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Tele City Vision
Perceptions of ICT and Impacts
on City Competition

ZTG-Themenschwerpunkt:

Lebensqualität durch soziotechnische Systeme

Zusammenfassung

Die Auswirkungen steigender Verbreitung von Anwendungen im Informations- und Kommunikationstechnologien (IKT) auf städtische Strukturen in Europa ist der Gegenstand des vergleichenden Forschungsprojekt Tele City Vision. Das Papier leitet ein mit einem knappen Überblick, inwiefern sich die enthusiastische Einschätzung hinsichtlich des Potentials von IKT seit dem Platzen der IT-Blase im Frühjahr 2000 änderte. Es überdenkt daraufhin den ursprünglichen Projektansatz noch einmal und stellt drittens die Untersuchungsergebnisse im Rahmen steigender Städtekonkurrenz vor.

Abstract

The impact of the increasing use of Information and Communication Technologies (ICTs) on the city has been the topic of the comparative European research project TELE CITY VISION (TCV)[1]. Given the major change of assessing the impacts of ICTs since the demise of the New Economy in Spring of 2000 the following paper firstly provides a brief introduction into the subject and how it has changed within the last decade. Secondly, it reconsiders the research approach of the project in order to set a frame to present the outcomes of the study. Thirdly, it presents the results of the work: The perception of ICTs is discussed within the contexts of rising city competition.

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[1] TCV Project financed by EC, co-ordinated by BIS, participants: BIS (Germany), COMTEC (Ireland), ESI (Netherlands), ETS-UAM (Spain), ICCR (Austria), STS (Norway), ZTG (Germany)

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1. Introduction

Today urban officials are under constant political pressure to develop all kinds of innovative concepts for compensating urban stagnation. The permanent crisis of the city since the 1970s has only been managed, but not solved. In the beginning of the 1990s however a new solution has been envisaged in the form of ICTs. In this respect the new technologies were understood as means to solve the common post-industrial crises of cities in regard to diverse urban problems, such as budget, unemployment, transportation, population or the question of the city's self-representation. Today the medial image of the urban area serves to present the city to the world. For example, the so-called Bangemann Report of 1994, advertising a "New World Order for Global Communications" on behalf of the European Commission, stated: "What is required is that the Information Society becomes a key driver for all other policies, for instance job creation." (Bangemann 1997) As a panacea ICT has led to a flood of concepts during the 1990s stimulating new spirits for an otherwise sombre urban future (see Melody 1996: 243). The wave of new communication technologies should wash away the old foundations of the industrial cities and working societies. We were all suppose to witness a spectacular urban evolution of an unknown dimension in which interaction and communication would be the most prominent features of the new global urban system.

Especially the overwhelming success of the internet as a kind of huge information marketplace inspired a whole range of visions of a new urban future. Temporal and spatial barriers tumbled with the implementation of the 'world wide web'. Advantages and disadvantages of spatial situations of cities suddenly looked as if they would become irrelevant. What once begun as a local concentration of marketplaces in cities should now change to an unlimited market with worldwide access for both providers and consumers. Many commentators saw a big chance for the cities in this. They argued that the cyberspace and the new economy would not only diminish the significance of urban centres but would offer new challenges for every city in the world to participate in the global marketplace.

In the middle of the 1990 conceptions of urban restructuring and revitalisation were just about to reach their limits. The discovery of the virtual space opened new space of unlimited opportunities. The annulment of space and time would not only alter forms and functions of our cities but also change urban life. Communication would improve. Knowledge and information therefore should become available to all city members. ICT would enable higher degrees of networking and better co-operation throughout the world and also within the cities. Thus, the making of urban politics should change and public participation should be facilitated. Moreover, benefits in education and qualification could be expected as everybody would now have access to it. Not to forget, administrative work should become more efficient and transparent. Leggewie and Maar have argued in 1998 that the internet should not be seen as a platform for marketing and economics, but as a medium to improve the

shaping of public opinion in order to revitalize and legitimate democratic political processes.

Given this utopian potential of ICT, it must be pointed out, that also threats have been seen by the challenges of ICT right from the beginning. The information society, as Manuel Castells argued, would change the structure of our cities tremendously: The so called "informational city" tends to be a "dual city" where new social conflicts will arise between "high value making groups" on the one hand and "devalued social groups" on the other hand (Castells 1989). In opposition to the common "space of places" Castells has seen a "space of flows" arise which networks are spread all over the world, but taking a closer look are also centralised in the manifold economic centres of the cities. Both types of space get into conflict, he expected. The very dynamic abstract space of information would break the material space with its everlasting problems and would deepen segregation and accentuates inequality. Castells therefore asked how both spaces can be associated again in terms of a socially balanced relationship (Castells 2001). Saskia Sassen argued similar, when she pointed out that the rise of the global economies are followed by new migration flows. The global city would not only attract economic power but also people from all over the world. Work power, productivity, efficient socio-cultural and educational facilities should still be important conditions in order to enable the economic power of the global city. But large parts of the inhabitants, she assumed, that are needed to keep the business going, will live socially marginalised (Sassen 2000).

