WWW-ICT

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Widening Women's Work
in Information and Communication Technology

Deliverable N°8

Inventory of good practices

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(http://www.ftu-namur.org/www-ict)

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Contents

1 Introduction

Data on fifty-nine practices have been collected so far in seven countries (UK, Austria, Germany, Switzerland, Belgium, France, and Italy).

The empirical data collected by each project partner in his/her country was not designed to be exhaustive. It was firstly to show the various ranges of initiatives that had been taken in the chosen countries[1] with regards to women and ICT with a view to bridging both gaps in gender and skills in the labour market for ICT-related professions. The initiatives were thus selected as illustrative or comparative examples (the widely implemented ones) and sometimes as innovative and exemplary ones. Another selection criterion is their visibility and viability: they must be widely known by their target public and not unsuccessful. This means that other initiatives have been taken although they are not described here, but they are similar to those, which are featured in the annex.

These practices were sought at various levels in each country:

- at the level of companies, including initiatives undertaken by sectoral or local employers associations;
- in the education and training system, including high schools and universities, vocational training, further education, re-training or reinsertion for the unemployed;
- by public institutions carrying out policies for vocational training, ICT promotion, labour market management or the promotion of equal opportunities;
- and also at the level of non-profit associations.

1.1 What is a good practice? Method and criteria

The proposed definition of what is a "good" practice is borrowed from the glossary compiled by the BEEP project (Best e-Europe practices, also an IST project under FP5). Following BEEP, a good practice is "the use of a method, tool, technology etc. which is generally regarded as 'practices which are good for learning', i.e. practices which either achieve their own objectives and/or have a beneficial impact on their environment, or (and more importantly) provide useful learning experiences which are likely to stimulate creativity, ingenuity and self reflexivity on the part of the user"[2].

According to this definition, the criteria for selecting a practice from a range of initiatives are:

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1 Our data collection was not limited to the seven partners countries but also included interesting initiatives found in close countries.

2 http://www.beep-eu.org/Content/Glossary/GlossaryV5.htm#GoodPractice

- the use of tool, a method, or a technology (in our case, "tool" also includes non material tools, such as awareness campaigns, training curricula, etc.);

- the purpose being to reach specific aims: achieving its objectives or improving their environment or stimulating the user;

- the use as a learning instrument for others: not necessarily to be transferable, but at least to teach lessons and experiences.

The most important parts of the description are, on the one hand, the usefulness and effectiveness of the practice (usefulness assessed in comparison to the aims assigned to the practice, to the difficulties that the practice is designed to overcome), and, on the other hand, the learning dimension.

Moreover, a certain number of minimum criteria must be satisfied in order to be included in the corpus[3]:

Current:	The action is still in place, or is likely to be carried out again.
Clear aims:	The action has clearly identifiable goals and aims
Geared towards a target audience:	The type and form of the action, and its implementation conditions, are suited to the target audience
Documentation:	The success and/or development of the action are recorded via tracking or assessment data

To assess the results, we collected information not only about the type of initiator, the tools and the duration of the project, but namely about the grounds for launching the project, the target groups and, when available, the feedback from the initiators or the project managers and their assessment of the project results.

Indeed, the national context needs to be taken into consideration when one analyses good practices in a given country. National specifications sometimes explain the use of a given tool over another one. For instance, in Belgium and in Austria non-profit associations play an important part in vocational training and reinsertion on the labour market. Good practices derived from the non-profit association are thus more relevant than in countries where they do not play this kind of role, but merely one based on awareness.

We will also take into account other IST project results including analysis of good practices, mainly the SIGIS project and subsequently other ones, although much less concerned with gender aspects (e-Living, BEEP).

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[3] This set of characteristics is inspired by the survey: "*Examination and evaluation of good practices in the promotion of female entrepreneurship"* conducted, at the request of the Enterprise Directorate General of the European Commission, by the Austrian Institute for Small Business Research (IfGH), December 2002

1.2 Exemplarity or exhaustiveness? The contribution of SIGIS[4]

In collecting these practices, the aim was never to achieve exhaustiveness: it would have taken considerable effort to compile a (near) exhaustive corpus, but this would not have provided more extensive information than an exemplary corpus. Moreover, simply collecting a lot of practices is no guarantee that one will find the best tools or most conclusive results. Therefore, the choice that has been made is qualitative, rather than quantitative.

Not all practices are equal in terms of originality, effectiveness, or relevant target size. How can original or effective local initiatives be publicised if the necessary resources are lacking? Should we include good public or private intentions that are expressed and widely publicised, but are not really followed up by practices? How do we account for a practice that is itself at the root of a multitude of projects?

It was therefore more relevant to base our selection on criteria such as exemplarity or diversity rather than to strive for exhaustiveness, as this would have been doomed for failure in the time available, and would not have made results any more consistent.

Furthermore, the survey entitled "Strategies of Inclusion: Gender and the Information Society" (SIGIS) enabled us able to verify whether our model had reached saturation point. As regards the Case Studies collected by the SIGIS teams in the category "Getting more women into computer science and engineering":

- Human resources policies with a gender perspective of six of the major ICT multinational companies operating in Ireland (appendix 2.15 DCU 3)
- The Irish branch of Women In Technology International (WITI) which ascertain the great gender discrimination in ICT related business (appendix 2.13 DCU 1)
- The work of Untold, in UK, which offer female digital designers a platform to showcase their work and share experiences of working in the field (appendix 2.8 UEDIN 2)
- Work-up, a company created and run by a woman which employ 40% women in technical Internet services (appendix 2.11 METIS 2)

In the case studies, we found practices similar to some of those in our corpus, enabling us to reinforce our study based on their conclusions in the domain of "computer science and engineering".

Starting from the premise that for a practice to be effective it must be well-known, we shall provide estimations, analyses and comparisons for all the practices that are familiar enough to be collected by research groups, and exemplary enough to give an overview of the actions being taken to boost equal opportunities among men and women in ICT.

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[4] SIGIS is a project funded by the EU Information Society Technologies Programme (IST) Proposal/Contract no.: IST-2000-26329, http://www.sigis-ist.org

1.3 Questioning

Having set these limitations, we can put forward a few comments as regards figure I below:

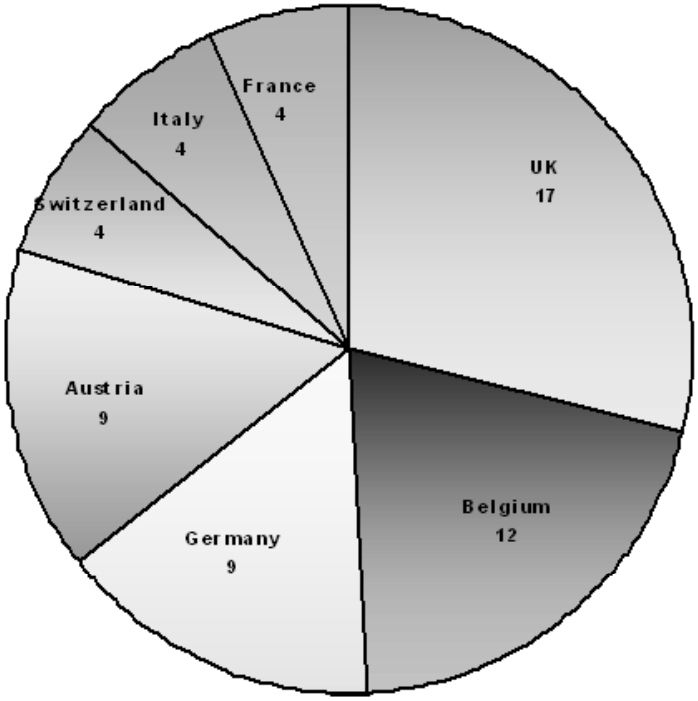


Figure I. Practices, break-out by country

The first noteworthy statistic is that of Belgium. This country manages to present 12 practices which, although of unequal quality, highlight the benefit of having a very visible system that brings together, in a single database (ADA) and thanks to the Digitales days (see appendices p. 55-58), measures relating to women in ICT. This network means that isolated initiatives tend not to stay isolated for long, as there is a springboard for them to gain publicity.

Another interesting result is that of the UK. The 17 practices presented by this country are proof, firstly, of its concern for equal opportunities and, secondly, of the good visibility enjoyed by these practices. Looking at their descriptions, we note a high level of diversity. These practices come from the public and private sectors, and operate within schools or in the professional world, targeting women or young girls; some practices have been around for over ten years, while others are very recent. However, despite this "culture" of equal opportunities, and despite the impressive number of actions in favour of women in ICT, this country has results comparable to those obtained by France or Italy[5] (neither of which present more than four practices) when it comes to the actual proportion of women in ITC professions.

[5] Switzerland also only presents 4 practices, but it was not one of the direct partner countries of this study.

Such a result may be cause for concern, or even discouragement: are all these practices really operational? Are we really able to set up practices that can be qualified as "good"? Are we really able to influence the preferences of women and employers through proactive initiatives? How do we respond to those who still claim that women's nature makes them unsuited to ICT, and that there is no point trying to force them towards these professions?

Firstly, not all practices are "good." It is therefore important to know the ingredients of practice that can be described as such.

We shall analyse the practices gathered (which, for the moment, we shall avoid calling "good practices") and shall attempt to establish a sort of map[6] of the fields of application and resources implemented in order to detect the domains that are least exploited, which may explain a certain inertia of results. In parallel, we shall establish trends and preferences in practices, according to countries or audiences. Then, based on the most conclusive reports, we shall pick out those practices which, given the results obtained or expected, should serve as inspiration (learning dimension) for the development of new practices, or the improvement of existing ones.

Given the shortfall in this field, we shall propose a practice evaluation guide that may enable project initiators or promoters to measure the effectiveness of efforts more successfully. Lastly, we shall put forward recommendations and arguments to encourage potential initiators to set up initiatives, and women to seize these opportunities.

6 As our corpus is not exhaustive, we cannot claim that our analysis is in any way representative. We stress that the following diagrams and comparisons were made from an entirely qualitative viewpoint, based on exemplarity and diversity.

2 Presentation of the practices data collection

2.1 Ecology of practices: how are these situated with regard to ICT professions

2.1.1 Centring the practice with regard to ICT

The practices identified can be divided into three categories:

- Practices targeting ICT in particular
- More general practices for *Women in scientific and technical fields*, with a part relating to IT, or with significant repercussions on ICT
- Broader practices for equal opportunities between men and women, that also help boost measures in the ICT field

The teams were keen to favour practices focussed on ICT, rather than to over-diversify by also counting practices geared towards "Women and Science" or "Equal opportunities" in general. However, some broader practices do figure in our corpus due to their exemplarity or effectiveness in the ICT field.

We also point out that for certain ICT-focussed practices, peripheral skills were also taken into account, such as self-confidence or job-seeking techniques, or even, in Austria, ecological problems relating to women's rights or condition, including domestic violence, family planning or women's emotional entourage.

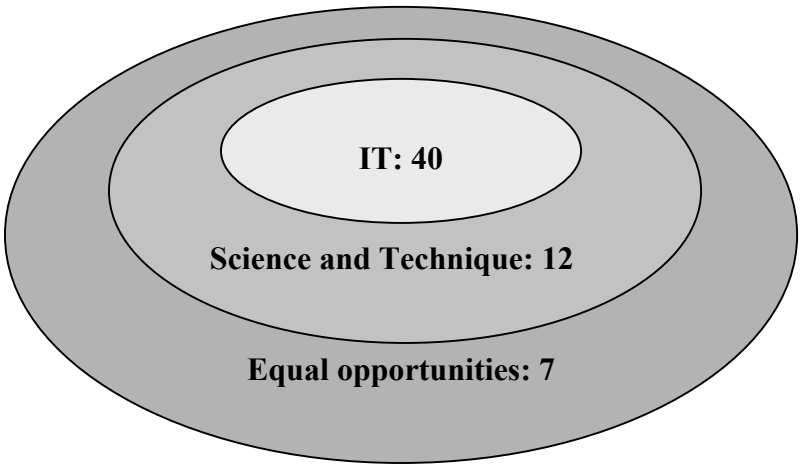


Figure II. Scope of practices

2.1.2 Fields of application

The practices identified cover three different moments in the relationship between women and ICT (some practices may apply in more than one field):

- **34** practices aimed at learning periods, including:
  - school and higher education
  - adult training (job-seekers or professional training)
  - school or career guidance
- **31** practices aiming to change the professional world
  - arrangement of working hours
  - management of staff aiming to break the glass ceiling or pay difference
  - networking inside or outside companies…
- **5** practices aimed at personal life, familiarisation with home computing, Internet use.

This last category is somewhat removed from our concerns. It is possible that women who discover computers at these workshops will then want to learn more, but this does not really involve training that would give access to the ICT professions. It is true that practices involving computer use may occur prior to the practices we studied, but their main motive is different from ours.

If we only take the first two types of practices into account, we notice that the partner countries appear to distribute their priorities very differently. For example, Austria implements half of its practices in the field of **Education**, while the UK targets half of its practices on the field of work. Meanwhile, Belgium and Germany show an equal distribution.

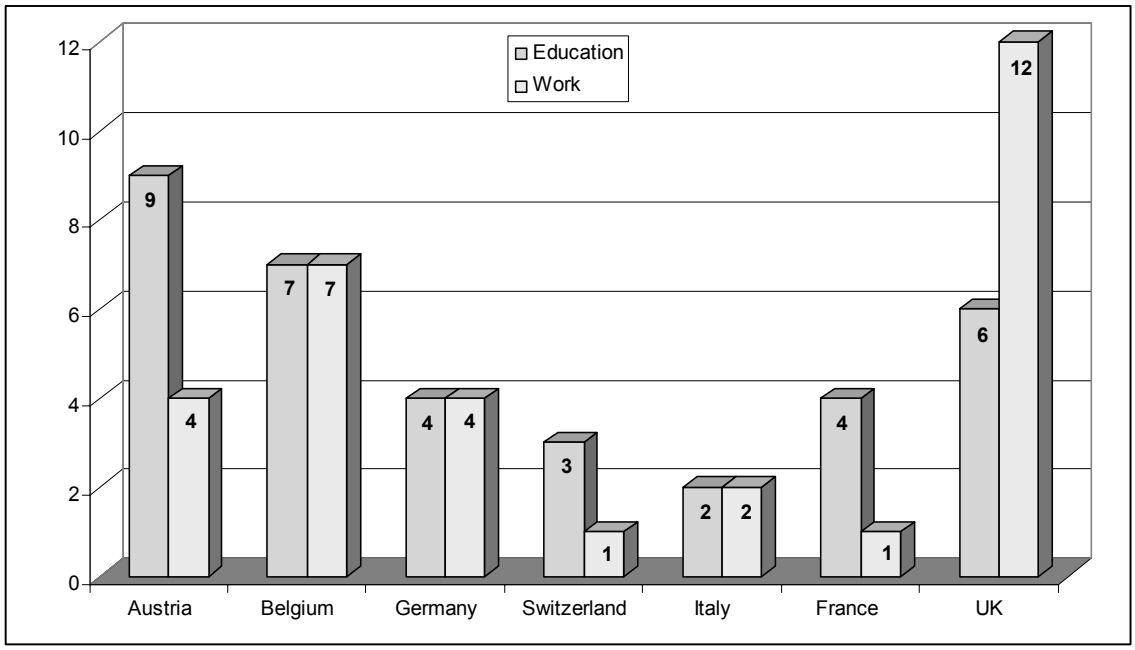


Figure III. Field of application of practices, by country

2.2 Formal characteristics of practices

2.2.1 Type of initiator

- The top project initiators are public authorities, with **26 practices** at local and regional level in almost all countries. At the earliest stage of the project, the impetus is often given by European programmes and funds.

