### COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 17.02.2003 COM(2003) 73 final

### **COMMUNICATION FROM THE COMMISSION**

concerning the introduction of a European health insurance card

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#### Introduction

When it approved the action plan for removing obstacles to geographical mobility by 2005, the Barcelona European Council decided to create a European health insurance card which would "replace all the current paper forms needed for health treatment in another Member State". It would also "simplify procedures, but would not change existing rights and obligations".

In this context, the European Council asked the Commission to submit a proposal before its next meeting in Brussels on 20 March 2003.

The new European card will, first and foremost, benefit European citizens by eliminating the current procedures for obtaining the various forms, replacing them with a single, personalised card. It will facilitate temporary stays abroad, initially holidays, the E111 form being the first to be replaced; and, later, employees posted to another country (E128), international road transport (E110), study (E128) and job seeking (E119).

In so doing, it will enable the public to take advantage more easily of the essential facility provided by the coordination of statutory health insurance schemes for over thirty years under Regulation 1408/71<sup>1</sup>. Anyone staying temporarily in another Member State has access to immediately necessary care under the same conditions as nationals of that country. Patients who have to pay on the spot, e.g. for a visit to the doctor, in the country in which they are staying, will be able to be reimbursed more quickly by their own scheme. A European card will simplify access to care in the country visited while providing a guarantee for the bodies financing the health system in that country that the patient is fully insured in his or her country of origin and that they can therefore rely on reimbursement by their counterparts. Account must be taken here of the many national differences in the use of cards in social protection and health systems, and of the fact that responsibility for social security and organisation of health care systems lies with the Member States. While cards have been widely distributed in some countries, the aim of which in some cases goes well beyond simple administration of cost reimbursement, this is far from being the general rule. Furthermore, there is so far no cross-border interoperability between cards, except in the context of a few projects which are still at the pilot stage, because they have been designed for use solely within a national system.

The introduction of the European health insurance card, in connection with the coordination of statutory social security schemes under Regulation 1408/71, must be based on decisions of the Administrative Commission on Social Security for Migrant Workers (CASSTM). The Administrative Commission is made up of representatives of the Member States, and its responsibilities include promoting and developing cooperation between Member States with a view to modernising information exchange between institutions and speeding up the provision and reimbursement of benefits. Once the Accession Treaty has been signed, on 16 April, it is planned that the ten candidate countries due to become members on 1 May 2004 will attend CASSTM's discussions on this subject as observers.

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Regulation EC No 1408/71 of 14 June 1971 on the application of social security schemes to employed persons and their families moving within the Community, OJ L 149, 5 July 1971 (consolidated version OJ L 28, 30 January 1997, page 1).

The purpose of this communication is to facilitate the Administrative Commission's future work in this field. It is the fruit of extensive consultation with the Administrative Commission following the Barcelona European Council. The Member States, together with the EEA countries and Switzerland, Slovenia and the Czech Republic, have also contributed considerably by providing detailed information on the situation in their own countries as regards existing cards or projects. On this basis, it has been possible to put together an accurate overview of the current situation, which is summarised in the Annex to this communication.

Thanks to this preliminary work, the Commission is now in a position to put forward a timetable with various options for implementing the Barcelona decision. Initially, the European card will carry in visually readable form the information needed for the granting and reimbursement of health care provided in a Member State other than that in which the recipient is insured. This does not in any way preclude the information also being carried in electronic form with a view to future cross-border interoperability. It will be phased in progressively, in three stages:

- legal and technical preparation;
- launching, as from 2004, in two stages: initially replacing only form E111, and subsequently all the other forms used for temporary stays;
- a third stage leading ultimately to electric versions of the forms and some of the procedures. In some border regions, such an electronic system already exists for planned care (E112), but because of the differences in national situations and the technology used, this phase cannot be embarked upon immediately, although it is the ultimate objective of the European card. For temporary stays, certain current projects, such as Netc@rds, funded by the European Union under the *eTEN* action programme, are looking into the technical, administrative, legal and financial aspects of a large-scale move to the use of electronic forms. The *eEurope 2005* plan, approved by the Seville European Council, envisages using the European card as a basis for promoting a common approach to patient identifiers and developing new functions such as the storgae of medical emergency data.

#### 1. HEALTH INSURANCE CARDS: AN OVERVIEW

There is great diversity in Europe in this area, stemming from the fact that individual countries have responsibility for the organisation of their own health and social security systems. The European card project will obviously have to work with this diversity and there is no intention to standardise the existing arrangements. Its implementation must therefore be gradual and flexible, and the means must be strictly proportional to the objective of promoting mobility in the form of temporary stays abroad.

#### 1.1 Highly diverse national situations

While all countries have a system for identifying persons covered by social insurance, not all have a card system at the moment for the relationships between the health system, the social security system and the insured (UK, S, IRL, EL, FIN and most of the applicant countries). In some, however, projects are under way (FIN, EL, S and CZ). In others, there is no national card, but there are plans for the regions (E) or the sickness insurance bodies (NL) to distribute them.

Of the Member States with sickness insurance or health cards<sup>2</sup> (or which will soon have them on an operational or experimental basis), their functions vary widely. They may, for example:

- serve solely to identify the insured (L),
- enable acquired rights to be verified and facilitate payment or reimbursement procedures (F, B, D, DK, NL),
- carry identification data which provide access to online services (A, I, E, SI),
- extend beyond the field of social security: they may, for example, carry medical emergency data (FIN, IT), enable the individual's legal status in respect of labour law to be verified to combat undeclared working (B), provide access to public services such as public libraries (DK) or employment agencies (E). In IRL, the national card is used to issue certain social benefits electronically and to register with the employment office,
- finally, some Member States plan to integrate medical data (diseases, treatment received, medical or surgical history, etc., into a secure health network (F, NL, SI).

The nature and scope of the data stored on the various cards depends on the purpose for which they are intended. Some carry only the information necessary to identify the insured, and possibly to allow online access to resources and services. Others also store information on acquired rights (e.g., the basic scheme of which the holder is a member, any supplementary scheme, the rate of reimbursement for various types of care). So far there is no European standard for the information to be included on such cards.

