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## TRAIN-IT: TURNING INNOVATIVE TECHNOLOGY INTO BUSINESS

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## ABSTRACT

The contribution presents the approach and interim results of the EU-funded Accompanying Measure IST-Business: TRAIN-IT. With a 6-day training course in business plan writing, TRAIN-IT supports all IST (Information Society Technology) project participants in taking their exploitation of project results beyond Exploitation Plan or TIP writing towards actual commercialisation of project results. TRAIN-IT is part of the entrepreneurial support structure and start-up competency at IZET Innovationzentrum Itzehoe, an incubator and international technology transfer centre. Main responsibility of IZET is the steady growth of Hightech Itzehoe, a science park in the north of the Hamburg Metropolitan area in Germany.

#### **INTRODUCTION**

IST Business: TRAIN-IT is an Accompanying Measure in the IST (Information Society Technologies) Programme of the European Commission [1]. The project feeds on experiences gained in a TRAIN-IT pilot action conducted between 1997 and 1999 [2], as well as in the validation project Start-Up Support for Entrepreneurs 2000-2002 [3]. Thus TRAIN-IT, an optimised entrepreneurial training course with a proven curriculum, is a best practice example.

TRAIN-IT provides a 6-day course in writing a winning business plan. The course was especially designed to help exploit the commercial potential of European Research and Development (R&D) projects and to thus significantly increase entrepreneurial activities on a European level. While participants of European R&D projects are, as part of their project tasks, urged to describe the future valorisation of their project results in a so-called Exploitation Plan or Technology Implementation Plan (TIP), they are not actively stimulated to exploit the commercial potential of their findings by setting up new businesses or expanding existing business in new areas of valorisation.

The original underlying rationale of the TRAIN-IT approach of bridging the gap between the "European IT brain" and its supporters = potential investors and strategic partners, is illustrated in the following graph:



The TRAIN-IT course is regarded as the missing link between technological potential and business activity. Its special focus is on market research, marketing & sales and financial planning, as it is a course aimed at technologists, most of whom are researchers and theoreticians who are not generally familiar with these central aspects of business planning.

Gesellschaft für Technologieförderung Itzehoe mbH, sole contractor and organiser of TRAIN-IT, endeavours to lead the entrepreneurial potential among participants of ongoing or finalised R&D co-operation projects towards business planning and start-up. European Commission funding entitles participants of the IST Programme and its forerunner ESPRIT to free course attendance. Active start-up support, both intellectually and financially, is thus offered.

Venue of the TRAIN-IT courses is IZET Innovationzentrum Itzehoe, incubator and technology transfer centre with international scope. Main responsibility of IZET is the steady growth of Hightech Itzehoe, a science park in the north of the Hamburg Metropolitan area Hamburg, Germany. Based on an international network of quality contacts, IZET is able to provide firsthand expert advice and connection to financial sources to TRAIN-IT course participants.

Between September 1997 and March 2003, 400 participants mainly from European ESPRIT and IST co-operation R&D projects have been trained in 40 TRAIN-IT courses. TRAIN-IT participants have so far started 55+ new IST companies all over Europe.

The following topics are covered in this paper:

- An introduction to the TRAIN-IT rationale: linking IST innovators with business and finance through providing hands-on expert training in business plan writing and sharing existing networks
- A presentation of the curriculum and methods of training, pointing to the relevance and structure of a winning business plan addressing the various types of financing sources
- A presentation of interim project results and factors of success and failure of entrepreneurship in European IST, including exemplary profiles of first TRAIN-IT success stories listed in the Annex.

## CONTENT

In accordance with the EU policy to support innovative technologies with a view to pan-European economic growth and job creation, the main objective of TRAIN-IT is to pro-actively support the commercial exploitation of technology project results by stimulating and assisting entrepreneurial activities. TRAIN-IT provides a 6-day training course in business plan writing, including 12 months follow-up support. IST project participants receive free training through funding from the European Commission.

