

## **PERIPHERA : Supporting self employment through Telematics**

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### **Introduction**

The PERIPHERA project is supported by the CEC DGXIII-C TAP Urban and Rural Areas specific programme (project UR1022), and by the public service providers and community organisations who are its partners. The aim of PERIPHERA is to demonstrate the utility and practical viability of deploying Telematics technologies to provide access to the world of work for a number of marginalised groups. The issues driving social marginalisation are derived from a wide set of causes, and no single project can hope to cover all of that broad sector of social dynamic. However, PERIPHERA has implemented seven distinct applications sites, each of which addresses a part of the general problem which has high value locally. This ensures commitment at the local level, perceived value of the outcome, and the opportunity at the project level to combine the results and to learn from a wide set of experiences so as to facilitate formation of a general appreciation of how social and economic marginalisation can be addressed Europe wide.

The remainder of this short paper, and its accompanying presentation, attempt to share the experience of PERIPHERA to date, including its examination of requirements, its definition of attractive solutions, its early verification pilots which tested such solutions with a sample of users, and the results of these pilots which now shape the remainder of the project in a significant way.

### **The PERIPHERA Objectives in European Collaboration**

The PERIPHERA project started with the identification of a general problem for “regeneration” activities in both urban and rural areas. Intensive training strategies are widespread, and much of it is successful in promoting access to work - especially new forms of work - for disadvantaged groups. However, there are still significant minorities who cannot capitalise easily on training due to further barriers.

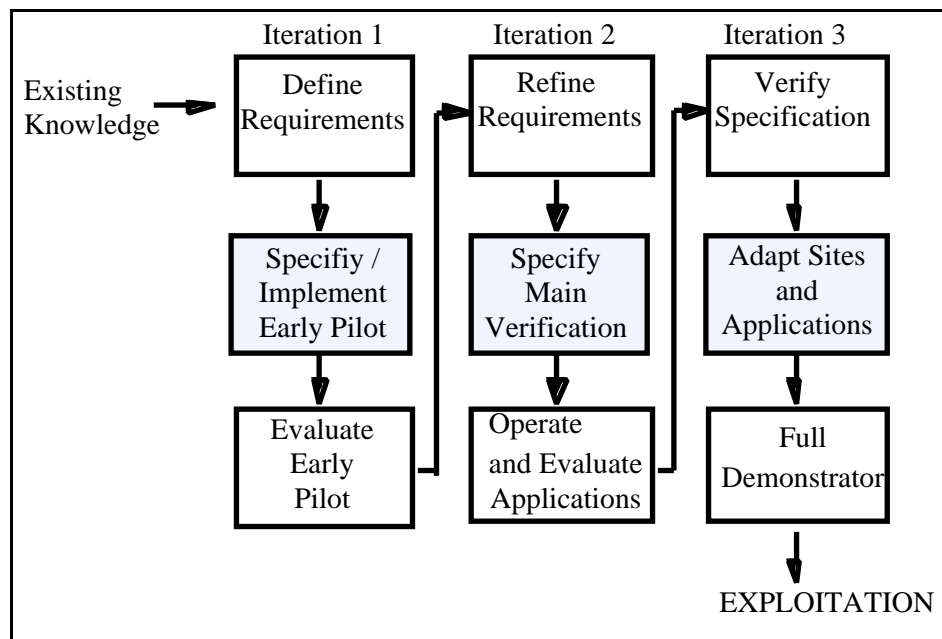
The originating case was that of ARTEC in London who are a community based multimedia training and development group. Most of their graduates are taken up by the new media industry in the city, and others find they can begin working as freelancers or SMEs. A minority cannot follow these pathways for different reasons : dependent children do not allow standard working hours; ethnic minorities face significant barriers; lack of “history” in education or in the media field reduces employer confidence; etc. Yet these are all highly skilled and very creative people. An identified solution was to assist them to turn training into jobs in a “self help” scenario where they could make their own work space, and it was quickly identified that many other organisations in Europe face similar problems. European collaboration was therefore chosen as the best way to integrate this local issue into an examination of the general problem of integration through training with planned access to work opportunities through self-help.

