



NEWSLETTER

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new technologies and innovation policy

Fifth Meeting of the Consultative Committee on Innovation and Technology Transfer

The fifth meeting of the innovation committee was held at Luxembourg on 9 November 1984.

Main topic on the agenda was a review of current actions. In addition, the Committee gave a positive opinion on further support for the European Venture Capital Association (EVCA) for the year 1985.

EVCA 1983 - 1984 ACTIVITIES

The EVCA was officially launched in November 1983 with a membership of 37.

During its first year of existence, the Association, with the assistance of the Commission of the European Communities, established its offices in Brussels, hired adequate staff and started with the implementation of its activities.

In 1984, two internal seminars were organised: the first in Dublin, in May, on the theme 'Financial Instruments and Rounds of Financing', the second in Paris, a few days ago, with as subject 'Strategy for Transnational Expansion'. The Association, in co-operation with the Commission, organised the 5th Innovation-financing Symposium (Luxembourg) in October 1984 on 'Improving Venture Capital Opportunities in Europe'.

The EVCA has published 4 newsletters (EVCA Info) for its Members; its objectives, its priority activities, Board, Secretariat and list of Members are detailed in an information brochure which has been regularly updated. These publications are now available from the EVCA Secretariat (EVCA, Clos du Parnasse 11 F, B-1040 Brussels) in the three official languages of the Association (English, French and German).

In co-operation with one of its Associate Members, the Association has published a brochure 'Raising Venture Capital in Europe' containing useful information for entrepreneurs in need of finance to expand their businesses.

Members of the Association are bound to abide by the Code of Ethics worked out by the EVCA and to adhere

to the rules and regulations of the Professional Ethics Commission set up by the EVCA Board of Directors.

The promotional activities of the Association resulted in its membership increasing from 37 to over 80 members, of which 50 are practising venture capitalists (Full Members) and 30 Associate Members.

Strong interest in DG XIII-A's calls for proposals

In the last four months, DG XIII-A has published in the Official Journal of the European Communities three calls for proposals, concerning

- the Europeanisation of conferences on technology and innovation (see O. J., No C 210, 10 August 1984, or Newsletter 31)
- the promotion of transnational cooperation between technology and management advisory services to small and medium-sized enterprises (see O. J., No C 210, 10 August 1984, or Newsletter 31)
- the development of markets for new products and services through joint exporting by innovative SMEs. (see O. J., No C 255, 22 September 1984, or Newsletter 31).

These calls for proposals, whose deadlines for the submission of applications recently expired, were strongly welcomed within the Community. The Commission registered more than 250 enquiries and 139 valid proposals concerning the Europeanisation of conferences, another 250 enquiries and 95 valid proposals concerning transnational cooperation between technology and management advisory services, and 220 declarations of interest in the 'marketing of new products and services through joint exporting' case.

Due to the overwhelming interest shown by the public, the Consultative Committee on Innovation and Technology Transfer (CIT) has already given, at its fourth meeting on 21 September, a positive opinion on doubling the budgetary resources set aside for the first two calls for proposals, resulting in 400 000 ECU for the Europeanisation of conferences, and one million ECU for transnational cooperation between technology and management advisory services.

This Newsletter is issued by Directorate XIII—A, New Technologies and Innovation Policy, in Directorate-General "Information Market and Innovation" of the Commission of the European Communities. For more information about its contents please write, including the address label with all your correspondence, to:

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Die Kommission unterstützt Innovation und Technologietransfer

Im Rahmen ihres Plans zur Errichtung einer europäischen Infrastruktur zur Unterstützung von Innovation und Technologietransfer (1) hat die Kommission **drei Verträge** mit der Europäischen Vereinigung für den Transfer von Technologien, Innovation und industrieller Information (TII) abgeschlossen, die die transnationale Zusammenarbeit von Innovationsberatungs- und Technologietransferstellen und ähnlichen privaten und öffentlichen Einrichtungen auf europäischer Ebene fördern.

Der Plan für die transnationale Entwicklung einer Infrastruktur zur Unterstützung von Innovation und Technologietransfer wurde vom Rat der Europäischen Gemeinschaften am 25. November 1983 beschlossen und ist Bestandteil der Gemeinschaftspolitik für industrielle Innovation. Hauptziel des Plans ist die Schaffung einer gemeinschaftsweiten Innovations-Infrastruktur, insbesondere im Dienst von kleinen und mittleren Unternehmen, die zur Erhaltung und Wiedererlangung der europäischen Wettbewerbsfähigkeit und zur langfristigen Sicherung der Vollbeschäftigung erforderlich ist.

Vertrag zur allgemeinen Unterstützung der Europäischen Vereinigung für den Transfer von Technologien, Innovation und industrieller Information (TII)

Die Europäische Vereinigung für den Transfer von Technologien, Innovation und industrieller Information (TII) wurde am 4. Mai 1984 mit Unterstützung der Kommission in Luxemburg gegründet. Bei der Gründungsversammlung waren etwa 80 Vermittler industrieller Information aus allen Mitgliedstaaten der Gemeinschaft vertreten.

Ziel der Vereinigung ist im wesentlichen, die Innovation zu stimulieren, den transnationalen Technologietransfer zu fördern und den Unternehmungen zu helfen, die Vorteile des Gemeinsamen Marktes zu nutzen. Dazu strebt die Vereinigung an, den Informationsaustausch und die Zusammenarbeit zwischen allen Trägern von Industrieinformationen zu fördern und die transnationale Unternehmenszusammenarbeit, insbesondere bei Forschung und Entwicklung sowie bei der Vermarktung neuer Produkte und Dienstleistungen, zu unterstützen.

