

Building Technology Partnerships



Innovation Relay Centre Network

Guidelines for preparing Technology Offers and Technology Requests

August 2006

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What these Guidelines are for

The aim of these Guidelines is to help you write better Technology Offers and Technology Requests (TOs & TRs). They are not mandatory, since each TO and TR is, or should be, unique, and it may sometimes be sensible to ignore parts of the Guidelines. In most cases, however, respecting the Guidelines will result in clearly written TOs & TRs, easily understood by your IRC colleagues and their clients. You should therefore enjoy more success with your BBS entries.



Before you start writing

"Time spent on reconnaissance is never wasted" is an old military saying that can be adapted to many fields. To prepare good-quality TOs & TRs you will find it useful to visit your client to discover the background to the proposed TO or TR and to assess the level of the client's commitment. Questions you might ask are:

- ✓ Is the technology truly novel or is it existing technology applied in a novel way?
- ✓ If you have a prototype, has it been tested in the laboratory or in the field?
- ✓ What kind of partner are you seeking? Industrial, academic, financial?
- ✓ What do you want your partner to do? More research, manufacture under license, joint venture, provide finance?
- ✓ What resources (people, time, money) will you commit to the project?
- ✓ What difference will it make to you if the TO/TR fails?

You will be able to think of other relevant questions, but your aim is to create a complete picture of the TO or TR and your client's ambitions and abilities. For additional information, you should refer to the section on visiting companies in the IRC Operational Manual.

When you meet an entrepreneur, ask for access to his promotion material (brochure, Web site, etc) and if possible to his patents.

You might also find it useful to use an Internet search engine (www.google.com, www.altavista.com, www.alltheweb.com), to assess the likely competition to your TO or TR and to identify its innovative aspects and main advantages in a clearer way.

How to write good Technology Offers and Technology Requests:

Preparing good TOs & TRs requires practice, but there are some simple rules you can follow to help get your message across. A summary appears below.

- ✓ **Write with your reader in mind.** Imagine you are talking to an IRC colleague or a foreign client who might be interested in your TO or TR.
- ✓ **Use everyday English whenever possible.** Keep technical terms to a minimum and only use them in the Description box when you think it would help a subject expert to understand the technology. Always remember that your *communication target* is *not the client* who asked you to submit the profile: your communication target is the *profile recipient*, who is either a colleague from an IRC that does not use the AMT or a potential user company that reads the profile through the AMT. *Neither of those targets is supposed to be a specialist in the field relevant to the profile; yet they have to be able to understand what use they can make of the technology proposed to them, or how they can address the technological need of the profile emitter, in order for TTT to happen.*
- ✓ **Use short sentences.** Try to stick to one main idea in a sentence.



- ✓ **Cut out unnecessary words** e.g. “The running costs of each unit are reduced”, not “The running costs are reduced in respect of each and every unit.”
- ✓ **Make the title of your TO or TR clear and uncomplicated.** Remember that readers often use the title to decide if the TO or TR is worth reading.
- ✓ **Avoid jargon and explain acronyms** e.g. BBS (Bulletin Board Service); TOs & TRs (Technology Offers and Technology Requests).
- ✓ **Avoid cutting and pasting sections of text from other publications.** If you want to use information from a Patent, remember to change the style and use simpler words.
- ✓ **Read your TO or TR before submitting it to the BBS.** Check that it is accurate, clear, concise and readable. Alternatively, ask a colleague to read it for you.
- ✓ **Write the Abstract last.** It should be a concise summary of the TO or TR. Avoid repeating the first paragraph of the Description box, but be sure to include all the relevant points.
- ✓ **Respect the 500 characters limit for the Abstract.** If you exceed it, your TO or TR will be rejected; if you write too little you will not do justice to your TO or TR.

To ensure that your TO or TR is written in comprehensible English, ask an English student or a native English speaker to read it and suggest improvements. Performing a British spell check on your entry before publishing it should be a standard procedure. In order to turn it on in MS Word, click on Tools in the Menu bar, then on Set Language, and select English (UK).

Sources of additional help:

For general guidance on using plain English you should look at the Web site of the Plain English Campaign (www.plainenglish.co.uk). This organisation defines plain English as “something that the intended audience can read, understand and act upon the first time they read it. Plain English takes into account design and layout as well as language.”

