

SUMMARY PROJECT FICHE

1. Basic Information

- 1.1 Désirée Number: BG 0003.02
 Twinning code: BG/2000/IB/FI/02
- 1.2 Title: **ESTABLISHING A CONFORMITY ASSESSMENT SYSTEM**
- 1.3 Sector: Internal market
- 1.4 Location: State Agency for Standardisation and Metrology (SASM) including General Directorate “Testing and Certification”, General Directorate “National Centre of Metrology”, General Directorate “Market Surveillance”, Sofia, Bulgaria, and Executive Agency “Bulgarian Accreditation Service” (BAS), Sofia, Bulgaria

2. Objectives

2.1 Wider Objective:

Meeting the obligations of the Europe Agreement in the field “Free movement of goods” by establishing the respective institutional framework and service infrastructure in the area of conformity assessment.

2.2 Immediate Objectives:

- Establishing international recognition of results of measurement and creating the technical conditions to respond to the service demand in certain industry sectors, and in state executive bodies relevant to consumer protection.
- Developing a network of certification bodies with the capacity of establishing the notified bodies necessary for the implementation of the New Approach (NA) Directives. Strengthening the certification body of the State Agency for Standardisation and Metrology (SASM) to reach the competence to become a multiplier in the field of product and quality system certification; this being facilitated through the establishment of an accredited body for product and quality system certification, which is to become a notified body for toys, for example.
- Establishing the conditions for international recognition of test and calibration results produced in Bulgaria, as well as of certification of products, quality systems, personnel and inspection by bringing the Bulgarian Accreditation Service to EA (European cooperation for Accreditation) level.
- Establishing a functioning system and institutional basis for effective market surveillance in the areas covered by the NA Directives.

2.3 Accession Partnership and NPAA priority

Short term AP priority:

Free movement of goods: adopt a framework law on technical requirements implementing all New and Global Approach principles, enforce the new law on standardisation and reinforce newly established infrastructure, adopt framework laws on chemicals, foodstuffs and pharmaceuticals;

Medium term AP priority:

Free movement of goods: start implementation of new approach legislation; pursue alignment of traditional technical legislation; implement market surveillance system;

NPAA:

The short-run activities will focus on the transposition of directives related to the national priorities in production and trade. After the adoption of the framework law, efforts will be focused on building the structures necessary for the application of New Approach principles and the stimulation of private initiative for setting up testing, certification and inspection bodies. The priority objective is the implementation of the essential principles under the New Approach and the Global Approach.

- Progressive implementation of the product safety requirements with priority action in the sectors in which Bulgaria has competitive advantages.
- Building up a functioning conformity assessment and market surveillance system.

3. Description

3.1 Background and justification:

Following the passing of new legislation on Standardisation and on Technical Requirements to Products, as framework laws to NA Directives' transposition into Bulgarian Law, the implementation has shortcomings in:

- Adequate structures meeting the needs of the industry;
- Personnel qualification to operate under the new concept;
- State-of-the-art metrological equipment as reference and working standards for service to industry and society;
- Operational practice in line with EU Member States that would allow for mutual recognition of certificates and test results, and membership in EU expert organisations;
- Exportability and competitiveness of industrial products due to difficulties in responding to international conformity requirements;
- Maintaining the expertise of personnel through continued education;
- Lack of supervision of the market due to changed rules as regards the involvement of the State in conformity matters;
- Deficiencies in protection of fair competition and products safety matters;

This project aims at addressing these shortcomings.

3.2 Linked activities

New legislation on metrology, accreditation, standardisation, technical requirements to products was introduced in 1998 – 1999. A legal basis was created for segregation of legal, industrial and fundamental metrology. Principles of voluntary standardisation with participation of all interested parties were implemented. Training of certification personnel from private and state-owned companies and organisations on operation, auditing and certification of products, quality systems and personnel was carried out, awareness and willingness to develop appropriate

conformity assessment structures were achieved. Under the Phare Programme BG 9602, a project “Upgrading of Laboratories” has been successfully implemented: three laboratories in key work processes – for pressure measurement, electric energy, and time and frequency were equipped, and the respective laboratory personnel underwent the proper training. This new project will be a logical extension of the previous programme. Furthermore, it will emphasise on-the-job training and coaching in organisation and operational practice in conformity assessment activities related to accreditation, certification, and market surveillance.

3.3 Results:

The project foresees to produce the following results in the different areas:

Accreditation:

- 10 certification and inspection bodies are accredited to EN 45000 standards;
- 30 testing and calibration laboratories are accredited to EN 45001;
- BAS has demonstrated in a peer-assessment carried out by an audit team of EA member organisations that it is meeting the EA requirements for an accreditation body;
- BAS – is accepted as “affiliated member” of EA.

Certification:

- A model certification body is established, fully meets the requirements of EN 45011 and EN 45012 and is accredited by BAS;
- EU recognition of this body is established through accreditation by an EA member;
- At least 4 additional certification bodies are established to fully meet the requirements of EN 45011 and/or EN 45012, and are accredited by BAS;
- 5 newly established certification bodies receive the authorisation of the competent Ministry to serve as “Notified body” in the field of a New Approach Directive.

