

Daniel König-Meier

Education and career:

- University of applied sciences Munich: Engineering physics
- Designing engineer at the Auswertungsstelle (Dosimetry monitoring service at Helmholtz Zentrum Munich)
- Development of the automated Beryllium oxide OSL system

Matthias Greiter

Education and career:

- Technical University Munich (TUM) - Biophysics
- PhD at TUM/Helmholtz Zentrum München:
Biokinetics and internal dosimetry of zirconium
- Postdoc/Scientist at Helmholtz Zentrum München:
 - Analysis of mass spectrometry data for biokinetics
 - Image quality: Detective quantum efficiency
 - Image processing for voxel model development
 - Calibrations and irradiation services (Munich SSDL)

Helmholtz Zentrum München
Auswertungsstelle
Munich, Germany

HelmholtzZentrum münchen
German Research Center for Environmental Health
auswertungsstelle

Main departments or divisions:

- Diabetes research
- Lung disease research
- Research on health and environment
- Radiation research

Monitoring service – “Auswertungsstelle” in brief

- Various dosimeters: Film, OSL, TLD-rings, Albedo, Glass,...
- Agfa Films, Dosimetrics BeOSL, Harshaw TLD,
Chiyoda Technol Glass
- Largely automated process (bulk cargo, robot handling, ...)
- Accredited according to DIN EN ISO/IEC 17025:2005
- Approved by PTB (Physikalisch-Technische Bundesanstalt)
- ~160.000 individuals monitored per month
- ~60 persons staff

Olivier Van Hoey

- Master in Physics, Ghent University (2005-2010)
- PhD in Engineering Physics, *SCK•CEN* (2010-2014)
- Researcher, SCK•CEN (2014-present)

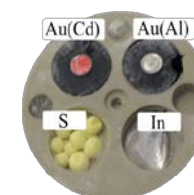
The Belgian Nuclear Research Centre, SCK•CEN, Mol, Belgium



- Environment, health and safety
 - Waste disposal, radiation effects, radiation protection, medical applications, decontamination, safeguards, societal aspects
- Advanced nuclear systems
 - Accelerator driven MYRRHA reactor, fusion technology
- Nuclear Materials Science
 - Structural materials, fuel, radionuclide production, silicon doping

Dosimetry at SCK•CEN

- 1 laboratory head, 2 operators
- Whole body dosimetry
 - TNO badge with Harshaw MTS-100 TLDs
 - Approved by FANC, ISO 17025 accreditation by BELAC
 - Transition to Landauer badge with $\text{Al}_2\text{O}_3\text{:C}$ OSLDs in the next years
 - About 7000 individuals monitored in Belgium
- Extremity and eye lens dosimetry
- Environmental monitoring with Harshaw MCP-100 TLDs
- Whole body dosimeter for criticality accidents
 - TNO badge with In, Au and S activation detectors
 - About 3000 individuals monitored in Belgium and France
- Secondary standard calibrations and irradiations
 - ^{60}Co , ^{137}Cs , ^{252}Cf , Am-Be, X-rays
 - ISO 17025 accreditation by BELAC



José Francisco Benavente Cuevas

- Degree in Physics - University of Cordoba
- Master in Science and Chemical Technology – Complutense University of Madrid
- Research Technician at Ciemat personal and environmental dosimetry laboratory

CIEMAT

Radiation Dosimetry Unit
Madrid, Spain



Individual Monitoring Service

- External Dosimetry Service: personal and environmental
- Internal Dosimetry Service: whole body counter and bioassay

Retrospective Dosimetry

Computational Dosimetry

External Dosimetry Service

- Personal Dosimetry Lab:
 - Whole Body Panasonic UD – 802
 - Extremity Dosimeter Panasonic UD - 807
 - TLD Readers Panasonic UD-716 and UD-710
- Environmental Dosimetry Lab:
 - GR – 200 and TLD - 100
 - TLD Readers Harshaw 5500 and Thermo 5500
- 1984 - Approval by CSN – Personal dosimetry
- 2012 - Accreditation by ENAC - TL personal and environmental dosimetry

Stefania Stan

stefania.stan@dozimed.ro

- Bachelor Degree: University graduate in Medical Physics; University of Bucharest, Faculty of Physics, Romania
- Master Student in Medical Biophysics; University of Bucharest, Faculty of Physics, Romania
- July 2014 – present: Physicist at Dozimed

DOZIMED
Măgurele, Romania
www.dozimed.ro



DOZIMED

Dosimetry Services

- Individual monitoring (whole body, eye-lens, extremities)
- Environmental monitoring
- Approved Dosimetry Service by Romanian Regulatory Body (CNCAN)
- Accredited according to ISO 17025 by Romanian Accreditation Body (RENAR)

