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RURAL ENTERPRISE HUB SUPPORTING RURAL ENTREPRENEURSHIP AND INNOVATION – CASE STUDIES FROM HUNGARY

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Abstract: Although the tendency that the population migrate from rural to urban areas is typical world wide, the globalised economy creates new circumstances and opportunities for rural areas as well. The 'new rural economy' therefore needs new infrastructure to support it. The authors of the paper have a common interest in how enterprise hubs could help the development of entrepreneurship in the 21st century from two different directions, from physical and from social aspects. Building on the experience gained along enterprise hubs in cities, the hypothesis behind the study is, that creating enterprise hubs from existing buildings in rural settlements could help the development of rural entrepreneurship. To examine the hypothesis two case studies following a period of two years (enterprise hub development in Debrecen and Noszvaj) were carried out. In line with other studies in this field, result shows that even well-designed physical spaces are not enough for change, and initiators, hosts or facilitators are needed, as they play an important role in focusing on the real interaction network and enabling more synergies to happen.

Key words: co-working, innovation, entrepreneurship, rural enterprise hub, rural development

Absztrakt: Vidéki vállalkozói hubok a vállalkozói lét és az innováció támogatásáért – esettanulmányok Magyarországról. Bár az a tendencia, hogy a lakosság vidékről a városba vándorol világszerte megfigyelhető, a globalizált gazdaság új körülményeket, új lehetőségeket is teremt a vidék számára. Ezért az "új vidékgazdaságnak" új, ezt a folyamatot támogató, infrastruktúrára van szüksége. A tanulmány szerzőinek azonos érdeklődése annak a vizsgálata, hogy a vállalkozói hubok, hogyan segíthetik a vállalkozói szellem fejlesztését a 21. században, két különböző, fizikális és szociális szempontból. A városi, vállalkozói hubok területén szerzett ismeretekre építve a tanulmányban megfogalmazott hipotézis, hogy a vidéki területen meglévő épületek vállalkozói hub-bá történő alakítása, segítheti a vidéki vállalkozói lét fejlesztését. A hipotézis vizsgálatához két darab, két évet átölelő esettanulmány (vállalkozói hub fejlesztése Debrecenben és Noszvajon) elemzése történt meg. Összhangban más kutatásokkal ezen a területen, az eredmény azt mutatja, hogy a jól megtervezett fizikai terek sem elegendőek a változáshoz, szükség van kezdeményezőkre, házigazdákra, facilitátorokra, akik fontos szerepet játszanak abban, hogy a valódi kapcsolódásokra fókuszáljanak a hálózaton belül, lehetővé tegyék a magasabb szinergiát.

Kulcsszavak: coworking, innováció, vállalkozás, vidéki vállalkozói hub, vidékfejlesztés

1. Introduction

Similarly to the world, in Hungary, it is rather a typical tendency that the population is migrating from the rural areas towards economically developed and preferred regions. World Migration Report (IOM, 2015) states that over 54% of people across the globe were living in urban areas in 2014, and the current urban population of 3.9 billion is expected to grow in the next few decades to some 6.4 billion by 2050. It is estimated that three million people around the world are moving to cities every week. The territorial reorganisation of the population leads decision makers, who are concerned about the country side, to take an action. In the regions with the tendency to 'depopulate', not only the number of inhabitants is decreasing, but there are also negative processes taking place in the composition of the population on the educational basis, as the economic development is hindered by the migration of the intelligentsia. There are just a few young people who believe that there is the possibility for a healthy work-life balance and a successful career living in the countryside. While World Migration Report (2015) focus on urban development as an answer to migration, this study looks on one element (the enterprise hub) of the question of how rural areas could be attractive in the 21st century. In a globalised economy, rural businesses access markets, customers and suppliers beyond their localities as well as

within, reflecting a greater diversity in ways of doing business. The 'new rural economy' (Table 1) therefore needs new infrastructure to support it (Cowie, et al., 2013).

Tab 1. The new rural paradigm. Source: OECD, 2006:4

		OLD APPROACH	NEW APPROACH
OBJECTIVES		Equalisation, farm income, farm competitiveness	Competitiveness of rural areas, valorisation of local assets, exploitation of unused resources
KEY TARGET SECTOR		Agriculture	Various sectors of rural economies
MAIN TOOLS		Subsidies	Investments
KEY ACTORS		National governments, farmers	All levels of government, various local stakeholders

While changes in work patterns and the workforce are occurring rapidly, changes in the workplace are taking place at a much slower pace. Investments in buildings, furniture and equipment remain on the books for long, fixed periods (Schriefer, 2005). The question of this study is, could rural enterprise hubs support to living and be entrepreneur in the countryside?