Die Kommission unterstützt die Vereinigung mit 150.000 ECU.

Vertrag für Gruppenarbeitsbesuche

Der zweite Vertrag umschließt Gruppenarbeitsbesuche von Mitarbeitern von Innovationsberatungs- und Technologietransferstellen und ähnlichen privaten und öffentlichen Einrichtungen innerhalb der Gemeinschaft. Ein erster Arbeitsbesuch ist vorgesehen vom 3. bis 6. Dezember 1984 beim „Institut provincial des classes moyennes“ in Lüttich und beim „INNOVI“ in Gent. Ein zweiter Arbeitsbesuch ist für die Zeit vom 21. bis 24. Januar 1985 bei der „Eindhoven University of Technology“ sowie in 's Hertogenbosch bei der „BOM — Brabantse ontwikkelingsmaatschappij“ geplant. Die Kommission unterstützt die Organisation und Durchführung dieser und anderer Arbeitsbesuche mit einem Betrag von 100.000 ECU.

Vertrag betreffend den transnationalen beruflichen Austausch

Transnationaler beruflicher Austausch innerhalb der Gemeinschaft von Angehörigen von Innovationsberatungs- und Technologietransferstellen und ähnlichen privaten und öffentlichen Einrichtungen ist mit der drit-

ten Aktion geplant, für die 100.000 ECU befürwortet wurden.

Nach diesem Vertrag sollen Angehörige von Innovationsberatungs- und Technologietransferstellen aus den einzelnen Mitgliedsländern die Gelegenheit erhalten, die Arbeitsmethoden ihrer Kollegen in anderen Ländern kennenzulernen und mit ihnen persönliche Kontakte zu knüpfen. Z. B. würde etwa ein Innovationsberater aus Norddeutschland zwei Wochen bei einer Transferstelle in Südfrankreich verbringen.

Die durch Gruppenarbeitsbesuche und transnationalen beruflichen Austausch geschaffenen Kontakte zwischen Beratungsstellen in verschiedenen Mitgliedsländern sollen die Basis für eine grenzüberschreitende Kooperation zwischen diesen Stellen schaffen.

Aufruf zur Bildung grenzüberschreitender Partnerschaften

Ein erster Aufruf wurde bereits im August von der Kommission veröffentlicht, in dem sie um die Einreichung von Vorschlägen zur Bildung von grenzüberschreitenden Partnerschaften zwischen Innovationsberatungs- und Technologietransferstellen und ähnlichen privaten und öffentlichen Einrichtungen bat. Auf diesen Aufruf gingen annähernd 100 Bewerbungen zur Partnerschaft bei der Kommission ein.

Die Kommission stellt für eine erste Versuchsphase Mittel in Höhe von einer Million ECU zur Verfügung. Als Ziele dieser Kooperation werden die Schaffung eines dauerhaften Erfahrungs- und Informationsaustauschs zwischen den beteiligten Einrichtungen und die Anregung der grenzüberschreitenden Zusammenarbeit von kleinen und mittleren Unternehmungen angestrebt, die zur Markteinführung von neuen Produkten und Verfahren über den jeweils nationalen Absatzmarkt hinaus beitragen soll.

Weitere Informationen erteilen die Kommission der Europäischen Gemeinschaften, Generaldirektion Informationsmarkt und Innovation, GD XIII-A-2, Büro B 4/100, L-2920 Luxemburg, und die Europäische Vereinigung für den Transfer von Technologien, Innovation und industrieller Information (TII), Postfach 1704 (GISL), L-1017 Luxemburg, Tel.: (352) 438096 (Herr Glöckner).

La commission soutient l'innovation et le transfert des technologies

Dans le cadre de son plan de développement d'une infrastructure européenne d'assistance à l'innovation et au transfert des technologies (1), la Commission a passé avec l'Association européenne pour le transfert des technologies, de l'innovation et de l'information industrielle (TII) **trois contrats** encourageant la coopération transnationale de services consultatifs en matière d'innovation et de transfert de technologies et d'autres organismes privés et publics du même genre à l'échelon européen.

Le plan de développement transnational de l'infrastructure d'assistance à l'innovation et au transfert des technologies a été décidé par le Conseil des Communautés européennes, le 25 novembre 1983, et fait partie intégrante de la politique communautaire en matière d'innovation industrielle. L'objectif principal du plan est de créer une infrastructure communautaire de l'innovation au service notamment des petites et moyennes entreprises, pour permettre le maintien et la restauration de la compétitivité européenne et garantir à long terme le plein emploi.

(1) Ratsbeschluss vom 25. 11. 1983, ABI. L 353 vom 15. 12. 1983, S. 15

(1) Décision du Conseil du 25 novembre 1983, J. O. n° L 353 du 15 décembre 1983, p. 15

Contrat d'assistance générale à l'association européenne pour le transfert des technologies, de l'innovation et de l'information industrielle (TII)

L'association européenne pour le transfert des technologies, de l'innovation et de l'information industrielle a été constituée le 4 mai 1984 à Luxembourg avec l'appui de la Commission. Quelque 80 personnes représentant les organes d'information industrielle de tous les États membres de la Communauté ont assisté à la réunion constitutive.

