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JRC

Ispra Site Directorate

ANNUAL REPORT
2007

JRC
EUROPEAN COMMISSION

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**Institute for Reference
Materials and Measurements**

ie

Institute for Energy

dg

Directorate
General

itu

**Institute for
Transuranium
Elements**

isr

Institutional and
Scientific Relations
Directorate

ipsc

**Institute for the Protection
and Security of the Citizen**

prm

Programme and
Resource Management
Directorate

PETTEN
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BRUSSELS

KARLSRUHE

ISPRA

ihcp

**Institute for Health
and Consumer Protection**

SEVILLE

ipts

**Institute for
Prospective
Technological Studies**

ies

**Institute for
Environment and
Sustainability**

is

Ispra
Site
Directorate

Our Mission

Our mission is to make the JRC Ispra site a safe, secure and attractive working environment by providing efficient customer-driven services to facilitate the current and future scientific activities of the Ispra Institutes; while ensuring that JRC Ispra acts as a good neighbour to the community at large.

Our Vision

Our aspiration is to make the Ispra Site one of the most attractive and efficient research campuses in Europe. To achieve this we are committed to make ISD an example of good service: anticipating and meeting our customer needs. We will be recognised within JRC for our "can do" attitude; our realistic planning; and the quality and timeliness of our delivery. Our people will feel involved, as a part of the ISD team; confident and recognised for good performance. They will be well supported; led by responsive and enabling managers; and empowered to use their own initiative to solve customer problems and continuously to improve our organisation.

The mission of the Joint Research Centre is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of European Union policies. As a service of the European Commission, the Joint Research Centre functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.

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Message from the Director

Welcome to the 2007 Annual Report of the Ispra Site Directorate.

You will see that this year's report is closely linked to the objectives and actions defined in the 2007 Annual Management Plan. This is to make sure that what we say we do at the start of the year is properly reported when the year is over.

Of the 104 actions included in the 2007 Annual Management Plan, 73% were completed by year end, 23% were delayed and 2% were suspended. In the light of the particular business environment we are operating in, with many of our activities being dependent on local authorities for authorisation (e.g. licensing), or relying on external contractors for execution, I deem we have done a very good job in 2007.

I apologise for not being able to give credit to all ISD teams, and their activities and results, in a message like this. However, I would like to take this opportunity to highlight two activities, both key drivers for the continuous improvement of our organisation, which have gathered critical mass in 2007:

Quality management: all horizontal processes of the Directorate have been documented, audited and certified according to ISO 9001:2000 in October 2007. This adds to the certificates already obtained by the Site Maintenance and Operations Unit (C04) and Nuclear Decommissioning and Facilities Management Unit (C01), in June 2007 and May 2006, respectively. In the continuous audit-improvement cycle that follows certification, we will further analyse how we can make our procedures even more effective. At the same time, we are working hard with the remaining ISD Units to achieve their certification as soon as possible.

I would like to recall here that we are also moving on towards environmental management certification according to ISO 14001:2004, for the whole Ispra site. In view of our responsibilities at the site with respect to the management of infrastructures, energy, water, paper, waste, etc., the environmental management system will be a crucial complement to our quality management approach.

Internal communication and service culture: the JRC Staff Satisfaction Survey has shown that staff at the ISD, as in other JRC Institutes, are less happy with certain aspects of their work environment, than they were in 2004. Our Vision & Values initiative is designed to counter this trend. Thanks to the active contribution of some 280 colleagues participating to a series of staff workshops in the autumn, we have been able to define an ideal set of values to guide our behaviour, towards each other and towards our customers. It is now up to us to gear up into action and make the Values 'work'.

I take this opportunity to express my sincere gratitude to all our staff in supporting our goals throughout 2007. I hope everybody will give of his best in 2008, thus helping to move our organisation a step further into the direction set by our Vision.

David R. Wilkinson

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Architectural drawing of the Atrium, a glazed courtyard space that can be used for informal, recreational and social gatherings.

Inviting staff at Ispra to join a "Green team".

ISD Annual Management Plan 2007
Objective 1:

"Provide cost-effective, customer-driven services in support of the scientific Institutes at the Ispra site, covering: infrastructure development and maintenance; asset management; logistics and security; social infrastructure and services; and health and safety" [Responsible Unit: as indicated]

Site development [Responsible Unit: C08]

The task of Unit C08 (Site development) is to plan and realise all projects for new buildings, building refurbishments and major structure interventions at the JRC Ispra site.

Strategic Ispra Site Development Plan

➜ AMP action 1.1: Complete preliminary design of Science Zone
➜ AMP action 1.2: Complete detailed design of first research building

The Strategic Site Development Plan foresees the concentration of the Ispra scientific Institutes into a so-called 'Science Zone' in the centre of the Ispra site. 2007 saw major progress towards putting the Plan into motion: the preliminary design of the Science Zone with four key buildings was created and detailed designs were initiated for an 'Environment building' and a 'Life Sciences building'.

Key features of the preliminary design:
• The basic concepts that were presented in the earlier design contest, such as the U-shape realisation of the new buildings, have been confirmed;
• The energy consumption of the new buildings is expected to be 20% below the current legal requirements;
• 'Open plan' offices will be promoted in order to achieve maximum flexibility.

In 2008, a tender will be launched for the construction of both buildings. The construction of the Environment building will start immediately after the conclusion of the tendering procedure. Construction of the Life Sciences building will start as soon as budget becomes available.

Environmental Management

➜ AMP action 1.3: Complete environmental strategy report

The action envisaged the completion of an environmental strategy report within the second quarter of 2007, and to achieve this end, a special working group comprising staff from each site was established with leadership provided by ISD. The group was given the mandate to outline a proposal for a JRC Corporate Environmental Policy (CEP) and formulate a Corporate Environmental Action Plan, by defining the principal objectives and criteria of the policy, identifying the expected costs and benefits, providing a timeline with the principal milestones and targets and proposing a JRC wide organisational structure for the management of the policy. Meeting over a four month period, the group eventually submitted its proposals to the Directoire in May 2007, and these were accepted with minimum observations. By approving the proposals, the Director-General formalised the policy and related action plan in mid-year.

Environmental activities, however, did not stop there, and for the Ispra site, a public procurement procedure was immediately launched to support core environmental management staff from ISD and the Ispra Institutes, reinforced by local environmental teams ('Green Teams'). A four year framework service contract was subsequently signed in December 2007 with a grouping that comprises two specialist contractors, and their future assistance will help safeguard two principle targets: in the short-term (August 2008), the undertaking of an initial environmental review of the site, and by December 2009, the certifying of the Ispra site to ISO 14001:2004.

Buildings completed or under construction

➔ AMP action 1.4: Complete Auditorium

The construction of the Auditorium is in its final stages and the main contractor is expected to finish his intervention by mid-April 2008. In 2007, successful tenders were concluded for the acquisition of furniture and audiovisual equipment. The interior will be finished with sound absorbing wood panels and fabric covered seats. A sophisticated audio-video system will be installed which connects the main conference room with the two secondary rooms and the interpreting booths. Videoconferencing will be possible in all conference rooms. Monitors placed in key locations of the facilities will enable people to follow the proceedings going on in the main room. A number of computers with wireless Internet will also be available for visitors in a separate room.

➔ AMP action 1.5: Open crèche building yard

The design of the childcare facility was completed in 2007. The tender for its construction was launched in May but had to be re-launched in July. The contract for the construction was signed in November and the building yard has now been opened. The Site Development Unit expects to be able to hand over the new building to the childcare services by November 2008.

The new building will significantly improve the conditions for childcare services, which are currently fragmented over multiple buildings and do not have the required capacity. In particular, the new building will increase the number of available places at the crèche to 86. This number is in line with the targets set in the Commission's 2006 Multi-annual Action Plan on Well-Being at Work in the European Commission.

The construction of a new building will allow the ISD to re-use the existing facilities for other purposes, such as social events and an expanded after school service (garderie). The new facility will be constructured based on a modular design to ensure an efficient use of the building at all times.

➔ AMP action 1.7: Complete VELA 7

The Transport and Air Quality Unit of IES runs the Vehicle Emissions Laboratory (VELA) in building 24, allowing the physical/chemical and toxicological characterization of the emissions from different types of transport means. In order to host the new VELA 7 test facility, the Site Development Unit was requested to execute important construction work in the hall of the building. These works have been launched recently. They will make it possible to extend emission testing to larger vehicles such as buses and lorries.

Other site developments

➔ AMP actions 1.8 and 1.9: Complete development plan for footpaths and bicycle shelters

In order to make the Ispra site more attractive for pedestrians and cyclists, whilst improving its environmental footprint, a plan for bicycle shelters and walkways was developed. The main objectives of this plan are to provide all major buildings with covered shelter for bicycles and/or motor bikes (20), and to connect all major buildings to the main entrance and the Mensa by footpaths (2.500 metres). In 2007, 13 bicycles shelters and ca 1.500 metres of walkways were completed. This action will continue in 2008.

In 2007, the Site Development Unit finished the refurbishment of the laboratories of the Physical and Chemical Exposures Unit of the IHCP which are located in building 28f. In this building, the attic has been recuperated and completely refurbished. It now contains 14 offices with approximately 20 work places, archiving space and one air-conditioned and secure server room.

➔ AMP action 1.6: Complete building 27

The construction work in building 27 could not be completed as scheduled. The results of the structural tests carried out on the building made it necessary to recalculate the

Works inside the Auditorium.

Mock-up of the entrance to the new crèche.

Footpath along Via Germania.

Bicycle shelters in front of building 26a.

Building 28f sporting a completely refurbished top floor.

load of the building. The construction was therefore suspended until the production of a new design and the corresponding funds have been released for other projects.

➜ AMP action 1.10: Complete design for transformation of building 46

The Strategic Ispra Site Development Plan includes a project for the restructuring of building 46 to accommodate the site's data centre and informatics unit. This action has been postponed due to lack of funds.

Site maintenance and technical facilities [Responsible Unit: C04]

Unit C04, the Site Maintenance and Operations Unit, manages all maintenance activities for the infrastructures at JRC Ispra and is responsible for all the utilities (e.g. electricity, telecom, water supply, waste treatment, air conditioning, etc.) and other infrastructure services necessary for a good working environment. The Unit's Annual Report which provides more detail than presented hereafter, is available on ISPRAnet.

Ordinary maintenance

➜ AMP action 1.11: Perform ordinary maintenance

In 2007 the Site Maintenance and Operations Unit received a total of 8.714 work requests, 93,6% of which could be executed before year end. This rate compares favourably to the execution rate in 2006 (88%) and the target for 2007, which was to improve the rate by 2%, was largely exceeded. The interventions were carried out according to the original schedule with only minor deviations.

Breakdown of work requests – execution			
Field	Work requests in the year	Work requests executed	%
Masonry, carpentry, painting, local fluids distribution, store, hoisting devices etc.	4.129	3.736	90,5
Electrical installations, telephone, plant alarms, Heating Ventilation Air Conditioning, fire detecting systems etc.	4.185	4.424	96,5
TOTAL	8.714	8.160	93,6

Extraordinary maintenance

➜ AMP action 1.12: Perform extraordinary maintenance

Extraordinary maintenance operations have mainly concerned roofs, ducts and pipes, and HVAC (Heating, Ventilation and Air Conditioning).

Completely refurbished were the **roofs** of buildings 18p (about 500 m²), 36 (more than 1.200 m²), 24d (400 m²), 20, 20n; partially replaced were the roofs of buildings 24c, 36e, 36f, 58, 58a, 62c, 72c, 5L, 44, 48 north wing. For roof 50a, the order was issued. The executive design is ready and the order for the complete refurbishment of the roof of building 26a has been issued, to be executed in February 2008. Roof 26b was repaired – however a more durable solution is needed and will be implemented following the repair of the roof of building 26a.

Ducts and piping were repaired or replaced in or near the following buildings: 4, 5, 8, 20, 29, 44, 45, 63, 69 etc. **HVAC** was refurbished in the buildings 20, 26, 28, 44, 45, 48, 50a, 58a, 59k, 63. Works on HVAC in building 36 and 20a have started. Structured **cabling** was upgraded in buildings 45, 20, 44, 29a, b, 59k. In addition, the first part of the remote control upgrade has taken place, as planned.