The standard guide of the intricacies of the English language is The Complete Plain Words, a book first written in 1954 by Sir Ernest Gowers and revised by Sidney Greenbaum and Janet Whitcut in 1987, Penguin ISBN 0-14-051199-7.

Otherwise, many online dictionary sites propose thesauri that may come in handy to help express very technical concepts in simple words. We suggest you to visit sites such as <http://www.yourdictionary.com/>, <http://www.m-w.com/>, (which propose dictionary search and thesaurus search), <http://www.foreignword.com/Tools/dictsrch.htm> (which allows monolingual as well as translation searches, which may come in handy for those in the Network who are not native English speakers), <http://www.acronymfinder.com/> (very useful for expanding technical acronyms), as a first selection. But please do not feel limited by this list, and do not hesitate to use other sites that you think helpful in this respect.

General notes

BBS profiles (Technology Offers and Technology Requests) are entered into the Innovation Relay Centre Network database, and an e-mail version is sent to all IRC Network members (or a geographical sub-set if desired). It is important to realise that a BBS entry should remain readable by non-technical persons: this may mean staff from IRCs that do not use the AMT yet, or target companies that are potential users of a given technology without being themselves specialised in the relevant technology field. It is vital, therefore, that the information you present in the title and abstract can be understood by a “generalist”, and gives a clear indication as to who might be interested



in the information. Information presented in the “description” part can then be a bit more in-depth and should in fact be sufficiently detailed to arouse interest in prospective collaboration partners.

Please also bear in mind that from now on, given the fact that entire profiles are disseminated on the Public Website and elsewhere in pdf form, and given the negative opinion on this expressed by several IRCs, **the mention of trademarks and company names is not going to be allowed any longer in any section of a BBS profile.**



Chapter 1. TECHNOLOGY OFFER PROFILE (TO)

1.1. TECHNOLOGY DESCRIPTION

1.1.1. Title

The title should be clear and meaningful to those who are not experts in the technology or application field, and should enable them to form a picture of the companies or researchers in their region that might be appropriate partners. Please remember that this is the very first section that is going to be read: therefore, it has to be at once clear, concise (it is not meant to be an ad, and there is room in the abstract and description for more detailed information), and attractive (while avoiding "marketing speak": try to remain as matter-of-fact as possible).

1.1.2. Abstract

Please give a brief description of the technology (< 500 characters)

Remember that this is the section that is going to be read immediately after the title, and that it is going to be the basis for your potential reader to decide whether there is any interest in reading the profile further. Therefore, within the limitation in length and the information specifications listed below (which are meant to help you target the relevant reader with the appropriate content), it also has to be clear, concise, and attractive.

The abstract for a TO should answer the following questions:

- ✓ Where (geographically) is it from?
- ✓ What sort of organisation is offering it?
- ✓ What is being offered?
- ✓ What can it be used for?
- ✓ What are the main advantages for the user?
- ✓ Who are the targeted partners?
- ✓ What sort of deal is sought?

The following example illustrates a format for a Technology Offer that usually works well:

"A small German company has developed a fiber optic oxygen sensor based on an opto-electronic measuring device suitable for use as a transducer for biosensors. Advantages over conventional electrodes include its small size, zero oxygen consumption during measurement, high sensitivity at low oxygen concentrations and lack of interference by electric or magnetic fields. The company is looking for industrial partners interested in further development and in research institutes and companies for testing of new applications."



1.1.3. Description.

Please give a description of the relevant results or characteristics of the offer. (< 5000 characters)

Whenever possible, provide background information or a short introductory text to the technology described (usually this can be found through an Internet search).

- ✓ Describe the technology or product; try to indicate clearly the innovation you propose (provide quantitative data if possible).
- ✓ Provide information about the expertise or know-how of the proposer.
- ✓ Do not include sales promotion of your technology or product
- ✓ Do not include advantages of your technology or product, this will come below
- ✓ Provide a picture or drawing (it is possible to insert two images).
- ✓ Do not write your description with a specific market in mind; rather concentrate on the technological aspects of the technology/product you want to offer.

1.1.4. Innovations and Advantages of the Offer

Describe clearly the innovative aspects, economic advantages/benefits of the technology, regarding such elements as performance, ease of use, need of specific know-how, or expertise to adopt your technology. Avoid generalities such as "best" or "unique", but try to specify innovation by comparison with prevailing technologies. Whenever possible, quantify the innovative aspects or advantages of your technology/product.

