

## The Use of ICT to support Regional Developments: Contributions from the Bled eConference

Hans-Dieter Zimmermann

FHS St. Gallen University of Applied Sciences, Switzerland  
hansdieter.zimmermann@fhsg.ch

### Abstract

*The Bled eConference quite often gets connected to the notion of eRegion. Therefore in this paper we will have a closer look at how the idea of an eRegion has been addressed by the conference over the past. After briefly looking at the emergence of the term eRegion, we summarize the contribution of the Bled eConference to the field of eRegion in the Research Track as well as in the Business Track. Whereas in the Research Track contributions have focussed mostly on developing existing regions through ICT means, the Business Track activities tackle especially cross-border challenges between regions.*

**Keywords:** eRegion, Bled eConference

### 1 Introduction

Throughout the last 25 years the Bled eConference has addressed – and is still addressing – the relationship and impact of ICT and business and society. With the emergence of the World Wide Web in the beginning of the nineties the ‘e’-terms have been coined: Starting with eCommerce and eBusiness nearly everything became ‘e’ such as eMarketing, eCRM, eHR, etc. Furthermore, during the last decade also the utilization of ICT in further societal areas was labelled with an ‘e’ such as eHealth, eGovernment, eDemocracy, or even eSociety. As one result the main title of the 14th Bled eConference in 2001 was named – consequently – “E-Everything”.

ICT and especially the Web also have been utilized in a geographical setting with a focus on the further development and support of defined geographical areas or regions. The Bled eConference quite often gets connected to the notion of eRegion. Therefore in this paper we will have a closer look of how the idea of an eRegion has been addressed by the conference in the past.

In the following we will present the development of papers of the Research Track addressing regional issues, referring to the above-mentioned understanding in more detail. Due to the unavailability of earlier papers, the analysis covers papers presented at the conference from 1995 to 2011. More briefly, we will also have a look at the corresponding activities in the Business Track of the Bled eConference, covering only the years from 2001 to 2011, again due to access to the relevant proceedings. Firstly, however, we will discuss the notion of eRegion based on the different activities around the Bled eConference.

## 2 The Notion of eRegion

Beyond the Bled eConference, the term eRegion has not been applied frequently in the literature. A search on Google Scholar or in respective databases such as Ebsco or Sciedirect returns only a very few results. Basically all papers using the term eRegion are being authored by scholars having a connection to the Bled eConference. Examples are Gricar et al. (2007), Zimmermann (2010) and several short papers in Vol. 39, No 3 (2006) of the journal *Organizacija - Journal of Management, Informatics, and Human Resources*.

Gricar et al. (2007, 233) provide a definition of the term eRegion: “As a concept, eRegion denotes Information Technology (IT)-supported initiatives that transcend traditional borders and boundaries.” Whereas this definition stresses especially the aspect of *crossing borders*, Gricar defines an eRegion more broadly as “... an information and communication technology (ICT) supported region” (Gricar 2007, 86). He continues discussing further aspects of the eRegion concept: “From a technological perspective, an eRegion integrates the issues of regional development with the opportunities and challenges coming from the latest technologies” (Gricar 2007, 86). This understanding is based on the work of Pfirrmann (2003): “eRegion is meant to serve as marketing instrument, both to the inside and the outside; serve as information source to initiate regional co-operation amongst local actors and companies; support the development of a regional identity though the presentation of regional information.”

Furthermore, Gricar (2007) discusses additional perspectives on eRegion such as the political, academic and organizational perspectives.

What we can see from the different definitions is that the notion of a region refers not to political or administrative borders at all. Thus, although not mentioned explicitly, authors mostly refer to a region based on similarities such as cultural or historical developments, e.g. based on historical trade relations or common language, rather than based on political borders.

Therefore, European eRegion activities and discussions quite often consider geographical areas comprising different countries - but not necessarily as Pfirrmann (2003) discusses when referring to the Bonn city region in Germany as an example. As Gricar (2007, 233) mentions, the issue of transcending traditional borders is one of the major motivations, as well as challenges developing eRegion activities in Europe triggering relevant discussions and projects.

Already in 1994 one of the first relevant activities of building an eRegion was started: the online market platform Electronic Mall Bodensee in the Lake Constance region (Zimmermann 1997). The region is characterized by, among others, a common culture and (economic) history as well as a common German dialect spoken within the region but, nevertheless, covering four different countries (Austria, Germany, Liechtenstein, Switzerland) comprising even more federal states resp. cantons and belonging – or not – to different international organisations such as EU (Austria and Germany) and EFTA (Switzerland and Liechtenstein). Consequently, all activities necessarily have to deal with cross-border issues such as different laws, tax systems, or currencies.

