključeni v programe fizične mobilnosti. Na srečo lahko program Erasmus+ podpira podobno bivanje v okviru programa pripravnštva, kar lahko prispeva k trajnosti mentorskega programa.

2. Imeti dva mentorja v različnih oddelkih ali institucijah

Vsak študent je potrdil, da jim je mentorstvo zagotovilo edinstveno učno izkušnjo – ki se je povečala, če so lahko dobili vpogled v delo različnih oddelkov ali institucij gostiteljske raziskovalne organizacije. Tako so v nekaterih primerih mentorji delili svojo odgovornost do mentoriranca, ki bi lahko delal z obema. Na ta način je študent pridobil izkušnje na še bolj raznolikih RMA (v fazi pred dodelitvijo napram financam napram komunikaciji) ali znanstvenih področjih (humanistika napram naravoslovje).

3. Mentorstvo na daljavo

Del mentorstva s fizično mobilnostjo je želel študentom omogočiti takšno delovno izkušnjo, ko bi se lahko vsak dan srečali s svojim mentorjem, sodelavci v pisarni – tako kot so bili tudi zaposleni v organizaciji gostiteljici. Ker pa ena partnerska organizacija deluje predvsem na daljavo, kar pomeni, da zaposleni delajo predvsem od doma in gredo občasno v pisarno. Posledično je študent mentorstvo preživel predvsem v stiku z mentorjem na daljavo; to se je dobro izšlo, čeprav je zahtevalo vsaj toliko truda, če ne še več, z obeh strani, od vzpostavitve zaupljivega odnosa preko strokovnega vodenja do realizacije socialnih delov. Glede na povratne informacije je to izvedljivo, vendar je potrebno opozoriti tudi, da je študent pogrešal interakcijo z drugimi kolegi, ki je ni bilo mogoče realizirati na način, kot so sedeli v pisarni.

4. Posebna naloga za izpolnjevanje RMA iz drugih oddelkov ali sektorjev

Poleg skupaj izdelanega delovnega načrta je en študent med mentorskim programom prejel posebno nalogu: pripraviti je moral pregled raziskovalnih podpornih storitev gostiteljske organizacije z intervijem z RMA, ki delajo na različnih ravneh in oddelkih. Ta naloga je mentoriranu omogočila poglobljen pregled nad delovanjem in glavnimi izzivi RMA in raziskovalnimi podpornimi uradi gostiteljske organizacije. Ob koncu programa je študent predstavil ugotovitve RMA in vodstvu univerze. Podobne naloge bi lahko zagotovile dodatno znanje mentorircem in bi lahko okrepile več veščin, začenši s kritičnim mišljenjem na eni strani; po drugi strani pa lahko tak pregled, ki ga poda zunanjji, koristi organizaciji sami.

PODROČJA ZA IZBOLJŠAVE

1. Opredelitev načrta dela in morebitna vmesna revizija

Kot del spletnih konzultacij pred fizično mobilnostjo so morali študentje izdelati načrt dela, v katerem so opredelili glavne učne cilje programa. Mentorji so morali podpirati študente pri določanju lastnih učnih ciljev v skladu s splošnimi učnimi cilji in splošnim ciljem mentorskega programa. Po programu pa se je izkazalo, da je zaradi omejenega pregleda in znanja študentov na področju upravljanja raziskav in administracije ter storitev raziskovalne podporne pisarne gostiteljske organizacije, delovni načrt razvit v začetuk programa morda predmet pregleda in prilagoditve. Če obstajajo nova področja, ki bi lahko bila za študente bolj zanimiva, bi jih lahko vključili v delovni načrt, da bi študentom omogočili, da kar najbolje izkoristijo program.

2. Skupnost praktikov

Podobno kot v primeru učiteljev so bili tudi mentorji povabljeni k izmenjavi znanja in izkušenj pred, med in po mentorskem programu. V ta namen sta bila izdelana e-mail lista in skupna mapa Dropbox ter organiziranih nekaj srečanj. V času pilotiranja programa je ta skupnost mentorjev začela delovati, vendar v omejenem obsegu, kar je bilo predvsem posledica dejstva, da se je program izvajal v poletnem času, kar pomeni, da je bilo precej težko najti primeren čas, ki bi bil izvedljiv za udeležence. . Vendar pa so se po programu začele plodne razprave, ki jih je potrebno nadaljevati v okviru zavezništva.

3. Ocena strokovnega izpopolnjevanja mentorjev

Med Mentorskim programom se je izkazalo, da slednji pomembno vpliva tudi na strokovni razvoj mentorjev, ne le študentov. Metodologija ocenjevanja učinkov pa je redko vključevala orodja za ocenjevanje učinkov na ravni mentorjev. Zato bi veljalo razmisli o dodajanju nekaterih vprašanj v prilogu 5, da bi lahko sledili spremembam tudi pri tej ciljni skupini.

5.3. *Sezonska šola & spletni učbenik*

DOBRE PRAKSE

1. Priložnost za študente, da spoznajo zaposlitvene možnosti, povezane z znanostjo, in sprejemajo bolj zavestne odločitve

Podobno kot pri modulu so študenti, vključeni v sezonsko šolo, prejeli pregled poklica ter ekosistema raziskav in inovacij. Delo na spletnem učbeniku in zavedanje spretnosti in kompetenc, ki jih imajo in so potrebne za poklic, bi jim lahko pomagalo pri odločitvi, ali je ta poklic zanje res potencialna kariera ali ne. Poklic je za večino študentov postal privlačen. Ti rezultati kažejo, da bi lahko sezonsko šolo kot tako v prihodnosti organizirali tudi na kateri koli visokošolski ustanovi za promocijo modula in poklica.

2. Priložnost za izboljšanje medosebnih in medkulturnih veščin

Sezonska šola je študentom partnerskih univerz ponudila edinstveno priložnost, da so skoraj teden dni delali v medkulturnem okolju in se naučili nekaj osnovnih pojmov poklica RMA. Na podlagi njihovih povratnih informacij je lahko vsak od njih izboljšal več medosebnih in medkulturnih veščin, kar so zelo cenili.

3. Certifikat v RMA brezplačno

RMA, ki so naleteli na spletni učbenik in orodje za samorazvoj, so zelo cenili možnost dostopa do posodobljenega in dobro strukturiranega znanja v RMA, ki je na voljo brezplačno. Vsi so z orodjem za samorazvoj uspeli in prejeli certifikat foRMation – nekateri so ga celo delili na družbenih omrežjih in tako promovirali širši javnosti.

PODROČJA ZA IZBOLJŠAVE

1. Certifikat po modularni postavitvi učbenika

Čeprav faza testiranja spletnega učbenika in orodja za samorazvoj ni bila dovolj dolga, da bi dobili podrobno oceno, se je na podlagi povratnih informacij pojavilo pomembno vprašanje: vredno bi bilo razdeliti skupine vprašanj orodja za samorazvoj po modularni postavitvi spletnega učbenika. Posledično ne bi smeli iti skozi vsa vprašanja hkrati, ampak bi moralo biti mogoče na vprašanja iz različnih modulov odgovoriti ločeno.

6. Identifikacija ciljnih skupin, kanalov za njihovo doseganje in edinstvenih prodajnih točk projekta

Trajnost projektnih rezultatov in njihovo morebitno prevzemanje s strani organizacij zunaj partnerstva je zahtevalo identifikacijo glavnih ciljnih skupin, kanalov za dosega teh ciljev in sporočil, ki jih nagovarjajo. Projektni partnerji so zato vložili pomembne napore v mapiranje vseh možnih ciljnih skupin, razumevanje njihovih potreb in najboljših načinov povezovanja z njimi. Spodnja preglednica prikazuje rezultate te aktivnosti z opisom ustreznih ciljnih skupin in razlago najpomembnejših edinstvenih prodajnih točk projekta zanke.

Ciljna skupina	Opis ciljne skupine	Pomembnost foRMAtion izsledkov	Kanali	Edinstvena prodajna točka oblikovana v kratkem sporočilu
Visokošolske ustanove	V 33 evropskih državah je več kot 5000 visokošolskih ustanov, ki izobražujejo 17,5 milijona študentov in zagotavljajo delo 1,35 milijona oseb v terciarnem izobraževanju ter 1,17 milijona raziskovalcev. Visokošolske ustanove imajo ključno vlogo pri prispevanju k inovativnosti, konkurenčnosti in odličnosti z zagotavljanjem izobraževanja in usposabljanja študentov na področju spremnosti in kompetenc, potrebnih na trgu dela.	učni načrt, metode poučevanja, mentorski program, spletni učni viri, sezonska šola	dogodki, e-pošta, socialni mediji, omrežja visokošolskih zavodov	Akademiki/menedžment: Raziskovalne odličnosti ni več mogoče doseči brez odličnosti upravljanja raziskav. Izobraževalni modul foRMAtion podprt z mentorskim programom je edinstvena ponudba za vsakega študenta katerega koli področja, ki zagotavlja konkurenčne veščine in znanja, ki jih zahteva trg dela. S poučevanjem tečaja lahko učitelji in RMA pridobijo dostop do najnovejšega znanja, s čimer povečajo svoje znanje in kompetence, potrebne za sodelovanje v visoko konkurenčnih projektih R&I, ki jih financira EU. Študenti: Z opravljenim predmetom lahko pridobijo dostop do privlačnega in tržno uporabnega znanja, znanja in izkušenj ter lahko razširijo svoje prenosljivo znanje in povezovalne veščine. Mentorski program je edinstvena priložnost za pridobitev resničnih delovnih izkušenj v RPO in prilagojenih navodil strokovnjaka, ki dela na tem področju.

Univerzitetne zveze in univerzitetne mreže	<p>Po razpisu Erasmus+ za leto 2022 je zdaj 44 evropskih univerz, ki vključujejo približno 340 visokošolskih ustanov v glavnih mestih in oddaljenih regijah 31-ih držav, vključno z vsemi državami članicami EU, Islandijo, Norveško, Srbijo in Turčijo¹⁰. To število bo še naraslo, saj je novi razpis za leto 2023 že odprt.</p> <p>Poleg tega obstaja več univerzitetnih mrež na regionalni ali ravni EU, kot so LERU, AURORA, YERUN, EUA, GUILD UNICA itd. Ta omrežja so organizirana po različnih področjih in zagotavljajo zbiranje znanja, boljšo prepoznavnost in platformo za izboljšanje svojih članov.</p>	učni načrt, metode poučevanja, mentorski program, spletni učni viri, sezonska šola	dogodki, e-pošta, družbeni mediji, omrežja visokošolskih ustanov, univerzitetne zveze	Poleg zgoraj omenjenih argumentov lahko tako univerzitetne zveze kot mreže povečajo svojo konkurenčnost z ustanovitvijo delovnih skupin za RMA, da se omogoči strokovni razvoj njihovih RMA in poveča podpora, ki jo zagotavljajo njihovi RSO.
Poklicne organizacije RMA	<p>Razvoj poklica vključuje nastanek poklicnih skupin, ki se tudi formalizirajo in zagotavljajo platformo za strokovnjake za izmenjavo znanja in izkušenj, pridobivanje podpore vrstnikov, a potencialno tudi za usposabljanje in mentorstvo. Več kot deset organizacij RMA že deluje na nacionalnih ravneh po vsej Evropi, kot so ARMA, DARMA, NARMA, ARMA-NL, PIC, vendar jih bo še več. Poleg tega obstajajo tudi transnacionalna omrežja, kot sta EARMA, SRAI International.</p>	kurikulum, mentorski program, spletni učni viri	E-pošta, dogodki družev RMA, socialni mediji	<p>Rezultati foRMAtion so prosto dostopni in se lahko uporabljajo za usposabljanje RMA v zgodnji karieri. Izobraževalni modul in mentorski program je mogoče prilagoditi različnim shemam izobraževanja in usposabljanja, zato lahko društvo morebiti na podlagi tega razvije lasten model usposabljanja in/ali mentorstva.</p> <p>Razvoj tovrstnega programa lahko prispeva k promociji in prepoznavnosti samega poklica ter krepi močnejše strokovno stičišče.</p>

¹⁰ Glej <https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative>

Mreže in združenja raziskovalcev in/ali učiteljev	Obstajajo številna regionalna, nacionalna in evropska združenja in mreže raziskovalcev in/ali učiteljev, ki zbirajo člane po raziskovalnih področjih ali metodoloških vidikih.	učni načrt, metode poučevanja, mentorski program, spletni učni viri	dogodki, e-pošta, socialni mediji	Izobraževalni modul, podprt z učnimi metodami, je mogoče prilagoditi različnim shemam izobraževanja in usposabljanja. Zagotavljajo privlačno in tržno znanje, povezovalne veščine in poklicne povezave s strokovnjaki na nenehno nastajajočem področju, kjer obstaja stalna potreba po visoko usposobljenih in kvalificiranih človeških virih. S poučevanjem tečaja lahko učitelji in RMA pridobijo dostop do najnovejšega znanja, s čimer povečajo svoje znanje in kompetence, potrebne za sodelovanje v visoko konkurenčnih projektih R&I, ki jih financira EU. Rezultati so koristni tudi za boljše razumevanje delitve dela med raziskovalci in RMA ter drugimi akterji ekosistema raziskav in inovacij.
Organizacije za izobraževanje odraslih	Pomen učenja odraslih in organizacij, ki zagotavljajo učenje odraslih, so priznani na ravni EU, saj lahko podpirajo razvoj kariere, izboljšajo zaposlitvene možnosti, zagotovijo prenosljive veščine, ki jih potrebuje trg dela, izboljšajo socialno kohezijo in aktivno državljanstvo. Po podatkih "Pregled izobraževanj in usposabljanj 2030" je bilo 10,8 % odraslih, starih od 25 do 64 let, vključenih v izobraževanje odraslih. ¹¹	kurikulum, učne metode, spletni učni viri	dogodki, družbeni mediji, mreže združenj za izobraževanje odraslih	Izobraževalni modul, podprt z učnimi metodami, je mogoče prilagoditi različnim shemam izobraževanja in usposabljanja, vključno z učenjem odraslih. Zagotavljajo privlačno in tržno znanje, povezovalne veščine in poklicne povezave s strokovnjaki na nenehno nastajajočih področjih, kjer obstaja stalna potreba po visoko kvalificiranih človeških virih.

¹¹ Glej Resolucijo Sveta o prenovljeni evropski agendi za učenje odraslih na <https://www.consilium.europa.eu/media/53179/st14485-en21.pdf> Pridobljeno dne 31. oktober 2022.

	V skladu z akcijskim načrtom Evropskega stebra socialnih pravic naj bi se do leta 2030 usposabljanj vsako leto udeležilo 60 % vseh odraslih. ¹²			
Organizacije za financiranje raziskav	Organizacije za financiranje raziskav opravljajo naloge financiranja in oblikovanja politik ter delujejo kot posredniške agencije med vlado in akademijo. Poleg nacionalnih agencij ali svetov za financiranje so na področju raziskav in inovacij dejavni tudi regionalni in mednarodni skladi. Kot predlagajo Santos in drugi strokovnjaki (2021), ki delajo v teh fundacijah kot strokovnjaki na stičišču znanosti, morajo »svoje napredno znanje in veštine deliti s svojimi vrstniki in različnimi deležniki v raziskovalnih in inovacijskih ekosistemih ... So ključni za premostitev raziskovalne produkcije, družbene potrebe in političnega sistema«.	učni načrt, metode poučevanja, mentorski program, spletni učni viri	dogodki, e-pošta, ocena učinka in priporočila politike	RFO imajo več interesov, ne le prejemanje odličnih in učinkovitih predlogov, ampak tudi zagotavljanje, da med fazo izvajanja dobijo tisto, kar so upravičenci obljudili. Ker RFO nenehno dvigujejo zahteve, je v njihovem interesu, da usposobijo in priznajo tiste strokovnjake, ki lahko podpirajo raziskovalce in inovatorje pri izpolnjevanju njihovih zahtev. Spletni učni viri lahko služijo kot podlaga za usposabljanje novincev v RFO, tako da nudijo pregled okolja R&I, politik in programov financiranja ter uvajajo osnovno znanje in veštine, potrebne za pripravo in vodenje projektov R&I. Kurikulum in učno gradivo je mogoče uporabiti za pripravo usposabljanj, ki jih izvajajo nacionalne kontaktne točke za različne ciljne skupine v svojih državah, vključno z RMA, raziskovalci, podjetji itd. NCP se lahko pridružijo tudi mentorskemu programu, da razvijejo svoje strokovne sposobnosti in študentom omogočijo, da dobijo vpogled v svoje vsakodnevno delo.

¹² Oglejte si Evropski steber socialnih pravic: https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights_en Pridobljeno dne 31. oktober 2022.

