

SEZNAM AKTUALNIH RAZPISOV

Naslov razpisa	Objavljeno	Rok	Shema/Financer	Raziskovalno področje
Digital Europe Programme: Specialised education programmes or modules in key capacity areas	29. 09. 2022	24. 01. 2023 do 17:00	Evropska komisija	Digitalna tehnologija
ERASMUS Programme European Universities - Development of new deep institutional transnational cooperation	04. 10. 2022	31. 01. 2023 do 17:00	EACEA - Izvajalska agencija za izobraževanje, avdiovizualno in kulturo	VSA raziskovalna področja
EU4 Health Programme (EU4H) Call for proposals on prevention of NCDs - cardiovascular diseases, diabetes and other NCDs	15. 09. 2022	21. 02. 2023 do 17:00	Evropska komisija	Javno zdravje
Javni razpis za sofinanciranje slovenskega dela dvostranskih ali tristranskih skupnih raziskovalnih projektov Weave, kjer NCN (Narodowe Centrum Nauki) deluje v vlogi vodilne agencije za obdobje 2023-2028	26. 09. 2022	15. 12. 2022 do 14.00	ARRS	VSA raziskovalna področja
Javni razpis za (so)financiranje gostovanj pri vodjah ERC projektov za obdobje 2023-2025	26. 08. 2022	30. 10. 2024 do 14.00	ARRS	VSA raziskovalna področja
Better understanding of citizens' behavioural and psychological reactions in the event of a disaster or crisis situation	30. 06. 2022	23. 11. 2022 do 17:00	Evropska komisija	Zdravje in umetna inteligenca

AI for human empowerment (AI, Data and Robotics Partnership) (RIA)	16. 06. 2022	16. 11. 2022 do 17:00	Evropska komisija	Družboslovje in humanistika, umetna inteligenca
Marie Skłodowska-Curie Action: MSCA Doctoral Networks 2022	03. 05. 2022	15. 11. 2022 do 17:00	Evropska komisija	VSA raziskovalna področja
Javni razpis za sofinanciranje priključitve organizacij k izbranim projektom – HOP ON shema Projekti, ki iščejo partnerje za vključitev v okviru HOP ON sheme: 1. Risk and Resilience in Developmental Diversity and Mental Health 2. Reducing the impact of major environmental challenges on mental health 3. Clinical validation of Artificial Intelligence for providing a personalized motor clinical profile assessment and rehabilitation of upper limb in children with unilateral Cerebral Palsy 4. HUMAN-ROBOT SENSORIMOTOR AUGMENTATION - WEARABLE SENSORIMOTOR INTERFACES AND SUPERNUMERARY ROBOTIC LIMBS FOR HUMANS WITH UPPER-LIMB DISABILITIES 5. CoreSense: A Hybrid Cognitive Architecture for Deep Understanding	27. 01. 2022	10. 11. 2022 do 17:00	Evropska komisija	Duševno zdravje Duševno zdravje Fizioterapija in umetna inteligenca Fizioterapija in umetna inteligenca Fizioterapija in umetna inteligenca

PODROBNEJŠA PREDSTAVITEV AKTUALNIH RAZPISOV

Razpisi, ki štejejo kot pogoj za pridobitev stabilnega financiranja (iz ZZrID) so navedeni v Programu HORIZON EUROPE.

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Digital Europe Programme (DIGITAL)

1. Specialised education programmes or modules in key capacity areas

TOPIC ID: DIGITAL-2022-SKILLS-03-SPECIALISED-EDU

General information

Programme

Digital Europe Programme (DIGITAL)

Call

[Advanced Digital Skills \(DIGITAL-2022-SKILLS-03\)](#)

Type of action

DIGITAL-SIMPLE DIGITAL Simple Grants

Type of MGA

DIGITAL Action Grant Budget-Based [DIGITAL-AG]

Deadline model

single-stage

Planned opening date

30 September 2022

Deadline date

24 January 2023 17:00:00 Brussels time

Topic description

Expected Outcome:

Outcomes and deliverables

Gains from Investment in key capacities can only materialise if there are enough people to design, deploy and use them. At present, [all Member States face shortages of digital specialists](#) and the training opportunities in digital areas are missing in the EU, compared to other countries. Specialised courses, such as Master's courses in domains like Artificial Intelligence are not uniformly available in all Member States and concentrated in some regions.

The action will contribute to expand the education offer across Europe, by increasing the number of courses, jointly designed by universities from different Member States and associated countries together with excellence centres and businesses active in the domain. The impact will be twofold: an

increase of courses offer all over the EU and the development of dynamic digital ecosystems where academic excellence, research and innovative industries work together to attract and retain the best talents worldwide.

Objective:

The action aims at increasing and improving the offer of education programmes and the number of students specialised in key capacity areas. The offer will be expanded in terms of geographical distribution (including outermost regions and other disadvantaged regions), number of opportunities and relevance to latest technological developments. The actions also aim at supporting more inter-disciplinary courses that can equip professionals with relevant advanced digital skills and increase diversity among students and future digital experts (for example data analytics skills for professionals in different sectors). The action will support cooperation between higher education institutions and the private sector, together with research and excellence centres in digital technologies, including those funded in the other actions of the programme. The goal is to encourage organisations to work together and develop ecosystems of excellence able to train, attract and retain the best digital talents, including by contributing to closing the gender gap in these fields (latest available [data from ESTAT](#) report that women represent only 18.5 % of ICT specialists in the EU). This action will contribute to the implementation of the Digital Education Action Plan 2021-2027.

Scope:

The chosen projects shall design and deliver a tertiary degree education programme of 60, 90 or 120 academic credits (The European Credit Transfer and Accumulation System - ECTS). The calls in the first two years will address the following topics: Data, Internet of Things (IoT), AI, Blockchain, cybersecurity, HPC, quantum, among others and interdisciplinary courses, including the teaching of the above areas in a non-ICT education field (e.g. AI applications for agriculture or cybersecurity and law etc..). Proposals can address only one technological areas, or more, or only one inter-disciplinary programme, with a specific focus on one sector. Tertiary education institutions in consortia with relevant competence and excellence centres and industry will receive funding to set up and strengthen excellent courses in the above areas. Partners in these consortia will be encouraged to share expertise, facilities, staff and learning material Inter-sectorial mobility between Higher Education Institutions and the private sector is also encouraged. These courses need to reflect the latest state of the art of the technologies, provide opportunities to students to have access to laboratories and testing and experimentation facilities and making use-where appropriate- of the EU data spaces. They will also make use of digital technologies to provide learning experiences that are flexible in time, scope end place, as appropriate. Activities to exchange on good practices to involve and interact with external stakeholders will also be encouraged. Particular attention shall be given to aspects such as green application and environmental impact of these technologies. The projects should also aim at increasing diversity among participants to the courses and ensure that experts will be trained to detect and prevent bias in the future developments.

The following activities can be eligible for funding, among others:

- partnerships for higher education institution, research/excellence centres in digital technologies and innovative businesses. They will need to be sustainable over time and show a high degree of integration. Actors involved in the partnership will need to define a common education and training agenda that could result not only in an improved offer for students, with clear learning outcomes, but also increase their international attractiveness; adequate measures of quality assurance and quality monitoring, as well

as activities leading to mutual learning and exchange of good practices, will be implemented;

- upgrading technical equipment, to ensure that students have access to the latest technologies available in the market and improve facilities, as well as explore innovative ways to use technology in teaching and learning;
- tackling the shortage of teaching staff and providing access to high quality teaching; incentives could be provided for professors, experts and top researchers in digital areas to contribute to the teaching activities;
- providing support to students, via scholarships or fee waivers in order to allow everyone to have access to high-quality education in digital areas and to increase diversity in education and research.

More about call: [Advanced Digital Skills \(DIGITAL-2022-SKILLS-03\)](#)

Erasmus+ Programme (ERASMUS)

1. European Universities - Development of new deep institutional transnational cooperation (Topic 2)

TOPIC ID: ERASMUS-EDU-2023-EUR-UNIV-2

General information

Programme

Erasmus+ Programme (ERASMUS)

Call

[European Universities \(ERASMUS-EDU-2023-EUR-UNIV\)](#)

Type of action

ERASMUS-LS ERASMUS Lump Sum Grants

Type of MGA

ERASMUS Lump Sum Grant [ERASMUS-AG-LS]

Deadline model

single-stage

Planned opening date

04 October 2022

Deadline date

31 January 2023 17:00:00 Brussels time

Topic description

Objective:

The 'European Universities' initiative is part of the 'Partnerships for Excellence' support provided in the framework of the new Erasmus+ Programme. This initiative has an ambitious mandate aimed to trigger and deepen unprecedented levels of institutional cooperation between higher education institutions, making it systemic, structural and sustainable. It aims to encourage the emergence of bottom-up alliances of universities across Europe, which will enable students to combine studies in several countries.

In line with the priorities of the European Education Area by 2025, these European Universities intend to:

- Promote common European values and a strengthened European identity by bringing together a new generation of Europeans able to cooperate within different cultures, languages, and across borders, sectors and academic disciplines;
- Reach a substantial leap in quality, performance, attractiveness and competitiveness of European higher education institutions, and contribute to the European knowledge economy, employment, creativity, culture and welfare by making the best use of innovative pedagogies and striving to make the knowledge square a reality. 'European Universities' will be key drivers to boost the quality of higher education and where possible to strengthen its link to the research and innovation landscape in Europe and its outreach towards the society and economy.

To achieve this, the present call **Topic ERASMUS-EDU-2023-EUR-UNIV-2 (Topic 2)** will provide support for applicants wishing to establish **new deep institutional transnational cooperation in a new 'European Universities' alliance**.