As we can see from the following analysis, the cross-border attribute of an eRegion reflects a rather European viewpoint as it is not an issue at all in eRegion activities in different parts of the world, e.g., in Australia. Here, the competitiveness of rural regions is in the centre of all considerations. In Europe the development of rural regions is an issue as well, e.g., in the central alpine region. For example, ArgeAlp is a network of regional government agencies

comprising four countries and nine federal states and cantons covering the central part of the Alps<sup>1</sup>. Thus, the cross-border issue is inherent in all ArgeAlp activities.

Whatever understanding is being applied to the term, eRegion always refers to rather strategic purposes such as strengthening the competitiveness of a region or encouraging cross-border commercial transactions.

Concerning the general motivation for developing eRegion activities, two distinct streams can be observed: On the one side, relevant activities are triggered by the intention to stimulate the adoption of ICT among businesses within a region; and the focus is mostly of economic nature. Typical examples are the development and provision of a regional (B2B) portal, or regional programs and activities to support the adoption of ICT in general or of eCommerce applications more specifically.

On the other side, activities encourage inter-linkage among regional organisations and institutions in order to provide the basis for future competitive advantages within an eRegion. The ALADIN network, the ALpe ADria INitiative Universities' Network, or the Internationale Bodenseehochschule IBH, a university network of 29 universities in four countries in the Lake Constance area, are relevant examples. Both networks intend a closer cooperation of universities within the region in order to support regional developments. For example, the IBH currently supports a project named 'eSociety Bodensee 2020' which pursues the idea of open societal innovation in order to strengthen the competitiveness of the region. The project is being carried out by three universities from Germany, Liechtenstein, and Switzerland.

As a further example, Vogel and Gricar (1998) discuss how eCommerce development can be supported through the cooperation between academics, government, and industry in a new country, Slovenia.

As the following analysis shows, whereas the cross-border issue was addressed mainly in the Business Track activities the Research Track tackled mainly activities and programs to stimulate ICT adoption in general.

### **3 Regional issues addressed in the Research Track**

For selecting the papers for review we apply the perspective of utilization of ICT within a geographical setting or focus. Titles and abstracts of papers presented between 1995 and 2011 were reviewed, and a total of 18 papers addressing any regional or geographical aspect were identified (Redwood et al. 1996, Schubert 1997, Strom et al. 1998, Castleman et al. 2000, Corbitt & Kong 2000, Loebbecke & Schaefer 2000, Thompson 2000, Coulthard 2001, Lawson et al. 2001, Thompson 2001, Sinigoj 2002, Tatnall & Burgess 2002, Golden et al. 2003, Mason et al. 200, Mason et al. 2006, Tatnall 2007, Lu & Swatman 2008, Burgess et al. 2009).

Quite surprisingly, the term eRegion as such appears in only one single paper throughout the proceedings of the Bled eConference Research Track 1995-2011.

In examining the 18 papers, we first looked at the respective regional focus addressed in the papers. One paper, (Schubert 1997) does not focus on regional or geographical issues but applies a case study from a regional marketplace for its analysis. A second paper (Loebbecke

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<sup>1</sup> [www.argealp.org](http://www.argealp.org)

and Schaefer 2000) analyses a telecommunication company in Germany with regional activities but without addressing any regional or geographical issue. The remaining papers address the regional aspect clearly and directly.

A further observation concerning the regions addressed: In ten papers, regions in Australia have been tackled, and further regions addressed have been in the United Kingdom, Slovenia, and Ireland. The sizes of the regions varies between focusing on cities (in the UK) to considering a whole country (Ireland or Singapore) as a region.

Regarding the temporal breakdown, as shown in Table 1, we discovered three periods: Three papers (out of 18) were published in the period 1996-1998, ten between the years 2000 and 2003 and five between 2006 and 2009.