- Although employing organisations come second with **15 practices**, this is due to the UK, where seven such practices were identified. It is also worth noting that this category covers practices from private organisations, two of which are actually training centres rather than companies likely to employ women.

- In third place come groups of women, with **9 practices**, operating as more or less formal non-profit organisations: some are women working in companies, others have created training centres for women, and others have set up help or information networks. Some apparently work voluntarily (at least in part), while others work for associations that pay them. Whatever the situation, this means of operation – in which there is likely to be a lack of formalisation or structure – often gives innovative results (such as the Digitales in Belgium, p.58), tries out pioneering practices in the country where it is set up (tutoring in France, p. 96), and includes a militant side (integration of more traditional feminist problems such as domestic violence or family planning in Austria, p. 41).

- We also count **9 practices** from companies. However, as two of these companies are private schools, we should point out that only 7 companies providing employment in ICT seem to believe that encouraging greater gender balance would be profitable and depends on their own staff management. This is even more regrettable when we consider that it is in this category that we find two very persuasive results, both in the UK: FI group and Happy computer. Not only do both these companies have surprisingly high rates of female presence (50% of senior executives are female at FI group, 75% of staff are women at Happy Software), but what is more, they are profitable and have become models in terms of personnel management. It is also worth noting that, in the case of FI group, these results are due to positive discrimination measures and a militant desire to build a non-sexist company. In the case of Happy computer, the measures implemented are women-friendly but not aimed exclusively at women, and have attracted women to the company. The aim was not to narrow the gender gap, in particular, but to reduce staff turnover costs – an aim that was undeniably achieved.

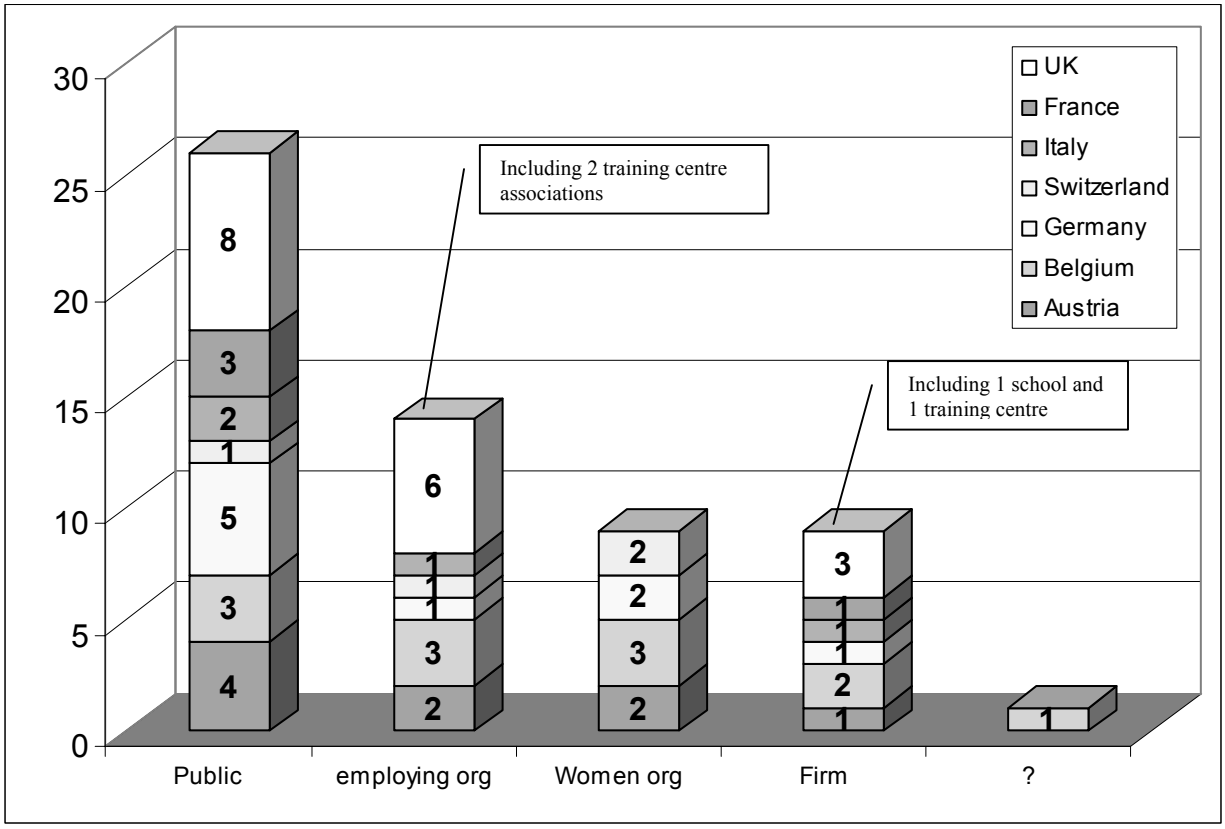


Figure IV. Practice initiators

2.2.2 Duration of the project

If we organise practices according to this aspect, two categories can be determined:

- **11** practices have a limited duration. They may be long-term, in the context of a plan or project over several years and still currently underway, or very short, such as an advertising campaign, but with effects that can still be felt.

- **48** practices have no scheduled end and shall remain in force as long as they are needed, or have the material resources to do so.

When we look at these practices more closely, we can see that durations vary greatly from one country to another. We note that, as we assumed, the UK along with Germany manage to present several practices lasting over 2 or even 5 years; meanwhile, Belgium stands out with a series of new initiatives side by side with some very old practices. Unfortunately, we have no information regarding the durations of a quarter of the practices identified, which prevents us from pursuing our analysis of this aspect.

2.2.3 Target groups

Although the groups targeted by practices are very varied, we note nonetheless that the main efforts are geared towards women: teenagers, students and adults, in terms of training, awareness or, for adults, returning to work or support.

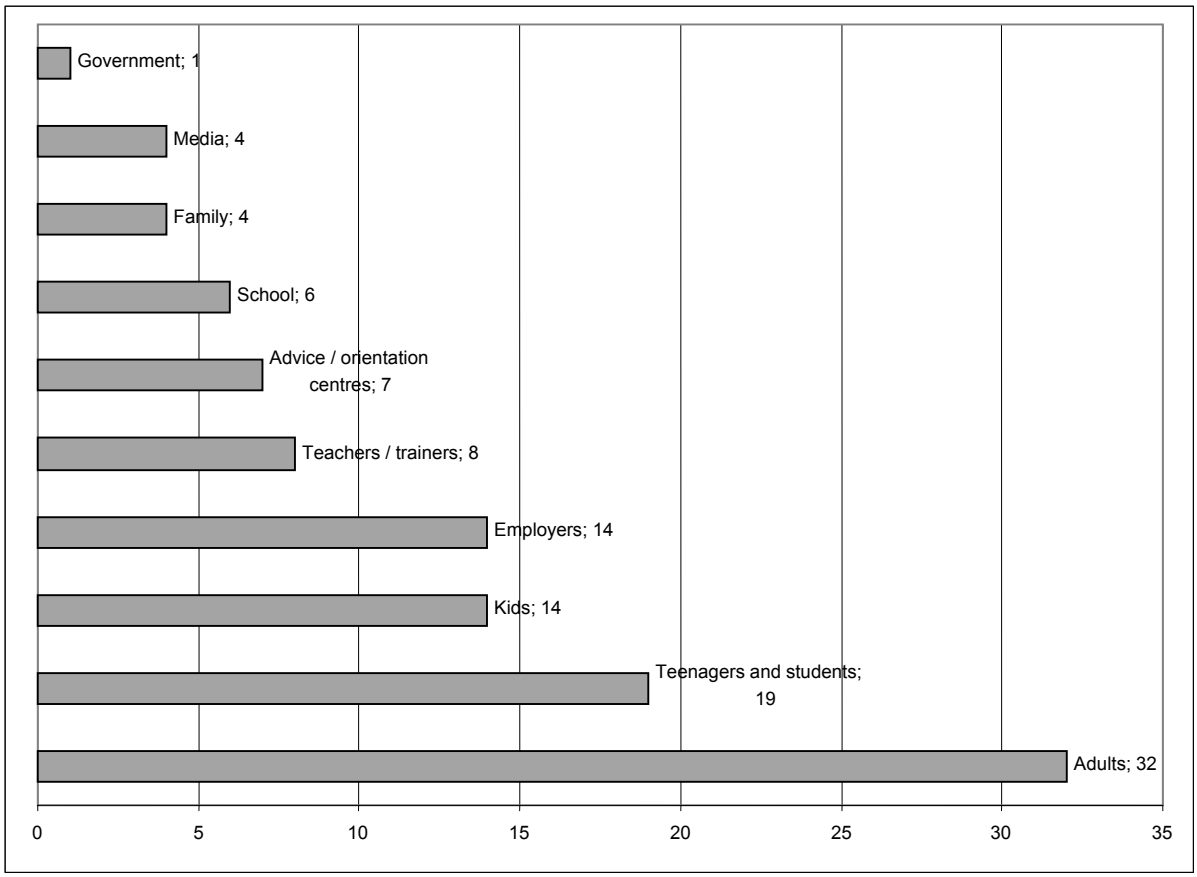


Figure V. Target groups

This observation leads us to create two categories:

- **Women**: category which covers adults, young women and girls
- **Potential change actors**: category covering employers (HR, employing organisation, etc.), school or professional guidance centres, schools (administration), teachers, family and the media. These audiences act in very different areas and for very different reasons. Nonetheless, they are all facilitators for bringing or keeping women in ICT.
- We shall see in ***figure VI*** that the distribution by country leans mainly towards the category of ***Women*** (except in France and Italy). Globally, out of the 105 responses relating to the target audience (still out of our 59 practices), **60%** are geared towards *Women* and **40%** to *Potential change actors*.

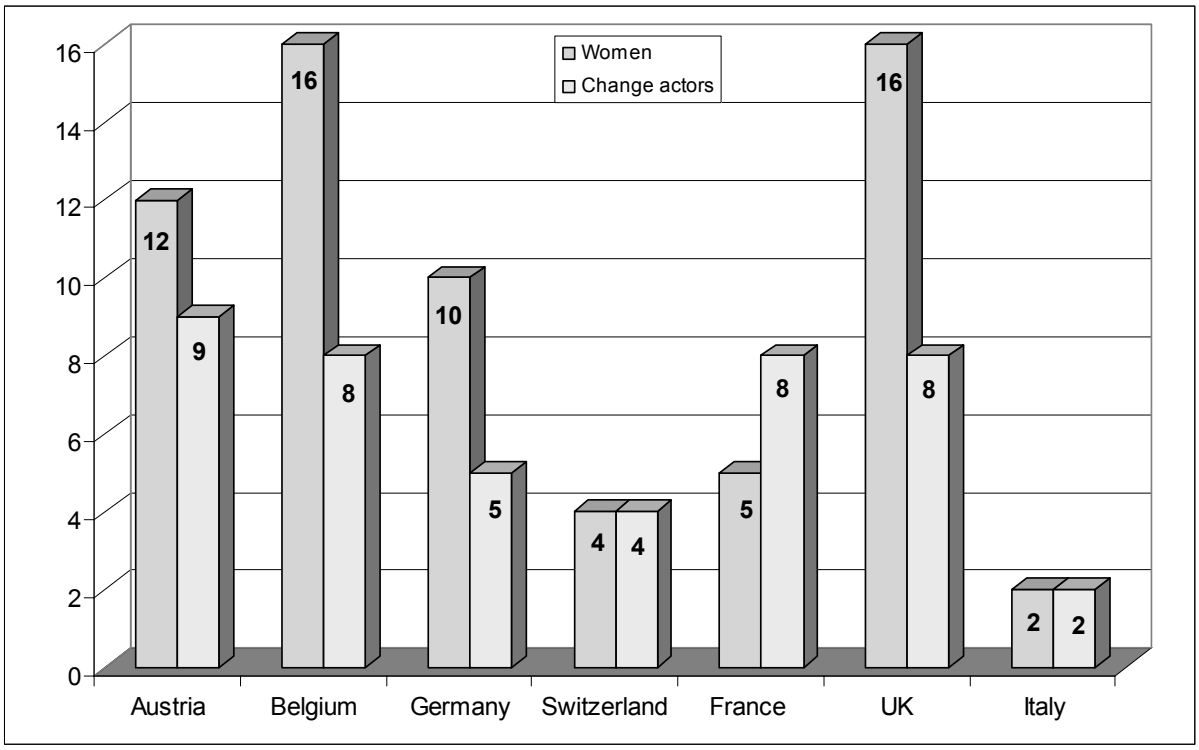


Figure VI. Target groups, break-out by country

2.2.4 Tools and means

The means used are very varied. The most frequently used means include training for women and the provision of documents on women and ICT (online or in paper format).

However, there are differences from one country to another:

- Coaching is practiced extensively in Austria, but very little in other countries.
- Germany has a well developed tutoring system.
- The UK has greatly developed networking and is practically alone in focussing on working conditions and practice benchmarking.
- Belgium has involved the press and general public in its communication campaigns.

