TANNET NEWSLETTER 4

TANNET – A Concerted Action for the European Leather Industry

December 2000

INFORMATION ABOUT THE TANNET PROJECT

The original TANNET project, which was a Concerted Action for the European leather industry supported by the EU Environment and Climate Programme started its activities on 1 April 1998 and was finished on the 31 May 2000. The main objectives of TANNET were to:

- build a European network for the leather industry
- recommend a strategy for environmental research for the European leather industry

The TANNET-project has been a great success and some examples of the results are:

- More than 220 members in TANNET
- List of research priorities have been developed
- 4 workshops were organised in 1999 with more than 200 participants

The TANNET network therefore submitted a proposal to the EU-Programme "Promotion of Innovation and Encouragement of SME Participation" in 1999. The proposal was accepted and a contract was signed on the 7th July 2000.

The title of the new project is TANNET-An initiative to stimulate and encourage the European Leather Industry to participate in EU Programmes".

The main objective of this project is to use the existing network of tanneries (TANNET) in order to increase the participation of tanneries in EU Programmes. As part of the work-programme, there will be organised four brokerage events/workshops in 2001. These events will primarily be organised in Italy, Greece, Portugal and United Kingdom. The output of the workshops will be the creation of several new project consortiums.

The kick-off meeting in the project was held in Paris on the 19th September 2000. The meeting was held together with the members of COTANCE in order to secure the industrial awareness and involvement in the project.

EU R&D PROGRAMMES

A description of some of the EU R&D Programmes follows below. For a more detailed description see the homepage: http://www.cordis.lu

- Energy, Environment and Sustainable Development Programme
- Quality of Life Programme
- Growth Programme

Energy, Environment and Sustainable Development Programme

The new and revised work programme for the Energy, Environment and Sustainable Programme has recently been published and is now available on the Cordis home page (www.cordis.lu).

There are two main areas within the water key action which are relevant for the leather industry. These are:

- 1.3.2 Wastewater treatment and re-use
- 1.4.1 Abatement of water pollution from contaminated land, landfills and sediments

Area 1.3.2 Wastewater treatment and re-use includes:

- Development of closed-loop technologies (re-use and re-cycling) and of best management practises for the minimisation of pollution and for minimisation of the use of high-quality water in industry, in connection to the implementation of the IPPC Directive.
- Strategies, technologies and sustainable management practises for reducing sludge quantities and for improving their quality in view of their safe and publicly acceptable use through the identification of pollutants` sources and their interception.

Area 1.4.1 Abatement of water pollution from contaminated land, landfills and sediments includes:

- Improvement of cost-efficiency of in-situ (or near in-situ) remediation technologies for contaminated sites and groundwater.

The programme will have two calls for proposals during the year 2001. The deadlines for RTD-projects will be February 2001 and October 2001.

The February deadline is open for calls within the area 1.4.1 while the call with the October deadline will be open for proposals in the area 1.3.2 (Wastewater treatment and re-use).

The revised work programme is more specific in the priorities for research and request the proposals to focus on solving problems and involve all stakeholders including end-users.

Quality of Life Programme

On 15 November 2000, the third call for proposals was published. There are especially one area within the Quality of LIFE-Programme which is very relevant for the leather industry. In key action three (the “cell factory”, area 3.2 “Improving Environmental Sustainability”, the

priorities for 2001, include increased efficiency in energy and raw material use or prevent pollution at source through enzyme or industrial process technologies employing modern biotechnology. This research area has a deadline of 15 March 2001.

Growth Programme

The Growth programme will preliminary have two call for proposals in 2001 (the official opening of the call will be 15 December 2001). Key Action 1 (“Innovative Products, Processes and Organisation”) has 4 research areas including Eco-efficient processes and design. The key action has introduced Targeted Research Actions (TRAs) in order to concentrate on a few research priorities (Products, Machines, Extended enterprise, Modern Factory and Infrastructure). The deadlines in year 2001 are expected to be 15 March 2001 and 17 September 2001.

