## JRC Scientific and Technical Reports



## Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System

First interim report CARDS 2004 - Croatia Project No 116536

Nikola Poposki, Ani Todorova, Nineta Majcen, Philip Taylor







The mission of the IRMM is to promote a common and reliable European measurement system in support of EU policies.

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## LIST OF ABBREVIATIONS

CARDS Community Assistance for Reconstruction, Development and Stabilisation

DG JRC Directorate General Joint Research Centre

DZM State Office for Metrology EC European Commission

HAA Croatian Accreditation Agency
HMI Croatian Metrology Institute
HZN Croatian Standards Institute

IRMM Institute for Reference Materials and Measurements

MiC Metrology in Chemistry

TrainMiC Training in Metrology in Chemistry

### **PROJECT SYNOPSIS**

**Programme** CARDS 2004 - Croatia

Development of National Metrology, Standardisation, Conformity Assessment and Accreditation **Project title** 

system

AA 116536 **Project number** 

The overall objective is to further develop the quality infrastructure in the Republic of Croatia, in line with the provisions of the SAA, and to crate an enabling environment for the Croatian Overall objective

industries and manufacturers to improve their trade and industrial relations with the EU and

international markets as well as quality of life

1/ Strengthen the national quality infrastructure system

2/ Improve the technical expertise **Specific Objectives** 

3/ Rise public awareness on the importance of a proper functioning of the national quality infrastructure

#### Component 1: Institutional Capacity Building (IC)

- Draft strategies for HMI and updated strategies for other beneficiaries;
- Drafted amendments to existing legislation for metrology, standardisation and conformity assessment:
- Selected laboratories to become national reference laboratories in Metrology in Chemistry, that are prepared to take corresponding responsibilities;
- A list of identified areas of cooperation between all relevant stakeholders that might wish later to sign MoUs;
- HZN ready for CEN and CENELEC membership;
- HAA accreditation capabilities in the field of environment and food enlarged;

#### Component 2: Human Resources Development (HR)

## **Planned Outputs**

- Development of training curricula in metrology in chemistry and train the trainers programmes
- Training for standardisation experts
- Development of procedures and working instructions for a selected analytical laboratories in order to prepare them for accreditation and/or update them in the field of reference measurements
- Training for technical assessors concerning quality of measurements results in analytical laboratories
- Training related to conformity assessment topics

#### Component 3: Awareness Campaign (AC)

- Training materials in MiC
- Awareness publications related to targeted fields of the Quality Infrastructure in Croatia
- Concluding conference on the outcomes of the project

#### Component 1: Institutional Capacity Building (IC)

- 1/ Drafting/updating strategies for beneficiary institutions
- 2/ Revising the existing legislation
- 3/ Networking in metrology in chemistry
- 4/ Enhancing cooperation between relevant stakeholders
- 5/ Support in preparing HZN for CEN and CENELEC membership

## Component 2: Human Resources Development (HR)

#### **Activity fields**

- 6/ Training for standardisation experts
- 7/ Training courses in metrology in chemistry for analytical laboratories and technical assessors
- 8/ Development of procedures and working instructions
- 9/ Training related to conformity assessment topics

#### Component 3: Awareness Campaign (AC)

- 10/ Organisation of public awareness activities
- 11/ Drafting and printing adequate material for all organised trainings, workshops and for other

public awareness purposes

#### Project starting date **Project duration**

16<sup>th</sup> of May 2006 36 months

#### **EXECUTIVE SUMMARY**

The CARDS 2004 - Croatia project on the "Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System" is providing targeted assistance on predefined topics having as overall objective further development of the Quality Infrastructure in Croatia.

The intervention logic in this framework is based on three key objectives, these being:

- Strengthen the national quality infrastructure, through assisting in strategic and legislative alignment efforts, as well as enhancing collaboration between all relevant stakeholders:
- Provide assistance in further improvement of the technical expertise, in the areas of standardisation, chemistry dimension of the Metrology and related conformity assessment topics;
- Raising public awareness on the importance of the proper functioning of the National Quality Infrastructure

This 1<sup>st</sup> interim report provides the overview on the project's progress for the duration of the initial six months period of the implementation. It also offers a plan for the activities to be conducted within the second reporting period.

#### 1 INTRODUCTION

#### Context:

The CARDS programme 2004 - Croatia project on the "Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System" is providing targeted assistance on predefined topics having as overall objective further development of the Quality Infrastructure in Croatia.

The intervention logic in this framework is centred on three key objectives:

- Strengthen the national quality infrastructure, through assisting in strategic and legislative alignment efforts, as well as enhancing collaboration between all relevant stakeholders;
- Provide assistance in further improvement of the technical expertise, in the areas of standardisation, chemistry dimension of the Metrology and related conformity assessment topics;
- Raising public awareness on the importance of the proper functioning of the National Quality Infrastructure.

In a number of its elements, this project is interconnected with the related CARDS programme 2004 project entitled "Assessment of national priorities for metrology and conformity assessment". The latter is conducted in parallel and aims to produce a National strategy for metrology and related conformity assessment topics.

#### Content:

The First interim report offers an overview of the *conducted activities during the initial six months period* of the implementation phase  $(06^{th} \text{ October } 2006 - 05^{th} \text{ April } 2007)$ .

Furthermore, this document is listing the *planned activities for the second reporting period* (06<sup>th</sup> April 2007 – 05<sup>th</sup> October 2007). They are derived from the overall scheduling of the project that has been concluded within the Inception report.

Finally, the last chapter is meant to provide a *synthetic view on the achieved results* in the course of the first reporting period, derive *conclusions* and list the key fields requiring *further improvement*.



## 2 ACHIEVED RESULTS DURING THE 1<sup>st</sup> REPORTING PERIOD (05/10/2006 - 05/04/2007)

In line with the initial planning in the inception report, all activities under this project are structured within three **major objectives**:

- Institutional Capacity building (CB),
- Human Resources Development (HR) and
- Awareness Campaign (AC).

Furthermore, each one of them is subdivided on (in total) eleven intervention fields, as follows:

#### Component 1: Institutional Capacity Building (CB)

- 1/ Drafting/updating strategies for beneficiary institutions
- 2/ Revising the existing legislation
- 3/ Networking in metrology in chemistry
- 4/ Enhancing cooperation between relevant stakeholders
- 5/ Support in preparing HZN for CEN and CENELEC membership

#### Component 2: Human Resources Development (HR)

- 6/ Training for standardisation experts
- 7/ Training courses in metrology in chemistry for analytical laboratories and technical assessors
- 8/ Development of procedures and working instructions
- 9/ Training related to conformity assessment topics

#### Component 3: Awareness Campaign (AC)

- 10/ Organisation of public awareness activities
- 11/ Drafting and printing adequate material for all organised trainings, workshops and for other public awareness purposes

The achievement of the defined objectives is mirrored into a number of activities that have been listed in the Inception report following the above structuring in eleven chapters. For practical reasons, each activity is referred to by a corresponding numbering, such as: 1.1, 1.2..., 2.1, 2.2, ... up to 11.4.

Any additional activity that does not appear in the initial planning, but has been agreed *a posteriori* follows the same logic of numbering, within the corresponding chapter (e.g. 7.16).

Finally, the outcome of each activity is meant to be reflected into at least one of the **five deliverables**. For project management purposes they have been listed in the inception report, as follows:

	DELIVERABLES		
D1	Croatian Experts on a training session abroad		
D2	Short visit of EU experts to Croatia		
D3	Events organised in Croatia		
D4	Printed documents and materials		
D5	Other deliverables - mainly project management (meetings etc.)		

## 2.1 OVERVIEW OF THE ACTIVITIES FOR THE 1<sup>ST</sup> REPORTING PERIOD

The following overview is based on the previously elaborated reporting logic. It offers a synthetic picture of the achieved results during the 1<sup>st</sup> reporting period:

N°	Component	Activity	Methodology	Status	
	Activities as planned				
1.1	СВ	Study visits to EU countries where responsibilities for metrology are distributed between several institutions	D1	in process	
2.1	СВ	Review of the Law on Metrology and harmonized legal acts, proposal for the amendments	D4	in process	
2.3	СВ	Review of standardization law and related laws, proposals for amendments	D2 / D4	postponed	
2.5	СВ	Drafting on amendments to the Law on technical requirements for products and on conformity assessment	D2 / D4	canceled	
3.1	СВ	Presentation Workshop of stakeholders involved in Metrology in Chemistry	D3	completed	
7.9	HR	Training in Metrology in Chemistry (TrainMiC I)	D2	completed	
8.1	HR	Assessment of the HAA management system according to ISO 17011	D2	postponed	
11.1	AC	Support of the elaboration and publishing of information leaflet on metrological infrastructure established in metrology in chemistry	D4	in process	
		Advanced activities			
2.4	СВ	Support to drafting of amendments to the Law on metrology	D2 / D4	completed	
		Activities with modified features			
2.2	СВ	Consultation on transitional provisions linked to the implementation of the New Approach Directives	D2 / D4	completed	
		Additional activities			
7.16	HR	Participation of Croatian practitioners to a regional TrainMiC activity, held in Slovenia	D1	completed	

From the above breakdown the overall status of the progress can be resumed as follows:

Completed: 5 activities;
In process: 3 activities;
Postponed: 2 activities;
Cancelled: 1 activity.