L'objectif de l'Association est, pour l'essentiel, de stimuler l'innovation, de promouvoir le transfert transnational de technologies et d'aider les entreprises à tirer profit des avantages du marché commun. L'Association vise également à promouvoir l'échange d'informations et la coopération entre tous les organes d'information industrielle et à soutenir la coopération transnationale d'entreprises notamment dans le domaine de la recherche et du développement, ainsi que de la commercialisation de produits et de services nouveaux.

La Commission fournit à l'association une assistance de 150 000 ECU.

Contrat pour des visites de travail de groupes

Le deuxième contrat porte sur des visites de travail de groupes pour des collaborateurs de services consultatifs en matière d'innovation et de transfert de technologies et d'autres organismes privés et publics du même genre à l'intérieur de la Communauté. Une première visite de travail est prévue, du 3 au 6 décembre 1984, auprès de l'Institut provincial des classes moyennes de Liège et de l'INNOVI à Gand. Une deuxième visite de travail est prévue, du 21 au 24 janvier 1985, auprès de l'Eindhoven University of Technology et à 's Hertogenbosch auprès de BOM Brabantse ontwikkelingsmaatschappij. La Commission apporte à l'organisation et à la mise en œuvre de ces visites de travail, et d'autres encore, une contribution de 100 000 ECU.

Contrat concernant l'échange professionnel transnational

L'échange professionnel transnational, à l'échelon de la Communauté, de membres de services consultatifs en matière d'innovation et de transfert de technologies et d'autres organismes privés et publics du même genre est prévu dans le cadre de la troisième action pour laquelle la Commission apporte une aide de 100 000 ECU.

Au terme de ce contrat, les membres des services consultatifs en matière d'innovation et de transfert de technologies des divers États membres ont l'occasion de connaître les méthodes de travail de leurs collègues d'autres pays et de nouer avec eux des contacts personnels. Par exemple, un consultant en matière d'innovation, venant d'Allemagne du nord, passera deux semaines dans un service de transfert dans le sud de la France.

Les contacts noués lors d'échanges professionnels transnationaux et de visites de travail de groupes entre services consultatifs de différents États membres devraient créer les bases d'une coopération transnationale entre ces services.

Appel en vue de constituer des relations de partenaires par-delà les frontières

Un premier appel a été lancé dès le mois d'août par la Commission, dans lequel celle-ci demandait de lui remettre des propositions en vue de constituer des relations de partenaires par-delà les frontières entre services consultatifs en matière d'innovation de transfert de technologies et entre organismes privés et publics du

même genre. Cet appel a donné lieu à environ 100 réponses adressées à la Commission de la part de candidats partenaires.

La Commission apporte une contribution d'un million d'ECU pour une première phase d'exploration. Les objectifs de cette coopération sont la création d'un échange durable d'expériences et d'informations entre les institutions participantes et la stimulation de la coopération transnationale entre petites et moyennes entreprises en vue de contribuer à l'introduction sur le marché de nouveaux produits et de nouvelles méthodes au-delà du cadre des marchés nationaux respectifs.

Des informations complémentaires peuvent être obtenues auprès de la Commission des Communautés européennes, direction générale du marché de l'information et de l'innovation, DG XIII-A-2, bureau B 4/100, L-2920 Luxembourg, et auprès de l'Association européenne pour le transfert des technologies, de l'innovation et de l'information industrielle (TII), B. P. 1704 (GISL), L-1017 Luxembourg, tél. (352) 438096 (M. Glöckner).

Commission supports innovation and technology transfer

Within the context of its scheme to set up a European infrastructure to promote innovation and technology transfer ⁽¹⁾ the Commission has concluded **three contracts** with the European Association for the Transfer of Technology, Innovation and Industrial Information (TII) with a view to encouraging transnational cooperation between innovation and technology transfer advisory centres and similar private and public bodies at European level.

The project to establish a transnational infrastructure to promote innovation and technology transfer was approved by the Council of the European Communities on 25 November 1983 and forms an integral part of the Community's industrial innovation policy. The main objective of the scheme is to set up a Community-wide innovation infrastructure to serve the small and medium-sized firms in particular. This is regarded as an important requirement for the maintenance and improvement of European competitiveness and for ensuring long-term full employment.

Contract on general support for the European Association for the Transfer of Technologies, Innovation and Industrial Information (TII)

The European Association for the Transfer of Technologies, Innovation and Industrial Information (TII) was founded in Luxembourg on 4 May 1984 with Commission backing. The inaugural meeting was attended by some 80 participants representing the bodies responsible for industrial information in all the Member States.

The main aims of the Association are to stimulate innovation, promote transnational technology transfer and help businesses take advantage of the opportunities offered by the Common market. It intends to encourage information exchanges and cooperation between all the bodies responsible for industrial information and to support transnational cooperation between firms, especially in R&D and the marketing of new products and services.

The Commission is financing the Association with 150 000 ECU.

Contract on group working visits

The second contract provides for group working visits between the staff of innovation and technology transfer

(1) Council Decision of 25 November 1983, OJ L 353 of 15. 12. 1983, p. 15

advisory centres and similar private and public bodies in the Community. The first visit is to take place on 3-6 December 1984 at the Institut Provincial des Classes Moyennes in Liege and at the INNOVI in Ghent. A second is scheduled for the period 21-24 January 1985 at the Eindhoven University of Technology and the BOM-Brabantse Ontwikkelingsmaatschappij in 's Hertogenbosch. The Commission is financing the organization and implementation of these and other working visits with an amount of 100 000 ECU.