A business plan is the basis of any sustainable business activity: whether planning a new start-up or spin-out of a company or institutional department, an expansion of an existing business or the preparation of a new strategic partnership. A substantiated business plan is the link between entrepreneurial potential and investors or business partners seeking an attractive offer. Next to its external uses, the business plan serves as the internal instrument with which an entrepreneur examines the capacities of his business, defines and continually monitors his strategy and goals. TRAIN-IT participants are alerted to the fact that a business plan is a living document which needs to be constantly updated and adapted to new market developments.

## **TRAIN-IT Proven Course Curriculum**

At the core of the TRAIN-IT methodology are five modules:

- Lecture sessions: professional input by international experts and experienced entrepreneurs
- Individual coaching sessions with TRAIN-IT experts: personal feedback and advice, discussion of problems and issues specific to each business plan
- Writing sessions at password-protected PC-work places with state-of-the-art computer equipment: opportunities to reflect and incorporate new information into the business plan draft
- Presentational exercise: development and improvement of "elevator pitch" through feedback from experts and the group and video analysis
- Follow-up support after course participation: iterative evaluation of business plans and mediating of business and financial contacts

Through the successive training steps of lecture – individual coaching – active writing sessions, the course participants are enabled to feed the new knowledge gained and the business case-specific advice obtained directly into their business plan drafts during the writing sessions. In the coaching sessions, the business model in its entirety is discussed and examined with the participants, adding hands-on, pragmatic guidance and encouragement from the TRAIN-IT experts.

In the elevator pitches, participants are asked to present themselves, their planned venture and their offer to an investor or potential business partner in 1 minute. This exercise serves to help the participants focus on the main features and benefits of their product or service without getting lost in technological details. Next to the content and structure of the elevator pitch, the participants' presentational style – body language, tone and volume of voice, enthusiasm or the lack of it – are analysed by experts and fellow participants. In an individual

video analysis coaching session, each participant views himself on video and discusses his impressions and suggested steps for improvement with the TRAIN-IT team.

Per course, 7-8 representatives from the TRAIN-IT experts pool, currently consisting of 40 persons, share their experience and give practical advice in lectures and one-to-one coaching sessions, with special regard to the focal points of the business plan:

- Market research and competitive analysis
- Marketing & sales of IST companies
- Financial planning and forecasting
- Financing: VC, bank, business angel how they can help and how to approach them
  IPR and patent issues

The TRAIN-IT course week is based on the following structure:

	Sunday				
	Welcome Reception "Motivation Speech"				
Time	Monday	Tuesday	Wednesday	Thursday	Friday
900	Welcome	Elevator pitches	Elevator pitches	Elevator pitches	Elevator pitches
930	<b>.</b>	Lecture: "Market	Lecture: "Successful	Lecture: "Marketing	Lecture: "Financial
1000 1030		Research / Competitive Analysis"	Financing with Venture Capital"	and Sales of IST Companies"	Forecasts"
1100	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
1130 1200 1230 1300	Introduction to PC facilities/Kick-start the BP writing process	Business plan writing Individual coaching			
1330 1400 1430	Lunch	Lunch	Lunch	Lunch	Lunch
1500 1530 1600	Lecture: "IPR and Patent Issues"	Business plan writing Individual coaching			
1630	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
1700 1730		Business plan writing	Business plan writing	Business plan writing	Business plan writing Individual coaching
1800 1830	Individual coaching	Individual coaching	Individual coaching	Individual coaching	Final Wrap-up
1900		Daily Wrap-up /	Return to hotel	Daily Wrap-up /	Return to hotel
1930	evaluation	evaluation		evaluation	
2000	Open PC facilities for	Open PC facilities for	Midweek Dinner	Open PC facilities for	Farewell Dinner
until 2300	Business plan writing	Business plan writing		Business plan writing	
2300					Saturday
					Open PC facilities for
					Business plan writing

Each day addresses one of the main chapters of the business plan in a lecture, followed by individual coaching sessions alternating with writing sessions. Ample time for business plan writing is allotted, with additional working time offered in the evenings and on the Saturday following the course. Due to the privileged situation of having experts on all relevant subjects at the participants' disposal over the extended period of one working week, the process of business plan writing is successfully started and significantly accelerated. Time to market is, of course, a crucial issue in the area of fast-developing IST technologies.