Metrology:

- A long-term strategy for the development of Metrology is elaborated and documented, including the identification of mid-term priority needs;
- 2 laboratories are upgraded, as regards equipment, operating environment and procedures, to correspond to international standard in these aspects;
- 3 metrology laboratories of the NCM are accredited to EN 45001 by BAS;
- 3 calibration laboratories are accredited to EN 45001 by BAS;
- Knowledge management and continued education system for the entire NCM is put in place, documented and operational.

Market Surveillance (MS):

This component will be implemented through **twinning**.

- The re-organisation has established a personnel capacity with qualification to assume MS responsibilities in the field of 20 NA Directives;
- The operational procedures for sampling, monitoring, dealing with complaints, enforcement, information, and statistics are in place, documented and applied;
- A computerised management system for data, activities, cases, information exchange developed, documented and operational on a network;
- 3 trainers to work on professional and continuous education as well as public relation matters are formed and held 3 training events (each) under the auspices of EU experts.

3.4 Activities:

Accreditation:

- Accreditation personnel will receive training on the job in EU accreditation bodies;
- Joint assessments will be carried out – i.e. assessments on site in Bulgarian testing laboratories, inspection bodies or certification bodies with participation of EA-recognised experts (lead assessors) on accreditation with sound experience in the relevant sectors and in-depth knowledge of the implementation of accreditation procedures,
- A peer assessment of BAS by a team of experts from different EA member accreditation bodies will be carried out;
- A comprehensive training of assessors meeting EA training requirements will be carried out; this covers the formation of seven trainers on quality matters relevant for accreditation (auditors from third party).

Certification:

- Key certification personnel will obtain practical training in the EU for the acquisition of operational practice of EU notified bodies;
- 2 joint assessments each of manufacturer quality systems relevant to NA Directives (at least 6 different directives) will be carried out;
- A training of 4 trainers as multipliers to develop further certification bodies will be held;
- Experts will support the creation and putting into operation of a computerised certification management system to manage all data and activities related to certification, in the fields of Low Voltage, Machinery, Equipment for potentially Explosive Atmosphere, Personal Protective Equipment, Toys and Construction Products.

Metrology:

- An analysis of mid-term priority industry needs in calibration will be carried out and a long-term strategy drafted, pointing out mid-term priority needs;
- Metrological equipment, transfer and working standards for 2 laboratories will be procured according to Phare procedures, including their calibration traceable to international standards (for details, see Annex 6);
- For the beneficiary laboratories quality systems needed for accreditation will be developed with support of EU experts;
- 3 metrology laboratories will be jointly assessed by EA member and BAS assessors and accredited;
- Joint assessment by EA member and BAS assessors of several (at least 3) calibration laboratories and accreditation will be carried out;
- A formal knowledge management system, including a continued education system will be developed and implemented.

Market Surveillance:

This component will be implemented through **twinning**.

- Training of the technical personnel in the principles of the New Approach and the technical particularities of the respective directives, especially LVD, EMC, MD, Toys, etc. will be carried out;
- MS personnel will obtain on-the-job training in public administration in charge of market surveillance in corresponding areas of at least 2 EU countries, with compatible to the Bulgarian one legislation;
- A procedural system will be developed, including its documentation, covering the full operation of a market surveillance authority;
- Experienced market surveillance professionals of EU Member State administration will secure the operational practice through jointly operating market surveillance processes with their Bulgarian counterparts;
- A regular review process will be established to ensure an operational practice consistent with Bulgarian laws and EU policies;
- EU experts will support/coach the developing and implementing of computer applications to administer all relevant data, manage actual cases and exchange information with national and international counterparts, on the basis of the newly acquired IT network and communication concept of the SASM that was made operational, including: Training of NEP staff on RAPEX procedures and requirements in RAPEX Headquarters and/or in EU country;
- 3 trainers will be formed through theoretical and practical training events on operational matters and public relations, this includes the development of the training material;
- Establishment of relation with Customs authorities, exchange of information, cooperation;
- Cooperation with other Market Surveillance authorities outside of the scope of NA;
- Cooperation with Consumer organisations.

4. Institutional Framework

The following is the institutional framework within which the project will have to operate:

Accreditation:

The Bulgarian Accreditation Service was created by decree in fall 1998; it is a separate legal entity and became an Executive Agency under the new Ministry of Economy (30.12.1999). The organisation has 4 departments, one for laboratory, one for certification and inspection body accreditation, one for surveillance of accredited bodies and one for administration. It operates with its own staff of 15, partially with previous accreditation experience, and external experts. The Accreditation Council, as an advisory board, is composed of 10 representatives from all relevant ministries, 2 representatives from industry associations, 1 from the Academy of Science, 4 from the university, 3 from the laboratory association BULLAB and 1 from the Bulgarian Insurer's Association. BAS has accredited about 60 testing or calibration laboratories, 170 further are to be re-accredited. Furthermore, about 200 authorised inspection units are subject to accreditation according to the respective European standards.

Certification:

The potential beneficiaries in the field of Certification are from 15 different organisations that are in the process of establishing certification services in different sectors, see Annex 5. These organisations were already part of a training under the Phare BG9602 programme in 1999.

