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DANS ON

Work Package 3. Transferability of DANS Model

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# Rationale, background and process of the project

The DANS Model links into and can be applied within the framework of the beneficiaries’ and North Sea public authorities’ regional development, investment, and ICT/Digital Agenda strategies. DANS ON will demonstrate and communicate how the DANS Model can be used and applied. The receiving beneficiaries (Aberdeen, Hedmark City Council and Groningen Internet Exchange) will actively follow and interact on the DANS ON blog, how they can use the working methods in the best way. Transferring partners (VCAB, atene KOM and Hanze University) will draft a plan each, on how the DANS Model can be transferred and used in other regions in the North Sea Region. The practical examples from “the story of the DANS Model” will be the base for each plan. The receiving partners Aberdeen and Groningen Internet Exchange will draft plans on how to involve citizens through one of the methods used by the DANS partners, or through alternative Quadruple Helix working methods. The process of drafting these plans can be followed by the target groups on the DANS ON blog. All plans will be published on the project´s website. The Advisory Board will be supporting all partners in the drafting of the plans with their expertise.

The DANS ON partnership will identify where the potential for long term achievements is, and identify potential gaps to bridge. DANS ON will map and process experiences from the implementation of the DANS Model to European, national and regional policy in order to further extend transferability and impact as well as to identify strategic messages on implementation. DANS ON will explore and plan for the utilisation of the DANS Model in interregional and transnational programmes (for example the Baltic Sea Region Programme, Horizon 2020 and mainstream programme such as regional operational programmes).

## Work Package 3. Transferability

Following are the main measures to be carried out in the frame of Work Package 3:

1. **Transfer the DANS Model - How can the DANS Model be transferred to other regions in the North Sea Region?**

Blog updates on how the DANS Model can be implemented in the receiving regions, by all beneficiaries.

1. **Transnational Project Workshop on transferability**

A workshop that disseminates practical implementation methods of the DANS Model. Greater awareness on how the DANS Model can be implemented and connected to national and regional policy strategies.

1. **Policy recommendations - based on the analysis in previous steps.**

The DANS Model’s contribution to latest European and national policy goals, primarily the implementation of the Digital Agenda for Europe as one of the seven flagship initiatives of the Europe 2020 strategy will be described.

List of recommendations to policy makers and report on transferability of other EU programmes, such as the Baltic Sea Region, Horizon 2020 and the mainstream regional operational programmes.

## Objective of the Work package

**A. To provide solution-based, actionable information to targeted user groups to inform decision-making:** The DANS ON will facilitate the use of Quadruple Helix Method (DANS Model) for disseminating the Digital Agenda Europe to influence the decision making, planning and usage of ICT in the North Sea Region. In order to successfully bridge the gap between science and policy, the innovation must be translated into clear and concise actionable points. Information, techniques and in general the result from the project will be transferred into formats that make the knowledge accessible for decision-makers, industries, public sector, academia and citizens.

**B. To deliver messages in a cost-effective concise way through utilization of a range of appropriate methods:** Products need to be tailored accordingly to meet the varying needs of user groups. Methods will vary depending on the particular user group. Therefore a proper selection of the methods is one of the main tasks within the process.

**C. To understand the user’s information need:** Understanding the needs and different characteristics of a particular user group is essential to the successful transfer of knowledge. For this aim, specific tools and products will be developed to meet the needs of different user groups.

**D. Provision of the timely information:** To inform policy successfully and have a real impact, information must be targeted to the right people at the right time.

**E. DANS Model Transfer within the partners:** Within DANS ON the transfer can only be achieved through a two way process of transmission and exchange. Promotion and exchange of information within the project will promote collaborative efforts and facilitate the transfer of knowledge externally. A number of activities are in place to facilitate internal communication and exchange of knowledge as below.

## Transferability and existing challenges

If the DANS Model is being considered as new integrated knowledge, and considering the main aim of the project to transfer the DANS Model to other regions of the NSR and beyond, the whole process could be interpreted as a Knowledge Transfer package. In [organizational theory](http://en.wikipedia.org/wiki/Organizational_theory), **knowledge transfer** is the practical problem of transferring knowledge from one part of the organization/area to another. Like [knowledge management](http://en.wikipedia.org/wiki/Knowledge_management), knowledge transfer seeks to organize, create, capture or distribute knowledge and ensure its availability for future users. It is considered to be more than just a [communication](http://en.wikipedia.org/wiki/Communication) problem. If it were merely that, a [memorandum](http://en.wikipedia.org/wiki/Memorandum), an [e-mail](http://en.wikipedia.org/wiki/E-mail) or a meeting would accomplish the knowledge transfer. Knowledge transfer is more complex because:

1. Knowledge resides in organizational members, tools, tasks, and their sub-networks and

2. much knowledge in organizations is [tacit](http://en.wikipedia.org/wiki/Tacit_knowledge) or hard to articulate.[[1]](#footnote-1) The subject has been taken up under the title of [knowledge management](http://en.wikipedia.org/wiki/Knowledge_management) since the 1990s[[2]](#footnote-2).

Furthermore, there are many factors having an impact on quality and quantity of the knowledge which is aimed to be transferred. These factors can vary from place to place and context to context. Therefore, it is essential to consider them while planning a transfer process. This makes the knowledge transfer process a very important, precise and critical action. The essential components of a transfer process are listed below:

1. Characteristics of knowledge
2. Knowledge transfer channels
3. Absorptive capacity of receivers
4. Cultural and Organizational contexts[[3]](#footnote-3)

It is essential to know that a successful transfer action is dependent on a proper analysis and consideration of the aforementioned issues. Therefore a precise step by step process is required to assist the project development in a well optimized direction.

## Contextual process of the DANS Model transferability

Generally factors influencing the knowledge transfer process can be classified in 4 main dimensions. Consideration of these factors is an essential component in a transfer process. A precise analysis on each factor will lead the project to a more successful result. The position of these factors and the way how to analyze them is the subject of the further steps, but their general relations in the process is shown in figure 1. These factors are:

* **Target groups analysis:** a precise and detailed analysis on sub groups of each main target group category (i. e., public sector, industry, academia and citizens). This include analysis to recognize and classify the target groups based on their absorption capacity, cultural and educational background and organizational and expertise characteristics.
* **Transfer techniques or methods** are another very important factor of the process. Without defining and applying proper methods and techniques, the transfer process will fail to be optimally implemented.
* **Transfer channel**, as the next factor plays also a very important role. This has got a very direct correlation with the target group capabilities, mainly in regard to possibilities of application of new technologies and digital services.
* **Content of knowledge** and the level of its complexity is another fundamental factor in this process. The content and its complexity should be suitable and properly defined based on the target group´s capacity. Even the attractiveness of the content can affect the productivity/efficiency of a knowledge transfer.

DANS Model

Defining the target groups

Choosing the proper

Method

Choosing the transfer channel

Transferring

Action

Absorbcapacities

Cultural and organizational context

Public sector

Industry

Academia

Citizens

Clarifying the content

Sub-groups

**Figure 1 General Process of transferability**

## The vision for further steps

In order to achieve the aims of transferring the DANS Model to other regions in the North Sea region a step by step procedure in cooperation with all the stakeholders and beneficiaries is required to be conducted. As it is clarified in the aforementioned work process, the core point of the process is to identify the existing suitable methods for transferring the DANS Model. Therefore, an essential factor is to identify the main existing channels, contents and last but not the least, target group analysis.

Status Quo

Analysis

Propose

Stage 1

* + Rationale, vision, aim, objective and general work proccess of the project

Stage 2

* + Developing the methodological framework on transferability issue with a focus on transferability of DANS Model

Stage 3

* + Studies on target groups (target group classification)

Stage 4

* + Transfer content and channel analysis

Stage 5

* + Analysis of correlations: Methods, Content, Channels and target groups

Stage 6

* + Analysis of the results, policy measures

**Figure 2 Further steps for transfer process**

In a simple way it should be analysed and planned, which content can be transferred according to which channels and methods to a specific target group. In order to achieve this aim, different target groups based on the DANS Model should be classified and categorized. In the next step, an analysis on the suitability correlation of each method, content and techniques for each target groups need to be done. After clarifying the optimum correlations in the main four components of the process (including: target groups, transfer methods, transfer channels and transfer content) the implementation and application process of transferring the DANS Model can be started.

