

# E-CLIC midterm evaluation

## European Collaborative Innovation Centres for broadband media services – E-CLIC



# General remarks on E-CLIC

The overall aim of E-CLIC is to stimulate innovation through the establishment of eight new European collaborative innovation Centres for broadband media services, and to develop the capacity for growth and employment across the NSR through collaboration in a North Sea cluster. The Project aims to build on the acknowledged strengths of the NSR and create opportunities to stimulate SMEs, research institutions and public administrations to work together transnationally. Through collaboration and knowledge exchange, E-CLIC also aims to generate human capital for the NSR. The cluster of innovation Centres, E-CLIC, will seek to develop research and innovation networks in order to stimulate the commercialisation of the participating regions' knowledge base and encourage the development of new employment opportunities.

A particular priority is to strengthen the links between research bodies and commercial companies in order to commercialise existing knowledge, inspire innovation, and develop new ideas that can be exploited through national and European research programmes. By securing transnational cooperation, the overall capacity of the NSR will be developed through effectively increasing the critical mass of available skills and experience.

In order to achieve the key objectives of E-CLIC, a diverse set of competences and profiles is required, covering research institutions and users, as well as SMEs and large companies. This is required to foster an innovative environment as well as to cover the competencies needed to create efficient, cost-effective and usable broadband systems and services. New media services that exploit the capabilities of broadband systems require skills in media production, media transmission, content production and service management. The E-CLIC consortium was therefore established with the main objective of building strong clusters in the NSR in the area of broadband media services, while maintaining a good balance of competencies between industry, academia and public bodies.

The E-CLIC consortium is established with the main objective of building a strong NSR cluster in the area of broadband services, media technology, broadband systems, usability and testing, while maintaining a balance between competencies, industry and academia. The consortium brings together 17 partners from 6 Member States. The partners have considerable expertise and experience in the fields of interest to E-CLIC, as well as in project management and standardization. E-CLIC combines a unique set of partner skills. Hence, only in close cooperation can the E-CLIC Centres meet the objectives.

In order to evaluate E-CLIC's up to now work, project partners were asked to answer several questionnaires, one focused on each work package (WP 1 to 5, as WP 6 is dedicated to the evaluation). These questionnaires were developed in the framework of WP 6.

The questions posed aimed at gaining knowledge about the project's progress, the partners' attitudes and opinions towards E-CLIC and the partnership, and their suggestions for the further implementation of the project.

## WP 1: Project Management and Dissemination

Work Package 1 is dedicated to day to day management of the project, e.g. the provision of required reports, the creation of a project management virtual platform and the project's external website, and the coordination of the external dissemination activities of the project. Participants in this WP are all partners; the responsible partner is the County Administrative Board of Värmland (Sweden).

## Communication

Communication between the project partners and the lead partner was mostly carried out via email. The VoIP application Skype was also used often by the partners to contact the County Administrative Board of Värmland, while the telephone and messages at the management platform were less important, but still used with some frequency.

Almost all partners found it easy to contact the lead partner and also the other partners and were mostly answered on short notice.

The E-CLIC management platform is used for diverse purposes: the partners use it as a tool for information on reporting issues, on forthcoming events, and on the progress of the different work packages. Uploading documents and information on each partner's progress and activities is very common, too.

Though the answers in the questionnaires are a little bit sceptical, most of the partners find the platform easy or partly easy to use. The information provided on the platform is, in the opinion of the project partners, generally up-to-date. The use of the platform varies from a monthly use to a daily use. This margin depends on the partners' working routine regarding E-CLIC.

Suggestions concerning the internal communication are e.g. an improved provision of information in the case of content changes on the management platform or the enhancement of the online forum as a means for communication. Suggestions for a better use of the management platform include an improved navigation between different E-CLIC Centres.

## Meetings

Several E-CLIC meetings were held during the last 18 months (Kick-Off Conference, E-CLIC steering committee meetings, financial meeting, two project meetings). Most of the partners who filled in the questionnaires participated in all meetings. Regarding the preparation of the different meetings, the opinions are – generally speaking – positive: The partners evaluated the general preparation, the information about organization and content before all meetings predominantly as “professional” or “good”.