### **PERIPHERA Project Approach**

The PERIPHERA project is an “applications” project in every sense, since the various public authorities and community groups who support it, and who are its participants, want to develop real solutions to reduction of marginalisation through exploitation of Telematics for flexible working at distance. The key aim of the project is to develop implemented strategies which will clearly demonstrate practical ways in which different marginalised groups can gain better access to the socio-economic life of Europe.

The history of system engineering shows that purely analytic or laboratory based approaches can devise requirements and solutions which have internal consistency and validity when compared with the problem. Yet they often fail because the users have been involved at too late a stage, and important information was missed. The PERIPHERA project has been run by user organisations from the outset, and has involved real users from the first stages. This is both desirable and necessary, since the new applications must fit well with users real needs.

To further reduce risk in designing solutions to a complex problem such as marginalisation, the project has employed an “iterative” approach to development. Each cycle includes a re-examination of requirements, then an improved and refined expression of the proposed solution, and then a realistic and rigorous test involving evaluation in the field with real users exploring real task situations. This “evolutionary” approach is illustrated in Figure 1 following.



**Figure 1. Iterative Approach**

Each of the host sites involved in PERIPHERA is committed to maintaining a fully operational site at the end of the project which exploits the shared experience of the partners across Europe. While each site is a special case, addressing a real local problem, together they cover a range of issues and so can produce a consolidated perspective for wider benefit. So what of the specific applications under development ?

### The PERIPHERA Sites

The seven PERIPHERA sites are now operational on a small scale, having completed the early pilot stage, and their activities are now planned to “evolve” incrementally towards the larger operation which each intends.

**London, GB :** The London site is hosted by ARTEC, a multimedia training agency operated by the London Borough of Islington. ARTEC train gifted but unemployed people in “electronic arts”, multimedia and Web Site design, and have a good track record in finding jobs for trainees. A minority cannot find work because of further barriers as described in the introductory example, and so ARTEC have expanded their premises, and equipped the new area to allow trainees to begin working for themselves as SMEs and freelancers. Already the concept is proving workable, and the new businesses have a range of clients including Sony, Einhorn (designer), Photographers Gallery London, and many more. They have produced a first Virtual Reality tour of a London shopping area, and are currently expanding their business by producing CD-ROMs, Web Sites and VR content for clients such as Real Estate Agents.

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**Hasselt, BE :** The Hasselt site is hosted by TeleOffice, a new teleworking company set up by the Municipality’s training arm to allow disabled people to work on commercial contracts. There is an established initiative in training disabled people in IT, yet some cannot find work because of mobility and integration barriers. TeleOffice have extended their premises and established a “Customer Call Centre” which is small scale and allows disabled people to provide the “front office” function for their first client who is a department of the Municipality. By out-sourcing work the Municipality benefits from the Call Centre approach in the usual ways, and also improves its performance in encouraging employment for disabled people. The centre is now expanding to provide a complete “multi-lingual one stop shop” for a range of customer call services, and is negotiating commercial contracts to expand its portfolio of work for the disabled group. Disability does not diminish the level of service quality !

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**Nottingham, GB :** The Nottingham site is hosted by Newlink, a registered charity committed to the training of disabled people in IT and related work. The host has four remote centres in an area of low population and low industry, and has interconnected these using Telematics technologies to provide a “virtual organisation” of greater mass (Centrex services and ISDN bridges). Each centre had previous

success in obtaining small contracts, but together they can now compete for larger contracts. The wide-area network and videoconferencing supports distributed management, distributed working, and also remote training of disabled people - even in their own homes.

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**Magherafelt, N.Ireland** : The Magherafelt site is hosted by Network Personnel, who are an established community organisation in a remote rural area in the north of Ireland. The host has extensive experience of training unemployed young people in basic IT, but many trainees cannot find work and so migrate. In order to create work opportunities the host has expanded its premises and implemented a new centre where young people are trained in multimedia, graphics and presentation, and web site design. They also teach business development with special emphasis on the new multimedia markets, and trainees have produced multimedia promotions for local companies. Web site design for local companies has attracted local attention and local SMEs are also seeking training in Telematics usage.

