



Nuclear Engineering

Operation and Exploitation of the Reactor, Dosimetry (RPI) and Reactor Calculations

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- Fast Neutron Irradiation of Electronic Components for the LHC/CERN in the Portuguese Research Reactor, CERN/P/FIS/40127/2000, March 2001-February 2002 Total budget 9000×10^3 PTE, ITN budget 9000×10^3 PTE Prime contractor: ITN Co-ordinator: J.G. MARQUES Partners: Univ. Complutense Madrid, Spain - J.A. AGAPITO, CERN - J. CASAS	9000
- <i>A round robin characterisation of the thickness and composition of thin to ultra-thin AlN(O) layers</i> , IAEA 11317/R0/Regular Budget Fund, Sep. 2000-Aug. 2001 Total budget 1100×10^3 PTE, ITN budget 1100×10^3 PTE Prime contractor: ITN Co-ordinator: N.P. BARRADAS	550
- <i>Artificial neural network characterisation of the thickness and composition of thin to ultra-thin AlN(O) layers</i> , IAEA 11317/R0/Regular Budget Fund, Oct. 2001-Sep. 2002 Total budget 1100×10^3 PTE, ITN budget 1100×10^3 PTE Prime contractor: ITN Co-ordinator: N.P. BARRADAS	550
- <i>Preliminary design studies of an experimental accelerator-driven system</i> , European Commission Research Directorates, November 2001-October 2004 Total budget 1202892×10^3 PTE, ITN budget 7017×10^3 PTE Prime contractor: Framatome ANP SAS Co-ordinator: B. CARLUEC ITN Co-ordinator: P. VAZ Partners: A total of 25 European Institutions.	2807
- <i>Emission Channeling/Blocking Using Thermal Neutron Induced Nuclear Reactions for the Study of Defect Structures in Single Crystals</i> , SAPIENS/FIS/35322/99-00, Dec. 2000-Nov. 2002 Total budget 9000×10^3 PTE, ITN budget 9000×10^3 PTE Prime contractor: ITN Co-ordinator: A. KLING	3600
- <i>Code of practice for BNCT Dosimetry in Europe</i> , EC / SMT4-CT982145, Jun. 1998-Jun. 2002 Total budget $148\ 000 \times 10^3$ PTE, ITN budget 8000×10^3 PTE Prime contractor: NRG Co-ordinator: FINN RASMUSSEN ITN Co-ordinator: I. C. GONÇALVES	1600
- <i>SIMPLE-Lx: a Portuguese contribution to the SIMPLE dark matter search</i> , POCTI/1999/FIS/32493, Oct. 2001-Sept. 2003 Total budget $15\ 000 \times 10^3$ PTE, ITN budget 15000×10^3 PTE Prime contractor: ITN Co-ordinator: T. GIRARD, J.G. MARQUES	8250
- <i>Thermoluminescent Dosimetry in mixed fields of photons and neutrons</i> , CERN/P/FIS/40126/2000 Feb. 2001- Feb. 2002 Total budget: $8\ 000 \times 10^3$ PTE, ITN budget $8\ 000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: I. C.GONÇALVES	8000
Total budget	34357

Approved ProjectsITN budget ($\times 10^3$ PTE)

- <i>ThermoPhotoVoltaic cell based on GaSb</i> , European Commission Research Directorates, RTN2-2001-00454, 1 January 2002 - 30 June 2004	28461
Total budget 295631×10^3 PTE	
Prime contractor: EPM MADYLAM/CNRS Co-ordinator: T. DUFFAR	
ITN Co-ordinator: N.P. BARRADAS	
Partners: EPM MADYLAM/CNRS, Commissariat à l'Energie Atomique, Fraunhofer Gesellschaft zur Forderung der angewandten Forschung, Institut für Solare Energieversorgungstechnik, Universidad Autonoma de Madrid, Universidad Complutense de Madrid, Aristotle University of Thessaloniki, Wafer Technology Ltd.	
- <i>Participation of ITN in the n₂ TOF experiment (PS213) at CERN</i> , Fundo CERN (FCT)	13030
Total budget 13030×10^3 PTE	
Prime contractor: ITN Co-ordinator: P. VAZ	
Collaborators from: IST, CFNUL, Centro Instrum. Univ. Coimbra	
- <i>Thermoluminescent Dosimetry in mixed fields of photons and neutrons</i> , FCT	3000
Total budget 3000×10^3 PTE	
Prime contractor: ITN Co-ordinator: I.C. GONÇALVES	
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Total budget	44491

Submitted ProjectsITN budget ($\times 10^3$ PTE)

- <i>Fast Neutron Irradiation of Electronic Components for the LHC/CERN in the Portuguese Research Reactor</i> , Fundo CERN (FCT)	10000
Total budget 10000×10^3 PTE, ITN budget 10000×10^3 PTE	
Prime contractor: ITN Co-ordinator: J.G. MARQUES	
Partners: Univ. Complutense Madrid, Spain (J.A. Agapito), CERN (J. Casas)	
- <i>Redes neuronais para análise com feixes de iões</i> , FCT	3108
Total budget 3108×10^3 PTE	
Prime contractor: ITN Co-ordinator: N.P. BARRADAS	
- <i>Caracterização estrutural e propriedades físicas de junções de spin magnéticas</i> , FCT	15990
Total budget 23900×10^3 PTE	
Prime contractor: ITN Co-ordinator: N.P. BARRADAS	
Partner: INESC, P.P. FREITAS	
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Total budget	29098

Applied Dynamics

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Simulation and identification of complex dynamic systems (ROTDYN)</i> , SAPIENS/35939/99, Jan. 2001-Dec. 2003	3480
Total budget 8700×10^3 PTE, ITN budget 7350×10^3 PTE	
Prime contractor: ITN Co-ordinator: J. ANTUNES	
Partner: Instituto Superior Técnico, H. PINA	
- <i>Dynamical modelling of nonlinear systems (EXCITE)</i> , SAPIENS/35336/99, Jan. 2001-Dec. 2002	3200
Total budget 8000×10^3 PTE, ITN budget 6870×10^3 PTE	
Prime contractor: ITN Co-ordinator: J. ANTUNES	
Partner: Instituto Politécnico do Porto, L. HENRIQUE	
- <i>Dynamical modelling of geological inclusions (GEOMODELS)</i> , SAPIENS/32742/99, Jan. 2001-Dec. 2001	752
Total budget 10000×10^3 PTE, ITN budget 1880×10^3 PTE	
Prime contractor: FCL Co-ordinator: F. ORNELAS	
Partner: ITN, J. ANTUNES	
- <i>Optimisation of rotor balancing</i> , EDP/CPPE Contract, Jan. 2000-Jun. 2002	3276
Total budget 8000×10^3 PTE, ITN budget 8000×10^3 PTE	
Prime contractor: ITN Co-ordinator: J. ANTUNES	
Partner: EDP/CPPE, J. SOARES	
- <i>Structural identification of machinery under working conditions</i> , PRAXIS XXI/-, Jan. 2000-Dec. 2001	2800
Total budget $- \times 10^3$ PTE, ITN budget 2800×10^3 PTE	
Prime contractor: INESC Co-ordinator: C. MARTINS	
Partner: ITN, J. ANTUNES	
Total budget	13508

