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JOINT
ACTION
PLAN

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1. Executive Summary.

This Joint Action Plan is a working document, reflecting the present state of play of Valorisation in the EU and proposing joint action on a transnational European basis.

Definition Valorisation

Valorisation is defined as the translation of knowledge into commercially viable products or services. This is acknowledged to be a global process which can no longer be isolated at a regional or even national level. However, each EU Member has so far taken a different approach in their regional and national programmes that support valorisation.

The overall impact is therefore suboptimal in terms of economies of scale and duplication of common activities. It is also proving to be ineffective when benchmarking innovation against competing world regions like the USA and Japan

European Valorisation Deficit

When comparing the capacities of the European Union in knowledge production and the commercialization of its research results, a discrepancy is evident, better known as the 'European paradox'. The problem is that the EU is generating a considerable flow of knowledge but this knowledge is not converted sufficiently into market applications and does not result in economic success., There is, so to speak, a discrepancy between research and growth, between the level of R&D funding and the actual economic impact of the additional knowledge.

This inability to ensure the commercialisation of knowledge results accounts for the EU deficit in innovation and competitiveness in comparison with other global players. Studies so far have shed light on the EU weakness in securing transfer from knowledge into commercial applications due to the lack of supporting networks and of market oriented support policies.

The European Valorisation Deficit was the reason for the setting up of the InnoNet Project VALOR, started October 2006.

Strategic Objectives as a prelude to the objectives of this JAP.

The two most important Objectives of VALOR have been:

- ✚ to enhance complementarity between Valorisation programmes at regional, national and European level by creating a common framework for actions in support of the valorisation process;
- ✚ to create a network of programme managers for sustained long term cooperation between programmes, by designing and implementing a European Institutional framework for continuing joint action after the end of the VALOR Project, a joint action which might even imply a new approach in funding Valorisation proposals.

Achievements

These strategic Objectives were achieved through the implementation of a series of 9 work programs addressing:

- ✚ the nature and level of the support required for an effective joint European Valorisation programme
- ✚ the monitoring and evaluation required to measure outcome, impact and overall performance of the Valorisation process in its various stages
- ✚ the development of a common approach and a common methodology for Valorisation
- ✚ the development of best practice for programme managers and agencies to implement the common methodology
- ✚ a pilot program to test theory [the common methodology] in practice including a new set up for financing the pilot projects

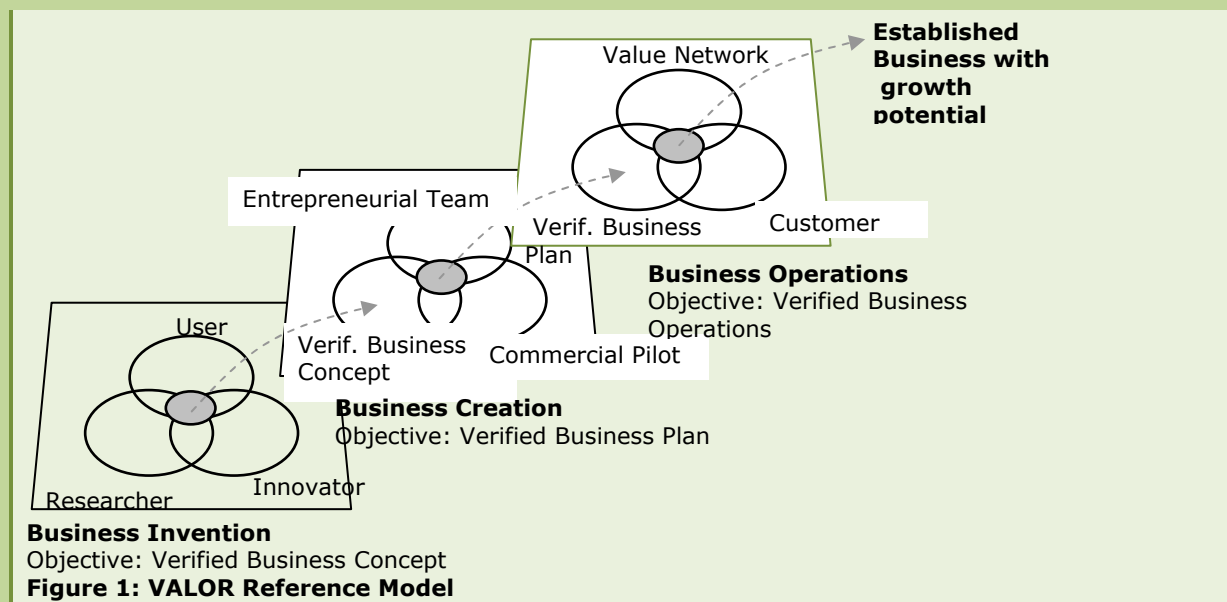
- ✚ the development of a set of recommendations and conclusions for the future of Valorisation in Europe.