Contract on transnational staff exchanges

Transnational exchanges within the Community between the staff of innovation and technology transfer advisory centres and similar private and public bodies is the subject of the third scheme, for which 100 000 ECU are ear-marked.

Under this contract members of the staff of innovation and technology transfer advisory centres in the various member countries will be given an opportunity to learn more about the working methods of their colleagues in other countries and to establish personal contacts with them: for instance, an innovation adviser from North Germany might spend two weeks at a transfer centre in the south of France.

It is hoped that the contacts established between advisory centres in different Member States as a result of group working visits and transnational staff exchanges will lay the foundation for cooperation between these centres across national frontiers.

Call for the formation of transnational partnerships

It was in August that the Commission published its first call for proposals for the formation of trans-frontier partnerships between innovation and technology transfer advisory centres and similar private and public bodies. In response to that invitation nearly a hundred applications for partnership were received.

For the initial experimental phase the Commission is providing funds in the amount of a million ECU. The aims of this cooperation are to bring about a permanent exchange of experience and information between the bodies concerned and to encourage transnational cooperation between small and medium-sized firms, which will help to introduce new products and processes to a wider area than that of the national market.

Further information is obtainable from the Commission of the European Communities, Directorate-General for the Information Market and Innovation, DG XIII-A-2, Office B 4/100, L-2920 Luxembourg, and from the European Association for the Transfer of Technology, Innovation, and Industrial Information (TII), B. P. 1704 (GISL), L-1017 Luxembourg, Tel. (352) 438096 (Mr. Glöckner)

Commission intends construction of a flue gas desulphurization pilot plant

In the Official Journal No. C 317 of 28. 11. 1984, the Commission published a call for proposals for the construction and operation of a pilot plant for flue gas desulphurization based on the Community's Mark 13A process. This Mark 13A desulphurization process has been developed by the Joint Research Centre of the Commission of the European Communities in Ispra (Italy) as part of the 'Hydrogen' research programme. The inventors are D. Van Velzen and H. Langenkamp.

The Mark 13A process is a new, completely effluent-free desulphurization process, producing sulphuric acid and hydrogen. Both products are valuable chemicals which can be marketed and reutilised.

The process principle is that the flue gas is put in contact with an aqueous solution containing a small amount of bromine. This chemical reacts with sulphur dioxide and water to form sulphuric and hydrobromic acid. The formed acids stay in the solution and the hydrobromic acid is subsequently reconverted into bromine by electrolysis. In this electrolytic step hydrogen is formed as the second by-product.

A part of the acid mixture is contacted in countercurrent with hot incoming flue gases, where water and hydrobromic acid are evaporated and concentrated sulphuric acid is produced. It follows that all reactants (bromine and water) are generated inside the process so that the introduction of reactants and the disposal of solid products is not required.

A prime advantage of the process is thus its freedom from the typical difficulties experienced by many rival processes in requiring transportation and storage of large amounts of solid materials, such as lime and gypsum. The by-product of the Ispra process is not gypsum but highly concentrated and almost pure sulphuric acid. The percentage of sulphur dioxide removal attainable by the process is over 90%.

Under present conditions, the process at least rivals its major competitors and may possibly be less expensive.

In the call for proposals the Commission seeks a firm which is prepared to construct and operate a pilot plant which would have to simulate as closely as possible conditions in a typical large scale plant and to desulphurize a flue gas throughput of approximately 20,000 m³/hour.

In return, the Commission will meet up to 50% of the construction and operational costs, up to a maximum contribution of five million ECU, grant the contractor rights of ownership of the pilot plant, grant him a royalty-free licence to exploit the process within the pilot plant, and grant two transferable royalty-free licences to exploit the process in a full-scale industrial plant.

In addition to the technical quality of the proposal, which must demonstrate the contractor's grasp of the problems involved, a fundamental criterion for selecting the contractor from the list of applicants will be the financial contribution the latter is prepared to offer.

This holds especially since the contractor is free to apply for and to obtain financial assistance from a third party to cover his contribution to the construction and operation of the plant.

For further information contact:
Commission of the European Communities
Directorate-General Information Market and Innovation
DG XIII-A-3 — Office B4/107
L - 2920 Luxembourg
tel. (352) 4301-3176

Interested parties should submit their proposals to the above address, not later than 31 March 1985, using a form obtainable from the same office.

La Commission envisage la mise au point d'une installation pilote de désulfuration des gaz de combustion

Dans le Journal Officiel No C 317, du 28. 11. 1984, la Commission a lancé un appel de propositions pour la construction et l'exploitation d'une installation pilote de désulfuration des gaz de combustion selon le procédé Mark 13 A détenu par la Communauté. Le procédé de désulfuration des gaz de combustion a été inventé par le Centre commun de recherche de la Commission des

Communautés européennes à Ispra (Italie), dans le cadre du programme de recherches «hydrogène». Les inventeurs sont D. VAN VELZEN et H. LANGENKAMP.

Le procédé Mark 13 A est une nouvelle méthode de désulfuration des gaz de combustion, sans production d'eaux résiduelles, et qui produit de l'acide sulfurique et de l'acide bromhydrique. Il s'agit dans les deux cas de produits chimiques pouvant être commercialisés et réutilisés.

