

BU.CO.LI.CO.

Building Community Resilience through Communication & Technology

An Erasmus+ KA204 Project Proposal

Idrisi Cultura e Sviluppo
Palermo, Italy

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CONTEXT

Despite signs of stagnation from the EEA's two major economies, the latest available Eurostat data showed that as late as December 2019 the unemployment rate in the EU (6.5%) continued on the downward course it began at the start of the series (2000), marginally and stably exceeding those of the US (4.2%) and Japan (2.4%)¹.

These assumptions held true at the time the proposal was initiated (Jan 2020), but research soon showed that a 4/5 of the global workforce was affected by the Coronavirus pandemic in Q1 of 2020, and that large reduction of working hours may affect Europe (7.8%) in the following Quarter. While estimates on the EU will be confirmed or dismissed shortly after the application deadline as Eurostat Q1 Q2 of 2020 data is published, a rapid recovery strategy will be indispensable to shelter member states from deep recession².

To this end, BUCOLICO aims to address a structural problem, likely to be heightened by the lockdown of the world economy, i.e. low labour force participation among marginal groups and areas via social and local development interventions.

A TRANSNATIONAL ISSUE

Within the Union, inter-national and intra-national employment rate differences are extreme and, at times, on the rise. One demographic segment in particular, the young adults aged 15 to 29 epitomises the NEET phenomenon, one bearing profoundly troubling consequences on the socio-economic fabric of some Southern and Eastern countries. Downward scale-shifting from member states to regions, it becomes apparent that not only 80% of all regions experience youth unemployment rates that are twice as high as the national average, but also that some areas suffer significantly more than others, a handful featuring youth unemployment rates in excess of 50%:

1. France's Guadeloupe, Mayotte, Martinique,
2. Spain's Melilla, Ceuta, Greece's West Macedonia, and
3. Italy's Sicily, Calabria, Campania.

While all of these NUTS 2 areas lie out of or on the Southern rim of the

1 Eurostat (2020)

2 International Labour Organization (2020); Nathan A (2020)

Union's baricentre, equally-sized border insular areas such as Malta and Cyprus enjoy rates comparable to those of the virtuous regions of France, Germany, and the United Kingdom, hinting to the issue being institutionally-rather than geographically-driven, and therefore, ultimately solvable³.

Response to the impending demographic storm⁴, resulting from the en masse retirement of the baby boom generation coupled with below-replacement birth rates across the developed world, has been inadequate both at local and national levels. Indeed, from the vantage point of Italy's demographically and economically fragile southern regions, there is evidence that governments actions over the last 4 decades have been aligned with the World Bank's cluster and dissolve policy⁵, but against the centuries-old Mediterranean tradition of node-less diffused development. This asynchrononous model exacerbated:

1. social exclusion, as seen in the conditions of secondary inland roads and railways causing diminished accessibility, deteriorating opportunities for rural communities, ultimately negative demographics;
2. economic exclusion, detectable in a -24% gap in productivity compared to metropolitan areas⁶.

Two recent pilot projects, one focusing on adults and seniors (Sicani Sviluppo), another on teenage students (Patrimonio Platani) carried out by members of the proponent organisation in a dozen Sicilian inland municipalities have returned:

A) declining population, with municipal figures ranging from -0.5% to -17.4% (2000-2020),

B) low institutional confidence across every surveyed sample,

contrasted by such positive participation to every trial community cultural project design exercise as to convince IDRISI to expand the trials to a wider local audience and across to an international network in the hope of modelling a replicable local development standard tailored to improve living and working conditions of socially marginal individuals in geographically

3 Eurostat (2020b)

4 Kostantinos J (2019)

5 Griffith B – Nallari Y R (2013)

6 Istat (2019)

marginal areas.

EXPECTED RESULTS

BUCOLICO is designed to work towards SMART aims (Specific, Measureable, Achievable, Realistic, Time-Constrained), via two sets of results:

SET A) 6 Intellectual Outputs; and

SET B) 8 additional items drawing on the project management budget

The smart aims⁷ are:

1. Contribute a learning standard based on digital and entrepreneurship skills to improve cognitive and non-cognitive traits, the latter being highly predictive of self-sufficiency;
2. Bolster the resilience of rural communities facing geographic, infrastructural, socio-economic marginality and its effects, i.e. sharp migration imbalance, lower than average natality and higher than average mortality rates, demographic, social and economic decline. Foster their re-convergence with metropolitan areas by equipping beneficiaries with as widely applicable a skills sets as digital mapping, its tools being expendable in geomarketing, urban planning, geographic data visualisation, mobility management, precision agriculture, customer profiling and data analytics;
3. Compensate demographic and productivity loss in developed countries by closing the education-work supply chain gap;
4. Mitigate inter-generational potential friction and encourage mutual understanding across the generations in areas where living standard tend to decay compared to the past. NEETs will be empowered by being turned into the main vehicle for knowledge transfer to seniors.

Set A: Intellectual Outputs

1. BUCOLICO JUNIOR DIGITAL CURRICULUM

for new European citizens which encourages and motivates them to excavate, collect or produce cultural objects of their new living

⁷ Euostat (2020c); Kotlikoff L J – Burns S (2012)

environment and to exhibit them in the BUCOLICO Virtual Museum, and which contain all learning materials required for these tasks. The contents will be available in the languages of the partnership with additional explanations in Arabic and Pashtun in printed form, on the Internet and as mobile applications;

2. IO2: BUCOLICO JUNIOR ENTREPREURSHIP CURRICULUM

BUCOLICO Curriculum for adult education trainers (teachers, operators etc.) with indications about the didactic design and operation of such measures;

IO3: BUCOLICO SENIOR DIGITAL & ENTREPRENEURSHIP PACKAGE

an interactive, multifunctional e-platform where all target groups can access the components of the project and interact through collaborative online tools and mobile applications for the purposes of information sharing, learning and networking.