More about call: [European Universities \(ERASMUS-EDU-2023-EUR-UNIV\)](#)

EU4 Health Programme (EU4H)

2. Call for proposals on prevention of NCDs - cardiovascular diseases, diabetes and other NCDs

TOPIC ID: EU4H-2022-PJ-11

General information

Programme

EU4 Health Programme (EU4H)

Call

[Action Grants 2022 - second wave \(EU4H-2022-PJ-3\)](#)

Type of action

EU4H-PJG EU4H Project Grants

Type of MGA

EU4H Action Grant Budget-Based [EU4H-AG]

Deadline model

single-stage

Opening date

15 September 2022

Deadline date

21 February 2023 17:00:00

Topic description

ExpectedOutcome:

POLICY CONTEXT

NCDs are responsible for 87% of the disease burden in the Member States and improved health promotion and disease prevention can reduce the prevalence of NCDs by as much as 70%. The costs of treating NCDs are high and expected to grow further, also considering the Union's aging population. COVID-19 has shown that NCDs can dramatically increase the negative impact of other diseases; the childhood obesity rate was included in the Commission's strategic resilience dashboard; the economic case for prevention has been made by the OECD.

Cardiovascular diseases and diabetes are leading causes of death globally. While behavioural risk factors are key to preventing these diseases (and are addressed by other actions in this work programme), other complementary, specific and targeted public health measures can prove essential to reduce their associated burden. Among others, voluntary cooperation on hypertension, primary care or testing or screening may play a role in dealing with these challenges.

To support Member States in reaching the health targets of the United Nations 2030 Agenda for Sustainable Development and its goals, the Commission is working on a new initiative, 'Healthier Together – EU NCDs Initiative', which includes five action strands for cardiovascular diseases, diabetes, chronic respiratory diseases, mental health and neurological disorders, and a horizontal strand on health determinants. In each of these strands, the reduction of health inequalities will be tackled. In addition, the Commission has established SGPP to provide advice and expertise to the Commission and to foster exchanges of relevant experience, policies and practices between the Member States on how to tackle the burden of NCDs in the Union. The Commission will work with the Member States to define specific targets and actions for different areas of NCDs, such as cardiovascular diseases and diabetes. Stakeholders will also provide input via the Health Policy Platform, namely as regards their role in implementation.

To promote impact, national authorities will be supported to embed improvements in national policies. In parallel, NGOs as well as professional and patient groups will have the opportunity to engage in the implementation of complementary actions. Such engagement may include the

provision of input for the preparation of public health guidelines, awareness actions, training, piloting or other actions that can benefit citizens directly.

This action supports the policy objective of reducing the burden of NCDs and implements the EU4Health Programme's general objective of improving and fostering health in the Union (Article 3, point (a)) through the specific objectives defined in Article 4, points (a) and (i), of Regulation (EU) 2021/522.

OBJECTIVES, SCOPE AND ACTIVITIES

The aim of this action is to reduce the burden of NCDs and related risk factors, targeting:

- a) cardiovascular diseases and diabetes, both at an individual and societal level, namely by supporting the NCDs policies and corresponding actions led by the Member States;
- b) NCDs other than the five action strands of the initiative 'Healthier Together – EUNCD Initiative' and cancer; such as chronic kidney diseases and liver diseases, auto-immune diseases, musculo-skeletal conditions, etc.

This action will complement the Member States' joint action on 'Prevention of NCDs -Cardiovascular diseases and diabetes' (DP-g-22-06.03) that aims to contribute to reducing the burden of NCDs, i.e. cardiovascular diseases and diabetes, and related risk factors, both at a personal and societal level, including the health inequalities dimension.

The civil society organisations will implement targeted projects and activities, complementing the Member States' efforts in the design, planning and implementation of best practices, including support to the definition of public health guidelines, to the preparation and roll out of new policy approaches, to the pilot test of innovative practices, and to support actions such as training and twinning, health communication or health literacy. Activities should also include an equity dimension and aim at reducing health inequalities.

EXPECTED RESULTS AND IMPACT

The action will contribute to the implementation of projects on disease prevention and health promotion, which are expected to reduce the burden of NCDs, namely diabetes and cardiovascular diseases in Member States.

The expected results will include initiatives to complement the Member States' efforts in the design, planning and implementation of best practices, such as support for the development of public health guidelines, support for the preparation and roll out of new policy approaches; participation in the pilot testing of innovative practices; development of support actions such as training and twinning, health communication or health literacy; and implementation of best practices in health promotion and disease prevention. The short-term impact will be an increased number of public health interventions being scaled up in all Member States and improvements in disease prevention and health promotion, and management policies related to NCDs.

Deadline date: **21 February 2023 17:00:00**

More about call: [Action Grants 2022 - second wave \(EU4H-2022-PJ-3\)](#)

ARRS

1. Javni razpis za sofinanciranje slovenskega dela dvostranskih ali tristranskih skupnih raziskovalnih projektov Weave, kjer NCN (Narodowe Centrum Nauki) deluje v vlogi vodilne agencije za obdobje 2023-2028

Naziv in naslov uporabnika proračunskih sredstev

Javna agencija za raziskovalno dejavnost Republike Slovenije, Bleiweisova cesta 30, 1000 Ljubljana (v nadaljevanju: ARRS).

Predmet javnega razpisa

Predmet Javnega razpisa za sofinanciranje slovenskega dela dvostranskih ali tristranskih skupnih raziskovalnih projektov Weave, kjer NCN (Narodowe Centrum Nauki) deluje v vlogi vodilne agencije (v nadaljevanju: javni razpis), je sofinanciranje slovenskega dela dvostranskega ali tristranskega skupnega raziskovalnega projekta v okviru sheme multilateralne vodilne agencije (Weave), ki je bil na javnem razpisu Narodowe Centrum Nauki (v nadaljevanju: NCN) (gl. [povezavo](#)) kot skupni raziskovalni projekt pozitivno ocenjen in predlagan v sofinanciranje. V skupnem dvostranskem raziskovalnem projektu Weave sodelujeta poljski in slovenski vodja raziskovalnega projekta (v nadaljevanju: dvostranski raziskovalni projekt), v skupnem tristranskem raziskovalnem projektu Weave poleg njiju lahko sodelujejo tudi avstrijski (FWF), češki (GA ČR), nemški (DFG), švicarski (SNSF), luksemburški (FNR), flamski (FWO) vodja projekta (v nadaljevanju: tristranski raziskovalni projekt).

Subjekti, ki se lahko prijavijo na javni razpis

Na javni razpis se lahko prijavijo raziskovalne organizacije (v nadaljevanju: RO), ki so vpisane v zbirko podatkov o izvajalcih znanstvenoraziskovalne dejavnosti (v nadaljevanju: Evidenca RO) in zasebni raziskovalci, ki so vpisani v register zasebnih raziskovalcev, ki ju vodi ARRS ter izpolnjujejo pogoje, predpisane z ZZrID in s predpisi ARRS.

Če pri prijavi na javni razpis sodeluje več izvajalcev znanstvenoraziskovalne dejavnosti (sodelujoča RO), je prijavitelj matična RO. Matična RO je tista RO, ki vloži prijavo raziskovalnega projekta, je prva navedena na prijavnem obrazcu in pri kateri je zaposlen vodja raziskovalnega projekta ob podpisu pogodbe o (so)financiranju raziskovalne dejavnosti.

Cilj javnega razpisa

Cilj javnega razpisa je izboljšanje in povečanje mednarodnega raziskovalno-razvojnega sodelovanja z vključevanjem slovenskih raziskovalcev v skupne dvostranske in tristranske raziskovalne projekte skladno z dogovorom o multilateralni vodilni agenciji Weave. Na raziskovalnih projektih Weave, kjer je NCN v vlogi vodilne agencije, poleg ARRS sodelujejo tudi: FWF (Fonds zur Förderung der wissenschaftlichen Forschung, Avstrija), GA ČR (Grantová Agentura České Republik, Češka), DFG (German Research Foundation, Nemčija), SNSF (Swiss National Science Foundation, Švica), FNR (The Luxembourg National Research Fund) in FWO (The Research Foundation – Flanders).

Pogoji javnega razpisa

Vstopni pogoji

Prijavitelj na javni razpis mora biti upravičen subjekt prijave na javni razpis (v skladu s 3. točko javnega razpisa).

Vodja raziskovalnega projekta mora imeti evidenčno številko raziskovalca, kar pomeni, da je vpisan v Evidenco RO ali register zasebnih raziskovalcev pri ARRS. Vodja raziskovalnega projekta, ki še nima evidenčne številke raziskovalca, mora izpolniti obrazec ARRS-ZOP-02-2021-1, h kateremu se obvezno priloži Izjavo o nameri zaposlitve, ki jo podpišeta prijavitelj in vodja raziskovalnega projekta.

Vodja raziskovalnega projekta mora imeti izobrazbo, pridobljeno po študijskem programu tretje stopnje oziroma izobrazbo, ki ustreza ravni izobrazbe, pridobljene po študijskih programih tretje stopnje, in je v skladu z zakonom, ki ureja slovensko ogrodje kvalifikacij, uvrščena na 10. raven, ter izkazovati mednarodno primerljive raziskovalne rezultate v skladu z ZZrID, Pravilnikom o postopkih, Kriteriji za ugotavljanje izpolnjevanja izkazovanja mednarodno primerljivih raziskovalnih rezultatov in obdobje zajema mednarodno primerljivih raziskovalnih rezultatov za vodjo raziskovalnega projekta in programa, št. 007-5/2022-3 z dne 16. 5. 2022 in Metodologijo.

Kvantitativne ocene za posamezne elemente ocenjevanja (A1 in CI) in za posamezno znanstveno vedo, ki so opredeljene v Metodologiji, pridobi in izračuna ARRS. ARRS bo za izračun kvantitativne ocene uporabila podatke, ki bodo vpisani v bazah SICRIS (COBISS) in evidencah ARRS na dan zaključka javnega razpisa (A1) oziroma na dan zadnjega zajema podatkov v bazah SICRIS (COBISS) pred zaključkom javnega razpisa (CI).

Za vrednotenje bibliografskih kazalcev raziskovalne uspešnosti raziskovalca (izračun kvantitativnih ocen) morajo raziskovalci sami, preko pooblaščenega knjižnice, pravočasno poskrbeti za vnos evidenčne številke raziskovalca iz zbirke podatkov o izvajalcih znanstvenoraziskovalne dejavnosti, ki jo vodi ARRS, v normativni zapis za avtorja v bazi normativnih podatkov CONOR.SI.

