COOPERATION AGREEMENT

between the European Economic Community and COST third States on 11 concerted action projects in the field of food science and technology (Specific research and technological development programme 'Flair')

THE EUROPEAN ECONOMIC COMMUNITY,

hereinafter called 'the Community', and

THE SIGNATORY STATES TO THIS AGREEMENT,

hereinafter called 'the participating non-Member States',

both hereinafter called 'the Contracting Parties',

Whereas European cooperation in the field of food science and technology is likely to contribute to the combined progress in public health and consumer protection with industrial and economic development within the Community;

Whereas four Community-COST concertation agreements on four concerted action projects (COST 90, COST 91, COST 90a and COST 91a projects) in the field of food science and technology have produced encouraging results and further initiatives in the COST framework in this field are underway;

Whereas the *ad hoc* COST Technical Committee in the field of food technology together with the CREST *ad hoc* Committee have recommended that a number of concerted action projects could be implemented as category A COST projects in the framework of a Community programme in this field — this COST category A being defined by the COST Senior Officials Committee at its meetings of 20 and 21 April 1989 and 28 and 29 June 1989;

Whereas, by its Decision of 20 June 1989 [1], the Council of the European Communities adopted a specific research and technological development programme in the field of food science and technology (Flair) for the period 1989 to 1993, hereinafter called 'the Community programme', covering, among other possibilities, the implementation of concerted action projects;

Whereas the Member States of the Community and the participating non-Member States intend, subject to the rules and procedures applicable to their national programmes, to carry out the research described in Annex A and are prepared to integrate such research into a process of concertation which they consider will be of mutual benefit,

HAVE AGREED AS FOLLOWS:

Article 1

The Contracting Parties shall participate for a period extending until 30 June 1993 in one or several of the following concerted action projects:

— COST 901: spectroscopic techniques 'Near infrared (NIR), Fourier transform infrared (FTIR), Nuclear magnetic resonance (NMR)' for the rapid direct measurement of food quality,

— COST 902: relating sensory, instrumental and consumer choice studies,

— COST 905: predictive modelling of microbial growth and survival in foods,

— COST 906: prevention and control of potentially pathogenic micro-organisms in poultry and poultry meat processing,

— COST 907: food safety and quality based on the application of combined processes and hazard analysis critical control point (HACCP),

— COST 908: *in vitro* toxicological studies and real-time analysis of residues in food,

— COST 909: improvement of food safety and quality through the use of interactive and competitive bindings of food lectins and bacterial adhesins in the gut,

— COST 910: measurement of micronutrient absorption and status,

— COST 911: physiological implications of the consumption of resistant starch in man,

— COST 912: improvement of the quality and compatibility of food consumption and food composition data in Europe,

[1] OJ No L 200, 13. 7. 1989, p. 18.

— COST 913: information flow on food technology, food safety and healthy eating to small and medium-sized enterprises (SMEs) and consumers (Fair-Flow project).

The said projects shall consist in concertation between the Community concerted action projects and the corresponding programmes of the participating non-Member States. The content of research topics covered by this Agreement is specificed in Annex A.

The Member and non-Member States of the Community shall remain entirely responsible for the research carried out by their own institutions or bodies.

Article 2

The estimated financial contributions of the Contracting Parties to the coordination costs for the period referred to in the first paragraph of Article 1 shall be, for each of the eleven concerted action projects:

— COST project 901: ECU 550 000 from the Community,
ECU 46 000 from each participating non-Member State;

— COST project 902: ECU 730 000 from the Community,
ECU 61 000 from each participating non-Member State;

— COST project 905: ECU 325 000 from the Community,
ECU 27 000 from each participating non-Member State;

— COST project 906: ECU 325 000 from the Community,
ECU 27 000 from each participating non-Member State;

— COST project 907: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

— COST project 908: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

— COST project 909: ECU 220 000 from the Community,
ECU 18 500 from each participating non-Member State;

— COST project 910: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

— COST project 911: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

— COST project 912: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State;

— COST project 913: ECU 500 000 from the Community,
ECU 41 500 from each participating non-Member State.

The rules governing the financing of this Agreement and the timetable of the commitment estimates are set out in Annex B.

Article 3

1. For the purposes of this Agreement, a Cooperation Committee, hereinafter referred to as 'the Committee', is hereby established to assist the Commission in the implementation of the concerted action projects of the specific research and technological development programme in the field of food science and technology (Flair programme), adopted by Decision of the Council of the European Communities of 20 June 1989.