RMA posamezno in raziskovalne podporne pisarne RPO		spletni učni viri, metodologija mentorstva RMA, kurikulum, metode poučevanja	strokovna združenja, e-poštne skupine	Za novice v RMA lahko spletni učni viri zagotovijo osnovno znanje in z uporabo orodja za samorazvoj lahko pridobijo certifikat, ki izboljša njihov življenjepis. Z vključitvijo v mentorski program lahko RMA razvijejo svoje sorodne veščine s posebnim poudarkom na vodenju, lahko pa tudi zgradijo močno povezano z univerzami in pridobijo prepoznavnost v teh institucijah, da olajšajo zaposlovanje zaposlenih. Urad za podporo raziskovanju lahko svoja interna usposabljanja obogatijo z znanjem in metodami, vključenimi v kurikulum in učne metode. S tem lahko RSO povečajo učinkovitost svojega delovanja, odličnost zagotovljene podpore in s tem konkurenčnost svoje institucije v okvirnih programih, ki jih financira EU, kar pomeni, da lahko pridobijo več sredstev.
Oblikovalci politik na področju raziskav, inovacij in izobraževanja	V skladu z nedavno sprejeto evropsko inovacijsko agoendo so "inovacije bistvene za spodbujanje konkurenčnosti Evrope ter zagotavljanje zdravja in dobrega počutja njenih državljanov." ¹³ Pričakuje se, da bodo inovacije prispevale k reševanju družbenih izzivov, povečanju zelene in digitalne rasti ter preoblikovanju poslovnega okolja in trgov. Inovacije pa so močno povezane z znanostjo, tehnologijo in izobraževanjem. Oblikovalci politik potrebujejo podporo,	Ocena učinka in priporočila politike	e-pošta, dogodki	Oblikovalci politik morajo razumeti dodano vrednost strokovne raziskovalne podpore in dejstvo, da odličnosti v raziskavah ni več mogoče doseči brez odličnosti v upravljanju raziskav. Pomembni vidiki, kot so pomen povezovalnih znanj in spretnosti, zapolnитеv vrzeli med univerzitetno ponudbo in potrebami trga dela, večja konkurenčnost RPO in višji znesek črpanih sredstev EU, bodo prispevali k podpori na ravni politike

¹³ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022DC0332&from=EN>

	kako najbolje urediti medsebojne odnose in kako oblikovati ustrezone vidike teh političnih področij, da bi dosegli učinkovite posege.			za prenos in sprejetje modula foRMAtion in mentorskega programa univerz ter raziskovalnih inštitutov izven partnerstva. S tem se podpira priznavanje poklica, podpora narodnim skupnostim in združenjem ter uvrščanje poklica v poklicne klasifikacije in okvire poklicev.
Profitni možganski trusti in podjetja s trdnim portfeljem raziskav in inovacij	Število podjetij po vsej EU nenehno narašča. Storitvena ali industrijska podjetja predstavljajo skoraj 90 % vseh podjetij v Evropi. Med vrhunskimi veščinami, ki jih ta podjetja potrebujejo, so komunikacijske veščine, veščine timskega dela, medosebne veščine, veščine samoupravljanja, veščine IT in veščine reševanja problemov, podjetja pa bi morala vlagati tudi v krepitev znanja in veščin svojih zaposlenih, čeprav je trend povečevanje. Udeležba podjetij, dejavnih na področju raziskav in inovacij, se povečuje v okvirnih programih, ki jih financira EU, kar zahteva tudi njihovo pripravljenost in obstoj ustreznega notranjega strokovnega znanja.	spletni učni viri, metodologija mentorstva RMA	dogodki	Ker bi morala podjetja povečati delež človeškega kapitala, ki sodeluje pri usposabljanju ali samorazvoju, lahko to storijo s promocijo spletnih učnih virov ali mentorskim programom. Ko zaposleni pridobijo osnovno znanje prek spletnih učnih virov, lahko pridobijo certifikat, ki popestri njihov življenjepis. Z vključitvijo v mentorski program lahko njihovi zaposleni razvijejo sorodne veščine s posebnim poudarkom na vodenju, lahko pa tudi zgradijo močno povezano z univerzami in pridobijo prepoznavnost v teh institucijah, da olajšajo zaposlovanje zaposlenih. Ker odličnosti v raziskavah ni več mogoče doseči brez odličnosti v upravljanju raziskav, lahko podjetja povečajo odličnost svojega osebja, ki se ukvarja s projektmi R&I, ki jih financira EU, odličnost svojih predlogov in projektov ter s tem svojo konkurenčnost v okvirnih programih, ki jih financira EU, kar pomeni, da dobijo več sredstev.

Nacionalne kontaktne točke	Mreže nacionalnih kontaktnih točk so podporne strukture, ki so jih ustanovile države članice (MS) in pridružene države (AC) in jih je priznala Evropska komisija (EK) za pomoč udeležencem pri dostopu do različnih priložnosti programa EU. Za Obzorje Evropa obstaja 17 različnih funkcij NCP in mreža nacionalnih koordinatorjev NCP, ki nudijo podporo udeležencem v različnih delih programa. Od držav je odvisno, kako organizirajo svoj sistem in razdelijo vloge; vendar pa je NCP mogoče razumeti tudi kot strokovnjake na stičišču znanosti, ki nudijo podporo raziskovalcem in inovatorjem za izboljšanje njihove udeležbe v projektih HEU.	spletni učni viri, kurikulum in učno gradivo, program	dogodki, e-poštne skupine, seznam stikov na ravni EU/nacionalni ravni	Spletni učni viri lahko služijo kot podlaga za usposabljanje novincev med nacionalnimi kontaktnimi točkami, saj zagotavljajo pregled okolja raziskav in inovacij, politik in programov financiranja ter uvajajo osnovna znanja in veščine, potrebne za pripravo in vodenje projektov raziskav in inovacij. Kurikulum in učno gradivo je mogoče uporabiti za pripravo usposabljanj, ki jih izvajajo nacionalne kontaktne točke za različne ciljne skupine v svojih državah, vključno z RMA, raziskovalci, podjetji itd. NCP se lahko pridružijo tudi mentorskemu programu, da razvijejo svoje strokovne sposobnosti in študentom omogočijo, da dobijo vpogled v svoje vsakodnevno delo.
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7. Trajnost

Konzorcij je dal velik poudarek prepoznavanju glavnih komponent trajnosti, zato je bil vsak rezultat zasnovan tako, da omogoča njihovo dolgoročno uporabo s strani partnerjev, pa tudi njihovo sprejetje in prilagajanje s strani subjektov zunaj partnerstva.

Vsak rezultat ostane na voljo na spletu v skupni rabi prek različnih platform, vključno s spletno stranko projekta, ki jo bo vzdrževala HETFA, platforma Epale,¹⁴ platforma za rezultate Erasmus+ projekta¹⁵ itd. Dejavnosti razširjanja v drugem delu projekta so bile močno osredotočene na promocijo rezultatov foRMAtion in spodbujanje zunanjih deležnikov k njihovemu nadaljnemu prevzemanju. Na podlagi povratnih informacij so se ta prizadevanja izkazala za uspešna, tako skupnost RMA kot do določene mere tudi oblikovalci politik na nacionalni in evropski ravni so začeli razumeti pomembnost rezultatov foRMAtion.¹⁶

Kljud temu je partnerstvo izdelalo dve glavni poti za zagotovitev nadaljnje uporabe rezultatov projekta. Prvi je zagon zavezništva forRMAtion, drugi pa je izdelava prihajajočih projektov, ki temeljijo na mreži, izkušnjah in rezultatih foRMAtion.

7.1. Oblikovanje zavezništev foRMAtion za izobraževalni modul & mentorstvo

S ciljem vzpostavitev dolgoročnega sodelovanja med partnerstvom forRMAtion in raziskovalnimi organizacijami, ki so pripravljene sprejeti bodisi izobraževalni modul in/ali mentorski program, jih je partnerstvo v drugi polovici leta 2022 predstavilo različnim deležnikom na multiplikatorskih dogodkih, zagnalo obe zavezništvi in objavilo odprt poziv za pridružitev. Poleg sprejemanja in morebitnega prilagajanja rezultatov projekta je partnerstvo pripravljeno nuditi podporo na področju metodologij in zagotavljanja kakovosti za organizacije, ki se želijo pridružiti.

Ponudba raziskovalnim organizacijam, ki se želijo pridružiti Zavezništvu(-om), je naslednja:

- Vabilo na **dogodke usposabljanj**: predvidena je organizacija rednih izobraževanj za novice za podporo prevzemu modula in mentorstva. Ta usposabljanja so na voljo brezplačno za organizacije, ki se želijo pridružiti zavezništvom. Način njihove realizacije (na daljavo ali osebno) je odvisen od razpoložljivosti finančnih sredstev. Povabilo k

¹⁴ Glej <https://epale.ec.europa.eu/hu>

¹⁵ Glej <https://erasmus-plus.ec.europa.eu/projects>

¹⁶ Rezultati foRMAtion bodo na primer na voljo na platformi virov RM, ki jo bosta začela izvajati dva projekta, RM ROADMAP in CARDEA, financirana v okviru razpisa WIDERA-2021. Poleg tega je foRMAtion med referencami ERA Akcije 17 POBUDJE ZA UPRAVLJANJE RAZISKAV– Krepitev strateške zmogljivosti evropskih javnih raziskovalnih organizacij, ki izvajajo in financirajo raziskave, ki jo je leta 2022 uvedla Evropska komisija.



pridružitvi **Skupnosti praktikov** (učiteljev in mentorjev, vključenih v izvajanje programov): priložnost za izmenjavo izkušenj in učenje od drugih članov Zavezništva, zaprosila za podporo ali vodstvo na rednih spletnih srečanjih in na splošno za razširitev mreže udeležencev in ustvarjanje resnične skupnosti deljenja.

- **Prepoznavnost:** s pojavljajnjem z imenom in logotipom organizacije med člani Zavezništva na spletni strani foRMAtion.
- **Evalvacija, ocena učinka in zagotavljanje kakovosti:** vsi člani bodo prejeli podporo s prejemom evalvacije in ocene učinka delovanja dejavnosti. Po potrebi bodo izvedeni posegi za zagotavljanje visoke kakovosti programov.
- **Blagovna znamka:** sodelujočim organizacijam in ljudem bodo na voljo **značke in certifikati foRMAtion**.

7.2. Možnosti financiranja za sprejemanje in nadaljnji razvoj rezultatov foRMAtion

Partnerstvo za foRMAtion je ocenilo tudi izvedljivost razvoja novih projektov, da bi podprli širšo uporabo in po možnosti nadaljnji razvoj rezultatov foRMAtion. Identificirani sta bili dve možni smeri: prva, izdelava gradiv za usposabljanje in izobraževanje za glavne ciljne skupine foRMAtion, torej za študente ali doktorske študente ali učitelje. Drugi je spremeniti ciljno skupino in RMA postaviti v fokus naslednjega projekta.

foRMAtion 2.0, namenjena študentom, doktorskim študentom ali učiteljem

Cilj morebitnega projekta bi bil večinoma podoben tistemu, ki ga je foRMAtion prvotno imel:

- narediti menedžment raziskav in administracijo privlačno kot potencialno kariero za študente,
- zagotoviti znanje, veščine in kompetence študentom in doktorskim študentom na področju RMA, bodisi za usposabljanje za bodoče RMA ali za podporo njihovim začetnim korakom v svetu raziskovanja,
- podpreti, da učitelji in univerzitetni profesorji dobijo jasnejšo sliko o vlogi in pomenu RMA ter potrebno znanje, spretnosti in kompetence, ki jim omogočajo poučevanje bodisi predmeta foRMAtion bodisi podobnih predmetov ali programov.

V ta namen se štejejo za ustrezne programe, ki jih financira Erasmus+, kot so učiteljske akademije ali zavezništva za inovacije. Dolgoročno bi lahko bilo tudi mogoče izdelati poseben izobraževalni program za RMA v Evropi.

foRMAtion 2.1 posvečen RMA-jem

Na podlagi potreb skupnosti RMA in prvih povratnih informacij o rezultatih foRMAtion se je partnerstvu tudi zdelo pomembno slediti nekoliko drugačni poti in približati rezultate foRMAtion in njihovo možno izboljšanje skupnosti RMA ter razviti projekt, katerega cilj je:

- preoblikovanje rezultatov foRMAtion za izpolnjevanje potreb različnih učnih okolij, zlasti izobraževanja odraslih, za podporo usposabljanju novincev v poklicu bodisi interno znotraj RPO bodisi na nacionalni in evropski ravni,
- izdelava dodatnih modulov, ki podpirajo razvoj znanja in spretnosti RMA na posebnih področjih, kot so spol in vključenost, menedžment znanja in inovacij, raziskovalna integriteta in etika, znanstvena komunikacija itd.

Čeprav ta usmeritev ni povsem v skladu s prvotnimi cilji projekta, naj bi premostila pomembno vrzel glede ponudbe usposabljanja novincev v poklicu – kar je bil tudi pomemben cilj forRMAcije pri pretvorbi razvitih poklicev rezultate in jih dajanje na voljo prek spletnih izobraževalnih virov in orodja za samorazvoj. Takšne ideje bi lahko vključili v razpise, objavljene v okviru delovnega programa Horizon Europe Widening Participation and Strengthening the European Research Area Work Programme, prek razpisov ERA-TALENTS ali Support services for professionalization of research management.

Mikro-poverilnice

Svet EU je leta 2022 sprejel priporočilo Evropske komisije o delovanju mikro poverilnic med institucijami, podjetji, sektorji in mejami. Namen mikro poverilnic je potrjevanje učnih rezultatov kratkoročnih učnih izkušenj, kot so kratki tečaji ali usposabljanja. Sistem naj bi nudil prožen, a ciljno usmerjen pristop, ki bi zagotavljal razvoj znanja, spretnosti in kompetenc izven institucionalnih okvirov ter omogočal osebni in profesionalni razvoj. Merila takšnih učnih tečajev so zagotoviti kakovost, preglednost, čezmejno primerljivost, priznavanje in prenosljivost.¹⁷

Komisija še vedno dela na shemi z državami članicami in celo predvideva financiranje pobud za razvoj okvirov in programov najboljših praks. Potrebne so nadaljnje razprave z zainteresiranimi stranmi; vendar bi lahko rezultati foRMAtion postali vodilna pobuda na tem področju.

¹⁷ Glej <https://education.ec.europa.eu/news/european-council-approves-measures-to-standardise-micro-credentials>

8. Priporočila

V času življenske dobe projekta so bili rezultati foRMAtion pilotno testirani, ocenjeni, končni rezultati pa odražajo vse izkušnje in pridobljena spoznanja. Povratne informacije končnih uporabnikov niso bile zbrane le za namene vrednotenja, temveč za oceno kratkoročnih učinkov.

Tako projekt kot ti rezultati so dobrodošli in zelo cenjeni v skupnosti RMA in širše, vključno z učitelji, profesorji, raziskovalci in oblikovalci politik. V prid trajnosti rezultatov projekta in večje ozaveščenosti o stroki so bila oblikovana naslednja priporočila:

1. RMA-ji & raziskovalne podporne pisarne

Strokovnjaki, ki se ukvarjajo z menedžmentom in administracijo raziskav, pa tudi strokovnjaki, ki jih PoS razumejo širše, so dobrodošli, da uporabljajo vse rezultate projekta, ki so prosto dostopni. Kolegom iz vse Evrope se priporoča da:

- zagovarjajo združevanje zavezništev in dajo pobudo za uvedbo izobraževalnega modula in programa mentorstva v svojih RPO, da bi razširili izobraževanje in usposabljanje bodočih RMA,
- predlagajo idealno postavitev za ljudi (RMA in učitelje), ki sodelujejo pri poučevanju modula in mentorskega programa, da se omogoči najboljše okolje za učenje in poučevanje,
- ocenijo ustreznost morebitnih prilagoditev teh programov za njihovo integracijo in realizacijo v dani institucionalni ureditvi,
- se vključijo v Skupnost praktikov, da dobijo ažurne informacije o delovanju zavezništev, izkušnjah kolegov iz tujine, razvijajo bazo znanja za poučevanje in mentorstvo, podpirajo lasten strokovni razvoj,
- uporabljajo spletne učne vire za usposabljanje novincev ali za razvoj posebnih usposabljanj za kolege, ki delajo v podporo raziskavam ali v raziskovanju in poučevanju,
- uporabljajo značke in logotipe za promocijo izsledkov in rezultatov foRMAtion pri dodatnih RPO in prispevajo h krepitvi blagovne znamke foRMAtion,
- si prizadevajo za priznanje posebnih veščin in kompetenc RMA.

Pridružitev tem zavezništvtom lahko zahteva, da morajo RMA svoje univerzitetno (ali RPO) vodstvo in menedžment povezati z izsledki foRMAtion. Da bi to naredili, je priporočljivo uporabiti USP, razvite v razdelku 5. Poleg tega se lahko izvedejo morebitne prilagoditve tako v primeru izobraževalnega modula kot v programu mentorstva, da se obravnavajo trenutne potrebe organizacij, npr. vključitev modula v doktorat, študijski programi itd. Za organizacijo

in udeležbo na izobraževanjih in skupnosti praktikov je mogoče uporabiti širok nabor razpoložljivih možnosti financiranja.

2. RPO vodenje in menedžment

Kot je bilo predstavljeno, lahko izobraževalni modul foRMation in program mentorstva štejemo za edinstvena podviga; kljub temu pa imajo impresivne učinke že na kratek rok. Vsak RPO, ki želi povečati svojo konkurenčnost v programih EU, ki financirajo raziskave in inovacije, ne more zanemariti pomena dobro usposobljenih RMA in RSO, ki zagotavljajo odlično raziskovalno podporo.

Zato priporočamo sodelavcem na vodilnih in vodstvenih položajih, da:

- priznajo posebne spretnosti in kompetence RMA,
- se posvetujejo s strokovnjaki, ki delajo v raziskovalni podpori RPO, za oceno potreb in možnosti uvedbe izobraževalnega modula in programa mentorstva na univerzi ali RPO,
- dajo soglasje za pridružitev zavezništvu, da bi razširili izobraževanje in usposabljanje prihodnjih RMA,
- se posvetujejo z RMA, raziskovalci in učitelji, da poiščejo idealno postavitev za ljudi, vključene v poučevanje modula in mentorskega programa, da omogočijo najboljše okolje za učenje in poučevanje,
- na podlagi ocene potreb sprejmejo odločitev, ali je potrebna kakršna koli prilagoditev ali preoblikovanje izobraževalnih programov, da bi ustrezali izobraževalnim in učnim okvirom zadevnih RPO v dani institucionalni ureditvi,
- vključijo programe v ponudbo tečajev in zagotovijo ustrezeno promocijo,
- razširijo obstoječe izobraževalne programe z vključitvijo nekaterih elementov RMA,
- omogočijo interno usposabljanje RMA in možnim raziskovalcem ali učiteljem na podlagi spletnih učnih virov foRMation, da se izboljša konkurenčnost RPO,
- spodbujajo možnost opravljanja prakse/mentorstva v tujini za študente, da bi zapolnili vrzel med univerzitetno ponudbo in potrebami trga dela ter prispevali k ozaveščenosti o poklicu,
- redno organizirajo sezonske šole v obliki poletnih ali zimskih šol z udeležbo študentov univerz članic Zavezništva, da bi študentom dali vpogled in motivacijo za RMA.

