PROJECT FICHE 3.1: Support to free movement of goods - quality infrastructure

1.1 CRIS Number: 2008/20-311
1.2 Title: Support to free movement of goods - quality infrastructure
1.3 ELARG Statistical code: 3.1
1.4 Location: The former Yugoslav Republic of Macedonia

Implementing arrangements

1.5 Contracting Authority (EC)
European Commission, EC Delegation, on behalf of the beneficiary

1.6 Implementing Agency
European Commission, EC Delegation, on behalf of the beneficiary

1.7 Beneficiary (including details of project manager)

The leading beneficiary institution is the Ministry of Economy, Department of Internal Market and EU Department, on behalf of the Institute for Standardization (ISRM), the Institute for Accreditation (IARM) and the Bureau of Metrology (BoM), which are the direct beneficiaries of this project.

The coordinators from the Ministry of Economy are:
Mrs. Neriman Dzeladnini, Head of Department for EU affairs
Ministry of Economy
e-mail: Neriman.Dzeladini@economy.gov.mk
telephone: ++389 (0) 2 - 3093-423

Biljana D. Stojanovska, Head of Department of Internal Market
Ministry of Economy
e-mail: Biljana.d.stojanovska@economy.gov.mk
telephone: ++389 (0) 2 - 3093-443

From the Institutions – direct beneficiaries, the coordinators are:
1. ISRM, Ms. Zaklina Sekovska, Director
2. IARM, D–r Trpe Ristoski, Director
3. BoM, Mr. Danco Pendovski, Head of Metrology Department

1.8 Overall costs (VAT excluded)[1]: EUR 2.900.000

1.9 EU contribution: EUR 1.800.000

1.10 Final date for contracting
Two years from the date of the conclusion of the Financing Agreement

1.11 Final date for execution of contracts

[1] The total costs of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated.

Two years from the final date for contracting

1.12 Final date for disbursements

One year from the final date for execution of contracts

2. Overall Objective and Project Purpose

2.1 Overall Objective

The overall objective of the project is to contribute to free movement of goods with the EU and enhance the free trade, through reinforcing the capacity of quality infrastructure in the areas of accreditation, standardization and metrology.

2.2 Project purpose

The project purpose is to provide technical and material assistance to the relevant institutions - the Institute for Standardisation (ISRM), the Institute for Accreditation (IARM) and the Bureau of Metrology (BoM) - to implement the harmonized legislation in the field of free movement of goods and to provide high quality services to Business Community; Consumers and Citizens; and Conformity Assessment Bodies.

2.3 Link with AP/NPAA/EP/SAA

The objectives of the project contribute towards the implementation of the **Stabilisation and Association Agreement** Article 73 related to standardisation, metrology, accreditation, and conformity assessment where it calls the country to take the necessary measures in order to gradually achieve conformity with Community technical regulations and European standardisation, metrology, accreditation and conformity assessment procedures.

For quality infrastructure, the **Accession Partnership** outlines a series of priorities. The AP stresses the importance of ensuring a segregation of tasks between the various functions (regulation, standardisation, accreditation, metrology, conformity assessment and market surveillance) for conformity assessment procedures and calls for adoption and implementation of horizontal framework legislation to complete the necessary infrastructure. It also calls for drafting a comprehensive strategy with milestones for implementation of the acquis for the relevant horizontal organisations (standardisation, accreditation, metrology and market surveillance) together with target dates and clear responsibilities for introducing and effectively implementing legislative measures and enhancing administrative capacity in the different sectors. Furthermore, it urges the speed up the efforts to become a full member of the European standardisation organisations.

The **National Plan for Adoption of Acquis** with regard to quality infrastructure intends to further pursue legal development and harmonisation with the acquis, strengthen administrative capacity building as well as to establish an appropriate quality infrastructure in line with that of EU.

2.4 Link with MIPD

The **Multi-Annual Indicative Planning Document** indicates the need for strengthening the administrative capacity needed for quality infrastructure, including in the fields of standardisation, metrology. It urges for priority to be given to projects which will address the poor quality infrastructure.

2.5 Link with National Development Plan

The **National Development Plan** underlines that there is obsolete and internationally not recognized system of Metrology, standardisation, testing and quality in the country and stresses that in order to be able to operate normally within the international community, standardization of products and their quality are essential. The Plan calls upon the authorities to ensure proper functioning of the national institutions dealing with metrology, standardization, testing and quality control as a must if the private sector would like to produce products and services that are compatible with the EU requirements in this area.

2.6 Link with national/ sectoral investment plans

The project directly links to the following key strategies and action plans in the sector (see for a more extensive list annex 3):

- National Policy for Accreditation
- National Policy for Standardisation
- Policy for development of metrological infrastructure

3. Description of project

3.1 Background and justification

The Ministry of Economy, the Institute for Standardisation (ISRM), the Institute for Accreditation (IARM) and the Bureau of Metrology (BoM), play a key role in establishing an adequate quality infrastructure to provide adequate support to the business community.

Key legislation, permitting the establishment of a favourable environment for private sector development has been enacted or is in the process of being so, including the standardization law, accreditation law, metrology law, laws related to New Approach and Old Approach, by-laws on technical requirements, by-laws on quality methods, by-laws on notification procedures. Around 35% of the domestic production relies on these laws and by-laws, mainly concerning pressure equipment, simple vessel pressure, machines, low voltage, electromagnetic compatibility and others.

As the country is progressing with its integration with the EU internal market, a broad range of rights and obligations are arising to the country. The rights include safety, security, health and access to information. Obligations include protecting the environment and respecting the safety, property and privacy of others. Quality infrastructure through a system of standardisation, accreditation and metrology is the tool that helps the country to exercise these rights and obligations.

Enhancing the quality infrastructure in the country opens up markets to the domestic products but also brings environmental protection, safety, security, health and access to information and knowledge. Increasingly, better quality infrastructure would lower the barriers that exist in the trade of the country with the EU and other global markets. Quality infrastructure provides higher quality at lower costs by ensuring that competition exists between producers. It makes it easier for consumers to make an informed choice about equipment or services that they buy. Quality infrastructure fosters commerce and fair prices and gives access to global markets. As the country moves towards aligning its legislation with the acquis, improved quality infrastructure will facilitate the development of domestic industries that will drive the country's economy, contributing to the well being of all of citizens.

The Ministry of Economy has made considerable progress in approximation of the legislation framework to that of the European Union and World Trade Organization. However,

harmonising EU technical legislation arising from Chapter 1 of the acquis (free movement of goods) with national legislation still requires significant attention. Directives to be implemented include new approach directives with CE marking, new and global approach directives without CE marking, other new and global approach directives and other standards-receptive directives.

The country has established necessary structures responsible for implementation of EU technical regulations, including Institute for Standardisation (ISRM), the Institute for Accreditation (IARM) and the Bureau of Metrology (BoM). In order for these bodies to appropriate implement their mandate, further support is required to bring the country's quality infrastructure in line with that of EU member states, and three areas emerge as priority:

- Strengthening the capacities of the laboratories and testing facilities
- Support in the implementation of legislation harmonized with the Directives of the New Approach, Global Approach and Old Approach
- Membership of the country in the relevant European and international bodies

The present project will therefore provide support in these three priority areas to the Institute for Standardisation, with a focus on the standardisation, the Institute for Accreditation, with a focus on the accreditation, and the Bureau of Metrology, with a focus on metrology.

Specific background concerning the Institute for Standardisation

The Institute for Standardisation (ISRM) is a full-fledged member of the ISO (International Organisation for Standardisation) since 1995, associate member of the IEC (International Electro-technical Commission) since 14 January 2005, associate member of the CEN (European Committee for Standardisation) since 1 July 2003 and the CENELEC (European Committee for Electro-technical Standardisation) since 3 March 2005. On 15 December 2006, ISRM and ETSI signed a Memorandum of Understanding in the area of telecommunications.

The Institute's activities are focussed on establishing a national standardization system in line with European and international rules and practices, and contributing to quality and competitiveness of the national economy.

The Institute's Governance structure is established and consists of an Assembly and a Council. The Assembly consists of companies, conformity assessment bodies, education institutions, consumer associations, government bodies (ministries), public institutions and others. At the Institute, there are 29 national technical mirror committees (ISRM TC) with a different scope of activity that are active in the process of adoption of the European standards. Until the end of 2007, 3136 European standards and other standardization documents were adopted. The activities for establishment of other technical committees are ongoing.

.

Further capacity building of the Institute is needed for the adoption of European standards as well as for the fulfilment of criteria for full membership in CEN and CENELEC, as required by the Stabilisation and Association Agreement. In this context, priorities include, adoption of European standards, withdrawal of national conflicting standards, development of appropriate technical infrastructure for standardisation, participation in the European standardisation work, enhancement of operational and IT infrastructure required for the exchange of the high volume of data and documents communication within the CEN/CENELEC system, and implementation of the CEN/CENELEC policy on copyrights and exploitation rights of the standards and standardisation documents.

The Assessment Report conducted by CARDS 2006 Regional Quality Infrastructure project and published in February 2008, equally calls for new efforts in the area of Standardisation: increasing ISRM's resources in fulfilling its obligations; concentrating its efforts on a joint approach with other quality infrastructure providers, in particular IARM and BOM; educating the market and Government on the very demanding actions required as the country is progressing towards EU membership; trainings on standards development through the entire process of CEN/CENELEC stage codes, on data management software – applying IT tools compatible with CEN and CENELEC basic principles to support standardization activities – establishing, maintaining and upgrading of database, preparation of files in uniform format, and on branding, marketing, publishing and public relations.

Specific background concerning the Institute for Accreditation

The Institute for Accreditation (IARM) is established as a special public institution performing tasks and duties of a national accreditation service in the country. The Institute performs specific tasks in the area of conformity assessment by means of certificate.

Accreditation is an activity of public interest. The rules for accreditation are in full compliance with the European and international standards, and the European best practices in this area. The Institute represents the country in the European and international organisations for accreditation and participates in their work. In 2007, the Institute became a full member of EA (European Co-operation for Accreditation, a European network of nationally recognised accreditation bodies based in the European geographical area).

The strategic document that guides the work and development of the Institute is the National Accreditation Policy. The Institute realises its tasks through various bodies, including Council, Financial Control Board, Accreditation Board, Technical Committees (Laboratory, Certification and Inspection), Personnel evaluation committee, Appeals Committee and Institute's personnel. Presently, the Institute has nine full-time employees, and it engages outside expertise, nationally or nationally, in the assessment process, according to the needs. The Institute has eleven Lead Assessors (6 of them are internal) and 60 candidates for assessors and experts in different fields, and 12 trainers in the field.

The Institute has established a quality system and documentation and started with accreditation procedures. The Institute has experience in the accreditation of testing labs and inspection bodies however it lacks experience in accreditation of calibration labs, product and quality system certification bodies and limited experience in accreditation of environmental management system (EMS) and European Management and Audit Scheme verifiers. So far, 17 conformity assessment bodies have been accredited.

The Institute, in order to be ready for applying for the evaluation to be a signatory of the Multilateral Agreements of EA (European Co-operation for Accreditation), including accreditation of laboratories, of certification bodies, of inspection bodies and of EMAS verifiers, which function as a "passport" facilitating access to the EU and international markets, the Institute needs to elaborate certain polices and amending its procedures (flexible scope, accreditation of notified bodies) as well as a new accreditation scheme (EMAS verifiers, medical labs). The supply of software for assessment process will support the efficient and effective assessment process and accordingly training of personnel is needed in the area. Other priorities include: enlarging the number of conformity assessment bodies to be accredited (laboratories, certification and inspection bodies), enlarge the number of technical assessors, signing agreements for bilateral cooperation with other countries' institutes,

establishing a training centre, improvement of the Institute's quality system management documentation, establishment of data management software, active participation in the work of EA, intensifying the cooperation with the regulatory agencies and relevant ministries, contribution to signing an agreement on conformity assessment and acceptance of industrial products PECA/ACAA, promotion activities (renewal of web site and preparing brochure), applying to EA's multi-lateral agreements, and employment of 5 new employees.

