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USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) IN EUROPEAN JUDICIAL SYSTEMS

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Executive Summary

The purpose of this report is to provide an account on the strategic ICT innovation approaches utilized, and on the uses of ICT within the courts and for judicial data interchange by European countries. The rapid development of information and communication technologies (ICT) has opened up new opportunities to significantly improve the administration of justice. The availability of web services, the use of electronic filing, the exchange of legal documents electronically, the possibility of laws and jurisprudence on-line are only some examples that are spurring the judicial administrations around the world to rethink their current functions and activities. ICT can be used to enhance efficiency, access, timeliness, transparency and accountability, helping the judiciaries to provide adequate services. However, as many empirical examples show, this is not always the case. The interaction between technology and highly regulated organizations, such as courts, may lead to unexpected negative results. Europe, with its different institutional settings and experiences, allows the exploration of a wide range of solutions that can be implemented to support the administration of justice. Most importantly, it also provides the opportunities for a unique insight into the dynamics and problems that may characterize such experiences.
The report is structured in four sections:

1. *Introduction* – Providing indications on general framework, methodology and report objectives;
2. *ICT strategy development* – Discussing the main ICT strategic approaches that have been adopted in the last decades by some European countries;
3. *ICT and the courts* - Analysing the uses of ICT within the courts and to exchange information between courts, parties and general public;
4. *Conclusions* – Presenting some of implications emerging from the data description and analysis. In particular, the idea that given the different complexity of ICT innovation, viable solutions must be empirically found, carefully shaping, assembling and tuning technological,

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normative, organizational and institutional elements; looking not only to what is technologically and normatively possible, but also considering human and managerial capabilities of each justice system.

The report is mainly based on the quantitative data provided by the Cepej Report “European judicial systems – Edition 2006 (2004 data)”, complemented and integrated with qualitative data collected through several research projects carried out by the Research Institute on Judicial Systems of the Italian National Research Council, also with the collaboration of other institutions such as the Faculty of Law, Utrecht University (The Netherlands); the London School of Economics (United Kingdom); the Finnish Ministry of Justice.

CONTENTS

1. Introduction[1]

The use of information and communication technology (ICT) is considered one of the key elements to significantly improve the administration of justice.[2] The rapid development of technology opens up new opportunities that were unthinkable only a few years ago. Around the world, several statutory reforms have been introduced to allow the use and the exchange of electronic data and documents within the national judicial systems but also between them and with supranational courts. The availability of web services, the possibility of consulting on-line court registers, legislation and case law, the use of electronic filing, the electronic exchange of legal documents, are only some examples that are spurring judicial administrations around the world to rethink their current functions and activities. ICT can be used to enhance efficiency, access, timeliness, transparency and accountability, thus helping judiciaries to provide adequate services. New possibilities are emerging for the integration and automation of court procedures and practices. In addition, the use of the Internet, can offer the chance to open the judiciary to the public providing both general and specific information on its activities, thereby increasing also legitimacy.

Reducing the length of judicial proceedings, improving efficiency and effectiveness, and the more general objective of promoting confidence in the justice system through the use of technologies "are laudable aims and are unlikely to generate much dissention."[3] However, given the nature and importance of the judiciary as the third pillar of the State authority, and compared to other public services, due process, impartiality and independence should also be carefully taken into account. This is especially so when structural and procedural changes, such as the ones driven by the introduction of technology, take place.

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[1] This work has been supervised by Marco Fabri (senior researcher IRSIG-CNR) and it benefits of several research coordinated by the Research Institute on Judicial Systems of the Italian National Research Council (IRSIG-CNR) with financial support from the AGIS Programme of the European Commission (in particular JLS/2005/AGIS/175) and from the FIRB programme of the Italian Ministry of University and Research. The study is based on Cepej Report on European judicial systems Edition 2006 (2004 data) and on the individual Country Replies which also concern 2004 data. This data has been complemented and integrated with qualitative data collected through several research projects carried out by the Research Institute on Judicial Systems of the Italian National Research Council, also with the collaboration of other institutions. As regards its content, the study has been finalized in December 2007. The findings, interpretations, and conclusions expressed in this report are entirely those of the author and should not be attributed in any manner to the organizations or programmes that financed the research projects.

2 Confronted with the inability of managing the constantly increasing caseload, Ministries of Justice have typically adopted three main strategies: 1) the increase of administrative personnel and judges, 2) the change of norms and procedures and 3) the investment in information and communication technologies. Fabri M. 1998, *Gli affanni dell'amministrazione della giustizia italiana*, in Politica e Organizzazione, n. 1, pp. 47-60

[3] Loveday, B. (2000) *Address to EGPA Conference, Cape Sounion, Greece*, in M. Fabri and Ph.M. Langbroek (Eds.) "The Challenge of Change for Judicial Systems", IOS Press, p.23

Furthermore, many empirical studies show that the results achieved do not often coincide with the anticipated ones.[4] The interaction between technologies and highly regulated organizations, such as courts, may lead to unexpected negative results. High failure rate is a result of the fact that "the complexity of ICT solutions have grown rapidly and that existing Software Engineering and Information Systems Design methodologies do not tackle this adequately".[5] More research is needed to better comprehend such phenomena and to improve ICT innovation methodologies. From this perspective, the European continent offers an important opportunity. Europe is "an extraordinary laboratory of innovation and change, particularly in the justice sector. The diversity of institutional settings within Europe provides contrasting examples of the use of technology to support the administration of justice. The variety of solutions adopted by individual countries, both from a technical and managerial point of view, provides a unique insight into judicial applications of ICT and these solutions should be disseminated and discussed in-depth."[6]

This report seeks to provide an empirically derived account of the main trends, experiences and dynamics that have characterized the ICT innovation and the judicial data interchange in Europe. This work wishes to contribute to the diffusion of experiences and knowledge produced at court and national level to practitioners, decision makers, and scholars that may be confronting or studying similar situations in different national contexts. The report is based on quantitative data provided by the Cepej Report "European judicial systems – Edition 2006 (2004 data)" and by the individual Country Replies (filled with 2004 data). By June 2006, 46 European states had participated in the data collection process: Albania, Andorra, Armenia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italia, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, San Marino, Serbia, Slovak Republic, Slovenia, Spain, Sweden, "the former Yugoslav Republic of Macedonia", Turkey, Ukraine, United Kingdom and Montenegro. The results for the United Kingdom are presented separately for England and Wales, Scotland and Northern Ireland, as the three

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[4] Contini, F. and Cordella, A. (2004) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach.* Twelfth European Conference on Information Systems, Turku School of Economics and Business Administration: Turku, Finland;
G. Di Federico, M. Fabri, D. Carnevali, F. Contini, A. Salvarani (1995), *Office automation e organizzazione degli uffici giudiziari penali. Studio di tre casi*, Working Papers IRSIG-CNR, n. 4, Lo Scarabeo, Bologna.
Contini, F (1999) *Processi di innovazione e context making: l'adozione della tecnologia dell'informazione negli uffici giudiziari*, in Ciborra. C. ; Lanzara, G.F. (eds.), *Labirinti dell'innovazione*, Milano, Etas.
Ciborra C and G.F. Lanzara, 1994, *Formative Contexts and Information technology: Understanding the Dynamics of Innovation in Organizations*, in: Accounting, Management and Information Technology, Vol.4, no.2, 1994 pp. 3-27

[5] Hanseth, O. "Integration – Complexity – Risk: The Making of Information Systems out-of-control", p.3 in Ciborra, C. U. and O. Hanseth (ed.) "RISK, COMPLEXITY AND ICT" Edward Elgar Publishing, forthcoming

[6] Fabri M. and F. Contini (eds), (2003), *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo p.2

judicial systems are organised on different basis and operate independently form each other. Switzerland did not reply to the Cepej questionnaire. Particular attention has been devoted to the answers country responded provided to questions 5, 6, 20, 48, 49 and 50 of the Revised Scheme for Evaluating Judicial Systems Cepej (2005) 2 REV 2 adopted by the CEPEJ at its 5th Plenary Meeting (Strasbourg, 15 – 17 June 2005) and approved by the Committee of Ministers on 7 September 2005.

Cepej data has been complemented and integrated with more qualitative data collected by the IRSIG-CNR through several research projects. In particular, the research projects 'Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends',[7] 'Information and Communication Technology for the Public Prosecutor's Office'[8] and 'ASTREA, Information and Communication for Justice'[9] have provided most of the information. This data has been updated, whenever possible, in order to provide the most recent information in a rapidly changing landscape. The countries for which this qualitative integration process has been possible have been: Albania, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland, Turkey and United Kingdom (England and Wales, and Scotland). The study of information concerning Switzerland has taken the total number of states taken into consideration to 47 for a total of 49 cases.[10]

ICT experiences have been selected from European countries in relation to their potential of providing concrete examples of the issues discussed. Through these examples the reader will be able to better appreciate the different trends, implementation approaches and problem-solutions that characterize the judicial ICT development and the judicial electronic data interchange. Furthermore, such examples will help the reader to gain a more realistic vision of the different uses of information and communication technologies that have been

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[7] The project is a joint effort of the Research Institute on Judicial Systems of the Italian National Research Council in partnership with the Institute of Constitutional and Administrative Law, Faculty of Law, Utrecht University, The Netherlands, the Interdisciplinary Centre for Law and Information Technology, Faculty of Law, Catholic University, Leuven, Belgium, the Norwegian State Information Technology Court Service, Norway, and the Research Centre of Judicial Studies, Department of Organization and Political Science, University of Bologna, Italy. The project received two grants from the Grotius Civil Program (JAI/GR-CV/16/01/IT) and Grotius II (Criminal: 2001/GRP/031), of the European Commission and a grant from the Italian Ministry of Education, University and Research (FIRB Program)

[8] Funded by the AGIS program (Project number: JLS/2005/AGIS/175). The project partners are: the Research Institute on Judicial Systems of the Italian National Research Council, the Institute on Constitutional and Administrative Law, University of Utrecht, The Netherlands; the London School of Economics, United Kingdom and the Finnish Ministry of Justice

[9] "ASTREA, tecnologie dell'informazione e della comunicazione per la giustizia", funded by the Italian Ministry for Research and University (MIUR)

[10] For the purpose of this report, Switzerland has been considered as a single case. Accordingly to Cepej selection of unit of analysis and definition of cases made in the data collection process and in the Report "European judicial systems – Edition 2006 (2004 data)", Uk -England and Wales, UK - Scotland and UK - Northern Ireland have been considered as three cases. In the report, the words "country" and "judicial administration system" will be used to refer to the 49 cases.

done in European justice systems. This will help to avoid the risk involved in providing only an abstract and somewhat artificial picture of the phenomena.

The rest of the report is structured as follows. The first section will describe the main ICT strategic approaches that have been adopted in the last decades by some European countries. Within this framework, several strategic actions that have been typically undertaken will be considered, such as the changes in national laws and regulations that have been introduced along with ICT innovations. A description of the technological infrastructures developed to support the judicial electronic data collection and exchange will then be provided. In the second section, will be analysed the uses of ICT within the courts and to exchange information between courts, parties and general public. In the conclusions, some of the implications emerging from the analysis of the different experiences will be discussed. While the report studies the ICT innovation phenomena providing examples from several European experiences, it has been thought useful to add as an appendix a focus on Turkey (Appendix 1). This case is already presented in the study itself, but it was considered interesting enough to have a specific section at the end of the report dedicated to it. The text of the questions from the CEPEJ Evaluation Scheme mentioned in the study is included in Appendix 2.

2. ICT strategy development

Although there has been a "strong interest"[11] in the use of IT in support of civil and criminal litigation at least since the 1970s,[12] and some discussions on the subject date back to the 1960s[13], it is only from the 1980s that ICT began playing an increasingly relevant role in court activities in Europe. Between the end of the 1970s and early 1980s, mainframe applications were developed in several countries to support bulk data processing and record systems within central administrations. Two examples are the Italian National Judicial Record System and the Department of Prison Record System.[14] The impact of this kind of systems in the courts' activities was generally quite limited. It was only with the development of personal computers in the eighties and as the result of local initiatives that in many cases ICT started to be introduced in the courts practices. In this context, enthusiastic leaders or small groups of ICT

[11] Susskind, R. (1999) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures: Report on England and Wales* Available at http://ruessmann.jura.uni-sb.de/grotius/english/Reports/england.htm

[12] In the UK, for example, the Society for Computers and Law was founded in 1973 - Susskind, R. (1999) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures: Report on England and Wales* Available at http://ruessmann.jura.uni-sb.de/grotius/english/Reports/england.htm

[13] For example, Di Federico, G. (1966), *L'uso di strumenti elettronici nell'amministraziojne della giustizia*- The use of electronic tools in the justice administration, in "Rivista trimestrale di diritto e procedura civile", Milano, Giuffrè, Vol. XX, pp. 624-636

[14] Carnevali, D. and Di Cocco M.C, (2001) *An Innovation Process Embedded in a Strict Institutional Setting: ICT in the Italian Judicial System*. In M. Fabri, F. Contini (eds.) Justice and Technology in Europe. How ICT is Changing the Judicial Business. Amsterdam, Kluwer Law International, p. 206

enthusiasts were often the key factor. They supported the development and the evolution of technologies, helping the solutions of problems related to the design of the applications but also acting as facilitators during the implementation phase.[15] Local entrepreneurship and limited resources characterized such efforts. ICT was aimed at and designed for improving specific day-to-day activities, routines and procedures in concrete situations. It was employed for solving problems or taking opportunities specific to the office in which the experience take place. In many countries, such as Italy, Ireland, and Belgium, a number of low cost applications were, and in some cases still are developed and implemented "to meet the immediate needs of individual civil and criminal business offices."[16]

Such ICT experiences were often ephemeral, linked to the presence in the court of the individual or of the small group that had fostered it. When such individuals were transferred to other offices, applications had the tendency of being forgotten and would fall into disuse. Two reasons are often at the origin of this phenomenon. Firstly, lack of institutionalisation of the technological artefact. The technology does not become an integral part of the organization of the office but is simply a tool used by one or more people within the office. When these people leave the office, the tool is simply not used anymore. Secondly, courts are highly structured environments. Procedures are defined in detail by laws and regulations and such laws and regulations tend to change over time. Software applications generally lack the flexibility and tailorability needed to keep up to date by themselves. When the people that fostered an application technology and that kept it up to date leave the office, the technology becomes soon obsolete and fall in disuse, even if it had been institutionalised and engrained in the office practices. It must also be considered that often the results achieved proved limited in terms of improvement of the service provided by the offices that adopted them.

In many cases, such technologies were introduced without the support of a clear overall strategy. As a result, a multitude of diverse hardware architectures, automated registers, case management systems and office automation tools has often been adopted.[17] This in general has resulted in poor interoperability between the different courts, but sometimes also within the same court. This also resulted in high maintenance costs.

From the beginning of the nineties a second approach, characterized by more strategic vision and longer term planning was introduced in several countries. Parliaments, Governments and Ministries of justice all around Europe were confronted with the request for better judicial services, a more efficient organization and, more in general, a "*modernization*" of the court services. This phenomenon was the result of a plurality of factors. The expansion of judicial

[15] Leaders often cover a role of facilitators within the process of both software design and development but also in the implementation and adoption phase.
[16] Irish ICT Strategy 2006-2010 for the Courts Service, p.8 available at http://www.courts.ie/Courts.ie/library3.nsf/(WebFiles)/75704E3E1D4B1E048025716800557865/$FILE/ICT%20Strategy%202006-2010.pdf
[17] As an example, the judicial system in Belgium ended up with thirteen different case management systems -Dumortier, J. (2003) *Judicial Electronic Data Interchange in Belgium*, p.126 in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003)

power,[18] the increasingly greater role of the administration of justice in "defining 'who gets what, when and how' in the community",[19] and "the growing role of international organizations such as the European Court of Human Rights, and the activism of NGOs such as Amnesty International"[20] had certainly contributed to enhancing the awareness and interest of the public to the administration of justice. Furthermore, the emerging of the so called *new public management* and the idea that, "the administration of justice looks very much like an ordinary public service organization",[21] generated "an awareness that the judicial system should learn its legitimacy not only by sound juridical judgments but also by providing adequate services".[22] Within this general frame, ICT was seen as a powerful tool to introduce changes but also as an element of *modernization* per se, as the key for "bringing the justice administration into the modern age". The role of international actors such as European Union institutions and the Council of Europe, promoting the use of information technology as a tool to make the justice system more effective[23], have played an important role in fostering this vision.