Le procédé repose sur le principe de la mise en contact des gaz de combustion avec une solution aqueuse contenant une faible quantité de brome. Ce corps réagit avec le dioxyde de soufre et l'eau pour former des acides sulfurique et bromhydrique qui, une fois formés, restent en solution, l'acide bromhydrique étant ensuite retransformé en brome par électrolyse avec formation d'hydrogène comme deuxième sous-produit.

Une partie du mélange acide entre en contact avec les gaz chauds à désulfurer circulant à contrecourant. Il y a alors évaporation de l'eau et de l'acide bromhydrique, avec production d'acide sulfurique concentré. Il s'ensuit que tous les corps en réaction (brome et eau) sont issus du processus lui-même, qu'il n'est dès lors pas nécessaire d'en introduire de l'extérieur et qu'il n'y a pas de produits solides dont il faille se débarrasser.

Le procédé a donc pour principal avantage de ne pas présenter les difficultés inhérentes à un grand nombre de procédés concurrents exigeant le transport et le stockage de grosses quantités de matériaux solides tels que la chaux et le gypse. Le sous-produit du procédé d'Ispra n'est pas le gypse mais un acide sulfurique très concentré et presque pur. Le pourcentage de dioxyde de soufre susceptible d'être éliminé est supérieur à 90%.

Dans les circonstances actuelles, le procédé Mark 13 A est pour le moins aussi compétitif que les procédés concurrents les plus importants et peut-être même meilleur marché.

Dans l'appel à propositions, la Commission cherche une entreprise qui est préparée à construire et faire fonctionner une installation pilote dont les caractéristiques sont le plus proche possible d'une chaufferie typique de grande capacité et qui assure la désulfuration d'un débit de gaz de combustion d'environ 20.000 m³/heure.

La Commission est disposée à prendre en charge jusqu'à 50% des coûts de construction et d'exploitation de l'installation sans dépasser toutefois 5 millions d'ECU, et à transférer les droits de propriété de l'installation pilote au contractant, à lui accorder une licence gratuite pour l'utilisation du procédé dans l'installation pilote et à lui garantir deux licences gratuites et cessibles pour l'utilisation du procédé dans une installation de taille industrielle.

Outre la qualité technique du projet et la compréhension du problème ainsi démontrée, la participation financière que le contractant sera prêt à consentir constituera un critère important pour la sélection des soumissionnaires intéressés. Cela d'autant plus que le contractant est libre de demander et d'obtenir auprès de tiers une aide financière pour sa participation dans la construction et l'exploitation de l'installation pilote.

Pour d'autres informations prière de contacter:
Commission des Communautés européennes
Direction générale «Marché de l'information et Innovation»
DG XIII-A-3 — Bureau B 4/107
L - 2920 Luxembourg.

Les intéressés sont priés d'adresser, pour le 31 mars 1985 au plus tard, leur proposition au service susmentionné. Il conviendra d'utiliser à cet effet le formulaire qui peut être obtenu auprès de ce service.

Kommission beabsichtigt die Errichtung einer Rauchgasentschwefelungs-Pilotanlage

Die Kommission hat im Amtsblatt Nr. C 317 vom 28. 11. 1984 einen Aufruf zur Einreichung von Vorschlägen für die Errichtung und den Betrieb einer Rauchgasentschwefelungs-Pilotanlage auf der Basis des gemeinschaftseigenen Mark 13A-Verfahrens veröffentlicht. Das Mark 13A-Entschwefelungsverfahren wurde von der Gemeinsamen Forschungsstelle der Kommission der Europäischen Gemeinschaften in Ispra (Italien) im Zusammenhang mit dem Forschungsprogramm „Wasserstoff“ entwickelt. Die Erfinder des Verfahrens sind D. VAN VELZEN und H. LANGENKAMP.

Das Mark 13A-Verfahren ist ein neues, völlig abwasserfreies Rauchgasentschwefelungsverfahren, bei dem Schwefelsäure und Wasserstoff erzeugt werden. Beide Produkte sind wertvolle Chemikalien, für die Absatzmärkte und Verwendungsmöglichkeiten bestehen.

Das Verfahrensprinzip besteht darin, Rauchgas mit einer wässrigen Lösung in Verbindung zu bringen, die eine kleine Menge Brom enthält. Das Brom reagiert mit Schwefeldioxid und Wasser und bildet dabei Schwefelsäure und Bromwasserstoffsäure. Die dabei entstandenen Säuren bleiben in der Lösung und die Bromwasserstoffsäure wird anschließend in einem Elektrolyseprozeß in Brom und Wasserstoff zerlegt. Bei der Elektrolyse entsteht Wasserstoff als zweites Beiprodukt.

Ein Teil des Säuregemisches wird im Gegenstrom den heißen Rauchgasen ausgesetzt, wobei Wasser und Bromwasserstoffsäure verdampft werden und eine konzentrierte Schwefelsäure erzeugt wird. Daraus folgt, daß alle reagierenden Stoffe (Brom und Wasser) innerhalb des Verfahrens erzeugt werden, so daß die Hinzuführung dieser Stoffe und die Beseitigung von festen Stoffen nicht erforderlich sind.

Ein besonderer Vorzug des Verfahrens liegt folglich darin, daß die für viele konkurrierenden Verfahren typischen Probleme des Transports und der Lagerung von festen Stoffen wie Kalk und Gips hier nicht anfallen. Bei dem in Ispra entwickelten Verfahren fällt nicht Gips an, sondern hochgradig konzentrierte und kaum verunreinigte Schwefelsäure. Der Abscheidegrad an Schwefeldioxid, der durch das Mark 13A-Verfahren erreicht werden kann, liegt über 90%.