Radiological Protection and Nuclear Safety

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Aquifers and Surface-Waters in the Chernobyl Area-Observations and Predictive Evaluation</i> (Contract ERBIC 15-CT98-0205), September 1998-September 2001 Total budget 240 000 EUROS, ITN budget 27 500 EUROS ITN Co-ordinator: M. J. MADRUGA Prime contractor: Centre for Ecology and Hydrology (CEH), U.K., Co-ordinator: J. SMITH	1 377
- <i>Assessment of Environmental Contamination Around Abandoned Uranium Mines for Improved Radiological Protection and Planning of Remediation Measures (IAEA Model Project POR/4/015)</i> , 2001-2003. Total budget (equipment and fellows) ITN Co-ordinator: F. P. CARVALHO Prime Contractor: ITN	30 662
- <i>National Regulatory Control and Occupational Radiation Protection Programmes (IAEA Regional Project- Europe RER/9/062)</i> , 2001-2002. Total budget (experts and fellows) ITN Co-ordinator: F. P. CARVALHO Prime Contractor: ITN	15 610
- <i>Study of the Radioactive Liquid Effluents from Public Hospitals (Project with Health Ministry)</i> , 2001-2002. Total budget $4\,000 \times 10^3$ PTE ITN Co-ordinator: F. P. CARVALHO Prime Contractor: ITN	
- <i>Tropical and Sub-Tropical Cost-Effective Tools for an Integrated Risk Assessment of Wetlands (Contract EU IC 18-CT98-0264)</i> 1999-2001. Total budget (400 000 EUROS – ITN/80 000 EUROS) ITN Co-ordinator: F. P. CARVALHO Prime Contractor: University of Coimbra	
- <i>Study on Radon in Portuguese Houses (Project funded by EDIDECO)</i> 2001. Total budget $1\,779 \times 10^3$ PTE ITN Co-ordinator: F. P. CARVALHO Prime Contractor: ITN	1 779
- <i>Concerted Action to Establish and Run a User Group for the EC Computer System PC-Cream (Contract EU F14P-CT-0074)</i> 1999-2000. Total budget (60 000 EUROS – ITN/1826 EUROS) ITN Co-ordinator: R. TRINDADE Prime Contractor: NRPB (England)	184
Total budget	49612

Approved Projects

ITN budget ($\times 10^3$ PTE)

- <i>Vertical Profiles of Radioactive Aerosol Constituents Over Portugal (VPRACOP)</i> (2003) ITN Co-ordinator: F. P. CARVALHO Prime contractor: ITN	Free access to atmospheric research facility (aeroplane)
Total budget	0

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
<p>- <i>Environmental Contamination and Radiological risk Assessment in Uranium Mining Regions</i> (submitted at Fundação para a Ciência e Tecnologia). Total budget $129\,000 \times 10^3$ PTE ITN Co-ordinator: F. P. CARVALHO Prime contractor: ITN</p>	129 000
<p>- <i>Unsupervised Feature Selection and classification of Comet Assay Radiation Induced DNA Damage</i>. Total budget $14\,160 \times 10^3$ PTE ITN Co-ordinator: J.H. PEREIRA LUIS Prime contractor: Instituto Nacional de Engenharia e Tecnologia Industrial ,Lisbon, Portugal</p>	8 112
<p>- <i>European Radon Research and Industry Collaboration Concerted Action- ERRICCA-2</i> Total budget N/A ITN Co-ordinator: M.C. FAÍSCA Prime contractor: Building Research Establishment, United Kingdom</p>	2 241
<p>- <i>Genetic Effects in Populations Exposed to Radon</i> Total budget $27\,720 \times 10^3$ PTE Prime contractor: Univ. Nova de Lisboa (FCM) Centro de Investigação em Genética Molecular Hu</p>	13 340
<p>- <i>Risk Assessment and Environmental and Health Impact of Depleted Uranium Containing Ammunitions and Other Matrices</i> (submitted at Fifth Framework Programme, 7.1-The Fight against Major Natural and Technological Hazards, 2- Technological Risks) ITN Co-ordinator: F.P. CARVALHO Prime contractor (Co-ordinator): JRC/ITU</p>	Not yet known
	Total budget 46571

Environmental Sciences

Health and Environmental Studies Using Ion Beams

Current Projects

	Budget in 2001 ($\times 10^3$ PTE)
- <i>Research on toxicity indicators in aquatic communities at the Guadiana River</i> , JNICT/DGA/PEAM/P/NMA/666/95, May 1998-May 2001 Total budget $6\,000 \times 10^3$ PTE, ITN budget $1\,000 \times 10^3$ PTE ITN Co-ordinator: T. PINHEIRO. Prime contractor: CBA/FFC-UL, Co-ordinator: M.L. Mathias	300
- <i>From air to human lungs</i> , IAEA/POR9479, Jan. 1999 Jan 2001 Total budget 15 000 USD, ITN budget 15 000 USD Prime contractor: ITN, Co-ordinator: M.T. Pinheiro Partners: AED/ITN, CEDP/FM-UL	850
- <i>Mobilisation of Ni and toxic elements in the human respiratory system</i> , European Commission - European Synchrotron Research Facility Project LS2112/2001 (ID22 beam line) Total budget (Travel expenses) Prime contractor: ITN, Co-ordinator: M.T. Pinheiro Partners: EAC/ITN, INETI	0
	Total budget 1150

Approved Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Bioavailability of lead to small mammals in mine contaminated area in Alentejo (Central Portugal)</i> : Total budget $25\,000 \times 10^3$ PTE ITN Co-ordinator: T. PINHEIRO Prime contractor: CBA/FFC-UL, M.L. MATHIAS	3000
- <i>Contribuição para o estudo de bioindicadores da inflamação em Doença Pulmonar Obstrutiva Crónica (DPOC)</i> , Fundação Calouste Gulbenkian FCG/47239, 2002-2005 Total budget $9\,000 \times 10^3$ PTE ITN Co-ordinator: T. PINHEIRO Prime contractor: CEDP/AIDFM-UL, Co-ordinator: A.A. BUGALHO DE ALMEIDA	1500
	Total budget 4500

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Study of inflammation in chronic obstructive pulmonary disease (COPD)</i> Total budget $20\,354 \times 10^3$ PTE ITN Co-ordinator: T. PINHEIRO Prime contractor: CEDP/AIDFM-UL, A. BUGALHO DE ALMEIDA	2520
- <i>Redox balance indicators and characterisation of Apo E allelic profiles for Lisbon and Ponta</i>	

RESEARCH PROJECTS

<i>Delgada populations</i>	
Total budget 20 000 × 10 ³ PTE	3000
ITN Co-ordinator: T. PINHEIRO	
Prime contractor: CBA/FFC-UL, A.M. VIEGAS-CRESPO	
- <i>Prooxidant/antioxidant profile of azorean populations differently exposed to volcanogenic hazards</i>	
Total budget 33 897 × 10 ³ PTE	2244
ITN Co-ordinator: T. PINHEIRO	
Prime contractor: Univ. Açores, M.L. PAVÃO S. MEDEIROS	
- <i>Optimização dos Sistemas de PIXE e Microsonda para Estudos Biomédicos, Bilateral Cooperation Portugal-Spain ICCTI/CSIC</i>	
Total budget (Travel expenses)	0
ITN Co-ordinator: T. PINHEIRO	
Partner: CNA/CSIC, Univ. Seville, Spain, M. RESPALDIZA	
- <i>Percutaneous uptake of ultrafine particles from bodycare and household products and its impact on human health (NANODERM)</i>	
Total budget 1699044 EU	34000
ITN Co-ordinator: T. PINHEIRO	
Prime contractor: Univ. Leipzig, Germany, T. BUTZ	
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	Total budget 41764

