The legal validity of documents in electronic format in Turkey is set out in Elektronik \(\text{\textregistered} 5070\) (Electronic Signature Law No. 5070). However there are no regulations for the secure exchange of the data and documents between persons and institutions. There have been a number of research projects and studies carried out throughout the world that deal with the security of e-commerce. One of the leading projects is the STF 318 Registered E-Mail System research, part of which includes Standard No. TS 102 640 of the European Telecommunications Standards Institute.1

TS 102 640 is, at the time of writing, made of three parts that were published in August 2008: Part 1: ‘Architecture'; Part 2: ‘Data Requirements and Formats for Signed Evidences for REM' and Part 3: ‘Information Security Policy Requirements for REM Management Domains'. STF 318 is now in the final stage of phase 3 that began in October 2008. Two additional parts have now been produced and the previous parts have been reviewed and slightly amended: Part 4: 'REM-MD Assessment Profiles' and Part 5: ‘Interoperability Profile'. All of these documents have now entered a revision and commenting phase by the relevant ETSI Technical Committee (ESI). If everything goes smoothly, these documents should be published in November or December 2009.

A fourth phase has been deemed as necessary to achieve the following two main objectives: to facilitate the interoperability between REM systems, by laying down test cases and setting up at the ETSI premises a testing facility (named PlugTest (R)), and to develop, jointly with PEPPOL Work Package 8 (WP8) and the Universal Postal Union, suitable agreements to enable an interchange between systems based on the two different protocols: SMTP (over which ETSI REM is based) and SOAP (used by PEPPOL and one UPU specification).

The registered e-mail system uses digital signatures and time stamp technologies within a defined set of standards to provide a number of services, such as:

1. Providing assurance of the origin of the electronic document. (The level of assurance will differ in accordance with the use of the technology. For a low level of assurance, the sender's registered e-mail provides reliable evidence (reliable since the message as a whole is signed) stating that a certain message was sent on a specified date and time from one specific mail address. A higher level of authenticity is required by the sender, and the same evidence may assert the identity (physical or virtual) of the sender).

2. Protecting the integrity of the electronic document. (It may also provide assurance of authenticity of the document. This is helped by the presence in a specific field that provides evidence of a particular identifier based on the digest of the entire message. In this respect, the sender will not be able to repudiate the message, even if the registered e-mail does not carry the sender's signature. Conversely, the recipient cannot deny having received the particular registered e-mail).

3. Fixing the time and date of the operation over the electronic document independently of the clocks on the computers or systems under the control of the

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sender or recipient.

d. Where an operation occurs, it is asserted that the sender cannot deny the operation occurred. (In such a case, it is to be inferred that the sender signed the document with his or her own digital signature).

e. Provides for the security and secrecy of the communication during transmitting.

Registered e-mail can be used to transmit official correspondence between public institutions electronically; the sending of official correspondence between the private sector and citizens electronically, sharing documents securely and e-announcements, e-bills, e-reports, and e-contracting.

There is also a global standard, the Electronic Postal Certification Mark (EPCM), developed by Microsoft and Poste Italiane.²

**Countries that presently offer such a system or a similar system**

Italy has had a registered e-mail system since 2005, as provided by Decreto Presidente della Repubblica 11 febbraio 2005, n.68 Regolamento recante disposizioni per l’utilizzo della posta elettronica certificata, a norma dell’articolo 27 della legge 16 gennaio 2003, n. 3 (Decree by the President of the Republic No 68/2005) and Il Decreto Ministeriale pubblicato nella G.U. del 15 novembre 2005, n. 266 (Decree by the Ministry for Innovation and Technologies of 2 November 2005). At the time of writing, there are 22 PEC providers, supervised by a government authority (CNIPA).³ In Switzerland, ‘IncaMail’ is a store and notify system managed by the Swiss Post. This system is operational. Although it does not have any official legal standing, it is recognized.⁴ In the United States of America, Rpost⁵ is a registered e-mail system, and the United States Post Office offer a product called Electronic Postmark.⁶

**Legislation regarding registered e-mail**

The Draft of the Turkish Commercial Code empowers the Information and Communication Technologies Authority with regulative and supervisory duties. But before providing an explanation of the related provisions, it is relevant to provide an outline of some details of the Draft Turkish Commercial Code.

The Turkish Commercial Code (TCC) was adopted in 1956, arguably inspired by the best codes of its age and since then, it has only been sporadically updated. An overall effort to modernize the TCC has been in progress for the past five years, and finally, the relevant Commission of the Ministry of Justice presented the ‘Turkish Commercial Code Draft’ for public opinion in late February 2005. The Draft Code aims to regulate commercial relations in line with the recent changes in the local and global business environment as well as technological and legal developments, including EU legislation. The Commission has focused in particular on electronic transactions, information society services, consumer protection, minority shareholders’ rights and corporate governance. The Draft Code aims for an overall change and intends to create a ‘digital company’ which, it is believed, will be of most interest to foreign investors. The Draft Code was sent to Turkish Grand National Assembly on 9 November 2005, and remains open for discussion in Parliament. But because of the importance of other issues, the Draft Commercial Code has not been included in the agenda of the Parliament till the next legislative period.