New roof and painting for building 20n.

Refurbishments

➜ AMP action 1.13: Complete refurbishments

The refurbishment of the laboratories in building 20 has been completed, as well as the refurbishment of rooms/laboratories in buildings 26, 26a, 28, 29 a and b, 44, 45, 69c. Building 45 has undergone a complete refurbishment. The main works for building 50a have been completed.

For building 23, the executive design has been completed, and the related orders have been issued. For building 20i, the customer Institute has changed the requests and cancelled this activity. The new request foresees the refurbishment of building 20a, for which the design phase has been completed, the related orders issued and the first activities started.

Additional activities carried out include: refurbishment in building 36, parking areas near buildings 6, 24, 20, 59L, 75; parking area near area 40; actions in buildings 4, 5, 6, 8, 8d, 18, 21, 35, 53i, 57, 63, clubhouse, a path to access an environmental sampling site, enrichment of the green areas with flower zones, extended pruning all over the site. Furthermore, complete refurbishment of four outside lodgings has started.

Other important works have concerned building 5a where various activities have been completed, 36 (modification of rooms, of the audio-visual system), 44 (investigations of the cracks propagation), 50a (various maintenance/refurbishment actions), 26 (ventilation and humidification of specific laboratories; design completed – works will be carried out in 2008), 26a and 58a (executed design for replacement of shutters; for 26a also additional archive rooms in the basement, works starting in 2008), 36 south aisle (executive design performed).

Electrical installations

➜ AMP action 1.14: Complete the verification of low-tension electrical installations

It was concluded following the general controls, that the electrical installations in several buildings required a complete upgrade. An action plan was established and implemented as follows:
• Verification of 70% of the installations located on the site (concluded in November 2007);
• Execution of the repairs;
• Upgrading and certification of the most urgent cases and/or most frequented buildings (concluded in December 2007);
• Upgrading and certification of 35% of the installations located on the site.

In addition, the operation to verify, upgrade and certify all fire detection and alarm systems was concluded in November 2007.

Green areas

➜ AMP action 1.15: Continue to remove dangerous trees

The removal of trees that represent a safety hazard was carried out according to the planned schedule. An additional mapping and removal operation was organised in the autumn following a storm, and the removed trees were replaced with new ones.

Eliminating asbestos

➜ AMP action 1.16: Continue to remove asbestos

A framework contract was signed in October with a company that will remove the asbestos, following a successful call for tenders. Funds were committed for the sanitisation of building 20a and the preparatory work was carried out in 2007. Supplementary actions to remove asbestos in building 76b, as well as in some piping systems and roofs have also been carried out.

New HTS laboratory in building 20.

New disabled parking space and entrance ramp to building 6a.

Cutting down hazardous trees.

New signposting scheme for the Ispra site

➔ AMP action 1.17: Implement a new signposting scheme on the site

A framework contract for the new signposting scheme on the Ispra site was signed in December 2007 and the implementation of the scheme will take place in 2008.

Fire prevention

➔ AMP action 1.18: Maximise availability of the fire prevention, fire protection and environmental protection service

In 2007, the team in place for fire prevention, fire protection and environmental protection was re-named "Site Response and Support Team" (SRST) to better reflect its role. The team was reinforced with the former shift supervisors of the Security Service (cf AMP action 1.34), and the scope of the team's activities extended.

The activities of the SRST can be described as follows:
- Fire prevention by ensuring that all safety measures are in place and precautions are taken to reduce the possibility of fire ignition or to limit damages caused;
- 24/7 monitoring of all buildings on site for fire and specific alarms (e.g. gas leakages, waste water treatment, electric station, co-generation plant);
- Intervention in case of fire, explosions, gas leakage, flooding, road accidents or accidents of other nature, both nuclear and conventional. Specific intervention procedures have been put in place for conventional and nuclear hazards;
- Maintenance of equipment and vehicles, implementation of shifts, management of contracts and orders, production of reports and statistics and mapping of anti-fire measures;
- Environmental protection, by providing technical and legislative consultancy. In particular, the team performs verifications; updates the database for asbestos; performs the control of hazardous substances and gives instructions for their disposal; ensures an appropriate removal of dangerous waste; performs verifications on the emissions in the atmosphere; checks all residuals and emissions from the waste water treatment plant and ensures the mapping, removal and replacement of hazardous trees.

Within the afore-mentioned activities, SRST carried out a total of 3.646 interventions in 2007, an increase of 6% with respect to 2006.

Site utilities

➔ AMP action 1.19: Maximise availability of the site's utilities

➔ AMP action 1.20: Complete agreements for waste water treatment, rain water discharge and e-billing for telephones

Utilities at the Ispra site include the Ispra Cogeneration plant, electricity supply and distribution, drinking and industrial water, plant and building centralised control systems, including fire detection, heating, ventilation and air conditioning, cabling and more.

The Ispra **co-generation plant** is equipped with four co-generating units, each based on an Otto-cycle engine with a catalyst, running on natural gas. The plant includes a boiler for recovery of heat from the exhaust gas and an alternator with transformer, two absorption coolers fed with steam and hot water, and four high-efficiency hot water generators to produce increased thermal power during winter. The electrical power generated by the co-generation plant is transformed down to 11,6 kV, delivered by cables to an electrical substation and from there delivered to the entire site. A network of 19 electrical cabins transforms the voltage down to 400 V. Seven diesel generators and 32 static power systems help to ensure an uninterrupted energy supply to the essential installations. For an update on the verification and upgrade of electrical installations, see AMP action 1.14.

Activities of the Site Response and Support Team in 2007

●	Prevention Checks	53,87%
●	Other activities	20,84%
●	Alarms	19,39%
●	Logistic team	2,74%
●	Flood drains	1,89%
●	Ambulance transport	0,66%
●	Fire estinguished	0,33%
●	Fire drills	0,27%
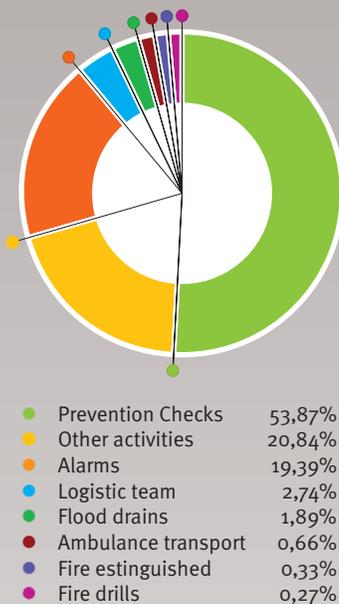
One of the four cogeneration units.

The electrical consumption at the Ispra site in 2007 was 32,386 GWh, marking a 0,9% increase over 2006. At the same time, consumption of thermal energy (49,734 GWh) fell by 5,2% from its 2006 level.

Plant Performance Savings & Efficiencies				
	Design values	Obtained values	Obtained values	Obtained values
		Jan. – Dec. 2005	Jan. – Dec. 2006	Jan. – Dec. 2007
Net yearly savings of energy costs (€) taking into account the additional costs of maintenance of the cogeneration plant compared to a traditional system of hot water production.	1.050.000,00	1.182.892,51	1.382.276,57	1.458.623,75
Simple pay-back time (years)	4,00	3,55	3,04	2,88
Average overall efficiency (%)	82,50	79,03	79,23	80,15
Reduction of emissions (CO2) (%) – compared to the traditional plants	-32,00	-28,53	-28,73	-29,65
Average winter efficiency (%) (Jan, Feb, Mar, Apr, Nov, Dec)	–	84,64	84,46	85,09
Average summer efficiency (%) (May, Jun, Jul, Aug, Sep, Oct)	–	71,21	71,72	73,97
Fraction of electrical energy produced by the plant (%)	95,10	96,59	94,02	90,67
Total electric energy produced (GWh)		31,67	32,106	32,386
Total thermal energy produced (GWh)		53,1	52,456	49,734

Savings obtained from operating the co-generation plant compared to a traditional system.

Availability of the energy supply could be kept at close to 100% throughout the year, despite the shutdown of the plant in April, which occurred as a consequence of the almost simultaneous failure of several engines. Energy supply to the site could nonetheless be continued seamlessly thanks to the backup ensured by ENEL.

The **drinking and industrial water system** consists of: a pumping station that extracts water from the Lago Maggiore at a depth of 40 m, a filtering station, a water disinfection system with chlorine dioxide injection, a water distribution network with a length of about 74 km and storage tanks with a total capacity of 6.000 m³. In 2007, 721.000 m³ of drinking water were distributed at the Ispra site (compared to 2006: -8%) and 2.604.000 m³ of industrial water (2006: -17%).

The **Water Purification Plant** of the Ispra Site cleans the water and discharges it into the Novellino River that flows into "Lake Maggiore". The most significant aspects of the facility are: the lifting of sewerage with "Archimede pumps"; the water oxygenation by means of blown air; the primary sedimentation with water clarification and mud removal; the biological treatment by means of aerobe micro organism; the final disinfection. In 2007, the total of waste water treated (3,6 million m³) fell by 14% from its 2006 level. Moreover, new agreements for rain water discharge and for waste water treatment were dispatched to the competent authorities.

The Ispra **telephone system** (or PBX – Private Branch Exchange) is connected to the public network by seven ISDN PRI (Primary Rate Interface) that guarantee 210 simultaneous communication channels. Our PBX accomodates currently some 3.400 analog and digital telephone users distributed inside JRC. From the PBX are also derived 96 ISDN Basic Rate Interfaces that ensure the transport for videoconferences and other data transmission applications. In addition, the telephone group manages the mobile voice communication service with about 320 GSM and GPRS lines. Besides the normal management and maintenance operations, the telephone service phased in a new telephone data management procedure, pursuant to (EC) n° 45/2001, chapter IV, related to the protection of personal data and privacy. In addition, it carried out tests of the new electronic invoicing system, in line with the aforementioned privacy regulation.

Finally, the site utilities include also the **plant and building control systems,** such as for fire detection, conventional and nuclear alarms, plant and process alarms, heating and air conditioning, remote control and loudspeaker system.

Acquisition value of newly created assets registered in 2007 by institute
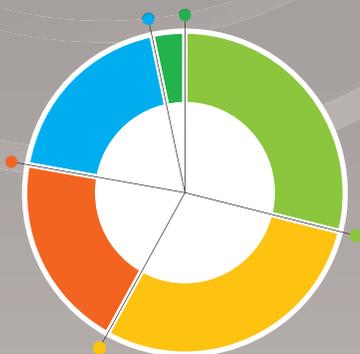
- ● ISD   € 4 080 055
- ● IHCP   € 3 256 087
- ● IES   € 2 749 406
- ● IPSC   € 2 632 261
- ● PSR, RM &PMO   € 447 653

Asset management [Responsible Unit: C09]

Unit C09, the Asset Management Unit, aims to preserve the value of all movable and immovable assets of the JRC by providing a high quality asset management service whilst effectively ensuring that these assets are fully insured and that there is an efficient movement of goods and documents in and out of the Ispra site. To achieve its objectives, the Unit is divided into three sectors: i) the inventory, reception of goods and internal customs sector, ii) the insurance sector and iii) the document administration and internal postal services sector.

Inventory, reception of goods and internal customs

In 2007, the Inventory Office created approximately 3.000 new assets with an acquisition value exceeding €13 million, whereas over 4.500 assets with an acquisition value of €19,5 million were written off during the year.

➔ AMP action 1.22: Achieve adoption by JRC of harmonised procedures for fixed assets management processes

The Unit is also responsible for co-ordinating asset management activities for the whole of the JRC and in line with this responsibility an asset management meeting, in collaboration with Unit B03 who is responsible for asset accounting issues, was organised for all JRC asset managers in June 2007.

➔ AMP action 1.23: Organise quarterly asset management meetings with all JRC sites

During this meeting the document entitled JRC Guidelines on Tangible Fixed Assets was presented. This document provides detailed guidelines on various issues relating to the registration of fixed assets in the JRC and has as its main objective the harmonisation of asset registrations across the JRC. A major achievement during the year has been the Unit's significant contribution to the development by DG DIGIT of a reporting function in ABAC Assets. These reports which are now fully operational were developed following the request and insistence of the JRC and they will now be extended by DIGIT to all Commission users of ABAC assets.