Raziskovalni projekt mora biti temeljni projekt.

Obdobje izvajanja raziskovalnega projekta je lahko največ štiri leta.

Slovenski del dvostranskega ali tristranskega raziskovalnega projekta pri projektih v trajanju dveh ali treh let ne sme presegati 100.000,00 EUR letno in pri projektih v trajanju štirih let ne sme presegati 75.000,00 EUR letno.

Prijava skupnega dvostranskega ali tristranskega raziskovalnega projekta mora biti oddana tudi na razpis, ki ga objavi NCN. Slovenski in poljski del, v primeru tristranskega raziskovalnega projekta pa tudi avstrijski, češki, nemški, švicarski, luksemburški in flamski del skupnega raziskovalnega projekta, morata/jo biti ozko povezana/i in komplementarna/i, znanstveni prispevek vsake izmed strani mora biti jasno razviden. Skupna prijava dvostranskega ali tristranskega raziskovalnega projekta mora izpolnjevati pogoje pri NCN.

Prijavitelji raziskovalnih projektov, kjer v prijavi kot izvajalec raziskovalnega projekta nastopa gospodarska družba, morajo skladno z veljavnimi pravili o državnih pomočeh na področju raziskovalne dejavnosti, predložiti tudi izpolnjen obrazec za dodeljevanje državnih pomoči ARRS-DP-LA-2022.

Ostali pogoji

Vodja raziskovalnega projekta in člani projektne skupine morajo imeti za izvajanje raziskovalnih projektov proste kapacitete glede učinkovitih ur raziskovalnega dela (največji dovoljeni obseg na osebo znaša 1700 ur letno ali 1 FTE) in morajo biti za izvajanje raziskovalne dejavnosti zaposleni v RO, izvajalki raziskovalnega projekta, ali imeti status zasebnega raziskovalca.

Vodja raziskovalnega projekta mora biti zaposlen v RO v Republiki Sloveniji, ki izvaja raziskovalni projekt, najmanj v obsegu 40 odstotkov polnega delovnega časa.

Vodja raziskovalnega projekta mora imeti najmanj 170 efektivnih ur raziskovalnega dela na letnem nivoju, razen direktorjev javnih raziskovalnih zavodov, ki na raziskovalnem projektu lahko sodelujejo z 0 urami.

Člani projektne skupine (razen mladih raziskovalcev, doktorandov, financiranih iz drugih virov, upokojenih raziskovalcev in direktorjev javnih raziskovalnih zavodov, ki sodelujejo z 0 urami) morajo imeti najmanj 17 efektivnih ur raziskovalnega dela na letnem nivoju.

Člani projektne skupine morajo imeti evidenčno številko raziskovalca pri ARRS (so vpisani v evidenco RO oz. register zasebnih raziskovalcev).

Sodelujoča RO mora biti vpisana v evidenco RO oz. register zasebnih raziskovalcev ter mora v obdobju izvajanja raziskovalnega projekta sodelovati vsaj s 170 efektivnimi urami raziskovalnega dela, pri čemer znaša minimalni obseg sodelujoče RO v posameznem letu 170 efektivnih ur raziskovalnega dela. Med izvajanjem raziskovalnega projekta je lahko število ur sodelujoče RO v posameznem letu tudi 0 ur.

Prijavitelj mora imeti z drugimi sodelujočimi RO podpisano pogodbo o ureditvi medsebojnih pravic, obveznosti in odgovornosti.

Skupni dvostranski ali tristranski raziskovalni projekt mora biti v postopku ocenjevanja pri NCN pozitivno ocenjen in vse sodelujoče partnerske agencije morajo sprejeti v sofinanciranje nacionalni del skupnega raziskovalnega projekta. ARRS bo sofinancirala skupni dvostranski ali tristranski raziskovalni projekt le v primeru, da raziskovalni projekt sprejmejo v sofinanciranje vse sodelujoče partnerske agencije.

Izpolnjevanje pogojev

Vstopni pogoji morajo biti izpolnjeni na dan zaključka javnega razpisa. Dokazila glede izpolnjevanja pogojev iz devetega odstavka točke 5.1. predmetnega javnega razpisa, s strani NCN pridobi ARRS. V primeru neizpolnjevanja pogojev iz točke 5.1., se prijava zavrne.

Ostali pogoji morajo biti izpolnjeni ob sklenitvi pogodbe o (so)financiranju znanstvenoraziskovalne dejavnosti, razen pogoja prostih kapacitet glede efektivnih ur raziskovalnega dela vodje in članov projektne skupine, ki se preverja na letnem nivoju. V primeru neizpolnjevanja pogojev iz točke 5. 2., se pogodba o (so)financiranju znanstvenoraziskovalne dejavnosti ne sklene.

Ocenjevalni postopek

V postopek ocenjevanja se uvrstijo samo pravočasne, pravilno označene in popolne prijave, ki izpolnjujejo vstopne pogoje javnega razpisa.

Vodja poljskega dela raziskovalnega projekta v sodelovanju z vodjo slovenskega dela dvostranskega raziskovalnega projekta, v primeru tristranskih raziskovalnih projektov pa tudi z vodjo avstrijskega, češkega, nemškega, švicarskega, flamskega in luksemburškega dela raziskovalnega projekta, pripravi prijavo skupnega raziskovalnega projekta v skladu z določili NCN in jo odda na javnem razpisu pri NCN. Vodja slovenskega dela raziskovalnega projekta odda prijavo na zadevni razpis, ki vključuje povzetek vsebine prijave skupnega raziskovalnega projekta, pri čemer izpolni prijavno vlogo ARRS-WEAVE-NCN-2022-Pr.doc. Prijavitelj na isti elektronski naslov, ki je naveden pod točko Način in oblika prijave zadevnega javnega razpisa, odda tudi skupno prijavno vlogo, ki je bila oddana na razpis NCN.

Ocenjevalni postopek bo vodila NCN. ARRS na podlagi Mednarodnega multilateralnega sporazuma o vodilni agenciji Multilateral Lead Agency Agreement, št. 020-5/2020-1 sofinancira udeležbo slovenskih prijaviteljev v skupnih dvostranskih ali tristranskih raziskovalnih projektih, ki so na razpisu NCN v postopku mednarodne recenzije pozitivno ocenjeni in jih vse sodelujoče partnerske agencije sprejmejo v sofinanciranje. V pogodbi o multilateralni vodilni agenciji je določen prag sofinanciranja na način, da se morajo skupni raziskovalni projekti uvrstiti med 20% najbolj ocenjenih raziskovalnih projektov v okviru ocenjevalnega postopka vodilne agencije.

Po zaključenem postopku ocenjevanja NCN obvesti ARRS o rezultatih ocenjevalnega postopka in ji posreduje seznam prijav, ki so bile odobrene za sofinanciranje. Prijave, ki jih NCN predlaga v sofinanciranje, obravnava Znanstveni svet ARRS in sprejme predlog finančno ovrednotenega seznama prijav ter ga posreduje v odločitev direktorju ARRS. ZSA pri odločitvi upošteva, da se v sofinanciranje lahko uvrstijo samo prijave, ki jih v sofinanciranje sprejmejo vse sodelujoče partnerske agencije. Prijave za katere vse sodelujoče partnerske agencije še niso podale soglasja k sofinanciranju, ZSA uvrsti na predlog finančno ovrednotenega seznama prijav pod odložnim pogojem. Odložni pogoj bo izpolnjen s pridobitvijo soglasja partnerskih agencij. Direktor ARRS na podlagi sklepa o izboru raziskovalnih projektov izda prijaviteljem individualno obvestilo o izboru oziroma zavrnitvi prijave.

Obseg sofinanciranja in okvirna višina sredstev javnega razpisa

Predvidena višina sredstev javnega razpisa znaša okvirno 4.000.000,00 EUR. Realizacija je vezana na proračunske možnosti.

ARRS bo skladno z notranjimi smernicami Weave in ob upoštevanju proračunskih možnosti v sofinanciranje sprejela 20 % najbolj ocenjenih skupnih dvostranskih ali tristranskih raziskovalnih projektov, ki bodo predmet ocenjevalnega postopka pri NCN in jih bodo vse sodelujoče partnerske agencije sprejele v sofinanciranje. Slovenski del dvostranskega ali tristranskega raziskovalnega projekta pri projektih v trajanju dveh ali treh let ne sme presegati 100.000,00 EUR letno in pri projektih v trajanju štirih let ne sme presegati 75.000,00 EUR letno, preračunanih v ekvivalent polne zaposlitve (FTE) po izbrani cenovni kategoriji. Preračun v ekvivalent polne zaposlitve se izvede po veljavni ceni ekvivalenta polne zaposlitve na dan sprejema sklepa o izboru prijav raziskovalnih projektov. Obseg finančnih sredstev se usklajuje z veljavno ceno ekvivalenta polne zaposlitve za posamezno leto.

Način sofinanciranja

Z izbranim prijaviteljem na javni razpis bo sklenjena pogodba o (so)financiranju znanstvenoraziskovalne dejavnosti, s katero se podrobno uredi način sofinanciranja ter druge pravice, obveznosti in odgovornosti pogodbenih strank.

Upravičeni stroški se določijo v skladu z Uredbo o financiranju znanstvenoraziskovalne dejavnosti iz Proračuna Republike Slovenije (Uradni list RS, št. 35/22).

Odprti dostop do recenziranih znanstvenih objav in spletni dostop do informacij o raziskovalnem projektu

V skladu z določili veljavne nacionalne strategije odprtega dostopa do znanstvenih objav in raziskovalnih podatkov morajo biti vse recenzirane znanstvene objave, ki izhajajo iz izvajanja raziskovalnega projekta, objavljene v odprtem dostopu. Recenzirana znanstvena objava mora v skladu s 105. členom Pravilnika o postopkih vsebovati navedbo afilicije RO, številko projekta ter naziv sofinancerja, Javne agencije za raziskovalno dejavnost Republike Slovenije (angl. Slovenian Research Agency).