To support the new technologies, in many cases a phenomenon of centralization of ICT governance took place. Reorganizing the ICT governance in this way, it was expected, on the one hand, to provide an impulse to the computerization of the judiciaries, on the other hand, to help a rationalization of the investments and a more efficient management of the expenses. Depending on the organization of the judiciary and on other context related factors, the institutional setting that emerged to manage the ICT governance differed widely. The choice, for example, fell on the Ministry of Justice in Austria and France, on the Judicial Council in the Netherlands,[24] on both Ministry of Justice and Judicial Council in Italy and on the Court Service in Ireland, Sweden and England and Wales. In some cases, such as Austria, France, Italy, specialized units within the Ministry of Justice were created. In some countries, public sector coordinating bodies for the development of ICT were also established. In Italy, for example, the Authority for Information Technology in the Public Administration (AIPA) was created in 1993 for a better coordination of strategies, investments and implementation of policies in the field of information

[18] cfr. C. Neal Tate and Torbjörn Vallinder, (1995) *The global expansion of judicial power*, New York University Press.
[19] Di Federico, G. 'Italy: A Peculiar Case', in Tate and Vallinder (eds.) 'The Global Expansion of Judicial Power' (New York University Press: New York 1995) pp.233-242
[20] Velicogna, M. and G.Y. Ng (2006) *Legitimacy and Internet in the Judiciary: A Lesson From the Italian Courts' Websites Experience*. International Journal of Law and Information Technology Advance Access published on June 22, 2006 Int J Law Info Tech 2006 14: 370-389; doi:10.1093/ijlit/eal009 p.371
[21] Fabri, M. and Langbroek, P. M. (eds.) (2000) *The Challenge of Change for Judicial Systems, Developing a Public Administration Perspective*, IOS Press OHMSHA: Amsterdam, Washington, p.8
[22] Ibidem, pp.8-9
[23] on the subject see COE Information technology in the justice sector, http://www.coe.int/t/e/legal_affairs/legal_co-operation/operation_of_justice/information_technology/
[24] Only after the reform of the judicial organization in 2002

technology in the public sector.[25] In the same year, it was established by law the General Office for Automated Systems of Communication of the Ministry of Justice (DGSIA). DGSIA became fully operative in 1996 and is currently in charge of the management of all the IT projects and IT regulation in the Administration of Justice.[26] In Finland, several permanent interagency groups co-ordinating and advising bodies across government.[27] In particular, the VATI (government IT-body)[28] has been established to coordinate the IT services and to agree on standards and architectures in different public sectors. Chief information officers of the different ministries meet monthly. "In many cases, formal and informal networking among agencies' IT officials has replaced central or ministry-level guidance for improving cross-agency co-ordination." [29]

The effects of these centralization efforts in many cases have not been as rapid as initially expected and economies of scale have often been difficult to achieve. In the Dutch case, for example, in 2006, Aernout Schmidt refers that there still is "a kaleidoscopic abundance of IT-services available in the desktop, which is considered to show inadequate interoperability – mainly as a result of the fact that judiciary principals in IT-projects used to show themselves as 'islands of independence'"[30] and this is true even though since the 2002 the Dutch Council of Judiciary had been made responible of the management of "various incompatible and often out-dated IT instruments"[31] and had attemped to "energetically"[32] deal with the problem.[33] One of the problem is that courts are often characterized by strong internal and external autonomy. Consequently, the organisation of each court varies significantly based on local choices and to fit local needs. In this context, providing standard solutions is clearly not an easy task.

In general, Middle and Eastern Europe countries started the judicial ICT innovation process later than their Western neighbours and followed a somewhat different path. This has been mainly due to two factors: 1) the political and institutional context and its evolution in the last twenty years and 2) the advantage of being *second movers* and being able to capitalize on previous experience and on the innovations in the technological field. Starting with the '90s, many of these countries have been facing consistent constitutional and

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[25] In 2003 AIPA was replaced by the National Centre for IT in Public Administration (CNIPA). Cnipa also absorbed the Technical Centre for the State Network, which was suppressed.

[26] DGSIA competences are defined in the art. 6 of D.P.R. 2001/55

27 VATI, the Council of IT directors; VALTIPA, the government network of information service professionals , VAHTI, the government's IT security board; JUHTA The Advisory Committee on Information Management in the Administration
http://ec.europa.eu/idabc/servlets/Doc?id=21922 p.26

[28] VATI is a Finnish inter-ministerial coordinating group composed of ICT management directors, created in June 2002 http://ec.europa.eu/idabc/servlets/Doc?id=21922 p.26

[29] http://ec.europa.eu/idabc/servlets/Doc?id=21922 p.112

[30] A.H.J. Schmidt (2006), *IT and the Judiciary in the Netherlands*
http://weblog.leidenuniv.nl/fdr/elaw/publicaties/IBLT%20Final-3.pdf p.12

[31] ibidem p.6

[32] ibidem

[33] Perplexities on the success possibilities of one of these large projects, GPS, has been recently expressed in a research report on ICT in the Dutch criminal Justice chain. Langbroek, P. , Tjaden, M. (2007), *Information and communication technology for the Public Prosecutions Department as a part of the Dutch Criminal Justice Chain*

law reforms. In this process, in order to achieve "contemporary standards and principles such as fundamental rights and freedoms, democracy, the rule of law",[34] several countries have also been facing judicial organization reforms. Indeed, previous judicial institutions, that had been created in a non (or limited) democratic environment, needed to be reformed in order to make them adequate for the new democratic context and for the new tasks they are required to perform.[35] Both national and international pressures played an important role in these events. On the national level, between the other factors, the desire for a political but also institutional change that characterized especially the early nineties; the growing expectations that increasing exposure to the western models have raised concerning the justice system functions and functioning; the rising awareness of the public about its rights; the need to provide a better justice service in order to attract both domestic and foreign capitals and investments. On the international level, indications, recommendations and support from organizations such as the Council of Europe (CoE), the European Union (EU), the Organisation for Economic Co-operation and Development (OECD), the United States Agency for International Development (USAID) and the World Bank have clearly played a important role. In fact, in the last ten years, the CoE, together with other international actors, has organized and implemented several programs and activities aimed at supporting and promoting quality of justice within the broader democratization effort.[36] Furthermore, in several countries, the request for an harmonization with European Union *acquis communautaire* and in particular the need to achieve "stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities"[37] as a precondition for EU accession has certainly acted as a strong incentive toward the reform of the justice systems.

Councils for the Judiciaries have been established in several countries, such as Bulgaria, Croatia, Poland, and Slovakia, to increase judicial independence.[38] Other reforms have been introduced. Turkey, for example, has undergone a process of "complete overhaul of basic legal codes such as the Penal Code,

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[34] Turkish Identity in Europe and Turkey-EU Relations from a Historical Perspective, Vienna, 27 October 2004, p.6 http://www.da-vienna.ac.at/userfiles/sungar.pdf

[35] Dallara, C. (2007) *When Domestic Politics Matters: Patterns of Judicial Reform in ex.Yugoslavia countries*, LSA 2007, Berlin, p.1
See also:
Dietrich, M. (2000), *Legal and Judicial Reform in Central Europe and in the Former Soviet Union*, Washington, World Bank.
Gargarella (2004) *In search of democratic justice - what courts should not do: Argentina*, 1983-2002, in Siri Gloppen, Roberto Gargarella and Elin Skaar (eds.): Democratization and the judiciary: The accountability function of courts in new democracies. London: Frank Cass pp. 181-197

[36] Dallara, C. (2007) *When Domestic Politics Matters: Patterns of Judicial Reform in ex.Yugoslavia countries*, LSA 2007, Berlin, p.1

[37] Copenhagen criteria see
http://ec.europa.eu/enlargement/enlargement_process/accession_process/criteria/index_en.htm

[38] on the subject see W. Voermans and P. Albers (2003) *Councils for the Judiciary in EU Countries* , available at http://www.encj.eu/encj/
see also
http://www.coe.int/t/dg1/legalcooperation/judicialprofessions/ccje/textes/Travaux10_en.asp

the Criminal Procedural Code, the Press Law, the Law on Associations".[39] Furthermore, Intermediate Courts of Appeals have been established by law in 2004.[40] After a first phase generally aimed at establishing by law new formal judicial institutions and norms, the focus is gradually shifting towards the implementation and the concrete results of such reforms. Both politicians and members of the judiciaries of these countries are increasingly aware that access to justice, quality of service, efficiency, performance and accountability, is no longer issues they can ignore. In this context, the introduction of ICT has been not only a way to comply to international recommendations,[41] but also a mean to show determination to tackle the problems emerging from the implementation and the enforcement of the new legal frameworks. ICT can allow an accurate and open collection of information on court operations and decisions, without which "there is no way to ascertain if the courts have fulfilled their democratic responsibilities".[42] Furthermore, ICT can support the efficiency boost required to face the workload challenge. [43] According to Cepej data, several Middle and Eastern Europe judiciaries are quickly recovering the ICT gap, and in some cases are showing better results than some of their Western counterparts. Estonia, Latvia, Turkey, but also Lithuania, Slovenia and others, are showing impressive results as computer facilities, use and availability of electronic resources and use of electronic registers and case management systems are concerned. In several cases, the important element to consider is not just the computerization level achieved, but the innovation trend and the undergoing projects expected results (e.g. Turkey and Estonia).

The development of a new infrastructure in this situation has posed a series of advantages but also of different challenges in comparison to the judicial administrations experiences in countries such as France, the Netherlands and Italy. In several cases, '*second movers*' judiciaries are directly moving from paper based procedures to highly computerized ones. These efforts clearly discount the lack of ICT competences of the personnel. At the same time, this situation also means a lack of legacy systems that in many cases are strongly affecting second and third generation applications development and adoption. Furthermore, although differences clearly exist, access to other European experiences of success and failure are clearly provided some guidance. In addition, external aids are playing a major role in ICT innovation on at least three directions: providing funds, providing competences and providing monitoring and evaluation. For example, in Albania, if "most courts are

[39] Contract Enforcement and Judicial Systems in Central and Eastern Europe, Turkey http://siteresources.worldbank.org/ INTECA/Resources/CEJSTurkey.pdf p.1

[40] Contract Enforcement and Judicial Systems in Central and Eastern Europe, Turkey http://siteresources.worldbank.org/ INTECA/Resources/ CEJSTurkey.pdf p.6

[41] For example the World Bank "has, for a considerable time now, been of the opinion that (i) the Rule of Law is a conditio sine qua non for a stable society and (ii) that the use of […] technology will support the establishment of the Rule of Law, even in the most unsavoury of jurisdictions (Carothers 2003)" A.H.J. Schmidt, 2006, IT and the Judiciary in the Netherlands http://weblog.leidenuniv.nl/fdr/elaw/publicaties/IBLT%20Final-3.pdf p.3.

[42] USAID 2001 Case Tracking and Management Guide p.13 http://www.usaid.gov/our_work/democracy_and_governance/publications/pdfs/pnacm001.pdf

[43] Contract Enforcement and Judicial Systems in Central and Eastern Europe, Turkey http://siteresources.worldbank.org/INTECA /Resources/CEJSTurkey.pdf p.7

computerized and have access to the Internet", [44] this is due not only to national investments but also to the support of international organizations. There, "a case management system funded by Soros and USAID is currently operational in at least five district courts. Another Case management system funded by the World Bank, that is expected to replace the first, is presently been rolled out to courts throughout the country by EU".[45] In Slovakia, given the limited government's resources, "besides funds provided from the Slovak state budget, the development of the court case management system and related training received substantial financial support and technical assistance from the European Commission PHARE program, the Swiss Federal Department of Justice and Police, the American Bar Association's Central and East European Law Initiative, the Open Society Foundation, and other international donors".[46]

The fact that reform of codes, procedures, structure, organization, composition are taking place at the same time of ICT innovation, if on the one hand increases the complexity of the task, on the other hand increases the chances of a successful adoption of the technology, which use is not limited by institutionalised procedures and practices. An example where all these factors are at work is Turkey, where "modernisation of justice and penal reform are included as fundamental priorities in the Accession Partnership and in the NPAA"[47] and where the objective of the process of law reform is not limited "only implement the relevant amendments to existing legislation but … [also] to strengthen those institutions responsible for the enforcement or implementation of the new procedures and processes". There, a large ICT innovation effort is undergoing. In particular, the Turkish Ministry of Justice is in the rolling out phase of a project called National Judiciary Informatics System (UYAP). The project roll out, which started in 2005 after a pilot phase in 2004, should be finalized by the end of 2007. [48] Starting from a situation characterized by the use of "very old technologies, [49] the project aims at providing a new ICT infrastructure to support the Courts and all other institutions of the Ministry, including prisons. Within the UYAP project, these institutions have already been equipped with computers, network and Internet connection. Furthermore, access to legislation, and Court of Cassation decisions, judicial records, judicial data of the police and army records has been provided. Training of the personnel is presently undergoing and the infrastructure to allow lawyers and parties access to relevant data has already been laid down.[50]

A similar project, called E-file (E-Toimik), is under development in Estonia. E-file is an application that is being developed to join several legal proceedings IT systems.[51] The project involves four ministries in its development. In this case, the objective is to provide the parties to criminal, civil, administrative and

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[44] http://www.usaid.gov/policy/budget/cbj2004/europe_eurasia/Albania.pdf
[45] Albania, USAID Rule of law Program
[46] Microsoft (2003) *Slovakia Ministry of Justice Court Case Management System Speeds up Justice and Reduces Perception of Corruption*, http://download.microsoft.com/documents/customerevidence/6531_Slovakia_Final.doc
[47] Ali Rıza ÇAM Reporter Judge in Ministry of Justice, Turkey, 17.04.2007, Istanbul
[48] Ibidem.
[49] http://www.uyap.gov.tr/ingilizce/genelbilgiler/genelbilgi.html
[50] Ibidem.
[51] Ministry of Economic Affairs and Communications, Ministry of Justice, Home Office and Ministry of Finances.

misdemeanour proceedings with information concerning the status of the case as well as of the decisions taken.[52] "Until now law enforcement authorities have administered their procedural information separately, but the E-File will contain the entirety of the information, ensuring a comprehensive overview of the status of proceedings, operations, decisions, etc."[53] Another example of the strong ICT innovation effort is the Estonian Judicial System Videoconference Network, installed in February 2005/ December 2006.[54] Through this system, a body conducting the proceedings may organise long-distance hearing of a witness, suspect or accused in a criminal case, or a long distance participation of a party, witness or expert in a civil proceeding.

As the previous paragraphs shows, all around Europe, and despite the problems the ICT innovation efforts have met in some countries, several results have been achieved. Strategic actions have been taken to introduce legislation reforms that would enable the use of ICT within court formal procedures. Furthermore, actions have been taken to improve e-development and procurement and to create technological infrastructure to support the production and exchange of both electronic data and documents, not only within the courts, but also across their borders in order to provide better services. A general description of these topics will be briefly introduced in the following paragraphs.

2.1. Legal infrastructure

All around Europe, legislative reforms have been enacted to change procedural codes and previous legislation in order to enable the use of computer-based technologies in place of paper. The activity of international players in this field has been quite important. CoE indications ad recommendations, for example, have clearly played a propulsive role. For EU members and EU accession countries, European Union programmes, directives and reports in the area of area of freedom, security and justice but also related to the broader issue of ICT regulation have clearly influenced such legislative reforms and their outcomes.[55]

New rules, or amendments to existing rules, have been introduced in the national contexts to allow, regulate, and in some cases to require, the storage and transmission[56] of information through electronic means. These reforms

[52] POLIS – new police IS, KRMR – (ProxIS) – IS for prosecutors office, KIS – Court IS, TÄITIS – Bailiffs IS, VANGIS – Jail IS, KRHIS – Probation IS, Tax Office IS, Kohustisregister – IS for penalties and fees, AET – Public E-File for party and Attorney, see www.riso.ee/en/pub/Norra0307/ET_Norra_Laas.ppt

[53] Estonian Ministry of Justice (2006) E-File: single procedural information system for law enforcement authorities, available at: http://www.just.ee/e-file

[54] http://www2.just.ee/KHT/videokonv/EST_videoconf_network(Jan2007).pdf

[55] e.g. the Community framework for electronic signatures, directive 1999/93/EC

[56] eg. "An authority in possession of the requisite technical, financial and other resources shall, within the bounds of these, offer to the public the option to send a message to a designated electronic address or other designated device in order to lodge a matter or to have it considered. Furthermore, the authority shall offer to the public the option to deliver statutory or ordered notifications, requested accounts and

seem to follow two different approaches "which seem to reflect the legal culture of the different States. On the one hand, there is a tendency to regulate all the possible nuances of court electronic transactions in detail, on the other hand, in many cases the codes of civil and criminal procedure have been amended to allow electronic transaction and any eventual technically specific rules have been drafted by the Ministries of justice." [57] Especially in continental Europe, such as in Italy and France, a more regulative strategy is followed. Within this approach, the technology has been conceived and therefore regulated as if it were a "useful tool to boost the efficiency and to reinforce the standardized application of rules where the level of inscription of laws, regulation and paper based working tools is not sufficient to guarantee the identical application of the rules all over the offices."[58] In a typical Weberian system of organizing action of the State,[59] the efforts have been aimed at providing highly detailed regulative framework that specify the characteristics the technology must satisfy and the modality in which it must be used to provide services. For example, the regulations introduced in Italy for the Civil Trial Online require certified e-mail address, digital signature and encryption of the messages, access points to authenticates lawyers and other external authorized users, communications via a secure channel, central dispatcher that provides electronic time stamps to incoming messages. Only if managed according to the regulating laws, the "electronic document" can replace the original paper communication.[60] On the other hand, if these formalities are not respected, the documents are null and void.

In other cases, a more open strategy, aimed at enabling the use of technology through simplification and experimentation was undertaken. As an example, in Finland, according to the Act on Electronic Services and Communication in the Public Sector[61] "an authority in possession of the requisite technical, financial and other resources shall, within the bounds of these, offer to the public the option to send a message to a designated electronic address or other designated device in order to lodge a matter or to have it considered".[62] Furthermore, "the authority shall offer the public the option to deliver statutory or ordered notifications, requested accounts and other similar documents and messages by electronic means."[63] Within the same act, it is stated that "An electronic document delivered to the authorities does not have to be signed, if the document includes sender information and there is no uncertainty about the

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other similar documents and messages by electronic means." Finnish Act on Electronic Services and Communication in the Public Sector 13/2003

[57] Fabri M. and F. Contini (eds) (2003), *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo p.6

[58] Contini, F. Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach*, p.5

[59] Hasenfeld, Y. (1983) *Human Service Organizations* Prentice Hall Inc.: Englewood Cliffs, N.J

Selznick, P. (1992) *The Moral Commonwealth: Social Theory and the Promise of Community*. University of California Press: California

[60] www.datamat.it/files/documenti/1121098330083_en_OnLineCivilTrial_Eng06%20(2).pdf

[61] http://www.weblaw.ch/jusletter/pdf/act-e-serviceFinland.pdf

[62] Section 5 of the Act on Electronic Services and Communication in the Public Sector

[63] Ibidem

originality or integrity of the document."[64] Besides, the Act on Electronic Service in Judicial Matters,[65] enable the use of normal e-mail and electronic applications for official communications.[66]

In several countries, the strengthening of individuals' data protection rights, although not directly aimed at judicial data, has generated many repercussions on the information court offices are allowed to make available through the web. In some countries, the introduction of strict law regulations on technical and procedural requirement for judicial electronic data interchange and electronic have created "considerable constraints"[67] to the innovation process." Furthermore, the adoption by law of state-of-the-art technical standards that require the use of dedicated technologies, considering just the lawyers as possible external users of the e-services has, in some cases, discriminated non-professional users.

