

University of Rijeka inspiring and supporting the development of regional innovation ecosystems

TECHNOLOGY CONFERENCE



Prof. Dr. Sc. Saša Zelenika
a.i. Rector's Advisor for Strategic Projects

Nataša Jakominić Marot
Head of University Centre for R&I

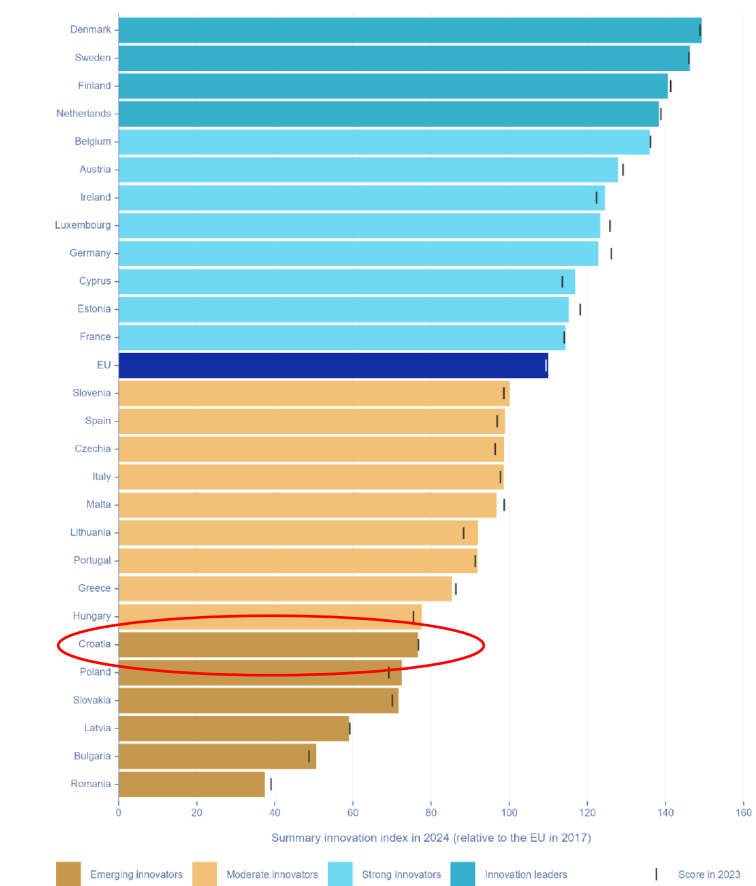
Lea Perinić
Head of Department for Innovation & KV

University of Rijeka, Croatia

UNIRI

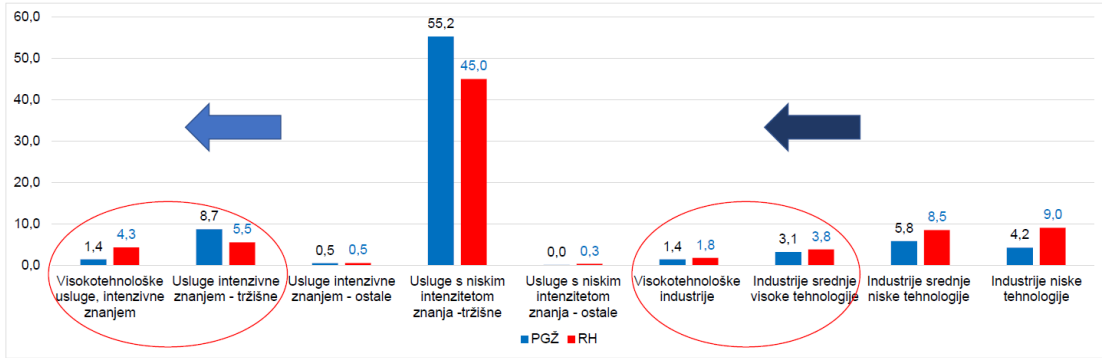


Figure 2: Innovation performance of the EU27, relative to the EU 2017 and compared to national performance in 2023

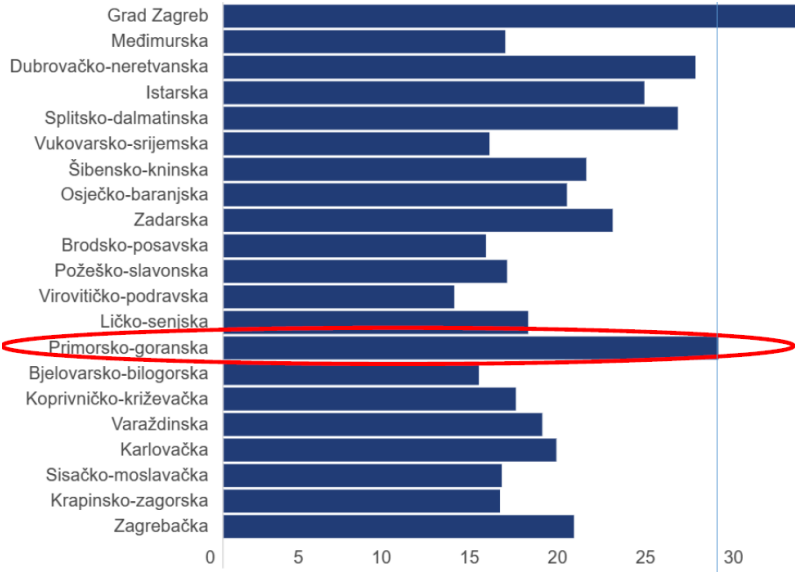


[European Innovation Scoreboard 2024]