1.1.5. Technology Keywords

- ✓ Choose as many keywords as are applicable to the technology, with a maximum of 5.
- ✓ Try to use level 3 keywords, as these are the most specific.
- ✓ Be aware that a search may be conducted using keywords alone.
- ✓ Focus on the technology itself, not on its market application.

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1.1.6. Current stage of development of the offered / required technology

- Development phase – laboratory tested
 Available for demonstration – field tested
 Already on the market

1.2. DOMAIN OF APPLICATION

1.2.1. Current and potential applications of the Offer

Clearly establish the potential application of the technology, perhaps considering more than one field. Do not forget that a technology created in a given field with a given context in mind can be applied in totally different and sometimes unexpected domains.



1.2.2. Market Applications Keywords

- ✓ Choose as many keywords as are applicable to the technology, with a maximum of 5.
- ✓ Try to use level 3 keywords, as these are the most specific.
- ✓ Be aware that a search may be conducted using keywords alone.
- ✓ Focus on the market application – remember it may be quite far from the domain the technology itself belongs to.

1.2.3. Collaboration Details

Level 1	Level 2
<input type="checkbox"/> Licensing Agreement	-
<input type="checkbox"/> Technical Cooperation	<input type="checkbox"/> Joint further development <input type="checkbox"/> Testing of new applications <input type="checkbox"/> Adaptation to specific needs
<input type="checkbox"/> Joint Venture	-
<input type="checkbox"/> Manufacturing Agreement	<input type="checkbox"/> Transfer of knowledge in new raw materials <input type="checkbox"/> New way to use an existing production line <input type="checkbox"/> Change in the partner sought's currently used technology (installations, process, facilities) <input type="checkbox"/> Absolutely novel process
<input type="checkbox"/> Commercial Agreement with Technical Assistance	<input type="checkbox"/> Assembly <input type="checkbox"/> Engineering <input type="checkbox"/> Technical consultancy <input type="checkbox"/> Technical training <input type="checkbox"/> Quality control <input type="checkbox"/> Maintenance

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Comments: Partners contribution - *Role and profile of the partners and tasks to be performed*

Indicate clearly:

- ✓ **The type of partner sought** (such as: industry, academy, research organisation),
- ✓ **The specific area of activity of the partner** (example: manufacturer of plastic packages, distributor of plastic packages, user of plastic packages, disposal of plastic packages, etc.),
- ✓ **The tasks to be performed** by the partner sought
- ✓ If relevant **its size**.

The more **focused the definition**, the **higher** the chances of finding the partner.



1.3. OTHER INFORMATION

1.3.1. Organisation/Company submitting the Technology Offer

Type Industry Technical Centre/Technology transfer centre
 Research institute/University Services
 Other: please specify*

*Comments:

Size (please tick one box)
 < 10 employees 11-50 employees 50-250 employees 250-500 employees
 > 500 employees



1.3.2. Intellectual Property Rights

(for offers only)

- | | |
|--|--|
| <input type="checkbox"/> patent applied for* | <input type="checkbox"/> patents granted * |
| <input type="checkbox"/> copyright protected | <input type="checkbox"/> exclusive rights * |
| <input type="checkbox"/> secret know-how | <input type="checkbox"/> others (registered design, plant variety right, etc)* |

- ✓ Do not give away too much patent information – this is very sensitive information. It allows any interested party to make a relevant patent search and then “copy” the technology/product by slightly modifying a few details, resulting in a new technology/product similar to the one offered in your TO, but not protected by a patent and freely exploitable by the competition.
- ✓ If the exclusive rights box is ticked you should indicate where the initial patent was granted and say a few words about the company.
- ✓ If the “others” box is ticked you should indicate what exactly the IPR consist of: trademark registration, plant variety right, design patent, etc. or whether no IPR of any kind apply.

Comments:

1) Copyrights

Copyright gives rights to the creators of certain kinds of material to control the various ways in which their material may be exploited. The rights broadly cover: copying; adapting; issuing; renting and lending copies to the public; performing in public; and broadcasting. It is an **unregistered right** (unlike patents, registered designs or trademarks). So, **there is no official action to take**, (no application to make, forms to fill in, or fees to pay). Copyright comes into effect immediately, as soon as something that can be protected is created and “fixed” in some way, e.g. on paper, on film, via sound recording, as an electronic record on the Internet, etc. You should note that **copyright does not protect ideas**. It protects the way the idea is expressed in a piece of work, but it does not protect the idea itself.

