

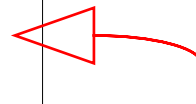
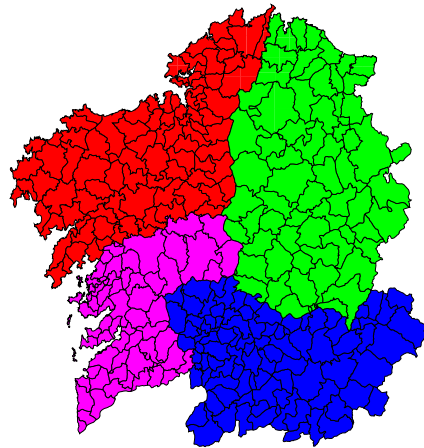


SERVICIO GALLEGO DE SALUD LOGISTICS PROJECT

Benjamín Rodríguez Nespereira



XUNTA DE GALICIA



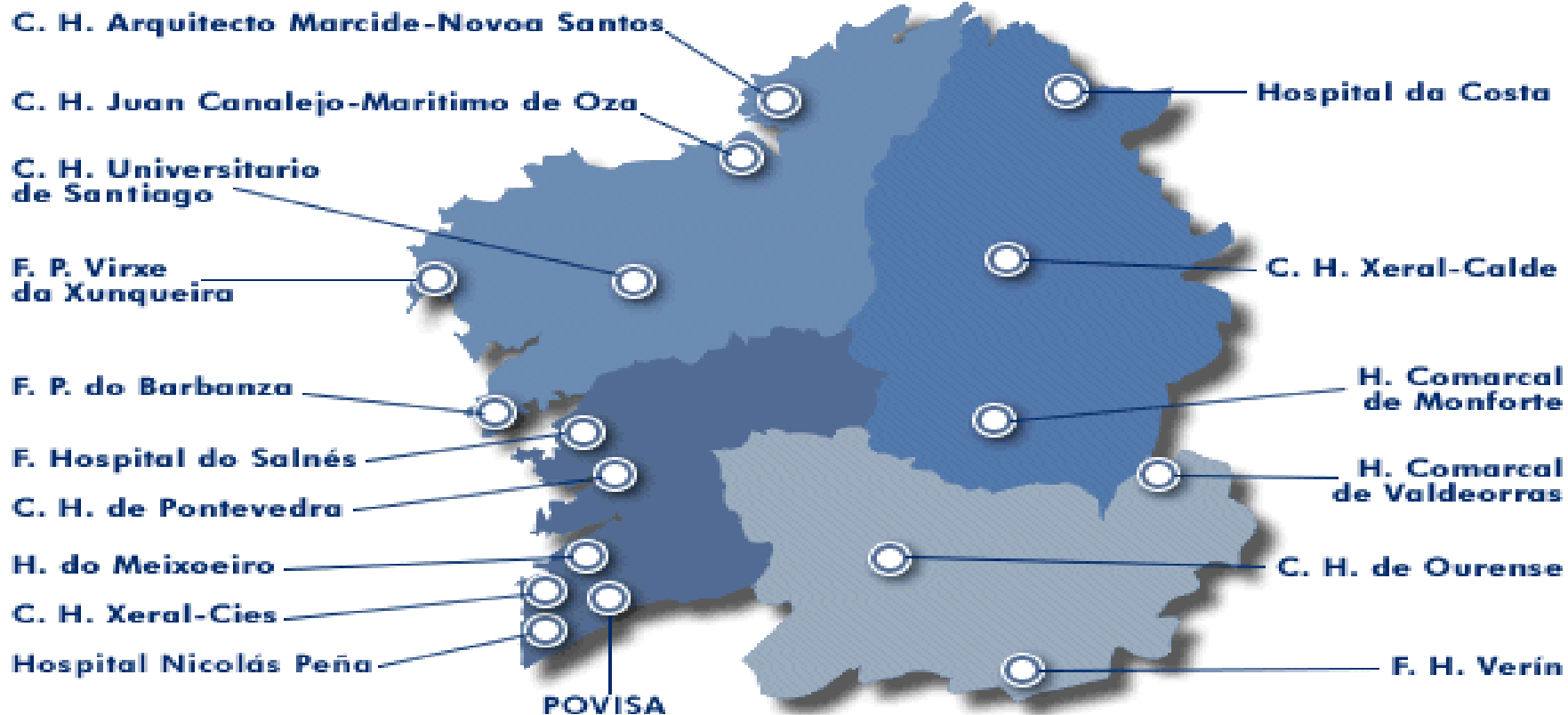
Galicia

Land : 29.574 Km² – 5,84 %

Population: 2.750.000 -6,40 %

Density = 93,02 P/km²





Universities Hospital Complex = 3

Non Universities Hospital Complex = 4

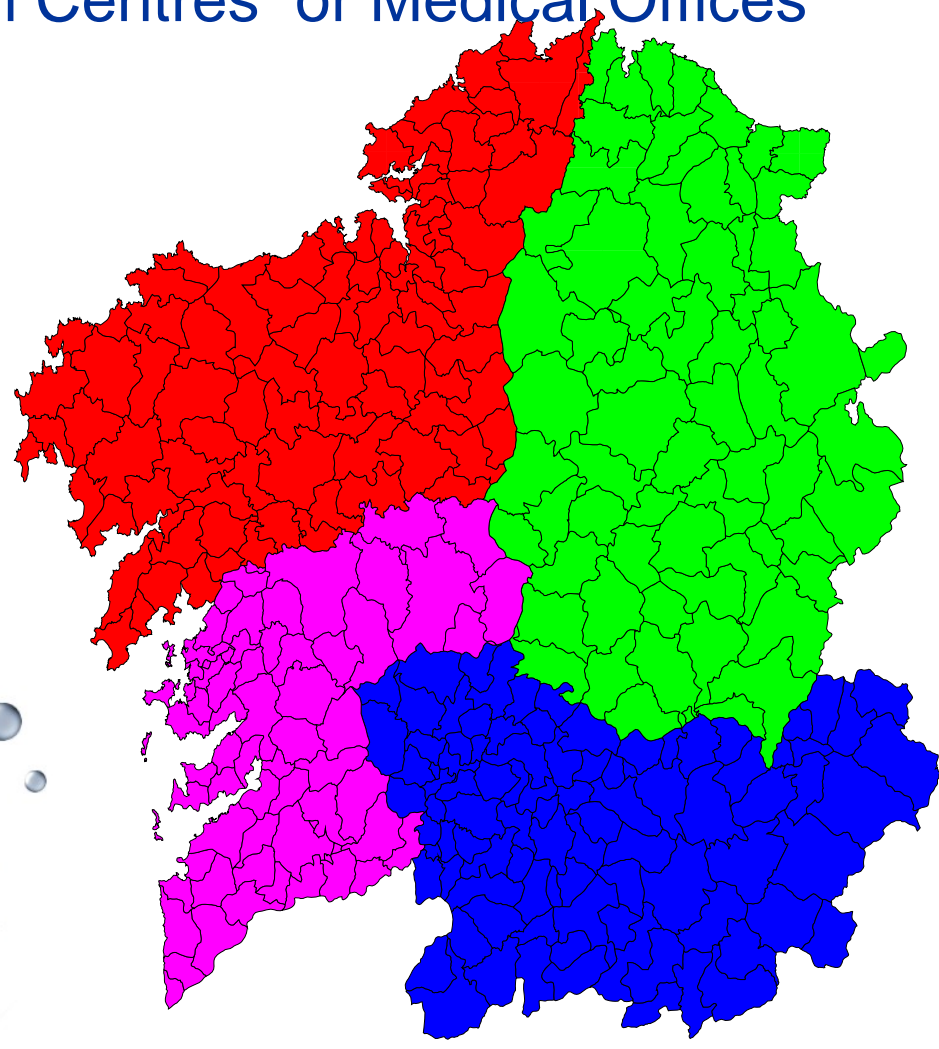
General Hospitals = 3

Public Hospital Foundations = 4





502 Health Centres or Medical Offices





PURCHASE (*)	224.572.122
CENTERS	23
HRR PURCHASE/WAREHOUSE	292
CENTRAL DEPOTS	38
BEDS	7.040
CATALOGUED PRODUCTS	28.468
COMMERCIAL REFERENCES	68.914
DELIVERING POINTS	2.772
INTERNAL DELIVERIES	329.842
SUPPLIERS WITH GS1 CODE	82
ORDERS FOR SUPPLIERS	194.538

(*) Except Investment, pharmaceutical products, blood products, gases , means of communication and maintenance stuff.



- ✓ **Geografic dispersion**
- ✓ **Administrative dispersion**
- ✓ **Complexity of the productive structure of hospitals**
- ✓ **Different culture and organisation of each hospital**
- ✓ **Different use of stuff for the same medical action. Different catalogues for each centre.**
- ✓ **Low control of the goods in course (Outskirt warehouses)**
- ✓ **Centralize without reducing autonomy of the centres management to keep close.**
- ✓ **Promote a mixed supplying structure, centralizing the organisation, criteria, information systems and purchase for some products.**