2. Theoretical background

In Dax and Copus (2016:281) research documentation, they wrote that "*Rural areas should no longer be understood as only places of development problems and sub-ordinated to urban areas, but that they also have significant opportunities which should be continuously nurtured, in order to achieve desired impacts. A wise and carefully adapted land management system that enables sustainable development and the* ***focus on social innovation aspects are core to make use of these potentials****." "In order to enhance programme up-take, particularly in regions with gaps in participation, specific attention should be paid* ***to capacity building, knowledge development and participatory local development action****. These "soft" support measures need an increased priority in specific regions to overcome the "downward spiral" and outmigration tendencies.*" The importance of soft knowledge is also emphasised in the document of the Cork 2.0 European Conference on Rural Development, where from the ten guiding policy orientations suggested by the participants, Point 7 focuses on Boosting Knowledge and Innovation: "*Stronger policy focus on social innovation, learning, education, advice and vocational training is essential for developing the skills needed. This should be accompanied by the strengthening of* ***peer-to-peer exchange, networking and cooperation*** *amongst farmers and rural entrepreneurs. ... Industry, researchers, practitioners, knowledge providers, civil society and public authorities must work closer together to better exploit and share opportunities arising from scientific and technological progress."* (EU ENRD, 2016:8).

An earlier study (Bótáné Horváth et al., 2015) examined the hypothesis, that creating an entrepreneurial team learning environment is a possible way to increase human and social capital in rural regions. It emphasised that creating entrepreneurial culture is a slow process, and already existing elements have to be used along the shift. This paper focuses on one element in the process of creating an entrepreneurial environment, i.e., the creation of a physical space, an enterprise hub (which can also be an already existing infrastructure).

Enterprise hub

Deskmag is an online magazine about the new type of work and their places, how they look, how they function, how they could be improved and how to work in them. It particularly focuses on co-working spaces which are home to the new breed of independent workers and small companies. Deskmag calls the attention that the nature of the spaces people work in determines how they work, the quality of their creation, and their satisfaction along the way. Until recently, the form and function of workspaces have been dictated by corporate tradition. Yet, a growing proportion of workers are now freelancers, contractors or small companies that have the opportunity to redefine

the concept of the workspace for themselves. Deskmag's results of the Global Co-working Survey show that the number of co-working spaces worldwide are increasing rapidly. In 2007, the projected number of such spaces were 75, while in 2015, 8700. The average co-working space is 32.8 months old. It is also interesting that half of the co-working spaces are financed from their own capital. The top reason to choose a co-working space in 2016 is interaction with others (74%). The top five topics of what members of these spaces expect from other members are casual small talks (75%), sharing knowledge (69%), enjoying others company (61%), opportunities for new projects/jobs (57%), sharing contacts (55%). The percentage of members that feel like being a part of the community of their co-working space is increasing. While it was 58% in 2011–2012, the latest survey (2015–2016) showed 70%. The survey also demonstrates that while co-working spaces are mainly in urban areas (Figure 1), 5% of them are in rural areas as well (Deskmag, 2016).

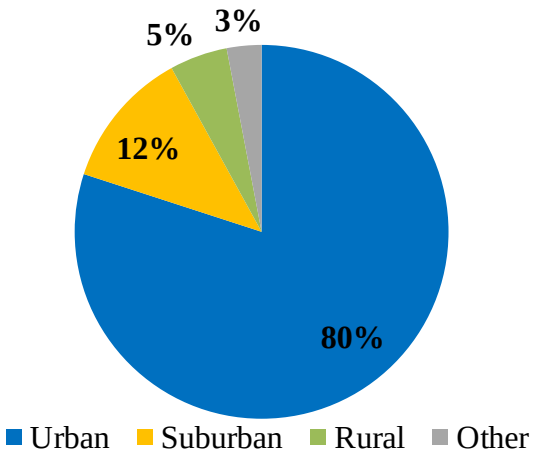

Fig 1. Distribution of coworking spaces worldwide by landscape. Reported by coworking spaces (Deskmag, 2016).