The Assessment Report conducted by CARDS 2006 Regional Quality Infrastructure project and published in February 2008, cites some of above priorities and calls for new efforts in the area of Accreditation: updating the quality system and documentation in place at IARM; increasing capacities of IARM in the accreditation of calibration laboratories, product and quality system certification bodies, accreditation of EMS and of certification bodies of persons; harmonisation of the accreditation activities of IARM in the different regulations (e.g. law, statute); regulation of IARM authorisation for accreditation of EMAS verifiers; conducting internal audits and management reviews; updating system documentation (including IARM website); increasing the number of accredited conformity assessment bodies (e.g. testing and calibration laboratories); establishing accreditation schemes in new areas (e.g. flexible scope, medical laboratories, EMAS verifiers); applying for the evaluation to be a signatory of the Multilateral Agreements of the European co-operation for Accreditation for limited scope (testing and inspection); elaboration of certain polices and amending the accreditation law and its procedures; further on the job training in the new areas of accreditation (e.g. medical laboratories, measurement uncertainty, flexible scopes, EMAS verifiers).

Specific background concerning the Bureau for Metrology

The Bureau of Metrology (BoM) is a specialised expert body within the Ministry of Economy, which performs tasks and duties regarding the metrology system in the country. Metrology is the science of measurement, providing adequate operation and development of all sectors of society (measurements in industrial production and trade, environmental monitoring, medical and technical diagnostic, testing activities, construction, navigation, etc).

The primary task of the Bureau is the provision of traceability (of physical size of measurement units in the country and worldwide) and performance, storage and maintenance of national metrics and certified reference materials as well as calibration of metrics and meters. In order to perform these tasks, the Bureau cooperates with specialised international and regional organisations (OIML, CGPM, EUROMET, and WELMEC) where it represents the country. In 2006, the country became an associate member of the General Conference for Weights and Measures of the Metre Convention. In 2006, the Bureau also became a candidate for membership in EURAMET and assigned its own representatives to some of its technical committees. Relationships are established with the countries-producers of the calibration equipment for the training of the staff in calibration of measurement instruments, and part of the employees have participated in training in some of those countries. The most important activity for gaining full membership status at EUROMET is to participate in its projects (for which fully operational and equipped laboratories are needed).

Within the Bureau, there are nine laboratories for calibration of measurement instruments of which six are operational (laboratory for weight, pressure, length and angle, volume and flow, density, temperature). Concerning the metrology activities, the Government arranged the Bureau a new facility where the administration is settled on the first floor of available space of 450 m^2 and laboratories situated in two underground levels of 2 x 600 m^2.

With support from the EU CARDS - SMAQVa Projects, progress was made in procurement of metrology equipment for 8 metrology laboratories of the Bureau and base training for potential laboratory staff was provided. The equipment provided in all the Bureau laboratories (mass, temperature, electricity, flow and volume, length and angle, pressure, time and frequency) is installed and functional but the laboratories are not fully completed. With the equipment provided, the laboratories started to offer calibration services to interested parties (industry, second level calibration laboratories, verification laboratories and etc.). However, the services provided cover only limited areas and do not cover all the mandated areas of the Bureau. In this context, one of the main the priority is to further develop the national metrology infrastructure, including mechanical, electrical, temperature, acoustic, and chemical equipment, as well as reference measurement standards and also to acquire calibration practices for the existing equipment in BoM.

By providing traceability, BoM provides maintenance and sustainability of the metrology system in the country. There is a need for transfer standards and metrology IT equipment that is suitable for providing traceability by calibrations and inter-comparisons. Associated with specialised on-the-job training for the new and existing equipment, it will lead to fulfilling the primary task of the Bureau. Another priority is to secure the traceability for the verification equipment that is used for inspection activities within the metrological infrastructure (verification of the measuring instrument, metrological and expert supervision) and the certificating activities (conformity of the type of the measuring instruments and certificating of referent materials). Furthermore, a sound national metrology system will provide basis for implementation of almost 400 EU technical directives and more than 20,000 technical standards. With the aim to enable exchange of goods, services and information with the country, international equivalence of measurements needs to be achieved that is dealt through full membership of the country in the relevant international metrological organisations, such as Meter Convention and OIML at global level, and EUROMET and WELMEC at EU level.

The Assessment Report conducted by CARDS 2006 Regional Quality Infrastructure project and published in February 2008, cites some of above priorities and calls for new efforts in the area of Metrology: further developing legal metrology; the role of BoM in the verification activities; accreditation of the private companies in performing complete verification; improvements in metrological surveillance; development of BoM structures to cope with requirements to implement EU legal metrology directives and related WELMEC documents (i.e. measurement units directive, MID, quantities of pre-packaged products directives); implementation of quality system (ISO 9001, ISO/IEC 17020) in all areas of verification activities; application at WELMEC secretariat for associate membership; development of certain legal metrology technical procedures and assurance of related measurement and other equipment (i.e. pre-packaged products, control of SW in legal metrology applications; support to other “regulated metrology areas” as i.e. Medical devices directive (medical devices with measuring function), directives on frozen food control (thermometers for inspection control and data loggers for temperature monitoring); programme of future development in recording equipment (tachographs) area as required by the EU Regulations (EC) n°: 2135/98 and n°: 1360/2002 for digital recording equipment (agreed with the Ministry of Transport and Communications); strengthening personal capacities – at least B.SC degree; training of personnel in all aspects (legal, organisational, technical and quality, language and computer literacy); completion of measurement standards equipment and acquiring the knowledge to use the equipment available; training required for specific areas (mass calibrations, volume and flow calibrations, pressure calibrations, length and angle, energy and chemical

characterisation of referent materials) on uncertainty evaluation, development of calibration procedures, ISO/IEC 17025 quality system documentation, quality system documentation and internal audits; method validation; computer skills; adjusting the measurement standards infrastructure to realistic country needs as well as its staff capabilities; conducting a systematic national inventory of needs for each particular physical quantity to assure justified and self sustainable future operation of BoM; quality system implementation; information about the developments of BoM in scientific metrology is available through the internet site (www.bom.gov.mk) to interested parties; ensuring co-operation with accreditation body (i.e. in education and training of the laboratory staff for technical and lead assessors).

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact

The combined impact of the three components is targeting at further improvements in the quality infrastructure through strengthening the capacities of the Ministry of Economy and the Institute for Standardisation, the Institute for Accreditation, the Bureau of Metrology, by improving legislation and further harmonisation with the acquis.

Harmonised system of standardisation, accreditation and metrology will contribute to the development of a favourable business environment, having a positive influence on private sector development. Alignment of legislation with the acquis on the free movement of goods will have a positive influence on the exchange of goods between the country and EU member states markets, while it also will stimulate foreign and national investments in the economy.

By promoting the role and significance of the standardization on a national, European and International level, as well as its continuous development, the Institute for Standardisation will contribute to quality and competitiveness of the economy for placing the products on the European and International markets. Improved functioning of the Institute will promote the industry and consumers in the areas of standardization and will enable for country's full membership in European organizations for standardization, including in CEN and CENELEC and active participation in their work.

Confirming the ability of an institution to perform specific tasks in the area of conformity assessment is an important public service. A sound structure performing tasks and duties of a national accreditation service in the country is essential for providing high quality accreditation service. Improved capacities of the Institute for Accreditation, will enable proper implementation of relevant European and international standards in the field, active participation of the country in the work of EA, in its multilateral agreements and in other organisations such as ILAC and IAF, and enabling recognition of national test reports and certificates of conformity in Europe and worldwide.

Further improvement of the capacities of the Bureau of Metrology will help for development of the metrological system in the country providing the traceability of the SI measurement units and their dissemination to all users in the country. An improved system of metrology, will support in the protection of the environment, provide for general technical safety and enhance the competition rules in the country.

The project has cross-border impact, as the country is part of regional free trade agreement, providing further access of the country's products to the markets of neighbouring countries through international recognition of the national standardisation, accreditation and metrology infrastructure.

3.3 Results and measurable indicators[2]

The project will entail three main components:

1) Support to the Institute for Standardisation

The results to be achieved are:

Strengthened capacity of the Institute for Standardisation in order to support fulfilling of the conditions for full membership in CEN and CENELEC

- Established national standardisation infrastructure fully operational for participation in the work of European and international organisations for standardisation;
- Developed and implemented internal rules for standards making process, copy rights, sale and distribution of standards;
- Developed technical features of the necessary hardware and software applications, putting in function the hardware, and completion of the customisation of the software.

The measurable indicators are:

- Adopted and available standards
- Prepared internal rules for standards making process, copy rights, sale and distribution of standards
- Defined internal hardware and software plan
- Established appropriate document database structure and standards database structure
- Number of staff members and technical committees members trained

2) Support to the Institute for Accreditation

The results to be achieved are:

Strengthened capacity of the Institute for Accreditation in order to support the implementation of legislation harmonised with Directives of the New approach, Global approach and the Old approach related to accreditation:

- Strengthened cooperation with relevant ministries in order to support designation/notification of conformity assessment bodies;
- Strengthened cooperation with International organisations for accreditation;
- Established conditions for international recognition of tests, calibration results, certificates by the Institute, through signing the European Accreditation' Multilateral Agreements (EA MLA) for conformity assessment bodies (CABs);
- Document Management System (including IARM website) updated.

The measurable indicators are:

- Increased number of accredited CAB's;
- Number of notified/designated CAB's;
- Internationally recognized test reports and certificates;
- Implementation of the EC New, Global and Old Approach Directives;
- Document management system available, tested and in working condition.

3) Support to the Bureau of Metrology

The results to be achieved are:

[2] Please note that some of the indicators have not yet been quantified or been given a benchmark. This will be done during the development of the detailed Terms of Reference.

Strengthened capacity of the BoM to fulfil the conditions for full membership in EURAMET and WELMEC as well as to support in implementation of legislation harmonised with Directives of the New approach, Global approach and the Old approach related to metrology:

- Established National Standards of SI units of existing equipment
- Obtaining full membership status in EURAMET
- Presentation on EURAMET TC-Q Documented upgrade of Quality System based on ISO 17025 of BoM Labs
- Implemented Quality System based on ISO 1702O for verification sector
- Implemented MID directive and the directives on pre-packed products
- Obtained associate membership status in WELMEC
- Involvement of BoM in metrology R&D area
- Issued Road map for development of National metrology infrastructure

The measurable indicators are:

- Bilateral and regional successful inter-comparisons of National Standard;
- Successful participation in some of the EUARMET projects;
- Recognition of National Standards realised by BoM metrological equipment;
- Conducting calibrations using entirely installed equipment with operational calibration procedures, easily to be included in Quality System based on ISO 17025
- Fully operational laboratories within the BoM Laboratory Centre
- Inter-comparisons for mass, pressure and temperature - done
- Recognized physical standards for mass, pressure and temperature as National Standards
- Inter-comparisons for volume, length, voltage, current, resistance and time& frequency -done
- Recognized physical standard for voltage, current, resistance and time& frequency as National Standards
- Inter-comparisons for volume & flow and length & roughness - done
- Recognized physical standard for volume and length as National standards
- CMC (calibration and measurement capabilities) entries in data base of BIPM KCDB of national standards formed.
- Personnel accrued *mise en pratique* on metrology equipment associated by measurement standard development and implementation issues
- Participation in WELMEC TCs

3.4 Activities

Activities foreseen for **Component 1:** Support to the Institute for Standardisation

- Adoption of EN standards and publication of national standards with reprinting and translation, including ratified text of EN for national adoption with reprinting, the technical and commercial process of translation and creating the terminology data base;
- Defining, purchasing and placing in function hardware and software;
- Integration and customization of software, incl. training for its support and maintenance;
- Development/revision of the Institute for Standardisation internal rules and procedures for managing the processes within the Institute;
- Training as well as transfer of know-how on best EU practices, procedures of organisations of CEN/CENELEC and ISO/IEC and technical committees management;

Activities foreseen for **Component 2:** Support to the Institute for Accreditation

- Joint assessment of the Institute for Accreditation and MLA Signatory accreditation body of the national labs, inspection and certification bodies
- Data management software development to support the assessment process
    - technical assistance for defining workflow for assessment
    - customization of the software and integration in existing system
    - training, support and maintenance
- Trainings, on-the-job training, transfer of know-how and best practices from EU member states in the accreditation of notified bodies.

Note: Through BERIS data management software for the overall functioning of the IARM will be procured, while the software requested through IPA (2nd bullet point above) refers to the process of assessing the accreditation procedure. This activity does not require additional IT equipment (hardware) and it can be integrated in the existing IT system acquired through SMAQVa under previous CARDS support.