# Transferability methods and techniques

## Introduction

step 1

* + Transfer process

step 2

* + Elements involved in a transfer process

step 3

* + Selection of criteria

step 4

* + Methods and techniques

step 5

* + The main prerequisites

Figure 3 Transferability methods and techniques

As mentioned in the previous report, it is essential to develop a step by step concept through analysis and study of the main factors of the transferability. For achieving this aim, a basic knowledge over the main existing transfer techniques and methods is essential. Identifying the techniques and methods, their main characteristics and their implications can build up an applicable fundament. Therefore, the general process of knowledge transfer, as well as different methods of proper knowledge transfer will be discussed. The main aim is to provide a comprehensive knowledge on existing techniques and solutions.

## What is a transfer process?

Knowledge transfer focuses on the transfer of ideas, research results and skills between research organizations and user groups. Knowledge transfer (KT) is about using research knowledge to stimulate target groups to think or act differently. Knowledge Transfer aims to address this and bridge the gap between those who produce the knowledge and information and those who implement it. This is the process which facilitates the dissemination of knowledge, expertise and innovative ideas within the project itself and also externally to global users.

identify and value

Validate and document

Publish and share

Transfer and apply

Learn and capture

Knowledge Transfer Life Cycle

Figure 4 Knowledge Transfer Life Cycle

## Elements involved in the transfer process

Effective knowledge transfer requires appropriate arrangements and conditions, as well as an understanding of elements involved in the transfer, such as the attributes of senders and receivers, the characteristics of the information being transferred (contents), the media through or by which the information is transferred (channels), the framework of receivers and senders interaction, and characteristics of the external context of the knowledge transfer process.

Elements involved in the transfer process

Attributes of senders and receivers

Characteristics of the information being transferred (contents)

The media through or by which the information is being transferred (channels)

The frameworks of receivers and senders interaction

Characteristics of external context of the knowledge transfer process

Figure 5 Elements in transfer process

## How to select a knowledge transfer method

There are many ways to transfer knowledge. A very important step here is to choose a proper method. In order to answer this question the following issues should be clarified:

* Why you want to transfer the knowledge
* The receiver’s level of expertise
* The receiver’s learning styles and preferences
* Whether the knowledge will be applied in the same or a different environment
* The type of knowledge to be transferred

Generally there exist several approaches in selecting a proper knowledge transfer method. Below three of them are being introduced.

By user needs

It can be used when an individual, team, or organization has specific needs in mind.

By context and types of knowledge

It can be used when an individual, team, or organization has a specific type of knowledge to be transferred.

By level of

Experience

It can be used when the potential receiver of the knowledge has a specific level of experience.

**Figure 6 the main approaches in selecting a knowledge transfer method**

## Knowledge transfer methods[[4]](#footnote-4) [[5]](#footnote-5)

There exist various methods to transfer specific knowledge mainly based on the target groups specifications, aims of the transfer procedure and the transfer channels. Some of the most important methods are listed below:

|  |  |
| --- | --- |
| 1. Boot camp  2. Best Practices Meeting/Studies  3. Communities of Practice  4. Critical Incident Reviews/Lessons Learned  5. Expert Story Telling/Expert Interviews  6. Knowledge Fairs  7. Flowcharts (Work Process Map)  8. Cross-training (position back-up)  9. Job-shadowing  10. Mentoring programs  11. Structured on-the-job training (OJT)  12. Transitional Training (“Double Fill”)  13. Coaching  14. Job-aiding (desk manual, checklist, process map, guide, institutional sign)  15. Action Review  16. Blogs | 17. Communities of Practice  18. Instant Messaging  19. Knowledge Capture  20. Knowledge Elicitation  21. Knowledge Distillation  22. Knowledge Self-capture  23. Leadership Transition Workshop  24. Peer Assist  25. Podcast  26. Retrospect  27. Storytelling  28. Knowledge map  29. WiKi  30. Online learning  31. Job Rotation |

**Figure 7 the main knowledge transfer techniques**

## Appropriate transfer techniques for DANS ON

Classifying the possible and sorting out the most suitable techniques based on the project’s aim is crucial. Considering the variety of techniques and channels, project time frame and complexity and multi-dimensional specification of the transfer process, the most suitable transfer techniques are extracted from the list. Considering the flexibility as one of the main criteria within the project process, any further techniques which match to the aim, are applicable in frame of the transferability process. The following table illustrates the suitable techniques in the DANS ON transfer process.

|  |  |
| --- | --- |
| **Transfer techniques** | |
| workshop, seminar, discussion, open days etc  Best Practices Meeting/Studies  Expert Story Telling/Expert Interviews  Flowcharts (Work Process Map)  Blogs  Instant Messaging  Knowledge Capture  Knowledge Distillation  Podcast | Storytelling  WiKi  Online learning  Best Practices Meeting/Studies  Expert Story Telling/Expert Interviews  Flowcharts (Work Process Map)  Retrospect  Storytelling  Best Practices Meeting/Studies |

**Table 1 Suitable transfer techniques for DANS ON**

# Target group analysis

Transferability refers to the aptitude of an item or service to be moved or transferred from one location or context to another. In the case of good practice, transferability therefore refers to its aptitude for being transferred from the context where it was initially implemented to another context, specific to the partner wishing to incorporate it in its action plan. Assessment of transferability therefore consists of studying the conditions and characteristics of the successful implementation of the practice in its original context, and judging whether these conditions will apply in the specific context to which it is to be transferred. If there are sufficient similarities, the good practice may be declared transferable. If, on the other hand, there are too many divergences or political or financial obstacles, which cannot be overcome in the short or medium term, the good practice will be declared non-transferable. Within this process, one of the main steps, is to recognize and analyse target groups and their role and impact in the process.

The aims of DANS ON with regards to knowledge transfer are to communicate the DANS Model to target groups and promote its use in the wider management and innovation processes in the North Sea Region. According to the Quadruple Helix Model as the core conceptual element of the DANS Model, there exist 4 main target groups in the whole process of innovation. It is perceived that to wider communicate the model in other regions in the North Sea, it is essential to transfer the DANS Model through the main four target groups namely: Citizens, Public sector, Industry and Academia.

One of the main challenges here in the DANS Model transfer process is to analyze the target groups based on their characteristics, abilities and their capacities in how and to which extent they can impact on the transfer process. Target groups analysis and classification will provide a basis to develop a conceptual Model to optimize the transfer process. The proposed model will provide a platform to decide, which kind of knowledge or context is the most appropriate for the target groups and through which channels and which methods it can be transferred more efficiently.

## Main target groups in Quadruple Helix Model

To support and succeed with the implementation of the Digital Agenda for Europe and reach the key targets, all actors in the society need to be involved. In the DANS cluster view, also the citizens should be included in driving innovation in regions of Europe and therefore be a part of the partnership, to interact and collaborate with regional and local innovations systems for ICT. A DANS Model based on a Quadruple Helix model includes the citizen, in addition to the traditional combination of innovation actors, public authorities, industry and academia. The DANS Model will improve the performance and help to create innovations that can be turned into businesses and jobs that increase Europe's competitiveness.

Citizen

Academia

Industry

Public sector

As a collaboration model or innovation model, the Quadruple Helix model is not fully established yet, but the DANS project experiences show that the QH model can be used in many different areas of development in various sectors. Quadruple Helix model and citizen perspective fits and is suitable for operations near the innovation processes where the citizen needs are central, as in health care, public e-services, energy efficiency, and smart transportation. User oriented innovation also creates greater social benefit at a lower cost and by offering user friendly products and services it also strengthens the ability of users to influence their daily lives and society at a larger scale. It also provides a bottom-up perspective, as a counterweight to the otherwise prevailing top-down perspective in the research and innovation process. ICT will be a key enabler in co-creating unique value and individual solutions, therefore citizens should be involved in the early stages of the innovation process to collect hidden knowledge from them, and by finding inspiration and new solutions to problems. The DANS Model is to be seen as an additional tool, pointing the way for the benefit of local and regional innovation systems, to improve performance, collaboration and the impact of innovation by increasing the involvement of citizen as a consumer and user in innovation. The aim of the model is to inspire and integrate the citizen as a fourth helix in the regional ICT innovation process and policies to promote the implementation of the Digital Agenda for Europe towards a digital society. The Quadruple Helix model will provide a great leverage to and support the objectives in the action areas of the Digital Agenda. As discussed in the work package 2.3, following figure demonstrate a detailed classification of target groups according to QH Model. This classification is applied for further transfer process steps.