During the meetings, it is important to have enough time and the possibility to discuss important issues with the other participants sufficiently. This was, in the opinion of our project partners, the case in all meetings they participated. They also rated the time they had for formal and informal bilateral meetings adequate. Besides the directly project related program, additional cultural programs were part of the agenda of most of the meetings. The project partners liked this program and found it interesting in all cases.

Relevant and necessary information were generally available within short notice after the particular meeting, thus the partners could continue their tasks etc.

All in all, the partners evaluated the meetings as “useful” or even “very useful” for the further work in the project. This is the case for all meetings held until the evaluation process started.

## Dissemination

One of the instruments for a dissemination of the project is its own external website ([www.E-CLIC.eu](http://www.E-CLIC.eu)). Main target groups of this website are, in decreasing importance for our project partners: business partners of the project, researchers, other – similar – projects, decision makers, students, and the interested public.

The website as such is evaluated with some criticism: Although there were some positive opinions, most of the partners found it – regarding layout and contents – “only in parts” clearly represented.

This applies also to the information presented on the project website, which are mostly considered as “partly” up-to-date. The E-CLIC partners normally do not use the project website for information, but other information sources (e.g. the project management platform).

Suggestions regarding missing information include more up-to-date information and news, as well as information on services and contents.

The second central dissemination measure is the project's newsletter which is published twice a year. Project partner, researcher, other projects, business partners and students are regarded as the main target groups of the newsletter. The information are considered useful for all these target groups. A small proportion of the project partners believe that not all necessary information and news are presented in the newsletter and that it should be published more often.

All partners published information about E-CLIC on their particular partner level: the most common dissemination measure is to provide the project's contents, objectives and ideas on local or regional meetings with different actors, e.g. at the Chamber of Commerce. The installation or enhancement of the partner-specific website with E-CLIC related contents, the publication of articles in newspapers or magazines and own flyers are also important instruments for a promotion of the project.

## **WP 1 Summary**

Summing up, Work Package 1 has been carried out successfully regarding the internal communication between the project partners, the use of the management platform and the partners' own dissemination efforts. Diverse communication means are used regularly. The management platform was established and is used by all partners for different purposes. All partners promote the project on their specific local or regional level in different ways. The different suggestions regarding e.g. the internal communications will be considered for the further project work. The partners' evaluation of the website, its presentation and contents will be considered as constructive criticism and shall lead to a continuing development of the website to ensure a high quality of information and thus an even better dissemination of E-CLIC.

## **WP 2: Regional and transnational collaboration and development**

Work Package 2: Regional and transnational collaboration and development has a range of objectives: the set up of eight European Collaborative Innovation Centres for Broadband Media Services (E-CLIC Centres), involvement of different groups (students, citizens, etc.), student exchange, transsectoral experience exchange, the creation of a database to achieve a pool of resources in different disciplines, etc.

The responsible centre is Rogaland and all Centres are taking part in this work package.

### **E-CLIC Centres**

“An E-CLIC Centre should support the development of e-services, content production and broadband access solutions through a transnational link-up between other E-CLIC Centres.” This definition is the basis for the work of all E-CLIC partners in their particular centres and regions. In all participating regions E-CLIC Centres were established: Sweden and Germany each with two, The Netherlands, Belgium, Norway and England each with one centre. The number of staff (full time and part time) varies between four and 16 persons employed in the different locations. Although some centres are rather small (50 m<sup>2</sup>) – compared to others (up to 300 m<sup>2</sup>) – all partners stated that they are satisfied with their respective space. The number of workstations is only partly depending on the actual size of the centre. It goes from 2 up to 50.

The centres have different regional areas of expertise which involve great breadth of knowledge and increased possibilities to develop innovative new services and content for broadband. Special skills are e.g. a digital art entertainment curriculum, video streaming facilities, audio and video suites, drupal development environment, second life, etc.