3. RFO in oblikovalci politik

Živimo zagon profesionalizacije vodenja raziskav in administracije. Kljub vse večjemu številu priložnosti, katerih namen je prispevati k temu cilju, je pomembno, da smo preudarni in delujemo skupaj z vsemi ustreznimi deležniki, da zagotovimo, da so potrebe skupnosti RMA in drugih akterjev ekosistema R&I obravnavane, vse izkoriščene možne sinergije in okrepljena dopolnjevanja.

Skupaj strokovnjakom, ki delajo na področju podpore raziskavam RFO in oblikovalcem politik priporočamo, da:

- raziščejo možnosti financiranja izobraževanja in usposabljanja za bodoče RMA in RMA, ki že delajo v stroki z različnih področij in ravni,
- spodbujajo zavezništva med organizacijami za financiranje raziskav, da bi razširili izobraževanje in usposabljanje prihodnjih RMA ter premagali vrzel med potrebami trga dela in ponudbo univerzitetnega izobraževanja,
- uvedejo foRMAtion kot referenčno točko za usposabljanje potencialnih RMA ali novincev v prihodnjih razpisih in programih,
- ustvarijo priložnosti za mreženje, mobilnost, izmenjavo znanja na regionalni in nacionalni ravni,
- priznajo posebne spremnosti in kompetence RMA,
- vzpostavijo pravne okvire za priznavanje poklica na institucionalni in nacionalni ravni.

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Annex 1: Assessment of the first semester of the foRMAtion educational module

Following the first semester of the teaching of the foRMAtion module, the impact of IO2 and IO3 was measured, using two activities, namely the assessment of the preliminary and the follow-up surveys completed by students and the analysis of the interviews carried out with teachers.

The Survey

Students had to complete an online survey both at the beginning of the semester and at the end. Comparison of the answers collected at these two distinct moments was supposed to provide inputs for the assessment of the impact of the foRMAtion module.

The preliminary survey aimed to show the existing knowledge of students on Research Management and Administration: 1) as an activity; 2) as a profession; and 3) assess the previous knowledge and experiences related to the main topics of the foRMAtion module, e.g., EU research funding framework, research plan, funding plan, as well as skills relevant for the profession, such as networking, communication, teamwork, use of digital tools, and so on. In some cases, having background knowledge in RMA, students were asked to provide some explanation through open questions.

The follow-up survey included similar questions with the aim of showcasing the possible increase in their knowledge, skills and competencies. Therefore, students were asked to estimate their self-development. The other part of the survey requested them to evaluate the curriculum and the teaching methods, two important outputs of the project with the aim of gathering their feedback for the potential improvements of these outputs.

In both surveys, most questions were closed; formulated either in yes or no type or as Likert scale. The Likert scale was used for questions assessing the expected change in knowledge, skill and competence development, answers are gathered in this 5-grade system, where 5 stands for very much, 4: somewhat, 3: undecided, not really: 2, and 1: not at all.

Although the completion of the survey was compulsory, some of the students participating in the course failed to respond either the preliminary or the follow-up survey. Bearing in mind the limited number of students attending the courses at the three partner universities, the number of answers cannot provide trend indication; nevertheless, they are useful for detecting the short-term impact and fields for improvement.

The respondents of the assessed survey count to 19. (The preliminary survey was completed by 30, the follow up survey completed by 22 students.) Out of which 3 are from CUB, 8 from NOVA and 7 from SHUT. As regards to their educational level, 17 students were following a bachelor

study programme and 2 students were doing masters. Regarding their study background, although the course was designed and promoted to attract students from any field, participating students came from Social Sciences and Humanities; approximately 75% of them studying international relations, European studies, diplomacy and intercultural studies. The rest is enrolled in communication and public relations, history and sociology (see Figure 4). In case of NOVA and CUB, many students spent their Erasmus scholarship at the partner university coming from a foreign country.

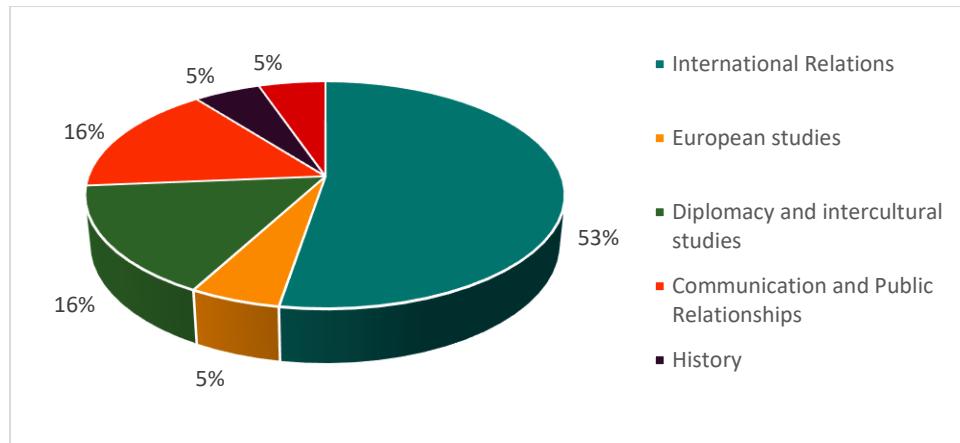


Figure 4 Students' educational programmes' scientific fields

Expectations of students related to the RMA activity, profession and the course

The question investigating the **reason for choosing the course** allowed multiple answers (Q: *Why do you plan to attend the 'Research Manager as a profession in the EU ecosystem: concepts, tools and practice I.' course?*). The majority (84%) of the students registered for the course because they found it interesting and most (73%) of them indicated that it would be useful in the future.

According to their initial knowledge, they found the **RMA activity interesting** due to various reasons (Q: *Why do you find the RMA activity interesting/relevant?*). Some students had already a good understanding of the core part of the profession stating that

- “*It can facilitate the work of researchers, leaving more space and energy for them to concentrate on the research itself*”,
- “*It seems to be essential for the development of academic research and progress*”.

Few students described it as a potential career choice:

- *"I find that managing a team, establishing connections with EU and other research institutes and helping researchers conduct their projects seems like something that I would really enjoy doing".*
- *"I could imagine working in this area later".*

Others were interested to learn something new, to gather new challenges in their studies:

- *"Because from everything we can learn something new".*

Some wanted to learn more about management:

- *"I want to learn more ... how to work with management."*
- *"It is connected to management ... in which I would like to improve myself."*

Others considered the course useful for future research work:

- *"It can help me when writing a research paper or analytic essay for other classes".*
- *"I think it will be a valuable tool in my profession future".*

Only 1 student confirmed that previously s/he was in a situation when the RMA knowledge would have been useful (Q: *Have you ever been in a situation where RMA knowledge would have been useful?*) referring to those situations when s/he was asked to develop scientific analysis.

After the course, all of them indicated that **they still found the RMA activity interesting and relevant** (Q: *Do you still find the RMA activity interesting/relevant?*). Many of them got a better understanding on the profession and related activities (*"I believe the RMA activity is very much relevant and necessary in the field of research and innovation"*). Some of them were motivated to go for RMA as a potential career (*"Yes, I am definitely considering this profession for my future"*), however, there was also one student who realized that for him/herself the profession of a researcher fits better (*"I feel like it made me more sure that I'd enjoy being a researcher more."*). (This student aimed originally to use the knowledge acquired in future research works, so from minute 0 she was not so much attracted by the profession). Students who originally indicated that the profession is a possible career choice for them, confirmed their intention in the follow up survey.

Both surveys included questions investigating the extent to which students were interested in the RMA as a profession. The figure below (Figure 5) illustrates the answers collected.

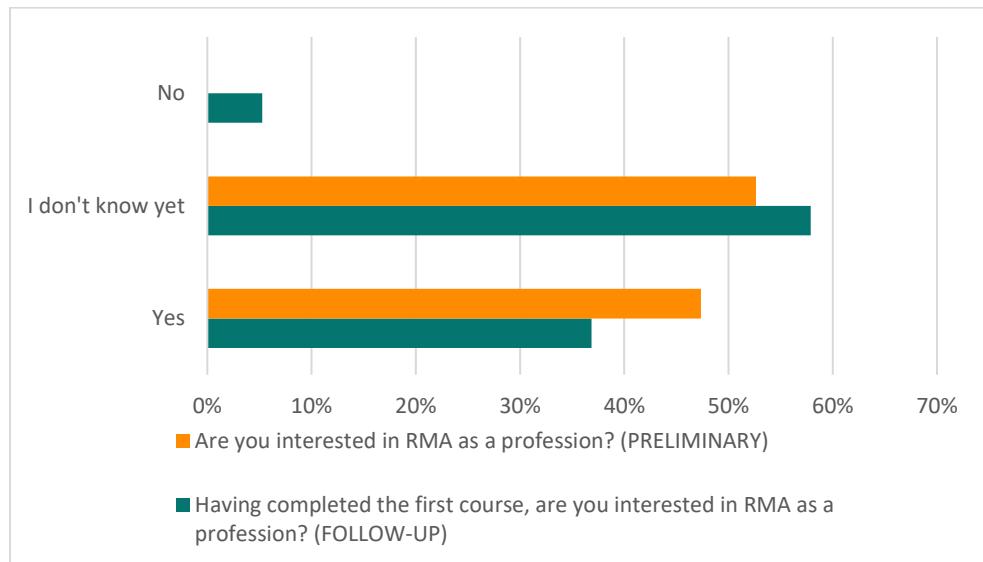


Figure 5 Students' interest towards the profession (n=19)

However, it is also important to see the change regarding the responses of students: six gave a more negative (or less confirmed) answer and only three gave a more positive answer in the follow-up survey (Table 1).

Table 1 The change in students' interest towards the RMA profession

Are you interested in RMA as a profession? (PRELIMINARY)	Having completed the first course, are you interested in RMA as a profession? (FOLLOW-UP)
Yes	I don't know yet
I don't know yet	No
I don't know yet	Yes
I don't know yet	I don't know yet
I don't know yet	I don't know yet
I don't know yet	Yes
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	Yes
Yes	I don't know yet
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	I don't know yet
I don't know yet	Yes
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet

Regarding previous expectations towards the course (Q: *What are your expectations towards the course?*) the most frequent topics mentioned were as follows:

- getting a better understanding of the profession, related activities and the ecosystem,
- learning about the theoretical part,
- learning new tools and methods (in the field of research and research management),
- developing skills.

The follow up questionnaire inquired to what extent the course met students' expectations (Q: *How much did the course meet your expectations?*). 84% said that the course met his or her expectation either very much or somewhat, whereas only 16% was undecided about this (Figure 6). Five out of eight students indicating that the course met their expectations very much were still interested in the RMA profession, whereas 3 of them was uncertain about it. Opposed to them, only two students answering 'somewhat' regarding their expectations said that they were interested in the profession, and five were uncertain about it. In short, those who were interested in the profession tended to be more satisfied with the course as such, compared to those who were uncertain about their interest.

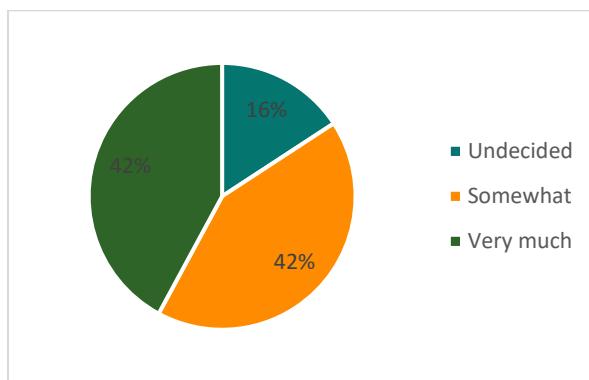


Figure 6 The extent to which the course met students' expectations (n=19)

Those saying very much highlighted various aspects of the profession and the topics they learnt (Q: *Have you learnt something particularly interesting that motivates you to go further in this direction? If yes, could you elaborate a bit?*). They mentioned among others:

- providing support to researchers which can also enlarge the knowledge of RMAs: "*I think it is interesting how one as an RMA can keep expanding their knowledge by working with researchers and in an international community, and it is also exciting and challenging to find funding opportunities which benefit the interest areas of the researcher, too*".
- how complicated the RMA tasks can be whereas how important it is to carry them out in a professional manner: "*opened my eyes how much work this profession need to have*";

"I have learnt that a Project Manager has a lot to do, very important tasks, he/she has a weight on his/her shoulder, and a small mistake can cost a lot. I would like to research this field further, but knowing this, I don't know if I would like to practice this thing also".

- the necessity of being highly skilled in communication, networking: *"I really like the fact that RMAs have to invest in their communication skills and that networking is a part of the job"*.

Knowledge related to the topics covered

Students were asked to assess their previous knowledge and then their acquired knowledge related to topics covered by the course.

Research Management and Administration

Only one of the respondents had previous knowledge and experience related to Research Management and Administration as an activity which was there due to the curiosity of the student. Two of them attended course(s) in project management previously. When students were asked to estimate to what extent their knowledge improved on RMA as an activity, 63% said very much and 37% said somewhat (Figure 7). Among those who had previous knowledge in project management or specifically in research management, one response reported the improvement of their knowledge very much, the two others responded somewhat, so even in their case the impact of the course can be tracked down.

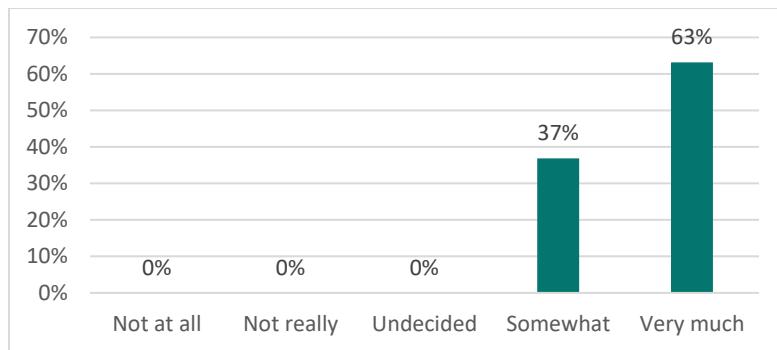


Figure 7 Improvement of knowledge on RMA as an activity (n=19)

EU research funding framework

Although many students were following international relations and/or European studies programmes, only two of them indicated that they had any previous knowledge related to the EU research funding framework. They gathered this knowledge by attending related courses and

reading related papers. Respondents confirmed that their knowledge was improved in this field too (63% very much, 37% somewhat, Figure 8).

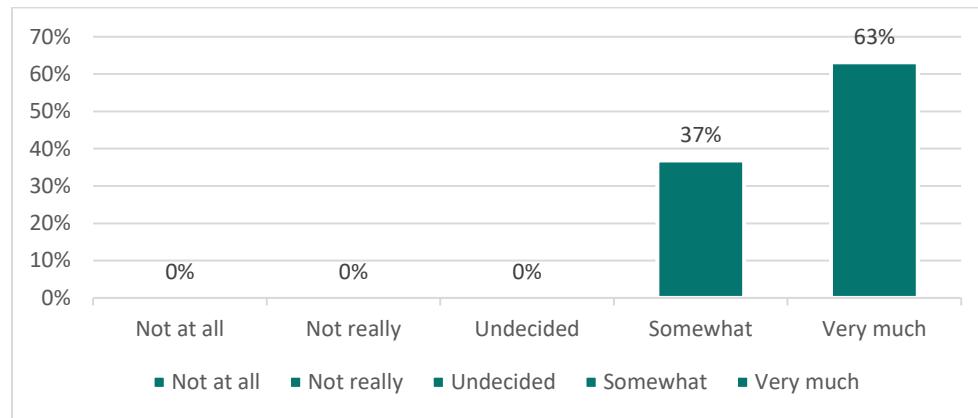


Figure 8 Knowledge improvement on EU research funding framework (n=19)

Being familiar with scientific research projects

Students had to estimate the extent to which they were familiar with scientific research projects in both surveys. Figure 9 presents a positive improvement in general, but it is also important to see that only half of those who confirmed their familiarity before the course at a high level stated the same after the course. The result suggests that the course managed to provide a glimpse on the complexity of scientific research projects; but acquiring more in-depth knowledge might necessitate additional efforts from the students.