The technology used obviously depends on the card's functions. Some have a microprocessor chip (F, D, A, E, NL), others a memory chip (B, SI, D) or magnetic strip (DK, FIN, IRL, L). At the moment, therefore, these cards are not compatible, although there are projects working on this (e.g. in EL, in anticipation of the 2004 Olympic Games and the influx of European visitors to the Olympic sites). They also require different kinds of reader depending on the "intelligence" carried on the cards themselves, which sets additional limits on their capacity to dialogue (or their "interoperability").

Like technological developments, changes in health systems entail constant adaptation. The internet, for example, with its data transmission protocol and network security and cryptography systems (*Public Key Infrastructure*), provides new opportunities for developing online services for all those invovled in care provision<sup>3</sup>. The European landscape is therefore in constant evolution, which makes it difficult to contemplate harmonising the technologies and functions associated with the cards. Efforts should focus rather on card "interoperability". This approach would seem both realistic and appropriate to achieving the coordination of Member States' social security schemes under Regulation 1408/71.

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Annex 1 gives an overview of the situation in the various countries, based on the information supplied by the Member States, Switzerland, Slovenia and the Czech Republic.

See the report "Smart Cards as Enabling Technology for Future-Proof Healthcare: A Requirements Survey" published in November 2002 by the "Smart Card Charter" as part of the "eEurope Smart Card" initiative.

### 1.2 Cross-border projects

In the border regions, the aim is often not so much to facilitate access to care (and therefore reimbursement procedures) in the course of a temporary stay as to improve the coordination of supply. This is why certain experimental projects focus on simpler, more open access to scheduled care.

*Meuse-Rhine Euregio*: at the initiative of two sickness insurance institutions, one in Germany and the other in the Netherlands, persons insured in the Netherlands have, since 2000, been issued with a specific health insurance card, technically similar to the German insurance card, which gives them access to health care in the border zone in Germany. The arrangement is reciprocal, persons insured in this border zone in Germany being able to use their German health insurance card to obtain care in the corresponding region in the Netherlands.

**Baden-Württemberg** - **Vorarlberg**: under an agreement between sickness insurance institutions, the German card is recognised by care providers in Austria in place of the E111 form.

*Transcards*: with a view to opening up French Thiérache and Belgian Hainaut, since May 2000 an agreement between the French and Belgian social security bodies has enabled those living in the border areas (150 000 people) to use their national card to obtain care in a hospital near their home but on the other side of the border. Such access does not require prior authorisation — upon presentation of proof of identity and the insurance card (the Belgian SIS or the French VITALE), the hospital completes form E112 automatically from the details on the card.

*Netlink*: since October 2001, hospitals in Baden-Württemberg treating hemodialysis patients from Alsace under an agreement between the German and French social security systems, have been able to read the VITALE card and complete form E112 on the basis of it.

#### 1.3 The contribution of Community policies

#### 1.3.1 The eEurope 2005 Action Plan

Approved by the Seville European Council in June 2002, the *eEurope 2005* Action Plan seeks, on the basis of the future European health insurance card created at the Barcelona European Council, to support European cooperation on electronic health cards. In particular, the section on e-Health refers to a common approach to patient identifiers and electronic health record architecture through standardisation (eTen programme).

This builds on work already carried out by the *Smart Card Initiative* under *eEurope 2002*, which aimed to *encourage the deployment of smart cards throughout Europe, responding to the needs of both citizens and the business community*. In the development of health cards, the *Smart Card Charter* recommends focusing on their role as infrastructure elements within secure networks, for example enabling online access to the patient's administrative and medical files. Their role in storing medical and administrative information should therefore be limited.

In this context, the health insurance card represents an essential stage in the possible development of new services or functions using information technologies, such as storing medical data on a smart card or secure access to the medical file through the insured's indentifier.

#### 1.3.2 The Netc@rds project

As part of trans-European network policy (RTE)<sup>4</sup>, *eTEN* is a Community action programme supporting the deployment of trans-European e-services based on the telecommunications networks and promoting public interest services for greater social and territorial cohesion.

One recipient of this support is the first stage of the Netc@rds project, launched in 2002 for 12 months by four Member States (Greece, Germany, Austria, France). The object of the project is to replace the paper forms E111 and E128 by electronic transfer of data carried on the existing national cards and/or accessible online. The project is being run within the existing legal and technical framework, i.e. working with the different types of card being used by the participants and with the national projects in progress.

In the first stage of the project, the idea is to draw up an "investment plan" comprising all the technical, administrative, legal and financial aspects needed for the second stage, i.e. the initial distribution of electronic cards carrying the forms. A third stage is envisaged enabling use of the cards to be extended further.

The work carried out during these phases will support the technical and legal preparations for implementing the Barcelona decision.

#### 1.3.3 The 6th research and development Framework Programme

The 6th RDFP seeks to improve understanding of certain aspects of patient mobility within the Union. The research will cover the way in which temporarystays in another Member State are taken into account by health systems, including the reimbursement aspects; possibilities for cross-border sharing of care supply; and prospective cross-border patient flows in an enlarged Union.

#### 2. COMMON FEATURES

The European card must have common features enabling it to be recognised and used in all Member States. This essentially concerns the nature and presentation of the information carried, as the cards must be readable irrespective of the language of the user, and conformity with a European model.

#### 2.1 The model

A common model for the card — with a distinctive European symbol, perhaps a logo symbolising European mobility — is needed to ensure immediate recognition of the card by all those involved in the health system, irrespective of where the cardholder is staying.

The European model is subject to three constraints:

 Member States are free to choose between adding a European side to a national card or creating a separate European card, which latter would obviously leave more scope for flexibility for a European model;

Regulation EC 2236/95, amended by Regulation EC 1655/99.

- in the case of a combined card, the model must be adaptable to the different technologies used (magnetic strip or chip card);
- where the Member State opts for a specific European card, the model must be designed to allow transfer ultimately to an electronic carrier in the form of a chip.

#### 2.2 The information on the card

To ensure that the card is readable, it should only carry the data which is absolutely necessary for the provision of care and reimbursement of the cost to the institution in the place of stay. The paper E111 form already contains this essential information, but also certain redundant or superfluous data. The Commission therefore suggests that the obligatory information on the European card should be cut down to the following (list to be established by CASSTM):

- surname and first name of the cardholder,
- identification number of the cardholder,
- card validity date,
- ISO code of the Member State of registration,
- identification number, or, if none, name of the competent institution,
- the logical number of the card, which must enable the information it carries to be checked against the information held by the insuring organisation for the same logical number, to reduce the risk of fraud.

