Policy Guide

A decision maker's guide for the implementation of "digital cooperatives"

e-coop

cooperate · virtually · everywhere

Index

FOREWORD

Dear reader,

This decision maker's guide is the result of a three year collaboration investigating the development of a common analysis and description of a European "digital cooperative" model.

Digital developments are completely changing our world. Over the last two decades it has become increasingly evident that in all sectors everyday lives are evolving quickly under the influence of new technologies. The economy, services, education, culture, access to knowledge have all been revolutionised. Information Communication Technology (ICT) has deeply modified the way we interact with each other. The need for people to adapt and learn, sometimes with the support of intensive training programmes, has led to the recognition that digital skills are part of a person's basic essential competences.

In most EU countries, some local and regional authorities have tried to play a significant role in supporting citizens through the provision of training tools and local services. By implementing "digital public spaces" open to all citizens, they have gone someway to limit the digital divide, in particular by facilitating access to public services through remote e-government processes. The work of local and regional authorities has demonstrated a variety of innovative ways that can be used to combat the social and digital divide and has helped to protect the basic rights of the most vulnerable users, such as the right to information. However, e-government often exacerbates digital exclusion rather than promotes digital inclusion.

Today, those solutions need to be adapted to meet a new set of needs and expectations. Spurred on by the social and economical context, they have to encourage everyone to play a more active part in local innovation of digital services. A digital cooperative ("E-coop") should empower citizens to participate in and influence a digital world, thereby positively influencing Europe's move towards becoming a more inclusive society.

Based on the identification and collective analysis of more than 40 European initiatives (or "good practices"), the E-coop partners have tried to identify what makes a digital cooperative and what kind of new services it could deliver to a local community.

This policy guide is based on their collective expertise. It suggests strategic proposals as well as a series of practical recommendations. Over all, the E-coop partners wish to share their conviction that our future will depend on everyone's capacity and ability to work collaboratively in a digital world.

After the digital divide comes the time for "e-cooperation"!

Do the E-coop!

European citizens do not yet participate equally in the information society. Of course, Information and Communication Technologies (ICT) are powerful tools to enhance the social and economic development of society. However they can also be instruments of inequality. Far from closing, the digital divide is transferring from infrastructures to uses and users. A result of this has seen new public policies being developed in this field to tackle the digital divide and to encourage the use of ICT to promote innovation and local growth and development.

Local authorities are not just focusing on broadband infrastructures but are also encouraging collaborative use and mediation to guarantee a more balanced and inclusive society.

The European Union 2020 Strategy has emphasized the need for smart growth and, therefore, for (ICT) education, for research and innovation, and for the promotion of the digital society. Many questions remain: how many problems are still out there? Which policies and services do we need to provide? How do Local and Regional Authorities in Europe (LRA) enable digital citizenship? How do LRA retain and increase public value in their actions?

The E-coop project is a Regional Initiative project approved in 2012 under the priority "Innovation and the knowledge economy" of the INTERREG IVC Programme. E-coop has gathered 12 partners from all over Europe and from various types of organizations such as local authorities, universities, ICT related agencies and associations of municipalities, in order to share different perspectives and collaborate to deliver a framework which can improve the existing approach to digital public spaces. During the 3 years of the project's life, the partnership has organised thematic exchange seminars, study visits, conferences and a microimplementation experience in order to exchange best practices, draw together ideas from and put them into practice through the implementation of some of the learning of the project.

You may discover the map of E-coop best practices at www.ecoopproject.eu

In this complex arena most regional and local authorities in Europe face the challenge of re-thinking their earlier responses and their previous methods and ways of working. As a consequence, they face the challenge of transforming their traditional digital public spaces and their role in developing a smart society.

Shifting paradigms: from digital spaces to digital cooperatives

Policies promoting digital inclusion have, amongst others, focused on the development of Digital Public Spaces (DPS) which exist in various guises and names in almost any country in the world: Public Internet Access Centres, Infocenters, Multimedia Centres, Community Technology Centres, or Telecentres are only a few names that have been traditionally used to refer to DPS. Whatever they are called these centres can be defined as public places where people can access computers, the Internet, and other digital technologies, enabling them to gather information, create, learn, and communicate with others while they develop essential digital skills.

Existing studies state that most early DPS started with a modest goal: giving people a chance to access and learn about technology, a telephone, a photocopier, a computer, the Internet. Yet DPS have evolved. It's no longer just about access and skills. Today's DPS use computers and the Internet to do everything from improving public health through extending education to a wider audience to strengthening democracy. Thus, the DPS movement has changed: it aims at helping communities enter the information age and embrace the knowledge economy in their own terms. DPS are about active listening, about participation and citizen involvement, about governance of stakeholders, about co-production and open innovation. They are about cooperation and it is this new 'digital cooperative' this policy guide promotes.

Do the E-coop!

## Digital value expanded: cooperate, virtually, everywhere

What exactly is a digital cooperative? Digital cooperatives are public initiatives aimed at bridging the digital divide as in many places there is a need to strengthen digital inclusion. Digital cooperatives are also about pursuing local development by means of open innovation (often, ICT-driven innovation). They are about collectively building economic and social capital. As a result, digital cooperatives do not work in isolation but use networks and partnerships to help good ideas travel far and wide, so that digital cooperatives may reach a global scale.

In a digital cooperative people come together, interact, exchange ideas and knowledge, both physically and virtually. Web 2.0 tools play a key role in enabling these interactions, to take place without space or time boundaries. Digital mediators or volunteers play a key role too. They become community leaders, facilitators, intermediaries who support innovation processes led by the users.

ISSUE	FROM...	TO...
Objectives	E-inclusion	E-inclusion, innovation and local development
Infrastructures	Physical (bulidings and rooms, PCs...)	Physical and virtual (web 2.0 tools)
Participation	Users as recipients of information and training	Users as co-producers, cooperating and networking (among users, among digital cooperatives)
Role of mediators	Trainers/Coaches	facilitators
Target	Less digitally advanced users	From less digitally advanced users to very digitally advanced users