2) Patent granted

A patent for an invention is granted by government to the inventor, giving the inventor the right for a limited period to stop others from making, using or selling the invention without the permission of the inventor. When a patent is granted, the invention becomes the property of the inventor, which - like any other form of property or business asset - can be bought, sold, rented or hired.

3) Exclusive rights (license)

The exclusive rights’ license granted by the owner of a patent allows only one party to use the invention protected by the patent. With such a license, the owner himself cannot then use his invention, but he can collect royalties on the use of his patent. A patent owner may indicate (via the Office) that **licenses** under his patent are available as of right to anyone who asks for one on reasonable terms. The owner is then allowed to pay half the usual **renewal fees** on his patent.

More information about IPR terms: <http://www.patent.gov.uk/patent/glossary/index.htm>

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1.3.3. Internal References

BBS Standard Reference: automatically given by the system, non-editable, unique to each BBS entry

IRC internal reference: given by the IRC itself, editable



1.3.4. Preferred Countries for dissemination

To be selected in the field within a predefined list of IRC countries

1.3.5. Associated Thematic Group

To be selected in the field within a predefined list of TGs

1.3.6. Contact info

Automatically displayed on the author's PC, contains contact details of the person to be contacted regarding this entry (usually the author himself).



Chapter 2. TECHNOLOGY REQUEST PROFILE (TR)

2.1. TECHNOLOGY SOUGHT

2.1.1. Title

The title should clearly identify the technology and the application and be meaningful to a person who is not an expert, and should enable him/her to form a picture of the companies or researchers in their region that might be appropriate partners. Please remember that this is going to be the very first section that is going to be read: therefore, it has to be at once clear, concise (it is not meant to be an ad, and there is room in the abstract and description for more detailed information), and attractive (while avoiding "marketing speak": try to remain as matter-of-fact as possible).

2.1.2. Abstract

Please give a brief description of the technology (< 500 characters)

Remember that this is the section that is going to be read immediately after the title, and that it is going to be the basis for your potential reader to decide whether there is any interest in reading the profile further. Therefore, within the limitation in length and the information specifications listed below (which are meant to help you target the relevant reader with the appropriate content), it also has to be clear, concise, and attractive.

The abstract for a TR should answer the following questions:

- ✓ Where (geographically) is it from?
- ✓ What kind of organisation is looking for the technology?
- ✓ What technology are they looking for?
- ✓ What will the technology be used for?
- ✓ What stage of development should the technology be at?

For a Technology Request, the abstract should be along the following lines:

"A French company is looking for a technology to detect fruit stone residues left behind after the removal of stones from fruit. Ideally, the detection system should have a treatment capacity of 1 to 2 tonnes per hour (100,000 to 200,000 fruit per hour), although 0.5 tonnes per hour would be acceptable. The size of the stone residues ranges between 0.5 and 5 mm. The technology requested can either be at the laboratory stage or fully developed."



2.1.3. Description

Please give a description of the characteristics of the request (< 5000 characters)

It would be useful to identify the current activities of the company.
A technology request may arise in two situations:

- ✓ **Your client wants to improve his process or an existing product or needs some help** for the development of a new product, or specific expertise for its manufacture. The product and/or processes should be briefly described and the targeted prices and production throughput should be given.
 - Why does this company want to improve a current process or product?
 - What is the current technical problem to be solved, what process to be improved and why?
- ✓ **Your client wants to broaden the range of his products or services.** In this case, a short description of the client's production facilities and of his marketing department and commercial skills would be useful.
 - Include a description of the problem to be solved or technology requested
 - Provide information about the current process / product to improve
 - Clearly specify the technical requirements

Describe what is intended to be done with the technology sought, and where the product manufactured with the requested technology will be used.

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2.1.4. Technical Specifications/Specific technical requirements

The product and/or processes should be briefly described and the targeted prices and production throughput should be given.

What are the technologies the company believes could be suitable?

Are there some specific requirements to take into consideration (temperature, pressure, size, etc)?

Clearly specify the technical requirements

2.1.5. Technology Keywords

- ✓ Choose as many keywords as are applicable to the technology or the application,
- ✓ Try to use level 3 keywords as these are the most specific;
- ✓ Be aware that a search may be conducted using keywords alone.