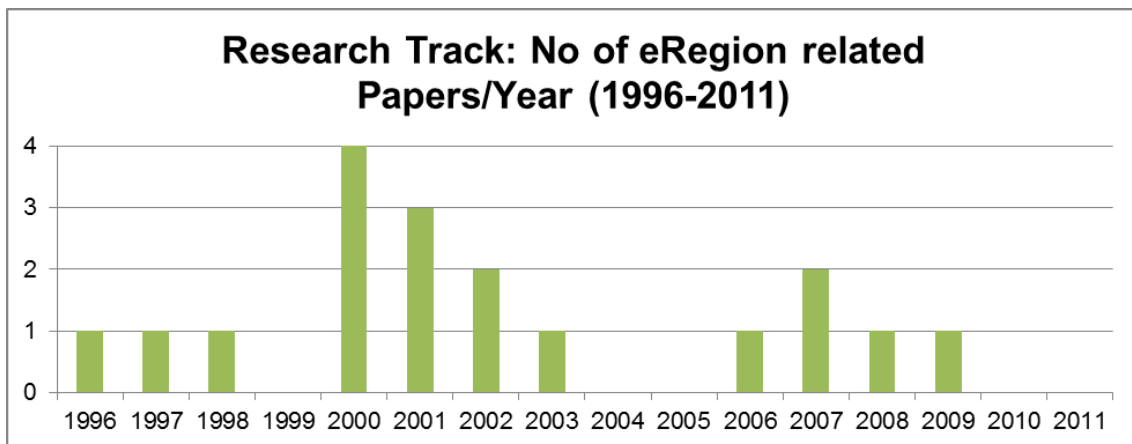


Table 1: Number of eRegion related papers in the Research Track of the Bled eConference 1996-2011

A more detailed look at the papers shows that there is no specific path of development recognizable and thus the distribution does not reflect any evident pattern. Essentially, the nature of the research addressed in the papers did not change significantly throughout the years from 1996 to 2011. But, very obviously, the interest in the topic was much higher during the years 2000 to 2003 than in the years before or after.

Concerning the main subjects discussed in the papers, the topic of eCommerce appears nine times as the main focus, the topic of business networks / communities of practice three times, and finally the topics mCommerce and broadband infrastructure once each.

All of the 18 papers featured pilots, projects, prototypes, and/ or programs and initiatives within a certain region. All activities which the papers report on have a focus on business and/or regional development. Especially the papers discussing Australian regions emphasize the development of rural areas as a main goal of programs and projects and in terms of adoption and development initiatives. In none of the papers is the issue of cross-border activities addressed.

As a first conclusion, it can be said that ICT has been utilized so far to further develop a region in order to achieve increased competitiveness through creating economic opportunities. Connecting regions through cross-border activities has not been addressed explicitly so far in the research papers.

The subjects discussed are mainly online portals and business networks providing services for businesses and/or customers and citizens in a respective region. From a different perspective,

regional activities have created physical and/or service infrastructures to be utilized by the respective users. Thus, the relevant papers all describe and analyse instruments of public business development activities based on ICT. Whereas most papers conclude that there is a rather positive impact of the different activities within the relevant regions, one paper presents the analysis of a failure: The demise of a B2B portal due to a lack of adoption by SMEs (Tatnall 2007). In order to analyse the impact of the different activities on the respective regions, and to identify relationship between different factors, a few authors proposed to conduct empirical studies. But so far none has been presented at the Bled eConference.

As regards research methods, all papers have applied different methods of qualitative research. Quite often case studies have been presented in the papers.

#### **4 Regional issues addressed in the Business Track**

Beside the Research Track, the regional issue has been addressed extensively in the Business Track of the Bled eConference as well. From the 2001 to the 2011 conference, around 40 activities can be counted. At the three conferences from 2006 to 2008, 20 relevant events can be identified within the Business Tracks. The numbers are presented in Table 2. The peak period appears to have been later than in the case of the Research Track: 2006-08, but with a resurgence in 2010-11.