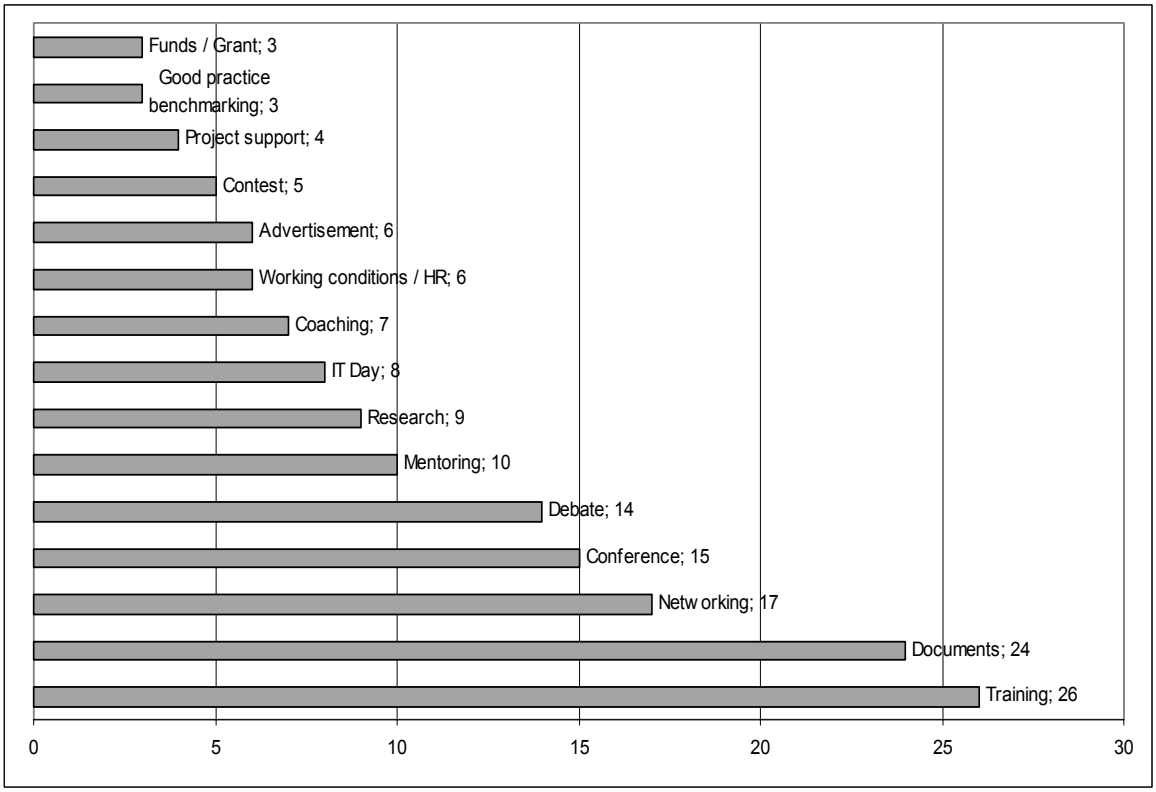


Figure VII. Tools and means

2.2.5 Evaluation issues

Evaluation is a particularly problematic issue for this group of practices. We have no information for more than half of them. We know that there is a form of evaluation for nine practices, often in the form of questionnaires or opinions given spontaneously by the target audience, but we do not know the content or the way the results have been processed. Other practices are being evaluated but are too recent for results to be available. Only very rarely do practices include true evaluation (monitoring of public, for example). Apparently, no practice evaluates itself (transferability, adaptability, visibility, etc.), opting instead to assess its impact on the target group.

Overall, we note a sort of "feeling" of satisfaction for 17 of the 19 practices that have been assessed, but this feeling, or even enthusiasm, from the target audience is not enough to determine whether this practice is actually "good".

Without reliable, comprehensive evaluations, it is hard to go any further in analysing items. This is why we have been satisfied hitherto by presenting results, along with various cross-referenced analyses, taking care nonetheless not to draw any wild conclusions or lessons from the corpus.

This series of observations means that we can now consider the results more generally, so as to try and highlight any means or focus areas that have been neglected or even omitted, any driving forces that seem to be effective, and the directions to be pursued.

3 Avenues for development and evolution of practices

In this analysis of the corpus of practices, we have seen both success factors and shortcomings emerge. This third section will aim to highlight the promising avenues, along with the omissions, bringing the previous analysis into the context of the research and our current knowledge of Women and ICT. We shall base future recommendations upon this.

3.1 Necessary clarification of expected effects

3.1.1 Removing objective obstacles or shifting representations?

Theoretically, we can consider there to be two types of approach to favour the entry of women into ICT professions.

3.1.1.1 Removing obstacles

Initially, we can act on the objective components of the profession, as we believe that if women are turning away from IT, it is because they are encountering solid obstacles in their path. We know that girls are more likely than boys to anticipate their professional life during school and career orientation, and that in particular, young girls choose industries that will enable them to live a life that meets their aspirations. The reasons may be varied: raising a family, of course, but also, travelling, or taking up challenges. However, the problem of reconciling their personal, family and working lives is ever present in the minds of many young women.

Given the clear obstacles that women meet during their studies and in the professional world, we can assume that a good practice is one that aims to correct, counterbalance or even remove these hindrances while strengthening the driving forces that are objectively favourable to women. This essentially covers:

- Training aimed at women, often in a single-gender environment, in order to enable them to access courses that they might not have dared approach

- Coaching or tutoring, which offers women advice or support to confront problems that they encounter in ICT (and discrimination in particular)

- Networking, as women are more isolated than men in the profession, not only because they are rare (women sometimes feel isolated because they do not have the same interests as their male colleagues), but above all because they have little time outside their working hours to build professional relationships.

- Improvements in working conditions in order to make family and professional life easier to reconcile (flexible working hours, part-time, possibility of working from home, crèche in the workplace or training centre)

- The desire to smash the glass ceiling and have a non-discriminatory personnel management policy, particularly in terms of salary and promotion.

- Grants to help young women in their studies, allowances for university research, projects, organisations working to improve women's access to ICT.

3.1.1.2 Shifting representations

Secondly, we can choose to work on representations, to consider that if women are not embarking on studies leading to ICT jobs, or if they do not remain in these jobs once they are in, it is because:

- the image they have of computer scientists does not match the image they have of themselves.

- they are viewed by their colleagues and superiors via sexist stereotypes: they are assumed to be unsuited to the profession.

All in all, whatever way we view this image problem, we are facing a representation of the profession compared with the reality of the profession, the representation of womankind compared to the reality of women today.

The consequence of this distortion is that when an obstacle – a real one this time – arises, it is felt to be insurmountable because it seems to reinforce such images and anchor them in reality. There are two examples that support this reasoning:

- The ICT profession is reputed to be difficult to reconcile with family life – long hours, meetings at any time of day or night, travel, etc. However, other jobs such as nursing or cleaning are hardly compatible with family life, either. The arrangements or adjustments that women working in these professions are forced to make are considered normal, not only by women, but also by employers, colleagues and partners, as both jobs are traditionally done by women. ICT professions are considered as male domains, and the slightest unforeseen issue simply confirms the idea that they are not compatible with family life and are unsuitable for women. Employers are reluctant to make special arrangements, partners are not always understanding or tolerant, and women feel guilty for selfishly sacrificing their family over a career that is not designed for mothers. But in fact, it is because the profession is deemed to be a male one that it is hard to reconcile it with family life, and not the other way around.

- Women are traditionally suspected of incompetence or, rather, of being less technically competent than men. Men do not generally have an openly hostile attitude to women; it is more an unspoken lack of trust, the expectation that the woman will make a mistake – which she inevitably does at some point, thus confirming the sexist suspicions. Moreover, during her career, a woman will have the opportunity to meet colleagues (men or, indeed, women) who will openly question her competence, refuse to work with her or recognise her as a superior, eventually sowing doubt within the company. This attitude may end up destroying the somewhat fragile self-confidence that women have built up, placing them in a situation of failure or impotence. Overall, it is as though the confidence of women in the IT workplace were a balloon that is pierced with tiny holes every day until it deflates completely. It is not because women lack skill that they have trouble asserting themselves: it is because when they are seen as incompetent, they begin to experience self-doubt.

It is very hard to influence representations, as these are prejudices, stereotypes (which are well-rooted); we are working on something intangible, not reality, but an idea that people create. The practices aiming to modify representations will work on:

- the image that women have of the ICT professions, by presenting positive identification models (advertising campaigns, non-sexist job presentations, and also tutoring), and by showing that these professions are far more varied than women imagine.

- the image that employers have of women and the profession, by introducing them to competent women who have obtained good qualifications, showing them that the range of skills brought by women can be highly useful to companies.

- self-confidence, with coaching practices

Although these two approaches may seem contradictory, they are in fact quite complementary:

- If the representations of employers and women do not change, women will not be attracted to these jobs and employers will not come looking for them.

- If we are satisfied with simply changing representations, women will quickly be confronted with obstacles that will reactivate them again.

Among the range of practices we have identified, we observe that the two approaches are often carried out in tandem and that generally, both aspects are well represented:

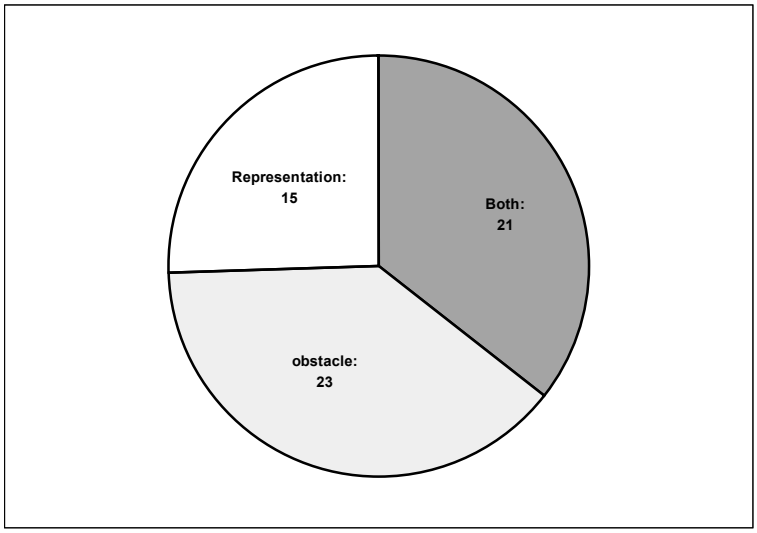


Figure VIII. Angle of approach of practices

3.1.2 Women's activities: compatible with ICT professions or vice versa?

The motives and interests that lead players to intervene in this domain are diverse in origin:

- **Social justice**: If women wish to enter these professions, they must be able to do so with the same opportunities as men. Moreover, ICT professions are

already profitable, but they will be even more so in the future. The digital divide is real, and it affects women more than men. What is more, computers are an empowering tool that should not be the sole preserve of a group of men.

- **Favouring employment and economic development**: ICT professions constitute an important source of jobs and, according to European forecasts, demand is likely to increase to the extent that there are even fears of a skill shortage. Encouraging women to enter this opportunity-giving sector would help to reabsorb the levels of unemployed women by providing them with secure jobs and relatively high salaries. It would also be a way of preventing the anticipated shortage, avoiding the sharp rise in salaries that occurred during the move to Y2K and the switch to the Euro (for certain countries), and avoiding a reduction in skill levels.

- **Aiming to enrich companies' human capital**: Refers to societal losses when the scientific and technological talents and experiences of women are not utilised, moreover, labour market argument highlights women's potential role in contributing to the supply of computer science educated labour to the industry (SIGIS Thematic Analysis: Getting more women into computer science and engineering :1)

- **For improved working conditions**: If we consider the list of reasons that put women off ICT jobs, we cannot say that they are completely irrational. Whether in terms of objective obstacles (long hours, frequent travel, etc.) or representations (isolation among the "nerds", being locked into programming, etc.), these professions do not always appear particularly attractive to either gender. One might wonder whether it is useful to encourage women to comply with this professional lifestyle which, itself, does not match most people's idea of a good quality working life. Indeed, both men and women want to invest in their private lives rather than wasting all their time at work. Any discussion of the question: "*How can ICT professions be made more favourable to women?"* could quite easily lead to a range of measures to improve the quality of working life for all. Thus, rather than convincing women to bend to the requirements of the ICT trade, good practices should encourage the ICT professions to become more compatible with another way of considering work, which will eventually be profitable for all.

3.2 Driving forces to be harnessed

3.2.1 The importance of cross-disciplinary of skills and applied IT

The scope of ICT professions is hard to sketch out, just as it can be tricky to distinguish professionals from savvy users. In this study, we consider professions in which knowledge of ICT predominates over knowledge of the field of business. In this context, two categories may be considered:

- Firstly, the professions for which ICT are essential to business. Employees in this branch, in addition to their professional skills, must acquire and maintain a palette of increasingly advanced computer skills.

- Secondly, the professions in the hard core of computer science, accessible only after an education focussed specifically on computer science.

- Between the two is a grey area where both categories meet and mingle. ICT specialists must often have a good knowledge of the field of business in which they work. As well as having computer skills, they will also specialise in an activity that uses IT resources and will, depending on the direction that their studies or career have taken them, become specialists in banking IT, or computer vision. In this area, they will come across jobs equivalent to their own, financial specialists or electronics experts (to use our examples), which will have taken a different path leading from business skills to computer skills.