Doing the E-coop: a policy guide

This document is a policy guide on digital spaces transformation into digital cooperatives. It aims at disseminating recommendations at the local and regional European level. It is structured along the lines of eight relevant topics identified in the process of the exchange and analysis of best practices amongst the project's partners. For each topic you will find a brief summary regarding the main challenges, a best practice that illustrates how relevant initiatives have been implemented and policy recommendations. This mix of topics, best practices and recommendations constitutes a "model for action" that we call E-coop. Finally, you will find a description of an E-coop experiment implemented in Poland from which lessons can be learnt.
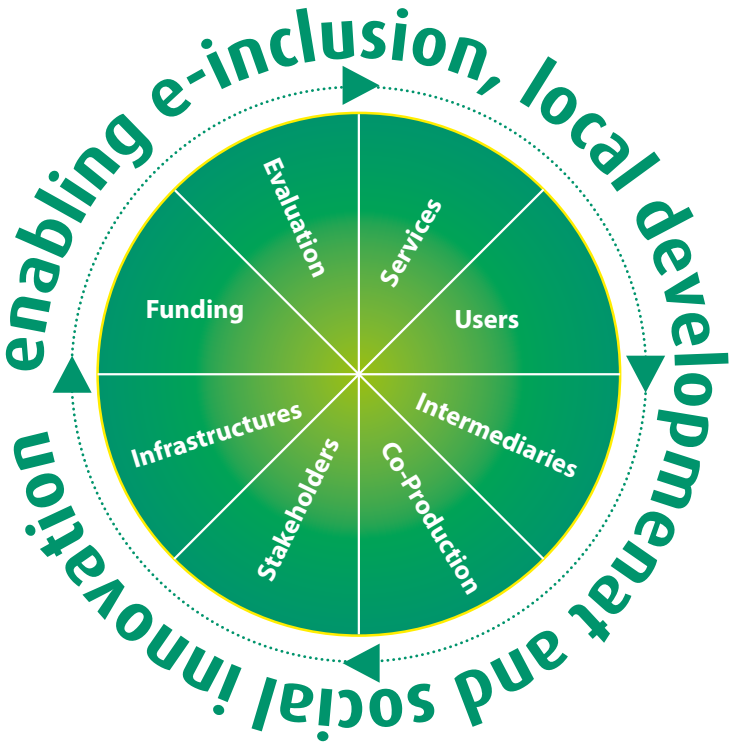
This guide particularly takes into account the fact that different countries can develop different types of digital cooperatives. The good practices this document refers to belong to specific contexts and address specific needs. They have taken different shapes: from simple training centres in rural areas to very modern urban labs, from telecentres that focus on ICT skills training activities to fab labs, from incubators and co-working spaces to digital/virtual platforms which offer electronic services. Digital cooperatives are oriented to users' needs and, therefore, reflect the (local) context and characteristics. This policy guide is based on the conviction that digital cooperatives will evolve from infrastructure and training to networking and innovation according to their specific environments.

What services / e-services should an E-coop offer?

Initially the services on offer were mainly to do with access to the Internet, connectivity and training on basic digital skills. The types of services that can and should be provided are rapidly evolving and vary with regard to local needs. In many places, there is a need to offer connectivity and training, while in others, new areas such as telemedicine, e-government, urban regeneration, or e-commerce, to only name a few examples, are evolving and maturing. E-coops need to take advantage of these opportunities to extend the benefits of these developments. Experts refer to the importance of offering e-government services through the types of locations that this project refers to as E-coops. Actually, an E-coop can be an opportunity to offer more sophisticated services in this field and through mobile devices.

As DPS evolve and become E-coops the importance of networking grows. The empowering innovation from the exchange of ideas and knowledge is a key concept. An E-coop should offer services that allow their users to interact and to take advantage of synergies and cooperation. Open innovation processes, with high social and economic impact, can take place in E-coops. For this to happen, E-coops have to design networking and support services that address individual users and groups of users.

Western Achaia Telecenter. Dymi, Greece

The Municipality of Western Achaia (Dymi) is a rural municipality located in Achaia and consists of several rural isolated villages and small towns. The capital of the municipality is the town of Kato Achaia in where the town hall is located. For administrative and governmental issues, the citizens have to travel to the Kato Achaia. The rural telecenters of Dymi aim to operate as a focal point to provide e-services to residents and to local enterprises in the isolated villages and towns of Dymi. In particular, the residents can go to their local community centres and request online several governmental certifications without having to go to the central town hall.

More information at www.dimosdymaion.eu

"Daisy Information System" Jyväskylä, Finland

The Daisy information system is a tool used daily by all those working in early childhood services. In addition, it is a communication tool between the day care services and the parents/families. One of the main features of Daisy is the mobile timecard system for children, which records check-ins and check-outs, absences and holidays. This enables hourly-based fees for the day care (you only pay about the services you use). Staff from day care has smart phones for the Daisy system and parents use timecards. Reports, online applications, analysis as well as communication and authorisation inquiries can be done with the Daisy information system.

RECOMMENDATIONS

- Specify services according to local needs: E-coops mainly serve their local communities and it is their local communities' needs they have to satisfy. In this respect, the type of services that an E-coop has to offer needs to be contextualized, following a place-based approach. Two main issues must be taken into consideration: local issues and community (the E-coop's users) skills, interests and needs. Offer services that get to the users' heart!

- Keep in mind the ultimate objectives of an E-coop: Inclusion and innovation. Design and co-design services addressing different targets, testing social innovation methods to reach the goals of inclusion and growth that have to do with both objectives, and by doing so address different audiences.

- Offer both services and e-services: address your whole local community but differentiate between different types of users, adapting the services to their specific needs and circumstances. Offer e-services that can be accessed from several channels and, particularly, from mobile devices.

- Provide well-packaged and easy-to-replicate services such as telemedicine, remote learning, financial remittances and e-government. These types of services ensure scalability and guarantee sustainability.

- Offer services that foster interaction among users, such as intergenerational services or networking services for entrepreneurs and start-ups. Give people the opportunity to design new services by themselves, by providing them all necessary data (and the competences to analyse them). With this in mind, open data programmes offer a relevant way to identify specific needs and develop new services for citizens.

How can an E-coop attract users?

E-coops aim to reach a wider group of users, from people who are not users of technology to those who would be considered as digitally advanced users.

LESS-SKILLED USERS OR NON-USERS

There remains a need for public access computing. The digital divide persists between developed and developing countries and between urban and rural areas. ICT access is not the only problem that remains unsolved. Large numbers of people still lack basic ICT skills or have little computer experience. As a result, there is a need to address the needs of those individuals who live in areas that lack an extensive and quality telecommunications infrastructure and of those individuals who do not have the basic digital skills to grow personally, socially and professionally. Reaching such target is not easy, particularly as many of these people may not see the need to access an E-coop. Therefore, we cannot rely on ubiquitous digital tools such as developing a website or having a social network account to engage these people. Non-or vulnerable users have to be reached in other ways, with tools they are more familiar with and for E-coops to really support this type of users, they have to access on a regular basis. It may not be enough to be part of a specific training session or even course. Users need to get involved, to be engaged and to be empowered within the E-coop. They need to feel the E-coop adds value to their lives and that they add value to the E-coop.

"Community Access Points" Cambridge, United Kingdom.

Cambridgeshire County Council has worked on developing e-skills for users with low level of competences through Community Access Points. Started in 2001, they have created a network of 50 community access points with the aim of promoting digital inclusion of communities and individuals. To do this they developed a network of 50 locations set within the heart of the community. Villages halls, post offices, pubs and church halls were all chosen to be the location of these places where users would improve their skills. Another element was to highlight is the empowerment of users from the very beginning of the project. Each community had to identify "key holders" who would be the main contact with the CAP manager and at the same time, each community was also approached to recruit volunteers who later became "Digital Champions" enabling the project to be sustainable in the long term. Local leaders decided about the specific activities to be undertaken on each DPS.
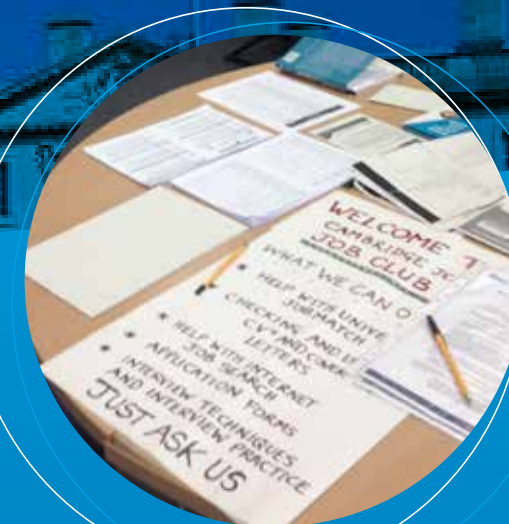
RECOMMENDATIONS

- Address different types of users but specialize on the profiles within your community as those are the ones who will really take advantage of the services offered by the E-coop. Scarcity of resources may require you to identify and prioritise those users who represent your local environment.