Activities foreseen for **Component 3:** Support to the Bureau of Metrology

High priority activities include:

- Training for implementation, maintaining of quality system based on ISO/IEC 17025 taking forward of CARDS/SMAQVA I and II trainings and developed ISO/IEC 17025
- Training for evaluation of measurement uncertainty and consultancies for up-grading existing knowledge on a higher level by using appropriate software
- Technical Support in maintaining traceability of national measurement standards (periodic calibrations) in EU NMIs associated with on-job training, as continuation of initially done with CARDS/SMAQVA I procurement
- Consultancy for preparing the CMC (calibration and measurement capabilities) lines of national measurement in laboratories of BoM taking forward of CARDS/SMAQVA I and II by practical implementation
- Technical support for accreditation on selected group of laboratories in BoM Laboratory Centre (i.e. AC/DC low frequency, energy, volume & flow, length)
- Support in realization of guest working fellowship programs for BoM laboratory staff in EU NMIs calibration laboratories for gaining experience for regular calibration work and procedures and obtaining *mise en pratique*
- Development and training on implementation of ISO/IEC 17020 in the verification sector of BoM
- Training on implementation of NAWI directive and the work of Notified Bodies for NAWI
- Training for implementation of MID directive and directive on pre-packed products
- Comprehensive study for extensive long term development of metrology underpinning the country needs inclusively regional emerging

Other priorities include:

- Consultancy on up-grading/developing quality system based on ISO/IEC 17025 for all laboratories with national standards including dispersed one,
- Consultancy for preparing the CMC (calibration and measurement capabilities) lines of national measurement standards and calibration procedures for the referent measurement standards used in domestic accredited calibration laboratories with scientific background
- Training for calibration techniques and procedures according to ISO/IEC 17025 requirements particularly for new areas in metrology (soft-metrology)

- Training on the equipment for the stuff engaged in BoM laboratories using operational calibration procedures for the rest of the equipment easily includable in Quality System based on ISO 17025
- Training in implementation of ISO 17014 in metrology area
- Support for realisation of our participation in bilateral and regional inter-comparison projects for all physical standards to be recognized as National Standards
- Support for participation of young staff with basic knowledge in scientific metrology in EU NMIs scientific research projects for acquirement research techniques and routine as a precondition for reflection to involvement in some of iMERA projects
- Consultancy for creating internet calibration procedures for BoM labs, that may be used for calibration of equipment in secondary level calibration and testing laboratories
- Training for implementation of conformity assessment of measuring instruments within the scope of directives in the metrology area and put special attention on implementation of MID directive
- Support in organising proficiency testing for calibration and testing laboratories participating in conformity assessment of measuring instruments within the scope of directives in metrology area

Project Management and Administration
As the different components are strongly related, a joint steering committee will be established. The project Steering Committee will be chaired by the Ministry of Economy and will include representatives of the different stakeholders. The Delegation of the European Union, Secretariat for European affairs shall be invited to participate with Observer status. The Steering Committee shall meet not less than once per three months.

Advisory services will be provided to the direct beneficiaries through different service contracts. The contracts to support the project will contain next to a team leader additional expertise to assist in key tasks, e.g. in the field of administrative capacity building, training, legal development, IT development and others. Some of these experts will address the cross-cutting issues. The core project team – consisting of the team leader and other expertise will be placed within the beneficiaries.

The team leader will be responsible for the overall management, representation (co-ordination with the EU and other international bodies) as well as reporting. The co-ordination of activity development in the different components of the activity is significantly important. The team leader is responsible for an appropriate management of resources. During the inception phase of the project, a detailed deployment plan will be developed under the coordination of a Steering Committee in which each co-operating national institution will be represented to ensure appropriate inclusion.

The expected contracting arrangements are:

Financed through IPA:
- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Institute for Standardisation project with duration of 12 to 24 months. Implementation is expected to start in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.
- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Institute for Accreditation project with duration

of 12 to 24 months. Implementation is expected in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.

- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Bureau of Metrology project with duration of 12 to 24 months. Implementation is expected in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.

Financed through the national contribution:

- 1 Supply contract for the delivery and installation, as well as associated training, of the IT system in the Institute for Standardisation, with duration of 4 to 10 months, and subsequently a 12 months warranty period, bringing the total project duration to 16 – 22 months. Implementation is expected in 3rd quarter 2011, one month after the signature of the contract and the contract value will be approx. EUR 0.25 Million.
- 1 Supply contract for the delivery and installation, as well as associated training, of the IT system in the Institute for Accreditation, with duration of 4 to 10 months, and subsequently a 12 months warranty period, bringing the total project duration to 16 – 22 months. Implementation is expected in 3rd quarter 2011, one month after the signature of the contract and the contract value will be approx. EUR 0.25 Million

Funded through an IFI contribution:

- 1 or more Supply contracts for the delivery and installation, as well as associated training, of equipment in the Bureau of Metrology, with expected duration of 4 to 10 months, with 12 month warranty period, bringing the total duration of the project to 16-22 months. The contract value will be approx. EUR 0.6 Million, funded through the loan of the BERIS Programme of the World Bank, following the implementation schedule of this project. Implementation is expected in 3rd quarter 2011.

3.5 Conditionality and sequencing

The project includes the following conditionalities:

1. Endorsement by all key stakeholders of the Terms of Reference, specifications for the individual contracts to be engaged;
2. Appointment of counterpart personnel by the beneficiary before the launch of the tender process;
3. Allocation of working space and facilities by the beneficiary for technical assistance before the launch of the tender process;
4. Participation by the beneficiary in the tender process as per EU regulations;
5. Organisation, selection and appointment of members of working groups, steering and coordination committees, seminars by the beneficiary as per work plan of the project;
6. Appointing the relevant staff by the beneficiaries to participate in training activities as per work plan;
7. In relation to IT supply: identified staff responsible for maintenance of the IT infrastructure as well as budget availability to ensure operationality of the equipment;
8. The allocation and delivery of the BERIS procurement activities are key for the implementation of these project activities.

In the event that conditionalities are not met, suspension or cancellation of projects will be considered.

3.6 Linked activities

The country receives assistance in the area of free movement of goods - quality infrastructure through the following ongoing projects:

*** WORLD BANK, BERIS - *Business Environment Reform and Institutional Strenghtening project* (loan)** 31.10.2005 – 31.03.2010, c.a 3,5 Million. The second component of the BERIS Project aims at addressing the enterprise sector's difficulties in competing in domestic and foreign markets related to poor national MSTQ infrastructure and services. The overall objective of this component is to strengthen the capacity of the national system to deliver EU-compatible services. This will be done by:

- modernizing the national metrology infrastructure;
- strengthening the capacity of the MSTQ institutions to carry out their mandate in an EU-oriented environment;
- increasing business sector awareness of the challenges and opportunities of competing in the EU market;
- Assisting in drafting a development strategy, including reviewing the institutional and legislative framework, to bring the country closer to EU requirements.

The third supply contract of this project fiche, would be financed through this fund; however, this project is presently under re-negotiation and may change in contents.

*** GERMANY-GTZ *Transposition of Technical EU Directives into Macedonian Legislation and Establishment of quality infrastructure*** 01.01.2006 – 31.12.2008. The project provides technical assistance in the following areas:

- Establishing 5 bylaws to ensure the fill application of the Product Safety Law
- Reform of the State Technical Inspectorate – new law on technical inspection
- Harmonizing legislation for motor vehicles with ECE and EC regulations.

The activities are succeeding the finalized first phase of the project on transposition of the new approach directives and establishment of quality infrastructure.

*** EU–CARDS 2006, *Technical Assistance to Market Surveillance*,** 14.05.2007 – 13.10.2008, EUR 989.400. The main objectives of this project are:

- To simplify and liberalize the legislation regulating market surveillance
- To provide support to the MoE for proper enforcement of the product safety legislation
- To support the implementation of the Law on the State Market Inspectorate
- To improve SMI institutional and technical capacity
- To increase public awareness of the new rules.

Thorugh the CARDS programme extensive support – that is now completed - has been provided to the sector, including:

* CARDS 2001, SMAQva, "Technical Assistance to the Institutes for Standardisation, Metrology, Accreditation and Quality Validation", 06.2003 – 10.2004, EUR 1 036.476

* CARDS 2003, SMAQva II, " Technical Assistance to the Institutes for Standardisation, Metrology, Accreditation and Quality Validation", 15.12.2004 – 15.11.2005, EUR 484.910

* Various equipment supplies (mainly laboratory equipment) totalling some EUR 2.2 Million.

* Internal Market Acquis -EU twinning project with Slovenia. The main objective of this programme was to harmonise legislation, 08.2004 – 12.2005, EUR 1.780.185

Support by other agencies included:

* UK/DFID As part of the Public Administration Reform, in the area of free movement of goods, significant efforts were directed towards developing an action plan for the following key issues:

- Horizontal and procedural measures concerning the management, intra-ministerial and international coordination, including transposition of legislation, etc.
- Restructuring of the infrastructure in the relevant fields: standardisation, accreditation and quality validation, metrology and market surveillance.

* GERMANY – GTZ, *Transposition of Technical EU Directives into Macedonian Legislation and Establishment of quality infrastructure, 2003 - 2005*

The present project is expected to cover some of the gaps in the quality infrastructure as identified in the Assessment Report conducted by CARDS 2006 Regional Quality Infrastructure project and published in February 2008. The project will build upon the achievements of the previous projects and a strong coordination mechanism will be established with ongoing projects at the time of the implementation of the present project.

3.7 Lessons learned

CARDS implementation highlighted a number of common difficulties in project implementation, including insufficient availability of national (counterpart) staff, insufficient budget, late approval of relevant legislation etc. These lessons learned have been translated into conditionalities (see par. 3.5). Specifically important in this project are the legal activities the Government would need to implement to establish an appropriate quality infrastructure. Still substantial part of the acquis are to be transposed to the national legislation; enforcement of the rules and legislation in overcoming the gap between the formal legal situation and 'on-the-ground' practice; ensuring a stronger government leadership in the coordination efforts among the ministries and departments and a stronger focus on operational coordination and harmonisation of policies; securing approach with both technical advisory support and material support is essential to realise the expected impact of the projects.

4. Indicative Budget (amounts in € million)

				SOURCES OF FUNDING								
			TOTAL EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL CONTRIBUTION					PRIVATE CONTRIBUTION	
ACTIVITIES	IB (1)	INV (1)	EUR (a)=(b)+(c)+(d)	EUR (b)	%(2)	Total EUR (c)=(x)+(y)+(z)	% (2)	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (d)	% (2)
Standardisation												
Service contract	X	–	0.6	0.6	100							–
Supply IT system	–	X	0.25			0.25	100	0.25				–
Accreditation												
Service Contract	X	–	0.6	0.6	100							–
Supply IT system	–	X	0.25			0.25	100	0.25				–
Metrology												
Service Contract	X	–	0.6	0.6	100							–
Supply contract		X	0.6			0.6	100			0.6		
TOTAL IB			1.8	1.8	100							
TOTAL INV			1.1			1.1	100	0.5		0.6		
TOTAL PROJECT			**2.9**	**1.8**	**62**	**1.1**	**38**	**0.5**		**0.6**		

Amounts net of VAT

(1) In the Activity row use "X" to identify whether IB or INV

(2) Expressed in % of the **Total** Expenditure (column (a))

5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Start of Tendering	Signature of contract	Project Completion
Standardisation			
Contract 1 - Service contract	Qu1 2010	Qu3 2010	Qu3 2012
Contracts (financed by National Contribution)	Start of Tendering	Signature of contract	Project Completion
Contract 2 - Supply IT system	Qu1 2011	Qu3 2011	Qu4 2012
Accreditation			
Contract 3 - Service Contract	Qu1 2010	Qu3 2010	Qu3 2012
Contracts (financed by National Contribution)	Start of Tendering	Signature of contract	Project Completion
Contract 4 - Supply IT system	Qu1 2011	Qu3 2011	Qu4 2012
Metrology			
Contract 5 - Service Contract	Qu1 2010	Qu3 2010	Qu3 2012
Contract (financed by World Bank)	Start of Tendering	Signature of contract	Project Completion
Contract 6 - Supply contract	Qu1 2011	Qu3 2011	Qu4 2012

6. Cross cutting issues

The mainstreaming of the cross cutting issues is regarded on two different levels: (a) Ensuring that the internal policies, structure or operating procedures of the beneficiary agency will conform to and promote the relevant principles outlined per section below and (b) ensuring that the products, outputs produced by the beneficiaries (e.g. laws, regulations, policies, and strategies) will conform to and promote the relevant principles outlined per section below.

The following cross-cutting issues should be addressed:

- **Equal opportunities and non-discrimination;**

The training activities will include a specific component to train staff in the implementation of the Government Gender Strategy, while reference will be made to the EC Programme of Action for the mainstreaming of gender equality in community development cooperation (2001-06).

