

AROME  
MEETING, Napoli  
April 28th-29<sup>th</sup> 2007



Improving patient care



**Nucletron**

# Some Facts about Nucletron I

- Nucletron B.V. is founded in 1975
- HQ Located in the Netherlands
- Part of Delft Instruments holding in 1994
  - Private company 262 M Euro turnover
  - Over 1,000 employees
- Delft Instruments is owned by Alpinvest and Advent



**Nucletron**

# Some Facts about Nucletron II

- Nucletron's current position:
  - Over 500 employees (200 in NL)
  - 120 M Euro turnover
  - Over 20 offices in 16 countries
  - Strong market presence in more than 80 countries
- Merged capabilities of:
  - Oncology Software Solutions from MDS Nordion in 2003
  - Helax, SE (External Beam Treatment Planning)
  - Oldelft, NL (Imaging)
  - Nucletron, NL (Brachytherapy)



**Nucletron**

# Nucletron Mission

Nucletron is a knowledge-based leader in Radiation Oncology, working with the clinical team to realize innovative solutions that improve patient care



**Nucletron**

# Nucletron Values, key to the mission

- C **Care** - We are fully engaged in improving the quality of care for cancer patients
- A **Ambition** - We plan to consistently meet or exceed the expectations of our customers and our business partners
- R **Relationships** - Nucletron works with its partners worldwide to understand the requirements of the clinical oncology team and applies this knowledge in the development, marketing, sales and service of products that contribute to the precision targeting of radiation energy in the treatment of cancer
- E **Excellence** - We use our domain knowledge in oncology to provide industry leading software for all radiation modalities and we take responsibility as the leader in Brachytherapy to facilitate its appropriate utilization



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# Nucletron Vision

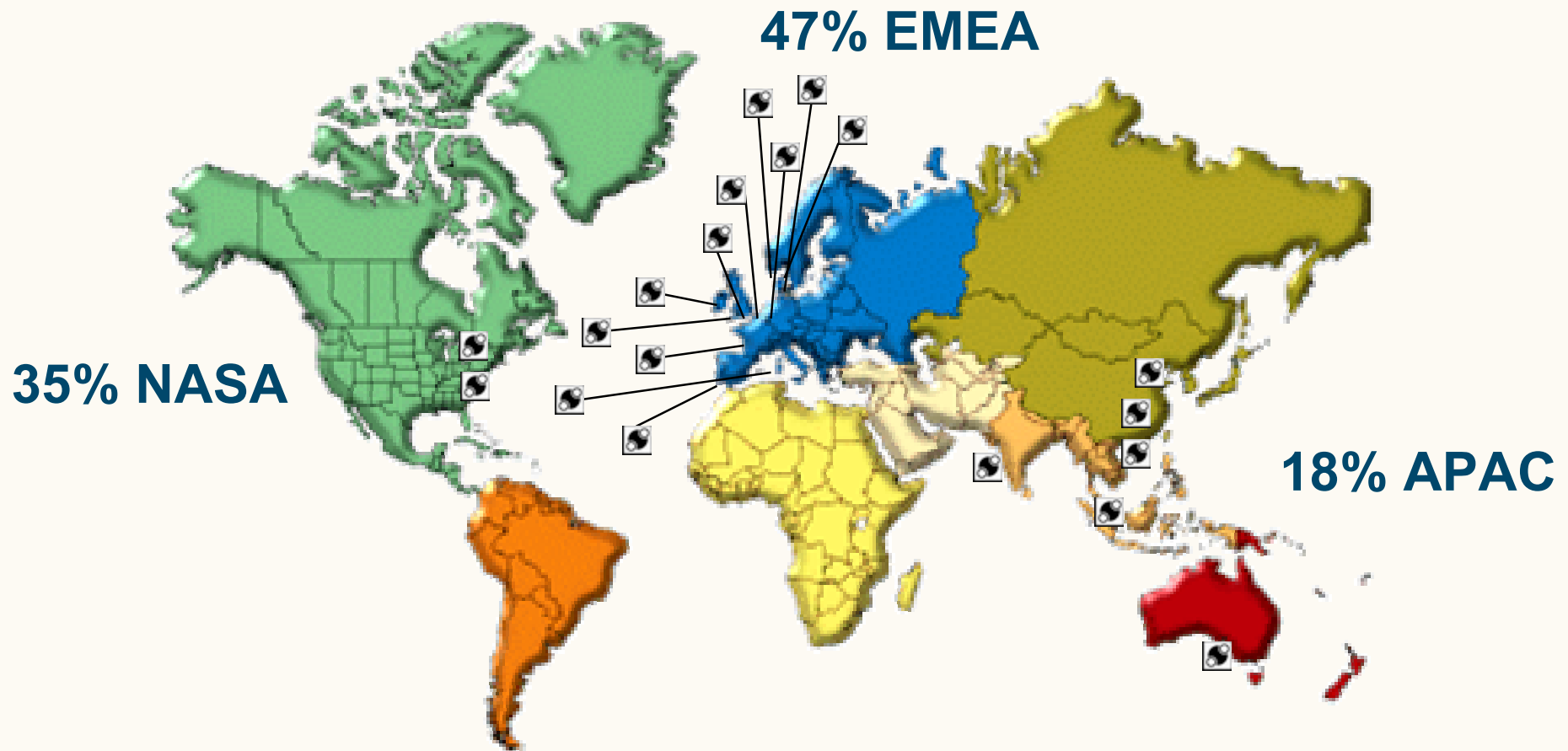
We strive to offer the *best possible choice of treatment modality* for the patient through our integrated products, software and services.