- Address different types of users with different strategies since their needs are usually different. Send appropriate messages to users, aimed at showing that the E-coop will help them in satisfying their needs and demands.

- Work with local institutions and local leaders to promote the E-coop and its services among the local population. Invite them to visit the E-coop so they have a detail view of what it is and what it offers.

- Sell the E-coop to the community, make the initiative known to the target audiences. Identify them, find out what communication channels they use, and prepare meaningful, professional information suited to those channels. Some examples include the dissemination of newsletters and brochures or having a website and be present on social media.

How can an E-coop attract users?

ADVANCED USERS.

Very few digitally advanced users go to a digital public service, unless their equipment happens to be defective or if services are marketed for high specialization activities although some are already playing a key role in innovative services such as living labs or fab labs. Attracting digitally advanced users is relatively easy but there is also a need for more traditional digital services to attract these users as they can play an important role in helping the E-coop grow. Digitally advanced users can come up with new ideas of services or activities and can serve as mediators. Because of their knowledge, they can also help the DPS evolve into an E-coop. The key is to offer these users the right incentives to motivate them. This can be through empowering external recognition, knowledge exchange and learning, interest in innovation and inclusion activities, enjoyment and fun or altruism.

An E-coop will always struggle to attract more advanced users if it cannot provide the technology and software that is up to date enough to attract them in. An advanced user will think that an E-coop is not for them if it is running out of date software on old equipment and this poses a particular challenge to E-coops, to keep up-to-date.

"Citilab"
Cornellà de Llobregat, Spain.

Citilab strongly promotes its service to advanced users. One of the tools it uses is training adapted to the needs and preferences of its users. Citilab organises seminars on robotics, on video games, on arduino and scratch etc. However in order to keep advanced users taking part in the organization, Citilab encourages citilabbers to create their own learning community and continue growing and learning from each other. For instance, the users themselves created a magazine called Sensetint@, the objective of which is to keep a community of learning where users could reinforce all the acquired knowledge on digital tools. Another example is the facilitation of users who are interested in a particular area to work together such as with the case of "arduniares", a community of arduino users who get together through the Citilab's facilities.

RECOMMENDATIONS

• Engage users, make them feel they are an essential part of the E-coop. Discuss new projects and activities with them, ask for their opinions, make them feel they add value to the development of the E-coop. Co-create and co-produce new services with them. Make them, at some point, super users or users who can become facilitators or mediators and contribute to the E-coop operations.

• Use incentive tools such as calls for projects, calls for participation or contests, on various themes for some people may be potentially more attracted by the types of activities themselves than by the use of technology. Engage people into building teams, developing digital communities and being creative.

• Promote and propose fun services. Video games and creative services, for example, are a good way to attract new users and engage them into sharing unique experiences together.

Who are digital intermediaries? What is their role?

Intermediaries or digital mediators coordinate three main types of activities: e-literacy basic guidance, training, and group facilitation. In order to achieve this, they usually combine technical skills, training skills and social/communication skills. However these activities seem to be no longer fully adapted to the current situation, where more and more people are equipped with various digital devices, enabling them to experiment all sorts of new uses. Nowadays, what most people need is not only to learn the basics of the Internet but also to produce services and conduct initiatives themselves and together. In order for this to be possible, intermediaries have to play a new role.

This emerging role encompasses different levels of responsibility, from responding to user requests, to providing digital competence training (from basic levels –digital literacy- to more advanced levels, which can improve users' qualifications for jobs), to empower users for employment, social participation and personal fulfilment, to helping users become promoters of social inclusion initiatives in social organizations or their local communities. The new facilitator is also an advocate whose mission is evolving from supporting digital and social inclusion to the promotion of economic participation, innovation and local development. They may also operate as experts who help people to appropriate and customize ICT for their own needs and at their own pace. Furthermore, in E-coops intermediaries should play a central role in connecting people and organizations (users but also stakeholders and external actors).

The level of digital competence of intermediaries is not always enough to take full advantage of ICT. The competence level of intermediaries poses important challenges to the traditional DPS, where intermediaries play a training/tutoring role, but it is even more problematic in modern E-coops that pursue e-inclusion objectives and want to make a difference in terms of local development and economic and social innovation. Intermediaries need to acquire knowledge on how to operate software applications and gain the technical competences and confidence to use ICT.

However, technical competences are not enough. Intermediaries require social competences as well, such as the ability to deal with a range of different target groups or to organize courses and activities. Social competences also include networking and communication skills as well as interconnection abilities. In this respect, social skills should allow intermediaries to support the sharing and diffusion of resources and knowledge between individuals, groups, networks, and to create common spaces, transforming weak links in collective actions. Finally, intermediaries should develop knowledge competences such as the ability to manage the centre (online centre start-up, project planning and strategic and tactical management, efficient resource management, volunteering, ethics and gender issues, amongst others).

"MOPA". Aquitaine, France.

MOPA is a regional network for e-tourism professionals. The most innovative feature of this project is the introduction of "territory's digital mediators" in tourist offices. Those digital mediators are trained on digital tools and, afterwards, are empowered to develop a diagnosis on the digital training needs of the stakeholders who are acting on their territory. Then they operate an intervention which is adapted to the local needs. MOPA illustrates the intense and continuous training on the fields that each professional needs and his/her empowerment when it comes to developing the most relevant strategy to conduct with local stakeholders.

"Biblio.gironde". Gironde County, France

The public platform biblio.gironde was launched in 2012 by Gironde County's Library. With this online tool and after a specific training phase, all employees and volunteers of Gironde County's public libraries (more than 1 200 people) have been offered the opportunity to promote the libraries' initiatives, to experiment collaboration projects, and to better interact with their users. It is now possible for professionals to experiment and encourage new digital practices. Through such mediation, the library users may have access to a wide range of services and discover new cultural resources.

http://biblio.gironde.fr/

RECOMMENDATIONS

- Coordinate actions to promote harmonization of professional role profiles and training programmes across borders for intermediaries. Also, encourage local authorities and structures to create new jobs / functions. Formal recognition of the intermediaries' professional role profiles will create formal vocational training and certification and it will support further career development.

- Define the specific role of the E-coop intermediaries/ facilitators/mediators according to the E-coop mission. Let them grow professionally as the E-coop evolves.

- Involve the intermediary/facilitator/mediator in the E-coop development and management. They know the user better because of constant interaction with them.