Cooperation with other relevant actors is an important part of all established E-CLIC Centres' work. Collaboration with other centres within the project is mostly established and further actions

are planned. These are related to student exchange, knowledge transfer, project cooperation, professor exchange, etc. Research institutions, public bodies, and especially the private sector outside the E-CLIC partnership are other important cooperation partners. Research institutions are different universities in the particular regions; public bodies are local and regional municipalities, chambers of commerce or funding agencies. The private sector cooperates with the E-CLIC Centres in different ways: they provide space and/or knowledge for conferences, both work together on an exchange between academics and the industry or on infrastructure-related issues.

## Living Labs

The background for the work on Living Labs (LL) is the following definition: “Living Labs have the task to make results and facilities of the E-CLIC Centres tangible and accessible. They are open research units of the E-CLIC Centres, where services and products are developed and at the same time accessible for different user groups from specialists and students to the SMEs and the interested public. Basic idea of the Living Labs is a user centric co-design/co-creation process. Each Living Lab is user-centred and has a special focus and a special role in the network according to the specialist field of the E-CLIC Centres.”

Three Living Labs have been established within E-CLIC successfully, which means that the project has reached the target number according to the project plan. Their general aims are – in the partners’ own words – to “enable wireless broadband experiments”, to facilitate “access to professional studio environments”, to improve “services for citizens/SMEs in sparsely populated regions”, that go hand in hand with a risen level of quality of life in and a higher attractiveness of these regions, and the “development and testing of services” in a transsectoral cooperation. Special tasks concern the responsibility for service and service development, the media development and production as well as responsibility for evaluation of wireless broadband access solutions.

The LLs’ size, as well as the staff working there, the work stations available and the general equipment – which caters the special needs and tasks of the particular Living Lab – vary from LL to LL, but are satisfying in the partners’ opinion. Access restrictions are unusual.

The funding of the LLs is in two cases based on a wide range of sources: E-CLIC, local, regional, and national sources are more common than PPP-models. The third LL is financed only by national sources.

The originally intended target groups have been researchers and enterprises on different geographical levels, enterprises of different sizes, entrepreneurs, local authorities, and students. Additionally one LL targets health care institutes, schools, and libraries. To reach these target groups, each Living Lab is active regarding PR and dissemination. The strategies contain workshops, to contact schools and universities, businesses, and other stakeholders. Newspapers and the radio are means for dissemination. Up to now, these efforts have been successful in all cases: workshops are regularly visited by up to 40 people, schools use the LL’s facilities, activities for students are organized, etc. Most target groups could be reached and are benefiting from the three Living Labs. They will further promote their activities in order to reach their intended target groups and beyond other, not yet reached groups.

Until now, cooperation between E-CLIC’s Living Labs and other LLs have been established in two cases, one more is planned. The same is the case regarding cooperation to research institutions which are partners within E-CLIC. Public bodies and private actors (four coop., including PPP-models, too) build collaboration partnerships with the LLs, as well as research institutions (i.e. universities) outside E-CLIC. More partnerships for cooperation models are planned for the project’s future implementation.

Projects running or being planned up to now deal with different contents, such as media productions, e-community, e-health, e-service for citizens as well as wireless broadband access solutions. Most of them are running, a few are planned.

## **Pre-Incubator**

“A pre-incubator provides a development environment for would-be entrepreneurs with a feasible business idea. They will be involved in a learning process that helps them to acquire the tools and skills required to implement their ideas for a successful start-up and to develop initial business and financing plans. Pre-incubators will be part of the E-CLIC Centres.” Taking this definition into account, one pre-incubator was established in Kortrijk, which means that the project has reached the target number according to the project plan. Local network partners (universities, the IBBT – an independent research institute), the E-CLIC partnership (experience exchange) and other contacts (ICT sector, exchange knowledge, etc.) helped setting up the concept.

A range of projects which will be carried out in the pre-incubator is running or planned up to now: pre-incubation of small business projects from students, incubation of two companies from two ex-students, info sessions (planned), workshops, seminars, etc.