Other threats have been seen. Already by the end of the 1980s Oscar Gandy mentioned that there is a close relationship between ICT and surveillance technologies. He reported "that the real source of growth in both the information work force and the development of information technologies is not to be found in any transformed consumer demand, but in the continually expanding surveillance requirements of multinational corporate enterprises. Indeed, for some observers, 'information society' is a misnomer that hides the extend to which industrial societies have in fact become surveillance societies" (Gandy 1989: 61). ICT would connect people throughout the world, they would provide new forms of communication, offer access to unforeseen sources of information and allow all actors, from individuals to cities, an infinite space to reach distant awareness of others. But at the same time ICT would provide the basic technique for surveillance tools. These could counteract effects of the information society such as the assumed revitalisation of democratic legitimisation.

In the meantime we know that the expected effects have not occurred as it has been wished first. The demise of the so-called New Economy in the Spring of 2000 has soberly underscored the fact that the tertiary sector can hardly compensate for the loss of industrial workplaces in the long run. First of all managers of the financial sector needed the new technologies for their businesses. The private sector was the driving force within the process towards the information society. After the collapse however the visionary power of conceptions have calmed down. Not to forget, September 11th 2001

has reminded us that we live in cities of flesh and stone. The ideas of their exoduses into virtual space has lasted just a semi decade. Moreover, it therefore has to be considered, that the Spring of 2000 has a significance in respect to the public and the academic discussion and assessment of the ICT potential. From today's perspective the date demands to take a break of visionary conceptions. These might have overstressed the utopian potential of ICT. Nevertheless the burst of the hype with all its economic consequences allows now to come back to a more differentiated consideration of ICT.

The new space of electronically mediated social interaction and communication has been and still is just a medial space created by an urban society. From the beginning of the discussion it therefore was asked, if and how the relationship between the urban society of today and the communicative potential of ICT could be formed in terms of politics. In the end, the crucial point has been less a question of technology but of how to create the new space socially. Do national differences in terms of individual needs and values should be reconsidered in order to get on the path? On the other hand, do particular situations on the city level surpass those differences? How important are the individual circumstances, needs and priorities of cities differing in size and economic power? How could the interface between the physical space and the virtual city should look like in order to manage the challenges of ICT in terms of its significant potential benefits and serious potential threats? Are there any patent remedies how ICT can be used in regard to ailing cities? It has been assumed that there is some kind of spatial interplay between ICT and urban development. This raises a whole range of items with respect to social issue of urban life. The information infrastructure must not only be managed and governed transparently, but it must be also available to all. To guarantee access this implies not only technical standards but also skill bases and in the end a design how the shift could be managed in a socially justifiable way. ICT needs social organisation.

At this policy point the Tele City Vision Project started in 1999 focussing on ICT perspectives of European urban actors such as decision makers and urban planners. Thus, TCV has not been a study about how many metres of fibre cable have been laid, it has not been a study about how many households now have access to the Internet. In the first line, TCV it has been a study about the use of ICT and its perception in the field of urban development policy. The overall objective was to examine and to compare on a European level and within different types of cities attitudes, behaviours and expectations of local urban actors in order to contribute to an improved understanding of how the potentials of ICTs are assessed in respect to their impact on the city.

2. TeleCity as Metaphor or the Project's Approach

It is a basis argument of the TeleCityVision project that ICT does not autonomously reshape society. Thus, the idea has not been to examine the impact of ICT on urban development in any direct way. Such an approach of

technological determinism would be based on a linear notion that innovation leads to adoption of new technologies by society, and this, in turn, directly affects society. Instead, central to our survey stayed the focus on the awareness of administrative and political actors towards ICTs in different European cities. The approach of the project was to see technology as part or as an extension of society. Social knowledge of individuals and the public social and political discourse shape the way IT are developed and applied within society.[2]

Let us explain the approach by the following example of the study. A direct impact on spatial issues has been rejected by the people asked in the first qualitative phase of our project. From a distance perspective, the outcomes could lead to the general impression that within the attitudes, expectations and hopes put into ICT, the fundamental problems of current urban development policies are reflected in a particular manner. What does this mean? Taking into account the estimates of the different groups the TCV project has interviewed, we observed different knowledge deficits regarding the potential of ICT. What is the reason for this? It has been ascertained in the qualitative phase that ICT initiatives are often due to the efforts of individuals. However, the quantitative survey demonstrated then that on the one hand the involved people from urban municipalities and city administrations were aware about the existence of an ICT strategy plan for their city, but on the other

hand unable to name them precisely. What does this say? There are obviously public policy plans to guide information society developments, but the effectiveness of them is limited. The knowledge is very small. Out of 1560 respondents 433 answered that there is a formal ICT plan, nevertheless only 127 were able to name it. Drawing the conclusion that this superficiality is