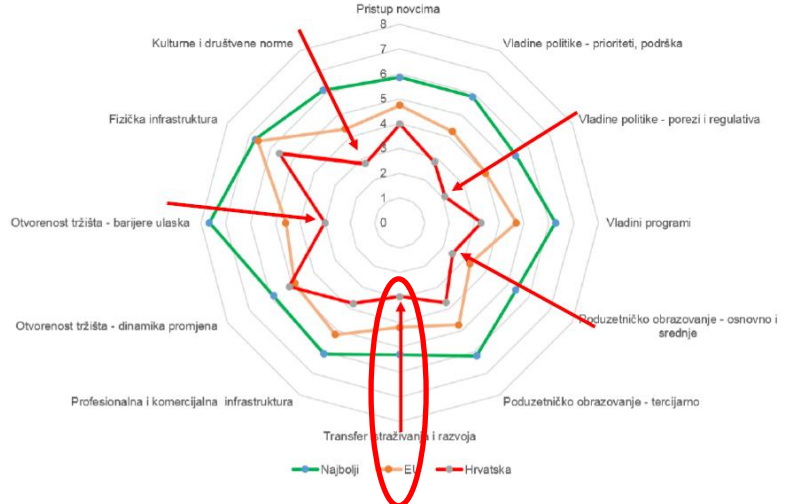
Udio prihoda poduzetnika u skupinama s različitim intenzitetom znanja i tehnologije u ukupnim prihodima poduzetnika u PGŽ i RH u 2018., u %



Stanovništvo staro 15 i više godina s visokim obrazovanjem po županijama, Popis 2021.



Hrvatska i najbolji u EU



University of Rijeka (UNIRI)

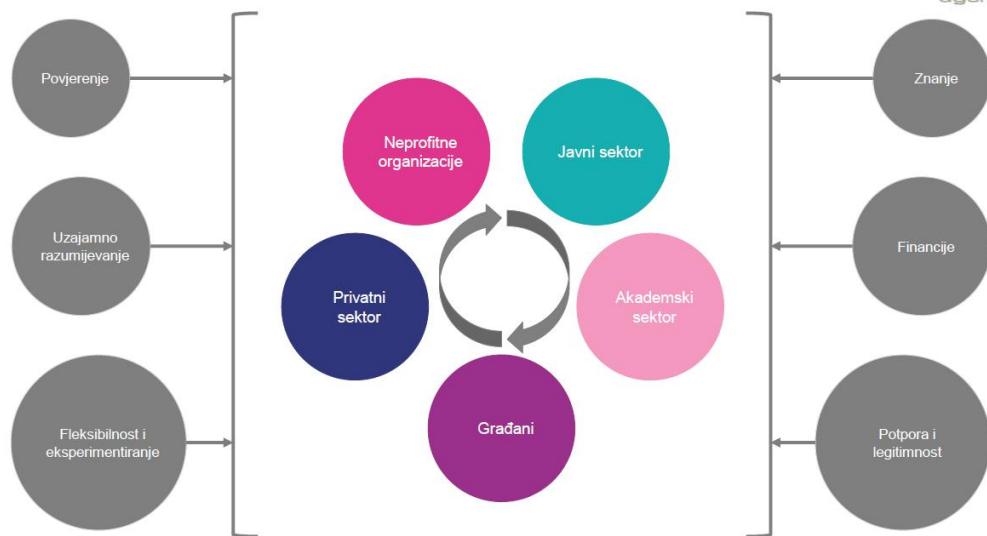


European University of the Future

We are:

- **teachers who prepare students for the jobs of the future and civic responsibility**
- **researchers who open and empower the University by boldly embarking on innovative research ventures and collaborations to develop the economy and improve the well-being of the local community**
- **citizens who sincerely believe in the European values of freedom, human rights, and enlightenment, and are building a new European future.**

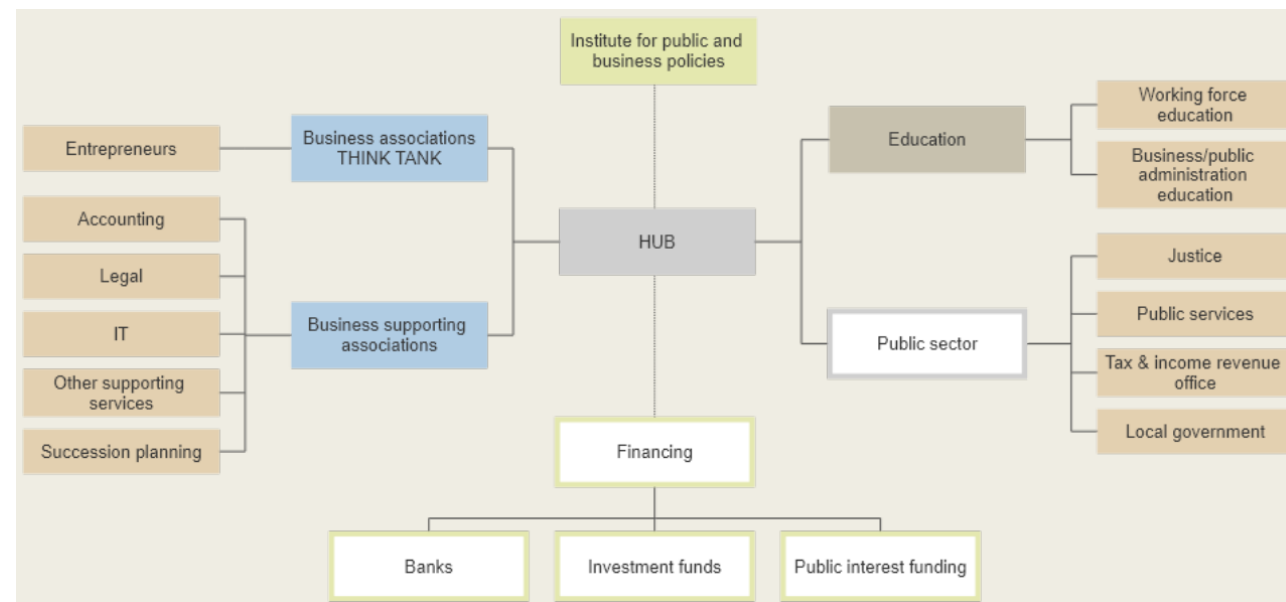
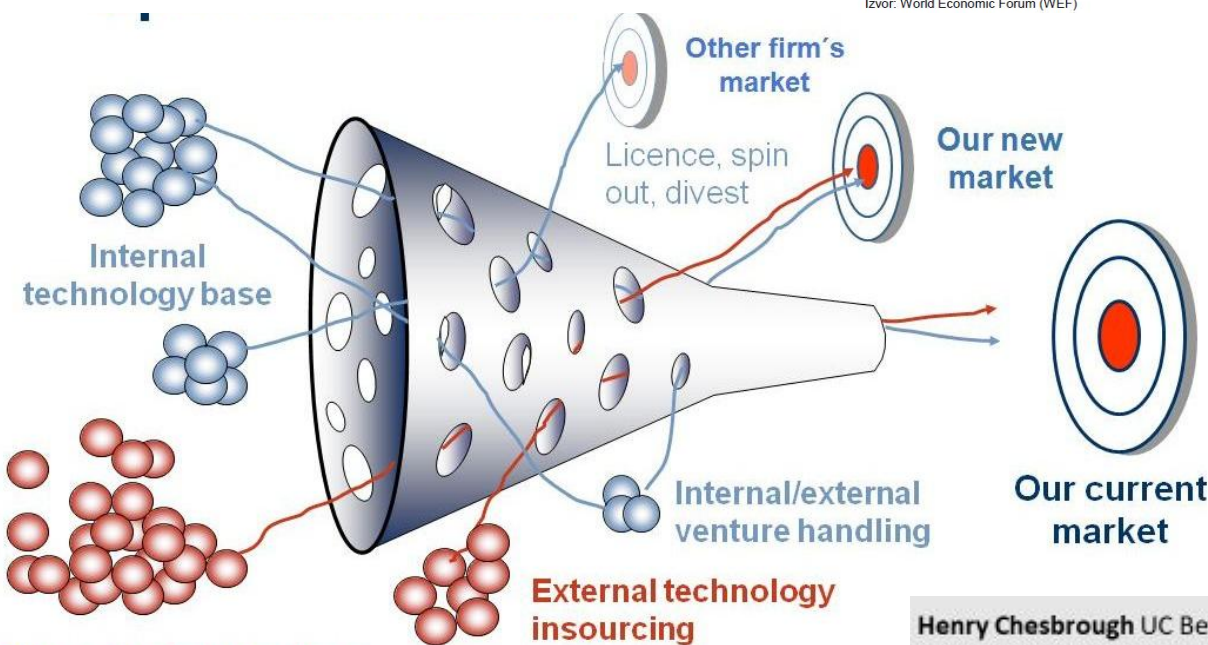
- Higher education (Jesuit college) since 1633 (392 years!)
- Modern university: 1973 (52 years); today: 16 faculties, 1 art academy, 13 research-development centres, 16,000 students, > 250 study programs, 1.250 dorm beds, 1.100 faculty (ca. 900 FTE) + 800 admin. staff (FTE), ca. 900 referenced sci. publications (30 % Q1, > 10 % Exc.) and ca. 20 Horizon/HRZZ projects per year
- Since pilot phase (2010) is part of HRS4R, signatory of CoARA & DORA, has OS and AI policies, ...