In addition, the international environment of the courses helps participants gain knowledge about European and global markets, international competition and business development. In particular, the business surrounding of the incubator IZET Innovationszentrum Itzehoe with its young companies enhances the opportunities of networking and learning from peers, or even starting a co-operation.

#### **TRAIN-IT Business Plan Guidelines and Template**

In the TRAIN-IT courses, an optimised business plan structure has been developed, which has become standard TRAIN-IT training material. Course participants are advised to use this structure, which covers all chapters and subchapters of a substantiated business plan:

1 EXECUTIVE SUMMARY			
	6 MANUFACTURING AND OPERATIONS		
2 THE PRODUCT/SERVICE	6.1 The Production Process		
2.1 Detailed Definition of the Product or Service	6.2 Suppliers: Purchasing Policy		
2.2 Position of the Product or Service in the Market	6.3 Manufacturing Concept		
2.3 The Technological Environment	6.4 The Unit Cost Price		
2.4 Research and Development Work	6.5 The Production Budget		
2.5 Protection and Issues of IPR	-		
2.6 Standards and Regulations	7 THE COMPANY STRUCTURE		
	7.1 Company Organisation		
3 THE MANAGEMENT	7.2 Legal Structure		
3.1 Description of the Management Team	7.3 Overhead Costs		
4 MARKET	8 COMPANY PROJECTIONS		
4.1 Description of the Market	8.1 Company Projections		
4.2 Customers	8.2 The Entrepreneur's Projections		
4.3 Market Structure			
4.4 Market Segmentation	9 RISKS, PROBLEMS & ASSUMPTIONS		
4.5 Market Potential and Development	9.1 Company		
4.6 Competition	9.2 Environment		
	9.3 Factors of Success		
5 THE MARKETING PLAN			
5.1 Market Study	10. FINANCING		
5.2 Product/Service – Market Relationship	10.1 Financial Projections and Assumptions -		
5.3 Market Positioning	Worksheets		
5.4 Determining the Sales Price	10.2 Financial Plan – Narrative		
5.5 Sales and Distribution Strategy	10.2.1 Assumptions		
5.6 Sales Force Management	10.2.2 Summary/Analysis of Financial Statements		
5.7 The Promotional Strategy	10.2.3 Capital Requirements		
5.8 The Marketing and Operating Budgets	10.2.4 How Funds Will Be Used		
5.9 Distribution	10.2.5 Exit/Payback Strategy (Investor's Return)		
	10.2.6 Conclusion		

The TRAIN-IT business plan structure is provided to the course participants in two different formats:

- TRAIN-IT Business Plan Guidelines: in this comprehensive document, each chapter and subchapter of the business plan is analysed and explained, with key questions guiding the participants along the business plan writing process
- TRAIN-IT Business Plan Template: with this MS Word template, course participants receive a chapter structure into which they can directly type their own business plan document

It may be noted here that in the pilot TRAIN-IT courses business planning software was tested. The experiences made were on the whole unsatisfactory. Participants were spending more time on learning how to use the software than on the actual business plan writing. The document administration features of the software were not notably more comfortable than any that can be achieved with a word processing programme. Moreover, it was observed that software-supported business plans tended to be stereotypical in both appearance and content. In consequence, the TRAIN-IT Business Plan Guidelines and Template were developed and have been in use for over three years with great participant approval and excellent business plan quality outcome.

## **TRAIN-IT Follow-Up Support and Expert Network**

TRAIN-IT participants make utmost progress with regard to business plan writing in one week. Although possible, it is not expected as a rule that participants finalise their business plans during the course week. In order to keep the entrepreneurial momentum and to ensure that business plan drafts will be completed successfully, the participants are given follow-up support. This includes mentoring through the TRAIN-IT team and expert network, providing further information and advice, as well as establishing contacts to potential investors or business partners.