Considering this principle, we can largely redraw the map of ICT professions of report D1 in this study:

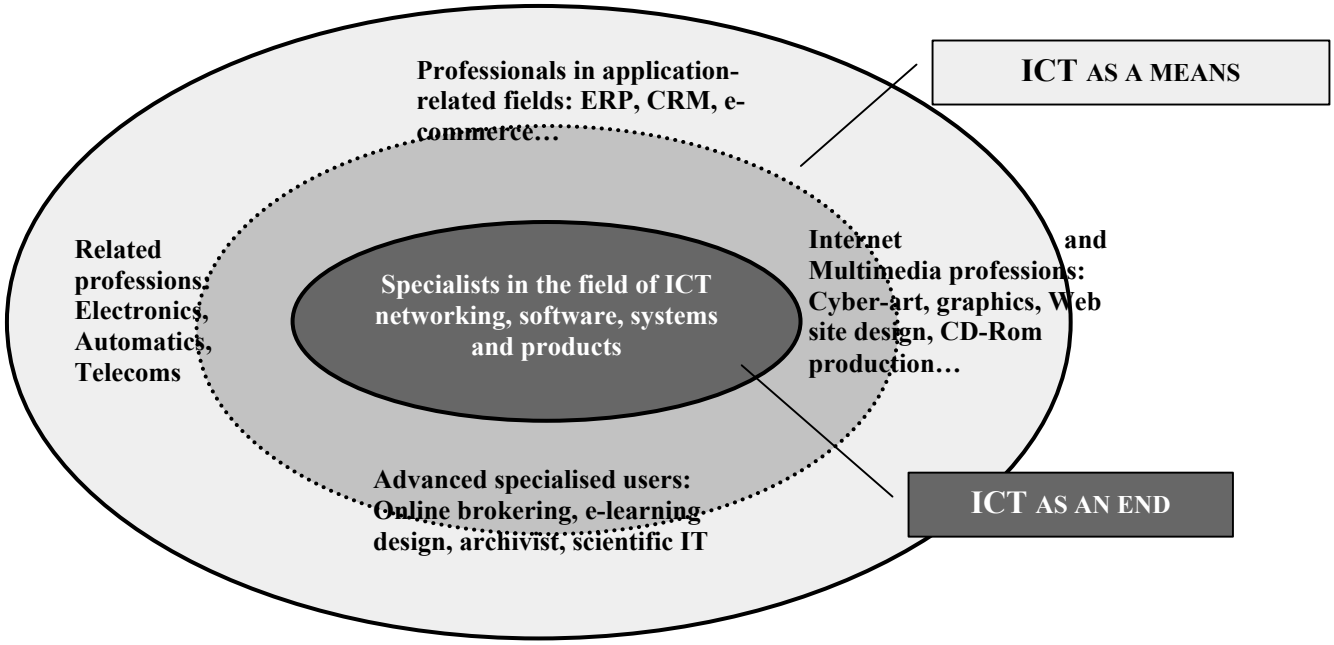


Figure IX. Map of ICT professions

Of the practices identified, some very clearly target the hard core, featuring computer courses for women, tutoring for female IT students, or a proactive policy for hiring female computer scientists, for instance.

Conversely, as regards the grey area around this hard core, messages are scrambled: some practices, for example, may address both types of professions, whether IT is a means or an end: in particular, practices which target girls (girls' day, IT workshop for teenagers, etc.). However, it is highly likely that these practices will be perceived either as an encouragement to take up IT as a profession, or as a workshop focussing on computer use, rather than as a possibility of interfacing between IT and a business activity.

These days, it is a real challenge to make this perspective visible and to promote it among women. Currently, when computer proficiency becomes a necessity in a job (or in a branch of a job), it clearly tends to become male-oriented, even if the job was more female-oriented at the outset. We should stress that the issue here is technical proficiency, and not use; the

secretarial profession has not suddenly become male-oriented with the arrival of office computing.

Furthermore, there are more and more degree courses emerging in which IT is a tool to serve another discipline: IT for social sciences, biotechnology, publishing, etc. Although computers rarely fascinate girls per se, computers when used for another discipline (such as maths, biology, art, etc.) may become attractive. Girls tend to be put off by the image of the hacker who spends his entire life in front of a computer screen, and imagine that computer scientists do nothing but programme. As we fight this false image of the profession, it is important to stress the need for cross-disciplinary skills, and applied computing.

This is a key avenue to explore. According to Catherine Marry (2004), girls seek diversity above all. They are not put off by selective industries and are not afraid to be isolated among boys. However, they will not be attracted by overly specialised courses. Quite involuntarily, cross-disciplinary courses can be considered as women-friendly: for them to become truly so, girls must be made aware of their existence, and must feel welcomed.

We did not find any practices that make explicit reference to this aspect of ICT. However, we could imagine work placements, communications campaigns, competitions, etc. that do not deal with the vague notion of ICT as a whole, but which stress the idea of applied IT and are geared not towards future computer scientists, but to people having already chosen a career path, within which they can be shown the benefits of ICT.

3.2.2 Building a relational network for women

In order to learn how to encourage women to choose ICT careers, we can look at the reasons that have encouraged women to change career direction (Collet – Ingarao 2003). For these women, at a given moment, there is a trigger that turns IT from something unthinkable to something desirable. The two major arguments in this situation are as follows:

- The ease with which work can be found in these professions (conversion is almost always due to unemployment)
- A friend or family member has given them the idea or desire to convert.

In the survey quoted as a reference, the authors note that the arguments for men are very similar to those for women, but men are simply more likely than women to have contacts in the IT world. One of the reasons relates to the fact that it is common for men to build more or less formal networks outside working hours. Women, even if they are ready to join in mixed or female meetings, often have less time to devote to maintaining a professional network. And as extra-professional networks are often built by gender group, they often know fewer computer scientists.

This is where programmes based on tutoring and coaching, or presenting positive identification models, come into their own. The idea is to weave a network of contacts which may be of use to women, enabling them to be less isolated by building a reliable relational support structure that they may consult.

3.2.3 Preparing for self-learning

One of the specific features of the ICT sector is its constant, rapid evolution, which requires employees to make regular efforts to continue their training. Companies, aware of how important it is to have up-to-date knowledge, generally offer training to their employees. However, they also expect people to make this effort themselves.

This self-learning (Collet – Ingarao 2003) is generally done in two ways:

- **Among peers**: employees (male and female) are expected to exchange knowledge by working side-by-side on the same projects
  - As women are suspected to be incompetent, they avoid asking colleagues for help as they are scared of coming across as incapable, or of being patronised. They often find themselves caught in a trap: if they seek information from their colleagues, they are "admitting their ignorance", but if they do not, then they cannot maintain their skill levels and "become ignorant".
- **From reading material**: employees (male and female) must keep up to date with changes in the field in which they work. They find the appropriate documents themselves and study it, often outside working hours.
  - Women do not always have the luxury of spare time in which to continue their training themselves. Moreover, women generally prefer to learn with a facilitator (even when self-learning). Solitary learning or self-learning is the preferred means of learning of "nerds" and is only really convenient for a small, essentially male part of the ICT population.

Generally speaking, self-learning has a very particular status in companies: it is both obligatory, in order to keep up to date, but not recognised: it is supposed to be done naturally, is not organised, and skills acquired are not validated in any way.

This self-learning is also invisible within our corpus of practices. There are no provisions upstream in order to:

- raise women's awareness of these techniques,
- get them used to training themselves, asking peers for help,
- institionalise the transfer of knowledge so that everybody finds it natural to exchange information,
- validate skills acquired in this way, so that women (like men) can acquire some real benefit from it, that they would not necessarily dare to highlight if such skills remained informal
- make these practices visible and define them, in order to avoid long hours of work at home.

3.3 Mobilising initiators

3.3.1 Private sector initiatives

In the corpus for the UK, two particularly remarkable practices merit our attention: those of FI Group and Happy Computer. As we mentioned above (§ "Type of initiator"), these are two successful examples, which indicate that:

- When a company wants to have a positive discrimination policy, it manages to find competent women at every level (50% of managers are women) and remain in excellent financial health (FI group).

- When a company applies women-friendly measures, it has no problem recruiting women: Happy computer is not necessarily seeking to employ women, but simply to limit staff turnover, and 75% of its staff are women.

Out of all these practices:

- Fewer than 2 practices in 10 are initiated by companies

- Only 13% of employers are targeted by these practices

- What is more, they are rarely the core target group of practices. Similarly, we note that teenagers and students are three times more likely to be a core target group than schools.

By burdening women with the majority of the effort, the implication is that the gender gap is essentially due to their reluctance to enter the profession, and yet there are few practices that are really working hard to create a place for them.

3.3.2 The role of social partners

Evidence from our case studies and biographies confirm this situation. Sector-wide collective agreements usually exist and in large companies collective bargaining at company level too. While basic employment conditions are collectively bargained, career advancement is mainly based on individual performance and wage and benefits are currently negotiated at individual level. Although big firms have more structured internal systems regulating career advancement, mobility and training, in most of our case study organisations only few rules as regards pay and reward systems are reported and the individual negotiation mostly depends on manager's good will. While this situation seems to be preferred by a number of employees who chose to manage themselves their problems and concerns, without any intermediary, women in this situation appear to be disadvantaged. Although they often do not acknowledge to be discriminated, they often refer to be less successful in such negotiation than men are (and the reason is probably because they underestimate themselves).

However, even when in a large company with a trade-union tradition, such questions are rarely addressed, if at all. Although we might have expected to see practices initiated by social partners to tackle the glass ceiling or sexist behaviour in technical professions, or male/female salary gaps in the ICT world, we encountered nothing of the sort.

As regards the plethora of small or very-small businesses in the sector, only branch agreements would make it possible to attempt to regulate the gender bias induced by the individualisation of career management (as described in part D7: Case Studies and again in D9: Conclusion report).

3.4 Improving equal opportunities within a systemic approach

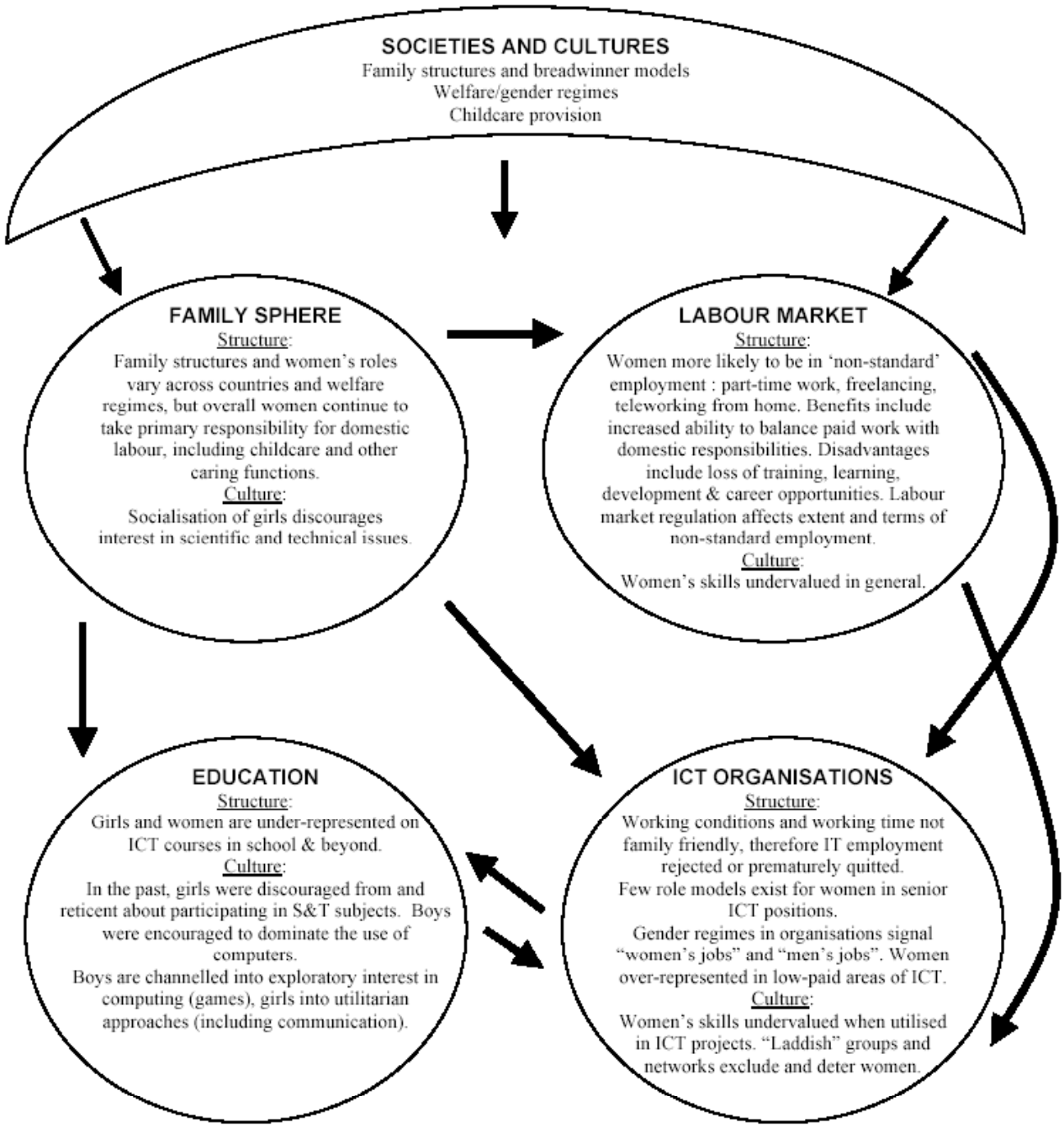


Figure X. Explicative variables interaction between five clusters

This chart, taken from Deliverable no.1 "Conceptual framework and state of the art", shows how the variables that explain the gender gap in ICT work systemically. One of these spheres would not, on its own, suffice to explain the gap: it is the interacting whole that is at the origin of the current situation.

Similarly, even when tackling this gender gap, it is pointless to try and address only one sphere. Why try and convince employers to hire women if few women are actually opting to study IT? How can we persuade girls that there are interesting careers in ICT if they are to quickly hit the glass ceiling and realise that their salaries are significantly lower than those of their male counterparts? In both cases, the effects of Good Practices would be fleeting, and limited.

This diagram shows a five-headed monster: each part must all be targeted if the monster is to be killed. When an employer decides to increase the number of women on the staff, then there must be well trained, self-assured women on the job market. If such women are to exist, then they must feel sure that there is a place for them in this profession, via the media, and educational and career guidance. And if this fragile balance is to last, then the people surrounding these women (colleagues, managers, and partners) must consider them to have a legitimate place.

Although in the previous section we indicated various fields of application that have been underexploited, this does not mean that other practices are without worth. Indeed, the gender gap can only be reduced if we align a series of actions which will enable us, step by step, to approach equality. **Equal opportunities between men and women in ICT will work as an emerging phenomenon, based on an effective, balanced system of Good Practices, working together on multiple causes, to achieve a common goal**.

This is why efforts as they stand in many countries must be pursued: they must be strengthened in the less targeted fields of application, and above all, practices must be evaluated in order to ensure that all spheres are targeted effectively. In this context, the development of the situation in Belgium should be closely studied, as this would seem to be the country in which practices are best distributed and interconnected. Also, the size of the country in question means that the critical mass of the target group affected by the range of practices is reached more quickly.