Insurance services

➔ AMP action 1.24: Contribute to cost-benefit analysis of a JRC-wide nuclear insurance policy

Apart from dealing with the Ispra specific insurance policies and claims, in 2007 the Insurance Office assumed a central role in co-ordinating and managing a common call for tender for all JRC nuclear sites. This work continues in 2008 and a common all-risks insurance policy for the JRC is expected to be available by the end of the year.

➔ AMP action 1.21: Complete evaluation of the assets in Ispra

Furthermore, the asset management office managed the administrative procedure and co-ordinated the new full evaluation of the JRC Ispra buildings and installations in collaboration with Unit C04. This evaluation was carried out by external consultants and was completed in September 2007. The objective of the evaluation was twofold, (i) to obtain a monetary value of all buildings and installations on the Ispra Site for insurance coverage purposes and (ii) to establish the theoretical annual maintenance costs of the buildings on the Ispra Site.

Document administration and internal postal services

During 2007 the Document Administration Office (CAD) was heavily involved in the roll out of the JRC filing plan working very closely with the Document Management Officer (DMO). The CAD personnel created more than 6.500 files in Commission's General Register using the Adonis IT system. This valuable work enables JRC staff to file all documents registered in the Adonis system. See AMP action 2.13 for more information concerning the implementation of the JRC Filing Plan.

➔ AMP action 1.25: Achieve adoption by JRC of a verification system for the registration of documents

6.500, mainly incoming, documents were registered in Adonis during the year and a further 6.000 invoices were registered in JIPSY and ABAC. During the first half of 2007 statistics were produced detailing the number of documents registered, with and without attachments, by Institute and Unit. This thorough check allowed to establish the planned verification system for the registration and filing of documents. Introduced in October 2007, this system assists the various Units on a monthly basis to keep track of the registrations and classifications in the system. As a centre of expertise for document administration in the JRC, on demand one-to-one training on the Adonis system continued with 85 training sessions being organised. Furthermore a central helpdesk service was continually provided for the whole of the JRC during the year.

Following on from a number of comments received in the ISD customer satisfaction survey, a second round of postal collection on a daily basis has been organised for most buildings to further increase postal efficiency and to reduce postal delivery times on site.

Logistics, Transport and Security [Responsible Unit: C07]

The responsibility of C07, the Logistics Unit, is to facilitate the secure and efficient movement of staff, visitors, goods and documents in and out of the Ispra site; to protect the security of the site and its staff and visitors from external threat; and to provide central facilities for storage, engineering design and workshops, reprographics, waste disposal (excluding nuclear waste) and cleaning. These activities are taken care of by three sectors: site services, transport and security.

Site services

The Site Services of the Logistics Unit comprise the Technical Competence Centre, the Cleaning Service, the General Services Group and the GIS-Locali group.

The **Technical Competence Centre** (TCC) is a centralised service in charge of manufacturing mechanical parts. It provides scientists with the support they need to develop research components and instruments, the capacity to supply finished products to high quality standards, while keeping costs down. The TCC also has a large warehouse to store raw materials and the tools needed to execute different projects. In 2007 the TCC executed 140 requests for the fabrication of various components, corresponding to over 6.000 hours of work. Jobs included collectors for the Ispra site Cogeneration Plant, components for HopLab, support for a Laser system, containers in Al-Cd, vacuum chambers, and many more.

Components for HopLab (IPSC).

➔ AMP action 1.27: Integrate new OIB small supplies contract

The group runs several **warehouses**:
- The Technical Store, which is associated with the TCC. In 2007, this store has issued a total of 5.900 items (mostly metals and tools), corresponding to a value of ca. €130.000;
- The Central Store for the distribution of stationery articles and paper. The framework contract with the company Lyreco which provides for On-Line Ordering of various stationery items and paper was extended for use by the JRC in Ispra. Orders made by authorised staff directly in the on-line ordering system are subsequently approved by the Logistics Unit. Materials are delivered, usually within 24 hours, directly to the client's office. This new ordering system has progressively replaced the former stationery delivery system run by the Central Store;
- The Gas Store, which distributes special gases to laboratories and to the technical support services. The Gas Store distributed 910 bottles of 65 different special laboratory gases and 110.000 litres of liquid nitrogen and helium, corresponding to a total expense of €295.000. In total, 446 requests for gas supply were managed.

The group responsible for the management of the **Cleaning Service** supervised the programmed cleaning of 160.000 m² of building space, such as offices and laboratories, and cleaning of roads and parking places. Moreover, the group managed about 1.370 requests for extraordinary cleaning.

The **General Services** group manages various (externalised) services, all having the objective of making the Ispra Site habitable and usable, covering the collection and disposal of urban and hazardous waste, the disinfection service, the distributed photocopiers and the fax service.

➜ AMP action 1.26: Increase % of separate waste collection

Waste separation and differentiation have been carried out at the JRC-Ispra Site since the late 80s. Paper, glass, metal and hazardous waste are thus being disposed following specific procedures. In 2007, the system for differentiated collection was improved and extended. In particular, the colouring code of external containers has been changed to correspond to that used in the surrounding municipalities: white containers are used for paper and cardboard, yellow for plastic, green for glass and cans, and black for mixed waste. Larger containers were placed in the JRC buildings for the collection of paper, and containers with multiple compartments were placed near the coffee and vending machines for the collection of plastic cups and bottles, glass and cans and mixed waste.

Waste disposed in 2007 included: 1.369 m³ of mixed waste, 3.052 m³ of voluminous waste, 588 m³ of paper and cardboard, 875 m³ of metals, 306 m³ of plastics, 145 m³ of disused informatics equipment, 430 m³ of dangerous waste and 47 m³ of infectious waste, originated in the Medical Service. Thus for a total of 6.812 m³ of waste, 5.443 m³ or 80% have been differentiated and shipped off-site for recycling (except dangerous or infectious waste which needs to be destroyed).

The General Services group also assured the management and maintenance of 172 copy machines distributed over 83 buildings and of 263 fax machines. From the end of 2007, new multi-functional machines (photocopier, scanner and printer) are progressively replacing the old photocopiers. The (internal) Copying Centre or "Print Shop", which is also run by this group, produced in 2007 some 5,3 million photocopies, in colour and black & white.

➜ AMP action 1.29: Improve data accuracy of Ispra building and office management system (GIS Locali)

The GIS-Locali group manages an informatic system, called GIS-Locali, which supports a complete set of Ispra building plans, i.e. schematic 2-dimensional plans of each building, and staff location data, combining the list of buildings, the list of offices in the buildings, and the list of staff on site.

2007 saw a major clean-up and updating activity on these datasets, with the following results:
- Building plans. In 2007, the datasets for buildings 5, 5d, 18p, 20, 24d, 28f, 36d, 48c, 54b, and 72 have been modified or created. Out of 92 major buildings (those with resident staff), plans for 71 buildings are now up-to-date, bringing data accuracy up to 77%;
- Staff location data. The process of updating location data in the GIS-Locali system has been modified, from the previous system of mainly manual update made by the GIS-Locali staff, to an automatic one through WAB administrative data, where data is inserted/corrected by staff themselves. This data is then transferred to the GIS-Locali system via the datapoool, and updated daily. Following these actions, staff location data accuracy should be up to 100%.

Transport

➜ AMP action 1.28: Improve user satisfaction with respect to transport service

- The transport sector manages the main transport-related activities of the Ispra Site: Bus services for personnel, connecting – before and after core hours – the Site with

Containers for differentiated waste collection.

most towns in- and outside the province, including the city of Milan. In 2007, the coach services operated 6 different bus lines with over 120 bus stops;

- Navette (formerly taxi) services for personnel and guests from and to nearby air-ports, train stations and other locations such as conference venues. Around 30.000 passenger trips used the navette in 2007;
- Vehicle fleet of the JRC Ispra, where management aspects include the replacement, fuelling, maintenance and repair services. The Ispra vehicle fleet contained by the end of 2007 around 150 vehicles of all types, used mainly on-site;
- In 2007, a communication campaign was initiated targeting the customers of the Navette service, with the aim of informing them on the possibilities and limitations (especially budgetary) of the transport sector. Endeavours to continue to enhance the image of the Navette service and passenger satisfaction will continue in 2008.

Site security

The security service plays a crucial role at the spra Site, given the presence of sensitive materials and information. Its tasks include:
- 24/365 surveillance of the Site, together with a reception service;
- Execution of preventive security measures, including traffic regulation;
- Continuous maintenance and operation of the physical security systems around the Site, including the automated access systems;
- Management of ICT infrastructure and software for security related functions (service cards, entry permits, permissions for cars and equipment entering the site, etc.);
- Computer related security of the Site.

➔ AMP action 1.30: Review new Guards and Reception service contract

A new multi-annual guards and reception contract started successfully at the beginning of 2007. Frequent contacts on managerial level are maintained with the new contractor to complement in a structured, useful and efficient way the daily operational contacts. The services under the new contract are now fully operational.

➔ AMP action 1.34: Put in operation on-site response team

The former "Shift Supervisors" of the security service were redeployed to the newly created Site Response and Support Team, which incorporates the fire prevention and environmental protection teams (see AMP action 1.18 for more details).

➔ AMP action 1.31: Launch implementation of an automated access control system

Ispra, as other Commission premises, will receive an electronic site access control system. The approach taken in Ispra was to follow closely the decisions of the Commission's Security Directorate regarding a Commission-wide security system. This approach shifted most of our architecture- and standards related decisions to 2008. However, a comprehensive tender was launched in 2007, which already includes most of the elements that will be used for the basic access system.

➔ AMP action 1.32: Improve user satisfaction with respect to security

In the area of communication, the Security Service multiplied contacts with users and presented itself on the new Intranet pages. Other management decisions, like the extension of use of the Brebbia gate that were implemented in 2007, proved quite popular and helped to improve user satisfaction. Although no formal security assessment was performed by the Security Directorate in 2007, this latter visited the Site and gave useful additional advice.

➔ AMP action 1.33: Minimise risks for pedestrians and cyclists

Security has registered in 2007 only two traffic accidents on the Ispra Site; none of them involved pedestrians or bicycles (2006: 4 accidents).

➔ AMP action 1.35: Adapt JRC to new Commission security dispositions for ICT

The JRC security dispositions for ICT (Information and Communication Technologies) have been made fully compliant with Commission standards, in particular with respect to:

- LISO (Local Informatics Security Officer) role is covered and in place for co-ordination, support and consultation for IT Security;
- Security briefings and awareness activities are carried out with the support of the Security Directorate;
- Commission public key infrastructure developments and support to the usage 'Secure E-mail' (SECEM) for sensitive data transmission are followed-up. JRC continues to be one of the top DGs in terms of absolute numbers of SECEM users;
- EUCI (EU Classified Information) Registry is in place for receiving/sending/storing EUCI for JRC Ispra. Special equipment (NCN – New Cypher Network) has been installed in a Class I Area enabling to transmit/receive classified data throughout the Commission using special encryption technique over the corporate network.

Social infrastructure and services
[Responsible Unit: C03]

Unit C03, the Social Services Unit, aims to offer adequate social services and related infrastructure to make the JRC Ispra site an attractive working environment and to help the scientific Institutes attract top scientific talent to work in Ispra.

Canteen and cafeteria

➔ AMP action 1.37: Optimise canteen's operations

The canteen service has continued to progress both in terms of meals served and in financial revenues. The average number of meals served per day was 1.034, representing an increase by 1,5% compared to 2006. On the basis of the agreement reached in the joint canteen committee, the "caffetteria" has been opened in the morning and the two canteens were changed to allow an extension of the service time. Both canteens have been repainted and several safety measures have been implemented, including new anti-fire doors. Furthermore, an emergency operation has been simulated in order to verify the evacuation plan and the related safety measures.