## 2.2 DETAILED REPORT ON ACTIVITIES

Based on the above overview, this section of the  $1^{st}$  Interim report lists the stage of achievement of the agreed activities, while exposing relevant facts on each one of them.

Status	Explanation	Symbol
Completed	The activity has been completed as envisaged in the planning	<u> </u>
In progress	The activity is in progress. The planned results are expected to be achieved	<u> </u>
Postponed	The activity has been delayed or postponed for the next reporting period.	F
Cancelled	The activity has not been realised and is not expected to be delivered	<b></b>

## 2.2.1 Component 1: INSTITUTIONAL CAPACITY BUILDING (CB)

## 1/ Drafting/updating strategies for beneficiary institutions

Activity	1.1 Study visits to EU countries where responsibilities for metrology are distributed between several institutions
Background information	Croatian quality infrastructure has undergone substantial development change after recent DZNM reorganization into three separate institutions: DZM, HAA and HZN. The Law on metrology recognises formal existence of a fourth institution: Croatian metrology institute (HMI), which practically is not yet established. DZM undertakes HMI functions described in the law. Similar metrology systems are functional in some EU member states
Objective of the activity	To learn about practicalities and functioning of the national metrology systems where responsibilities are distributed between several institutions
Methodology	Two study visits for Croatian metrology management and relevant decision-makers in Ministries
Implementation period	First half of December 2006 Second half of January 2006
Expected result	Croatian metrology management staff trained (3 persons, 3 days per visit)
Deliverables	Study visits reports (findings and outcomes to be presented to the joint DZM-IRMM WG under the CARDS 2004 on "Assessment of national priorities for metrology and conformity assessment")
Hosting institutions	To be agreed with the beneficiary

		metrology and comormity assessment )
	Hosting institutions	To be agreed with the beneficiary
<u>~</u>	Status Results	IN PROCESS  The study visit designed for the top management and ministerial decision-makers has been successfully conducted. The hosting institution was the Danish Fundamental Metrology.  The twin-activity, designed for the second layer managers at the State Office for Metrology is scheduled to take place in the Slovak Republic in May 2007. A tailor-made on-site presentation targeting the particularities of a distributed National Metrology system in a new EU member state will be provided by the Slovakian Metrology Institute.  The broader context of elaboration of the National strategy for Metrology and conformity assessment makes the effects of both visits particularly relevant for the attendants.  • Top manager and decision-maker at ministerial level becoming
	Deliver ables	familiar with practicalities of operating a distributed Metrology system in an EU member state

#### 2/ Revising the existing legislation

Activity	2.1 Review the Law on Metrology and the harmonized legal acts, proposal for amendments
Background information	The activity has been scheduled for the second reporting period. It was meant to provide support in identifying further needs for harmonisation in the metrology related legislation.  The decision about moving forward in the schedule the revision of the Metrology Act, has disrupted the logic behind this activity.
Objective of the activity	To assist the beneficiary institution in identifying the required amendments, which need to be updated from the harmonisation perspective
Methodology	Expert visit
Implementation period	February 2007
Expected result	Recommendations on drafted amendments
Deliverables	Report



#### **IN PROCESS**

The comments on the Metrology Act have been delivered within the activity 2.4, where several points on the need to incorporate harmonization linked provision within the legal act have been listed.

Secondary legal acts on:

- units of measurements;
- metrological control of measuring instruments; and
- control of pre-packages;

still need to be conducted as soon as the English versions of the legal texts are delivered by the beneficiary institution.

Activity	2.2 Consultation on transitional provisions linked to the implementation of the New Approach Directives
Background information	Croatia 2005 Progress Report says that further amendments to the framework legislation on technical regulations for products and conformity assessment procedures will be necessary in order to fully align the implementing legislation. Alignment of the Law on Technical Requirement for Products and on Conformity Assessment is envisaged as a priority by the Ministry of Economy.
Objective of the activity	To assist Croatian authorities identifying needs on further alignment
Methodology	Review (desk-work) of the legislation submitted by Croatian partners
Implementation period	November 2006
Expected result	Recommendations for amendments where necessary
Deliverables	Mission Report including recommendations for amendments where necessary



Status Results

#### COMPLETED

The originally planned "Review of legislation in which the New Approach Directives are transposed" has been subject of a screening exercise, making this activity unnecessary.

Upon request form the Internal Market Unit, within the Ministry for Economy, Labour and Entrepreneurship, the assistance was redirected in a form of lecture on the transitional periods needed for proper implementation of the New Approach directives.

**Deliverable** 

Presentation

Activity	2.3 Review of standardization law and related laws, proposals for amendments
Background information	There are certain requirements to the national legislation set up as CEN/CENELEC membership criteria.
Objective of the activity	To assist Croatian authorities identifying needs on further alignment of the standardization related legislation
Methodology	EU expert mission to Croatia
Implementation period	November 2006
Expected result	Recommendations for amendments where necessary
Deliverables	Mission Report including recommendations for amendments where necessary



#### **POSTPONED**

This is the initial activity of the entire assistance that is directed towards the Croatian Standards Institute (HZN) within the CARDS programme 2004 project. The sequencing has been agreed with the beneficiary's management and has been designed in a form of providing comments to drafted amendments to the existing legal Act.

The primary legislation drafting competence lying within the Ministry of Economy, Labour and Entrepreneurship, HZN's initiative for revision of the Act has not encountered the needed support and was not introduced into the ministerial pipeline.

The final decision on whether this activity is to be fully eliminated from further planning is to be taken by the beneficiary institution during the second reporting period.

Activity	2.4. Support to drafting of amendments to the Law on metrology
Background information	This activity has been originally scheduled for the second reporting period. The logical sequencing of the tasks has been at the origin of such a planning: first the National Strategy for Metrology needs to be formulated (within the twin CARDS programme 2004 project), then necessary "acquisrelated" alignments are derived.  The screening exercise in the field of chapter 1: Free Movement of Goods; resulted in identification of the Metrology Act as a benchmark for the opening of negotiation under above named chapter.  The State Office for Metrology has been charged to produce a legislative proposal that needs to be adopted under urgent procedure.  Given these circumstances, it was commonly agreed to move forward the originally planned assistance
Objective of the activity	Provide comments on draft amendments to the Law
Methodology	Expert visit
Implementation period	February – March 2007
Expected result	Aligned Metrology Act with European requirements
Deliverables	Report, including comments on the amended Law



Status Results

## **COMPLETED**

Under the given circumstances, amendments to the Metrology Act have been drafted by the State Office's working group. Thus, assistance was provided in a form of on-site discussions followed by providing comments to the drafted amendments, underlying some potential concerns over the needs to introduce "acquis"-linked additional provisions.

Initial on-site session (in mid-February 2007) was based on DZM's drafted proposal for a new Metrology Act. The key recommendations at this point included:

- Amending the existing law instead of proposing a new one;
- Providing basis for a healthy relationship between the State Office

- for Metrology and the Croatian Metrology Institute (if the establishment of the later has been decided);
- Ensure compliance between the provisions of the law and the old approach directives in metrology and pre-packages;
- Deeper scanning of the requirements for authorization of legal persons for legal metrological tasks.

The follow-up session (in March 2007) has been based on a new proposal, listing the draft amendments to the existing Act. Improvements in terms of terminology, introduction of directives' elements (80/181/EEC and 71/316/EEC) and provisions for the establishment of the HMI can be listed as main features of this text. The key recommendations included:

- Further clarification of the inter-institutional relations between DZM and HMI;
- Ensure clear linkages between primary and secondary legislation; The final decision on the incorporation of the comments in the submitted text lies naturally within the beneficiary institution.

**Deliverables** 

Comments to the drafted amendments to the Metrology Act

Activity	2.5 Drafting of amendments to the Law on technical requirements for products and on conformity assessment
Background information	There would be a need to have a detailed discussion on draft amendments to the framework legislation on technical regulations for products and conformity assessment
Objective of the activity	Providing consultation on draft amendments to the Law on technical requirements for products and on conformity assessment
Methodology	EU expert mission to Croatia
Implementation period	8-12 January 2007
Expected result	Croatian experts from Ministry of Economy and beneficiary institutions advised on alignment of the framework legislation on technical regulations for products and conformity assessment
Deliverables	Mission Report Draft amendments to the Law on technical requirements for products and on conformity assessment



#### Status Results

#### **CANCELLED**

The core competence for the revision of this legal Act lays with the Ministry of Economy, Labour and Entrepreneurship. Therefore, the Ministry appears as the key institution that triggers this process (and a direct beneficiary of the project, as implies the Inception report).

The current Law being drafted with an assistance provided through CARDS programme 2003 project, the Ministry has decided to conduct the revision of the text with the same expert's team.

#### 3/ Networking in Metrology in Chemistry

Activity	3.1 Presentation Workshop of stakeholders involved in Metrology in Chemistry
Background information	Metrology in Chemistry activities are not organized yet in Croatia. There are different laboratories and institutes carrying out chemical measurements that could network. The concept of Metrology in Chemistry as well as the project's objective is to be presented.
Objective of the activity	DZM and stakeholders involved in Metrology in Chemistry meet together and are informed about the concept of Metrology in Chemistry and project objectives
Methodology	Workshop
Implementation period	January 2007
Expected result	Push networking of the stakeholders involved in Metrology in Chemistry
Deliverables	Mission Reports Workshop Presentations List of contacts of stakeholders in Metrology in Chemistry



#### Status Results

#### **COMPLETED**

The workshop was attended by up to 80 representatives from various Croatian analytical laboratories and research institutions.