Individual Monitoring Service

- **Laboratory Staff:** 10 people (5 physicists, 1 nuclear engineer, 1 chemist, 3 technicians)
- **Exposed workers:** over 13.000 individuals
- **Issued dosimeters per month:**
 - 8000 Panasonic TL dosimeters, type UD 802 AT
 - 5000 photographic doseimeters, Foma film + PTW badge
 - 300 Harshaw albedo dosimeters, type 6776 + 8806
 - 100 extremities rings, Harshaw DXTRAD
 - 90 eye lens dosimeters, Harshaw EXTRAD + headband with 1,5 mm PTFE filter
 - 25 environmental Harshaw dosimeters, type 7777H +8855
- **Equipments used:**
 - 3 x Panasonic UD716 Reader
 - 1 x Panasonic UD 794 Irradiator
 - 1 x Harshaw 4500 Reader

DANIEL FERRER MORENO

Academic Background and Professional Experience:

- Electronic Engineer, Complutense University of Madrid (Spain)
- Bachelor's Degree in Physics, Complutense University of Madrid (Spain)
- Dosimetry Service Coordinator (for six months).

GESTISA
MADRID, SPAIN



Main departments or divisions

- Individual monitoring
- Patient Dosimetry
- Labour Risk Prevention
- Data protection
- Research and development

GESTISA:

- Type of dosimeter: TLD.
- Own equipment of GESTISA.
- Certified Spanish Nuclear Safety Council (CSN)
- Number of individuals monitored: around 1350
- Number of staff: 17.

Joanne Johnson

Education and Career

- CTC – GCSE's and GNVQ's
- Peoples College – HND MPPM
- Lab Technician – MX Systems
- Clinical Technolgist - RRPPS

UHB

RRPPS

Birmingham, UK

University Hospitals Birmingham 
NHS Foundation Trust

Main departments

- Personal Dosimetry
- Instrument Calibration
- X Ray Quality Assurance
- Radionuclide Service
- Non Ionising Service – UV, Lasers, US

RRPPS ADS

- Panasonic reader
- Panasonic UD-802 – A 4 element dosimeter
- 2 $\text{Li}_2\text{B}_4\text{O}_7$ elements and 2 CaSO_4 elements
- Cleaned and QA before every read
- Control dosimeter at end of every tray
- Currently have 8500 individuals monitored
- Have over 89000 wearer records
- 10 Members of staff – clerical and technical

Dorel Florin Albu

University studies:

- “Ovidius” University from Constanta, Romania: Bachelor’s Degree and Master’s Degree in Physics;
- University of Bucharest, Romania: PhD studies - in progress;

Work jobs:

- Technician in Dosimetry Lab. - Cernavoda NPP;
- Senior technician in Dosimetry Lab. - Cernavoda NPP;
- Senior technician specialist in Dosimetry Lab. - Cernavoda NPP;
- Health physicist in Dosimetry Lab. - Cernavoda NPP (starting this year).

SN Nuclearelectrica
CNE Cernavoda NPP
Cernavoda, Romania



Main departments or divisions in CNE Cernavoda NPP:

- Operation Department;
- Maintenance Department;
- Technical Department;
- Safety and Licensing Department;
- QA Management Department;
- Health Physics Department – Dosimetry Lab.
- Others.

CNE Cernavoda NPP - Dosimetry Lab.

Provide internal and external dosimetry services:

Internal dosimetry services:

- Whole body counters (Fastscan & Accuscan);
- Tritium in urine (Liquid Scintillation Counters).

External dosimetry services based on Panasonic TLD system which consists of:

- 3 Automatic TLD Readers;
- 1 manual TLD Reader;
- 2 TLD Irradiators;
- TLD's (UD-813AS14 for QC's and UD-814AS9 for individuals).

Dosimetry Lab. also provide Effluent (gaseous and liquid) analysis:

- Gamma Spectrometry;
- Alpha/Beta Counters;
- H3 and C14 analysis - Liquid Scintillation Counters.

CNE Cernavoda NPP - Dosimetry Lab.

Dosimetry Lab. is accredited by National Regulatory Body CNCAN (National Commission for Nuclear Activities Control) as per ISO 17025;

Quality Control Activities: Daily QC's, Annual calibration and participation at Intercomparison exercises.

Intercomparison exercises: external dosimetry – COG, since 2007 (photon energy response) and internal dosimetry – PROCORAD, since 2001 (H3/C14, gamma spectrometry in urine).

Number of individuals monitored - aprox. 3000.

Dosimetry Lab. staff: 14 (Dosimetry Lab. Supervisor, 2 health physicist and 11 technicians).