For the countries distinguishing between different types of acquired rights, (e.g. hospital treatment only or all health care), this could be indicated.

Similarly, since in the first stage of the card's introduction only form E111 will be replaced, under Regulation 1408/71 in its current form a distinction will have to be made between the information corresponding to the old "E111" and "E111+" forms, so as not to restrict the entitlement of one of the insured categories. At the moment, holders of retirement or invalidity pensions are entitled to all necessary care, and not only that which is "immediately necessary", in the Member State of temporary stay.

Finally, the presentation of this data must be standardised to enable it to be read irrespective of the user's language, by superimposing fields.

### 2.3 Validity period

There are two aspects to consider when deciding on the validity period for the European card. On the one hand, some Member States may decide to add the model for the European card onto one side of their own national sickness insurance card, which will already have a validity date. On the other, the date must be fixed with two objectives in mind: promoting mobility and simplifying procedures while preventing improper or fraudulent use of the European card.

Moreover, if all the forms used for temporary stays are to be replaced, the validity period will have to be realistic and effective, both from the point of view of the holders' entitlement and in the interests of the social security institutions and health care providers.

In view of this, and on the basis of CASSTM discussions, the Commission therefore considers that the only reasonable approach is to allow the Member States to decide on the validity period of the European cards they issue. This flexibility, however, is absolutely dependent on applying the principle of the responsibility of the issuing country, if legal certainty and the credibility of the card are to be guaranteed.

This has two essential implications:

- in all cases, the institution of the country issuing the card will have to reimburse the competent institution of the country of stay for care dispensed on the basis of a valid card,
- the issuing country will be responsible for taking all necessary measures to combat fraud and abuse, including providing for legal action and adequate penalties against offenders.

On the latter point, the risk of fraud is greater at the moment using the paper forms, which are often completed by hand, than with a standardised card, and would be very limited if electronic cards were distributed in the future.

#### 2.4 How the card operates

The use of a health insurance card involves three main parties: the insured, the service providers (doctors, hospitals, medical auxiliaries, etc.) and the social security institutions – that of the country of registration and that of the place of stay, which will then request reimbursement from the former for the cost of care.

#### 2.4.1 The insured

The insured will be the main beneficiary of the new card. They will no longer have to apply to the relevant institution for a new form before any temporary stay in another Member State, and will enjoy to their best advantage all the current benefits of the coordination of statutory health insurance schemes at European level.

All insured persons must have a separate personalised card, rather than being included on a family card, for use when travelling alone (business or school trips, etc.).

Initially, the card will be used like the current E111 form, i.e. the insured will present it to the care provider or social security institution of the place of stay.

However, if the new card is really to simplify procedures, two measure are needed which will require amendment of Regulation 1408/71 and its implementing Regulation 574/72:

Alignment of entitlement between all categories of insured. Regulation 1408/71 in its current form provides for various situations in which insured persons may be entitled to health care during a temporary stay in another Member State. The extent of this entitlement varies according to category of insured, some having access only to "immediately necessary" care, others to "necessary" care.

Essentially, all persons insured under the legislation of a Member State, with the exception of third country nationals and the members of their families, are entitled to all "*immediately necessary*" care. "Necessary" care, on the other hand, is available to those receiving retirement or invalidity pensions (E111 with appropriate

endorsement), students (in the country of study, using E128), posted workers, seafarers, etc. (E128), transport workers (E110), unemployed persons moving to another Member State to seek work (E119) and employed or self-employed victims of an industrial accident or occupational disease (E123).

These differences are not in themselves an obstacle to introducing the European card, but they are a complicating factor and could increase the cost, in that the cards would have to carry a means of identifying the "category" of the insured, and the procedures for checking entitlement between social security institutions would be more involved. In its proposal for modernising and simplifying Regulation 1408/71, the Commission has suggested bringing into line the entitlements of all insured persons travelling to another Member State, to enable them to benefit from "medically necessary" care irrespective of the nature of the temporary stay. The Council of Social Affairs Ministers of 3 December 2002, through its agreement on the "Sickness" chapter of Regulation 1408/71, opened the way for a specific proposal on alignment of entitlements.

- Removal of certain formalities currently required in addition to presentation of the form for obtaining care in a Member State other than that of insurance.

For certain Member States, in certain cases, there are specific instructions on the form in addition to the requirement to present it in order to obtain care during a temporary stay in another Member State. For example, the insured may have to go to the social security institution of the place of stay before approaching a care provider. For short stays abroad, this obligation can appear unrealistic and sometimes a real obstacle to obtaining care and to the free movement of persons. Many countries have already decided not to penalise non-compliance with this kind of procedure. Moreover, patients are often unaware of the obligation and genuinely believe that they are guaranteed access to care in the country of stay if needed, simply by having the form.

The Commission will shortly be submitting a proposal for an amendment to Regulation 574/72 along these lines.

#### 2.4.2 Care providers

Care providers will no longer receive forms which are badly completed, illegible or incomprehensible, as they do at present. Standardising the fields of the card – with visible data – will mean that the care provider has immediate access to clearer, more legible data.

The care provider will have to return the card to its owner, making a copy or, in some cases, entering the data identifying the insured and the competent institution on a document provided under the national system. This process will be made easier by the standardised presentation. Use of the new card must not entail any additional charge or administrative formalities for the care provider.

By eliminating these manual steps in the procedure, the move to an electronic system will simplify the care provider's task still further.

#### 2.4.3 The social security institutions

In the initial stage, the card would carry visibly, in standardised form, the data needed for the institution of the place of stay to request reimbursement from the insuring institution. Its

introduction should reduce the number of such requests rejected. The data will actually be more legible and more accurate than on the current forms, which are often still hand-written. Here again, transfer to an electronic system would simplify the procedures while greatly reducing the risk of error, rejection of requests for reimbursement, fraud and abuse.

Aligning the entitlement of different categories of insured persons will simplify the administration of reimbursement between institutions still further by eliminating the differences between the categories of insured on the current paper forms.

