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Interventions for Sustainable Employment in the Information Society for Disadvantaged Groups

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Abstract. It is clear that key social challenges - such as long-term unemployment and educational disadvantage - are restricting the movement of women and men experiencing disadvantage into sustainable employment in the information society. At the same time, many individuals have been supported in their transition to sustainable IS employment through innovative EMPLOYMENT Initiative projects across Europe that addressed these socio-economic challenges. This article will first discuss the findings from evaluations of two interventions in Ireland; both took place in the same disadvantaged urban community but had different target groups, interventions methodologies, and outcomes. The article will conclude with a description of a new IST research project, KISEIS, that will build on initial lessons by studying key interventions across Europe for sustainable employment in the information society for disadvantaged groups.

1. The Challenge

"I knew I wanted to work with computers but I was seeing myself as maybe a receptionist... but now I'm looking out there and thinking I want to do more than that, more complicated things. Now I'm thinking I can get better jobs. I can be the person that I thought I'd be working for." (Tramlines programme trainee [1]).

"They have the ability, the initiative to work hard on their own, and a great desire to break out of their background situation. I have found them intelligent, gritty and resolute people, who just needed an opportunity to succeed." (IT sector employer of two Tramlines programme graduates [2]).

Significant skills shortages across Europe have been projected in core information society industries. The overall demand in Europe for IT experts is expected to reach 13 million by 2003, with the risk that up to 1.7 million jobs will be unfilled, particularly in high-growth areas such as software applications and services to optimise business processes through ICTs [3]. Employers in these industries traditionally hire graduates with college or university qualifications, which are largely out of the reach of the long-term unemployed and other women and men experiencing disadvantage. This means that employers in these industries are not tapping in to a significant vein of the labour market and also that disadvantaged groups are effectively excluded from the most rapidly expanding areas of new employment in Europe.

If innovative ways can be found to increase sustainable employment using ICTs for disadvantaged groups, the benefits of the Internet and the information society will be extended not only to those in sustainable employment but also to their families and their local communities. It is in everyone's long-term interest to build an information society that enhances the potential of every citizen, and to strengthen a sustainable society [4]. Industrialisation and growth without sustainability will further marginalise disadvantaged groups in society and also seriously limit regional aspirations to prosperity. A sustainable information society also means opening the possibilities for disadvantaged groups to develop careers in key IS industries.

This challenge has already been taken up by a number of companies across Europe. In Ireland, for example, the Fast Track to Information Technology (FIT) programme provides training in industry-recognised accreditation to long-term unemployed people and then supports them through a career progression path in industry [5]. FIT is operating in partnership with many of the most significant indigenous companies and multinationals in the ICT sectors in Ireland, including Compaq, Computer Services Corporation, Corel, Creative Technologies Ltd., Dell, Eircom, Gateway, Hewlett-Packard, IBM, Jetform, Lotus, Microsoft, Modus Media International, Oracle, Price Waterhouse Coopers, SmartForce, and Symantec, as well as the Irish Business and Employers Confederation, local partnership bodies, training and educational organisations and the Irish government.

Significantly, the FIT programme is a mainstreaming outcome of Tramlines, a pilot project supported by the EU EMPLOYMENT Initiative. From 1995 to 2000, the EU EMPLOYMENT Initiative funded about 2000 projects across Europe aimed at promoting social solidarity and equal opportunities, contributing to the development of human resources, and improving access in the labour market. An estimated several hundred of these projects had an information society dimension.

The EMPLOYMENT Initiative represents a potentially unique and rich source of learning on the socio-economic aspects of access to employment for disadvantaged groups. Although some of information society aspects of EMPLOYMENT have been studied in Ireland [6,7], there has not yet been a transnational EU analysis of the specific lessons and mainstreaming outcomes regarding sustainable information society sector employment.

The remainder of this article will review some experiences from two EMPLOYMENT projects in Ireland, which the author evaluated externally [1][2][8]. The aim of the evaluations was to improve future training programmes in Dublin and to extract programme and policy lessons for mainstreaming interventions in Ireland and more widely in the EU. The article ends by describing a new IST research project - KISEIS - which will build on the lessons learned in Ireland and study interventions in four EU countries. The goal of KISEIS is to develop models and guidelines of best practice for programme developers, training deliverers, and policy makers that can be used to design and implement interventions to increase sustainable employment in the information society for disadvantaged groups across Europe.