4 Methodological recommendations

4.1 Practice quality criteria

The minimum criteria required to identify a practice are listed in the introduction, in section § 1.1. In addition, further criteria must be added, so that we can truly refer to Good Practices[7]:

Promotion / Visibility:	The action is covered by an effective communications campaign and is known about by its target group.
Easy access	The action is easily accessed by the target group (in terms of geographical situation, administrative and financial conditions, technical resources required to participate, etc.)
Positive effects:	The action has positive, lasting effects (e.g. increase of number of women in companies, return to work for women trained in IT, increase in women's self-esteem and self-confidence, coordination of a network of potential partners previously not in relation, etc.)
Relevance:	The objectives of the action reflect the needs and interests of the target group, while retaining an ecological view of the situation based on a territorial diagnosis.
Integration:	The action falls within policies to boost education, employment, economic development in the region or country concerned, and is able to interface with other complementary practices.
Transferability / Extendibility:	The action can be feasibly transferred to other contexts (another team, another country), through contextual adaptation, particularly by raising players' awareness to the issue of equal opportunities for men and women.

4.2 Conducting an evaluation

Usually, an external evaluator or a team of external evaluators will be assigned for conducting the evaluation. However, in order to be able to effectually guide the evaluation, to know what

[7] These additional criteria are also inspired by the study quoted in § 1.1

can and what cannot be expected from the evaluation, and to be able to assess the quality and make proper use of the evaluation results, it is important for the commissioner as well as for the management of the evaluation to know, what the basic tasks of an evaluation are and how they may be performed.

The following table summarises the three relevant fields of investigation when evaluating programmes. This table is coming from: "Evaluating Actions and Measures Promoting Female Entrepreneurship, A Guide.", European Commission Enterprise Directorate General, realised by the Austrian Institute for Small Business Research (IfGH), Sonja Sheikh and Nadia Steiber.

	purpose	tasks
evaluating the context and intervention logic of a programme	to examine how the programme functions within its economic, social and political context to clarify objectives when these are not clearly expressed to understand how the programme works and how its features hold together to judge the relevance of the programme to judge the coherence of the programme to establish a basis for analysing the programme's effects	to analyse the needs of the target group(s) and the framework conditions of the programme to analyse the hierarchy of objectives and the underlying strategies or assumptions of the programme to compare the needs of the target group with the objectives of the programme to assess the degree of complementarity within a programme and in relation to other similar programmes
monitoring and evaluating the implementation of a programme	to provide continuous feedback on the implementation of the programme and identify potentials for improvement to determine whether the programme remains on the right track towards achieving its objectives to identify reasons for successful or unsuccessful performance of the programme to provide evidence for interpreting results and impacts of the programme	to elaborate a set of indicators for continuously monitoring the progress of the programme to analyse how the programme operates, which functions it carries out and how the services are delivered to identify the programme's strengths and weaknesses
evaluating the effects of a programme	to determine the effects (results and impacts) of the programme to analyse whether the programme has reached its goals and objectives to judge the effectiveness of the programme to judge the efficiency of the programme to provide evidence for the continued funding or expansion of the programme	to choose a suitable evaluation design to select appropriate indicators and according data collection methods to analyse data and estimate the net effects of the programme to relate the effects obtained to the expected objectives of the programme to relate the effects obtained to the resources mobilised by the programme

Figure XI. Field of investigation when evaluating programmes

For more details:

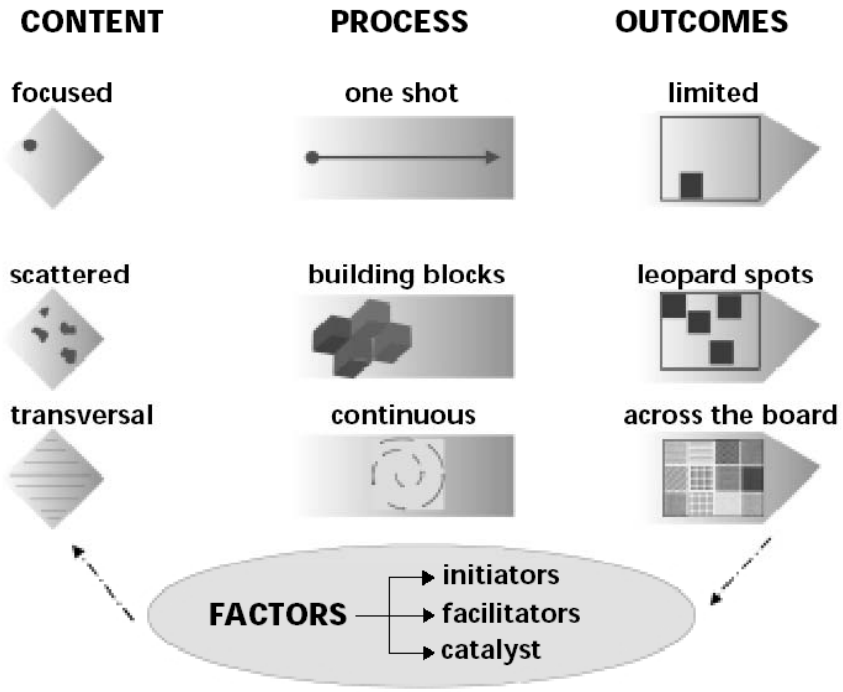
http://europa.eu.int/comm/enterprise/entrepreneurship/craft/craft-women/documents/evaluation-guide.pdf

4.3 Towards strategic evaluation

The rapport named: "Promoting gender equality in the workplace"[8], from the European Foundation for the Improvement of Living and Working Conditions describes and assesses the impact of corporate equality strategies on gender equality in the workplace in seven EU Member States. It outlines the reasons for the success or failure of equality programmes, and draws up recommendations for decision makers.

The chapter: "Working towards sustainable gender equality in the workplace" constructs a dynamic equality model. The model demonstrates how different approaches to developing gender equality in the workplace, across each of the dimensions analysed, have a cumulative effect, producing different equality outcomes at different levels. While the authors precise the model needs further testing, it has the potential to help equality practitioners and researchers to identify:

- why an organisation is at a particular stage in the development of equality;
- the different choices available and challenges to be faced in developing equality further and sustaining it over time;
- why the development of equality may be blocked.



[8] Etta Olgiati and Gillian Shapiro, European Foundation for the Improvement of Living and Working Conditions, Luxembourg, 2002

Figure XII. ***The dynamic equality tracking model***

Factors:[9]

Initiators: This term describes those factors that appear to motivate an organisation to begin to engage in equality action.

Facilitators: This describes those factors that influence an organisation to engage in equality action because of a perceived link between such action and wider organisational objectives.

Catalyst: This term describes those factors which, while highlighting the alignment between equality and wider organisational goals, also appear to have a longer-term perspective; are less contingent on current environmental conditions; and provide the impetus for equality to become embedded in the organisation's policy, practices and culture.

Content:

Focused is used to describe equality action that has a fairly narrow goal, addressing, for example, a specific target group

Scattered describes equality action that is aimed at addressing different issues and/or targets different organisational areas.

Transversal describes equality action that is more likely to take place in more advanced equality-oriented organisations, which adopt a 'holistic' approach and embed equality in all their policies, procedures and practices.

Process

One-shot describes the approach adopted by those organisations which followed quite a detailed and methodical process for developing gender equality, but applied it only to a particular project.

Building blocks can be adopted for implementing equality plans that has a medium-term outlook, by seeking to ensure that the action taken has a wider impact on the organisation, providing building blocks for continued efforts towards equality goals.

Continuous is characterised by a long-term perspective, where the organisation has embedded equality in its policies, procedures, practices and culture – and where it also engages in focused action when and where necessary. Results are regularly monitored, because the organisation acknowledges the centrality of equality to the achievement of its strategic goals.

[9] more explanation on: http://www.fr.eurofound.eu.int/publications/files/EF0161EN.pdf

Outcomes

Limited refers to equality results that are specific to the group of women or issue targeted by the action. It tends to result from focused action undertaken with a 'one-shot' approach.

Leopard spots The outcome could be compared to islands of equality across the organisation. There was an acknowledgement that equality needed to become embedded in the organisation. Consequently, moves were made to undertake action in different parts of the organisation and on different issues.

Across the board The outcome is likely to be the result of equality action that includes both broadly focused and more specific initiatives and targets.

- At the lowest level in the model (focused, 'one-shot', limited equality action), organisational approach to equality is short-term and limited in scope. From this level, the potential exists for equality to either develop to higher levels, remain a marginal issue or disappear.

- At the highest level in the model (transversal, continuous, across-the-board equality action) the organisational approach is broader in its focus and impact, more embedded in overall policies, procedures, practices and culture, and takes a longer-term perspective.

By identifying which level of equality activity exists within an organisation, it is possible to track its overall direction as regards equality.

Improvement

Content	Process	Outcome
Focused	'one-shot'	limited
Scattered	'building blocks'	'leopard spots'
Transversal	continuous	across the board

Encountering problems

Content	Process	Outcome
Focused	'one-shot'	limited
Scattered	'building blocks'	'leopard spots'
Transversal	continuous	across the board

Figure XIII. Tracking the direction of equality

The above model can be used to analyse and evaluate our corpus, with a view to improving understanding of the approaches undertaken, expected effects and products.

As indicated in the report "*Promoting gender equality in the workplace*", the terms "limited" or "One-shot" should not be seen as pejorative. Highly targeted actions can have lasting, significant results: two clear examples are FI Group and Happy Computer, in the UK. Nonetheless, the downside of this type of action is that all the energy is turned inwards. Without a springboard (such as the ADA network in Belgium), without a general policy, such as the Equal Opportunities plan in a region of France or the Centre of Excellence in Germany, these have little chance of being deployed, circulated and serving as an operational example.

If we try to divide the practices in our corpus according to the areas in Figure XII, certain focus areas can be seen:

- most of our practices (approx. 65%) are in the lowest level (focused, 'one-shot', limited equality action)[10], which does not mean that they are not good practices or are not worthwhile. We should not forget, either, that we need highly targeted, local practices, in order to directly touch target groups and stay rooted in the day-to-day reality. However, these types of practices are not able to bring about a fundamental change in terms of equal opportunities in their environment.

- Nearly 30% of practices have a "leopard spot" effect, such as the Austrian imitative "The feminisation of industry", p. 53.

- Lastly, we have revealed four practices that can be considered to belong to the highest level (transversal, continuous, across-the-board equality action). It is perfectly natural that these practices are rarer, because they bring a number of "focused" practices together within a single "transversal" practice. Moreover, we have focused our corpus of data on ICT. These transversal practices tend to encompass ICT, but only as a small portion of the programme (such as the regional plan for equality in France)

If we consider the corpus from this new angle, it is easier to see the benefits of coordinating actions and incorporating them into broader plans for equal opportunities. By "broad", we do not necessarily mean "country-wide": a regional or even local scale may well be relevant. We are referring to a strategic plan which puts initiatives into perspective in ecological terms, enabling there to be a common evaluation framework, distributing information and resources, and so on. We have seen that women's organisations and non-profit associations can prove to be particularly inventive and dynamic. A strategic plan for equal opportunities can therefore make it possible to boost local, "focused" initiatives, as well as organising and enabling them to be deployed.

[10] Results in line with the practices collected in the report entitled "*Promoting gender equality in the workplace*"

Lastly, as we have established that any lasting reduction in the gender gap must be the result of a system of practices, it is important to consider the framework in which this system will be launched and managed. This is probably what is most significantly lacking, country by country: strategic plans incorporating a mainstreaming approach and monitoring a system of practices.

5 Conclusions

The recommendations and arguments for change that we shall put forward fall into the context of gender mainstreaming, which consists in "*reorganising, improving, developing and evaluating decision-making processes, with a view to incorporating the perspective of gender equality in all fields and at all levels, by those players generally involved in policy implementation. […] Such a change does not only call for legislative developments, but also a truly cultural transformation of individual behaviour and collective practices, and a resolute political action based on the broadest possible mobilisation*[11]. »

As the SIGIS project has pointed out for their topic, it is difficult to find evidence of good 'inclusion' practices but, many workplaces are denying the requirement for gender inclusion/supportive practices but at the same time have 'diversity' practices. It seems that gender inclusion practices are subject to economic cycles – in recession, they are of no interest to ICT firms; in times of economic growth, pressure on retention and recruitment stimulates their interest.

Our analysis of good practices bridging gaps in gender and skills in the labour market for ICT-related professions meets one of their conclusions: the practices they have included appear to be rather biased towards changing/adapting women to fit within existing systems rather than looking to understanding different workplace systems and cultures and to see where these systems include good inclusion strategies as one part of a broader good practice culture.

Here, we shall present our recommendations in two sections: firstly, we shall review the conclusions of our analyses in parts § 3 and 4, and secondly, we shall put forward arguments for women and potential change actors enabling them to be won over to a policy aiming to reduce the gender gap.

5.1 Review of recommendations

What follows is a summary of all the recommendations made in sections 3 and 4:

- Develop actions to raise awareness of equal opportunities so that potential change actors and women perceive and understand the gender gap and its results better. A good practice implemented by people who do not fully believe in the utility of equal opportunities policies is doomed to failure.

- Publicise the importance of cross-disciplinary training by stressing the need for IT proficiency in business domains. Stress the diversity of professions affected

[11] Excerpt from the by the European Commission communication "Incorporating equal opportunities between men and women into all Community policies and activities" COM(96) 67 final dated February 21, 1996

by ICT by emphasising the applied computing aspect rather than the pure ICT aspect alone.

- Pursue initiatives that act both on the hindrances and driving forces encountered in ICT studies and professions, and those acting on women's and employers' cultural representations.

- Set objectives that contribute to the quality of working life within ICT professions, so as to make these conform more closely to both male and female employees' aspirations, and the overall performance of companies. Raise awareness and equip social partners so they become change actors within the company.

- Develop systems of recognition for the professional training carried out informally (transfer of knowledge among peers and self-learning), by organising formal validation system for skills acquired in this way, through additional professional exams codified by a panel of professionals, for example; raise women's awareness of this means of skill acquisition.

- Ensure that each practice is properly evaluated (not just a satisfaction survey or estimated report of results)

- More generally, link up these recommendations within "Equal Opportunities" programmes enabling practices to be managed and coordinated – the only way to achieve mainstreaming and lasting change both in terms of images and daily life.

5.2 Arguments

At this stage in our study of good practices, we shall suggest solutions to convince the various target groups – women and potential change actors – to take part in these actions. What arguments could be used on these groups in order to set up, monitor and properly implement these practices?