➔ AMP action 1.36: Integrate Ispra canteen with the financial accounting system of the Commission

A new imprest account has been implemented in December 2007, as requested by DG BUDG and the IAC Unit of the JRC. In that context, some preparatory works for a new tender for the provision of food were launched, to be finalised in the first half of 2008.

Childcare facilities

➔ AMP action 1.39: Increase places for children in crèche

Both the crèche (children up to 4 years) and the 'garderie' (after-school service for children from 4 to 11 years) have continued in 2007 to operate at their full capacity. The same is true for the service of the 'halte-garderie' (occasional day service for children from 3 months to 4 years).

The call for tender for the new crèche building has been completed successfully and the construction started in January 2008. In the meantime, an interim solution has been successfully implemented since April 2007, enabling an increase of approximately 40% of the number of children admitted to the crèche. A new set of rules for the management of the childcare services has been agreed with the relevant joint committee and the flow of information between the childcare secretariat and the parents has been improved and streamlined, notably for what concerns the management of the inscriptions and of the waiting lists.

Poster to promote the JRC crèche.

Housing for newcomers

➔ AMP action 1.38: Ensure availability of furnished accomodations

Three different options are provided at Ispra site for offering lodgings to the newcomers: furnished lodgings directly managed by the JRC, ALER (the social housing scheme of the Lombardy Region) and non-furnished flats and external lodgings.

The Joint Housing Committee has been appointed and started work in 2007, dealing with all aspects of developing and maintaining an integrated housing policy at the Ispra site. The works for the renewal of a first set of four "foresterie" for the use of the "stagiaires" are being completed. Several actions for improving the comfort of these furnished flats were also started.

The occupation of these lodgings was lower on average in 2007 than in 2006. The main reason was the reduced number of newcomers, notably "stagiaires", in the first months of 2007. The situation has then been fully recovered from October onwards. From a financial point of view, the temporary decrease in the occupational rate has produced a reduction of the annual income. Contacts started to renew the convention between JRC and ALER. Pending these negotiations, a new amendment was signed, extending the present agreement until the end of March 2008.

A list of external lodgings (furnished and unfurnished) is also offered to the newcomers. In 2007, actions have been taken to further improve the verification of the quality of the information provided and to analyse possible means of accessing this information using on-line electronic tools.

Welcome service

The JRC Ispra Welcome Desk provides information to the JRC employees in Ispra and their families. Its activities include the organisation of welcome meetings for newly arrived staff (including a guided tour of the JRC Ispra site), providing information and facilitating contacts with public authorities, local service providers and other JRC services. Throughout the year, "Welcome Family Meetings" were held in collaboration with the social assistance service. The participants were very grateful as it helps them to ease their integration in Italy. The Italian rules for the permit of stay changed during the first semester 2007. The Welcome desk staff helps people from non-EU member states to complete the relevant forms and accompanied them to the "Questura".

Refurbishment of a first set of "foresterie".

Activities of the Welcome service	
Activity	Number of interventions
Pré-accueil – support to newcomers BEFORE they arrive at JRC-Ispra	79
Welcome meeting	68 Italian
	120 English
Infocall	1.158
Fiscal code request	145
New procedure "Questura" fon non-EU residents	13

Clubhouse

➔ AMP action 1.40: Sign new Clubhouse management contract

The Clubhouse and its facilities provide for the physical structures in support of social, cultural and sports activities offered to JRC staff in Ispra. The building and its surroundings continued to undergo a programme of refurbishment and maintenance to improve safety and facilities. The offices on the first floor received a new pavement and wall painting, and some new furniture was acquired. A new tender for the management of the infrastructure and the restaurant facilities was launched. Moreover, the full refurbishment of the ground floor has been agreed between COPAS and the Ispra Site Directorate for 2008.

The IS Director visiting the Medical Service.

Health and safety [Responsible Unit: C02]

The responsibilities of Unit C02, the Occupational Health and Safety Unit, are to monitor and safeguard the health and safety of personnel and the environment at JRC Ispra by conforming to national and EU legislation and promoting an overall health and safety culture at work.

Medical service

The Medical Service receives medical certificates for sickness or injuries incurred by the JRC personnel, in line with the Staff Regulation (art. 59). In 2007, the Medical Service received 2.364 medical certificates from colleagues at Ispra and Seville, resulting in a total of 19.279 sickness days. This corresponds to an average of 10,88 sickness days per member of staff, which represents an increase of 15% over 2006 results.

The increase is most noticeable in the following pathology classes: non-professional injuries, related to accidents off-work, such as resulting from sports and leisure activities or car accidents. (up 7%), illnesses of psychological/psychiatric origin (up 20%) and musculoskeletal disorders (up 17%). On the other hand, sickness leave due to malignant tumours decreased by 21%. A sharp drop with respect to cardiovascular diseases was also noticed (see AMP action 1.42 below).

The Medical Service has launched the following initiatives to combat some of the key pathologies:
• Injury awareness and prevention courses;
• Set up of a Psycho-social Support Group (see AMP action 1.42 below);
• Launch of a musculoskeletal disorder action ('ergonomy', in 2008);
• Continuation of the flu vaccination campaigns;
• Continuation of the cardiovascular diseases prevention project.

➜ AMP action 1.42: Reduce number of days off work due to psychiatric and cardio-vascular cases

Throughout 2007, we have witnessed an increase of psycho-social disorders amongst staff at Ispra and Seville. To be able to more effectively deal with this problem, Ispra Site Directorate set up a Psycho-social Support Group, within the Occupational Health and Safety Unit. Fully operational from September 2007, the group attended 40 colleagues who sought assistance for an either work-related, personal or other problem. Financial aid was granted to 61 colleagues, including pensioneers and disabled.

As for cardiovascular diseases, we have seen in 2007 a sharp decline of working days lost. The Unit had launched a "Campaign against Cardiovascular Diseases" for all staff above 45 years of age, by raising awareness about cardiovascular disease, its risk factors and ways of prevention. Individualised counselling is given according to the findings of a comprehensive screening programme. The specific personal risk factors and recommendations how to best deal with them are also recorded.

However, in both cases, the statistics must be interpreted with caution as one or two severe cases can distort annual statistics, making it difficult to identify trends over time.

Average number of days off work per member of staff in Ispra and Seville, due to psychosocial disorders and cardiovascular diseases		
Year	Psychosocial disorders	Cardiovascular disease
2005	1,32	0,12
2006	1,66	0,21
2007	1,96	0,04

Safety at work

➔ AMP action 1.43: Improve site safety through awareness, training and communication, by improving Gravity index and Frequency index

In 2007, the overall number of "professional injuries" decreased from 33 in 2006, to 24. Consequently, the frequency index, indicating the number of injuries per million working hours, fell from 9,58 in 2006 to 7,40.

On the other hand, those injuries that occurred, caused longer absences (466 days in total, including commuting accidents). This is due to a high increase in absences due to "falls". For IHCP, for instance, "falls" account for 95% of the absences due to injuries, none of which occurred on IHCP premises. At the same time, injuries "at work" and the associated days of absence decreased by 28% with respect to 2006.

As a result, the gravity index, i.e. number of days off work due to injuries per thousand working hours, rose from 0,118 in 2006 to 0,130 in 2007. However, the JRC-Ispra site, in terms of injury gravity, is still well below the Italian national index (2003: 2,88) or that of France (2006: 1,27).

Injury prevention is implemented by means of a safety system that sees the Inspections and Safety at Work Service carrying out investigations following injuries and take necessary action in order for these not to be repeated. Hierarchy is informed and awareness actions are addressed to the injured person and some of his or her colleagues. General safety training is implemented by SPP (Servizio di Preventione e Protezione) and the Inspections and Safety at Work Service co-ordinates specific needs.

➔ AMP action 1.44: Reduce exposure to noise

Noise measurements were undertaken at 153 workplaces (50% above the target for 2007). As a result, the Hygiene lab team found no more than 6 non-conformities, indicating noise levels above the set threshold of 80dBA. This compares favourably to the 25 non-conformities found in 2006.

➔ AMP action 1.45: Pilot Safe Start procedure

Main purpose of the Safe Start Procedure is to inform new members of staff on safety procedures at JRC from the first day of work and to enhance our Safety culture. 22 Safe Start presentations have been organised and carried out in 2007. 143 new members of staff participated, including 66 for IPSC and 42 falling under ISD responsibility (i.e. ISD and detached Directorates). IES and IHCP apply equivalent procedures.

➔ AMP action 1.46: Ensure availability of all Safety procedures in English and Italian

Safety procedures address specific technical safety issues, such as:
• Consultation Procedure ("Regolamento Procedura di Consultazione");
• Management of chemical substances ("Procedura gestionale per le sostanze e preparati etichettati pericolosi");
• JRC Emergency procedure ("Procedura per la gestione dell'emergenza convenzionale").

These documents have been translated during 2007 and are now available both in English and Italian, upon request at the Inspections and Safety at Work Service.

➔ AMP action 1.47: Complete GESEP database of JRC chemical substances

The GESEP ("GEstione Sostanze Etichettate Pericolose") database has been set up to monitor and perform a better management of hazardous chemical substances. In 2007, 98% of the total number of chemical substances targeted (5.200) has been entered into the database. Improved software will be implemented in order to simplify data entry in the future.

Number of calendar days of absence as per Directorate/Institute at the Ispra site, per type of injury (2007)

- fall (environment)
- fall
- road accident
- commuting
- at work
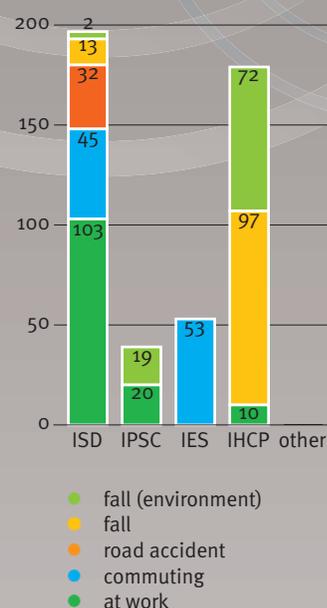
ISD Annual Management Plan 2007
Objective 2:

"In collaboration with the other JRC sites, ensure effective management of the JRC informatics infrastructure, maintain or develop new information systems, and implement a coherent strategy for the management of documents, both administrative and scientific" [Responsible Unit: C05]

The JRC relies on a sophisticated ICT infrastructure and range of systems to support its scientific research, business and administration processes. Maintaining this infrastructure and systems is the responsibility of C05, the Informatics, Networks and Library Unit (INLU).

Informatics infrastructure, information systems and scientific information

JRC IT Master Plan

➔ AMP action 2.1: Update the ICT workprogramme

INLU has coordinated the ICT strategy and its implementation for the JRC. A report on progress in 2007 and the plan for 2008 was incorporated in the IT Master Plan for 2008.

New scientific applications

➔ AMP action 2.2: Migrate 2 new scientific applications to new data centre

New campus data centre.

The new data centre at the Ispra site was put into operation in September 2006 and during 2007 its services have been expanded. The data centre now provides server hosting, data storage and backup services for the Ispra site and an information systems hosting service for the whole JRC. Its mandate is to ensure the availability, performance and scalability of IT services with high levels of security.

The following scientific application were moved to the hosting service in the data centre: COMMTRAFFIC, CRITECH, CID, ISFEREA, and (parts of) GMO. A replica of the GRID_WEATHER interpolated meteorological data is hosted by INLU and used by the SoDa (Solar radiation Database for environment) web application. Different scientific projects websites are hosted in the JRC data centre. Due to the increasing demand from the scientific actions, the server infrastructure for hosting Information Systems in the public server zone (DMZ) was completely renewed using Linux open source technology. Videoconference, streaming video and MMS (SMS alerting system for the JRC) systems are now hosted in the data centre.

A multi-protocol 100 TBytes central storage serves information systems as well as user data of 1.200 NET1 users in Ispra and some scientific users. A 95 TBytes storage is housed for the Land Management and Natural Hazards Unit.

Data centre and contingency solutions

➔ AMP action 2.3: Strengthen Business Continuity. Contingency data centre

The data centre has a redundant connection with automatic fall-over to the campus network. It has a number of protection systems with direct connection to the fire brigade (water detection, smoke detectors, temperature sensors, access control, video surveillance). A contingency data centre has been set up in building 36 in collaboration with IPSC. A diesel generator to ensure uninterrupted power supply will be implemented in 2008.