Concerning registered e-mail, Article 18 of the Draft Commercial Code reads as follows:

‘Tacir Olmanın Hükümleri

I - Genel olarak

MADDE 18 –

(3) Tacirler arasında, diger tarafı temerrüde düşürmeye, sözlesmeden dönüneceleyici hiba veya sözlesmeden dönme rejected, ihtar kaydı altında kanunlukla, taahhüttü mektupla, telgrafla veya güvenli elektronik imza kullanarak kayıtlı elektronik posta sistemi vasıtasıyla yapılır.’

‘Notifications pertaining non-performance and/or termination of agreements will be made through public notery, registered mail, telegram or secure electronic signature within the registered e-mail system’

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³ Details can be found (in Italian) at http://www.cnipa.gov.it/site/it-IT/Attivit%C3%A0/Posta_Elettronica_Certificata__; (PEC); see also Roberta Falciadi and Laura Liberati, ‘The Italian certified e-mail system’, Digital Evidence and Electronic Signature Law Review, 3 (2006) 50 – 54.
⁴ Information (in English) is available at http://www.incamail.ch/en/.
⁸ For detailed information on Draft Turkish Commercial Code please see http://www.pwc.com/extweb/pwcpublications.nsf/docid/CD7A5CoFCA3586028025718D0049D72E.
Article 1525 reads as follows:

"The principles and procedure regarding the registered e-mail system, the operations and actions performed via this system and the legal consequences of these operations, the rights and obligations of the companies, real persons who are the owners of registered e-mail addresses and the registered e-mail service providers, the operation of these service providers will be determined by the ordinances which will be issued by Information Technologies and Telecommunications Authority within 12 months from the entry into force of this Law."

**Registered e-mail studies in Turkey**

The Information and Communication Technologies Authority (BTK) has developed a project in coordination with the universities and private sector companies in order to contribute to the e-transformation process and remove the obstacles that will help implement a number of e-government projects that were set out in the ‘Information Community Strategy and Action Plan,’ which was approved by the High Planning Committee. The project has been submitted to TÜBİTAK, the Scientific and Technological Research Council of Turkey, to be evaluated in the scope of Public Institutions Research and Development support program (2007 Program) in the 2008 February-August period.

**The E-Transformation Turkish Executive Committee and preparations for legislation**

The Information and Communication Technologies Authority submitted a presentation in respect of registered e-mail to the E-Transformation Turkish Executive Committee at the 26th meeting, which was held on 26 December 2008. It is expected that the E-Transformation Turkish Executive Committee will recommend that the BTK establishes a regulatory framework regarding registered e-mail, in coordination with the State Planning Organisation. Since BTK has been empowered to deal with the regulatory and supervisory duties regarding registered e-mail, preparations have begun to implement secondary legislation. In this respect, the Information and Telecommunications Authority have initiated a research project to observe and survey what other States are doing, and what international regulations and standards there may exist regarding this issue.

**Draft law on Income Tax**

The draft law amending the Income Tax law and other relevant laws also includes a provision regarding the provision of an e-notice using the registered e-mail system. Article 7 of the draft law amends Law No. 6183 on the Pursuit and Collection of Public Receivables. Paragraph (a) of Article 7, entitled ‘seizure of movables’ has been added to Article 77 of Law No. 6183. This provision states that movables which have a register may also be seized by notification to the register office. With the amendment to this regulation, it is now possible to send a notification and receive the response by electronic means.

**E-Invoice**

With the 2005 E-Transformation Project of Turkey short term action Plan (e-Dönüşüm Türkiye Projesi Kısa Dönem Eylem Planı), the electronic invoice was officially placed on the agenda. Later, with the Information Community Strategy Action Plan (Bilgi Toplumu Stratejisi Eylem Planı), the implementation of the electronic invoice (Action 64) has become a project in which the Head Office of the Ministry of Finance Income Administration took over as the institution responsible for the implementation of the concept. In February 2008, the Income Administration started the Electronic Invoice Registration System. In the context of this system, the taxpayer is given permission by the Income Administration to issue their invoices electronically on the condition that they send the second copy of the invoice to the Income Administration. The system permits the issuance of the invoices, providing they are issued in pdf format and include a secure

* This provision will be added into the Article with a motion of Parliament.
  ** http://www.ttk.gov.tr/btstrateji/Eylem_Pl
  ** Published in the Official Gazette in 2006. See also http://www.bilgitoplumu.gov.tr/Strateji/Eylem_Plan.pdf.
The following organizations have been given permission to use the system to date: Turkcell, Vodafone, Avea, Türk Telekom, TTnet and BursaGaz.