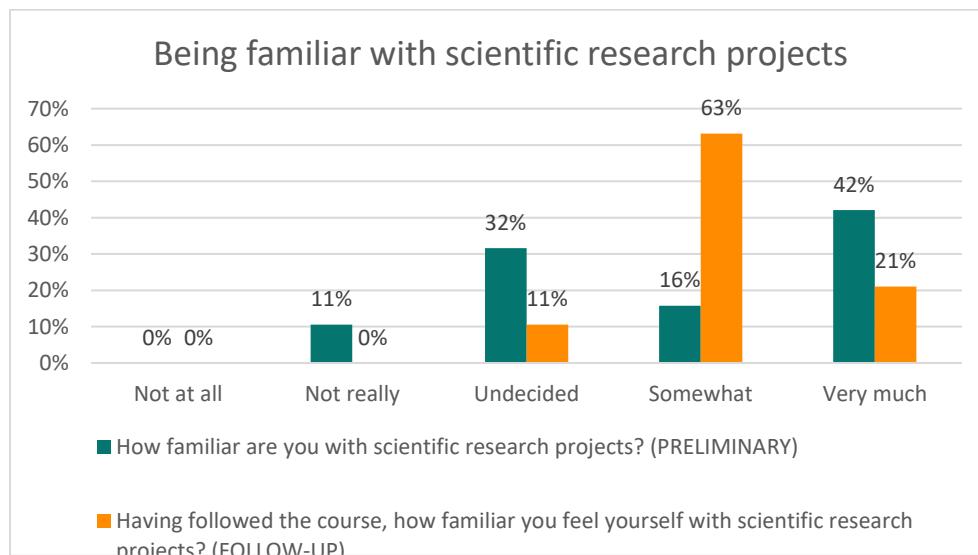


Figure 9 Comparison of familiarity with scientific research projects before and after the course (n=19)

Funding plan for research

Almost one third of students prepared previously a research plan, whereas only one made a funding plan for research before the course (Figure 10).

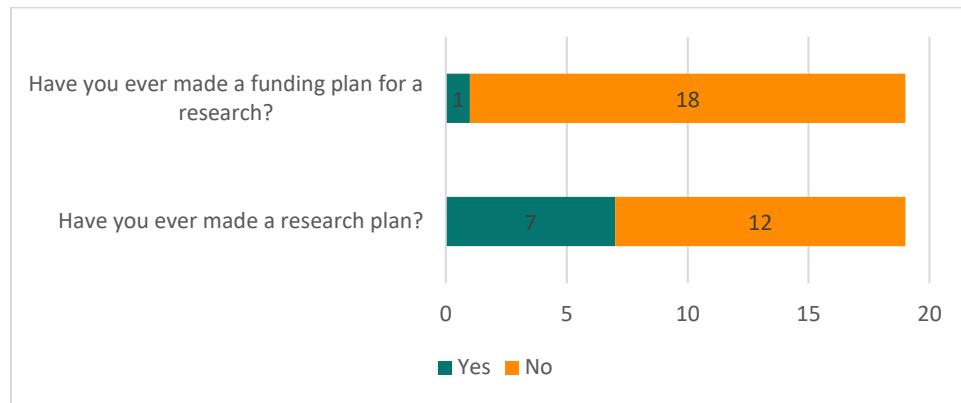


Figure 10 Students' experience before the course related to research plan and funding plan for research (n=19)

According to the self-estimation of students, a positive shift can be tracked down; regarding the formulation of a research plan 42% confirmed that their knowledge improved somewhat and 58% respondent very much. Regarding the preparation of a funding plan for research 32% stated that their knowledge improved somewhat, 47% responded very much.

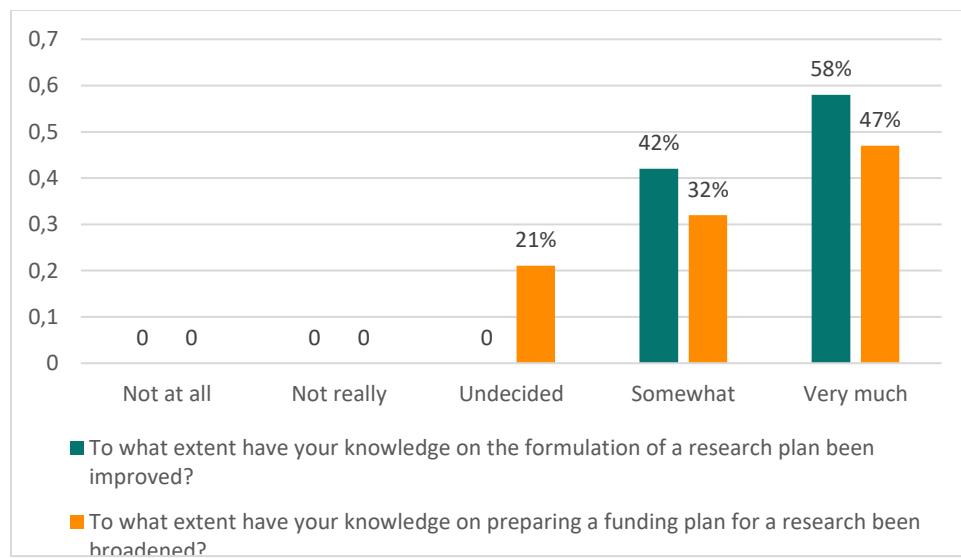


Figure 11 Improvement of students' knowledge related to research plan and funding plan for research (n=19)

Knowledge about research funding, governance and management

Students also provided a self-estimation on their knowledge about research funding, governance and management before and after the course. Figure 12 presents the answers of both surveys demonstrating an outstanding improvement. Almost all students indicated two or three higher degrees after the course.

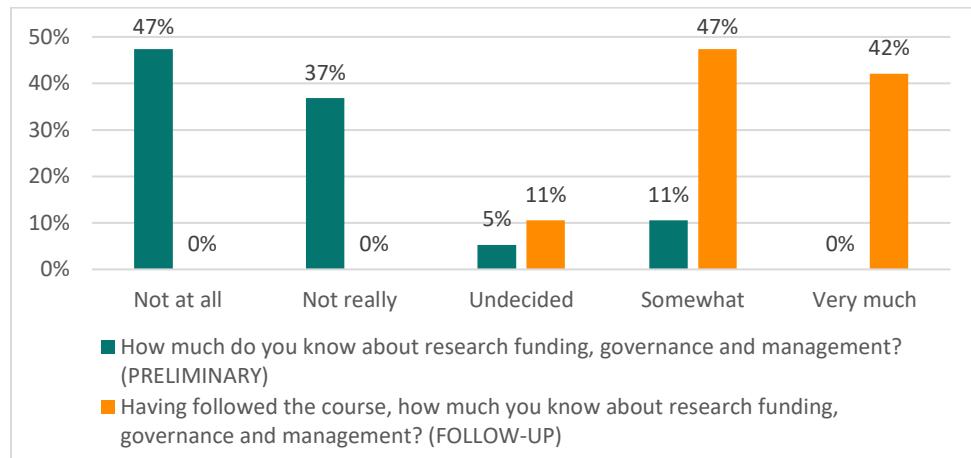


Figure 12 Improvement of the knowledge of students on research funding, governance and management (n=19)

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert scale, where 5 stood for excellent and 1 for nonexistent. The change between their own self-estimation is presented in Figure 13 where orange illustrates the number of students assessing a decrease, whereas green illustrates the number of students assessing an improvement in case of the listed skills.

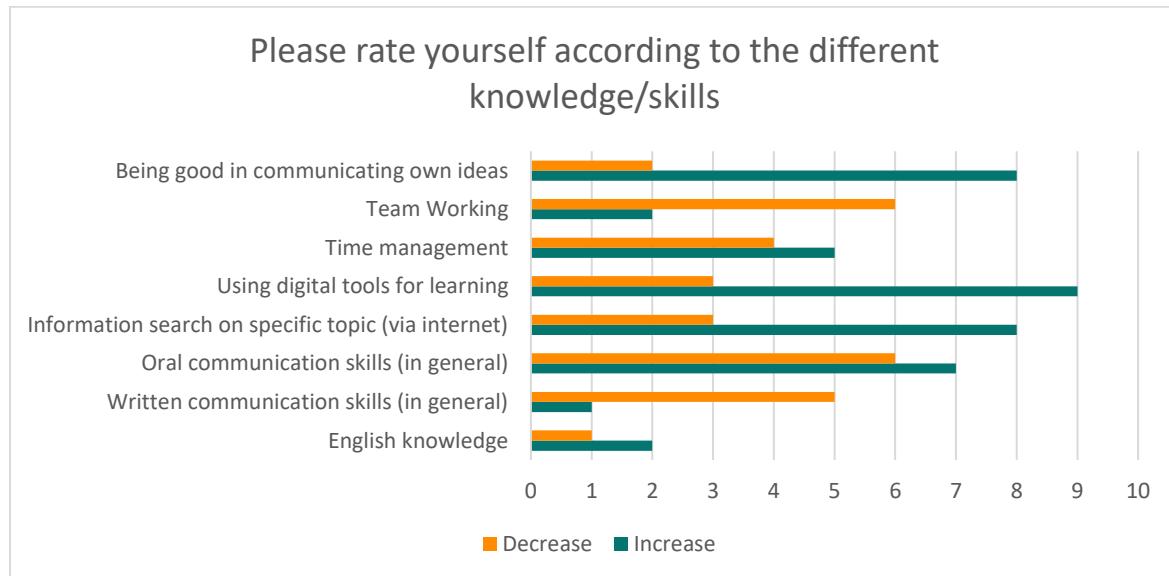


Figure 13 Self-rating of students in the different knowledge and skills related to RMA (n=19)

Generally, students gave 1 higher or lower grade in the follow-up survey. There were only a few where the difference counted to two grades. Important is to highlight those areas where most students declared a positive change, which are as follows:

- using digital tools for learning,
- being good in communicating own ideas,
- information search on specific topics,
- oral communication skills.

Nevertheless, it also must be underlined that in some cases, students declared a negative change in the following areas:

- team working,
- oral communication skills,
- written communication skills,
- time management.

Presumably, following the course they became more aware of the extent of the necessary knowledge and skills which made them more conscious. Nevertheless, it is hard to say that only the course impacted such decrease in their self-assessment, other factors, such as remote and online learning due to COVID could complement it.

The survey also asked them to elaborate whether they think that they managed to develop any skills or information necessary for RMA. Two thirds of the students confirmed that they managed to do so (Figure 14).

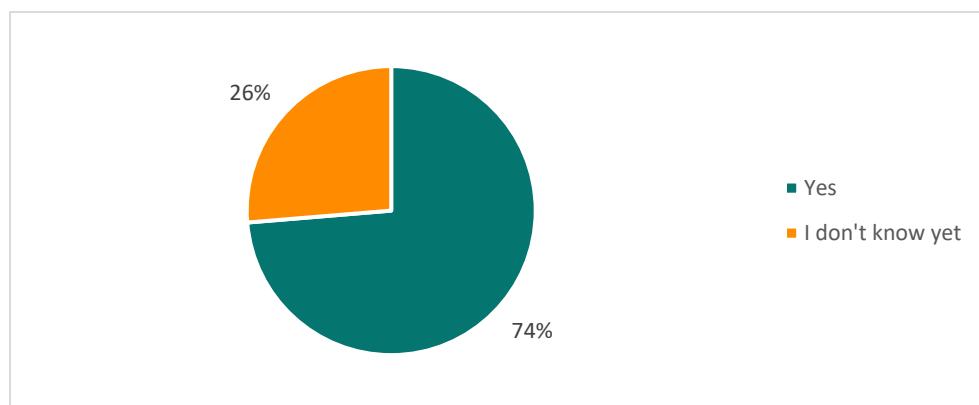


Figure 14 Improvement of any skills/information necessary for RMA according to the students' self-assessment (n=19)

In the open answer they mentioned the following skills:

- Participation skills & confidence of doing it,
- Teamwork,
- Time management,
- Finding funding opportunities,
- Presentation,
- Communication skills,
- Networking,
- Problem solving,
- Adaptability,
- Creative thinking.

So even if in their self-estimation they indicated a decrease regarding certain skills, at large, they could improve them, even if not at the level which was desired.

Registering the course next semester

Both surveys included the question whether students plan to attend the second part of the foRMAtion course next semester. However, it is hard to provide a well-established assessment for this question due to the specificity of the testing of the module: as the first course was launched during the spring semester, many of the enrolled students were in the last year of their studies and graduated during the summer. So, they had no chance to follow the course in the upcoming autumn semester. In addition to that, in the case of one partner university, the fact that the courses were held online enabled students to be enrolled from other campuses situated in other cities, which would have not been possible in case of in-person teaching.

The interviews

Following the first semester, 3 teachers were interviewed, one from each partner university. The interviews were semi-structured aiming to gather as much information as possible regarding the expectations, experiences and lessons learnt of the teachers piloting the courses. In addition, the interviews aimed to reveal the potential impact that teachers perceived, and their evaluations related to the outputs at hand.

Among the teachers teaching the foRMAtion course at the partner universities one of them had RMA background and two of them were HEI professors, researchers. None of them taught the course alone but shared the work with colleagues in various ways:

- one invited a colleague for 2 classes where specific external expertise on certain topics was necessary.

- one divided the course to lecture and more interactive sessions: in this case the interviewee hold the lectures whereas his colleague was responsible for the interactive sessions.
- and one hold the classes together with another colleague simultaneously enabling a smooth shift among the digital platforms used.

RMAs, experts and researchers were also occasionally invited at two universities as guests to whom students could address questions.

As two teachers are not working in the RMA profession, their expectations of the course included acquiring knowledge from a new field; the main expectation of the teacher with RMA background was to make the course appealing for the students and sustainable on the long run. Each of them was curious about enrolled students and their motivations; after the course, two reported positive experience regarding the commitment and engagement of their students, whereas one reported a significant dropout rate on the one hand and on the other hand an impressive development process of a few students.

According to the interviews with the teachers, short-term impacts of the course have been detected at various levels, such as the level of the students, the teachers and the institutions.

Students

Despite the online teaching environment, the small size of the classes made it possible to provide tailor-made support, as it was reported by the teachers – even if it was not the same as it could have been in case of in-person teaching. Most of the students provided regularly positive feedbacks to the teachers and as teachers reported, students understood that the classes represented opportunity for skill development through innovative tools. According to the teachers' experiences, students managed to improve many relevant skills, competencies and attitudes including oral and written communication, information screening and attention to details, leadership and self-organization, group works and networking, time management; this confirms the outcomes of the surveys completed by students and presented on figure 13 and 14. One teacher also highlighted that students improved themselves in providing constructive feedbacks, abstraction, flexibility and working in a multicultural environment. Students also highly valued the opportunity to work on projects in team, even if only virtually.

Two teachers reported that in total four students proved to be highly interested towards the profession and already sought for opportunities to train themselves for the profession, e.g., through internship opportunities following the semester which confirms the relevance of the course and the achievements of the original aims.

All teachers confirmed the success of the international class organized by the teachers from the 3 universities for all students following the course. This made a unique opportunity for students

for networking and collaboration in a multicultural environment making the students more enthusiastic about the course.

Teachers

The most important impact for the teachers was their own learning process and the piloting of the innovative teaching methods. The teacher with RMA background personally found the opportunity of talking about his/her everyday job and considered it as an interesting experience as it provided room for reflection, looking for logic and reasoning behind the daily activities. Another HEI teacher pointed out that the course was important to understand better the EU R&I funding system and the job roles of RMAs (as well as of researchers, teachers).

As regards the teaching as such, the Project Based Learning (PBL) methodology applied during the teaching necessitated a different teaching approach: instead of frontal teaching the role of the teacher became rather supportive, facilitating which was another important experiment for the teachers.

All teachers reported that they managed to improve skills and competences, including ICT skills, the use of online platforms and time management – which was especially useful during the online teaching introduced due to the COVID pandemic. Nevertheless, one underlined that the online teaching in general would necessitate even better preparedness and competences from the teachers who shall attract and engage students through “infotainment” in this teaching environment.

Each teacher reported positive experiences thanks to the engagement of students. This was visible through many ways, including the fact that generally students did not use their cameras at the classes but during these ones they did. The teacher with RMA background also highlighted the fact that thanks to class brainstorming's she became more confident, motivated and inspired for the teaching.

Two teachers highlighted the unexploited opportunity of being in continuous dialogue with other teachers from the other partner universities to discuss the experiences, exchange materials, etc. which should be overcome in the future by reinforcing a kind of Community of Practitioners for the sake of the sustainability, the impact and the high quality of the courses.

Institutions

The launching of the courses required several arrangements within each partner university, such as the inclusion of the course in accredited study programmes, the approval of the syllabi, the selection of teachers, the invitation of guest lecturer and speakers, and so on. According to the teachers' reports, all these activities generated certain interest towards the course. Two of them



reported that within the university, RMAs highly welcome the course. This was not the case regarding the third institution, due out the lack of such professionals.

Each of them noted that the attention towards the profession was raised thanks to the course; a kind of acknowledgement was started to be built toward the need of skilled RMAs and well-organized research support offices in successful proposal writing and project management.

Two teachers also underlined that the course was welcome by the leadership as contributing to an enlarged educational portfolio of the given institutions by providing a gap-filling training on an emerging profession.

Annex 2: Assessment of the second semester of the foRMAtion module

Following the second semester of the teaching of the foRMAtion module, the impact of IO2 and IO3 was measured, using two activities, namely the assessment of the preliminary and the follow-up surveys completed by students and the analysis of the interviews carried out with teachers.

The Survey

Similarly, to the first semester, students had to complete an online survey both at the beginning of the semester and at the end. Comparison of the answers collected at these two distinct moments was supposed to provide inputs for the assessment of the impact of the foRMAtion module with a special regard to the focus points of the content of the second semester. For the detailed methodology check Annex 1.

For the second semester, the respondents of the assessed survey count to 24, out of which 15 are from CUB, and 9 from NOVA. Unfortunately, students from SHUT only completed the follow-up survey which eliminated the in-depth assessment of the impact on their side. As anticipated in the end of semester 1, only two students accomplished semester 1 of the foRMAtion educational module, the rest of the students were newcomers to the course.