Atmospheric Elemental Dispersion

Current Projects

	Budget in 2001 ($\times 10^3$ PTE)
- ValorSul – Monitoring of Air Quality at the Incinerator of S. João da Talha Total budget: 16630×10^3 PTE, ITN budget: 16630×10^3 PTE ITN/Co-ordinator: M. Carmo Freitas Partners: IDAD	16630
- ValorSul – Monitoring of Trace Elements of Urban Solid Waste Treatment Plant Total budget: $1\,770 \times 10^3$ PTE, ITN budget: $1\,770 \times 10^3$ PTE ITN/Co-ordinator: M. Ângelo Gouveia Partners: ValorSul	366
- Study of Atmospheric Dispersion of Pollutants in the industrial Region of the Sado Estuary using Biomonitors (contract IAEA-CRP9938) (Dec.1997 – Oct.2002) Total budget: $26\,280 \times 10^3$ PTE ITN/Co-ordinator: M. Carmo Freitas Partners: IAEA and other 14 International Institutions	1037
- Air Quality in Urban Environmental (IPAMB – Programa de Apoio às ONGA 2001, Projecto 8) Total budget 800×10^3 PTE ITN/Co-ordinator: M.A.Reis (Scientific Coordinator) Prime contractor : Liga do Mar : O.R. Oliveira	200
Total budget ($\times 10^3$ PTE)	18233

Approved Projects

- <i>BIOCAL – Calibration of in situ Biomonitors for Quantification of the Atmospheric Dispersion of Heavy Metals</i> Total budget 16000×10^3 PTE ITN Co-ordinator: M.C. FREITAS Prime contractor: ITN Partners: Univ. Porto – CIIMAR and Facul. Ciências, Univ. Técnica de Lisboa - IST	8000
Total budget	8000

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Implementation of Reactor PGNAA technique at Portuguese Research Reactor for environmental applications using k_0 standardized method.</i> Total budget 16125×10^3 PTE ITN Co-ordinator: M.C. FREITAS Prime contractor: ITN	16125
- <i>Use of Nuclear and Related Analytical Techniques for Assessing Human-Health Risks Associated with Toxic Elements in Food Items contaminated by Industrial Activities.</i> Total budget 26280×10^3 PTE ITN Co-ordinator: M.C. FREITAS Prime contractor: IST-UTL, Lisbon	5520
- <i>ExPHRIT - Expansion of PIXE analysis, high resolution and insulator targets</i> Total budget 11945×10^3 PTE ITN Co-ordinator: M.A. REIS Prime contractor: ITN	11945
Total budget	33590

Rejected Projects

ITN budget ($\times 10^3$ PTE)

- *Development and Validation of Speciation Analysis using Nuclear Techniques:*

Total budget $16\,560 \times 10^3$ PTE

ITN Co-ordinator: M. Carmo Freitas

Prime contractor: ITN

5520

- *Monitoring of Trace Elements in the Atmosphere of Lisbon and Setúbal (METALS)*

Total budget $53\,707 \times 10^3$ PTE

ITN Co-ordinator: M. C. FREITAS

Prime contractor: ITN

Partners: Univ. Aveiro, Inst. Meteorologia, Univ. Porto

27849

Total budget 33369

Environmental Analytical Chemistry

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

<p>- <i>Consequences of River Discharge Modifications on Coastal Zone and Continental Shelf</i>, (PLE/8/00), Out. 2001-Out. 2004 Total budget $125\,000 \times 10^3$ PTE, ITN budget $49\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partners: Hydrographic Inst., Algarve Univ., Aveiro Univ., Meteorological Inst., Lisbon Univ.</p>	5038
<p>- <i>Late Quaternary Environmental Changes from Estuarine and Shelf Sedimentary Record</i>, (PLE/12/00), Set. 2000-Set. 2003 Total budget $74\,000 \times 10^3$ PTE, ITN budget $5\,000 \times 10^3$ PTE ITN Co-ordinator: M.F. ARAÚJO Prime contractor: Instituto de Investigação das Pescas e do Mar, T. DRAGO</p>	2514
<p>- <i>Environmental and Marine Studies Using Nuclear Related Techniques</i>, (IAEA TC/POR/7/003) Total budget $23\,000 \times 10^3$ PTE, ITN budget $23\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: M.F. ARAÚJO (Technical co-operation project: purchase/repairing of equipment, training and expert missions)</p>	2000
<p>- <i>Study of the Fine Sedimentation and Geochemical Record During the Holocene in the NW-Portuguese Margin</i>, (ICCTI-IFREMER), Jan. 2001-Dec. 2001 Total budget 300×10^3 PTE, ITN budget 300×10^3 PTE Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partner: Univ. Bordeaux I, J.-M. JOUANNEAU</p>	300
<p>- <i>Aquifers as Archives of Palaeoclimate and Indicators of Future Climatic Scenarios – Sado/Sines System and Bairrada Carsic Aquifer</i>, (PCTI/CTA/36258/99), Mar. 2001-Dec. 2002 Total budget $10\,000 \times 10^3$ PTE, ITN budget $3\,630 \times 10^3$ PTE ITN Co-ordinator: P.M. CARREIRA Prime contractor: Faculty of Sciences of the University of Lisbon, M. OLIVEIRA</p>	1815
<p>- <i>The Isotopic Composition of Precipitation in the Mediterranean Basin in Relation to Air Circulation Patterns and Climate</i>, (IAEA POR/11368/RO), Jan. 2000-Dec. 2002 Total budget 10 000 USD, ITN budget 10 000 USD Prime contractor: ITN Co-ordinator: P.M. CARREIRA</p>	1125
<p>- <i>A arqueometalurgia no Penedo do Lexim e o Povoamento do Neolítico Final e Calcolítico de Mafra – LexPov</i>”, (ITN/Portuguese Institute of Archaeology protocol), Jan. 2001-Dec. 2001 Total budget 500×10^3 PTE, ITN budget 500×10^3 PTE ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): A.C. SOUSA</p>	500
<p>- <i>Indígenas e Fenícios no Almaraz</i>”, (ITN/Portuguese Institute of Archaeology protocol), Jan. 2001-Dec. 2001 Total budget 500×10^3 PTE, ITN budget 500×10^3 PTE ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): L.M. BARROS</p>	500
Total budget 13792	

RESEARCH PROJECTS

Approved Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Caracterização das Produções Metalúrgicas do Grupo Baiões/Santa Luzia (Bronze Final)</i> , (ITN/Portuguese Institute of Archaeology protocol), Jan. 2002-Dec. 2002 Total budget $1\,000 \times 10^3$ PTE ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): J. SENNA-MARTINEZ	1000
- <i>Indígenas e Fenícios no Almaraz</i> , (ITN/Portuguese Institute of Archaeology protocol), Jan. 2002-Dec. 2002 Total budget $1\,000 \times 10^3$ PTE ITN Co-ordinator: M.F. ARAÚJO Prime contractor (archaeologist): L.M. BARROS	1000
- <i>Groundwater Resources as Indicators and Archives of Palaeoclimatic Changes (NW-Portugal)</i> , (P39435/CTA/2001) March 2002 – Oct 2003 Total budget $29\,380 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: P.M. CARREIRA Partners: IST, J.M. MARQUES; ICTE, F. SANTOS	6000
Total budget	8000