#### 3. FLEXIBLE, PHASED INTRODUCTION OF THE EUROPEAN CARD

The Barcelona European Council wished to make a strong gesture in favour of mobility and the European citizen, as a result of which the Commission is putting forward a proposal for a health card based on three aspects: free choice of type of card; flexible means of introduction; phasing-in in three stages.

This concept respects fully the Member States' independence in the organisation and running of their health and social security systems, particularly in respect of health insurance cards. The Member States will therefore also have responsibility for arranging appropriate financing as they see fit.

#### 3.1 Visible data: the options

There is a choice of type of card — either integration into an existing national card, or the issue of a new card. Initially, however, the European card will have to carry visible information, which will obviously make its integration into a national card more difficult.

#### 3.1.1 Combining the European card with the national card(s)

This would mean conforming to the technical specifications and model proposed above, while ensuring compatibility with the technology (magnetic strip, chip, embossed or non-embossed) used for the national cards, some of which already use both sides.

In addition to these constraints, there are specific points to be addressed:

- With electronic cards, the European data will have to be loaded onto the card while incorporating the same information visibly onto a "European" side of the card. This will allow the information to be read by a card reader in the country or region of stay, without preventing it from being read visually in the other cases. CASSTM would also need to define the electronic format for the data stored on the European card.
- Many national cards have relatively long periods of validity, and replacing the national card to add the European information on one side would require time to adapt the existing stock, unless all the cards were replaced, which would incur excessive costs. The changeover could be helped along in various ways, such as affixing a sticker pending renewal of the card, or issuing European cards to the insured "on request". In any event, this question is closely linked to that of the

validity period of the European card, as the national and European sides could hardly carry different expiry dates<sup>5</sup>.

Finally, the cardholders will need full information on how to use the two sides of the card, which serve different purposes. The cover afforded by the national card, which forms the basis of the holder's social security entitlement, and that of the European card are not at all the same. The European card gives access only to health care in another Member State under the conditions defined by the coordinating Regulation 1408/71 during a temporary stay in another country.

### 3.1.2 Creation of a specific European card

This option has many advantages. A special European health insurance card would appear to respond more obviously and clearly to the European Council's mandate. Its distribution could also be restricted to people actually moving within the Community. Issuing a separate European card would alleviate considerably certain constraints, such as the temporary disparity between the validity periods of the two sides of a combined card. It would also avoid unsatisfactory makeshift solutions such as affixing stickers. Creating a specific European card would not prevent the data on it from also being loaded onto a chip in countries or regions with cards, to make its use easier for stays in countries or regions with compatible equipment.

#### 3.2 Arrangements for introduction

There are two possibilities: the European health insurance card could either be distributed generally, or can be issued only to those who apply for it, as needed. It is worth pointing out again here that the card is intended for temporary stays (holidays, road transport, study, postings abroad) and is therefore not, in the vast majority of cases, for everyday use.

#### 3.2.1 General distribution

If this option is taken, the card should be generally distributed before its entry into force, which would coincide with the discontinuation of the paper forms by the Member State in question. The European card could be distributed wholesale, prior to its entry into force and before the paper forms are withdrawn. This "big bang" option would have the advantage of creating maximum awareness of the benefits of the European card. It would, however, be expensive, unless, for example, the Member State decided to introduce a national card at the same time. The experience of many countries has demonstrated that over a year of detailed preparation is often required for successful general distribution.

The European card could also be integrated into a national card when the latter is renewed, whether because it has expired, been lost or stolen or has become obsolete for a specific reason. In this way, it would be brought gradually into general circulation. While this would reduce the cost, it would also be a long and drawn out process since, in some countries, fewer than 5% of cards are replaced annually.

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National cards have a longer validity period than the current E111 form. The new Belgian SIS card to be brought out in 2003, for example, will be valid for ten years and the date will be carried only on the chip (and therefore invisible to the naked eye); while the French SESAM-VITALE and the Danish card are valid for an indefinite period for basic entitlement.

#### 3.2.2 Issue on request

This more targeted option would be the safest way of ensuring that the deadline of 1 June 2004 proposed in this communication for introduction of the European card and general withdrawal of the paper forms could be met. As from the date of its entry into force and general withdrawal of the forms, the card could be issued as and when the insured requests it from his or her insurance institution.

If a European side has been added to a national card, this would mean either re-issuing cards according to the new format, or affixing a temporary sticker.

#### 3.3 Timetable

When it decided to replace the various forms with the European card, the Barcelona European Council asked the Commission to submit a proposal in 2003. In view of the situation as described above, it would seem best to phase in the card in three stages – preparation/distribution/electronification.

#### 3.3.1 Phase 1: Preparation

Following the Barcelona European Council's decision to create the card, intensive consultation with those invovled in the statutory social security schemes enabled the priorities for the effective launch of the card to be identified.

1. In view of the deadlines set by the Barcelona European Council, the Commission proposes that CASSTM concentrate on replacing only form E111 with the European card. The relevant decisions should be taken by summer 2003 and specify the administrative and technical requirements for creating the European card, providing for it to be issued in visually readable form with the possibility right from the outset for those countries which so wish to issue an electronic card.

In particular, CASSTM should establish a list of the data to be carried visibly on the card, and incorporated electronically either immediately or at some point in the future. It should also decide on a model for the European card, with a common distinctive symbol.

The Commission would recommend taking **1 June 2004** as the deadline for effective replacement of form E111, in view of the time needed for the technical and administrative preparations for introducing the card. However, it will provide for those Member States which do not at present use a card in their health insurance system to opt for a transitional period, during which they may continue to issue E111 in paper form. The latter will therefore be accepted in the other countries until expiry of the transitional period set by the Member States concerned.

Certain Member States may well find it difficult to introduce a card by 1 June 2004, even if it is issued only on request to insured persons planning a temporary stay abroad. A transitional period will spare them disproportionate constraints and costs. This kind of flexibility will, however, inevitably mean that the country of stay will have to operate a parallel European card/E111 form system, whether or not they are benefiting from the transitional period themselves. Member States which have opted to introduce the card by 1 June 2004 will still have to cater for visitors whose countries of origin are not operating the new system, which will detract considerably from the simplification the European card is intended to produce. For this reason,

these transitional periods must be relatively brief, and in no circumstances longer than 18 months.