Prijavitelj mora po odobritvi sofinanciranja raziskovalnega projekta na spletnem mestu svoje RO odpreti posebno spletno stran oziroma odstran, ki bo namenjena raziskovalnemu projektu ter bo

omogočala diseminacijo dosežkov. Obvezne minimalne vsebine spletne strani so: vsebinski opis raziskovalnega projekta z osnovnimi podatki glede sofinanciranja, sestava projektne skupine s povezavami do podatkov v sistemu SICRIS, faze raziskovalnega projekta in opis njihove realizacije, bibliografske reference, ki izhajajo neposredno iz izvajanja raziskovalnega projekta ter navedba logotipa ARRS in drugih sofinancerjev. Vsebine, ki so zajete v sistemu SICRIS, naj bodo povezane in jih ni potrebno podvajati. Spletna stran predstavitve raziskovalnega projekta mora ostati aktivna še pet (5) let po zaključku raziskovalnega projekta. O vzpostavitvi spletne strani izvajalec poroča v vmesnem in zaključnem poročilu.

Razpisna dokumentacija

Prijavna vloga na javni razpis mora obvezno vsebovati naslednje izpolnjene in podpisane obrazce in dokument:

1. ARRS-WEAVE-NCN-2022;
2. ARRS-ZOP-02-2021-1 in Izjava o nameri zaposlitve (če vodja raziskovalnega projekta nima evidenčne številke raziskovalca);
3. ARRS-DP-LA-2022 (če v prijavi kot izvajalec raziskovalnega projekta nastopa gospodarska družba).

Način in oblika prijave

Prijava na javni razpis se izpolni in odda na obrazcu Prijavna vloga **ARRS-WEAVE-NCN-2022**.

Prijava je potrebno oddati v elektronski in papirni obliki. Obe obliki prijave, elektronska in papirna, morata biti vsebinsko popolnoma enaki.

- **Prijava v papirni obliki**

Prijava v papirni obliki mora biti dostavljena v zaprti ovojnici z oznako: »**NE ODPIRAJ – Prijava na vodilno agencijo NCN**« ter naziv in naslov prijavitelja. V vsaki poslani obojnici z oznako je lahko le ena prijava. Prijava v papirni obliki mora biti lastnoročno podpisana s strani zastopnika oziroma pooblaščenega osebe RO, s strani vodje raziskovalnega projekta ter opremljena z žigom RO.

- **Prijava v elektronski obliki**

Prijava v elektronski obliki mora biti poslana na naslov WEAVE.NCN@arrs.si (odda se samo prijavni obrazec ARRS-WEAVE-NCN-2022 brez prilog; zaradi avtomatične obdelave podatkov je zaželen format .doc, ki ni podpisan in žigosan).

Prijavitelj mora na elektronski poštni naslov WEAVE.NCN@arrs.si oddati tudi skupno prijavno vlogo, ki je bila oddana na razpis NCN.

Rok za oddajo prijave

Prijava se šteje za pravočasno, če v papirni obliki prispe na naslov ARRS **do vključno 15. 12. 2022 do 14.00**. Kot pravočasne se štejejo tudi prijave, oddane priporočeno po pošti iz Slovenije najkasneje do 15. 12. 2022 do 14.00 (poštni žig).

V sedmih dneh od dneva zaključka javnega razpisa, mora prijavitelj na elektronski poštni naslov WEAVE.NCN@arrs.si oddati tudi skupno prijavno vlogo, ki je bila oddana na razpis NCN.

Javni razpis objavljena na: <http://www.arrs.si/sl/medn/vodilna/Razpisi/22/razpis-NCN-22.asp>

2. Javni razpis za (so)financiranje gostovanj pri vodjah ERC projektov za obdobje 2023-2025

Predmet in cilj javnega razpisa

Predmet javnega razpisa je (so)financiranje gostovanj pri nekdanjih in sedanjih vodjah ERC projektov zunaj Republike Slovenije, ki so že izvedli ali trenutno izvajajo znanstvenoraziskovalne projekte ERC (Starting Grant, Consolidator Grant, Advanced Grant) na področju katerekoli znanstvene vede. Gostovanja raziskovalcev iz Slovenije (v nadaljevanju: gostujoči raziskovalec) trajajo najmanj en in največ šest mesecev. Gostovanja raziskovalcev so časovno sklenjena (nedeljiva) gostovanja v trajanju od enega do šestih mesecev.

Cilj javnega razpisa je sodelovanje z nekdanjim ali sedanjim vodjo ERC projekta in s tem razvijanje usposobljenosti za pripravo lastnega projekta ter povečanje možnosti, da raziskovalec iz Slovenije postane sam prejemnik ERC projekta. Iz tega izhaja zaključni cilj javnega razpisa, t.j. prijava znanstvenoraziskovalnega projekta na razpis ERC, in sicer znotraj obdobja prvih dveh istovrstnih razpisov ERC po zaključku gostovanja, pri čemer se kot zadnji rok za oddajo prijave na razpis ERC upošteva drugi možni datum prijave na istovrstni razpis ERC, za katerega gostujoči raziskovalec izpolnjuje pogoje ob prijavi. V primeru, da gostujoči raziskovalec z ozirom na leto zagovora prvega doktorata med prvim in drugim možnim datumom prijave na istovrstni razpis ERC izpolni pogoje za višjo stopnjo razpisov ERC ter se ni prijavil na razpis ERC ob prvem možnem datumu, se kot zadnji rok za oddajo prijave na razpis ERC upošteva drugi možni datum prijave na razpis ERC na višji stopnji, ki se prav tako določi glede na datum zaključka gostovanja.

Subjekti, ki se lahko prijavijo na javni razpis

Na javni razpis se lahko prijavijo raziskovalne organizacije (v nadaljevanju: RO), ki so vpisane v zbirko podatkov o izvajalcih znanstvenoraziskovalne dejavnosti (v nadaljevanju: Evidenca RO) in zasebni raziskovalci, ki so vpisani v register zasebnih raziskovalcev, ki ju vodi agencija ter izpolnjujejo pogoje, predpisane z zakonom in s predpisi agencije.

Pogoji, ki jih mora izpolnjevati prijavitelj

- (1) Prijavitelj lahko prijavi več vlog, vendar ne več kot eno vlogo za posameznega raziskovalca. Za posameznega raziskovalca lahko vlogo odda le en prijavitelj.
- (2) Raziskovalna organizacija, ki je prijavitelj na javni razpis, je hkrati raziskovalna organizacija, preko katere se gostujoči raziskovalec prijavi na razpis ERC po zaključku gostovanja, kot izhaja iz 2. odstavka 2. točke javnega razpisa.
- (3) Prijavitelj se pisno obveže, da se bo gostujoči raziskovalec prijavil na razpis ERC po zaključenem gostovanju, kot izhaja iz 2. odstavka 2. točke javnega razpisa. V nasprotnem primeru bo agencija skladno s pogodbo zahtevala vrnitev vseh že izplačanih sredstev.

Pogoji, ki jih mora izpolnjevati gostujoči raziskovalec

- (1) Gostujoči raziskovalec mora imeti izobrazbo, pridobljeno po študijskem programu tretje stopnje oziroma izobrazbo, ki ustreza ravni izobrazbe, pridobljene po študijskih programih tretje stopnje, in je v skladu z zakonom, ki ureja slovensko ogrodje kvalifikacij, uvrščena na 10. raven, ter izkazovati mednarodno primerljive raziskovalne rezultate v skladu z Zakonom, Pravilnikom o postopkih, Kriteriji za ugotavljanje izpolnjevanja izkazovanja mednarodno primerljivih raziskovalnih rezultatov in

obdobje zajema mednarodno primerljivih raziskovalnih rezultatov za vodjo raziskovalnega projekta in programa, št. 007-5/2022-3 z dne 16. 5. 2022 in Metodologijo.

(2) Kvantitativne ocene za posamezne elemente ocenjevanja (A1 in CI) in za posamezno znanstveno vedo, ki so opredeljene v Metodologiji, pridobi in izračuna agencija. Agencija bo za izračun kvantitativne ocene uporabila podatke, ki bodo vpisani v bazah SICRIS (COBISS) in evidencah agencije na dan zaključka javnega razpisa (A1) oziroma na dan zadnjega zajema podatkov v bazah SICRIS (COBISS) pred zaključkom javnega razpisa (CI).

(3) Gostujoči raziskovalec mora imeti evidenčno številko raziskovalca, kar pomeni, da je vpisan v Evidenco raziskovalcev ali register zasebnih raziskovalcev pri agenciji.

(4) Gostujoči raziskovalec se pisno obveže, da se bo po zaključenem gostovanju prijavil na razpis ERC, kot izhaja iz 2. odstavka 2. točke javnega razpisa. V nasprotnem primeru bo od prijavitelja agencija skladno s pogodbo zahtevala vrnitev vseh že izplačanih sredstev.

(5) Gostujoči raziskovalec, ki je gostoval pri vodji ERC projekta na podlagi zadevnega razpisa, se ne more ponovno prijaviti na javni razpis za (so)financiranje gostovanj pri vodjah ERC projektov.