Jytte Elseviers

A bulleted list of your education and career (max 5 items)

- Master of physics, KU Leuven, Belgium
- PhD in nuclear physics, KU Leuven, Belgium
- Expert in health physics (in training) at Controlatom, Belgium

Controlatom
Jytte Elseviers
Vilvoorde, Belgium



Main departments or divisions (bulleted list maximum 5 items)

- Health physics (inspections)
- External occupational dosimetry
- Medical physics (quality control)
- Transport of radioactive materials (consultancy)
- Laboratory (gamma spectrometry, calibration of measuring instruments)

Controloatom

A bulleted list points of interest (max 7 items)

- Type of dosimeters: BeOSL, TLD extremity dosimeters, albedo neutron dosimeters
- OSL reader system (dosimetrics), Harshaw reader, Hopewell irradiator
- Belac accreditation (ISO 17025)
- ~30 000 individuals monitored
- 50 employees of Controloatom of which 9 at the dosimetry department (4 experts and 5 administrative)

Jörg Walbersloh

- 1999 – 2009 : Studies, Diploma and PhD at TU Dortmund
Focus on elementary particle physics (ATLAS-Experiment)
- 2009 – 2012 : Development of a hand-held medical monitor
(capable of recording ECG, pulse-oximetry etc.)
→ Sensor development and phys. analysis
- Since 2012 : Development of a TL-Dosimeter system
for the dosimetry service at the Materialprüfungsamt NRW

Materialprüfungsamt NRW
Marsbruchstraße 186
44287 Dortmund
North Rhine-Westphalia, Germany



Departments of the MPA NRW

- Dpt. 1: Radiation protection, Calibration, Quality Management
 - Including the monitoring service
- Dpt. 2: Safety of Building Products
 - i.e. Safety glass, fire protection, insulation materials etc.
- Dpt. Z: Central Services

The monitoring service at MPA NRW

- Official dosimetry service for 5 German countries
- Whole body (main) dosimeter: Gliding Shadow Film
→ 110.000 evaluations per month
- + Finger rings (5000/month), Albedo (1000/month),
Glass for environmental monitoring (1300/month)
- Accredited according to DIN EN ISO/IEC 17025: 2005
- Staff: about 40 members



Papadomarkaki Eleni

•**EDUCATION:**

- B.Sc. in Physics, Physics Department, University of Athens
- MSc in education, Hellenic Open University

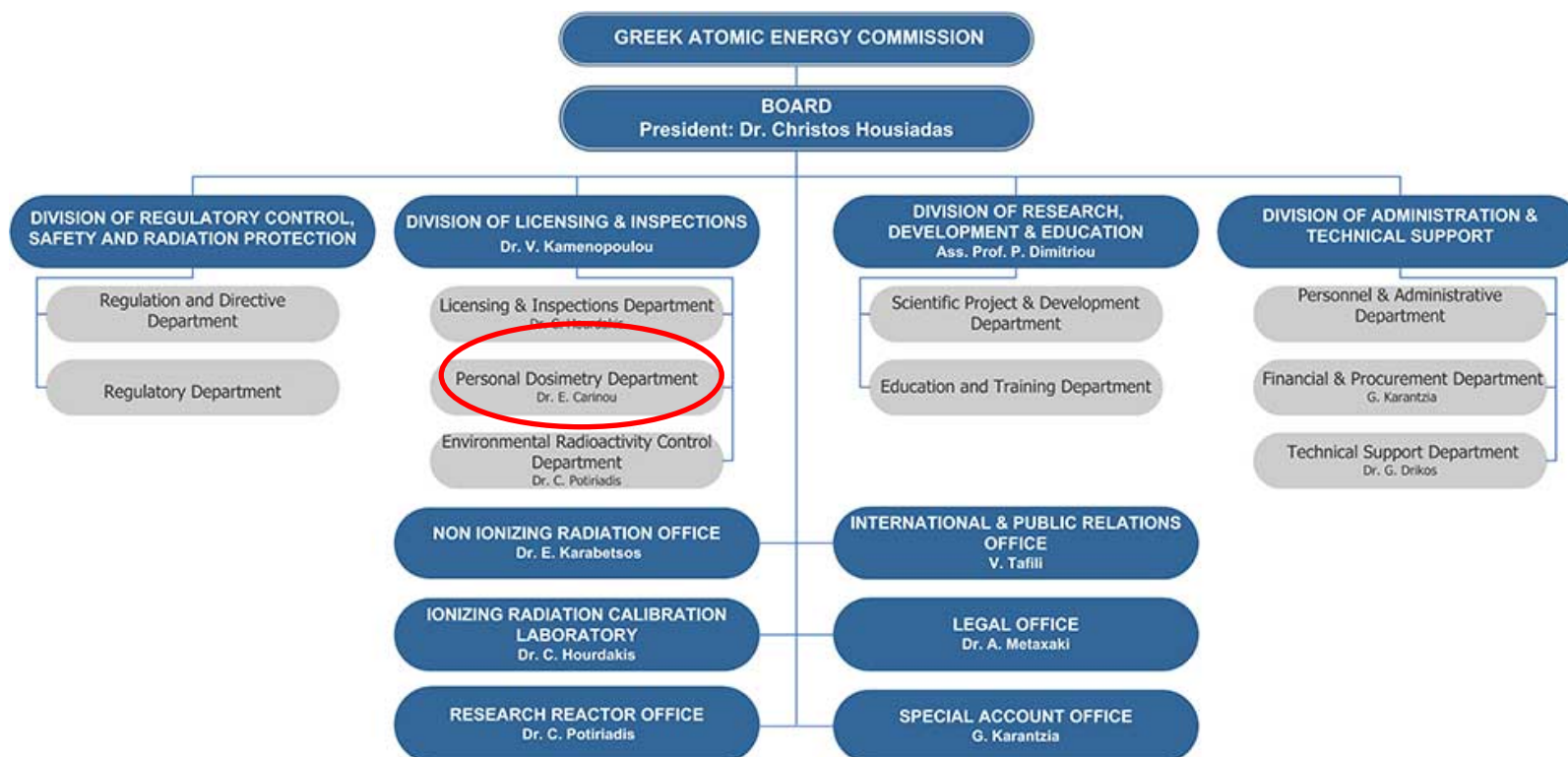
WORK POSITION:

Staff, Dosimetry Department,
Greek Atomic Energy Commission

EEAE's personnel

**GREEK ATOMIC ENERGY COMMISSION**

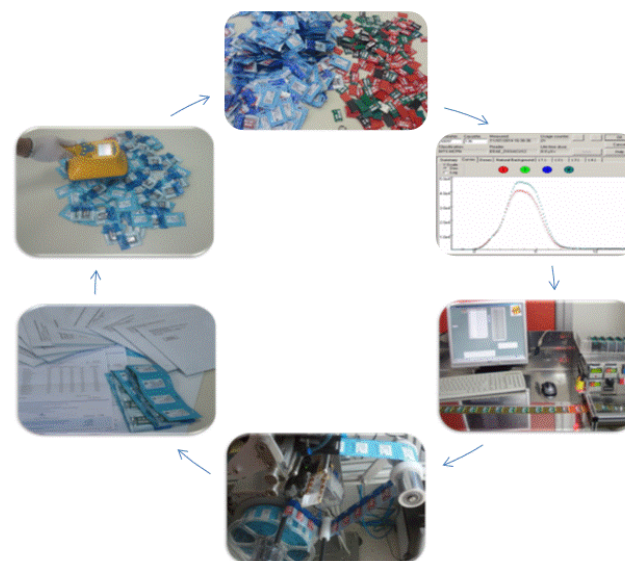
The Greek Atomic Energy Commission (EEAE) is the competent national regulatory authority in the fields of radiological protection and nuclear safety.



Personal Dosimetry Department of EEAE:

Ensures the individual monitoring of 11000 workers occupationally exposed to ionizing radiation in the country and maintains the National Dose Registry.

- Thermoluminescent dosimeter of 2 pellets for photons, 1 pellet for gamma ring, 2 pellets for beta ring and 4 pellets for neutrons
- 100000 individually calibrated pellets of LiF (Mg,Ti), LiF (Cu,P)
- 4 automatic Rados and 2 manual Harshaw readers
- 3 ovens
- Commercially available software for handling the glow curves and home made software for the dose assessment
- The department is accredited ISO/IEC 17025 for the measurements of Hp(10) and Hp(0.07) in gamma fields
- Head, 2 physicists, 4 technicians



Work flow on monthly basis

Oscar Gultresa

- Degree in Industrial Engineering
- Master Quality Assurance & Auditor accredited by IQA, MBA in Business Administration (ESADE)
- Project & Quality Responsible , centro dosimetria since 2009
- Trade services project manager, Logistics manager & production manager. Henkel Ibérica
- Purchasing responsible, Techplant Ingest.

Emanuel Oliveira

- Degree in Radiology - Escola Superior de Saúde Dr. Lopes Dias
- Technical manager of radiological protection – Cendosim since 2013 (Portuguese company laboratory centro de dosimetría)
- 6 months training in IMS laboratory centro de dosimetría Barcelona (2013)
- Technical Advisor - Pharmaceutical industry training department (2010-2013)

Silvia Pastor

- Bachelor of Science in Physics, Universitat Autònoma de Barcelona (UAB)
- Physicist responsible for dose assignment, IMS “centro dosimetría ,s.l.” since 2005
- Technical expert in environment, centro de dosimetria

centro de dosimetria
Barcelona, Spain

cd centro de dosimetría

- External Individual Monitoring
- Occupational dosimetry
- Environmental monitoring
- Customised Dosimetrty: Tests, verification of techniques, patients