In order to reach the target groups, different means for dissemination of the pre-incubator's offers are used, e.g. blogs to publish reports, social networks as facebook.com for promotion and recruitment of new people, websites, etc. These strategies have been successful to that effect, that seminars are regularly visited by about 20 people, and conferences held were attended by up to 1200 people.

## **E-CLIC collaboration program**

The Centres take part in the E-CLIC collaboration program, realizing different activities with each other. These are wide spread and until now they deal e.g. with the development of new or existing technologies (mobile guide, wireless services, software, etc.), or student and lecturer exchange. Further collaborations with old and new main collaboration partners are planned for the future.

## **Cooperation**

Another task for the project partners in the framework of WP 2 is the involvement of companies, public services and citizens in the activities of E-CLIC. “Involvement” can refer to the information of these actors, to contact them and to cooperate with them with the objective to promote the ideas of E-CLIC and to encourage external actors to take part in the project.

The dissemination of the project in its activities and beyond is the main measure of contribution to this project part. Information via press releases and other mediums is an additional one.

Innovation and the creation of human capital require involving students in the project activities. They are a special target group in the context of WP 2. To involve them in E-CLIC, they should take part in actions/meetings/seminars or have e.g. the possibility to work on their thesis in the framework of the project. All in all, in the opinion of the partners, this part activity is at a mid-term status: The inclusion of students has been successful up now, but the work on this point is going on.

Student exchanges may have an additional positive effect to involving more students in terms of them knowing international partner, the project facilities, etc. Until now, exchanges have been carried out between some partners. Altogether almost 20 students took part in exchanges.

## **Collaborative platform and database**

The knowledge about the collaborative platform for stakeholder involvement is rather fair. Half of the partners know about the platform, which might be due to the fact that it was not promoted strongly enough which will be changed in the future. Generally speaking, in the opinion of the partners, the platform should be a means of easy communication and idea and knowledge transfer, as well as a space for discussions. This needs to be ensured by establishing e.g. an online forum which allows quick and easy communication. The means of partners' contribution are to use the platform actively related to their projects by uploading documents, participate in discussions, etc.

The database for tasks, ideas and needs for collaboration is to be built up in the framework of WP 2. The project partners consider it as a source for information about projects in which one could get involved and as a basis for information exchange. The contents they would like to find on such a database should be composed by project information (contacts, progress), student related information (exchange, research, theses), etc.

### Transnational and regional exchange

The transnational and regional exchange within the E-CLIC project was – generally speaking – evaluated as helpful regarding different matters:

Helpful for...	WP meetings	Transnational Workshops	Regional workshops	Bilateral meetings
Realising individual tasks	2,5	3	2	1,5
Establishing/deepening contacts	1,5	1	1	1
Gaining new ideas	1,5	1	1,5	2
Exchange of knowledge	1,5	1,5	1	1,5
Working together on common activities and ideas	2,5	2	1	1,5

1 = absolute agreement, 6 = absolute disagreement

Especially in the case of “establishing/deepening contacts”, all types of exchange are very helpful for the project partners. This also applies for the exchange of knowledge and the benefits emerging from gaining new ideas.

### Next generation E-CLIC model

The development / definition of a “next generation E-CLIC model” is one of the open activities until the end of the project within WP 2. This means to further develop existing E-CLIC activities and to spread the ideas and results of our work.

Beneficiaries from the development may be policy makers, decision makers in the private as well as in the public sector, research institutes, and the citizens.

### WP2 Summary

WP 2 is up to now characterized by an effective joint work of all partners involved. E-CLIC Centres have been established and are working on a good basis regarding staff, equipment, offers to target groups, and cooperation with wide spread actors. The Centres already have an impact e.g. for students who participated in exchanges, but also in respect of job creation for the employees. The same applies for the Living Labs. Target groups could be reached in most cases successfully by promotion and dissemination, and cooperation partnerships have been established. Anyhow, regarding this last point, there are possibilities for further efforts, namely to enhance cooperation with research institutions.

The pre-incubator was established, too, and is working well: different projects are running, workshops and seminars are visited by a lot of interested persons.