**Figure 8 DANS ON target groups classification**

# Transfer content and channel analysis

Transfer channels and contents play a crucial role within the DANS Model transfer process. Analysis on the possible channels of information in line with the content and correlations and compatibilities with the target groups are the main focus of this step. The aims of DANS ON with regards to knowledge transfer is to communicate its science to target groups and promote its use in the wider management, policy and user communities to influence the debate and action on issues relevant to the impacts of ICT on the life of people and everyday lives. For this purpose, and considering the main framework of the DANS Model based on the Quadruple Helix Model, a basis for an appropriate content and channel analysis is developed.

## Transferring content: DANS Model (QH)[[6]](#footnote-6)

The concept of the Quadruple Helix (QH) is not very well established and widely used in innovation research and in innovation policy. However, in analyzing the innovation literature, we arrived at the conclusion that there is a wide range of conceptions that could be named as QH type of innovation conceptions. Some of them are very close to the TH concept, some of them deviate more radically from it and many of them are somewhere between these two extremes. What is common to all QH type of innovation conceptions is that they all have included some fourth group of innovation actors into the TH model.

Some argue that it is the 4th pillar organizations that create links between the Triple Helix organizations that should be included in the TH innovation model (Liljemark 2004[[7]](#footnote-7)). Some have called these 4th pillar or intermediate organizations as innovation-enabler organizations (Liljemark 2004). They act as brokers and networkers between the TH organizations. This 4th pillar approach is only a minor step beyond the Triple Helix models and it resembles very much the innovation system concepts. Yawson (2009)[[8]](#footnote-8) argued that the missing fourth helix should be the public. Another candidate as the fourth helix is the user that is very close to Yawson’s candidate, the public. This choice is supported by the opinions brought forward in recent innovation research and policy, which present user-driven innovation as an essential factor of success for both firms and public sector organizations (Eriksson et al. 2005[[9]](#footnote-9), Lundvall et al. 2002[[10]](#footnote-10), Thomke & von Hippel 2002[[11]](#footnote-11), Schienstock & Hämäläinen 2001[[12]](#footnote-12)). One important reason for this is the changed competitive situation of companies. It is seen that with increased global competition and cheaper sources of high-quality technological solutions, companies can no longer rely on maintaining a competitive advantage based on ‘traditional’ drivers of price and quality. Companies must strive to seek alternative sources of competitive advantage, and are therefore undertaking major transformations in their innovation processes and business models in order to deliver more valuable products and services to the market. These new innovation strategies of firms often involve increasingly open business models, a greater focus on understanding latent consumer needs, and more direct involvement of users in various stages of the innovation process. User-driven innovation practices are also believed to support the renewing of the public sector and public services facing financial difficulties (Finnish Ministry of Employment and the Economy 2009[[13]](#footnote-13)). The user-driven innovation approach is believed to promote the development of new more inexpensive public services and ways of operating them. (Wise 2008[[14]](#footnote-14))

The user-driven innovation approach could be seen as one essential element of the new “broad-based innovation policy” approach (see Edquist et al. 2009). The broad-based innovation policy entails the broadening of the concept of innovation to include product innovations in services, as well as organizational process innovations, and relates to not only economic significance, but also to wider societal benefits, as well as measures targeted to support innovation in public services. This new innovation policy conception takes also all determinants of the development and diffusion of innovations into account when designing and implementing innovation policies. This would then include policy instruments operating from the demand side. It would also include acknowledging a wider spectrum of sources of knowledge and more versatile interactions with producers and users of knowledge. (Edquist et al. 2009[[15]](#footnote-15))

The concept “user-driven innovation” was originally connected to innovations carried out by a consumer to increase the utility value of a given product, as opposed to a company innovation that only serves a commercial purpose. Recently the concept “user-driven innovation” has often been used in the context of companies involving users in the innovation process in various ways (Wise & Høgenhaven 2008[[16]](#footnote-16)). The use of “user-driven innovation” as an umbrella concept for describing all kinds of innovation activities in which users are involved is slightly problematic. It suggests for the users a larger role in innovation activities than their role often actually is. From this perspective, a more proper term could be “user-centred”, as suggested by Bergvall-Kåreborn et al. (2009)[[17]](#footnote-17), or “user-oriented”.

The Quadruple Helix type of innovation activity enables a larger variety of innovations than the Triple Helix model does. The Triple Helix type of innovation activity focuses on producing high-tech innovation based on the latest technology and research knowledge. Because of this, the Triple Helix model is considered to lend itself better for science-based high-tech companies than for other kind of businesses (see MacGregor at al. 2009)[[18]](#footnote-18). The Quadruple Helix type of innovation activity, instead, can focus on producing other kinds of innovations and applying existing technology and research knowledge and user knowledge as well. To SMEs, the increase in quadruple and user-oriented type of innovation activities could open up new possibilities to participate in innovation activities, as also other types of SMEs could participate than only strongly science-based ones or firms having science-based firms as clients. Furthermore QH type of innovation activity in which users are highly involved in the innovation activity can help the SMEs to shorten the incubation time and to manage and minimize the risks associated to the development of new products and services (Santoro & Conte 2009[[19]](#footnote-19)). This type of innovation activity is also believed to be attractive to SMEs, micro-organizations and start-ups, who typically have problems acquiring venture capital, unless the market attractiveness of ideas, concepts and products and services can be reasonably demonstrated (Eriksson et al. 2005). Many authors have pointed out that the development possibilities of SMEs are very much dependent on how well they can involve users in their innovation activities.

As TH can be seen as a systematic way of pursuing research/technology-driven innovations, also QH can be seen as a systematic way of pursuing demand- or user-oriented innovation. Quadruple Helix is a very wide and multidimensional concept referring to numerous different activities and actors. It seems that it is more reasonable to consider QH as a continuum or even as a space rather than as a single model. Therefore it could be more meaningful to talk about QH models than a QH model. Furthermore, four different QH models are formed, which bring forth some interesting dimensions and challenges of QH type of innovation activities and environments.

Design for user

Products/service developed on behalf of the user

Design with user

Products/service developed with the user

Design by user

Products/service developed by the user

User-oriented innovation/ User-centric innovation

User-driven innovation

**Degrees of user involvement**

*Low*

*High*

Intensity of user involvement

**Figure 9 the difference between the umbrella concept of ‘user-driven’ and ‘user-centric/user-oriented’[[20]](#footnote-20)**

QH Model is an innovation cooperation model or innovation environment in which users, firms, universities and public authorities cooperate in order to produce innovations. These innovations can be anything that is considered useful for innovation cooperation partners; they can be, for example, technological, social, product, service, commercial and non-commercial innovations.

Basically, it is more useful and meaningful to consider Quadruple Helix rather as a continuum or space than a single entity. Accordingly it is more useful to talk about different QH models situated somewhere along the QH continuum or space. In each case, the QH model to be constructed depends on the perspective that one chooses. Four different QH Types have been developed, namely:

1. the “TH + users model”,
2. the “Firm-centred living lab model”,
3. the “Public sector-centred living lab model” and
4. the “Citizen-centred model”

These models are ideal-type models and they are not meant to describe reality as it is. The purpose of these models is to bring forth some essential characteristics of different QH models more clearly and to provide examples of the possible application possibilities of QH. The real QH innovation environments and cooperation models most probably contain elements from several different QH models. Of the four QH models presented here, the first two (TH + users and Firm-centred living lab) seem to be very much reality already today in several countries. The public-sector-centred living lab model also seems to be in use at least in different projects related to the development of public services. At the moment the citizen-centred model is most likely the most infrequently utilized QH model of these four QH models. It provides the biggest challenges to firms, universities and public authorities that are not used to hand over the steering wheel/driver’s seat to citizens in innovation activities.