- 2. The Commission will propose an amendment to Regulation 1408/71 on aligning entitlement to "medically necessary care" for all categories of insured (old-age pensioners, students, employed and self-employed workers), following the agreement at the Council meeting of 3 December 2002.
- 3. The Commission will also propose an amendment to Regulation 574/72 eliminating the formalities currently required in addition to presentation of the form by the insured in the country of temporary stay. Temporary visitors must have access to treatment at normal prices to ensure that they do not encounter difficulties in the reimbursement of care received in another Member State.
- 4. In 2004, CASSTM should press ahead with adopting the decisions needed to replace all the other forms used for temporary stays. The replacement of the paper E111 form should make this stage easier.
- 5. At the same time, on the basis of the results of the first stage of the Netc@rds project, the technical specifications needed for the changeover to electronic forms should be examined. The means of registering and reading the electronic data must be defined with a view to possible electronic processing of the procedures for access to care and administration of cost acceptance at the place of stay.

#### 3.3.2 Phase 2 : Distribution

Distribution of the card could be in two successive stages:

- 1. The first stage, starting on *1 June 2004*, would see the introduction of the card to replace <u>form E111</u>. The paper forms would cease to be recognised in the other Member States, subject to any transitional periods.
  - In the event of a transitional period, the other Member States would have to continue to accept the paper E111 forms until the expiry of that period.
- 2. The second stage, to be completed by 31 December 2005 at the latest, would mark the end of the transitional periods and replacement of all the forms used for a temporary stay.

This would end the parallel circulation of cards and forms. In principle, only the European health insurance card would then give access to health care in another Member State during a temporary stay.

#### 3.3.3 Phase 3: Electronification

Replacing the forms with the European card, simplifying procedures, aligning the entitlement of different categories of insured persons and running pilot projects on card interoperability form a coherent whole, which will take on its full significance when an electronic system and automated administration of the forms and procedures are in general use. This changeover would represent a third phase, the timing of which depends both on the evaluation of Phase 2, which could be completed by 2008 (two years after the end of the second stage and the transitional periods) and on the results of the first stage of the Netc@rds project.

This final stage could also include evaluating the possibility of integrating into the card functions linked to personal health data, such as access to important medical information in emergencies or records of treatment received.

#### **CONCLUSION**

The European health insurance card is an ambitious project serving the interests of a real citizens' Europe. Drawing on the wealth and diversity of experience of many countries, it will, in the Commission's view, be able to be brought into use as a simple, practical and flexible facility from 2004. The concept for its introduction as presented in this communication, in particular its phasing-in in three stages - *preparation/distribution/electronification* - and the associated timetable, are a reflection of this analysis and this ambition.

# **ANNEX**

## **EUROPEAN UNION**

	Belgium	Denmark	Germany	Greece	Sp.	ain
Name of card / project	Carte SIS / SIS Kaart: Sociaal Identiteit Carte / Carte d'Identité Sociale (Social Identity Card)	Sygesikringsbeviset (Social Security Card)	Versicherten-karte (Insurance-Card)	AMKA-EMAES (Creation of National General Register of Social Security)	TASS Tarjeta de Affiliacion de la Seguridad Social (Social Security Affiliation Card)	TSI Tarjeta Sanitaria Individual (Health Insurance Card)
		health care benefits in kind. It has also a function as tourist health insurance certificate. Furthermore it may be used as a library card and as an identity card in relation to private and public	Entitling a person with statutory sickness insurance to medical and dental treatment.	Every person entered in the National General Register of Social Security is to be provided with a social security card.	To be used as an individual identification document within the social security and health areas Its use will facilitate common transactions, in particular with the Ministry of Work and Social Affairs, and the immediate delivery of general and personal information through terminals (kiosks) disseminated in the whole Community.	To provide access to health care through the national health system by identifying the person and providing information on entitlement to pharmaceutical benefits.
Card introduction date	1998	1993	1994	1993	In 1995, a project was initiated form one single card. It has be project in the Autonomous Co	en introduced as a pilot
Amount of cards in circulation	More than 10 million	A social security card containing identification data is issued to all residents in Denmark.	All those in Germany with statutory sickness insurance, i.e. about 80 million cards.	By December 2002, 2.5 million people have already received cards	5.5 million	All citizens, irrespective of how they qualify for access to public health care. TSI are issued by each of the 17 Autonomous Community + the Ministry of Health and Consumer affairs which is responsible for the autonomous cities of Ceuta and Melilla

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Evolution	This card has still some memory space available for sectorial applications to be activated by a different type of SAM card. It could also be used in the Belgian e-Government projects.  A new version of the card will be distributed to all card holder over 2003/2004  A smart card for public identity with electronic authentication and signature is intended to be distributed to all Belgian residents; the pilot project has been started in 2002. This card could be used for securely accessing on-line health insurance data.	There has been a discussion of whether the Health Insurance Certificate should be a smart card with a digital signature based on PKI. Right now we are awaiting the implementation of a software-based digital signature based on PKI. If or when the demand of security in Denmark will require a hardware-based digital signature, we will reconsider if the Health Insurance Certificate should be a smart card with a digital signature.	generation of microprocessor-based health card. In addition to the administrative data, this card would include health data as well as the information	After project completion (2003), the social security card will be replaced by the corresponding memory/smart card in accordance with decisions taken by the competent Greek Ministries and the Technical Commission of the Administrative Commission of Social Security for Migrant Workers	It is planned to distribute it to all insured persons (titular and beneficiaries)	
Comments	The SIS card interacts with the Health Professional Card which includes a microprocessor card with a SAM (Secure Access Module) Due to its multi-function characteristics, it is excluded that the card includes more visible data than pure identification.	The name and address of the insured person as well as the CPR-number and the health benefit group are in embossed print. The back of the card contains information in English about the Tourist Health Insurance, the secure signature strip and the magnetic stripe	a) The data on the card is not encrypted. b) The card has no special protection against access. c) Insured persons are provided with new cards in case of exceeding the period of validity or change the insurance fund. d) The investment was about 250 million Euro for the first equipment.	Technical specifications of the future memory/smart card still to be defined		TSI is also used as an element of an information system for planning and resource management tool for health resources TSI is not used as an identity document nor as evidence of worker's situation with regards to social security.