The manifested interest, raised questions and inter-activeness from the participants allows concluding that the Chemistry sub-field in Metrology has a considerable potential in the country. Thus, various needs have been formulated and can be addressed in the follow-up activities of the project.

**Deliverable** 

- Agenda
- Available presentations
- Attendance list

Activity	3.2 Selection of laboratories potential to become national laboratories in metrology in chemistry field
Background information	The establishment of an institutional network of National reference laboratories (providing reference values) in the Metrology in Chemistry field requires a complex understanding of the particularities within the future national coordination body for the segment.  Fixing criteria for an objective selection of such actors that will become part of the system is only one of those issues.
Objective of the activity	Assisting the State Office for Metrology while undertaking the steps towards institutional development of the Metrology in Chemistry sub-field.
Methodology	Familiarising the management with the EU member states experiences in order to identify the opportunities
Implementation period	October 2006 – March 2007
Expected result	Initiating the expected process of selection of potential national laboratories in the MiC
Deliverables	DZM management briefed on the practicalities of establishment of a distributed MiC system



Status Results

Deliverables

#### **COMPLETED**

Preparation of DZM towards performing a selection of national laboratories in MiC

 DZM management briefed on the practicalities of establishment of a distributed MiC system

#### 2.2.2 Component 2: HUMAN RESOURCES DEVELOPMENT (HR)

## 7/ Training in Metrology in Chemistry

Activity	7.9 Training in Metrology in Chemistry (TrainMiC I)
Background information	Achieving sustainable development of Metrology in Chemistry as well as accreditation of testing laboratories in the two target fields: food and environment, depend on thorough expert knowledge
Objective of the activity	Learn the basics of Metrology in Chemistry
Methodology	Two days Workshop
Implementation period	February 2007
Expected result	About 20 Croatian experts from potential national metrology laboratories and environmental testing laboratories
Deliverables	Training materials List of participants



#### Status Results

#### COMPLETED

The first TrainMiC National event took place on 29-30 March 2007 in Zagreb. The designated National Ambassador and selected panel of 20 national experts have attended the training.

The particularly positive feed-back from the participants is encouraging. As a follow-up of the process, a number of future national MiC trainers will attend specialised "train the trainers" sessions in order to enable spreading the knowledge to the very practical level.

The development of a national TrainMiC tailor-made network remains a long term objective of the project. A number of successful steps as this one are only taking us one stage further.

**Deliverables** 

- Training materials
- Attendance list
- Evaluation forms
- 23 trained participants

Activity	7.16 Participation to a regional TrainMiC activity , held in Slovenia
Background information	Achieving sustainable development of Metrology in Chemistry as well as accreditation of testing laboratories in the two target fields: food and environment depend on thorough expert knowledge.  Offering an opportunity for networking on European scale.
Objective of the activity	Learn the basics of Metrology in Chemistry
Methodology	Two days Workshop
Implementation period	February 2007
Expected result	2 Croatian experts trained
Deliverables	Training materials List of participants



#### Status Results

#### **COMPLETED**

Following the initial Workshop in the Metrology in Chemistry field in Zagreb, a number of needed practical hand-on trainings on a variety of topics were identified by stakeholders.

In the perspective of the coming first National TrainMiC event, two Croatian practitioners were invited to participate to an international TrainMiC session that took place in Maribor (Slovenia) in March 2007.

Hence, the establishment and development of an equivalent Croatian TrainMiC network remains a long term objective of the project.

#### **Deliverables**

- Training materials
- Attendance list
- Evaluation forms
- 2 trained participants

#### 8/ Development of procedures and working instructions

Activity	8.1 Assessment of the HAA management system according to ISO 17011
Background information	The Croatian Accreditation Agency receives considerable assistance under the CARDS 2003 project. In the course of the inception phase, HAA has identified as a need the assessment according to ISO 17011.
Objective of the activity	Provide HAA assessment according to ISO 17011
Methodology	EU expert mission to Croatia (HAA)
Implementation period	February 2007
Expected result	HAA assessed according to 17011 and deficiencies identified if any
Deliverables	Assessment Report



#### Status Results

#### **POSTPONED**

On the beneficiary's initiative, this activity was conducted under currently terminating CARDS programme 2003 project, entitled "Development of accreditation systems and support to national testing and calibration laboratories".

Upon request from the Croatian Accreditation Agency, the equivalent exercise within this CARDS programme 2004 project will be postponed until reaching the final phase, in the first quarter of 2009. Ideally, this activity should then provide an insight assessment of HAA's state of art in implementing ISO 17011.

Assessment report from the exercise conducted under CARDS 2003 in 2007 should be made available, in order to perform the follow-up activity under this project.

### 2.2.3 Component 3: AWARENESS CAMPAIGN (AC)

## 11/ Drafting and printing adequate material for organised trainings, workshops and for other public awareness purposes

Activity	11.1 Support of the elaboration and publishing of information leaflet on metrological infrastructure established in metrology in chemistry
Background information	Metrology in Chemistry activities are not organized yet in Croatia. A workshop to push networking between stakeholders is planned in January 2007 under activity 2.2
Objective of the activity	To raise awareness about Metrology in Chemistry
Methodology	To be prepared and published by IRMM
Implementation period	January 2007 (to be prepared for activity 3.1)
Expected result	Raising awareness about Metrology in Chemistry
Deliverables	A leaflet presenting the concept of the metrology in chemistry



#### IN PROCESS

A draft leaflet, with suggested content was elaborated in cooperation with DZM's management, competent in the Metrology in Chemistry field. In order to be adapted to the best possible level to stakeholders' interests, comments on the proposal have been requested from MiC Workshop's participants.

After suggested adjustments have been incorporated, the leaflet is in a final design and printing stage. It will be published and distributed in the course of May 2007.

#### 2.3 OBSERVATIONS ON THE FIRST REPORTING PERIOD

According to the initial planning, the 1<sup>st</sup> reporting period on this project has been closely correlated to the conduct of the "twin" CARDS 2004 project, entitled "Assessment of National Priorities for Metrology and Conformity Assessment". Within the numerous interlinks between both projects, some appear to be more relevant then others.

#### Legislation

A/ For instance, the revision of the Metrology Act has been originally scheduled for the second reporting period. The logical sequencing of the tasks has been at the origin of such planning: first the National Strategy for Metrology can be formulated, then necessary alignments of the legal act can be derived.

However, this sequencing was affected by a Governmental decision to revise the Metrology Act under urgent procedure, the later being a benchmark for the opening of EU accession negotiations under the Chapter 1: Free Movement of Goods.

Under the given circumstances, amendments to the Metrology Act have been drafted by the DZM's management. Thus, assistance was provided in a form of comments to the drafted amendments, underlying some potential concerns over the needs to introduce "acquis"-linked additional provisions. The guiding idea is to avoid the need of repetitive interventions in the primary legislation, triggered by possible solutions derived under time pressure.

B/ The encountered delays in the action fields linked to the Standardisation area are in a way consequence of the activities' sequencing. The initially planned consultations on possible (HZN initiated) amendments to the Law on standardisation have been continuously delayed. The absence of a consensus to support the Standards body initiative at inter-ministerial level has been triggered by opposite views on the need for adjustments in the legal act. Finally, the idea of revision seems to be abandoned and therefore the required assistance becomes unnecessary.

#### Metrology in Chemistry

Positive feed-back from stakeholders and participants on training activities in Metrology in Chemistry appear to be encouraging in the perspective of further developments in this field. The presence of knowledgeable and enthusiastic representatives on the national scene makes brighter the longer-term prospects of establishing and developing specialised scientific knowledge-transfer platforms, such as TrainMiC. Hence, it provides a positive impulse for further deepening of the agreed activities in the field of interest of the Croatian Accreditation Agency, as well as the State Office for Metrology.

#### Coordination

While trying to ensure best synergies between parallel projects, it was agreed with the Croatian Accreditation Agency and the management of the CARDS 2003 project: "Development of accreditation systems and support to national testing and calibration laboratories", to postpone the "Assessment of the HAA management system according to ISO 17011". Thus, an equivalent activity will be delivered within the later project before its termination (in August 2007). The follow-up will be ensured at the final stage of this CARDS 2004 project, during the first quarter of 2009.

Along the same lines, the Law on technical requirements for products and on conformity assessment will be revised while assistance would be provided through the above named CARDS 2003 project. Following a request from the Internal Market Unit within the Ministry of Economy, Labour and Entrepreneurship, it has been agreed to provide a support in a form of expert assistance, while drafting secondary legal act on conformity marking. The fact that it concerns a new piece of legislation increases its relevance from the Ministry's perspective.