As regards their educational level, 23 students were following a bachelor study programme and one student was doing masters. The study background of respondents was more diverse compared to semester 1. Only 42% came from international studies or relations, 8% from European Studies. 17% were following communication and media studies, 13% business management (and administration) and 4% international business. Humanities were also represented by English teaching (8%) (see Figure 15). Similarly, to semester 1, several students spent their Erasmus scholarship at the partner universities coming from a foreign country.

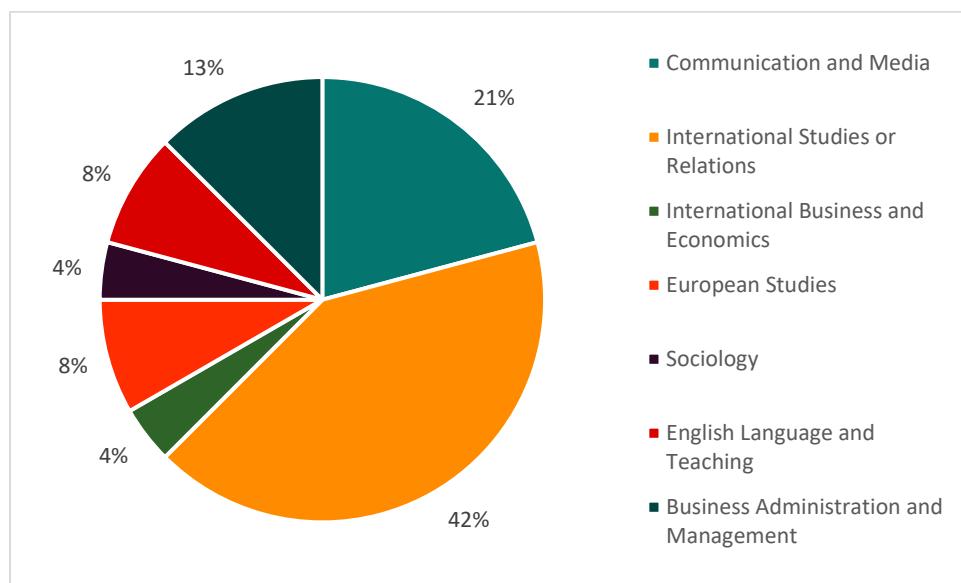


Figure 15 Students' educational programmes' scientific fields (n=24)

Expectations of students related to the RMA activity, profession and the course

The question investigating the **reason for choosing the course** allowed multiple answers (Q: *Why do you plan to attend the 'Research Manager as a profession in the EU ecosystem: concepts, tools and practice II.' course?*). While 17% of them were especially interested in the subject, 42% found it interesting and another 42% indicated that later it can be useful. Positively the two students who accomplished the first semester responded that they were especially interested in the course.

According to their initial knowledge, they found the **RMA activity interesting** due to various reasons (Q: *Why do you find the RMA activity interesting/relevant?*). Compared to semester 1, only a few students seemed to have a good understanding of profession or describing it as a potential career choice. However, one fourth of them made a connection to research in some way: they wanted either to learn more about research, doing research, developing research plans or projects and how to manage and administer them:

- “I want to learn more about research”,
- “I am interested in research in general”,
- “I find researcher as a profession really interesting, so I thought it's also useful to know something about Management and the other processes around doing research”.

Almost another one fourth of the students aimed to learn gather new knowledge or skills which can be useful:

- *"I think this activity will provide me a basic overview in research management, which could support my skills in the future"*,
- *"We need to make smaller researches for our degree and these skills will be useful"*.

Some of them connected the field to their studies, for instance to European or international studies, and therefore they found it interesting and useful:

- *"I think RMA activity is connected to my future work in international relations field"*,
- *"I guess as for the students, in my case it is International Relations, it is essential to study research management and administration. Also, it is required in many work fields"*.

Two students referred to the increasing importance of the profession, even the potential of making impact:

- *"it's a field that has an increasing importance in the modern world"*,
- *"You can make a huge difference in the world"*.

According to the responses, four students reported that previously they were in a situation when the RMA knowledge would have been useful (Q: *Have you ever been in a situation where RMA knowledge would have been useful?*). Two referred to previous job, one mentioned that it could have been an added value at a job interview, even though each of them was bachelor students – these indications can reinforce the usefulness of the activity even in the case of a group of students which have recently started in Higher Education.

Following the course, 87.5% confirmed that **they still found the RMA activity interesting and relevant** (Q: *Do you still find the RMA activity interesting/relevant?*) or even more.

Many of them got a better understanding on the profession and related activities:

- *"I did not know what to expect exactly, but this activity was really helpful and gave me a lot of knowledge on Research Management"*,
- *"I have gotten to know a lot about RMA, which was really interesting because I did not know anything about it"*.

Many of them confirmed the importance of the activity and the related knowledge:

- *"Yes, I find it extremely relevant and important. It is an activity to look for and that should be present in students and researchers' life's."*

- *"I still find this profession very appealing, and I would like to learn furthermore about the intricacies of the job".*

Some answered with yes but added that it might not be the potential career choice for him or her:

- *"Yes, definitely. I think, I consider it as even more interesting and relevant than in the beginning. Not for me personally but for the science community"*
- *"Yes, of course. Thought, I do not know if it is for me"*

Both surveys included questions investigating the extent to which students are interested in the RMA as a profession. The figure below (Figure 16) demonstrates the answers collected. Similarly, to semester one, the course managed to make the profession more appealing for students, as the number of responses saying yes increased.

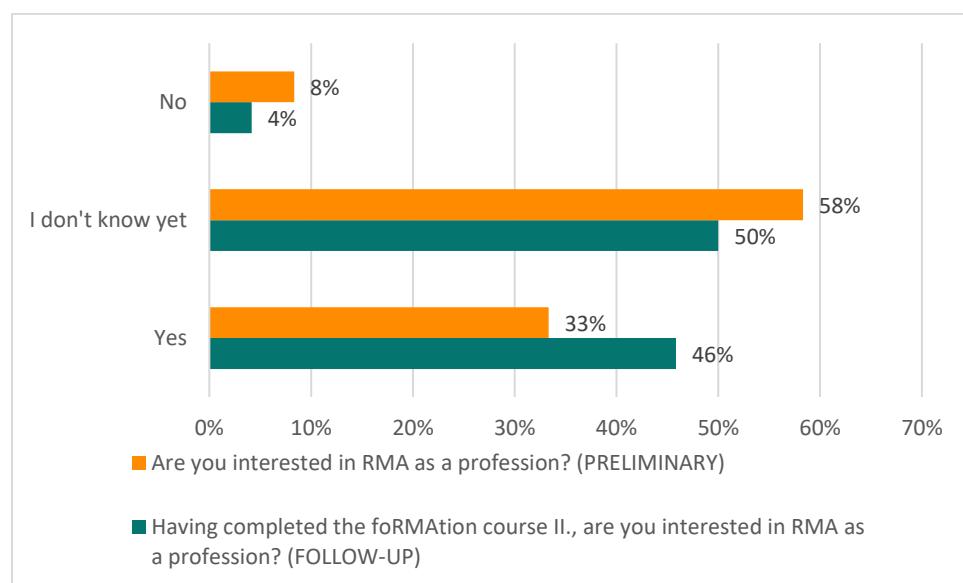


Figure 16 Students' interest towards the profession before and after the course (n=24)

The change regarding the responses of students: in five cases, students became much certain that it is a potential career choice. In two cases they become uncertain, whereas only in one case the respondent stated clearly that it is not anymore, a potential career choice (Table 2).

Table 2 The change in students' interest towards the RMA profession

Are you interested in RMA as a profession? (PRELIMINARY)	Having completed the first course, are you interested in RMA as a profession? (FOLLOW-UP)
I don't know yet	Yes
I don't know yet	I don't know yet
I don't know yet	I don't know yet
I don't know yet	Yes

I don't know yet	I don't know yet
Yes	Yes
No	Yes
I don't know yet	Yes
I don't know yet	I don't know yet
No	I don't know yet
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	Yes
Yes	I don't know yet
I don't know yet	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
Yes	I don't know yet
Yes	Yes
I don't know yet	I don't know yet
I don't know yet	No
I don't know yet	I don't know yet
Yes	Yes

Regarding previous expectations towards the course (Q: *What are your expectations towards the course?*) more than half of the students mentioned that they want to get better insights, knowledge, understanding of and relevant skills for research management and administration as such.

- “I want to understand what is meant by RMA”,
- “To learn and adapt more skills within the field of research management”,
- “I expect to learn more about basics of this work, understand and learn main strategies of it and practise it in cases during the lessons.”

However, another important group of responses were directed to gather more knowledge on conducting and planning research – which strongly corresponds to the answers for the question on the attractiveness of RMA as an activity. Accordingly, the responses included:

- “To give me a practical knowledge on research”,
- “See if I can learn and come to like research and maybe have it as a possible career”,
- “Learn how to make the whole research process”.

Besides, the strong focus of the course on skill and competence development was also mirrored in a smaller part of responses, as students indicated to gather practical knowledge and skills:

- “I would like to learn practical information and improve my skills in the field”,

- “Hopefully it could enhance my capability of team-working, as well as getting some knowledge of problem-solving”.

The follow up questionnaire inquired to what extent the course met students' expectations (Q: *How much did the course meet your expectations?*). In this semester 58% of the respondents were very much satisfied and 38% somewhat, only 4% was undecided about this (Figure 17). Ten out of 14 students indicating that the course met their expectations very much are still interested in the RMA profession, whereas four of them is uncertain about it. Opposed to them, only one student answering ‘somewhat’ regarding their expectations said that (s)he was interested in the profession, and seven were uncertain about it and one is not interested at all. Again, it can be said that those students were much more satisfied with the course who were interested in the profession.

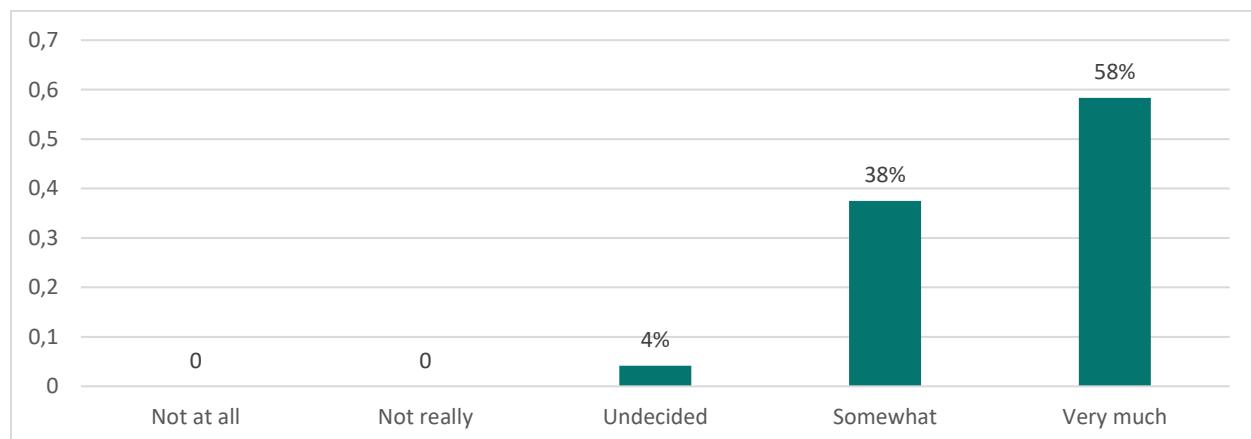


Figure 17 The extent to which the course met students' expectations (n=24)

Those saying somewhat or very much highlighted various aspects of the profession and the topics they learnt (Q: Have you learnt something particularly interesting that motivates you to go further in this direction? If yes, could you elaborate a bit?). The mentioned aspects, among others, were completely new compared to those mentioned in semester 1:

- acquiring practical knowledge, especially through the discussions with experts: “*I was very excited to talk with experts in the field that could educate me on how things work in a more practical sense in this field.*”
- acquiring the knowledge and the possible impact of RMA profession: “*I have learnt about different research and their management and have found these things very interesting and attractive, because I see real people, their work and results which improve science, society, international connections, etc.*”

- in-depth knowledge of research project management: "*the part when we were creating the project management plan and worked with the real research project and tried to understand how the whole process is done with the practical implementation of this knowledge in the HWs that we did in a groups.*"
- career opportunities in science: "I've learned a lot about science in general... I think the course encouraged me to consider a career in science or a university environment. RMA is so colourful, ..., but I think I'm not that much into Management, so common RMA positions wouldn't make me happy."
- acquiring useful skills: "*I am sure about is that several skills gained during this course will be useful for me in different fields as well.*"

Knowledge related to the topics covered

Students were asked to assess their previous knowledge and then their acquired knowledge related to topics covered by the course. Semester 2 put a particular focus on project management and integration as well as on research impact and public engagement. Nevertheless, basics of research funding, governance and management were touched upon as well.

Research Management and Administration

One student reported previous knowledge in RMA as an activity and attended project management related course(s) earlier. Another student had previous knowledge and experience related to Research Management and Administration as an activity due her/his current job. Another student attended course(s) in project management previously. When students were asked to estimate to what extent their knowledge improved on RMA as an activity, 71% said very much and 21% said somewhat (Figure 18). Those having previous knowledge in project management or specifically in research management, two responses indicated the improvement of their knowledge very much, and one responded somewhat, so even in their case the impact of the course can be tracked down.

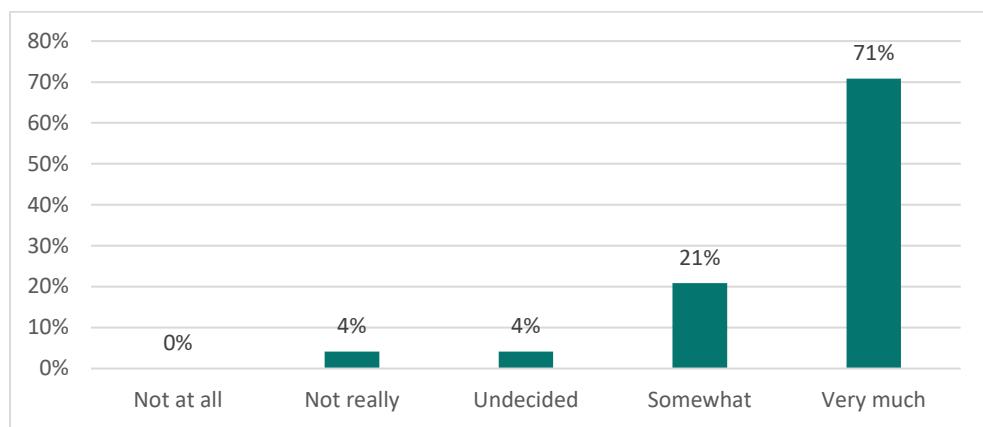


Figure 18 Improvement of knowledge on RMA as an activity (n=24)

EU research funding framework

Although some students were following international relations and/or European studies programmes, similarly to the previous semester, only two of them indicated that they had any previous knowledge related to the EU research funding framework. They gathered this knowledge by attending related courses and being involved in a project proposal. Following the second semester, 92% of respondents confirmed that their knowledge was improved in this field too (46% very much, 46% somewhat, Figure 19).

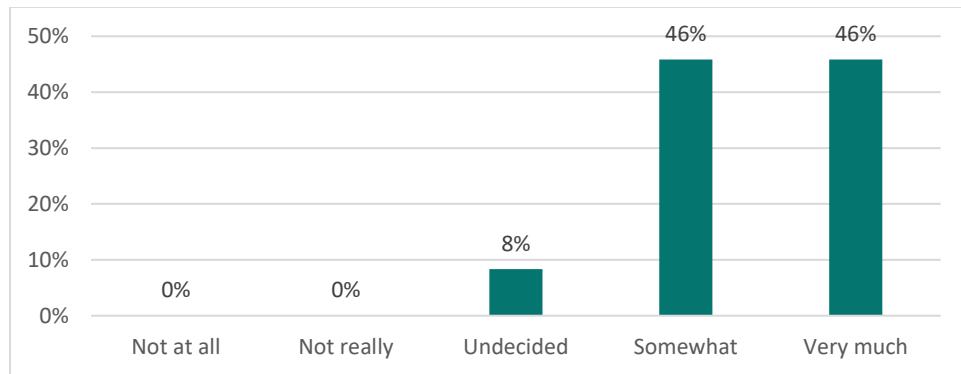


Figure 19 Knowledge improvement in EU research funding framework (n=24)

Being familiar with scientific research projects

Students had to estimate the extent to which they were familiar with scientific research projects in both surveys. Figure 20 presents the improvement which surpasses the impact measured following the first semester: both the number of responses saying, ‘very much’ and ‘somewhat’ increased.

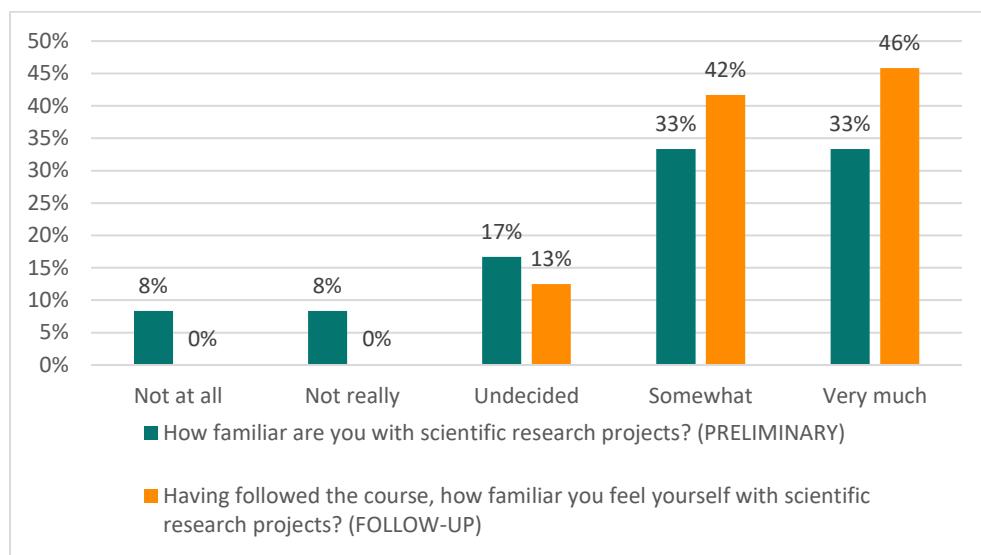


Figure 20 Comparison of familiarity with scientific research projects before and after the course (n=24)

Funding plan for research

Similarly, to semester 1, one third of students previously prepared a research plan, whereas three of them made a funding plan for research before the course (Figure 21).