This kind of setting is becoming popular among work-at-home professionals, independent contractors, or people who travel frequently. It is the social gathering of a group of people who are still working independently, but who share values and are driven by the synergy that is more likely to happen at a co-working space than at home alone. It is the instant solution to the problem of isolation that many freelancers experience while working at home, providing the escape of the distractions of home, that is why it became a popular alternative among nomadic Internet entrepreneurs to the isolation in independent or home offices. Even if they were to telecommute, the feeling of being isolated and losing human interaction would be there, and commuting to a business centre would result in a considerable bigger carbon footprint, which is not the way to go for a responsible thinking rural entrepreneur. By combining diverse technologies like instant messaging software, web cameras and other online collaboration tools, workers can be untethered from a traditional business centre. It is not essential to commute to an office each day, extending the carbon footprint with every kilometre driven by car, if there is a possibility for co-working. Creating an inspiring co-working place results in less unemployed, but healthier and more effective people. The impacts are also positive in a wider social sense; as if an employee can stay longer in mental and physical health, working in the elderly years could solve the urgent problem of unsustainable retirement systems of ageing societies (Rosnick, 2013). Even adding a bit more value to a traditional work desk, for example, by placing it in a garden-like atmosphere, the psychological and physical benefits of indoor plants will be measurable, as a range of special plants can improve the air quality by removing pollutants. People working in planted offices feel less pressure and usually describe themselves to be more productive (Smith and Pitt, 2009). One of the best ways to improve productivity is encouraging relaxation. It is impossible to expend energy continuously during the work day – one should rather pulse between spending and recovering energy. By taking numerous renewal breaks throughout the day, the energy brought to the job can be more consolidated and this aspect is far more important in terms of the value of the work than is the number of working hours. It is possible to get more done, in less time, more

sustainable by managing the energy skilfully, so that's why a well-designed relaxation area is a must-have (Schwartz, 2013).

MICROPOL (Smart Work Centres in Non-metropolitan Areas) an Interreg IVC transnational partnership project looking to support the sustainability and growth of rural areas through the development of Smart Work Centres (SWCs) defined SWCs "*as business spaces that help knowledge-based workers to have a flexible base, allowing for interaction and collaboration with others and providing high level information and communications technology infrastructure and capabilities, such as high speed broadband networks. SWCs also operate in a very flexible way, with opportunities for short term and shared use and provide a variety of working spaces ranging from flexible desk, office and meeting spaces to shared facilities and informal social spaces. SWCs provide a support infrastructure through dedicated staff providing a range of managerial, administrative, technical and social support services*."(MICROPOL)

In this study the definition used for enterprise hub is the one defined by Cowie, et al. (2013:8): *"A hub will be the central point in a business network. This could be a physical point or, given the development of information and communication technology (ICT), it could be a virtual point."* The research put the emphasis on enterprise hubs as physical, central points for entrepreneurial network.

Innovation

Results of Katonáné et al. (2016) on examining the process of social innovation showed, that the biggest threats to successful social innovation in rural regions are the lack of initiators and the lack of supporting context. In their analysis focusing on the interpretation of how social innovation can be organised the impact of the "context/structural engine" was assigned the highest weight of 0.4, before the initiator was 0.3 and the other factors 0.1 each.

Based on the results of Cowie, et al. (2013) in the field of rural enterprise hubs, „*rural enterprise hubs have an opportunity to be more than physical business spaces. They are capable of being key nodes in the flow of knowledge within the rural economy – both within the hub and between the hub and the wider economy. ... The mere physical presence of a number of businesses in one location will begin to overcome some of those problems of isolation, lack of capacity and skills."* (Cowie, et al., 2013:41) Rural hubs as places to meet for rural actors can have similar results as farmers' markets, where farmers noticed the importance of cooperation (Lawson et al., 2008).

Innovation in the workplace is often the result of unplanned interaction as information leading to innovation comes from informal encounters. Serendipity leading to something innovative is more likely in environments where informal conversations are encouraged and where the workspace design provokes chance encounters and casual interactions. A critical mass of informal chance encounters is likely to result in greater collaboration and faster knowledge creation. This is the point where design can bring in the cultural changes that are wished to enact (Allen and Henn, 2007).