2nd Round Table of European Leather Industry; Bologna, on 10 November 2000

ALL LEATHER INDUSTRY STAKEHOLDERS UNITE FOR ADDRESSING THE SECTOR'S ENVIRONMENTAL CHALLENGE

The 2nd COTANCE Round Table held on 10 November 2000 in Bologna (Italy), European City of Culture in 2000, gathered in an unprecedented encounter all the public and private stakeholders having a say in the leather industry's environmentally sustainable development. The main topic of the debates was the responsible use of the World's water resources, major input in leather production processes.

The round table had gathered an extraordinary panel of speakers from:

- European Commission…
- Chemical Industry…
- Equipment and technologies suppliers…
- Leather researchers…
- Social Partners at European level…
- Academia...

The political dimension was covered through the presence of the European Parliament in the person of Mr Massimo Carraro MEP. In his speech at the beginning of the event, Mr Carraro reassured the European leather industry that the European Parliament will seek to it that 'environmental dumping' is excluded by setting equally high ecological standards for imports as for European productions.

The presentations and the debates clearly evidenced the leadership of European tanners in environmental performance. Europe's tanners spend on average 5% of their turnover in the protection of the natural habitat and notably in clean water management.

More information about the Round Table can be found here.

EUROPEAN RESEARCH AREA

On a proposal from Commissioner Busquin, the Commission adopted on the 4 October 2000 an important Communication for the future of research in Europe. It sets out guidelines for implementing the "European Research Area" initiative, and more particularly the Research Framework Programme"

The Commission is proposing a radical change of approach for the next Framework Programme, based on the following principles:

- Focusing on areas where Community action can provide the greatest possible "European added value" compared with national action
- Closer partnership with the Member States, research institutes and companies in Europe by networking the main stakeholders
- Greater efficiency by channelling resources to bigger projects of longer duration

More information including the Communication from the Commission (dated 4th October 2000) can be found on http://europa.eu.int/comm/research/area.html

---

EXAMPLES OF INTERESTING PROJECTS

Examples of relevant and promising Euro-pean projects in the environmental area are listed below:

- Automatic System to catalogue, select the quality, brand and identify leathers in tannery firms
- New low impact crosslinkers to adopt in leather finishing
- New technique for the recovery of tannins from vegetable tanning baths
- Development of novelty chrome-free waterproof leathers

AUTOMATIC SYSTEM TO CATALOGUE, SELECT THE QUALITY, BRAND AND IDENTIFY LEATHERS IN TANNERY FIRMS.

Eureka 2223 MASTRIT_SKIN2002

Objectives

The project aims to define a new system to automatically characterise and brand all leathers coming into the tannery and ensure, through a final check, that the quality is maintained throughout the production cycle. The catalogue of leather qualities will make it possible to select a priori the best productive processes for each type of leather, thereby optimising the tannery production cycles. This will have relevant environmental and economical implications like reduction of chemicals consumption and waste, better quality control of the process and increased productivity.

Work Description

An innovative system dedicated to quality cataloguing and the automatic branding of leathers both on arrival and departure from tanneries. will be developed. The system, working continuously on a conveyor belt, comprises the following main modules;

1) an automatic device to obtain chromatic information from the leather;
2) an automatic device to obtain information on the thickness of the leather,
3) an automatic device to obtain information on the softness of the leather,
4) an automatic device that, on the basis of the previously read parameters, finds and catalogues, in real- time, defects in the leather;
5) an automatic device that, on the basis of the previous parameters, in real-time, computes a global quality parameter, maps the leather and also selects the most appropriate application for the leather;
6) an automatic device to edge the leathers in function of the map,
7) an automatic device to indelibly brand the leathers so the origin lot can be recognised,
8) an automatic device to read the brand at the end of the leather production cycle, so the origin lot can be recognised.

Preliminary Results

A first prototype of an automatic device to indelibly brand the leathers has been developed, based on a chemical technology.