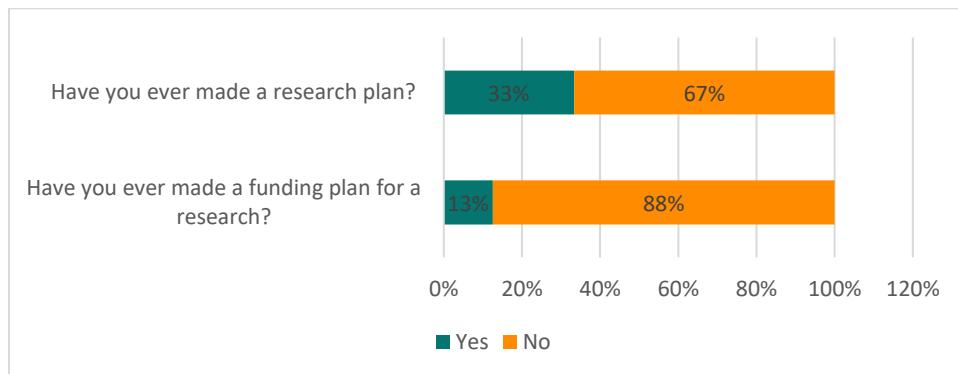


Figure 21 Students' experience before the course related to research plan and funding plan for research (n=24)

According to the self-estimation of students, in case of the research plan the improvement is striking, two thirds of them reported it ‘very much’ and almost one third reported ‘somewhat’. The knowledge increase regarding the funding plan for research was, however, more modest: one fourth of them were ‘undecided’ about the issue, whereas the rest reported an increase of ‘somewhat’ (33.3%) or ‘very much’ (41.6%). It must be added, that such improvement was possible even though the focus of the second semester was on these topics (figure 22).

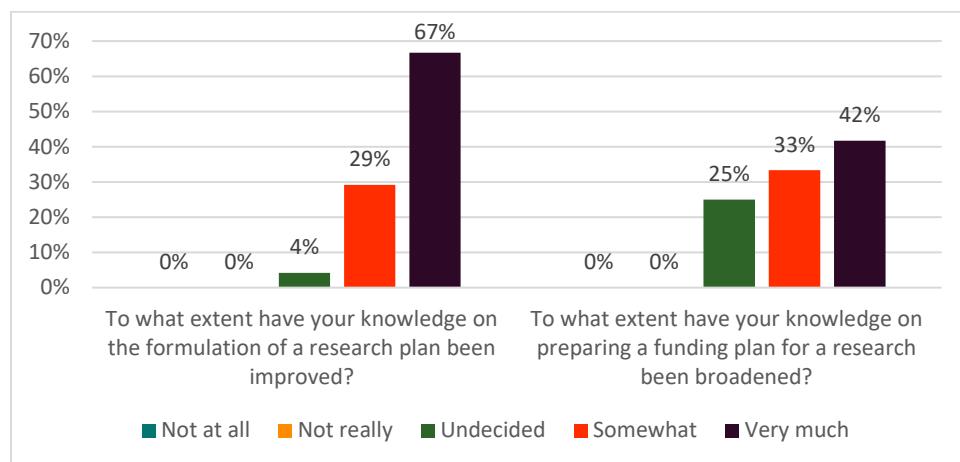


Figure 22 Improvement of students' knowledge related to research plan and funding plan for research

Knowledge about research funding, governance and management

Students were also asked to provide self-estimation on their knowledge about research funding, governance and management before and after the course. Figure 23 presents the answers of both surveys demonstrating an outstanding improvement. Almost all students indicated two or three higher degrees after the course.

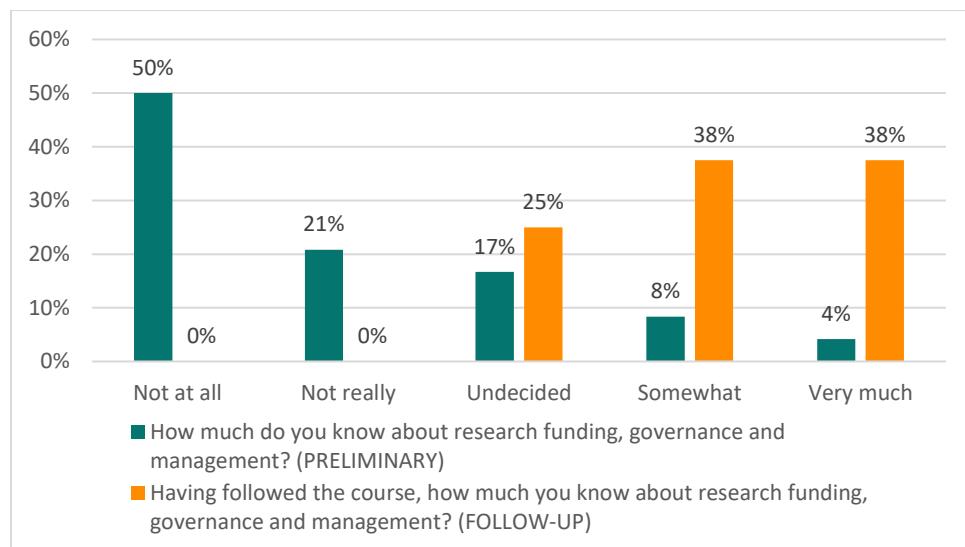


Figure 23 Improvement of the knowledge of students on research funding, governance and management (n=24)

Project management and integration

The second semester of the foRMAtion course is consisted of two modules, out of which project management and integration was the first one. Therefore, a dedicated question aimed to detect the improvement in this field as well; the responses are illustrated by Figure 24; having three fourth of the responses indicating an outstanding improvement can prove significant development.

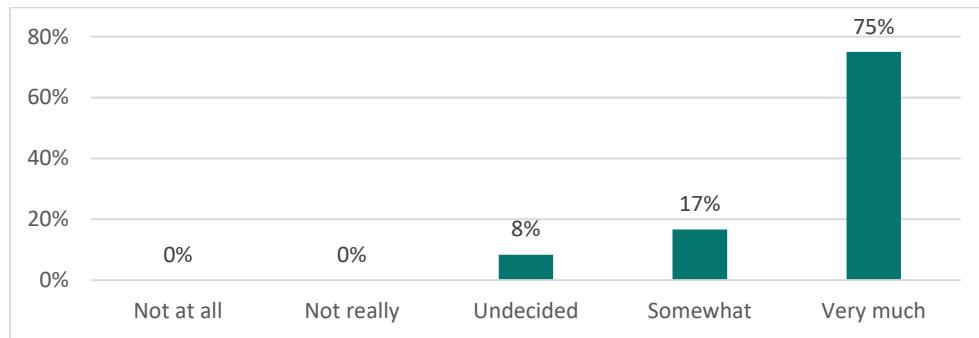


Figure 24: Improvement of respondents' knowledge in project management and integration

This impact is further underlined by the fact that even those students, who had previous knowledge in RMA and/or accomplished project management course(s) beforehand, answered 'very much'.

Research impact and engagement

The other module put research impact and engagement in the focus in the second semester. Accordingly, students were asked to estimate the level of their knowledge improvement in this topic as well. Figure 25 illustrates the improvement which corresponds very much to the previous ones.

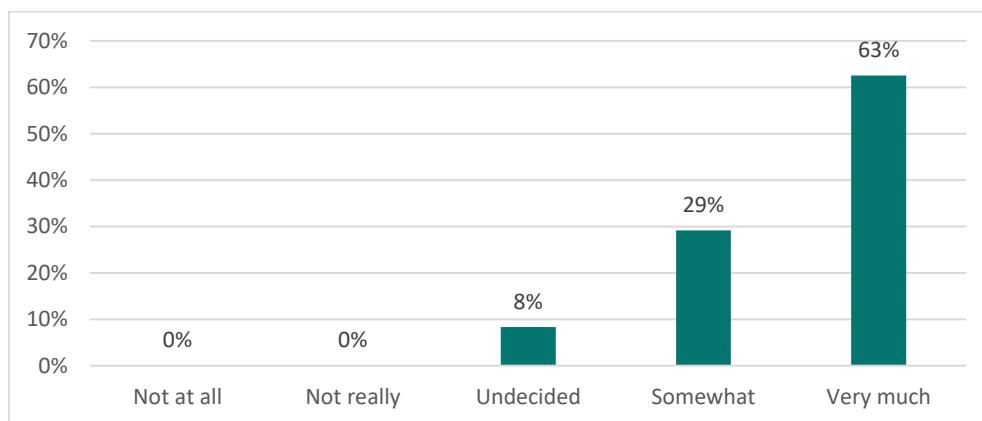


Figure 25 Improvement of students' knowledge in the field of research impact and engagement (n=24)

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert scale, where 5 stood for excellent and 1 for nonexistent. The change between their own self-estimation is presented in Figure 26 where orange illustrates the number of students assessing a decrease, whereas green illustrates the number of students assessing an improvement in case of the listed skills.

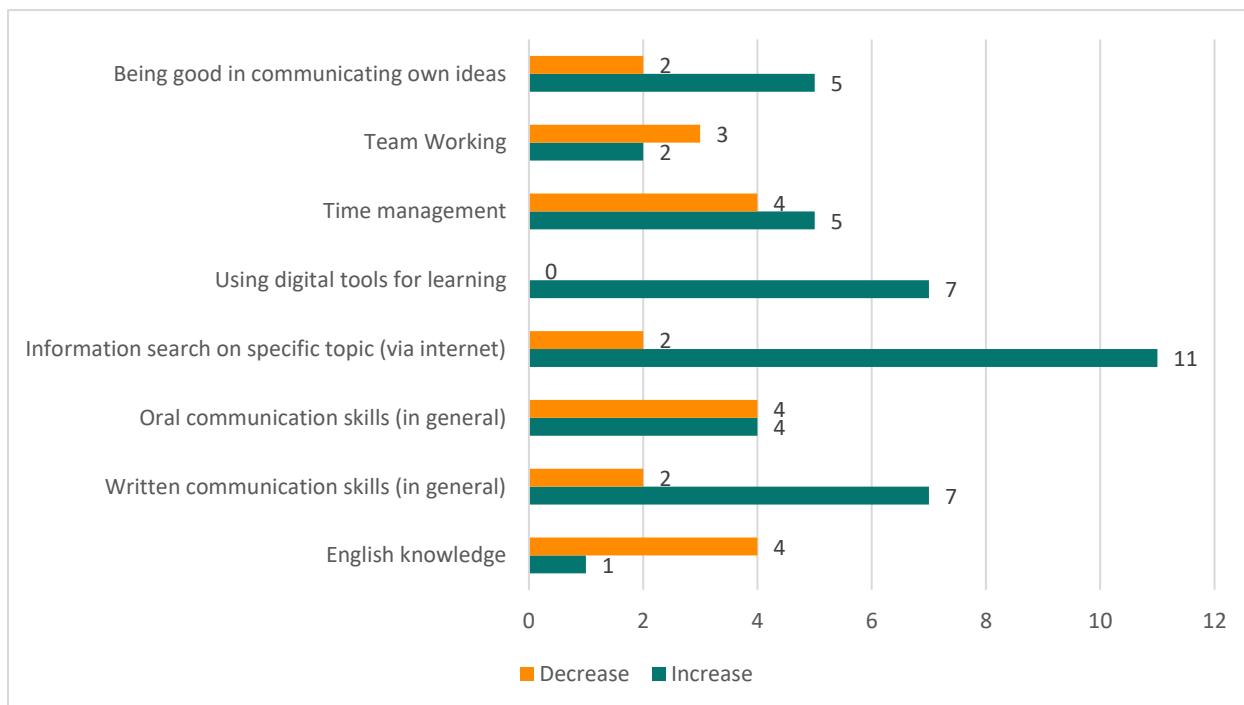


Figure 26 Self-rating of students in the different knowledge and skills related to RMA (n=24)

Generally, they provided 1 higher or lower grade in the follow-up survey. There were only a few cases when the difference counted to two grades. Important is to highlight those fields where most students declared a positive change, which are as follows:

- information search on specific topics,
- using digital tools for learning,
- written communication in general.

Nevertheless, it also must be underlined that in some cases, students declared a negative change in the following fields:

- time management,
- oral communication skills,
- English knowledge.

The results differ from those touched upon following the first semester, which is understandable both due to the different format of the classes (mostly face-to-face or hybrid instead of solely online) but also the different scope of the curriculum. Nevertheless, in case of the decrease, we can presume that following the course they became more aware of the extent of the necessary knowledge and skills which made them more conscious.

The survey also asked them to elaborate whether they think that they managed to develop any skills or information necessary for RMA. 87% of the students confirmed that they managed to do so (Figure 27).

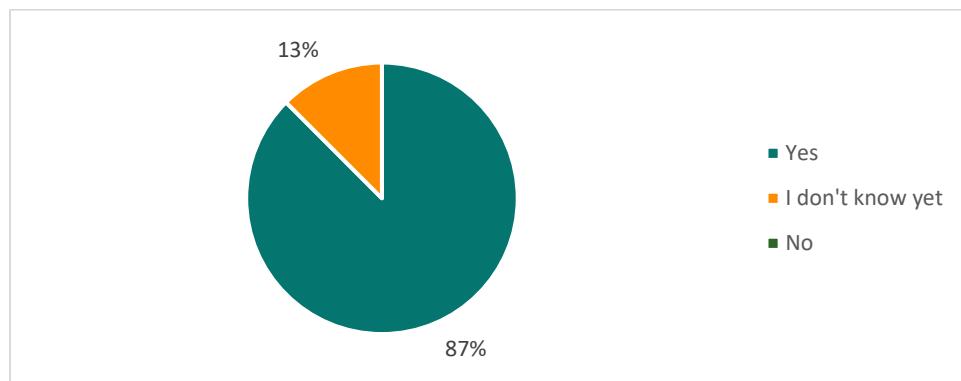


Figure 27 Improvement of any skills/information necessary for RMA according to the students' self-assessment

In the open answer they mentioned the following skills:

- Participation skills & confidence of doing it,
- Teamwork,
- Time management,
- Finding funding opportunities,
- Presentation,
- Communication skills,
- Networking,

- Problem solving,
- Adaptability,
- Creative thinking.

So even if in their self-estimation they indicated a decrease regarding certain skills, at large, they could improve them, even if not at the level which was desired.

The interviews

The background of interviewees was slightly more diverse than in case of the first semester: a teaching assistant with EU project management background, an educational methodology advisor with experience in RMA, and a research manager with experience in teaching in post-graduate programme took part from partner universities.

In the second semester the teaching format was also more diverse, universities either conducted hybrid or face-to-face classes.

The module as such was still found relevant in each country. Its flexibility even enabled the reflection on national circumstances and specificities. Regarding IO2, interviewees confirmed that the curriculum was extensive, well-structured; regarding its level of detailedness, some views differed – one missed deeper background in communication, dissemination and exploitation, another found the introductory part too broad. Nevertheless, it was agreed that due to the flexibility of the curriculum and the teaching material this can be managed.

Each teacher confirmed the relevance of the international scope of the module which should be kept following the end of the project as well; either in the frame of organizing international classes, international group works, or mini conferences, or letting students to attend conferences jointly. Any measures reinforcing the international scope would represent an added value.

Another question came up regarding the language of the teaching: in one case it was mentioned that on the local language the university could reach out more people, however, because RMAs has to work mostly in English, the knowledge they receive is the more valuable if it is in the language of the exact work.

All interviewees agreed that through the course, their goal was to effectuate quality learning experience instead of going through the whole curriculum solely – this needed, however, preparation and constant reflection on students' needs.

The second semester resulted in an important lesson learnt as well: despite the success of the module among the teachers, students, and of course, RMAs working in the institutions, partners were struggling to secure its sustainability. Therefore, the impact in this case is divided to 3

groups, those of students, teachers, and the profession itself. Lastly, some observations regarding the sustainability are also added.

Students

Similarly, to the first semester, teachers confirmed that students were enthusiastic about the course and satisfied with it. Based on students' feedback, teachers were confident that they were able to achieve their goal and realize a positive learning experience for students. This included that the basic knowledge in RMA was continuously enriched with practicalities and real-life examples. Students could also acquire project-based thinking which can be used in any future career area in life, similarly to all the knowledge which took part of the curriculum and the teaching methods.

All teachers agreed that student could develop important transversal skills, competencies and attitudes. Students could also improve several interpersonal skills, such as team working, responsibility taking, representation, evaluation. Skills directed to their personal improvement were also increased, such as self-evaluation, self-motivation and self-directed learning. Moreover, student became familiar with their definition, significance and further opportunities to develop them – in this way, the changes in skills and competences measured through the students' surveys explain the decreases.

Nevertheless, similarly to the results of the student survey, some of them realized that RMA is not the right career path for them – even if the profession as such became appealing to students and they started to appreciate professionals working in the field.