2.2. E- development and procurement

In order to reduce expenses and to improve procurement, three different and somewhat contrasting scenarios have become common in the design, development and roll out of ICT.[68] In some countries, such as in The Netherlands,[69] an attempt has been made to keep the development or at least the maintenance of applications in-house. A problem with this approach is "the shortage of skilled people in ICT in the administration of justice, where salaries are generally not comparable with the market".[70] A second choice has been toward outsourcing the design, development and maintenance of the application to one or several vendors, while the administration keeps the ownership of the system. The drawback of this approach is that "it may weaken the judicial system by making it too dependent on vendors for the design of systems and for technical assistance, including the implementation of changes, after the system comes into operation."[71] Furthermore, informational asymmetry between the administration and the vendor and small numbers of potential vendors may result in opportunistic behaviours increasing, instead of reducing the costs. "Some other countries have abandoned the traditional procurement process of buying hardware and software, and instead sign contracts in which ICT vendors design and develop systems at their own cost, and lease them back to the Government." [72] This approach, attempted in

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[64] Section 9 of the Act on Electronic Services and Communication in the Public Sector
[65] 594/1993, amended by 199/1998
[66] See 594/1993, amended by 199/1998 par. 3.2.2.
[67] Fabri M. and F. Contini (eds) (2003), *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo p.12
[68] Schmidt, A.H.J. (2006), *IT and the Judiciary in the Netherlands* http://weblog.leidenuniv.nl/fdr/elaw/publicaties/IBLT%20Final-3.pdf p.12
[69] ibidem.
[70] M. Fabri and M. Velicogna (2007) *Information and Communication Technology for Justice*, International Conference on Law and Society July 25-28, Humboldt University, Berlin, Germany.
[71] ibidem.
[72] ibidem.

Finland and more recently in England and Wales,[73] free the administration from the risk of developing the system and from the problems involved in support and adjournment. Even in this case, though, the problem of dependence from the vendor remains, at least for the duration of the contract.[74]

In the attempt to reduce the asymmetry between public administration and vendors, several countries have established public sector agencies specifically to procure systems on behalf of government departments, which have the characteristics of what Mintzberg identifies as *techno-structure*s.[75] Another trend goes in the direction of changing the relation with the vendors, from the client-supplier to the partners' one. Project management tools, as well as new kinds of contracts are used to create and build up this new environment.[76] On the other hand, "the Scandinavian countries have put great emphasis on user evaluation as a means of influencing vendors. By involving court personnel in evaluation workshops, seminars and end-users' focus groups, countries such as Sweden and Finland have helped to build project commitment and push vendors towards providing a better service." [77]

2.3. Technological Infrastructure

The technological infrastructure, and in particular the network infrastructure, has been described as the backbone of office automation, allowing the users to access databases and to transmit data and documents across the organization. During the nineties and at the beginning of the new millennium, countries all around Europe started investing in network infrastructures for the judiciary: LAN within the courts and national virtual private network to connect the courts and the central administrations. Although in some cases such networks have not been developed with a "global strategy", limiting the potentiality given by such infrastructures, most of the courts around Europe nowadays "have their local area network connected to a dedicated wide area network (e.g. virtual private network)"[78]

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[73] The Crown Prosecution Service "has undertaken a new IT programme in partnership with LogicaCMG to outsource the entirety of its network (infrastructure, desktop machines, etc.) over a 10-year contract valued in something in the order of £380 Millions. Called Compass programme, the principle part of this contract was to develop a case management system (CMS) which replaced the older tracker systems by helping lawyers, caseworkers and administrative staff to progress cases through the system while providing case tracking functionality". Iannacci, F. (2007) ICT for Crown Prosecutors' offices: the England and Wales case study

[74] M. Fabri and M. Velicogna (2007) *Information and Communication Technology for Justice*, International Conference on Law and Society July 25-28, Humboldt University, Berlin, Germany.

[75] Mintzberg, H. (1979). *The Structure of Organizations.* Englewood Cliffs, New Jersey: Prentice Hall.

[76] See also: M. Fabri, F. Contini (2001) *Justice and Technology in Europe. How ICT is Changing the Judicial Business*, Amsterdam, Kluwer Law International, pp.17.

[77] M. Fabri and M. Velicogna (2007) *Information and Communication Technology for Justice*, International Conference on Law and Society July 25-28, Humboldt University, Berlin, Germany.

[78] Fabri M. and F. Contini (eds), *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo (2003) p.5

As an example, in 1995, Belgium's courts were connected through a leased lines network to the Ministry of Justice. "At first the connection was limited to the court administrations but little by little courts and tribunals received local area networks. The network was mainly used for some dedicated applications. It did not lead to a systematic electronic interchange of all kinds of information in the judicial system. At the end of the nineties the ICT infrastructure landscape in Belgium was consequently very heterogeneous."[79] In another case, at the beginning of the century, the Irish Courts Service has undertaken a major investment called "Gateway Project". The project has been aimed at the implementation and deployment of a communications systems infrastructure to deliver a number of services planned within the electronic courts initiatives such as e-filing and e-payment. "The Local and Wide Area network infrastructure embrace approximately 1200 staff at over 60 locations throughout the country."[80] The new "Gateway" infrastructure has integrated the existing Judges Intranet into the strategic Courts network infrastructure. The Judges Intranet provides for secure internet e-mail, web browsing and other services.[81]

The results of these infrastructure investments differ from country to country. While some judicial administration seems to have obtained consistent benefits from their investments in technological infrastructures and networks (e.g. Finland), others seems to have made the investments too early compared to the real needs and their applications data exchange capabilities, ending up with expensive, mostly unused and quickly aging systems (e.g. France).

3. ICT and the courts

This section will analyse the technologies developed to improve working practices and to provide better court services. At this level, justice can be conceived as the product of the combined effort of a plurality of actors. Some of these actors, such as administrative personnel and judges, operate within the court organisation, while others, such as lawyers, litigants and witnesses, but also the community and public institutions, constitute the environment within which the court traditionally operates. Firstly the applications in use within the courts will be considered, then the focus will shift to ICT and communication exchange between courts, parties and general public. A useful element to take into account in the analysis is the kind of adoption the different technologies need: individual, organizational, or inter-organizational.[82] The individual technologies are thought to improve the work of single users. If other people around the organization do not adopt it, the performance of the user is unaffected. A typical example of this is the use of word processing application

[79] Dumortier, J. (2003) *Judicial Electronic Data Interchange in Belgium*, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003) p.127

[80] Cadden, A. (2003) *Judicial Electronic Data Interchange in Ireland*, in Fabri M. and F. Contini (eds.), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003) p.271

[81] Ibidem.

[82] Contini, F., (2006). *L'infrastruttura dell'informazione nei sistemi giudiziari*. In: Carnevali, D. Contini, F. and Fabri M. (eds.)Tecnologie per la giustizia, Milano, Giuffrè.

for composition, editing, formatting, and printing of standard correspondence. A court clerk or a judge, with the use of pre-formatted documents, may reduce the time dedicated to this task. The fact that other clerks or judges do not uses such pre-formatted documents or do not uses pre-formatted documents at all make no difference. On the other hand, organizational tools need to be collectively adopted by the organization to perform well. In the use of a case management system for producing notification letters, it make a great difference for the clerk doing it if the staff tasked of the data entry did their job properly. Inter-organizational technologies, in order to produce the expected results, need to be adopted not only by the organizations but also by external actors. It is the case of the provision of information on hearing schedule through court websites. If the court users do not visit the website, the effort of the staff to provide such information through the Internet is wasted.

3.1. ICT within the court

Technologies in use within the court offices can be divided in three groups. The first group consists of basic technologies such as desktop computers, word processing, spreadsheets and both internal and external e-mail for both judges and administrative personnel. The second group consists of applications used to support the administrative component of the court organization, which includes automated registers and case management systems. Finally, the third group consisting of technologies used to support the activities of the judges, such as law and case law libraries, sentencing support systems.

3.1.1. Basic technologies

Basic technologies are standard products that can be easily acquired on the market. They mainly consists of hardware and software used to create, collect, store, manipulate, and relay digital information needed for accomplishing basic office tasks. Diffusion of such technologies started during the '80s, but it is only during the 1990s that many European governments started to supply equipment and office applications to the courts in large quantities and in a more systematic way. In Belgium, "during the early eighties, PC's with word processing software were made available to members of the administrative court registry upon personal request to respond to urgent demands."[83] At the start of the 1990s though, the government start to "invest more substantially in ICT for the courts and the tribunals"[84], starting the so-called "mammoth project", to cover the entire Belgian court structure. Furthermore, within the framework of an ICT promotional project in 1997, all judges were provided of a laptop computer from the Ministry of Justice[85]

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[83] Dumortier, J. & Goemans, C. (2003) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures; Report on Belgium*, XI World Congress on Procedural Law Vienna: 23-28 August 1999

[84] Dumortier, J. (2003) Judicial Electronic Data Interchange in Belgium, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo p.127

[85] Ibidem.

Because of this and other experiences, basic technologies have been widely diffused in the courts all over Europe.[86] Of the 49 judicial administrations considered in this report, 48 in general had (or declare to have had) at least some basic computer technologies in courts in 2004.[87] Furthermore, according to the 2004 data collected by Cepej, of the 47 countries that have replied, 41 had basic computer and word processing facilities in 100% of the courts, 5 in more that 50% of the courts, and only one in less than 50%. As with all the ICT, though, numbers describe only part of the reality. In many cases, such numbers include very old, some time not even functioning machines. More problematic has been the use that has been made of these technologies. Especially in the first phases of introduction of the new systems, the personnel have not been willing or, more often, able to use them. The dissemination of such technologies, when not followed by other actions, such as training and redesign of working practices, has often resulted in a very limited impact on efficiency. Hardware has sometimes become obsolete while still in its packaging.[88] On the other hand, the provision, but most importantly, the active use of basic technologies, is a necessary condition to enable the use of other technologies. This is true in two ways. Firstly, the use of basic technologies allows the people working within the courts to discover what ICT is and to start experimenting with it. This is particularly important as courts have often been characterised by a very low level of technological competence. The mere fact that courts are starting to use computers for drafting and printing simple documents, using e-mail for informal communication and surfing the internet, helps with the sharing of a basic computer knowledge much needed for the adoption of further systems. Secondly, such technologies constitute the "installed base"[89] on which other technological innovations may be implemented. For example, without a computer and an internet connection, a judge cannot access on-line legal information services.

3.1.2. Technologies for the administrative staff

A number of different applications have been developed to support the administrative component of the court offices organization and to automate administrative tasks. The first step has been toward the automation of repetitive

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[86] CEPEJ (2006) - *European judicial systems* - Edition 2006 (2004 data) p.68 Available at http://www.coe.int/t/dg1/legalcooperation/cepej/evaluation/2006/CEPEJ_2006_eng.pdf See also national reports available at http://www.coe.int/t/dg1/legalcooperation/cepej/evaluation/2006/Table2006_en.asp

[87] Switzerland has been included counting as a positive reply. Serbia, which to question 48 replied not to have, in general, computer facilities in the courts, highlights that according to the Ministry of Justice in 2004 there were 3000 computers but that there was a problem of lack of competences and of non efficient use of the resources.

[88] Velicogna, M. (2004) *Local Initiative in Hyper-regulated Organizations: A Frail Way to Innovation*, PISTA conference, Orlando, 21-25 July.

[89] O. Hanseth et al., *Theorizing about the design of Information Infrastructures: design kernel theories and principles.* work in progress, available at: http://heim.ifi.uio.no/~oleha/Publications/ISRinfrastructurefinal05-12-05.pdf O. Hanseth et al., (2006) *Developing information infrastructure: The tension between standardization and flexibility.* Science, Technology and Human Values, no. 21, pp. 407-426.

and executive tasks. In this regard, automated registers are one of the technologies that "revolutionised" the court offices activities. Traditional court docket books and other court registers that have been "computerized" are one of the pillars of the court activities. They are generally huge books that need to be kept to not only formally comply with procedural rules, but also for the functions that such tools perform. They are a guarantee that the formal procedure has been respected, and allows a review of the status of a case without having to physically access and read the case file.[90] On the other hand, paper docket and other register books are cumbersome tools and present many limitations due to their physical nature. Some of the big advantages of automated registers are the possibility of multiple synchronous data entry, the reduction in the need of entry the same data again when adjourning the file and the data retrieval functionalities. Some activities are now totally automated. In many cases there is a reduced need for manual data entry as the systems automatically populate some of the database records (e.g. automatically recording the date of the registration or automatically assigning a case to a judge). Data retrieval functionalities have also been improved. Lawyers can easily observe the difference when asking for information on case status from a clerk. If automated registers are well kept, the clerk can now provide the information with a few taps of the keyboard. He or she does not need to go searching through the pages of the court docket books.

The diffusion of case tracking systems is clearly a wide and consolidated phenomenon. In 2004, according to the data collected by Cepej, of the 45 countries that have replied, 25 had case tracking systems in 100% of the courts, nine in more that 50% of the courts, five in less than 50% and six in less than 10%.[91]

Although today they are often given for granted and well integrated in the court practices, in many cases their introduction has been all but easy and plain. The development of these applications was often carried out locally, in many cases to meet specific and urgent business needs within specific offices, or within ad interim pilot projects (e.g. Italy,[92] Ireland[93], Belgium[94]). "As an agent of automation similar to the machines introduced by manufacturing firms during the industrial revolution",[95] the purpose of this technology is to improve "efficiency through the automation of human activities within work processes."[96]

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[90] McMillan, J.E. (1995) *Case Management Systems: The Four Bubbles.* available at: http://www.ncsconline.org/WC/Publications/KIS_ CasSysCTB1995McMillanPub.pdf p.5

[91] Data concerning "the former Yugoslav Republic of Macedonia" has been included to the one provided in the Cepej Report "European judicial systems – Edition 2006 (2004 data)". Data concerning Moldova, Montenegro, San Marino and Switzerland is missing.

[92] D. Carnevali, F. Contini e Marco Fabri (eds) (2006) *Tecnologie per la giustizia. I successi e le false promesse dell'e-justice*. Milano, Giuffrè, pp. 99-113

[93] This seems to be the cases for the interim Civil Case Management systems developed and implemented in the Dublin Circuit Civil Court office, the Wards of Court office and Dundalk Circuit Civil Court office. The Irish Court Service Annual Report 2000 p.77.

[94] Dumortier, J. (2003) *Judicial Electronic Data Interchange in Belgium*, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends,Bologna, Lo Scarabeo (2003) p.126

[95] Contini, F. Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* draft, p.2

[96] Ibidem

Developed to substitute paper based registers, automated registers were often introduced in offices where people had worked all their life with paper, pens and stamps and where the "modern technologies" were photocopy and faxes machines. In many cases and for a long time after their introduction, automated registers did not substitute the paper based ones as official documents, thus requiring clerks and administrative personnel to deal with parallel procedures and the duplication of work. In 1999, in Belgium, after several years of efforts, "the introduction of electronic internal documents has not suppressed the paper-based system yet: documents are currently processed electronically and on paper, even in cases where there would be no legal obstacles to suppress the paper based version." [97]

An evolution of the automated registers is the case management systems (CMS). Such applications are not limited to provide an electronic copy of the paper-based register but introduce functionalities to help the management of the cases. Some examples are functions that automatically advise the administrative personnel of incoming deadlines or events linked to a specific case, such as hearing or automatic systems for scheduling of the first hearing. Richard Susskind[98] identifies several categories of applications that are called case management systems. In particular:

- management information systems used to help (politicians, officials, judges and others) to monitor the throughput and performance of our courts;
- case administration systems, to support and automate the back-office, administrative work of court staff;
- judicial case management support systems, being the systems used by court staff with case tracking, case planning, and document management to support judges activities;
- non-judicial case management, to help court staff progress those many cases which are not disposed of judicially. Increasingly, the trend is toward the integration of such systems or the creations of applications that incorporate all these functions.

Given their higher complexity, they are often the product of a more strategic approach, on the base of the experiences developed with the automated registers. Accordingly, the introduction of case management systems has often coincided with the attempt to standardize ICT applications already in place and to integrate existing databases were often made. A top down approach has often been used for the development and diffusion of the newer and more advanced applications. In many cases, resistance to the use of these applications has come from the courts. This cannot be dismissed as a simple case of resistance to innovation typical of burocratic administrations and public institutions. Courts that already used their own systems had them customized to their needs (to fit with court internal organization, caseload and user

[97] Dumortier J. & C. Goemans; (1999) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures; Report on Belgium*, XI World Congress on Procedural Law Vienna: 23-28 August 1999

[98] Susskind, R. (1999) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures: Report on England and Wales* Available at http://ruessmann.jura.uni-sb.de/grotius/english/Reports/england.htm

characteristics etc.) and had developed skills and practices that the introduction of a standardized tool would disrupt. While local initiatives had been grown locally and nurtured by enthusiasts, the new applications were introduced as off-of-the-shelf, un-customisable, plug and play systems that were often unable to fit in the local practices and therefore were often not used. Furthermore, the issue of the information stored in the old (often non relational) databases should not be underestimated. In many cases, courts just didn't have the resources to re-enter all the data into the new system neither had the resources of keep both system working. Also in the cases in which data migration from old applications to new ones were attempted, often the results were only partial successes and did not solve the problem.