A VALOR Reference Model, Common Methodology and Instruments.

One of the Core Outcomes is the Reference Model developed in VALOR .Here three phases, invention, creation and operations in the life of a start up or innovation project (particularly open innovation) can be distinguished, each asking for its own specific support measures..

A variety of supporting measures has been developed under the heading: “VALOR Instruments”, the basic element being that customer’s needs are key and that “administrations” are no longer strictly limited in their possibilities to one specific phase in the project: both parties involved have the freedom now to fine tune their support on a case by case basis.

Figure 1 – the VALOR Reference Model



In the VALOR Pilot Project the feasibility and effectiveness of the approach suggested was tested to daily practice by 8 of the VALOR partners together; 23 projects were approved, funded and evaluated; later on, in the so called “Amsterdam Forum “ on 1 April 2009 , a possible private/public partnership in the finance of projects was tested successfully, although the general conclusion was that the running time of the project was simply too short in time to thoroughly evaluate all actions taken

Preliminary Conclusions and Recommendations

The overall impression is that:

- In Europe there is an abundant number of potential Valorisation cases
- There are many National and Regional and even local funding possibilities to convert these cases into sound and successful businesses
- The missing link still is the combination of converting all these existing possibilities on the continent into one efficient and effective support approach or support system

Based on the work done within VALOR, the pilot and the Amsterdam Forum, some four major conclusions/recommendations can be mentioned:

- ❖ Innovation is of major importance for Europe's industry; R&D support is one of its main building blocks but so is support to bring the results from R&D to the commercial market place; which is essential in fighting the European Paradox.
- ❖ Both issues – R&D support and support to bring its results to the market place - should be tackled in one common approach/way of working , a common methodology and a very restricted set of instruments implemented by European Public administrators and Private investors in partnership, if possible through one of the existing major European Technology Networks.
- ❖ A bottom up implementation of this new methodology is preferred over a top down harmonisation of national and regional programmes through, for instance, the setting up of a transnational European programme; close collaboration with the EUREKA Network would be appropriate, since they share the same goals in contributing to the European knowledge economy..
- ❖ As a consequence a first step might be to carefully checking the feasibility of such a bottom - up approach, aimed at the eventual better coordination and collaboration among existing national, regional and local funding schemes and the European Commission together with private investors.
- ❖ Following on from the promising results from the Amsterdam Forum, VALOR is well placed to trigger political / policy discussions necessary on how to embed and implement its findings and results in a new pragmatic approach.

2. The European Valorisation Deficit

a) In general

National and regional governments across Europe have established a wide range of programmes to stimulate the Valorisation process through funding, business incubators, technology parks etc.. However, the programmes vary substantially, have been designed in an isolated way and not all of them are successful. Furthermore, the specific needs and issues relating to each form of Valorisation, be it spin-off, spin-out, joint ventures or new collaboration projects, are different and the responsible policy makers have only recently started to exchange views and experiences with their European colleagues before launching a new programme. Up to now there is neither a systematic exchange of experience between these kinds of programmes in Europe (beyond some smaller initiatives within the TAFTIE network) nor any substantial attempt to co-operate at European level.