Teachers

The teaching of the foRMAtion module proved to be a continuous exploratory and learning experience for the teachers themselves as well. They reported that they acquired better knowledge in the field of innovative teaching methods, digital tools, but also in the field of European R&I funding and R&I ecosystem. Although all the courses necessitated preparation in advance, it was worth it as they could use the teaching methods in other courses as well.

Two important methodological impacts were highlighted: first, the project-based learning required a different role from teachers as they had to act as facilitators rather than educators, which also had to be learnt and practiced. Second, the project-based thinking was also relevant for teachers, not only for students.

Beyond the teaching experience as such, two teachers underlined the opportunity of broadening their network thanks to the project and getting feedback from experienced experts thanks to the continuous contacts with the advisory board.

The recognition of the profession

Two teachers highlighted that the teaching of the module provided a unique opportunity starting to thematize the issue of the RMA profession, which is important in all countries of participating universities as they are lagging not only in the recognition of the profession but even its existence. Each of them confirmed that students became motivated and enthusiastic about the profession, they got an in-depth understanding on the RMA roles and the importance of the work carried out – one teacher even added that probably the picture on RMAs became too positive and the downsides of the profession were not reflected in a sufficient manner.

Further remarks regarding the uptake

Following the first semester, interviewed teachers reported that the course had impacts on the institutional level as well: RMAs got more visibility, the management and leadership started to understand the importance of well-trained RMAs and research support offices offering excellent services. However, following the second semester, difficulties related to the sustainability of the module revealed an important drawback: if the course is held by RMAs, it might be more challenging to get the necessary support to run it. Unless someone in leadership or management position pushes through the course, RMAs cannot teach it on the long run as they should be employed as teachers, which is impossible in many cases.

This issue also came up when discussions started about the possible uptake of the module by entities beyond the partnership: even if RMAs were enthusiastic about it, to integrate the course in the university course offer, they needed the support of the academics and the leadership. This suggests, that the recognition of the profession and professionals still must overcome existing barriers within universities.

Annex 3: Assessment of the Mentorship Programme

The foRMAtion mentorship programme was carried out in the form of blended learning programme including international mobility. Six students were selected among those who accomplished the foRMAtion course at the 3 partners universities. Each of them was assigned to a mentor employed by one of the research performing organizations within the partnership – each from a different country than where the student followed the course.

The blended feature of the mobility programme included consultations before and after the mentorship: general introduction of the mentor and mentee, their expectations, the institutions hosting the mentees, as well as the formulation and then the evaluation of the work plan. In each case students designed a work plan for this period in line with their fields of interests and the fields in which their mentors were active.

The physical mobility lasted for 6 weeks when students worked at their mentor's institution for 30 working days during June and July 2022. Although, due to the pandemic, the idea of online mentoring was discussed by the partnership several time, finally the circumstances enabled the implementation of the programme in line with the original plans.

IO4 included all the annexes which were relevant for the evaluation of the programme; Annex II, III, IV and Annex V had to be completed either or both by the students and mentors. Participants were asked to provide feedback on the quality, structure, implementation, impact and usefulness of the programme. Due to the small number of participants, no major trends can be assessed regarding the programme; nevertheless, the results can showcase the changes at the individual level, which can be also important to see the possible impact.

Impact on skills and competencies relevant for RMA

Annex II Checklist of skill and competences had to be completed by the students to assess their level of skills and competences necessary for RMA field before and after the mobility programme, reviewed by the mentor to assess the improvement of the student as an impact of the blended learning mobility. Annex II included the matrix of knowledge, skills, competencies and abilities which were considered both relevant for RMAs and possibly tested during the mentorship programme. They were divided into six groups:

- 1) knowledge: English & knowledge in RMA,
- 2) performance: information search, analytical skills, written & oral communication skills, punctuality, and so on,

- 3) Teamwork and interpersonal skills: ability to work in team, ability to accept others' views, networking, and so on,
- 4) Behavioural competencies: reliability, efficiency, flexibility, openness, and so on,
- 5) Abilities: understanding others & managing responsibility,
- 6) cultural and diversity skills.

Students were asked to carry out their self-assessment in a 5-grade scale ranging from Excellent = 5, Good = 4, Acceptable = 3, Improvement desirable = 2 to Not applicable = 1. The table below presents the summary of the completed self-assessment forms before and after the blended mobility programme.

Table 3: Summary of self-assessment forms of students participating in the mentorship

Annex 2 Self-assessment form		Mentee A Before	Mentee A After	Mentee B Before	Mentee B After	Mentee C Before	Mentee C After	Mentee D Before	Mentee D After	Mentee E Before	Mentee E After	Mentee F Before	Mentee F After	TOTAL Before	TOTAL After		
Know	English knowledge Knowledge appropriate to the field	4 2	4 3	3 4	4	5 4	5 5	5 4	5 4	4 4	4 4	5 2	5 4	4.33 3.17	4.50 4.00		
Performance	Listens to and understands assignments Information search Analytical skills Written communication skills Oral Communication skills Punctuality Ability to work with deadlines Initiative and self-directedness Problem-solving IT skills (using various software and programs) Quality of work performed*	4 4 4 3 3 4 3 4 4 3	4 4 4 4 4 4 4 4 4 4	3 4 4 5 4 3 5 4 3 3	4 3 4 5 5 5 5 5 4 4	5 5 4 5 5 5 5 5 5 5	5 4 4 4 4 4 5 5 5 5	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4	4 5 4 4 4 4 4 4 4 4	5 2 4 3 4 2 3 3 4 4	5 4 4 3 3 3 3 3 3 4	4.33 3.67 3.83 4.17 4.17 4.00 3.67 4.00 3.83 4.25	4.33 4.00 3.67 4.00 3.83 4.17 4.17 4.00 3.67 4.33		
Teamwork and interpersonal skills	Interpersonal skills Ability to work in a team Ability to accept others views Effectiveness as a part of a team Ability to accept criticism/Responding to conflicts Networking	4 4 4 4 4 3	4 4 4 4 4 4	5 4 5 4 4 5	5 5 5 5 5 5	5 5 4 5 4 5	5 5 5 5 4 5	3 3 3 4 4 4	3 3 3 4 4 4	4 4 4 4 4 4	5 5 4 4 4 4	5 5 4 4 4 4	4.33 4.17 4.17 4.17 3.83 4.00	4.67 4.50 4.50 4.50 4.17 4.50			
Behavioural competencies	Reliability Efficiency Flexibility Openness Assertiveness Creativity	4 4 4 4 3 	4 3 4 4 4 4	5 4 5 5 5 5	5 5 5 5 5 5	5 4 5 5 5 5	5 5 5 5 5 5	4 3 4 4 4 4	4 3 4 4 4 4	4 4 4 4 4 4	4 2 3 4 5 4	4 3 4 4 5 4	4.33 3.67 4.17 4.50 3.67 4.50	4.50 4.00 4.67 4.50 4.33 4.50			
Abilities	Understanding others Managing responsibility	5 4	5 4	4 4	4 4	5 4	5 5	5 5	5 5	3 3	4 3	4 4	5 5	4.33 4.00	4.67 4.33		
	Cultural and diversity skills	4	4	4	5	4	5	5	5	4	4	5	5	4.33	4.67		
Avarage		3.75		4		3.89		4.18		4.39		4.90		4.64		4.81	
Difference		0.25		0.29		0.51		0.16		0.07		0.48		0.27			

In most cases, the self-estimation of students improved following the mentorship programme (highlighted in green on Table 3). This kind of positive impact is surprising, if we compare it with the assessment of the foRMAtion module. Presumably, the intensive feature of the mentorship programme, the supporting environment secured by the mentors, and the successful accomplishment of the work plan not only motivated the students but contributed to the more positive self-assessment of students.

Slight decrease (highlighted in red) is presented only in a few cases: most of them are connected to punctuality, working with deadlines (or efficiency), and oral communication skills. The

weaknesses of students regarding the first two skills were highlighted by mentors as well: almost all of them underlined that the major challenge for students was time management, which can be explained by the fact that this was the first real job experience of students, and the initial steps to learn to estimate the amount of work needed for the different assignments.

Mentors had to provide feedback related to the skills and competencies of students in Annex V including questions investigating the strength of students and their weaknesses. In general, mentors were very much satisfied with the performance, the motivation and the approach to work of students. Half of the students received excellent; the other half received very good feedback on their attitude. Each mentor reported that students met the original expectations, or even added that they exceeded them. This suggests that the selection of students was well-prepared, their approach was made in line with the programme, and their initial knowledge on RMA was appropriate thanks to the accomplishment of the module.

Among strengths, interpersonal skills, teamwork, analytical skills, flexibility and oral communication skills were mainly highlighted. All of them confirmed that during the programme they could establish good working and personal relations with students. Among weaknesses, if anything was listed, they mentioned time management, written communication skills, efficiency and critical thinking. As mentioned above, the mentorship as the first job experience of students revealed that they must develop in these fields.

Mentors as role models

Beyond evaluating the programme, Annex IV included questions focusing on the impact of the programme and the mentor on students as potential future RMAs. Students were overwhelmingly positive about their mentor. Each of them strongly agreed that the mentor helped them to understand their roles and responsibilities during the mentorship, informed them about the expectations towards their work, provided timely and constructive feedback, was an active listener. All these suggests that mentors were well-prepared for the programme and accomplished their role in an excellent manner.

In the section “Evaluation of the mentor”, students were asked whether their mentor had an influence on them to acquire career in RMA. Three students strongly agreed, two agreed with the statement. Regarding the question “(s)he acted as role model” five students strongly agreed, only one was neutral. These results underline the relevance of such programmes in the promotion of the profession, as students had the opportunity to see RMAs in real working environment, understand their work, their responsibilities and their potential impact. This may

influence their career choice in a way that they might end up as RMAs or in similar jobs within the R&I ecosystem.

When students were asked to evaluate the mentorship programme, two questions targeted to understand the impact of the programme: the first question “After participating in this mentor programme, do you feel more certain about your possible career as RMA?”, three of them agreed, while two of them was neutral (one did not reply). In case of the second question “my RMA career related skills and competences improved”, one strongly agreed, 4 agreed (one did not reply).

Main results & impressions of students

Annex III requested detailed summary from students on the mentorship programme: they had to elaborate the work carried out, the main results, main impressions, and personal impressions. each of them confirmed that the programme provided a work unique experience that they did not have before. They also highlighted the importance of real-life work environment: while during the classes they learnt about RMA in theory, now they could see the practical side of the profession. It was also underlined that having completed this programme students are better prepared to start working following their graduation, getting used to work culture and the atmosphere of a workplace.

Among the main results, most of them highlighted the improvement of the above-mentioned RMA related skills. In addition, initiation and self-directedness was underlined, accepting others' views and feedback.

Regarding the main impressions acquired, students confirmed that they got a better understanding of RMA and its importance, which either triggered them to direct their career towards it or to respect professionals in their future when working in other fields of research and innovation. They got also a better understanding of the research and innovation ecosystem, practical knowledge applicable for the management of projects, as well as relevant skills to work in teams. One, however, mentioned that (s)he is not able to imagine her/himself in RMA.

As far as personal impressions are concerned, some underlined the cultural differences both at workplace and in the hosting country in general. “Getting out of the comfort zone”, getting to know different work cultures, as well as the culture and history of other countries were outlined as the main personal impressions.

As mentors were only asked to evaluate the development of the student and the mentorship programme as such, unfortunately the impact on their professional development and experiences could not have been touched upon.

Annex 4: Assessment of the seasonal school and the online learning resources

The seasonal school was organized for the students of CORVINUS, NOVA and SHUT interested in RMA and not accomplishing the foRMAtion module. It took place in the form of blended mobility of learners with the following objectives:

1. To showcase key lessons and materials that became part of the “foRMAtion textbook” for an audience unaware of the EU R&I policy frames and the RMA profession. The participating students were asked to test them and provide feedback about how the proposed approach could be improved as well as the clarity and completeness of the provided materials.
2. To test in depth the “foRMAtion self-development” tools available on the project website: students had to provide feedback on each application to allow their further development. Students were working with the:
 - [foRMAtion online learning resources](#), including videos of the project’s YouTube channel and gamified exercises,
 - [foRMAtion self-development tool](#) and certification process, which is granted once students pass the online questionnaire.
3. To provide experience in using key concepts, techniques, and tools available to project managers to develop a proposal. The students worked together with the aim of replicating the international environment in which RMAs work.

Due to the COVID-19 pandemic, the event was postponed by more than half year, as none of the partners preferred the online option due to fact that an online event would not have been attracted students and the learning outcomes would not have been the same as it was desired in the original, face-to-face set-up. So, finally the seasonal school took place in Rome hosted by ISINNOVA between 1 and 5 April 2022 attended by 3 students from each partner university.

Similarly, to the foRMAtion educational module, the impact of the seasonal school and IO6 was assessed based on a sequential study design including an online survey before and after the blended mobility programme. The comparison of the responses aimed to touch upon the change regarding their knowledge, skills and competencies, thus the impact of the programme.

The structure of the survey followed the one designed for the educational module (see Annex 1). The preliminary survey aimed to assess the existing knowledge of students on Research Management and Administration: 1) as an activity; 2) as a profession 3) related knowledge and experiences, e.g., EU research funding framework, research plan, funding plan, project management and integration, research impact and public engagement, as well as 4) necessary skills, such as networking, communication, teamwork, use of digital tools, and so on. In some cases, students were asked to provide some explanation through open questions.

The follow-up survey included similar questions with the aim of showcasing the change in their knowledge, skills and competencies. Therefore, students had to give estimation regarding their self-development. The other part of the survey requests them to evaluate IO6 “Online foRMAtion textbook and self-development tool”.

In both surveys, most questions were closed; formulated either in yes or no type or as a Likert type of scale. The Likert type of scale was used for questions assessing the expected change in knowledge, skill and competence development, answers are gathered in this 5-grade system, where 5 stands for very much, 4: somewhat, 3: undecided, 2: not really, 1: not at all.

Although the completion of the survey was compulsory, they were not completed by all students participating at the blended mobility programme. Bearing in mind the limited number of participating students the answers gathered can suggest where further improvement is needed.

The respondents of the assessed survey counted to 10 (the preliminary was completed by 10, the follow up by 12 students), out of which 3 were from CUB, 3 from NOVA and 4 from SHUT. As regards to their educational level, 7 students were following a bachelor study programme and 3 students were doing masters. Half of the students came from international relations study programme, two from science communication, one from diplomacy and intercultural studies and one from history.

Expectations of students related to the RMA activity, profession and the blended learning programme

Both the preliminary and the follow-up survey aimed to reveal whether students were interested in RMA as a profession. Figure 28 illustrates the results depicting a positive change: the proportion of positive answers increased by 20% decreasing the proportion of uncertain answers. The only negative in both cases answer came from the student whose father works in the profession but who was certain from the beginning that (s)he could not imagine him/herself in the profession.

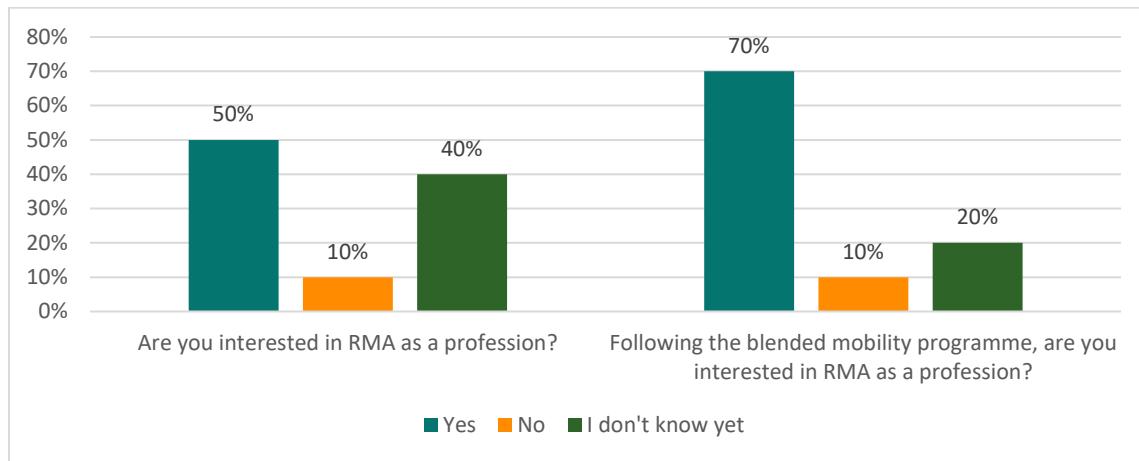


Figure 28 The change regarding students' interest in RMA as a profession (n=10)

Based on their self-assessment, the C10 seasonal school had a significant impact on their knowledge on RMA as an activity (see figure 29). None of them had previous knowledge on the topic, only one (representing 10%) mentioned being aware of the activity because the father works in the profession. Though 30% reported being not familiar with the activity at all and 50% reported being not familiar, following the seasonal school 80% confirmed that their knowledge improved very much.