## QH Model

### Triple Helix + users

The Triple Helix + users model (Figure 10) is otherwise the same as the traditional TH model, except for the systematic collection and utilization of user information. The focus is on the development of commercial high-tech innovations based on the latest scientific research knowledge. The owner of the innovation process can be a single firm, group of firms, university, group of universities, or group of firms and universities. In this model the degree of user involvement could be characterized as design for. The users participate either indirectly in the innovation process, i.e. give information about their needs through surveys, for example, or participate in the innovation process at very late phase when the developed products or services are nearly completed. Users are treated as informants, not as developers. In other words, they are treated merely as objects of innovation activities, not subjects of them. The information given by users is not taken at face value. The decisions and interpretations concerning the (real) needs of users (consumers) are made by experts working in high-tech firms or in universities.[[21]](#footnote-21)

**Public authorities**

* Support the development of high tech firms
* Support the development of university research relevant for high tech firms
* Finance firm-university R&D projects

**Main goal of innovation activity:**

To produce commercially successful high tech products and services

**Type of Innovation:**

* High tech innovations
* Radical innovations

**Initiators of innovation process:**

* Firms
* Universities
* Public authorities

**High tech firms**

* Develop commercial products and services
* Utilize university research
* Collects systematically information from user needs and user experiences

**Universities**

* Produce internationally new knowledge relevant for the development of high tech applications
* Train/produce high tech experts

**Users/Citizens**

* Give information about their needs and experiences
* Test products/services at late development phase

**Figure 10 the Triple Helix + users’ model**

### The firm-centred QH

In the Firm-centred QH model (Figure 11) the focus is also on the development of commercially successful innovations, but in this case, innovation can be based on, in addition to latest research knowledge, also on new applications or combinations of “old” research knowledge and/or on user knowledge. In this case, user knowledge refers to knowledge both about the needs and problems users face in real life contexts and about these contexts of use. The owner of the innovation process is a firm or group of firms. In this model, the degree of user involvement could be characterized as design with users. Users are treated both as informants and as developers. This means that they participate also in the early phases of an innovation process, for example, in the idea and development phase. In this model, user knowledge can be as important as research knowledge. [[22]](#footnote-22)

**Users/Citizens**

* Give information about their needs and experiences
* Test products/services in real life contexts
* Participate in the idea and development phase of innovation

**Main goal of innovation activity:**

To produce products and services relevant for firms and their clients

**Type of Innovation:**

* Commercially exploitable innovations (technological+social)
* Public sector innovations
* Incremental and radical innovations

**Public authorities**

* Support the development of LL, firms and research organizations
* Finance LL activities
* Support the networking of different LL actors
* Market LL

**Universities**

* Produce knowledge relevant for the LL innovation activities
* Train/produce LL experts
* Develop methods for LL activities (incl. user involvement)

**Initiators of innovation process:**

* Firms
* Universities
* Public authorities

**Firms**

* Develop commercial products and services
* Utilize know-how of LL experts and users
* Collect systematically information about user needs and user experiences

**Figure 11 the firm-oriented QH model**

### The public-sector-centred QH

In the public sector-centred QH model (Figure 12), the focus is on the development of public organizations and services. Also in this case, innovation can be based on, in addition to the latest research knowledge, also on new applications or combinations of “old” research knowledge and/or on user knowledge. The owner of the innovation process is different than in the Firm-centred living lab model; in this case, it is a public organization or a group of public organizations. The goal of innovation activity is, above all, to develop public organizations so that they can function better and offer new and better products and services to their clients and citizens. In addition to firms, also public organizations gather systematically information and feedback from the clients of their services, i.e. from citizens. This can be realized by means of more traditional information gathering methods (e.g. surveys, interviews), or by organizing dialogue forums (virtual and real) for citizens.

Also in this model the degree of user involvement could be characterized as design with user. In other words, users/citizens participate in the development work of public services together with R&D experts. [[23]](#footnote-23)

**Users/Citizens**

* Give information about their needs and experiences
* Test products/services in real life contexts
* Participate in the idea and development phase of innovation

**Main goal of innovation activity:**

To produce products and services relevant for public authorities and the users of public services

**Type of Innovation:**

* Public sector innovations
* Commercially exploitable innovations (technological+social)
* Incremental and radical innovations

**Firms**

* Develop commercial products and services
* Utilize know-how of LL experts and users
* Collect systematically information about user needs and user experiences

**Universities**

* Produce knowledge relevant for the LL innovation activities
* Train/produce LL experts
* Develop methods for LL activities (incl. user involvement)

**Initiators of innovation process:**

* Public organizations
* Firms
* Universities

**Public organization**

* Develop public services
* Support user/citizen involvement
* Support the development of LL, firms and research organizations
* Collect systematically info about the users

**Figure 12 The Public-sector-oriented QH model**

### The Citizen-centred QH

In the Citizen-centred QH model (see Figure 13), the focus is on the development of innovations relevant for citizens. In this innovation model, citizens are in the driver’s seat and the produced innovations can be based on the knowledge of citizens, firms, universities and/or public authorities. The owner of the innovation process can be a single citizen or a group of citizens (i.e. a development community). In this model, the degree of the depth of user involvement could be characterized as design by users, i.e. new products, services and ways of doing things are developed by users. Besides making most of the development work, citizens also decide what kinds of innovations are needed and developed. The role of firms, public authorities and universities is, above all, to support citizens in their innovation activities (e.g. to provide tools, information, development forums and skills needed by users in their innovation activities). Firms and public organizations also utilize the innovations made by citizens. [[24]](#footnote-24)

**Public authorities**

* Support the development of citizen innovations
* Provide tools and skills
* Offer dialogue forums to citizens and forums to participate in decision making

**Main goal of innovation activity:**

To produce products and services relevant for citizens

**Type of Innovation:**

* Innovations relevant for citizens

**Firms**

* Develop commercial products and services from citizen’s innovations
* Support citizens innovation activities

**Universities**

* Support citizen’s innovation activities
* Support firms and public authorities in the utilization of citizen innovations

**Initiators of innovation process:**

* Citizens

**Citizens**

* Create citizen relevant innovations
* Decide which innovations are needed/developed