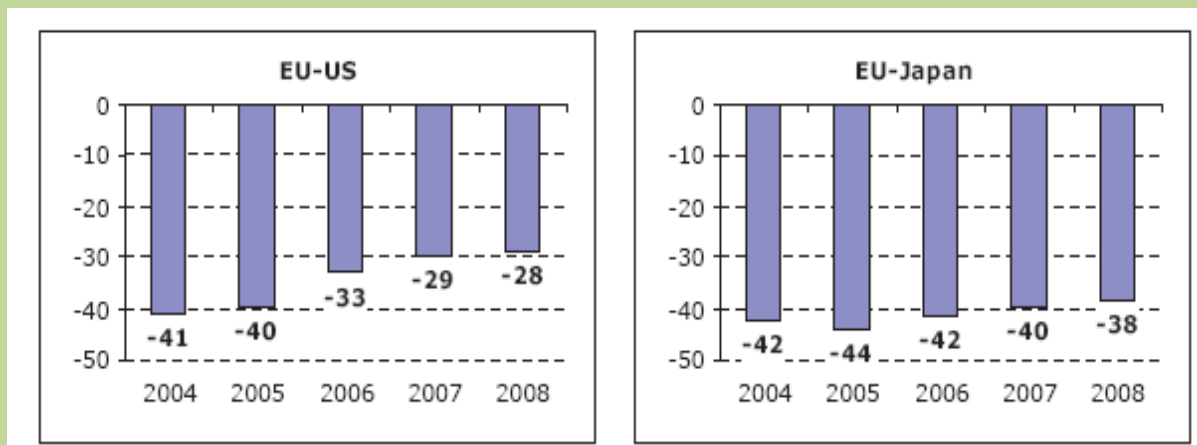
On top of that it must be recognized that EU citizens are less inclined to become entrepreneurs, and are more risk-averse than their American and Asian counterparts. Once a new company has been created, it also tends to grow at a slower rate than in the US.; for example, since 1980, 20% of large firms of comparable age in Europe grew from NTBSMEs, in comparison with 75% in the US.

One of the reasons for this divergence may be the fact that researchers do not know or realise the market opportunities for their research and innovations while on the other hand there is a shortage of skilled business developers able to bridge the gaps that exist between research and finance.

The EU recognised these problems and has made entrepreneurship one of their main objectives since 2000.

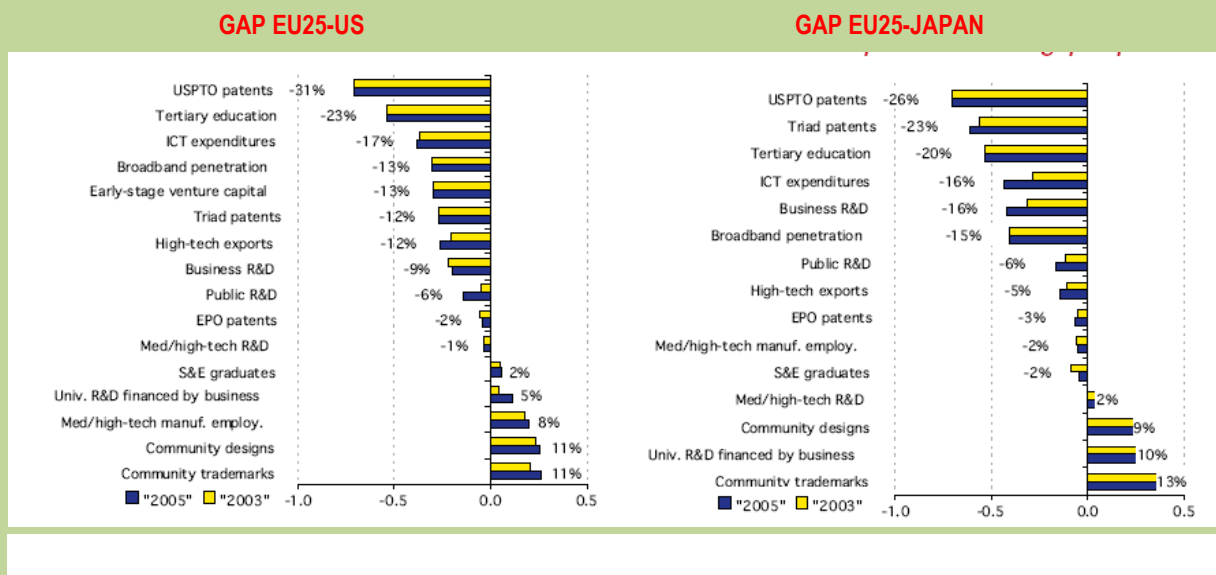
As an illustration, in 2009, the study of a set of comparable data for 16 innovation indicators showed that US and Japan are still far ahead of the Europe. The innovation gap between the EU15 and the US is close to stable