- ✓ **Promote community projects improvement.**





With the internal customers (Healthcare staff):

- Eliminate or decrease the attention of the healthcare staff over their products supplying.
- Improving stock level in the optimal point with reliability and suitable term, trying to obtain the best balance between customer service and inventory. Outskirt Depots Control.
- Assurance products traceability
- Decrease incidences and mistakes
- Reduce administrative procedure
- Lower the total property cost (TPC)

With our providers:

- Facilitate interchange information
- Assure an efficient supplying
- Improve the transaction documents interchange
- Save in administrative costs
- Enhance collaborative environment



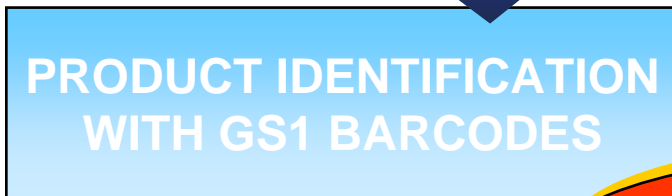
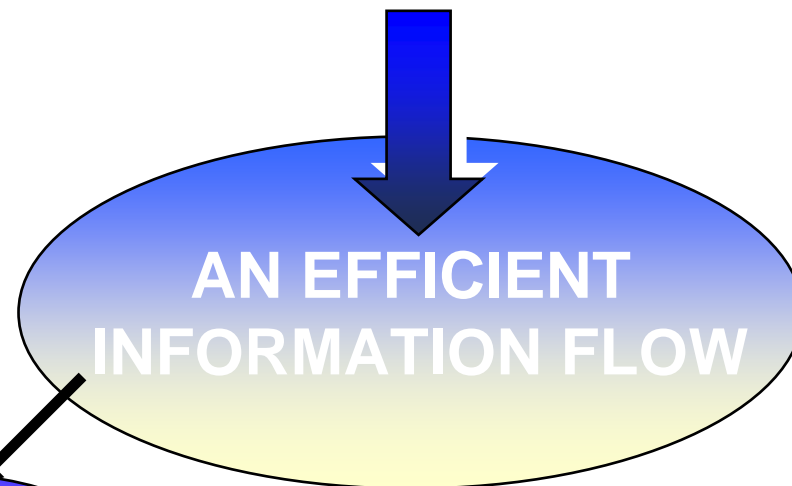
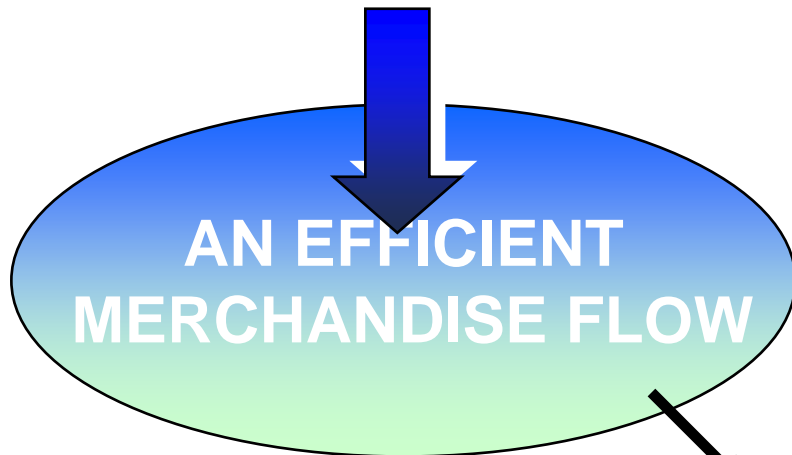


- Centralized systems:
 - **SERGAS Products Catalog** : As a tool for product catalog
 - **Provider virtual office**: Possibility to check the provider's invoices
 - **Integral Purchase**. Integracom Project
- Utilities for the management centres
 - **Electronic domestic orders** : Simplified the communication among different departments
 - **Barcodes**: Rapid and accurate products identification, besides the optimization in the processes of distribution and replacement.
 - **EDI** : Automatization in the communication with the provider.