DO YOU KNOW THE ICT STRATEGY PLAN

	Respondents	I know it	Yes, I can name it
Value	1560	433	127

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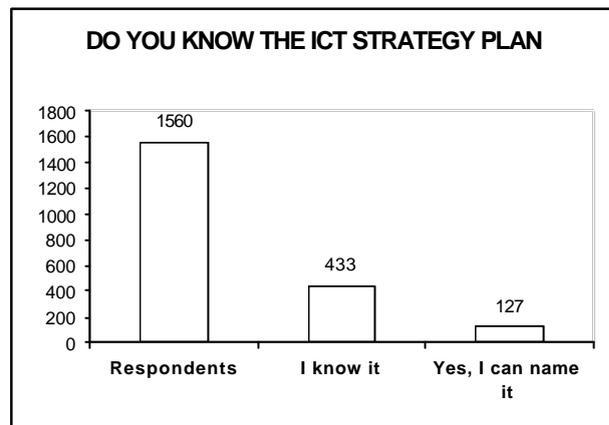
[2] In view of that the research work has been designed. There have been three main phases. The project's work started with a structural analysis of the current state of the urban system in Europe. The objective was to analyse and to evaluate regional and national development data in the seven participating countries of the project, Austria, France, Germany, Ireland, Netherlands, Norway, and Spain. The idea then was to select and classify cities in a tentative typology in preparation of the second work phase. For a qualitative case study three to four urban agglomerations per participating country were chosen. The plan was to capture different views and perceptions on ICT and the information age from different types of cities and to generate hypotheses. The results of the case studies were transferred into a questionnaire for the third phase, a quantitative survey, that should test the hypotheses.

based in individual ignorance might seem logical, but would be still a kind of rash judgement. It is too easy to claim that city administrators are not aware of the really important processes transforming the world. Thus, we have to try to understand, why actors are not prepared to inform themselves about ICT plans.

A perspective could be to see the interviewees as citizens of their cities. Professionals are not completely autonomous, but are part of their city as a whole. Both, the perception of ICT and the city is due to individual experiences and assessments. The personal technological belief in and the knowledge and private use of ICT should be seen as important determinants that influence the awareness towards the potentials of ICT. Moreover, as citizens, also urban actors bear in mind a very individual city conception, which determines their understanding and perception of urban politics. According to Kevin Lynch, one could point out that the urbanite is reading the city day-by-day (Lynch: 1960; 1985). The city conception combines the everyday picture of the city including mental maps everybody usually has and also the general idea of the city which is in conjunction with the social and economical surrounding. This includes the consciousness of physical structures and infrastructures, the awareness of economic conditions and functional characteristics, and the significance of size, hierarchy and location of the city within the urban system of Europe and throughout the world.

Nevertheless, the persons being asked by us about ICT and its possible impact on the city transfer their individual concept of city, including the professional knowledge about current urban problems etc., to the potential uses of ICT as well as to the question whether these potentials can be useful for the city. Such a transformation ideally implies that the individual concept of city flows into the understanding as well as the shaping of ICT. Apparently, we also see that numerous applications of ICT have a sort of urban structure. But how can such transformative act be understood in order to gain an understanding which goes beyond the construction of mono - causalities?

It has been noted that the way, we communicate about ICT, is accompanied by certain metaphors (Bolter 1996). Also the talk of the TeleCity has to be seen as such a metaphor which implies certain future expectations. Understood as little models of thought metaphors shape technical innovations. An example can been seen in the network metaphor. In regard to ICT it contains the idea to parallel numbers of PCs to a net. Moreover, the technical innovation vice versa provides new social models, for example the network society. From here, this migration of metaphors goes on and while there is a social shaping of technology, also the society is formed by the new technical innovations.

Taking the social shaping of technology approach seriously, it raises the question in respect to the TCV project, how the ascertained knowledge deficits of urban actors can be related to such transformative processes? One has to bear in mind, that a metaphorical use does not only shape the technological innovation but also the communication about the innovation itself. There is a steady translation process from one site to the other. It determines not only

the everyday use and the individual perception of the medium as a symbol of a new era, but it also sets the frame for the shaping of guidelines and strategies in respect to the expected social potential of the technology.

The internet is for example clearly seen as the most prominent ICT tool. Meanwhile it has embodied numbers of different individual communication situations and styles which also create urban life. One could understand the internet as a medium which has established all kinds of new urban medial forms. It combines urban communication such as newspapers, postal services, radio, television, cinema etc. It provides urban services such as library or administrative services. Furthermore it contains different sorts of platforms which enable an individual communication of groups throughout the world. Its progressive communication density therefore has encouraged to compare it with an urban space. Moreover, it has been shown that there are two different metaphorical ways of talking about it referring to different understandings of its use. The image field of the so called data highway, implying the efficiency of regulated and purposeful transport, refers to an economic understanding of the internet while the field of navigation rather refers to a democratic understanding including values of free speech etc. (Bickenbach and Maye 1997).