Figure 2 – EU Innovation Gap towards US and Japan



Looking at the US, about 70% of the innovation gap is, in statistical term, explained by lagging EU performance in three indicators : USPTO patents, population with tertiary education and ICT expenditures. With this same logic, more than 60% of the gap between EU25 and Japan could be explain by the USPTO patents, the triad patents and tertiary education. These three indicators are closed related with some of the Valorisation initiatives that we have examined

Figure 3.- EU- US and EU- Japan Comparison



Studies in VALOR concluded that the most urgent issue now is in the creation of a new Valorisation model and methodology at European level and to adopt this as a common approach for all countries. This model could be improved over the years and reinforced, but the model itself and the policy to implement it should be stable in time.

b. Current Situation & VALOR

At its start, the European InnoNet Project VALOR was expected to eventually have a catalytic effect through the establishment of a coordinated transnational and common European approach in the identification, the breeding, the market introduction/growth promotion and financing of New Technology Based SMEs [NTBSME's] ; thus enabling an exchange of best practices among the participating programmes and organisations in key aspects of programme design and management, in order to raise programme efficiency and effectiveness

For the time being VALOR has a "bottom-up" and a demand driven approach; for now the project is recognised as a "demonstrator" for developing and implementing new strategies of transnational co-operation between programmes but in the longer term VALOR might develop into a real transnational European Program.

It has demonstrated how to "Strengthen the European Research Area" through the co-ordination of national programs and activities in Valorisation of knowledge and in the generation, the breeding and financing of NTBSMEs; hence it will substantially help in reducing the effects of the European Paradox.

Project partners in VALOR are convinced that this coordination and later on perhaps the streamlining of national programs should have a "lasting Character"; and in addition the new approach should be very open to applications from newcomers as well as those who already had support in earlier project stages. Specific attention might go to start up's in areas where more intense or longer lasting support is needed, like the life sciences and Pharma.

3. VALOR Achievements

The 15 partners involved in the VALOR project exchanged best practice knowledge from national New Technology Based SME's programmes. Early work packages (WP1 and WP2) provided identification of hurdles and success factors in the Valorisation process in the three phases of the Valorisation scheme, identification, breeding and market introduction/growth; at the same time they determined important legal and fiscal aspects which influence knowledge Valorisation and spin-off generation.

First of all it was agreed that a common model be formulated and adopted by all countries, stipulating regulations regarding the government's involvement in the Valorisation process. furthermore it is clear that the commercialization of R&D results must not be neglected in government support schemes. Without it, efforts invested in R&D are often not realised, as the entrepreneur is not adequately supported at this crucial stage.

This first stage in the project was followed by the determination of a monitoring and evaluation system with output indicators to effectively monitor & measure the outcome as well as the overall impact of the Valorisation process; this to set a new trans-national standard for Valorisation programs; it was decided that the evaluation approach selected had to support and be adapted to the concepts and processes of the reference model [see figure 1]

The development of a common methodology and instruments to implement the valorisation process is one of the most important outcomes of the project ; methodology and instruments suggested are directly correlated to the VALOR reference model. [described above in the Executive Summary]

The objective of the design of this **reference model** is to bridge the gap between research and a business growth in companies. This is done through the Valorisation Process. Thus, the initial model consists of three processes: Research, Business creation and Business Growth.

The model does not denote a linear process even though moving from left to right outlines an increasing commercial maturity, e.g. Valorisation deals with innovations which are subject to a value creation process, creating greater value compared to investments costs.

The approach chosen in this WP is based on looking at the role of the government and its innovation agencies.

According to the approved work plan the objective is to increase the commercial outcome of public research investments and to support joint trans-national innovation policy initiatives that stimulate successful exploitation of public and private research investments. Given this context the model takes an investment oriented view and outlines how a research result is transformed into a successful business or into a business system in an existing or new company.