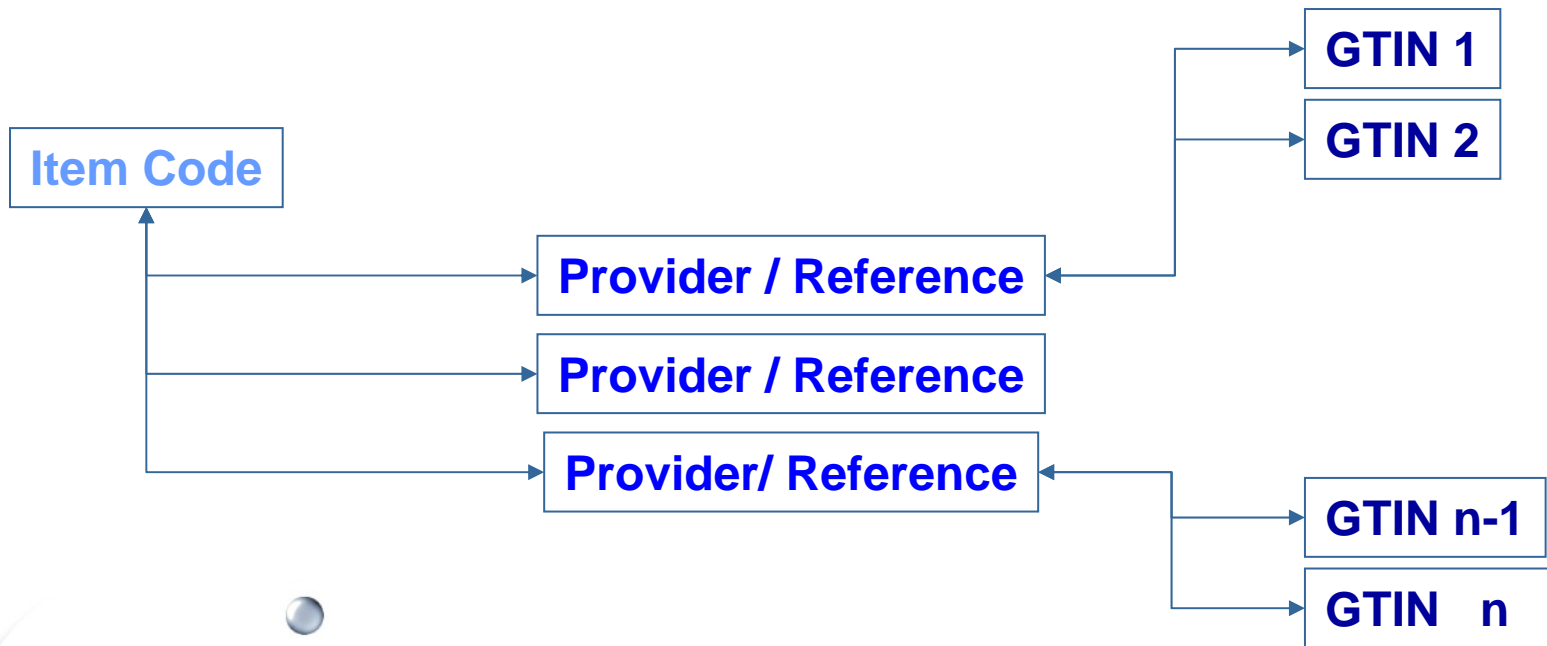
TOWARDS AN INTELLIGENT SUPPLY CHAIN

**A SUPPLY CHAIN WITH THE MINIMUM
OF HANDLING AND PAPER**





❖ EAN DATABASE : DATA ALIGNMENT



Centre Language	Provider Language	Universal Language
Item Code	Commercial Reference	GTIN



❖ EAN DATABASE

Products must be identified with GS1 128, and they must link the internal product code with the provider's GTIN.



GTIN DATABASE

Item card
/ Marketing



Provider GTIN

Marketing

Registros: 286 Páxina: 1 de 286

RESULTADOS CONSULTA MARKETING

DATOS ARTIGO	
Artigo:	000544 SUTURA MECANICA EXTRACTOR GRAMPAS DUN SO USO
Grupo:	01 MATERIAL SANITARIO
Subgrupo:	05 SUTURAS
Familia:	02 SUTURAS MECANICAS
Proveedor:	000041 3M ESPAÑA, S.A.

Busqueda EAN catalogados - Microsoft Internet Explorer				
Ref Pro	Código EAN	Activo	Cant Envases	Cant Un X Env
Denomi	00707387030209	S	1	1
Marca:	50707387030204	S	1	30
Medida				
Present				
Grupo C				
Data Ac				
Activo:				
Publica				
Uni Env				

IMAXE



BARCODE:



They allow the automatic data capture of the product in any logistics point.





Logistics points where barcodes are allowed

- Different organization models covered, corresponding to diverse realities:
→ **BY THE MOVEMENT OF THE PRODUCT IN THE LOGISTICS OF THE CENTRE.**
→ **Stocks Pacts:**

Level of stocks to maintain or average values of consumption settled down.
Warehouse staff check periodically

- Plant Management : **Replacement by out of stock**

There is a selfcontrol of the unit level; incomings and outgoings are registered and replacement is automatic in out of stock points.

- **Inventory in Central Depots:**

Count of stocks in General Depots.

- **Depots Management.**

Traceability of the product in depot (implant) in its movement through the centre





• PROVIDER MUST LABEL

• GS1 13 (Non-Medical Device)

- ❖ It is used to identify the unit



• GS1 128 (Medical Device)

- ❖ Application Identifiers:

- ✗ (01) It precedes the article identification
- ✗ (02) It precedes the contained article identification
- ✗ (37) Quantity
- ✗ (17) It precedes the expiry date (YY/MM/DD)
- ✗ (10) It precedes the batch number





Electronic Interchange of Needs

- **Electronic interchange between domestic customers and Purchase/Supply**
- **Interchange of electronic messages with providers (EDI) by Internet**





❖ Management System of Internal Supplying:

- Management systems for the unit level – distribution circuits:

-  Replacement by stock pacts

-  Replacement by consumption pacts

-  Replacement by management of the stock level at the unit level (count)

-  Materials application forms

-  Dispensing closets





Provider

Merchandise Shipment

Warehouse entre



Advantage in the
centre circuit

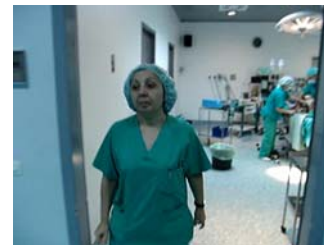
Barcodes Printing
lables



Inventory of General Depots and
Ouskirt Warehouses

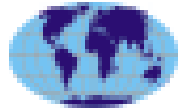


Implants Management



Warehouse
dispatch and plant
depots






Management Information System




EDI Station Mapping




(VAN/Internet)