Understanding the new virtual space of the internet as an medial enlargement there is obviously an analogy between the urban and the ICT discourse. Following the German sociologist Hartmut Häußermann (1993), many cities are today faced with the fundamental decision of whether they can still be understood as a collective social actor, as a space, which encloses all the inhabitants under the welfare of citizenship, or as a marketplace, where only those can participate who obey its laws, rules and behaviour patterns. The city is confronted with the a similar situation as the Tele City, whether it will be accessible to all, and thus a collective medium, or only to a few, who then can afford to control the access to the new urban enlargement. What does this analogy could imply for the understanding of the respondents' perceptions of ICT? Many of them named some ideas about ICT potentials in regard to the city. But still their assessments remained very unspecific. In the end might stay to question, whether urban actors have an useful city conception in the first line. If they do not, and this is most likely in respect to the crisis of the city, how shall they become aware of the ICT potentials for the city? Because of the complexity, city conceptions are mostly gained in parts due to what is currently seen as the most important issue. This implies that some urban structures and problems can be embodied and others must be left out. Therefore, the awareness towards ICT in regard to city related potentials is very selective, at least it includes whatever is seen as the most significant item according to the city conception of the individual respondent.

The question about the impact of ICT on the city is always a question what people bear in mind about the city itself. Thus, our two simple thesis in order to present the results of our study are:

As long as city officials do not have an explicit city concept taking the urban structure and problems extensively as possible into account, there will be no adequate perception of the potential of ICT.

Because ICT is a socially shaped technology of urban communication, the thinking about ICT and its potential linkages to the city is constantly demonstrating the vital situation European Cities are confronted with today.

3. Tele City Rivalry

In the following presentation we would like to justify this by focussing on the issue of city competition.

As part of the consciousness of the urban stagnation, the increasing competition within cities as well as among different cities must be seen as a peremptory and particular problem field of the urban crisis. First of all, city competition again makes aware that national borders are losing their significance. Nevertheless, it would be an error to believe that the importance of cities and regions increases in proportion to the decrease of national regulatory frameworks. Rather, the increasing competition shows that the space among cities within the world-wide city network is becoming closer as more and more cities are finding themselves willingly or unwillingly forced to accept that challenge.

Under financial restrictions it is necessary today to use all existing resources in order to stimulate innovations and produce growth with the goal of establishing a significant position within the world-wide city network. In the past, rivalry among cities, was discussed mostly in regard to big cities. But now smaller cities are taking part in this rivalry, meaning that we must include them in our perspective. More and more small and medium-size cities are participating in the contest of obtaining a good „position within the international division of labour". More and more are competing in „functions of control and order" pertaining to adjacent regional areas and are taking part in the „competition for consumers and money" (Brandner 1997: 349). Not only "relevant European cities" such as Amsterdam and Vienna, but also other cities of Europe are in a struggle with each other. In our quantitative examination 78.1% of all respondents see the competition of the cities rising.

In line with this assumed increasing pressure of competition the visibility of each individual city within the international context becomes a vital issue. Visibility can be defined as the amount of attention a city is able to gain world wide, as for example, through the attraction of events and the number of visiting tourists (Franck 1998). While the Global Cities are obviously ever-present and draw more and more innovation and investment capital, national relevant cities like Leipzig or Oslo have to combat strongly the growing threat to their invisibility. Even more effort is needed by smaller cities. Interesting in this matter are the assessments within the quantitative survey of our project on the increase of importance of each actor's own city. Its contrariness gives a clearly insight on the powers that are combined by the awareness of an increased city competition.

At first glance a homogeneous picture is recognisable. The opinion of 74.1% in accumulated numbers of all people asked in cities over 100.000 inhabitants is that their city will gain in importance in the coming decade; in cities with less inhabitants this assumption increases slightly to 85.3% and in cities with a population under 50.000 inhabitants it increases somewhat again, to 86.2%. In regard to the future of their own city, people asked are undoubtedly optimistic. As our survey deals with city personnel, who probably identify themselves significantly with the city because of their professional work, this outcome seems plausible. However, one could ask further, for what reason does the optimism increase even more in smaller cities? Does a smaller size city allow another identification that furthers the optimism? Is there a better reading of the city possible? Or does the optimism of the smaller city mask its actual insignificance?