To develop this network of certification bodies, the Directorate for Testing and Certification, currently still within the SASM, will be used as reference organisation and multiplier. The directorate disposes of laboratories for testing of electrical appliances, toys, textile, food & beverages, petroleum products and furniture. Therefore, particular effort will be made to bring the certification body of the Directorate to an operational level that is in line with EU practice. Trainers from the Directorate, to be formed under this project, will train and guide the other institutions in setting up structures and operation of a certification body that meet EA accreditation requirements.

Metrology:

The beneficiary in the field of Metrology is the National Centre of Metrology (NCM), which is a directorate within the SASM. With a staff of about 100 personnel, NCM operates 16 laboratories for different measurement units and for keeping over 35 national measurement standards, plus a laboratory for gambling and fiscal devices. The laboratories are a main contributor to the calibration services rendered in the country. Seven areas are identified as priority areas for renovation of their services to the industry and utility organisations, including the accreditation of respective laboratories in 2001.

Market Surveillance:

The State Agency will assume the function of Market Surveillance by forming the respective structures carrying out the tasks. The organisation disposes of a 120-employee unit, until 1999 in charge of Border Control, a function related to market surveillance. It is to be restructured and shall undergo all necessary organisational and human resource development that is necessary to assume the new function.

While the State Agency shall maintain the overall responsibility for the implementation and consistency of market surveillance in the New Approach sectors, some line ministries, such as Health and Telecommunications, may assume the practical functions in their sector.

Although the project will deal with two separate organisations, i.e. BAS and SASM, this does not represent a constraint for the implementation of the project. Actually, the participation of both organisations is crucial for the project's success, as a number of the activities involve the other body and vice-versa. In the course of the project, the certification, standardisation and market surveillance activities will be properly segregated.

5. Detailed Budget

	PhareSupport		Euro	Euro		
	Investment Support	Institution Building	Total Phare (=I+IB)	National Co- financing*	IFI	TOTAL**
Sub-project 1: CLASSICAL TA for Accred./Certif., Program Mgmt.	0	890.000	890.000	170.000		1.060.000
Sub-project 2: CLASSICAL TA and equipment for Metrology	675.000	375.000	1.050.000	168.800		1.218.800
Sub-project 3: TWINNING for Market Surveillance	0	1.060.000	1.060.000			1.060.000
	675.000	2.325.000	3.000.000	338.800		3.338.800

* State budget ,based on numbers set for current year multiplied by two, subject to approval for further years.

** subject to approval of annual national budget contribution (total est. = 2,5x 2000 - budget)

6. Implementation Arrangements

6.1 Implementing Agency

The implementing agency is the CFCU in close co-operation with the beneficiaries which are the Bulgarian Accreditation Service and the State Agency for Standardisation and Metrology. Contact details for all Components:

State Agency for Standardisation and Metrology

Mr. Tsonyo Botev, President

21, 6th September Street

BG-1000 Sofia

Phone: +359-2/989-8488 Fax: +359-2/986-1707

For accreditation:

Executive Agency "Bulgarian Accreditation Service"

M.Sc.Eng. Any Stoilova

21, 6th September Street

BG-1000 Sofia

Phone: +359-2/989-8488/380 and + 359-2/987-9617 Fax: +359-2/986-2771

Twinning

Component 03 "Market Surveillance" will be contracted under a two years Twinning contract.

A brief description of the expected profile of the PAA and the short-term experts is given in Annex 7.

In the event that no suitable twinning proposal is forthcoming, this component of the project will instead be implemented through conventional TA.

Contact details:

State Agency for Standardisation and Metrology

Mr. Tsonyo Botev, President

21, 6th September Street

BG-1000 Sofia

Phone: +359-2/989-8488 Fax: +359-2/986-1707

Non-standard aspects

Procurement of services and goods, strictly follow the procedures of the DIS Manual.

Contracts

The Programme is expected to be contracted under two Technical Assistance, one supply contract for metrology and one Twinning contract. Their estimated € values are as follows:

Contract 1: TA for Accreditation, Certification, Programme Management.	€ 890.000
Contract 2: TA for Metrology	€ 375.000
Contract 3 : Equipment for metrology	€ 675.000
Contract 4: Twinning for Market Surveillance	€ 1,060.000
Total of 3 contracts:	€ 3.000.000

7. Implementation Schedule

7.1 Start of tendering

The TORs for all programme components and/or project specifications will be ready end 2000.

7.2 Start of project activity

Expected date of commencement of first contract will be 1 January 2001.

7.3 Project Completion

Expected date of last payment under last contract will be 30 June 2003.

8. Equal Opportunity

SASM and BAS management will ensure that men and women are equally represented in all training measures. For and during all training events, lists of participants will be established and kept with the project documentation. The issue of women's participation will have to be addressed in the progress reports.