5.2.1 Women

It can be noted that around ten years ago, representations of men and women changed. We no longer have to persuade girls that they are capable of doing the same jobs as men, even though 95% of them continue to see IT as a man's job. Although their older counterparts still doubt their abilities, partly due to their more traditional education and the weariness caused by obstacles in their professional lives, young girls generally believe that woman are as capable as men of succeeding in the IT world. They believe that the fight for equal opportunities is behind them, at least at school, and that if they are not attracted to IT professions, it is because they are not interested in them, not because they are incapable. Over-emphasising a message such as "*girls are just as capable*" is likely to have the following consequences:

- reduce girls' self-confidence and reactivate scorn and mistrust from boys

- put them off programmes that seem to want to "bring girls up to the same level as boys".

On this point, we coincide with the conclusions reached by the SIGIS team, following their interviews and case studies: "*Women students in computer science usually are quite resourceful. They refuse to be treated as if needing crutches. It is important to emphasise that inclusion efforts should as much as possible be presented as not directed explicitly toward women only. On the contrary, they preferably should be seen as an offer to all students, men and women, even if they are motivated by a concern for women students*."

However, in some countries which are developing greater awareness of equal opportunities, encouraging messages could be directed at girls without ill effect.

The conclusions of Deliverable no. 6 show us that women's testimonials already feature many relevant arguments, which can be relayed:

- It offers jobs in a respectable area and status.
- It is challenging work, offering the opportunity for learning and perfection, and for being creative
- It is fascinating, satisfying the urge to "solve riddles and generally the curiosity to get to the bottom of things"
- Being able to work with customers, translating their needs into software or a web site – this may even include a care-taking aspect
- It is an open world, with a wide horizon

Future campaigns should certainly, in the messages they publicise, make use of the arguments put forward by women.

5.2.2 Potential change actors

5.2.2.1 Arguments

Why close the gender gap? "*Firstly because it is fair, and secondly because it is in the interests of companies to do so"*: Royal Bank of Canada, Making the differences work: closing the gender gap, 1995

Why[12]:

- To increase the visibility and public image of the company, possible media coverage which will strengthen its reputation
- To achieve recognition on a national, European or even worldwide scale, as a leading company in the use of progressive management practices

[12] List inspired by survey: "The best workplaces", www.eu100best.org

- To increase job applications and standards of candidates (this argument also holds true for schools)

- To reduce staff turnover

- To increase the feeling of pride and satisfaction among employees

5.2.2.2 Argument strategy and tactics

Another argument strategy would be to rely on a concept that is generally well received within large companies: diversity. A company policy in favour of diversity has the advantage of not focussing directly and exclusively on equality between men and women. However, the danger with this type of argument is that women are reconsidered as a specific group rather than one half of all different population categories.

Diversity aims for the population of an organisation to reflect the populations existing in society, and therefore, the markets in which it develops.

By focusing on diversity, the following arguments can be developed:

- **Companies are more competitive**: comparative international studies[13] show a correlation between a high level of female activity and a high economic growth rate in the country. Moreover, the two examples of good practices – "Happy computer" and "FI Group" support this idea.

- **Companies are more dynamic and pleasant to work in**: firstly, many gender-balance studies show that employees prefer to work in a mixed gender environment. Secondly, women, by entering very male-oriented working groups contribute other values, such as the reconciliation of private and professional life. They help to make people understand that efficiency is not related to how long you spend at work and that "female" qualities are just as essential for the company as "male" qualities.

- **Companies are more in tune with their market**: companies that wish to develop or retain their competitive advantage in a globalised marketplace have every need to structure themselves to suit the profile of their customer base. According to Business for social responsibility, women in the USA apparently initiate 70% of purchase decisions. It is worthwhile for companies to adopt a broader vision and to reflect the characteristics of their consumers – and this holds true for ICT professions as well as others: for example, women will soon comprise 50% of all Internet users in Europe.

Because diversity is founded on the idea of performance, it has been seen to form an approach that is more easily accepted by all, men and women alike. Nonetheless, the measures taken to boost diversity may lead to the gender variable being forgotten, and neutralising its scope by bringing it down to the level of a categorical variable.

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[13] Survey by Hillman, Harris, Cannellla, Bellinger, (1998), quoted in Board Diversity, Issue Brief, Business for Social Responsibility, www.bsr.org

However, we can suppose that diversity, currently considered as a cutting-edge method in human resource terms, is a framework for implementing equal opportunities between men and women, by favouring a dynamic of belonging to general equality principles in the company. By using the diversity argument as a "Trojan horse," which is probably more effective at present than the gender-equality argument, it is likely that companies may be persuaded to set up a mainstreaming policy.

6 Annexe 1: Inventory of good practices

6.1 Good practices in Austria

6.1.1 Sprungbrett für Mädchen (Stepping stone for girls)

6.1.1.1 Presentation

Sprungbrett is an initiative situated in Vienna. The concept takes into consideration the whole social context of girls. That means to cooperate with schools, parents, teachers and industry.

Sprungbrett offers vocational guidance for girls and provides them with information about technical professions. Sprungbrett supports girls in their choices of education and occupation especially in non-traditional (proportion of women under 40%) professions.

There is individual counselling available as well as counselling in groups.

In workshops girls can test their interest and talent for technical work and craft. Girls can get advice for application procedures and entrance tests.

The work for girls of Sprungbrett concentrates on the following aspects:

- Orienting girls towards different ways of formation and job opportunities
- Getting in touch with personal abilities and interests
- New and future oriented jobs and training
- Getting to know in particular technical work and craft and the job opportunities these offer
- School, family, friends, self-confidence, partnership and family planning.

6.1.1.2 Initiators

The organization Sprungbrett was founded in 1987 by a multidisciplinary team. Today in 2003 the team consists of 12 social workers, psychologists, teachers, and different experts. Sprungbrett is funded by AMS (key agency of the labour market in Austria), the Austrian Ministry of Social Affairs, the Austrian ministry of economy and labour, the Austrian Ministry of Science, the Austrian Office for Women's Affairs and the EU-esf.

6.1.1.3 Motivation

The organization understands itself as an

- Advice centre of the labour market
- Advice centre for families
- Advice centre for girls and women

Sprungbrett tends towards supporting equal opportunities of women, preventing violence in family and partnership, supporting girls' non-traditional choices of profession.

6.1.1.4 Target groups

- Girls who plan to change the school or school type
- Girls in their professional decision making process
- Girls looking for positions for trainees
- Girls who have questions concerning their personal situation, life planning, etc.
- Firms: They can get information about new professions, education, and they can be provided with coaching of women trainees
- Schools: They can get group advice in vocational guidance and sexuality and self-assertion

6.1.1.5 Tools and means used

Sprungbrett has a web page (www.sprungbrett.or.at) consisting of a calendar showing all the courses, workshops, etc., a chat room for girls and a list of open positions for women trainees.

Sprungbrett offers counselling hours for individuals and groups, vocational guidance, workshops for self-assertion and self-defence, career planning, ability tests, excursions to industry, training and learning possibilities on computer and internet, preparation of applications, information about professions.

Sprungbrett cooperates with craftsmen, technicians, data-processing specialists, a gynaecologist and a lawyer.

6.1.1.6 Duration of the project

The organization was founded in 1987 and is working continuously.

6.1.1.7 Other relevant aspects

Sprungbrett has invented an award for firms, which support girls, especially in technical work or crafts. The award is called “Amazone”.

Every year Sprungbrett organizes days of information and orientation in cooperation with the University of Technology and vocational schools.

6.1.2 The telm@ project

6.1.2.1 Presentation

telm@ is a curriculum of now 18 months for women in lower Austria, a region with a high unemployment rate. The programme offers courses in ICT, telematics, telecommunication, but also key competencies, social competencies and English language.

telm@ is a high level educational programme for women offering them access to new jobs

in this special region or qualifying them in the ICT-sector.

- telm@ wants to support women’s interests in technical contents and in learning for themselves, using the curriculum as a “tool”.

- The initiative wants to establish supportive measures for women, which also influence the didactic concepts.
- telm@ combines high technical qualification with reflexive elements on the working and living conditions of women. The curriculum supports critical analysis of daily life and active participation.
- Learning the English language is an important part of the vocational education.
- The female participants have great influence on the contents and development of the curricula. Feedback and reflection on the process are important instead of mechanisms of control.
- There are only female experts working as trainers and teachers in telm@.
- Using new technologies telm@ wants to initiate networking amongst women.
- As an accompanying measure counselling and coaching is offered.

6.1.2.2 Initiators

telm@ was initiated by women of the region in lower Austria, working in an advice centre for women in cooperation with the University of Technology in Vienna. telm@ was founded in 1999, starting with a 15 months curriculum.

telm@ is financed by the AMS (key agency of the labour market in Austria), by the government of lower Austria and by the ministry of science. This financial cooperation also means combining the educational interests of the ministry with the qualifying interests of the AMS.

The first telm@ initiative has been part of a EU Now-project, then developed to a continuous institution. The curriculum was widened and up to now there is given more time for learning apart from the seminars. The duration of the curriculum is 18 months now (2003).

Since 2002 there are plans for a new project named “Transfer” with the goal to set up similar curricula in other parts of the country.

6.1.2.3 Motivation

The founder members’ motivation is to develop measures for women in a region of high unemployment rates, to give women new perspectives on their professional careers and to support women in being self confident and active in their search. It is also to show women that an ICT career is reachable with good qualifications and to give them easier access to the sector.

6.1.2.4 Target groups

- Unemployed women and women looking for a job
- Women returners
- Women with family or other caring duties
- Women primarily educated in areas without job chances

Women who want to attend the telm@ curriculum should have professional training and experiences and they should have passed final exams of a high school.

6.1.2.5 Tools and means used

telm@ consists of a basic education (7 months) and a specialising phase including a period of practical training in firms (11 months).

There is an information day at the beginning, followed by days for orientation for participants and trainers.

The curriculum consists of different didactic forms such as lectures, workshops, projects and practical exercises; the software used is all in English.

Education is practical and in cooperation with local industry, on a high technical level, flexible and individually planned. Working and learning in cooperative forms is important as well as an intensive contact between participants and teachers.

6.1.2.6 Duration of the project

Initiated 1999 with the first telm@-curriculum, continuously offered, telm@3 started in 2002. Since 2002 there is a new project named "Transfer" in order to establish similar curricula in other parts of the country taking into account the special needs of women in every region. telm@ always focuses on the regional needs and tries to adapt the curriculum.

6.1.2.7 Other relevant aspects

telm@ offers a certificate for the basic courses. After this period women are qualified in training, installation and planning of data-processing, in user training, in project management. After the specialising part of the curriculum women are as well certificated in working in systems design, network and systems administration, web administration.

telm@ keeps in touch with women having completed the curricula for reasons of evaluation.

6.1.3 The MUT! project

6.1.3.1 Presentation

MUT! wants to encourage girls in rural regions to make their career choices in technical professions. The project emphasizes vocational guidance on the one hand and practical workshops for girls on the other hand. Girls shall have the possibility of working with their own hands, of finding their interests in trying out.

MUT! tries to brake up role stereotypes and to work with key agents in order to increase the girls' motivation towards technology.

MUT! initiates networking amongst advice centres and counsellors.

The project team mentions the vision of increasing the proportion of women in non-traditional professions and the strengthening of the Austrian industry profiting greatly from the high potential of young women.

6.1.3.2 Initiators

MUT! was initiated by an institution in Salzburg. The project team consists of 7 women's representatives of the 7 federal countries, the ministry of science and education, and 10 (girls') advice centres.

MUT! is financed by the Austrian government, by the ministry of science and education, by the local governments of the federal countries and the esf (European social fund).

6.1.3.3 Motivation

The founder members' motivation is to encourage girls in rural regions to show an interest in technical professions. The emphasis of the project lies on rural regions, so it is offered in most of the Austrian federal countries, but not in Vienna.

MUT! wants to enlarge the spectrum of girls' choices of profession.

6.1.3.4 Target groups

- Girls of the age from 10 to 15 years
- Parents
- Teachers
- Advice centres
- Enterprises

6.1.3.5 Tools and means used

- Workshops in ICT, metal processing, electrical engineering, ecology, film
- Vocational guidance: coaching, counselling for individuals and groups
- Assessment centres and mentoring in order to find out one's talents
- Seminars for teachers
- Networking between advice centres, schools, etc.

6.1.3.6 Duration of the project

Initiated 2002 the project offers its programme in 7 of 9 federal countries of Austria. The duration is 26 months. MUT! is quite a new project, so at the moment it is not predictable, if there will be a continuation after the mentioned 26 months.

6.1.3.7 Other relevant aspects

MUT! is the German word for 'courage'. The project's aim is to encourage girls. It is possible as well to interpret the three letters as follows: M (Mädchen =girls) U (Und =and) T (Technik =technology).

Every federal country has its own website with its special programme fitting in the needs of the people in the region.

The common web page (www.mut.co.at) also provides information on the situation of girls and women in the technological sectors and the professional training. Additionally you can find statements to the press describing the positive results of the first seven months of the project.

6.1.4 The FIT project

6.1.4.1 Presentation

FIT F(Frauen = women) I (In die = into) T (Technik = technology) provides information for girls in higher education. It is a vocational guidance project.

FIT provides young women with information concerning universities of technology, universities for applied science and colleges.

The aim is to increase the proportion of women in technical education and professions.

FIT wants to inform young women about professional perspectives and attractive professions for the future.

FIT tries to help girls and young women to loose feelings of anxiety towards technology.

FIT works on networks and wants to make women in technology visible.

FIT tries to support gender democratic structures within universities.

FIT wants to improve the chances of young women on the labour market.

The initiative cooperates with advice centres in the Austrian federal countries and with universities of technology all over Austria.

6.1.4.2 Initiators

FIT was initiated by the ministry of science and education. The project partners are advice centres all over Austria, universities, universities for applied science and colleges.

FIT is financed by the ministry of science and education and the esf (European social fund). FIT initiatives in the federal countries of Austria have different financial support in addition to the mentioned above.

6.1.4.3 Motivation

The aim is to increase the proportion of women in technical education and professions. FIT wants to support young women in their professional identifying process and in finding contacts to women working in technical jobs.

FIT initiates the shaping of political ideas in schools and media. The project wants to present successful women and motivate young girls to take these women as examples**.**

6.1.4.4 Target groups

- Girls of the age of 18 years (choice of university, etc)
- Girls attending the last two years of a high school (before A-level)

6.1.4.5 Tools and means used

- Information material about studies at universities, universities for applied science and colleges.
- Presentations of University departments

- Excursions to lectures and laboratories
- Discussions with women working in industry and in universities
- Seminars for schools
- Discussions between girls and female technicians about the individual career planning

6.1.4.6 Duration of the project

FIT is more a programme than a project in all the federal countries of Austria, which have universities or universities for applied science. FIT is running its information days since many years and continues successfully in finding new partners all over Austria. The initiative has no 'duration of project', because it is mainly the activity of the Austrian ministry of science.