YES, THE IMPORTANCE OF MY CITY WILL GROW

	>100.000	100.000 - 50.000	< 50.000
	74,1	85,3	86,2
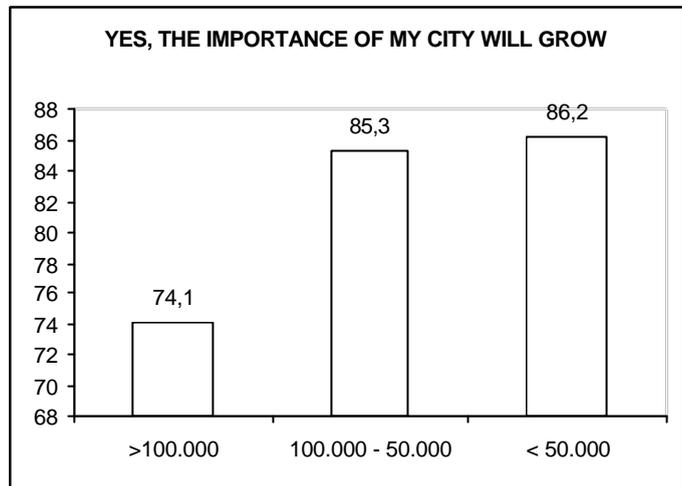
The optimistic picture can be seen in another perspective after further questioning. Comparing large and small cities, the assessment of changes in importance differs. In cities of over 100.000 inhabitants just 40.2 % of the people consider that the importance of smaller cities will increase, whereas 32.7 % think it is implausible that there will be any change and another 22.4 % even believe that there will be a decrease in the importance of small cities. This seems not only due to the arrogance of the city dweller. Similarly, the optimistic tone is reduced by the people from cities under 100.000 inhabitants. The tentative negative assessment of the city dwellers is shared regarding the importance of smaller cities. Observing cities under 50.000 the answers are again similar. Only 11% suppose that the importance of small cities will increase considerably, 35.1 % believe to some extent, 29.3% consider there will be no change, and 17.8% believe there will be a decline. Hence it follows that there are divergences between the confidence in regard to people's own city and the increase in importance of other cities. After all, every fifth person in cities under 100.000 believes that there will be a decrease in smaller cities, while, no matter on which level of city size, everyone assumes there will be a further increase of big cities. 70 % of all that were asked are convinced that the big city will gain further power. To summarise, in opposition to the mainstream assessment that all cities no matter what size, hierarchy or location they belong to, the urban employees of small cities believe on the hand in the future of their own city, but being asked about small cities in general, there is a mistrust in respect to their future importance.

Let us come to national differences. Because countries do not have equal numbers of big cities, it is clear that, from a comparative point of view, there

are national differences. In those countries, such as Germany, with many cities of over 100.000 population, it is considered implausible that small cities will increase in importance. 38.5 % believe that the relevance of small cities will not change, and 27.4% even predict a decline of smaller towns in the ranking of cities. The Netherlands show a similar assessment as well. However, in both participating countries with the lowest density of urban population, Austria with only five cities over 100.000 inhabitants, and especially Norway with just four big cities, the assessments are rather reserved. The two countries with a more optimistic perspective are France, followed by Spain and than especially Ireland. 58.1% of all questioned from Ireland expect an increase of importance and another 29.7% even sees this growth as considerable in the coming years. Ireland has two cities of over 100.000 inhabitants, Dublin and Cork. Just 21% of all who were asked came from one of these cities. Even in Spain, which has approximately as many big cities as France, one also believes in an improvement of small cities. What does this mean?

Understanding City Competition

All of these results underline that the competitive wind is felt stronger, just as the first optimistic self-assessment implied. In respect to ICT this also has been assessed positively. The Berlin Declaration on the Urban Future of 2000 stated quite optimistic and somehow technology driven: „Globalisation and the information technology revolution will increasingly create a borderless world with a new role for cities." and, further on: „Cities should embrace information and communication technologies and promote the lifelong education of all their citizens to become learning cities and to achieve global competitiveness."

But before we ask what role plays ICT in this contexts, the question remains, how competitive mentality works? The discrepancy between the *positive* self-assessment of small cities and the more sceptical view from outside reveals already the answer. It is possible to differentiate between an inner effect of city competition referring to the internal climate and an outer effect which is orientated to external appearance of the city.

The confidence in regard to the urban future of people's own city leads to the presumption that the competitive mentality not only hardens city life, but also affects positively the identification of citizens with their own city and its surroundings. For many peripheral cities in times where money is tight, the belief that something is changing is the initial prerequisite for a better future. This inner effect of city competition is the pre-condition for competition of cities among each other. People are moving closer together in order to be well prepared for what comes. Regarding the inner cohesion of cities, the principle works. It creates an urban identification in opposition to outer insecurity, thus enabling people's own city to better the climate within the city.

Vital in regard to the inner effect of the competitive principle are soft factors referring to the readability of city form. The surroundings in terms of neighbourhoods, offerings of leisure and culture, and also in light of the question whether the urban setting is worth living in, or suffers from pollution,

can be affected by this part of the competitive principle (Grabow et al. 1995). Also, it implies the promotion of education and integration. Positive but also negative consequences in regard to political strategies can be the result of this impact. Cities suffering heavily under industrial wasteland will probably respond differently towards the competitive pressure than cities with a high standard of living and education. A negative effect of this side of the competition principle lies in the exclusion of the unknown, which is then identified with the insecurity of the space outside the city. But competition also provides the urge to become more homogeneous, motivates building walls around the city's own merits in order to be safe. In a dream of purity based on common sense, the internal effect can lead to expelling everyone who is not loyal to the rules of the city.

In the external direction the competitive principle develops a different dynamic. The goal is to better factors such as transportation infrastructure, employment structure and within this the creation of office space, the strategy aims to attract capital and therefore invests in external presentation of the cities for potential investors and tourists. Surely these factors have an effect on the city's interior as well. There are studies for example which maintain that the mechanisms of social control within a city are ruled more-and-more by tourists than by the original citizens. One can also study the effect by taking city guideline into account. There is a guideline in Tilburg in the Netherlands, a city of almost 200,000 inhabitants, which had presented itself at the beginning of our project as the "textile town". Nowadays, the guideline has changed, at least according to its web site: There it lies not only in a beautiful surrounding but in the heart of the booming region of Mid-Brabant. Both the inner and the outer effects of city competition cannot be considered separately. But it is still necessary to consider if the effects contradict each other.