Pentland (2014) carrying researches in the field of social physics[3] had the result that in a company, the simplest way to increase workers' productivity was to make the company's lunch table longer, thus forcing people who did not know each other to eat together (2014:104). He emphasises that the number of opportunities for social learning, usually through informal face-to-face interactions among peer employees, is often the largest single factor in company productivity (2014:103). Social physics tells us that we must include not only economic exchanges, but also exchanges of information, ideas, and the creation of social norms in order to better and fully explain human behaviour. A shift away from the individual talent approach to managing organisations and move toward shaping interaction patterns in order to achieve better collective intelligence. Focus on the real interaction network.

[3] Social physics is a quantitative social science that describes reliable, mathematical connections between information and idea flow on the one hand and people's behaviour on the other. Pentland, 2014:4

3. Aim and methodology

The authors of the paper have a common interest in how coworking spaces could help the development of entrepreneurship in the 21st century from two different directions - from physical (architectural) and from social (human and social capital development) direction. They first met at the INNOcities launching conference in January 2014, organised by the Central European Urban Research and Innovation Nonprofit Association[4]. At this time the idea of an enterprise hub in Debrecen was already born.

Also in 2014 one of the authors took part in a Community Animator Development Program. The Program was organised by the National Agricultural Consulting, Educational and Rural Development Institute. The Institute created this Program for those rural workers running Integrated Community Service Spaces[5] (ICSSs). The leader of the Noszvaj ICSS also took part in this Program and learned about the processes in Debrecen, had an interest in how an enterprise hub could be developed in Noszvaj, a rural settlement, where she came from.

Tab 2. The case study research approach. Source: own description based Eisenhardt (1989)

Description of cases	Research problem	Data Sources	Investigators	Output
Two case studies – enterprise hub Noszvaj enterprise hub Debrecen	Process of development	Participatory action	Researchers, university students and local actors	Understanding and learning the development of enterprise hubs

The research of this study whilst grounded in academic theory, is intended to be an applied research. It provides an understanding of the situation and based on the results of the two case studies (enterprise hub development in Debrecen and Noszvaj, Table 2), it presents the most important learning. The examined two years period of the development processes was from January 2014 till December 2016.

4. Results

Introduction of the results try to give a picture to understand the process behind the establishment (in the case of Debrecen), or the desire to establish (in the case of Noszvaj) enterprise hub.

Case study Debrecen

Debrecen is the second largest city of Hungary with more than 200,000 inhabitants. A bottom up development for the creation of an entrepreneurial ecosystem in the city was started in 2012, when young citizens graduated from the University of Debrecen. They then decided to start writing a blog where they started to write thought-provoking articles for young intellectuals. In the same year, they started a so-called “Dialogue evening” program, where once every month on Tuesday evenings, they would gather and continue to dialogue around a topic they had an interest in. It could be built around a TED[6] talk, a program about self-awareness, a dialogue about gamification, or the public transport in the city. This program was free and everybody in the city with an interest could join. In the same time, with this initiative, TEDx[7] program had been launched in the city with the aim of sharing “ideas worth spreading” from the actors in the region. A third initiative which started in the same year was DebTech meet-up. These first steps brought the birth of the idea in 2013, creating a co-working space, an enterprise hub in the city, the so-called Debrecen HUB. The birth of the idea was preceded by research. The research has also confirmed the creation of

[4] http://www.ceurina.hu/en/

[5] Altogether 635 local governments and civil organisations won a combined funding to renovate buildings and turn them into Integrated Community Service Spaces under a tender that was part of the New Hungary Rural Development Program (Budapest Business Journal, 2011)

[1] [6] http://www.ted.com/

[2] [7] http://tedxdebrecen.com/

the hub and the idea has been getting a positive feedback (Oláh-Horváth, 2014). The earlier Music Library (around 200 square meter) of the city, in the centre of Debrecen, seemed to be an ideal place for it, but it turned out to be too expensive for rent, so finally, the hub started as a prototype from a 60 square meter private-owned flat in the city centre. Following the important elements of a co-working space introduced earlier (which turned out to be possible even in a smaller space like the prototype), the plan was created (Figure 2). As co-working culture was not present in the city, and taking into account the costs of rebuilding the space, the enterprise hub was eventually opened in the summer of 2015 without major changes. An important step before the opening was that potential users were invited to design the space together. Their ideas were taken into consideration when the space was furnished, mainly with tables, chairs and white boards to create as much interactivity and mobility as possible.