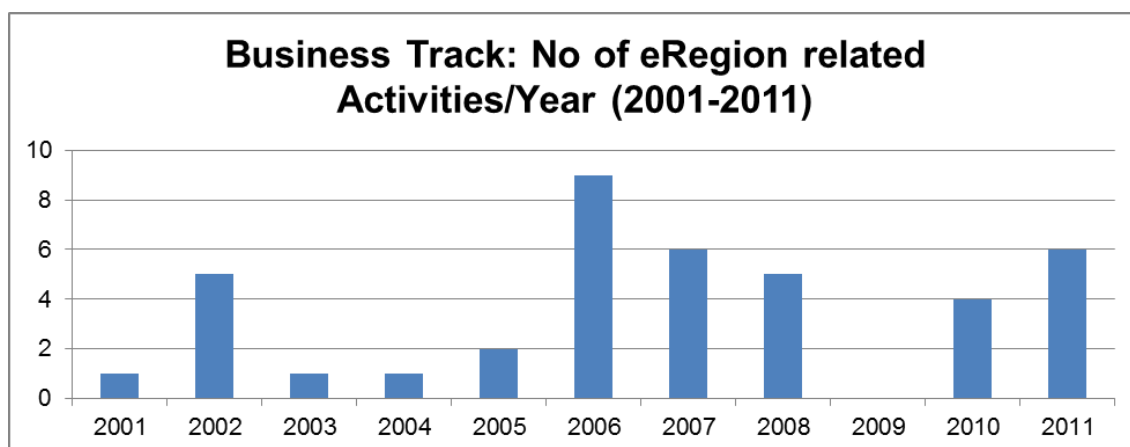


Table 2: Number of eRegion related activities in the Business Track of the Bled eConference 2001-2011

Three different event formats have been applied: The majority of events have been organized as meetings (20), accompanied by panels (13) and workshops (7).

During the different events, business and government representatives as well as academics discussed several issues addressing cross-border commerce and trade in general or focussing on specific issues such as eInvoicing or eProcurement. Furthermore, cross-border cooperation in the area of eGovernment has been discussed.

In addition, several events tackled the cross-border cooperation of universities. Several rectors' and deans' summits took place – eUniversity forums – as well as five meetings of the ALADIN network, the ALpe ADria INitiative Universities' Network founded in 2002.

Six meetings were held by the eSilk & eAmber Roads Innovative Regions Think Tank as well. This took the historical artefacts as an example of how different parts of the world might once again benefit from cross border commerce, trade, or any other exchange.

The main purpose of the activities was to exchange and to discuss experiences in cross-border activities and to develop new paths for cooperation and activities, either in a business context or in an administrative or governmental environment. Consequently, eleven activities between 2001 and 2011 focused specifically on cross-border eCommerce.

Only recently, in the 2011 conference, the issue of Living Labs has been addressed in three workshops.

All of the identified activities addressed the regional aspect directly either in the title or in their abstracts, focusing especially on connecting regions and overcoming borders hindering commerce, trade or cooperation in business, research, and education.

In addition, several further activities within the conference's Business Track have tackled regional aspect but not as the main perspective. Those events have been, for example, panels discussing challenges of cross-border research or project workshops and meetings where the cross-border topic was one but not the main topic.

## 5 Outlook

In summary, it can be said that the Bled eConference has addressed regional issues explicitly quite intensely, on different levels, and from different perspectives such as research, business, and government and administration. As the Bled eConference is located in Slovenia, which was a part of former Yugoslavia and became independent only in 1991, it is understandable and quite logical that the conference addresses these issues. Furthermore, to address the transformation of regions, the development of business-related, administrative and educational infrastructures could have been seen as a *natural* task of the conference.

Today, Slovenia is part of the European Union and it is reasonable to assume that the Bled eConference has contributed to the transformation of the country and the region. As Slovenia is a rather small country, and international cooperation is necessary for the country, in many respects the Bled eConference still seems to be a quite ideal location with a longstanding tradition to address eRegion issues.

There have been achievements especially in the region of South-Eastern Europe. For example, the 'Inter-Municipality Initiative: Cross-border eCollaboration in the Danube eRegion'<sup>2</sup> can be seen as a direct outcome and continuation of the activities within the Business Track activities at the Bled eConference. . But there are still a lot of challenges to overcome existing borders: Although we have in place a global and borderless Internet providing wonderful services beyond all borders, there are still a lot of political, administrative, and also mental borders which hinder a closer cooperation of people, businesses, universities, and governments on local, regional and national areas, in order to achieve benefits for particular regions.

In order to evaluate activities of the past, it would be helpful and may even be necessary to have a closer look into the effects of respective projects, programs, and initiatives. On the one side, a lot of networking activities and programs have been discussed within the Business

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2 <http://eLivingLab.org/CrossBordereRegion/InterMunicipality>

Track, and a more systematic evaluation of those activities would be helpful. It would also be useful to address the Business Track activities from a research perspective. Within the Research Track, several concrete programs and initiatives, e.g. deployed in several Australian regions, have been presented. A systematic evaluation of these would be beneficial as well. The research results might then be a valuable input for further considerations within the Business Track.

Thus, eRegion-related activities of both Tracks at the Bled eConference could benefit from one another.

As regional development is an important part of the political agenda of the EU, a systematic analysis of success and failures would be valuable, in order to allocate funding for future projects and initiatives in an even more targeted manner.

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