3. IO4: BUCOLICO OER E-LEARNING PLATFORM

which provides the IT infrastructure and IT platform to accept and exhibit the objectives that have been produced by the “artists”, i.e. the new European citizens in their cultural integration action. The Virtual Museum will support their better understanding of our European past, reduce cultural clashes and support them to understand and accept our European values;

4. IO5: BUCOLICO MOBILE BUSINESS GAMING APPLICATION

A smartphone-based serious gaming application mentoring business wannabes through the designing of the their business plan, business model canvas and other useful tools.

5. IO6: BUCOLICO Handbook

This will describing the findings of the first implementations of this new social and cultural integration action in five different European states. It will also serve as the user manual to the IOs 1 to 5. As such, it is expected to positively impact on the social inclusion activities in across the EU.

Set B: Additional Items

1. PROJECT MANAGEMENT TOOLKIT

This will include consist of project management guidelines, time and resources allocation, communication process and the project overall action plan.

2. MEMORANDUM OF UNDERSTANDING AND CODE OF CONDUCT

Addressing issues such a conflict, intellectual property rights and personal data protection.

3. QUALITY ASSURANCE & EVALUATION PLAN

Providing systematic monitoring tools, project and budget management and communication between partners and with stakeholders and objectives to assess the quality of progress.

4. EVALUATION REPORTS

Eliciting feedback on the project and providing assistance for expert review in the validation phase, assistance on survey development and independent analysis of survey data. The final report will contain the accumulated findings of the entire project period.

5. LOGO & WEBSITE

IWS will design the project corporate and visual identity. The website will be connected with the OER Platform.

6. NEWSLETTERS & FLYERS

Three issues will inform all stakeholders about the project and its milestones, and current activities. Newsletters will be produced in the languages of the partnership, just as the flyers. Both materials will be distributed at multiplier events and and conferences serving.

7. PROMOTIONAL VIDEO

CLLD Labs will engage beneficiaries and stakeholders in using photography and video via intereventions, inspired by Photovoice, , a community-based action-research method incorporating photographic/video recording with empowerment practices.

INNOVATION

There are 5 dimensions to BUCOLICO's innovativeness:

Technological Innovation

The project will develop a junior digital skills curriculum (IO 1), a senior digital and entrepreneurship senior package (IO3), an OER E-Learning platform (IO 4), and a business gaming mobile application applied to the natural and cultural resources (priority 'supporting the social value of heritage'), by bundling together a set of MOOC ranging from Artificial Intelligence to digital mapping, from social media to web management and marketing, from digital analytics to user experience maximisation. The purpose is to improve individual self development by providing the means to race with technology, instead of against it, and to encourage group work performance effectiveness by harnessing technology to create new jobs at the same time as machines automate and eliminate as described by renowned MIT researchers.

The envisioned effects of such use of digital technologies are:

- At the macro-scale, they will assist the beneficiaries' transition or adaptation to the requirements of the intellectual capitalism work arena where education is increasingly the new currency and skills are increasingly mapped both at schools and business ends;
- At the micro-scale, it will enable them to advance in their careers towards ever more specialised tasks and duties, as required of the 'support to upskilling pathways' priority;
- On the whole, it will contribute to the learning economy's purpose of unifying the supply chain extending from schools and universities to employers or start-uppers by better managing skills development⁸.

Process Innovation

In line with the 'supply of high quality learning opportunities for adults' priority, it will be user-centred and flexible:

- Didactics will be based on an informal set of digital heritage-focused

sessions (priority: innovative practices in the digital era) adapting Bergmann and Sam's flipped classroom-flipped learning consisting of an array of mastery-, project based-, inquiry-, collaborative learning, peer instruction, learning by doing, gamification, inclusive classrooms, with the purpose of maximising student engagement⁹.

- Content demand will be generated by bottom-up focus groups with beneficiaries and stakeholders taking the shape of open CLLD labs inspired by the place-based model¹⁰.

The goal is to bolster user participation and social engagement, thus satisfying the 'civic engagement' priority.

Transgenerational Innovation

Interventions will reach out across the age-pyramid. NEETs will be the project's primary beneficiaries both as early receivers of educational actions and as their co-disseminators in accordance with the 'increase learning demand' priority and to this year's priority requiring projects to foster inter-generational exchanges. Accordingly, they will transfer their newly acquired digital knowledge to second beneficiaries, namely:

- mature adults willing to up-step their productivity;
- senior citizens unwilling to wholly depend on junior members of society (family and friends) to enjoy digital experiences and opportunities or choosing to extend their permanence in the working arena.

Transgenerational exchange will be 2-way:

- NEETs will contribute to the Senior Package build-up.
- Mature adults and seniors will return entrepreneurial mentoring and experience sharing (IOs 2 and 3).

Social Innovation

Drawing on UNICEF Italian Committee's definition that NEETs are "an indicator of unsatisfactory quality of life (...) a phenomenon linked to

⁹ Bergmann J – Sams A (2012); Bergmann J – Sams A (2014)

¹⁰ Angelini A – Bruno A (2016)

economically developed societies”, CLLD labs will use a positive psychology approach to:

- diffuse the toxicity of a pessimistic worldview often inherited from and fed by their inner family circle; and
- break their learned helplessness and equip them with a renewed propulsive mindset expendable both in education and at work¹¹.

Geographic Innovation

It will subvert the cluster and disseminate model in favour of Barca's social cohesion approach, one facilitating where it is most need it most, marginal rural inner areas¹².

PARTNERSHIP BUILDING

The rationale underlying the BUCOLICO Partnership is to bring to the project a manageable number of organisations responding to 2 two macro-parameters:

Representativeness

Organisations lying in EU countries/regions representative of a transnational issue (low labour force participation in marginal individual/groups and marginal rural areas);

Relevant expertise

Organisations possessing the necessary competences and experience in the fields of:

- senior education and training provision
- entrepreneurship and business mentoring schemes
- desktop-based digital learning platforms
- mobile-based digital game learning applications

integrating IDRISI's own active labour policies and training tailored to marginal juniors.