Fig 2. Plan of the enterprise hub Debrecen. Source: Design by the author, Erzsébet Szeréna Zoltán

The Debrecen HUB[8] operates as a social enterprise in a form of an association. Its mission is to be the best known leading organisation which contribute and develop an active and successful entrepreneurial community in Debrecen and around, by offering interactive working environment, learning programs for developing entrepreneurial mind-set and skills, networking and collaboration opportunities, partnership in reaching personal and professional goals. After one and a half years, the hub was operating at around 20% occupancy and more than 50% of its income was derived from the fees of the programs and not from the rent of the space. These data represents that coworking is a new phenomenon, a new culture even in the second largest city of Hungary, Debrecen. It has to be added that in 2016, a new, 300 m² coworking space, financed by an investment and development group with a focus on startups[9], was opened.

Case study Noszvaj

Noszvaj is located in the north-eastern part of Hungary in the valley of the Kánya Stream at the southern foothills of the Bükk Mountains is located in the northern east part of Hungary. The location itself is scenic with its architectural monuments like the De La Motte Mansion built in late baroque, zopf style, the lake in the Síkfőkút resort area, the cave dwellings and wine cellars. Despite being in a declining micro-region, threatened by ageing and outmigration, Noszvaj has managed to maintain its population (around 2000 inhabitants) as a result of more and more young families moving to the village, which now account for approximately 50 percent of its inhabitants. Newcomers are normally well-educated, middle class people and many of them are entrepreneurs. They have good skills and are slowly taking over the running of the village.

[8] http://debrecenhub.hu/?lang=en

[9] http://xponential.hu/

At the workshop organised by ICSS in 2014 (IKSZT, 2014), it gave the opportunity to meet and work together with a bunch of very interesting and engaged women, who strive to create an ideal environment for their families following their ideas and ideals, and also business plans. Probably one of the biggest milestone on the way to success would be the community's workspace – a coworking space. As coworking is not only about the physical place, but more about establishing the community who want to work together. As this first step evolved spontaneously, the benefits could already be experienced, so starting to find the right place for this little coworking community became crucial. What would be the best scenario and location for work for a community with a collaborative spirit? In the brainstorming part of the workshop, the choice for an old school building was made; a location with history, as most members had some memories of the old building, which remained abandoned after the new, modern school was built. As there had been no particular reuse plan for that building, the idea got supported by the council, as well as the major of the village.

The next step was to find the freshest and brightest ideas for the refurbishment of the old school building. Students of the Architectural Designer master course of the University of Pécs, Faculty of Engineering and Information Technology, were engaged in the project. The course was visited by 5 students, so the working method was a cooperative lab and workshop. The travel, which was a long way to Noszvaj, was organised to arrange interviews with the future users and also the decision-makers of the village about their visions. After evaluating the results, the students started to develop the design program on a similar basis, which included the coworking space, a coffee shop, some workshops, fitness facilities and a daycare for children – as quite a few young mothers plan to stay active during their maternity leave.

This very vivid mixture of functions resulted majorly into a total transformation of the old traditional building with an archetypal house form. The major point to be solved was that open, collaborative workspaces must integrate technology throughout the space in order to be effective. Without effective technology integration, contemporary workspaces will not work. Mobility, flexibility and sustainability are the three key drivers to reshape offices nowadays. The importance of transitional spaces is emphasised in the designs, as couple of decades ago it used to be typical of the rural area to sit outside, even in teams, on the veranda doing the housework which was not bound by space. Since the technology available to everyone makes it possible to set the workers free from the desk, working in the yard under a covered deck is one of the most special features which usually cannot be provided in urban hubs. The work patio (Figure 3) became a central element of most of the designs and was welcomed by the collective.

Fig 3. Ideas for work patio in the enterprise hub Noszvaj. Source: Design by students from University of Pécs, tutorial Erzsébet Szeréna Zoltán

The space is optimised for all types of collaboration (Figure 4), ranging from large formal meetings to chance interactions as two people pass in the corridor. Innovative work environments offer not only spaces for meeting and interacting with one another, but also tranquility and intimacy for focused work and research.