We develop cancer treatment with optimal outcomes and minimal side-effects and we promote clinical acceptance of our solutions



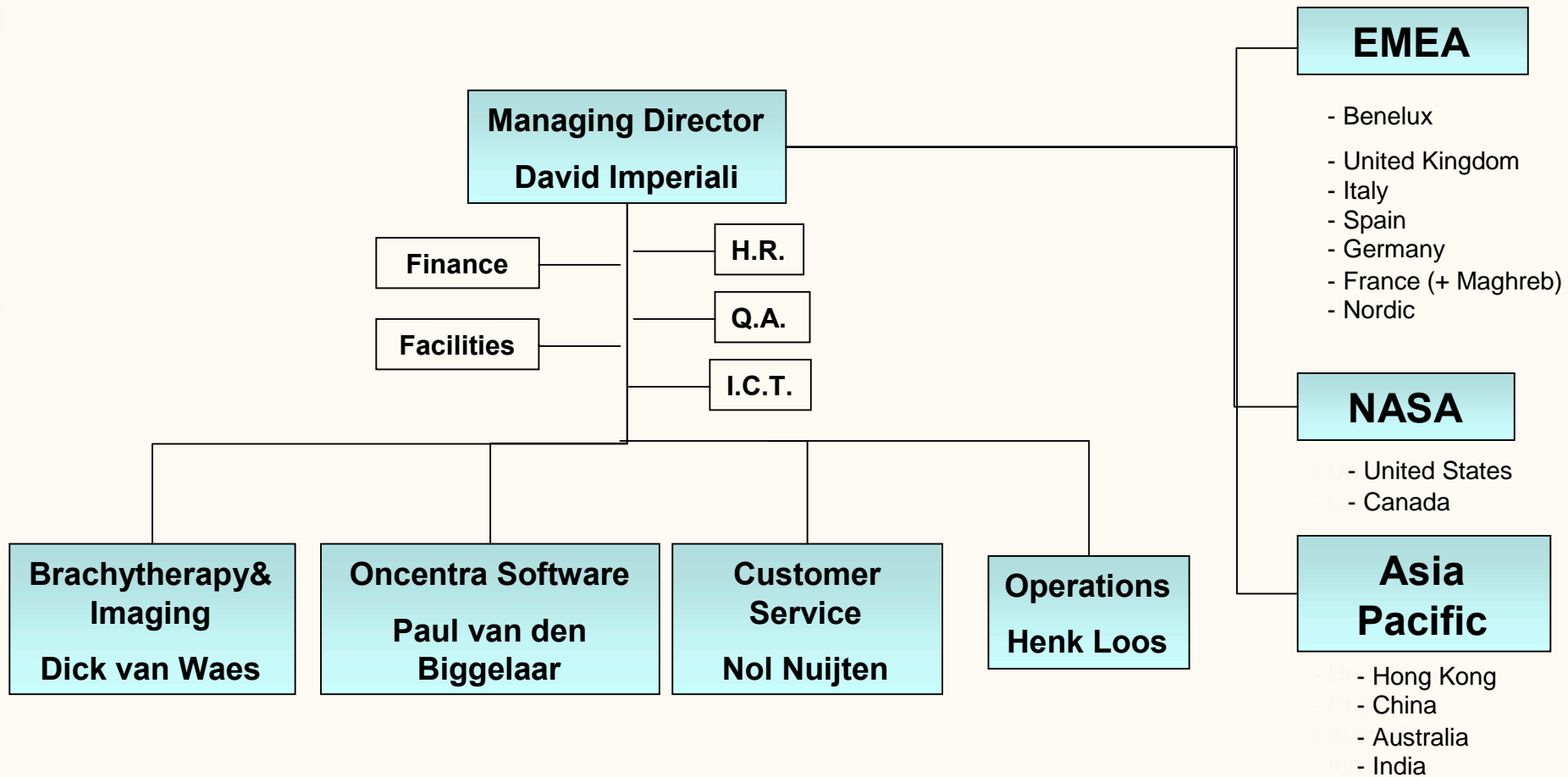
**Nucletron**

# Nucletron globally



based on percentage of total turnover, 2006

# Nucletron Organization worldwide



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# Business Areas I

- Brachytherapy  
(afterloaders-HDR-PDR)
  - Treatment Planning
  - Imaging (IBU)
  - Treatment Delivery (Afterloaders & Applicators)
  - Information Management
- Seed treatment (prostate)



# Business Areas II

- EBRT (External Beam)
  - Treatment Planning System
  - Imaging (Simulation)
  - Treatment Record & Verify
  - Information Management
- Training and service