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(*) = Visible data	Social security identification number (NISS) (*) surname, first given name, initial for the second given name (*) sex (graphical icon) (*) date of birth (*)	Register Number of the card holder)(*), name and address (*)	Health insurance number (*)	All visible data(*): First 3 letters of the given name, first letter of the patronymic and the family name of the cardholder (in Greek and Latin characters) initials of the family name, given name and patronymic SSRN in barcode / SSRN in OCR form the SSRN in indent form.	Surname and first name of the card holder (*) Affiliation number (*)	Personal identifier of the card holder (*) Social security number (*) National identity document number (*) Given name and surnames (*)
(*) = Visible data	Validity date (start and end) (*), card number (*)	Name and Logo of home county.	Starting date of insurance coverage Where the card is valid for a limited period of time, period	Identification of the Secretariat General for Social Security (postal address, tel. number) Note: date of birth and sex are included on SSRN	Distribution date Date of birth	On the front side: - Name of the Autonomous community issuing the card (*) - Identification code of the issuing territory: Spain + Autonomous Community(*) - Type of entitlement (e.g. worker, pensioner, details of pharmaceutical benefits) (*) - Expiry date (*) On the back side: - Name of the primary health care practitioner (*) - Address and telephone number of the primary care centre (*) In terms of design, there are 7 communities where it differs and 10, including Ceuta and Melilla where it does not.
Authentication	None	5 r	In the back of the card: secure signature stripe	Authentication of the card holder: in the back of the card: secure signature stripe	The identification system implies the use of biometric (i.e. fingerprint)	None

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stored on the card	Card directory (CDIR) => for localising the data files Issuer data file (ISDF) => including for instance the card validity date Public data file (PDBF) => including all visible data related to the card holder Sickness fund data file (SFDF)=> including the identifier of the health insurance organisation, its access codes and some data related to the covered health insurance rights + ATR; AID=A0 00 00 33	other such as nationality, the card-issuer, the type of the card, registration number of GP, and code number of county and municipality are stored in the magnetic strip. There is a bar code with cardholders CPR. Nr.	Control information (protocol and memory layout) Information for card diagnosis and card identification (card manufacturer data) Directory information (identification of the personaliser and type of application) Application file (see above list of data) Filler data object for controlled occupation of the memory not needed for the application file	None		Personal identifier of the card holder Given name and surnames Identification code of the issuing territory: Spain + Autonomous Community Type of entitlement Expiry date
Type of card	Memory chip card	A magnetic stripe card	Memory chip card	Credit card format without magnetic stripe on the rear	Memory chip card with a magnetic stripe on the back side for interoperability with TSI	A magnetic stripe card, with the exception of the Card from the Autonomous Community of Andalusia which combines TSI with TASS
Processor type used on chip card	1024-bytes EEPROM	None	256-bytes EEPROM	None	16 Kb ROM 240 bytes RAM 3,024 bytes EEPROM	None
Operating system used on the card	Starcos s2.1c	None	./.	None	TIBC, compatible with VISA	None
	ISO 7816 (size of the card, positioning and characteristics of the memory chip, interfaces and communication protocols)	7811-2, Barcode: EAN/UPC- 128	Conform to relevant ISO standards, in particular in respect of ISA-compliant location of the contacts (ISO 7816-2)	ISO 843 for conversion of Greek characters into Latin characters	ISO standards applicable to the cards	

	France	Ireland	It	aly	Luxembourg	Nether	rlands
Name of card / project	Carte Vitale (Vitale Card)	Social Service Card	Carta Nazionale dei Servizi CNS (National Service Card)	CIE (Electronic Identity Card)	Carte d'identification à la sécurité sociale (Identification card for social security)	Verzekeringpas (Insurance pass)	Zorgpas (Care pass)
	visit to health care practitioners, pharmaceutical products) The Vitale card is closely linked with the	certain social welfare payments and by the unemployed for the purpose of 'signing on'.	This card is issued by local authorities (municipalities and regions) in accordance to national standards in order to provide various type of services (e-Government, transport, health) to citizens. It is equivalent to the CIE, but without the laser stripe.	Identity Card and network service card	The card is only used for identification purposes (registration number) and does not entitle the holder to benefits.	Insured person identification and proof of entitlement	
Card introduction date	1998 / 2001	1992	1998 (pilot project in 4 local health units as part of the NETLINK project)	2001	In the eighties	1998	1999 (Regional chip card experiment)

	France	Ireland	Ita	aly	Luxembourg	Nethe	rlands
Number of cards in circulation	40 million 53,5 million		The first example for this service card is the Lombardy Regional Service Card (CRS-SISS), a health card issued to 300 000 persons in Lecco Another example is the military health card. Other municipalities have also distributed one similar or close to CNS (Bologna, Siena, Brescia).	100.000 up to the end of 2001 with the aim to distribute it to the whole population in the coming years	The card is issued to every person covered by health insurance	Each health insurance organisation is free to use cards as proof of entitlement. However, if a magnetic card is used they are to comply with national specifications	
Evolution	The Vitale Iter project (2003-2004) is opening more the Vitale card to the complementary schemes in order to produce a "request for electronic reimbursement" Since the card is used more and more over the Internet, the whole data flow will have to be encrypted. The Vitale 2 project is aimed at providing a card to all beneficiaries (60 millions) and would include health emergency data, the last 3 or 4 signed prescriptions, some pointers (e.g. address of the health care provider, location of the medical files), some indications on the last financial transactions and a set of information on the complementary health insurance regime	by a Public Service Card, incorporating new technology which will facilitate access to these services	The INPS (National Social Welfare Institution) is also involved in the project NETLINK as an associated partner, studying the possibility of extending its use to the pensions and social benefits sector.	In the next four years the card will became the national electronic identity card	None	There are alternatives available for enabling care providers to check the insurance entitlement of their patients electronically without use of a card. For this reason, the use of the card as proof of entitlement was cancelled on 1st September 2002.	The functions can in the future be extended to other applications, such as health data.