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Estudo das Modificações do Caudal na Zona Costeira Adjacente Portuguesa</i> Total budget 300×10^3 PTE Prime contractor: ITN Co-ordinator: M.F. ARAÚJO Partner: Univ. Bordeaux I, J.-M. JOUANNEAU	300
Total budget	300

Inorganic Chemistry, Radiochemistry and Radiopharmacy

Inorganic and Organometallic Chemistry

Current Projects

	Budget in 2001 ($\times 10^3$ PTE)
- <i>FT-ICR Mass Spectrometry Studies of the Gas-Phase Chemistry of Actinide Ions</i> , POCTI/35364/QUI/2000, Jan. 2001-Dec. 2002 Total budget $10\,000 \times 10^3$ PTE, ITN budget $10\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: J. MARÇALO	5930
- <i>Molecular Energetics</i> , POCTI/35406/QUI/2000, Nov. 2000-Oct. 2003 Total budget $20\,000 \times 10^3$ PTE, ITN budget 500×10^3 PTE ITN Co-ordinator: J.P.LEAL Prime contractor: Instituto Superior Técnico, M.E. MINAS DA PIEDADE	300
- <i>Synthesis of Heteroscorpionate Ligands. Lanthanide Compounds with Applications in Ziegler-Natta Catalysis and C-H Activation</i> , POCTI/36015/QUI/2000, Jan. 2001-Dec. 2002 Total budget $11\,000 \times 10^3$ PTE, ITN budget $11\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: N. MARQUES	6490
- <i>Oxidative Coupling of Methane (OCM) Using f Block Element Intermetallic Compounds as Catalytic Precursors</i> , POCTI/35394/QUI/2000, Jan. 2001-Dec. 2002 Total budget $13\,000 \times 10^3$ PTE, ITN budget $13\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: J. BRANCO	9100
- <i>Tratamento e Valorização de Resíduos Plásticos</i> , Plastval/SPV, Jan. 2001-Jul. 2002 Total budget $10\,060 \times 10^3$ PTE, ITN budget $6\,430 \times 10^3$ PTE ITN Co-ordinator: A. PIRES DE MATOS Prime contractor: Companhia Industrial de Reciclagem, J. NORTE	5035
	Total budget 26855

Approved Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Immobilised Surface Rare Earth and Actinide Aryloxides. Activation of Small Molecules (CO_2, CH_4, C_2H_6)</i> . Total budget $20\,825 \times 10^3$ PTE, March 2002-March 2005 Prime contractor: ITN Co-ordinator: T. ALMEIDA GASCHE Partner: Univ. Aveiro, J.C. ROCHA	19325
- <i>Thermodynamic Data of Biomaterials with Different Crystallinity</i> , Cooperation ICCTI-DAAD (Portugal-Germany), Jan. 2002-Jan. 2003. Total budget ITN Co-ordinator: J.P. LEAL Prime contractor: IST-UTL, M.E. MINAS DA PIEDADE; Univ. Bochum, MATHIAS EPPLÉ	Not yet known
	Total budget 19325

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Dichroic Glass Research in Art</i> , FCT (Jan. 2000). Total budget $32\,871 \times 10^3$ PTE ITN Co-ordinator: A. PIRES DE MATOS Prime contractor: Faculdade de Belas-Artes, Univ. Lisboa, J. CARVALHO E MELO	11304
- <i>Speciation Studies of Radioactive Elements (Actinides and Fission Products) by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry (ESI-FTICR/MS)</i> , IAEA. Total budget $47\,250 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: A. PIRES DE MATOS	47250
Total budget	58554

Inorganic and Radiopharmaceutical Chemistry

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Re and Tc Complexes for Peptide Based Radiopharmaceuticals: Chemistry, Radiochemistry and Biological Studies in vivo and in vitro: POCTI/35423/QUI/99, October 2000 – October 2003</i>	12866
Total budget $18\,380 \times 10^3$ PTE	
Prime contractor: ITN Co-ordinator: I. SANTOS	
- <i>Rhenium Complexes with Nitrogen Donor Ligands: PRAXIS/XXI/P/QUI/10047/98, April. 1999 - Oct 2001</i>	1741
Total budget $18\,479 \times 10^3$ PTE, ITN budget $8\,703 \times 10^3$ PTE	
ITN Co-ordinator: I.SANTOS.	
Prime contractor: Instituto Tecnologia Química e Biológica, Oeiras, C. C. ROMÃO	
- <i>Molecular Recognition and Sequestering of Metallic Ions Towards Potential Biomedical Applications: POCTI/35344/QUI/99, Nov. 2000 – Nov. 2003</i>	250
Total budget $15\,000 \times 10^3$ PTE, ITN budget $12\,50 \times 10^3$ PTE	
ITN Co-ordinator: L. GANO.	
Prime contractor: Instituto Superior Técnico, Lisboa, M. A. SEABRA	
- <i>Evaluation of the Genotoxic and Antiestrogenic Potential of Triphenylethylene Derivatives and their Metabolites: POCTI/33544/QUI/99, October 2000 – October 2003</i>	0
Total budget $21\,000 \times 10^3$ PTE, ITN budget $7\,375 \times 10^3$ PTE	
ITN Co-ordinator: M.C. MELO E SILVA	
Prime contractor: Instituto Superior Técnico, Lisboa, M. M. MARQUES	
- <i>Synthesis and Biological Evaluation of Re and ^{99m}Tc Complexes Containing Sililated Groups: ICCTI/DAAD, March 2001 – March 2002</i>	1150
Total budget $1\,150 \times 10^3$ PTE	
Prime contractor: ITN Co-ordinator: I. SANTOS	
Total budget	
16007	

Approved Projects

ITN budget ($\times 10^3$ PTE)

- <i>Radiopharmaceuticals for Treatment of Bone Cancer Pain and/or Therapy Based on Macrocyclic Lanthanide Complexes: POCTI/35859/SAU/99, March 2002- March 2005</i>	10000
Total budget $17\,365 \times 10^3$ PTE, ITN budget $10\,000 \times 10^3$ PTE	
Prime contractor: ITN Co-ordinator: I. SANTOS	
Partner: Instituto Tecnologia Química e Biológica, Oeiras, R. DELGADO	
- <i>Virtual Radiopharmacy – A mindful Learning Environment: EC Shared COST RTD ACTION: IST-2001-32291, Jan. 2002- Dec. 2004</i>	16072
Total budget $600\,000 \times 10^3$ PTE, ITN budget $16\,072 \times 10^3$ PTE	
ITN Co-ordinator: LURDES GANO	
Prime contractor: Imperial Cancer Research Fund, Depart. Nucl. Medicine, St. Bartholomew's Hospital, S. MATHER	
- <i>Organometallic Rhenium and Technetium Complexes: Design of Radiopharmaceuticals for Brain Receptor Imaging: POCTI/2001/QUI/42939, March 2002- March 2005.</i>	8560
Total budget $8\,560 \times 10^3$ PTE	
Prime contractor: ITN Co-ordinator: A.PAULO	
Total budget	
34632	

Submitted Projects

<i>- Metal and Halogen Based Radiopharmaceuticals for Diagnostic and Therapy</i>	
IAEA. Total budget 60000 x 10 ³ PTE	60000
Prime contractor: ITN Co-ordinator: I.SANTOS	
<hr/>	
Total budget	60000