- **Support to minority and vulnerable groups;**

Where the main reference in the country in relation to minority groups is the Ohrid Framework Agreement, in an EU context, reference is made to the "Race directive" of 2000 (200/43/EC of 29 June), which has an important impact on employment (incl. vocational training, working conditions, social protection etc.) and is also a crucial aspect of the acquis. The training activities will include a specific component to train beneficiary staff in the different aspects of mainstreaming minority and vulnerable groups in programme and project development as well as monitoring the implementation. The beneficiary will be assisted to

implement an ‘internal minority and vulnerable group assessment’ to identify areas where it could improve its internal performance vis-à-vis minorities or other vulnerable groups.

- **Environmental protection;**

The European Community has a longstanding commitment to address environmental concerns in its assistance programmes. The support to the institutions will include a specific component to assist the beneficiary to implement an ‘internal environment assessment’ to identify areas where it could improve its internal performance vis-à-vis environmental aspects. The training activities will include a specific component to train beneficiary staff in the different aspects of mainstreaming environment in programme and project development as well as monitoring the implementation.

ANNEXES

1 - Log Frame in Standard Format

2 - Amounts contracted and Distributed per Quarter over the full duration of Programme

3 - Description of Institutional Framework

4 - Reference to laws, regulations and strategic documents
- Reference list of relevant laws and regulations
- Reference to AP/NPAA/EP/SAA
- Reference to MIPD
- Reference to National Development Plan
- Reference to national/sectoral investment plans

5 – Details per EU funded contract (*) where applicable:
- *For TA contracts*: account of tasks expected from the contractor
- *For Twinning covenants*: account of tasks expected from the team leader, resident twinning advisor and short term experts
- *For Grant schemes*: account of components of the shceme
- *For Investment contracts*: reference list of feasibility study as well as technical specifications and cost price schedule + section to be filled in on investment criteria
- *For works contracts*: reference list of feasibility study for the constructing works part of the contract as well as a section on investment criteria (**); account of services to be carried out for the service part of the contract

(*) non standard aspects (in case of derogation to PRAG) also to be specified

(**) section on investment criteria (applicable to all infrastructure contracts and construction works):
- Rate of return
- Co-financing
- Compliance with state aids provisions
- Ownership of assets (current and after project completion)

ANNEX 1- Log frame in standard format

LOGFRAME PLANNING MATRIX FOR Project Fiche: **Support to Free Movement of Goods – Quality Infrastructure**	Programme name and number: Support to Free Movement of Goods – Quality Infrastructure		
	Contracting period expires two years from the date of the conclusion of the Financing Agreement	Execution period expires two years from the final date for contracting	Disbursement period expires one year from the final date for execution of contracts.
		Total budget : **2.900.000 EUR**	IPA budget: 1.800.000 EUR

Overall objective	**Objectively verifiable indicators**	**Sources of Verification**	
The overall objective of the project is to contribute to free movement of goods with the EU and enhance the free trade, through reinforcing the capacity of quality infrastructure in the areas of accreditation, standardization and metrology.	Number of accreditations International trade flows	Institutes records Government, WB and IMF data	

Project purpose	**Objectively verifiable indicators**	**Sources of Verification**	**Assumptions**
The project purpose is to provide technical and material to the relevant institutions - the Institute for Standardisation (ISRM), the Institute for Accreditation (IARM) and the Bureau of Metrology (BoM) - to implement the harmonized legislation in the field of free movement of goods and to provide high quality services to Business Community; Consumers and Citizens; and	Installation of equipment Operationality of equipment Application of standards ISO certifications Membership international orgnaisations	Project records Institutions' records Records international organisations	Regional political developments will NOT disturb regional and other international trade.

Conformity Assessment Bodies.			

Results	Objectively verifiable indicators	Sources of Verification	Assumptions
1) Support to the Institute for Standardisation - Strengthen the capacity of the Institute for Standardisation in order to support fulfilling of the conditions for full membership in CEN and CENELEC a) Established national standardisation infrastructure fully operational for participation in the work of European and international organisations for standardisation; b) Developed and implemented internal rules for standards making process, copy rights, sale and distribution of standards; c) Developed technical features of the necessary hardware and software applications, putting in function the hardware, and completion of the customisation of the software.	The measurable indicators are: - Adopted and available standards - Prepared internal rules for standards making process, copy rights, sale and distribution of standards - Defined internal hardware and software plan - Established appropriate document database structure and standards database structure - Number of staff members and technical committees members trained	Project records Institutes records	Tenders are successful Co-financing is available
2) Support to the Institute for Accreditation - Strengthen the capacity of the Institute for Accreditation in order to support the implementation of legislation harmonised with Directives of the New approach, Global approach and the Old approach related to accreditation: a) Strengthened cooperation with relevant ministries in order to support designation/notification of conformity assessment bodies; b) Strengthened cooperation with relevant European and International organisations for accreditation;	The measurable indicators are: - Increased number of accredited CAB's; - Number of notified/designated CAB's; - Internationally recognized test reports and certificates; - Implementation of the EC New, Global and Old Approach Directives; - State-of- the-art document management system available, tested and in working condition.	Project records Institutes records	Tenders are successful Co-financing is available

c) Established conditions for regional/international recognition of tests and calibration results, as well as certificates by the Institute for Accreditation, through signing the European Accreditation' Multilateral Agreements (EA MLA) for conformity assessment bodies (CABs); d) Document Management System (including IARM website) updated.			
3) Support to the Bureau of Metrology Strengthened capacity of the BoM to fulfil the conditions for full membership in EURAMET and WELMEC as well as to support in implementation of legislation harmonised with Directives of the New approach, Global approach and the Old approach related to metrology: • Established National Standards of SI units of existing equipment • Obtaining full membership status in EURAMET • Presentation on EURAMET TC-Q Documented upgrade of Quality System based on ISO 17025 of BoM Labs • Implemented Quality System based on ISO 1702O for verification sector • Implemented MID directive and the directives on pre-packed products • Obtained associate membership status in WELMEC • Involvement of BoM in metrology R&D area • Issued Road map for development of National metrology infrastructure	The measurable indicators are: • Bilateral and regional successful inter-comparisons of National Standard; • Successful participation in some of the EUARMET projects; • Recognition of National Standards realised by metrological equipment installed in BoM • Conducting calibrations using entirely installed equipment with operational calibration procedures, easily to be included in Quality System based on ISO 17025 • Fully operational laboratories within the BoM Laboratory Centre • Inter-comparisons for mass, pressure and temperature - done • Recognized physical standards for mass, pressure and temperature as National Standards • Inter-comparisons for volume, length, voltage, current, resistance and time& frequency -done • Recognized physical standard for voltage, current, resistance and time& frequency as National Standards • Inter-comparisons for volume & flow and length & roughness - done • Recognized physical standard for volume and length as National standards	Project records Institutes records	Tenders are successful

	• CMC (calibration and measurement capabilities) entries in data base of BIPM KCDB of national standards formed. • Personnel accrued *mise en pratique* on metrology equipment associated by measurement standard development and implementation issues • Participation in WELMEC TCs • Successful proficiency testing of measurement instruments of the scope of MID directive		

Activities	**Means**	**Costs**	**Assumptions**
1) Support to the Institute for Standardisation 1.1 Adoption of EN standards and publication of national standards with reprinting and translation, including ratified text of EN for national adoption with reprinting, the technical and commercial process of translation and creating the terminology data base; 1.2 Defining, purchasing and placing in function hardware and software; 1.3 Integration and customization of software, including training for its support and maintenance; 1.4 Development/revision of the Institute for Standardisation internal rules and procedures for managing the processes within the Institute; 1.5 Trainings, on-the-job trainings, as well as transfer of know-how on best EU practices, procedures of organisations of CEN/CENELEC and ISO/IEC and technical committees management;	1. Service contract and Supply contract	1. TA: 600.000 Euro (IPA) Supplies: 250.000 Euro (national contribution)	Budget and staffing of the institute remain stable
2) Support to the Institute for Accreditation 2.1 Joint assessment of the Institute for Accreditation and MLA Signatory accreditation body of the national labs, inspection and certification bodies 2.2 Data management Software to support the assessment process o technical assistance for defining workflow for assessment o customizations the software and integration with own system	2. Service contract and Supply contract	2. TA: 600.000 Euro (IPA) Supplies: 250.000 Euro (national contribution)	Budget and staffing of the institute remain stable

o training, support and maintenance			
2.3 Trainings, on-the-job training, transfer of know-how and best practices from EU member states in the accreditation of notified bodies.			
3) Support to the Bureau of Metrology **High priority activities include:** • Training for implementation, maintaining of quality system based on ISO/IEC 17025 taking forward of CARDS/SMAQVA I and II trainings and developed ISO/IEC 17025 • Training for evaluation of measurement uncertainty and consultancies for up-grading existing knowledge on a higher level by using appropriate software • Technical Support in maintaining traceability of national measurement standards (periodic calibrations) in EU NMIs associated with on-job training, as continuation of initially done with CARDS/SMAQVA I procurement • Consultancy for preparing the CMC (calibration and measurement capabilities) lines of national measurement in laboratories of BoM taking forward of CARDS/SMAQVA I and II by practical implementation • Technical support for accreditation on selected group of laboratories in BoM Laboratory Centre (i.e. AC/DC low frequency, energy, volume & flow, length) • Support in realization of guest working fellowship programs for BoM laboratory staff in EU NMIs calibration laboratories for gaining experience for regular calibration work and procedures and obtaining *mise en pratique* • Development and training on implementation of ISO/IEC 17020 in the verification sector of BoM • Training on implementation of NAWI directive and the work of Notified Bodies for NAWI • Training for implementation of MID directive and directive on pre-packed products • Comprehensive study for extensive long term development of metrology underpinning the country needs inclusively regional emerging **Other priorities include:** • Consultancy on up-grading/developing quality system based on ISO/IEC	3. Service contract and Supplies	3. TA: 600.000 Euro (IPA) Supplies: 600.000 Euro (national contribution, through IFI)	Budget and staffing of the bureau remain stable. The required equipment for the BoM will be procured through the World Bank BERIS project, prior to the implementation of the present project.

17025 for all laboratories with national standards including dispersed one, • Consultancy for preparing the CMC (calibration and measurement capabilities) lines of national measurement standards and calibration procedures for the referent measurement standards used in domestic accredited calibration laboratories with scientific background • Training for calibration techniques and procedures according to ISO/IEC 17025 requirements particularly for new areas in metrology (soft-metrology) • Training on the equipment for the stuff engaged in BoM laboratories using operational calibration procedures for the rest of the equipment easily includable in Quality System based on ISO 17025 • Training in implementation of ISO 17014 in metrology area • Support for realisation of our participation in bilateral and regional inter-comparison projects for all physical standards to be recognized as National Standards • Support for participation of young staff with basic knowledge in scientific metrology in EU NMIs scientific research projects for acquirement research techniques and routine as a precondition for reflection to involvement in some of iMERA projects • Consultancy for creating internet calibration procedures for BoM labs, that may be used for calibration of equipment in secondary level calibration and testing laboratories • Training for implementation of conformity assessment of measuring instruments within the scope of directives in the metrology area and put special attention on implementation of MID directive • Support in organising proficiency testing for calibration and testing laboratories participating in conformity assessment of measuring instruments within the scope of directives in metrology area			

Pre conditions

1. Endorsement by all key stakeholders of the Terms of Reference, specifications for the individual contracts to be engaged;
2. Appointment of counterpart personnel by the beneficiary before the launch of the tender process;
3. Allocation of working space and facilities by the beneficiary for technical assistance before the launch of the tender process;
4. Participation by the beneficiary in the tender process as per EU regulations;

5. Organisation, selection and appointment of members of working groups, steering and coordination committees, seminars by the beneficiary as per work plan of the project;
6. Appointing the relevant staff by the beneficiaries to participate in training activities as per work plan; and
7. In relation to IT supply: identified staff responsible for maintenance of the IT infrastructure as well as budget availability to ensure operationality of the equipment.

In the event that conditionalities are not met, suspension or cancellation of projects will be considered.