2. The Committee shall consist of representatives of the Community and the participating non-Member States for the implementation of the concerted action projects.

3. The Committee shall be consulted on all the matters concerning the implementation of this Agreement. For this purpose, it shall make recommendations.

4. The representative of the Community shall take the appropriate steps to ensure coordination between the implementation of this Agreement and the decisions taken by the Community in respect of the implementation of the Community programme.

5. For the purpose of the proper implementation of this Agreement, the Contracting Parties shall exchange information, and at the request of any of the Parties, hold consultations within the Committee.

6. The Committee shall adopt its own rules of procedure and shall meet, at the request of any of the Contracting Parties, in accordance with the conditions to be laid down in its rules of procedure.

Article 4

1. The Contracting Parties shall regularly exchange all useful information resulting from the carrying-out of the research covered by the concerted action projects. They shall also endeavour to provide information on similar

research planned or carried out by other bodies. Any information shall be treated as confidential if the Contracting Party which provides it so requests.

2. The scientific results of the concerted action projects shall be published by the Commission, except in so far as they are declared confidential by one of the Contracting Parties.

3. The Commission shall prepare activity reports on the basis of the information supplied and shall forward them to the Member and non-Member States of the Community.

4. At the end of the period of the Flair programme, the Commission shall forward to the Member and non-Member States of the Community the general reports on the execution and results of these concerted action projects.

Article 5

1. This Agreement shall be open for signature by the Community and by the participating non-Member States which took part in the ministerial conference held in Brussels on 22 and 23 November 1971.

2. As a prerequisite to its participation in the concerted action projects defined in Article 1, each of the Contracting Parties shall, when signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the concerted action projects in which it intends to participate and, after signing this Agreement, have notified the Secretary-General of the Council of the European Communities of the completion of the procedures necessary under its internal provisions for the implementation of this Agreement.

3. For the Contracting Parties which transmit the latter notification, provided for in paragraph 2, this Agreement shall come into force on the first day of the month following that in which the Community and at least one of the participating non-Member States transmitted these notifications.

For those Contracting Parties which transmit the notification after the entry into force of this Agreement, it shall come into force on the first day of the second month following that in which the notification was transmitted. Contracting Parties which have not transmitted this notification when this Agreement comes into force shall be able to take part in the work of the Committees without voting rights.

4. The Secretary-General of the Council of the European Communities shall inform each of the Contracting Parties of the notifications made pursuant to paragraph 2 and of the date of entry into force of this Agreement.

Article 6

1. This Agreement shall be concluded for the duration of the Community programme. Should the Community revise the Community programme, the Agreement may be denounced under mutually agreed conditions between the Contracting Parties.

2. Where the Community adopts a new R&D programme in the field of food science and technology, this Agreement may be renegotiated or renewed under mutually agreed conditions.

3. Subject to paragraph 1, any of the Contracting Parties may at any time terminate this Agreement with six months' notice. The projects and work in progress at the time of termination and/or expiry of this Agreement shall be continued until they are completed under the conditions laid down in this Agreement.

Article 7

This Agreement shall apply, on the one hand, to the territories in which the Treaty establishing the European Economic Community is applied and under the conditions laid down in that Treaty and, on the other hand, to the territories of the participating non-Member States.

Article 8

This Agreement, drawn up in a single original in the Danish, Dutch, English, French, German, Greek, Italian, Portuguese and Sapanish languages, each text being equally authentic, shall be deposited in the archives of the General Secretariat of the Council of the European Communities which shall transmit a certified copy to each of the Contracting Parties.

ANNEX A

RESEARCH TOPICS COVERED BY THE AGREEMENT

The Community programme includes the following 11 COST concerted action projects:

1. **Spectroscopic techniques 'Near infrared (NIR), Fourier transform infrared (FTIR), Nuclear magnetic resonance (NMR)' for the rapid direct measurement of food quality (COST 901)**

   To provide rapid, instrumental food quality measurement techniques to satisfy consumer/industrial needs within the European Community.

   (a) Signal interpretation: to interpret, define, process and quantify, instrumental signals in order to understand and justify signal/quality relationships.

   (b) Mathematical treatment/interpretation of instrumental data: to modify signals and combine signal data from different instrument types, in order to relate the signal to food quality characteristics.