IMS centro de dosimetria

- Dosimeters cd.ce2 and cd.A2(design and patented by cd)
detectors TLD 100 Li:Mg,Tl
- Type of dosimeter: Whole body, extremities (ring, wrist)
- Equipment:
 - 5 Automatic TLD Readers (3 RE-2000 , 2 RE-1) RADOS
 - 1 Manual TLD Reader Victoreen, 1 Irradiator IR-1 RADOS
 - 1 Nitrogen generator station, 2 Furnaces for heat treatments
- Authorized by the Nuclear Security Council (CSN) since 1985
- Authorized by the Direcção-Geral da Saúde (DGS)
- Accredited by ENAC ISO 17025 february 2015
- Number of individuals monitored: more than 35000/month
- Number of staff: 19 in Barcelona, 1 Madrid , 2 Lisboa

Robert Kollaard

- 1994-2000 Applied Physics, Twente University, Enschede
- 2000-2005 Training as medical physicist (radiotherapy), Eindhoven
- 2005-2012 Medical physicist, in Maastricht and Enschede
- 2013-present Consultant radiation protection at NRG

NRG

Nuclear Research & consultancy Group

Arnhem and Petten, The Netherlands

About 500 employees



Main divisions of NRG

- Consultancy & Services
 - Radiation protection
 - Measurement services
 - Consultancy RP
 - ...
- Irradiation Solutions
- Nuclear Operations
- Research & Innovation

NRG monitoring service

- Most dosimeter types based on TLD (photon, beta, neutron)
- In house developed system, independent of TLD manufacturer
- ISO9001 accreditation
- ISO17025 accreditation in progress
- Number of individuals monitored: ~ 30,000
- Number of staff: 10
- NRG CRP is responsible for national dose registration system

Markus Engelke, Paul Scherrer Institut

- Studies in physics at the University of Konstanz (Germany) and ETH Zurich (Switzerland)
- Research Assistant (Postdoc) at ETH Zurich
- Head of the Materials Testing Lab of a High-Pressure Die Casting Company, Radiation Protection Officer (Switzerland)
- Physicist in Radiation Protection at the Paul Scherrer Institut (Switzerland)

Paul Scherrer Institut

PAUL SCHERRER INSTITUT



Largest research center for natural and engineering sciences in Switzerland.

Main research subjects:

- Matter and Material
- Energy and the Environment
- Human Health

Radiation Protection:

- Environmental monitoring
- Internal contamination
- Individual monitoring
- Consultancy



Division for Radiation Safety and Security

2014

- Staff: ~70 (PSI: ~1'900)
- Individual monitoring (externals & internals): ~8'000 (1'200 for neutrons) applying TLD, DIS, (PADC)
- Environmental monitoring: ~190 stationary gamma and neutron doseimeters, ~350 Stationary dose-rate instruments in the PSI area, ~90 (~30 neutron doseimeters) in the vicinity of PSI, nuclear power plant "Beznau", interim storage facility "ZWILAG"
- Internal monitoring: ~260 with 2 body scanners, 1 Thyroid scanner
- Accredited: Radio-analytical Lab, Standards & Calibration Lab, Dosimetry

Ana Barreto

Education and Career:

- **Bioengineering Bachelor** – ESTG, Instituto Politénico Portalegre
- **Biomedical Engineering Master** – Instituto Superior Técnico
- **MSc Research in Nuclear Medicine** - Hospital Garcia de Orta, EPE
- **Medical Physicist at Nuclear Medicine** – Hospital Garcia de Orta, EPE
- **Internship and currently Radiation Protection Technician at Plurirad, Lda.** (Dosimetry and Quality Control)

Ana Cartaxo

Education and Career:

- **Biomedical Engineering** – Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa
- **Master Thesis** – Instituto Superior Técnico, Campus Tecnológico e Nuclear
- **Internship at Plurirad, Lda.** (Dosimetry and Quality Control)
- **Radiation Protection Technician at Plurirad, Lda.** (Dosimetry and Quality Control)

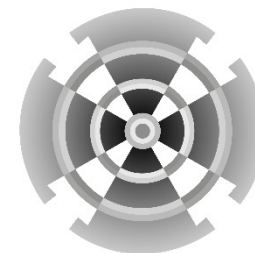
Pedro Fialho

Education and Career:

- **Engineering Physics** – Faculty of Sciences, University of Lisbon
- **Internship at Plurirad, Lda.** (Dosimetry and Quality Control)

Plurirad, Lda

Rua Cidade de Bolama,
Torre dos Olivais II nº 10, 5º andar,
Portugal



PLURIRAD

Main departments:

- Individual monitoring;
- Quality Control of Radiology Equipment;
- Licensing of Radiology Equipment;
- Consultancy.