9. Environment (NA)**10. Rates of return (NA)****11. Investment criteria (NA)****12. Conditionality and sequencing**

1. In accordance with EU Policy, the Government of Bulgaria will ensure that the functions of Certification, Standardisation and Market Surveillance are properly segregated in a way acceptable to the Commission by December 2001. However, before the FM is signed the State Agency for Standardisation and Metrology will present a plan detailing the intermediary steps to arrive at the full segregation together with a precise timetable. The EC Delegation in Sofia will follow up on this conditionality.
2. Before the signature of the FM the State Agency for Standardisation and Metrology, in consultation, where appropriate, with other relevant Government and non-Government institutions, will submit an Action Plan including the activities envisaged to arrive at the creation of a network of new competing certification/testing bodies laboratories. The Action Plan, which should be acceptable to the Commission, will contain details on how these new bodies will be created (or strengthened), how they will benefit from this project, how knowledge and expertise will be transferred from SASM and will include a timetable for implementation with clear benchmarks. The EC Delegation in Sofia will follow up on this conditionality.
3. Projects to be implemented through twinning require the full commitment and participation of the senior management of the beneficiary institution. In addition to providing the twinning partner with adequate staff and other resources to operate effectively, the senior management must be whole-heartedly involved in the development and implementation of the policies and institutional change required to deliver the project results.

Most important milestones of the project in terms of impact in the areas of:

Accreditation:

- BAS meeting the EA requirements
- First certification body accredited

Certification:

- Accreditation certificate issued by EA accreditation body and BAS
- 4 trainers held quality course independently
- Computerised certification management system is operational

Metrology:

- Analysis of mid-term priority industry needs completed and long-terms strategy drafted
- 3 Metrology laboratories technically upgraded and accredited

- Education policy endorsed and published by SASM management

Market Surveillance:

- Procedure manual drafted and endorsed by SASM management
- Multi-user computerised administration system operational
- 3 trainers held first course fully independently in public

Annexes to project Fiche

1. Logical framework matrix in standard format
2. Detailed implementation chart
3. Contracting and disbursement schedule by quarter for full duration of programme (including disbursement period)
4. List of relevant Laws and Regulations
5. List of candidate organisations preparing for certification services
6. Specification of the necessary metrological equipment
7. Brief description of the expected profile of the PAA and the short-term expert

ANNEX 1

LOGFRAME PLANNING MATRIX FOR ESTABLISHING OF CONFORMITY ASSESSMENT SYSTEM			Programme name and number	
Project number			Contracting period expires : Dec 2002	Disbursement period expires : Dec 2003
			Total Budget : 4,306 MEURO	Phare contribution : 3 MEURO
Wider Objectives	Indicators of Achievement	Source of information	Assumptions and Risks	
Meeting the obligations of the Europe Agreement in the field “Free movement of goods” by establishing the respective institutional framework and service infrastructure in the area of conformity assessment.	Successful screening results	European Commission	Economic Conditions continue to improve Political stability and commitment to accession prevails Conditions for employment in public sector improve to reduce fluctuation	

Immediate Objectives	Indicators of Achievement	Source of information	Assumptions and Risks
Establishing international recognition of results of measurement and creating the technical conditions to respond to the service demand in certain industry sectors, and in state executive bodies relevant to consumer protection	Acceptance of certificates by international organisations Number of high-level calibrations	EA, OIML, BIPM, EUROMET NCM	None Industry continues to recover and modernises production
Developing a network of certification bodies with the capacity of establishing the notified bodies necessary for the implementation of the New Approach (NA) Directives. Strengthening the certification body of the State Agency for Standardisation and Metrology (SASM) to reach the competence to become a multiplier in the field of product and quality system certification; this being facilitated through the establishment of an accredited body for product and quality system certification, which is to become a notified body for toys, for example.	Number of accredited and authorised bodies SASM certification body accredited 4 ext. certification bodies accredited	BAS BAS	Existing testing laboratories follow through in their willingness to invest in certification body development, in spite of difficult economic situation. SASM is able to keep qualified staff, in light of unattractive employment conditions
Establishing the conditions for international recognition of test and calibration results produced in Bulgaria, as well as of certification of products, quality systems, and personnel by bringing the Bulgarian Accreditation Service to EA (European cooperation for Accreditation) level.	Successful peer assessment in relevant areas of laboratory and certification body accreditation	EA	BAS is able to attract additional experienced personnel to become lead auditors of or for the organisation.
Establishing a functioning system and institutional basis for effective market surveillance in the areas covered by the NA Directives.	Internal review and management report	SASM	Restructuring and formation of staff successful to deal with the various technical issues Competence and functions are resolved issues between concerned ministries

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Accreditation: 10 accredited certification bodies (CB) 30 accredited testing and calibration laboratories BAS meeting the EA requirements BAS – affiliated member of EA Certification: Established (model) certification body; accredited EU recognition of this body through accreditation by EA member Establishing of 4 additional certification bodies Notification of established (5) certification bodies Metrology: A long-term strategy for the development of Metrology, mid-term priority needs identified 2 laboratories are upgraded to correspond to international standard 3 metrology laboratories of the NCM are accredited 3 calibration laboratories are accredited Knowledge management and continued education system in place for the entire NCM	• Accreditation certificates • Accreditation certificates • Successful peer assessment • Membership agreement • Accreditation certificate • Accreditation certificate • Accreditation certificates • Authorisation documents by Bulgarian authorities • Strategy paper and priority plan	• BAS • BAS • EA • EA • BAS • EA member organisation • BAS / EA member organisation (if appl.) • SASM National Enquiry Point • NCM	• Interest in building CBs prevails in light of difficult economical situation • Interest in accreditation prevails with view to the related cost, in light of the difficult economical situation • BAS is able to maintain and strengthen its personnel • dto. • Organisational issues are resolved • dto. • Interest in accreditation prevails • None • Political stability and current reforms allow for predictability of industry development