Razpisna dokumentacija

Prijava mora obvezno vsebovati:

- a. Prijavno vlogo ARRS-ERC-FS;
- b. Osnutek dispozicije znanstvenoraziskovalnega projekta v slovenskem in angleškem jeziku v predpisanem formatu, s katero bo gostujoči raziskovalec kandidiral na bodočem razpisu ERC. Dolžina osnutka dispozicije je največ 15 strani za posamezno jezikovno različico;
- c. Izjavo gostujočega raziskovalca, da bo ob prijavi na razpis ERC izpolnjeval pogoje razpisa, na katerega se bo prijavil: <https://erc.europa.eu/> (ARRS-ERC-FS-Izjava1);
- d. Izjavo prijavitelja in gostujočega raziskovalca, da se bo slednji po zaključenem gostovanju prijavil na razpis ERC, kot izhaja iz 2. odstavka 2. točke javnega razpisa (ARRS-ERC-FS-Izjava2);
- e. Življenjepis - Curriculum Vitae – ki izkazuje skladnost po kriteriju ocenjevanja znanstvene odličnosti gostujočega raziskovalca, kot sledi iz 7.a. točke javnega razpisa. Format življenjepisa se mora skladati z navodili ERC: <https://erc.europa.eu/> ;
- f. Pismo podpore vodje ERC projekta s predpisanimi vsebinskimi elementi:
 - seznanjenost vodje ERC projekta s pogoji pobude ERC Fellowship,
 - seznanjenost vodje ERC projekta z dispozicijo gostujočega raziskovalca,
 - strokovno mnenje vodje ERC projekta glede osnutka dispozicije gostujočega raziskovalca (opis prednosti in pomanjkljivosti ter potencial za uspeh na razpisu ERC),
 - opis načrta vključitve gostujočega raziskovalca v skupno delo na projektu;

Ocenjevalni postopek

Ocenjevalni postopek vodi občasno strokovno telo (v nadaljevanju: OST), ki ga imenuje Znanstveni svet agencije (v nadaljevanju: ZSA). ZSA s sklepom o imenovanju določi predsednika, namestnika predsednika in člane OST, njihove naloge ter trajanje mandata. Sestava OST pokriva vse znanstvene vede, iz katerih prihaja predmet ocenjevanja. Ocenjevalni postopek se izvede po vsakokratnem odpiranju prijav.

V primeru večjega števila prijav, ki dosežejo mejni prag za uvrstitev v izbor za sofinanciranje, s čimer so presežena razpoložljiva sredstva javnega razpisa, je sestavni del ocenjevalnega postopka tudi ustna predstavitev (intervju). Ustna predstavitev s strani predlaganega vodje je namenjena samo za tiste prijave, katerih skupna ocena je enaka spodnjemu mejnemu pragu, ki se v tem primeru določi

glede na razpoložljiva sredstva javnega razpisa. Pri ustni predstavitvi sodelujeta vsaj dva člana OST, pri čemer obvezno sodeluje član OST s področja vede, ki je predmet prijave. Ustna predstavitev se oceni z usklajeno oceno od 0 do 5. Ocena predstavitve dopolnjuje skupno oceno. Pri ustni predstavitvi se upošteva kakovost prijave in možnosti projekta za uspeh na bodočem ERC razpisu.

OST ob zaključku ocenjevalnega postopka pripravi končno oceno prijav in finančno ovrednoten prednostni seznam prijav, pri čemer upošteva skupno oceno in morebitne ustne predstavitve. OST nato posreduje predlog prednostnega seznama prijav za sofinanciranje ZSA v obravnavo. Sklep o izboru prijav za sofinanciranje na predlog ZSA sprejme direktor agencije.

Prijave, ki presegajo v javnem razpisu določeno število gostovanj v posameznem letu, se zavrnejo, pri čemer se upošteva vrstni red prispetja glede na datum in čas vložitve popolne prijave.

Kriteriji za izbiro prijav za (so)financiranje

V postopku izbora prijav za sofinanciranje gostovanj se uporabljajo naslednji kriteriji in kazalniki:

a) Za ocenjevanje po kriteriju **Znanstvena odličnost (10 točk)** se uporablja naslednje kazalnike:

- Izjemni dosežki, ki se nanašajo na raziskovalno področje oziroma cilje, kot so opredeljeni v osnutku dispozicije znanstvenoraziskovalnega projekta;
- Izkazana sposobnost samostojnega in ustvarjalnega razmišljanja;
- Sposobnost priprave predloga raziskave in vodenja raziskav;
- Ustreznost naslavljanja pomembnih raziskovalnih izzivov;
- Ambicioznost in izjemnost ciljev (na primer nove metode in pristopi k razvoju področij in potencial za preseganje obstoječega stanja v znanosti);
- Jasnost koncepta, vključno z interdisciplinarnim vidikom, in ustreznost ciljev;
- Primernost predlagane metodologije raziskave za doseganje ciljev.

b) Za ocenjevanje po kriteriju **Kakovost in učinkovitost izvedbe (5 točk)** se uporablja naslednje kazalnike:

- Skladnost dejavnosti vodje ERC projekta in gostujočega raziskovalca;
- Kakovost načrta vključitve gostujočega raziskovalca v dejavnosti vodje ERC projekta;
- Primernost raziskovalnih zmogljivosti raziskovalne organizacije vodje ERC projekta.

Za ocenjevanje po kriteriju Znanstvena odličnost je možnih 10 točk in po kriteriju Kakovost in učinkovitost izvedbe 5 točk, skupaj torej 15 točk. Če posamezna prijava ne doseže mejnega praga, ki za vsak kriterij predstavlja najmanj polovico največjega možnega števila točk, ali skupnega mejnega praga vsote obeh ocen, to je 10 točk, se ne izbere za (so)financiranje.

Okvirna višina sredstev javnega razpisa in (so)financiranje gostovanj

Predvidena višina sredstev javnega razpisa znaša okvirno 260.000,00 EUR. Realizacija je vezana na proračunske možnosti.

Agencija bo v obdobju od 1. 1. 2023 do 30. 6. 2025 sofinancirala do 6 gostovanj v posameznem koledarskem letu. Število sofinanciranih gostovanj ter obseg in datum začetka sofinanciranja so vezani na proračunske možnosti.

Agencija bo gostujočim raziskovalcem v okviru javnega razpisa ob gostovanjih pri vodjah ERC projektov (so)financirala:

- nadomestilo za delo v tujini, ki vključuje stroške nastanitve, stroške prevoza do kraja gostovanja in nazaj, stroške prevoza na delo v kraju gostovanja in stroške prehrane med delom v skupnem znesku 1.800 EUR mesečno, pomnoženo s korekcijskim faktorjem življenjskih stroškov za državo gostovanja, ki je razviden iz priloge, ki je sestavni del dokumentacije. V primeru, da korekcijski faktor življenjskih stroškov za državo v tej prilogi ni opredeljen, se upošteva korekcijski faktor 100.

Agencija (so)financira obisk gostujočih raziskovalcev na podlagi razpisa najmanj en mesec in največ šest mesecev. Po prejemu obvestila o sofinanciranju gostovanja prijavitelj obvesti agencijo o točnem datumu pričetka in zaključka gostovanja, ki je časovno sklenjeno gostovanje v trajanju od enega do šestih mesecev. Način in višina sofinanciranja se uredita v pogodbi, ki je sklenjena med agencijo in prijaviteljem.

Gostujoči raziskovalec, ki je gostoval pri vodji ERC projekta na podlagi zadevnega razpisa, v 30 dneh od zaključka gostovanja odda vsebinsko in finančno poročilo, ki vsebuje pregled porabe sredstev po skupinah stroškov izvedene dejavnosti. Poročili se izpolnita na obrazcih, ki ju določi agencija.

Ob oddaji prijave znanstvenoraziskovalnega projekta na razpis ERC, ki mora biti znotraj predpisanega obdobja, kot je opredeljen v 2. odstavku 2. točke javnega razpisa, gostujoči raziskovalec z dokazilom o prijavi obvesti agencijo.

Oddaja prijav, način predložitve prijav ter opremljenost prijav

Način in oblika prijave

Prijava na javni razpis se izpolni in odda na obrazcu Prijavna vloga ARRS-ERC-FS.

Prijava je potrebno oddati v papirni in elektronski obliki. Obe obliki prijave, papirna in elektronska, morata biti vsebinsko popolnoma enaki.

Prijava v papirni obliki

Prijava v papirni obliki mora biti dostavljena v zaprti ovojnici z oznako: »NE ODPIRAJ – Prijava na Javni razpis za (so)financiranje gostovanj pri vodjah ERC projektov« ter naziv in naslov prijavitelja. V vsaki poslani obojnici z oznako je lahko le ena prijava. Prijava v papirni obliki mora biti lastnoročno podpisana s strani zastopnika oziroma pooblaščenega osebe RO, s strani vodje raziskovalnega projekta ter opremljena z žigom RO.

Prijava v elektronski obliki

Prijava v elektronski obliki mora biti poslana na naslov ERC-GOSTOVANJA@arrs.si (odda se samo prijavi obrazec ARRS-ERC-FS brez prilog; zaradi avtomatične obdelave podatkov je zaželen format .doc, ki ni podpisan in žigosan; prijava naj bo poimenovana ARRS-ERC-FS-Pr.doc, kjer je »Pr« priimek vodje projekta v Sloveniji).

Trajanje javnega razpisa

Javni razpis je odprt do 30. 10. 2024 do 14h.

Javni razpis objavljena na: <http://www.arrs.si/sl/medn/ERCFellowship/Razpisi/22/razpis-ERC-2023-25.asp>

PROGRAM HORIZON EUROPE:

1. Better understanding of citizens' behavioural and psychological reactions in the event of a disaster or crisis situation

TOPIC ID: HORIZON-CL3-2022-DRS-01-04

General information

Programme

Horizon Europe Framework Programme (HORIZON)

Call

[Disaster-Resilient Society 2022 \(HORIZON-CL3-2022-DRS-01\)](#)

Type of action

HORIZON-RIA HORIZON Research and Innovation Actions

Type of MGA

HORIZON Action Grant Budget-Based [HORIZON-AG]

Deadline model

single-stage

Planned opening date

30 June 2022

Deadline date

23 November 2022 17:00:00 Brussels time

Topic description

Expected Outcome:

Project results are expected to contribute to some of the following expected outcomes:

- Qualitative and quantitative analyses on the behaviour of diverse society groups affected by a natural and man-made disaster or crisis situation, during and after an event occurs, based on real cases and testimonies, lessons learned from past disasters or crisis and recommendations from citizens and local authorities. Examine how this analysis could be integrated into preparedness plans and processes to include cultural, historical, and ethical perspectives on what defines disasters and how they are responded to.