# 3 PLANNED ACTIVITIES FOR THE 2<sup>nd</sup> REPORTING PERIOD (06/04/2007 – 05/10/2007)

Deriving form the Inception reports' planning, the following activities are scheduled for the 2<sup>nd</sup> reporting period:

ACTIVITIES		
1: Drafting/updating strategies for beneficiary institutions		
Fine-tuning of the HZN strategy		
Support to establishment of the HZN business plan (human resources, financial planning)		
2: Revising the existing legislation		
Review of the standardization law and related laws, proposal for the amendments		
Component 3: Networking in metrology in chemistry		
Selection of laboratories potential to become national laboratories in metrology in chemistry field		
Component 5: Support in preparing HZN for CEN and CENELEC membership		
Analysis of Internal Rules and Procedures		
Support to HZN committee work (voting, notifications to CEN/CLC)		
Visit at a NSB – exchange of experiences on TC work		
7: Training courses in MiC for analytical laboratories and technical assessors		
Environmental protections (water, emissions): witnessing of assessment in EU Member State		
Environmental protections (waste products): witnessing of assessments, performed by EU assessors		
Component 10: Organisation of public awareness activities		
Providing project presentation on a national events		
Project Management		
3rd Steering Committee meeting		

## 3.1.1 Component 1: INSTITUTIONAL CAPACITY BUILDING (CB)

#### 1/ Drafting/updating strategies for beneficiary institutions

Activity	1.4 Fine-tuning of the HZN strategy
Background information	Since the establishment in 2005, the Croatian Standards Institute has elaborated an integrated strategy, including a clear vision and mission. In line with its major strategic objective of achieving CEN / CENELEC membership, the institution's management has expressed the willingness to share experiences with other Standards Institutes from EU member states on this, as well as other related topics.  Availability of HZN's strategy is the main precondition to the successful conduct of the activity
Objective of the activity	Provide an insight on possible improvements of HZN's strategy
Methodology	Expert's visit to Croatia
Implementation period	By June 2007
Expected result	Aligning the document's wording with HZN's long term vision Making the document more relevant and up-dated in order to provide proper understanding within, as well as outside the organisation
Deliverables	<ul> <li>Expert report, including provided comments on possible improvements of the Strategy</li> </ul>

Activity	1.5 Support to establishment of the HZN business plan (human resources, financial planning)
Background information	One of the objectives of the Institute's management remains to increase the level of financial self-reliance. Currently 10% of HZN incomes are originated by commercial activities (membership fees, selling of standards etc.). Even though operating under central treasury system, that excludes the possibility of an independent management of the generated resources, the Institute remains dedicated to its business friendly positioning.  Proper planning of the longer-run perspectives is essential for HZN's further progress along this path.  Draft business plan to be prepared by HZN is the main precondition to the successful conduct of the activity
Objective of the activity	Provide assistance while drafting a business plan for the Croatian Standards Institute
Methodology	Experts' visit to Croatia
Implementation period	By October 2007
Expected result	HZN has elaborated a business plan, based on its annual budget and including realistic expectations on generated proper income
Deliverables	Report containing suggestions on eventual improvements of HZN's business plan

## Component 2: Revising the existing legislation

Activity	2.3 Review of standardization law and related laws, proposals for amendments
Background information	The fulfilment of the CEN/CENELEC membership criteria affects the national legislation.
Objective of the activity	To assist Croatian authorities identifying needs of potential changes in the standardization related legislation
Methodology	EU expert mission to Croatia
Implementation period	By July 2007
Expected result	Recommendations for amendments where necessary
Deliverables	Mission Report including recommendations for amendments where necessary

#### Component 3: Networking in metrology in chemistry

Activity	3.3 Selection of laboratories potential to become national laboratories in metrology in chemistry field
Background information	The establishment of an institutional network of National reference laboratories (providing reference values) in the Metrology in Chemistry field requires a complex understanding of the particularities within the future national coordination body for the segment.  Elaborating criteria for an objective selection of such actors that will become part of the system is only one of those issues.  The connection with the (by then elaborated) National Strategy for Metrology has to be ensured.
Objective of the activity	Providing assistance in formulating technical criteria for selection of potential national reference laboratories in MiC
Methodology	Workshop
Implementation period	By October 2007
Expected result	Defined technical selection criteria of potential national laboratories
Deliverables	Recommendations for the conduct of a selection process for potential national reference laboratory(ies) in Metrology in Chemistry, as well as strategic partnerships

## Component 5: Support in preparing HZN for CEN and CENELEC membership

Activity	5.1 Analysis of Internal Rules and Procedures
Background information	This activity is an integral part of the assistance that has been agreed to be provided in supporting the Croatian Standards Institute on the way towards achieving the fulfilment of the CEN / CENELEC membership criteria. In order to be conducted, it assumes that the Internal rules and Procedures would be made available for consultation.
Objective of the activity	Identify potential needs for improvement
Methodology	EU expert's visit
Implementation period	By September 2007
Expected result	Report containing recommendations
Deliverables	Report

Activity	5.3 Support to HZN committee work (voting, notifications to CEN/CENELEC)
Background information	This activity is an integral part of the assistance that has been agreed to be provided in supporting the Croatian Standards Institute on the way towards achieving the fulfilment of the CEN / CENELEC membership criteria
Objective of the activity	Assess the practice of managing TCs
Methodology	EU expert's mission to HZN
Implementation period	By July 2007
Expected result	Proposed improvements
Deliverables	Report

Activity	5.4 Visit at a NSB – exchange of experiences on TC work
Background information	This activity is an integral part of the assistance that has been agreed to be provided in supporting the Croatian Standards Institute on the way towards achieving the fulfilment of the CEN / CENELEC membership criteria
Objective of the activity	Present the management practice in EU member state NSB
Methodology	HZN experts on training abroad
Implementation period	By September 2007
Expected result	Croatian experts familiarized with EU member state's NSB management practice of TCs functioning
Deliverables	Trained Croatian Experts

## 3.1.2 Component 2: HUMAN RESOURCES DEVELOPMENT (HR)

7/ Training courses in MiC for analytical laboratories and technical assessors

Activity	7.4 Environmental protections (water, emissions) - mandatory area based on national regulations and/or EU directives: witnessing of the assessments, performed in EU Member State
Background information	A number of applicant laboratories are expected by the Croatian Accreditation Agency in the middle-term acting in the environmental and alimentary fields. The agency has used in the past the concept of "pilot-applicants" while performing accreditation exercise in pioneering fields. In the scope of this project it is expected to adopt a similar approach, while providing on-site "training" for future technical assessors and representatives of "pilot laboratories".
Objective of the activity	Provide future technical assessors with practical insight on the assessments performed in chosen priority fields
Methodology	Croatian experts (likely to become technical assessors in the environmental field) assisting an assessment performed in an EU member state
Implementation period	By September 2007
Expected result	HAA staff / contractors familiarised with methods used and technicalities linked to performed assessment in the chosen field
Deliverables	Trained Croatian experts

Activity	7.6 Environmental protections (waste products) - mandatory area based on national regulations and/or EU directives: witnessing of the assessments, performed by EU assessors
Background information	A number of applicant laboratories are expected by the Croatian Accreditation Agency in the middle-term acting in the environmental and alimentary fields.
Objective of the activity	Provide future technical assessors with practical insight on the assessments performed in chosen priority fields
Methodology	EU experts performing a preliminary assessment of an applicant pilot- laboratory in Croatia
Implementation period	By October 2007
Expected result	HAA staff / contractors familiarised with methods used and technicalities linked to performed assessment in the chosen field
Deliverables	Trained Croatian experts

## 3.1.3 Component 3: AWARENESS CAMPAIGN (AC)

## 10/ Organisation of public awareness activities

Activity	10.1 Providing project presentation (1/3)
Background information	Raising public awareness on the National quality infrastructure topics is one of the three pillars within the project's planning. The inception report has revealed some of the weaknesses in terms of deficient support for national actors in the quality infrastructure field. Familiarizing major decision-makers at the relevant ministries with the importance of supporting the development of an appropriate quality infrastructure.
Objective of the activity	Raising the awareness about on-going progress in quality infrastructure field on national level
Methodology	Participation to a workshop / conference at national level
Implementation period	By October 2007
Expected result	Familiarizing decision-makers and relevant stakeholders with beneficiary institutions' activities and contribution
Deliverables	Presentation delivered

#### 4 CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 KEY ASSUMPTIONS

- The Government will allocate necessary financial and human resources to meet the obligations of the Project Partner as defined in these Terms of Reference;
- Active involvement of all parties in the project and manifested dedication to the achievement of the objectives;
- The Project Implementation Unit being the main interlocutor between the Project partner, the consultant and the EC Delegation in Zagreb, is sufficiently staffed and trained in Project management issues;
- The supply of equipment in support of the Metrology in Chemistry field is linked to the outcome of the National Strategy for Metrology and conformity assessment that is currently in a drafting process, as well as to the conduct of a selection process of future reference laboratories in MiC – as defined in the Terms of Reference for this project.

#### 4.2 ENHANCING RISKS

- Possibly encountered obstacles in the process of adoption of the amended Metrology Act;
- Difficulties in the practical steps of establishment of the Croatian Metrology Institute (nomination of a top management, allocation of staff etc.);
- Available staff at the newly established HMI (if Metrology Act is amended and adopted), that will be dedicated to the conduct of the planned tasks;
- Difficulties in identifying appropriate pilot-laboratories for the conduct of the planned activities in the scope of the assistance provided to the Croatian Accreditation Agency;
- Overloaded schedule for the Croatian Standards Institute, considering the adaptation period at the management level and coming summer holidays (while availability within institutions might be limited):
- Lack of interest and/or availability at the relevant ministries.