EDI Station

GLN
e-mail

Provider System





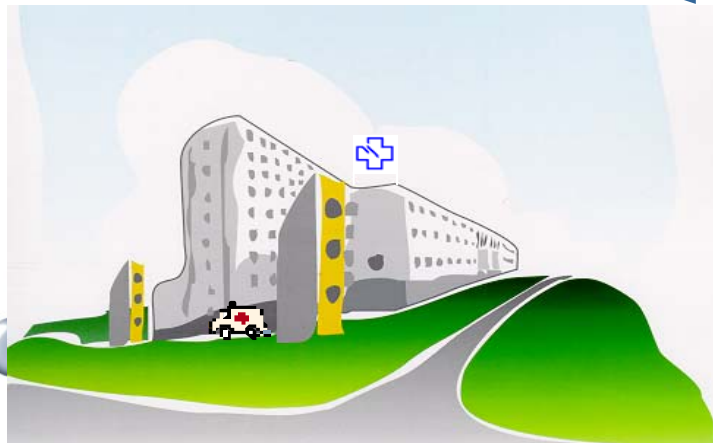
Communication messages for SERGAS



Health Centre



Provider





Buyer's actions:

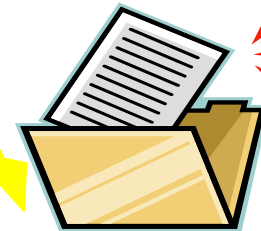
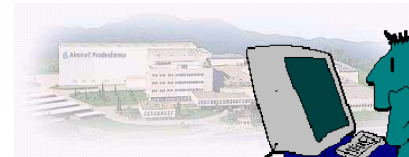
1. Identify purchase needs.
2. Order by IT
3. **Order printing**
4. **Provider notification (fax/mail/phone).**



ORDERS

Provider's actions

1. Orders Reception
2. **Mechanization in their IT**
3. *Dispatch preparation*
4. Dispatch receipt.



INVOICE

DESADV



Delivery note

Buyer's actions

1. Merchandise reception with delivery note.
2. **Mechanization in their IT the delivery note.**

Buyer's actions:

1. Invoice reception
2. **Mechanization in their IT the invoice**

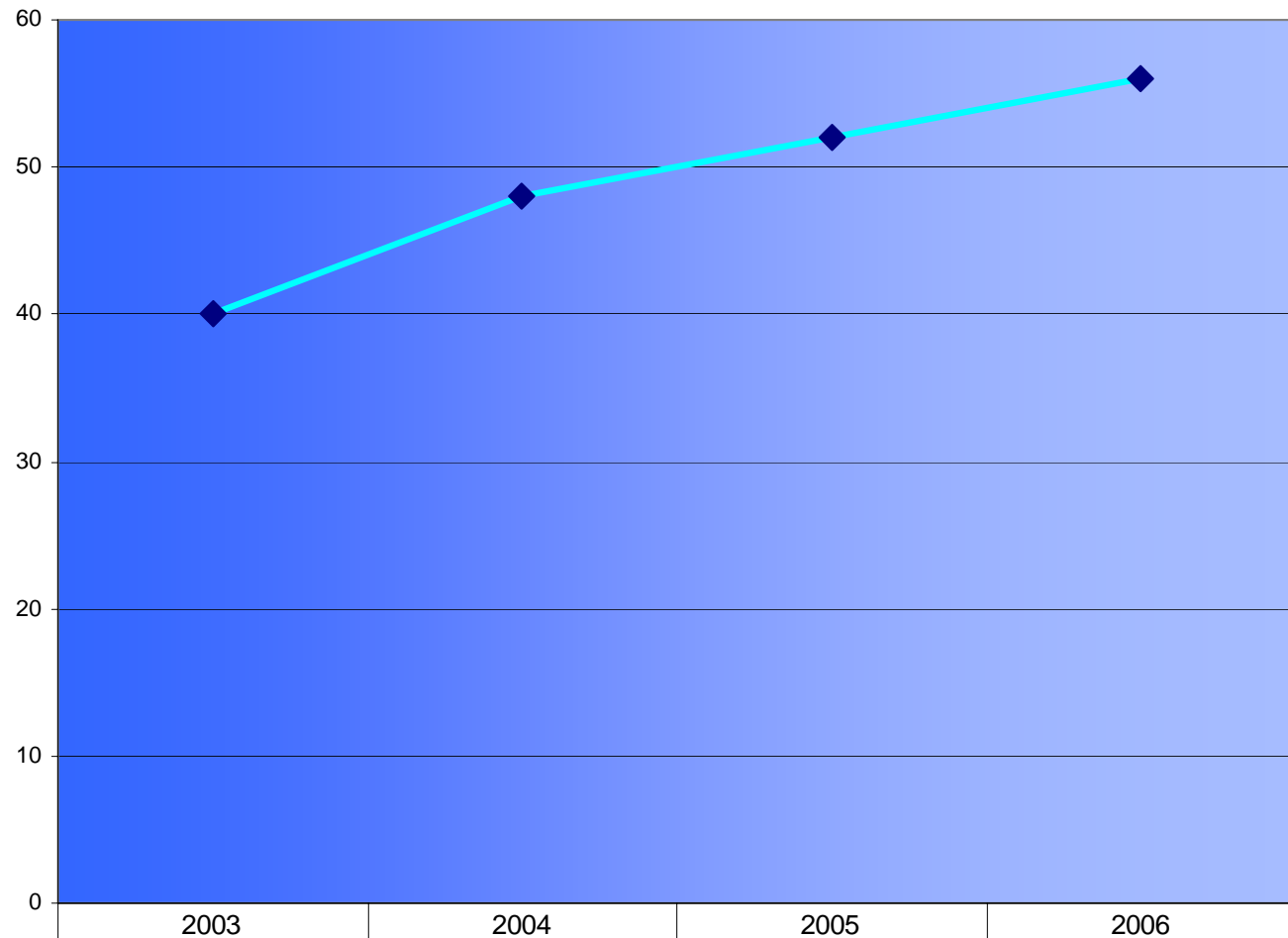


CONNECTED PROVIDERS

- ALCON CUSI, S.A.
- JOHNSON & JOHNSON, S.A.
- ROCHE DIAGNOSTICS, S.L.
- BECTON DICKINSON, S.A.
- ABBOTT LABORATORIES, S.A.
- BIOMERIEUX ESPAÑA, S.A.
- 3M ESPAÑA, S.A.
- MOVACO, S.A.
- PALEX MEDICAL, S.A.
- IZASA, S.A.
- ABBOTT CIENTIFICA, S.A.
- B.BRAUN MEDICAL, S.A.
- CLINICA Y CONTROL, S.A.
- INTERSURGICAL ESPAÑA, S.A.
- BAXTER, S.L.
- LABORATORIOS INDAS, S.A.
- VWR INTERNATIONAL EUROLAB, S.L.
- MENARINI DIAGNOSTICOS, S.A.
- CONVATEC, S.L.
- MOLNLYCKE HEALTH CARE, S.L.
- TEXTIL PLANAS OLIVERAS, S.A.
- GALMEDICA, S.L.
- B.BRAUN-DEXON, S.A.
- COLOPLAST PRODUCTOS MEDICOS, S.A.
- SMITH & NEPHEW IBERICA, S.A.
- LAB.UNITEX-HARTMANN, S.A.
- ARROW IBERICA, S.A.
- TYCO HEALTHCARE SPAIN, S.L.
- FARMABAN, S.A.
- BIOMET SPAIN ORTHOPAEDICS S.L
- LORCA MARIN, S.A.
- TORRAS VALENTI, S.A.
- HOLLISTER IBERICA, S.A.
- ELA MEDICAL IZASA, S.A.
- LABORATORIOS INIBSA, S.A.
- GALLEGA DE SUMINISTROS, S.A
- ITURRI
- S.E. DE CARBUROS METALICOS, S.A.
- HOSPIRA PRODUCTOS FARM.
- EDWARS LIFESCIENCES
- AGFA GEVAERT, S.A.
- TECNICAS MEDICAS MAB
- DIAGNISCAN
- REMECO S.A.
- BIOTRONIK, S.A.
- INSTITUTO GRIFOLS
- LABORATORIOS GRIFOLS
- DADE BEHRING
- BOSTON SCIENTIFIC IBERICA, S.A.
- C.M.M, S.L.
- NUMIL NUTRICIÓN, S.R.L.
- SCA HYGIENE PRODUCTS, S.L.
- NUTRICIA, S.R.L.
- STRYKER IBERICA, S.L.
- TERUMO EUROPE
- OIARSO SOC. CCOP.