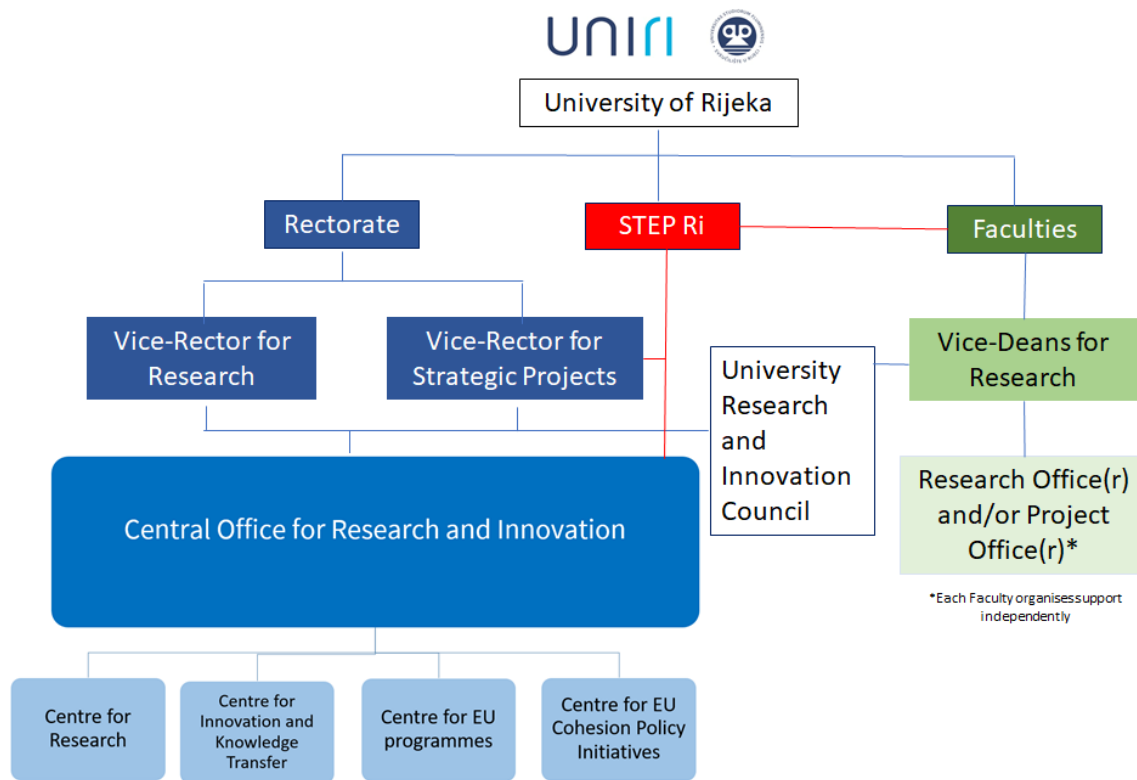


Knowledge valorisation:

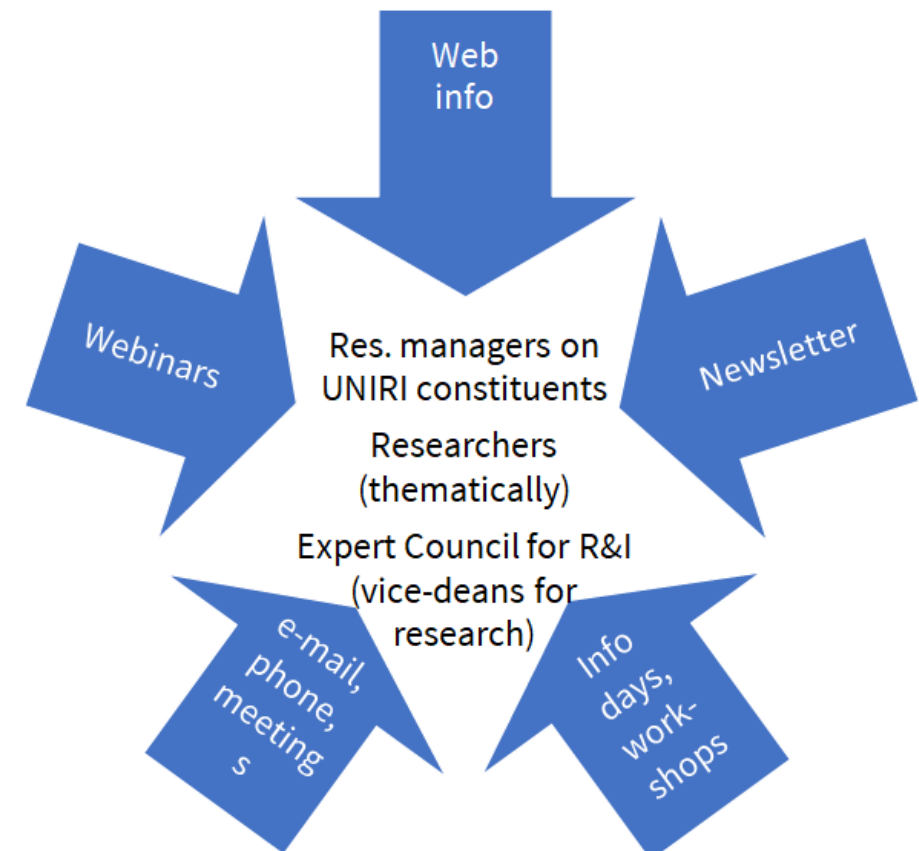
process of creating social and economic value from knowledge by linking different areas and sectors and transforming data, know-how and research results into sustainable products, services, solutions and knowledge-based policies that benefit society (in terms of economic prosperity, environmental benefits, progress and better policymaking).

Izvor: World Economic Forum (WEF)





UNIRI R&I Centre & Dept. for Innovation and KV Research Management (EARMA)



UNIRI R&D centres

Znanstveno-razvojni centri	
Centar za industrijsku baštinu (CIB)	Centar za napredno računanje i modeliranje (CNRM)
Centar za istraživanje uma i ponašanja (CMB)	Centar za podršku pametnim i održivim gradovima (CSSSC)
Centar za istraživanje djetinjstva (CID)	Centar za popularizaciju i promociju znanosti (SOCRI)
Centar za logiku i teoriju odlučivanja (CLTO)	Centar za studije mira i konflikata (CSMK)
Centar za mikro- i nanoznanosti i tehnologije (NANORI)	Centar za umjetnu inteligenciju i kibernetičku sigurnost (AIRI)
Centar za napredne studije jugoistočne Europe (CAS SEE)	Centar za urbanu tranziciju, arhitekturu i urbanizam – DeltaLab
	Jean Monnet Međusveučilišni centar izvrsnosti Opatija

UNIRI-INOVA collaborative interdisciplinary R&D projects

- **Institutional financing**, 1-year R&D projects in cooperation with SBAs from economy, public sector and NGOs.
- At least one UNIRI constituent & at least one external cooperating institution in ecosystem.
- **At least 2 scientific disciplines and 3 research fields.**
- **Aims:** talent development, business cooperation, innovative projects & development of technological solutions. Co-financing a plus.
- Contribution to KV and bi-directional knowledge transfer, to entrepreneurship & employability, development of innovations, usage of UNIRI research infrastructure, IPR, rise in no. of research bases, of publications & of B.Sc., M.Sc. and D.Sc. theses with external institutions, ...

TRANSFER ZNANJA U ZAJEDNICU

**Sveučilište u Rijeci predstavilo UNIRI-INOVA projekte:
Odabrani najbolji projekti koji će unaprijediti društvo**

Ingrid Šestan Kučić
15. srpanj 2022 20:28



Svaki od pet projekata financirat će se s 50 tisuća kuna - rečeno je na predstavljanju / Snimio Vedran KARUZA

Predstavljani odabrani projekti u sklopu programa UNIRI-INOVA

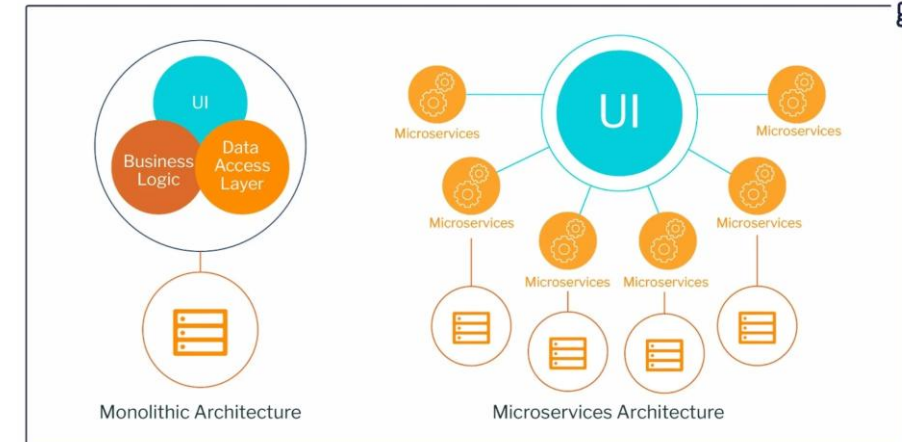
Petak, 15. srpnja 2022.

Grad Rijeka > Sveučilište > Predstavljani odabrani projekti u sklopu programa UNIRI-INOVA



Na Natječaju za institucijsko financiranje interdisciplinarnih znanstveno-razvojnih projekata, koji uključuju dionike iz gospodarstva i/ili zajednice "UNIRI-INOVA", odobreno je financiranje 5 najbolje ocijenjenih projekata.