11 UNICEF Italia (2019); Seligman (1990)

12 Agenzia per la Coesione Sociale (2014-2018)

Being based in one of the EU areas where young adults suffer most from societal disengagement and economic deprivation, IDRISI believes there is a strong case for it to run as lead partner.

At NUTS 0 level¹³, Italy tops the Union's NEET (20-34 year olds) list in absolute (2.1 million) and relative terms (28.6%) ahead of Greece (26.8%), Bulgaria (20.9%), Romania (20.6%), Slovakia (20%) and Spain (19.6%). It is 2nd to Turkey among the EEA's 31 and the OECD's 36 states, and just behind (38%) Spain (39%), Portugal (40%) and Turkey (48%) in terms of school drop-outs.

IDRISI lies within the Italian NUTS 1¹⁴ macro-region (Islands) featuring the highest rate of inactive 15-24 year olds (49.4%) ahead of the North-West (24.5%), North East (18.9%), Centre (29.1%) South (47.9%). At NUTS 2¹⁵ level, Sicily is the 7th most affected region in the EU behind Melilla (66.1%), Ceuta (62.4%), Dityki Makedonia (62%), Mayotte (61.1%), Voreio Aigaio (56.7%), and Guadeloupe (55.2%), the 3rd if taking among regions lying physically within Europe, the 2nd in Italy in absolute terms (228,000) behind Campania (265,000) and the 1st in relative terms on a par with Campania (53.6%). Finally, IDRISI and the beneficiary and stakeholder target groups that will receive BUCOLICO's interventions all fall within the 105th NUTS3 level province out of a total of 107¹⁶.

In the absence of NUTS3 data available for the whole of the EU, the network representiveness scale was set at NUT2 regional level and an evaluation matrix was built in order to single out partners wedged into 4 (of 5) vacant categories rating NEET severity. In the matrix, the pertaining to one of those 4 vacant categories was assigned a fixed weight of 50.

1. (Extremely high, 50-100% > Sicily)
2. High, 40-49%
3. Medium, 20-39%
4. Low, 10-19%
5. Extremely low, 0-9%

The purpose being to experiment and stimulate reciprocal comparison, exchange of at times, starkly different work value systems and contexts. The BUCOLICO project summary was posted on the Epale platform, 3 days were

13 Appendix 1

14 Appendix 2

15 Appendix 3

16 Eurostat (2019); Anpal (2019)

allowed for expressions of interest to come through.

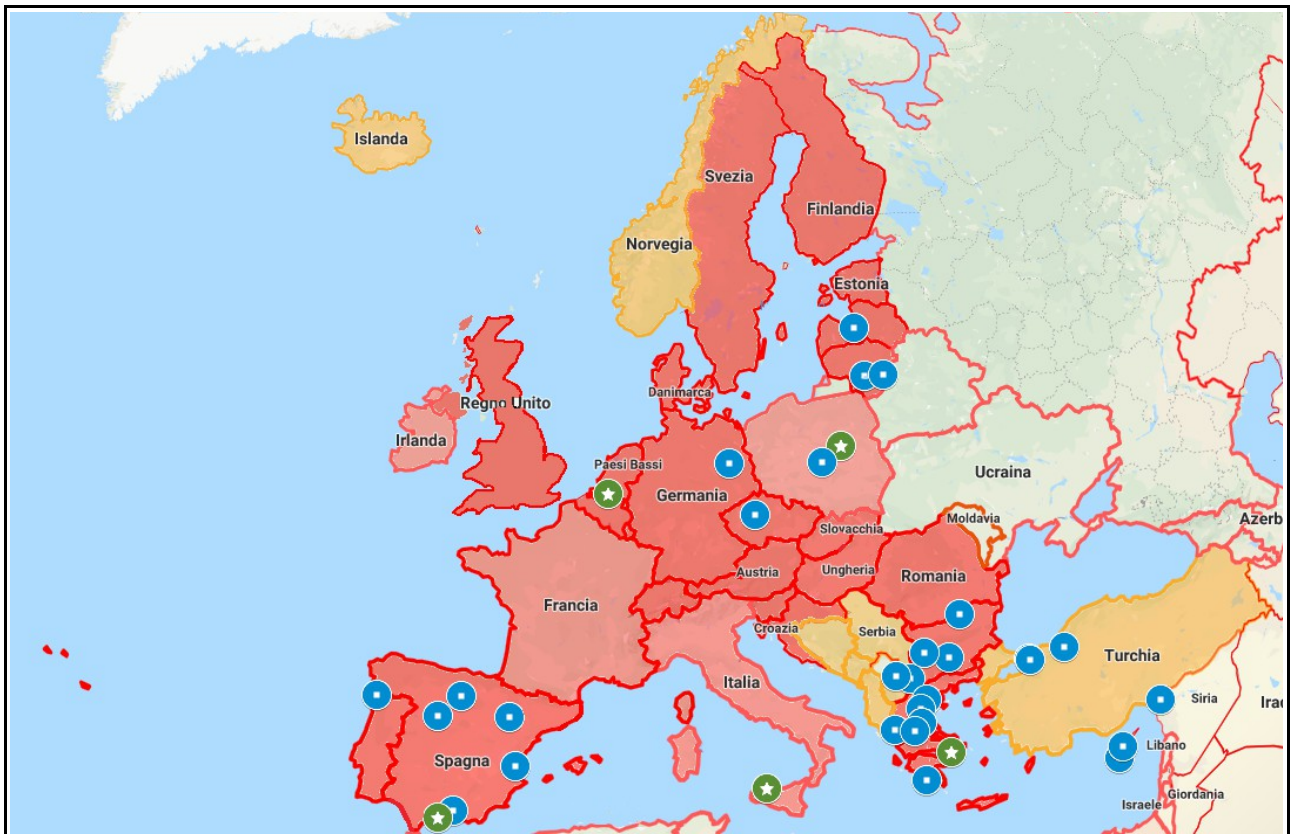


Image 1: Erasmus+ Programme member/partner (red/orange), locations of requesting organisations with relevant curricula (blue), and locations of the organisations forming the BUCOLICO Partnership (green)

46 requests came from organisations whose expertise and experience was relevant to the project. Representatives were interviewed to gather further insights as to the correspondents' ability to effectively bring value to the project. In the matrix, this second indicator was weighed as:

- not relevant (0)
- neglectable (10)
- quite relevant (30)
- very relevant (50).