**Figure 13 The Citizen-oriented QH model**

## DANS Cluster best practices

In line with the QH Model, other important content aimed to be transferred in frame of the DANS ON are the best practices which have been developed in frame of the three former DANS Cluster projects namely; E-CLIC, Smart Cities and Creative City Challenge. These practices illustrate how different actors were integrated and to which extent they have influenced the innovation process in the North Sea Region. The following table provides a useful basis as a summary for further development and expansion of the lessons learned through best practices. [[25]](#footnote-25)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Main project** | **Name of the best practice** | **Location** | | **Subject** | **Main contributors** | **Target groups** | **Aim of the project** |
| City/Region | Member state |
| **E-CLIC** | The Studios – A business accelerator at Howest University College of West Flanders | Kortrijk, West Flanders, Belgium | BE | • To increase the level of education in the field of digital business administration.  • To provide students with an opportunity to find their paths in life. | • Students and professors in Howest | • members of the network of The Studios:  e.g. senior entrepreneurs, the Belgian Chamber of Commerce, Creative Starters – the local government driven network that offer support and advice to creative starters | • To increase the level of education in the field of digital business administration  • To provide students with an opportunity to find their paths in life  • To help young entrepreneurs get started in the business world |
| **E-CLIC** | Effects of Active Promotion on Web Traffic | Groningen, The Netherlands | NL | • To enhance awareness of companies with websites how advertising can increase their competitiveness. | • Hanze University of Applied Sciences,  • School of Computer Science, Groningen  • The Netherlands WiMultitask - a student company | • Especially business owners, who would like to boost their turnover in a cost-effective way, using traditional internet and/or mobile website  • Municipality of Groningen | • To enhance awareness of companies with websites (how advertising can increase their competitiveness.)  • Proving the relationship between the number of visits on a mobile website and the website related promotional activities performed. |
| **E-CLIC** | Successful Online Business Models | The Netherlands | NL | • To offer a framework for successful online business.  • To define what attributes an online business has to have in order to succeed. | • Hanze University of Applied Sciences Groningen, the Netherlands  • The University of Stavanger, Norway | • Primarily those contemplating starting an online business. | • Pinpoint the qualities and characteristic that make successful online business in order to help both current and future businessmen and women to succeed. |
| **E-CLIC** | IPv6 Implementation | Northern Netherlands | NL | • To raise the level of e-service for people living and businesses operating in Northern Netherlands. | • Initiator of the project GN-IX, an independent Dutch company which is the centre for broadband connectivity and internet services in the Northern Netherlands.  • A student from Hanze university Groningen also took part in the project.  • Other partners included Bytesnet, a company that delivers datacentre services and R-iX, the company providing broadband connectivity and Internet services in the Rotterdam area. | • People living in Northern Netherlands. | • The aim was to ensure an unhindered transition between Internet protocol systems thus guaranteeing continuous service for internet users. |
| **Smart Cities** | Barnsley Council | Barnsley is a town in South Yorkshire, England | UK | • To complete overhaul of website to make it easier for both the public and council staff to search for and surface consistent information and to utilise a tried and tested framework that would provide a system for managing information resources across the organisation. | • Barnsley Council (eAccess Programme Team, Transformation Support Unit) | • Barnsley Council,  • Partner Organisations and  • citizens | • Providing a website for the 21st Century Council, a website that would be more visually attractive, easier to search and up to date |
| **Smart Cities** | London Borough of Brent | The London Borough of Brent is a London borough in North-West London, UK and forms part of Outer London. | UK | • To increase the level of e-services in order to provide citizens with up-to-date information in an efficient, cost-effective way | Brent Council | • Brent Council  • citizens and neighbouring councils’ citizens in the boroughs of Barnet, Camden, Ealing, Hammersmith & Fulham, Harrow, Kensington @ Chelsea and Westminster. | • To increase effective use of the website in order to reduce costs  • To make the website easier for citizens to find what they are looking for and make data easier to maintain and surface  • To protect frontline services and ensuring resources are not wasted on in appropriate structures, out of date ways of working and inefficient business processes i.e. to cut our duplication of effort |
| **Smart Cities** | Municipal Web Portals | Pan-European, Bremerhaven, Edinburgh, Groningen, Karlstad, Kortrijk, Kristiansand, Lillesand, Osterholz-Scharmbeck | DE, UK, SE, NO, | • To find the solution on how can municipalities build engaging websites that deliver services in the best possible way? | • Bremerhaven  • Edinburgh  • Groningen  • Karlstad  • Kortrijk  • Kristiansand  • Lillesand  • Osterholz-Scharmbeck | • The different partners were at different stages of web development: some just trying to get it “up and going”, while others were more mature and were planning further developments and expanding the services they provided. | • Optimal delivery of information and services that citizens really want  • Keeping up with citizens’ demands and technology  • Extension to and interaction with urban public domain |
| **E-CLIC** | User Friendly E-privacy | Karlstad, Sweden | SE | • To enhance quality of online security and security of smart phones with touch-screens.  • To find ways of using future mobile technology which are secure, privacy friendly and easy to use.  • To raise the number of people trusting and using smart phones for online service. | • The project was funded by the **Swedish Knowledge Foundation and the E-CLIC project**, and carried out by **departments of Computer Science, Information Systems and Psychology at Karlstad University**, in collaboration with **industrial partners Nordea Bank in Denmark and Gemalto**, a world leader in digital security, in Sweden. | • Target demography is the average smart phone user who is concerned about his privacy and security. | • Proving evidence of better security system for smart phones |
| **E-CLIC** | Secure Voice over Internet Protocol | Wilhelmshaven, Germany | DE | • Raising the level and security of e-services for citizens. | • Both the initiator and implementer of the project was the laboratory for communication network | • The target group of the project is anyone with a desire to conduct secure calls without being listened-in over the Internet. Since the system is free to use from anywhere via Internet, the project can impact anyone from the target group all over the world. | • To provide users of instant communication applications with an option to conduct their interactions in a secure way |
| **E-CLIC** | Broadband Access in Rural Areas - The Värmland Model | Värmland County, Sweden | SE | • How to guarantee high-speed broadband access to households and businesses in rural areas at a reasonable cost. | • **Värmland County Administrative Board** was the initiator of the project and “the rural broadband access model” was created by **Sunne Municipality**. Implementers of the project were also **Region Värmland**, **15 other municipalities** in Värmland and the regional ICT cluster. | • All 16 municipalities IT managers and the regional IT coordinator  • Politician from the country have also been informed about the current broadband situation | • To provide higher quality of life for citizens living in rural areas and to strengthen regional attractiveness.  • To promote social inclusion and competitiveness for all citizens independent on geographical area and social backgrounds |
| **E-CLIC** | A Model for Supplying Broadband Access to the  Internet to Rural Areas in the Weser-Ems District | The Weser-Ems region in Lower Saxony, Germany | DE | • To increase quality of life of people living in rural areas and to raise the level of e-services by providing them with broadband access. | • The research was carried out in the laboratory for communication networks and broadcasting technology at the Wilhelmshaven site of the University of Applied Sciences Wilhelmshaven/Oldenburg/Elsfleth.  • Towns in the in the Weser-Ems district were provided with broadband internet access in cooperation with internet company ju-DSL. | Mostly impacted by the project can be:  • the population  • municipalities  • governments  • Companies setting up business in rural areas | • To set-up and describe a useful, general model to supply broadband access to the internet in rural areas for the benefit of the population living there |
| **E-CLIC** | Business Process Innovation with QR Codes | Hunebed Centre – a Dutch archeological museum | NL | • To increase attractiveness of a museum by enriching visitor experience using ICT tools and technology | • Initiator of the project was the museum,  • Research was conducted by four students of the Business Administration and the International Business and Management programmes at the University of Groningen. | • Visitors and employees of the museum | • To investigate the potential use of new mobile augmented reality solutions in order to enhance visitor experience and attract more visitors at the museum |