2.2. DOMAIN OF APPLICATION

2.2.1. Collaboration Details

Level 1	Level 2
<input type="checkbox"/> Licensing Agreement	-
<input type="checkbox"/> Technical Cooperation	<input type="checkbox"/> Joint further development <input type="checkbox"/> Testing of new applications <input type="checkbox"/> Adaptation to specific needs
<input type="checkbox"/> Joint Venture	-
<input type="checkbox"/> Manufacturing Agreement	<input type="checkbox"/> Transfer of knowledge in new raw materials <input type="checkbox"/> New way to use an existing production line <input type="checkbox"/> Change in the partner sought's currently used technology (installations, process, facilities) <input type="checkbox"/> Absolutely novel process
<input type="checkbox"/> Commercial Agreement with Technical Assistance	<input type="checkbox"/> Assembly <input type="checkbox"/> Engineering <input type="checkbox"/> Technical consultancy <input type="checkbox"/> Technical training <input type="checkbox"/> Quality control <input type="checkbox"/> Maintenance

Comments: Partners contribution - Role and profile of the partners and tasks to be performed

Indicate clearly:

- ✓ **The type of partner sought** (such as: industry, academy, research organisation),
- ✓ **The specific area of activity of the partner** (example: manufacturer of plastic packages, distributor of plastic packages, user of plastic packages, disposal of plastic packages, etc.),
- ✓ **The tasks to be performed** by the partner sought
- ✓ If relevant **its size**.

The more **focused the definition**, the **higher** the chances of finding the partner.

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2.3. OTHER INFORMATION

2.3.1. Organisation/Company submitting the Technology Request

Type

<input type="checkbox"/> Industry	<input type="checkbox"/> Technical Centre/Technology transfer
<input type="checkbox"/> Research institute/University	<input type="checkbox"/> Services
<input type="checkbox"/> Other: please specify*	

*Comments:

Size (please tick one box)

< 10 employees
 11-50 employees
 50-250 employees
 250-500 employees
 > 500 employees



Chapter 3. Submission of BBS profiles and Quality Check

3.1. Generalities

BBS profiles undergo a Quality Check procedure before being published and disseminated to Network staff and client companies. This procedure has been implemented in order to maintain a good level of quality in BBS profiles, which in turn increases the credibility of our Network.

Once a BBS profile is ready for submission, its author has to click on the *Submit* button at the bottom of the BBS form in order for the profile to be sent to the validators and then Quality Checked. If the author clicks on the *Save* button, the profile is saved and available for further changes, but it is not sent to the validators yet – not until the author clicks on *Submit*.

After submission the validators will carefully check the profile for conformity with these Guidelines, the TTT Definitions, and the relevant specifications issued by the European Commission with regard to content.

The profile will then be either validated if it complies with the Guidelines and the TTT Definitions, or put on hold or rejected – in both cases with a relevant comment – if more information is needed in some fields, if some pieces of information are not featured in the correct fields, or if the kind of collaboration expected from the partner does not qualify the profile for TTT.

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3.2. Automatic validation

Some fields in a profile are not relevant to Quality Check:

- ✓ Deadline due
- ✓ Contact details (name, first name, phone, fax, e-mail)
- ✓ Keywords (we don't change them anyway, they just have to be there)
- ✓ Company details
- ✓ IRC's own reference (it just has to be there)
- ✓ Preferred Countries

This is important to know when a profile has already been validated and is being **updated**. In this case, if the update concerns only one or more of those fields, the profile



will be validated **automatically** upon submission, without being sent to the validators for Quality Check first.

If a profile is being inserted for the first time, then saved, and then updated only in such fields before being submitted, the profile will be sent to the validators' QC board upon submission (because it has not been validated yet), but the validators will not receive the corresponding e-mail alert, due to security reasons.



Chapter 4. Examples of good TOs and TRs



4.1. Technology Offer

Biodegradable nets and net bags offering highest strength due to innovative weaving process (Double-Twist Technology)

Reference:	APS-NET
Organization:	APS - Verein zur Förderung der Ausbildungspartnerschaft Hochschule-Wirtschaft Südösterreich
IRC Name:	IRC Austria
Country:	Austria
Entry Date:	Mon, September 03, 2001
Last Update:	Wed, September 26, 2001
Deadline:	Tue, September 03, 2002

Abstract:

An Austrian SME in the packaging sector has developed a new environmentally friendly weaving process for the production of netting textiles with a high tensile strength and considerably less expenditure of material. Presently the process is used for the production of packaging nets. Partners from the textile and packaging industry are being sought for the development of further applications and to exploit the existing know-how (License agreements)

Description:

This weaving process for biodegradable nets and net bags can be used for the production of any sort of textile. The use of natural materials (cotton, cellulose, flax, hemp) and the additional tensile strength provided by the employment of the Double-Twist Technology give the new textile with a broad spectrum of uses:

Packaging nets: Tubular netting, net bags, anti-theft nets, nets to cover pallets
 Nets for use in the agricultural sector: Early-ripening nets, straw-ball-nets, hail-protection nets, nets for protection against birds, nets for climbing plants, tree-protection nets
 Nets for use for work on buildings
 Transport protection nets
 Technical nets (e.g. as reinforcement for paper, hard cartons or homogenous lamina)
 Underlying basis for plastering
 Fishing nets

Today practically only plastic sacks are used. The demand and the requirement for this World Novelty is enormous.

About 30 years ago, production of HDPE Raschel Netbags was begun with the aim of packaging fruit and vegetables so that they could be seen inside the packaging. The manufacture of these bags (knitting process) often led to "stocking-ladder" holes, involving uncontrolled loss of contents, stoppages in the filling machines and losses of product contents during transport to the consumer. Also, this type of bag production involved a 25% wastage loss. The new weaving process allows the production of multi-layer textile and thus the manufacture of net bags in a single working phase. "Stocking-ladder" holes cannot occur in completed bags, only a few threads in individual bags can be damaged, but not the whole roll. Thus, in production, the wastage rate ("natural" waste) is 10% at most.

The current process for the manufacture of textiles from natural threads / Bio Net Bags is described in 3 patents:

Double-Twist Technology

In this completely new weaving process each thread of the textile is twisted twice round all



the other threads.

In this way is achieved either, with the same amount of raw material used, considerably greater degree of tensile strength or, with the same degree of tensile strength a saving of raw material used of up to 40% (for comparable sheet weight).

Reversal of Weave at the edges of the textile, to improve stability of the shape and the optical impression of the net bags.

Built-in Loops

In this way, the net bags are produced in rolls making them also suitable for use in automatic filling machines (Automatic bags).

With the use of flax, hemp, cotton or cellulose (self-regenerative raw materials), valuable mineral oil resources are not expended and moreover, the net bags can be composted after use. Natural fibres are humidity regulating and allow natural breathing. The product therefore remains demonstrably fresh for a longer time. Flax and hemp have a natural resistance to mould, insects and mice. They also provide a natural environment in which the premature sprouting of potatoes and onions is retarded.

The increased demand for biological foodstuffs by the consumer results in a growing market for biogenic packaging because this makes the product more attractive at the POS.

In 2000 the Bio Net Bags were nominated at the award of the Austrian State Prize for exemplary packaging and in 2001 received the Austrian Eco-Design-Prize.

Innovations and Advantages of the Offer:

- Bags for use in automatic machines can be provided as well as individual bags, with or without drawstrings.
- Those new Bio Net Bags can be used in all current automatic filling machines. And in contrast with synthetic bags produced in the traditional knitting process, it is not possible for ladders to appear through which some of the product can be lost. Thus stoppages of automatic machines, loss of product and unnecessary rejection can be avoided.
- In contrast to current plastic bags with incorporated lamina bands, the net bags made from natural fibres have no sharp cutting edges. The contents are therefore better protected against damage and the package is easier for the consumer to handle.
- The Bio Net Bags can be disposed of after use directly into the bio waste container for composting – thus protecting the environment.
- The Bio Net Bags can be produced in any colour desired, or multicoloured (up to six different yarn colours). The colours are of course only those suitable for use with foodstuffs.
- The Bio Net Bags can meet individual customer requirements ranging from broad-mesh to opaque. It is also possible to incorporate varying weaves in any one type of sack and items such as a transparent window so that the product can be seen.
- Firm logos and texts can now be directly incorporated into the weave. (Previously these were achieved only by means of a banderole.)
- Taking into account the costs of the disposal of plastic, price approaches that for plastic bags.