One has to consider, if an increasing city competition is oriented exclusively to the outside, if one is only concerned about giving a signal to the world, one gambles with the threat to hide the problems behind an image of the city according to the standards of international representation. The understanding of how the city competition works gives us the hint that within the answers on the changing importance of actors' own cities there might be a certain gap between the perception of the internal structures of the city and the external presentation. In many cities, unbounding self-confidence unmasks itself sooner or later as a last scream for help in a city suffering financial catastrophe.

ICT and Urban Visions

In this danger of contradiction the results of the TeleCityVision project show that ICT plays a vital role. In regard to both the inner and the outer effect of competition however, the application of the new information and communication technologies offers potential. ICT certainly gives new impulses to business. But, the question remains, how these effects are assessed by the

urban actors, in order to examine their perceptions of ICT? It might depend on the individual care of either the inner or outer effects of the city competition.

Especially internet presentations of cities and communities show the outer effect of city competition. Such presentations offer even economically weaker cities a possibility to present themselves, excluded from all inner conflicts and urban problems, as being a modern location. But also large stagnating industrial cities can refurbish their bad image as a successful city. The web site than becomes a multilingual visiting and business card of a municipality acting more-and-more as a private firm. The internet presence is part of an urban development policy, which acts as city marketing on the basis of public-private-partnerships, as many ICT-initiatives which have been studied during the project have proven. Thereby hints to big events are not allowed to be missed on the Web sites, as for example: "The famous Tilburg funfair is the largest in Europe!" They help to support the fragile identity of urbanites and also increase the acceptance of mistrustful investors from the outside. Besides the actual costs for festivals, expositions and other events, this allows, at least for a relative time period, to gain some attention on the international parquet for the urban competition. Today one talks more and more of a "festivalisation" of urban politics, which aligns its strategies only to the external presentation of the city (Häußermann et al.: 1993). As is being said, the reason for that is because there is no political advantage worth the effort taking classical urban issues into account. City conception is not related to experiences of city life, but to the outside. ICT is taking effect as a multiplier regarding this precarious situation.

As much as ICT promises equal chances for large and small cities to participate within the world-wide city network, general access due to the new technologies can also mean that city competition increases even more. What has been shown to be a capable answer in regard to the economical erosion of the cities, also even promotes this erosion. Therefore, it has already been proposed as a very discussible matter, to understand a loss in importance within the world-wide city network as a chance. It helps to concentrate on the reality of urban problems. However, the quantitative survey of our project shows that ICT will increase the struggle among cities according to the people asked. All-in-all 94.4 % believe that urban contests will be re-enforced by ICT, whereas 41.8% expect a high impact, 38.3% a medium, and 14.4% a rather low impact. Again, Ireland and Spain expect more rivalry caused by ICT. Moreover, in cities with more than 100.000 inhabitants one guesses that ICT will cause an increase. Around 45.6%, believe that the increase in competitive pressure will be significant. Compared to the assessments not taking ICT into account, a increase due to ICT can be ascertained.

The differences in the assessment demonstrate again the different effects of city competition principle. In regard to the outer presentation and its corresponding factors one sees the substantial potential of ICT. 88.6 % of all respondents take for granted that because of ICT more service business will settle within the cities, 60.2 % are also sure that ICT will certainly attract further industry. Otherwise, only 56.2%, see a possible impact caused by ICT

in the question of attracting further residents to the cities, which can be related as a soft factor due to the inner effect. Besides the curiosity that especially France is optimistic in that point, also countries with a low population density as for example Spain, Ireland and especially Norway see at least a little potential on this issue. In Germany instead one does not see an activating factor in regard to residential growth. Furthermore just 54.2% of all people questioned suggest an impact of ICT in regard to the significance and shaping of the inner-city area. Although both aspects, the residential development and especially the formation of the inner city are very much ICT-related issues - the use of security technologies at public sites and streets exist today not only in the UK but in all of Europe– it is proven that the impact of ICT under the increasing competitive pressure relates substantially more to the external effects of the competition principle and its most relevant factors.