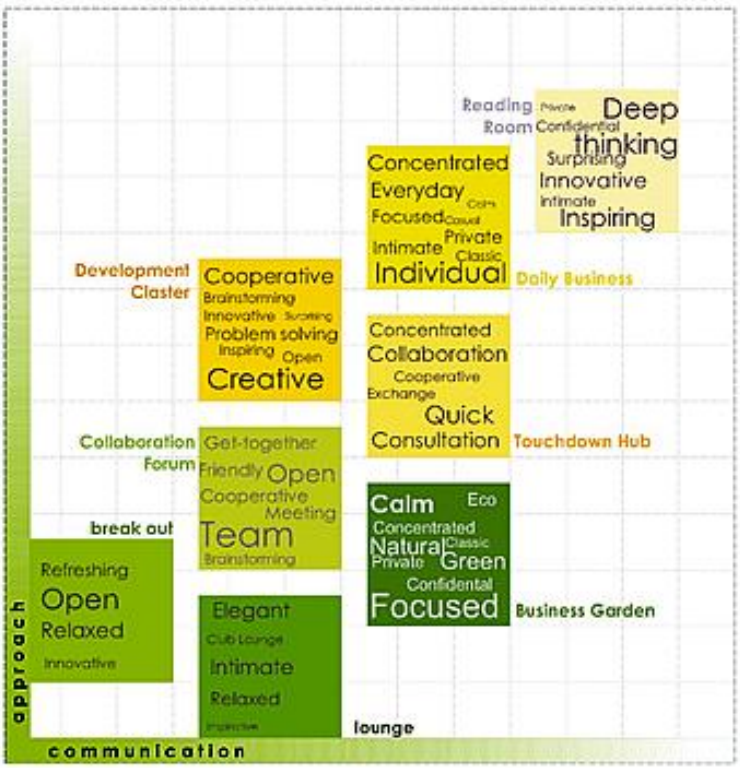

Fig 4. Recommended setting of work modules in a collaborative work space. Source: own illustration Erzsébet Szeréna Zoltán

The design of the workspace has to be made to support both concentration and collaboration with peers but also to provide rooms for confidential discussions. There are more spaces dedicated to interactive uses in a range of diverse functions and sizes as it is known in traditional offices. Unpredictable spaces are needed where unexpected, interesting things might happen to encourage the creativity and innovation. At uninspiring places, where disturbing actions distract from work, it would be impossible to accommodate new ideas and technologies. The space has to be designed to force more intense interaction, where it provides the opportunity of quick transitions from collaborative work to focused work (Schriefer, 2005).

One of the main aspects of the design is when individuals are in the lounge or kitchenette, they are also considered to be working, as they are expanding their network, and broaden their social capital, not just simply having a coffee, meal or break. This kind of situations end up in unplanned discussions moving towards innovations rather than to sit face down at the desks. Some might require convenient options for focused research work. The workspace design must also support entrepreneurs and self-employed working alone quietly in the presence of others. The application of medium-height panels in the blocks ensure privacy even in face-to-face desk combinations, allowing concentration on work while not feeling isolated. For even more privacy or confidentiality, fully enclosed spaces are also needed. This could be a pint-sized enclave, a so-called think-tank with two pieces of lounge seating, a table, lap-top and phone connection. This is the place where individuals go if they need time to do research, make confidential phone calls or face-to-face conversations.

The combination of the patterns for collaboration and concentration disaggregates very different usage into shared spaces: the users of the space are provided with a variety of work settings to select the one that best fits in the actual work flow – this is also a feature which cannot be found at a home office (Figure 5).

Fig 5. Possible reuse of the old school for the enterprise hub Noszvaj. Source: Design by students from University of Pécs, tutorial Erzsébet Szeréna Zoltán

The life cycle of buildings is normally estimated at 50 to 100 years. Sometimes even more, if they still seem to be constructionally well-preserved. To demolish a building like that is more like erasing the collective memory related to its era. Is it really necessary? Architects are idealists, especially young student, who often think to heal the world by creating something new, something extraordinary. But the cultural and social consequences of continuity and discontinuity should also be analysed. Considering regeneration in the larger context of a village, it is not just a purely technical or environmental problem, probably that is why only one student worked with a "clear paper", demolishing the old building. The smoother way to replace a building would begin with some refurbishment work until there are almost no remains of the original. This kind of partial demolition would strain both urban and natural environment less. About a century ago, the small-scale renewal of buildings and cities was the usual way of transformation, which appears to be a more natural or even organic method of redevelopment (Thomsen et al., 2011).

As in the case of Debrecen, because of the high cost to form enterprise hub from the old building, the process was stopped (Table 3). There was a plan to apply for funding in the field of creating incubators but these calls were addressing only bigger settlements, and Noszvaj, could not apply for it. On the other hand, entrepreneurs in Noszvaj grabbed all opportunities to develop even without physical space. As demonstrated in an earlier study about social innovation, Noszvaj was the strongest performer (Katonáné et al., 2016).