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Market Surveillance (MS): Personnel capacity established and qualified to cover MS in 20 NA Directives Operational procedures for sampling, monitoring, dealing with complaints, enforcement, information, and methods for statistics in place and applied Computerised management system for data, activities, cases, information exchange developed and operational 3 trainers to work on professional and continuous education as well as public relation matters	- Laboratories operational, service contracts; accreditation (3 laboratories) - Accreditation certificates - Accreditation certificates - Policy endorsed; dedicated staff for knowledge management, procedures, education plans and reports - Sections to cover 20 NA Directives established and properly staffed - Procedure manual, Internal reports - Functioning network application - Job descriptions, training manuals, training plans and reports	- NCM - BAS - BAS - NCM - SASM - SASM - SASM - SASM	- SASM contributes to establish the respective environmental conditions - Laboratories invest in setting up quality systems - Laboratories invest in setting up quality systems - Education policy published by SASM management and enforced - Restructuring, staffing and qualification of personnel successful - None - SASM finalises its computerisation concept - SASM is able to identify or hire suitable trainers

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Activities			
Accreditation: An accreditation body that is an EA member will train 5 experts of BAS and give them the opportunity to work for one month as interns in order for them to study the operational practice and to participate in all relevant activities of the organisation. Experts from EA member accreditation body(ies) will coach and monitor up to 10 BAS personnel in carrying out at least 3 assessments and accreditation activities, each of laboratories and certification bodies, up to the decision on accreditation. A team of lead assessors from at least two EA member organisations review the procedures and monitor the operational practice of BAS, in laboratory and certification body accreditation. EA qualified trainers will carry out at least 2 assessor training courses, select suitable trainers among the participants, involve, coach and examine them in carrying out training and the preparation of training material that shall be available in Bulgarian language.	• Personnel qualification achieved; letters of recommendation. • Assessment reports; accreditation certificates; Satisfactory qualification report. • successful peer assessment report • Assessors, qualified through courses; training manuals; At least 25 assessors are successfully trained independently by BAS personnel under supervision of EU expert; Satisfactory course evaluation sheet • 10 Personnel qualification achieved; letters of recommendation.	• Training report, endorsed by training organisation • Project report • EA • Project report • Training report, endorsed by training organisation	• None • Sufficient organisations are prepared for accreditation • BAS has sufficient qualified internal or external assessors available • BAS has staff available to act as trainers • none

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Certification: Notified bodies of relevant sectors in the EU will train about 10 experts of the SASM Directorate for Testing and Certification and of selected other certification bodies and give them the opportunity to work for one month as interns in order for them to study the operational practice and to participate in all relevant certification activities of the organisation. Certified EU auditors will coach and monitor 12 experts of the SASM Directorate for Testing and Certification and selected other certification bodies in carrying out at least 2 assessments and certification activities in conjunction with conformity assessment processes according to the relevant modules of the Global Approach. Certified EU auditors will carry out at least 2 training courses on the requirements of EN 45011 through 45013, select 4 suitable trainers, involve, coach and examine them in carrying out training and the preparation of training material that shall be available in Bulgarian language. EU experts from related certification bodies and local IT experts will develop a standardised application under a database system to manage and administer all relevant data and processes in certification bodies, and customise it for the particular situations of the various types of notified body. The applications will be suitable to run on networks in a multi-user environment, and will be installed at the organisations involved in the project measures. The developers will train the users, and local staff will provide technical support for the remainder of the project.	• Audit reports; certificates • Minimum of 30 persons qualified through courses by local trainers; examination certificates; satisfactory course evaluation sheets ;training manuals • Functional multi-user application; at least 2 persons per CB trained in application; all past certification activities and current certificate data are traceable through the system. • Strategy paper and priority plan • Tender documents, contracts, acceptance protocols for 2 laboratories • 5 Quality and procedure manuals, endorsed by EU experts • 3 Accreditation certificates	• Project report • Project report; SASM • SASM, other organisation • NCM • NCM; EU Delegation • NCM • BAS, EA member organisation	• Sufficient organisations are prepared for certification • SASM has staff available to act as trainers • Adequate computer equipment is available and operational in network • Political stability and current reforms allow for predictability of industry development • SASM contributes to establish the respective environmental conditions • Laboratory personnel is sufficiently qualified to develop quality system by internal or external measures • Laboratory is sufficiently prepared for accreditation