The cooperation of E-CLIC Centres between each other on the one hand and between them and other actors outside the project partnership on the other hand is well established and includes different transsectoral actors and stakeholders. Students are involved, too and different exchanges have been carried out; further more are planned.

## WP 3: Services Development

Work Package 3 deals with the development of services for e-Government, e-commerce, e-Health and e-Learning to achieve market oriented new products and services. To resolve this issue, applied research on service development is to be carried out, combined with transnational cooperation in the field of development and provisioning of broadband services, to achieve developed human potential for driving innovation and business development.

All established E-CLIC Centres take part in this work package, while Groningen (The Netherlands) is the responsible centre.

Some basic definitions and the agreement on these definitions are an important basis for the success of WP 3. All partners agreed on predefined definitions regarding “Prototype”, “Case Study” and the requirements of broadband services to be developed within E-CLIC.

On the one hand, E-CLIC partners define “e-service” on a technical basis, i.e. as a service provided via computer and internet technology. On the other hand, they regard such a service as a possibility to add value for clients, as “a faster, more efficient and green way” to just do things. Besides the technique, project partners include the economic, social, and ecologic dimension in their definition of “e-service”.

### Case studies

Case studies are defined as written, detailed analyses of innovative new services, content production or broadband infrastructure. They should be used for the purpose of noting the detail behind success or failure. A Case Study must provide a systematic way of looking at events, collecting data, analyzing information, and reporting the results.

One of the aims of WP 3 is to carry out a certain number of case studies on innovative new services. Most of our partners are working on one or more case studies. Until the beginning of this evaluation process, one case study was finished. The issues of the case studies are diverse: they are related to the improvement of e-government, VoIP technologies, the e-community, e-university and e-learning, PDF-media, and a mobile guide. These services were developed by different actors: business, universities and municipalities. The formal conditions for case studies – a summary report and a case study report – are fulfilled by most of the partners in all parts, but a few still have to work on these formalities.

### Prototype

The development of prototypes for new e-services is another task for the project partners in WP 3. Four prototypes have been developed, two more are in progress. They deal with all e-service sections: e-government, e-commerce, e-health, and e-learning. The aims are to e.g. develop a legal binding e-government application, to improve security of communication, or to enhance e-commerce efficiency for SMEs by sharing web shop functionalities. Thus, the target groups are diverse. The formal conditions, in terms of a summary report and an illustrator of the prototype, are fulfilled by most of the partners and all partners which already developed or are developing one, plan to develop further prototypes.

### Exchange

Virtual exchanges concerning WP 3 between the E-CLIC Centres have been carried out by various partners and were found as useful in terms of knowledge exchange, discussions and the preparation of physical exchanges such as the Cebit in March 2010. There have been exchanges between students as well as teachers and other project members.



Physical exchanges have been even more “popular” until now. The majority of partners have organised one or more physical exchanges in the context of WP 3. Students and teachers were the main participants in these exchanges. Physical exchanges were dedicated to knowledge transfer regarding the developed prototypes, built cooperation, or the testing of different prototypes. Most of these exchanges took place for two days and a continuation – physical or virtual – is planned in all cases. The partners found them – generally speaking – useful.

The open activities for WP 3 are concretely planned to different extends. Most partners could not announce concrete case studies or prototypes they will develop or exchanges they will carry out. This is also due to the fact that the project has only reached half time, meaning that case studies and exchanges are still to be defined in future cooperations with industry as these relations have to be developed first.

### **WP 3 Summary**

The work until now in WP 3 has been successful regarding the number of developed prototypes and those in progress. Four prototypes dealing with different issues have been developed, two more are in progress. Physical exchanges were also carried out with success: at least 12 exchanges between different E-CLIC Centres took place until the beginning of the evaluation meaning that the project partners implemented virtual exchanges and also developed case studies to an almost sufficient extend. This fact will be evaluated again with the work package partners and its leader in order to improve WP 3’s working results and the outcomes in the future.