The instruments chosen to accompany the specific VALOR way of working - in what is called the VALOR methodology - were defined and combined differently in the various phases of the Valorisation process.

Public money will always have a more important role in the early stages, and may be syndicated with seed-, pre-seed or VC financing in the later stages. Coaching has an important role in all stages of the process, but is probably most important in the early stages of Valorisation.

Hence specific support instruments are not presented for each stage in VALOR since from a client perspective there could be a very large number of support measures required that are individual to each project. The projects are unique and the system needs to allow for their specific demands. Consortium members are convinced that producing lists of support instruments/support measures does not add value to the VALOR project but rather creates limitations from a client point of view. As few support measures should be used as possible (maybe only the funding instruments at each stage) and leave the rest of all possible support measures open to the needs of the clients.

Taking the above into account, the recommendation from this Work Package is to complement the VALOR Common Methodology with joint supporting instruments in the form of a **financing** system for each stage of Valorisation – depending of clients needs- , combined with a **coaching** instrument.

In short the recommendation from VALOR to public Authorities in general on how to proceed in

Valorisation cases are summarised as follows:

- **The focus should be on client needs and their individual development plans rather than on specific Valorisation support measures**
- **The use of a few simple easy to understand instruments**
- **A scheme simple in its application and user-friendly without too many legal, administrative and financial hurdles to surmount and allowing “customers” to learn and, to improve and to come back again even if an earlier project has failed**
- **The setting up a proper coaching/training scheme for the entrepreneur**
- **The application of a milestone-based financing model to Valorisation funding to manage uncertainty and risk**
- **The evaluation /assessment of proposals and portfolio projects according to the reference model and some business-critical assessment areas**

And last but not least:

- **The European “de Minimis” rules should not be applicable.**

In addition to the methodology the Consortium developed a set of training models for entrepreneurs guided by an earlier common definition of key requirements for entrepreneurs.

During 2008, in accordance with the schedule, theory was tested in practice through a pilot call for project proposals in order to validate the common methodology and instruments. In parallel a new financing approach in public private partnerships was put to a first test in real life in the pilot projects.

Pilot Call and a new financing Approach implemented in a Twin Approach.

The aim of the pilot call was to test the reference model, the methodology and instruments developed by VALOR, in a field test, through funding innovative R&D projects with potential international impact from various sectors which focus on the commercialisation of research results. The activities supported addressed the different phases of the Valorisation process (invention, creation, operations), as identified in Figure 1. It was intended that projects funded under the pilot call would help in validating specific Valorisation phases. Trans-national technology transfers were the most important..

In total 8 Consortium partners participated in the call as shown below: .

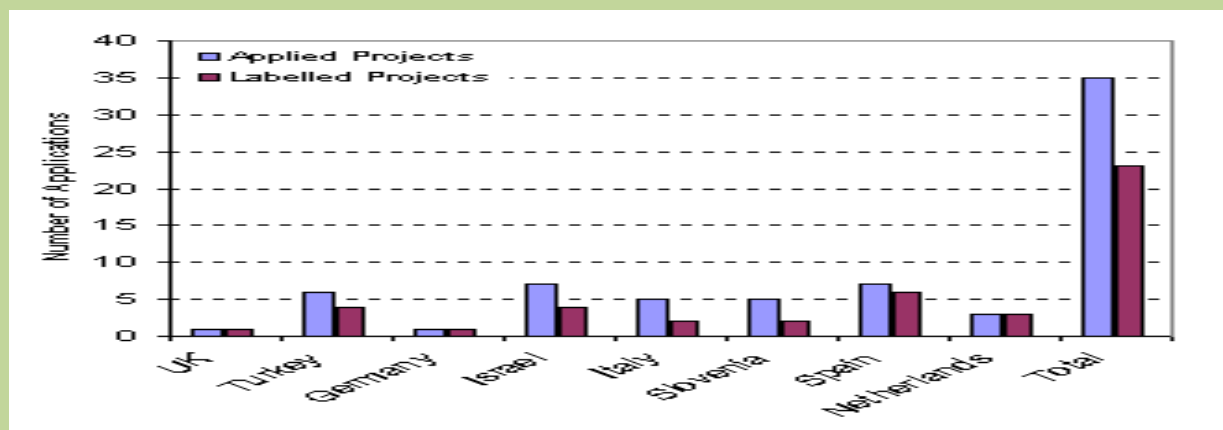
All in all(or In all) 35 proposals came in as a reaction to the call; 23 were evaluated positively and got the VALOR Quality Label, so 12 were rejected.