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**Hoensbroek, NL** : The Hoensbroek site is hosted by FASTT, an established agency for training disabled people in IT. While many disabled people can exploit new IT skills to find jobs in NL, many face continued barriers. FASTT have extended their premises and equipped a new centre to increase training in web site design, HTML and JAVA programming, database integration, and distributed collaborative working using BSCW. The pilot there employed 6 disabled students who are already responsible for more than 12 web site designs for commercial companies, and the site is now implementing additional support for small business startup.

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**St. Michielsgestel, NL** : The site in Sint Michielsgestel is hosted by the Instituut voor Doven (IvD) who are the largest education centre for deaf people in the NL. Training covers all ages up to further education and craft training, but finding jobs for deaf people is quite difficult due to communication problems. It is felt that teleworking is a viable route to success, so long as client contact is supported, and a telecentre has been established including an ISDN PABX, videophones for communication, and standard office equipment. The concept has been proven within a "simulated company" environment, and the pilot showed training and implementation of administrative telework on a range of standard tasks. The site is now negotiating commercial contracts for the main phase to show how deaf people can exploit telework opportunities for reduction of marginalisation.

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**Scariff, IE** : The Scariff site is hosted by East Clare telecottage, an established telecentre with training links to the local community in remote, south-west Ireland. ECT have extended their premises and implemented a low cost "Customer Call Centre" technology which is scaleable from 3-99 desks, and allows connection of remote (homeworker) agents. The new technology has proven to be a significant addition to the menu of services offered by this telecentre, and already teleworkers have been trained in its usage. Work has begun on new contracts including marketing and order processing for commercial companies, tele-sales work, and coordination of transport booking.

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### **Results from Early Pilots and Lessons Learned**

Empirical results from the early pilots support the general descriptions provided above. The centres are surprisingly successful even at this early stage. Careful use of Telematics can provide solutions to barriers and so reduce marginalisation in a wide range of situations, involving different user groups, and different types of work. Each has to be tuned to the local constraints, but there does seem to be a good range of opportunities which can be exploited in this way. Specific examples of special issues found in the pilots include, but are not restricted to :

- Many groups require mediation or support in dealing with clients. They have exploitable technical skills but need significant time to obtain the higher level skills for business operation, so a centralised management and marketing function will be added in some centres.
- Business development requires the formation of an external "support network", especially for disabled people, and this can take time to develop the necessary links. Provision of business skills must now be "planned in".
- Remote working (e.g. from home) can further reduce mobility problems, but this needs careful selection of Telematics technology since new standards (e.g. T120) are not yet fully implemented.

- Centres must address the paradox of encouraging “competition” while capitalising on “collaboration”. A truly co-operative approach is required.
- Small centres must be flexible “learning organisations” to exploit changes in the market and new opportunities. This also requires the provision of an “on tap” resource for additional training and advice.

### **Benefits of European Collaboration**

While it is accepted that any of these centres could have attempted to implement the new approaches described above, it is unlikely that any of them would have accepted the risk alone. The main benefit of European collaboration from the perspective of a single centre is that of learning and developing along with a whole set of varied, but well related examples of dealing with similar problems. The mass of technical expertise and practical experience available in a project this size is much larger than could normally be accessed by any single centre, and so the collaborative approach has paid good dividends. Furthermore, the rich cultural and social mix which is only possible in Europe-wide collaboration exposes facets of old problems in new ways, allowing a very rich learning experience for all concerned.

Even more important is the opportunity to freely deal with the single pressing local problem, while at the same time being able to observe and learn from the experience of others addressing a diverse range of marginalisation issues. At the completion of PERIPHERA, each site will have not only gained a workable solution for local benefit, but will have participated in the formation of a general perspective on how to deal with such issues on a European scale. This will equip the public authorities and community organisations involved to then begin exploiting ideas in other areas, and to share that experience for the wider benefit of European citizens.

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#### **A Few Words About the Authors :**

- Mr Tony Swash is the European Projects Officer for the London Borough of Islington. He is responsible for new technology projects in this central London Borough, and provides support to London wide initiatives involving deployment of new technologies.
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