ASSESSING THE IMPACT OF ICT

service: 88,6
industry: 60,2
new residents: 56,2
inner city: 54,2
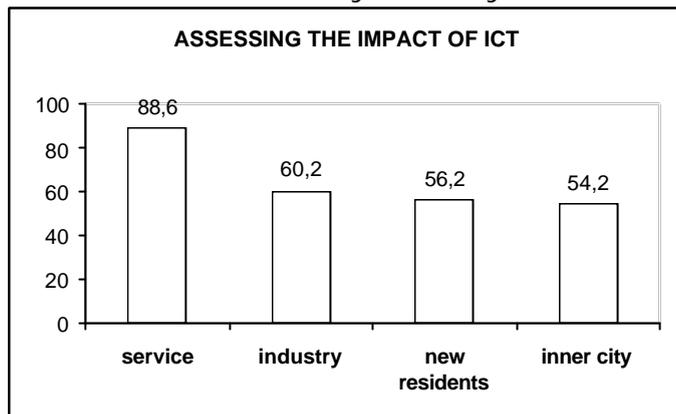
The qualitative investigation demonstrated that ICT in the minds of city planners and politicians at first meant attracting Big Business, before raising any questions regarding social structuring of the city for the purpose of improving inner-city climate and infrastructure. This is re-confirmed in the context of city ICT politics. The potential of ICT for attracting companies stands in the foreground, not city activity. 90.2% see ICT as a decisive instrument of city development politics for boosting economic development. And half of those of this opinion see ICT as a very decisive instrument. 84% are convinced that bringing companies to the city is the most important effect of an ICT engagement. The interviewees consider that ICT promises untold access possibilities to the world market. But it remains questionable how pressing inner infrastructure problems can be solved as long as they are only of secondary importance. However, it would be interesting to see how this assessment has changed since the year of 2000.

Two questions must be asked: how important are social issues in the context of ICT? Secondly, does ICT cause city planners to lose sight of spatial indicators when seeing the advantages of an improvement in city portrayal for the purpose of attracting companies? Of course, it will not suffice to reduce ICT to Internet sites. A city homepage will appear to reflect modernity and technical competence, that is, an improvement in internal communication structure, which in itself will be important for portraying the city. Quantitative questioning allows further differentiation. Beside the political-economic importance attached to ICT, people are convinced that ICT will also meaningfully affect city political communication processes. For example, in most countries there is a belief that the employment of ICT aims to make the political and administrative processes more transparent. In Norway, as the

only country of the study, the respondents consider a higher effect of ICT on political transparency than on the improving of the economic situation. In opposition, the respondents from the Netherlands – the country compared to Norway in particular and to Europe in general with the highest population density - are the most reserved about this aspect.

But this basic assessment that urban policy will change does not allow evaluating in which direction this change will be. And this question, how much will city politics be changed by ICT, is the central point of city competition, because here outer and inner effects of the principle are obviously most visibly connected. The countries investigated - with the peculiar exception of the Netherlands again - are convinced that ICT will in general strengthen information flow and communication. 93.2% believe in this potential of ICT. On the other hand, it is assumed that social relationships will not be particularly enhanced through ICT, which is a subject in itself. Here only
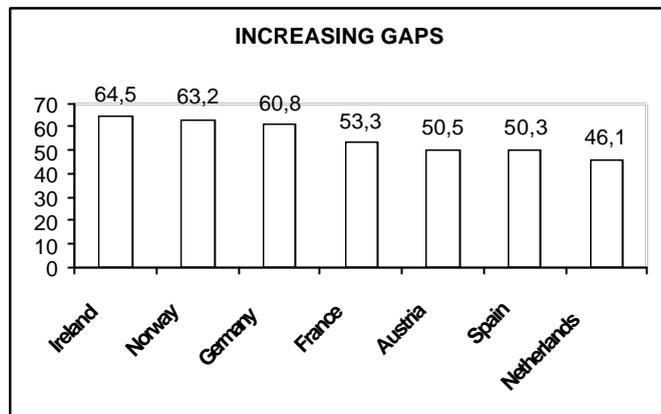
ICT IMPACTS ON URBAN POLITICS
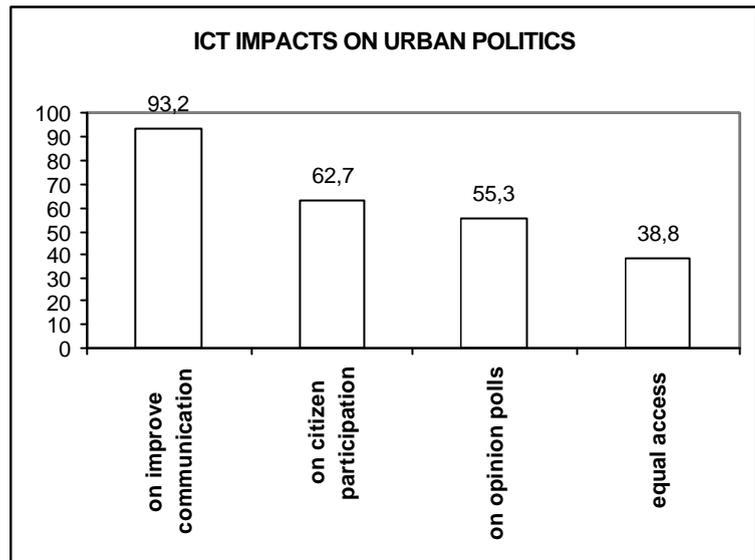
19.6% of all respondents see an impact. But for city political processes it can be said that improvements in communication between city administration and citizens are expected. Again, especially the interviewees from Norway see a further chance, whereby it should be considered that the Scandinavian countries have a longer tradition in the democratic use of ICT, and that Norwegians in general know each other better than people in countries with a much larger population.