	France	Ireland	It	aly	Luxembourg	Nethe	rlands
Comments	See information on Transcards, Netlink and Netc@rds	for citizens to access a wide range of services	Qualified operators will be provided with a special card named CNS/O "Carta Nazionale dei Servizi/Operatore" which will allow to access confidential data under the control of the citizen.	theonly one used in Italy. In any case, this	Social Security organisation receives a	The magnetic stripe is not always used, this situation is partly cause by the medical suppliers, especially the general practitioners, who don't have the equipment to read the card.	
Identification (*) = Visible data	National identification number (NIR) (*) surname, given name of the card holder (*) maiden name for women (*)	PPSN (Personal Public Service Number) (*) holder's name (*) date of birth (*)	Personal dataNational Registration Number (Tax number) of the ownerIdentification data of the municipality	Registration Number (Tax number) of the ownerIdentification data of the municipality	format), surname at	Surname and given name (*) Registration number (*) Date of birth (*) Sex (*)	
Other data in the card (*) = Visible data	Compulsory health insurance regime Contact office Card holder address	Card issue date Card expiry date sex	Emergency data E111 Netlink data set	Emergency data E111 Netlink data set	Card number	Name of insurance organisation (*) Name of primary health care practitioner and pharmacist (*) Insurance details (*) Validity date (start and end) (*)	
Authentication	Mutual recognition of the Vitale card and the CPS one (microprocessor card for health care professionals)	In the back of the card: secure signature stripe	Yes, based on a strong digital signature and on a challenge response mechanism.	Yes, based on a strong digital signature and on a challenge response mechanism.			

	France	Ireland	Italy Luxembour		Luxembourg	Netherlands	
Category of other data stored on the card	Card validity entitlement details including its validity entitlement to complementary health insurance		E-111 in accordance to the Netlink specifications	E-111 in accordance to the Netlink specifications no applications on the card. Only a couple of keys for asymmetric crypto based identification & authentication and services data for the use as service card	In addition to the data mentioned, the magnetic strip also contains details of the holder's address		
Type of card	Microprocessor card		Smart card (microprocessor)	Microprocessor + optical memory card		Plastic card with magnetic stripe (used by most of sickness funds)	Microprocessor card
Processor type used on chip card		None		16 K EEPROM	None	None	
Operating system used on the card	cos	None			None	None	

	France	Ireland	Ita	ıly	Luxembourg	Nether	·lands
International standards used	ISO 7816	Conform to relevant ISO standards	see NETLINK recommendations	ISO 7816 pile and PKCS- RSA pile.		ISO/IEC 7810: Identification cards - Physical characteristics NEN-EN-ISO/IEC 7811: Identification cards - Recording techniques ISO/IEC 7813: Identification cards - Financial transaction cards NEN 1888: Overall definition of personal data NEN 5825: Addresses - Definition, character sets, exchange format and physical presentation EN 1387: Health care application cards - General characteristics ENV 12018: Identification, administrative and common clinical data structure	

	Austria	Port	tugal	Sweden	Finl	and	United Kingdom
Name of card / project	e-Card	Cartão do Utente Ministério da Saúde (Identification Card for persons registered with the National Health Service)	CARDLINK (Emergency card for diabetics)	N/A (see COMMENTS)	(Standard health insurance card (without/with picture))		N/A (see COMMENTS)
Card purpose	The first stage is to use the card to replace the old system of health insurance certificates for all insured persons in Austria.	For use in any SNS (Serviço Nacional de Saúde) health service or institution, and in pharmacies and institutions which have agreements with the Ministry of Health			The main environment in which the cards are used is pharmacies, where insured persons must present their personal card in order to receive refunds for prescription drugs.  The card with the photo is used to prove identity, even it is not an official proof of identity	The main objective is to exploit the card's potential as a portable search key for network-based information retrieval.  - Electronic identity - Health insurance Social welfare and Health care	
Card introduction date	2001				1990	1999	
Number of cards in circulation	All insured persons in Austria	Approximately 9 million	1100 diabetics' cards and 250 health professionals' cards		The standard card has been issued to all permanent residents of Finland, of whom about 600,000 have exchanged it for a photo card (available for a fee).	Regional pilot	
Evolution	In the second phase, the card will become a key card for other applications in the social insurance and healthcare fields and - especially in connection with electrical signature - a citizen's card for e-government applications available through the Internet.	A Social Security identification card (under examination)					

	Austria	Por	tugal	Sweden	Finl	and	United Kingdom
Comments	a) The card is designed to act as a key to the Austrian healthcare system, it does not in itself carry specific data, but rather facilitates access to services and data. b) The access to data in the card and/or the activation of applications is possible only with a right card put at the same time c) The card is prepared for electrical signature.		The card may be used wherever the SNS registration card is used	There are no electronic identification/information cards for people residing in Sweden in use within the Swedish social insurance administration and there are no current plans for introducing such cards. There is however a pilot project for electronic identity cards, providing authentication and electronic signature services to be used in the context of e-services.		The main objective is to give the customer an electronic identification, encrypt discrete information to be sent and verify the sent message with electronic signature	A public consultation started in July 2002 and will run until January 2003 (www.homeoffice.gov.uk/d ob/ecu.htm)
Identification (*) = visible data	insurance number (*) first name, surname name and title (*) date of birth	card holder's full name (*)	SNS registration number (*) card holder's full name (*) date of birth (*)		- cardholder's population register number - family and given names - date of birth - place of residence	For social security, the card includes the same data as the health insurance one.	
Other data in the card (*) = visible data	authentication and	Date of issue (*), Region/sub-region/health centre,			The photo card includes additional information relating mainly to pension recipients.  + Name of the social insurance institution  Date of issuing  Other data related to social security	Its electronic data content will include - besides identification, signature and encryption elements (PKI) - e.g. vaccination, chronic illnesses, and direction for organ donation, closest relatives.	