| **Smart Cities** | Bury Council | Bury is a town in the North of England and forms part of the AGMA, Association of Greater Manchester Authorities. | UK | • To increase the level of e-services for the benefit of elderly or disabled citizens thus enhancing their quality of life | • Bury MBC | • The elderly and disabled residents in Bury  • The relations of the elderly and disabled  • Social Services Team in Bury  • Bury Council | • To organize and provide non-stop professional care service for those in need of it in an efficient, cost-effective way |
| **Smart Cities** | Durham Council | Newton Aycliffe is a town in County Durham, England | UK | • To raise the quality of life for citizens of the county by offering them services they really need, based on studies carried out with the help of ICT. | • Durham Council | • Durham Council,  • Citizens of Newton Acliffe,  • Citizens from surrounding areas  The target demographic groups were: wealthy people living in the most sought after neighbourhoods, successful professionals living in suburban or semi-rural homes, middle income families living in moderate suburban semis, couples with young children in comfortable modern housing, couples and young singles in small modern starter homes, residents with sufficient incomes in right-to-buy social housing and families in low-rise social housing with high levels of benefit need. | • To Increase take up of membership and usage  • More consistent usage i.e. be more appealing those who take out a membership  then no longer attend |
| **Smart Cities** | CoDesign | Pan-European |  | • Moving from processes designed by appointed experts towards user-led process design and service delivery. This could be seen as part of a broader shift towards citizens and professional staff working together to co-produce services in municipalities. | • Edinburgh Napier University (UK)  • Intercommunale Leiedal (BE)  • City of Edinburgh Council (UK)  • Kristiansand Komunn (NO) | Co-design was implemented by all partners in their process and service design, including:  • Citizens as users  • Municipal staff as providers and etc. | • Learning how to design better and user-entered services  • Learning how to collect ideas and move them into action  • Providing useful practical background information for municipalities and other public sector organisations that are considering incorporating aspects of co-design into their service development. |
| **Creative City Challenge** | INNOWIZ Platform | INNOWIZ originated in Flanders, Belgium, but is now frequently used by many people in other European countries and beyond. | BE | • INNOWIZ is an online tool to foster creativity and innovation: it offers companies, SME’s and individuals both a 4-step-method to manage creative processes ‘from idea to realisation’ and a database of creativity tools that empowers peoples’ framework of ‘design thinking’. | • Howest Industrial Design Centre was the initiator and implementer of the INNOWIZ platform. | • Many companies and SMEs have got trained in the usage of INNOWIZ and/or adopted the INNOWIZ method in their own innovation strategy: local SMEs and companies such as CREAX, Reynaers Aluminium, Samsonite, Telenet, Bloso Flemish Sports Federation, Barbecook and Recticel. | • The INNOWIZ methodology offers a ladder for innovation. The target demography is simple: it is open to everyone in the world |
| **E-CLIC** | PDF – A New Breed of E-learning | Stavanger, Norway | NO | • To enhance the possibilities and raise the level and quality of e-learning for students. | • The University of Stavanger initiated the project, and it was carried out by NettOp the University’s department for development of digital learning tools in close cooperation with lecturers from the Institute for Health Studies of the university. It was in part funded by Norway Opening Universities. | • Part-time students and lecturers of the Institute for Health Studies are primarily impacted by the project. | • To develop a digital learning tool that would digitally support and complement the part-time nursing bachelor degree course |
| **E-CLIC** | Usability and User Experience of  www.seniorenberatung-hannover.de | Hannover, Germany | DE | • To enhance quality of life of elderly citizens by increasing usability and user-friendliness of a website. | • The study was conducted by the University of Applied Sciences, Hannover in cooperation with the Municipal Service Senior Citizens of Hannover (KSH). | • The main target groups are the citizens | • To gain information about how citizens use the website and to measure user satisfaction. |
| **Smart Cities** | Customer Contact Centres | Karlstad (SE), Groningen (NL), Kortrijk (BE), Edinburgh (UK), Norfolk (UK) | SE, NL, UK, BE, | • To improve customer centres | Commonly started by all partners involved. | • Municipality back-offices,  • front-offices,  • citizens,  • Communication teams. | • To develop a strategic and practical approach to service improvement: how services are delivered and how they can be made better, based mainly on an intelligent channel strategy, an organized back office and change management. |
| **Creative City Challenge** | Travelling Exhibition to present Best Practice  Instruments and Cooperation: Road Movie | Bremen, Hamburg, Oldenburg, Groningen, Kortrijk, Newcastle, Gothenburg | DE, NL, BE, UK, SE | • To increase the awareness of the CCC, the partners, the regions, creative industries in NSR to the public. Contribution to transnational interchange of learning materials and best practice, promotion of transnational activities in creativity. | • WFB Bremen Economic Development Corp. | • The regions and creative industries in the North Sea Region and partners within the CCC project. | • To exhibit a group of films, which will constitute the centerpiece of the CCC Travelling Exhibition. These films could highlight the new economic assets of the CCC partner cities/regions such as modern architecture, infrastructure and new public, economic and cultural zones of interest. Particular emphasis will not only be given to the partners and the creative industries of the CCC Cities. The films produced will also present best practice instruments and cooperation developed during the project. |
| **Creative City Challenge** | Creative Boost | Dundee, Scotland | Uk | • To increase the levels of enterprise and entrepreneurship skills amongst recent graduates from creative industries courses and new and aspirant SMEs in these sectors, thereby improving opportunities for employment. | • Dundee College | • Dundee College  • Creative and Cultural Skills  • Cultural Enterprise Office | • The outcome of the project was expected to increase levels of practical and applicable knowledge in developing business enterprise skills amongst recent graduates from creative industries courses and new and aspirant SMEs in these sectors. |
| **E-CLIC** | E-power to the People – a Driver for Cross-sector Regional Development in Europe | Municipality of Örnsköldsvik, Västernorrland County, Sweden | SE | • To raise the level of services for citizens and SMEs in sparsely populated areas (SPAs), offering a higher quality of life for the citizens and an enhanced attractive ness for the region. | • The project was funded by VINNOVA (the Swedish Governmental Agency for Innovation Systems), E-CLIC, a transnational project within the North Sea Region programme,  • The Municipality of Örnsköldsvik,  • The County Administrative Board of Västernorrland  • The Association of Local Authorities in Västernorrland. | • people, SMEs and public authorities living and operating in SPAs  • people living in SPAs but working outside the area  • people born in SPAs who no longer live their but still have roots (relatives, inte rests) in the area  • outsiders (tourists, visitors) | • To create an adaptable and scalable comprehensive e-service model to ensure and heighten individual and organizational participation, e-service literacy, citizen-authority dialogue, activity and flexibility especially in SPAs. |
| **E-CLIC** | Webcast Systems | University of Stavanger, Norway | NO | • To improve quality and level of education at the university by introducing new, cost effective and less time-consuming digital tools.  • To find the most suitable webcast system in order to broaden the scope of e-learning | • University of Stavanger, Norway | • Target demography including both students and lecturers of the University. | • The installation of a webcast system – which makes the recording and publishing process automated – was expected to increase the number of recordings of e-learning materials due to their less expensive and time-consuming production. |
| **E-CLIC** | Royal Dutch Visio | The Netherlands | NL | • To raise the level of e-services for the benefit of handicapped in order to enhance their quality of life | • The initiator was Royal Dutch Visio, while the implementers of the project were students of the School of Computer Science at the Hanze University of Applied Sciences in Groningen. | • Primarily, clients and agogues of Visio  • On a wider scale the whole community and society is affected. | • to improve the overall condition and stamina of the clients of Royal Dutch Visio , by motivating handicapped people through music and allowing agogues, i.e. leaders or trainers to assist more than one client at a time during physical training sessions with the help of an ICT-tool. |

