EUROMET PROJECT FINAL REPORT

1.	431	2.	Amount of Substance			
3.	_		7 mount of Substance			
3.	Type of collaboration: Consultation on facilities					
4A:	Partners:			4B:	CEC funded?	
	DFM, NMi, JRC, PTB		identified partners		X	
5.	Participating countries: CEC, DE, DK, NL + Identified countries					
6.	Title:					
	Terms of reference for joint EURACHEM and EUROMET activities					
7.	Progress: Following various discussions on the future of metrology in chemistry within and between various European organizations, EUROMET proposed in September 1997 a consultation project to foster co-operation with EURACHEM. The objective of the project was to identify joint interests, potential joint projects and to formulate the terms of references for joint activities. In September and October 1997, two project meetings were organized to work on the terms of reference. The consultative committee of EUROMET at its meeting in November 1997 discussed the project 431 including the outcome of the two meetings of the project group. It was decided to develop the project further as a normal EUROMET project to be managed in compliance with the EUROMET rules and practices. The terms of reference for Joint EUROMET-EURACHEM activities should be put before the EUROMET delegates meeting in May 1998. Some suggestions coming out of project 431 might be too trivial to take on board by the EUROMET Committee, others may require changes of the MOU or rules of procedures. In January 1998, the views of the contact persons in the subject field AMOS and invitees from EURACHEM were collected. In order to meet the dead line of May 1998 a number of iterations were made by correspondence after the meeting. The terms of reference are presented in this report. The expressed preferred way forward in managing joint projects is to retain the current AMOS contact persons' group in approximately the current configuration, with an additional three EURACHEM individuals as a number of EUROMET contact persons also wear a EURACHEM hat. This whole group would then continue to discuss and review a wider number of issues and projects that are of interest to a joint EUROMET/ EURACHEM forum. The actual joint forum (equal representation) with its joint projects could be constituted as a sub-set of this group, e.g. as one regular EUROMET AoS project. Optional is the formation of a small project group (e.g. current member of 431) to support joint projec					
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defined.						
9.	Completion Date:	10.	Coordinator's signature:	11.	Date:	
	15 January 1999				17 November1998	
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EUROMET Subject Field "Amount of Substance (AMOS)"

Final report on project 431

Preamble:

Why co-operation between the EUROMET subject field AoS and other organisations?

- 1. Activities in @metrology in chemistry ' are not restricted to NMI s.
- 2. Duplication of work should be avoided.
- 3. The concept of traceability to the SI should be better understood, then be promoted much more.
- 4. The application of the concept of traceability to the SI in chemical measurement is far from straightforward in most areas.
- 5. Traceability of measurements in chemistry is required by accreditation bodies.
- 6. Reference points for metrology in chemistry (primary standards /methods of measurement) should be maintained and developed in appropriate places by qualified staff.
- 7. Globalisation of metrology in chemistry.
- 8. Improvement of the exchange of information on metrology in chemistry.
- 9. EUROMET's general strategy to development relations with European organisations such as EA, EURACHEM and EUROLAB with the aim of achieving increasing efficiency in the final services for the end-user.

Why co-operation with EURACHEM?

- 1. Establishing traceability of measurements to the SI is already one of many activities and fields of interest of EURACHEM.
- Certain members within EURACHEM have greater expertise in some aspects of metrology and chemistry than some EUROMET AoS members, particularly at the field level, and are closer to the potential problems and requirements.
- EURACHEM members are confronted daily with problems in comparability and acceptability of measurement results.
- 4. EURACHEM has already been identified by EUROMET as an other European forum for reliability of chemical measurements (EUROMET Guidance document no. 2).
- 5. A number of EURACHEM members already perform national tasks in the CCQM key comparisons.

Area's of co-operation and mutual interest (with EURACHEM AO)?

- 1. Measurement activities in chemistry which are potentially traceable to the SI (primary methods of measurement and transfer standards).
- 2. Establishing links with the European dimension of CCQM- key comparisons.
- 3. Exchanging ideas and expertise between 'experts' who may have different, but equally valid views, which when exchanged/merged should improve both 'sides' views and visions.
- 3. Defining protocols for traceability.
- 4. Technical contribution to accreditation procedures.
- 5. Certified reference materials for calibration purposes.

Co-operation format between EUROMET and EURACHEM?

- 1. No new organisation, just creating a forum for combining metrological activities of mutual interest. Co-ordinated activities will not alter the central established roles and responsibilities of the two bodies. Each activity for which mutual interest has been established, is registered as a EUROMET project and clearly identified as a joint project. Proposals for joint projects may be based upon EURACHEM or EUROMET-EURACHEM initiated projects.
- 2. The integrity and status of the current and future EUROMET projects will be preserved.
- 3. Considering the transformations going on in metrology and in EUROMET itself, joint activities in amount of substance are a subset of projects in the AoS subject field of EUROMET, at least during a transition period.
- 4. General guidance, preparation of proposals for joint projects and surveillance, will be the task of a small group of experts (equal representation from EUROMET and EURACHEM) with sufficient knowledge of the interests of both organisations (e.g. members of current project 431).