The indicators were designed to add up either:

- not valuable (50, 60) or
- valuable (80 or 100) scores.

Most impressively, only four (of 46) organisations scored 100 and were thus invited to join the project:

1. Internet Web Solutions / Spain

Seated in the Andalusia, at 46.7% it falls within the high NEET severity category and is extremely well experienced in the creation of desktop-based e-learning tools;

2. Innovation Frontiers / Greece

Being headquartered in Attica, its NEET rate (39.7%) is located within the medium NEET severity range (bordering high). Its scholarly staff can boast the knowhow ideally suited to developing a mobile gaming application;

3. Asturia / Belgium

Based in the Antwerp region, it belongs to the low NEET severity category (13.5%) and is perfectly equipped to make its contribution felt in the senior education and training sphere.

4. Fundacja Ad Meritum / Poland

Rooted in Warsaw Capital District, the area with the lowest NEET severity rate (8.5%), it entertains advises the more affected Slaskie, Mazovia and Swietokrzyskie regions and will bring to the project its vast experience in entrepreneurship, employability, and the social inclusion of 'missing entrepreneur' groups (women, seniors, migrants, and of course NEETs).

OUTCOMES

The Partnership will produce three types of outcomes:

1. Intellectual Outputs

One partner organisation has been appointed to lead each of the Intellectual Output from 1 to 5, with the remaining four organisations acting as supporters in the design, development and implementation. As to Intellectual Output 6, being it much more of a concerted effort, Idrisi's role will be that of a compiler – rather than a leader – of every organisation's contribution. Accordingly, effective monitoring and successful outcomes will be secured as follows.

- Intellectual Output 1 - Junior Digital Curriculum: Idrisi, Italy
- Intellectual Output 2 - Junior Entrepreneurship: Fundacja Ad Meritum, Poland
- Intellectual Output 3 - Senior Digital and Entrepreneurship Package: Asturia, Belgium
- Intellectual Output 4 - OER E-Learning Platform: Internet Web Solutions, Spain
- Intellectual Output 5 - Mobile Business Game: Innovation Frontiers, Greece
- Intellectual Output 6 - Handbook: Idrisi, Italy

Besides, it will fall upon the project co-ordinator to:

- keep track of the timely and punctual submission of all items in line with the overall work schedule and its specifications,
- collect contributions from the other partners and to compile the final product;
- review each and every deliverable;
- collect the partners' feedback relating to:
 - Scientific contents reliability and checking;
 - Data gathering and analysis process;
 - Reporting process;
 - Content relevance against the project's objectives;
 - Overall report quality.

2. Management Activities

Project management, correspondence with the relevant Erasmus+ National Agency, financial and administrative management, quality management and evaluation will be Idrisi's exclusive domain. Progress, interim and final reports will be the summative result of every partner's contribution.

The project website and social media profile/group will be designed and run by Internet Web Solutions, with potential backing from the other partners taking the shape of text, audio and video contents contributions and suggestions relating to graphics and user experience maximisation.

Every partners will be expected to translate (or have translated) the project flyers, newsletter and handbook from English to their own national

language, as well as to have them printed.

Seven transnational meetings are scheduled to take place over the project life cycle. The drafting of the agenda and of the detailed programme will be the exclusive responsibility of the host organisation, prior to Partners' consultation, mindful of the overall project work schedule, chronogram and Intellectual Output(s) being developed at any single time. If it so wishes, the host may well call upon the co-ordinator for assistance. While travel arrangements will be up to each individual organisation and be funded by a contribution to unit costs based on mileage, the host will be expected to make room/board and local commuting recommendations 3 months in advance of the meeting in such a fashion as to ease bookings and logistics.

Partners will agree a common work policy during the kick-off meeting.

3. Dissemination Activities

Five multiplier events are to be held, one in each of the members' countries. Four events will be tailored to local audiences and a larger one due to take place in Italy where every Intellectual Output will be showcased in the presence of a regional public. Budgetary provisions have been made to this end with the last multiplier event scheduled to take place the very day after the last transnational meeting in Italy so as to make it possible and economically sustainable for all Partners' to attend and participate.

Each partner organisation will be responsible for its own multiplier activities. As such, it is expected to keep copies of all materials and make them readily sendable and/or share them with colleagues for own or disseminatory purpose, such as flyers, newsletters, press releases, project blog and social media postings.

Finally, Partners are strongly encouraged to pro-actively take part in local, regional, domestic and international conferences in order to raise public awareness of:

- the combined issue of social and geographic marginality/human and local underdevelopment;
- of BUCOLICO's proposed approach to overcome it;
- reach out to unforeseen stakeholders.

ASSOCIATED PARTNERS

To secure maximum dissemination and impact, the project Partnership has been extended to the organisations below. Proponents look forward to

further extending the list and range of associated partners in the preparation, implementation and follow up phases through meetings with the target groups, stakeholders and public at large.

Institutional (I), business (B), financial (F), cultural (C), social (S) and educational (E) actors have so far been identified. Yet, the list provided herein is only a tentative rather than a definitive one, and should therefore be seen as a basis for incremental participation and engagement growth.

Italian Associated Partners

1. UNIONE DEI COMUNI DELLA VALLE DEL TORTO E DEI FEUDI (I)
The authority covering core target area
2. CITTA' METROPOLITANA DI PALERMO (I)
3. The authority covering the extended target area
4. SICINDUSTRIA (B)
Association of Sicilian Industrialists
5. EUROPE ENTERPRISE NETWORK (B)
A network supporting SMEs across in 60 countries
6. CONFCOMMERCIO SICILIA (B)
Association of Sicilian Businesspeople
7. BANCA DI CREDITO COOPERATIVO VALLE DEL TORTO E DEI FEUDI (F)
The Italian target area's Cooperative Bank
8. FONDAZIONE UNESCO SICILIA (C)
A foundation co-ordinating the management of Sicily's 7 World Heritage Sites
9. FONDAZIONE SICILIA (S, C)
A grant-making foundation supporting the socio-economic development of Sicily
10. FONDAZIONE CON IL SUD (S)
A foundation supporting the social infrastructuring of Southern Italian

regions to narrow the North-South socio-economic gap.