6.1.4.7 Other relevant aspects

The common web page (www.fit.sid.at) provides information on education and studies. In addition there are the web pages of the cooperating institutions in the federal countries containing the FIT activities as well as their programmes for other topics.

6.1.5 The 'web academy'

6.1.5.1 Presentation

The 'web academy' is an initiative of the Austrian online-network webwomen (www.webwomen.at). The web academy wants to present the courses in a very professional way, e.g. in their flyers. They attach importance to the quality of their presentation and to the quality of their trainers.

They try to avoid technical expressions in the titles of the seminars, in order not to deter women.

The web academy offers seminars for women with women teachers in order to improve the chances of women in the ICT-sector, especially in leading positions.

The web academy tries to increase the participation of women in technology.

The initiative keeps in contact with the industry in order to provide the further education needed.

The web academy attaches importance to individualism, there are courses fitting to the participants needs concerning the learning time and the subjects.

All groups of women are welcome: from the beginner to the expert and from the secretary to the manager.

There are only women teachers in order to avoid stereotypes, to interest women in male dominated know-how, to avoid anxiety, to get in contact with encouraging 'female models' and to initiate mentoring.

The web academy is aware of discrimination in the language, the time management and the handbooks (they often take women's projects as examples).

6.1.5.2 Initiators

The network webwomen was founded in 1998 by a small group of women, all fond of the internet. In 2002 webwomen has about 1500 online-members; it is a network 'of women for women'. Webwomen started as the Austrian section the international webgrrls-network, founded in New York. Web women separated in 2000 from the webgrrls international because of the commercialising and the obligatory membership fees. Webwomen wanted to stay a network of interested women without paying for membership.

The web academy started in 1999 with courses for professionals and courses with creative elements. In 2000 the number of internet courses offered by web academy increased, there were courses for beginners, advanced users and even for programmers.

The web academy is funded by a counselling firm and the women's representative of the city of Vienna.

6.1.5.3 Motivation

The aim is to educate women in using and/or programming internet technology, but also to provide women with basics of information technology. The initiative wants to improve the women's basis of negotiations in their jobs.

Another aim of web academy is to offer contacts to women in the ICT-sector and to use the webwomen network for their personal forthcoming.

6.1.5.4 Target groups

- Women without any experience with the internet
- Women beginners who want to use more and to understand better the internet
- Women working together with ICT-experts, who need to understand the basics
- Women working in the ICT-sector, who need special further education
- Women, who want to become an ICT-professional

6.1.5.5 Tools and means used

- Individual coaching for every participating woman
- Time for exercising and trying out
- Women trainers, who are experts and work in the ICT-sector
- A friendly atmosphere and learning without stress
- Handbooks for all the courses included

6.1.5.6 Duration of the project

The web academy started in 1999 and is continuing. At the moment there are very few offers of seminars or courses. The reason might be the lack of interest of participants or the lack of money – that is an open question.

6.1.6 EDP-Academy for Women ("EDV-Akademie für Frauen")

6.1.6.1 Presentation

The project was initiated by Microsoft in 2002. Women who want to return to professional life after maternity leave are offered the possibility to take high-level professional IT courses for free.

For further information (in German) see http://www.it4women.at

6.1.6.2 Initiators

The academy is organised by Microsoft in cooperation with Fujitsu Siemens Computers, Manpower (personnel leasing company), UTA (telecommunications company), abzwien and NOWA (association and network to support women in professional concerns), AMS Steiermark (employment agency) and bit Schulungscenter (training center).

6.1.6.3 Motivation

The objective is to give women after maternity leave the chance to reenter professional life in good positions.

6.1.6.4 Target groups

Women who already have computer skills or have been working in IT and:

- are at maternity leave or
- did not return after maternity leave and are unemployed or
- want to reenter professional life after a longer period of caring for children

6.1.6.5 Tools and means used

Courses are offered in two Austrian cities (Vienna and Graz). They last between 12 an 24 weeks. There are about 3 hours of workshops per week, another 20 hours per week are planned to be used for self study via Internet from home. In an entrance exam women are tested for their qualification. For those women who are selected through the application process courses are free of charge (except for the registration fee). The courses provide qualifications oriented towards the needs of the labour market. All courses are certified and finish with exams. Depending on the computer skills and interests of the women they can apply for courses at three levels:

- MOS Master (Microsoft Office Specialist):
  Qualifies the participants as professional users of Microsoft Office products
- MCP for Windows 2000 Professional and Server (Microsoft Certified Professional Programme):
  Qualifies for network administration, standard is acknowledged worldwide
- MCSA for Windows 2000 (Microsoft Certified Systems Administrators):
  Implementation and administration of Windows 2000 networks

The courses and the further coaching of the women is organised in cooperation between the partners: The training center is responsible for the organisation of the courses, the employment agency and the associations for womens' employment as well as the personnel leasing company offer support in finding a job and writing applications. Coaching is offered to the women to help them deal with their re-entry in the job and with conflicts between family and work.

6.1.6.6 *Duration of the project*

In the first year of the initiative 60 women participated in the courses. The second round of courses was started in March 2003. The initiative is planned to be continued.

6.1.7 ditact – women's IT summer studies

6.1.7.1 *Presentation*

Inspired by the Informatica Feminale in Germany, ditact offers women's IT summer studies for the first time in Austria in September 2003. The summer studies take place at the University of Salzburg and the University of Applied Sciences and Technologies in Salzburg. They last for two weeks.

For further information (in German) see http://www.ditact.ac.at

6.1.7.2 *Initiators*

ditact is designed and organised by Anna Stiftinger (New Media and Communication) and Ulli Gschwandtner ("Solution", social research and development).

Cooperating partners in Salzburg are the University of Salzburg, the University of Applied Sciences and Technologies in Salzburg, "gendup" (the center for women and gender studies at the University of Salzburg), ICT&S (Center for Advanced Studies and Research in Information and Communication Technologies and Society at the University of Salzburg), the Salzburg Research Association, the Digital Mediacluster Salzburg and the womens' offices of the city and province of Salzburg.

Beyond Salzburg cooperating partners are the Informatica Feminale, the Austrian Computer Society, the project WIT ("Wisenschafterinnenkolleg Internettechnologien" – an initiative for female researchers in the realm of Internet technologies), the project FIT ("Frauen in die Technik" – Women into Technology), the project KommIT (Women in IT and Multimedia) in Munich, Germany, and many professional women in IT.

ditact is funded by the federal ministry of education, research and culture, by the University of Salzburg and by the University of Applied Sciences and Technologies in Salzburg.

6.1.7.3 *Motivation*

As motivation for the organisation of the summer studies the initiators list:

- the low (and for some years decreasing) number of female graduates
- the increasing drop-out rate among female students
- the low number of female lecturers and university professors

at universities with an orientation towards IT

6.1.7.4 *Target groups*

- Schoolgirls
- Female students of computer science and related subjects (beginners as well as advanced students)
- Female scientists and researchers

6.1.7.5 *Tools and means used*

40 courses offer introductions and qualification with focusses on six topics:

- Planning and organisation of IT-projects
- ICT basics
- Working and learning in networks (e.g. e-learning)
- Future trends and hypes
- Gender themes
- Demystification of IT

All the workshops, seminars and tutorials are held by professional women. This has two reasons: First of all especially for the introduction courses studies have shown that women achieve better results when taught in single gender groups. Secondly the teaching women serve as role models for the students.

In evening events the broader public is addressed. A programme is offered that deals with different aspects of IT in consideration of a gender perspective.

6.1.7.6 *Duration of the project*

The summer studies are offered for the first time in September 2003. It is planned to proceed with the summer studies in the next years. Therefore a network of cooperating partners has been set up (see above). The project will include an evaluation.

6.1.8 WIT (Women's Postgraduate College for Internet Technologies)

6.1.8.1 Presentation

The core activity of WIT is a dissertation programme for female graduates of computer science who are working on their PhD theses in the realm of Internet technologies. Other measures aim at supporting schoolgirls, female students and researchers in their academic careers and building up a network of women IT researchers.

For further information (in German) see http://wit.tuwien.ac.at

6.1.8.2 *Initiators*

The project was launched at the beginning of 2003 at the Vienna University of Technology. It is part of FFORTE (a programme for women in research and technology) and is financed for five years by BMBWK (Federal Ministry for Education, Science and Culture) and ESF (European Social Fund).

6.1.8.3 *Motivation*

The aim is to further female computer scientists in all stages of their academic career and thereby increase the number of women in IT and especially encourage their participation in informatics at research level.

6.1.8.4 *Target groups*

- For the dissertation programme: female graduates of computer science who are about to do their doctorate

- Beyond this core target group women at all levels of their academic career are addressed: schoolgirls, female students and graduates of computer science, women IT researchers

6.1.8.5 *Tools and means used*

- Dissertation programme:Up to seven graduates of computer science and related studies are supervised. They receive a grant for the time they are working on their PhD theses (at most for four years). A PhD curriculum is offered delivering technical as well as other qualifications. The contents comprise semantic web and knowledge management, web engineering, process engineering, e-commerce and e-learning. Guest professors and international exchange are provided to help students gain access to the scientific community.Besides research and teaching the WIT students are involved in the other measures to support women and girls in their IT careers.

- Support for women in different stages of their academic career: Different activities aim at encouraging young women to study computer science and female students to keep on with their studies.GITI ("girls IT information") is an initiative (in cooperation with FIT – Women into Technology) to motivate schoolgirls to study computer science. Information is offered on the possibilities to study informatics on a special "IT day" at the university, schoolclasses are visited by female computer science students who are trained for that aim by WIT.Special crash courses on hardware and software are offered for female student beginners.
  For female students of computer science mentoring is planned to be provided.

- Communication infrastructure for female IT researchers: The aim is to build up a network of women IT researchers. Public relations, a webspace and international exchange are part of the measures.Beginning in autumn 2003 regular guest speeches (planned for each first Monday in a month) are offered to deliver further education to the students on the one hand and to enhance discussions in a broader public on the other hand.

6.1.8.6 *Duration of the project*

The project started in 2003 (the first public presentation is at the end of October 2003) and is financed for five years.

6.1.8.7 *Possible feedback*

Evaluation is planned to be done through peer reviewing by three reviewers (two women and one man).

6.1.9 Initiative "The feminisation of industry"

6.1.9.1 *Presentation*

The inititative „Die Industrie wird weiblich" (The feminisation of industry) was launched by the Federation of Austrian Industry. Its aim is to raise public awareness for the problem of female underrepresentation in technology education and motivate young women to actively consider the option of a career in an Austrian industrial enterprise.

For further information on the initiative (in German) see http://www.industriekarriere.at

English information can be found via the website of the Federation of Austrian Industry:

http://www.iv-net.at/static/english/perspectives/projects/e_industrie_weiblich.htm

6.1.9.2 *Initiators*

The project is realised by the Federation of Austrian Industry. Within the framework of the initiative the Federation of Austrian Industry cooperates closely with decision-makers of the education system.

6.1.9.3 *Motivation*

On the website of the Federation of Austrian Industry they say: 'To counteract the shortage of skilled labour, proactive steps have to be taken already at the training level. The Federation of Austrian Industry wants to attract young women to a career in industry. The project goal is to increase the percentage of female learners in technologically oriented courses of training significantly over the coming five years and, thus, make a career in industry attractive for young women.'

6.1.9.4 Target groups

- Young women who are about to make choices on their educational paths are the core target group, i.e. girls in secondary modern and grammar schools.

- Parents, teachers and enterprises are also addressed.

6.1.9.5 Tools and means used

The focus of the initiative is on information about different possibilities in technology education for girls:

- Flyer for young women with a career-checklist and information about different possibilities of education in technology, includes a list of links to specific websites and presents one young woman as role model

- The website offers information for girls wanting to check up on areas of potential interest to them. There is a test to check for their talents and qualifications for a technological education. Interviews with four women working in industry are reported. Data on women in education and profession are provided.

- Starting at an education fair in autumn 2002 a competition was organised to address girls aged 14 to 18. Among the 3000 participants attractive prices (e.g. cellular phones) were raffled. The main aim of this event was to make the initiative and the website known among young women.

Besides the activities for girls seminars are offered for career advisers and teachers, the first one was held in March 2002. Further seminars are planned to take place in autumn 2003.

6.1.9.6 Duration of the project

The initiative started at the beginning of 2002 and is planned to be ongoing.

6.2 Good practices in Belgium

6.2.1 The ADA project (non-profit sector)

6.2.1.1 Presentation

The ADA project is an awareness platform. Its initiators are four continued education associations. It has been named in honour of Ada Lovelace, the first well-known female programming specialist, in 1943. Its aim is to build a network of exchange, reflection and action on the theme of women and ICT. It must become and stay a technological watch, providing training centres with the needed information that will allow them to build training schemes adapted to the labour market. It also wants to study women access to new technology in a critical perspective.

Five actions are part of this programme:

- The creation of a Web site (www.ada-online.be) that offers information about women and ICT; it is a web of exchange for those working on this theme.

- Development and research activities on the needs of the new economy and on qualifying training programmes that would fulfil the needs of the labour market (understanding new job profiles, reflection about new pedagogical means like the need and demand of e-learning); the aim of the research is to continually update the diverse ICT training schemes organised by the different partners of the project.

- An awareness campaign involving organisation of round tables, participation to conferences, diffusion of press releases, etc.

- Training of female computer trainers, aiming at giving women role models to whom they can identify, in a field where technical knowledge is more often held by men.

- Creation of two animation and production web cells of social economy in Brussels and Antwerp.

6.2.1.2 Initiators

ADA is an autonomous initiative born in 2000, and led by four associations, (Interface 3, @ron, ATEL, Softt, NFTE) coming from the three regions of Belgium. These associations have been actors of professional reinsertion for a long time and are known to have led positive actions toward women. They have decided to focus on trainings in information technology.

Led by Interface3 in partnership with the other three associations, this project is supported by the Belgian Ministry of Labour and the European Social Fund, and involves a wider collaboration of companies, guidance centres, schools, etc.