Contact Person

Ing Andrea Zucchini
Conciaricerca Italia srl
Via Brisa 3, I-20123 Milan, Italy
Tel: +39-02-784230
Fax: +39-02-72000072
e-mail: az@unic.it

NEW LOW IMPACT CROSSLINKERS TO ADOPT IN LEATHER FINISHING

CRAFT ENV4 – CT98 - 0786

Objectives

The main objective of this project is to develop an aziridine-free crosslinker, to be used in finishing with a strong versatility and giving optimum results for physical leather testing.

Work Description

A survey of current market crosslinkers has been done, evaluating their toxicology and their characteristics. Starting from the most promising functional groups, some new crosslinkers, basically isocyanates and carbodiimides, have been synthesised and tested in a lab scale. The next step included tests in tanneries using a standard recipe, performing evaluation of scratch resistance with Veslic test. The final step is going to be semi-industrial tests on various common recipes.

Preliminary results

Good performing new aziridine-free crosslinkers.

Contact Persons

Ing. Angelo Verri / Ing Andrea Zucchini
UNIC
Via Brisa 3, I-20123 Milan, Italy
Tel: +39-02-880771.1
Fax: +39-02-72000072
e-mail: av@unic.it

NEW TECHNIQUE FOR THE RECOVERY OF TANNINS FROM VEGETABLE TANNING BATHS

CRAFT ENV4 – CT98 - 0795

Objectives

The main objective of this CRAFT project is, to separate the tannin fractions from exhausted vegetable tanning baths in order to recycle them and to produce a wastewater with the tannin fractions reduced near to zero. This will be accomplished by a new chemical-physical separation technology, based on both ultra filtration and nano filtration

Work description

The research started with a preventive screening of tannin molecules in fresh and exhausted baths, as to define the most active molecular range in the tanning process and the chemical and physical characteristics of the floats. On the basis of these tests the most suitable type of and plant type have been set out, which will allow a better concentration of the floats consistently with their use.

Afterwards, trials will be done in the participating tanneries in order to optimise the plant and functional parameters; to calculate the tannin/non tannin ratio which is possible to recycle to obtain a fixed and good quality tanning and to verify separation efficiency and plant and operative costs. The eluated baths will be examined to evaluate their chemical and environmental characteristics and their potential use in other phases of the tanning process, together with the decreased environmental impact.

The final part of the project will consist of a cost-benefit analysis on a semi-industrial scale. It will include cost for plant, energy, maintenance, qualified personnel and benefits derived from tanning recovery, reduction of the costs of treating wastewater, reduction of the production of sludge compared to the technologies applied nowadays.

Preliminary results

An economic type of membrane for performing industrial scale tests has been selected.

Contact Persons

Ing. Angelo Verri / Ing Andrea Zucchini
UNIC
Via Brisa 3, I-20123 Milan, Italy
Tel: +39-02-880771.1

Fax: +39-02-72000072
e-mail: av@unic.it

DEVELOPMENT OF NOVELTY CHROME-FREE WATERPROOF LEATHERS

CRAFT BRST – CT98-5459

Objectives

The objectives of the project were the development of chrome-free "partially" hydrophobic leathers, of compatible wet post-tanning protocols and compatible aqueous based finishing systems for the production of automotive upholstery leather and leather for leather goods of consistent high quality.

Work Description

The project started with identifying the end-users' requirements followed by the definition of quality values and the production of a quality control system for the evaluation of hydrophobic automotive upholstery leather and leather for leather goods. Afterwards, laboratory trials and extended practical trials at the tanneries were carried out in the project. More specific, semi-metal tanning methods for the production of chrome-free automotive leathers and high stability organic tanning methods for the production of both chrome-free automotive leathers and leather for leather goods were investigated.

Preliminary Results

At the current stage of the project, all the tanning methods were developed successfully. In particular the high stability organic tanning system, based on polyphenols, tested for the production of hydrophobic leathers for leather goods, is clearly one of the most promising alternatives to conventional chrome-tanning systems and vegetable solo and semi-metal tanning systems for the Leather Industry word-wide.