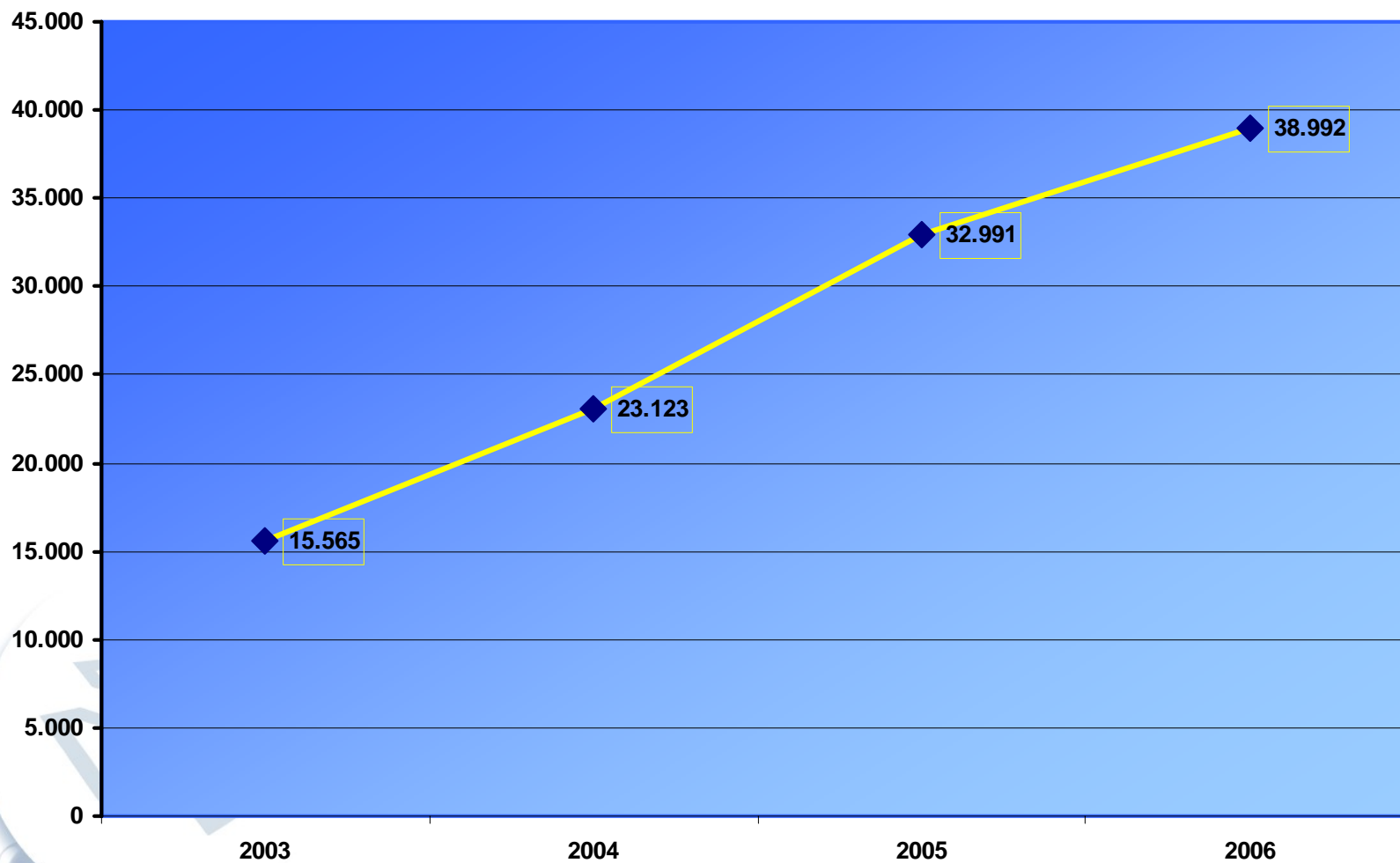
NUMBER EDI PROVIDERS



◆ N° PROVEEDORES EDI	40	48	52	56
----------------------	----	----	----	----

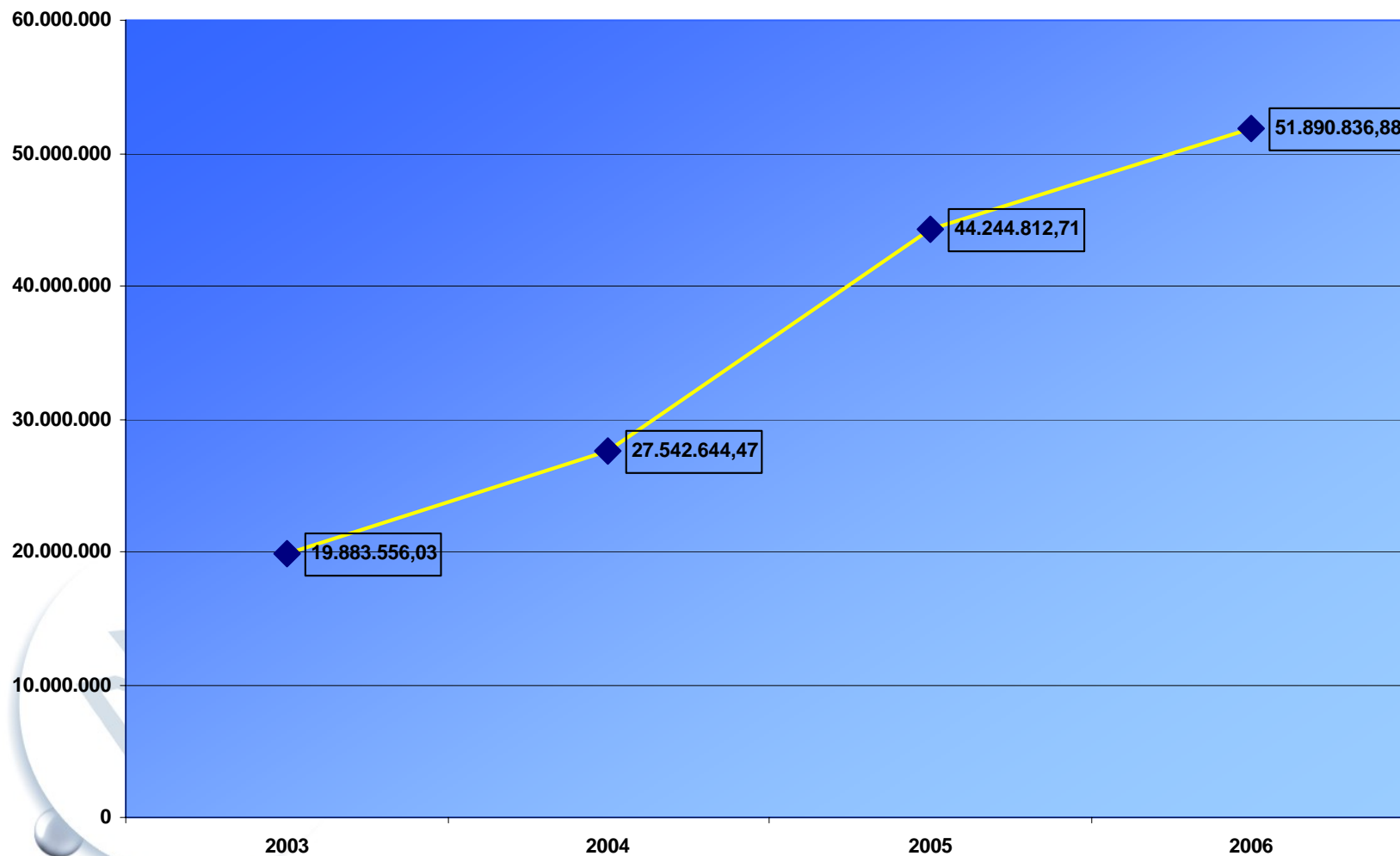


EDI ORDERS EVOLUTION



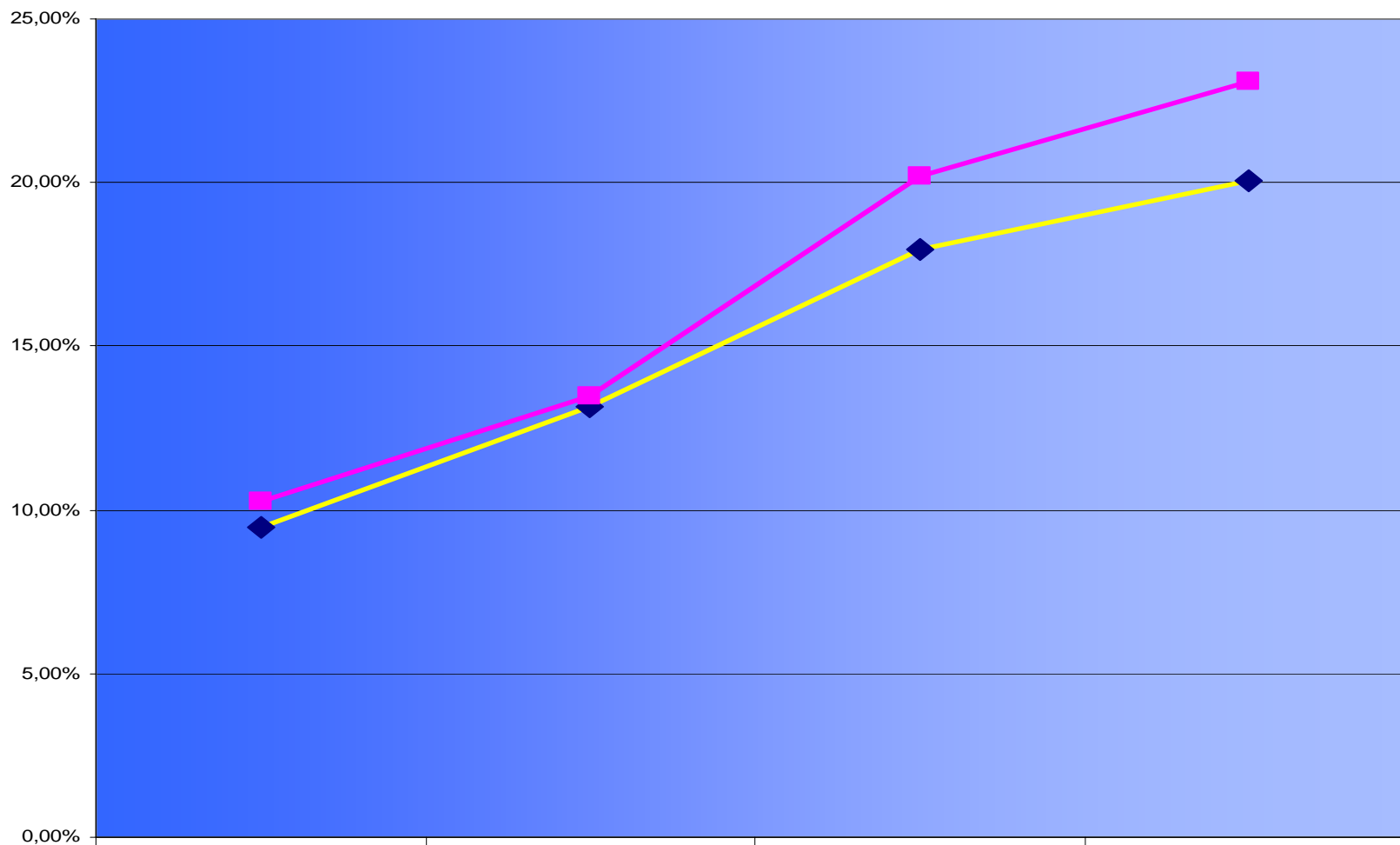


ORDER AMOUNT EVOLUTION





EVOLUTION PERCENTAGE OF TOTAL ORDERS AND AMOUNT



◆ % PEDIDOS

2003

9,46%

2004

13,16%

2005

17,95%

2006

20,04%

■ % IMPORTE

10,28%

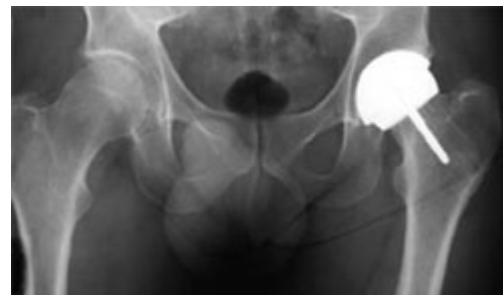
13,47%

20,21%

23,11%



IMPLANT MANAGEMENT AND ITS TRACEABILITY





Royal Decree **414/1996, 1st of Mars** , **Article 25, monitoring systems, part 4**, says about traceability:

“ The implants below listed distributed in Spain must be supported by an implantation card

- a) Heart and Blood implants
- b) Central nervous system implants
- c) Nervous and muscular stimulators
- d) Spinal column implants
- e) Infusion bombs to be implanted
- f) Artificial hip
- g) Artificial knee
- h) Breast implant
- i) Implanted lens

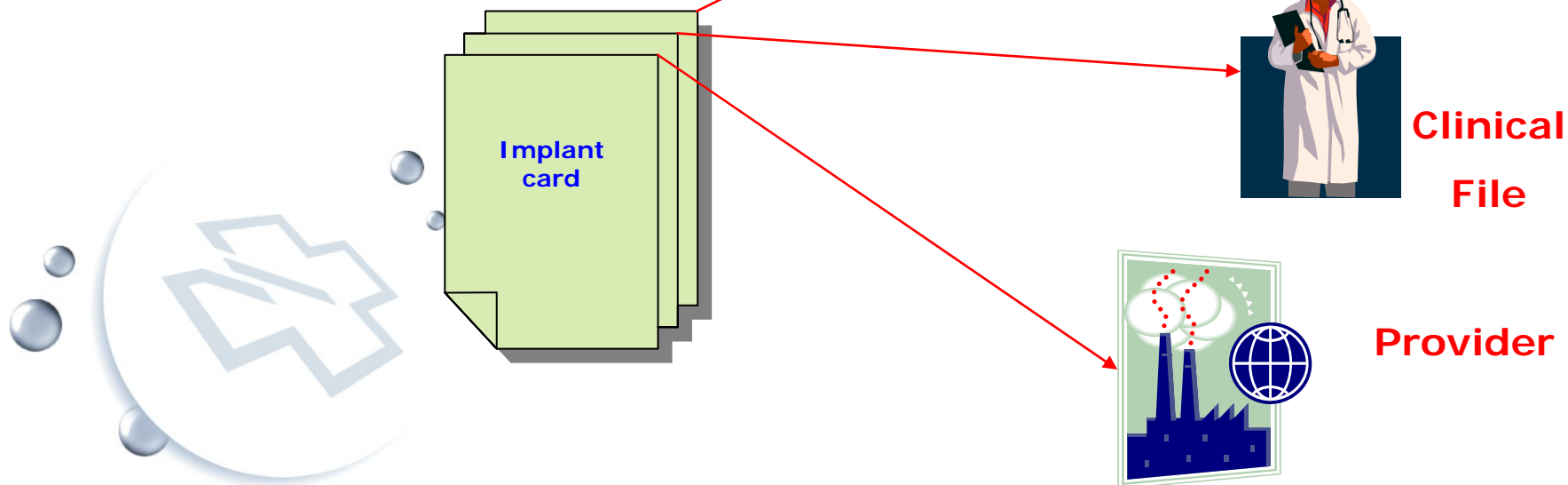