Plurirad monitoring service

Points of interest:

- **Type of dosimeter:** OSL
- **Equipment:** MicroStar Reader
- **QA aspects:** ISO 17025 and ISO 9001
 - ♦ ISO 9001 certified,
 - ♦ ISO 17025 accredited.
- **Number of individuals monitored:** >3000
- **Number of staff:** 6

Ildefonso Pinto

Education:

- Degree and MSc. in Physics Engineering, Faculty of Science and Technology - Universidade Nova de Lisboa
- Advance Training Diploma in Radiation Safety and Protection

Career:

- Researcher in Biological Signal processing (High-resolution ECG signal detection and delineation using wavelet transforms under Matlab software) - 2004/2005
- Physicist at MedicalConsult - since 2005

MedicalConsult, Unip. Lda.
Torres Vedras, Portugal



Main business core:

- Personal Dosimetry
- Medical equipment QC/QA (Radiology)
- Radiation Protection
- Consultancy

MedicalConsult Laboratory:

- TLD
- Panasonic
 - UD-7900 Automatic Reader
 - UD-802 series TLDs
 - UD-749 Irradiator
- NP EN ISO/IEC 17025:2005 accreditation (no. L0527)
- NP EN ISO 9001:2008 certification
- Aprox. 9000 individuals monitored
- 2 Physicists and 5 administrative personnel

Joana Pereira

- (2012) MSc degree in Biomedical Engineering
Faculdade de Ciências e Tecnologia
Universidade Nova de Lisboa
- (2012-2014) FCT project: *Characterization of Fluoro-CT guided procedures: dose distribution to the interventional radiologist; identification of the most exposed regions of the body and hands.*
- Since 2014 at Individual Monitoring Service of IST-LPSR

Miguel Pereira

- (2005) Degree in Physics
Universidade do Minho
- Since 2007 at Individual Monitoring Service of IST-LPSR
- (2009) MSc degree in Physics Engineering
Universidade de Lisboa
Optimization of extremity monitoring methods for Fluoro-CT
- Since 2012 Technical manager of the IMS of IST-LPSR

Instituto Superior Técnico
Campus Tecnológico e Nuclear
Laboratório de Proteção e Segurança Radiológica
Estrada Nacional 10, km 139,7
2695-066 Bobadela LRS, Portugal



Núcleo de Metrologia e Dosimetria

- Metrology of ionizing radiation laboratory
- Individual monitoring of external radiation
- Individual monitoring internal radiation
- Biological dosimetry

IST-LPSR/DIRE

- Individual and environmental monitoring service
- Harshaw 6600 readers, WB, EXT, area monitoring with TLDs
- Harshaw holders 8814 and 8855; EXT-RAD type
- TLD-100 and TLD-100H element cards doseimeters
- Accredited in compliance with EN ISO/IEC 17025 since 2011
- 3700 monitored (1500 m, 2200 q)
- Staff 4: 2 Graduated Tec. + 2 Technicians

Ewelina Pyszka



Education and career:

- 2010-2011 University of Science and Technology (AGH), Krakow
Postgraduate studies: Quality management in Enterprise
- 2003-2008 University of Science and Technology (AGH), Krakow
Medical Physics and Dosimetry (MSc degree)
- December 2011 – present: Deputy Head on Quality Management
 - ✓Preparation of the procedures according to ISO 17025
 - ✓Quality improvement
- July 2008 - present: Measuring worker in Laboratory of Individual and Environmental Dosimetry at the Institute of Nuclear Physics Polish Academy of Science, Krakow
 - ✓Operating measuring equipment
 - ✓Measurement of doses
 - ✓Customer service
 - ✓Reporting

Paulina Janowska



Education and career:

- 2006-2011 University of Science and Technology (AGH), Krakow
Medical Physics and Dosimetry (MSc degree)
- July 2012 - present: Measuring worker in Laboratory of Individual and Environmental Dosimetry at the Institute of Nuclear Physics Polish Academy of Science, Krakow
 - ✓ Operating measuring equipment
 - ✓ Measurement of doses
 - ✓ Customer service
 - ✓ Reporting

Institute of Nuclear Physics PAN
Laboratory of Individual and
Environmental Dosimetry
Krakow, Poland



Main departments :

- Individual monitoring
- Environmental dosimetry
- Quality control of X-ray machines

Dosimetry service in Krakow:

Material:

✓ Thermoluminescent detectors:

LiF:Mg,Ti(MTS-N) and

LiF:Mg,Cu,P(MCP-N)

Dosemeters:

✓ Individual

✓ Extremity ring

✓ Eye lens

✓ Environmental

Equipment:

✓ Four TL readers RE2000

Accreditation:

✓ Certificate AB1317 - according to
the ISO/IEC 17025 standard

Staff of laboratory:

✓ 28

Number of customers:

✓ 7600 institutions

GIUSEPPE LEPORI

giuseppe.lepori@eni.com

- Technical high school diploma (industrial electronic), Milan;
- MSc degree in Physics Plasma Physics), Milan;
- International Master Course of II level in Nuclear and Ionizing Radiation Technologies (NIRT) for non power application;
- I am a physicist and in the last 6 years I worked in the fields of radiation protection. I have experience in radiation detection (on-field surveys with portable instruments) and handling and management of all kind of sources of ionizing radiation (both natural and artificial sources and x-ray machines).
- In the past I worked as Safety, Health and Environment specialist in the HSE department of a large multinational chemical company (SASOL).