Numbers on the diffusion of such systems provided by the Cepej country reports give an indication of the higher complexity and of the growing problems that have been faced. Of the 41 countries that have replied on this topic, only seventeen had case management systems in 100% of the courts, twelve in more that 50% of the courts, four in less than 50% and eight in less than 10%.[99]

Office automation functionalities have been developed to use the data stored in the databases of both automated registers and case management systems. Typically, the application allows the user to automatically generate standard documents extracting data such as name of the parties, general register number and dates directly from the database. Some applications are integrated with word processing software such as Microsoft Word or WordPerfect, allowing the user to customize the template. In most cases, such documents are printed, signed and sent by mail or by other means of transmission. In the Finnish case, where no signature is required, the document is sent electronically to the post office, which prints it and delivers it physically.

In some cases, applications have been developed to speed up the data entry in the databases. It is the case of systems based on OCR recognition of standardized paper-based forms that have to be printed by the parties. In the case of the court of first instance in Milan, Italy, software to create a barcode has been developed and provided freely to the lawyers. The court staff uses an optic scanner to entry the data in the case management system. Incentives to the use of such software have been provided, but an evaluation of the functioning of the system is not available yet.

Several tools for the automatic extraction of statistical data from the automated registries and CMS have been developed but in many cases statistics are still manual. In Ireland, The Courts Service is implementing a number of strategic systems, which will provide future management and executive information data across the organization. The Courts Service has also completed the definition of a number of key performance indicators for the Service. In Finland, all the case management systems and the courts decision system produce information and reports automatically for the use of the courts and the ministry. An extensive project to plan and build a datawarehouse (DW) for the purpose of planning and manage the legal system has been implemented. "The information for the datamarts or the datawarehouse is copied from the operational system using an ETL-tool (extract, transform, load) and a report

[99] Data concerning Iceland, Liechtenstein, Moldova, Monaco, Montenegro, San Marino and Switzerland and "the former Yugoslav Republic of Macedonia" is missing.

generator is used to access the information or to build reports. The courts already have the datamarts (smaller databases per sector) ready for use. The same information is available for the ministry for planning purposes."[100]

In Croatia, within the project for the development and national implementation of the Integrated Case Management System (ICMS) there is an attempt to develop a statistical system capable of detecting the reasons for the backlog in the courts. Statistical and management reports should be automatically produced. Data collection should take place during all relevant workflow stages of a case. The nation wide roll out of the system is expected to be in 2008/2009. At present the ICMS is in preproduction in two pilot courts. As interim solutions, to support the still manual statistic activity, two ICT tools are being developed. The Supreme Court is implementing a web application to collect data to monitor the backlog in all courts. A second web application, E-Statistics, has been developed by the Croatian Ministry of Justice to collect, process and publish court data. It is based on the new legal framework-criteria for judges and provides information on whether the minimum output standards have been met. At present, both applications require the manual input of data. In the future, though, these two tools should be linked to the ICMS database in order to get the data to produce their standardized reports.

In some cases, systems to automate the allocation of cases have been developed and integrated in the case management systems. This is particoularily important in countries with corruption and transparency problems. In Slovakia, for example, an application "which allows the random allocation of civil and commercial cases"[101] has been developed starting from a pilot project in 1999.[102] "All courts in Slovakia are now required by law to use the random assignment of cases, thereby reducing the opportunity for arbitrary action and helping to ensure that the country's judiciary is beyond reproach."[103] Data seems to show that the system improves not only the transparency but also the efficiency of the service and help reducing the delays as information about the case number and the judge is provided within 3 minutes from the filing of the case.

Apart from automated registers and CMS, which are certainly the most relevant, a number of other applications for information and communication technologies have been developed. Some of these applications have a more strategic focus. For example, the provision of management information and statistical reporting can play an important role in the organization and administration of court offices. For this purpose court management systems, or at least statistic packages, that uses the data of the automated registers and of the case management systems, have been developed in most of the countries considered. Furthermore, as the operation of the Courts generates a significant volume of financial transactions including, fines, bails, fees, etc. Courts acquire

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[100] Kujanen, K. and M. Riitta (2003) *Judicial Electronic Data Interchange in Finland*, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003) p.205

[101] http://ec.europa.eu/enlargement/fiche_projet/document/2004-016-764.03.01%20Judicial%20system.pdf

[102] ibidem.

[103] Microsoft (2003) *Slovakia Ministry of Justice Court Case Management System Speeds up Justice and Reduces Perception of Corruption*, http://download.microsoft.com/documents/customerevidence/6531_Slovakia_Final.doc

goods and services and in some cases also hire personnel, in several countries software applications have been developed or are under development is several countries to help processing and accounting for such transactions. In Ireland, for example, the Courts Accounting System (CAS) has been piloted in a small number of District Court offices. Moreover, it is now being extended to all the 44 District Courts.[104]

In other cases, applications have been developed to solve more limited problems. In several courts, various systems have been developed to keep track of the physical location of the case folder. In some cases, Excel spreadsheets have replaced informal registers used by the clerks to record the passage of the documents. In other cases, more sophisticated approaches have been used.[105]

Several court offices have introduced procedures in order to scan both the documents filed to the court and the court judgements. This allows the creation of an electronic docket in the first case and archives of digital judgments in the second. A limit to this technique is the limited reusability of the data contained in the documents. Although these procedures often generate a burden to the court, they may produce efficiencies in cases frequent photocopying is required or when a scanned document can be stored in place of a paper one.

Some applications have been developed only in countries that have specific institutional settings. Automated jury selection tool have been developed by countries that uses such institution. Traditionally, in countries, which use juries, the selection and management of jurors has been a time consuming manual process in the hand of the court clerk. Applications to automate such activities have been implemented. In Ireland, for example, the Courts Service has several stand-alone systems in place for the purpose. At the moment there is also and undergoing project for the development of an unified system. The system should "assist the court clerk to track and monitor attendance, assign jurors to panels, print badges, panel lists, court information etc."[106] Furthermore, "The system should also provide the capability to identify non-attendees and the subsequent follow-up process." [107]

Finally, a number of other systems provide support to ancillary but time-consuming functions that in different countries are assigned to the courts. In many cases, stand-alone low-cost applications have been locally developed and implemented to speed up the work. In Finland for examples, courts tasks include registration of titles and mortgages over real property. Such registrations are made on court automated systems. The data is then automatically forwarded to the other interested authorities. In Estonia, Registration departments of courts keep registry cards electronically since 3 March 2002.[108] The service is provided by a state agency working under the

[104] ICT Strategy 2006-2010 for the Courts Service p. 31
[105] In Milan, a pilot project that uses a radio-frequency identification (RFID) has been implemented to avoid the loss of documents. An RFID tag is attached to the folder, allowing its identification and tracking using radio waves.
[106] ICT Strategy 2006-2010 for the Courts Service p. 30
[107] Ibidem
[108] https://ar.eer.ee/index.py?lang=eng&sess=877487273479347776639614024449430593601476672390803561310929638 5

Ministry of Justice, the Centre of Registers and Information Systems (RIK).[109] "A register entry which has been electronically certified in the registration department of a court enters into force as from the moment when it has been saved in the central database or ship register database administered by the Centre of Registers and Infosystems".[110] Furthermore, a "register entry has legal effect with respect to third parties as from the moment when data about making the entry (dates of submission of the application, making the entry order and making the entry, etc.) has been published under the Menetlusteave menu on the homepage of the Centre of Registers and Infosystems."

3.1.3. Technologies for supporting judges

As judges perform the court's core activity, it should not be surprising then that plenty of applications have been designed to support and automate their tasks. At the same time, this area of ICT innovation has always been particularly sensitive. Moves to introduce new technologies may radically affect the very nature not only of the organization of the justice administration, but, in some cases, also affect the exercise of the jurisdiction itself. It then may become a problem of judicial autonomy and independence.[111] Consequently, the adoption of a new tool may also depend on the choice of the single judge to do so. While this may produce positive results with individual tools, it often generates problems with technologies that require organizational adoption. Furthermore, due to their functional independence, judges often develop very individual working practices. The plurality of working practices dramatically increases the complexity of the task of providing organizational tools that take them all into account. In general, organizational tools tend to require standardization. This, in turn, may lead to a higher resistance to the use of such technologies. For this reason, while many of the tools described in the previous paragraph are "organizational tools" most of the technologies for supporting the judges' activity are "individual tools".

ICT supports the work of the judges in several areas, including organization of the activity, information management and retrial, document production and decision-making. One of the aspects of the judges activity that has been probably most affected by the use of ICT is the legal research. Several support systems, ranging from cds to local intranets databases to the Internet services, provide access to constitutional material, laws, appellate decisions, rules, statutes, local ordinances and more. According to Cepej data,[112] in 33 of the countries that have replied to the question, in 2004 Electronic databases of jurisprudence were available to judges in 100% of the courts and in other five cases in more than 50% of the courts.

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[109] http://www.eer.ee/index_eng.phtml "RIK's main function is to develop and administrate the registers and infosystems in the government area of the Ministry of Justice and to provide communication and info technological services" ibidem

[110] Registration Departments, http://www.just.ee/6907

[111] On the subject see: A.H.J. Schmidt, 2006, IT and the Judiciary in the Netherlands http://weblog.leidenuniv.nl/fdr/elaw/publicaties/IB LT%20Final-3.pdf

[112] Cepej Report "European judicial systems – Edition 2006 (2004 data)", Cepej Studies No. 1

Conducting on-line legal research and surfing the growing number web sites has become more and more part of the judge's daily activity. In Ireland for example, the "Electronic Bench book is a Lotus Notes application, updated on an ongoing basis, with various rules, statutes and regulations." through this system "Judges have on line access a number of sources of electronic legal information services, Butterworths, Lexis-Nexis and Justis.Com". In England and Wales "eLIS (electronic Library and Information Services) provides legal information for the judiciary, the DCA and the Her Majesty's Courts Service. It also provides a portal service to key legal information on the Internet." It provides information in the following areas of law: United Kingdom, Human Rights, European, International; subject areas: Current Awareness, Legislation and Treaties, Case Law, Commentary, Organisations.[113] The Italian Centre of Documentation of the Supreme Court provides free online access to the database of the jurisprudence of the Supreme Court, of the Consiglio di Stato, of the Corte dei Conti and of the sentences of the Constitutional Court and the European Court of Justice to the judges.

Another important innovation is the use of e-mail and forums and areas to share electronic documents. Although e-mail technology has been diffused between the judges all around Europe, in most cases it is used as an informal mean of communication. This is mainly due to the fact that, in many countries, the law requires both certified e-mail and digital signature for official communications (e.g. Belgium, France, Greece, Italy).[114] In most of the cases, such technologies are not provided, while several countries have pilot projects experimenting such technologies (e.g. Belgium, Italy).[115] Forums and discussion groups in which judges can "virtually" meet and discuss about legislation, procedures and cases, have been an important development. In some cases, with the reductions of the opportunities for judges to work in panels (e.g. in the Netherlands), electronic forums and discussion groups have been thought as a tool to provide an opportunity for judges to share information and receive support (and training).

Some efforts have been made to produce applications to support the judges in drafting judgments. In many cases, standard decisions models are pre-programmed in the computerised system. Data used in the course of litigation and stored in the automated registers or in CMS (such as the name of parties, of attorneys, facts, procedure) can be automatically retrieved. In Finland, the case management system (Tuomas) allows the judges to access the data contained in the documents the courts receive to produce decisions. Tuomas database and the document editors are integrated. This is particularly useful because 65% of the documents filed to the court are electronic documents. They are structured so they can be stored in relational databases and their information can then be used. However, such experiences have not always been so successful. In Italy, an application has been created to support the writing of sentences and court orders, their classification and their retrieval

[113] http://www.hmcourts-service.gov.uk/elis/35.htm
[114] Cfr. Fabri M. and F. Contini eds. (2003) *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends,* Bologna, Lo Scarabeo
[115] Ibidem.

(Polis).[116] Despite the great effort made by the IT Department of the Ministry of justice, only a few judges used the tool..

Another direction that ICT investments have taken is the development of sentencing support and automated judgment systems. These systems should help improving the quality and timeliness of judgements, and leading judges to impose sentences that are more consistent over time.[117] One of the most successful examples is the Sentencing Information System for the High Court of Justiciary of Scotland.[118] The system "uses computer technology to allow sentencers quick, easy access to relevant information about past sentencing of the court in 'similar' cases, without placing any formal restrictions on the exercise of judicial discretion".[119] In general, however, the development of such systems seems to pose serious problems. This is probably related to the nature and complexity of the tasks compared to the present state of technologies.[120] "The experience of the various judicial systems (and even within a given single system) shows that judicial decision-making includes an almost infinite range of variations in the craft of sentencing itself."[121] The complexity, variability, flexibility and discretion that are typical of judicial decisions[122] are not easily tackled by computer-automated systems. Only in the most simple cases computer automated decisions are possible[123] and even then, human contribution and supervision are still required.[124]

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[116] Minerva, an application developed to simplify and support prosecutors' routines activities and the management of case files

[117] Scottish Summary Justice Review Committee, *The Summary Justice Review Committee: Report to Ministers,* 2004 pp. 208-211, available at: http://www.scotland.gov.uk/Resource/Doc/47171/0031637.pdf

[118] ibidem.
U.J. Schild, (1998) *Criminal Sentencing and Intelligent Decision Support*. Artificial Intelligence and Law, No.6, pp.151-202.

[119] Sentencing Information System for the High Court in Scotland, available at https://www.cis.strath.ac.uk/research/e-communities/dim.html

[120] Cfr. D. Carnevali, et al. (eds.), (2006) *Tecnologie per la giustizia. I successi e le false promesse dell'e-justice*, Milano, Giuffrè

[121] M. Taruffo, (1998) *Judicial Decisions and Artificial Intelligence*. Artificial Intelligence and Law no. 6, pp. 311-324. According to the author, "the factors influencing the ways in which judicial decisions are made are numerous and include for instance the format and size of the court (single judge or panels, and so on), the composition of the court (professional and/or lay judges), several procedural rules, the factual circumstances of cases, the form and content of the substantive rules governing the case, the evidence available and the methods and standards used to decide on facts according to the proofs and to solve legal issues according to the relevant rules and principles." p.311.

[122] Ibidem, p.316.

[123] Cfr. R. van den Hoogen, (2007) *E-Justice, Beginselen van Behoorlijke Elektronische Rechtspraak*, available at: http://www.e-justice.nl/ p.153.

[124] Lanzara et al. (2007) *Gli e-services per gli uffici giudiziari* Tecnologie della informazione e della comunicazione per la giustizia conference, Rome, 23 March 2007, available at: http://www.radioradicale.it/schede/view/id=221211/

3.2. ICT and communication exchange between courts, parties and general public

This section deals with the judicial data interchange between courts and the network of actors with whom the courts interacts performing its institutional functions. Through the use of ICT, "information in court records can now be 'broadcast' by being made available through the Internet. Information in electronic records can be easily compiled in new ways. […Entire databases] can be copied and distributed to others."[125] It is not a case that all European countries studied have made some effort to improve smoothness and rapidity of services and communication between the courts and their users promoting the use of electronic data and documents transmission.[126] How this exchange has been implemented, though, differ quite widely from case to case. In order to better analyse the phenomenon, a distinction will be made between electronic information provision (court to the world general information provision and informal communications) and official electronic communication (E-filing, Official Communications and Trial On-line - world to the court and two way official communications)

3.2.1. Electronic information provision

The more widespread method for provision of electronic information is the use of Internet websites. In 2004, according to integrated Cepej data, official internet sites/portals providing the general public access to legal texts, case-law of the higher courts or other documents such as legal forms were present at national level in almost all countries.[127] 47 countries had (or declared to have) internet websites providing such information. Of the respondents, only Greece declared to have none of these websites while Monaco noted that, while not available yet, such systems were under development.

At court level though, the situation was more diversified. Only 18 countries out of 44 countries that replied to the question had websites in 100% of the courts, five in more than 50%, seven in less than 50% and fourteen in less than 10%.[128] The numbers related to provision of electronic forms to be downloaded and of other electronic communication facilities are even lower.

Four core elements have proven to be very useful in analysing and comparing the electronic exchange of information between courts and other parties through the Internet. These elements are: organization of the web service provision, access to information (graphics, structure etc.), users (people,

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[125] Martha Wade Steketee, Alan Carlson (2002) *Developing CCJ/COSCA Guidelines for Public Access to Court Records: A National Project to Assist State Courts*, National Center for State Courts and the Justice Management Institutep.1

[126] The Finnish Act on Electronic Services and Communication in the Public Sector 13/2003 clearly states such effort. Similar documents can be found in other countries legislation and acts.

[127] Cfr. Question No. 20. For Switzerland information has been integrated with data from Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003).