Nach dem heutigen Stand der Dinge ist das Verfahren gegenüber den wichtigsten konkurrierenden Verfahren zumindest wettbewerbsfähig, vielleicht sogar kostengünstiger.

In dem Aufruf zur Einreichung von Vorschlägen sucht die Kommission ein Unternehmen, das bereit ist, eine Pilotanlage zu errichten und zu betreiben, die den Bedingungen einer typischen Großfeuerungsanlage zumindest nahe kommen und etwa die Entschwefelung eines Rauchgasdurchsatzes von ca. 20.000 m³/Stunde sicherstellen müßte.

Im Gegenzug ist die Kommission bereit, bis zu 50 vH der Kosten der Errichtung und des Betriebs der Anlage, höchstens jedoch fünf Mio. ECU, zu tragen, dem Vertragnehmer das Eigentumsrecht an der Pilotanlage zu übertragen, ihm eine gebührenfreie Lizenz für die Nutzung des Verfahrens in der Pilotanlage zu erteilen, und

ihm eine gebührenfreie übertragbare Lizenz für die Nutzung des Verfahrens in zwei Anlagen industrieller Größenordnung zu gewähren.

Neben der technischen Qualität des Vorschlags und dem damit bewiesenen Verständnis der Problematik wird deshalb der finanzielle Beitrag, den der Vertragsnehmer selbst zu erbringen bereit ist, ein wesentliches Kriterium für die Auswahl des Vertragsnehmers aus dem Kreis der interessierten Bewerber darstellen.

Dies gilt umso mehr, als dem Vertragsnehmer freigestellt wird, von dritter Seite eine finanzielle Unterstützung für den vom Vertragsnehmer geleisteten Beitrag zum Bau und Betrieb der Pilotanlage zu beantragen und zu beziehen.

Weitere Auskünfte erteilt die
Kommission der Europäischen Gemeinschaften
Generaldirektion Informationsmarkt und Innovation
GD XIII-A-3 — Büro B 4/107
L - 2920 Luxemburg.

Die Interessenten werden aufgefordert, ihre Vorschläge der obengenannten Stelle bis spätestens 31. März 1985 zu unterbreiten. Dabei ist ein Formblatt zu benutzen, das bei dieser Stelle erhältlich ist.

La Commissione intende installare un impianto pilota di desolfurazione dei gas di combustione

Nella Gazzetta Ufficiale Nr. C 317 dal 28. 11. 1984, la Commissione ha pubblicato un invito alla presentazione di proposte per la costruzione e l'esercizio di un impianto pilota di desolfurazione dei gas di combustione basato sul processo Mark 13A detenuto dalla Comunità. Questo processo di desolfurazione Mark 13A è stato sviluppato dal Centro comune di ricerca della Commissione delle Comunità Europee a Ispra (Italia) nel quadro del programma di ricerca «idrogeno». Gli inventori del processo sono D. Van Velzen e H. Langenkamp.

Il processo Mark 13A è un nuovo sistema di desolfurazione dei gas di combustione, che non produce acque di rifiuto e con produzione di acido solforico e acido bromidrico. Entrambi i prodotti sono prodotti chimici preziosi che possono essere commercializzati e riutilizzati.

Il principio del processo consiste nel mettere a contatto il gas di combustione con una soluzione acquosa che contiene una piccola quantità di bromo. Questo prodotto chimico reagisce con l'anidride solforosa e l'acqua per formare l'acido solforico e bromidrico. Gli acidi formati restano nella soluzione e l'acido bromidrico è riconvertito successivamente in bromo mediante l'elettrolisi. In fase elettrolitica si forma l'idrogeno, secondo sottoprodotto.

Una parte della miscela di acidi viene esposta in controcorrente ai gas di combustione caldi di modo che l'acqua e l'acido bromidrico evaporano e si produce acido solforico concentrato. Ne consegue che tutti i reattivi (bromo ed acqua) sono generati nel processo stesso, quindi l'introduzione di reattivi e l'eliminazione di prodotti solidi non sono necessarie.

Uno dei principali vantaggi del processo consiste quindi nel superamento delle difficoltà tipiche incontrate in molti processi concorrenti che richiedono trasporto e stoccaggio di grandi quantità di materiali solidi, quale calce e gesso. Il sottoprodotto del processo di Ispra non è gesso, ma acido solforico molto concentrato e quasi puro. La percentuale di rimozione di anidride solforosa ottenibile con il processo è di oltre il 90%.

Nelle condizioni attuali, il processo rivaleggia con i suoi concorrenti più importanti e potrebbe eventualmente rivelarsi meno costoso.

Nell'invito alla presentazione di proposte, la Commissione cerca una ditta in grado di costruire e assicurare il funzionamento di un impianto pilota che dovrebbe simulare quanto più rigorosamente possibile le condizioni di un impianto tipico su vasta scala e desolforare un'erogazione di gas di combustione di circa 20.000 m³/ora.

Come contropartita la Commissione è disposta a assumere a suo carico fino al 50% dei costi per la costruzione e l'esercizio fino ad un importo massimo di 5 milioni di ECU, trasferire il diritto di proprietà dell'impianto pilota al contraente, accordare al contraente una licenza gratuita per l'utilizzo del processo nell'impianto pilota, e concedere al contraente una licenza gratuita e trasferibile per l'utilizzo del processo in due impianti di dimensioni industriali.