11. GLOBAL THINKING FOUNDATION (E)

A foundation supporting priorities 4, 5, 8 of the United Nations Agenda 2030: Quality Education, Gender Equality, Decent Work and Economic Growth

12. ANCE SICILIA (B)

The Association of Sicilian Constructors and Builders

13. IDI INFORMATICA

Palermo's oldest ICT School and a valuable technology partner

14. EURISPES SICILIA (B)

A no-profit organisation specialising in political, economic and social research

15. CONSORZIO ARCA (B, E)

The University of Palermo's start-up incubator and accelerator

16. UFFICIO SCOLASTICO REGIONALE SICILIA (I)

The Board of Education for Sicily

17. CPIA - CENTRI PER L'IMPIEGO (I)

The National Active Labour Policies Offices are the State-devoted actors devoted to making job demand and offer meet.

18. ANPAL – Agenzia Nazionale per le Politiche Attive del Lavoro (I)

The Italian National Agency for Active Work Policies operates to coordinate private (agenzie del lavoro) and public (CPIA) active work policies facilitators

Belgian Associated Partners

1. CVO Kempen (E)

The largest institute of formal adult learning in the Kempen region.

Spanish Associated Partners

1. IT SOLUTIONS FOR ALL (ITSFA) (E, S)

An no-profit NGGo aiming to make IT solutions available to disadvantaged groups.

2. ARRABAL-AID (E, S)

A social and no-profit organisation working towards full employment and social integration of people, especially the most vulnerable ones.

3. TRIBEKA TRAINING LAB (E, S)

Providing the best work experiences, training courses, workshops and seminars for students and adults,

Polish Associated Partners

1. SMOLNA ENTREPRENEURSHIP CENTRE, CITY OF WARSAW (B, S)

The Centre helps entrepreneurs and promotes entrepreneurship because it was created as part of the "Warsaw Technological Space" project and fits in with the assumptions of the "Innovative Warsaw 2020" programme.

2. KIELCE SCHOOL No. 3 COMPLEX (Swietokrzyskie region) (E)

A cluster of general secondary school in Kielce and Chemical Technical Vocational School nr 8, involved in pedagogical initiatives with the In-Service Teachers Training Centre and the Kielce Municipal Department of Education.

3. IV LO in Bytom (Slaskie region) (E)

A secondary school with traditions in Bytom, a post industrial town and an economic depressed, whose steel works and mines were once the hub of the local job market, but are now home to high unemployment and post-industrial landscape. Students participate in additional activities: volunteering, sport competitions, art work, travelling, social and ecological projects, international exchange, Earth Day and entrepreneurial days.

4. ASSOCIATION ZYRARDOW ODNOWA (Mazovia region) (C, S, E)

An association aiming to: 1) develop, promote democracy and local self-government; 2) social and economic development; 3) create a positive image on the national and international forum; 4) activate members; 5) give and express opinions on the socio-economic issues of

Zyrardow town, district constituent municipalities.

Greek Associated Partners

No Associated Partners at the time of applying.

CONCLUSIONS

The context to BUCOLICO being outlined in the description field, this summary will outline the determinants, risks and solutions to the issue it wishes to address, i.e. the reintegration of socially excluded individuals in marginal areas. More specifically, it wishes to propose a learning standard contributing to the empowerment of NEETs in rural contexts.

Determinants

1. **CULTURAL:** the North-South Europe divide is owed to a Mediterranean model where young adults:
 - A) experience prolonged permanence within their original family core; synchronous exit from that core and the formation of a new family
 - B) lack support bridging the education-work transition
2. **EDUCATIONAL:** low-education makes youths vulnerable to job loss. Early school drop out lead to fewer graduates, as in Italy where only 26.9% of 30-34 year olds hold a degree (EU average 39.9%). In addition, highly developed human capital finds less opportunities in the Mediterranean, with 77.3% active 30-34 year old graduates (EU average 87.1%).
3. **ECONOMIC:** A third of young adult jobs were lost in the Mediterranean after the 2007-8 crisis and pre-crisis employment levels had yet to be restored. Young adults are at a greater risk of poverty being less eligible to subsidies than older age groups.
4. **GOVERNMENTAL:** 0.1% of municipal budgets in Italy is spent on active labour schemes (EU range 1.50-2.25%). Public employment schemes do not improve seekers' prospects as they tend to have too weak a training element. This is the case of Youth Guarantee in locations such as post-industrial Sardinia, where only 7% of youths completed their apprenticeship as employers thought little of them.

Costs

1. ECONOMIC: if unmitigated, NEET figures will add to negative demographics, low natality, emigration, long life expectancy in making ever more inactive citizens throw a greater burden on an ever smaller share of actives. Up to 1 in 5 peak-age workers will be lost by 2030 and dependency (number of inactive/active citizens) will rise from 38% to 70% by 2050. Young adults are strategic. Their shrinking will affect the sustainability of public sector systems such as education, defence, healthcare and pensions. This is happening faster in the Mediterranean where low natality has caused peak-age worker numbers to drop 26% in a decade (EU28 average -7%) and employment is low both at pre-peak (30-34 year olds: Greece 66%, Italy 67%, Spain 74%, Croatia 76%, Cyprus 77%, Malta 78%, EU 79%) and at peak age (40-44 year olds: Greece 72%, Italy 73%, Spain 77%, Croatia 79%, Cyprus 80%, Malta 81%, EU 82%). German pre-peak and peak participation is 84% and 85%. Taking Italy as exemplifying the Mediterranean, two 10-year scenarios open up:

- Worst-case: peakers drop to 2.3 million with a 30% productivity loss in their age group.
- Best-case: peakers' participation rises to 95% to maintain today's absolute number of employed.