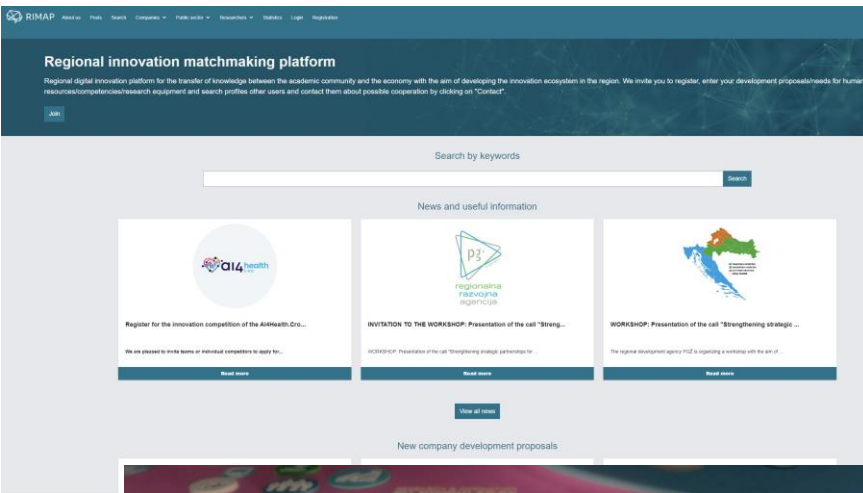
INNOVATION HUBS: EDIH Adria (DEP, 3 years, 2.65 M€)



[<https://www.gravitee.io/blog/what-are-microservices-how-do-they-enhance-web-applications>]

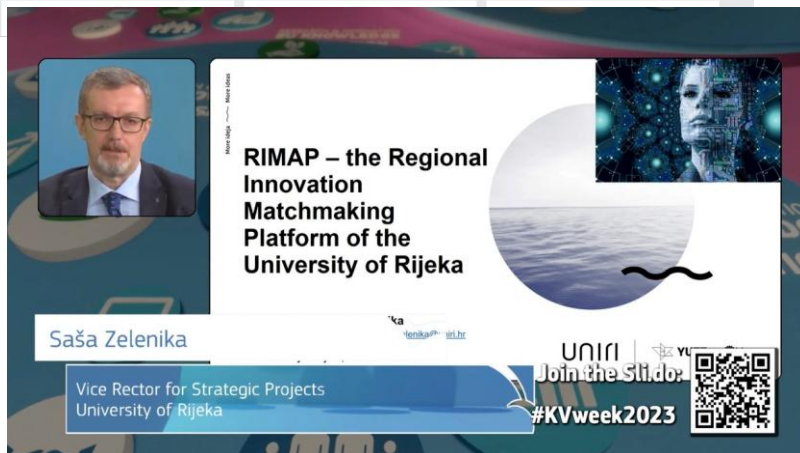


RIMAP – Regional Innovation Matchmaking Platform



Today:

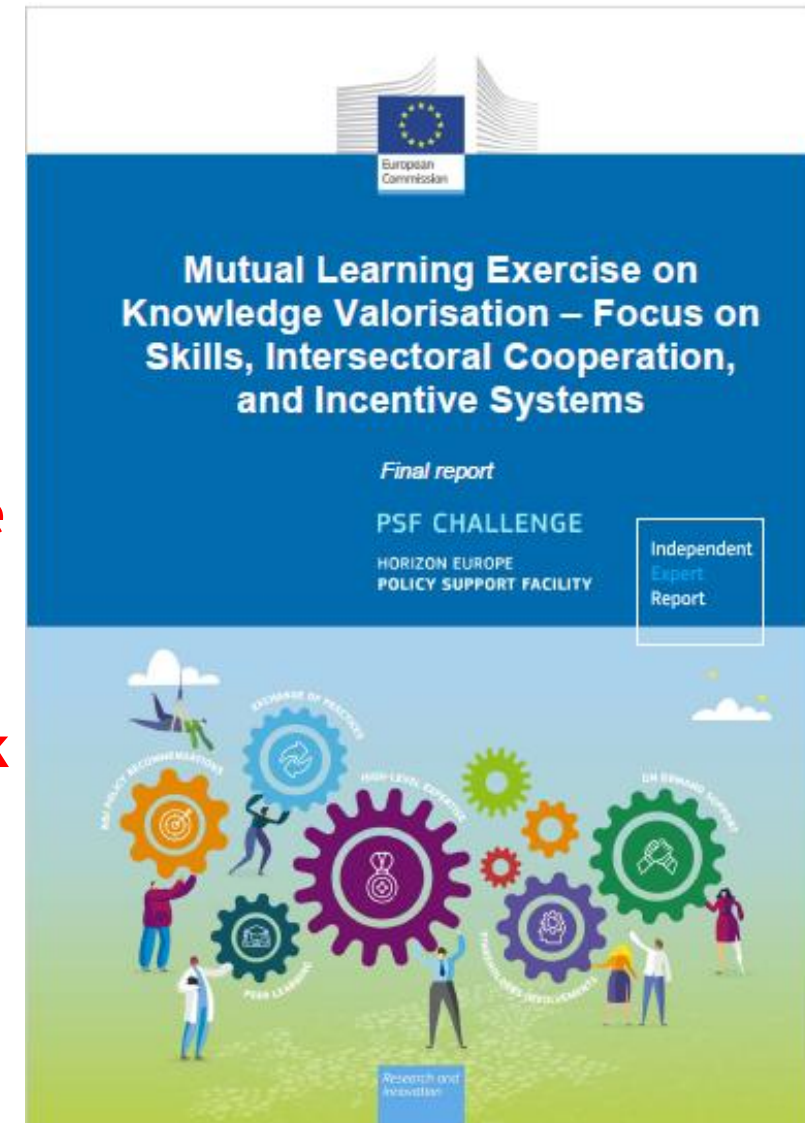
- 200 researchers
- 105 companies
- 42 public sector stakeholders
- 53 development project proposals