- Analyses of human behaviour as triggering or cascading factors of disasters or crisis situations, and transformation of qualitative data into quantitative information to improve vulnerability and exposure analyses.
- Development of community-centred (vis-à-vis victim- or patient-centred) approaches and corresponding preparedness plans: in view of limited emergency response capacities and threat of systems collapses (e.g. health system, food distribution, supply chains) in large-scale disaster scenarios, analyse what community practices and communication strategies can help mitigate the latter and enable the public to be a capable partner in emergency planning and response.
- Specific measures to better address the needs and requirements of most vulnerable groups (chronic sufferers, persons with disabilities, children, elderly persons, economically and social deprived persons, refugees and irregular migrants in emergency planning and recovery measures.
- Analyses of the nature and scope of mental health issues of the affected populations and of first-responders arising during and following natural or man-made disasters or crisis situations and their implications for response and recovery, and options to address these issues, including through social and health services such as emergency psycho-social support.
- Analyses of mechanisms and factors that can lead to false alarms and misdirected actions, and of the direct consequences on both population and decision-makers.

Scope:

Human actions and behaviour may strongly influence the effects and dynamics of a disaster or crisis situation and on the response, potentially modifying the vulnerability of the population. For example, inadequate design of technological systems may favour cascading consequences due to limited consideration of human performance, and insufficient planning. Linked to this, due to extreme time pressure, crisis managers are often forced to make decisions on the basis of inadequate information. The behaviour of the general public, mostly influenced by demographic factors (e.g. gender, age, income, education, risk-tolerance, social connectivity etc.) and the perception of risks, depends on the availability, form and access to information about the crisis and management of trade-offs (e.g. efficiency and thoroughness trade-offs). Social media play an important role here being a means of disinformation and misinformation.

Recent disasters related either to natural causes (including climate-related and geological hazards), man-made causes (including industrial accidents or terrorist attacks) or the COVID-19 pandemic crisis have shown the lack of sufficient knowledge in the way citizens react in case of disasters or crisis situations, with implications on policy design and implementation for example in the form of preparedness plans. In this respect, taking into account the knowledge gathered by projects funded in Horizon 2020 and ensuring complementarity, behavioural and psychological research on how citizens behave in the event of a disaster or crisis situation is needed to better understand how to best raise awareness in the population and develop tools to facilitate this.

It is hence necessary to better investigate how historical, cultural and emotional factors (e.g. anxiety, panic etc.) during a disaster or a crisis influence rational actions, evaluations of options and information seeking. In addition, the impact of disasters on health also requires looking into the short and long-term consequences of exposure to high stress/threat levels bears, in particular for mental health.

2. AI for human empowerment (AI, Data and Robotics Partnership) (RIA)

TOPIC ID: HORIZON-CL4-2022-HUMAN-02-01

General information

Programme

Horizon Europe Framework Programme (HORIZON)

Call

[**A HUMAN-CENTRED AND ETHICAL DEVELOPMENT OF DIGITAL AND INDUSTRIAL TECHNOLOGIES 2022 \(HORIZON-CL4-2022-HUMAN-02\)**](#)

Type of action

HORIZON-RIA HORIZON Research and Innovation Actions

Type of MGA

HORIZON Action Grant Budget-Based [HORIZON-AG]

Deadline model

single-stage

Planned opening date

16 June 2022

Deadline date

16 November 2022 17:00:00 Brussels time

Topic description

Expected Outcome:

Proposal results are expected to contribute to at least one of the following expected outcomes:

- Truly mixed human-AI initiatives for human empowerment
- Trustworthy hybrid decision-support systems

Scope:

Build the next level of **perception, visualisation, interaction and collaboration** between humans and AI systems working together as partners to achieve common goals, sharing mutual understanding and learning of each other's abilities and respective roles.

Innovative and promising approaches are encouraged, including human-in the loop approaches for truly mixed human-AI initiatives combining the best of human and machine knowledge and

capabilities, tacit knowledge extraction (to design the next generation AI-driven co-creation and collaboration tools embodied e.g. in industrial/working spaces environments).

Each proposal will focus on one of the two following research objectives, and clearly identify it:

1. Reach truly mixed human-AI initiatives for human empowerment. The approaches should combine the best of human and machine knowledge and capabilities including shared and sliding autonomy in interaction, addressing reactivity, and fluidity of interaction and making systems transparent, fair and intuitive to use, which will play a key role in acceptance. The systems should adapt to the user rather than the opposite, based on analysis, understanding and anticipation about human behaviour and expectations.
2. Trustworthy hybrid decision-support, including approaches for mixed and sliding decision-making, for context interpretation, for dealing with uncertainty, transparent anticipation, reliability, human-centric planning and decision-making, interdependencies, and augmented decision-making. Transparency, fairness, technical accuracy and robustness will be the key, together with validation strategies assessing also the quality of the decision of the AI supported socio-technical system.

All proposals should adopt a human-centred development of trustworthy AI and investigate and optimise ways of human-AI interaction, key for acceptance and democratisation of AI, to allow any user to take full advantage of the huge benefits such technology can offer, regardless of their age, race, gender or capabilities. This includes development of methods to improve transparency, in particular for human users, in terms of explainability, expected levels of performance which are guaranteed/verifiable and corresponding confidence levels, accountability and responsibility, as well as perceived trust and fairness. AI could also be used to empower humans in supporting them to improve responsible behaviours, where appropriate, but this should be done in full respect of the requirements ensuring trustworthy AI, including human autonomy.

Innovative scientific approach towards human-centric approaches will require multidisciplinary and trans-disciplinary approaches paying particular attention to intersectional factors (gender, ethnicity, age, socioeconomic status, disability) including SSH^[1] and other disciplines relevant to stimulate novel research avenues, and eventually improve user-acceptance. Collaborative design and evaluation with users involvement should also be considered.

As a pilot activity, proposals in this topic will dedicate part of their activities on investigating novel ways of engagement by citizens or citizen representatives with AI development, with a view of optimising experience towards improving usability and experience for citizens (both at professional or daily life environment).

All proposals should contribute to build the next level of perception, visualisation, interaction and collaboration, and understanding between humans and AI systems working together as partners to achieve common goals, sharing mutual understanding of each other's abilities and respective roles.

All proposals are expected to embed mechanisms to assess and demonstrate progress (with qualitative and quantitative KPIs, benchmarking and progress monitoring, as well as illustrative application use-cases demonstrating concrete potential added value), and share results with the European R&D community, through the AI-on-demand platform^[2], a public community resource, to maximise re-use of results, either by developers, or for uptake, and optimise efficiency of funding. Activities are expected to achieve TRL 4-5 by the end of the project.

This topic implements the co-programmed European Partnership on AI, Data and Robotics.

All proposals are expected to allocate tasks to cohesion activities with the PPP on AI, Data and Robotics and funded actions related to this partnership, including the CSA HORIZON-CL4-2021-HUMAN-01-02.

Specific Topic Conditions:

Activities are expected to start at TRL 2-3 and achieve TRL 4-5 by the end of the project – see General Annex B.

Cross-cutting Priorities:

[Co-programmed European Partnerships](#)

Artificial Intelligence

Digital Agenda

Social sciences and humanities

3. Marie Skłodowska-Curie Action: MSCA Doctoral Networks 2022

TOPIC ID: HORIZON-MSCA-2022-DN-01-01

General information

Programme

Horizon Europe Framework Programme (HORIZON)

Call

[MSCA Doctoral Networks 2022 \(HORIZON-MSCA-2022-DN-01\)](#)

Type of action

HORIZON-TMA-MSCA-DN HORIZON TMA MSCA Doctoral Networks

Type of MGA

HORIZON Unit Grant [HORIZON-AG-UN]

Deadline model

single-stage

Planned opening date

03 May 2022

Deadline date

15 November 2022 17:00:00 Brussels time

Topic description

Expected Outcome:

Project results are expected to contribute to the following outcomes:

For supported doctoral candidates

- New research and transferable skills and competences, leading to improved employability and career prospects within and outside academia;
- New knowledge allowing the conversion of ideas into products and services, where relevant;
- Enhanced networking and communication capacities with scientific peers, as well as with the general public that will increase and broaden the research and innovation impact.

For participating organisations

- Improved quality, relevance and sustainability of doctoral training programmes and supervision arrangements;
- Enhanced cooperation and transfer of knowledge between sectors and disciplines;
- Increased integration of training and research activities between participating organisations;
- Boosted R&I capacity;
- Increased internationalisation and attractiveness;
- Regular feedback of research results into teaching and education at participating organisations.

Scope:

MSCA Doctoral Networks will implement doctoral programmes, by partnerships of universities, research institutions and research infrastructures, businesses including SMEs, and other socio-economic actors from different countries across Europe and beyond. MSCA Doctoral Networks are indeed open to the participation of organisations from third countries, in view of fostering strategic international partnerships for the training and exchange of researchers.

These doctoral programmes will respond to well-identified needs in various R&I areas, expose the researchers to the academic and non-academic sectors, and offer training in research-related, as well as transferable skills^[1] and competences relevant for innovation and long-term employability (e.g. entrepreneurship, commercialisation of results, Intellectual Property Rights, communication). Proposals for doctoral networks can reflect existing or planned research partnerships among the participating organisations.

The selection procedure for doctoral candidates must be open, transparent and merit-based, in line with the Code of Conduct for the Recruitment of Researchers. The vacancy notice (to be widely advertised internationally, including on the EURAXESS^[2] website) must include the gross salary (not including employer's social contributions) offered to the researcher.

MSCA Doctoral Networks are encouraged to lead to Industrial or Joint Doctorates.

Industrial Doctorates

Through Industrial Doctorates, doctoral candidates will step outside academia and develop skills in industry and business by being jointly supervised by academic and non-academic organisations, both of which can be established in the same EU Member State or Horizon Europe Associated Country.

Joint Doctorates

Joint Doctorates represent a highly integrated type of international, inter-sectoral and multi/interdisciplinary collaboration in doctoral training. They lead to the delivery of joint, double or multiple doctoral degrees^[3] recognised in at least two EU Member States or Horizon Europe Associated Countries.