[128] Question 49. Data from Estonia, Liechtenstein, Moldova, San Marino and Switzerland is missing.

parties, lawyers, experts and other frequent users) and content (service typology).[129]

The organization of web information provision by courts varies widely across Europe. In some cases, web information organization and provision is centralized, with the highest courts, ministries of justice, and judicial councils playing a prominent role. In other cases, information provision is delegated within common frameworks. Finally, in some cases, complete freedom and local initiative are the rule. In Austria for example, "single court web sites are not allowed and information about the courts is made available only through the official web site of the Ministry of Justice."[130] In The Netherlands, the judicial council website provides a single point of access to information on courts, judicial organization, functions and processes. The court offices use a single template to create a standard graphic and content disposition. In this way, minimal discrepancies between court websites in terms of content presentation, i.e. shapes, colours and font sizes are allowed.[131] In other countries, such as Belgium and France, each court can develop its own web site, following the guidelines established by the Ministry of Justice. In Belgium, within this framework, "the Ministry of Justice has always been very anxious to permit the decentralised development of websites by individual courts and tribunals. To keep things coordinated a central portal has […] been created on the website of the Court of Cassation.[132] Under this portal the various courts and tribunals have the possibility to build and to maintain their own website following a common, but more or less open template. Courts and tribunals are starting to make use of this possibility and begin to develop their own websites."[133] In some other countries (e.g. Finland, Italy), courts can create their own web site without following any specific rules.

As access to information is concerned, the European landscape is quite heterogeneous both between countries and within them. The Dutch e-judiciary, for example, provides a single point of access to information on courts, judicial organization, functions and processes. The use of a template creates a standard graphic and content disposition, which allows minimal discrepancies between court websites in terms of content presentation, i.e. shapes, colours and font sizes. In other cases, the graphics of court websites vary from very simple ones, some even archaic, to good quality ones, relatively fresh and modern, thanks to ongoing work of restyling and renewal. The possibility for users to find the information they are looking for and reliability of such information can vary a great deal from case to case. In more than one of the

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[129] Velicogna, M. and G.Y. Ng (2006) *Legitimacy and Internet in the Judiciary: A Lesson From the Italian Courts' Websites Experience*. International Journal of Law and Information Technology Advance Access published on June 22, 2006 Int J Law Info Tech 2006 14: 370-389; doi:10.1093/ijlit/eal009

[130] Fabri M. and F. Contini (eds.), (2003*) Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo p. 7

[131] Velicogna, M. and G.Y. Ng (2006) *Legitimacy and Internet in the Judiciary: A Lesson From the Italian Courts' Websites Experience*. International Journal of Law and Information Technology Advance Access published on June 22, 2006 Int J Law Info Tech 2006 14: 370-389; doi:10.1093/ijlit/eal009

[132] http://www.cass.be/pyramide_fr.php

[133] Dumortier, J. (2003) *Judicial Electronic Data Interchange in Belgium*, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003) p.128

observed cases, the lack of a linear logical structure of access to specific contents can mislead the user, thereby generating a consistent waste of time.[134]

Judicial institutions and courts interact and exchange information with in order to provide their services or because they are seen as their stakeholders (lawyers, parties, population in general etc.). "Different groups of users have different information exchange needs. Furthermore, different groups have different technical and legal competences. Specific phrasing and short hand conventions employed by specific groups of users to facilitate communication with the court, on the one hand allows easy exchange of information between those groups and the court, but on the other hand, creates a barrier to access to other groups who do not use these short hand conventions or specific jargon".[135] In some cases all the information are provided through multipurpose websites (portals), while in other cases there has been a trend toward focusing on providing services dedicated to specific groups of users.

Information provided by judicial websites can be divided into four typologies with respect to their content: general information, information on court activities and organization, legal information, and case information.[136] General information provides details on the mission, addresses, and opening hours, possibly some official documents of relevance to the public. Other services could include search capabilities, host forms and applications to download, and links to other sites, as well as e-mail addresses of offices, court administrative personnel and, more rarely, judges. In England and Wales through CJS Online is it possible to make virtual 'walk through' tours of Crown Court centres around the country.

Information on court activities and organization provides data on statistics of the courts' productivity, different divisions, organization of the work, and publication of judgments. A very limited number of websites provide this kind of information. Typically, higher courts, Ministries of Justice, Judicial Councils and Court Services websites provide such data.

Legal information can be divided between general, specific and case law. General legal information concerns general rules, procedures, practices, examples of forms or pleadings for the guidance of litigants, the explanation of terms and documents used in court process etc, which can be applied to each and every court.[137]. Although many websites provide forms for downloading, only a limited number of them provide more detailed information on completion of forms or on general court procedures. Furthermore, although many court websites provide electronic forms to be filled, usually the forms have to be printed out and submitted in paper format (e.g. Belgium, Italy). The second kind of legal information, case law, provides online access to decisions databases. While information related to legislation, court procedures and practices is generally free of charge, for case law it is not always the case. Some countries

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[134] Velicogna, M. and G.Y. Ng (2006) *Legitimacy and Internet in the Judiciary: A Lesson From the Italian Courts' Websites Experience*. International Journal of Law and Information Technology Advance Access published on June 22, 2006 Int J Law Info Tech 2006 14: 370-389; doi:10.1093/ijlit/eal009

[135] Ibidem, p. 381

[136] Ibidem.

[137] Greacen, J.M. (2001) *Legal Information Vs. Legal Advice, Developments During the Last Five Years.* The Judicature 84, 4 p.198-99

offer free of charge and free access case law (e.g. England and Ireland, BAILII; Norway, Lawdata) but other countries restrict the access to specific categories of users through technical means (e.g. lawyers in the case of PolisWeb in Italy) or require the anonymization of the parties, such as in Belgium, Finland, France, Germany, Greece, Italy, and Spain.[138] For example, through the website of the Court of Appeal of Antwerp[139] it is possible to search a selection of decisions and sentences of Belgian courts and tribunals, using various criteria such as index terms, article numbers or dates. The selection is made by the documentation centre of the Court of Cassation.[140]

Case information provides information contained in docket reports, case files, indexes, and other court documents. In the few cases in which this kind of service is provided, for security reasons access is usually allowed to mirrors of court databases to consult court registries and/or sentence archives.

Several courts in several countries provide public to access the court schedule in order to see when a particular case will be dealt with. Due to privacy issues, in general, the data is provided without mention of the names of the parties. Reference is often made to the enrolment number. In England and Wales XHIBIT, a computer system introduced "to improve the daily business of Crown Courts in England and Wales by providing quick access to hearing information for those who need it. XHIBIT enables member of the public such as victims and witnesses, together with professionals such as the police, barristers, solicitors, the probation service and the Crown Prosecution Service to view a hearing's progress. Potential benefits of the system include fewer unnecessary case adjournments, fewer ineffective hearings and an improved experience in court for witnesses."[141]

In Austria, the public "is able to get access to the Austrian Land Register, the Austrian Company Register, the Legal Information System, the Edicts Database and the Database for Auctions for Real Estates. Only lawyers are additionally able to do a query at the data base of enforcement cases." In Italy, the service *Sentenze on line* allows the lawyers of the Milan bar association, to receive communication of the publication of civil sentences of their cases by e-mail. The downloading of the .pdf files of the sentences is also allowed. However, according to the law, such copies downloaded cannot be considered legally binding , but they still have to be provided on paper by the court. Since 1st January 2007 the download require smart-card and digital signature while before only an user ID and password were required.[142]

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[138] Contini F. and Fabri M. (2002) *Judicial Electronic Data Interchange In Europe*, Bologna, Lo Scarabeo.

[139] http://www.cass.be/beroep/antwerpen/index.htm

[140] Dumortier, J. (2003) *Judicial Electronic Data Interchange in Belgium*, in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo, p.128

[141] http://www.judiciary.gov.uk/about_judiciary/judges_it/index.htm

[142] Interesting to notice, the passage from id and password to smart card does not seems to be linked to concrete security issues. Furthermore, smart card are still being diffused and not many lawyers in Milan have them.

3.2.1.1. Other means of electronic communication

Electronic informal communication exchange is not limited to the Internet. Even though "technological innovations have resulted in more court records being available in electronic form and permit easier and wider access to the records that have always been available in the courthouse",[143] other alternatives have been adopted in cases in which normative restrictions and privacy issues do not allow the publication of sensitive information on the web, or where remote public access to the information in electronic form seems inappropriate. In Finland, the electronic records of the courts cannot be made available online. On the other hand, the information of the case (docket) is regarded by law as a public document. The solution is simple: "any person can have an access to the public information in the case management systems in the courts using dedicated workstation located in the courts." Although not as confortable as consulting the data directly from home, this solution help saving time both to the user and to the court personnel.
The Court Service in England and Wales began a pilot project in 2000 for the development of an Information Kiosk. Partners in this joint venture are a local Council and its ICT supplier, the Libraries Department, a local university; the Citizens' Advice Bureau (CAB) and the Court Service. The kiosk "is a touch-screen information facility providing information about the Court Service and, ultimately, the local authority. There are also audio and video links to the local CAB."[144] It contains electronic versions of civil forms & leaflets currently issued by courts that are presented on-screen to the kiosk user. If necessary, those forms and leaflets can be printed and taken away. Kiosk users unfamiliar with legal terminology can also search using an A-Z index facility.[145]

3.2.2. Official electronic communication

In judicial proceedings, the formal communication between the court and parties is generally "paper based and rooted on a complex set of formal rules, work practices and local adaptation and it is strategically used by the parties in an attempt to gain some advantage in the trial."[146] In the last decade, judicial administrations around Europe have examined the feasibility of providing court services electronically. Specific areas being considered include the electronic payment of fines, electronic filing, electronic means for notification and communication to attorneys and parties and full electronic trial. Many countries have launched pilot projects. The aim of these projects "is in fact to radically

[143]Steketee, M.W, Carlson A. (2002) *Developing CCJ/COSCA Guidelines for Public Access to Court Records: A National Project to Assist State Courts*, National Center for State Courts and the Justice Management Institute, p.1
[144] http://www.hmcourts-service.gov.uk/docs/9900titlepg.pdf
[145] Timms, P.; Plotnikoff, J. & R. Woolfson (2003), *Judicial Electronic Data Interchange in England and Wales* , in Fabri M. and F. Contini (eds), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo
[146] Contini, F. and Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* Daft, p.8.

change the paper based infrastructure underlying the formal communication exchange within judicial proceedings." [147] In theory, where e-justice is implemented, a lawyer, using a computer from work, home or even from a vacation location, can electronically file a claim, get information on a case, receive court e-notices, download electronic documents concerning the case. He or she can search for the next court appearance in a case, of the occurrence of a number of relevant events on the cases she is following, or be automatically remained by the court of any impending deadline. The court front office became open 24 hours a day, 7 days a week, both for the consultation and for submission of documents. In some cases attention has been focused on small claims and on simple, undisputed debt-recovery cases, for which simplified procedures could be designed and which at the same time often constituted the most numerous cases dealt by first instance courts (England and Wales, Finland, Ireland[148]). Despite the efforts and the large amount of resources often invested, "all over Europe these projects are faced with difficulties and unsolved problems. Only Money Claims on Line in England (Woolfson and Timms, 2003), the Austrian Electronic Legal Communication System (Bauer, 2001), the Finnish *Tuomas* and *Santra* (Kujanen and Sarvilinna, 2001), and more recently the Automated order for payment procedures in Germany (Justizministerium, 2006) are currently using ICT solutions, that can be envisaged as e-justice."[149] In many other cases, things are moving at a slower pace. In the Netherlands, for example, while in everyday practice, many of the communications between the parties and the court are conducted through electronic means, the Minister of Justice is still "discussing with the Council of the Judiciary whether, how and under which conditions electronic communication with the courts should be made legit formally".[150]

Several judiciaries that have attempted to provide official e-communication have generally followed one of two paths: one aimed at simplification (on the one hand with the selection of simple procedures, on the other with procedure simplification), and a second aimed at reproducing paper based formal procedures in a full trial on-line. "In judicial proceedings the exchange of communication is still paper based and rooted on a complex set of formal rules, work practices and local adaptation and it is strategically used by the parties in an attempt to gain some advantage in the trial."[151] The first approach is aimed at reducing the complexity of the system before trying to develop and implement the technology. In the second case, instead, the effort is centred on translating all the complexity of the paper-based trial in to the electronic one. Successful examples come generally from the first approaches while, except for the Austrian case, never ending piloting and mounting costs seems to characterize the second.

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[147] Ibidem, p.3

[148] http://www.hmcourts-service.gov.uk/onlineservices/mcol/index.htm; Kujanen (2004) *E-services in the courts in Finland*, Presentation at the seminar on law and informatics in Berne; The Irish Court Service Annual Report 2000

[149] Contini, F. and Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* Daft

[150] Schmidt, A.H.J. (2006), *IT and the Judiciary in the Netherlands* http://weblog.leidenuniv.nl/fdr/elaw/publicaties/IBLT%20Final-3.pdf p.7

[151] Contini, F. and Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* Daft p.8

A third path is emerging from recent experiences in some other countries such as Estonia, Slovakia and Turkey. This path is characterized by an ICT development and implementation coupled to structural changes in both the legal framework and the organizational structure. An important element in this approach is the strong pressure toward an actual change that is exercised at national and international level. This pressure is linked also to the international support these countries (e.g. Slovakia, Albania) are receiving and to the outcome assessment and evaluations such support is subordinated. Although promising, given the short time span since when such experiences are taking place, it is still too early to have a definitive evaluation outcomes of this approach.

3.2.2.1. Official electronic communication through simplification

A first attempt to deal with the complexity of designing and implementing the electronic exchange of formal electronic documents seek to semplify the task focusing on tracks characterized by simple procedures and a large number of cases. This is the choice made in England and Wales with Money Claim Online (MCOL). Using this system, "claims and responses to the court can be made electronically using the Internet"[152] Money claims are in general simple and homogeneous cases. Furthermore, a number of conditions that reduce the complexity have to be met in order to start or proceed with an electronic claim. In order to start a claim, the only remedy claimed must be a specified amount of money, of less than £100,000, the procedure under Part 7 of the Civil Procedure Rules (CPR) must be used; the claimant can not be a child or patient; or funded by the Legal Services Commission; the claim must be against a single defendant; or two defendants, if the claim is for a single amount against each of them; the defendant is not the Crown; or a person known to be a child or patient; and the defendant's address for service is within England and Wales. The respondent is notified by post of the claim that has been made against him and may decide to respond to the claim using this online service or, alternatively, the response pack. In any point of the procedure, if the case fails to meet the simplification requirements, it moves from the electronic track to the traditional, paper-based one. This method, while providing a service to a large number of court users, selecting a relatively simplified functional environment,[153] dramatically reduced the task complexity the technology has to deal with and consequently, the difficulties of its development and establishment.[154] The development of MCOL was also simplified and made possible by the presence of an already established technological infrastructure, and in particular by the presence of the County Court Bulk Centre (CCBC). The CCBC, which become the administrative-technological backbone of MCOL, had been in place for over 10 years.[155]

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[152] http://www.hmcourts-service.gov.uk/onlineservices/mcol/index.htm
[153] N. Luhmann, (1993) *The sociology of risk*,; N. Luhmann, (1995) *Social system*; J. Kallinikos, (2006) *ICT in Justice: The case of Money Claim Online Service in England and Wales*, Workshop on ICT and Justice, Bologna, 7-8 April 2006.
[154] Kallinikos, J. (2006) *ICT in Justice: The case of Money Claim Online Service in England and Wales* Workshop on ICT and Justice, 7-8 April 2006, Bologna, Italy, pp.43
[155] ibidem, pp.18-19

A second path, somewhat related to the first one, is directed towards simplifying the complexity of rules and procedures that concern the document exchange. In Finland, for example, during the studies conducted for the planning of new civil procedure legislation, it was realised that the main obstacles to the official exchange of electronic documents came from the formal requirements for the submitted documents.[156] Taking this into account, the law on civil procedure that came to force in 1993 was written to allow the use of electronic messages for the application for a summons and, at the same time, limit to the minimum the need of using written original documents.[157]

According to the Act on Electronic Service in Judicial Matters in Finland,[158] "an application for a summons, a response and another comparable document may be delivered to a court of law, or to a person designated by the court to receive documents, also by telefax, E-mail or electronic data interchange into the IT system of the recipient (electronic message)".[159] Therefore, an application for a summons may be filed by the plaintiff to the registry of the district court also by e-mail or fax. "The application for a summons must contain the name of the court, the names of the plaintiff and defendant, the attorneys and the witnesses, as well as their contact information. In the application for a summons, the plaintiff explains what he or she demands of the defendant and on what grounds".[160] Although the contract or other agreement the demand is based on must be appended to the application,[161] according to the principle of free evaluation of evidence,[162] "an electronic 'document' can in many cases be as valid as evidence as a paper document or the testimony of a witness".[163]

Furthermore, the Finnish Ministry of Justice may grant permission to deliver the information required of an application for a summons by way of the message exchange system, known as Santra, into Tuomas, the case management system used by the District Courts. [164]. "A plaintiff, who has been granted this permission, sends the electronic applications for a summons as a file transfer from its own system to the mainframe, which distributes the applications to the Santra mailboxes of the various district courts. When cases have been filed through Santra, the district court may also send the decision data through Santra to the plaintiffs, so that they have it directly in their information systems. However, the official hard copies of the judgments by default are still sent by the district court to the plaintiffs as well".[165] This system is used by professionals and organizations that file large numbers of applications for summonses, such as collection agencies, because the party must acquire or

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[156] Mainly the requirements of original signature and submission of paper documents. Kujanen (2004) *E-services in the courts in Finland*, Presentation at the seminar on law and informatics, Bern, 26 October 2004, p.4

[157] Presence of long established, enabling elements, such as the principle of free evaluation of evidence, adopted in 1943, has probably played an important role.

[158] 594/1993, amended by 199/1998

[159]594/1993, amended by 199/1998 Section 1, par.1

[160] http://www.oikeus.fi/15955.htm

[161] http://www.oikeus.fi/15955.htm

[162] "After carefully considering all facts that have come to its attention, the court shall decide what is to be considered the truth" - Kujanen (2004) *E-services in the courts in Finland*, Presentation at the seminar on law and informatics, Bern, 26 October 2004,

[163] ibidem.