The implant card includes:

- ☞ Name/ Product model.
- ☞ Batch or Serial number
- ☞ Manufacturer's name and address
- ☞ Health Centre name
- ☞ Implantation date
- ☞ Patient identification number

By triplicate





❖ **Products in Depot (Depot number is identified)**

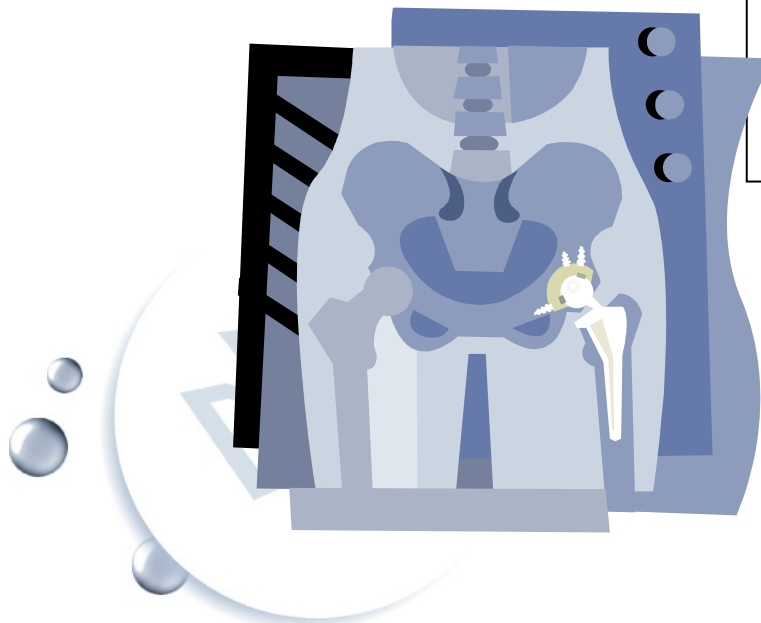
Internal label
Product in depot

Article name
Commercialreference
Provider



(96) Depot n

GFH. : XXXX
Loc.: XXXX
S.N.. : Series n
B.N. : Batch n
E.D. : yy/mm/dd





❖ There is a file for every component of an implant in the depot management system

Implant file



Gestion - TNVTPlus

Session Edit View Commands Script Help

igonfer	COMPLEXO HOSPITALARIO-OURENSE	16/05/2005
dep001	REGISTRO DE DEPOSITOS	PANTALLA

Nº Dep.: 29446 Situación : **A** **DISPONIBLE**

F.Alta : 04/04/2005 Mot.Alta: ALB ALBARAN DE DEPOSITO

C.Gasto: 3201 C.H. CRISTAL PIÑOR Resp.: _____

Identificación

G.F.H. : TRAN TRAUMATOLOXIA HOSP. NAI

Artic. : 224826 INSERTO POLIETILENO ULTRA-ALTO PESO MOLECULAR CADERA HIBRIDA

Prove. : 000046 CLINICA Y CONTROL, S.A.