Steering Board

Each MSCA Doctoral Network should have a clearly identified steering board co-ordinating network-wide training and research activities and establishing continuous communication and exchange of best practice among the participating organisations to maximise the benefits of the partnership.

Training activities

MSCA Doctoral Networks should exploit complementarities between participating organisations and foster sharing of knowledge and networking activities for example through the organisation of workshops and conferences. Proposed training activities should respond to well identified needs in various R&I areas, with appropriate references to inter- and multidisciplinary fields and follow the EU Principles for Innovative Doctoral Training^[4]. They should be primarily focused on developing new scientific knowledge through original research on personalised projects.

Inter-sectoral secondments of researchers to other participating organisations, including in third countries, are encouraged when relevant, feasible and beneficial for the researchers and in line with the project objectives. This will increase the employability of the researchers outside academia.

Doctoral Networks should develop substantial training modules, including digital ones, addressing key transferable skills and competences common to all fields and fostering the culture of Open Science, innovation and entrepreneurship. In particular, Doctoral Networks should adequately prepare doctoral candidates for increased research collaboration and information-sharing made possible by new (digital) technologies (e.g. collaborative tools, opening access to publications and to research data, FAIR data management, public engagement and citizen science, etc.).

Supervision

Particular attention is paid to the quality of supervision and mentoring arrangements as well as career guidance. Joint supervision of the researchers is mandatory for Industrial and Joint Doctorates.

Career Development Plan

A Career Development Plan must be established jointly by the supervisor and each recruited doctoral candidate. In case of joint supervision, such a plan should be established involving all supervisors. In addition to research objectives, this plan comprises the researcher's training and career needs, including training on transferable skills, teaching, planning for publications and participation in conferences and events aiming at opening science and research to citizens. The plan, established at the beginning of the recruitment, should be revised (and updated where needed) within 18 months.

[1]As an illustration, Eurodoc published a list of such transferable skills at: <http://eurodoc.net/skills-report-2018.pdf>

[2]<https://euraxess.ec.europa.eu/>

[3]Every time this Work Programme part refers to doctoral degrees, this means that the degrees have to be recognised as such by the relevant authorities of the country or countries concerned.

[4]https://euraxess.ec.europa.eu/sites/default/files/policy_library/principles_for_innovative_doctoral_training.pdf

Destination

MSCA Doctoral Networks

The MSCA Doctoral Networks aim to train creative, entrepreneurial, innovative and resilient doctoral candidates, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.

The MSCA Doctoral Networks will raise the attractiveness and excellence of doctoral training in Europe. They will equip researchers with the right combination of research-related and transferable competences and provide them with enhanced career perspectives in both the academic and non-

academic sectors through international, interdisciplinary and inter-sectoral mobility combined with an innovation-oriented mind-set.

Expected impact

Proposals under this Action should contribute to the following expected impacts:

- Strengthen Europe's human capital base in R&I by training highly-skilled doctoral candidates,
- Improve the attractiveness of researchers' careers notably through better working and employment conditions of doctoral candidates in Europe
- Enhance talent and knowledge circulation across the R&I landscape, through inter-sectoral, interdisciplinary and international mobility
- Increase Europe's attractiveness as a leading research destination
- Enhance the quality of R&I contributing to Europe's sustainable competitiveness
- Establish sustainable collaboration between academic and non-academic organisations
- Foster the culture of open science, innovation and entrepreneurship.

4. Javni razpis za sofinanciranje priključitve organizacij k izbranim projektom

Evropska Komisija je objavila javni razpis za sofinanciranje priključitve organizacij iz držav, ki zaostajajo na področju raziskav, razvoja in inovacij (t.i. widening države) k izbranim projektom stebra 2 in stebra 3 (EIC Iskalec). Gre za t.i. "hop on" shemo, ki daje možnost sofinanciranja vključevanja dodatnih partnerjev, tudi iz Slovenije, v že izbrane projekte, ki so sofinancirani iz sredstev Obzorja Evropa.

Javni razpis je namenjen krepitvi raziskovalne odličnosti v tako imenovanih "widening državah", prepoznavnosti sodelujočih, izboljšanju prenosa znanja, odpiranju zaprtih silosov obstoječih konzorcijev ter pridobivanju novih znanj in spretnosti za delo na mednarodnih projektih institucij iz tako imenovanih "widening držav".

Gre za ti. RIA aktivnost, saj gre za vključitev novega partnerja k obstoječim izbranim konzorcijem, ki imajo podpisane pogodbe o sofinanciranju v okviru stebra 2 in stebra 3 (EIC Iskalec) in v projektu nimajo nobenega partnerja iz nobene izmed držav, ki zaostajajo na področju raziskav, razvoja in inovacij, kot so definirane v Delovnem programu WIDERA in v okviru posebnih pogojev javnega razpisa.

Pričakuje se sofinanciranje v višini od 200.000 evrov do 500.000 evrov, pri čemer so ta sredstva namenjena v celoti za stroške novega partnerja, razen 10% pristojbine za koordinacijo, ki jo lahko prejme koordinator.

V okviru informacij na spletni strani objavljenega javnega razpisa najdete tudi seznam nekaterih že izbranih projektov stebra 2 in stebra 3 (EIC Iskalec), za katere so že bile podpisane pogodbe o sofinanciranju in nimajo partnerjev iz držav, ki zaostajajo na področju raziskav, razvoja in inovacij.

Odpiranje bo **10. 11. 2022** za katero je namenjenih 20 milijonov evrov.

Na spletni strani EU Funding and Tenders portal najdete [več informacij o javnem razpisu in pogojih za sodelovanje](#)

Seznam financiranih projektov v okviru 2. stebra Horizon Europe in EIC Iskalec:

[List of funded projects under Horizon Europe pillar 2 and the EIC Pathfinder \(europa.eu\)](#)

Projekti, ki iščejo partnerje za vključitev v okviru HOP ON sheme:

4.1. [Risk and Resilience in Developmental Diversity and Mental Health](#)

Abstract

Individuals with mental health (MH) conditions and their families, especially those with highly prevalent neurodevelopmental disorders (NDDs), are exposed to high levels of discrimination and stigma, which significantly affects their physical and mental well-being. Our world-leading collaborative group at the forefront of research in NDDs will launch a new project - 'Risk, Resilience and Developmental Diversity in Mental Health' (R2D2-MH). We propose a double paradigm shift to improve the wellbeing of people with MH conditions and their families. We will move (i) from risk-focused studies towards understanding and promoting resilience, and (ii) from a diagnosis-based approach to a developmental diversity approach that will define wellbeing and functioning across the human lifespan. R2D2-MH aims to identify genetic and environmental protective/resilience factors and how they influence developmental diversity and MH. We will investigate at multiple levels two highly prevalent early risks for MH conditions: prematurity and genetic liability for NDDs. Our project has four main ambitions 1. Provide the largest European multi-scale dataset on early human brain development and MH outcomes; 2 Identify biological mechanisms of resilience to the adverse effects of NDD; 3. Co-develop, with the stakeholders, new digital tools to increase participatory research/medicine and reduce stigma; 4. Establish predictive models to guide personalised interventions. R2D2-MH integrates interdisciplinary and complementary expertise across Europe, Israel, and Australia that covers ethics, epidemiology, sociology, genetics, cell biology, neuroscience, computational modelling, Information Technology, psychology, and psychiatry. Our research is highly engaged: it embeds participant and patient involvement in research to ensure that our expected outcomes are truly translational, and will help to reduce stigma and burden for individuals with MH conditions.

Participants

- INSTITUT PASTEUR - IP(999993080) - **COORDINATOR**
- STICHTING RADBOUD UNIVERSITAIR MEDISCH CENTRUM - RADBOUDUMC(892057785) - **BENEFICIARY**
- THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD, OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN - TRINITY COLLEGE DUBLIN(999845446) - **BENEFICIARY**
- COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES - CEA(999992401) - **BENEFICIARY**
- MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV - MPG(999990267) - **BENEFICIARY**
- JOHANN WOLFGANG GOETHE-UNIVERSITAET FRANKFURT AM MAIN - GUF(999978724) - **BENEFICIARY**
- ASSISTANCE PUBLIQUE HOPITAUX DE PARIS - (999645432) - **BENEFICIARY**
- BEN-GURION UNIVERSITY OF THE NEGEV - BGU(999846222) - **BENEFICIARY**
- AARHUS UNIVERSITET - AU(999997736) - **BENEFICIARY**
- ARTTIC INNOVATION GMBH - (893979743) - **BENEFICIARY**
- UNIVERSITEIT ANTWERPEN - UANTWERPEN(999902870) - **BENEFICIARY**
- LEARNENJOY - (890084417) - **BENEFICIARY**
- KAROLINSKA INSTITUTET - KI(999978530) - **BENEFICIARY**
- K I RESEARCH INSTITUTE RA - (889939305) - **BENEFICIARY**
- FONDAZIONE HUMAN TECHNOPOLE - (895748732) - **BENEFICIARY**
- UNIVERSITEIT TWENTE - UNIVERSITEIT TWENTE(999900833) - **BENEFICIARY**
- APLICA INVESTIGACION Y TRASLACION S. COOP. MAD. - (906263338) - **BENEFICIARY**

4.2. [Reducing the impact of major environmental challenges on mental health](#)

Abstract

The environMENTAL project will investigate how some of the greatest global environmental challenges, climate change, urbanisation, and psychosocial stress caused by the COVID-19-pandemic affect mental health over the lifespan. It will identify their underlying molecular mechanisms and develop preventions and early interventions. Leveraging cohort data of over 1.5 million European citizens and patients enriched with deep phenotyping data from large scale behavioural neuroimaging cohorts, we will identify brain mechanisms related to environmental adversity underlying symptoms of depression, anxiety, stress and substance abuse. By linking population and patient data via geo-location to spatiotemporal environmental data derived from remote sensing satellites, climate models, regional-socioeconomic data and digital health applications, our interdisciplinary team will develop a neurocognitive model of multimodal environmental signatures related to transdiagnostic symptom groups that are characterised by shared brain mechanisms. We will uncover the molecular basis underlying these mechanisms using multi-modal -omics analyses, brain organoids and virtual brain simulations, thus providing an integrated perspective for each individual across the lifespan and spectrum of functioning. The insight gained will be applied to developing risk biomarkers and stratification markers. We will then screen for pharmacological compounds targeting the molecular mechanisms discovered. We will also reduce symptom development and progression using virtual reality interventions based on the adverse environmental features - developed in close collaboration with stakeholders. Overall, this project will lead to objective biomarkers and evidence-based pharmacologic and VR-based interventions that will significantly prevent and improve outcomes of environmentally-related mental illnesses, and empower EU citizens to manage better their mental health and well-being.