Tab 3. Main characteristics of the case studies. Source: own description

	Debrecen enterprise hub	**Noszvaj enterprise hub**
Initiative	Bottom up	Bottom up
Initiator	local inhabitant	local inhabitant
Ownership of the place	Private	Public
Planning of the hub	Participatory action, community involved in the development	Participatory action, community involved in the development
Realization	Yes, minimal viable product, 60 m²	No

5. Discussion and conclusions

The first and one of the most important messages from the results is the importance of existing culture. While there is a large number of enterprise hubs even in rural regions of England[10], creating already the networks of enterprise hubs (Cowie et al., 2013), enterprise hubs has just begun to appear in the second largest city in Hungary and has interest in a village with high presence of entrepreneurs. This can be explained by the fact revealed by Csepeli (2010) that in the Northern European countries, the rate of active citizens is significantly higher than in the Eastern countries. In his book, Covey (2013) put proactivity as the first most important habit of highly effective people. In the understanding of the authors, increasing the percentage of active citizens is an important task for the future in the Eastern countries, including Hungary.

Integrated Community Service Spaces are playing an important role in creating space for interactions and communications in Hungary, but they lack the business sector actors, the entrepreneurs. That can be one of the reasons why entrepreneurs in Noszvaj would like to have an enterprise hub above their ICSSs. The experience gained along the Community Animator Development Program, where ICSSs had the task to organise program for entrepreneurs above other events, was that this task was the hardest for them, and it was very difficult to organise the right programs, and they did not manage to reach the business sector. Entrepreneurial mindset is missing. The challenge, which Jokinen *et al*. (2010) introduced that farmers' strategies are focused more on production methods and not on the competitive strategies needed to compete in today's market, is given. On the other hand, the literature review and the case study of Debrecen show that enterprise hubs organise many programs, events (for example, business breakfast) for entrepreneurs. The programs above that help in the creation of knowledge, are important sources of income for the hubs.

Based on the Deskmag survey (2016), the average co-worker is 35 years old (Table 4) and most members work in the creative industry, which means that HUBS above being a space for networking could be an attracting work place for the young generation in rural regions as well.

Tab 4. Demographics of members of coworking spaces, 2015–2016. Source: Deskmag, 2016

Age groups	18–29	30–39	40–49	50–59	60+
	30%	43%	19%	8%	1%

The outcomes of the case studies are in line with the Fuzi's study (2015), which highlights that the simple co-location alone may not stimulate networking, interaction and collaboration. In both cases introduced, interactions for entrepreneurs were generated by initiators in the region. Thus, hosts or facilitators play an important role in stimulating relationships and enabling more synergies to happen. This important fact is part of the MICROPOL report as well: "*By providing an environment to facilitate both on and offline collaboration between enterprises and entrepreneurs through 'co-working', SWCs are not simply physical spaces and should be understood as 'human spaces' which facilitate collaboration between individuals and organisations."* Fuzi (2015) drew attention that alternatively, smaller cities may make co-working a sustainable and profitable choice by integrating it into existing business structures such as art centres, coffee shops and serviced offices (Fuzi, 2015).

The literature (Cowei et al., 2013) pointed out that one of the greatest challenges facing both hub owners/managers and hub occupiers is forming productive networks. Interaction and communication is important not only inside the hubs but also interaction with other co-working spaces can be supportive (Deskmag, 2016), or Cowei et al. (2013) adds that steps should be taken to connect not only the rural hubs, but also those based in the urban core. Although the enterprise hub in Noszvaj has not yet been created, there are interactions and communication between the actors in Debrecen and Noszvaj, which are positive, taking the results of Pentland (2014) into account, that diversity of viewpoint and experience is an important success factor when harvesting innovative ideas.

[10] http://ruralconnect.biz/find-a-hub.html

The results of the study add an important perspective to the research on the evaluation of the context of social innovation. Above the Lukesch model suggested to evaluate the context of social innovation (Katonáné et al., 2016), examination of physical spaces for interactions could be important. This means that in the analytical framework, the aspect of context of social innovation could be divided further into physical and social context.

Bearing in mind the results from social physics (Pentland, 2014), the possibility for further research could be to visualise the patterns of communication and take steps to make sure that ideas flow within and between the actors, special regard to entrepreneurs in rural regions.

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