However, these positive expectations are subject to important limitations in two aspects. More communication in politics with the help of ICT is not the same as more influence. Even when the interviewees were convinced that there are more possibilities for citizens, politicians and administration officials to communicate among themselves, they reveal an uncertain confidence in regard to an increase of citizen participation in politics as a result of ICT.

Even though Spain and Germany are the usual opposites, only two-thirds or 62.7 % believe that ICT allows an increase in citizen participation. The results show that a certain scepticism is justified in spite of the positive assessment. Except for the confidence of the Spaniards, barely half think it probable that ICT will lead city administrators to take account of public opinion. Austria, Ireland and Norway have the same opinion here. The interviewees in France, Germany and the Netherlands are much more sceptical. The trust in growth of grass-roots democratic elements however must be questioned when the issue is the effect of ICT on access to education, work and services for all social

classes of the city. Then things appear differently. Only a good third or 38.8 % still believe that ICT creates equal access opportunity for all social classes. The interviewees in France, Austria and Spain are still convinced, but this question is perceived in Germany, Ireland, the Netherlands and Norway with a certain suspicion.

However a change in the urban politics caused by ICT is seen. Its consequences remain rather vague. Once again, it must be asserted that ICT is still understood as a one-way-street citizens as well as administrators can use in order to inform themselves about each other. But we must realise that political influence by citizen participation cannot be shown to be a potential of ICT, because all citizens do not have equal access to information through ICT. According to the perspective of the respondents the use of information seems to be restricted to the economic aspects. It enforces the external orientation of urban politics, and it must be doubted that all social groups will have a profit out of it. The majority of the respondents even believes that ICT will increase the gap between the rich and the poor. In numbers are this 57.8%. What do we learn from this? The scope and depth of ICT perceptions by urban administrative and political actors served within the idea of the TeleCityVision project as indicators for the preparedness to contribute to the transformation process.

INCREASING GAPS

Country	Value
Ireland	64,5
Norway	63,2
Germany	60,8
France	53,3
Austria	50,5
Spain	50,3
Netherlands	46,1

Conclusion

To be aware of newly emerging and rapidly changing technologies and to adopt them to enhance the everyday life of urbanites, obviously means to be in the midst of a global communication process where the individual or collective perception ability of what is going on in the world of technology and science, the public culture, defines the bandwidth of participation within this process. The global communication process represents the space where one talks about and discusses the technological revolution and where personal experiences are exchanged. Does not to participate means to neglect an important possibility to get new and fresh ideas for improving urban life? The use of ICT could be seen as a medial enlargement of the city beyond its material and already existing informational resources and borders in order to handle and to create the complex urban relationships and communication processes which always have been the wellsprings of urban social, scientific, technological and economic innovation. However, time has shown that this

medial geography is hardly able to solve social injustices or urban problems like there always have been.

The perception of the urban actors on the impacts of ICTs have been rather sober than enthusiastic. In our reading of the results of TeleCityVision study the increased city competition is clearly seen effected by the transformation to an global information society. But on the other hand ICT was hardly seen as a panacea to solve urban stagnation as it has been promoted in the middle of the 1990s in the political and the media discourse. Even if there have been knowledge deficits regarding the potential of ICT, the assessments show within the framework of an increasing city competition particularly that besides the constraint of being orientated towards the outside, urban actors are still much aware of the inner structure and of more local urban problems of their cities. Planning itself in regard to housing or transportation will, in the opinion of the interviewees, continue to take place "in the heads" and cannot be replaced by computer generated procedures. Actors know about the complexity of the urban crisis within their individual conception of city, but they are also aware of their limited potentialities in regard to empty finance resources.

Thus, discrepancies between the awareness of technological potentials might rather find their explanations by the high expectations of visionary concepts and the limitation of policy capabilities. Over the last decades the political understanding of urban space has changed. In reality characteristics of the Keynesian Welfare State are replaced by 'entrepreunalism' as the main design of urban action. A trend towards the post-Fordist city pretending to be a playful space of individuality but being beneath its surface a space of control and social and spatial separation (Christopherson 1994: 409) raises today the question how far these developments of creating feel good atmospheres can be related to the rise of ICT? The logic of contemporary place marketing as a critical element to derive competitive advantage in the international rivalry of cities for investment meets the virtual space as it helps to produce a certain symbolic purity that emphasises the dissociation of depression and industrial decline. What does this mean? The overestimation of ICT contains the threat to suppress and forget the reality of city problems. Today we witness, urgent individual social problems are more and more isolated from the realm of urban politics. The managing of the space within the post-Fordist city focuses instead on the separation of different kinds of people in order to create spaces of consumption for tourists and consumers. In this respect ICT turns out to be not a solution, but a tool of social sorting and thus for the displacement of urban problems. But in the end, the recognition of city-related potential of ICT depends on the conception of the individual city urban politics have in mind for the motifs of their actions. They have to decide if and how different economical interests within the contemporary city can be balanced, for example between potentially consumers and non-consumers or in spatial terms between places of consumption and those publicly accessible to all. As a matter of fact, such a decision could turn out as the most urgent attempt to guarantee the social peace for the city of tomorrow.

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