ANNEX 2 - Amounts (in million EUR) contracted and Distributed per Quarter over the full duration of Programme (only IPA Funding)

	2010				**2011**				**2012**				**2013**			
Contracted	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Standardisation																
Service contract			0.6													
Accreditation																
Service Contract			0.6													
Metrology																
Service contract			0.6													
Cumulated			**1.8**													
Disbursed	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Standardisation																
Service contract			0.2		0.1			0.1		0.1		0.1				
Accreditation																
Service Contract			0.2		0.1			0.1		0.1		0.1				
Metrology																
Service contract			0.2		0.1			0.1		0.1		0.1				
Cumulated			**0.6**		**0.9**			**1.2**		**1.5**		**1.8**				

ANNEX 3: Institutional Framework

1) Institute for Accreditation

1.1. Selected articles from the Regulation of the Organization

Article 3

In order to execute the assignments and activities defined by the Law on Accreditation, Decision on Foundation of IARM and the Statute of IARM, the following organizational units are created:

1) Department for accreditation of the testing and calibration laboratories;
2) Department for accreditation of the certification and inspection bodies; and
3) Administration Section

Department for accreditation of the testing and calibration laboratories and Department for accreditation of the certification and inspection bodies are executing the assignments and tasks of the main activity of IARM, while Administration Section is executing the other assignments and tasks of IARM

Department for accreditation of the testing and calibration laboratories and Department for accreditation of the certification and inspection bodies

Article 5

Department for accreditation of the testing and calibration laboratories have two sections:

1) Section for accreditation calibration laboratories
2) Section for accreditation testing laboratories

Article 6

Department for accreditation of the certification and inspection bodies have two sections:

1) Section for accreditation certification bodies
2) Section for accreditation inspection bodies

Article 7

Department for accreditation of the testing and calibration laboratory is executing the following assignments and tasks:

1) establishing and maintaining an accreditation system for testing laboratories;
2) establishing and maintaining an accreditation system for calibration laboratories;
3) establishing a system of inter laboratory comparisons for the needs of the country

Article 8

Department for accreditation of the certification and inspection body is executing the following assignments and tasks:

1) establishing and maintaining an accreditation system for certification bodies for certification of products;
2) establishing and maintaining an accreditation system for certification bodies for certification of quality management system;
3) establishing and maintaining an accreditation system for certification bodies for certification of personnel ;
4) establishing and maintaining an accreditation system for inspection bodies

Article 9

Department for accreditation of the testing and calibration laboratories and Department for accreditation of the certification and inspection bodies are executing additional assignments and tasks as the following:

1) establishing and maintaining an accreditation system for other areas;
2) establishing and maintaining of a competence accreditation system for conformity assessment bodies, in compliance with particular regulations on conformity assessment;
3) cooperating between IARM and other institutions in the country on assignments and activities in the area of accreditation and competency assessment;
4) cooperating with regional and international institutions and representing the interests of IARM;
5) aligning IARM's accreditation system with international principles;
6) establishing and maintaining of training system, and the system for recruiting, training and supervising assessors
7) executing of the accreditation procedures and other competency assessments and
8) building and maintaining of accreditation information system

Article 10

Administration Section is executing the following assignments:

1) administrative-organizational jobs for IARM providing administrative support to IARM functions for the documentation of the regulations, procedures and other internal documents;
2) material-financial operations
3) personal operations
4) legal matters
5) managing of promotion activities and public relation
6) organizing co-operation with other institutions and international organizations
7) organizing education
8) building and maintaining of accreditation information system
9) handling of information and date
10) maintenance of the premises, purchasing equipment and materials human resources, hygiene-technical protection and protection-on-work;
11) providing administrative support to IARM functions and to the Director and distribute' necessary information to IARM' clients;

Article 12

The director of IARM, choosing one of the employees of the Departments and appoints him/her in the position of the Quality Manager.
The Quality Manager apart from the regular duties also executes the assignments and duties related to the implementation and maintenance of the quality system. He/she shall:

1) coordinating the preparation of the IARM quality system,
2) supervising the implementation of the IARM quality system,
3) maintaining the documents of the IARM quality system,
4) giving the IARM Director and Advisory Board proposals on the IARM quality system improvement,
5) preparing quality system documents in the field of quality management
6) preparing the plan of internal audits,
7) supervising the implementation of internal audits and corrective actions,

8) preparing management reviews and the necessary documentation and reports
9) tracing appeals and complaints and their solving,
10) identifying and proposing preventive actions,
11) other assignments in accordance with the IARM internal regulations.

Article 17

The Director shall establish a advisory board, as a advising body to himself.
The Advisory board overviews the following:

1) Draft programs, work plans, reports on finished activities and assignments;
2) Proposals for documentation approval;
3) Analyses, reports, information, projects, programs and other material;
4) Reports of the held international assemblies and meetings related to IARM's interests;
5) Reports, information and analyses on specific issues of IARM work and authority;
6) General opinions on issues related to the laws and regulations concerning IARM scope of work;
7) Financial balance Sheet of IARM.
8) Functioning of quality system
9) Other issues that pertain to the IARM's activities and operation.

Article 18

This board is consisted of the following members: Director, Quality Manager, Head of the Departments for Accreditation of the testing and calibration laboratories, Head of the Departments for Accreditation of the certification and inspection bodies and Head of the Administration Section.
The Director is allowed to invite other IARM employees in the activities of the board.

Article 19

Within the scope of work, IARM cooperates with other state bodies, public institutions, other legal or natural entities and International and European organizations.
IARM, within the scope of its work, is entitled to sign agreements with specific state bodies, public institutions and other legal or natural entities.

Article 20

IARM cooperates with other International and European organizations for accreditation.

1.2. Personnel Establishment

The institute presently has 9 employees, while 5 new employments are expected in 2008, 1 in 2009 and 2 in 2010. According to the new Systematisation act of the Institute, the maximum number of employees needed is 17.

No.	Position	Present	Total needed
1.	Director	1	1
2.	Head of the department	2	2
3.	Head of the Section	1	5
4.	Adviser	4	4
5.	Administrator	1	2
	TOTAL	**9**	**17**

3. Budget – the available budget for the Institute is 15,208 m.denars

2) Bureau of Metrology

2.1 Rulebook for internal organisation of Bureau of Metrology

The Bureau of Metrology is established as an authority within the Ministry of economy for the purpose of carrying out expert and other work in the field of Metrology laid down in the Law on Metrology (Official Gazette No. 55/2002 amended by No.84/2007) and other laws.

The Law on Metrology regulates the metrology system in the country, the competence of the Bureau of Metrology, legal units of measurement, standards, reference materials, circulation and use of measurements, conformity assessment for the type of measurement, verification of measurements, validity of markings and certificates for conforming for conformity of the type of measurements and the marks and brands, i.e. the certificates for verifying foreign measurements, metrological supervision of the implementation of this Law and other issues important for the metrology system in order to provide measurement unification in the country.

The Bureau of metrology carries out works and tasks in the field of the metrology system related to:

- supervision of the use and writing of statutory units of measurement;
- ensuring monitoring, exercise, keeping and maintenance of national standards and certified reference materials;
- ensuring monitoring of reference standards;
- calibration of standards and measures;
- taking part in the procedure for accrediting calibration and testing laboratories on the basis of the Law on Accreditation;
- supervision of the work of the legal entities authorized for carrying out certain activities in the field of metrology on the basis of this law;
- conformity assessment of the type of measures;
- verification of measures;
- the registration procedure for recognizing the validity of labels and certificates for conformity of the type of measures, labels and brands, i.e. of foreign certificates for measures verification;
- metrology supervision of the quantities and labeling of packaged products;
- expert supervision of the application of the provisions of the law and the provisions adopted on the basis of this and other laws;
- permanent training and education of employees in the Bureau and in the authorized legal entities;
- defining the work and tasks of the metrological council and taking part in its work;
- consulting services for the needs of the legal and natural persons involved in circulation or use of measures;
- cooperation with other inspection authorities; and
- other work and tasks related to the enforcement of the Law on metrology and the regulations adopted on the basis of this law.

2.2 The Bureau consists of the following sectors and departments:

I. **<u>Sector of general affairs</u>**

a) Department for normative and legal affairs and human resources
b) Department for material and financial affairs

c) Department for homologation

II. Sector for laboratories of calibration

a) Department for calibration of mechanical quantities
b) Department for calibration of physical quantities
c) Department for calibration of electrical quantities
d) Department for calibration of other quantities

III. Sector for verification and precious metals

a) Department for verification of mechanical measuring instruments
b) Department for verification of electrical measuring instruments
c) Department for control the goods of precious metals

2.3 Budget of BoM- 2008

1. Investments:	675.000 €
2. Current maintenance,	113.820 €
3. Training and postgraduates studies	48.780 €
4. Salary	219.500 €
TOTAL	**1.057.000 €**
Increasing from 2007 Budget	**102%**

2.4 Positions in BoM (planned and real):

No.	Professions and work positions	No. needed	Filled in positions	Required Type and degree of education	Required Working experience
	Director		1		
1	***SECTOR FOR GENERAL AFFAIRS***				
1.1	Department for normative and legal affairs and human resources				
1	**Manager of sector for general affairs**	1		VII$_1$,Faculty of economics, Faculty of low	5 years
2	**Assistant manager of sector for general affairs**	1		VII$_1$,Faculty of economics, Faculty of low	4 years
3	**Manager of department for normative and legal affairs and human resources**	1		VII$_1$ Faculty of low	4 years
4	Adviser for normative and legal affairs	1		VII$_1$ Faculty of low	3 years
5	Adviser system engineer for IT support	1	1	VII$_1$ Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	3 year
6	Adviser for translation	1		VII$_1$ Faculty of philology	3 years
7	Junior assistant for record keeping	1		VII$_1$ Faculty of philosophy – department of history and archives	Without working experience
8	Independent officer – Technical secretary	1		Secondary school IV degree	3 years
9	Independent officer –Storekeeper	1		Secondary school IV degree	3 year
10	Independent officer – Housekeeper	1		Secondary school IV degree	3 year
1.2	***Department of financial and material affairs***				

11	**Manager of department of financial and material affairs**	1		VII$_{1,}$ Faculty of economics	4 years
12	Advisor for budget and material finance affair	1		VII$_{1,}$ Faculty of economics	3 years
13	Independent officer for accounting work	1		Secondary school IV degree	3 years
14	Independent officer cashier	1	1	Secondary school IV degree	3 year
15	Independent officer liquidator	1	1	Secondary school IV degree	3 years
1.3	***Department for homologation of motor vehicles***				
16	**Manager of department for homologation of motor vehicles**	1		VII$_{1}$ Faculty of mechanical engineering	4 years
17	Advisor for homologation	2		VII$_{1}$ Faculty of mechanical engineering	3 years
18	Independent officer for homologation	2	1	Secondary school	3 years
2	***SECTOR FOR CALIBRATION***				
19	**Manager of sector for calibration**	1	1	VII/1, Faculty of mechanical engineering,Faculty of technology and metallurgy , Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
20	**Assistant manager of sector for calibration**	1		VII/1, Faculty of mechanical engineering,Faculty of technology and metallurgy , Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
2.1	*Department for calibration of mechanical quantities*				
21	**Manager of department for calibration of mechanical quantities**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
22	Laboratory assistant in laboratory for mass Adviser	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics	3 years
23	Laboratory assistant in laboratory for mass Associate	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics	1year
24	Laboratory assistant in laboratory for pressure Adviser	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics	3 years
25	Laboratory assistant in laboratory for pressure Associate	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics	1 year
26	Laboratory assistant in laboratory for density Associate	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics	1 year
2.2	*Department for calibration of physical quantities*				
27	**Manager of department for calibration of physical quantities**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years