Rejected Projects

	ITN budget (×10 ³ PTE)
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<i>- Lanthanide Complexes for Biomedical Applications: chemistry, Radiochemistry and Biological Studies.</i>	
Total budget 27590 × 10 ³ PTE	15220
Prime contractor: ITN Co-ordinator: I. SANTOS	
Partner: Instituto Tecnologia Química e Biológica, Oeiras, R. DELGADO	
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Total budget	15220

Cultural Heritage and Sciences

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Production and Technology of Roman Pottery: Bracara Augusta Case.</i> PRAXIS/HAR/13047, Feb. 1999-Oct. 2001 Total budget $6\,000 \times 10^3$ PTE, ITN budget $3\,163 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: M. I. PRUDÊNCIO Partner: Univ. Minho - U.A., M. MARTINS; Univ. Minho - C.C.A., M.A. SEQUEIRA-BRAGA; C.M.V.N.F., F. OLIVEIRA	1200
- <i>Alteration Processes and Conservation Methods of the Built Patrimony Made of Granite,</i> PRAXIS 3/3.1/CEG/2516/95, Oct. 1997-Oct. 2001 Total budget $25\,000 \times 10^3$ PTE, ITN budget $8\,177 \times 10^3$ PTE ITN Co-ordinator: M.I. PRUDÊNCIO. Prime contractor: LNEC, Lisboa, J. D. RODRIGUES	0
- <i>Archaeometry: Characterisation of Archaeological Ceramics and Dating,</i> ITN-IPA Protocol ITN Co-ordinator: M.I. PRUDÊNCIO Collaboration with C.M.V.N.F., F. LEITE; C.M.P., I. FERNANDES; IPA, J. BUGALHÃO; ERA, M.LAGO, A.C. VALERA.	4000
- <i>Effects of Different Pollution Sources in the Decay of Igneous Stone Monuments,</i> POCTI Total budget $35\,088 \times 10^3$ PTE, ITN budget $3\,977 \times 10^3$ PTE ITN Co-ordinator: M.I. PRUDÊNCIO. Prime contractor: Univ. Minho, Braga, C.A. ALVES Partner: Univ. Açores, J. V. CRUZ	1591
- <i>Non-point Pollution in the Hydrosphere Due to Agricultural Practices: Source Characterization and Pollutants Mobility in the Vadose Zone.</i> POCTI/36493/CTA/2000 Total budget $14\,000 \times 10^3$ PTE, ITN budget $1\,900 \times 10^3$ PTE ITN Co-ordinator: M.I. PRUDÊNCIO. Prime contractor: Univ. Açores, J. V. CRUZ Partner: Univ. Lisboa, M.O.SILVA	660
- <i>Luminescence dating - archaeological remains and museum artifacts. Interlaboratory comparison and validation of measurement and sampling protocols.</i> Protocol ICCTI Portugal/France Embassy - Project 521 A0 ITN Co-ordinator: M.I. PRUDÊNCIO CNRS (France) Co-ordinator: J. CASTAING	155
- <i>Geochemical and mineralogical characterization of the salts from the Évora cathedral: evaluation of their effects in the degradation with a view to its conservation.</i> Protocol ICCTI Portugal/France Embassy - Project 507 B0 ITN Co-ordinator: M.I. PRUDÊNCIO Ec. Mines St. Étienne, France, Co-ordinator: E. BILAL	225
Total budget	7831

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>Development of a New Technique Based on the Luminescence Characteristics of Quartzites</i> Total budget $15\,370 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: D. RICHTER Partner: Instituto Português de Arqueologia, J. ZILHÃO	15370
- <i>The Archaeological Occupation of Castro Marrim from the Iron Age to the Roman Epoche</i> Total budget 20.000×10^3 PTE ITN Co-ordinator: M.I. PRUDÊNCIO Prime contractor: Centro de Arqueologia, F. Letras, Univ. Lisboa, A. ARRUDA	8625
- <i>CHEMIMAR - Chemical and Mineralogical Markers Applied to Stratigraphic Analysis</i> Total budget $27\,750 \times 10^3$ PTE ITN Co-ordinator: M.I. PRUDÊNCIO Prime contractor: Univ. Aveiro, E. SILVA	7500
- <i>Landscape Evolution Through Time in Portuguese Estremadura - LANDE</i> Total budget $25\,214 \times 10^3$ PTE ITN Co-ordinator: M.I. PRUDÊNCIO Prime contractor: Fundação da Univ. Lisboa, A. PEREIRA	6875
Total budget	38370

New Materials and Compounds

Nuclear Solid State Physics Using Ion Beams

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Magnetostructural Modulation in Perovskite Derivatives with Strong Electron Correlations</i> , POCTI/P/35462/CTM/00, Oct. 2000-Oct. 2002 Total budget: $40\,000 \times 10^3$ PTE, ITN budget 3700×10^3 PTE Partner: ITN, E. ALVES Prime contractor: Univ. Aveiro, J. VIEIRA	850
- <i>Effect of Addition of Si on the Mechanical and Physical Properties of TiN and (Ti,Al)N</i> , POCTI-32670/CTM/00, Oct. 2000-Oct. 2002 Total budget: 8000×10^3 PTE, ITN budget 1200×10^3 PTE ITN Co-ordinator, E. ALVES Prime contractor: Univ. do Minho, L. REBOUTA	480
- <i>Surface Composition Investigations of Li_4SiO_4 and Li_2TiO_3 Exposed to Long Term Annealing and Compatibility of Structural and Cladding Materials used in Irradiation Tests with Ceramic Breeders</i> , EFDA Technology Workprogramme 2001: Task: TTBB-005, Jan. 2001-Dec. 2001 Total budget 20000×10^3 PTE Prime contractor: ITN Co-ordinator: E. ALVES	5012
- <i>Characterization of Corroded Surfaces and Impurity Mapping of SiC/SiC_f Composites</i> , EFDA Technology Workprogramme 2001: Task: TTMA-001, Jan. 2001-Dec. 2001 Total budget 15000×10^3 PTE Prime contractor: ITN Co-ordinator: E. ALVES	3759
- <i>Investigation of Resistivity of Be Pebble Bed for Different Loads and Temperatures</i> , EFDA Technology Workprogramme 2001: Task: TTBB-007, Jan. 2001-Dec. 2001 Total budget 30000×10^3 PTE Prime contractor: ITN Co-ordinator: E. ALVES	7518
- <i>Beryllium Pebble Bed Electrical Resistivity in the Presence of Purge Gas and Ionising Radiation</i> , ITER Task No: T431-EU., Jan. 2000- Jun. 2001 Total budget 30000×10^3 PTE Prime contractor: ITN Co-ordinator: E. ALVES	7518
- <i>Formation of Metallic Nanocrystals in Sapphire (α-Al_2O_3) and Rutile (TiO_2) by Ion Implantation</i> , PRAXIS/P/CTM/12067/98, Mar. 1999- Jun. 2001 Total budget: 6000×10^3 PTE, ITN budget 5100×10^3 PTE Prime contractor: ITN, E. ALVES Partner: FCL Univ. Lisboa, M. CRUZ	1200
- <i>Doping Effects on the Behaviour of Mixed Valence Oxide Ceramics with Strongly Correlated Electrons</i> , PRAXIS/P/CTM/13142/98, Jan. 1999-May 2001 Total budget: 20.000×10^3 PTE, ITN budget 2200×10^3 PTE Partner: ITN, E. ALVES Prime contractor: Univ. Aveiro, J. VIEIRA	1360
- <i>Irradiação de Implantes de Biomateriais para Doentes Oncológicos de Cabeça e Pescoço</i> , PRAXIS PSAU/C/SAU/120/96 Jan. 1998-Oct. 2001 Total budget $15\,000 \times 10^3$ PTE, ITN budget 5000×10^3 PTE ITN Co-ordinator: E.ALVES Prime contractor: IPO, N. TEIXEIRA	0
- <i>e^--γ Perturbed Angular Correlations and Emission Channeling Experiments at ISOLDE-CERN</i> , CERN/P/FIS/40125/2000, Jan. 2001-Dec. 2001 Total budget 17.000×10^3 PTE Prime contractor: ITN Co-ordinator: J.C. SOARES	17000