**Table 2 DANS Cluster best practices**

Furthermore, with the aim of developing a more comparable basis, the following matrix is designed. The focus of the matrix is oriented on addressing the added value of the DANS Model in previous DANS Cluster projects.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Best Practices** | | | | **DANS- Experiences** | | | | | | | | |
| **Projects main drivers and contributors** | | | | **Integrated Target Groups** | | | | **DANS Model adding value (potentials)** |
| The Public Sector (also: administration) | Industry (also: business, private economy) | Academia (also: research & development) | Citizens | The Public Sector (also: administration) | Industry (also: business, private economy) | Academia (also: research & development) | Citizens |
|
| **Project** | | **Project participation examples (e.g. from DANS pre-decessors)** | **Location** |
| **1** | **The Studios** | **E-CLIC** | BE |  |  | X |  | X | X | X |  | • To increase the level of education in the field of digital business administration • To provide students with an opportunity to find their paths in life • To help young entrepreneurs get started in the business world |
| **2** | **Effects of Active Promotion on Web Traffic** | **E-CLIC** | NL |  | X | X |  | X | X |  |  | • To enhance awareness of companies with websites (how advertising can increase their competitiveness.) • Proving the relationship between the number of visits on a mobile website and the website related promotional activities performed. |
| **3** | **Successful Online Business Models** | **E-CLIC** | NL |  |  | X |  |  | X |  |  | • Pinpoint the qualities and characteristic that make successful online business in order to help both current and future businessmen and women to succeed. |
| **4** | **IPv6 Implementation** | **E-CLIC** | NL |  | X | X |  |  |  |  | X | • The aim was to ensure an unhindered transition between Internet protocol systems thus guaranteeing continuous service for internet users. |
| **5** | **Barnsley Council** | **Smart Cities** | UK | X |  |  |  | X | X |  | X | • Providing a website for the 21st Century Council, a website that would be more visually attractive, easier to search and up to date |
| **6** | **London Borough of Brent** | **Smart Cities** | UK | X |  |  |  | X |  |  | X | • To increase effective use of the website in order to reduce costs • To make the website easier for citizens to find what they are looking for and make data easier to maintain and surface • To protect frontline services and ensuring resources are not wasted on in appropriate structures, out of date ways of working and inefficient business processes i.e. to cut our duplication of effort |
| **7** | **Municipal Web Portals** | **Smart Cities** | DE, UK, SE, NO, | X |  |  |  | X |  |  | X | • Optimal delivery of information and services that citizens really want • Keeping up with citizens’ demands and technology • Extension to and interaction with urban public domain |
| **8** | **User Friendly E-privacy** | **E-CLIC** | SE |  | X | X |  |  |  |  | X | • Proving evidence of better security system for smart phones |
| **9** | **Secure Voice over Internet Protocol** | **E-CLIC** | DE |  |  | X |  | X | X | X | X | • To provide users of instant communication applications with an option to conduct their interactions in a secure way |
| **10** | **Broadband Access in Rural Areas - The Värmland Model** | **E-CLIC** | SE | X | X |  |  | X | X | X | X | • To provide higher quality of life for citizens living in rural areas and to strengthen regional attractiveness.  • To promote social inclusion and competi-tiveness for all citizens independent on geographical area and social backgrounds |
| **11** | **A Model for Supplying Broadband Access to the Internet to Rural Areas in the Weser-Ems District** | **E-CLIC** | DE | X | X | X |  | X | X | X | X | • To set-up and describe a useful, general model to supply broadband access to the internet in rural areas for the benefit of the population living there |
| **12** | **Business Process Innovation with QR Codes** | **E-CLIC** | NL | X |  | X |  | X |  |  | X | • To investigate the potential use of new mobile augmented reality solutions in order to enhance visitor experience and attract more visitors at the museum |
| **13** | **Bury Council** | **Smart Cities** | UK | X |  |  |  | X |  |  | X | • To organize and provide non-stop profes-sional care service for those in need of it in an efficient, cost-effective way |
| **14** | **Durham Council** | **Smart Cities** | UK | X |  |  |  | X |  |  | X | • To Increase take up of membership and usage • More consistent usage i.e. be more appeal-ing those who take out a membership then no longer attend |
| **15** | **CoDesign** | **Smart Cities** | Pan-European | X | X | X | X | X |  |  | X | • Learning how to design better and user-entered services • Learning how to collect ideas and move them into action • Providing useful practical background information for municipalities and other public sector organisations that are considering incorporating aspects of co-design into their service development. |
| **16** | **INNOWIZ Platform** | **Creative Cities Challenge** | BE |  | X |  |  | X | X | X | X | • The INNOWIZ methodology offers a ladder for innovation. The target demography is simple: it is open to everyone in the world |
| **17** | **PDF – A New Breed of E-learning** | **E-CLIC** | NO |  |  | X |  |  |  | X |  | • To develop a digital learning tool that would digitally support and complement the part-time nursing bachelor degree course |
| **18** | **Usability and User Experi-ence of  www.seniorenberatung-hannover.de** | **E-CLIC** | DE | X |  | X |  |  |  |  | X | • To gain information about how citizens use the website and to measure user satisfaction. |
| **19** | **Customer Contact Centres** | **Smart Cities** | SE, NL, UK, BE, | X | X | X | X | X | X | X | X | • To develop a strategic and practical approach to service improvement: how services are delivered and how they can be made better, based mainly on an intelligent channel strategy, an organized back office and change management. |
| **20** | **Travelling Exhibition to present Best Practice Instruments and Coopera-tion: Road Movie** | **Creative Cities Challenge** | DE, NL, BE, UK, SE |  | X |  |  | X | X |  |  | • To exhibit a group of films, which will constitute the centerpiece of the CCC Travel-ling Exhibition. These films could highlight the new economic assets of the CCC partner cities/regions such as modern architecture, infrastructure and new public, economic and cultural zones of interest. Particular emphasis will not only be given to the partners and the creative industries of the CCC Cities. The films produced will also present best practice instruments and cooperation developed during the project. |
| **21** | **Creative Boost** | **Creative Cities Challenge** | UK |  |  | X |  |  | X | X |  | • The outcome of the project was expected to increase levels of practical and applicable knowledge in developing business enterprise skills amongst recent graduates from creative industries courses and new and aspirant SMEs in these sectors. |
| **22** | **E-power to the People – a Driver for Cross-sector Regional Development in Europe** | **E-CLIC** | SE | X |  |  |  | X | X |  | X | • To create an adaptable and scalable comprehensive e-service model to ensure and heighten individual and organizational participation, e-service literacy, citizen-authority dialogue, activity and flexibility especially in SPAs. |
| **23** | **Webcast Systems** | **E-CLIC** | NO |  |  | X |  |  |  | X | X | • The installation of a webcast system – which makes the recording and publishing process automated – was expected to increase the number of recordings of e-learning materials due to their less expensive and time-consuming production. |
| **24** | **Royal Dutch Visio** | **E-CLIC** | NL |  | X | X |  |  | X |  | X | • to improve the overall condition and stamina of the clients of Royal Dutch Visio , by motivating handicapped people through music and allowing agogues, i.e. leaders or trainers to assist more than one client at a time during physical training sessions with the help of an ICT-tool. |

**Table 3 Best practices analysis matrix**

## Suitability of content to target group’s desires

Hereby, the fact is that besides the participation of all target groups as the final target of the QH Model, each of them prefer to be informed of specific advantages of the Model. In other words, each of the target groups has its own criteria which is assumed to be fulfilled through the DANS Model. Reorientation of the content and transfer process according to target groups criteria and characteristics will enhance the efficiency and enhance their participation in innovation processes. For example, one of the main desires of the citizens out of a project is to live in better conditions and achieving higher quality of life. Therefore, within the transferability and communication process with citizens, more attention and focus should be given to the impact of the DANS Model (and also the practices) on the quality of life and improving the citizen’s conditions and fulfilling their needs. This will make the communication and participation process more encouraging for them. The same applies to the industry sector. The more the content is financial-oriented (i.e. cost-benefit of each project), the more logical for the industry target groups it is to participate.

Suitability of transfer content for target groups

Citizen

Academia

Public

Sector

Industry & Companies

Mainly focusing on improving their quality of life, Living conditions etc.

Mainly focusing on the scientific impacts and results, Knowledge improvements etc.

Mainly focusing on the direct and indirect impact of the projects on the region development, facility provision, better service provision etc.

Mainly focusing on the financial oriented issues (i.e. cost benefit of the projects and etc.)

**Figure 14 Suitability of transfer content for target groups**

## DANS ON Transfer Chanels

Considering the complexity of the transfer process and existence of variety of target groups, communication channels are defined and categorised in the following manner:

A. Face to face (e.g. workshop, seminar, discussion, etc.)

A.1. Face to face group processes and channels

A.2. Face to face individual processes and channels

B. Digital Media (e.g. websites, platforms, social media, mailings, etc.)

C. Publication (brochures, books, flyers, etc.)

D. Competition

Dans-On Transfer Channels

Face to face (e.g. workshop, seminar, discussion, etc.)

Digital Media (e.g. websites, platforms, social media, mailings, etc.)

Publication (brochures, books, flyers, etc.)

Competition

Face to face group processes and channels

Face to face individual processes and channels

**Figure 15 DANS ON main transfer channels**

Each of these channels can be integrated to relevant/appropriate techniques, which have been discussed in the previous section. In other words, each of the techniques are suitable to be integrated to the aforementioned channels to communicate with target groups. These match points are illustrated in the following table.

|  |  |  |
| --- | --- | --- |
| **Transfer channels and techniques** | **Transfer process channels** | **Transfer techniques** |
| Face to face | e.g. workshop, seminar, discussion, open days etc. |
| Digital media  (e.g. websites, platforms, social media, mailings, etc.) | Best Practices Meeting/Studies |
| Expert Story Telling/Expert Interviews |
| Flowcharts (Work Process Map) |
| Blogs |
| Instant Messaging |
| Knowledge Capture |
| Knowledge Distillation |
| Podcast |
| Storytelling |
| WiKi |
| Online learning |
| Publication  (brochures, books, flyers, etc.) | Best Practices Meeting/Studies |
| Expert Story Telling/Expert Interviews |
| Flowcharts (Work Process Map) |
| Retrospect |
| Storytelling |
| Competition | Best Practices Meeting/Studies |

**Table 4 Integration of channels and techniques**

# The story of DANS ON

What has been described, provides a basis for each sort of innovation based projects on how to transfer the project ideas, outcomes and ideas to other context. As one of the main aims of the DANS ON project is transferring the DANS Model idea to other NSR regions and beyond, the whole described framework has been applied in the dissemination of the DANS Model as well.