28	Laboratory assistant in laboratory for length Adviser	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	3 years
29	Laboratory assistant in laboratory for length Senior Associate	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	2 years
30	Laboratory assistant in laboratory for length Junior associate	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	Without working experience
31	Laboratory assistant in laboratory for temperature Adviser	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics, Faculty of electrical engineering and information technologies	3 years
32	Laboratory assistant in laboratory for temperature Associate	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics, Faculty of electrical engineering and information technologies	1 year
33	Laboratory assistant in laboratory for temperature Junior associate	2	2	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of natural science and mathematics, Faculty of electrical engineering and information technologies	Without working experience
34	Laboratory assistant in laboratory for volume and flow Adviser	1	1	VII/1, Faculty of mechanical engineering, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	2 years
35	Laboratory assistant in laboratory for volume and flow Associate	1		VII/1, Faculty of mechanical engineering, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	1 year
36	Laboratory assistant in laboratory for volume and flow Junior associate	1	1	VII/1, Faculty of mechanical engineering, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	Without working experience
2.3	*Department for calibration of electrical quantities*				
37	**Manager of department for calibration of electrical quantities**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
38	Laboratory assistant in laboratory for AC/DC low frequency Adviser	1		VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	3 years
39	Laboratory assistant in laboratory for AC/DC low frequency Associate	1		VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	1 year
40	Laboratory assistant in laboratory for AC/DC low frequency Junior associate	1	1	VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	Without working experience
41	Laboratory assistant in laboratory for energy Adviser	1		VII/1, Faculty of electrical engineering and information technologies, Faculty of	3 years

				natural science and mathematics	
42	Laboratory assistant in laboratory for energy Associate	1	1	VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	1 year
43	Laboratory assistant in laboratory for time and frequency Associate	1		VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	1year
2.4	***Department for calibration of other quantities***				
44	**Manager of department for calibration of other quantities_**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
45	Laboratory assistant in laboratory for chemistry Adviser	1		VII/1, Faculty of technology and metallurgy, Faculty of natural science and mathematics	3 years
46	Laboratory assistant in laboratory for chemistry Junior associate	1	1	VII/1 Faculty of technology and metallurgy, Faculty of natural science and mathematics	Without working experience
47	Laboratory assistant in laboratory for reference materials Adviser	1		VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of technology and metallurgy,	3 years
48	Laboratory assistant in laboratory for reference materials Junior associate	1	1	VII/1, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of technology and metallurgy,	Without working experience
49	Laboratory assistant in laboratory for sound Junior associate	1		VII/1 Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	Without working experience
3	***SECTOR FOR VERIFICATION AND PRECIOUS METALS***				
50	**Manager of Sector for verification and precious metals**	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	5 years
51	**Assistant manager of Sector for verification and precious metals**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics	4 years
3.1	*Department for verification of mechanical measuring instruments*				
52	**Manager of department for verification of mechanical measuring instruments**	1	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	4 years
53	Advisor for verification of measuring instruments of mechanical quantities	2	1	VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	3 years
54	Independent officer of department for verification of mechanical measuring instruments	6	5	Secondary school or VI degree	3 years
3.2	***Department for verification of electrical measuring instruments***				
55	**Manager of department for verification of**	1	1	VII/1, Faculty of mechanical engineering,	4 years

	electrical measuring instruments			Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	
56	Advisor for verification of measuring instruments for electrical quantities	3		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	3 years
57	Independent officer of department for verification of electrical measuring instruments	1	1	Secondary school or VI degree	3 years
3.2	**Department for control of items of precious metals**				
58	**Manager of department for control of goods of precious metals**	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	4 years
59	Advisor of department for control of goods of precious metals	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	3 years
60	Independent officer of department for control of items of precious metals	2	2	Secondary school of chemistry or VI degree	3 years
61	Associate of department for control of goods of precious metals	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	1 year
62	Junior associate of department for control of goods of precious metals	1		VII/1, Faculty of mechanical engineering, Faculty of technology and metallurgy, Faculty of electrical engineering and information technologies, Faculty of natural science and mathematics, Faculty of architecture	Without working experience
	TOTAL	74	33		

3. Institute of Standardisation (ISRM)

3.1 HUMAN RESOURCES IN ISRM

According the Rulebook of Organization and Operations of ISRM and the Rulebook for Tasks description of the ISRM, **31** positions are anticipated.

Currently, total number of employees in ISRM is **13**.

*2007: 7 new staff in ISRM was intended to be employed. The Approval from the Government (the founder) for employment of 7 permanent staff in 2007 was given in late December 2007. The procedure for recruitment could not be finished in 2007 according the given approval. ISRM submitted letter of request to the Ministry of Finance (MoF) to confirm the approval for employment of 7 permanent staff in January 2008. This Approval is not yet received.

2008: 5 new staff in ISRM is intended to be employed.

2009: 5 new employments.

2010: 1 new employment.

Please find the following ISRM monitoring table concerning the ISRM human resources until 2010:

year	**to 2007 inclusive**	**2008**	**2009**	**2010**	**Total**
number of employees	13	5 (2007:7)*	5	1	**31**

The inadequate ISRM personnel capacity is the main risks for non-fulfilment of ISRM tasks and activities.

3.2: Transposition of International and European Standards as national standard, *STATUS* *(Period January 2006 – March 2008)*

From January 2006 till March 2008, **3336** International and European standards and other standardization documents were adopted as national standards (Table 1 and Table 2).
3288 International and European standards and other standardization documents were adopted as national standards with endorsement method (translation of titles only). **69** International and European standards were translated, out of which **48** standards were adopted and available with translation, which is verified by the ISRM TC's (enclosed list of translated standards). Other 21 standards are in the procedure of adoption.

TABLE 1 Adopted European standards and other standardization documents related to European Directives as national standards (January 2006 – March 2008)

European Directives	Abb.	Adopted national standards		Total
		ISRM Council	ISRM Technical committee	
73/23/EEC Low Voltage Equipment	**73/23 LVD**	**506**	**109**	**615**
98/37/EC Machinery safety	**98/37 MD**	**300**	**265**	**565**
89/106/EEC Construction Products	**89/106 CP**	**165**	**127**	**292**
94/9/EC Equipment and Protective Systems in Potentially Explosive Atmospheres (ATEX)	**94/9 ATEX**	/	**73**	**73**
89/336/EEC Electromagnetic compatibility	**89/336 EMC**	**72**	**1**	**73**
87/404/EEC Simple pressure vessels	**87/404 SPV**	**11**	**3**	**14**
90/384/EEC Non-automatic weighing instruments	**90/384 Nw**	**1**	/	**1**
95/16/EC Lifts	**95/16 L**	/	**8**	**8**
97/23/EC Pressure equipment	**97/23/ PE**	**143**	**22**	**165**
89/686/EEC Personal protective equipment	**89/686 PPE**	**272**	/	**272**
94/62/EC Packaging and packaging waste	**94/62 PPW**	/	**6**	**6**
90/385/EEC Medical devices: Active implantable	**90/385 Md.Ai**	**2**	/	**2**
93/42/EEC Medical devices: General	**93/42 Md.Gen**	**248**	/	**248**
98/79/EC Medical devices: In vitro diagnostic	**98/79 In Vitro**	**14**	/	**14**
90/396/EEC Appliances burning gaseous fuels	**90/396 GA**	/	**87**	**87**
88/378/EEC Toys safety	**88/378 TS**	**9**	/	**9**
00/9/EC Cableway installations design to carry persons	**00/9 Cable**	**21**	/	**21**
94/25/EC Recreational craft	**94/25/EC RC**	**53**	/	**53**
Directive 2001/95/EC General Product Safety	**2001/95/EC GPS**	/	**3**	**3**
Directive 1999/5/EC Radio and telecommunications terminal equipment	**1999/5/EC RTTE**	**145**	/	**145**
Amendments	**Amd**	**103**	**3**	**106**
	Total	**2065**	**707**	**2772**

*NOTE: The total number of adopted European standards and other standardization documents related to European Directives as national standards given in Table 1 (excluded 10 withdrawn standards) is **2762.***

TABLE 2 : Adopted International and European standards as national standards (January 2006 – March 2008)

Technical committee in ISRM	Abb.	EN (EN/ISO)	ISO/IEC	Total
ISRM Council	**ISRM Council**	**63**	**10**	**73**
ISRM TC 1 - Electrical apparatus for explosive atmospheres	**ISRM TC 1**	**49**	**17**	**66**
ISRM TC 3 - Water analysis	**ISRM TC 3**	**28**	**51**	**79**
ISRM TC 4 - Characteristic of waste	**ISRM TC 4**	**14**	**2**	**16**
ISRM TC 5 - Textile and textile products	**ISRM TC 5**	**9**	**21**	**30**
ISRM TC 7 - Petroleum products and lubricants	**ISRM TC 7**	**16**	**6**	**22**
ISRM TC 8 - Thermal performance of buildings and buildings components	**ISRM TC 8**	**15**	**/**	**15**
ISRM TC 9 - Quality management and quality assurance	**ISRM TC 9**	**4**	**6**	**10**
ISRM TC 12 - Road - materials, equipment and signs	**ISRM TC 12**	**39**	**/**	**39**
ISRM TC 14 - Environmental management	**ISRM TC 14**	**9**	**2**	**11**
ISRM TC 15 - Nondestructive testing	**ISRM TC 15**	**5**	**/**	**5**
ISRM TC 16 - Coding of country names and related entities	**ISRM TC 16**	**1**	**/**	**1**
ISRM TC 17 - Air quality	**ISRM TC 17**	**35**	**10**	**45**
ISRM TC 18 - Accreditation and conformity assessment	**ISRM TC 18**	**8**	**1**	**9**
ISRM TC 20 - Cables	**ISRM TC 20**	**24**	**/**	**24**
ISRM TC 22 - Heating ventilating and air-conditioning	**ISRM TC 22**	**11**	**/**	**11**
ISRM TC 24 - Concrete and concrete products	**ISRM TC 24**	**40**	**/**	**40**
ISRM TC 25 - Masonry	**ISRM TC 25**	**28**	**/**	**28**
ISRM TC 26 - Wood and wood products and furniture	**ISRM TC 26**	**2**	**/**	**2**
ISRM TC 27 - Gas technique	**ISRM TC 27**	**4**	**3**	**7**
Amendments and other standardizations documents	**other doc.**	**15**	**26**	**41**
	Total	**419**	**155**	**574**

Other standardizations documents: Technical specifications, technical reports and guides

ANNEX 4: Reference to laws, regulations and strategic documents:

3.a) Reference list of relevant laws and regulations

Key laws and regulations on the sector:

- Law on Accreditation, 2002
- Law on Competition Protection Law
- Law on Construction Product Safety
- Law on Consumer Protection, 2004
- Law on Control of Products from Precious Metals
- Law on Market Inspection, 2002
- Law on Metrology, 2002
- Law on Motor Vehicle
- Law on Organisation and Operation of State Administrative Bodies, 2002
- Law on Products Safety, 2006
- Law on Standardisation, 2002
- Law on Technical Inspection, 2005
- Law on Trade, 2004
- Company Law
- Guidelines of Accreditation Institute
- Statute of the Institute for Standardisation
- Rulebook on accreditation procedure
- Rulebook on the preparation and adoption of the national standards and other standardisation documents
- Rulebook on the manner and procedure for conducting metrological supervision and metrological requirements that the packed products should meet considering the quantities, manner of labelling and permitted tolerance of the labelled quantity and list of nominal quantities of the packed products

3.b) Reference to AP/NPAA/EP/SAA

Reference to **SAA** (2001): The objectives of the project contribute towards the implementation of the SAA Articles 73 related to standardisation, metrology, accreditation, and conformity assessment where it calls the country to take the necessary measures in order to gradually achieve conformity with Community technical regulations and European standardisation, metrology, accreditation and conformity assessment procedures. To this end, the Agreement stresses the importance of promoting the use of Community technical regulations and European standards, tests and conformity assessment procedures; concluding, where appropriate, European Conformity Assessment Protocols; fostering the development of the quality infrastructure: standardisation, metrology, accreditation and conformity assessment; and promoting participation in the work of specialised European organisations (CEN, CENELEC, ETSI, EA, WELMEC, EUROMED, etc.).

Reference to **Accession Partnership** (2007-2008): The program will address the following AP priorities: “Adopt and implement horizontal framework legislation to complete the necessary infrastructure, and ensure a segregation of tasks between the various functions (regulation, standardisation, accreditation, metrology, conformity assessment and market surveillance) for conformity assessment procedures”; “Draft a comprehensive strategy with milestones for implementation of the acquis for the relevant horizontal organisations (standardisation, accreditation, metrology and market surveillance) together with target dates and clear responsibilities for introducing and effectively implementing legislative measures and enhancing administrative capacity in the different sectors”; “Speed up the rate of adoption of

European standards and step up efforts to become a full member of the European standardisation organisations".