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Metrology: EU metrology and economy experts will analyse the demand in metrology services to be expected mid-term (5 to 10 years) considering current demand and trends in the development of the Bulgarian economy. The metrology experts will project the equipment demand on the basis of the current metrology laboratory technology and measurement capacity. EU and NCM experts will jointly draft a long-term strategy. EU metrology experts will assist the NCM in writing the technical specification for transfer and working standards to be procured for 2 laboratories, work with the SASM in the preparation of tender documents and the evaluation of the offers, as well as in drafting of the contracts. EU experts will coach the personnel of 5 laboratories in developing an operation according to the respective EN 45000 standards and in preparing the documentation of the quality system. An EA member accreditation body will carry out an assessment of 3 laboratories of the NCM, jointly with the Bulgarian Accreditation Service BAS, for accreditation by both organisations. An EA member accreditation body will carry out an assessment of 3 calibration laboratories, which are not a unit of SASM, jointly with the Bulgarian Accreditation Service BAS for accreditation by both organisations. Two staff members of the NCM will obtain the opportunity to study the continued education practice of at least 2 EU metrology institutes and undergo specialised courses in knowledge management by a EU organisation specialised in personnel management and education. EU experts will coach NCM in setting up knowledge management and a continuous education system to benefit all technical and administrative staff.	• 3 Accreditation certificates • Policy endorsed; dedicated staff for knowledge management, procedures, education plans and reports; at least 100 persons have benefited from continuous education measures by the end of the project • Minimum of 30 successful participants in training; possibly certificate of examination • Minimum of 10 successful participants in training; possibly certificate of examination • Completed procedure manual ; Internal reports • Internal reports, showing at least 50 concluded market surveillance activities • Internal audit report and management report; Successfully implemented improvement plan	• BAS, EA member org • NCM • SASM • Project report • SASM • SASM • SASM	• Laboratory is sufficiently prepared for accreditation • Education policy published by SASM management and enforced • Restructuring, staffing and qualification of personnel successful • Restructuring, staffing and qualification of personnel successful • none • none • Procedural system in place allowing for internal review processes

Results	Indicators of Achievement	Source of Information	Assumptions and Risks
Market Surveillance: EU experts will train all enforcement personnel in the principles of the New Approach and the Global Approach. Additional training will be provided for the sector specialists in all conformity issues of the relevant New Approach directives and the particular conformity assessment procedures. For each relevant NA Directives, two staff members will be trained in an EU market surveillance institution in the operational practice of market surveillance, including all the processes of information handling with other authorities of the country, and with Member countries and the EC, through the National Enquiry Point, as far as applicable. 3 suitable SASM staff members, having participated in the training in EU market surveillance institutions, will obtain a specialised formation as market surveillance trainers for new staff, to carry out continuous education and to train enforcement personnel from other institutions involved in market surveillance aspects, such as customs officers, labour safety inspectors, etc. The trainers will prepare training material under the guidance of EU market surveillance experts, which is suitable for training own staff, personnel from other institutions involved in market surveillance aspects, and also economic operators in special training events. The trainers will carry out such training, assisted by the EU experts. EU market surveillance experts will assist SASM in developing a procedural system for carrying out effective market surveillance, and consult the staff in establishing a documentation of those procedures that are in line with EU policies on market surveillance. EU market surveillance experts will coach SASM staff in ensuring an operational practice in developing a	• Functioning network application and history of use; all past MS activities are traceable in the system • Job descriptions, training manuals, training plans and reports; at least 1 training conducted independently for each of 4 different target groups of at least 15 participants each (internal, customs, other ministries, economic operators).	• SASM • SASM	• SASM finalises its computerisation concept and equips relevant work places with client stations and software • SASM is able to identify or hire suitable trainers

focus on problem areas and in dealing with actual cases. A team of EU market surveillance and quality assurance experts will assist SASM to set up a regular and systematic review process to ensure the functioning of the system and consistency with Bulgarian legislation and EU policies, and to support a continuous improvement process. Actually carried out review processes will be documented in management reports. EU experts and local IT experts will develop an application under a database system to manage and administer all relevant data and processes in market surveillance. The application will be suitable to run on the SASM network in a multi-user environment. The developers will train the users and provide technical support for the remainder of the project.			
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ANNEX 2

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	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
Sub-project 1:																																		
Contract 1 (Technical assistance)																																		
Sub-project 2:																																		
Contract 2 (Technical assistance)																																		
Contract 3 (Supply)																																		
Sub-project 3:																																		
Contract 4 (Twinning)																																		

	Tendering, contracting, twinning covenant finalisation
	Implementation and disbursement
	Disbursement and completion

ANNEX 3: Contracting and Disbursement Schedule

Institutional Building and Investment Projects for the State Agency for Standardisation and Metrology of Bulgaria												
	PLANNED											
	31.12.2000	31.3.2001	30.6.2001	30.9.2001	31.12.2001	31.3.2002	30.6.2002	30.9.2002	31.12.2002	31.3.2003	30.6.2003	TOTAL (MEUR)
Commitments												
<i>Cumulative MEURO</i>	1060	1265			675							3000
Institution Building												2325
Sub Project 1		890										
Sub Project 2		375										
Sub Project 3	1060											
Investment												675
Sub Project 2					675							
Disbursement												
<i>Cumulative MEURO</i>		265	316	230	233	838	231	229	299	106	253	3000
Institution Building												2325
Sub Project 1			223		163		163		163		178	
Sub Project 2			93		70		68		69		75	
Sub Project 3		265		230		230		229		106		
Investment												
Sub Project 2						608			67			675