	Austria	Port	tugal	Sweden	Finl	and	United Kingdom
Authentication	The "key" is unique within the entire system.  Depending on the sensitivity of the various applications different safety stages are possible: a second authorized card, an encrypting procedure, a PIN, an electronic signature.	None	None		The photo card bears the cardholder's signature.	Certificates for authentication and electronic signature	
Category of other data stored on the card	loading of E-111 is	Identification of cost-sharing system for prescription charges, of exemption from flat-rate charges, and the existence of sub-systems or insurance companies with relevant details of validity				key information (encrypted) from the delivery of social and health services	
Type of card	Processor chip card with crypto processor	Magnetic strip	Smart card with magnetic strip		Plastic "SII card"	Microprocessor card with crypto processor	
Processor type used on chip card	32 K EEPROM	None			None		
Operating system used on the card	MICARDO 2.1 (multi application operating system with post-issuance loading facilities)	None			None		
International standards used	Applicable technical and international standards				Appropriate ISO standards	Appropriate ISO standards + EU/G7 and CEN TC/251standards	

### EFTA AND SOME CANDIDATE COUNTRIES

	Iceland	Lichtenstein	Norway	Switz	erland	Czech Republic	Slovenia
Name of card / project	N/A	N/A	N/A	Covercard®System	Swiss health insurance card project	MACHA (Health and Health Insurance Card)	Kartica zdravstvenega zavarovanja HIC (Health Insurance Card)
Card purpose				Certification of insurance entitlements. Allows providers of care (hospitals, pharmacies, doctors etc.) to check "on line", and at any time, the validity of the card presented by the holder when benefits are provided.		Electronic Health and Health Insurance card. Identification patients/insured Confirmation of provided health care for Health Insurance office. The cards include identification and medical data, PIN, electronic signature, social security identification	HIC is the only document applicable for the purposes of identification and implementation of the health insurance rights deriving from compulsory and voluntary health insurance. It is also a key to the services provided through the self-service terminal network.
Card introduction date				Introduced in Switzerland on 1 June 1996.	The project still has to be approved by the Swiss Parliament.	1997-9	Pilot introduction in one region in 1998, National introduction completed in October 2000
Number of cards in circulation				35 insurance organisation (out of 93) have issued approximately 4 million of cards to their insured persons.	None	Pilot project: 30.000 cards of insurees, 100 health professionals cards	HIC was issued to all persons covered by the compulsory health insurance in Slovenia, i.e. to the entire population (i.e. close to 2 million); some 18 000 Health Professional Cards are in use.

	Iceland	Lichtenstein	Norway	Switzerland	Czech Republic	Slovenia
Evolution				It is intended that the health insurance card eventually become a genuine health card giving insured persons and providers of care secure access to data concerning the insured person.	Project was steered by Ministry of Healthcare and supported by General Health Insurance Office. The pilot is still in operation. In 2002, it has served as basis for preparing a nation-wide roll out for an "Electronic Identificator of Health Insurees" whose 1st stage (analyses and project design) will start in 2003	2000: The first phase, the HIC system covered identification of the insured person and proof of entitlement of his/her insurance rights and registering of the selected personal physicians. 2001: New service - ordering convention certificates (similar to the EU E111 form) through self-service terminals, with the HIC serving as access key. 2003: New data - recording of data on medical technical aids issued, recording of data on allergies and vaccination, recording of the card holder's voluntary commitment to organ donations. 2004: Technology upgrade - PKI and electronic signature to be implemented (in the first phase on the HPC, in the second phase on the HIC). The system is open to upgrades with / downloading of new applications and datasets on the cards in circulation; standard SM procedure is applied for this purpose.

	Iceland	Lichtenstein	Norway	Switz	erland	Czech Republic	Slovenia
Comments	An entitlement card is envisioned.				If the European Union's insurance card project takes shape before the Swiss project, the latter will be adapted accordingly.	city Litomerice (main regional town). Scope of participants: 1 municipal hospital, 14 physicians, 1 Health Insurance Company. Pilot project has created and stabilized a steering team which is	The HIC system includes the Health Professional Cards (HPC), card readers, a network of self-service terminals, unified standard APIs in all health care providers workstations.  Health professionals can access HIC data only using their personal HPC and a dedicated card reader. HPC holders are classified into several groups; groups have different keys on their HPC and consequently different access rights to data on the HIC.  The self-service terminal network is used for on-line updating of the HIC data, services (such as ordering of convention certificates, with the HIC serving as access key), adding new applications and functions on the HIC (new files, changing access rights) and providing information.
Identification (*) = visible data				Name of insurer (*)Name, first name, date of birth and sex of insured person (*)Insurance number (*)Emergency telephone number (*)Bar code (*)	shown on cards issued in Switzerland. There are plans to assign new insurance	Name and surname (*), Date of birth (*), Address, Health insurance number (*), Health insurance company (*)	- Health insurance number (*), - Card instance number (*), - Name and surname (*), - Ddate of birth (*)

	Iceland	Lichtenstein	Norway	Switz	erland	Czech Republic	Slovenia
Other data in the card (*) = visible data				Insurance coverage: common sickness and maternity insurance institution (LAMal), additional private insurance.		ID data for social security, ID data of patient (contact address, address of health care provider, address of patient health record), Selected medical data, Date of issue (*)	- Card holder data (address, sex), - Insurance contribution details (registration number, firm name, address), - Compulsory health insurance details (date of confirmation, insurance validity), - Private (voluntary) health insurance details (insurance company, type of insurance policy, insurance validity), - Selected primary level doctors' details (general physician/ paediatrician, dentist, gynaecologist)
Authentication						PIN	Mutual recognition of Health Insurance Card and Health Professional Card (using challenge/response mechanism), HPC serves as an access key to data on the HIC (using symmetrical 3DES cryptography and PIN codes).
Category of other data stored on the card						Security data, PIN	None
Type of card				Magnetic-stripe card	Microprocessor card is planned	Microprocessor card	Microprocessor card
Processor type used on chip card				None		MOTOROLA SC21, 3KB EEPROM, 6KB ROM	16 kB EEPROM, 32 kB ROM, 1280 B RAM, 16-bit CPU
Operating system used on the card				None		ORGA ICCRe/V.24	GEMXCOS

	Iceland	Lichtenstein	Norway	Switz	erland	Czech Republic	Slovenia
International standards used				ISO 2.	Possibly the international NETLINK standards.	ISO standards: 7816- 1, 2, 3, 7810	- ISO/IEC 7816 (Physical characteristics, dimensions and locations of contacts, electronic signals and transmission protocols, interindristry commands for interchange, numbering system and registration procedure for application identifiers, interindustry data elements, security related interindustry commands), - ISO/IEC 10373 (Test methods), - ISO/IEC 11770 (Mechanisms using asymmetric techniques), - ISO/IEC 7810 (Physical characteristics), - ISO/IEC 7812 (numbering system), - ISO/IEC 8824, 8825 (Abstract Syntax Notation One, - CEN ENV 1375 (ID-000 card size and physical characteristics), - prEN (General characteristics), - EN 1867 (Numbering system), - EN 726 (Application independent card requirements), - and following available relevant EU recommendations.