#### 4.3 RECOMMENDATIONS ADDRESSING IDENTIFIED FIELDS FOR IMPROVEMENT

The legislation drafting part of the activities within the first six months has revealed some fields that can be improved during the following reporting period. The absence of the Ministry of Economy, Labour and Entrepreneurship from the list of direct beneficiaries of the project is perhaps a constraining factor in this sense.

For instance, the diverging views with the Croatian Standards Institute on the need to amend the Law on Standardisation have affected the dynamics of the assistance in this field.

On the other side, the intervention in amending the Metrology Act could have been conducted in a more relaxed environment if it was initiated at an earlier stage or aligned with the coming strategy. Under this assumption, all suggested amendments, including those referring to "aquis-related" provisions, could have been reconsidered without negatively affecting the strategy drafting process.

The final proposal of the amended Metrology Act has been submitted for consultations to relevant stakeholders, before being adopted by the Government. Depending on the decision, further assistance can be provided.

The announced establishment of the Croatian Metrology Institute generates very high expectations at various levels: national standard-holder laboratories, representatives of the metrological / research community, industrial and other end-users of the services. If the amended Metrology act is adopted, some key decisions on the practical establishment (designation of an acting director, drafting of a statute, attribution of staff members etc.) would be made at the end of this or the beginning of the next reporting period.

#### **ANNEXES**

Annex 1:

Annex 2:

Updated Logical Framework
Overall work-plan from the Inception report
Detailed work-plan for the 2<sup>nd</sup> implementation period
Overall Output Performance Plan
Inception Phase extension Annex 3:

Annex 4:

Annex 5:

Annex 6: Minutes from the kick-off meeting

## Annex 1: Updated Logical Framework

Development of Nati Standardisation, Confo and Accreditation Contract N:	rmity Assessment	Project starting date:  Project end date:	16/05/2006 15/05/2009	Updated on:	10/04/2006
Intervention logic	Objectively ve	erifiable indicators	Sources of verifi	ication	Assumptions and risks
Overall objective:				_	•
The overall objective is to further develop the quality infrastructure in Republic of Croatia, in line with the provisions of the SAA, and to create an enabling environment for the Croatian industries and manufacturers to improve their trade and industrial relations with the EU and international markets as well as quality of life	Readiness of all benefito EU requirements	ciaries to operate according	Various reports from relevar organisations e.g. WELMEC CEN/CENELEC	nt European C,	Continuous support from the Croatian Government to strengthen the role of technical infrastructure
Specific objectives:					
1/ Strengthen the national quality infrastructure system	Upgraded expertise of the	quality infrastructure actors	Evaluation reports		Dedication to the objectives of all beneficiary institutions, as well as competent ministries and stakeholders
2/ Improve the technical expertise	Provided trainings for Nat	ional experts	Experts' reports		Available experts and motivated management
3/ Raise public awareness on importance of proper functioning of national quality infrastructure	Organised public awarene	ess events	Presentations, reports and distr	ibuted documents	Readiness at the competent ministries to support the efforts in up-grading the National quality infrastructure's institutional actors
Project Purpose					
To upgrade the performance of the national accreditation and the national standard services as well as the national metrology infrastructure in order to ensure continued improvement and harmonisation with EU system as well as to support them in preparing for membership in the relevant European organisations	Operational institutions in	all priority areas	Project and expert reports, other	er national reports	Manifested continuous support towards achievement of the defined objectives from the top management and staff of all beneficiary institutions; Availability of motivated staff members within the institutions
Activities:					
1/ Institutional capacity building					
Drafting/updating strategies for beneficiary institutions	Strategic guidelines for all	•	Strategic documents reviews		Dedicated management that has a clear and realistic vision on the longer-run perspectives for the respective institution
Revising the existing legislation	Proposals for amending e	xisting legislation	Proposed amendments		Inter-institutional consensus on the need to revise a relevant legislative acts; Full support from competent ministries;

			Inconsistencies between amended Metrology act and the Strategy, linked to disrupted sequencing of the activities; Risk of repetitive revisions of legislation due to partial alignment with the EU requirements
Networking in metrology in chemistry	Selected reference laboratories in MiC	Trainer's reports	Establishment of strategic partnerships between existing institutions is necessary
Enhancing cooperation between relevant stakeholders	Identified fields of cooperation between all relevant stakeholders	List of identified areas of cooperation	Mutually identified points of interest for cooperation between the relevant institutions;
Support in preparing HZN for CEN and CENELEC membership	Application to full membership ready for submission	Progress evaluation reports	Manifested dedication from management and staff to fulfil the criteria; Clear and visible support from the relevant ministries and national stakeholders;
2/ Human Resources Development			
Training for standardisation experts	Standardisation experts trained in number of areas	Croatian experts' reports	Available, motivated staff members within the Standards body; Full support from the corresponding line management;
Training courses in metrology in chemistry for analytical laboratories and technical assessors	Number of trained attendants	Expert's reports	Available human resources in the relevant institutions; Dynamism of the corresponding National MiC team; Interest within analytical laboratories on the raised topics;
Development of procedures and working instructions	Provided proposals for drafting procedures and working instructions	Draft recommendations	Successful selection of future national reference laboratories in MiC is conducted by HMI
Training related to conformity assessment topics	Number of conformity assessment bodies	Experts' reports	Possibility for the national actors to identify the priority areas; Manifested interest from end-users
3/ Awareness campaign			
Organisation of public awareness activities	Number of public awareness activities organised	Organisers' reports Agendas Presentations	Manifested interest from the key stakeholders in the organisation of such events; Readiness to contribute with presentations from the beneficiary institutions; Support from the relevant ministries
Drafting and printing adequate material for all organised trainings, workshops and for other public awareness purposes	Printed leaflets and other documents	Produced documents	Identified fields of major interest; Readiness from the beneficiary institutions and other national actors to contribute to the drafting process
			Preconditions

- All beneficiaries receptive and committed to ongoing pre-accession assistance project(s);
- Availability of results achieved under CARDS 2003 project in order to ensure proper follow-up;
- Consistent vision about the development of national metrology, standardisation, conformity assessment and accreditation system;

## Annex 2: Overall work-plan from the Inception Report

Project Title:	Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System	Contract number:	1165 (3001		Cour	ntry:		Cr	oat	ia					Page:							
Contract Duration:	36 months	Prepared on:	01/09	9/2006	Cons	sultai	nt:	E	0 -	DG	JR	07	IRM	IM								
			Allo	cation	of Ex	pert	$\overline{}$						Com	ple	tion	Dat	e					
Results	Activities	Outputs	TL	PD	STE	STE	2006			2	007			<u>.</u>			008			2	009	Deadline
					EU	HR	4	1	1	2		3	4		1	2		3	4	1	2	
Component 1:	Drafting/updating strategies for beneficiary institutions		·	······	······						T		r	т:			.т	ут		T	т	
1.1	Study visits to EU countries where responsibilities for	D1				18																
	metrology are distributed between several institutions			<u> </u>																		Mar-06
1.2	Support to drafting of organizational development	D2			3																	
	strategy of the Croatian Metrology Institute			<u> </u>		-					1						1	4	-		$\perp$	Dec-07
1.3	Support to drafting of organizational development	D2			3																	
	strategy of the Croatian Metrology Institute (follow-up)					<u> </u>				Ш	11						11	Ш			11	Jun-08
1.4	Fine-tuning of the HZN strategy	D2			2	<u> </u>				44	11	$\perp$					₩	4	44		1	Oct-07
1.5	Support to establishment of the HZN business plan	D2			6																	
	(human resources, financial planning)			<u> </u>		<u> </u>											1	1				Oct-07
1.6	Support to establishment of the HZN business plan –	D2			2																	
	follow-up			<u> </u>		-		#	#	#	+	-					1	-	11		-	Mar-06
4.7	HAA's Strategy fine-tunning with special insight on	1	١.		4																	
1.7	development potentials for PT scheme organisers in Croatia	D2/D4	4																			Mov 00
Component 2:	्राचनाव Revising the existing legislation			<u> </u>				1 !		11	1 !						į	!	11		1 !	May-08
Component 2.1	Review of the Law on Metrology and harmonized legal	I	1	ĭ	······································		T	II	<b>-</b>		<b>"</b> ""			T	····			T		T	T	
2.1	acts, proposal for the amendments	D4																				May-07
	Review of legislation in which the New Approach					<u> </u>	+	+	Н							++	+	+	#		+	may or
2.2	Directives are transposed, proposal for the																					
	lamendments																					Nov-06
	Review of the standardization law and related laws,	D2/D4			2	İ				$\top$	$\top$	П				$\top$	П	$\top$		Ш	11	
2.3	proposal for the amendments	D2/D4																				Dec-06
2.4	Support to drafting of amendments to the Law on	D2 / D4									П						П					
2.4	metrology																					Jun-07
	Drafting on amendments to the Law on technical																					
2.5	requirements for products and on conformity	D2/D4																				
	assessment					1		$\bot$	Ш	Ш	Ш	Ш						Ш		Ш	$\perp$	Mar-07
2.6	Further support on legislation approximation	D2			3																	May-08