- Combine intermediaries who are employed with volunteering intermediaries and assign different responsibilities to them according to their experience and role profiles and the E-coop's needs and resources. Provide them with similar opportunities to contribute to the E-coop's objectives and goals.

- Promote the participation of the E-coop's facilitators in wider facilitators' networks that allow the exchange of experiences, good practices, ideas, and knowledge, not only at a local or country level but also at a European level.

- Stress the need to support IT experts as key facilitators for local networks and social innovation, and digital referents for the community.

- Train the E-coop's intermediaries, enhancing their technical skills and more importantly, strengthening their social and knowledge skills. Plan a professional development career programme with each of them and profit from free resources, made available by European projects, among other sources.

How to encourage co-production of services?

Co-design, co-creation, co-building, co-production are different terms that describe the process of bringing stakeholders and users into the service design and delivery process. At the heart of the approach is a move towards user-led process design, possibly also leading to a user-led approach to the delivery of services. Co-production leads to a customization of the service. Users' expectations and experiences are key to effective service delivery and to the outcomes of the service. In sum, co-production improves the quality of services.

Co-production has more benefits since it promotes innovation. Co-production of innovation seeks to unlock the tacit or "sticky" knowledge that service users possess in order to improve existing or develop new services. Here, the service organization proactively seeks to uncover, understand and satisfy "latent (or future) needs", rather than simply reacting to existing or currently expressed.

If co-production is key to innovation, E-coops are important spaces for co-production to take place. They can provide structure and governance for user involvement. At the same time, E-coops can play a powerful role in user engagement and in using ICT to support new ways to actively involve users in the co-production of services and to sustain a constant dialog with them by means, for example, of social networks. Also, E-coops can be places where products, services and technologies are tested and where users are informants or co-creators. In this respect, E-coops can be seen as experimentation environments and real-life test-beds where users and producers co-create services. This means that an E-coop is not only an arena where debates on new ideas take place, but an ecosystem in which innovation happens and produces something which is useful for people and other involved actors. Finally, an E-coop can be a powerful tool for building the collaborative digital environment that enhances the intelligent capacity of users and, therefore, their co-production and innovation skills.

Nádasdy Ferenc Museum. Sárvár, Hungary

Nádasdy Ferenc Museum has created a web 2.0 interface on its website with the aim of collecting knowledge about the past of Sárvár with the active contribution of the users. The site continuously displays the photograph collection of the Nádasdy Ferenc Museum from the professional selection of the employees of the museum whilst it allows the visitors moderated comments available and also allows them to upload their photos with descriptions and comments, adding their own stories, memories to them. The objective of the activity is to create a database on the Internet that widens the professional knowledge of not only the museum in Sárvár, but it also strengthens the local identity of the community by widening knowledge of its collections. This good practice brings, explores and increases the role of the museum as a community and education hub and helps the town maintain, protect and share its history and traditions. **More information at http://www.sarvaranno.hu**

"MyStory". Iasi, Romania

In Romania, several actors have promoted MyStory, an ICT-based solution to empower senior citizens to learn basic technical skills through intergenerational learning, to learn access new learning opportunities, and to interact with different people at risk of social exclusion. It is an excellent example of co-production led by users. Senior citizens are the ones who make decisions about their stories (what to write about and how to write it). What's more, other actors, young volunteers, are also involved in the initiative. They collect the stories and help the senior citizens develop more ICT skills so it is mainly users the ones involved in generating the content, uploading it, and sharing it with other individuals and groups.
More information at http://www.mystories.eu/project/

RECOMMENDATIONS

- Have a slow but committed start. Do not pretend to co-produce everything and at all levels. Let the users get used to co-production. Motivate them. Explain to the users why their collaboration matters. Show them the benefits of co-building e-services and of spending time and energy in these processes. Start asking them about their expectations, perceptions and opinions and include them in the service design/production/delivery processes.

- Where citizens are engaged their expectations must be managed. They should be empowered and feel their time and contribution have been worthwhile. This means being clear and transparent about the purpose of engagement and the limits of what the process is intended to achieve, as well as providing feedback on the findings of engagement activity and the reasons for decisions taken as a result.

- Establish the appropriate communication and inter-action channels. Use the whole range of innovative and digital tools to enable innovation. In a period of resource scarcity it is crucial to target available resources towards initiatives with the potential to produce innovative results. However, do not forget about physical channels, such as the E-coop itself, so other users can also take part in co-producing services and e-services.

- Commit to implement the proposals that users make. It is very important that the proposals made by the participants are taken into consideration and further developed.

- Govern the process. It is crucial to lead and moderate the process through effective strategic thinking, which involves choosing between different arguments, reconciling conflicting opinions and arbitrating between different groups and interests. Intermediaries, mediators, facilitators can play a significant role in this respect.

Which are the most suitable infrastructures?

Although there are many virtual communities, in the end, many best practices are related to services offered in a building. Traditional and first generation digital public services are physical locations where connectivity and training play a key role. Infrastructure is arguably the core of this type of digital public services operations. Therefore, it must be reliable and effective at all times. One of the major lessons learnt in the process of establishing infrastructure is the need to carefully choose the type of infrastructure and equipment whilst considering the lowest cost and simplest maintenance requirements possible. Although E-coops do not have to share a common strategy regarding infrastructure investment, several studies have identified a few key elements in this respect:

- Hardware or physical infrastructure, including telecommunications access and backbone connectivity, electrical power, physical buildings, and technical equipment such as telephones, computers, and faxes.
- Software infrastructure, including available services and applications for users (interfaces, programs, as well as training materials), and also business management methods and materials for managers.
- Human resource infrastructure, meaning the personnel who operates the DPS, their degree of skills and resources, and the roles that they play in managing the digital centre, providing service to users and contributing to training.

As digital public services develop into E-coops and serve new users with new demands and needs, their hardware/software infrastructure needs to adapt accordingly. What's more, the hardware infrastructure, in specific types of E-coops, may include equipment that will never or rarely be used in other E-coops. For example, a fab lab needs 3D printers. It also needs milling machines and signcutters.

The physical infrastructure of an E-coop often includes physical buildings. Again, depending on the E-coop's goals and users, more or less space will be needed and the lay out of the building will change. E-coops focused on e-literacy need classes or rooms for training. Those E-coops which are incubators for entrepreneurs and start-ups need to have smaller offices for different companies. Co-working spaces need large rooms where people can work in isolation when needed but also interact and exchange information and knowledge. E-coops which offer multimedia production services need digital Internet studios or postproduction and editing suites. In sum, buildings need to adapt to the E-coop's characteristics and purposes.

E-coops should also develop digital infrastructures. Having a website or social media profiles should be a must, no matter how different E-coops can be and offering cloud services.

"Vega in Cube". Terni, Italy

Vega in Cube – Enterprise Incubator is a good example of a specific type of E-coop with specific needs when it comes to infrastructure. This initiative aims at providing a network of services and unique infrastructure (particularly IT infrastructure) which enable new businesses to grow and consolidate. It offers buildings (1.000 m2), with various rooms for the different start-ups. These buildings are fully equipped (300Mb of broadband and availability of cloud computing). Also, Vega in Cube has a website and it makes an intense use of social media. So this E-coop perfectly combines physical infrastructures, which are needed to offer room for new companies, and virtual infrastructures, which allow to offer interesting services to new entrepreneurs, many of whom have started IT businesses.