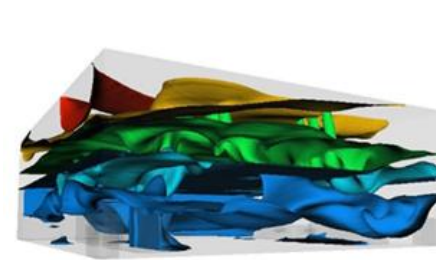
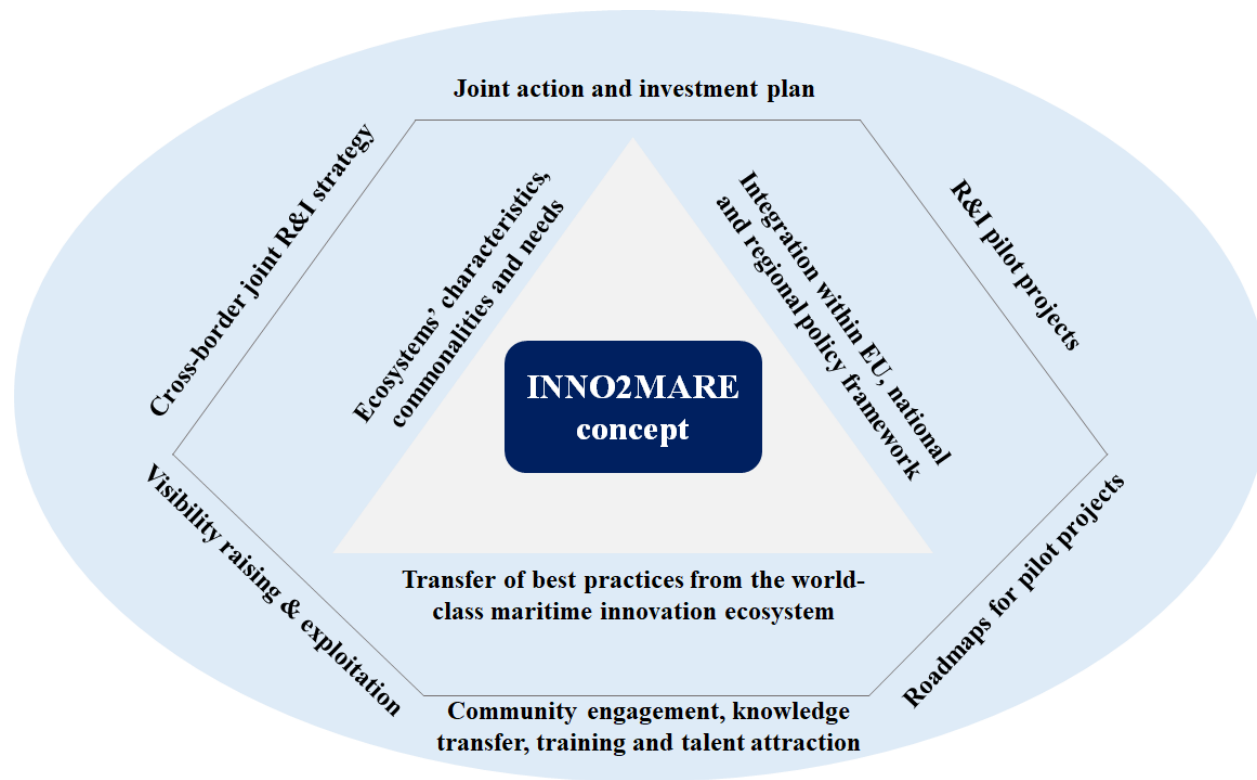
20 concrete UNIRI-INOVA scientific-development projects with partners from the economic and public sector.

Best-practice example @ EU Knowledge Valorisation week 2023 and EU Committee of the Regions 2024.

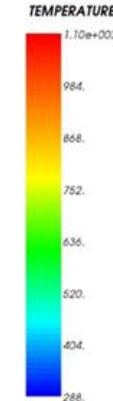
Extended to a YUFE-wide Innovation Platform



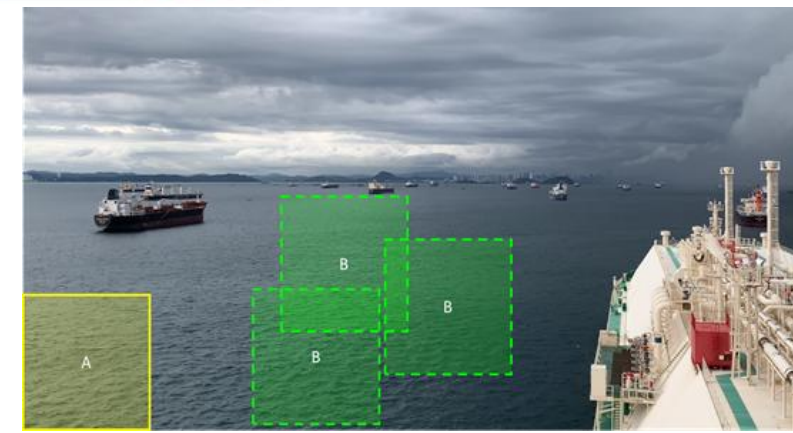
HE Excellence Hub INNO2MARE (Slovenian and Croatian innovation ecosystems supporting digital & green transitions of maritime regions) - 5 M€, 4 years