Participants

- CHARITE - UNIVERSITAETSMEDIZIN BERLIN - (999992692) - **COORDINATOR**
- FREIE UNIVERSITAET BERLIN - Freie Universitaet Berlin(999994826) - **BENEFICIARY**
- ZENTRALINSTITUT FUER SEELISCHE GESUNDHEIT - (999889969) - **BENEFICIARY**
- UNIVERSITÄTSKLINIKUM SCHLESWIG-HOLSTEIN - UNIVERSITÄTSKLINIKUM SCHLESWIG-HOLSTEIN(999845349) - **BENEFICIARY**
- UNIVERSITETET I OSLO - UNIVERSITY OF OSLO(999975814) - **BENEFICIARY**
- UNIVERSITAET POTSDAM - UP(999854855) - **BENEFICIARY**
- STICHTING RADBOUD UNIVERSITAIR MEDISCH CENTRUM - RADBOUDUMC(892057785) - **BENEFICIARY**
- INSTITUTE OF SCIENCE AND TECHNOLOGY AUSTRIA - IST AUSTRIA(996479740) - **BENEFICIARY**
- UNIVERSITAT DE BARCELONA - UB(999986387) - **BENEFICIARY**
- UNIVERSITÄTSKLINIKUM BONN - UKB(999867465) - **BENEFICIARY**
- LIFE AND BRAIN GMBH - (994637807) - **BENEFICIARY**
- KSILINK - (917396901) - **BENEFICIARY**
- UNIVERSITE D'AIX MARSEILLE - AMU(955518483) - **BENEFICIARY**
- VIRTUAL BODYWORKS SL - Virtual Bodyworks S.L.(916236490) - **BENEFICIARY**
- ARTTIC INNOVATION GMBH - (893979743) - **BENEFICIARY**
- FRIEDRICH-SCHILLER-UNIVERSITAT JENA - UNIVERSITY OF JENA(999868726) - **BENEFICIARY**

4.3. Clinical validation of Artificial Intelligence for providing a personalized motor clinical profile assessment and rehabilitation of upper limb in children with unilateral Cerebral Palsy

Abstract

Unilateral Cerebral palsy (UCP) is the most common neurological chronic disease in childhood with a significant burden on children, their families and health care system. AInCP aims to develop evidence-based clinical Decision Support Tools (DST) for personalized functional diagnosis, Upper Limb (UpL) assessment and home-based intervention for children with UCP, by developing, testing and validating trustworthy Artificial Intelligence (AI) and cost-effective strategies. The AInCP approach will: i) establish a clinical diagnosis and accurate prognosis for treatment response of individual UCP profiles, by employing a multimodal approach including clinical phenotyping, advanced brain imaging and real-life monitoring of UpL function, and ii) provide personalized home-based treatment, from advanced ICT and AI technologies. The AInCP will build upon personalized diagnostic and rehabilitative DST (dDST and rDST) to be developed and validated through large observational and rehabilitation studies, including at least 200 and 150 children with UCP, respectively. Using data driven and AI approach, dDST and rDST will be combined for developing a theranostic DST (tDST) that will allow the re-designing of an economical, ethical, sustainable decision-making process for delivering a personalized and validated approach, focused on the care, monitoring and rehabilitation of UpL in children with UCP. AInCP is a significant example of a transdisciplinary approach, where all project collaborators (clinicians, data scientists, physicists, engineers, economists, ethicists, SMEs, children and parent associations) will work closely together in building the AInCP approach. This approach will, therefore, hinge on transdisciplinary contributions, multi-dimensional data, sets of innovative devices and fair AI-based algorithms, clinically effective and able to reduce users' and market barriers of acceptability, reimbursability and adoption of the proposed solution.

Participants

- UNIVERSITA DI PISA - UNIFI(999862712) - **COORDINATOR**
- Fondazione Stella Maris - (998105266) - **BENEFICIARY**
- UNIVERSIDAD DE CASTILLA - LA MANCHA - UCLM(999840208) - **BENEFICIARY**
- SCUOLA SUPERIORE DI STUDI UNIVERSITARI E DI PERFEZIONAMENTO S ANNA - SSSA(999884731) - **BENEFICIARY**
- NOLDUS INFORMATION TECHNOLOGY BV - NOLDUS(998559711) - **BENEFICIARY**
- FTS SRL - FTS(919522850) - **BENEFICIARY**
- KHYMEIA SRL - KHYMEIA GROUP(956172360) - **BENEFICIARY**
- TYROMOTION GMBH - TYM(968659267) - **BENEFICIARY**
- UNIVERSITA DEL SALENTO - UNILE(999863585) - **BENEFICIARY**
- KATHOLIEKE UNIVERSITEIT LEUVEN - KU Leuven(999991334) - **BENEFICIARY**

4.4. HUMAN-ROBOT SENSORIMOTOR AUGMENTATION - WEARABLE SENSORIMOTOR INTERFACES AND SUPERNUMERARY ROBOTIC LIMBS FOR HUMANS WITH UPPER-LIMB DISABILITIES

Abstract

HARIA re-defines the nature of physical human-robot interaction (HRI), laying the foundations of a new research field, i.e., human sensorimotor augmentation, whose constitutive elements are: i) AI-powered wearable and grounded supernumerary robotic limbs and wearable sensorimotor interfaces; ii) methods for augmentation enabling users to directly control and feel the extra limbs exploiting the redundancy of the human sensorimotor system through wearable interfaces; iii) clear target populations, i.e., chronic stroke and spinal cord injured individuals, and real-world application scenarios to demonstrate the extraordinary value of the paradigm shift that HARIA represents in HRI and the great impact on the motivation to re-use the paretic arm(s), with consequent improvement of the quality of life. Supernumerary limbs will be partially controlled by artificial intelligence, and partially under the direct control of the human who gains the agency of some motion parameters of the supernumerary limbs. From the control point of view, it is fundamental to find the right trade-off between motion task parameters that are controlled by the user, and the level of robot autonomy. This interplay is enabled by the wearable sensorimotor interface that establishes a connection between the human sensorimotor system and the system of actuators and sensors of the robot, allowing reciprocal awareness, trustworthiness and mutual understanding. HARIA finds its natural application in assisting people with uni- or bi-lateral upper limbs chronic motor disabilities. Technology and methodology developments will follow a user-centered design approach, as only patients with disabilities are fully aware of their real (still unmet) needs in real life activities. This project will also go beyond the application to health, starting a new era of intuitive and seamless human-robot augmentation by wearable sensorimotor interfaces and supernumerary limbs.

Participants

- UNIVERSITA DEGLI STUDI DI SIENA - UNISI(999898020) - **COORDINATOR**
- FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA - IIT(999596447) - **BENEFICIARY**
- KARLSRUHER INSTITUT FUER TECHNOLOGIE - KIT(990797674) - **BENEFICIARY**
- FONDAZIONE SANTA LUCIA - (999583449) - **BENEFICIARY**
- OTTOBOCK SE & CO. KGAA - OTTO BOCK HEALTHCARE GMBH(999941573) - **BENEFICIARY**
- LUNDS UNIVERSITET - (999901318) - **BENEFICIARY**
- TWENTE MEDICAL SYSTEMS INTERNATIONAL B.V. - TMSI(999649215) - **BENEFICIARY**
- SERVICIO DE SALUD DE CASTILLA LA MANCHA - SESCAM(998086060) – **BENEFICIARY**

4.5. CoreSense: A Hybrid Cognitive Architecture for Deep Understanding

Abstract

Cognitive robots are augmenting their autonomy, enabling them to deployments in increasingly open-ended environments. This offers enormous possibilities for improvements in human economy and wellbeing. However, it also poses strong risks that are difficult to assess and control by humans. The trend towards increased autonomy conveys augmented problems concerning reliability, resilience, and trust for autonomous robots in open worlds. The essence of the problem can be traced to robots suffering from a lack of understanding of what is going on and a lack of awareness of their role in it. This is a problem that artificial intelligence approaches based on machine learning are not addressing well. Autonomous robots do not fully understand their open environments, their

complex missions, their intricate realizations, and the unexpected events that affect their performance. An improvement in the capability to understand of autonomous robots is needed. This project tries to provide a solution to this need in the form of 1) a theory of understanding, 2) a theory of awareness, 3) reusable software assets to apply these theories in real robots, and 4) three demonstrations of its capability to a) augment resilience of drone teams, b) augment flexibility of manufacturing robots, and c) augment human alignment of social robots. In summary, we will develop a cognitive architecture for autonomous robots based on a formal concept of understanding, supporting value-oriented situation understanding and self-awareness to improve robot flexibility, resilience and explainability.

Participants

- UNIVERSIDAD POLITECNICA DE MADRID - UPM(999974844) - **COORDINATOR**
- TECHNISCHE UNIVERSITEIT DELFT - TU Delft(999977366) - **BENEFICIARY**
- FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV - FHG(999984059) - **BENEFICIARY**
- UNIVERSIDAD REY JUAN CARLOS - URJC(999886283) - **BENEFICIARY**
- PAL ROBOTICS SL - PAL ROBOTICS(970666488) - **BENEFICIARY**
- IRISH MANUFACTURING RESEARCH COMPANY LIMITED BY GUARANTEE - IRISH MANUFACTURING RESEARCH(927973393) - **BENEFICIARY**