More information at http://www.vegapark.ve.it/.

RECOMMENDATIONS

- Launch the E-coop in the most relevant location (for example, next to small businesses or public facilities, depending on the E-coop's objectives). Make it very accessible and attractive.
- Invest in hardware and software infrastructures according to the E-coop's objectives, users and services. Try to use open source software to reduce/share the costs.
- Don't forget to maintain, repair and update your equipment on a regular basis. This is a way to attract potential users.
- Design the layout of your building according to the E-coop needs. If you do not have much room, invest in flexible, multi-use spaces, which can easily be changed according to the different activities and users.
- Open 24/7. Adapt your schedule to the users needs but keep the E-coop open 24/7 by means of digital tools which allow permanent access to the E-coop and its services.

How to be sustainable?

Sustainability has emerged as a key issue in the debate surrounding the digital public services. DPS have usually been funded by external sources, being public funding the most recurrent. This has often resulted in the offer of free or at least inexpensive services, to users but has also turned them into organizations with severe sustainability problems.

Generally speaking, there are two ways of generating funding:

Internal: Internal financial resources may include membership fees (E-coops need to be demand-driven, and demand should be reflected in the users' willingness to pay for some services), consultancy services (E-coops can provide technical services for a fee to other E-coops, governments, private or civil society organizations), and sale of products (this may include discounted software, hardware, training programs or E-coop supplies).

External: There are many resource opportunities from external network sources: operational overheads, endorsements, and direct project funding. Of particular interest are public-private partnerships. In public-private funded E-coops, the public body takes responsibility for the social development role of the E-coop and the private body ensures its financial sustainability. These types of partnerships give the opportunity for combining innovation and responsiveness with stability and public participation.

However, in approaching the issue of sustainability, DPS face the question of how they can generate income yet serve those in the community who cannot afford to pay for services (like access to health information, for instance). Learning from experience, some services use the income from user fees and other income services to make other services affordable or free.

"Digitalny Sturovci ". Slovakia

Digitalny Sturovci is an initiative in Slovakia that aims at using primary schools to transform their multimedia classrooms into digital public spaces. It is a clear example of reuse of public spaces and of innovative approaches to address the sustainability challenge E-coops can face. It is a win-win situation: schools pay for the Internet and the facilities. They are also in charge of the energy bill. Digitalny Sturovci charges for its services, depending on the level of citizen engagement. With that income, the E-coop supports the school with its maintenance and infrastructures costs as well as with teachers' training.
More information at http://www.infovek.sk/~sykora/ds/
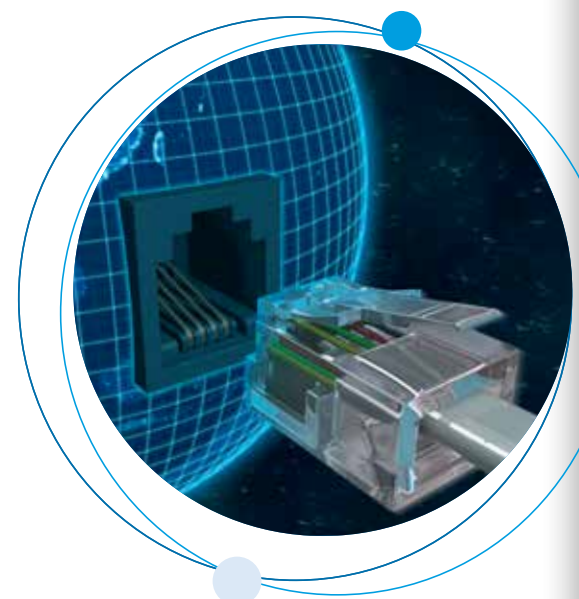
RECOMMENDATIONS

- Develop a sustainability plan to ensure a steady supply of all necessary resources. Outline the E-coop's objectives, priorities, resources required, and a means to track performance and resource levels.

- Diversify your funding sources as much as possible. Do not only rely on public funding or donors.

- Raise the value of your E-coop by defining a means tested programme with users depending on the users' profiles and services they access (networking, co-working, training, connectivity,…).

- Make the most of your E-coop. Rent resources and rooms when they are not used by the E-coop's users. It is also a good way to initiate new opportunities.

- Explore what public-private partnerships can bring to the E-coop. They might be a way to actively involve new stakeholders in the development of the E-coop.

- Explore innovative funding systems, like crowd funding, particularly to set up specific projects and programs, whose objectives and benefits can easily be explained to the community.

- Do not only think in terms of income but of reducing costs as well. Explore the possibilities of open source software for the E-coop equipment and digital services. Moreover, if the E-coop belongs to a network, explore joint purchasing possibilities regarding equipment and infrastructures, connectivity or furniture to give a few examples.

How to evaluate the local impact of an E-coop?

Three main issues have to be taken into account when assessing E-coops: 1) the systematization of the evaluation, 2) the use of different types of evaluation methodologies, and 3) the successful report and use of evaluation results.

Having a systematized evaluation is the first significant challenge. In this respect, there is a clear need to formalize evaluation activities. Firstly, evaluations have to be part of the E-coop planning process. It is actually during the design stage of an E-coop that evaluations need to be taken into account. In this initial phase, the people involved have to think about the process of setting the E-coop up and of implementing it but, also, of the further evaluation process. Secondly, evaluations have to be periodical. Frequency can be different depending of the scope of the E-coop, years in place or activities carried out but specific and sporadic evaluations do not give the whole picture of how the E-coop is functioning and how well it is performing, so it is important to be consistent.

Another important challenge that E-coops have to address is the diversification of evaluation methodologies. Generally speaking, there is a preference for quantitative methods that take the shape of surveys (satisfaction surveys most of the times) administered at the end of a specific activity. However, qualitative methods may be used as well to evaluate the E-coop's activity and performance at different stages. This will definitely be useful to guarantee efficiency and sustainability. In particular, within this context, intermediate and ex post evaluations are particularly useful. Intermediate evaluations aim at monitoring the implementation of E-coops. The information which results from this type of evaluation facilitates the decision-making process before the initiative is totally implemented and finished. There are several subtypes of intermediate evaluations: the implementation evaluation (aimed at assessing the tools that are needed in order for the E-coop to start working), the coverage evaluation (aimed at assessing the real participation of the target population), and the monitoring (aimed at keeping track of progress, normally, by means of indicators).

Ex post evaluations have a clear goal: to assess general results according to different criteria: efficacy, impact, efficiency, equity, responsiveness, adequacy, or sustainability. Evaluating results according to these different criteria means taking into account different aspects of the E-coop. Evaluations, therefore, should include them all to have a general picture of the E-coop's results in every respect. Of particular importance is the impact evaluation, which should analyse the effects of the E-coop on the territory in terms of e-inclusion and local innovation.

Finally, it is important to consider who participates in the evaluation process. All users and stakeholders should be involved in the process or, at least, invited to express their opinion and ideas, in order to help the E-coop reach its objectives and adapt to new contexts and demands. It is also a good way to maintain or reinforce the links between staff and users, and more generally within the community itself.