eni spa – Upstream

Via Emilia 1

20097 San Donato Milanese (MI)

RADI

Radiation protection unit

Istituto Autorizzato per la Radioprotezione (D.M. 23/5/84)

Laboratorio di dosimetria

Via F. Maritano 26

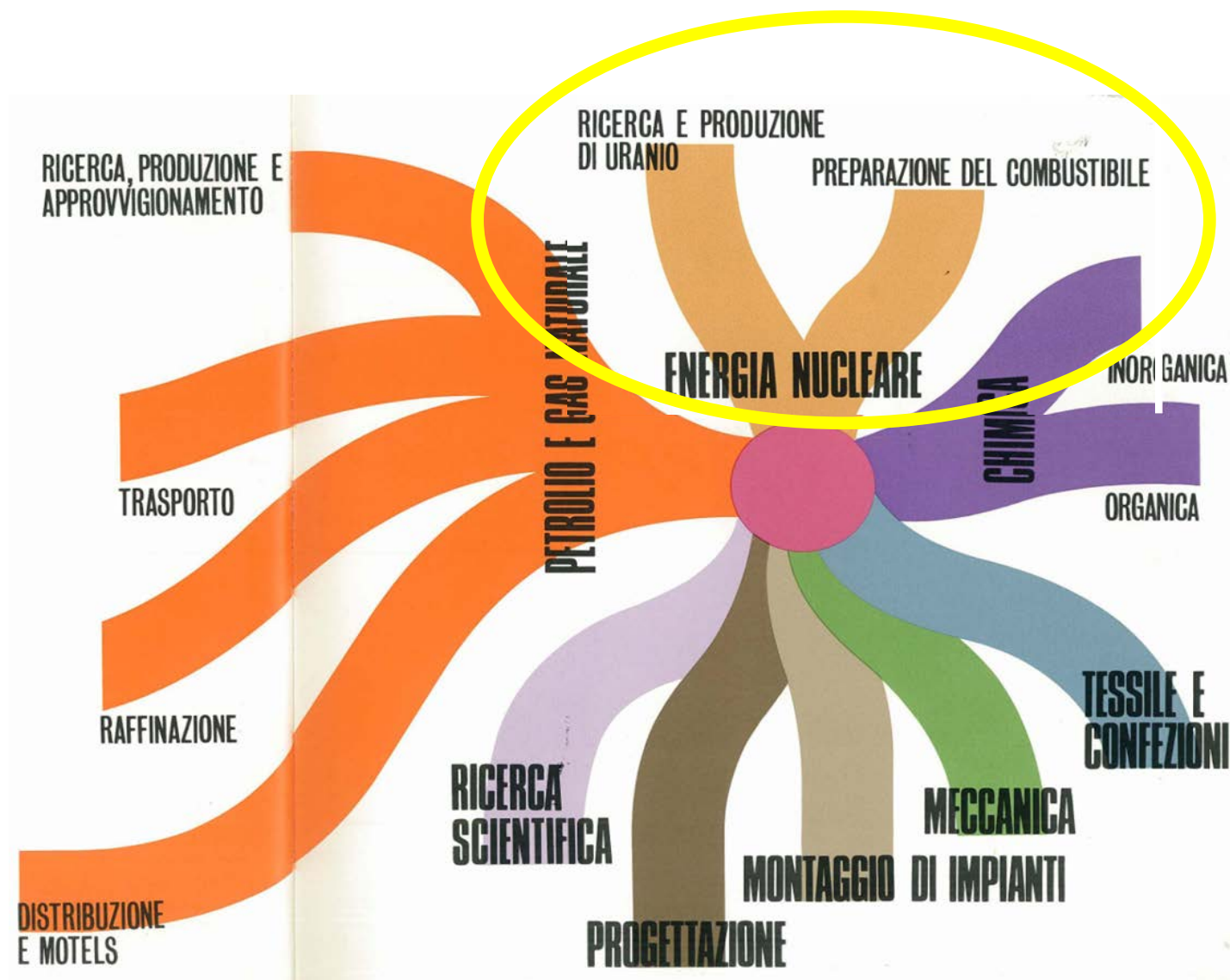
20097 San Donato Milanese (MI)