																					_	
	3: Networking in metrology in chemistry				,		•															
3.1	Presentation Workshop of stakeholders involved in	D3	3		9																	
	Metrology in Chemistry									Ш							Ш					Mar-07
3.2	Selection of laboratories potential to become national	D2	3		6																	
	laboratories in metrology in chemistry field									Ш												Jun-07
3.3	Selection of laboratories potential to become national	D2	3		6																	
	laboratories in metrology in chemistry field	02	3																			Oct-07
3.4	Selection of laboratories potential to become national	D2	4		8					П	П			П		П	П			T	П	
	laboratories in metrology in chemistry field	DZ	4																			Dec-07
Component 4	4: Enhancing cooperation between relevant stakeholders																					
4.4	Workshop on defining areas of cooperation with major	D0	T		4	<u>.</u>		П						T			ΠT			TT	T	
4.1	partners	D3																				Oct-07
	Support to newly established Croatian Metrology		<b>1</b>		3									Ħ		Ħ	Ħ			$\top$	$\top$	
4.2	Institute in building-up relations with stakeholders	D2	3																			Mar-08
4.3	Providing assistance in drafting MoUs	D4								Ħ	TT		Ì	Ħ		Ħ				$\top$	$\top$	Dec-08
	5: Support in preparing HZN for CEN and CENELEC member	ship						<u> </u>		•	•											
5.1	Analysis of Internal Rules and Procedures	D2/D4		1	5		ΠΥ	TTT			TT	Tiii	T	T	TT	T	T	TT		T	TT	Jun-07
	Analysis of Internal Rules and Procedures – follow up		+		2			$\Box$			$\top$			$\top$		++	$\dagger \dagger$		$\Box$	+	$\forall$	
5.2.	l man, one of mile man value and vice of the more applications of the mile man applications of the mile	D2/D4			-																	Mar-08
	Support to HZN committee work (voting, notifications to		+		2					+	#		1	$\forall$	##	++	+			+	+	
5.3	CEN/CLC)	D2			-																	Jun-07
5.4	Visit at a NSB – exchange of experiences on TC work	D1	+			12				+	#			$\forall$	++	++	$^{+}$	+		+	$\pm$	Oct-07
5.5	Support to drafting of standards	D2	+		1	12				+	++			+	++	+	+	++		+	+	Jul-07
	Visit at a NSB – exchange of experiences on drafting of		+			12				+	++			+	++	++	+	++		+	+	
5.6	standards	D1				· -																Oct-07
	Support to preparation of the CEN/CENELEC		+		6	<u> </u>				+	++			+	++	+	+	++		+	$\forall$	
5.7	application	D2/D4			٠																	Mar-08
	Preparation for the CEN/CENELEC-audit – exercising		_		6	<u>:                                      </u>				₩	++			₩	++	╁	₩	++	++	+	+	- Mai-00
5.8	audit situations	D2			·																	Oct-08
	Support to full integration into CEN/CENELEC system		+		4	<u> </u>		╫	+	₩	++		1	₩	++	╁	₩	++-		+	+	- 001100
5.9	Support to full integration into CENVCENELEC system	D2			4																	Mar-09
Component (	6: Training for standardisation experts															<u> </u>	<u>:                                    </u>			<u> </u>	ш	IVIAI-US
Component	Increasing financing of standardization – support to		T		1	······································	l	7									I	T-T-		IX-	T	
6.1		D2			ı																	00+07
	sale, especially e-sale and marketing Increasing financing of standardization – support to		+	1	2				++	+			1	₩		┿	₩	₩		+	₩	Oct-07
6.2		D2			2																	0.4.00
	sale, especially e-sale and marketing – follow up		+	1	2					₩	₩		+	₩		┿	₩	₩		+	₩	Oct-08
6.3	Standardization database management and IT security	D2			2																	0.4.07
			+			_				₩	₩		-	₩	##	┿	₩	##		+	₩	Oct-07
6.4	Archiving of the documents – paper and electronic	D1	+			3		++-	+	₩	#		H	+	#	+	₩	#		+	₩	Jun-07
6.5	Support to establishment of the terminology database	D2			1																	D
	Ourself to deather the TOD to the control				_					#	#		H	+	#	#	#	#	1	+	$\dashv$	Dec-07
6.6	Support to drafting the TOR for further support in	D2/D4			2																	D
	terminology database		+							#	#		#		#			#	Ш	+	4	Dec-07
6.7	Train-the-trainers specific session	D3	4		4																	Oct-08

Component 7:	Training courses in metrology in chemistry for analytical	laboratories and	technic	al assess	ors		 	, <b>.</b>	,	 	 			····		 	
7.1	Workshop providing training for staff of newly selected national standard laboratories in the field of metrology in chemistry	D2/D4			3												Mar-08
7.2	Translation of TrainMiC training materials in Croatian language	D4	4														Oct-08
7.3	Evaluation of laboratories progress to be designated as national laboratories in the field of metrology in chemistry and apply for accreditation	D2			5												Mar-09
7.4	Environmental protections (water, emissions): witnessing of assessment in EU Member State	D1				8											Jun-07
7.5	Food (organic farming): witnessing of assessment in EU Member State	D1				8											Jun-08
7.6	Environmental protections (waste products): witnessing of assessments, performed by EU assessors	D2			4												Oct-07
7.7	Environmental protections (radioactivity): witnessing of assessment, performed by EU assessors	D2			4												Oct-07
7.8	Food (safety, quality) - mandatory area based on national regulations and/or EU directives: witnessing of assessment, performed by EU assessors	D2			В												Mar-09
7.9	Training in Metrology in Chemistry (TrainMiC I)	D2	3		3	$\neg$						$\top$			$\top$		Mar-07
7.10	Training in Metrology in Chemistry (TrainMiC II)	D2	3		3	$\neg$		$\top$			Ш				$\top$		Mar-08
7.11	Post-proficiency testing workshop (Environment)	D1			1	12									$\top$		Dec-08
7.12	Post-proficiency testing workshop(Food)	D1				12						$\top$			$\top$		Dec-08
7.13	Post-proficiency testing workshop (Environment)	D1			1	12					Ш				$\top$		Dec-08
7.14	Post-proficiency testing workshop (Food)	D1			1	12									$\top$		Dec-08
7.15	Specialised training for technical assessors (Food and Environment priority areas)	D1	3		В												Dec-08
Component 8:	Development of procedures and working instructions						 			 	 					 	
8.1	Peer-Assessment of the HAA management system according to ISO 17011	D2			3												Mar-07
8.2	Support to elaboration and implementation of necessary procedures and working instructions for newly selected national laboratories in the field of Metrology in Chemistry	D2			5												Oct-08
Component 9:	Training related to conformity assessment topics		•														
9.1	Workshops on European Technical Regulations	D3	3		9	I							II				Jun-08
9.2	Sector oriented workshops on conformity assessment	D3	3	1	8												Dec-08

Component 10:	Organisation of public awareness activities																
1 1111	Providing project presentation at least on 3 national events	D3	9														Mar-09
1 111 /	Organization of Metrology promotion day on the occasion of the Word Metrology Day - 20 May	D3	3		3												Jun-08
10.3	Workshop with the Croatian authorities on standardization and its interlinks with European technical legislation and conformity assessment system	D3	3		3												Dec-08
1 1114	National conference on quality infrastructure, technical regulations and conformity assessment	D3	3		6												Apr-09
Component 11:	Drafting and printing adequate material for all organise	ed trainings, worksh	ps ar	nd for e	other p	oublic	awar	ene	ss p	urpe	ses	5					
11.1	Support of the elaboration and publishing of information leaflet on metrological infrastructure established in metrology in chemistry	D4															Apr-09
11.2	Support of the elaboration and publishing a booklet on European Technical Regulations	D4															Mar-08
11.3	Support of elaboration and publishing of information materials in conformity assessment priority sectors	D4															Apr-09
1 114	Preparing and printing info leaflet on one of the HAA priority fields	D4															Dec-08
Project Manage	ement																
	1st Steering Committee meeting	Inception Report	3	3													Oct-06
	2nd Steering Committee meeting	1st Interim Report	3	3													Mar-07
	3rd Steering Committee meeting	2nd Interim Report	3	3										Ш			Oct-07
	4th Steering Committee meeting	3rd Interim Report	3	3						Ш	Ш			Ш		Ш	Mar-08
	5th Steering Committee meeting	4th Interim Report	3	3							Ш			Ш		Ш	Oct-08
	Final Steering Committee meeting	Final Report	3	3						Ш	Ш			Ш		Ш	Apr-09
Total ManDays			79	18	184	109											