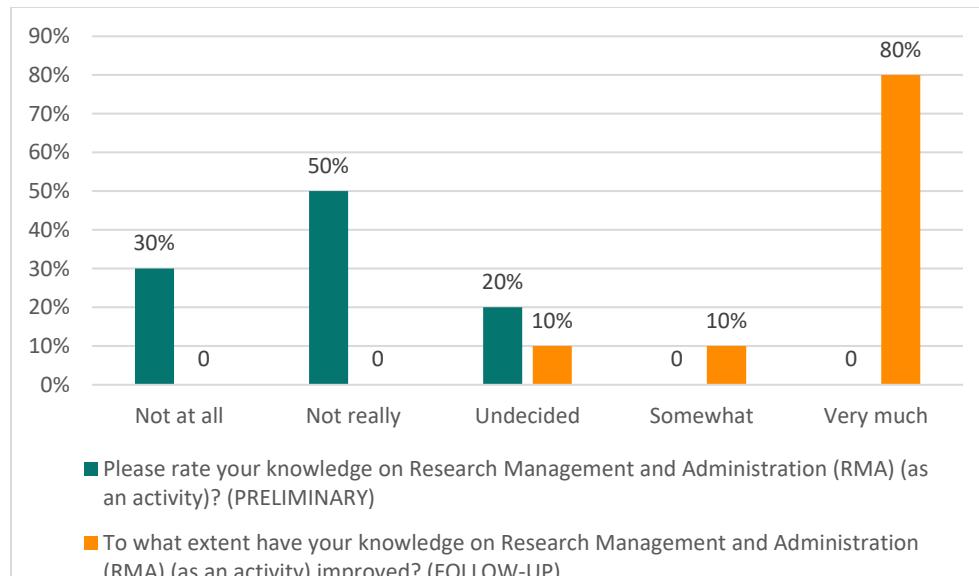


Figure 29: Change in the knowledge of students on RMA as an activity (n=10)

When students were asked to elaborate whether they learnt something particularly interesting which motivates them to go further into the field, due to the low number of responses it was not possible to showcase any trends. However, the following aspects were mentioned:

- better understanding and appreciating what RMA professionals doing, the support they provide to researchers and the practicalities within the work,
- the impressive amount of budget dedicated to EU R&I programmes and related tasks within the projects, so budgeting and financing,
- being motivated (or not in one case) to work in such international environment.

The preliminary survey aimed to touch upon the motivations and expectations of students. Few responses were shared, most of them wanted to get a better understanding of RMA as such that can be used later, either in the academic or professional career. One referred to the improvement of organization and coordination skills, whereas another expected to get knowledge on how to build up a sound research plan.

The follow-up survey aimed to get feedback regarding the satisfaction of the students with the blended learning programme. 60% of respondents were very much, 30% somewhat satisfied. Only 10% was undecided about the issue – the feedback of this student was similarly under the average in case of other questions as well.

Knowledge related to the topics covered

Knowledge improvement in the specific fields of the textbook is illustrated by Figure 30. Before the seasonal school, the most unknown fields were the “Funding plan for research” and “Research funding, governance and management”. Thanks to the seasonal school, the knowledge of students changed and were rated either as the highest or the second highest levels.

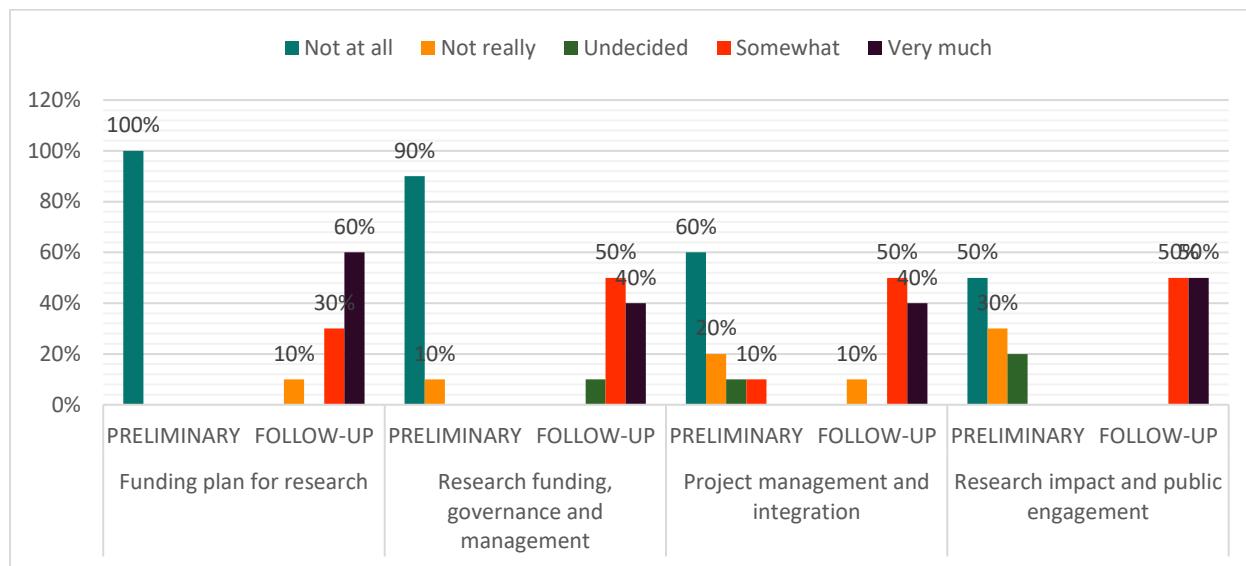


Figure 30: Knowledge before the mobility and improvement after the mobility (n=10)

The usefulness of the seasonal schools shows a similar picture: according to 60% it was very useful, whereas 30% reported somewhat useful. When they were asked to share the most interesting parts, the mentioned issues are rather diverse, however, three aspects can be highlighted: 1) the opportunity to learn from professionals, referring to the RMAs of partner institutions contributing to the programme by sharing hands-on experiences and real-life examples, 2) budgeting, funding and financial issues, 3) working in teams (which were culturally diverse).

RMA related knowledge and skills

Both surveys required an estimation of students' knowledge and skills essential for doing Research Management and Administration. The rating was done in a 5 grade Likert type of scale, where 5 stood for excellent and 1 for nonexistent. The change between their own self-estimation is presented in Figure 31 where orange presents the number of students reporting a decrease, whereas green presents the number of students assessing an improvement in case of the listed skills.

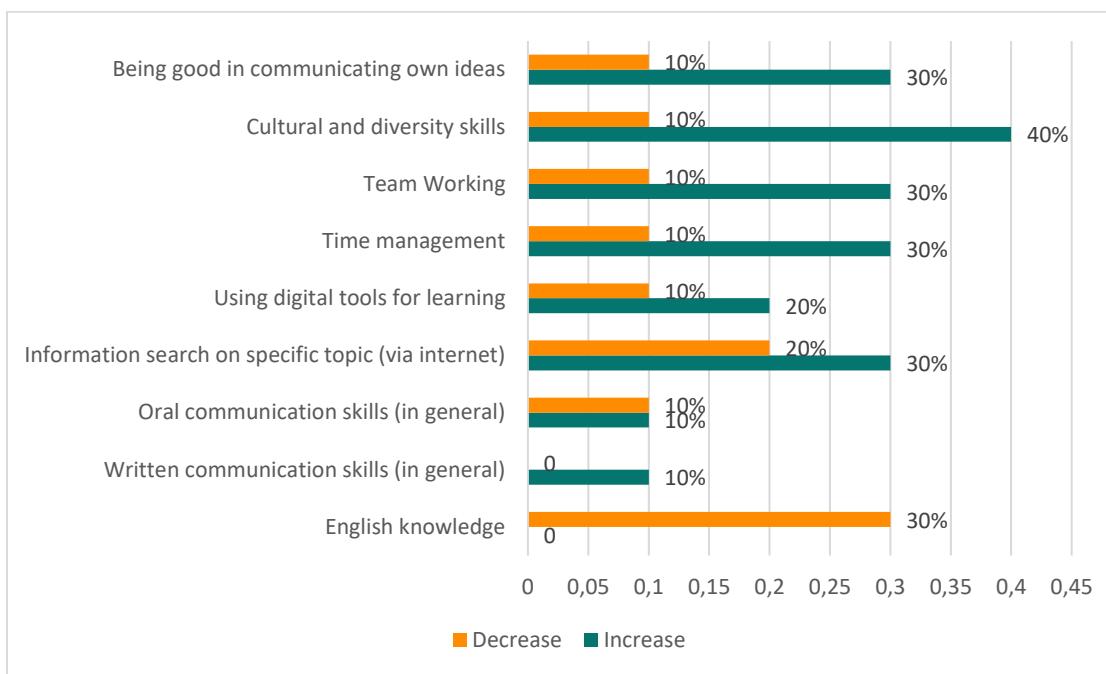


Figure 31: The change of RMA related skills according to students' self-estimation (n=10)

The most impressive positive change was measured in case of cultural and diversity skills (40% reported a better grade), being good in communicating own ideas, team working, time management and information search on specific topics (in each case 30% reported a better grade). This suggests that the activities of the seasonal school and the online learning resources could really effectuate positive impact on students. Negative change was reported by 30% in case of English knowledge, which suggests that during the intensive blended programme students were faced that their language skills could be improved, and they were not at the desired level so far.

In addition, when students were asked whether they could improve any skills/information necessary for RMA, 70% confirmed and 30% were uncertain about that. Those confirming the statement could explain their choice in the form of short answers. Teamwork was highlighted in most cases followed by cultural and diversity skills which corresponds to the unique feature of the seasonal school enabling the joint participation of students from 3 different countries and engaging them in an intensive, 5-day long training.

Following the seasonal school, students were asked whether they were interested in RMA as a profession. 50% confirmed their interest – all of them confirmed previously that they could improve skills and knowledge related to RMA. 40% were unsure, whereas 10% added that (s)he is not interested as (s)he cannot imagine working in the profession.

These results suggest that once students get a broader overview and some practical knowledge in the field of RMA, at least half of them remains interested to the field – even if not as an RMA but using the knowledge and expertise in other fields of live. Another important outcome that almost everybody who gets insight into the daily life of practitioners, start to appreciate them and recognize their expertise and profession. Based on this the importance of any programmes raising awareness on and giving introduction to Research Management and Administration has relevance on the long way leading to recognition.

Annex 5: Assessment of the project as a whole

Qualitative indicators

The quality assurance of the project was an ongoing activity: started by forming and internal quality assurance team and subcontracting an external expert. This was followed by the elaborated of the quality assurance plan (QAP) which was part of the foRMAtion Management Handbook. The QAP included the methodology, the process, the timeline, as well as the templates of documentation. Both the mid-term quality assurance report and the final quality assurance report was elaborated as planned providing feedback from an outsider on the progress of the project, the achievements and the quality, in line with the original plans.

In general, it can be underlined that the project implementation was successful, in most cases it not only reached the original goals but went far beyond them. By building on a complex approach, developing innovative outputs and activities, after its first year, foRMAtion became a flagship initiative within the RMA community. The more professionals, teachers, students, institutions and associations become aware of the project, the more they wanted to get engaged. The extensive work of partners paired with their enthusiasm to develop high quality and broadly useable outputs raised significant attention from target groups and relevant stakeholders as soon as the first outputs were shared with the public.

Two major issues can be highlighted, however, affected the project implementation in a negative manner, and which necessitated additional efforts from the coordinator to ensure that the project reaches the original goals:

- 1) COVID-19 pandemic: the pandemic and the general close-downs started six months after the beginning of the project, which practically meant that following the first two half-yearly meetings and events, partners had to switch to online working process without having any idea when it would be possible to continue the implementation in line with the original plans. The investigation of the feasibility of organizing events and programmes, the consultation with the partnership and with the National Agency, the development of various scenarios to ensure the delivery of the originally planned activities and outputs, required enormous investment on the side of the coordinator and the partnership as well.

As a result, some activities were shifted online (teaching of the first semester of the foRMAtion module or the C3 Mentors Training) but some were postponed (C4-9 Mentorship Programme, C10 Seasonal school) half or one year later as the partnership

insisted on keeping their originally planned format. This required, however, that the project was postponed by 4 months. Nevertheless, based on the feedbacks and the indicators collected, the postponement was reasonable and met the original expectations.

- 2) **BUDGET:** The limited budget of Erasmus + KA2 projects, the fact that the project was approved with a decreased budget, as well as the lack of dedicated budget line for communication and dissemination required an important amount of additional investment from all partners, especially from the coordinator and the partner responsible for communication and dissemination. Budget reallocations from the transnational meeting budget line to intellectual output budget line could partially compensate the additional resources of partners, which necessitated that the coordinator had to continuously motivate partners to ensure that all the activities are running smoothly, and each partner fulfils its obligations. Meeting the high requirements of the Programme regarding communication and dissemination activities would require dedicated budget line.

Nevertheless, the project at large effectuated significant impact on various groups.

Impact on participants

- 1) During the teaching of the foRMAtion module, students received significant knowledge on EU funded R&I programmes and projects. The PBL approach and informal training methods enabled them to develop their skills, competences and abilities. The course raised their interest towards the RMA profession, and some already looked for internship opportunities in the field. Similarly, students participating at the seasonal school gathered important knowledge in RMA and could improve several related skills, including cultural & diversity skills, teamwork, communicational skills. Students in the mentorship programme got a glimpse on real-life working environment, practical knowledge in RMA. They could also improve several skills, especially time management, efficiency, and communication skills.
- 2) The teaching of the foRMAtion module enabled teachers to broaden their knowledge on EU funded R&I programmes and projects. Both IO3 and C2 events made them familiar with new, informal and project-based teaching methods, innovative and digital teaching tools. Thus, they could develop several skills and competences. They also became connected with professionals of the European RMA community which enlarged their network and opened new opportunities for learning and carrier development.
- 3) Appointed mentors participating the C3 event got a clue on how to be a good mentor, develop their carrier and enforce their leadership skills. During the mentorship

programme they guided and supported their mentees in an excellent manner. They could act as role models making the students motivated towards the career.

- 4) RMAs from partner universities engaged in the teaching could develop their knowledge, skills and competencies too. RMAs from partner research organizations benefited from the knowledge gathered through IO1, IO2 and IO4.

Impact on participating organizations

Thanks to the complex approach of foRMAtion, the development of each activity and outputs is strongly built on each other. This necessitates that partners continuously work together resulting in several important lessons learnt as well as the development of new knowledge. Due to the direct involvement of the Advisory Board, each partner can broaden their network and learn in-depth from the experiences of the international R&I community. Thanks to dissemination activities, each partner had the chance to reinforce their international visibility and recognition.

The project became a reference point not only in the RMA community, but also for EU policymakers: two partners (HETFA, NOVA) became members of a consortium of a new project called RM ROADMAP funded by Horizon Europe providing capacity building, knowledge development and networking opportunities for RMAs across Europe. In parallel, the European Commission published 20 Actions reinforcing the European Research Area. Among them, Action 17 wants to strengthen the strategic capacity of Europe's public research performing and funding organisations as the EU wants to respond to and develop solutions for the issues that research managers and administrators (RMAs) in Europe face. Accordingly, the European Commission envisions the strategic capacity of RMAs to be strengthened by building capacities in four key areas: Upskilling, Recognition, Networking, and Capacity Building. The project foRMAtion is mentioned as one of the previous, key initiatives in the field.

Besides, HEIs got access to new teaching techniques and materials, and could launch a new complex module to improve their course offers. Thanks to the involvement of research institutions, the curriculum became better aligned to the needs of the labour market and foster interaction between education and R&I. Moreover, at NOVA University of Lisbon, the foRMAtion module was awarded with the Blended Learning Award which is an important recognition coming beyond the RMA community.

Research institute partners could get acquainted with new methods and working practices related to research management, expand their network and increase their competitiveness.

Impact on target groups

1) RMAs and RMA associations:

Beside the directly involved participants, foRMAtion aims to reach out professionals and support their knowledge, skill and capacity development. Thus, social media activities and presentations delivered at various events raise attention on those outputs which are open for the wider public too. As a result, several inquiries and feedback have been already received highlighting their usefulness even for professionals.

2) HEIs beyond the partnership:

The project has been already presented at various fora gathering universities highlighting the innovative approach especially of IO2 and IO3. Since foRMAtion is a gap filling initiative especially in countries of Central and Eastern Europe, discussions have started about the possible adoption of the formation module with several institutions. Besides, the Coordinator and NOVA started discussions with HEIs beyond Europe (US and South Africa) where RMA training courses or educational programmes are already in place to exchange knowledge and identify the possibility of developing joint activities.

Impact on other stakeholders engaged

Thanks to the opening up measures following the pandemic, the Multiplier Events could have been organized in the last year of the project. This enabled the partnership to mobilize and engage all relevant stakeholders, from policymakers to HEIs, RPOs, RMA associations, related projects, and so on. Thanks to the possibility of organizing hybrid events, stakeholders beyond Europe (from Canada, US, South Africa, Australia) could take part at the event enriching the presentations and discussions. Their interest in the project in general, but also in joining the trainings and alliances underlines the relevance and their gap-filling role of foRMAtion outputs. In addition, relevant stakeholders were mainly reached out by a huge number of presentations at events organized beyond the partnership. Each occasion proved to raise interest towards the project and delivered outputs and resulted in additional invitations to present the project and discuss about its objectives and possible areas for development with researchers, institution leaders, National Contact Points, etc.

Annex 6: Research data management

In line with the principles of the Erasmus + programme, both the foRMAtion outputs and the related research data is freely available.

Necessary data for the elaboration of IO7 were collected in compliance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC General Data Protection Regulation (hereinafter: GDPR) and other relevant legislation. HETFA as a controller attach great importance to the protection of personal data.

Participation in the surveys and interviews were voluntary and the data is treated confidentially and is not forwarded to any third parties. No one was obliged to provide personal data and their lack did not result in any consequences. One could revoke its participation at any time and request to delete its data from the person responsible for the survey and the interviews. Consent was asked both from the respondents of the survey and the interviews. Only appropriate staff from HÉTFA who were involved in the research could access them. The data provided directly is kept until maximum 5 years after the end date of the project.

For the research and the assessment, data were anonymised and made available at figshare:

<https://figshare.com/projects/foRMAtion IO7 impact assessment/156500>

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