An on-call staff standby scheme was established in Ispra in 2007 in order to intervene in case of major incidents outside working hours. A system for monitoring the information systems and the infrastructure is now in place.

Improved accessibility

➔ AMP action 2.4: Migrate Ispra users into the Commission Security Zone

All JRC staff now have a NET1 account which gives them access to corporate IT systems either from a NET1 workstation or through a terminal server. There are now 2.700 workstations in the NET1 domain across the JRC. 1.200 of these are in Ispra.

In addition, an internal Terminal Server has been set up in Ispra to give users in the Scientific Security Zone access to corporate IT systems. This allows:
• Flexitime access to all scientific staff;
• SAP PS made available to Action Leaders;
• GESEP to scientific staff.

An Intermediate Access Service (IAS) was upgraded to new hardware and operating system to anticipate the projected requirements for tele-working (intermediate access from the public internet). The IAS service is operated in Ispra for the whole JRC and relies on the Telecom and Remote Access token service operated by DIGIT.

Connection to the GEANT research network

➔ AMP action 2.5: Connect Ispra scientific network to GEANT

The GEANT network is the multi-gigabit pan-European network that interconnects national research and education data networks across Europe. Currently the JRC sites in Geel, Karlsruhe, Sevilla and Ispra are connected to GEANT. In Ispra, a 1 Gbps connection has been set up between the Ispra site and the point of presence of GEANT in Milan.

The GEANT connection will directly connect and positively impact the JRC research projects that cooperate with other EU research organisations, for instance European Centre of Medium range Weather Forecast (ECMWF) or global satellite data providers. It will enhance the exchange of large data sets or the access to remote High Performance Computing (HPC).
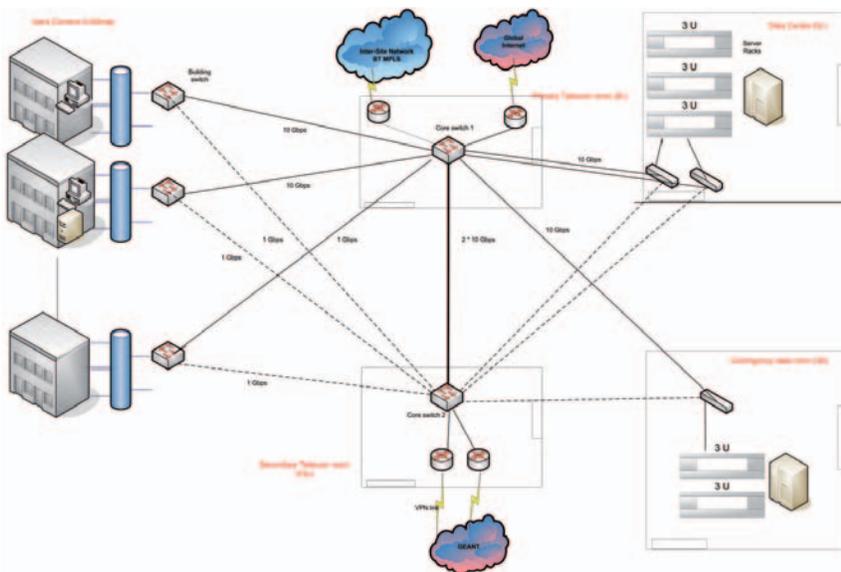
Ispra campus backbone architecture.

Network upgrades and availability

➔ AMP action 2.6: Upgrade Ispra scientific networks infrastructure to 10 Gbits/s

The Ispra Campus network connects 120 buildings to the core backbone switches in building 5L and 72C. In 2007, buildings 26A and 26B, the 26A serverfarm and the contingency serverfarm of IPSC in building 36A were connected with direct 10Gbps uplinks into the 10Gbps backbone. This network backbone has been upgraded from 1 Gbps to 10 Gbps to serve the increased network traffic needs to key network nodes. A similar upgrading is planned for buildings 28F, 29A, 29B, and 44 in 2008.

➔ AMP action 2.7: Strengthen network availability (99,75)

The Inter-site network is a critical resource because it interconnects the JRC sites to the Commission networks. In 2006 Ispra suffered different network failures even while meeting the availability specification of 99,5% on a yearly basis. The target for 2007 was availability of at least 99,7%. As an immediate remedy, a redundant Inter-site network connection was implemented through a dedicated leased line from Ispra to Geel. This solution, whilst working properly from a technical perspective is under review to make it more scalable for all JRC sites. A new method based on VPN (Virtual Private Network) will be used in 2008 to implement redundancy for the future. By means of VPN, encrypted data tunnels on the Internet will be established between the different JRC sites for routing inter-site network traffic in the event that the main link in one of the sites failed. The VPN backup was set up for Ispra, Petten and Geel in 2007 and is operational since January 2008.

Also the Internet access is a critical resource for different JRC applications, particularly in Ispra. In order to fully exploit Internet technology and to implement redundancy measures at network level, the JRC decided in 2007 to implement the Border Gateway Protocol (BGP 4) and to register its own autonomous system (AS 42165) on the Internet in June 2007. An autonomous system is a collection of IP networks and routers under the control of one entity that presents a common traffic routing policy to the Internet. BGP-4 is a core requirement for the implementation of redundant Internet connections using multiple providers. This is exactly what the JRC implemented in Ispra through both the connections with GEANT/GARR and with the commercial Internet provider BT.

Development of new information systems

➔ AMP action 2.8: Provide an analysis and roadmap for rationalisation of JRC information systems

A corporate information analysis project was launched in 2007 and is carried out by an Information Architect under the responsibility of Directorate B.

➔ AMP action 2.9: Develop new information systems

New information systems were developed in the following areas:

The PUBSY portal has been completed during 2007. PUBSY is the corporate publications management system of the JRC and the portal includes the following features: access to the digital repository of JRC scientific publications and reports, the internal workflow system for publications registration and approval and up-to-date information about the JRC publications policy (see AMP action 2.14 for more details).

A new eLibrary portal is now available for all Ispra staff. It provides a one-stop and easy access to all collections of electronic journals subscribed by the JRC. Access to additional information resources such as open access journals, bibliographic search engines, SCOPUS and inter-library loan are also included. The portal will be extended to all JRC sites and with new features during 2008.

A new project has been launched in the area of Electronic Document and Records Management System (EDRMS) for the storage and retrieval of technical drawings of buildings and technical infrastructure and laboratory records consistent with ISO

quality standards and eDomec principles. Technical specifications for a call for tender have been prepared.

In February 2007 the Portfolio/Trattenute IS, applications were put in production. Payment of fees for crèche, canteen, apartments, busses, business trips etc is now dealt with electronically.

The pilot phase of the Selection Committee Management System (SCSy) intended to manage administrative data related to the set up of selection committees for the recruitment of officials and temporary agents was started in 3Q 2007 in the Ispra Site Directorate.

For efficiency and compliance with Commission guidelines a major effort has been undertaken to migrate current logistic applications from the old Oracle AS to the BEA Weblogic application server infrastructure based on Java technology.

Due to the phase out of Sysper staff tables and the introduction of ComRef, the Human Resources ETL (Extract, Transform and Load) processes in the datapool have been adapted to ensure a smooth transition from Sysper to Comref structure for JRC local applications. Two new major reports have been implemented: the JRC missions reports based on the JRC datapool warehouse, and JRC payment time statistics based on the DG BUDG data warehouse. More than 10 scientific collaborative workspaces have been created on CIRCA.

➜ AMP action 2.10: Establish a development and change management methodology for information system

The Commission's methods and standards applicable for information systems development based on Rational Unified Process (RUP) methodology has been established and new projects and developments follows this methodology. A customized version of RUP called RUP@INLU is the reference implementation for INLU projects.

High Performance Computing initiative

Two workshops open to all JRC staff were organised in 2007. Representatives of 15 High Performance Computing (HPC) projects at the JRC used the opportunity for exchanging information and experience, while invited experts (ECMWF, Swiss Super-Computing Centre, ESA, universities) presented their work and participated in discussions.

A training course in Grid computing was organised in conjunction with the workshop in December. A consolidated strategy for acquisition of HPC capacities for the JRC is being developed in 2008 based on survey work done in 2007. The survey revealed that actually 29 JRC actions/projects already use or need a HPC capability.

Visual communication

A major overhaul of the videoconferencing system in the JRC was started in May 2007 in cooperation with DIGIT. In this two-year project, the old ISDN-based technology is being replaced with a new architecture connecting via IP (Internet Protocol) over the inter-site data network. The new system is integrated in the new videoconferencing architecture of DIGIT. As part of the project, new VC terminals are also being installed in the various JRC sites. At the end of 2007, each JRC site had at least one room equipped according to the new standard. The upgrading will continue in 2008 to cover all VC rooms in the JRC.

A new JRC web conference service that offers a desktop webconference solution between all DG JRC sites was developed and tested in 2007. It is complementary to normal video conferencing and can be used for informal virtual meetings between individuals from their desk. Workstations equipped with webcam, headphones and microphone allow audio-video conferencing, and document sharing (PowerPoint presentation, excel spreadsheet, word document). The target audience for this service is typically JRC wide working groups (Programme Managers Network, Quality Group and so forth). The new service will be made operational in February 2008. An extension of the service to partners outside the JRC is foreseen in 2008.

Participants in the GRID computing training course.

A new MXP3000 end point for videoconferencing in Room 4 in Ispra.

The Director-General's speech to all staff in December 2007 could be followed from the desktop via streaming video.

The new eLibrary portal, an access-point to a wide variety of scientific information.

A desktop video streaming service to broadcast Commission events was operated for the first time during the speech of the Director General in December 2007.

Documents and publications

Access to scientific information

➜ AMP action 2.11: Devise a strategy for more cost-effective access to scientific information

The first step in this direction was the establishment of the new eLibrary portal as a one-stop shop to all resources available in the Ispra site library. This will be further developed to integrate different services and resources available at the different JRC sites and beyond. A Library Board (LB) including two members from each scientific Institute at the Ispra site has been set up to ensure that future library services are user-oriented and in line with JRC priorities (for instance, by focusing on peer-reviewed journals).

A planned alignment of the Ispra site Library with the Commission standard software in libraries' management, namely ALEPH, will contribute to further rationalisation across the whole Commission.

➜ AMP action 2.12: Issue new framework contracts for JRC-wide access to scientific journals and for Inter-library loan

A new framework contract for the supply of scientific journals was signed with EBSCO in September and is currently available to all JRC sites.

The JRC extended the online access to Elsevier journals from 130 to 1.800 by subscribing to the Freedom Collection. Access to SCOPUS, a powerful database with bibliographic information on science, has been procured and is available to all JRC sites.

JRC Filing Plan

➜ AMP action 2.13: Agree JRC filing plan

One of the Internal Control Standards (ICS) in the European Commission requires that all "important" documents handled by the JRC are registered, filed in at least one official file (each file being attached to a numerical structure known as Filing Plan), and preserved by appropriate use of the Commission's registration and filing IT systems.

In 2007, the JRC Filing Plan was defined by the DMO (Document Management Officer), in consultation with all concerned services, integrated in the wider structure of the EC Filing Plan (managed via NOMCOM – Common Nomenclature), and available to all JRC administrative (and part of scientific) staff through ADONIS. More than 300 ADONIS users were trained JRC-wide, and a full set of Document Management guidelines was published on the Intranet.

To facilitate the system running-in, more than 4.000 electronic files were pre-created in ADONIS by the JRC DMO and the Ispra CAD, in principle giving to all JRC Units an immediate reference to file registered documents and correspondence related e.g. with budget, spending, management of human resources, competitive activities, IPR&TT, Internal and External Communication, JRC Institutional Actions, etc. The JRC horizontal Directorates and the Institute MSUs started to use the new system in the last quarter of 2007.

Publications management

➜ AMP action 2.14: Phase in PUBSY version 3

The PUBSY portal was completed in 2007. PUBSY is the corporate publications management system of the JRC and the portal includes the following features: access to the digital repository of JRC scientific publications and reports, the internal workflow

system for publications registration and approval and up-to-date information about the JRC publications policy.