The follow-up procedures for each business case are conducted on an individual level, based on personal participant files which contain the notes made during the coaching sessions and all follow-up communication. Participants are encouraged to submit their business plan drafts for comments and further refinement until finalisation. The development of the planned ventures is closely followed and assisted where possible.

Since its foundation in 1994, IZET has established an international network of business and financial contacts, as well as the participants of all TRAIN-IT courses. This network is available to TRAIN-IT alumni for further coaching, general advice, and useful business contacts. Further TRAIN-IT activities such as annual workshops are organised in order to strengthen and enhance the network of alumni and experts and to present success stories out of the TRAIN-IT community – within but also beyond the European Commission environment.

The features of the TRAIN-IT course can be summed up in these decisive factors, which are also frequently pointed out in participant evaluations as the main assets of TRAIN-IT:

- Hands-on, individual approach
- Intensive and individual training, limited participant number
- Access to international experts during and beyond the course
- Networking opportunities during and beyond the course
- Follow-up support
- Accelerating the time to market process

#### **TRAIN-IT Interim Project Results**

In order to assess the effects of the TRAIN-IT course, a survey was conducted in autumn 2002 among the participants of 10 TRAIN-IT courses held between November 2000 and August 2002. The aims of the survey were to trace the factors of success and failure of entrepreneurial activities in an environment of unfavourable economic conditions in Europe today and to examine to what extent entrepreneurial training can contribute to the successful finalisation and implementation of a business plan, leading to a sustainable venture.

The results of this alumni survey are presented in this paper. The first-hand information obtained directly from the entrepreneurs themselves, and the resulting statistics and factors of success and failure provide valuable insights into the current entrepreneurial scene in Europe in the area of IST. First TRAIN-IT business success stories were profiled as a result of the survey and are presented in the Annex.

The results and statistical data presented are based on the following numbers:

• 10 training courses — 101 participants (80 male, 21 female) — 85 business cases

## Participants' Nationalities and Business Sectors



The 85 business cases represent the business sectors demonstrated in the next figure. The participant profiles in relation to the business cases reflect a majority of scientists and researchers, predominantly in the sectors of engineering and software development.



## **Creation and Implementation of Business Plans**

The following graph represents the numbers of business plans created and their ways of implementation:



- "BP ready" = the number of business plans (BP) finished
- "BP ready soon" = the number of business plans to be finished soon
- "BP shelved" = the number of business plans discontinued
- "Start-up" = the number of new companies started-up shortly before or after course participation
- "Start-up soon" = the number of companies to be started-up within the next 3-6 months
- "Spin-off": the number of new companies spun-off from a university, research institution or existing company
- "Spin-off soon" = the number of spin-offs to be created within the next 3-6 months
- "Existing business": in these cases, the TRAIN-IT business plan was written and implemented in an existing company, e.g. in the general expansion of the company, the setting-up of a new department, the introduction of a new product line, the acquisition of an external partner or a new customer segment.

Of 85 business cases, 60 have finalised or will in the foreseeable future finalise their business plans. This result reflects an anticipated business plan completion rate of 70,5%. The survey revealed that on average a finalised version of the business plan was ready 2.5 months after course participation.

All participants confirmed that the participation in the TRAIN-IT course had helped them realise the significance of a winning business plan, in structuring and focussing on the main issues and in accelerating the writing process.

91% of the business cases who have finalised their business plan took advantage of the TRAIN-IT follow-up support offer. Iterative commenting and corrections of business plan drafts, as well as mediating of contacts to experts, investors or potential business partners and hands-on support in finance-seeking were found to be most helpful. The peer-networking opportunities forstered by TRAIN-IT were readily taken up.