Many of these rejected proposals lacked “exploitability”: they were too far from the marketplace, and/or too much research oriented, weak in their business planning and/or financial set up.

The Consortium agreed the quality Label to be a guarantee to project participants that:

- ❖ National / Regional support was available and committed.
- ❖ All “soft” support needed would be provided in a transnational approach by all partners; soft support being for instance coaching, patenting support, market surveys etc.

Figure 5. – Joint Pilot Call Statistics



Threats & Opportunities.

When drafting the VALOR DOW it always had been the intention to create a joint common fund of € 5 million through contributions from all partners; to that end all partners signed a **Letter of Intent** right at the start of the project.

Based on the establishment of such a joint common fund private investors would be invited to top up commitments to a maximum of € 10 million, thus creating a Public Private Partnership from scratch on financing VALOR projects.

Once started however it soon became obvious that VALOR participants were more limited in their freedom to participate and invest in the project than anticipated earlier; many discussions took place on the “just retour” of contributions and on national “legal” hindrances to transfer money to foreign projects even in a pilot situation.

A real common fund not being feasible, the way out appeared to be in the establishment of a **virtual common fund** in the sense that participants allocated a specific part of the funding available within their national Valorisation programs to VALOR and its pilot projects.

A good compromise among participants here was in the establishment of an international Joint Committee to assess, approve and “label” VALOR project proposals; in their national proceedings they agreed not to deviate from the international rulings of the Joint Committee in the allocation of national program support.

In fact in financing the pilot project an approach was taken similar to that taken by EUREKA where partners closely collaborate in project implementation, funding the projects in accordance to national rules and regulations.

The absence of a real common fund had some consequences since:

- ✚ projects generated by the VALOR Pilot Call could only be financed under national program’s regimes and in accordance to national rules and procedures.
- ✚ the common methodology and instruments could not be tested in real life cases and as substitute partners agreed to benchmark their own National program procedures against the approach proposed in VALOR.
- ✚ it was impossible now to attract private financial representatives to top-up public with private money; partners however have later on -in the Pan European Workshop in Amsterdam- chosen a project by project approach in the sense that private finance was invited to participate in specific VALOR labelled projects..
- ✚ the VALOR Label as indicated above was difficult to fully exploit due to “national Limitations” caused by National rules and regulations.

A number of eight “Core” VALOR participants eventually contributed to the call and to the virtual common fund collaborating intensely in project generation and financing. In the end 23 projects were labelled VALOR by the Spanish, Turkish, Dutch, Israeli, Italian, German, Slovenian and British partners.¹

The other VALOR partners took a role as observer.

Pilot Call and Finance Approach Outcome.

The pilot call and the financing of its projects had to face many obstacles. The now transparent application of national methods and instruments however provided the project with the opportunity to benchmark national programs’ effects (or “to benchmark the effects of national programs” against the common methodology and instruments as agreed in VALOR; strengths and weaknesses becoming clear, the added value of a better coordinated [or in the future even streamlined] transnational approach seems now well established.

Notwithstanding the fact that a common Fund could never be established, private investors definitely were willing to participate but they preferred to consider participation on a project-by-

¹ Ader, TTGV, TIA, CCIAA, Matimop, NGI, PtJ and PERA

project basis; this became clear at the **Pan European Forum** organized in Amsterdam on 1 April 2009. VALOR-labelled projects were presented to private investors to test their willingness to join in and participate.

Towards the end of the project the Forum successfully gathered representatives of the partner national innovation schemes, SMEs, academics and private and venture capitalists for an intensive series of targeted presentations, panel discussions and sessions of B2B meetings.