Contact Persons

Dott.ssa A. Siena / Ing. A. Zucchini
Conciaricerca Italia
Via Brisa 3, 20123 Milan – Italy
Tel: +39-02-8807711
Fax: +39-02-72000072
E-mail: as@unic.it

EUREKA: The COTANCE Multilingual Leather Dictionary is born

It took two years but it is ready! The Multilingual Leather Dictionary developed under the convenance of COTANCE by the leather technology centres of Greece (ELKEDE), UK (BLC), France (CTC), Spain (AIICA), Germany (LGR), Denmark (DTI), Italy (SSIP), Portugal (CTIC) and Romania (ICPI) will be available as of January 2001.

Born under the old Millennium, it is designed to become the indispensable tool of leather industry operators in the new Millennium. Its interactive features, innovative performances,

and customizable applications makes EUREKA the optimal databank for leather terms and a revolutionary training tool for anyone working in or with the leather sector.

Indeed, not only does EUREKA cover up to 3000 leather terms, their translations in 9 different languages and definitions, it also provides static and moving pictures illustrating the terms. Users will be able to zoom on pictures, display short movies on products and processes, and add notes, sounds and Word document to this wealth of information, thereby generating a databank of enormous value and of particularly practical use.

In the future, this first generation of EUREKA will be opportunely expanded, as other nations will be invited, as appropriate, to join the exercise. An open invitation is launched to Central and Eastern European leather industry partners, but COTANCE and its partners also look towards the Southern Mediterranean rim (Arabic) and their Asian colleagues (China, India, etc).

Contact Persons

Mr. Gonzalez Quijano
COTANCE
Rue Belliard 3
B-1040 Bruxelles, Belgium
Tel: +32 2 5127703
Fax: +32 2 5129157

Members in TANNET

The Danish Technological Institute is co-ordinator in this project and working very closely together with *The Confederation of National Associations of Tanners and Dressers of the European Community* (COTANCE). Furthermore, national focal points have been established in the different member states. Generally, the leather research centres in the different EU-countries have been appointed as national focal points. You will find the TANNET Membership here.

Corresponding Members

At the present moment, TANNET has approximately 200 members and many tanneries and other stakeholders have showed an enormous interest for the initiative.

LIST OF RESEARCH PRIORITIES

The list of environmental research priorities for the European leather Industry has not been changed since the last newsletter.

CRAFT SPECIFIC MEASURE FOR SME'S IN EU RESEARCH PROGRAMME

The SME Specific Measures were described in Newsletter 3. The SME Specific Measures consist of:
Exploratory Awards: Grants allowing at least two SMEs from different countries with a common project idea to prepare a complete research proposal
Co-operative Research (CRAFT) Projects: These enable transnational groups of SMEs with a common problem but with limited or no in-house RTD capability, to sub-contract the research they need to a specialist (called an "RTD performer"). The Commission supports up to half the cost and while the RTD performer is paid in full for its work the results belong to the SMEs alone.

You can participate in the SME Specific Measure if you are an SME which:

- Has less than 250 employees
- Has either an annual turnover not exceeding EURO 40 million or an annual balance-sheet totally not exceeding EURO 27 million
- Conforms to the criteria of independence

And in addition:

Is not a research centre, research institute, contract research organisation or consultant.

Proposals can be submitted at any time. They will be evaluated by batch at regular intervals. An indicative timetable of cut-off values for submission is given below.

Cut-off date	Expl. award	Coop.Res.
17 Jan. 2001	Yes	Yes
18 Apr. 2001	Yes	Yes
19 Sep. 2001	No	Yes
16 Jan. 2002	No	Yes
17 Apr. 2001	No	Yes

Please note that the last date for submitting proposals for exploratory awards is 18 April 2001.

For more information see the web site:http://www.cordis.lu/sme

---

TANNET WORKSHOPS IN 2001

Tannet will organise four workshops/brokerage events during 2001. The workshops will take place in:

Arzignano, Italy	Spring 2001
Athens, Greece	25 May 2001
Alcanena, Portugal	November 2001
United Kingdom	To be decided

More information about the workshops will be included in the next newsletters.

The workshops are open to all TANNET-members.

For further information please contact your national focus point or the co-ordinator of the project:

E-mail: Stefan.Rydin@teknologisk.dk