The Portal provides immediate access from within the JRC and the EC to a digital repository of full-text papers and reports produced by the JRC, thus benefiting both the authors and the readers. Currently, publications from 2005 onwards are available online, and backward scanning of previous publications is underway.

A new workflow for submitting/approving/registering all new publications was fully integrated in the Portal. The new workflow is available to all JRC staff and has elaborate facilities, such as the possibility to delegate approval and authorisation, to select more than one JRC Institutional Action and inline help. Last but not least, the Portal supports JRC authors with continuously updated information about the JRC publications guidelines and policy, direct links to Corporate Image Toolkit IT and to the ISI Journal Citation Reports.

Distribution of specific credits amongst the five Project Families of the D&WM programme

●	PF-1	6%
●	PF-2	21%
●	PF-3	30%
●	PF-4	10%
●	PF-5	33%

ISD Annual Management Plan 2007
Objective 3:

"Progressively eliminate the JRC's historical nuclear liabilities at the Ispra site and manage the site's existing nuclear facilities" [Responsible Unit: C01]

The task of eliminating the historical nuclear liabilities at Ispra is the responsibility of the Nuclear Decommissioning and Facilities Management Unit (NDFMU) of the ISD.

The Unit implements the Ispra site Decommissioning and Waste Management Programme (D&WM Programme) whose ultimate objective is to decommission the six shut down nuclear facilities (ranging from research reactors, nuclear and radiochemical labs to waste management facilities), to treat the associated waste, and to retrieve and recondition the waste accumulated in the past.

Following a decision by the 10th D&WM Steering Committee of 20 December 2006, the NDFM Unit was reorganised by adopting a project-oriented structure which mirrors the Programme Work Breakdown Structure. The D&WM Programme internal review was completed in November 2007 in line with the schedule communicated to the Steering Committee. The Programme internal reassessment had effects on the programme strategy and individual projects and the actions defined in the AMP 2007.

Decommissioning and waste management programme management

Budget execution

➔ AMP action 3.1: Meet budget and schedule control targets

With reference to the credits opened at the beginning of 2007 (€18,8 million) on budget line P0501010000, and €0,192 million on budget line M7602010902, the Unit committed at the end of 2007 86% of the open credits on line P, and 99% on line M. With reference to the decommissioning line P the above percentage drops to 73% if we take as reference the specific credits requested by NDFMU at the end of 2006 (€22 million). The expenditure rate compared to 2006 shows a 3% increase of committed credits. The unused credits of Ispra were transferred to the other JRC sites (Petten and Karlsruhe) involved in the D&WM programme.

The discrepancy between committed and planned specific credits is due to:
• Unexpected savings in the implementation of certain activities: this is particularly true for the horizontal costs (Project Family 5) thanks to the reduction of the Safe Conservation costs;
• Revision of the Programme Strategy following the internal review, which led to cancel some Actions (see e.g. Action 3.7) and to implement less costly alternative strategies for some other Actions (see e.g. POCO buffer realisation or sampling and characterisation of liquid waste);
• Delay in the implementation of some projects (see e.g. Action 3.11).

The distribution of specific credits committed in 2007 amongst the five main Project Families (PF-1 to PF-5) of the D&WM Programme is shown in the graph.

Programme and projects

➔ AMP action 3.2: Issue general D&WM Programme Plans

Following the Unit reorganisation, the NDFMU Programme Office started to streamline and revise the whole Programme and Project Management documentation: a minimum set of documents was prepared in order to provide a logical framework and high level guidance to the Programme actors. Starting from 34 Working Instructions identified by the former Project Coordination Office their number has been reduced to seven basic ones, the remaining documentation being downgraded to non-mandatory guidelines.
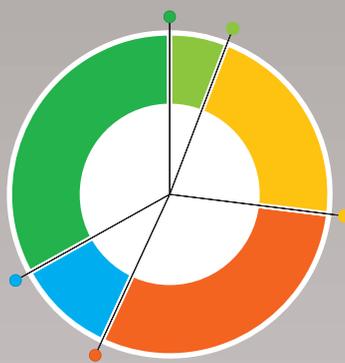
The following planning documents were finalised in the course of 2007:
• Programme Summary Work Breakdown Structure (2Q 2007);
• Budget Plan (1Q 2007) Annual Work Plan (2Q 2007);
• Programme Strategic Plan and Schedule (3Q 2007), developed in the frame of the Internal Review exercise;
• Nuclear Material end cycle strategy (3Q 2007);
• Waste Management Strategy (4Q 2007).

These documents complement the already existing Global Decommissioning Plan, which constitutes a reference framework for all data related to the Programme.

The programme and project management tools (PMTs) adopted by the NDFMU are extensively described in the Strategic Plan document: the PMTs provide a dynamic framework which is regularly updated and evolving as the Programme advances.

➜ AMP action 3.3: Issue D&WM Programme Project Plans

At the project level, the work instructions related to the Project Briefs (PBs), Project Plan (PPs) and Project Organisational Structure definition were downgraded to Guidelines: these less stringent rules resulted in the production of the minimum set of Project Plans necessary for the implementation of most urgent projects. Work Instructions for Gantt Charts design and project physical progress analysis were kept mandatory to maintain the data harmonisation through the entire Unit. Monitoring and reporting of Projects and Programme were simplified as well.

Issue of PBs and PPs progressed well all along 2007. At the end of the year, 37 PBs and 31 PPs were issued. Development of new PBs is considered less critical since the Programme Strategy was issued and will be periodically updated. The remaining un-issued PPs refer to projects very far in the Programme time schedule or to the few still un-resolved technical options.

Information and communication

➜ AMP action 3.4: Prepare ca 7 publications, including posters and brochures; perform periodic web updates

NDFM Unit undertook the following communication activities in 2007:
• Participation in the Public Information Material Exchange (PIME) award in Milan, which is awarded during the annual conference of nuclear communicators organised by the European Nuclear Society (February);
• Posters and Brochures on the D&WM Programme at the Schuman Day (May) including visits to ESSOR and a demonstration of the different nature of radioactivity;
• A special information day for the nuclear industry (September), in order to widen interest in the Unit's calls for tender;
• A poster presentation at the Eurosafe conference in Berlin (November), which is the annual forum of the nuclear regulators organised by Institut de Radioprotection et de Sûreté Nucléaire (IRSN) and Gesellschaft für Anlagen- und Reaktorsicherheit (GRS);
• Presentation of the D&WM Programme progress to the Italian press (December).

In addition, periodical updating of the web site was done to announce major Programme achievements and a complete revision is due in 2008.

Summary of the Project Briefs (PBs) and Project Plans (PPs) issuing progress

Leaflet informing on decommissioning activities at the Ispra site.

Waste drums entering an X-ray chamber for non-destructive examination.

D&WM Project Family 1:
Waste Management facilities realisation

Delivery and installation

➔ AMP action 3.5: Start operation of Waste Management facilities

Radioactive waste accumulated as a result of the past research activities has to be retrieved and reconditioned according to the applicable nuclear legislation and rules. The road towards the completion of the Ispra site radioactive waste management infrastructure was marked by the following milestones:

- Delivery of the STEL (Stazione Trattamento Effluenti Liquidi) and WCS (Waste Characterisation System) operation licenses (2Q 2007);
- Completion of the nuclear and combined tests of the MCS (Material Clearance System), WCS and ABU (Abrasive Blasting Unit);
- Delivery and installation of the XDRS (X-ray Digital Radiography System) allowing Non-Destructive Examination of the Bituminised Drums and other heterogeneous waste in Drums;
- Completion of the basic RAPL (Radio Analytical Process Laboratory), which will support the operation of STEL and MCS with almost real time analysis of samples of effluents and materials for free release.

The release of the Area 40 Conversion license by the Ministry of Economical Development (MSE) will allow the effective start of the Waste Management Facilities: the conversion licence request together with all the supporting technical documentation were dispatched to the Nuclear Regulatory Authority (APAT) in 4Q 2007.

The above-mentioned installations are ready to perform the first campaigns of waste characterisation and effluents/material treatment and release.

D&WM Project Family 2, 3 and 4:
waste management, nuclear materials
management, and decommissioning projects

This area has shown good progress in 2007, especially with respect to nuclear materials management. In order to proceed with the shutdown facilities licence downgrading and to start their dismantling, an essential step is to complete removal of the remaining fresh and irradiated nuclear material.

Alkali metals

➔ AMP action 3.6: Undertake preparation activities for removal of irradiated Na and fresh Na/NaK

Alkali Metals (Sodium and Sodium-Potassium alloys) were accumulated during the past nuclear research activities in relation to the behaviour of metallic liquid coolants employed in the fast breeder reactors. Part of them was not used at all and can be considered as hazardous material (fresh Na and NaK), the remainder is slightly irradiated and/or contaminated. In 2004 a first lot of fresh Sodium (nearly 1 ton) was already shipped out of the Centre.

Following a call for tender launched in 2005 a contract for the characterisation, transfer of ownership and neutralisation of the irradiated Na was established in late 2006 and the characterisation activities were performed during 2007. The next contract step is now awaiting clearance by MSE, in order to ship this material for incineration in an authorised facility.

With reference to the second lot of fresh Na and NaK, NDWMU signed a contract with UKAEA (United Kingdom Atomic Energy Authority) for the material transfer of title and neutralisation. The characterisation activities will start in 2008. The third lot of contaminated Sodium will be tendered in 2008.

Bituminised drums

➜ AMP action 3.7: Undertake procurement activities for Bituminised drums validation test

The bituminised drums contain various combinations of VLLW (Very Low Level Waste) and LLW (Low Level Waste) which is mainly compacted technological and metal waste, and sludge and inert matrices such as bitumen, pebbles, and vermiculite that originated from routine nuclear activities conducted at the Ispra site. Known as building 41h, three 50 metre long trenches, each covered with earth, were completed during the period 1966-1988, and host about 6.500 standard 200 litre drums, stacked in three layers.

The drums must be recovered from their present location, characterised and reconditioned. Given the novelty of the above task, JRC Ispra intended to perform a validation test on a number of drums to demonstrate their safe recovery, non-destructive examination (NDE), statistical sampling and destructive analyses, preliminary non-destructive assay (NDA) characterisation, containerisation and final NDA characterisation.

The initial drums strategy was axed on the use of Ispra NDE (XDRS) and NDA (WCS) existing facilities, and relying on the Operation and Maintenance framework contract for external support. It has been estimated that a maximum of 1.200 drums per year can be characterised using the WCS.

In 2007, the Programme Manager envisaged to employ a turn-key contract to undertake all the activities related to the recovery of the bitumen drums. The revision of the contractual strategy led to suppress the validation test and also the procurement of the environmental tents for drums safe recovery. The preparation of the technical specification for this turn-key contract will be undertaken in the second half of 2008, with a view to awarding it in 2009.

Radiological sources

➜ AMP action 3.8: Undertake service activities for radiological sources

Area 40 stores about 1.400 disused radioactive sources and samples. A reference processing strategy was defined in order to have a turn-key contract to transfer the sources and their titles to an external contractor. The contractor will then either dispose the sources or recycle them within industry. A disposal path to the Italian national repository (ENEA Casaccia) is currently available and agreed by the repository owner (ENEA).

The competitive dialogue for the contract awarding was carried out with different service providers all along the second half of 2007. A positive conclusion of the negotiations led to awarding two of the three lots of unused sources to a German company and the third one to an Italian provider. The schedule initially fixed to complete the contracting procedure was respected and, giving the novelty of the employed procedure, NDFMU was complimented by the JRC internal procurement and contract committee (PPAG). It is envisaged that first sources will be transported off-site during 2008.

Container holding radiological sources.

Non-irradiated nuclear material

➜ AMP action 3.9: Remove NNM (Non Irradiated Nuclear Material) and HEU (High Enriched Uranium) from the site

The successful completion of the shipment off-site of HEU (High-Enriched Uranium) and NNM (Non-Irradiated Nuclear Material) was one of the major achievements of NDFMU in 2007. In mid-November a convoy of eight lorries left the Ispra site charged with almost 20 tons of NNM to be transported to the harbour in La Spezia and then with a special vessel to the USA.