eni monitoring service

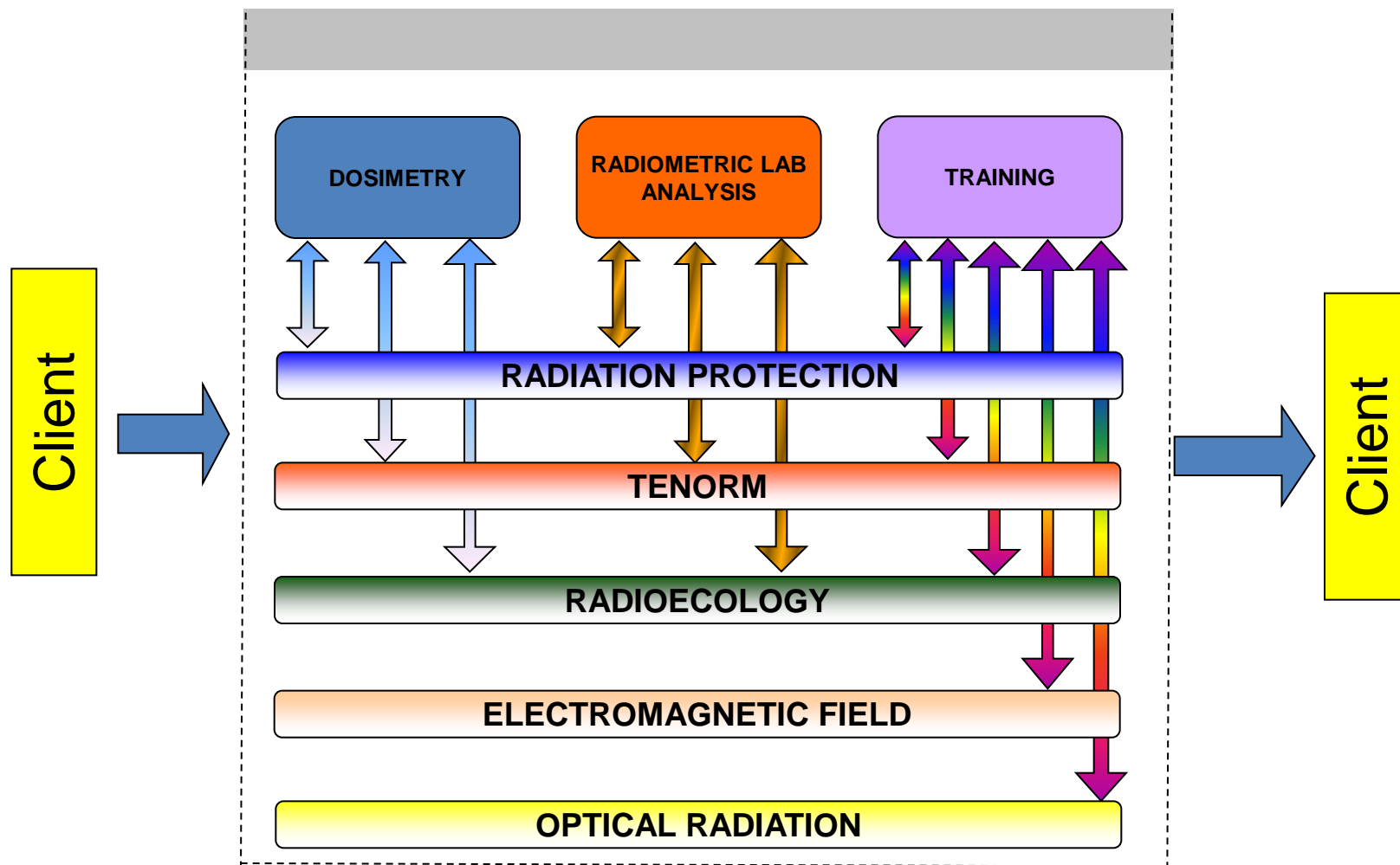
- Type of dosimeter: OSL (Optically Stimulated Luminescence)
- Equipment: Landauer InLight dosimetry service
- QA aspects, certified, accredited, ...: at the moment not yet
- Number of individuals and position monitored: total about 500
of which about 210 for individual monitoring and about
250 for environmental monitoring
- Number of staff: dosimetry laboratory two people, 1 graduated
and 1 technician.

RADIATION PRTECTION UNIT : WHERE ARE WE FROM



MISSION

Provide assistance to Eni Exploration & Production Division, its subsidiaries, other Divisions and Companies of the Group in management of activity involving risks of exposure to ionizing and non-ionizing radiation.



Natural, artificial and half and half ?

SOURCES OF EXPOSURE TO IONIZING RADIATION

NATURAL SOURCES



TECHNOLOGICALLY MODIFIED NATURALLY SOURCES



ARTIFICIAL SOURCES



Maria do Carmo Baptista

mcvb@drcamposcosta.pt

1. Physics engineering @ Universidade de Aveiro
2. Applied Physics Master @ Universidade de Aveiro
3. Executive MBA @ EGP-UPBS
4. Pos-degree in management and administration Hospital

Work field :

Dr. Campos Costa since 2004 - Medical Physics Department
Radiation Protection Officer @ BASE Imagiologia
Consultant of DGS since 2012

Private Imagiological Clinic
Radiology and Nuclear Medicine
Dr. Campos Costa S.A.
Porto, Portugal

Medical Physics Department

- management of occupational dosimetry
- Management & QC of equipments
- Patient Dosimetry
- Management of radioactive waste
- Licensing & regularization by DGS and ERS
- IT development