[164] 594/1993 Section 1, par.2

[165] http://www.oikeus.fi/15959.htm

develop, at its own cost, software for the compilation of application records that meet the set format criteria. The file format descriptions are available at the Information Technology Bureau of the Ministry of Justice. Therefore, this kind of electronic filing is normally used for simple (and undisputed) summary debt-collection cases.

3.2.2.2. Trial on-line

The development of information systems needed for the implementation of the so-called trial on-line "is a complex and intricate task that requires the understanding and management of a large number of interdependent factors. Information infrastructures are characterized by being shared among different organisational units and organisations, grounded on other complex and networked IT hardware and software platforms, and evolving over time and space."[166] Given the complexity of the systems needed for a *full* trial on-line, "it is essential that the systems are planned in co-operation with users and other public or private agencies".[167] The Austrian implementation effort seems to have been directed in this direction. The idea seems to be the inclusion of the lawyers, notaries and other official authorities in the system as part of the organization for justice service provision. Austria uses a dedicated system for communication of official documents between the court and professional users for formal communications and resort to the e-mail for more informal communication and information exchanges. "Although 98% of lawyers all over Austria are communicating with courts via e–mail, the electronic communication between court and the public inclusively lawyers, notaries and other official authorities especially the Austrian Social Insurance is not done by e–mail but by the Electronic Legal Communication (ELC)."[168]

On the other hand, examples such as the Italian struggle in the Civil Trial On-line present a quite different situation. In theory, the project represents "a key step of the Italian judicial system innovation strategy".[169] It aims at moving traditional civil procedures from a paper-based medium to an electronic. At present, the system allows the online consultation of case status, court clerks' registers, as well as relevant jurisprudence only in some courts. The online transmission of legal deeds, communications and notifications is currently under experimentation. Digital signature, PKI, certified mail and a number of other requirements are thought to be essential for security and reliability of data interchange.[170] The problem is that, "despite the conspicuous investments and

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[166] Contini, F. and Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* Daft p.4

[167] Kujanen (2004) *E-services in the courts in Finland*, Presentation at the seminar on law and informatics, Bern, 26 October 2004, p.3

[168] Bauer P. and C. Graf (2003) *Judicial Electronic Data Interchange in Austria*, in Fabri M. and F. Contini (eds.), Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends, Bologna, Lo Scarabeo (2003) p.104

[169] http://www.datamat.it/files/documenti/1121098330083_en_OnLineCivilTrial_Eng06%20(2).pdf

[170] On the issue see: Brescia, S. (2003) *Dai Sistemi Informativi Giudiziari al Processo Telematico*, Giustizia e Telematica.

the strong support of the IT Department and of all Ministers that have been in place in the last 7 years, the project is still stuck in a piloting stage while the full deployment was expected in June 2003 (Ministero della Giustizia, 2001). Just in the court of Milan, in December 2006 within the Civil Trial on-line pilot, have been exchanged data and document for issuing 73 money claims. The ambitious results of improving the administrative efficiency up to 40% and to speed up the pace of civil litigation of 20% expected in 2005 (Ministero della Giustizia, 2003) are still a dream".[171] Problems keep surfacing at every step: judges not using the system for writing sentences, the private enterprises that should develop the software through which the lawyers should access the On-line Civil Trial not being able to do it with the data provided by the Ministry of Justice. The use of pilots and the experimentation of prototypes helped to solve some of the problems the development had been confronting with the initial top-down, out of the box, approach. On the other hand, problems keep coming. The effort of perfect reproduction of the traditional formal procedures seems to be doomed. This follows, on the one hand, from the difference between paper based practices and formal procedures, which often differ quite a bit. On the other hand, from the changes the use of the new medium is producing. The electronic medium is simply different from the paper one. What we are noticing is not limited to the mere substitution of a technology for another that does the same things, only better. The change is affecting the very nature of the relationship between the court and the network of actors with which it interacts. For example, lawyers directly interact with the court registers. It is they who input the data, they who search for information when it is required. The boundaries of the court are becoming blurrier[172] and traditional procedures are failing to keep up with such unexpected and often unforeseeable changes. Overall, the complexity of creating an exact electronic replica of the paper based system seems to be too much for the present governance capabilities of the organization.

3.2.2.3. The Turkish National Judicial Network Project: a wider reform approach

A different path seems to emerge from *second mover* countries where judicial ICT innovation is taking place in combination with a consistent reform of the legal framework and of the structure of the judicial organization. One of the most interesting cases seems to be provided by Turkey.[173]

The Turkish e-justice project is a part of a larger Electronic Government activity. This activity started with computerization within hospitals, schools and other public administrations. The Judicial administration was interested only at a later time. Starting from 2001, major constitutional reforms involving the Turkish judicial administration have taken place and several legislative packages have been adopted by the Parliament. New codes have been

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Contini, F. Cordella A. 2007 *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* draft

[171] Contini, F. and Cordella, A. (2007) *Information System and Information Infrastructure Deployment: The Challenge of the Italian E-Justice Approach* p.8

[172] Contini F. Lanzara G.F. (2007) *Techno-institutional Assemblages: ICT and administrative innovation in the judiciary* draft

[173] http://www.uyap.gov.tr/ingilizce/index.html

adopted, including a Civil Code and a Penal Code. Numerous laws, regulations, decrees and circulars outlining the application of these reforms have been issued.[174] It is important to note that all these changes are part of the EU accession process. In this perspective, "the objective of the process of law approximation is to not only implement the relevant amendments to existing legislation but as importantly, to strengthen those institutions responsible for the enforcement or implementation of the new procedures and processes. This process of 'Institution building' to enhance administrative capacity, is seen as crucial in ensuring the successful transition for Turkish Institutions to the standards, norms and achievements of similar EU Member State administrations."[175] Accordingly, "the Turkish government has pursued with determination legislative reforms in the areas covered by the Copenhagen political criteria".[176] More, Turkey has been required to carry out *substantial reforms*[177] in the areas of rule of law and human rights to adapt not only its formal rules but also its "institutions and administrative systems and arrangements to the standards prevailing in the EU"[178] and to ensure an effective implementation of the criteria. Much has been done in this direction, even though further efforts seem to be still "needed to enhance the coherence of legal provisions and practice".[179] Efforts have been oriented to legal reform and to "the establishment and consolidation of the institutional structures in the area of law and order".[180] In this general context, ICT can be a powerful tool for "strengthening the functioning of the justice system in a way that citizens will have a rapid and easy access to justice via technological opportunities".[181] The objective is to improve transparency, speed, efficiency, effectiveness, quality of service, but also to help sustaining the implementation of the reforms. At the same time it is important to remind that ICT justice innovation effort is

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[174]http://ec.europa.eu/enlargement/pdf/financial_assistance/phare/annual_report_2004/annex_report2004_phare_preaccession_trans_instrument_en.pdf

[175] http://ec.europa.eu/enlargement/fiche_projet/document/2002-002-555-04.05%20Fight%20against%20Organised%20Crime.pdf

[176]http://ec.europa.eu/enlargement/pdf/financial_assistance/phare/annual_report_2004/annex_report2004_phare_preaccession_trans_instrument_en.pdf "Under the criteria adopted by the Copenhagen European Council, accession requires the applicant state to have stable institutions that can guarantee democracy, the rule of law, human rights, respect for and protection of minorities, the existence of a viable market economy, the ability to respond favourably to competitive pressures and market forces within the Union and the ability to meet obligations relating to the European Union" European Parliament, Legal questions of enlargement, http://www.europarl.europa.eu/enlargement/briefings/23a1_en.htm

[177] Rehn O. 2006 Turkey's accession process to the EU, http://europa.eu/rapid/pressReleasesAction.do ?reference=SPEECH/06/747&format=HTML&aged=1&language=EN&guiLanguage=en

[178] European Parliament, Cooperation in the area of justice and home affairs in the enlargement process, http://www.europarl.europa.eu/enlargement/briefings/25a1_en.htm

[179]http://ec.europa.eu/enlargement/pdf/financial_assistance/phare/annual_report_2004/annex_report2004_phare_preaccession_trans_instrument_en.pdf p.65

[180] European Parliament, Cooperation in the area of justice and home affairs in the enlargement process, http://www.europarl.europa.eu /enlargement/briefings/25a1_en.htm

[181]http://ec.europa.eu/enlargement/fiche_projet/document/PF%202005%2001.01%20Better%20Access%20to%20Justice%20in%20Turkey.pdf

sustained not only by national resources, but also by "the financial and technical support offered by the EU to facilitate Turkey's accession process." [182] In fact, "the EU has provided significant resources" [183] in a number of projects. This is relevant both as quantity and quality of resources are concerned, but also for the monitoring and evaluation that the use of such resources is subject to.

At national level, the ICT innovation effort is taking place with the coordination of the State Planning Organization (SPO), a government body working under the Turkey's Minister of State and Deputy Prime Minister, which "is responsible for coordinating information society activities including e-government." [184] Within the Ministry of justice, the Data Processing Department Presidency was founded at the end of 1999.

The most relevant project that has been developed is the National Judicial Network Project (UYAP). The Project wants to "establish an electronic network and program development covering all Courts, Offices of Public Prosecutors and Enforcement Offices together with the Central Organization of the Ministry of Justice." [185] The first studies concerning the development of an electronic network infrastructure connecting the institutions in the justice sector were carried out since 1998. The Project itself was started as a part of e-State initiative in the year 2000.[186] The objective of UYAP is to integrate "judicial institutions with each other but also with concerned institutions (police, gendarme, prisons, customs, etc.)". [187] In theory, once completed, it should be "possible to reach every kind of information which is needed during processes". [188] In the criminal records and files will be accessed online. The judicial record database will be fully integrated with database of UYAP. The birth certificate registrations will be accessed online by the courts and public prosecutor offices. All cases in courts will be accessible on line by judges. Land Registries and driver registers will be retrieved instantly at the beginning of the trials.[189] The project is clearly quite ambitious both for dimensions and for complexity.

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[182] p.2 http://demo2.mobilsoft.com.tr/Files/File/AB-Gorunum/Sayi%20-%2005/EUR0610-en.pdf
In 2006, €500 million pre-accession assistance has been available for Turkey (Key findings of the progress reports on the candidate countries: Croatia, the former Yugoslav Republic of Macedonia and Turkey, available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/06/411&format=HTML&aged=0&language=EN&guiLanguage=en)

[183] http://ec.europa.eu/enlargement/pdf/financial_assistance/phare/annual_report_2004/annex_report2004_phare_preaccession_trans_instrument_en.pdf p.67

[184] Country Papers: TURKEY, OECD e-Government: Organizing for integration: http://www.bilgitoplumu.gov.tr/yayin/OECD _eGovernment_Country_Paper_TURKEY.pdf "Within this organizational approach, all public agency activities regarding e-government applications are being coordinated by the SPO. SPO, as being the government body that reviews project proposals of public entities and prepares annual investment programs, is also responsible for eliminating unduly or overlapping e-government projects, including application projects, ICT expenditures, etc".

[185] http://ec.europa.eu/enlargement/fiche_projet/document/TR%2006%2001%2004%20Support%20to%20the%20Court%20Management%20System.pdf

[186] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html

[187] www.uyap.gov.tr/ingilizce/sunumlar/sunum/UYAP.pps

[188] ibidem.

[189] Ibidem.

To give an idea of its size, UYAP aims at interconnecting through a centralized technological infrastructure[190] the following sub-systems: Penal Law System, Civil Law System, Administrative Law System, Public Prosecutors Services System, Court of Cassation System, Probation System, Verdict Support System, Lawyer Information System, Enforcement-Bankruptcy System, Convict-Arrest Management System, Citizen Information System, Personal Management System, Financial Management System, Supply Management System, Procurement Management System, Training Management System, Document Management System, Forensic Medicine System and General Support System.

The project has been organized in two phases. A first phase was directed to automating the central organization of the Ministry and its subordinate units. A central system has been established for functions such as personnel, budget, health, administrative and financial works in the Ministry Central, and supporting the activities that subordinate units are required to perform by Law.[191] In addition to the general system, a Document Management System (DMS) was also developed and implemented. The DMS allows the exchange of information and documents between the various units of the Ministry in electronic environment through a centralized structure. It allows to store and manage documents and to make them available on-line. In theory, "all bureaucratic procedures and formal writings made in the electronic environment, thereby avoiding delays and reducing mistakes, especially those related to codes of procedures, as well as ensuring some degree of transparency" [192] The first phase of the Project was completed in 2001.

The second phase of UYAP is directed at the automation of the provinces units. Starting from 2001 the centralized Judicial Record Database, which collects data from all the Country, was improved to provide "service in line with the EU standards"[193] and integrated with database of UYAP. In 2005 the mainframe of the Judicial Record System was capable of serving 350-400 locations in the whole country.[194]

In addition, in 2001, 30 pilots and test units were chosen for preliminary studies and development of UYAP software interfaces and applications for the provincial units. The applications started to be used in February 2004. As of October 2005, Wide Area Network (WAN) connection was made in 54 provinces.[195] In time, "all judicial units were equipped with sufficient hardware in order to let them to do their judicial job by using system" and all 807 judiciary

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[190] As a consequence, all servers are in Ankara and all data flow in to central units http://www.uyap.gov.tr/ingilizce/sunumlar/sunum/UYAP-general%20.pps

[191] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html

[192] http://www.uyap.gov.tr/ingilizce/sunumlar/sunum/UYAP-general%20.pps

[193] http://ec.europa.eu/enlargement/fiche_projet/document/PF%202005%2001.01%20Better%20Access%20to%20Justice%20in%20Turkey.pdf p.8

[194] support to the Judicial Record System was provided also through EU funds. See PF 2005 01.01 Better Access to Justice in Turkey

[195] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html "By the end of 2005, 16 High Criminal Centers, in 4 District Administrative Tribunals, and 9 Penitentiaries were taken into operation. In the "courthouses where NJNP is being used, 299.149 law cases, 234.418 criminal cases, 295.341 administrative cases and 656.912 legal medicine dossiers, 2.539.558 execution cases have been started to be implemented as being registered to the system." ibidem

units were connected with each other via sole central network, for a total of 45.778 connection points.[196] According to official data, "all over the Turkey, 122 out of 133 Heavy Penal Court Centres, 21 out of 25 Administrative Regional Courts, 440 out of 577 small county courts and all of the Penitentiary and Detention Houses have been rolled out until now and the rest of them will have been rolled out at the end of 2007"[197] On the same line, the Turkey 2006 Progress Report of the European Commission states that "the National Judicial Network Project continued to progress and became operational in more courts and prisons. The major court houses and all judges and prosecutors now dispose of laptops and Internet access." [198] In fact, "most of the judicial units (90%) and agencies make use of ICT in their daily processes." [199] On the same topic, the eGovernment Factsheet of the IDABC report that "UYAP is mostly completed and provides electronic information exchange and decision support systems for the Ministry of Justice, courts, public prosecutors' offices, lawyers, prisons, forensic medicine and enforcement departments. The works on disseminating this network to all relevant entities all over the country are underway."[200] The second phase of the project should "be finalized by the end of 2007".[201]

A very important element to consider for the successful adoption of a new technology is the training of the personnel that will use it. This is particularly true in the UYAP case, given both the size and complexity of the projects, the relevant changes in the working practices and the previous (low) level of ICT use. Basic computer training was provided to 13.000 employees, of which 8.000 were judge and prosecutors. As local offices were reached by UYAP, training was provided to 40.000 users. At the same time, technical support and expert user training was also provided to 1700 employees in order to train other staff and provide technical support.[202] In addition to traditional training, "within the project of UYAP e-learning, a central control system for distance training was established for all users according to their roles and duties. 27.605 personnel have been given opportunity to train themselves through Internet by using distance-learning facilities until now.[203]

The system is not limited to the exchange of data between public institutions. Through a dedicated portal, lawyers, should be able to review cases via electronics means, submit his petition online. Furthermore, they can pay process and case fee through Internet banking and the litigation of a claim or dispute to court through electronic means has been enabled. At present, 18.992 lawyers have been registered to lawyer's portal and 4517 of them use this system actively." [204] In order to provide access to the general public, a "citizen portal has been formed in the aim of giving the opportunity of following the cases and legal processes in the electronic environment via Internet which

[196] http://www.uyap.gov.tr/ingilizce/sunumlar/sunum/UYAP_facts.pps
[197]UYAP Dissemination Process http://www.uyap.gov.tr/ingilizce/isletim/isletim.html
[198] Commission of the European Communities, "Turkey 2006 Progress Report" p.59 http://ec.europa.eu/enlargement/pdf/ key_documents/2006/nov/tr_sec_1390_en.pdf
[199] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html
[200] http://ec.europa.eu/idabc/en/document/7010/421
[201] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html
[202]UYAP Infrastructure http://www.uyap.gov.tr/ingilizce/altyapi/altyapi.html
[203] Educations of UYAP http://www.uyap.gov.tr/ingilizce/egitim/egitim.html
[204] http://www.uyap.gov.tr/ingilizce/sunumlar/sunum/UYAP-general%20.pps

are performed on the UYAP"[205]. The general public should be able to submit a claims to court by using an electronic or mobile sign and examine the case files through internet. Furthermore, there is a project to inform the parties about their cases by SMS. "Text messages can also be sent to people who need to be warned when to attend court. It allows users to ask for alerts to be sent to them whenever any chosen event occur, by email or text."[206]

As the system is distributed, adopted and becomes more institutionalised, the need for upgrades and further developments start to come out. At the same time, the institutionalisation of the new procedures and the presence of a technological and normative installed base start to play a relevant role in the innovation process. As this happens, innovation dynamics seems to become more in line with the ones of Western Europe judiciaries. At the same time, the role of EU resource provision and control keep being a relevant element of differentiation. For example, starting from 2006, support to the court management system integrated in UYAP has been provided by the European Commission through the Phare programme. The assistance has been directed to development of an application a new application to support case flow management, fiscal management, human resources management, court performance standards and technology management, in order to "facilitate to achieve speedy and effective judicial process".[207] Close collaboration with the UYAP has been envisaged and the presence of opportunities and legacies from both technologies and regulations developed for the project has been noticed as an element to take into consideration.