Previously, at the end of September 2007, another transport of some 22 kg of HEU was carried out with success. The nuclear material was shipped to France for recycling. The contract will be concluded with the title transfer to the material following its characterisation performed in France.

The above mentioned two shipments reduced the inventory of NNM present at Ispra by more than 90%, largely above the target fixed in the AMP. A third shipment will be carried out in 2008. Finally, early in 2007 arrangements were concluded for the shipment off-site of PuO2 samples employed in the Perla Laboratory for the Safeguards research activities.

Irradiated nuclear material

➔ AMP action 3.10: Undertake refurbishment of hot cells to recover the INM (Irradiated Nuclear Material)

During four decades of nuclear research, the Ispra site had accumulated a variety of irradiated nuclear material (INM), much of which is held in the ESSOR reactor pool, in the ADECO hot cell 4411 and in the so called Dry Wells, an underground nuclear material storage facility in Area 40 that is licensed for storing fissile material and irradiated fuel.

The INM management strategy developed by JRC-Ispra envisages the safe storage and the containerisation of the material in packages (casks) suitable for final disposal. It is assumed that the spent fuel packages will be suitable for road transport. In order to achieve the general project objective of removing material from site, considerable preparatory work is required and in particular the realisation of a new installation in the reactor's ADECO hot cells (TSA, Transit Safe Area) for temporarily hosting the materials and to permit their containerisation.

A contract for the refurbishment of the ADECO hot-cell dry store TSA was awarded in 2006 and the design phase started in 2007. In July 2007 the TSA construction license was issued by MSE and by the end of 2007 the basic design was completed. The contract regarding the second phase covering the detailed design and construction should start in the first quarter of 2008, to be completed in 2009.

In addition, in early 2007 two study contracts to evaluate the feasibility of reprocessing the INM were concluded resulting in the decision to exclude this option for the final destination of the INM owing to cost. A task force for the definition of the strategy and the action plan for the nuclear material end cycle was set up in the framework of the Unit reorganisation and of the internal Programme reassessment. The conclusion was favourable to the option to put the material in dual-purpose dry storage containers to be kept either on site or to be shipped to an outside storage facility.

Finally the refurbishment of the ADECO tele-manipulators and the replacement of the lead glass windows supporting the TSA project was successfully concluded by 2Q 2007.

Characterisation of the shutdown nuclear installations

➔ AMP action 3.11: Complete physical and radiological characterisation of shutdown facilities

In 2007 the radiological and physical characterisation of the six shutdown nuclear installations continued, this being the preliminary step in order to prepare the detailed decommissioning plans for dismantling the site's two reactors and the other disused nuclear facilities.

Unfortunately this activity, managed through two service contracts, experienced difficulties in the sense that the historical and operative documentation applicable to the facilities could not be fully retrieved. This was a consequence of the fact that responsibility for part of the shut down facilities was transferred to NDFMU only in recent years.

In November a meeting was called with the contractor in charge of the characterisation and a revised schedule was agreed, which will delay the conclusion of this action by six months. As a result, it was not possible to complete the characterisation of the LCSR (Laboratorio Caldo Studi e Ricerche) and RCHL (Radiochemistry Laboratory) plants as planned in the AMP. Concerning RCHL this delay is partially compensated by an anticipated start of the decommissioning activities that are proceeding together with the plant characterisation.

Transport off-site of Non-Irradiated Nuclear Material.

Nuclear facilities management: ensuring and maintaining full legal and organisational requirements

In order to support the development of the D&WM programme, part of the Unit staff is dedicated to administrative, technical and management duties. These duties are centred on licensing, safety and quality management, also encompassing the coordination of nuclear emergency exercises and of routine inspections by Euratom and IAEA inspectors.

Technical prescriptions and licensing

➜ AMP action 3.12: Ensure that technical prescriptions and license requirements have been satisfied (100%)

During 2007, thanks to the reactivation of the JRC-APAT Joint Management Committee, good progress in the licensing area was achieved:
• Delivery of the STEL and WCS operation licenses;
• Downgrading of the RCHL licence to a local decree which will permit to proceed to an anticipated decommissioning of the facility reducing the Safe Conservation costs.

In the frame of intensifying contacts and exchanges between the JRC and APAT, preliminary discussions on the Interim Storage criteria for Cat. 2 waste started already in May. The project preliminary assumptions, concerning dose limits, sky-shine, earthquake, tornado, aircraft impact etc., were presented and discussed with APAT.

The positive trend in the relations with APAT/MSE observed since the beginning of 2007 continued in the second half: new authorisations were issued (TSA construction, neutron generator in area 40, FARO license downgrading and local authority permit to store POCO waste and material coming from other facilities) or are expected to be issued in the near future (Area 40 license conversion).

Considerable support was given by the Italian central and local Authorities for the execution of the NNM transports. Openness was noticed also in the discussion of the design criteria of the LLW Cat.2 ISF (Interim Storage Facility) with reference to the previous stringent interpretation of the law.

100% of the technical prescriptions and surveillance norms linked to the 20 licenses owned by the NDFMU were satisfied during 2007. Five inspections were performed by the Italian Authority APAT certifying that the legal prescriptions, the license requirements and the organizational requirements were fulfilled.

Safety

➜ AMP action 3.13: Meet safety targets

In all phases of decommissioning, workers, the public and the environment must be fully protected from associated radiological and non-radiological hazards. This general principle translates into the following specific safety objectives:
• Maintain workers and public exposures during normal operation and planned work as low as reasonable practicable;
• Adopt any proper reasonable action to prevent an accident from occurring;
• Minimise the consequences of an accident, should it occur, on people and the environment.

In 2007, NDFMU met all targets specified in the AMP concerning safety, in particular:
• The number of working injuries was kept < 5;
• The number of working injuries involving radiological hazards was equal to 0 (same as in 2006).

Quality assurance

➔ AMP action 3.14: Meet audit targets

The NDFMU quality assurance system is certified since the end of May 2006 according to ISO 9001:2000. In April 2007 this certification was successfully renewed by the external certification body DNV. The Unit has started to revise its quality manual, procedures and working instructions in order to be compliant with the new Unit organisation. In parallel, NFDMU started to integrate its quality management system with the Ispra Site Directorate certification.

Number of quality audits performed in 2007		
Target	Achieved in 2007	Achieved in 2006
Number of standard internal quality audits on NDFMU	15	10
Number of external quality audits on suppliers	13	10
Number of external quality audits on NDFMU	1	1
Number of non-conformities	3	2

Radioprotection: protecting workers, surrounding population and the environment

➔ AMP action 3.15: Execute radioprotection actions as requested

In 2007, NDWMU's radioprotection sector, supported by the services of the external contractor Iberdrola, guaranteed the safe deployment of the activities in the controlled areas.

It executed 100% of the requested radioprotection actions, in such areas as:
- Support to works in controlled areas;
- Performing routine checks of dose and contamination at JRC facilities;
- Radioprotection support to safe conservation activities in controlled areas;
- Radioprotection support to Cyclotron;
- Provision of electronics technicians to LabEl to ensure the proper functioning of radioprotection instrumentation.

➔ AMP action 3.16: Keep radioactive discharge of the Ispra site < 5% of the maximum allowable discharge per year

The Unit's environmental laboratory monitors the site releases towards the authorised discharge formula: a network of area monitors integrated with periodical sampling of water and components of the food chain guarantees the respect of the legal discharge limits. In 2007, these measurements proved that the current site releases were well under the authorised discharges, just like in previous years: the radioactive discharge of the Ispra site was at 0,15% of the maximum allowable discharge of 3,7E10 Bq per year.

ISD Annual Management Plan 2007

Objective 4:

"Manage the human and financial resources of the Directorate, through effective deployment and efficient implementation of the associated administrative processes, while assuring their legality and regularity, and achieving good value for money" [Responsible Unit: C06]

Human resource management, including training

Recruiting

➔ AMP action 4.1: Improve ISD Human Resource Management

The objective of the ISD Human Resources (HR) Management is to act as an administrative focal point for all issues related to HR within the ISD, i.e. recruitment of internal and external staff, development, monitoring and updating of the ISD staff table, mobility and career development.

In 2007, the ISD administrative procedures for Human Resources Management were further streamlined, also in view of the ISO 9001:2000 quality system that has been implemented in the ISD Management Support Unit.

As a result, the number of vacancies in the Directorate could be filled faster and more effectively, as is witnessed in the table below:

Staff filling rate in 2007				
	Definition	Results 2007	Target 2007	Result 2006
Permanent staff	Number of officials present / number of authorised permanent posts * 100	92,8%	93%	90%
Permanent staff and Contact Agents	Number of officials + Contract Agents present (including Contract Agents replacing staff on maternity or other long term leave) / total number of permanent posts + Contract Agents authorised * 100	96,3%	95%	95%

The preparation of an ISD Human Resources strategy, which was part of AMP action 4.1, has been postponed awaiting the release of the general JRC Human Resources policy (November 2007). A final version of the ISD strategy will be made available in 2Q 2008.

Staff evolution

ISD monitors the evolution of its workforce in terms of contract types, nationalities present, gender balance and age. While there are no dramatic changes when comparing 2007 with previous years, a positive and hopefully sustainable development is the relative increase of women in both the permanent and temporary staff categories.

Evolution of ISD workforce since the creation of the Directorate in 2004					
	ISD Staff Evolution	2004	2005	2006	2007
By type of contract	Officials	75%	69%	66%	64%
	Temporary staff*	25%	31%	34%	36%
Nationalities		15	16	21	21
% of women	Officials	26%	26%	26%	29%
	Temporary staff	49%	53%	50%	53%
Average age	Officials	47,68	48,41	48,04	47,58
	Temporary staff	31,14	32,66	34,39	35,29
% of Italian staff	Officials	63%	62%	59%	59%
	Temporary staff	92%	87%	89%	85%

*Note that one third of the temporary staff in 2007 belongs to Function Group I who can be granted an indeterminate contract (type 3a) from 2008.

Learning and Development

➔ AMP action 4.2: Improve skills base in the ISD

The ISD training team delivered some 50 courses to train staff in the areas of management skills, quality management, internal communication, safety at work, informatics, use of technical equipment and internal procedures. An outstanding result was the organisation of 34 staff workshops in the context of the ISD Vision and Values initiative (see AMP action 5.6). In addition to these courses, nearly 100 staff members participated to external training actions in order to improve their technical knowledge or personal skills. The average number of training days per year and staff member rose to 7 days in 2007.

Financial resources management, including legal support

Payments

➔ AMP action 4.5: Maximise ISD payment performance

ISD performance regarding time-to-payment was very satisfactory in 2007. ISD managed to pay 89% (AMP target 70%) of invoices within 30 days, and 99,6% (AMP target 98%) within 45 days.

A very good performance, among the best within the JRC, was also reached by ISD in December when 98% of invoices received in that month were paid within the legal payment times. This performance must be seen in comparison with a mere 61% in January 2007, while the average annual performance is 89%.

Two sub-indicators of interest here:
• The payments made in time were on average executed already 11,5 days before the due date;
• The payments that were delayed were executed on average only 5,9 days after the due date, hence reducing the risk of late payment interest.

Procurement and contracting

➔ AMP action 4.6: Increase effectiveness and efficiency in the management of procurement and of contracts

Given the importance of large value (> €60.000) procurement procedures that underpin many ISD activities, primary focus was given to increasing the efficiency and ensuring the successful outcome of such procedures.

The IS Director established an independent assessment step of ISD files to be presented to the JRC's PPAG (Public Procurement Advisory Group), and of the 55 PPAG files from ISD (of which 43 were examined by the group), the Directorate received only one negative opinion, while the volume of files receiving no remark increased from 37% to 44%. ISD also successfully presented the first ever competitive dialogue public procurement procedure undertaken within the JRC.

Towards the end of the year, training courses were held on how to improve the preparation of PPAG files with the aim of mitigating negative opinions, further reducing critical remarks, and promoting best practices. At the same time, steps were taken to establish a common platform for the macro-management of ISD large value procedures in order to improve the flow of information and increase transparency between the centralised Contracts and Procurement Service in Co6 and its client units.