   (c) Instrument and experimental design: to optimize instrumental and experimental design for measurement of food quality.

   (d) Computer database: to collate and disseminate findings from signal interpretation, instrument and experimental design to produce value added information to enable effective prediction of food quality for specific food applications.

2. **Relating sensory, instrumental and consumer choice studies (COST 902)**

   (a) To characterize relationships between instrumental data and sensory data and between consumer choice studies and sensory data.

   (b) To review and develop functional and applied models for food choice behaviour.

   (c) To establish a database for state-of-the-art of instrumental methods as relating to sensory perception of foods.

   (d) To improve compatibility of European food industries through fast and efficient transfer of results from research to applied product development, control and assurance.

   (e) To develop approaches to sensory analysis issues which will permit application of the techniques in other foods and food constituents.

3. **Predicitive modelling of microbial growth and survival in foods (COST 905)**

   (a) Establishment of databases on predictive microbiological research by individual groups.

   (b) To ensure the maximum compatibility and effectiveness of the systems developed.

   (c) To develop (an) integrated large database(s) transfer to Member States and COST countries and ensure its/their effective use for the benefit of a safe and stable food supply.

4. **Prevention and control of potentially pathogenic micro-organisms in poultry and poultry meat processing (COST 906)**

   (a) Prevention of infection of live birds (including game birds) with potentially pathogenic micro-organisms including *Salmonella*, *Campylobacter*, *Listeria* and *Staphylococcus aureus*.

   (b) Prevention of contamination of poultry meat and poultry meat products.

   (c) Application of methods for end-product decontamination and protection.

   (d) Development of sampling protocols.

   (e) Development and application of microbiological detection methods.

5. **Food safety and quality based on the application of combined processes and hazard analysis critical control point (HACCP) (COST 907)**

Cooperation between scientists and industrialists to achieve a systematic and unified approach to the application of combined methods for food preservation and implementation of hazard analysis/risk assessment systems by:

(a) the application of systems to cover quality as well as safety considerations;

(b) the application of systems to cover all major sectors of food and drink processing, distribution retailing and catering industries;

(c) the application of systems to classical and newly developed food products with emphasis on those preserved by multiple parameters;

(d) acquisition of data suitable for modelling and/or inclusion in hazard analysis/risk assessments;

(e) the practical application and evaluation of systems for safety and quality improvement in the food and drink and allied industries.

6. ***In vitro* toxicological studies and real-time analysis of residues in food (COST 908)**

(a) To develop chromatographic/mass spectrometric methods for trace analysis such that real-time monitoring for a variety of food contaminants at the required specificity and sensitivity becomes possible.

(b) To develop and validate a set of in vitro test systems for screening of the biological and toxicological properties of these contaminants.

(c) To integrate the above developments to provide robust, versatile monitoring systems for the food industry.

(d) To harmonize test methodologies for food safety and quality evaluation procedures at the European level.

7. **Improvement of food safety and quality through the use of interactive and competitive bindings of food lectins on bacterial adhesins in the gut (COST 909)**

To find specific plant lectins and/or polysaccharides which, as natural dietary supplements, will abolish or minimize the harmful bacterial colonisation of the small intestine and other parts of the gastro-intestinal tract by studies on:

(a) Effects of plant lectins from the seeds of kidney and soya bean on bacterial adhesins of *E-coli in vitro* with various human cell lines in cell cultures;

(b) effects of plant lectins on bacterial binding and on the morphology and function of the rat small intestine *in vivo;*

(c) the blockage of the binding of bacterial adhesins to the gut wall with selected plant lectins or saccharides both *in vitro* and *in vivo.*

8. **Measurement of micronutrient absorption and status (COST 910)**

To assess critically priorities for the status of micronutrients in the COST countries and to develop and validate methods which allow more accurate and sensitive measurements of intake, absorption and status of these micronutrients in man.

(a) To improve the precision and sensitivity of stable isotope methods for measuring micronutrient absorption and status.

(b) Development of instrumental and biospecific methods for quantifying micronutrients in food, feed components and in the diet.

(c) Development of biospecific, chromatographic and spectrometic methods for the assessment of micronutrient status.

(d) Identify functional indicators (e.g. growth rates, immune response, behaviourial and physical performance) of variations in micronutrient intake and status.