(In principal, the project 431 is completed when the Terms of Reference for the joint activities are approved by the EUROMET Committee (delegates) meeting. The current participants are willing to perform the tasks described under 4, either in a new EUROMET-project or continuation of project 431. There should be an option to expand such a group to maximum 8 persons.)

Terms of reference for joint EUROMET- EURACHEM activities in EUROMET's subject field 'Amount of Substance'.

1. Mission

The mission of the EUROMET - EURACHEM joint forum is to provide a single liaison point for the parent bodies in order to co-ordinate their work in metrology in chemistry with the objective to improve the reliability and acceptance of measurement results. Joint activities will develop traceability within Europe and contribute to international activities.

2. Objectives and Areas of Common Interest

- a. To develop, improve and apply primary methods for chemical measurement
- b. To support the development of national and international chemical measurement structures
- c. To provide a pragmatic approach to measurement traceability and to establish links to SI where possible
- d. To undertake comparisons for (new) measurement standards and where possible, establish links with the CCQM key comparisons. CIPM key comparisons are organised by the CC's. EUROMET, as a regional organisation, is responsible establishing the regional dimension for these key comparisons.
- e. To undertake interlaboratory comparisons at the primary and reference levels, in order to establish and demonstrate equivalence of measurement standards, for example reference materials, in Europe
- f. To promote understanding and acceptance of traceability and uncertainty concepts within the analytical chemistry community e.g. by organising workshops
- g. To support the establishment of traceability of measurement results at the working level by means of knowledge transfer

3 Organisation

Participation in joint activities

Participation is open to one representative (contact person) each from EUROMET and EURACHEM and from each country which is a member of EUROMET or EURACHEM. Participation is therefore open for representatives from the European Union, the EFTA countries and nominated or associated members.

Potential representatives will be designated by their own organisations through a EUROMET delegate or the EURACHEM committee. Representatives must be active and competent in the field of metrology in chemistry. Individual participants may also represent both organisations.

The aim will be to establish a group with input from national metrology institutes, national reference laboratories, sectoral reference laboratories and industrial laboratories.

Meetings

Agendas, position papers and minutes will be prepared by a Secretariat in consultation with the rapporteurs and chairpersons of EUROMET and EURACHEM. The rapporteur of EUROMET-AoS will provide the secretariat.

Meetings will be chaired by a co-ordinator elected from the full working group. It is proposed that the EUROMET rapporteur shall be the first co-ordinator.

Task Groups

Task groups covering specific sectors and areas of application can be formed. Examples could be task groups for pH measurement, electrolytic conductivity, isotope ratio mass spectrometry, emission surveillance, clinical measurements, food, etc.. Participation in a task group is open to experts in the field not necessarily being the representatives. Task groups will adhere to the rules for EUROMET projects.

Transition period

The joint activities will be guided a small project group of max. 8 members. In this project group both organisations are equally represented. The task of the project group is:

- to give general guidance for joint projects
- to prepare proposals for joint projects
- to keep joint projects under surveillance

After two years this approach will be evaluated and a decision can be proposed for the future structure of the co-operation.

Note:

The project 431 is completed when the Terms of Reference for the joint activities are approved by the delegates meeting. The current participants are willing to perform the tasks described in the previous paragraph, either in a new EUROMET-project or continuation of project 431 with increased participation

End Terms of reference.

Actions in the near future:

During the meeting of EUROMET and EURACHEM chairpersons (incl. rapporteur AoS, vice and past chairpersons), the following was proposed and concluded:

- 1. Establishment of a EE(EUROMET/EURACHEM) joint Working Party (EEWP) for about 3 years to propose ways of collaboration for the following subjects: traceability, comparisons, primary standards, uncertainties and validation of methods.
- <u>3.2.</u> Each organisation will arrange the reporting of the EE joint projects with their own rule of procedure,
- <u>5.3.</u> EUROMET project n° 431 will be finalised before the first meeting of the Working Party, the final report will deliver input to the Working Party,
- <u>7.4.</u> EUROMET will reconsider the concept of NMIs for the purpose of recognising that chemical reference laboratories act as an NMI within specific fields,
- 9.5. On the EUROMET side, the participants to the EEWP are the following: Anton Alink, Kim Carneiro, Luc Erard, + 1or 2 members of the EUROMET Consultative Committee. EURACHEM has to appoint its participants.
- 41.6. The proposed date for the EEWP meeting is February 11, 1999 in BNM (or BNM-LCIE).