# Brachytherapy



**Brachytherapy microHDR (High Dose Rate) and PDR (Pulsed Dose Rate) Remote Afterloader**

# Imaging-IBU



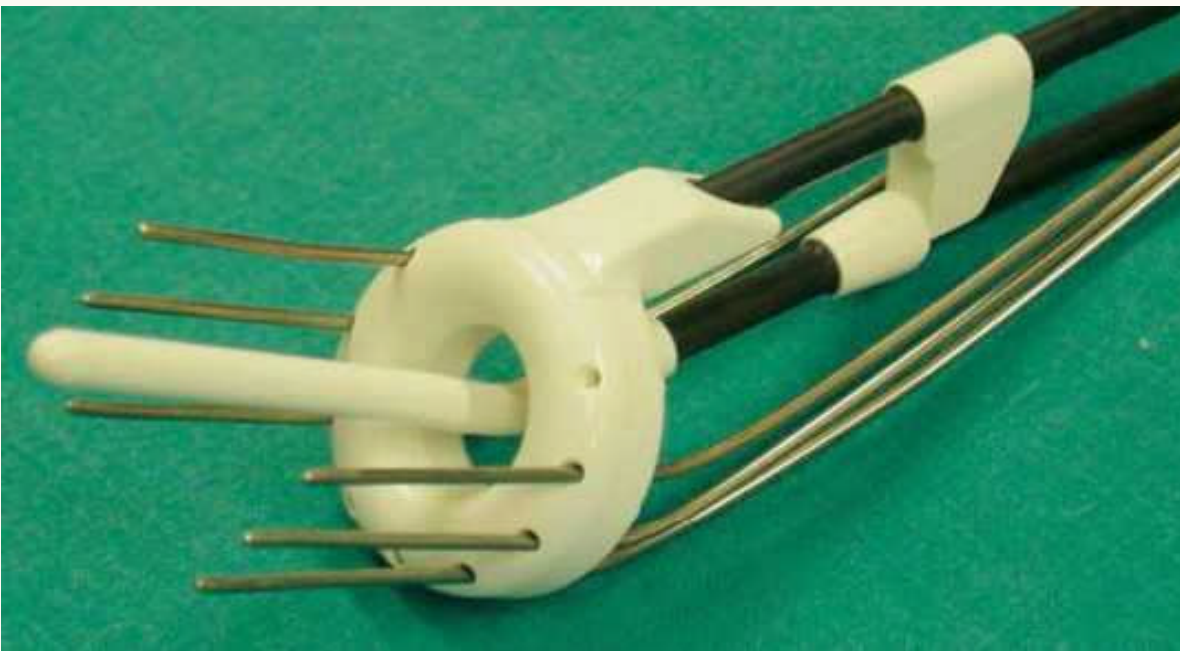
**Integrated Brachy Unit**



**Nucletron**

# Treatment Delivery

**Applicators**



**Afterloader**



**Nucletron**

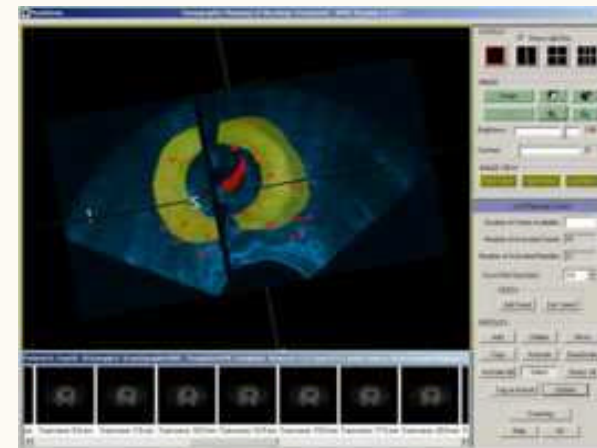
# Applicators and Disposables



# Prostate treatment



**SPOT PRO Software**



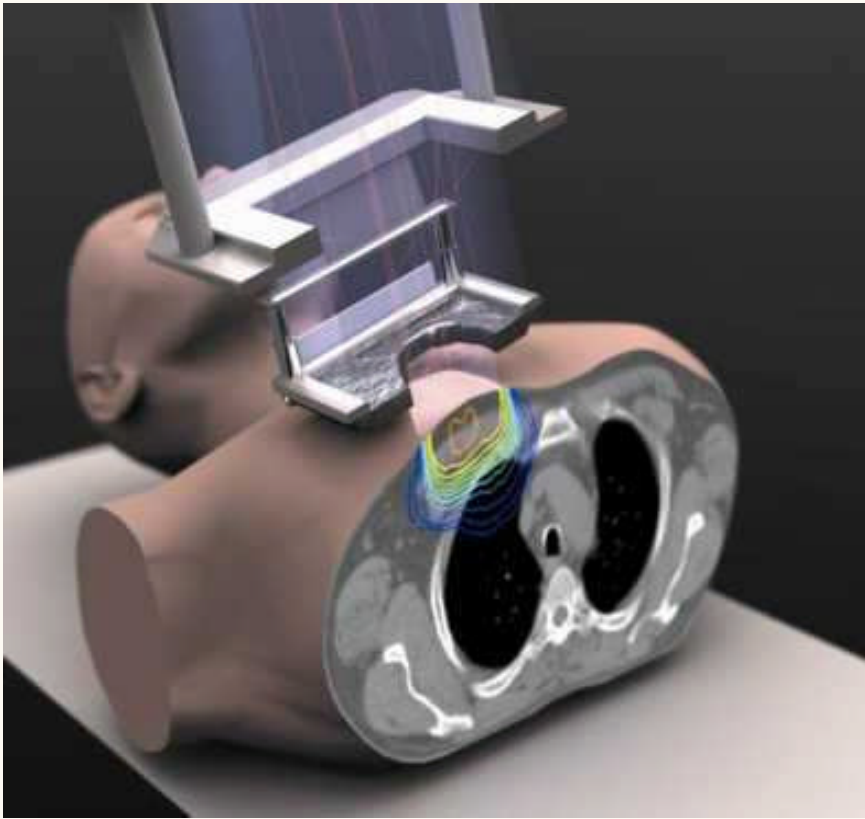
**seedSelectron**

# External Beam Radiation Therapy

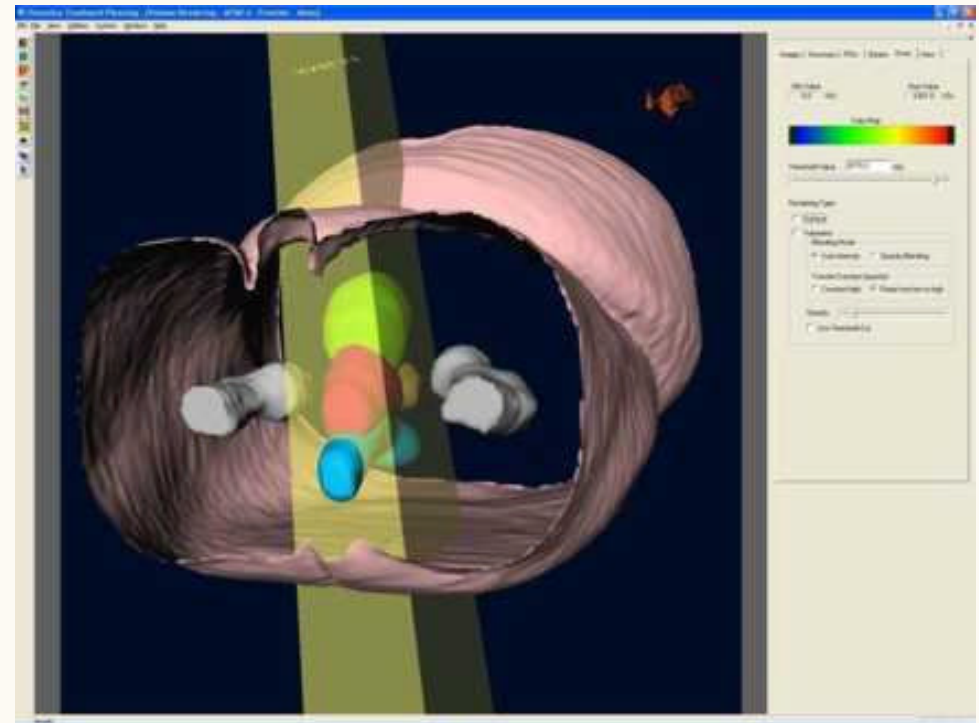


**Nucletron**

# Treatment Planning



**Oncentra "Monte Carlo algorithm"  
Electron module**



**PLATO Virtual Simulation**

# Imaging- Simulation

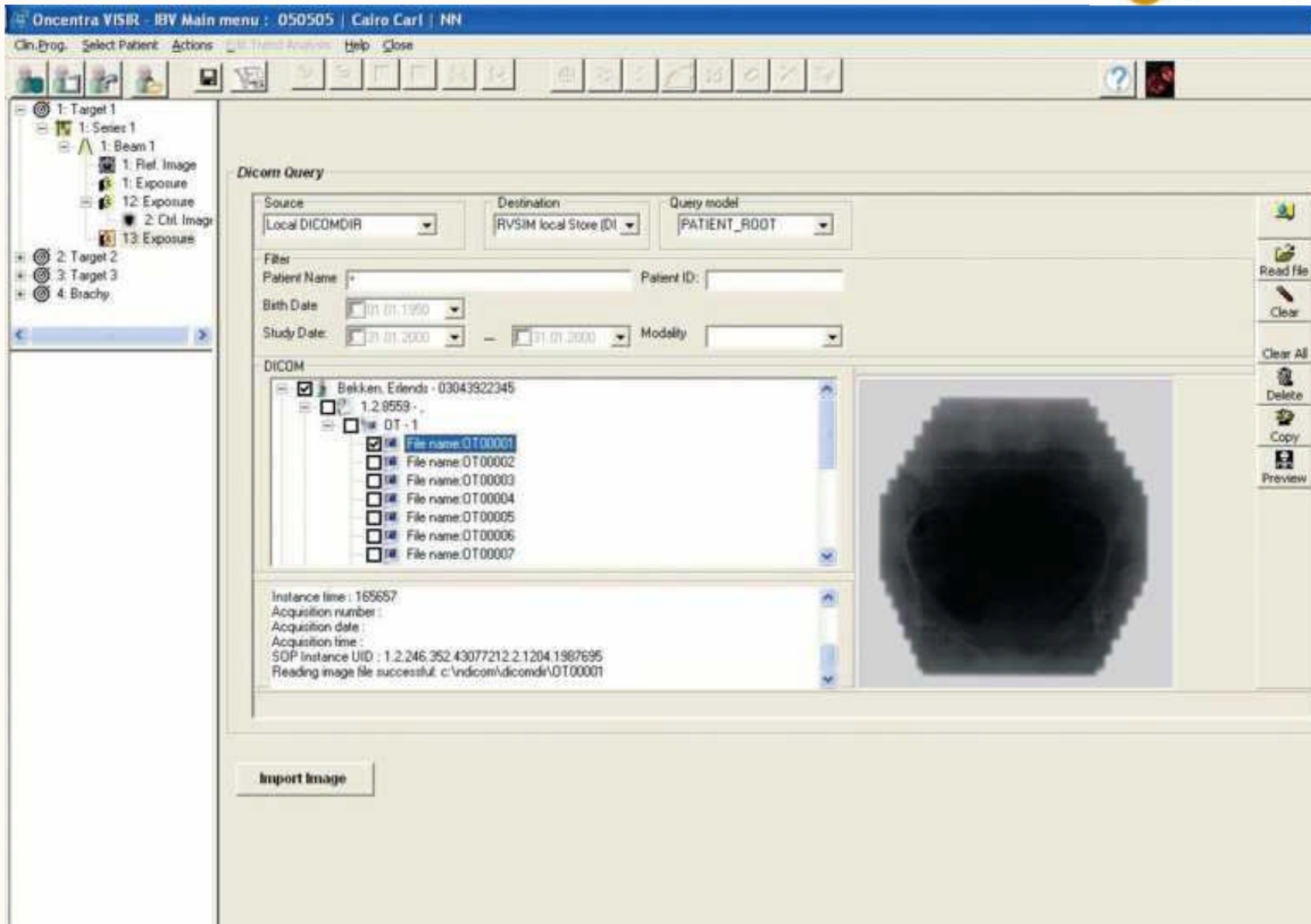


**Simulix Evolution**



**Nucletron**

# Record & Verify



The screenshot displays the Oncentra VISIR software interface. The title bar reads "Oncentra VISIR - IBV Main menu : 050505 | Cairo Carl | NN". The menu bar includes "Clin. Drop", "Select Patient", "Actions", "Transfer Resources", "Help", and "Close". A toolbar with various icons is located below the menu bar.