9. **Physiological implication of the consumption of resistant starch in man (COST 911)**

(a) Problem of measurement and characterization of various forms of resistant starch (RS) in various foods and raw materials.

(b) Content of RS in present Western diets.

(c) Variability and dependency of the molecular structure of RS on the source of starch, processing conditions, amylose/amylopectin ratio.

(d) Physicochemical and physiological similarities and differences between RS and fermentable dietary fibre.

(e) RS from various sources and their effects on human physiology: blood cholesterol, lipoproteins, gastrointestinal function (anti-constipation, gas formation, diarrhoea) absorption of other nutrients, risk of colon cancer, arteriosclerosis, diabetes and energy content.

(f) If RS appears beneficial for health, how can the consumption be raised by production of foods with increased RS content?

(g) How should foods containing RS be labelled to guide the consumer?

10. **Improvement of the quality and compatibility of food consumption and food composition data in Europe (COST 912)**

Assessment of data on food intake and formulation of guidelines to ensure the construction of compatible food compositional databases for use with food consumption surveys. Provide adequate information on food availability, expenditure by households and individuals on food and what people actually eat.

The action will provide:

(a) an overview of results already obtained;

(b) a series of recommendations for collection and use of food balance sheets and for the construction of a food compositional database of food balance sheets;

(c) a series of recommendations for improvement, harmonization and use of household budget surveys and for the construction of a food compositional database of household budget surveys;

(d) a series of recommendations for the implementation of individual dietary surveys and for the construction of a food compositional database for use with individual dietary studies, both at a national and regional level;

(e) a series of studies in which the recommendations will be tested with a limited number of surveys.

11. **Information flow and food technology, food safety and healthy eating to small and medium-sized enterprises (SMEs) and consumers (Flair-Flow project) (COST 913)**

Explore/investigate existing and new national routes and procedures in Community and COST third States for the dissemination of information on food technology, food safety and 'healthy' eating:

(a) to achieve effective dissemination flow with consequent benefits to industry, SMEs, consumers and policy makers;

(b) to study/analyse/assess/recommend different methods and effectiveness of alternative ways of dissemination — i.e. results of the Flair programme, other COST actions (Category B) and other R&D projects to be used for planning future programmes;

(c) to ensure dissemination via national existing networks of databases and national/international workshops, food industry newsletters, consumer bulletins, etc.

ANNEX B

FINANCING RULES

1. These provisions lay down the financial rules referred to in Article 2 of the Agreement.

2. Annually, or whenever the Community programme is revised so as to involve an increase in the amount estimated as necessary for its implementation, the Commission shall send to the participating non-Member States a call for funds corresponding to its contribution to the costs under the Agreement.

   In particular, at the beginning of each year, the Commission shall send to each participating non-Member State a call for funds corresponding to the number of, and the amount involved in, concerted action projects in which it participates and to its share of the annual coordination costs under the Agreement, calculated in proportion to the amounts laid down in Article 2 of the Agreement.

   This contribution shall be expressed both in ECU and the currency of the participating non-Member State concerned, the composition of the ecu being defined in Council Regulation (EEC) No 3180/78 [1], as amended by Regulation (EEC) No 1971/89 [2]. The value of the ecu shall be determined on the date of the call of funds.

   The total contributions shall cover the travel and subsistence costs of the delegates, in addition to the coordination costs proper.

   Each participating non-Member State shall pay its annual contribution to the coordination costs under the Agreement at the beginning of each year, and by 31 March at the latest. Any delay in the payment of the annual contribution shall give rise to the payment of interest by the participating non-Member State concerned at a rate equal to the highest discount rate obtained in the Member States of the Community on the due date. The rate shall be increased by 0,25 of a percentage point for each month of delay. The increased rate shall be applied to the entire period of delay. However, such interest shall be chargeable only if payment is effected more than three months after the issue of a call for funds by the Commission.

3. The funds paid by participating non-Member States shall be credited to the concerted action projects in which they participate as budget receipts allocated to a heading in the statement of the revenue of the general budget of the European Communities (Commission Section).

4. The financial plan for the coordination costs of the 11 concerted projects referred to in Article 2 of the Agreement is appended hereto.

5. The Financial Regulation in force applicable to the general budget of the European Communities shall apply to the management of the appropriations.

6. At the end of the programme, a statement of appropriations for each concerted action project shall be prepared and transmitted to the participating non-Member States for information.