Refer. : KINEITRAS0085

Cantidad	
Inicial: <u>1</u>	Actual : <u>1</u>

NºSerie: _____ NºLote : 33673

Marca : _____ V.Económica: 180.303631

Modelo : _____ Det/Med: _____

Observ.: _____

Ubicac.: QUIN QUIROFANO STA.M.NAI Alb.P.: DHO/99 F.Caduc.: _____

Reposición

Pedido Reposición: 505025 2005

Referencia Repos.: KINEITRAS0085 Rep. (S/N): S

5/1694 **Pág: 1/2**

OPCIONES: **Seleccionar** Agregar Duplicar Modificar Borrar Lista>>>

Consulta de los Depósitos Registrados.

NUM

Inicio Presnetación V Foro Traz... AGES-PP-SistemaAprovis... Inbox - Microsoft Outlook Gestion - TNVTPlus 12:36



Data entry by keyboard



Gestion - TNVTPlus

Session Edit View Commands Script Help

igonfer	COMPLEXO HOSPITALARIO-OURENSE	16/05/2005
dep021	REG. DEPOSITOS DESDE PEDIDOS	PANTALLA

Pedido Reposición: C.Gasto:
 Alb.Pr.:

Prótesis :
 Proveedor:

Nº Dep.	Artíc.	Referencia de Rep.	Cant. GFH	Nº de Serie	Nº de Lote >>>
					0/0

Artículo :
 Ubicación : Situación: Cant.Actual:
 V.Económica: G.F.H. :

Pág: 1/4

Introducir el Número del Pedido a reponer
 <f10> = Ventana de ayuda
 Opciones: Seleccionar **Agregar** Modificar Borrar Imprimir Albaranes >>>
 Registrar un Nuevo Depósito.

Inicio Presnetación V Foro Traz... AGES-PP-SistemaAprovis... Inbox - Microsoft Outlook Gestion - TNVTPlus NUM 12:38

When the product is not identified by GS1 codes, delivery note data is transferred to the depot file.



Data entry by GS1 128 scan



If the provider identifies the product with a barcode, its information is captured by a reader and transferred to the depot file

THW1 - to host 69.51.23.229

Session: Edit Commands Settings Script Help

mgarsex VERSION 06.00- INFORMIX - 2004 14/10/2004

cysapp07 SALIDAS DE GFH Núm. mov.

GFH : ACL_ANALISIS_CLINICOS Orden : Núm. mov.

N.SALI.	TI.ARTICULO	UBIC.	FEC.MOV.	CANTIDAD	N.H.C.	NUM.SERIE
0	0			1.00		

Leer etiqueta o escribir código EAN

Código de Barras:

Artículo : _____

Observac. : _____

Ubicación : _____

Introducir el Código de Barras
Tabla temporal creada.
OPCIONES: Seleccionar **Agregar** Borrar obserVaciones Imprimir Ordenación
Añadir un movimiento de salida

TT 16:48:02



Data entry by EDI DESADV message



**SERGAS
Management
Application**



If the provider sends the message of Dispatch Advice where product details are identified by EDI, they will be automatically included in the depot file

Gestion - TNVTPlus

Session Edit View Commands Script Help

igonfer	COMPLEXO HOSPITALARIO-OURENSE	16/05/2005
cscp30	MTTO DE AVISOS DE EXPEDICION	PANTALLA

Estado: 0
 Núm. Ped.: 501928 Alb: 0001227291 Fecha aviso: Depósito: 1
 Almacén: 8432552000016 1 ALMACEN GENERAL
 Proveedor: 000034 8427324000004 ALCON CUSI, S.A.

LIN	ART.	CANTIDAD	PRECIO	F.CADUC.	NUM. SERIE	NUM. LOTE
1	227535	1.0000			868239.039	

1/95

Ref.: 79451 EAN: 00380652555845 Nom.: LENTE ACRILICA HIDROFOBA OPTI
 Obs.:

95 fila(s) encontrada(s)
 OPCIONES: **Seleccionar** Generar DETALLE Borrar Errores
 Consulta de los avisos de expedición.

Inicio Presetación Y Foro Traz... AGES-PP-SistemaAprovis... Inbox - Microsoft Outlook Gestion - TNVTPlus



After the implant is used, the label is read (provider or own's) by a scanner and the result is:

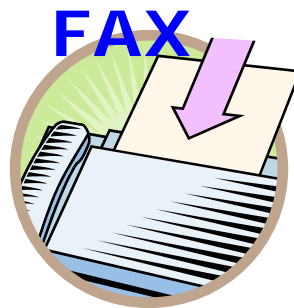
- Deduction of the implanted element from the provider depot
- Implant card printing
- Reposition and invoicing proposal that later is ratified, sending it by



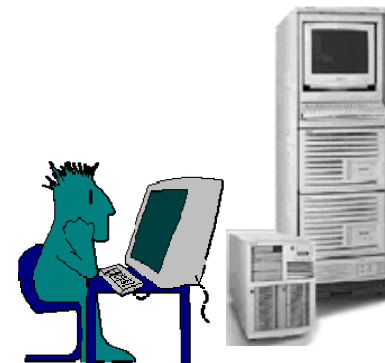
mail



Automatic



EDI /Orders





Hospital : COMPLEXO HOSPITALARIO-OURENSE Ejercicio: 2.005 Usuario : mpatbla	<<< Tarjeta Implantación >>>	Página: 1 Fecha : 16-05-05 Hora : 12:46:37
---	------------------------------	--

Número de implante:	15994	Centro de gasto:	3201 C.H. CRISTAL PIÑOR
Número Intervención:	051010444	GFH/U.Consumo:	TRAX TRAUMATOLOXIA -HOSP. XERAL
Fecha de mecanización:	13/05/2005	Fecha de intervención:	12/05/2005
Paciente			
N.H.C:	140977	N.S.S:	32-00262573-01
Facultativo:	LADO	DNI/Pasaporte:	76689993
		Nº de colegiado:	

C.art.	Artículo	C.pro.	Proveedor	Serie	Lote.	Referencia	Cantida
226657	COTILO P/CADERA CLS						
226656	INJERTO NEUTRO P/CADERA CLS	000363	COMERCIAL AOMEDIC, S.A.		2261390	4263	1
226655	VASTAGO C/HIDROXIAPATITA P/CADERA CLS	000363	COMERCIAL AOMEDIC, S.A.		2253946	0100013207	1
226770	CABEZA CO-CR 28MM P/CADERA TIPO CLS	000363	COMERCIAL AOMEDIC, S.A.		2245275	290059100	1
					2261484	172805	1

Total: 4