The interface is divided into several sections:

- Left Panel:** A tree view showing a hierarchy of targets and beams. The selected path is "1: Target 1" > "1: Series 1" > "1: Beam 1" > "1: Ref. Image" > "1: Exposure" > "12: Exposure" > "2: Ctl. Image" > "13: Exposure". Other targets listed are "2: Target 2", "3: Target 3", and "4: Brachy".
- Dicom Query Section:**
  - Source:** Local DICOMDIR
  - Destination:** RVSIM local Store (DI)
  - Query model:** PATIENT\_ROOT
  - Filter:** Patient Name, Patient ID, Birth Date (01-01-1990), Study Date (01-01-2000 to 01-01-2000), Modality.
  - DICOM Tree:** Shows a list of files under "Bekken, Edends - 03043922345". The selected file is "File name: OT00001". Other files include "File name: OT00002" through "File name: OT00007".
  - Instance Information:** Instance time: 165657, Acquisition number, Acquisition date, Acquisition time, SOP Instance UID: 1.2.246.352.43077212.2.1204.1987695, Reading image file successful: c:\ndicom\dicomdir\OT00001
- Image Preview:** A large, dark, circular image representing a target area, likely a cross-section of a patient's head or neck.
- Right Panel:** A vertical toolbar with icons for "Read file", "Clear", "Clear All", "Delete", "Copy", and "Preview".
- Bottom:** An "Import Image" button.

# Information Management



Oncentra VISIR - Treatment : 6911 | Chard Thomas K | NN

Clin.Prog. Select Patient Actions Print Portal Imaging Deviation Treatment Overview Beam Overview Help Close

6911 Mr Chard Thomas K (NN)

Control Room Setup MLC Dose Measurements VERITY Machine View

1 AP No. of exp.: 0 / 15 Normal

1: Lung  
1: POP  
1: AP  
2: PA

Confirm messages Sign

! SYS/ Patient to see Dr [after](#) treatment.

Compensator 1:

MU Wedge	45	45	Unit	DE1	DE1
MU Open	0		Rad. Q	X6	X6
MU Total	45	45	Ref. Point:	CT Origin	

X	9.0	9.0
Y	13.0	13.0
X1 X2	4.0 5.0	4.0 5.0
Y1 Y2	6.0 7.0	6.0 7.0
Block no	1	1
Wedge	60	60
Wedge d	Left	In
Gant a	0	0
Stop a	0	0
ArcCod	NO	NO
Coll a	5	5
Tbl iso a	0	0
Tbl top a	0	0
Tbl hght	-9999.0	21.6
Tbl lat	-9999.0	-0.8
Tbl long	-9999.0	19.7



# Training and Service

## Training:

Clinical Courses

✓ Application Courses

✓ Technical Courses

## Service:

✓ Installation and Support

✓ Maintenance Contracts

✓ Radiation Sources



# Nucletron in The Maghreb Area

The Nucletron France subsidiary is responsible for covering the Maghreb Area through agents well known on their domestic markets.

- MOROCCO , where our agent is SCRIM
- ALGERIA, where our agent is BERGHEUL
- TUNISIA, where our agent is RIMPEX

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**Nucletron**

- Nucletron BV is responsible for all other countries in the Middle East and Africa
- Our strategy in these areas is clearly to develop our activity on all our products portfolio.
- Together with our partners, we are supporting local events in these countries and we provide adequate service support via our local organisations.