2. Experiences from Ireland

2.1 Tramlines

Tramlines (EU EMPLOYMENT Integra) was one of the first training programmes in professional IT certification for unemployed people in Ireland. From early 1996 to December 1997, Tramlines, which was designed and operated by the community-based Ballymun Job Centre in Dublin, trained 25 local unemployed people in the Microsoft Certified Professional (MCP) qualification.

Eighteen of the 25 Tramlines trainees were formally classified as long-term unemployed, meaning out of work for more than one year; seven had been unemployed for less than a year. There were 17 men and eight women on the training course, including five single parents. Fourteen of the trainees had completed secondary school but 11 had no educational qualifications, and none of the trainees had college or university qualifications. The age range of the trainees at intake was 21 to 40, with most trainees in their early 20s.

At the end of the 18-month training period, the 25 trainees achieved 68 Microsoft Certified exams altogether, and 17 trainees achieved one or two MCP qualifications. These MCP qualifications certified advanced knowledge (technical support level) in popular Microsoft software packages such as Word, Windows, Windows NT Server, Access and Visual Basic. They also completed training in Network Essentials, Internet and HTML as well as communications-related skills. Within months of completing the training course, all 25 Tramlines graduates were working in career-path employment in Ireland.

One year later, the Ballymun Job Centre commissioned a study to determine the extent to which the training programme had contributed to sustainable employment [2]. The study included interviews with the Tramlines graduates and a selection of their employers.

Overall, the 1999 study found very positive sustainable employment outcomes. One year after graduation, all the Tramlines graduates were employed, with 81% working full-time and 19% part-time. Their employers included a range of large and SMEs, both multinational and indigenous organisations and public sector bodies. The most common employment for graduates was a variety of technical support positions, with IT trainer the second most common position.

The first year of employment in the IT industry was a huge learning experience for the graduates, with 81% satisfied or highly satisfied with their professional development. However there was general dissatisfaction with the lack of training opportunities on the job. Most of the graduates were continuously self-training and learning as a normal requirement of their jobs. However, less than 10% had furthered their MCP qualifications and only 33% in total had undertaken training they believed would further their career. Most graduates attributed their low take-up of training to their employers.

The employers surveyed were reluctant to offer training on the job because they were unsure of reaping a suitable return on their investment, believing that the newly-trained employees would demand higher salaries and be in an improved position to seek employment elsewhere. However, while the cost of training employees could be high, the cost of taking on a new employee could be even higher. Small indigenous Irish firms found it difficult to compete with the large multinationals for qualified IT staff.

The average annual full-time salary of the graduates working in the IT sector was £15,620, with most earning less than the average. Tramlines graduates were earning salaries similar to graduates with certificates, diplomas, and university degrees in IT.

However, the research found a considerable salary difference among graduates, with prior educational level linked with the largest salary differential. Graduates who had completed their secondary school education - most of whom were previously long-term unemployed - were making on average £3,142 more than those without this qualification. Interestingly, the employers agreed that completing secondary school did not guarantee ability in the IT sector.

Gender was another area of persistent salary differential, with women earning on average £1,981 less than men. Single parents had the lowest salaries, and childcare continued to be an ongoing concern for many. Employers noted the lower status of women in the IT sector and suggested that women were paid lower salaries because they were less self-confident than men, less aggressive in demanding higher salaries, and less mobile in employment because of their family responsibilities.

The Tramlines graduates rated their MCP qualifications very highly, believing they had great currency in the IT labour market. Employers, however, were more reserved in their views of the MCP certification, believing it was a good starting point but only one element of what was required in an employee. Employers valued other qualities equally to IT skills. They wanted good customer relations abilities, a professional attitude, and familiarity with the business environment. In these areas, Tramlines graduates, who previously had little or no experience in professional employment, were below par when starting out in the IT field but were learning these skills in employment.

The Tramlines programme was without doubt very successful in providing the training and supports for disadvantaged people to move into sustainable employment in the information society. After the success first Tramlines programme, the Ballymun Job Centre designed and operated another pilot training programme, Fountain, aimed at a different target group and with different intervention methodologies and outcomes.

2.2 Fountain

Fountain (EU EMPLOYMENT Youthstart) was an innovative training program run by the Ballymun Job Centre in Dublin from early 1998 to March 2000. The trainees were young (aged 15 to 19) early school leavers living in Ballymun who were unemployed with limited educational, training or work records. None of the trainees had completed secondary school although some had acquired an intermediate secondary school qualification.