TL, Team Leader = Nikola Poposki PD, Project Director = Philip Taylor

## Annex 3: Detailed work-plan for the 2<sup>nd</sup> implementation period

Project Title:	Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System	Contract number:	11653 (3001		Cou	ntry:		(	Croati	а								
Contract Duration:	36 months (Reporting period: 6 months)	Prepared on:	10/04	/2007	Cons	sultant	:	E	EC - [	)G JF	RC /	IRMI	М					
			Allo	ocation		pert				Со	mpl	etion	Date	;				
Results	Activities	Outputs	TL	<b>Mani</b> PD	Days STE	STE					- 2	2007						Deadline
		-	IL	יו	EU	HR	5		6		7		8		9	1 1	10	
Componen	□ t 1: Drafting/updating strategies for beneficiary institution	ons						I			•			ļ		<u> </u>		
1.4	Fine-tuning of the HZN strategy	D2			2											_		Oct-07
1.5	Support to establishment of the HZN business plan (human resources, financial planning)	D2			6													Oct-07
Componen	t 2: Revising the existing legislation				1		ı	1		1 1	!	l			ı		•	
2.3	Review of the standardization law and related laws, proposal for the amendments	D2 / D4			2													TBC
Componen	t 3: Networking in metrology in chemistry	1											•		l l			
3.3	Selection of laboratories potential to become national laboratories in metrology in chemistry field	D2	4		6													Oct-07
Componen	t 5: Support in preparing HZN for CEN and CENELEC me	embership			•			•										
5.1	Analysis of Internal Rules and Procedures	D2 / D4			5													Jun-07
5.3	Support to HZN committee work (voting, notifications to CEN/CLC)	D2			2				Ш									Jun-07
5.4	Visit at a NSB – exchange of experiences on TC work	D1				12								_				Sep-07
Componen	t 7: Training courses in metrology in chemistry for analy	rtical laboratories an	d techn	ical as	sessor													
7.4	Environmental protections (water, emissions): witnessing of assessment in EU Member State	D1				8										П		Sep-07
7.6	Environmental protections (waste products): witnessing of assessments, performed by EU assessors	D2			4											-		Oct-07
Componen	t 10: Organisation of public awareness activities											1		1				
10.1	Providing project presentation on a national events	D3	3															Jun-09
Project Mar																		
	2nd Steering Committee meeting	1st Interim Report	4	3														May-07
Total Man/	Days		11	3	27	20												

## Annex 4: Overall Output Performance Plan

Project Title:	Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System	Contract number:	116536 (30018)	Country:	Croatia
Reporting period:	6 months	Updated on:	10/04/2006	Consultant:	EC - DG JRC / IRMM
Outputs (to be	described and target dates indicated)	Agreed Objective V	erifiable Indicators	Constrains and Assumpt	tions (C/A)
Fine-tuning of the	HZN strategy	Expert	report	HZN management's decision on the conduct of the Availability of the Standards body strategy with er Availability of HZN management and experts	
Support to establis	shment of the HZN business plan	Suggested im	nprovements	Readiness of HZN management and experts  Available working draft of the business plan	
Review of the stan	ndardization law and related laws, mendments	Proposed ar	mendments	HZN management's decision on the conduct of the	e this activity
	atories potential to become es in metrology in chemistry field	Presentation on the spot to be applied while selection laboratoric	ecting future reference	Readiness of the State Office for Metrology and i become reference laboratories in MiC	nstitutions that would potentially
Analysis of Interna	ll Rules and Procedures	Proposed ar	mendments	Available Internal Rules and Procedures  Availability of HZN experts	
Support to HZN conotifications to CE	ommittee work (voting, N/CENELEC)	Trained Croa	itian experts	Availability of HZN experts	
Visit at a NSB – exwork	schange of experiences on TC	Trained Croa	itian experts	Possibility of find a convenient timing	
	tections (water, emissions): essment in an EU Member State	Trained Croa	itian experts	HAA in a position to identify technical assessors Identifying a corresponding assessment in HA scheduled period	A's field of interest within the
	tections (waste products): essments, performed by EU	EU assessors' m	ission in Croatia	HAA in a position to identify a pilot-laboratory in the	ne relevant field
Providing project p	presentation on a national events	Presentation	n available	Possibility to participate to a National event relatopics in Croatia	ated to the quality infrastructure

## **Annex 5: Steering Committee Members**

SC Members			Institution	Position	Contact details		
	3C I	weilibers	mstitution	Position	Address	E-mail	Phone
Mr	Mirko	VUKOVIĆ	DZM	Director	Vukovarska 78	mirko.vukovic@dzm.hr	+ 385 (0)1 610 6271
Ms	Biserka	BAJZEK-BREZAK	НАА	Director	Vukovarska 78	biserka.bajzek@akreditacija.hr	+ 385 (0)1 610 6322
Ms	Dragutin	FUNDA	HZN	Director	Vukovarska 78	dragutin_funda/HZN@hzn.hr	+385 (0)1 6106 095
Ms	Vesna	LUČIĆ-REGVAR	DZM	Head of PIU	Vukovarska 78	vesna.lucic-regvar@dzm.hr	+385 (0)1 610 95 26
Mr	Miroslav	BANIĆ	DZM	Head of OMP PJ Zagreb	Ibrišimovićeva 36	miroslav.banic@dzm.hr	+385 (0)1 370 1100
Ms	Tajana	KESIĆ-ŠAPIĆ	Min. of Economy, Labour and Entrepreneurship	State Secretary	Vukovarska 78	tajana.sapic@migorp.hr	+385 (0)1 610 6110
Mr	Davor	ČILIĆ	Central Office for Dev. Strategy And Coordination of EU Funds	Deputy State Secretary	Ratkajev prolaz 4	davor.cilic@mei.hr	+385 (0)1 4569 166
Mr	Lino	FUČIĆ	Min. of Env.pro, Phy.pl. and Construction	Head of section for building construction	R. Austrije 20	lino.fucic@mzopu.hr	+385 (0)1 378 2145
Dr	Sami	SAMARDZIC	Min. of Health and Social Welfare	Head of PIU	Ksaver 200 a	sani.samardzic@mzss.hr	+ 385 (0)1 4607 555
Mr	Dubravka	VLAŠIĆ - PLEŠE	Min. of Foreign Affairs and European Integration	Head of department	Petretićev trg 2	dubravka.vlasic@mei.hr	+385 (0)1 459 9300
Ms	Božena	VRBANIĆ	State Inspectorate	Deputy Chief Inspector	Vukovarska 78	bozena.vrbanic@inspektorat.hr	+385 (0)1 6106 199
Ms	Friederike	WUENSCHMANN	EC Delegation in Zagreb	Sector manager	Trg žrtava fašizma 6	friederike.wuenschmann@ec.europa.eu	+385 (0)1 4896 528
Dr	Philip	TAYLOR	EC DG JRC - IRMM	Project Director	Retieseweg 111, 2440 Geel, Belgium	philip.taylor@ec.europa.eu	+32 (0)14 571 605
Mr	Nikola	POPOSKI	EC DG JRC - IRMM	Team Leader	Retieseweg 111, 2440 Geel, Belgium	nikola.poposki@ec.europa.eu	+385 (0)1 610 6325 +32 (0)14 571 618

#### Annex 5: Minutes from kick-off meeting

Zagreb, 1-2 June 2006

Joint kick-off meeting for both related projects:

- 1/ Assessment of national priorities for metrology and conformity assessment
- 2/ Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System

#### INTRODUCTORY SESSION

1<sup>st</sup> of June 2006

#### Participants:

Mirko Vuković (DZM, Director)

Ljiljana Bašura (DZM, Head of PIU)

Miroslav Banić (DZM, Head of Legal Metrology Department)

Snježana Zima (HZN, Director)

Biserka Bajzek-Brezak (HAA, Director)

Vladimir Mucko (HAA)

Maja Gusić (HAA)

Norbert Bechtold (CARDS 2003, Team Leader)

David Norris (Regional CARDS 2002, Team Leader)

Friederike Wünschmann (ECD, Project Manager)

Nineta Majcen (DG JRC – IRMM, CARDS – Albania, Team Leader)

Ani Todorova (DG JRC – IRMM, Expert)

Philip Taylor (DG JRC – IRMM, Project Director)

Nikola Poposki (DG JRC – IRMM, CARDS 2004, Team Leader)

- 1/ Presentation on the IRMM, within the DG JRC
  - Philip Taylor (slides 4 to 12 of the Kick-off meeting presentation)
- 2/ Overview on the objectives and initially expected outcomes of both projects
  - Nikola Poposki (slides 13 to 18 of the Kick-off meeting presentation)
- 3/ Regional CARDS 2002 and CARDS 2003 National Programme
  - David Norris, Team Leader Regional CARDS 2002 (refer to the respective presentation)
  - Norbert Bechtold, Team Leader CARDS 2003 (refer to the respective presentation)

- Keeping the new CARDS 2004 National programme in line with the achievements of the previous ones, appears to be of critical importance for the final success.
- Ensuring that different projects are complementing each other and form a consistent range of objectives has to figure on the top of the agenda.