Case 1 and 2 are unsustainable and impossible to realise. A viable middle-ground solution may be to boost labour participation both at pre-peak and peak age as NEETs – while being a structural element to affluent societies – have slightly but steadily decreased over time. Indeed, youth participation is key to reduce the impact on GDP from above- (2% in Greece, Italy, 1.5% Belgium) to below-OECD average (0.4-0.5% in Scandinavia, Germany, Netherlands, Switzerland).

2. SOCIETAL: Inactivity leads to decaying well-being and keeps youths from reaching adulthood markers. Mediterranean NEETs are aware of these costs and are also more afraid of getting to 45 without a job (25.5% of Italian, 10.7% of German youth). Despair leads to apathy which leads to sheltering in gaming and social networking putting them at risk of digital, alcohol or substance addiction/abuse.

Solutions

In the absence of natality-encouraging policies and immigration being contentious, Mediterraneanites ought to bolster NEETs' reintegration to widen participation to sustainable levels and rescue them from social exclusion. Education is the way: it beget skills which, in turn, beget employment. Thus, 3 sets of actions are needed:

1. Harness the speed of development, where advanced (digital) and non-cognitive skills (creativity and entrepreneurship) demand adaptation by all age groups via upward skilling routes;
2. Capsize labour policies from apprenticeships to start-up mentoring;
3. Foster work-life balance. Former NEET-age Mediterranean generation X parent-workers suffered from the high barriers to labour market access of the past as well as from increased flexibility demands and precarious terms offered by present contracts, resulting in only 49% of Italian young women being active (EU average 60%).

To this end, BUCOLICO's 5-country strong Partnership of experts will devise 6 Intellectual Outputs to engineer a learning standard tailored to facilitate labour participation and market access among socially excluded individuals/groups in geographical marginal rural areas.

BIBLIOGRAPHY

Agenzia per la Coesione Sociale (2014-2018)

Strategia nazionale per le Aree interne, Roma

Agnoli M S (a cura di 2014)

Generazioni sospese, Percorsi di ricerca sui giovani NEET, Milano

Angelini A - Bruno A (2016)

Place based, Roma

ANPAL (2019)

I NEET in Italia: La distanza dal mercato del lavoro ed il rapporto con i servizi pubblici per l'impiego, Roma

Bergamante F – Marocco M (2014)

Lo stato dei servizi pubblici per l'impiego in Europa: tendenze, conferme e sorprese, Roma

Bergmann J - Sams A (2012)

Flip Your Classroom

Bergmann J - Sams A (2014)

Flipped Learning

Brynjolfsson E – McAfee A (2011)

Race Against The Machine: How the Digital Revolution is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy, Lexington

Brynjolfsson E – McAfee A (2017)

Machine Platform Crowd, New York – London

Brynjolfsson E – McAfee A (2014)

The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies, New York – London

Busetta G (2018)

Il coccodrillo si é affogato, Soveria Mannelli

EUROSTAT (2019a)

Unemployment statistics at regional level. Regional Variations in Youth Unemployment, Brussels;

EUROSTAT (2019b)

Young people neither in employment nor in education and training (% of population aged 15-24), Brussels

EUROSTAT (2020a)

Unemployment rates by country, December 2019 update, Brussels

EUROSTAT (2020b)

Youth unemployment rates by country, December 2019 update, Brussels

EUROSTAT (2020c)

Potential additional labour force by country, Brussels

INTERNATIONAL LABOUR ORGANIZATION (07/01/2020)

Covid19 and the World of Work, Geneva

Gent E (10/02/2020)

Is Education the New Currency?, BBC News

Griffith B – Nallari Y R (2013)

Clusters of Competitiveness, Directions in Development, Washington DC

ISTAT (2019)

Rapporto BES 2018 Benessere equo e sostenibile in Italia, Roma

Konstantinos J (2019)

Sleeping on a Volcano: The Worldwide Demographic Decline and the Economic and Geopolitical Implications

Kotlikoff L J – Burns S (2012)

The Clash of Generations. Saving Ourselves, Our Kids, and Our

Economy, Cambridge, Mass. - London

Mareschini et al (2012)

NEETs: Young people not in employment, education or training:
Characteristics, costs and policy responses in Europe, Dubli

Nathan A (26/03/2020)

Roaring into Recession, Global Macro Reseach, Issue 87

OECD (2015a)

Employment Outlook 2015, Paris

OECD (2015b)

Fit Mind, Fit Job, Paris

OECD (2015c)

Education at a Glance 2015: OECD Indicators, OECD Publishing, Paris

OECD (2016)

The NEET Challenge: What can be done for jobless and disengaged
youth?, Paris

Rosina A – Altimari M (2019)

Un buco nero nella forza lavoro, Milano

Seligman M (1990)

Learned Optimism, New York

ISTAT (2018a)

Il mercato del lavoro – verso una lettura integrata, Roma

ISTAT (2018b)

Indagine conoscitiva sul funzionamento dei servizi pubblici per
l'impiego in Italia e all'estero, Roma

UNICEF Innocenti Research (2014)

Report card 12 – Figli della recessione, Roma

UNICEF Italia Innocenti Research (2018)
Report card 15 – An Unfair Start, Florence

UNICEF Italia (2019)
Il silenzio dei NEET. Giovani in bilico tra rinuncia e desiderio, Roma

Willetts D (2019)
The Pinch: How the Baby Boomers Took their Children's Future – And
Why They Should Give it Back, London

APPENDIX 1: NEET UNEMPLOYMENT RATES IN NUTS 0 AREAS

NUT0	15 – 24 year olds Unemployment rates
BELGIUM	15,8
BULGARIA	12,7
CZECHIA	6,7
DENMARK	9,4
GERMANY	6,2
ESTONIA	11,8
IRELAND	13,8
GREECE	39,9
SPAIN	34,3
FRANCE	20,9
CROATIA	23,7
ITALY	32,2
CYPRUS	20,2
LATVIA	12,2
LITHUANIA	11,1
LUXEMBOURG (GRAND- DUCHY)	14,2
HUNGARY	10,2
MALTA	9,2
NETHERLANDS	7,2
AUSTRIA	9,4
POLAND	11,7
PORTUGAL	20,3
ROMANIA	16,2
SLOVENIA	8,8
SLOVAKIA	14,9
FINLAND	17,0
SWEDEN	16,8
UNITED KINGDOM	11,3