RESEARCH PROJECTS

<p>- <i>Spin Dependent Tunnel Junction Disk Heads</i>, POCTI 34116/99, Sept. 2000-Sept.2002 Total budget 15.000×10^3 PTE, ITN budget 4600×10^3 PTE ITN Co-ordinator: M.F. DA SILVA. Prime contractor: INESC, J.P. FREITAS</p>	1840
<p>- <i>Lattice site studies of implanted Cu in KLTN</i>, Contract of ITN, IKS, CERN with industry May 2001-May 2003 ITN Co-ordinator: J.G. Guilherme Non profit contract – for the test phase</p>	0
<p>- <i>New Improved Electron Emission Channeling PAD Sensors and Development of Selftriggering Fr</i> Agreement of ITN with CERN, Nov 2001-Nov 2003 ITN Co-ordinator: J.G. Guilherme Non profit contract – for the test phase</p>	0
Total budget 46537	

Approved Projects

	ITN budget ($\times 10^3$ PTE)
<p>- <i>Study of impact of irradiation on electrical conductivity of Be pebble beds</i> EFDA Technology Workprogramme 2002: Task: TTBB-007, Jan. 2002-Dec. 2002 Total budget 50×10^3 Euro Prime contractor: ITN Co-ordinator: E. ALVES</p>	2506
<p>- <i>Complete Eurofer characterisation of the typical microstructure and modelling of the phase transformation behaviour</i>, EFDA Technology Workprogramme 2002: Task: TTMS-002a, Jan. 2002-Dec. 2002 Total budget 60×10^3 Euro Prime contractor: ITN Co-ordinator: E. ALVES</p>	3007
<p>- <i>Detailed metallurgical characterisation of the 2 improved ODS batches</i>, EFDA Technology Workprogramme 2002: Task: TTMS-006a, Jan. 2002- Dec. 2002 Total budget 50×10^3 Euro Prime contractor: ITN Co-ordinator: E. ALVES</p>	2506
<p>- <i>Rare Earth doped Nitrides for high Brightness Electroluminescent emitters</i>, Research and Training Networks EC., Mar. 2002-Mar. 2004 Total budget: 1 498 182 Euro ITN Co-ordinator: E.ALVES, Prime contractor: Univ. of Strathclyde, UK, KEVIN O'DONNELL</p>	37550
<p>- <i>RBS analyses of bulk crystals and thin films of photonic oxides</i>. Bilateral collaboration ITN- ICCTI/CSIC, Proc.423/Spain, Jan. 2001-Dec. 2001 Total budget: 450×10^3 PTE Prime contractor: ITN Co-ordinator: M. F. DA SILVA Partner: Instituto da Ciencia de Materiales de Madrid (CSIC), Spain, CARLOS ZALDO</p>	450
Total budget 46019	

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
<p>- <i>Formation of semiconducting nanocrystals in aluminium oxide (Al_2O_3)</i> Total budget $11\,274 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: E. ALVES, Partner: Univ. Aveiro, T. MONTEIRO</p>	8274

RESEARCH PROJECTS

<p>- <i>Incorporation of optical and electrical active ions in GaN by ion implantation</i> Total budget $22\,764 \times 10^3$ PTE Prime contractor: ITN, Co-ordinator: E. ALVES. Partner: Univ. Aveiro, T. MONTEIRO</p>	12039
<p>- <i>Structural and electro-optical characterization of semiconductor oxides: undoped ZnO and intentionally doped by ion implantation</i> Total budget $18\,675 \times 10^3$ PTE ITN Co-ordinator: E.ALVES Prime contractor: Univ. Aveiro, T. MONTEIRO</p>	8400
<p>- <i>Optical and structural characterisation of In(x)Ga(1-x)N based nano-structures for light emitting devices</i> Total budget $15\,087 \times 10^3$ PTE ITN Co-ordinator: E. ALVES, Prime contractor: Univ. Aveiro, E. PEREIRA</p>	6087
<p>- <i>Coloured MeNxOy and MeCxOy Thin Films with Me = Ti, Cr, Zr and Al.</i> Total budget $17\,368 \times 10^3$ PTE ITN Co-ordinator: E. ALVES, Prime contractor: Univ. do Minho, J. VAZ</p>	2000
<p>- <i>Self-Assembled Silicon Nano-Crystals</i> Total budget $29\,555 \times 10^3$ PTE ITN Co-ordinator: E. ALVES, Prime contractor: IST, P. BROGUEIRA</p>	4000
<p>- <i>Superconducting Borides: Properties and Materials Processing</i> Total budget $60\,412 \times 10^3$ PTE ITN Co-ordinator: E. ALVES Prime contractor: Univ. Aveiro, V. AMARAL</p>	4875
<p>- <i>e⁻-γ Perturbed Angular Correlations and Emission Channeling at ISOLDE-CERN</i> Total budget 21.875×10^3 PTE Prime contractor: ITN Co-ordinator: J.G. CORREIA</p>	21875
Total budget	46571

Condensed Matter Physics

Current Projects

	Budget in 2001 ($\times 10^3$ PTE)
- <i>Microstructure Investigation of Organic-inorganic Hybrid Materials</i> , PRAXIS/C/CTM/12212/1998, Mar. 1999-Set. 2001 Total budget $14\,000 \times 10^3$ PTE, ITN budget 8000×10^3 PTE Prime contractor: ITN. Co-ordinator: F.M.A. MARGAÇA Partner: Univ. Aveiro, I.M.M. SALVADO	3000
- <i>Development of a Variable Geometry Multichannel Neutron Collimator</i> , POCTI/1999/FIS/34449, Out. 2000-Out. 2002 Total budget $6\,000 \times 10^3$ PTE, ITN budget 6000×10^3 PTE Prime contractor: ITN Co-ordinator: A.N. FALCÃO	3000
- <i>Development of New Instruments</i> : IAEA/11361/R1, Set. 2000- Set. 2003 Total budget $4\,000 \times 10^3$ PTE, ITN budget $3\,000 \times 10^3$ PTE Prime contractor: ITN. Co-ordinator: F.G. CARVALHO Partner: Research Institute for Solid State Physics and Optics, Budapest, Hungary, L. CSÉR	1000
- <i>Electric Assisted LFZ processing for tailoring textured ceramic materials</i> , POCTI/35492/99, Mar. 1999-Mar. 2001 Total budget $15\,000 \times 10^3$ PTE, ITN budget $15\,000 \times 10^3$ PTE ITN co-ordinator A.D. SEQUEIRA Prime contractor: Univ. Aveiro Co-ordinator: A.F. FLORINDA	1069
- <i>Installation of the Two-Axis Diffractometer DIDE</i> , Project funded by ITN Prime contractor: ITN Co-ordinator: A.N. FALCÃO	1100
- <i>Installation of the Small Angle Neutron Scattering Instrument EPA</i> , Project funded by ITN Prime contractor: ITN Co-ordinator: F.M.A. MARGAÇA	300
Total budget	9469