The following reasons were given for suspending the business plan writing process:

• Waiting for an uptake in the economic development, hoping for better general conditions for starting-up a company and exploiting the business idea at optimal profit. With regard to the current venture capital market: fear of having to give away too large a piece of the company at too low a price

- Delay through revisions of the original business idea
- Pending success or failure in obtaining financing or public funding
- Pending decisions of the mother company or institution on the future path of the planned business
- An advantage of the competition which is estimated as unbeatable: the competition may be more advanced and faster on the market, better qualified, financially supported by investors or powerful business partners. These factors may lead to the realisation that the venture has no realistic chances of establishing itself on the market, unless a revised business idea is developed.
- A number of participants have decided to stay with the (allegedly) safe employment they currently have rather than opt for self-employment. This attitude is due to unfavourable economic circumstances on a global level, the difficulty of obtaining investment, as well as a lack of entrepreneurial spirit, which has always involved a readiness to take on risks and "think big".

An implementation of business plans has taken place in 44 cases so far, i.e. the sum of 21 "Start-ups", 2 "Spin-offs" and 21 implementations in "Existing business". A further 7 "Start-ups" and 11 "Spin-offs" were to be founded within the next 3-6 months. These results reflect an anticipated implementation rate of 62 out of 85 business cases, i.e. 72.9%. The 23 start-ups and spin-offs created were set-up in the years 2001-2002. They are still in the early stage. A slower development of companies, especially in comparison with the high time of the New Economy, can be observed. Significant changes have to be considered for the years 2001, 2002 and 2003, in comparison to the years 1999-2000, where venture capital was readily given out and companies were growing faster – however, also failing faster. Security of investments is becoming a new value from the perspective of innovators and investors alike.

The 23 start-up and spin-off companies were founded within six months after or indeed before TRAIN-IT course participation. In the latter case, the course participants had either registered their company early for formal and legal reasons before completing the business planning phase, or they had taken up work and realised in hindsight the necessity of having a well-defined business plan not only to interest external partners but also to structure and monitor their own work, goals and achievements within the company.

90% of the company founders have chosen the legal form of a limited company. The remaining 10% are privately owned at this point in time. 96% of the start-up companies have an international focus. Most of the companies are based on B-to-B business and seek a position as market niche leader.

The number of employees ranges from 1 to 20 persons, averaging at 5.5 persons. Approximately 35% of employees are PhD students and freelancers. The potential for job creation over the next 1-3 years is between 0 and 25. 15 of the start-up companies are planning to increase their staff, at an average number of 9.5 persons per company. Qualifications of personnel employed and sought centre on software development and consultancy, engineering, marketing & sales, financing, and administration. There is a high demand in qualified R&D personnel.

In some cases, participants are marketing their products from within their mother company or institution and will start-up or spin-out a company if the business line proves profitable and promising enough to be sustained on its own.

## **Economic Situation and Financing Options**

In post-New Economy times, entrepreneurs as well as investors have gone through a change of mindset. Times in which new IT-companies obtained high venture capital investments quickly on the basis of slim business concepts are over. Present-day entrepreneurs think their business concepts through very thoroughly in order to produce better business plans which may find acceptance from the investors who have become much more critical with respect to the viability proof of a planned entrepreneurial activity. A return to "Old Economy" values can be observed. A significant number of TRAIN-IT course participants prefer so-called "organic growth" of

their companies, at lesser speed and with more control. There is a tendency to seek alternatives to venture capital, for two main reasons born of the effects of the New Economy bubble burst: firstly, entrepreneurs know that few VCs invest in the start-up and seed phase and secondly, entrepreneurs are not willing to give away large company shares and lose control over the development of their companies.