### **WP 4: Content Production**

In the framework of Work Package 4: Content production, E-CLIC aims at developing content for the HD TV & IPTV market and producing, as well as adapting multimedia contents. To achieve this, besides applied research on this topic, a transnational cooperation in the field of content production in order to develop human potential for driving innovation is the objective of this work package. Again, all centres participate; the responsible is Norfolk.

Concerning the topic of WP 4, a variety of case studies has been finalized up to now or is in progress. Technical basics of media content production, such as the question of new possibilities offered by DSM Cameras, or considerations regarding blue screen studio shoots are examples for the topics outlined in the case studies.

### **Content development**

Until the beginning of this evaluation phase, content development was carried out by a small number of partners. Media contents examples are: Politics Shows for different Elections which were (and are to be) screened regionally, recording and webcasting of university lectures, or the digital archiving of 16mm films including a reporting in the form of a video production. Due to the widespread issues these contents are dealing with, the target groups are widespread, too: the general public, students, researchers, industry actors, etc. E-CLIC partners were partly supported by other actors (other partners, TV station) in the development and/or the implementation of the contents.

## Exchanges

As in WP 3, the exchanges on a virtual basis have been realized with less regularity than physical exchanges. The first were carried out transnationally between three or more E-CLIC Centres. Topics were e.g. “the future of communication”; the participants found it useful or very useful. Physical exchanges were conducted more often and by a higher number of E-CLIC partners. The number of students and teachers that participated in these meetings ranged from two up to six persons. All partners that carried out such meetings up to now are planning to carry out more in the future and evaluated them as useful or very useful.

## WP4 Summary

With respect to the output of case studies until the beginning of the evaluation period, the WP’s objectives are almost achieved: altogether there are six case studies finalized or in progress. The content production has been more successful until now since seven contents for TV are already produced or in production. Physical exchanges have been carried out with more regularity than virtual exchanges. Regarding the latter, it is necessary to enhance their use in the further implementation of the project. The leader of work package should evaluate the reasons for the minor use of virtual exchange and the involved possibilities emerging from this use.

## WP 5: Broadband Access

Objectives of Work Package 5 are the development of new broadband access solutions and the establishment of transnational cooperation networks. In order to achieve these objectives, applied research on broadband infrastructure and services development, the further development of broadband access in participating regions, and cooperation in the field of broadband access are the main activities. WP 5’s responsible centre is Värmland, all other centres are taking part in this WP.

## Case studies

Case studies have been finalized and are still in progress. They investigate – generally speaking – if “traditional” techniques or the partners’ own experiences with technologies (e.g. wireless city networks) may be applicable for other regions or cities or they investigate new or improved wireless broadband access solutions. Case study reports have been written for some of the case studies.

## Virtual exchanges

Up to now, there were no virtual exchanges between the E-CLIC Centres in the context of Work Package 5. Physical exchanges have been carried out between different Centres, picking up issues regarding the project cooperation and case studies. Students and teachers took part in these 1-2 day meetings, which are evaluated very useful and planned to be carried on.

## WP 5 Summary

WP5 seems to be – until now – the work package which is least implemented. Virtual and physical exchanges have played only a small role in the project partners’ work. A positive remark is to be made on the finalized case studies or those in progress: three case studies concerning broadband infrastructure have been finalized, three more are in progress.

This situation we are facing right now concerning this work package will be the starting point for a dialogue between all partners in order to ensure a development which is beneficial for the further project implementation.

## Project evaluation

The mid-term evaluation was an important possibility to find out about how far the project's objectives and tasks have been implemented up to now, about the project partners' suggestions and ideas for the work in the next months.

As shown above, a lot of activities have been carried out successfully, and their effects are very visible: For example, the E-CLIC Centres and Living Labs were established, they are working effectively in terms of the contact to a wide range of actors and stakeholders on different levels and students are successfully involved in different ways. And, last but not least: jobs were created. Other aspects need to be revised since the implementation has not been as successful as expected. Amongst other things, more student and teachers exchanges have to take place and further outputs have to be generated. This is a main task for the next weeks and months in order to guarantee an overall success of E-CLIC.