(1) OJ No L 379, 30. 12. 1978, p. 1.
(2) OJ No L 189, 4. 7. 1989, p. 1.

Financial appendix

FLAIR: CONCERTED ACTION PROJECT COST 901

Yearly financial contributions (ECU) of the Community and of each participating non-Member State

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	137 500	137 500	137 500	137 500	550 000
Total:	137 500	137 500	137 500	137 500	550 000
2. Contributions from participating non-Member States	(n × 11 500)	(n × 11 500)	(n × 11 500)	(n × 11 500)	(n × 46 000)
New total:	137 500 + (n × 11 500)	137 500 + (n × 11 500)	137 500 + (n × 11 500)	137 500 + (n × 11 500)	550 000 + (n × 46 000)

n = number of participating non-Member States.

COST 901: spectroscopic techniques for the rapid direct measurement of food quality.

FLAIR: CONCERTED ACTION PROJECT COST 902

Yearly financial contributions (ECU) of the Community and of each participating non-Member State

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	182 500	182 500	182 500	182 500	730 000
Total:	182 500	182 500	182 500	182 500	730 000
2. Contributions from participating non-Member States	(n × 15 250)	(n × 15 250)	(n × 15 250)	(n × 15 250)	(n × 61 000)
New total:	182 500 + (n × 15 250)	182 500 + (n × 15 250)	182 500 + (n × 15 250)	182 500 + (n × 15 250)	730 000 + (n × 61 000)

n = number of participating non-Member States.

COST 902: sensory instrumental and consumer choice studies.

FLAIR: CONCERTED ACTION PROJECTS COST 905 AND COST 906

Yearly financial contributions (ECU) of the Community and of each participating non-Member State for each of the two abovementioned projects

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	81 250	81 250	81 250	81 250	325 000
Total:	81 250	81 250	81 250	81 250	325 000
2. Contributions from participating non-Member States	(n × 6 750)	(n × 6 750)	(n × 6 750)	(n × 6 750)	(n × 27 000)
New total:	81 250 + (n × 6 750)	81 250 + (n × 6 750)	81 250 + (n × 6 750)	81 250 + (n × 6 750)	325 000 + (n × 27 000)

n = number of participating non-Member States.

COST 905: predictive modelling of microbial growth and survival in foods.

COST 906: prevention and control of potentially pathogenic micro-organims in poultry food processing.

FLAIR: CONCERTED ACTION PROJECTS COST 909

Yearly financial contributions (ECU) of the Community and of each participating non-Member State

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	55 000	55 000	55 000	55 000	220 000
Total:	55 000	55 000	55 000	55 000	220 000
2. Contributions from participating non-Member States	(n × 4 625)	(n × 4 625)	(n × 4 625)	(n × 4 625)	(n × 18 500)
New total:	55 000 + (n × 4 625)	55 000 + (n × 4 625)	55 000 + (n × 4 625)	55 000 + (n × 4 625)	220 000 + (n × 18 500)

n = number of participating non-Member States.

COST 909: the use of food lectins to improve food safety and quality.

FLAIR: CONCERTED ACTION PROJECTS COST 907, 908, 910, 911, 912 AND 913

Yearly financial contributions (ECU) of the Community and of each participating non-Member State for each of the six abovementioned projects

	1990	1991	1992	1993	Total
1. Community contribution: estimate of administrative operating expenditure	125 000	125 000	125 000	125 000	500 000
Total:	125 000	125 000	125 000	125 000	500 000
2. Contributions from participating non-Member States	(n × 10 375)	(n × 10 375)	(n × 10 375)	(n × 10 375)	(n × 41 500)
New total:	125 000 + (n × 10 375)	125 000 + (n × 10 375)	125 000 + (n × 10 375)	125 000 + (n × 10 375)	500 000 + (n × 41 500)

n = number of participating non-Member States.

COST 907: food safety and quality based on the application of combined processes — hazard analysis critical control point (HACCP).
COST 908: *in vitro* toxicological studies and real-time analysis of residues in food.
COST 910: measurements of micronutrient absorption and status.
COST 911: physiological implications of the consumption of resistant starch in man.
COST 912: improvement of the quality and compatibility of food consumption and food composition data in Europe.
COST 913: information flow on food technology, food safety and healthy eating to SMEs and consumers (Flair-Flow project).