The following figure illustrates the main reasons for failed investment negotiations, based on a survey conducted by the German Business Angels Panel [7] in July 2002:



It was observed in the TRAIN-IT alumni survey as well as in current economic news that both investors and entrepreneurs have become wary of one another:

• Many venture capitalists are hesitant to invest money in particular into start-ups and early stage ventures. With a view to long-term company development, an Initial Public Offering is currently not a promising option, as hardly any IPOs are realised at today's stockmarket. Entrepreneurs, for their part, are shying away from VCs partly because they do not see a chance of winning venture capital, but also because they do not wish to give away a high amount of company shares and with them the option to direct the company's future and keep their independence. Several participants expressed their frustration about having been rejected by VCs and their decision to opt for other ways of realising their company goals.

One route of proposal to VCs taken by several participants is to ask for financing in the name of their established mother companies, as they are aware that VCs are reluctant to invest in start-ups.

- Banks want high security and demand collateral for credits which start-up entrepreneurs as a rule cannot provide. Hesitation on the part of the bank has in more than one TRAIN-IT case led to losing an opportunity for the entrepreneur.
- Business angels are strongly favoured by many TRAIN-IT participants who prefer partnering with a strategic expert who has professional insights into their business sector, expertise and large networks to share. However, participants have found that identifying and contacting the right business angel is difficult. According to participants' experiences, business angel networks have not proven helpful in mediating contacts to business angels and lack themselves the technological expertise to assess whether the venture is of interest to a business angel from their portfolio.

Moreover, the often long process of investment proposals and negotiations poses a particular problem for start-up companies, as they do not have the financial capacity to outlast decision-making processes. One option to meet such challenges are easier and faster obtainable small

scale grants or micro-investments, which are increasingly offered by for-profit business incubators and public institutions.

Public funding is strongly favoured by many of the TRAIN-IT business cases, and those who currently strive on it feel safe and relaxed. It is feared that to a certain extent this form of funding may keep participants from taking the actual entrepreneurial step of founding an independent company. Those TRAIN-IT participants who have applied for public funding but not yet obtained it have commented on the lengthy processes of obstructive bureaucracy, which has delayed their business processes by up to a year in some cases.

A very high number of TRAIN-IT business cases -67 out of 85 – is not seeking financing at all, as they are supported by their mother company/institution or striving on the income generated from their business activities only. The latter option is derived partly from conscious decision against external capital = influence, and partly from failure to obtain external financing. The strong backing by mother company or institution (university, research institute) is clearly indicative of the IST project-based participant profile.

Of the 85 business cases, 25 have sought or are still seeking an investment from an external source. 8 of these business cases have been able to receive funding (initial or continuous) so far.

The general movement among participants, in particular as compared to the TRAIN-IT pilot project conducted 1997-1999, may be described as "greater modesty, greater control": as Figure 1 shows, 77% of TRAIN-IT participants seek amounts between zero and  $\leq 1$  million for initial funding. This amount was sought by 69% of the participants of 1997-1999, as depicted in Figure 2. The number of participants seeking  $\leq 1$  to 3 million is identical in both evaluations. However, the current TRAIN-IT group is not proposing investments of over  $\leq 3$  million, whereas among the 1997-1999 group 8% sought an investment of up to  $\leq 20$  million.



Figure 1: Initial Financial Need





As Figure 3 demonstrates, most TRAIN-IT participants are financed out of private funds or financially backed by their mother company or institution, e.g. supported by their university infrastructure and funding. Business angels/strategic capital and public funding are the two options predominantly considered by TRAIN-IT entrepreneurs. Notably, being mostly IST project participants, many TRAIN-IT entrepreneurs strive on EU-project funding.



Figure 3: Favoured Financing Options



Figure 4: Results from the TRAIN-IT pilot action 1997-1999 in comparison

The general development observed is the move away from external investments most notably through banks and VCs. This development is partly rooted in resignation as investments are difficult to obtain, but partly also in the wish to retain entrepreneurial independency. Moreover, as can be seen from the interim results presented in this chapter, most of the TRAIN-IT participants are not yet investor-ready or indeed do not seek external investments.