Article 242/II bis of the Tax Procedure Law has been amended by the Law no. 5766 (dated 13.06.2008 published in the Official Gazzette No 26905) amending the Law on Public Receivables and other Laws. Article 242/II of the Tax Procedure Law as amended now reads as follows:

'Degis,ik madde: 04/06/2008-5766 S.K./17.mad

Maliye Bakanlığı; elektronik defter, belge ve kayıtların oluşturmması, kaydedilmesi, iletilmesi, muhafaza ve ibrazi ile defter ve belgelere elektronik ortamda tutulması ve düzenlenmesi uygulamasına ilişkin usul ve esasları belirlemeye, elektronik ortamda tutulmasına ve düzenlenmesine izin verilen defter ve belgelerde yer alması gereken bilgiler internet de dahil olmak üzere her türlü elektronik bilgi iletişim araç ve ortamında Maliye Bakanlığına veya Maliye Bakanlığının yönetim ve denetimine tabi olup, kuruluşu, faaliyetleri, çalışma ve denetim esasları Bakanlar Kuruluna çıkarılayacak bir yönetimmelike belirlenecek olan özel hukuk tüzel kişiliğini haiz bir şirket akıstaffara zorunluluğu getirmeye, bilgi aktarımında uyuşmak format ve standartlar ile uygulamaya ilişkin usul ve esasları tespit etmeye, bu Kanun kapsamında giren işlemlerde elektronik imza kullanım usul ve esaslarını düzenlemeye ve denetlemeye yetkilidir. Bu Kanunun vergi mahremiyetine ilişkin hükümleri, bu kapsamda kurulan şirketin ortak, yöneticisi ve çalışanları hakkında da uygulanır.'

'The Ministry of Finance is authorized to determine the principles and procedures regarding the preparation, recording and forwarding of the electronic books and documents in the electronic environment; their protection, maintenance and submission. The Ministry of Finance also brings the obligation of the transfer of every item of information that should be on the books and documents issued with permission in the electronic information and communication environment to a private legal entity. The business procedures and the audit of this company will be determined by an ordinance to be prepared by the Cabinet of Ministers. The Ministry of Finance is also authorized to determine the rules and procedures regarding the format and the standards to be obeyed in the information transfer.

The provisions related to tax confidentiality of this Law is applicable to the partners, executives and officials of the company.'

The Draft Ordinance on the Establishing, Operation, Working and Accounting Principles of Electronic Invoice and Record Preservation Services (Elektronik Fatura ve Kayıt Saklama Hizmetleri Kuruluşunun (EFKS) Kuruluş, Faaliyet, Çalışma ve Denetim Esasları Hakkında Yönetmelik) that is defined by the above amendment, has been prepared by the Income Administration. In the structure that has been set forth with the Draft, it is proposed that the company will be established in accordance with the provisions of Article 8, which sets out the shareholding arrangements:

**Pay sahipliği**

Madde 8 – Türkiye Odalar ve Borsalar Birligi, Türkiye Bankalar Birliği, Türkiye Katılım Bankaları Birliği, ... EFKS’nin kurucu ortakları ortaklandır

Shareholding

Article 8 – The Union of Chambers and Commodity Exchanges of Turkey, The Banks Association of Turkey, The Participation Banks Association of Turkey, ... are shareholders of EFKS.

The electronic invoice registration system

The proposed Electronic Invoice System is a starting point for the purpose of implementing the electronic invoice infrastructure and all of its component parts. In general, the Electronic Invoice Registration System ‘is a system which makes it possible for the first copies of the invoices to be issued in the form of a digital document with a secure signature on it’. The first copies are prepared to be given to the receivers of the invoices. The first copies of the invoices which are issued under the Electronic Invoice Registration System in the form of paper or secure electronic signed digital documents differ from the invoices which are issued within the scope of the general provisions in three
points:

a. It is provided that the invoice identity number will be used in lieu of an invoice serial number within the scope of electronic invoice registration system.

b. The electronic invoice registration system emblem should be printed on the top middle of the invoice.

c. There is a requirement that the following commentary be included in a clear and coherent way at the bottom of the electronic invoice issued within the scope of electronic invoice registration system: 'This invoice is registered to the electronic invoice registration system. Inquiries regarding the registration of this invoice should be done from the internet addresss http://www.efatura.gov.tr'.

To date, six companies have gained the right to issue electronic invoices within the scope of electronic invoice registration system after signing a protocol with the Income Administration Authority. Except from one natural gas company, the other companies are in the telecommunications sector.

A taxpayer may only send an e-invoice if they are within the scope of the electronic invoice registration system. Electronic invoices formed by the taxpayers within the scope of electronic invoice registration system should be signed with a secure electronic signature within the provisions of Electronic Signature Law No. 5070 in order to prevent the alteration of any information in the invoice and to confirm the source from which the invoice is received. The UBL standard has been chosen as the preferred standard for e-invoicing.

Up to February 2008, six companies have begun to use the system.

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