The Forum² clearly – and for VALOR successfully demonstrated that: :

- ✚ needs exist among the VALOR projects for further support of R&D projects even beyond the stage of bringing results to the market place.
- ✚ needs exist among the projects, not only for funding in the project stage just mentioned, but even more for “soft” network support to facilitate market entrance across Europe.
- ✚ There is an existing preparedness and willingness among administrators to adopt transnational harmonization of programs and closer collaboration, if and wherever possible.
- ✚ There is an existing willingness to invest but lack of technological capability among private investors to properly assess technology projects on possible market impact; it was made clear that improved exchange of information between technology people and investors with the help of national/regional/local administrations would be wholeheartedly welcomed
- ✚ There are existing needs among projects, not for new networks, but to have assistance from existing pan European Networks like EUREKA and EEN
- ✚ There is an existing need for positive effects to be experienced from a front office/back office approach, in which a common front office, through for instance VALOR- EUREKA, acts as the point of contact especially for network support for the customer and in which national authorities do the processing of requests for support.

Good Practice Guidance

VALOR delivers a set of good practice guidelines for valorisation to contribute to the development of a genuine common transnational methodology and approach in valorisation; it provides present programme owners and programme managers with practical information on organisational, managerial and financial aspects of valorisation support programmes.

The Guidance provides a flexible framework for common agreed principles; it has the character of a living document and is intended to be a point of reference rather than a prescriptive blueprint for all ministries and agencies, in all countries, at all times.

4. Vision

Reflecting on the achievements made by VALOR over the last three years, the project unfortunately proved almost all negative assumptions on commercialisation of R&D Results in Europe are still true; much work has to be done to overcome the gap in between Europe and USA/Asia and it should be done as quickly as possible.

There is however a rapidly growing awareness now among almost all our Consortium countries that a knowledge intensive economy cannot do without a common approach, a common methodology and common instruments to support New Technology Based Firms, but this awareness has not yet developed into a pan European movement to overcome the main blockages for Valorisation in the existing borderlines for National and Regional support Programmes.

In this project it became clear that the missing link between R&D support on the one hand and innovation on the other might be in the establishment of a genuine transnational, common and

² Report on the Forum on www.valorforum.eu

demand-driven European approach in the support of Newly Established Technology Based Firms and Open Innovation Projects; an integrated approach wherein R&D support would be fine tuned with support to companies to carry results to the market place which would improve results even more. As a first conclusion it should be underlined however that to get there, the simple establishment of one harmonised European support Programme for Start Ups and Open Innovation Projects, for the time being seems one bridge too far.

A newly established “top-down” EU Valorisation Programme does not seem to be necessary, so far, since in a “bottom-up” approach most of the obstacles can be removed.

The VALOR project indicates that a “bottom-up” approach, using existing successful European technology Networks like EEN or EUREKA, might be very efficient and effective.

A “Bottom-up” approach as traditionally applied in EUREKA - if politically possible- would fit; EUREKA – or perhaps even better the classic EUREKA combined with the new Eurostars initiative- might even provide an integrated approach for project applicants, supporting R&D on the one hand and commercialisation of the results of that R&D on the other

Partners then would have the opportunity to;

- 🇺🇸 closely collaborate in implementing their own national programmes,
- 🇺🇸 use their own money and apply their own rules and regulations
- 🇺🇸 work under one common “roof”, virtually shaped through a web site guiding “customers” into the real Back Offices
- 🇺🇸 apply in a step by step approach - gradually over time- a more common approach, using the VALOR reference model and methodology, adapting national regimes to transnational practices
- 🇺🇸 work in a Common Front Office set up, supported by many –Consortium Partners’- national Back Offices, where well trained professional “mentors” would bring further added value.
- 🇺🇸 collaborate in a well proven Transnational Valorisation Network (TVN)

5. Implementation

In 2010, the Israeli partner in VALOR, Matimop, will be involved in the Israeli EUREKA Chairmanship, which will last till the end of 2011; Israel is an excellent player in the global arena when it comes to commercialisation of R&D results. Its VALOR participation combined with its future EUREKA Chairmanship may very well offer new opportunities for a new pragmatic and effective Transnational Valorisation approach in Europe and the setting up of a Transnational Valorisation Network.

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29 September 2009.

