

EU funding for CRMs

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An EU publication, *Measurement and Testing Support for Infrastructure*,¹ (reviewed in the last edition of *RM report*) provides a fascinating insight into many of the projects funded under the last stage of the 5th Framework Programme of the EU Measurement and Testing programme.

Over the last 20 years European funding for the development of CRMs and related analytical metrology projects has been generous. This last group of more than 35 such projects, including 17 with the aim of developing, producing and certifying CRMs, is funded to the tune of almost €12 million. This funding should add 20 to 25 CRMs to more than 300 mostly matrix CRMs produced since the mid 1980s by past EU-funded CRM related projects. So we cannot claim that there has been an under investment of European money over the years in the development of some very important areas of analytical chemistry.

So why are there so few commercially-produced matrix CRMs?

Reading through the descriptive overview paragraphs for the latest 17 main CRM projects, listed together with their associated project acronyms in Table 1, it becomes clear that much of the work is developing the knowledge needed to produce the CRMs. A full review of these projects will be printed in the next edition of *RM report*.

From the overviews it is clear that the production of a large number of BCR CRMs is not the main priority. Indeed nowhere in the published overview is there a clear statement that a certain number of CRMs must be produced. This should not be a surprise.

As with other EU framework programmes the philosophy of the 5th Framework programme is not commercial: it is all about development of knowledge useful to the EU and mak-

ing available to all. That is why each BCR CRM is associated with a very detailed research report which should allow anyone to replicate the CRM.

Although there is an enormous wealth of information from each and every EU-funded CRM certification project most of this information is not transferred into the market place. Once the initial batch of BCR CRM has been sold out it is down to the Institute for Reference Materials and Measurement (IRMM) at Geel, in Belgium, to produce and certify replacement batches.

So why has industry not picked up the information and produced CRMs, following the information produced in the research reports?

The IRMM is a part of the EU Joint Research Centre, (JRC): both are publicly-funded institutes. Certainly the production of replacement BCR CRMs has to be paid for from the revenue generated from the sale of stocks,

Table 1. 5th Framework CRM Projects.

Acronym	Funding (thousand €)	Activity
AALARM	987	Aromatic amine CRMs for detecting banned azo dyes used in the leather industry
Agregation Standard	596	Reference procedure for the determination of aggregation of Erythrocytes
BROC	386	Matrix CRMs: Brominated flame retardants and organochlorine pesticides in fish, PAHs in mussels, polybrominated diphenylethers in sediment
CERMATAIR	344	CRMs for the determination of sulphur dioxide, nitrogen dioxide, carbon monoxide and benzene in ambient air
CREATE	1001	Recombinant major allergens as CRMs for use in allergy testing
CREW	449	CRMs for Optical Telecommunications Wavelengths
CRMGEN	1185	CRMs for Molecular Genetic Testing
DESIRED	395	CRMs for calibration of depth sensing indentation instruments
DIFFERENCE	2079	Production of high quality CRMs for Dioxins analysis in Food and Feed
GC-IRMS	628	CRMs for isotope ratio measurements by GC IRMS in food authenticity and adulteration
IVD-NONSI-THYROID	659	Development of reference procedures and secondary matrix reference materials for TSH and FT4 in human serum
MICROCRM	776	Development and production of microbiological CRMs in support of EU water legislation
SEAS	432	Speciated CRMs for As and Se in Biological Matrices
SGLC/MS	700	Reference method for LC MS/MS for detection of steroid glucuronides
SPECIFIC MIGRATION	624	CRMs for control of migration testing of plastics for food packaging.
WARP	208	CRM for the analysis of pesticides in water
MULTISPOT	350 (est)	Preparation of a certified oyster tissue reference material for species of tin, mercury and arsenic
Total funding	11799	

but the revenues do not have to provide full recovery of overheads costs and of course there is no mandate to produce a surplus (profit). When the market price of a new CRM is set it is done taking into consideration the costs or replacing the CRM and the probable demand. This sets a market price for matrix CRMs, but it is a subsidised market price.

So far, other than for some soil and sediment matrix CRMs that are widely used in the USA, no commercial company has been able produce matrix CRMs at a price that the market finds attractive.

The inevitable conclusion is that either the IRMM should increase prices to a level that allows the commercial production of matrix CRMs, or the EU

will have to be the provider of choice for the foreseeable future!

Reference

- 1 ISBN 92-894-2079-0 the Office for Publications of the European Communities in Luxembourg, L-2985 Luxembourg, €29.50.