600s



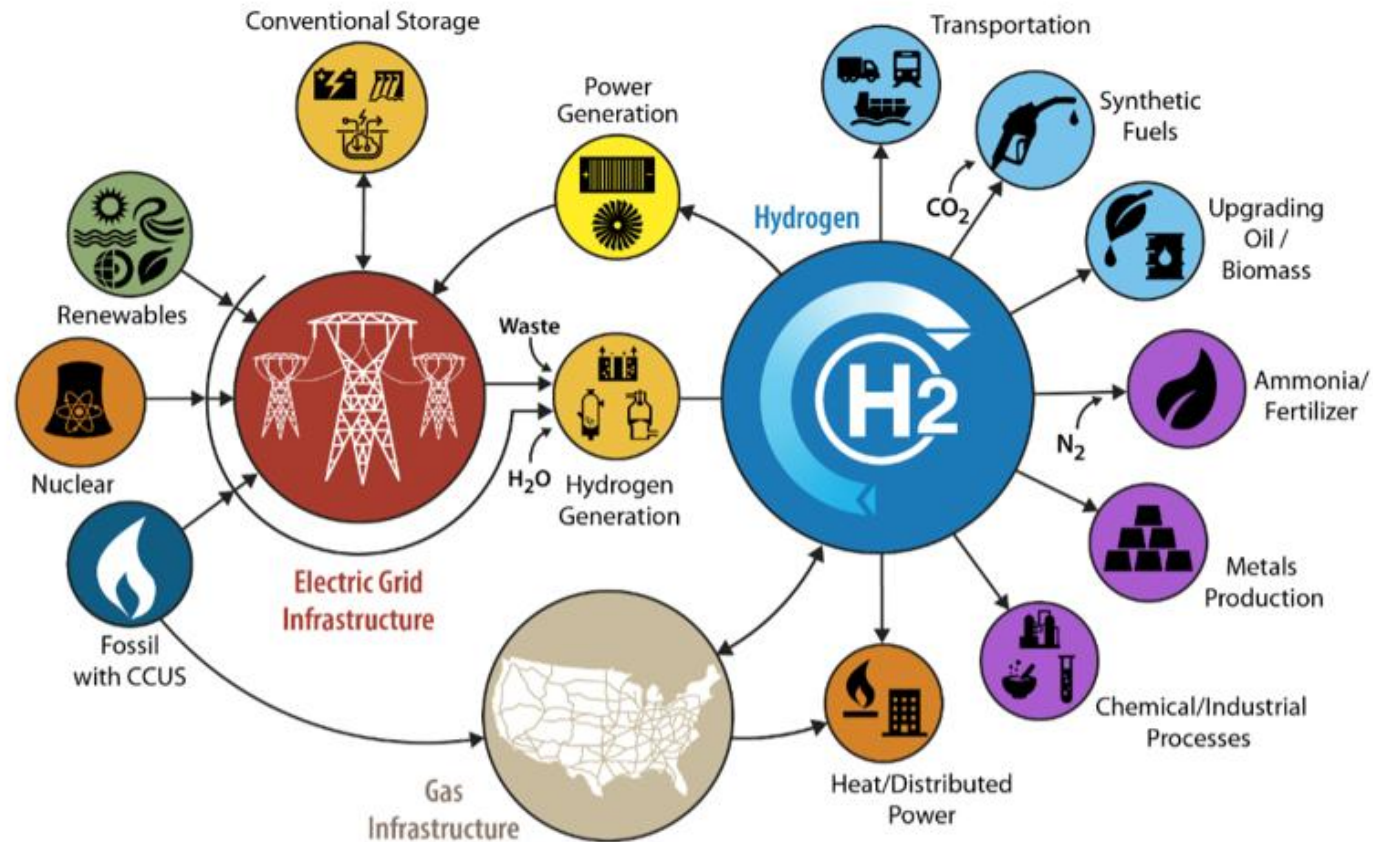
Fire evacuation VR model, digital twin for sustainable & efficient energy management, AI-based autonomous shipping:



North Adriatic Hydrogen Valley (HR, SI and North Italian regions, 37 organisations):



Conceptual H2@scale (hydrogen at scale) energy system



HE project (Clean H₂
Partnership)

Quadruple helix methodology
Contribution to EU Green Deal
and H₂ Strategy Goals

→ development of 17 testbeds
that will cover the complete
H₂ value chain from
production to distribution,
storage and end-use

Source: U.S. Department of Energy, *Hydrogen Program Plan*, Figure 3, November 2020

Note: CCUS is carbon capture, utilization, and storage.

YUFE/YERUN KV expert networks, training, flipped KT approach, DIOSI doctoral education

demand-driven (outside-in)

solution-oriented

involvement of societal & business actors (SBAs) during the co-creation process

bi-directionality of the transfer process

inter- and transdisciplinarity

focus on value creation and impact

involvement of both tech and non-tech innovation (e.g. social Innovation)

5 TRAINING MODULES

Identifying the demand for innovative solutions of SBAs

Increasing the motivation of academics for KT with SBAs

Effective engagement skills: communication, marketing and promotion

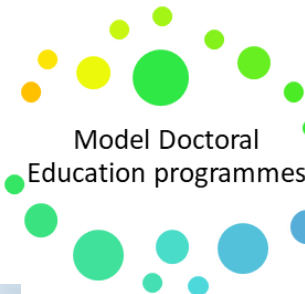
Effective engagement skills: brokering, negotiation and persuasion

Managing the flipped knowledge transfer process through co-creation

TARGET GROUPS

KT professionals

Researchers and KT professionals



Build DIOSI-model for doctoral education, integrating both transferable and research skills

- Open Innovation & Entrepreneurship
2 train-the-trainer sessions
20 training sessions for DCs
- Open Science
2 train-the-trainer sessions
40 training sessions for DCs

Training

Impact

Develop DIOSI impact and graduate tracking framework



**Antwerp, UC3M, Essex,
... KV models**

RDA PRIGODA, Infobip, ENT, JGL, Maritime Innovation Cluster/Maritime Centre of Excellence (Lürssen), Kvarner (Smart) Health Tourism Cluster, KBC Rijeka, Smart RI CeKom, CTK, >> 200 UNIRI scientific, scientific-teaching and professional „bases”...

regionalna
razvojna
agencija



Prioritetne niše i regionalni lanci vrijednosti Jadranske Hrvatske



RLV PLAVOG
RASTA

1. Plovila budućnosti
2. Luksuzni obalni turizam
3. Pametno ribarstvo i akvakultura



RLV ZDRAVLJA

1. Future-Farma-farmaceutika budućnosti
2. Personalizirana medicina
3. Zdravstveni i wellness turizam
4. Hrana za zdravlje



RLV ZELENOG
RASTA

1. Svježa hrana
2. Zelena gradnja i eko proizvodi od drva i kamena
3. Zelene tehnologije za energiju i održivi okoliš
4. Zeleni /eko / ruralni turizam