ANNEX 4**List of relevant Laws and Regulations**

- Law on Measurements, adopted 9 April 1998, amended by Law on National Standardisation, adopted 4 June 1998
- Law on National Standardisation, adopted 4 June 1998
- Law on Technical Requirements to Products, adopted 1 October 1999
- Decree of the Council of Minister for establishing of State Agency for Standardisation and Metrology
- Decree of the Council of Minister for establishing of Executive Agency “Bulgarian Accreditation Service”

ANNEX 5

LIST OF COMPANIES HAVING EXPRESSED THEIR INTENTION TO ESTABLISH A CERTIFICATION BODY IN THE RELATED FIELDS – POTENTIAL BENEFICIARY OF PHARE PROGRAMME 2000

No.	COMPANY	FIELD
1	Balkancar Holding, Sofia	Fork-lifts
2	CITZGT (Center for tractors and forestry machines testing), Plovdiv	Tractors, agriculture and forest machinery
3	DICTCGT (State testing center for tractors, agriculture and forestry machines), Russe	Tractors, agriculture and forest machinery
4	IKKS-BAN (Bulgarian Academy of Sciences), Sofia	Electronic Equipment
5	ELMA AD, Troyan	Electromotors, House appliances
6	ICM (Testing Center for machines), HRANINVEST, Haskovo	Machinery
7	ELAN OOD, Sofia	Machinery
8	ITEM – Engineering AD, Sofia	Heating, Gas Boiler, Pressure Vessels
9	CL – Ministry of Regional Development, Sofia	Construction materials
10	LGI (Laboratory geological testing), Ltd., Sofia	Construction products
11	ELPROM JSC, Sofia	Machinery
12	NISI (Scientific and Testing Construction Institute), Sofia	Construction materials – composites, steel, ceramic tiles
13	Chimatex – AD, Sofia	Agriculture products – vegetables, fruits
14	NPIPAB (Scientific and applied Institute for fire and urgent safety)	Construction elements on fire constancy, safety, inflammables
15	General Directorate “Testing and Certification”	Machinery, toys, textile, QS

ANNEX 6

METROLOGICAL EQUIPMENT

The two metrological laboratories that are going to be supported under this project Phare 2000 are “Thermophysics Laboratory” and “Chemical Laboratory”.

Thermophysics Laboratory: The main objective of this project is the improvement of the necessary equipment of the national standard laboratories the temperature unit Kelvin [K], the unit for quantity of heat Joul [J] and flame temperature in Kelvin [K], measurements related mainly to energy and energy efficiency of different fields of the economy. The functions that have to be provided are in pursuance of the enforcement of the Law on Measurements, particularly the metrological control of the measuring instruments used:

in the field of health care, the control of medical devices;

in environment;

in payments for thermal energy and calorificity of energy-carriers;

in control and provision of the fire-safety and labour protection;

This equipment will be also used for establishing of modern accredited laboratories for testing and calibration.

Technical specification of the necessary equipment

Fixed point cells, realizing National Temperature Scale of the Country according to ITS-90

- | | | |
|---|-----------------|----------|
| 1.1. Triple point of Argon (Ar) | T=83.8058K, | u=±1mK |
| 1.2. Boiling Point of Liquid Nitrogen(N) | T = -195.798° C | u= ±2mK |
| 1.3. Triple point of Mercury (Hg) | T=234.3156K, | u=±0.5mK |
| 1.4. Triple Point of Water (H ₂ O) | T=273.16K, | u=±0.1mK |
| 1.5. Melting Point of Gallium (Ga) | T=29.7646°C | u=±0.2mK |
| 1.6. Freeze Point of Indium (In) | T=156.5985°C | u=±0.5mK |
| 1.7. Freeze Point of Tin (Sn) | T=231.928°C | u=±0.5mK |
| 1.8. Freeze Point of Zinc (Zn) | T=419.527°C | u=±1mK |
| 1.9. Freeze Point of Aluminum (Al) | T=660.323°C | u=±2mK |
| 1.10. Freeze Point of Silver (Ag) | T=961.78°C | u=±2mK |
| 1.11. Freeze Point of Gold (Au) | T=1064.18°C | u=±3mK |
| 1.12. Freeze Point of Copper (Cu) | T=1084.62°C | u=±5mK |
| 1.13. Annealing Furnace, ambient to 1000°C with single ramp to set point. | | |
| 1.14. Software according to ITS-90 | | |
| 1.15. Automatic computer based control and process information acquisition. | | |

Set of Standard Platinum Resistance Thermometers according to ITS-90

Uncertainties:

U=±2mK for the range 0.65K to 303K

U=±2mK for the range 84K to 600°C

U=±2mK to ±5mK for the range 0°C to 1070°C

Drift rate: ±1.0 to ±2.5mK.