"Sant Feliu Online". Sant Feliu de Llobregat, Spain.

Sant Feliu Online is a good practice both in terms of systematic planning and evaluation activities. The ultimate goal is to have a management system of continuous improvement. The evaluations which are conducted have three characteristics: they are participatory (they involve several actors and stakeholders), they are continuous (ex ante, intermediate and post evaluations), and they are mainly qualitative. Sant Feliu Online also relies on external evaluation taking the shape of awards or recognitions.

More information at http://www.santfeliu.cat/online

RECOMMENDATIONS

- Plan the evaluation process from the beginning. Include decisions about evaluation types, methods and frequency in the general planning process of the E-coop. Make sure the data you are going to collect at different stages are comparable and obtainable.

- Adopt a pluralistic/participatory approach. Evaluations should be as participatory and locally based as possible and should involve research institutions, local community organizations, individual users, and E-coop management and staff, among other groups of stakeholders.

- Conduct different types of intermediate evaluations to monitor and keep track of the E-coop. For the implementation evaluation, consider the assessment of variables such as the environment/context, the goals of the E-coop, the network of stakeholders, the internal organizational structure, the infrastructures, or the activities offered. For the monitoring, design a good indicators system. Do not forget that indicators, in order to be useful, need to be relevant, objective, univocal, sensitive, precise, transparent and accessible. Organize your indicators according to, at least, three categories: resources/input, activity, and participation.

- Conduct different types of ex post evaluations and, particularly, conduct efficacy, impact, efficiency, equity, responsiveness, satisfaction, adequacy, and sustainability evaluations. Conduct satisfaction evaluations regarding specific E-coop's activities and infrastructures (training, workshops, resources centre, library) and with regard to the E-coop's general performance.

- Use both quantitative and qualitative methods to collect the information needed for the evaluation.

- Communicate and use the evaluations results. Design an effective mechanism to market and share your evaluations results. Be open and transparent and accept feedback from those who could not participate in the evaluation process. Organize sessions to analyse the information obtained and to feed back the decision-making process. Make decisions according to the evaluations results in order to improve the E-coop functioning and results.

How to develop the governance of an E-coop?

Apart from users, there are other stakeholders who may want to play a role in a E-coop: a social group, a local agent or local businesses, a community or an individual who can affect or is affected by the achievement of the objectives set by an organization. In the E-coop context, stakeholders are particularly important because they may influence the sustainability of the E-coop, one of the most significant challenges E-coops have to address nowadays. Money, influence in the community, and networking capabilities are only a few resources stakeholders have and may use in order to help E-coops to grow and achieve their objectives.

E-coops can have a wide range of stakeholders and partners: users , governments, private companies, donors, other E-coops, local citizens organizations/associations, community leaders. Research literature has categorized the potential stakeholders in five groups, distinguishing between internal and external stakeholders:

- Community: Civic authorities and leaders, institutions (police, hospital, schools), business associations, chambers of commerce, community action groups and NGOs, sectorial interests (women, students), individuals.
- Telecentre: Owner, franchise, management, community liaison group, operator, staff, volunteers, funders, supporter, users.
- National: Agencies responsible for telecentres, telecommunications ministry, other ministries (especially those involved in information provision), policy-making bodies.
- Regional: Other national agencies responsible for telecentres, other policy-making bodies, regional organizations.
- International (ITU, UNESCO, other international donors, United Nations, World Bank, private sector.

E-coops can also have many and different groups of stakeholders who may have different interests and needs. Understanding the stakeholders' concerns is necessary in developing support for objectives which are essential for long-term success of the E-coop. As a result, managing multi-stakeholder initiatives, such as E-coops themselves, is never easy and demands mediation, negotiation, and conflict-resolution skills and almost always requires patience. It is useful, in this respect, to come up with management strategies for different groups of stakeholders. The following is one of the matrices that have been developed. It differentiates between groups of stakeholders according to their power (level of influence) and interest in the project, suggesting different ways of acting depending on the combination of these two variables.

		Level of interest of stakeholder	
		Low	High
Power of stakeholder	Low	Minimal effort	Keep informed
	High	Keep satisfied	Key players

The strategic benefits of stakeholder management result from a genuine commitment to all stakeholders. E-coops that sustain relationships with stakeholders based on trust and honesty have competitive advantages over other DPS that do not do this, because it makes the E-coop a desirable partner.

How to develop the governance of an E-coop?

"eSpinn". Örnsköldsvik, Sweden

The eSpinn project, which is a project led by the municipality of Örnsköldsvik (Sweden), with the collaboration of crucial stakeholders from the territory such as Vinnova, Innovation Impact AB, Innelandet AB, Stockholm University, the research company CIRN, the IT-company CoreIT AB and the digital agency Dohi Sweden. eSpinn is a public funded e-service platform (website and mobile app) where you can get information and post local events, attractions and tourism activities in the region. The project has been carried out on the basis of the tight collaboration of the mentioned stakeholders and with an explicit user and customer centric perspective. Stakeholder and developers have been working very close to users/potential users and listened to them, which is a good way to learn from them as well as influence people's attitude. Örnsköldsvik municipality believes in engaging stakeholders and local people in the project from the beginning since it provides better results and a higher impact.

**More information at
http://www.ornskoldsvik.se**

"Commune Information Centre". Mszczonów, Poland

The Commune Information Centre in Mszczonów (Poland) develops and promotes the idea of information society, sharing ICT services, adult education and reducing unemployment. The Centre has worked intensively on the development of networks with numerous organisations and institutions not only at a local level, but at a regional and national level such us schools, various educational entities, enterprises support associations as well as philanthropy organisations. For the direction of the Centre it is extremely important involving stakeholders and receiving continuous feedback from them. In that sense the Centre is continuously engaging those stakeholders on the daily tasks of the organisation. The Centre gives much consideration to the communication of its activity among stakeholders who are very much involved in the project.

RECOMMENDATIONS

- At first, clearly identify the E-coop's stake-holders (and regularly update this informa-tion). Keep in mind that the most important E-coop's stakeholders will be local (they will probably belong to the local digital ecosys-tems) but there might be important stake-holders as well at the regional and national level.

- Understand and address stakeholders' needs, expectations and interests by conducting interviews with them, drawing local maps or diagrams, and inviting solutions from them.

- Set a strategy to manage your stakeholders (consider different strategies for different types of stakeholders), taking into account it will require a high dose of negotiation. Have the E-coop's intermediaries/digital mediators participate in the mediation process for they may have the negotiating and mediating skills that are needed.

- Involve and engage key stakeholders and partners in the E-coop's strategy and opera-tional plans. Send them information on a reg-ular basis. Organize periodical meetings with them to share ideas and get their input. Use digital channels to enhance communication (a specific section on the E-coop's website or a digital platform for stakeholders).

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E-coop workout: a micro-implementation experience

The E-coop micro-implementation experience is a practical testing of the E-coop concept. It is based on the transfer of the Romanian best practice « MyStory » into the a digital public space in Mszczonów, Mazovia (Poland).

The three main questions are: How to select the right location, which is the most suitable best case, and how to plan a transfer project.