Reference to the **Progress Report** (2007): The latest progress report makes the following evaluation: "Some progress can be reported on alignment of legislation with the acquis on the free movement of goods and in strengthening the administrative capacity of the various institutions. However, most of the sectoral acquis on free movement of goods still remains to be transposed and implemented. The capacities of the implementing bodies are still insufficient to perform their tasks. Alignment with the acquis in this area is still at an early stage"; "In the area of standardisation, the pace of adoption of European standards has accelerated. As of August 2007, a total of 2,754 harmonised European standards had been adopted as national standards, mostly by endorsement and mainly related to the areas of low voltage equipment, safety of machinery, construction products and equipment for potentially explosive atmospheres. Of these, 2,367 standards give presumption of conformity to technical regulations transposing the "new approach" directives. A list of harmonised standards on construction products, which contained some 200 standards, was also recently published. The number of technical committees within the ISRM has increased to 22. The administrative capacity of the ISRM has been strengthened with new staff and training in several areas, and membership of the ISRM assembly increased to 55. A website has been developed with up-to-date information on all new developments regarding standards. A Memorandum of Understanding was concluded with the European Telecommunications Standards Institute (ETSI). As regards conformity assessment, a decision was adopted which specifies the procedure for introducing the CE marking. A manual on the conditions that conformity assessment bodies will have to fulfil was adopted. Legislation concerning the designation and notification of conformity assessment bodies has not yet been adopted. In the area of accreditation, the IARM has sufficient equipment, its staff was increased from 4 to 9 and the number of lead assessors and trainers has increased. As of August 2007, the IARM has accredited 17 conformity assessment bodies, mainly inspection bodies and testing laboratories. It has also established a website. Regarding metrology, the capacity of the Bureau of Metrology was strengthened by hiring additional employees, but it still does not have sufficient staff and equipment to perform its functions. It joined the Metre Convention, and obtained candidate status in the European Association of National Metrology Institutes (EURAMET). A bilateral cooperation agreement was concluded with the Metrology institute of Turkey. … In the area of procedural measures, a decision was adopted which specifies the notification procedures. The Ministry of Economy and the ISRM have been designated as the institutions responsible for notification. The law on weapons entered into force and implementing legislation was adopted. There were no developments in relation to external border checks and cultural goods".

Reference to **National Plan for Adoption of Acquis** (2007): The Plan has following priorities with regard to quality infrastructure: "During 2002, the Institute of Standardisation and Institute of Accreditation were created based upon separate laws as well as the Metrology Bureau. The coordinative role for realisation of the priorities in the area of free movement of goods lies with the Ministry of Economy. … Competent institutions other than the Ministry of Economy participating actively in the implementation of the priorities in the area of Free Movement of Goods are: Ministry of Health, Ministry of Labour and Social Policy, Ministry of Transport and Communications, Ministry of Environment and Physical Planning, Institute of Standardisation, Institute of Accreditation, Metrology Bureau, State Market Inspectorate, State Technical Inspectorate, and the Ministry of Interior. Within the procedural measures, active participants are the Customs Office of the RM, State Statistical Office and the Ministry of Culture and other bodies having competences in the area of non-foodstuffs safety. … The Law on Standardisation regulates the aims and the principles of national standardisation, the status of ISRM as well as

its tasks, the association in the international and European standardisation organisations, its financing, preparation, adoption and publishing of national standards and their implementation. … ISRM is a full-fledged member of the ISO (International Organisation for Standardisation) since 1995, associate member of the IEC (International Electrotechnical Commission) since 14 January 2005, associate member of the CEN (European Committee for Standardisation) since 1 July 2003 and the CENELEC (European Committee for Electrotechnical Standardisation) since 3 March 2005. On 15 December 2006, ISRM and ETSI signed a Memorandum of Understanding in the area of telecommunications. According to the Memorandum, the obligations and the responsibilities of ISRM address the implementation of the relevant procedures for preparation and adoption of the European standards as national standards in the area of telecommunications. … By October 2006, 1347 European standards are adopted as national standards out of which 1264 are harmonised standards from the New Approach Directives. In ISRM there are 15 technical mirror committees (ISRM TC) with a different scope of activity that are active in the process of adoption of the European standards as national standards. The establishment of 3 technical committees is ongoing, and initiatives were submitted for establishing of 4 additional technical committees. … The Institute of Accreditation (IARM) was established as a special public institution performing tasks and duties of a national accreditation service. Accreditation is an expert procedure by which the IARM, in accordance with the accreditation formally confirms the ability of an institution to perform specific tasks in the area of conformity assessment by means of certificate. Accreditation is an activity of public interest. The rules for accreditation are in full compliance with the European and international standards (series EN 45000 and series ISO 17000), the regulations and the guidelines of EA, IAF and ILAC, and the European best practices in this area. IARM represents the country in the European and international organisations for accreditation and participates in their work. In 2005, IARM signed an agreement for cooperation with EA (European cooperation in the area of accreditation). After obtaining the status of an EU membership candidate country, IARM started a procedure for full-fledged membership in EA. The first pre-assessment of IARM by EA was completed in 2006, and the assessment report is generally positive. … IARM collaborates with the national bodies for accreditation in other states, especially in the region, based on a formal and informal cooperation with: SA, HAA, JUAT, ESYD, BAS and BATA. …), were all the information on accreditation is presented for public access. … The Metrology Bureau is a specialised expert body within the Ministry of Economy, which performs tasks and duties regarding the metrology system of the country. The primary task of the Metrology Bureau is the provision of traceability (of physical size of measurement units in the country and worldwide) and performance, storage and maintenance of national metrics and certified reference materials as well as calibration of metrics and meters. In order to perform these tasks, the Metrology Bureau cooperates with specialised international and regional organisations (OIML, CGPM, EUROMET, and WELMEC) where it represents the country. The Metrology Council was created within the Metrology Bureau and is operating as an expert advisory body. In 2006, the country became an associate member of the General Conference for Weights and Measures of the Metre Convention, and on 19.12.2006 a MRA- international Mutual Recognition Arrangement of national measurement standards and of calibration and measurement certificates issued by national metrology institutes, was signed. Within the Metrology Bureau there are nine laboratories for calibration of measurement instruments of which six are operational (laboratory for weight, pressure, length and angle, volume and flow, density, frequency and time). … Relationship is established with the countries-producers of the calibration equipment for the training of the employed in calibration of measurement instruments, and part of the employed participated in training in some of those countries. In mid 2006, the Metrology Bureau became a candidate for membership in EUROMET (December 2006) and assigned its own representatives to some of its technical committees. … The conformity assessment in the

country is regulated by the Law on Products Safety, and the Minister is authorised to adopt technical regulations for accrediting interested bodies to perform conformity assessment by means of a decision. The Accreditation is considered to be an assumption for eligibility for authorisation of bodies. In the RM, there is a system of authorised bodies and they will continue to function 1 to 2 years at the latest from the day of entering into force of the technical regulations and rulebooks, respectively. The Government in the document" National accreditation policy" has adopted the accreditation of the bodies for the conformity assessment as a tool with the procedure for authorisation – notification of the bodies for conformity assessment in the regulated area. There is ongoing accreditation of laboratories, certification and inspection (control) bodies, the status of which is identified according to the old legal framework and the old manner of approval, authorisation and accreditation, in compliance with the Law on Accreditation and the relevant international and European standards in order to assess and confirm its technical competence. … Considering the implementation of the provisions of the Law on Products Safety and the Rulebooks of the new and old approach, Commission for Products Safety will be established at the proposal of the Minister of Economy and the Government of the RM. … The plans in the area of standardisation include: Strengthening of the human resources capacity of ISRM with nine new employments; Preparation and adoption of the Programme for Adoption of national Standards for 2007 and accordingly adoption of 1450 European and international standards as national standards. Adoption of standards by the endorsing method – announcement for adoption and translation; Starting the process of translation of European standards into Macedonian language; Establishment of a national technical infrastructure for standardisation through creation of technical committees for specific areas - mirror technical committees whose scope of work shall cover the scope of work of the technical committees within the European standardisation institutions (CEN and CENELEC) and in accordance with the requirements of the the country's economy and business and initiatives of interested parties. … Active participation and monitoring of the work of the relevant committees in the European and international bodies for standardisation; Training of the employed in the ISRM and of the technical committee experts; Realisation of international cooperation through signing of the Agreement for cooperation and Agreement for selling with the European Institute for Telecommunication Equipment (ETSI); Establishment of information system through procurement of a system for documents and database management; Promotion campaign for informing and active inclusion of the business community and the other interested parties in the process of standardisation. In the area of accreditation the following activities are foreseen: accreditation of conformity assessment bodies (laboratories, certification bodies, inspection bodies), membership in the EA as a fully-fledged member, membership in the IAF, ILAC - international accreditation organisations, trainings concerning the principles and requirements in compliance with European accreditation. In the area of metrology, strengthening of the Metrology Bureau. Regarding conformity assessment, it is foreseen to complete the legal framework for appointing and notification of bodies for conformity assessment, and to provide a functional infrastructure for conformity assessment. … The Ministry of Economy shall also be in charge of establishing a Register of conformity assessment bodies. In order to realise the foreseen activities, it is planned to conduct intensive trainings for conformity assessment bodies as well as dissemination of information. The aim of the activities undertaken in this area is to provide conditions for conformity assessment by the national bodies for conformity assessment the certificates of which will be acknowledged on the European and international markets; establishing bodies for conformity assessment, which will work according to the criteria referred to in the series of standards ISO 17000 and EN 45000 the capacity of which will be confirmed by a certificate for accreditation and by establishing the *Macedonian Council for Conformity Assessment* (foreseen within the BERIS project). … As medium-term-priorities the following has been planned in the area of standardisation: Full implementation of the European internal rules and procedures for

the work of ISRM; Establishment of an efficient system for standardisation that will enable monitoring and integration into the standardisation system at European and international level; Establishment of an efficient technical infrastructure – technical committees and working groups of ISRM; Adoption of minimum 80 % of the European standards and withdrawal of the conflicting national standards; Procurement, installation and initiation of full operational service of appropriate IT and telecommunications equipment; Establishment of notification procedures for all standardisation projects that are planned at national level and standstill procedures (standstill); Establishment and application of an appropriate legal and internal framework of rules on intellectual property regarding the standards and the standardisation documents; Comprehensive strengthening of the staff capacity of ISRM; Implementation of a quality system in ISRM. The following has been planned in the area of accreditation: Increased number of accredited bodies for conformity assessment (laboratories, certification bodies, inspection bodies) according to the requirements of the European standards for accreditation and the appropriate procedures for accreditation, which would be the basis for signing an Agreement on mutual recognition of the results; Increased number of professional evaluators, and signing of bilateral cooperation Agreements; Signing of Agreements on mutual recognition of the results. According to the Medium-term programme on development of the metrological infrastructure for the period 2006 – 2009, the following has been planned: Establishment of partner relationship through contracts with the users of the metrological infrastructure as constructors of the dispersion model; Making use of the domestic resources, primarily of the scientific-educational institutions for education intended for a specific purpose, and formation of national etalons in areas where the Metrology Bureau has no such possibilities; Introduction of appropriate quality systems in the Metrology Bureau (ISO 17025 and ISO 17020 and ISO 9000); Proclamation of national standards/patterns of the measuring units (mass, pressure, temperature, density, length, volume, low voltage, resistance); International recognition of the national metrological infrastructure by joining the General Conference on Weights and Measures and EUROMET, as well as development and publication of tables of our calibration and measuring capabilities; Active participation aimed at ensuring purposeful use of the funds of the MSTQ component of the World Bank's BERIS programme for further equipping and strengthening of the Metrology Bureau. In the area of conformity assessment, it is planned to establish a Council for conformity assessment, the function of which will be to coordinate the activities performed by the authorised bodies for conformity assessment and by the competent ministries. This Council is planned to host the participation of representatives of the Government and of the line ministries that are responsible for giving authorisation to the bodies".

3.c) Reference to MIPD

Multi-Annual Indicative Planning Document (2008-2010) refers to: "In the field of internal market and competition, areas of attention include strengthening the administrative capacity needed for quality infrastructure (e.g. standardisation, metrology and market surveillance)"; "Priority should be given to projects which will be ready to start before 2010 (for completion before 2017) and which address the most pressing bottlenecks in terms of congestion, poor quality infrastructure or poor environmental standards and which generate the highest economic and social returns".