APPENDIX 2: NEET UNEMPLOYMENT RATES IN NUTS 1 AREAS

NUTS 1	15 – 24 year olds Unemployment rates
Bruxelles-Capitale/Brussels	30,6
Hoofdstedelijk	
Vlaams Gewest	10,9
Région Wallonne	22,5
Severna i Yugoiztochna	18,4
Bulgaria	
Yugozapadna i Yuzhna	(7.1)
tsentralna Bulgaria	
Baden-Württemberg	5,0
Bayern	3,8
Berlin	12,0
Brandenburg	6,6
Bremen	u
Hamburg	8,6
Hessen	6,1
Mecklenburg-Vorpommern	9,3
Niedersachsen	6,3
Nordrhein-Westfalen	7,1
Rheinland-Pfalz	6,4
Saarland	u
Sachsen	6,7
Sachsen-Anhalt	9,5
Schleswig-Holstein	6,4
Thüringen	6,9
Voreia Ellada	39,8
Kentriki Ellada	45,3
Attiki	39,3
Nisia Aigaiou, Kriti	32,0
Noroeste	33,5
Noreste	26,4
Comunidad de Madrid	27,5
Este	29,8

Sur	45,6
Canarias	38,6
Île de France	19,3
Centre-Val de Loire	21,5
Bourgogne-Franche-Comté	20,2
Normandie	18,9
Nord-Pas-de-Calais-Picardie	27,9
Alsace-Champagne-Ardenne- Lorraine	20,3
Pays-de-la-Loire	16,6
Bretagne	15,7
Aquitaine-Limousin-Poitou- Charentes	18,3
Languedoc-Roussillon-Midi- Pyrénées	20,5
Auvergne-Rhône-Alpes	18,8
Provence-Alpes-Côte d'Azur	22,3
Corse	(15.8)
Région Ultrapériphériques Françaises	50,7
Nord-Ovest	24,5
Nord-Est	18,9
Centro (IT)	29,1
Sud	47,9
Isole	49,4
Közép-Magyarország	7,9
Dunántúl	8,4
Alföld és Észak	12,8
Noord-Nederland	9,5
Oost-Nederland	6,8
West-Nederland	7,3
Zuid-Nederland	6,0
Ostösterreich	13,4
Südösterreich	7,3
Westösterreich	6,4

Makroregion Południowy	11,2
Makroregion Północno-Zachodni	7,9
Makroregion Południowo-Zachodni	(9.7)
Makroregion Północny	12,6
Makroregion Centralny	13,3
Makroregion Wschodni	16,6
Makroregion Województwo Mazowieckie	11,7
Contiente	19,8
Região Autónoma dos Açores	u
Região Autónoma da Madeira	u
Macroregiunea unu	19,7
Macroregiunea doi	12,9
Macroregiunea trei	18,8
Macroregiunea patru	16,1
Manner-Suomi	17,0
Åland	u
Östra Sverige	16,5
Södra Sverige	16,9
Norra Sverige	17,2
North East (UK)	14,6
North West (UK)	10,5
Yorkshire and the Humber	11,8
East Midlands (UK)	11,9
West Midlands (UK)	14,6
East of England	9,6
London	14,3
South East (UK)	10,9
South West (UK)	8,9
Wales	10,2
Scotland	9,0
Northern Ireland (UK)	(7.5)

APPENDIX 3: NEET UNEMPLOYMENT RATES IN NUTS 2 AREAS

NUT 2	15 – 24 year olds Unemployment rates
Prov. Antwerpen	13,5
Prov. Limburg (BE)	(10.4)
Prov. Oost-Vlaanderen	10,4
Prov. Vlaams-Brabant	(10.3)
Prov. West-Vlaanderen	(8.1)
Prov. Brabant Wallon	(18.6)
Prov. Hainaut	27,6
Prov. Liège	21,1
Prov. Luxembourg (BE)	u
Prov. Namur	(21.5)
Severozapaden	(24.8)
Severen tsentralen	(20.3)
Severoiztochen	(14.7)
Yugoiztochen	(15.5)
Yugozapaden	(5.6)
Yuzhen tsentralen	u
Praha	(5.6)
Střední Čechy	(5.0)
Jihozápad	(4.1)
Severozápad	12,3
Severovýchod	(5.9)
Jihovýchod	(6.0)
Střední Morava	(5.1)
Moravskoslezsko	9,3
Hovedstaden	9,1
Sjælland	10,7
Syddanmark	9,9
Midtjylland	8,3
Nordjylland	9,8
Stuttgart	4,3
Karlsruhe	7,0

Freiburg	5,1
Tübingen	u
Oberbayern	4,0
Niederbayern	u
Oberpfalz	u
Oberfranken	u
Mittelfranken	u
Unterfranken	u
Schwaben	5,2
Darmstadt	6,4
Gießen	u
Kassel	u
Braunschweig	9,1
Hannover	8,0
Lüneburg	u
Weser-Ems	4,3
Düsseldorf	7,6
Köln	7,2
Münster	6,3
Detmold	6,8
Arnsberg	7,3
Koblenz	u
Trier	u
Rheinessen-Pfalz	7,4
Dresden	u
Chemnitz	u
Leipzig	u
Northern and Western	12,9
Southern	15,0
Eastern and Midland	13,2
Anatoliki Makedonia, Thraki	38,3
Kentriki Makedonia	35,6
Dytiki Makedonia	62,0