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Technology Keywords:

Packaging / Handling
Plastics, Rubber, Polymers and Composite Materials
Textiles Technology
Food Packaging / Handling

Current Stage of Development: Already on the market

Exploitation of RTD Results: PRIVATE RESEARCH

Intellectual Property Rights: Patent(s) granted

Comments

European patent registration and PCT



Organisation/Company Type:	Industry
Organisation/Company Size:	<50
Brief Market Application	Fisheries, resources of the sea
Codes:	Food - Agro Industry Industrial manufacture Materials technology
Detailed Market Application	<i>Keywords</i> General food products Garden and horticultural products Other Consumer Related (not elsewhere classified) Processes for working with plastics Other industrial process machinery for textile, paper and other industries Textiles (synthetic and natural) Packing products and systems Agriculture, Forestry, Fishing, Animal Husbandry and Related Products Manufacture of building materials Distribution of building products and systems
Codes (VEIC):	<i>Highlights</i> Net-bags produced in rolls to make them also suitable for use in automatic filling machines (Automatic bags)
Collaboration Type:	Technical Co-operation License agreement Manufacturing agreement (Subcontracting & Co-contracting)
	<i>Comments</i> License Agreement: Exploitation of the technology all over Europe Technical Co-operation: Development and adoption of further applications Manufacturing Agreement: Contracting for production and distribution of net bags.
Preferred Countries for diffusion:	ALL

Other examples: please have a look at the

[TO ref. EETO01 013 - A novel non-invasive device to accurately detect and monitor refrigerant gas leakage - IRC East of England](#)

[TO ref.: out118 – Innovative Anti-theft Alarm and Immobiliser for Motorcycles - IRC Midlands \(UK\)](#)



4.2. Technology Request

Lubrication technology to reduce tool wear and improve line speed of fine steel wire drawing

Reference:	EETR01 013
Organization:	St. John's Innovation Centre
IRC Name:	IRC East of England
Country:	United_Kingdom
Entry Date:	Wed, September 19, 2001
Last Update:	
Deadline:	Wed, September 18, 2002
Abstract:	

A leading supplier of welding consumables is seeking continuously working lubrication technologies. These should reduce tool wear and improve line speed by applying consistent lubricant films during the wire drawing process of its cored-wire products. Possible application technologies – either prototype or production – could include spray, brush and electrostatic. The company is looking for a license, equipment with technical support or partners with suitable technology for joint exploitation.

Description:

In welding consumables, metal-cored wire is a cross between solid wire and flux-cored wire. The wire is made by forming a strip of metal into a trough, and the core inserted by adding a metal powder formulation using a controlled waterfall technique. The metal strip is then closed, and the wire diameter is reduced by drawing to the correct size through a series of carbide surfaced roller die. The final process involves a diamond die to remove the square section and produce a round wire.

Lubrication improves drawability, and reduces the required drawing force, wear on the die, and surface temperature on the die and on the wire. The current lubrication technology is based on the use of soaps - the alkali-salts and the ground-alkali-salts of higher molecular fatty acids – and is applied by drawing the steel wire through solid blocks of this material at various stages of the drawing cycle. This technology prevents the lubricant from entering the core of the wire through the mechanical gap in the steel outer casing, and enables Stage 1 line speeds of around 120m/min. However it is messy, limits line speeds and requires baking at the end of the process to remove the residues, which would otherwise introduce hydrogen contamination.

The company is looking for partners with appropriate lubrication technologies that could be incorporated into both existing and new process lines. The technologies should be proven, applicable and available at a reasonable cost.

Technical Specifications / Specific technical requirements:

The ideal lubrication technology should:

- Be suitable for steel strip being formed first into a trough and then into a 4mm diameter cored wire that is drawn down in stages to approx. 1.2mm
- Ensure lubricant does not enter the mechanical 'gap' in the outer steel jacket of the wire, especially in the early stages of the drawing process
- Optimise the application of lubricant
- Reduce die and tool wear
- Help improve Stage 1 line speed to 180m/min
- Remove the need for batch baking of finished product or enable baking to be carried out online

Technology Keywords: Industrial Engineering / Processes / Manufacturing



Organisation/Company Type:	Techniques
Organisation/Company Size:	Industry
Brief Market Application	250-500
Codes:	Industrial manufacture
	<i>Comments</i>
	Manufacture of welding consumables - cored steel wire drawing.
Preferred Countries for diffusion:	ALL

Another example: please have a look at the

[TR ref.: AV-I/R/F/2001-02 - Enhancing the value of stainless, ceramic fibres and precious metals from catalytic exhaust pipes – IRC Centr'EST](#)