3.d) Reference to National Development Plan

The proposed project has reference in following assessments of the **National Development Plan** (2007): "The Laws on Standardisation, Metrology and Accreditation have been adopted, as well as the technical requirements for product compatibility and conformity assessment. Other activities are also in the process of being conducted for the adaptation of the national legislation"; "Obsolete and internationally not recognized system of Metrology, standardisation,

testing and quality"; "In order to be able to operate normally within the international community, standardization of products and their quality are essential. Authorities must therefore put high on their priority list establishment and proper functioning of the national institutions dealing with these issues. Well functioning institutions in the areas of metrology, standardization, testing and quality control are a must if the corporate sector would like to produce products and services that are compatible with the EU requirements in this area. Specific projects/programs foreseen by the respective line ministry in the next three years are the following: - capacity building of the IARM; This Programme means new employment in the IARM and salary adjustment of some of the existing employees up to the level of adequate salaries of other state officials. - Improvement of the regulative framework; It is needed to make improvement of the regulative framework in the accreditation field, according to the European rules, standards and best practices. In this respect amendments are needed to the Accreditation Law, compliance of other laws regulating different aspect of movement of goods with the Accreditation Law, amendments to the IARM Guidelines, amendments to the accreditation national policy document and its compliance with the Law. - Preparation of the IARM for signing the multilateral agreement (MLA) for worldwide recognition and acceptance with European Cooperation for Accreditation (EA); The multilateral agreement with EA will mean that the infrastructure for quality will have been established, especially in the following areas: testing laboratories, calibration laboratories, constitution of inspection bodies and certification bodies (for products, quality systems, environment management systems, HACCP certification systems, certification of products, EMAS accreditation). Technical assistance will be needed for the preparation for this kind of capacity building as elaborated within this programme. - Establishment of a national training centre for quality; It has been acknowledged that the establishment of a national training centre in the field of standardisation, metrology, accreditation, compliance assessment is a national requirement. This training centre will have a wide target group of attendance, such as the employees of AIRM and other quality assurance bodies and institutions, other ministries, market surveillance institutions, business operators etc. The programme provides for refurbishment of the needed premises, its equipment and its educational and training programmes development. - Establishment of an association of assessment compliance bodies; The aims of this association will be to provide professional support to the assessment compliance bodies, networking, protection of mutual professional interests, mutual information, exchange of experience, international cooperation, trainings. This program provides for technical assistance for the establishment of the association with its documents and procedures. - Establishment of the *Macedonian Institute for Quality*; The need for development and building of a national system for compliance assessment and for the adoption of the National Strategy of the development of the national compliance assessment system based on the principles of the new global approach of EU and stimulating of private initiative in that area have been well recognized and acknowledged in the country. Establishment of the *Macedonian Institute for Quality* would have the role of an incubator in this area and cover several areas. The establishment of the EU compliant national compliance assessment system will enable implementation of the requirements for the safety of products, which will directly increase the easiness of the access of the country's products in the EU. In the presence, the different legal framework has a consequence of increased costs for the producers to comply with both EU standards and local regulations standards and some of the procedures are unnecessarily repeated".

3.e) Reference to national / sectoral investment plans

The project directly links to the following strategies and action plans in the sector:

- Medium-term Programme for development of a metrological infrastructure and Action Plan, 2006
- National Policy for Accreditation
- National Policy for Standardisation

- Policy for development of metrological infrastructure
- Work programme for transposition of the directives from the new and old approach
- Programme for Adoption of national Standards

ANNEX 5 - Details per EU funded contract

Project Management and Administration

As the different components are strongly related, a joint steering committee will be established. The project Steering Committee will be chaired by the Ministry of Economy and will include representatives of the different stakeholders. The Delegation of the European Union, Secretariat for European affairs shall be invited to participate with Observer status. The Steering Committee shall meet not less than once per three months.

Advisory services will be provided to the direct beneficiaries through different service contracts. The contracts to support the project will contain next to a team leader additional expertise to assist in key tasks, e.g. in the field of administrative capacity building, training, legal development, IT development and others. Some of these experts will address the cross-cutting issues. The core project team – consisting of the team leader and other expertise will be placed within the beneficiaries.

The team leader will be responsible for the overall management, representation (co-ordination with the EU and other international bodies) as well as reporting. The co-ordination of activity development in the different components of the activity is significantly important. The team leader is responsible for an appropriate management of resources. During the inception phase of the project, a detailed deployment plan will be developed under the coordination of a Steering Committee in which each co-operating national institution will be represented to ensure appropriate inclusion.

The expected contracting arrangements are:

Financed through IPA:

- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Institute for Standardisation project with duration of 12 to 24 months. Implementation is expected to start in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.
- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Institute for Accreditation project with duration of 12 to 24 months. Implementation is expected in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.
- 1 Service contract will be concluded following an international restricted tender procedure to support the development of the Bureau of Metrology project with duration of 12 to 24 months. Implementation is expected in 3rd quarter 2010, one month after the signature of the contract and the contract value will be approx. EUR 0.6 Million.

Financed through the national contribution:

- 1 Supply contract for the delivery and installation, as well as associated training, of the IT system in the Institute for Standardisation, with duration of 4 to 10 months, and subsequently a 12 months warranty period, bringing the total project

duration to 16 – 22 months. Implementation is expected in 3rd quarter 2011, one month after the signature of the contract and the contract value will be approx. EUR 0.25 Million.

It is expected that the following prioritised equipment will be procured:

1. Beck up sever , min. HDD capacity 1TB redundant (RAID 0 or RAID 1)
2. Mail –web server
3. Option: Active directory Server for corporative work
4. Security server , anti virus , anti spam server
5. Technical equipment , their support and maintenance
6. Licensed IT software
7. Network equipment
8. Telecommunication equipment

- 1 Supply contract for the delivery and installation, as well as associated training, of the IT system in the Institute for Accreditation, with duration of 4 to 10 months, and subsequently a 12 months warranty period, bringing the total project duration to 16 – 22 months. Implementation is expected in 3rd quarter 2011, one month after the signature of the contract and the contract value will be approx. EUR 0.25 Million

Funded through an IFI contribution:

- 1 or more Supply contracts for the delivery and installation, as well as associated training, of equipment in the Bureau of Metrology, with expected duration of 4 to 10 months, with 12 month warranty period, bringing the total duration of the project to 16-22 months. Implementation is expected in 3rd quarter 2011. The contract value will be approx. EUR 0.6 Million, funded through the loan of the BERIS Programme of the World Bank, following the implementation schedule of this project.

Temperature Laboratory

Existing equipment:

- Precision Digital Thermometer
- Channel Multiplexer
- Thermocouple Calibration Furnace
- Dry-Well Calibrator (-45ºC to 140ºC)
- Dry-Well Calibrator (50ºC to 700ºC)
- Mercury Thermometers (-38ºC to 450ºC)
- Digital Thermometers (-200ºC to 950ºC)
- ITS-90 fixed point furnace (for Al, Zinc, Tin and Indium Cells)
- Mercury cell
- Triple point of water
- Digital Thermometer (-50ºC to 600ºC)
- High stability calibration bath (40ºC to 300ºC)
- High stability calibration bath (-80ºC to 110ºC)
- High accuracy automatic resistance Thermometry Bridge
- Flaked/Crushed Ice making system
- Ice bath Dewars
- Standard 10Ω, 25Ω and 100Ω resistors

- Temperature Calibrator (-80ºC to 40ºC)
- Thermostabilized oil bath for standard resistors maintenance

Utilization:
50% because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):
- Standard platinium thermometers,
- Reference standards thermocouples,
- Fixed points Al, Zinc, Tin and Indium Cells.

Laboratory for electrical quantities and energy

Existing equipment:
- Digital multimeter (model 1281 Wavetek)
- Multigunction Calibrators: (model: 4808 Wavetek)
- Wideband Source (model 4800 Wavetek),
- Transconductance Amplifier:(model 4600 Wavetek)
- Universal Calibration System (model 9100 Wavetek)
- High Prformance Cscilloscope Calibrator (model 9500B FLUKE)
- Termostabilized oil bath for standard resistors maintenance (model 7009 Hart Scientific)
- High accuracy automatic resistance thermometry bridge (model FLUKE F300)

Utilization: 50% because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):
- AC Voltage Standard Equipment (AC/DC Thermal Transfer Standard)
- Set of 14 Current Shunts
- Precision Reference Divider
- Nanvoltmeter
- 8½ Digital Reference Multimeter With Ratio Measurements

Mass laboratory

Existing equipment:
- mass comparators (weights from 1 mg to 50 kg),
- laboratory standards (weights - E1, E2, F1, F2)

Utilization:
100 % because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):
- Susceptometer (for calibration of E1 class)
- Standard weight E0 (1kg)

Pressure laboratory

Existing equipment:

- Dead Weight Tester model: 580DX - Utilization: 100%
- Dead Weight Tester model: 550 – Utilization: 30%
- Pressure Portable Calibrator model: PPS40 – Utilization: 20%
- Pressure Balance model: 5500 - Utilization: 0%
- Pressure Balance model: 5306 – Utilization: 60%
- Pressure Controller model GPC2 – Utilization: 20%

- Automatic pressure balance model: DPG8 – Utilization: 20%

Total Utilization:
35% because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):
- all kinds of Accessories/Spare parts (different type of connectors set for hydraulic and pneumatic pressure measurement, flexible pressure pipe and lines)
- 2 very sensitive measurement system to measure the piston fall rate for pressure balance calibration
- High pressure resistance pressure tubes (in a different lengths), shut-off valves, sensitive water balance to measure the piston-gage perpendicularity
- wrench set to realize the connections
- screwdrivers is needed for hydraulic pressure measurement
- multimeter which can measure DC voltage and amper, power supply and different type electrical cables and connectors

Laboratory for Volume and flow

Existing equipment:
- volume standards
- OT1500 Piston prover
- gas flow transfer standard calibrator FTS
- thermal mass-flow standards

Utilization: 80%

Needs to be procured (Gaps):
- High accuracy class balance - max. capactity 100 kg, resolution 10 mg
- Conductivity meter

Laboratory for length and angle

Existing equipment:
- Length measuring system - Universal length measuring machine - Precimar PLM600
- Roughness measuring system - Perthometer PGK120
- set of 122 gauge blocks (0.5 to 100 mm) **K**- class
- set of 5 rectangular gauge blocks (100, 200, 300, 400 and 500 mm) **K** - class
- PGN1, PGN3, PGN10

Utilization:
30% because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):
- Depth setting standard
- Measuring unit for measuring equal bores, thread measuring pin gauges, measuring unit (for thread gauges), Excahaneable measuring anvils, Measuring anvils and unit (for tapered thread gauges), clamping device, accessory for testing gauge blocks in horizontal position, clamping device, calliper, reference ring gauge, X-blocks (75mm), thread Plug gauges (Go), thread Ring gauges (Go),thread Ring gauges (Not-Go);
- Optical flat set (4 pieces:12.00,12.12, 12.25,12.37), universal stands, knife ende sets, pupitast (Dial gauges)0.001µm, dial gauges 0.001µm;
- Mechanical short gauge block comparators (and accessories);
- Interferometer for short gauge block;

Time & frequency laboratory

Existing equipment:

- Electronic counter range : 0 ÷ 150 MHz
- Cristal oscilator range: 0 ÷ 5 MHz
- Digital clock with accuracy up to 10^{-9} (1 ns)
- Frequency convertor range: 3 ÷ 12..6 GHz
- GPS Reciver Common view , was deliverd by the European Agency for Reconstruction and Development througt CARDS/SMAQVa project.

Utilization: 10% because of the lack of the equipment that is necessary to purchase

Needs to be procured (Gaps):

- Time interval counter
- Spectrum Anayser
- RF power meter and power sensors
- Signal Generator
- BNC, N type, SMA connectors and suitable cables

Laboratory for referent materials

Existing equipment:

- Areometers for determination density - measuring range from 0,600g/cm³ to 1,960 g/cm³
- with accuracy of 0,00005 g/cm³ Hydrometers – measuring range from 0,650 g/cm³ to 1,250 g/cm³ with accuracy of 0,00005 g/cm³
- Alcoholmeters –measuring range from 0,5% to 100% with accuracy of 0,1%.
- Urinometers – measuring range from 1,00 g/cm³ to 1,06 g/cm³ with accuracy of 0,00005 g/cm³
- Lactometers - measuring range from 1,014 g/cm³ to 1,040 g/cm³ with accuracy of 0,00005 g/cm³
- Winemeters measuring range from 1,00 g/cm³ to 1,13 g/cm³ with accuracy of 0,00005 g/cm³
- X-ray spectrometer for nondestructive analisys with precision better than 20ppm.
- Fume cupboard with capacity to 1600m^3/h
- Electric furnace for cupellation (maximum temperature to 1400ºC)
- Hand-operated, motorized bench rolling mills
- Bath with sand
- Electronic balance from 4g to 1,2kg
- Balance with accuracy to 0,0001g
- Set of testing bars for gold for 585‰, 750‰, 840‰ and 950‰
- Set of testing bars for silver for 800‰, 900‰ and 950‰
- Testing acids for gold and silver with different composition
- Stone for test with scratching
- Anvil and hammers for marking
- Press for marking
- Seals for marking goods of gold, silver and platinum

Utilization: 50%

Needs to be procured (Gaps):

- Apparatus for titration (potentiometric)
- Spectrophotometer for liquid solutions
- High precision pH-meter