The Fountain intake was 61 trainees in three groups for six months each. After the end of the six-month training period, the programme staff continued to support the trainees' transition to further training or employment. Fountain aimed to progress the trainees through a comprehensive programme featuring core skills training, work skills training in ICT skills, career guidance, mentoring and post-placement mentoring as the central elements. A key difference from the Tramlines programme was the shorter length of the training intervention, the weaker educational background of the trainees, and the lower age profile.

Fountain was successful in terms of the certifications achieved by trainees. In the work skills training, all the trainees achieved various levels of their ECDL (European Computer Driving License) certification, with most completing the full ECDL, and 19 achieved their MOUS (Microsoft Office User Specialist in Word - Proficient) certification. Trainees also achieved other work-related certifications unrelated to ICTs.

Unlike the Tramlines programme, there was no long-term analysis of the Fountain employment outcomes. However, an ongoing evaluation was conducted of the overall trainee progress of the 38 trainees which included an analysis of the situation of the 10 weakest and 10 strongest trainees, including their early work experiences, and the most significant restraints and barriers to progressing the trainees [8].

The evaluation found that the most successful Fountain trainees had a slightly stronger educational background. The most successful trainees were also older than the least successful trainees. Fountain was also more successful at progressing young men than young women. Significantly, being a single parent was also a factor for the least successful trainees.

Overall, the most significant barrier and restraint to progressing the trainees was the low-self esteem of the trainees, evident in 66 percent of the Fountain trainees (25 of the 38). Quite simply, these young men and women did not think enough of themselves to believe they could progress on a positive career path. To give just one example of how self-esteem was a restraint, Fountain trainees with low self-esteem presented themselves less positively in a job interview and they were less sure of their abilities in a work or further training situation.

The next significant restraint and barrier to progressing the trainees was their family or

home instability, experienced by 47 percent of the Fountain trainees (18 of 38). In Ballymun, with three and four generations of unemployment, parents often had limited expectations of their children. For some trainees, their family life was a significant source of stress and distraction from their Fountain work. Unfortunately, for several trainees this unstable home situation involved physical violence or the threat of violence.

Another significant restraint to the trainees' progress was difficulties meeting their basic needs (food, clothing, or shelter), or financial pressures, both experienced by 12 trainees or 32 percent of trainees overall. These trainees were struggling to find the means to eat properly, have clothes to wear, and a secure roof over their heads. For some, this obviously involved financial need but the basic needs issues were more complex than finances alone. Financial pressures also included pressure to leave Fountain before the training was completed in order to earn an income to support family members.

Childcare restraints and barriers affected more than one-quarter of the Fountain trainees (10 of the 38). For trainees with childcare problems, the barrier was highly significant. Many could not overcome this barrier and progress to further training and employment. In some cases, Fountain trainees were keen to work using their newly-acquired skills but could not work because they had no reliable childcare. For some trainees, their responsibility was not to their own children but rather to their siblings - who they minded while their parents worked. Fountain was able to address childcare issues to some extent, for example by liaising with creche facilities in Ballymun, but it was not enough.

Drug or alcohol abuse was a restraint and barrier affecting just over one-quarter of the trainees (10 of the 38). The Fountain project worked closely with a local organisation providing drug awareness and support activities in Ballymun. Alcohol abuse was just as much an issue for these Fountain trainees as drug abuse. These trainees regularly drank alcohol late into the night and were not able to make their way to Fountain on time in the mornings.

Difficulties with further training programmes presented a barrier to progression in some cases. Eleven percent of trainees (4 of 38) were not able (did not have the ability, maturity or skills) for the further training options available, and for another 11 percent, there were no further training options for them when they were needed. In some cases, the waiting period for further training was frustrating for the trainee, leading to disengagement.

Overall, the Fountain programme met many of its objectives and but was clearly less successful than the Tramlines programme as an intervention to sustainable employment. By comparing the two programmes, we can draw some preliminary lessons.

2.3 Lessons from the Irish experiences

Preliminary analysis of the two EMPLOYMENT projects discussed above suggest a number of lessons regarding interventions for sustainable employment in the information society for disadvantaged groups.