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- <i>SiGe/Si Heterojunctions Grown on Virtual Substrates - Strain Relaxation and self-diffusion</i> , "GESICA". Total budget $15\,750 \times 10^3$ PTE Prime contractor: ITN. Co-ordinator: A.D. SEQUEIRA Partner: Warwick University, U.K. E.H.C. PARKER	12550
- <i>MCM-41 - Regularidade e estabilidade de materiais com estrutura mesoporosa ordenada contendo alumínio e titânio</i> . Total budget 16000×10^3 PTE ITN Co-ordinator A.D. SEQUEIRA Prime contractor: Évora University, Co-ordinator: M. CARROTT	5500
- <i>Utilisation optimisée de faisceaux neutroniques en diffusion aux petits angles et application à la recherche de nouveaux matériaux hybrides verre-polymère</i> Total budget $4\,300 \times 10^3$ PTE Prime contractor: ITN. Co-ordinator: A.N. FALCÃO Partner: Laboratoire Léon-Brillouin, J. TEIXEIRA	3300

RESEARCH PROJECTS

- <i>Caracterização estrutural e propriedades físicas de junções de spin magnéticas</i> , FCT	
Total budget $23\,900 \times 10^3$ PTE	15990
Prime contractor: ITN. Co-ordinator: N.P. BARRADAS, A.D. SEQUEIRA	
Partner: INESC, P.P. FREITAS	
- <i>Glass-polymer hybrids prepared by irradiation</i>	
Total budget $21\,430 \times 10^3$ PTE	12400
Prime contractor: ITN. Co-ordinator: F.M.A. MARGAÇA	
Partner: Univ. Aveiro, I.M.M. SALVADO	
	Total budget 49740

Solid State

Current Projects

	Budget in 2001 ($\times 10^3$ PTE)
- <i>Pulse Tube Cryocoolers developments</i> POCTI/1999/EME/35903, Nov. 2001-Oct. 2004 Total budget $20\,000 \times 10^3$ PTE, ITN budget $10\,000 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: G. BONFAIT Partner: FCT, Universidade Nova de Lisboa, A. MOUTINHO	8000
- <i>Films and Multilayers with Uranium and Iron: Preparation and Magnetism</i> PRAXIS/C/CTM/12068/1998, Set. 1998-Set. 2002 Total budget $18\,000 \times 10^3$ PTE, ITN budget $10\,778 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: A.P. GONÇALVES Partner: FCUL, M. GODINHO	5400
- <i>Molecular Magnetic Materials based on the Conjugated Polynitriles RR'-DCNQI</i> , PRAXIS/P/QUI/12063/1998, 1999-2001 Total budget $25\,444 \times 10^3$ PTE, ITN budget $23\,044 \times 10^3$ PTE Prime contractor: ITN, V. GAMA Partner: IST, M.T. DUARTE	2545
- <i>Multisulfur based Conductors</i> . POCTI/1999/CTM/35452, 2000-2003 Prime contractor: ITN Co-ordinator: M.ALMEIDA Total budget $18\,000 \times 10^3$ PTE, ITN budget $9\,000 \times 10^3$ PTE Partner: IST, Universidade Tecnica de Lisboa, R. T. HENRIQUES	7200
- <i>Spin Ladder Compounds</i> . POCTI/1999/QUI/35452, 2000-2003 Prime contractor: ITN Co-ordinator: M.ALMEIDA Total budget $22\,000 \times 10^3$ PTE	15400
- <i>Sólidos Moleculares com base em moléculas multisulfuradas</i> , ICCTI/CSIC, Jan. 2000-Dez. 2001 Total budget 940×10^3 PTE, ITN budget 940×10^3 PTE Prime contractor: ITN Co-ordinator: M. ALMEIDA Partner: CSIC, C. ROVIRA	470
- <i>Síntese, Crescimento Cristalino e Propriedades de Novos Materiais Intermetálicos Contendo Elementos f</i> , ICCTI/CNRS, Proc. 423/CNRS, Jan. 2001-Dez. 2001 Total budget 1600×10^3 PTE, ITN budget 800×10^3 PTE Prime contractor: ITN Co-ordinator: A.P. GONÇALVES Partner: CNRS, H. NOËL	800
- <i>Propriedades de Fermiões pesados dos sistemas $(U_xTh_{1-x})_2Pt_2In$ e $(U_xTh_{1-x})_2Pd_2Sn$</i> , (PRAXIS/P/FIS/12070/1998) Total budget : 6400×10^3 PTE, ITN budget 3200×10^3 PTE Prime contractor : ITN Co-ordinator: G. Bonfait Partner: FCUL, Universidade Nova de Lisboa, M. Godinho	1950
- <i>Manganese Mixed Valence Óxides with perovskite type Structure</i> POCTI/1999/F/35300 Total budget $23\,000 \times 10^3$ PTE, ITN budget $4\,900 \times 10^3$ PTE Prime contractor: FCUL, Universidade de Lisboa, Co-ordinator: M. Godinho Partner: FCT, Universidade Nova de Lisboa, A. Moutinho	800
- <i>Desenvolvimento de criorefrigeradores de tipo Tubo Pulsado</i> , ICCTI/French Embassy 501-B4 ITN, Service des Basses Températures, CEA-Grenoble, France	331
- <i>Fe sublattice interactions in AFe_xAl_{12-x} intermetallics ($A = f$-element) with $ThMn_{12}$ type-structure</i> , PRAXIS/P/FIS/10040/1998, Feb. 1999-Jul. 2001 Total budget $4\,800 \times 10^3$ PTE, ITN budget $4\,800 \times 10^3$ PTE Prime contractor: ITN Co-ordinator: J.C.WAERENBORGH	960

RESEARCH PROJECTS

<p>- <i>Materials for Selective Oxygen Separation Membranes</i>: PRAXIS/P/CTM/14170/98, Jun. 1999-Jul. 2001 Total budget $9\,000 \times 10^3$ PTE, ITN budget $2\,200 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Unid. Investigação em Materiais Crâmicos, Univ. Aveiro, J. FRADE</p>	800
Total budget 44656	

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
<p>- <i>UX₂ (X=Fe, Ge) and UFe_{12-x}Al_x Films: Preparation and Characterization of Magnetic Electrical Transport Properties</i> Total budget $38\,088 \times 10^3$ PTE ITN Co-ordinator: A.P. GONÇALVES. Partner: FCUL, M. GODINHO; INESC, P.P. FREITAS</p>	16751
<p>- <i>Study of the Dy-Fe-Sn phase diagram</i> Total budget $16\,475 \times 10^3$ PTE ITN Co-ordinator: L.C.J. PEREIRA</p>	16475
<p>- <i>High temperature transport properties of ordered and disordered Ca(Ti,Fe)O_{3-y} phases</i> Total budget $18\,000 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Unid. Investigação em Materiais Cerâmicos, Univ. Aveiro, F. M. FIGUEIREDO</p>	3000
<p>- <i>Preparation by the sol-gel process and characterization of ferrimagnetic Fe containing glass ceramics, for medical application</i> Total budget $20\,069 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Unid. Investigação em Materiais Cerâmicos, Univ. Aveiro, M. FERREIRA DA SILVA</p>	4000
<p>- <i>Supported iron molybdates for methanol to formaldehyde oxidation</i> Total budget $13\,095 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Inst Ciência e Engenharia de Materiais e Superfícies, Inst. Superior Técnico, Univ. Técnica Lisboa, A. P. V. SOARES</p>	5875
<p>- <i>Heat induced colour modifications in carbonate stones</i> Total budget $33\,660 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Inst. Superior Técnico, Univ. Técnica Lisboa, L. AIRES-BARROS</p>	5680
<p>- <i>Radiogenic Isotopes in Metallogeny and Mineral Exploration</i> Total budget $44\,234 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Fund. Fac. Ciências, Univ. Lisboa, A. MATEUS</p>	2499
<p>- <i>Modelling of pollutant dispersion around waste disposal sites: a mineralogical, hydrogeological and chemical study</i> Total budget $31\,749 \times 10^3$ PTE ITN Co-ordinator: J. C. WAERENBORGH. Prime contractor: Fund. Fac. Ciências, Univ. Lisboa, J. FIGUEIRAS</p>	1800
Total budget 56080	