4. Conclusions

In the last three decades, large investments have been made in European Countries in the common effort to support ICT innovation of judicial administration. This report has provided an overview of past and present trends in the use of such information and communication technologies. Evolution of strategic approaches (e-governance and e-government) of the judicial administrations has been considered. An account of the main ICT initiatives aimed both at the courts and at improving the communication exchange between the courts and the network of institutional and non-institutional actors they interact with, has been provided.

As the report highlights, several goals have been achieved throughout Europe. A first result is the large diffusion through the courts in most of the European countries of basic office automation technologies but also of automated registers and case management systems, Internet information provision and informal electronic data interchange. Network infrastructures (LAN e WAN) have been developed to allow the exchange of data between the various components of the Judiciaries. Several successful attempts of e-filing and official electronic communications have been implemented. Apart from these concrete results, there has been also a change in the perception of the ICT

[205] http://www.uyap.gov.tr/ingilizce/tarihce/orta1.html
[206] UYAP Infrastructure http://www.uyap.gov.tr/ingilizce/altyapi/altyapi.html
[207] http://ec.europa.eu/enlargement/fiche_projet/document/TR%2006%2001%2004%20Support%20to%20the%20Court%20Management%20System.pdf

within the courts. Experience has been developed concerning the strategies of ICT innovation and institutional infrastructures to support ICT have been created in several countries. From being a guest in few courts, or a stranger in most during the 1980s and part of the 1990s, ICT has spread widely becoming an element often given from granted and integrated in many courts' activities, procedures and practices (even if not always utilised at its full potential). On the other hand, also many of the illusions surrounding it have disappeared. Even though still limited, in the last years, there has been, in several countries, a change in the public perception of technologies and of their potentials to improve justice.

Despite all the achievements mentioned above, and in spite of the huge amount of resources and all the efforts that have been invested in the development of communication and information technologies, the use of such technologies often failed to bring the "huge efficiencies and productivity gains" [208] and service quality improvement that had been promised. Furthermore, once introduced, technologies need to be maintained. As European judiciary ICT budgets shows, in many countries there has been a trend toward the reduction of the development of new components in favour of maintenance and updating. Courts use technologies but at the same time are becoming dependent upon them. Applications need to be frequently updated to keep up with new laws and regulations.

Investing in the development of software and infrastructures is not enough to satisfy court users and the public. Increasingly, judiciaries are required to be more efficient and to provide better services but also to be more transparent and better accountable. Unfortunately, the image they show, even though it varies from country to country, to the public is less positive when confronted to other public administration. For example, using the four-stage model for benchmarking e-government projects in the European Union[209], most of the European administrations of justice reach stage two (downloading of forms) but very few, and on selected projects, reach stage three (two way interaction) and even fewer stage four (case handling).[210]

Poor ICT performance is clearly linked to the complexity of both task and institutional setting. Nevertheless, too often it is also related to the use of inadequate innovation strategies. Several useful indications on how to improve such strategies already exist, and should probably be considered more carefully by the countries that are meeting the greatest difficulties. In particular, CoE Recommendation Rec(2001)2 concerning the design and redesign of court systems and legal information systems in a cost-effective manner, Recommendation Rec(2001)3 on the delivery of court and other legal services to the citizen through the use of new technologies, Recommendation Rec(2002)2 on access to official documents and Recommendation

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[208] Susskind, R. (1999) *The Challenge of the Information Society: Application of Advanced Technologies in Civil Litigation and Other Procedures: Report on England and Wales* Available at http://ruessmann.jura.uni-sb.de/grotius/english/Reports/england.htm p.5

[209] See footnote 6. http://europa.eu.int/information_society/eeurope/2002/documents/Overall_report_FINALv2.doc

[210] M. Fabri and M. Velicogna (2007) *Information and Communication Technology for Justice*, International Conference on Law and Society July 25-28, Humboldt University, Berlin, Germany.

Rec(2003)14 on the interoperability of information systems in the justice sector provide several the principles and guidelines that seems to be in line with the approaches followed by the countries that are achieving the better results. The emphasis posed on managing the change process brought by the technological challenge, rather then focusing merely on the technical aspects, and the relevance given to the idea of rigorous monitoring and evaluation by an independent body of the ICT projects, from the earliest stages to the reaching of the final objectives are but two examples.[211] As data shows, European judiciaries are often focusing too much on the hardware and software characteristics, and are quite poor at measuring the actual contribution made by technology to the administration of justice and its impact on the quality of justice.

The challenge ICT innovation face is not related just to technology design and re-engineering of formal procedures and ideal processes but is also related to its capability of producing the expected (or at least positive) results once implemented. In this sense, the introduction of individual stand-alone applications presents difficulties and requires strategies quite different from the introduction of organizational application or of inter-organizational communication infrastructures. The problem is related on the one hand on the technology that has to be designed and developed, but also to the legal, organizational and technological installed base and on the characteristics of the actors that should adopt it. It is intuitive that providing desktops for personnel is simpler than providing an e-mail, which in turn is simpler than providing an online sentence service automatically fed by the judges. While each individual who receives a PC can switch it on and use it to improve his or her work, if the same person sends an e-mail and the addressee does not use his e-mail account the technological innovation will not work. In the case of an online sentence service, all judges must learn to use the sentencing technology to feed the database. Moreover, in order for it to work, parties and their legal representatives, external to the court organisation, must use it too. This requires the selection of an innovation management approach adequate to the task. Easier tasks can be dealt with by local initiative while more strategic efforts require a more centralized approach. On the other hand, when inter-organizational coordination is required, more ongoing, open, consensus-based processes are needed and both inclusion and incentive mechanisms can be adopted. To develop systems that keep “in mind that the information, once registered in a system, should flow through the whole chain of activities and other organisations serving every user, both in the courts and other authorities”[212], Finland had to institute permanent interagency groups cross-government bodies. In Austria, economic incentives have been used to push the lawyers to filing cases on-line while fast queue have been instituted in Milan for lawyers submit forms printed using a software that generate a barcode.[213]

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[211] M. Fabri, F. Contini (2001) *Justice and Technology in Europe. How ICT is Changing the Judicial Business*, Amsterdam, Kluwer Law International, pp.17-18.
CoE Recommendation Rec(2001)2, p.8

[212] Kujanen, K. (2004) *E-services in the courts in Finland*. Presentation at the seminar on law and informatics 2004 in Berne p.3

[213] The court office can then scan the bar code and the data is automatically transferred in the court automated register database.

In some cases, though, and especially in the case of inter-organizational technologies, judiciaries have found themselves facing a level of complexity that goes above the level that they are able to tackle.[214] In well-established judicial administrations, the intertwine of pre-existing technologies, organizational and normative installed base is generally too deeply rooted and institutionalised to easily allow large reconfigurations. When such large-scale re-engineering efforts are attempted (and especially so if attempted in combination with the use of an ex-ante omni-comprehensive regulative approach e.g. Italy and France), too often never ending piloting and mounting costs seems to occur. [215] One viable solution that has been attempted with success in several cases seems to be to simplify the task. Simplification, slow evolution, incremental approaches and carefully tuned techno-institutional assemblages seem to be required. Finland on the one hand, England and Wales on the other, shows two different strategies that go in this direction. Procedural simplification and selection of simple procedures has allowed reducing the complexity to a manageable level.

In this respect, a different option seems to come from countries in which 1) the ICT investments have started more recently and 2) at the same time as structural institutional and normative reforms were occurring. These reforms seem to have helped the creation of a situation in which ICT is more easily developed and adopted. In facts, "if change must be produced, […] durability of old practices and structures has to be discontinued".[216] The presence of strong motivations toward successful ICT innovation and adoption has also played an important role. Public and political pressures are clearly a key element. Furthermore, Judiciaries do not respond anymore solely to domestic factors. The role of the international actors in the process of assessing and reforming judicial administrations must also be considered. This is particularly true for democratising countries, whose reform activities are supported and closely monitored by international institutions. In some of these cases, the EU membership conditionality has also played as a powerful lever. Another element has been the ICT projects' control and accountability mechanisms. External control over resources and the presence of monitoring, evaluation and accountability mechanisms has clearly played a relevant role. Lastly, ICT innovation has been taking place in a technological green-field, without the need to take into account already existing infrastructures and technological legacies. In this context, traditional ICT innovation approaches, supported by international actors that assist the ICT development and implementation such as in Estonian, Slovakian and Turkish cases can achieve positive results.

At the same time, '*second movers*' favourable conditions do not seem to be destined to last indefinitely. As ICT innovation is designed, implemented and adopted and new organizational and normative assets are institutionalised,

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[214] Fabri M. and F. Contini (eds), (2003) *Judicial Electronic Data Interchange in Europe: Applications, Policies and Trends*, Bologna, Lo Scarabeo p.16

[215] M. Fabri and M. Velicogna (2007) *Information and Communication Technology for Justice*, International Conference on Law and Society July 25-28, Humboldt University, Berlin, Germany.

[216] Lanzara, G.F. (2006) *Capturing Transient Knowledge in Design and Innovation Processes*, The 6th Social Study of Information Technology Workshop In Celebration of Claudio Ciborra, London School of Economics and Political Science, March 27 – 28, 2006

“transiency is contrasted" [217] and durability is achieved ending the “indeterminate, shifting situations” at the basis of ICT innovation success in those judicial administration. Furthermore, as support and monitoring of such international actors to the adoption of ICT has clearly had an role in the ICT innovation effort, an open question is what will happen once such international pressure will reduce as, for example, the result of the entrance of a country in the EU.

As a concluding remark, it is important to remind that given the different complexity of ICT innovation, viable solutions must be empirically found, carefully shaping, assembling and tuning technological, normative, organizational and institutional elements; looking not only to what is technologically and normatively possible, but also considering human and managerial capabilities of each justice system. Furthermore, in doing this, development and implementation strategies must be in line with the complexity of the task, and must take into account the adoption level required by the system to operate (individual, organizational or inter-organizational).

[217] ibidem.

Appendix 1: Focus on ICT in Turkish Judicial System

(Yucel Ogurlu and Canan Kucukali*)

Profile of the judicial system of Turkey

Pursuant to article 2 of the Turkish Constitution (1982) *"Turkey is a democratic, secular and social state based on the rule of law"*. Judicial power of the state is exercised by independent courts and supreme judiciary bodies according to the Constitution. The Constitution has mainly adopted a tripartite judicial system by being divided into administrative judiciary, legal judiciary and special judiciary, that being, the Constitutional Jurisdiction, the Civil Jurisdiction and the Administrative Jurisdiction.

The Constitutional Court of Cessation (the Supreme Court of Appeals) and the Council of State, the Supreme Military Administrative Court, the Supreme Military Court of Appeals, and the Court of Jurisdictional Conflicts are the supreme courts mentioned in the judicial section of the Constitution. The legal basis of the Courts of Appeal changed and the passing of the *"Law on Establishment, Duties and Competences of the First Instance Courts and Regional Courts of Appeal"* through the Parliament was anticipated for quite some time (Law No: 5235 Official Gazette 7.10.2004, No:25606). At an early date, Regional Courts of Appeal will become operational.

The courts are differentiated and verified in many branches and sub-branches. For example, the Court of Cessation consists of both the Civil Departments and the Criminal Departments. The first instance courts are hierarchically under these two departments.

Civil Courts are divided into several courts: Peace Courts, General Civil Courts and First Instance criminal courts, whereas specialized courts are as follows: Felony Courts (Courts for Grave Crimes) and Magistrate Courts. The specialized courts are Commercial Courts, Labor Courts, Maritime Courts, Family Courts, Intellectual Property Courts, Land Registry Courts, Consumer Courts, Juvenile Courts, Enforcement Courts and Traffic Courts (BYEGM (web)). Furthermore, when establishing new courts for division of labor under hierarchy of these courts (that is always technically possible) is taken into account. The Turkish judicial system can be viewed as a diversified and complex in appearance. Certainly, that appearance requires a more accelerated system.

In addition, the struggle for harmonization to the European Union (EU) system caused a rapid transformation, with amendments in the Constitution and with legislative changes in its normative framework, organization and procedures of Criminal and Private Law (Oğurlu (2007b, 1-15)). The Turkish judiciary began the reconstruction of the courts from its former system to a new technological one. The ICTs in the Turkish judicial system are presented below. However, at first, one should note that the legal area has also began to transform. Thus, one of the titles of the screening process of Turkey was *"Judiciary and Fundamental Rights"*. Under this title, a detailed screening

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meeting was held in Brussels in 12-13 October 2006. During the meeting the independence and impartiality of the judiciary, the quality and effectiveness of the judiciary, the Judiciary Reform, the struggle against impropriety and the judicial and administrative reforms on fundamental rights were also screened. In addition, the fundamental rights, the rights of children, access to justice, procedural protection measures, minority rights, cultural rights and the protection of personal information were screened. Finally, under the title of the rights of citizens, the right to vote and the right to be elected in local elections and free movement, and right of diplomatic protection in the EU were screened (IKV (web)). There were several criticisms on the Turkish legislation in the 2007 Progress Report, referring to the *"limited progress"* for some areas and insufficient struggle against impropriety, but without any criticism on the judicial structure. Furthermore, the new Criminal code mainly takes into account the EU acquis, for instance the processes of prosecutors and the police required an approval of judges that meant a new workload, such as confiscation, approval, molecule genetic investigation etc.

Human resources	**Number/Year**			
	2004	**2005**	**2006**	**2007**
Registered attorneys	52.195	55.176	57.289	
Professional judges	5953	5940	6590	
Prosecutors	3208	3135	3578	
Administrative court personnel (in first instance administrative courts)	495	513	844	
Supreme Administrative Court (Council of State)	221	218	269	
Technology expenditures				
Technology expenditures for Allocations for National Judicial Network Project includes Ministry of Justice, Prosecutors' offices, courts			6.580.000 YTL	7.000.000 YTL

The complex frame of the Turkish judicial system generally shown above explicitly demonstrates the necessity for e-justice and ICT technologies. Since the exchange of documents and information always emerges during the judicial process and increasing workload leads to seek new solutions to old problems. The need for innovation became more important compared to the past. To ensure a provision of an effective and less bureaucratic judicial system, an assertive and crucial project, namely the National Judicial Network Project (NJNP), has been initiated under the responsibility of the Ministry of Justice. However, before passing to the issue of NJNP, it will be better to explain the Turkish experience on e-governance.

E-governance

E-government is a new name for the *informatisation* of the public sector given to the government (Lenk; Traunmüller 2002). The characteristics of inconvenience of classical administration are having a huge public sector, highly centralized government, complex regulatory structures, limited transparency and accountability of traditional administrative structure (Saidi; Yared 2005). Since all those inconveniences may be removed by establishing a well-structured e-government project, those innovations accelerate to reform the Turkish judicial system.

Before coming to the main point, it should be mentioned that NJNP, which will be clarified below, is not the initial step for realizing the e-government ideal. There were other struggles before it. Obviously, the e-justice project is a part of the Electronic Government. Turkish e-government system started with computerization within hospitals, schools and later the judiciaries. Second of all, Internet had a broad interest of users as it did all over the world. As a third step, professional networks such as the NJNS was initiated.

Obviously, previous ICT experiences in other branches of government supported the creation of a new nationwide network for e-Justice. Several networks support the NJNP already. Here are some examples of e-Government that support NJNP both directly and indirectly:

- Accounting Offices Automation Project (say2000i)
- Central Census Management System Project (MERNIS)
- Government Supply Office's Electronic Sale Project (e-Tender)
- Internet Tax Office Project (VEDOP)
- Social Security e-Filing for Employers Project (e-Bildirge)
- Legislation Information System, Custom Administration Modernization Project (GIMOP),
- National Police Network Project (POLNET)
- The Traffic Information System Project (TIS)
- Land Registry and Cadastre Information System (TAKBIS)

These are only a few examples of e-government related to the NJNP in central administration. An important step for e-government is the Act of Digital Signature dated 23 July 2004, (Act No: 5070). In fact, there is no other regulation that regulates the e-justice in Turkey. Ministries and most of the local administrations have their own websites. Some of the ministries changed their offline interactions with users to online processes in quite a short time. The most significant one is The Ministry of Justice's website (http://www.adalet.gov.tr/). It has been initiating to implement an important project, the NJNP since the year 2000.

After this point, a focus on some facts about the NJNP and the contributions of the project to the Turkish judicial system and individuals will be made.

The National Judicial Network Project (NJNP)

Even though it's officially called as a "project", in fact it is currently a functioning system. Thus, after this point of the study, it will be judicious to call it as the NJNS (National Judicial Network System) instead of the NJNP. The current system is a functioning electronic network that connects Courts, Offices of Public Prosecutors and Law Enforcement Offices to each other. As well it connects to the Ministry of Justice for effectuating an information system that aims to realize an effective and less-bureaucratic judicial system in the borders of Turkey. Moreover, it is a central network that gives the opportunity to reach all Penitentiary and Detention Houses, Enforcement Offices, prisons and other judicial agencies. Its main purpose is to integrate the whole Turkish judicial system to the governmental and even international organizations (Tanrıkulu (2005) 3)

NJNS is a network established under the responsibility of the Ministry of Justice. The method used in NJNS is to realize the automation of the judicial system and the related functions by using a broad network. NJNS connects various judges and prosecutor's offices all over Turkey. Prosecutor's ICT infrastructure integrated with police, courts, penitentiary and detention houses, prisons, forensic and medicine units, to other judges and public prosecutor services and enforcement offices. Today, prosecutors and judges in the process of the judiciary can use e-mail, Internet, intranet and data interchange as a result of the NJNS.