Besides the theoretical and practical basis, several measures have been carried out targeting the dissemination of the DANS Model. These measures are described in the following table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **measure** | **Which Content is transferred** | | **Transfer channel** | **Applied transfer techniques** | **Target groups** | **Expected results** |
| **DANS Model** | **Best Practices** |
| Transferability workshop Aberdeen | × | × | Face to Face | * Interactive workshop * Story telling | * Public administration * Industry/private sector * Academia | * To develop a basis on transferability measures and frameworks as well as the DANS Model and its best practices through telling stories |
| × | × | Digital Media | * Story telling in the project website | * All targets |
| Dissemination materials | × | × | Publication/materials | * Flyers, Posters, T-shirts and other dissemination materials | * Public administration * Industry/private sector * Academia | * Promotion of the DANS ON and DANS Model idea |
| * DANS ON Movie | * All targets |
| Social Media | * Project info and stories on Twitter, Eventifier, Tumblr | * All targets |
| Project Website | × | × | Digital Media | * Story telling | * All targets | * Promote & disseminate project idea * Achieving more targets through story telling method |
| Using project logos and ideas in other websites | × | × | Digital Media | * Other project websites (i.e. Code the city website) | * All targets | * Promote & disseminate project idea |
| Local and regional workshops by all partners | × | × | Face to face | * Story telling * Interactive workshop * DANS ON lessons learnt | * All targets | * Promote & disseminate the project idea |
| * HotSpot 2015 |  | * Story telling * Interactive workshop | * Academia and industry | * Promote & disseminate the project idea |
| * Digit 2015 |  | * Story telling * Interactive workshop | * Public administration and private sector | * Promote & disseminate the project idea |
| * Several other workshops and conferences |  |  |  | * Story telling * Interactive workshop * DANS ON lessons learnt | * All targets | * Promote & disseminate the project idea |
| Warsaw DANS ON workshop and Exhibition | × | × | Face to face | * Story telling & project description * Dissemination materials * Exhibition | * Public administration * Industry/private sector * Academia | * Promote & disseminate the project idea |
| Värmland regional workshop | × | × | Face to Face | * Story telling & project description * Dissemination materials * Exhibition | * Public administration * Industry/private sector * Academia | * Promote & disseminate the project idea |

**Table 5 Measures done in the frame of DANS ON transfer process**

# Strategies

1. **Digital Agenda for Europe and DANS Model**

One of the flagships of the Digital Agenda for Europe is focused on the public engagement and the topic of open innovation called Open Innovation 2.0 (OI2).

This program is based on a Quadruple Helix Model where public administration, industry, academia and civil participants work together to co-create the future and drive structural changes far beyond the scope of what any one organization or person could do alone. This model encompasses also user-oriented innovation models to take full advantage of idea’s cross-fertilization leading to experimentation and prototyping in real world settings.

It is about principles of integrated collaboration, co-created shared value, cultivated innovation ecosystems, unleashed exponential technologies, and extraordinarily rapid adoption. It is believed that innovation can be a discipline by many, rather than an art mastered by few. According to the initiative policy makers must make serious efforts to strengthen the framework supporting open innovation approaches and five key elements are addressed in the new process:

* Networking;
* Collaboration: involving partners, competitors, universities, and users;
* Corporate Entrepreneurship: enhancing corporate venturing, start-ups and spin-offs;
* Proactive Intellectual Property Management: creating new markets for technology;
* Research and Development (R&D): achieving competitive advantages in the market.

The thinking is based on Quadruple Helix innovation models – involving institutional bodies, research sphere, business sector, and citizens in the process. This new generation of open innovation leads to stronger economic impact and better user experience in Europe.

1. **DANS ON lessons and strategies**

Following are the most applicable lesson and strategies as well as policy recommendations based on the carried out analysis and surveys.

***Strategies for DANS ON***

* *Benefits can be* acquired *by using synergies of the existing and previous project partners and those who are interested in innovation based approaches.*
* *Measures can be developed by the active cooperation of all the partners to pursue the idea of using synergies in other project areas like the Baltic Sea Region etc.*
* *Using synergies with a content-similar project (i.e. CLIQ etc.) in Europe can provide a basis for developing and transferring the project results beyond the NSR, and learning from other experiences.*
* *Synergies can be used through application of the DANS Model in other project context within or beyond NSR (i.e., energy and sustainability projects, urban services etc.)*

1. ***Target groups***

* *Recognition and classification of target groups in the early stages of the project can enhance the efficiency of the process*
* *Understanding the status of the target groups (education and their awareness of the ICT tools and channels)*
* *Sub Target groups should be selected according to the project type and ideas*

1. ***Techniques***

* *Deciding on techniques should be according to several criteria such as targets capabilities in accordance with communication channels and content.*

1. ***Content***

* *The content should be oriented on the target group’s needs and abilities.*

*Each content requires specific transfer channels.*

1. ***Channels***

* Appropriate transfer channels are required to be chosen amongst all existing channels (i.e. face to face, online etc.).
* A combination of channels could enhance the possibility of a more successful transfer process.
* ICT status, plays a very important role in choosing the proper transfer channels. The availability of high speed internet as well as online services, could highly enhance the possibility of using digital media as the basic transfer channel.

# GOVERNMENTAL DAY WORKSHOP - A success story by atene KOM and DANS ON Partners

## Location, time, duration and context

The ‘’Governmental Day’’ Workshop in the frame of the FTTH Conference 2015 took place in Warsaw on 10 - 12 February.

## Description

The workshop was organized by atene KOM - Agency for Communication, Organization and Management in the frame of the FTTH Conference 2015. Keynotes from European Commission as well as EU Member States Telecommunication Ministries covered ICT and Broadband topics ranging from policy measures to best practices and Digital Agenda Europe Programs. The workshop brought together a large number of audiences including policy makers from European Commission, representatives from governmental authorities of the EU Member States, Private companies etc.



## Aims and objectives

To promote the idea of DANS ON in a public stage with the presence of the most important EU broadband and ICT related target groups.

## Methods being applied

Workshop and exhibition as well as online stories.

## Z:\2_Kommunikation\26_Fremdveranstaltungen\140901_FTTH_Conference_2015\18_Fotos\Website fotos\DSC00507.JPGTarget groups

Target groups include public administrations, Academia and Industry in the field of ICT and telecommunications.

## Main outcomes

A successful practice in dissemination and transfer of the DANS Model approach.

# Code the City- Participation of actors for co-creation of new urban solutions (a story by the Aberdeen City Council)



CodeTheCity (<http://codethecity.gov.uk>) was established in June 2014 and so has been operating for a year. In that time the city council has delivered three hack weekends. Each one has featured participation from all four groups: Academia, SMEs, Public Sector and the public / service users. The manifesto ( <http://codethecity.org/manifesto/> ) encourages a broad attendance and involvement in co-design of improved services.   
During the course of the weekend workshops regarding real civic challenges (e.g. how to search and navigate almost 30 timetables to establish which sports events are suitable for you on a set date and time) were tackled.   
In that example Aberdeen City Council, as part of the EU-led Code For Europe programme, has then taken the outputs (prototypes, test systems, open data sets etc.) and created a mobile app to allow better access to sports and active participation.   
One of the CodeTheCity teams was invited to Groningen to demonstrate the methods to students at the University.   
The CodeTheCity model (which embraces Dans-on principles at its heart) has been so successful that on 20th and 21st of June 2015 the first anniversary was being celebrated by running a two-city CodeTheCity weekend in both Aberdeen and Edinburgh where teams in each city collaborated and competed in a friendly way to develop civic apps using the standard CodeTheCity approach. All marketing materials at each site, including the T-shirts, online services including Twitter, Eventifier, the website and Tumblr raised awareness further of the DANS ON brand and methodologies.

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