If a regional stakeholder is planning such an initiative without a location in mind it is important to make an initial pre-selection of potential territories and candidates following the next steps:

1. Selection of territories which are rural, isolated and high on digital divide (based on high level of desk research on national and regional level reports and data)

2. Screening of this list focusing on territories with pre-existing past efforts to operate DPS (based on desk research but also on field research and more specifically on interviews with local relevant stakeholders)

3. 3. Interview local community managers in order to identify which territories will be more relevant to assure the actual involvement of local citizens on the activities to be planned (which is critical for the effective development of an E-coop)

4. Following the identification of the candidate sites, a screening process for all best cases (e-tools, services, policies, activities) which are considered for transfer has to be applied. The scope of this process is to focus on cases which may be compatible with the objectives of the pre-selected sites and with the needs of local population.

The next step, after a series of interviews with local community managers in all potential candidate sites is for the selection process to make a specific decision on which case to implement and where. The suggested selection criteria are:

1. Feasibility under the specific time limits and budgetary implications

2. Availability of potential target groups

3. Suitability with community and community centres' aims, goals and scope.

4. The general level of activity of the place

Finally, a detailed methodological plan on how to transfer the selected case to the selected territory must be designed and approved. This plan must include:

1. The main goal of the transfer project (what to do, for whom, with whom, with what benefits)

2. The institutions engaged in the transfer and their roles (e.g. schools, local media)

3. The engaged groups and their roles

4. The project leader and his/her responsibilities

5. A detailed timetable of activities

6. An evaluation plan and tools (included on-going evaluation which will make possible the identification of potential problems during the implementation and the needed corrective activities)

Project Partners
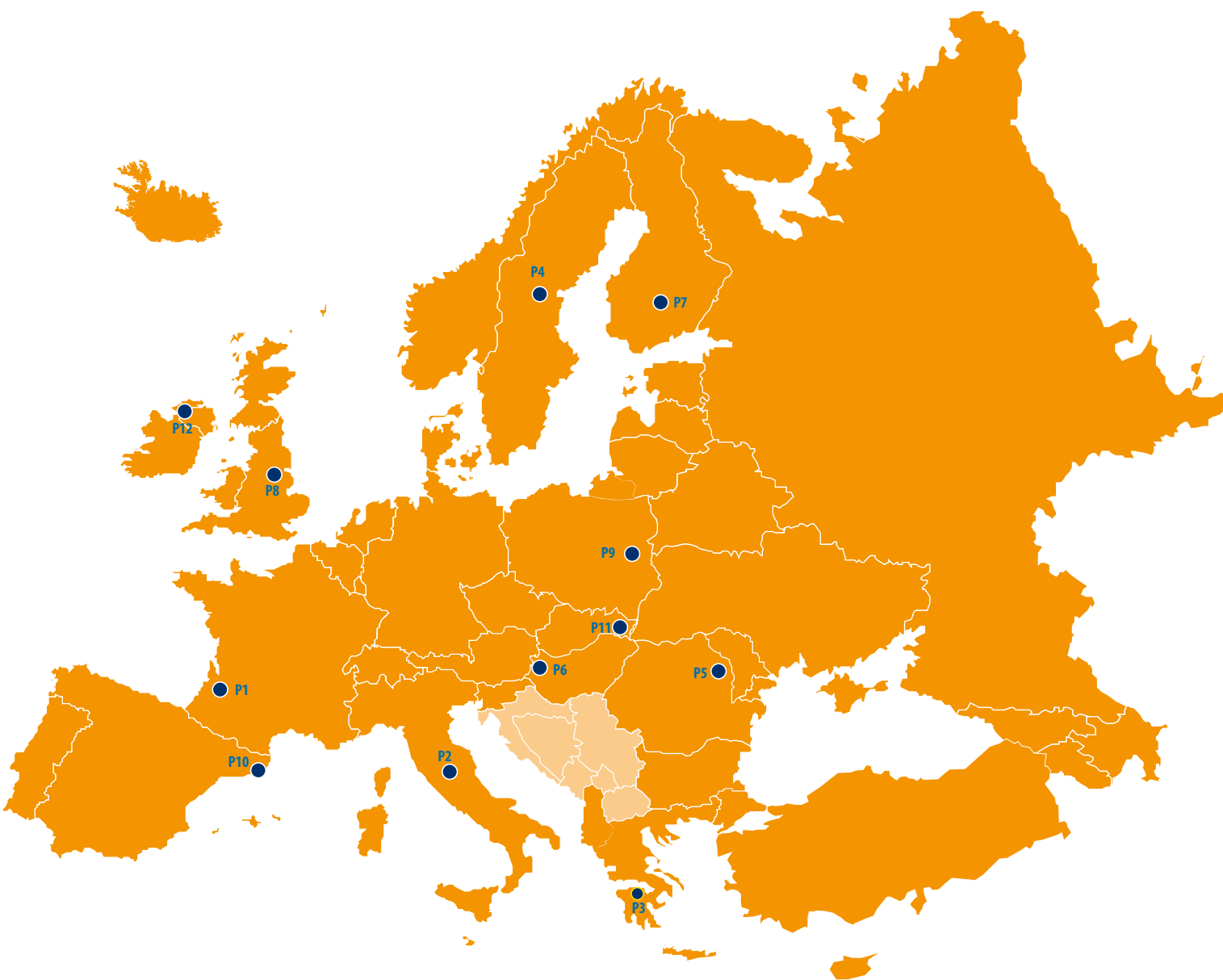
P1
Gironde County Council , France.

The largest department in France, Gironde County has a total population of 1,473,569 inhabitants. As well as being a well-known tourist destination, Gironde is also a land of innovation, with research and technology hubs of international renown. They demonstrate the competitiveness and attractiveness of a territory that is dynamic in many ways. Gironde County Council is an essential contributor to social policy and a committed European partner.

P2
City of Terni, Italy.

The City of Terni is the second largest in Umbria. Since 2000 Terni Council has joined most innovative experiments funded by the Italian Government and aimed at strengthening e-government and on-line services. Due to past experience and relevant pre-conditions, including infrastructures and free WI-FI access, Terni is among one out of 11 large cities in Italy to be identified by the Italian Assembly of Cities (ANCI) as part of an experimental process to implement e-innovation in the frame of smart cities.

P3
Computer Technology Institute and Press "Diophantus", Greece.

CTI is the biggest ICT institute in Greece supervised by the Greek Ministry of Education acting as a main body for the definition and application of ICT policies in Greece with emphasis on education and lifelong learning. The Directorate of Telematics and Applications for Regional development of CTI, participating in this project, was established aiming at enhancing regional development through the effective use of ICT.
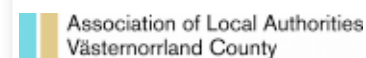
P4
Association of Local Authorities in Västernorrland County, Sweden

The Association of Local Authorities in Västernorrland (ALAV) is the interest and service organisation for the seven local authorities in the county. Its main assignment is to protect the mutual interests of the municipalities, and also: 1) To support and develop the local authority autonomy; 2) To initiate and support co-operation in between the local authorities; 3) To train and educate the elected representatives and employees in effort to keep the competence at a high level.