The need for a strong local IT sector: Both in training and in their first year of employment, the Tramlines trainees' motivation, self-confidence and positive attitude were rooted in their belief that their MCP qualifications would ensure sustainable employment locally. By contrast, the lower level of qualifications in the Fountain programme did not engender similar self-confidence and motivation by trainees.

Training in professional IT certifications in demand by employers: For interventions like Tramlines centred on industry certifications, it is clearly vital that these certifications are in demand locally; the challenge is ensuring that the certifications are for products that will retain market strength.

Training in customer service skills desired by employers: For Irish employers in ICT

sectors, customer service skills, a professional approach and an understanding of the business environment are equally as important as ICT skills and expertise. These skills may be difficult to learn by trainees in a programme of short duration.

Partnerships and continued training inputs by employers: To ensure sustainable employment, employers will need to work in partnership with local training organisations and be willing to provide their employees ongoing training in the latest ICT skills.

A flexible training organisation: Given that ICT industry certifications are outside a training organisation's control and may change rapidly to meet market requirements, training organisations must be quickly-adaptable to changes.

A training programme that is well-designed and sensitively delivered: The programme must aim at retaining trainees and winning their trust and respect, including professional delivery of training and a client-centred approach. The programme must also be of sufficient length to ensure effective outcomes.

A system of personal support for trainees and adequate staff resources: Staff working in the training organisation must be able to offer understanding and support for the particular difficulties facing their trainees, including a range of personal, financial and self-esteem issues. This will require more staff resources, including a lower trainee/trainer ratio than usually found on IT training courses.

An appropriate mix of training approaches: A mix of approaches, including intensive training, computer-based training, monitored self-study, practical work on computers and systems, and group learning will be required. For trainees without strong educational backgrounds, courses in study skills, time management and exam techniques will be needed.

An appropriate recruitment, selection and induction process for trainees: Recruiting long-term unemployed people and other disadvantaged groups into skills training programmes requires innovative recruitment methods for engaging and retaining trainees.

Adequate training allowances for trainees: Given their situation of disadvantage, trainees will require allowances to continue their participation in training.

Targeted supports for trainees who have not completed secondary school and women trainees: Interventions will be needed aimed at increasing the self-confidence and ability of trainees without educational qualifications and women trainees to negotiate for salaries equal to their counterparts in the workforce.

Support and provisions for childcare and career guidance for single parents: Both the Tramlines and Fountain evaluations highlighted the great need for provisions and increased options for childcare for trainees from disadvantaged groups. In some cases, lack of appropriate childcare was the sole barrier to a successful career path.

3. Towards a European understanding: The KISEIS Project

Building on the lessons from Ireland, a new IST Research Programme study is investigating this situation on a European level. The KISEIS project - Key Interventions for Sustainable Employment in the Information Society for Disadvantaged Groups - began in July 2001, with the final report due in early 2003.

KISEIS is studying solutions for the socio-economic dimensions of the transition to sustainable employment in the information society for men and women experiencing disadvantage - such as long-term unemployment, educational disadvantage, poverty and illiteracy. The study will include qualitative research in four European countries - most likely Ireland, Finland, France and Spain - to identify indicators of success in interventions aimed at sustainable information society employment for disadvantaged groups.

The first stage of KISEIS is to identify and study the models of interventions used in these countries and to develop a framework of interventions addressing the socio-economic dimensions of the transition to sustainable employment. The lessons from the Tramlines and Fountain projects in Ireland will be instrumental in building the draft framework, which will be developed through analysis of evaluation reports from the projects in the other countries.

The qualitative field research will include interviews in four countries with former participants of EMPLOYMENT projects currently in sustainable employment (such as former trainees) as well as employers of former EMPLOYMENT participants. The other aspect of the field research will be case studies of mainstreaming initiatives in this area.

KISEIS will also develop guidelines and models of best practice for interventions addressing the socio-economic aspects of sustainable employment in the information society and identify and analyse ways to strengthen future EU policy and research activities on an inclusive information society. These guidelines and models will be diffused to training providers and policy makers across Europe.

One emerging research question for the KISEIS project is whether the recent slowdown in ICT sector industries in Europe will have an impact on the progression of trainees in ICT programmes from disadvantaged backgrounds. An early warning has recently been sounded in the United States that ICT training programmes for disadvantaged groups near the Silicon Valley are being significantly affected by a market made increasingly competitive by thousands of laid-off workers [9]. The KISEIS study will need to identify the specific interventions that will keep disadvantaged trainees in Europe on a more sustainable path.

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