Oltre alla qualità tecnica del progetto e alla comprensione dei problemi così dimostrata, il contributo finanziario prestatato dal contraente costituirà un criterio importante per la selezione. Questo tanto più che il contraente è libero di richiedere o di ottenere presso terzi un contributo finanziario per la sua partecipazione alla costruzione e all'esercizio dell'impianto pilota.

Per ulteriori informazioni:
Commissione delle Comunità europee
Direzione Generale «Mercato dell'Informazione e Innovazione»
DG XIII-A-3 — Ufficio B4/107
L - 2920 Lussemburgo.

Gli interessati possono inviare le loro proposte all'indirizzo suddetto prima del 31 Marzo 1985, utilizzando un formulario che si può richiedere allo stesso servizio.

Innovation from Community Research

Measurement system for neutron detectors

Use is frequently made of counters in association with Helium 3 neutron detectors for the measurement of the quantities of fissile material used in nuclear research and industry.

Systematic on-site monitoring of the fissile material is carried out in manufacturing, production, re-processing and storage establishments by Inspectors from the Commission of the European Communities (Euratom) and other organizations.

The conditions under which such inspections take place are frequently difficult and generally totally different from a laboratory environment.

A team of researchers from the Ispra (Italy) establishment of the Commission of the European Communities' Joint Research Centre (JRC) has developed a measurement system suitable for use with neutron detectors. The system permits simplified measurement procedures, eliminates operational errors and can be used in difficult environmental conditions.

The system consists of an amplifier and a signal mixer. The amplifier is contained in a sealed casing, with all controls pre-set in the laboratory and inaccessible to the operator. The only operation possible is the connection of the amplifier.

This solidly-constructed device is fool-proof, simple to operate and reliable, and guarantees high performance in the conditions prevailing in the metal-working in-

dustries manufacturing nuclear fuels. It offers satisfactory accuracy and reproducibility of readings, even when used by operators who are not experts in the use of measuring instruments.

The system is the result of research at the JRC by Mr Y. HAURIE and Mr J. TOURNEIX.

It is now manufactured under licence from the Commission of the European Communities by Brensal Electronics Ltd, 24 Park Row, UK-Bristol BS1 5LJ, Tel. (0272) 29 41 86, Telex 449644.

Selected Recent Publications

1. Energy conservation in industry

Proceedings of the International Seminar held in Düsseldorf, 13-15 February, 1984

The International Seminar ENERGY CONSERVATION IN INDUSTRY organized by the Commission of the European Communities within the framework of the Communities 'Second Energy R&D Programme (1979-1983), in cooperation with the Verein Deutscher Ingenieure (VDI) highlighted the results of 85 research projects and conveyed them to representatives of national authorities, public, industrial and financial organisations.

Vol. 1 — Combustion and Heat Recovery

pp.: 467
price: DM 98

Vol. 2 — Engines and Batteries

pp.: 249
price: DM 56

Vol. 3 — Applications and Technologies

pp.: 372
price: DM 78

EUR 9236 ISBN 3-18-419095-1
Published by: VDI-Verlag GmbH, Postfach 1139,
D—4000 Düsseldorf 1

2. Photovoltaic solar energy

Proceedings of the International Conference held at Kavouri (Athens), Greece, 17-21 October, 1983

This book presents the proceedings of the Photovoltaic Solar Energy Conference which was organised by the Commission of the European Communities in Athens, Greece. The conference, the fifth in a series which was started by the Commission in 1977, turned out to be this year's largest international forum for photovoltaics. With an attendance of approximately 500 people from all over the world, more than 200 papers presented in oral and poster sessions and an important exhibition of PV material, the conference has well achieved its goal to become a meeting place for all those working in photovoltaics or taking an active interest in it.

EUR 9007 EN ISBN 90-277-1724-9
pp.: 1188
Published by: D. REIDEL PUBLISHING COMPANY,
P. O. Box 17, 3300 AA Dordrecht (Holland)
price: HFL 330

3. The male in farm animal reproduction

This publication contains the proceedings of a seminar held at Nouzilly, France, October 6 and 7 1983, under the auspices of the Commission of the European Communities, as part of the EEC programme on co-ordination of research in beef production.

The seminar was intended to update the existing basic and applied knowledge on 'the male in reproduction' of domestic mammals, as regards genetics, sperm production, its maturation in the male tract, the male as semen donor and the influence of the male on breeding performance of females.

EUR 8990 ISBN 0-89838-682-9
pp.: 377
Published by: MARTINUS NIJHOFF PUBLISHERS,
P. O. Box 163, 3300 AD Dordrecht
(Holland)
price: HFL 190

4. Recent advances in virus diagnosis

The traditional approach to diagnosis of virus infections by isolation of the causative virus is usually both slow and expensive. More recently, the emphasis has been on the direct detection of viruses or viral antigens in clinical specimens. This can be done using established techniques such as immunofluorescence or electron microscopy, or by newly developed biochemical methods. This book contains a review of these and other developments in the laboratory diagnosis of virus infections.

EUR 8917 EN ISBN 0-89838-674-8
pp.: 213
Published by: MARTINUS NIJHOFF PUBLISHERS,
P. O. Box 163, 3300 AD Dordrecht
(Holland)
price: HFL 110

5. Decommissioning of nuclear power plants

The European Community's programme on the decommissioning of nuclear power plants has the prime objective of developing effective techniques and procedures for ensuring the protection of man and his environment against the potential hazards of nuclear power plants that have been finally shut down.