USLUŽNI
SEKTOR
VISOKE
DODANE
VRIJEDNOSTI

1. Audio-vizualna i filmska industrija
2. Gaming-industrija video igara
3. Poslovne usluge s intenzivnim znanjem – KIBS



RLV PAMETNE
INDUSTRIJE

1. IT rješenja i proizvodne tehnologije i modeli za industriju 4.0 i pametnu poljoprivredu
2. SmartTech rješenja za pametne gradove i pametne otoke



CROATIA
Full of life

20% of Croatian
tourist turnover

3500 beds in hotels

7 million tourists /
35 million
overnight stays in
last 3 years

> 180 000 health
tourist patients in
last 3 years

Kvarner Health Tourism Cluster

www.kvarnerhealth.hr



37 members
9500+ employees
5000 medical staff



Health – 20 members
Tourism – 15 members
Education – 2 members

We create seamless
interactions between
businesses and people

infobip

Since our beginnings in 2006, our mission has been to provide accessible, innovative global communication technology that creates seamless interactions between businesses and people across the globe.



SMART CITY ENERGY & ENVIRONMENT
SMART CITY MODESTY
SMART CITY SURINMO
SMART CITY 401
SMART CITY CONNECTED TRAFFIC
SMART CITY LIVING

PRIORITETNA PODRUČJA

AUTONOMNA PLOVILA
autonomija/sigurnost/navigacijski sustavi/

PAMETNE I ZELENE MARINE
ACI marina Rijeka/pametna marina/zelena marina/digitalne tehnologije/

ZELENE TEHNOLOGIJE
pretvaranje otpada u energiju/sterilizacija otpada/plazma/recikliranje baterija/

ČISTI POGON
vodik/zelena energija/održivost/



Centar kompetencija
za pametne
gradove

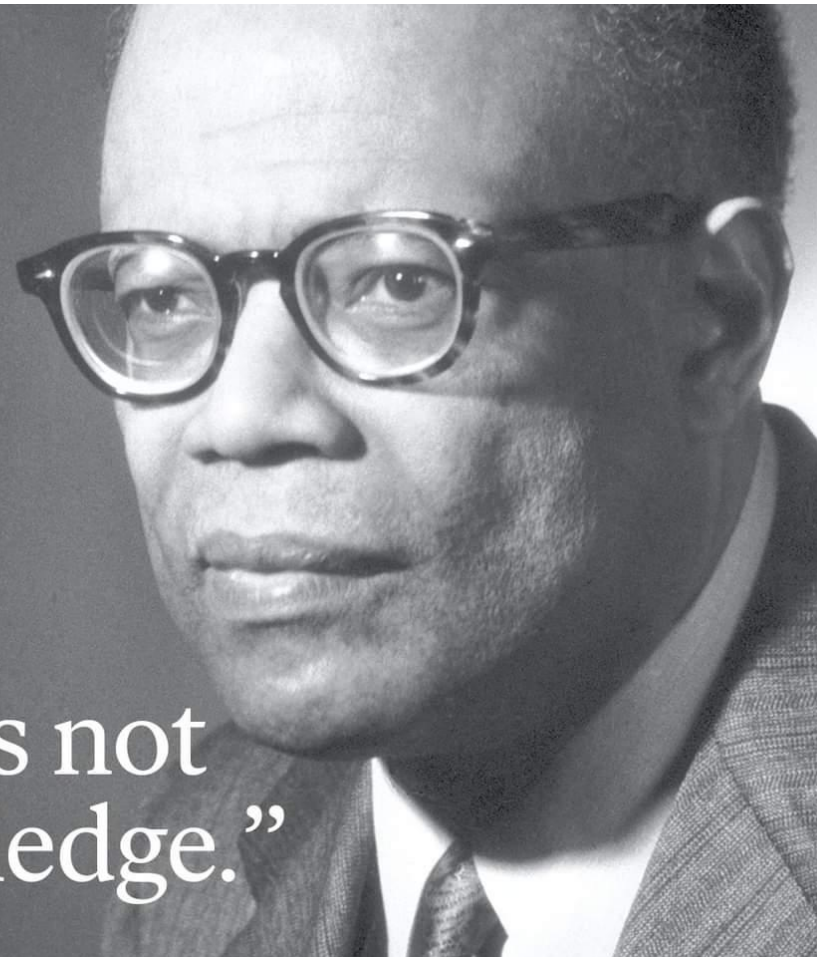


Instead of a conclusion

- **UNIRI** is not just part of the regional innovation ecosystems – it **is actively shaping them by turning res. excellence into solutions that benefit local community and economy** → **focused alignment of policies, clear strategic vision & strategic leadership ⇒ participatory, collaborative, transparent, opened & flexible process, with devoted resources, acknowledging diversity of roles, career stages & disciplines.**
- **Aims of UNIRI KV framework:** talent development (HRS4R, CoARA, RAF, ECRs, RMs, KT professionals), **open innovations, partnership with SBAs, economic and societal impacts.**
- **Instruments:** R&D centres, UNIRI-INOVA projects, innovation hubs (EDIH Adria, INNO2MARE, NAHV), RIMAP platform, IPR, spin-offs, YUFE & YERUN networks (best practices, joint projects & ML).
- **Benefits:**
 - **research organisations:** greater involvement with industry partners, enhanced collaboration with alignment of research efforts with market needs → increased commercialization, funding opportunities & stronger IP outputs ⇒ boost of reputation & attraction of talent;
 - **industry:** direct access to cutting-edge research & skilled workforce, co-creation and knowledge transfer reduces time-to-market, improves productivity & competitiveness;
 - **local government and NGOs:** development of evidence-based policies & community solutions;
 - **ecosystem level:** boost of region's visibility & positioning in global R&I landscape.
- **UNIRI and SBAs have built a dynamic, competitive, and sustainable R&I environment.**
- **UNIRI will scale-up these activities regionally and internationally, with focus on digital transformation and sustainability.**

SIR ARTHUR LEWIS
Prize in Economic Sciences 1979

“The fundamental
cure for poverty is not
money but knowledge.”



Thank you!

Prof. Dr. Sc. Saša Zelenika

a.i. Rector's Advisor for Strategic Projects

szelenika@uniri.hr

#UniRiThePlaceToBe

UNIRI