Online access to the decisions of the Supreme Courts, namely the Council of State and the Constitutional Court was possible by recent times. With the help of the NJNS all types of courts are opened for authorized users and have become accessible today. The writings and communications were provided in classical ways such as typewriting and regular postal service which were very slow. In addition, facsimiles, legal databanks provided by Ministry of Justice on CDs, Internet and e-mails are commonly used tools in the Judiciary. The innovations and online access provided to solve the problems by substituting them after July 2007. However, the unification of the whole system which is emerged to benefit innovations so as to establish a reliable, accessible, efficient and high speed the judicial system is needed.

Related government agencies and organizations mentioned above are connected in the same network. For instance, integration into the MERNIS (Central Census Management System Project) will ensure the acquisition of information regarding the parties of judgments. The inappropriateness of the system has always been a problem because of time being wasted, the postponing of hearings to a future date, as well as getting birth registration network. NJNS resolves this problem by connecting to the related service via online means. Thus, the process will be solved in a shorter time with the NJNS. The same can be said for identification and criminal records of parties. The Record of Convictions Database in the NJNS gives the opportunity of checking the identity and criminal records of offenders in an online environment.

The ongoing integration of judicial system will provide to consolidate with POLNET (National Police Network Project) and TAKBIS (Land Registry and Cadastre Information System). With NJNS, from now on, dates of hearing and other information which do not have objectionable features to be distributed on

the Internet can be accessed on the Internet. (UYAP and its Short Summary web)

The NJNS is a network that continues to connect the judicial agencies and courts to each other. The Project aims to cover all the phases of the judiciary, including applying with a petition, the trial, sending the files to supreme courts, phases in Court of Appeals and State Council and then the final conclusion, judicial decree execution and transmission to the Office of Records of Convictions will be wholly carried out on the NJNS network (World Bank, (2005) 6). Its goals can be stated briefly as minimizing the procedural errors in the judiciary, providing accuracy and accelerating judicial proceedings, increasing public trust in the justice system (Worldbank (2007) 23). In other words, it accelerates the speed of the judiciary and provides reliability to the judicial system as being the main goal.

The NJNS aims to establish an electronic network including all Courts, Offices of Public Prosecutors and Enforcement Agencies, The Central Organization of the Ministry of Justice is also being included in the same network. One of the objectives of the Project is to replace the written documents and typewriters with ICTs in the judiciary. All the phases of the lawsuits from the first petition until the final decision can be completed on the Network. It is aimed to avoid repetition. Information gathered by the Public Prosecutors shall be accessible online during all stages of trials. The stages before the Supreme Court of Appeals and the State Council, the returning to the first instance court from the Supreme Court, the judgment, execution of the judgment and its transmission to the Office of Records of Convictions are completed online in this Network (WorldBank (2007) 6)

Here, I would like summarize the short history of the project for enabling an understanding at the system level:

The first opinions and attempts for a nationwide network in the Judiciary appeared in 1998. At that stage, no ICT facilities were operational. However, only soon after that, a Data Processing Department Presidency was established towards the end of 1999. After having contacted various technology companies to decide which data technologies were in use, the name for the National Judicial Network Project (NJNS) was decided upon.

In the beginning the NJNS was planned to be completed in two stages, namely: the central and the provincial organization stages. Automating the procedures in the central organization of the Ministry and its subordinate units was the first step (Worldbank (2007) 7) The Action Plan was implemented as below:

- Initiating to Turkish Judicial System Revision in 2000; scheduling the project in 2001. The First phase of the project was put into operation in 2001.
- Analyzing of the process in 2002.
- Testing the planned system with new products by the end of 2003.
- Designing the system and creating Programs and screens in 2003.
- Implementation of the project in limited pilot units in 2004.

The situation during the years between 2004 and 2005 can be referred as a computerisation of the courtrooms. According to the numbers, the equipment delivered to personnel in the judiciary is shown below:

Computer	22.200
Laptop	9.217
Laptop printer	2.800
Laser printer	11.265
Color Printer	418
Uninterruptible power supply	5.090
Scanner	2.437

Some numbers of technical tools as of 2004-2005. (Source: Tanrıkulu (2005),15)

This was used as a trial application for some courts and then used at the Supreme Court of Appeal since 2004. Further steps for the project was planned to realize for the following years (Worldbank (2007) 7). In the second phase, the 30 trial and test units that were chosen, were first used in February 2004. At the end of 2005, the Wide Area Network (WAN) connection was established in 54 province organizations, and went into action, and it became operational by the end of 2005 by connecting WAN (Wide Area Network) nationwide in all the High Criminal Centre units. As of 16 October 2005, 16 High Criminal Centers, 4 District Administrative Tribunals and 9 Penitentiaries were included in this operation.

The stages of the NJNP mentioned above were scheduled to widen the project to all geographical areas by the first month of 2005 and to have all the phases met by the end of 2006. Nevertheless, it was unable to be achieved by that time.

Along with this, as of 28 September 2006, the numbers that show access to the courts and related government agencies are as follows: 107 Courthouse Centers, 107 Offices of the Chief Public Prosecutor, Administrative and Tax Courts in the structure of 21 District Administrative Tribunals, 107 Execution Directorships and 375 Penitentiary and Detention Houses are available for online process (National Judicial Network Project (UYAP and its Short Summary) As of today, 854 courthouses in 81 cities and 773 districts, 416 prisons and detention houses, 23 Units of Forensic Institution, approximately 25,000 users integrated to the NJNS system (Worldbank (2007) 19). Today, as of September 2007, the NJNP is used across Turkey in 133 Courthouse Centers of 136. Although prosecutors, judges and lawyers use the same network, they only use the related sub-title of the System.

The tediousness of the judiciary has always been a problem for Turkish citizens and this fact has been expressed by Turkish law scholars. The NJNS

will end the former practices of prior routines in the judiciary, such as delaying hearings to a future date for the purpose of *"determining the identification of parties"*. The NJNS has two aspects: the online connection between courts and the online connection between government agencies that have some information that supports the accuracy of judgments. By this, the determination of identification or other artificial excuses are not suggestible anymore. Here are some other examples that give an idea about the durations in the course of the Judiciary.

THE DURATIONS OF THE PROCESSES OF PROSECUTORS

Process	Before NJNS	After NJNS
The submission of a file to another unit	Half day	0-1 minutes
The preparation of monthly Statistics	Half day	0-3 minutes
The preparation of annual Statistics	1 week	0-5 minutes
The preparation of Deliver Lists	3 days	0-1 minutes
The preparation of Adis Form	1 week	0-5 minutes
Getting Information on (Birth) Register	1 week	0-1 minutes
Getting Information on Criminal Record	1 week	0-1 minutes
Searching and finding each file.	10-15 minutes	30 seconds.-1 minute.
The preparation of documents	5 minutes	0-30 seconds
Following the stages of a File	10 days	0-30 seconds

Çam, A.R, 2007 p.30.

The electronic legal work-desk

The NJNS is a system that connects the judiciary and the related judicial agencies to each other and also to the courts and central organs of the Ministry of Justice. The NJNS mainly gives the opportunity to connect all courts, services of public prosecutors, the Offices of the Chief Public Prosecutors, Penitentiary and Detention Houses, Enforcement agencies, prisons and other judicial agencies both to each other and to Turkish citizens. Its main purpose is to integrate the whole Turkish judicial system to governmental and even international organizations (Tanrıkulu (2005) 3). Prosecutors and judges can use e-mail, the Internet, intranet and data interchange with the help of the NJNS. Thus, the system ensures to link relevant parties to the courts and to each other. These links can be summarized as; court to court, court to citizen, citizen to court, lawyer (attorney in law) to court, inspector to courts, court to

related government agencies such as police, detention houses, forensic institution etc.

Prosecutors, judges, lawyers, inspectors, citizens can use the related parts of the NJNS. Each court has its own part for using the correct forms, but they use the relevant subdivision of the same jurisprudence databank.

Prosecutors can use e-mail, Internet, intranet and data interchange. All of these entirely exist in the NJNS. Prosecutor's ICT infrastructure integrates with the police, courts, Penitentiary and Detention Houses, prisons, Forensic and Medicine Units to other public prosecutor services and enforcement agencies. All kinds of electronic databases are available upon the use of the NJNS. They can prepare documents, the workflow management, calendar management, caseload statistics, management reports and almost all the works online. When the current situation of the system is reviewed, these are the challenging facts for each party.

The NJNS not only promises efficiency for the judiciary, but also paves the way for the citizens who are the parties of a judicial conflict. They are able to follow all stages online. While courts can exchange all documents by using the NJNS, it also allows people to send forms by using the network and a citizen to get or return a printed form if necessary. The Citizens can print, sign and return the forms to the Ministry of Justice and the relevant court for their judicial affairs. The administrative staff takes the forms by scanning the barcode and after having processed them, reloads the application into the system. Improving online citizen services reduces time and cost associated with judicial processing and promotes citizens to apply judicial remedies. At the same time, this creates easiness in litigation, fast results in the judiciary by reducing the backlog for prosecutors and judges. However, it must be taken into account that currently, most of the citizens do not prefer to use online ways to apply the judiciary processes. However; it is observed that network facilities are more welcomed by the younger generation.

In addition to this, the NJNS creates reduced costs for the judiciary, minimum personnel in public administration and the satisfaction of citizens.

The NJNS promises to solve the problems of wasted time, heavy workloads and bureaucratic processing for attorneys. The system also allows attorneys or parties to receive notification or exchange of documents electronically by using their password in the courts.

This system also facilitates the classical mission of inspectors by replacing it with an easier one by using the Network. The files and their phases are recorded automatically into the system, thus the inspectors of the Ministry of Justice can inspect all courts online whenever they need to. This provides an easy inspector assessment whereby they are able to submit their assessment reports each time to the Ministry through the NJNS.

Moreover, everyone who is interested in law can get access to the jurisprudence of courts. This was not possible three years ago. This makes it easier for everyone to understand whether a case can be overruled or not. Besides this, parties can put forward their claims and refer to similar defenses and remedies by accessing the former cases.

There are separate email distribution groups for each group of members of the Justice. These groups connect the related members, such as the administrative judges' email distribution group, criminal court chiefs' email

distribution group or the Ministry of Justice inspectors' email distribution group, to one another.

Relevant information and documents can flow on the digital sphere with the new system. The legislation, regulations, jurisprudence, sample case writings and other information that the judiciary and lawyers need will be accessible with the Data Bank in the NJNS. (UYAP and its Short Summary). The system is always accessible even during the hearing and trial.

Other technologies

The Ministry of Justice sometimes sends jurisprudence and legislation databanks such as Cihan and Meşe Programs that include all the legislation, decrees, jurisprudence of courts, regulations, by-laws, international conventions and treaties, the ECHR judgments etc. But, after the NJNS, there is no need for this database anymore, since the network has a huge database.

Video-recording, computer aided transcription, real-time transcription, audio-taping, digital audio-taping, voice recognition systems, steno typing etc. are generally a part of the law enforcement phase of prosecution, rather than of the courts. Thus, none of these innovations exist in Turkey for now. However, the struggle to renew the old system and to establish an infrastructure for innovations is still continuing. For instance, the Ministry of Justice will establish recording systems and video conferencing in 225 high criminal courts with support from the EU under the "Better Access to Justice" project. The tender process was initiated in June 2007. Moreover, the total budget allocated for the "Better Access to Justice in Turkey" project, is 4.400.000 Euros for 2006-2008. (Screening Chapter 23 (2007) 11). These are substantial budgets in Turkey for renewing the judiciary.

Any filed lawsuit can be traced on the network by judges, prosecutors, authorised staff, lawyers, parties of the lawsuit and inspectors. Inspectors are able to monitor any file. In addition, statistics can also be found on the NJNS, such as the number of cases, sorts of cases, and gender and age statistics of victims and criminals. These statistics are used by the Ministry of Justice for determining the needs of the judiciaries. The Ministry of Justice evaluates the impact of the NJNP on the criminal justice chain and on prosecutor's offices as it does for the other offices in the judiciary. The approved or annulled files before each judge and prosecutor by the Court of Appeal are used to measure their performances. All the statistics are used by the Ministry for developing newer strategies and management.

The liability for development of ICT strategies are carried out by the Information Processing Centre of the Ministry of Justice. The Ministry is in charge of developing the ICT infrastructure and providing the education to personnel. The policies are created by the Ministry. Moreover, the Information Processing Centre of the Ministry of Justice is in charge of the development of the ICT infrastructure and ICT strategies. The HAVELSAN software and systems company, which provided the technical infrastructure to the Ministry, is also in charge of developing the software for the NJNP.

Obviously, the NJNS is the most efficient and successful sample of e-government applications in Turkey. This successful attempt, awarded twice in 2004 and in 2005 at the national level, has led to other projects. The 2005

award was given to both the NJNS and another project, namely the MOBESE (Mobile Electronic System Integration; a system which uses GPRS technology for law enforcement agencies) established by the Istanbul Directorate Unit for Security which includes many different e-programs with rich components. (http://mobese.iem.gov.tr and http://www.mobese.com/).

Essential training for existing courts' judges, prosecutors and administrative staff was completed by July 2007. The training centre of the Ministry of Justice and trainers taught the new system for the new judges and prosecutors. Education was given by the professional educational institutions. Later on, as being parallel to the places which were taken into operation, education on NJNS applications was given to 40.000 users. 1700 persons were became expert trainers thanks to the that education. The trainers technically back up all users. (Educations of UYAP) Moreover, an online portal (http://www.uyap.gov.tr/e-davetiye_gonder/uzaktan_egitim.htm) for the applicators of the law who want to learn more serves online.

Conclusion

In general, the objective of this project is to create a automation of the decisions of all appeal courts and to integrate other units to succeed for a qualified judicial service. In other words, the project aims at developing e-justice modules for e-Government studies.

The NJNS promises prosecutors and judges a reduction in errors by improving the accuracy of data submitted in the forms. This allows judges and prosecutors to focus only on the conflicting issues hereby, transforming the judicial activity to be more efficient than before. What this in actual fact means that cases ultimately no longer have to last for years.

Legislation and any provision of Acts will be accessible in the easiest way possible. The online flow of documents and information creates easiness in litigation, fast results in the judiciary and reduces the backlog for prosecutors and judges in trial regions. Judges will choose the provision, and the related programs will bring a case sample and a notice list with the relevant subjects that must be paid attention to. (UYAP and its Short Summary)

The emerging problems we have determined are provided below: Firstly, infrastructural barriers have been evident. Secondly, the main problem is the adaptation to the innovations. People are reluctant to give up accustomed methods. The resistance of senior prosecutors and judges against the innovations due to a fear of failure is for the time being a temporary problem. However, the traditional customs and habits are substituted by new ones in a very short time.

Countrywide application is not feasible except in some small courts. The prosecutors and judges we interviewed about the NJNS claimed that they were accustomed to using traditional (manual) methods and needed time to use the innovative programs. We observed that some judges and prosecutors are continuing to use the former methods in trial courthouses. They use the paper based system and later pass them to the paperless NJNS.

Another criticism against the NJNS was by some of the prosecutors and judges we interviewed who had mentioned that they attained the passwords

from the Ministry of Justice to access the system. They put forth their fear that an unauthorized person could infiltrate the files and amend data with ease. In addition, many courthouses (judiciaries) do not have the connection and some of the judges, prosecutors and lawyers do not have the passwords for accessing via the Internet.

All in all, there is currently no legislation that regulates the NJNS. Yet, in spite of the lack of legislation and regulation about the NJNS, the system still works effectively. However, in our opinion, the NJNS as a well the functioning system should be urgently regulated in a law to establish a strong base.

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Appendix 2: Text of the questions from the CEPEJ evaluation Scheme mentioned in the study

5. Total annual budget allocated to all courts €

Source

Please specify:

6. Within this budget, can you isolate the following budgets and specify, if appropriate, their amount:

	Yes	Amount
▪ **Salaries?**		€
▪ **IT?**		€
▪ **Justice expenses borne by the State?**		€

Source

8. If possible, please specify:

- **the annual public budget spent on legal aid in criminal cases** €
- **the annual public budget spent on legal aid in other court cases** €

Source

20 Are there official internet sites/portals (e.g. Ministry of Justice, etc.) for the following, which the general public may have free of charge access to:

	Yes	No
▪ **legal texts (e.g. codes, laws, regulations, etc.)?**		

Internet address(es):

▪ **case-law of the higher court/s?**		

Internet address(es):

▪ **other documents (for examples legal forms)?**		

Internet address(es):

48. In general, do the courts in your country have computer facilities?

Yes No

49. What are the computer facilities used within the courts?

Functions	Facilities	100% of courts	+50% of courts	-50% of courts	- 10 % of courts
Direct assistance to the judge/court clerk	Word processing				
	Electronic data base of jurisprudence				
	Electronic files				
	E-mail				
	Internet connection				
Administration and management	Case registration system				
	Court management information system				
	Financial information system				
Communication between the court and the parties	Electronic forms				
	Special Website				
	Other electronic communication facilities				

Source

50 Is there a centralised institution which is responsible for collecting statistical data regarding the functioning of the courts and judiciary?

No
Yes

Please specify the name and the address of this institution:

***

You can indicate below:
- ***any useful comments for interpreting the data mentioned above***
- ***the characteristics of your judicial system***