The Commission of the European Communities organized this international conference to present results achieved during the past five years of the programme.

It also provided an opportunity for discussions amongst experts from Member States of the European Community and participating scientists from outside the Community, on the issues and options for future research.

EUR 9474 ISBN 0-86010-558 X
pp.: 450
Published by: GRAHAM & TROTMAN Ltd,
Sterling House, 66 Wilton Road,
London, SW1V 1DE (UK)
price: £ 40

6. Design of High Temperature Metallic Components

The purpose of the discussion seminar «Design of High Temperature Metallic Components» organised by the Information Centre of the High Temperature Materials Programme of the European Commission's Joint Research Centre, Petten Establishment, was both to guide scientists towards the information the high temperature designer requires and conversely to inform the design engineer of the present state of materials research in relation to high temperature component design.

EUR 9159 EN ISBN 0-85334-301-2
pp.: 202
Published by: ELSEVIER APPLIED SCIENCE
PUBLISHERS Ltd,
Ripple Road, Barking, Essex (UK)
price: £ 25

7. Research and Development on Radioactive Waste Management and Storage — Annual Progress Report 1982 of the European Community Programme 1980-1984.

This is the third progress report of the second European Community's fiveyear R&D programme (1980-1984) on radioactive waste management and storage (cost-shared action). It covers the year 1982 and shows the status of the programme on 31 December of that year.

EUR 8843 ISBN 3-7186-0191-5
pp.: 401
Published by: HARWOOD ACADEMIC PUBLISHERS,
42 William IV Street, London WC2N 4DE
(UK)

price: US \$ 60

8. Portability and style in ADA

This book contains two guides, one on portability of Ada programs and one on Ada programming style.

Both guides have been designed to be read in conjunction with the Ada Language Reference Manual (ANSI / MIL STD 1815 A, 1983). Therefore the section numbering follows the manual as closely as possible, and referencing is by section number rather than page number, as in the manual. There is a minimum of cross-referencing between the guide.

EUR 9149 ISBN 0-521-26492-0
pp.: 202
Published by: CAMBRIDGE UNIVERSITY PRESS,
The Pitt Building, Trumpington Street,
Cambridge CB2 1RP (UK)

price: £ 12.50

Study on the Novelty Grace Period for Patent Applications

The study which was prepared by **M. Koktvedgaard** and **L. Østerborg** under contract for the Commission of the European Communities, analyses the question whether a **novelty grace period** as it had already existed in some EC Member States prior to the entering into force of the European Patent Convention, and as it is still in existence in the United States and in Japan, should be re-introduced. As is well known, an invention is only patentable if it involves an inventive step and represents an absolute **novelty**. However, this absolute novelty is destroyed under the patent regulations that are actually valid in Europe, when an inventor discloses his invention, e.g. by publication or own use, before he has filed his patent application.

A novelty grace period would give him the opportunity to disclose his invention, in a well-specified period, without losing its novelty characteristics; it would enable him to discuss the invention with others in that crucial initial phase of valorisation, when a prototype has to be developed, when testing procedures must be undergone, or when (confidential) contract negotia-

tions concerning the initiation of production must be conducted. A novelty grace period could also help to protect inventors that are not familiar with patent laws against unremediable errors. However, these advantages might be counterbalanced by implicitly prolongating the protection period and by creating a situation of legal uncertainty for competitors.

Policy recommendations aimed at a short-term viable solution given by the authors mainly focus on a reformulation and extension of the present article of abuse (art. 55 (1)) of the European Patent Convention.

For comments and further information, please contact: Mr H. Kronz, Commission of the European Communities, DG XIII-A-1, L - 2920 Luxembourg.

CALENDAR

1. TII Group Visit of European Experts in Technology Transfer to the Netherlands
21-24 January 1985
Contact person: Mr Ch. GLOECKNER,
Secretariat TII, Luxembourg
tel. (0352) 43 80 96
2. Symposium on Science Parks
Berlin, 13-15 February 1985
Contact person: Mr J. M. GIBB, CEC, Luxembourg
Tel. (0352) 4301 2918
3. 3rd EC Conference 'Energy from Biomass'
Venice, 25-29 March 1985
Contact person: Mr G. GRASSI, CEC, Brussels
tel. (02) 2356 801
4. 6th EC Conference 'Photovoltaic Solar Energy'
London, 15-17 April 1985
Contact person: Mr W. PALZ, CEC, Brussels
tel. (02) 2356 922
5. 2nd EC Conference 'Radioactive Waste Disposal and Management'
Luxembourg, 22-26 April 1985
Contact person: Mr R. SIMON, CEC, Brussels
tel. (02) 2356 623
6. EC Seminar 'A European Strategy for Technological Fairs'
Luxembourg, 29-30 April 1985
Contact person: Mr R. RAPPARINI, CEC,
Luxembourg
tel. (0352) 4301 2780
7. International Seminar 'Electronics and Traffic on Major Roads'
Paris, 4-5 June 1985
Contact: 19, rue de Franqueville
75775 Paris Cédex 16
8. 8th International Conference 'Structural Mechanics in Reactor Technology — SMIRT'
Brussels, 19-23 August 1985
Contact person: Mr J. M. GIBB, CEC, Luxembourg,
tel. (0352) 4301 2918