Ipeiros	(45.8)
Thessalia	43,6
Ionia Nisia	(35.6)
Dytiki Ellada	44,7
Stereia Ellada	51,1
Peloponnisos	47,7
Voreio Aigaio	56,7
Notio Aigaio	(28.4)
Kriti	24,5
Galicia	32,5
Principado de Asturias	37,3
Cantabria	(32.8)
País Vasco	25,8
Comunidad Foral de Navarra	26,2
La Rioja	(25.5)
Aragón	27,5
Castilla y León	28,3
Castilla-La Mancha	43,3
Extremadura	46,6
Cataluña	27,7
Comunidad Valenciana	34,3
Illes Balears	26,9
Andalucía	46,7
Región de Murcia	38,2
Ciudad Autónoma de Ceuta	(62.4)
Ciudad Autónoma de Melilla	(66.1)
Bourgogne	20,6
Franche-Comté	(19.3)
Basse-Normandie	16,1
Haute-Normandie	21,6
Nord-Pas-de-Calais	27,3
Picardie	29,0
Alsace	17,2

Champagne-Ardenne	(17.2)
Lorraine	24,8
Aquitaine	18,8
Limousin	(12.2)
Poitou-Charentes	19,5
Languedoc-Roussillon	27,3
Midi-Pyrénées	15,8
Auvergne	19,3
Rhône-Alpes	18,7
Guadeloupe	(55.2)
Martinique	(49.4)
Guyane	(39.2)
La Réunion	50,3
Mayotte	61,1
Jadranska Hrvatska	24,6
Kontinentalna Hrvatska	23,3
Piemonte	30,0
Valle d'Aosta / Vallée d'Aoste	u
Liguria	36,3
Lombardia	20,8
Provincia Autonoma di Bolzano/Bozen	(9.2)
Provincia Autonoma di Trento	15,3
Veneto	21,0
Friuli-Venezia Giulia	23,7
Emilia-Romagna	17,8
Toscana	22,9
Umbria	31,1
Marche	22,1
Lazio	34,5
Abruzzo	29,7
Molise	40,3
Campania	53,6
Puglia	43,6

Basilicata	38,7
Calabria	52,7
Sicilia	53,6
Sardegna	35,7
Sostinės regionas	(5.8)
Vidurio ir vakarų Lietuvos regionas	13,3
Budapest	(9.9)
Pest	u
Közép-Dunántúl	(7.2)
Nyugat-Dunántúl	u
Dél-Dunántúl	(14.8)
Észak-Magyarország	12,9
Észak-Alföld	15,7
Dél-Alföld	(8.6)
Groningen	11,0
Friesland (NL)	8,7
Drenthe	8,2
Overijssel	6,9
Gelderland	6,5
Flevoland	8,3
Utrecht	6,8
Noord-Holland	6,7
Zuid-Holland	8,4
Zeeland	u
Noord-Brabant	5,8
Limburg (NL)	6,4
Burgenland	u
Niederösterreich	7,7
Wien	18,6
Kärnten	u
Steiermark	(7.3)
Oberösterreich	7,1
Salzburg	u

Tirol	u
Vorarlberg	u
Małopolskie	(9.6)
Śląskie	12,5
Wielkopolskie	(6.9)
Zachodniopomorskie	(10.5)
Lubuskie	u
Dolnośląskie	(9.9)
Opolskie	u
Kujawsko-Pomorskie	(13.6)
Warmińsko-Mazurskie	(17.5)
Pomorskie	(9.0)
Łódzkie	(11.9)
Świętokrzyskie	(16.2)
Lubelskie	(16.4)
Podkarpackie	(20.3)
Podlaskie	u
Warszawski stołeczny	(8.5)
Mazowiecki regionalny	(14.5)
Norte	19,0
Algarve	u
Centro (PT)	18,9
Área Metropolitana de Lisboa	20,8
Alentejo	21,5
Nord-Vest	(14.0)
Centru	27,6
Nord-Est	9,1
Sud-Est	20,5
Sud-Muntenia	20,5
București-Ilfov	u
Sud-Vest Oltenia	(16.2)
Vest	u
Vzhodna Slovenija	11,1

Zahodna Slovenija	(6.4)
Bratislavský kraj	u
Západné Slovensko	8,0
Stredné Slovensko	18,5
Východné Slovensko	22,2
Länsi-Suomi	17,7
Helsinki-Uusimaa	15,3
Etelä-Suomi	17,0
Pohjois- ja Itä-Suomi	18,6
Stockholm	16,7
Östra Mellansverige	16,2
Småland med öarna	14,2
Sydsverige	20,6
Västsverige	15,5
Norra Mellansverige	18,8
Mellersta Norrland	16,2
Övre Norrland	15,6
Tees Valley and Durham	(10.1)
Northumberland and Tyne and Wear	18,0
Cumbria	u
Greater Manchester	11,9
Lancashire	12,1
Cheshire	(8.3)
Merseyside	(8.7)
East Yorkshire and Northern Lincolnshire	(14.5)
North Yorkshire	u
South Yorkshire	11,4
West Yorkshire	12,2
Derbyshire and Nottinghamshire	12,6
Leicestershire, Rutland and Northamptonshire	11,5
Lincolnshire	(11.2)

Herefordshire, Worcestershire and Warwickshire	(8.8)
Shropshire and Staffordshire	12,3
West Midlands	18,3
East Anglia	10,8
Bedfordshire and Hertfordshire	(9.0)
Essex	8,7
Inner London - West	u
Inner London - East	11,6
Outer London - East and North East	14,3
Outer London - South	15,2
Outer London - West and North West	20,0
Berkshire, Buckinghamshire and Oxfordshire	8,4
Surrey, East and West Sussex	12,5
Hampshire and Isle of Wight	8,8
Kent	14,3
Gloucestershire, Wiltshire and Bristol/Bath area	9,1
Dorset and Somerset	(9.3)
Cornwall and Isles of Scilly	u
Devon	(8.0)
West Wales and the Valleys	12,3
East Wales	(6.9)
North Eastern Scotland	u
Highlands and Islands	u
Eastern Scotland	7,2
West Central Scotland	12,3
Southern Scotland	(8.9)