#### 4/ DZM presentation

- Mirko Vuković (refer to the respective presentation)
- Overview of previous CARDS programmes and respective achievements:
  - Adopted legislation (metrology, standardisation, accreditation, general product safety);
  - Staff training (European legislation, metrology, standardisation, accreditation, conformity assessment);
  - Acquired testing equipment (gas domestic meters, high capacity gas flow meters, flow meters for liquids other than water etc.);
  - Lab equipment to be delivered (Joseph voltage, Volume comparator, Spectrometer with balance, Thermometry Bridge, Wilkins resistance standard, Calibration bath-thermometry...);
  - Analysing needs in other areas (medicine, chemistry, ...);
- DZM would cover legal metrology, while the establishment of a new institution is envisaged for the scientific part.
  - Full member of EUROMET
  - Associate member of WELMEC
- Submitted proposals for new projects:
  - Market surveillance and legal metrological supervision SWE (SIDA)
  - Establishing a gas metering system in Croatia NL (PPA)
  - Environmental, air quality (tbd)

#### **ACCREDITATION MEETING**

1<sup>st</sup> of June 2006

#### PARTICIPANTS:

- Biserka Bajzek-Brezak, Vladimir Mucko, Maja Gusić, Norbert Bechtold, David Norris, Nineta Majcen, Ani Todorova, Philip Taylor, Nikola Poposki
- CARDS 2001: had quite unsatisfactory impact;
- CARDS 2003: providing technical assistance to HAA in the field of four chosen directives;
- Regional CARDS 2002: offering different perspectives –the regional dimension is emphasised.

#### **OVERVIEW:**

- Established as an independent organisation on 1 July 2005.
- EA membership achieved in five months following the establishment of HAA.
- Scheduled application for all MLAs in 2007

#### Conformity Assessment accreditations granted:

- 7 calibration labs;
- 41 testing labs;
- 9 inspection bodies
- 3 certification bodies
- 40 conformity assessment bodies currently in accreditation procedure (linked to a former certification subsidies policy...)

#### STAFF:

- 17 employees and 3 more should join by the end of this year;
- Background: Chemistry (3), Biology (1), Physics (1), Mechanical Engineering (1), Electrical field (2), Agriculture, Forestry etc.
- Act as lead-assessors;
- Technical assessors intervene from other labs and from aboard: SLO, AUT, CZE, UK, FRA;
- What is performed jointly is only the assessment (no joint accreditation).

#### **PRIORITIES:**

- Ministries will completely rely on the accreditation for all European directives. Some of the affected areas would be:
  - o Official control of food (organic farming in particular appears to be a priority area);
  - o Gambling machines;
  - o Fire protection;
  - o Explosive in civilian use;
  - o Clinical labs: according to EN 15189 standard for medical labs (Ministry of Health)
  - o Environmental protection: air, water and soil ( start with quality of air and emissions)
- HAA can influence technical regulations and give input on competence of labs
- Training activities should not be limited to analytical labs, but also include clinical laboratories.

#### FORMULATED NEEDS:

- Development of accreditation scheme for proficiency testing providers.
- Accreditation body would like to see a strong metrology infrastructure to rely on.

#### **INSTITUTIONAL LINKS:**

- Since the restructuring of DZNM, no formal links have been established between the three newly created institutions (DZM, HAA and HZN) this should evolve...
  - o The recently established Internal Market Unit within the Ministry of Economy should act as a coordination point for all three of the institutions.
  - o Regional CARDS workshop in Oct 2006 on the cooperation between Metrology and Accreditation.

HAA is formally supervised by the Ministry of Science, Educations and Sports. Institution's financial needs are satisfied on a progressively decreasing state budget participation basis. For the current year it is relaying on 90% budget sources. This stake should shrink to 80% in 2007 and further 70% in 2008. This year's budget is close to HRK 6 millions (10% self-financed).

NB: HAA and HZN are public institutions, while DZM has a status of state office ("legislation producer").

#### AVAILABLE BIBLIOGRAPHY ON HAA:

- Law on Accreditation;
- Statute of HAA;
- Web page.

#### STANDARDISATION MEETING

1<sup>st</sup> of June 2006

#### **PARTICIPANTS:**

Snježana Zima supported by four HZN staff members, David Norris, Norbert Bechtold, Ani Todorova, Nineta Majcen, Philip Taylor, Nikola Poposki

#### **OVERVIEW:**

- HZN in a process of preparation for CEN-CENELEC membership. This emphasises the importance of the fulfilment of 9 requirements.
- The regional CARDS is providing some support in this direction.
- Before the official audit, a peer audit is considered to be valuable.
- HZN expectations: to be ready for applying to CEN-CENELEC membership by the end of 2007 (in all organisational and structural matters)!
- Focused assistance with precise missions is considered to be of a crucial importance. How can IRMM bring the pieces into the picture?!
- Austrian Standardisation body (ON) is considered by Ms Zima to be the favourite partner in bringing the needed expertise on Croatian ground.
- Stated arguments for these preferences are:
  - o countries of a comparable size;
  - o relatively late Austrian entry in the EU (1995);
  - ON's well defined role within CEN;
  - Historically good relationship (it was discussed to have a bilateral project...);
  - o Previous Austrian offer for free training of Croatian experts.
  - Disadvantage: they cover only general aspects and not also electrical area.
- Mr Berchtold is supportive to eventual Austrian involvement, as he highlights their previous experiences in this area.

#### STAFF:

• Currently 45 employees, but in process of hiring some additional staff.

#### PRACTICAL ASPECTS:

• Suggestion on the "how to proceed" side:

Organise expert visit (ON being the first preference) and prepare a detailed working plan for the next 24 months in a view of the future HZN membership in CEN-CENELEC.

Ms Zima insists on allocating a fair share of resources to the Standardisation within the project.

The main deficiency areas affecting HZN can be listed as follows:

- Legislation: adopted but still needs to be implemented;
- Perception of the standards as a "voluntary variable" in the Quality Infrastructure picture;
- Partnership links need to be established with the ministries;
- Updating of the information system;
- Issues linked to intellectual property on standards (training is in process on this issue);
- More active participation in CEN/CENELEC TCs is needed.

NB: Key expert in Albania on standardisation, Mr Peackok (working for Mr George Molak) also had some screening role in Croatia in the area of evaluation of the current Croatian position towards CEN-CENELEC membership.

• Mr Norris: absence of a general guidance concerning the 9 requirements raises interpretation concerns. The final decision depends in a large extend on the auditor's judgement.

#### AVAILABLE BIBLIOGRAPHY ON HZN:

- law on standardisation;
- statute:
- rules of membership;
- Web page.

#### **METROLOGY**

(two linked discussions / exchange sessions, 1-2 June 2006)

#### POINTS TO BE CONSIDERED:

- Formulating a strategy in this area and fixing the longer term priorities is considered to be an exercise of crucial importance.
- Anticipating future fields of specific Metrological development in Croatia should be subjected to a thorough analysis.
- This should take in consideration the larger picture of the National Economy.
- Including all essential stakeholders in the process of defining strategic priorities is crucial.
- Future experts' specialisation and equipment procurement should be in line with the defined Strategy.

 The idea of having a twinning light (6 months, EUR 250K) project as a strategy defining process was briefly mentioned and a copy delivered on the last day of the visit.

#### **CONCLUDING SESSION**

Friday, 2 June 2006

#### **INCEPTION PHASE:**

- Initial expert-visits in each one of the project specific areas (DZM, HZN, HAA) would be most probably conducted during the second half of June 2006.
- All important stakeholders need to be informed and involved from the inception phase on.

#### **STEERING COMMITTEES:**

- As commonly agreed, both Steering Committees would be merged into a single one. This body would integrate the members that are stated in the ToR, whether other means of communication should be provided in order to keep informed other stakeholders (eg. NGOs...)
- The first Steering Committee session is planned to take place during the first week of <u>Sept 2006</u>.
  - The suggested list of SC members would include:

1	Mirko	/uković		Diroctor)	
Ι.	IVIII KO	Vuković	(DZIVI.	Director)	

2. Ljiljana Bašura (DZM, Head of PIU)

3. Miroslav Banić (DZM, Head of Legal Metrology Department)

4. Snježana Zima (HZN, Director)

5. Biserka Bajzek-Brezak (HAA, Director)

6. Ministry of Environmental protection, Physical Planning and Construction

(Mr. Pužinski, State Secretary)

(Mr Ružinski, State Secretary?)

7. Ministry of Health (1 person, tbd)

8. Ministry of Economy (1 person, tbd)

9. State Inspectorate (1 person, tbd)

10. Ministry of Finance (1 person, tbd)

11. Ministry of Foreign Affairs and European Integration

(Ms Dubravka Vlašić Pleše?)

12. Friederike Wünschmann (ECD, Project Manager)

13. Philip Taylor (DG JRC – IRMM, Project Director)

14. Nikola Poposki (DG JRC – IRMM, Team Leader)

NB: Ms Tamara Obradović - Assistant Minister in the MFAEI, chairing the working group for negotiations on Chap. 1 – as SC Chair person...(tbd)

#### **European Commission**

#### EUR 23035 EN/2 - Joint Research Centre - Institute for Reference Materials and Measurements

Title: Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System - First interim report, CARDS 2004 Croatia

Author(s): Nikola Poposki, Ani Todorova, Nineta Majcen, Philip Taylor Luxembourg: Office for Official Publications of the European Communities 2007 – 42 pp. – 21 x 29,7 cm
EUR – Scientific and Technical Research series – ISSN 1018-5593 ISBN 978-92-79-07686-2

DOI 10.2787/56382

#### **Abstract**

The CARDS 2004 - Croatia project on the "Development of National Metrology, Standardisation, Conformity Assessment and Accreditation System" is providing targeted assistance on predefined topics having as overall objective further development of the Quality Infrastructure in Croatia.

This 1<sup>st</sup> interim report provides the overview on the project's progress for the duration of the initial six months period of the implementation. It also offers a plan for the activities to be conducted within the second reporting period.

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