Resistance ratio:

W(29.7646°C) = 1.11807

W(-38.8344°C) = 0.844235

W(961.78°C) = 4.2844

Resistance value: 2.5 Ω, 10 Ω, 25 Ω, 100 Ω at 0°C

Wiring: 4 wire

For all SPRT NAMAS Calibration Certificates.

Quantity:

2.5 Ω - 2pcs

10 Ω - 2pcs

25 Ω - 4pcs

100 Ω - 2pcs

Black Body Sources according to ITS-90

Low Temperature Radiation Pyrometer Primary Source

Range: -10°C to +80°C

Cavity size: 50 mm diameter

Uncertainty: $u=\pm 0.1$ to ± 0.2 K

Set of orifice plates to restrict cavity aperture diameter to 40,30,20,10mm.

Standard Probe

Carry Case

NAMAS Calibration Certificates

Medium Temperature Radiation Pyrometer Primary Source

Range: 50°C to 700°C

Cavity size: 65mm diameter

Uncertainty: $u=\pm 0.2$ to ± 1 K

Set of orifice plates to restrict cavity aperture diameter to 50, 40,30,20,10mm.

Standard Probe

Fixed Point Cells of Gallium, Indium, Tin and Zinc.

Carry Case

NAMAS Calibration Certificates.

High Temperature Radiation Pyrometer Primary Source

Range: 100°C to 1300°C

Cavity size: 50mm diameter

Uncertainty: $u=$ up to ± 4 K

Set of orifice plates to restrict cavity aperture diameter to 50, 40,30,20,10mm.

Standard Probe

Fixed Point Cells of Gallium, Indium, Tin, Zinc, Aluminum, Silver and Cooper.

Carry Case

NAMAS Calibration Certificates.

4. Standard automatic adiabatic bomb calorimeter for solid state materials and fluids, with computer based control and measurements information acquisition:

- measuring range for the heat energy of combustion: $0 \div 30\,000$ J/g;

heat energy of combustion uncertainty: $u= 3$ J/g;

benzoic acid calorimetric standard with a purity of 0,999996 mol/mol;

calibration certificate.

5. Standard automatic adiabatic bomb calorimeter for gaseous materials, with computer based control and measurements information acquisition:

- measuring range for the energy of combustion: $0 \div 30\,000$ J/g;

heat energy of combustion uncertainty: $u= 3$ J/g;

benzoic acid calorimetric standard with a purity of 0,999996 mol/mol;

calibration certificate.

6. Standard heat meters energy calibration stand based on electrical energy measurements.

Parameters of the energy standard:

units applied at calibration MJ, kWh;

uncertainty: better than 0,4 %;

temperature range: $30\text{ }^{\circ}\text{C} \div 90\text{ }^{\circ}\text{C}$;

working pressure: 1,6 bar.

automatic computer based control and process information acquisition;

calibration certificate.

7. Type approval testing stand for heat cost allocators as described in the technical standards EN 834 and EN 835:

automatic computer based control and process information acquisition;
calibration certificate.

Chemical Laboratory: The purpose of this project is the supply of chemical-analytical apparatuses with the relevant subsidiary equipment for the full setting of a standard chemical laboratory in accordance with the international requirements of OIML, EUROLAB and EUROCHEM. The equipment is intended for:

Control on the quality of the reference materials, manufactured or imported in Bulgaria (levels national and working standards), for chemical composition of inorganic and organic materials.

Participation in international proficiency testings using reference materials (RM) and following the procedure of ray analyses.

Comparison of analogous and/or similar types RM aiming at finding out their interchangeability and compatibility according to metrological characteristics.

Developing and/or testing of methodological documents for standardizing and evaluating of the metrological characteristics (standardizeable, additional) of RM, as well as the requirements to RM in their use in measurements.

Calibration of analogous MI on the basis of developed methods for calibration etc.

This equipment will be used for the needs of the science metrology, industrial metrology and legal metrology (including the metrology referred to the health and safety).

Technical specification of the necessary equipment

Measuring instruments for chemical composition of substances and materials

Nomenclature of Certified Reference Materials for Chemical Composition of Substances and Materials

Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES)

Atomic Absorption Spectrometer (AAS) with Graphite Furnace and Zeeman background correction

Atomic Absorption Spectrometer (AAS) with Flame and Hydride System

Complex of precision analytical balances with internal calibration and PTB Certificate of Calibration (Germany)

Microwave Sample Preparation System

Laser Diffraction Micro-analyzer for Automatic Granulometric Express Analysis

Laboratory Equipment

ANNEX 7

Brief description of the expected profile of the PAA and short-term experts for Market Surveillance contract

Pre-Accession Advisor:

- to work in a Market Surveillance authority from a country with a similar administrative structure (preferably from a recently accessed Member State);
- to have knowledge and experience in the scope of the NA directives;
- to be aware of the operational practice of market surveillance in the different Member States as well as to be acquainted with their working procedures in details;
- to demonstrate good organizational and leadership skills, success oriented
- to be a good communicator, listener and facilitator;
- to have operational experience in Central and Eastern European countries.

Short-term Experts:

- short-term specialist in information exchange system for Market Surveillance;
- to have detailed knowledge and experience in enforcement of legislation on LVD, MD, EMC, Toys, etc.;