Industrial Technologies

Nuclear Instruments and Methods

Current Projects

Budget in 2001 ($\times 10^3$ PTE)

- <i>Influência da esterilização nas propriedades e desempenho de materiais e produtos de protecção hospital descartável, AdI/P0037/Steritex, Mar. 2000 – Nov. 2001</i>	766
Total budget $59\,205 \times 10^3$ PTE, ITN budget 4454×10^3 PTE	
Prime contractor: FAPOMED Co-ordinator: M.E. CABEÇO SILVA	
Partner: Univ. Minho (M.E. Cabeço Silva), ITN (C. Oliveira)	
Total budget	766

Submitted Projects

ITN budget ($\times 10^3$ PTE)

- <i>Improving clinical outcome of in stent restenosis treated with brachytherapy</i>	
Total budget: $84\,047 \times 10^3$ PTE	
ITN Co-ordinator C. OLIVEIRA	
Prime contractor: Hospital de S ^o Cruz, Prof. SEABRA GOMES	
Partners: Instituto Gulbenkian de Ciências, IPO-Lx, LIP,	
- <i>Study of plasmas obtained by laser ablation of graphite targets</i>	300*
Portuguese - Hungarian cooperation program	
ITN Co-ordinator: N. R. PINHÃO	
Partner: CRC / Hungarian Academy of Sciences, N. LASZLO	
- <i>Study of laser ablation of graphite targets by numerical modelling and LIP spectroscopy.</i>	230
(submitted to the Hungarian Academy of Sciences)	
Prime contractor: CRC / Hungarian Academy of Sciences, N. LASZLO	
ITN Co-ordinator: N. R. PINHÃO	
Total budget	530

* The financing agency supports only the missions between the two countries. In 2002 the project includes a one-week visit to Hungary and a 2-month fellowship of a Hungarian student in ITN.

Radiation Technologies: Processes and Products

Current Projects

	ITN budget ($\times 10^3$ PTE)
- Improving quality and safety of minimally processed fruits and vegetables by gamma irradiation IAEA, POR-11682-Aug. 2001 until Aug. 2002 (could be extended for 3 years) Total budget 1140×10^3 PTE, ITN BUDGET 132×10^3 INIA/Co-ordinator: M.J. TRIGO, ITN/Partner: M.LUISA BOTELHO	132
Total budget	132

Submitted Projects

	ITN budget ($\times 10^3$ PTE)
- Estimation of Dmax and Dmin to improve the hygienic quality of eggs contaminated with pathogenic enterobacteria/Salmonella spp. FCT-SAPIENS. Total budget $34\,766 \times 10^3$ PTE, ITN budget $12\,900 \times 10^3$ PTE ITN Co-ordinator: M.L. BOTELHO Prime contractor FMV, Co-ordinator: F. BERNARDO	12900
- Estratégias Biotecnológicas para o Tratamento de Doenças Infecciosas: Direcção Intracelular de Antibióticos e Oligonucleotídeos via Lipossomas. AdI/ Consortium project. Total budget $309\,000 \times 10^3$ PTE, ITN BUDGET $13\,000 \times 10^3$ PTE ITN Co-ordinator: M.L. BOTELHO Prime contractor: BLUEPHARMA, Co-ordinator: S. SIMÕES	13000
- Implementation of wastewater treatment by radiation in Portugal. IAEA / Technical Co-operation. Total budget approx. $30\,000 \times 10^3$ PTE, ITN Co-ordinator: M.L. BOTELHO	30000
Total budget	55900

Rejected Projects

	ITN budget ($\times 10^3$ PTE)
- Fundação Calouste Gulbenkian <i>Ovo seguro para a população de risco</i> Total budget $37\,454 \times 10^3$ PTE Prime contractor: ITN ITN Co-ordinator: M. LUÍSA BOTELHO	37454
- Fundação Calouste Gulbenkian <i>Tratamento de efluentes por radiação gama</i> Total budget $38\,640 \times 10^3$ PTE Prime contractor: ITN ITN Co-ordinator: M. LUÍSA BOTELHO	38640
Total budget	76094

Approved European Union Projects for 2002

	ITN budget ($\times 10^3$ PTE)
<p>- <i>ThermoPhotoVoltaic cell based on GaSb</i>, European Commission Research Directorates, RTN2-2001-00454, 1 January 2002 - 30 June 2004 Total budget 295631×10^3 PTE Prime contractor: EPM MADYLAM/CNRS Co-ordinator: T. DUFFAR ITN Co-ordinator: N.P. BARRADAS Partners: EPM MADYLAM/CNRS, Commissariat à l'Energie Atomique, Fraunhofer Gesellschaft zur Förderung der angewandten Forschung, Institut für Solare Energieversorgungstechnik, Universidad Autonoma de Madrid, Universidad Complutense de Madrid, Aristotle University of Thessaloniki, Wafer Technology Ltd.</p>	28468
<p>- <i>Rare Earth doped Nitrides for high Brightness Electroluminescent emitters</i>, Research and Training Networks EC., Mar. 2002-Mar. 2004 Total budget: 1 498 182 Euro ITN Co-ordinator: E.ALVES Prime contractor: Univ. of Strathclyde, UK, KEVIN O'DONNELL</p>	37490
<p>- <i>Virtual Radiopharmacy – A mindful Learning Environment: EC Shared COST RTD ACTION: IST-2001-32291, Jan. 2002- Dec. 2004</i> Total budget $600\,000 \times 10^3$ PTE, ITN budget 16072×10^3 PTE ITN Co-ordinator: LURDES GANO Prime contractor: Imperial Cancer Research Fund, Depart. Nucl. Medicine, St. Bartholomew's Hospital, S. MATHER</p>	16072
<p>- <i>Preliminary design studies of an experimental accelerator-driven system</i>, European Commission Research Directorates, November 2001-October 2004 Total budget 1202892×10^3 PTE, ITN budget 7017×10^3 PTE Prime contractor: Framatome ANP SAS Co-ordinator: B. CARLUEC ITN Co-ordinator: P. VAZ Partners: A total of 25 European Institutions.</p>	7017
<p>- <i>Code of practice for BNCT Dosimetry in Europe</i>, EC / SMT4-CT982145, Jun. 1998-Jun. 2002 Total budget $148\,000 \times 10^3$ PTE, ITN budget 8000×10^3 PTE Prime contractor: NRG Co-ordinator: FINN RASMUSSEN ITN Co-ordinator: I. C. GONÇALVES</p>	8000
Total budget	97047
	(€ 484)