P5
Municipality of Iasi, Romania

Iasi City is situated in N-E Romania and is the most important city on the eastern border of EU. With a population around 350,000 inhabitants, Iasi is among the first 3 largest cities of the country and one of the oldest and most important university center in Romania, with more than 70,000 students per year. Iasi's strategy emphases the sustainable development based on ICT and creative industries. As a regional growth pole for NE Region of Romania, the City of Iasi is directly influencing the regional policy.

P6
West Pannon Regional and Economic Development Public Nonprofit LTD., Hungary

West Pannon Regional and Economic Development Nonprofit Ltd has been founded as a daughter company of the state-owned West Pannon Development Company. The mission of the Nonprofit Ltd is to support the initiation and implementation of cooperation-based regional and economic development processes in the West Transdanubian Region. It is based on local community building and national and international network cooperation.

Project Partners
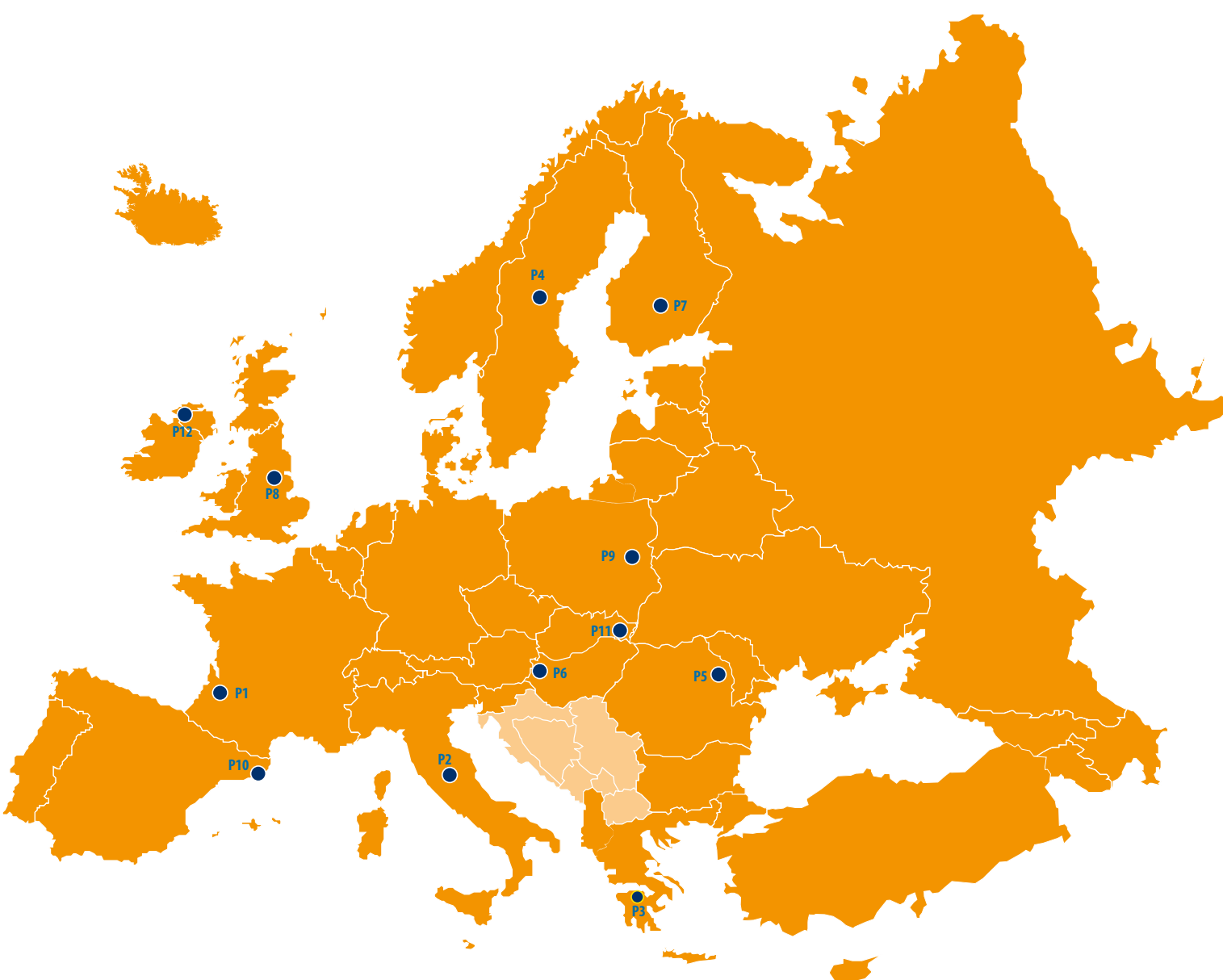
P7
City of Jyväskylä, Finland

The City of Jyväskylä is a local authority with a population of 134,658. Jyväskylä is located in the Central Finland Region and is the 7th biggest city in the country. The city provides comprehensive municipal services to its citizens and has a strong self-government based on local democracy and decision-making as well as the right to levy taxes. The City of Jyväskylä with its 6,700 employees is the biggest employer of the Central Finland region.

P8
Cambridgeshire County Council, United Kingdom

Cambridgeshire County Council is a local authority with a vision for Cambridgeshire to be a county of strong, growing, prosperous and inclusive communities supported by excellent services where people can fulfil their potential; live longer, healthier lifestyles; and influence decision-making. The Adult Learning and Skills Service manage a network of 50 Community Access Points, where communities are supported by volunteers, helping people by running e-learning services to encourage digital inclusion.

P9
Mazovian Agriculture Advisory Centre, Poland

Mazovia Agriculture Advisory Centre in Warsaw (MODR) is a legal person of the Mazowieckie Voivodeship. Its goals include enhancing the competitiveness of the agriculture sector in the region, supporting local development and education in rural areas and small towns. ICT has played a central position in the long-term strategy of MODR, as it is perceived as a key factor of agriculture competitiveness, as well as rural development.

P10
Barcelona Provincial Council, Spain

Diputació de Barcelona / Barcelona Provincial Council (BPC) is a local government institution that provides technical, economic and strategic support for the 311 municipalities of the province of Barcelona networking with the local councils. Currently, it is developing policies and projects for the municipalities of the province in the field of information society and particularly in e-government and modernisation of the public administration.

P11
University of Economics in Bratislava. The Faculty of Business Economics with seat in Košice, Slovakia

The Faculty of Business Economics with seat in Košice is a scientific and educational institution preparing future economists for businesses and institutions, as well as government. Within our research, we are focused primarily on innovation in SMEs; Information and Communication Technologies; environment, resource efficiency; secure, clean and efficient energy and inclusive, innovative and reflective societies.

P12
ERNACT EEIG, Ireland

ERNACT EEIG is a secretariat established by Derry City Council in Northern Ireland and Donegal County Council in the BMW Region as an EEIG (European Economic Interest Grouping) to enable both council areas to co-operate on the theme of communications technology and the emerging information society, ERNACT has since evolved into a European network of regions which also comprises San Sebastian and Cantabria (Spain), Vasternorrland (Sweden), West Region (Romania) and Banat (Serbia).

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