## CONCLUSION

In general terms, one can say that while in the years of the New Economy the route of financing seemed to be clearly cut out and easy to take, today's situation is more varied and complicated. However, it has led to positive thought processes especially on the part of the entrepreneurs as to their thorough business planning and their opinions about the conditions under which they wish to enter into an investment relationship. Clearly, the quality of the businesses on the market today is very high. It will, however, take confidence and a readiness to take risks on the part of the entrepreneurs as well as the investors to bring out their potential.

It can be observed that, especially in the times of general economic recession following the "New Economy" bubble burst, a hands-on approach based on expert advice and continued support as offered through TRAIN-IT proves most efficient for the start-up of viable companies.

The central features of the intensive 6-day hands-on course – individual coaching, follow-up support, mediation of contacts and networking – lead to tangible benefits for the participants which are considered as valid recommendations for entrepreneurial training measures. The profits of the intensive hands-on TRAIN-IT course as reflected in the survey outcome can be summarised in the following way:

- Helping the participants focus on their business plan writing and on "getting it done"
- Decisive impact on business plan writing and start-up, entrepreneurial motivation and support
- Providing support to structure content on the basis of the TRAIN-IT Business Plan Guidelines and Template
- Providing expert feedback and advice regarding all chapters and aspects of the business plan
- Mediating access to potential investors, business and strategic partners during and after the course
- Optimisation of time to market through acceleration of the business plan writing and company start-up process
- Optimisation of company sustainability through a viable business plan

• Creating a pan-European community of entrepreneurs and experts, thriving on mutual support and exchange of experiences.

It is a significant observation that the most successful TRAIN-IT alumni have all taken advantage of the TRAIN-IT follow-up support and networks.

Quality control based on participant and expert evaluation of each course contributes to ongoing optimisation of the course and swift adaptation to new challenges and needs based on economical or other changes through time. The ultimate goal of the organiser is to establish the TRAIN-IT course concept as a training measure for European entrepreneurs on a permanent basis.

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## **ANNEX: TRAIN-IT Business Success Stories**

CONDIAS GmbH Conductive Diamond Products Itzehoe, Germany Internet: www.condias.de

The innovative technology of DIACHEM<sup>®</sup> conductive diamond electrodes was developed in co-operation between the Fraunhofer IST Institute for Surface Engineering and Thin Films and CSEM, the Swiss Center for Electronics and Microtechnology. DIACHEM<sup>®</sup> electrodes exhibit numerous advantages with regard to water treatment, electrochemical synthesis and special galvanic applications.

End of 2000, the two founders Dr. Matthias Fryda and Dr. Thorsten Matthée decided to start-up the company CONDIAS GmbH to further develop, produce and sell diamond coated electrodes for industrial applications. Based on TRAIN-IT support (TRAIN-IT course participation: December 2000), a business plan was written, financing was obtained through mediation of contacts from IZET, and a site decision was made in favour of the science park Hightech Itzehoe. Since August 2001, CONDIAS GmbH is neighbour of Fraunhofer ISIT and IZET Innovationszentrum Itzehoe. CONDIAS GmbH is fully operational and expects to grow from currently 9 employees to 25 by the year 2006.

"The full TRAIN-IT support enabled us to accelerate our business planning and realisation and move forward at optimal speed." Dr. Matthias Fryda, co-founder and Managing Director of CONDIAS GmbH





Dr. Gerold Neumann - Managing Director of Solid Energy GmbH, Prof. Dr. Anton Heuberger - Director of Fraunhofer ISIT, Dr. Bernd Rohwer – Minister of Trade and Commerce for the state of Schleswig-Holstein, Dietrich Austermann – Fraunhofer Curator, Harald Brommer – Mayor of the City of Itzehoe, Dr. Matthias Fryda and Dr. Thorsten Matthée - Managing Directors of CONDIAS GmbH, and Dr. Ingo Hussla – Director of Gesellschaft für Technologieförderung Itzehoe mbH (right to left) ©picture by hirseweb



CVD production machine; ©picture by hirseweb



CONDIAS GmbH production facilities in Itzehoe, Germany

**Overview of First TRAIN-IT Business Success Stories:** 