➔ AMP action 4.3: Enhance achievement of best Value-for-Money in ISD procurement

An important aspect of procurement is the need to secure Value-for-Money. Value-for-Money considerations have therefore been progressively included in supporting documentation for (important) purchase operations, so as to sharpen the awareness of the ISD financial actors dealing with such dossiers.

Procedures and tools

➔ AMP action 4.7: Rationalise financial procedures

Substantial improvements were also achieved on the centralisation of expenses within the competent ISD operational units. Shared financial circuits, involving ISD units financing and authorising the expenses on the one hand and ISD units technically competent in the field on the other, have practically disappeared.

Accounting data quality has also kept improving during the year, thanks both to a greater awareness from the FIAs (Financial Initiating Agent) and to the attentive ex-ante checks performed by FVAs (Financial Verifying Agent). Errors detected were immediately corrected and errors inducted by the electronic systems reported to the JRC accounting correspondent. Further structural improvements are expected in 2008 in the field of immovable fixed assets accounting.

➔ AMP action 4.4: Evaluate methods and software tools to support the resourcing of projects

An action was also launched to evaluate methods and tools allowing to systematically plan the resources of ISD activities. However, this action was not pursued further following the decision by JRC management to introduce SAP-PS as from January 2008.

ISO 9001:2000 certificate awarded to ISD in October 2007.

ISD Annual Management Plan 2007

Objective 5:

"Manage the Directorate by: performing the strategic planning of its operations; implementing and maintaining a quality management system; and ensuring good communication within the Directorate, towards its JRC customers and with external stakeholders" [Responsible Unit: C06, in close collaboration with all ISD Units]

Strategic planning

➜ AMP action 5.1: Perform a contrastive analysis of ISD and similar research support structures in Europe

A preliminary analysis of support functions across the JRC was already performed by the Internal Audit Unit in the frame of the "MSU Audit". In following up on the audit's recommendations, ISD analysed the outsourcing potential of certain ISD service areas, and submitted its findings to the IA Unit in December 2007. Benchmarking activities with organisations outside the JRC, concerning specific service areas, are scheduled for 2008.

➜ AMP action 5.2: Implement an ISD reporting and review scheme

Both the actions in the ISD AMP and the processes defined in the emerging ISD quality system call for regular reporting based on well-defined indicators and targets. These, and the associated reporting mechanism, will be re-examined in the light of AMP 2008 reporting needs, the use of SAP-PS, and feedback received from ISO audits.

Quality management

➜ AMP action 5.3: Finalise preparations for ISO 9001:2000 certification

ISO 9001:2000 certification

In 2006 ISD started preparatory work towards ISO 9001:2000 certification of its quality management system. In 2007, the horizontal processes of the organizational entities Coo (Director) and C06 (Management Support) and all the processes relating to C04 (Site Maintenance and Operations), were awarded ISO 9001:2000. Unit C01 (Nuclear Decommissioning and Facilities Management) was already certified in 2006. The certification work will be further intensified in 2008 aiming at extending the current certificate to all the Units of ISD.

Customer satisfaction survey

➜ AMP action 5.5: Conduct a new ISD User Satisfaction Survey

ISD tests the level of satisfaction of the staff working at the Institutes and Directorates at the Ispra site with respect to the services offered by ISD like the canteen, the medical service, the maintenance of the site, every two years through site-wide surveys. Following a first survey in 2005, the second survey which took place in May 2007 showed an improvement in the satisfaction for the services, the staff and the communication fields of 4%, 2% and 6%, respectively. In particular, 58% of staff at the Ispra site expressed to be satisfied or very satisfied with the services rendered by ISD, against 15% being dissatisfied or very dissatisfied.

An action plan which is based on the results of the survey has been prepared by ISD management in order to further improve the Directorate's services. A total of 67 actions, many of which of very practical nature, have been identified and are being implemented. The action plan will be completed with few exceptions by the end of 2008.

ISD Customer Satisfaction Survey 2007
Overall satisfaction with service
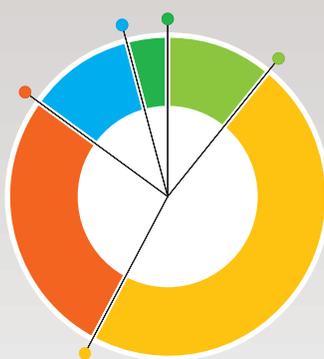
● Very satisfied	11%
● Satisfied	47%
● Neutral	27%
● Dissatisfied	11%
● Very dissatisfied	4%

Staff satisfaction survey

In July 2007 JRC conducted the third JRC-wide Staff Satisfaction Survey, which has been concluded with a high participation of ISD personnel (74% of the ISD staff), the highest amongst the Institutes and Directorates on site.

The survey showed strong growth in the appreciation of ISD services by our customers; the average satisfaction of the staff of the three scientific Institutes at Ispra (IPSC, IES and IHCP) regarding the services provided by ISD, increased from 23% in 2004 to 37% in 2007. However, the survey revealed also that ISD staff, as the staff of the JRC in general, is less happy with certain aspects of their situation with respect to 2004, in particular regarding: confidence in management; recognition; and prospects for advancement.

In October 2007 all Directors created an Institute/Directorate working group chaired by the Deputy Director-General of the JRC, in order to analyse the situation and identify follow-up actions. In addition to this corporate initiative and aiming at a fast response to the aforementioned weaknesses, ISD management prepared a compact set of practical actions, the implementation of which already started in late 2007.

Suggestions and Complaints

The Suggestions and Complaints service (operated through a functional mailbox) started in September 2005. In 2006 a total of 77 e-mail messages from staff members had been received. In 2007, with 195 messages the number almost tripled compared to 2006, thus indicating consolidation and acceptance of the Suggestion and Complaints service.

Moreover, the operation of this service benefited from the Quality management approach according to ISO 9001:2000, allowing a better follow-up of the messages received by way of performance indicators. As a result, the target of having 75% of the complaints and suggestions answered within 10 calendar days has been achieved.

Number of Suggestions and Complaints received since the launch of the service in September 2005.

Communication management

Internal communication and service culture

➔ AMP action 5.6: Conduct series of workshops focussed on internal communication and service culture

As evidenced in the staff satisfaction survey (see previous section), the satisfaction of ISD staff has been dropping with respect to previous surveys, in particular with respect to confidence in management; recognition; and prospects for advancement.

The ISD Vision and Values initiative which ISD launched in the early summer of 2007, is designed to counter this trend. This initiative aims at improving the behaviour of ISD staff with a view to – gradually – creating a working environment that is both highly efficient as well as attractive and motivating for staff.

As a first step, ISD gave itself a Vision, i.e. an ambitious target for the future:

"Our aspiration is to make the Ispra Site one of the most attractive and efficient research campuses in Europe. To achieve this we commit to make ISD an example of good service: anticipating and meeting our customer needs. We will be recognised within JRC for our "can do" attitude; our realistic planning; and the quality and timeliness of our delivery. Our people will feel involved, as a part of the ISD team; confident and recognised for good performance. They will be well supported; led by responsive and enabling managers; and empowered to use their own initiative to solve customer problems and continuously to improve our organisation."

Having defined the Vision, ISD moved on to spelling it out further, in particular, concepts such as "good service", "can do" or "involving people". The idea was to lay down some principles defining how each of ISD should act and behave in future, towards colleagues and customers. This set of principles was to become the 'Values' of the Directorate and its staff.
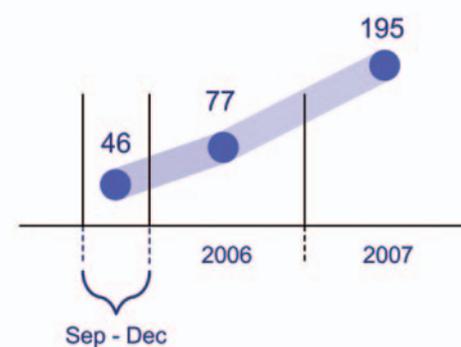
One of the working groups discussing possible 'Values' for the Directorate and its staff.

The method that was chosen was to seek to involve all ISD staff in the Values finding process. In the end, 280 colleagues participated in the 34 workshops which were organised in September and October 2007. The results from the workshops were then translated into positive values and behaviours. The resulting "ISD Values statement" was presented to all ISD staff in January 2008, at the Director's New Year reception.

However, the Vision and Values initiative of the ISD has not come to an end with the publication of the Values. On the contrary, the challenge for 2008 will be their embedding in the organisation: making staff including managers adopt and 'live' them.

ISD Values statement.

Intranet development

➜ AMP action 5.7: Increase the visibility of ISD services by developing a new ISPRAnet

In 2007, the main achievement in the communication field was the launch of a completely new ISPRAnet. Development work started in the beginning of 2007, following a requirement analysis conducted in 2006. The ISD intranet now consists of three distinct subsections aimed at different target groups on the Ispra site:

- "ISPRAnet" describes the manifold support services that the Ispra Site Directorate provides to all staff based at the Ispra site, ranging from site development and maintenance to logistics and health, safety and security;
- "Life in Ispra" intends to provide all staff on the site with latest information concerning setting up home in Italy, finding a house, using childcare facilities, enrolling in sports or social clubs and other practical information;
- "ISDnet" is the internal communication platform of the ISD, featuring issues of concern to all ISD staff as well as pages specific to Units.

These websites have been developed in concert with the JRC corporate intranet to ensure a homogeneous structure and navigation and information content that is complementary, not overlapping. Improvements foreseen in 2008 include the translation into Italian of key pages as well as new features to make the sites even more interesting to users.
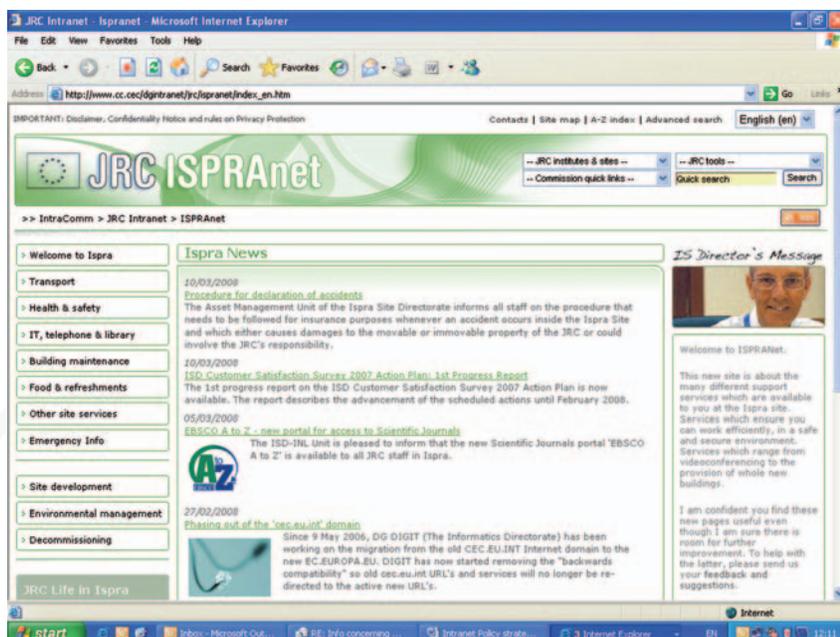
Home page of the new ISPRAnet.

Publications

➔ AMP action 5.8: Publish an Annual Report 2006

In line with the environmental policy of the JRC adopted in 2007, ISD is as much as possible limiting the amount of publications which go to print. The idea, naturally, is to rely wherever possible, on online information such as intranets and broadcasts. This has led to the suppression of a printed update of the 2007 Site Guide, the content of which is to a large extent available on the new ISPRAnet.

An exception was the 2006 Annual Report of the ISD, hardcopies of which were distributed to all staff at the Ispra site in an endeavour to make sure everybody is aware of the services which are available and of the progress of projects in important service areas. The 2007 Annual Report will be available in print to all members of the Ispra Site Directorate, the JRC hierarchy as well as to anyone specifically requesting a print copy.

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