6.2.1.3 Motivation

The founder members' motivation is to wring the neck of the common belief that women are not good at computers and are not interested by new information technologies. It is also to show women that an IT career is reachable, realist and fun and to give them easier access to the sector.

6.2.1.4 Target groups

Women and enterprises are the target groups in a first step, but ADA aims at becoming a wider place of exchange and collaboration, including different actors of the sector, enterprises, but also orientation centres, schools, all the social actors included in continued training. As it is an awareness action, the whole society is also the target. It also hopes to become a pilot experience and a starting point for public policies in this field.

6.2.1.5 Tools and means used

The web site

It presents six main parts:

- IT jobs: providing information about IT related professions, competences needed, description of jobs, etc.
- Training: help to find the right training in one's surroundings in a complete database of trainings.
- Work conditions in IT: this part gives information about the ICT sector (selection criteria, labour law, job opportunities, etc.)
- Women in IT: reflections about women and IT.
- Contact us: a discussion forum.
- The last one consists of diverse actions led in the project or by the different partners on their own, for example the mentorship, Wednesday's academies, SOS PC or others.

Mentorship project

It aims at developing a web of women working with ICT. Different activities organised in this aim are Wednesdays academies (about a technical or personal theme), Evening Academies (complementary training in IT); discussion forums, round tables, etc. All these activities are free of charge.

Other means

Leaflets, advertisements, participation to colloquiums, press releases, etc.

6.2.1.6 Duration of the project

From 2000 to 2006.

6.2.1.7 Other relevant aspects

ADA projects aims at tracking down causes of women's exclusion from the ICT market. It gives them tools of awareness but this programme on itself is not enough. ADA is rather an exploratory tool in which people look for solutions, to be implemented in other projects.

6.2.2 The DIGITALES Days (non-profit sector)

6.2.2.1 Presentation

The Digitales consists of a few (two or three) full days of meeting and exchange of work, knowledge, skills, experiences, dreams and questioning, that takes place once a year. It tries to find a common language to stimulate thoughts and to work out a practice which will encourage women's action in contemporary society and bring awareness of the concept of gender to the debates on new technologies through technological and creative initiation, understanding of the work tool, critical analysis of new technologies, discovery and construction of new images and interactions and constructing history, means of transmitting experience.

It also provides an opportunity for inter-generation and inter-training meetings: it makes room for neighbouring schools, for children and mothers of women looking for a job in training schemes. It develops a familial approach for less favoured people. The event is located in a multicultural area in Brussels. The aim of this never-ending technological activity and sharing is to create a virtual network.

6.2.2.2 Initiator

The Digitales project is part of the Belgian ADA network. Four associations created this project:

- Interface 3, an independent training centre that has been training women in ICT since 1988;
- Sophia, a network whose objective is to widespread feminists studies and research in Belgium;
- Constant, trying to promote creative and critical works using new media and other means of expression;
- The Research Centre on Equal Opportunities (Steunpunt Gelijke Kansen), an assignment of the Flemish government entrusted to the Antwerp University and the Limburg University Centre.

6.2.2.3 Motivation

The aim of this association is to put together energies and competencies, because it is important that women could be trained to ICT, understanding their stake and the role that they could play within them; because it is important that research teams share their knowledge with "ground" workers; because during these days, artistic and cyberfeminist actions take place in a theoretical and reflexive context.

Digitales tries to discover the history that women and machines have in common, with those who lived through it and with sociologists and historians, in order to understand the present better and to imagine the future.

6.2.2.4 Target groups

Target groups are very wide, beginning with women interested in technology, but also artists, lawyers, politicians, economists, developers, programmers, policy makers and civil servants. Digitales also wants to enclose children, mothers, surrounding schools, being a place of

meeting for all generations, all those who have or want to use technologies to earn their living and to provide for the needs of a family, who have professional and technical skills on the cutting edge of information and communication technology and alternative systems, who undertake university research in various disciplines and in various countries, who create their artistic work by using traditional or new media (film, video, Internet, digital support) and those who are interested by feminist thought on contemporary society.

6.2.2.5 Tools and means used

During the conference days, forums, lectures, workshop are organised. What is important is to give the floor to women, to share their experiences; that is why most of the workshops are organised in a non-formal way.

Every year, a radio web is installed by the Interface 3 trainees in collaboration with members of Brussels free radio stations and with links to web radios run by women in vocational training and integration centres in Europe.

After these days, Digitales keeps "traces" of the meeting days, discussion, workshops and lectures, organising the records and their distribution, creating its own audio and visual archiving spaces and tools. A channel of distribution is the web site in which summaries of all the conferences can be found, as well as addresses of the lecturers and links with useful sites.

6.2.2.6 Other relevant aspects

The means are important and full of meanings: the place where the "Digitales Days" are organised is a training and documentation centre and a feminist research centre. The timing is also important: three days where participants can share and act through many small round tables, workshop and discussions, instead of an impersonal conference.

Workshops allow women to open a computer and manipulate it, to install open source software or learn to use them in order to accustom them and to get rid of their fear.

6.2.3 Interface 3 asbl (non-profit sector)

6.2.3.1 Presentation

Interface 3 is an autonomous training centre for women, located in the centre of Brussels, created in 1988 as a non-profit association.

It offers eight different programmes to women only, in two directions: either a computer related job (web site manager, web developer, web administrator, helpdesk and network administrator) or a more traditional job impacted by technology (commercial assistant, accountant assistant, international commerce assistant). These classes are free and stick to the school timetable.

6.2.3.2 Initiator

At the end of the eighties, touched by the wave of massive redundancies in non qualified occupations (mainly female), a group of militant women decided to create a training centre adapted to the labour market needs and dedicated to women.

Today, a team of 25 people, mostly women, and around 40 outside contributors are in charge of the classes.

The initiative is supported by the European Social Fund, the French Community and ORBEM (the employment service of the Brussels Region). Diverse business federations give their help to some training.

6.2.3.3 Motivation

Its creation puts in concrete form the will to fight against unsuited qualification of numerous women in the new economy and their precariousness in the labour market. Interface 3 ambitions to answer and even anticipate enterprises expectations while defending women's specificities: children, family load, work life balance, etc.

The centre believes that ICT jobs can bring autonomy, responsibilities and valorisation to women and that they have a role to play in this technological evolution.

6.2.3.4 Target groups

Women whose professional qualifications are unsuited to the new economy, looking for a job and aged of more than 18 years old, whatever their education level.

6.2.3.5 Tools and means used

Besides training, Interface 3 faces many orientation demands; it now offers career orientation and advices through information and awareness days. It also offers short initiations modules to allow women to try different courses in order to make an informed choice.

Eight training units are given and last for around one year. Buildings are well furnished with up-to-date material.

But classes are only one face of the training schemes, which intend to completely rehabilitate those women. In this aim, orientation advices, pedagogical workshops, behavioural development classes and job research workshops are also organised, in collective or individual sessions.

Trainers are passionate by their jobs and master their competences; teamwork is favoured. Beside this labour force, an extended web of outside contributors regularly enriches the courses by its professional experience.

At the end of the theoretical courses, a traineeship has to be followed in enterprises. Interface 3 has developed links and connections in many ICT firms and not only provides addresses to the trainees, but also helps them in their search.

6.2.3.6 Feedback

More than 70% of the trainees are hired after their professional traineeship, either where they followed it or somewhere else. Each year, around 150 women receive an ICT qualification that allows them to find a job more easily, in the ICT new and leading field. Yet, since 2002, the situation is blacker and this reinsertion percentage is lower, especially as the most qualified are concerned. It seems that the most technical degrees are more in demand on the labour market, maybe because they suffer from fewer comparisons with traditional degrees.

The best that the centre receives is the satisfaction of women who spent one year with them, because this training is more than training, they rehabilitate the women and give them the self-esteem that they had lost or never had.

Many groups of previous students are organised, either by Interface 3 or spontaneously, which act as example for the new students and prove that they are well. Interface 3, through its regular presence in enterprise; and through the contacts they keep with previous trainees, receives feedbacks of the professional world about their trainings.

6.2.3.7 Other relevant aspects

To keep their classes up-to-date and to stick to reality, Interface 3 stays in link with the enterprise world and participates to numerous forums and debates. They try to visit the firms where they have sent trainees and, through discussions with the management, to evaluate if the training was adequate for the job or if something must be improved for the year after. Interface 3 has to be aware or the trends and of the new jobs and qualifications needed by the industry, to provide the right trainings at the right time. Interface 3 has become pilot in this domain.

6.2.4 Cybersoda

6.2.4.1 Presentation

Computer courses for 13-16-year old girls.

Site : **http://www.paluche.org/cybersoda**

The girls have the opportunity to:

- learn about the different aspects of computing, in a fun way (discovering and using the Web, hardware techniques, programming, graphic design and Web design, etc.)
- gain an insight into the reality of IT professions, by meeting female computer scientists.
- discover the different facets of the computing world
- find out which fields a computer may be used in …
- turn their passion for computing into more than just a hobby

A learning kit is being developed in order to transmit this innovation to extracurricular associations.

6.2.4.2 Initiator

This project is part of the ADA network and is set up at the Interface 3 training centre (see § Interface 3 and ADA)

6.2.4.3 Motivation

The Cybersoda workshop shows teenagers that there is nothing inaccessible or mysterious about understanding computers, and that they can gain the necessary knowledge to use computers independently… and perhaps even focus their career on the IT sector, or discover that they can make it their profession.

6.2.4.4 Target groups

- Girls aged 11-16
- Women who have recently been trained in IT, participating in a job-seeking programme and wanting to get involved in course-leading.

6.2.4.5 Tools and means used

For the girls:

- 5 days computer training,
- meeting with professional women from the IT world, use of different multimedia tools (CD-ROM burner, digital camera, etc.)
- Course material

For the women:

- Learn to draw up teaching material and handouts
- Leading training workshops

6.2.4.6 Duration of the project

The first CyberSoda workshop was held in July 2003. At present it is part of the ADA project ADA.

6.2.4.7 Feedback

The first feedback from the girls and leaders is very positive. The team is currently evaluating the first experience in order to develop the teaching kit, so it can be tested at a later workshop.

6.2.5 Electronic@ Project (Public sector)

6.2.5.1 Presentation

Electronic@ is a national awareness campaign started by the Direction for Equal Opportunities of the Federal Ministry of Labour in Belgium, that became, on the 1st of June 2003, the Belgian Institute for Equality of Women and Men. It is supported by the European Social Fund and can be qualified of some kind of institutional equivalent of the ADA project.

This campaign is organised in three steps. The first step is a one year awareness campaign called "Les femmes et l'informatique, 100% compatibles". It consists of an advertising campaign and press diffusion, supported by a free phone number.

After this first campaign, the academic world joined the project to give it a wider dimension through research and action plans. The University of Liège (GIDE) and the University of Leuven were associated to build the required tools. They started analysing whether the lack of women in ICT related jobs is due to a lack of knowledge of the diversity of ICT jobs and to a very stereotypical vision of the needed skills and the job content. This first analysis showed that it was necessary to reach not only employers, but also training and orientation actors at every level.

In a second step, called "Techni-elles 1", which began in April 2002, awareness modules were built for different publics (orientations services, job services, employers and students), with different specific messages. The aim was to get rid of the bias by questioning the classical male profile of the computer professional, so that more women would be hired in the ICT firms. They have been available since November 2003.

The third part, Techni-elles 2, is an evaluation of the impact of the project and its optimisation related to obtained results (only beginning). It will consist, among others, of qualitative interviews of previous male and female ICT students to check if the hopes given by their studies have been fulfilled by the job.

6.2.5.2 Initiator

Federal Ministry of Labour, Direction of Equal Opportunities, which became the Belgian Institute for Equality of Women and Men on the 1st June 2003.

6.2.5.3 Motivation

Confronted, on the one hand, to the huge number of vacancies in the ICT sector in 1998 and, on the second hand, to the lack of women in this same sector (only 17% in 2001), the Direction of Equal Opportunities, following the Lisbon Summit, decided to stimulate women to come into the ICT world. The Ministry (a women) believed that ICT jobs can play an important role in women's life to help them to find a balance between professional and private life (telework, flexible working hours, etc.). They offer autonomy and independence and can facilitate women's come back on the labour market.

Ambitious objectives were fixed to help women to enter training that go beyond office automation. Indeed, nowadays, computer knowledge is useful not only for new jobs, but also to facilitate existing jobs that have been impacted by technology.

6.2.5.4 Target groups

In the first step, the awareness campaign, women were the first target group, so that they would apply for ICT jobs (really technological, further than office automation), or find information about trainings in ICT. Employers made up the second target, to help them to welcome women's applications.

In the second and third parts, awareness material (leaflet and CDroms) was created for different target publics: girls and women; orientation centres and trainers; placement centres and employers.

6.2.5.5 Tools and means used

The first part of the campaign used different means to spread women's presence in ICT, namely:

- Two advertising campaigns aimed at women.
- One advertising campaign aimed at employers.
- Announcements on busses and trams.
- Information folders left on strategic places.
- A free phone number 0800-95813
- Press releases.

In Techni-elle, four different tools have been published aiming at four different target publics. They are available on the web site and as cd-rom.

- "Opportunities and jobs" presents diverse ICT jobs or more traditional jobs also impacted by ICT to girls and women. It also gives them information about job opportunities and required skills.
- "Studies and training" has been designed to be used, for example, in orientation or job centres. It is a list of 10 questions and answers about the ICT labour market.
- "Recruitment and placement" is aimed at recruitment offices or temporary job services and gives advices to bypass women's fear of technology or lack of self-confidence or employers' refusal of women as applicants.
- "Diversity: added value" speaks to employers with a scenario putting in scene employers raising arguments and problems for their business, in the solution of which women can be part. To raise employers' awareness, round table and brainstorming breakfasts will also be organised.

6.2.5.6 Duration of the project

The first part was launched in September 2001 and lasted for one year. The second one began in April 2002, for one year also, but, due to publishing delay, the material was only released in November 2003. The last part is still under process and should last until December 2003.

6.2.5.7 Feedback

As far as the first awareness campaign is concerned: in December 2002, after one year of massive diffusion, 4500 women had asked for ICT training through the free phone number.

The Institute for the Equality of Women and Men who was in charge of the project regrets not to have managed the answers to this phone number itself. A scenario had been forecasted to redirect those women to public and private training operators but they do not know how many of the callings have finally followed training

The other tools are being diffused, and cannot provide any result yet.

6.2.5.8 h) Other relevant aspects

This aspect of looking back to what has been done to see how it can be improved, especially in the last part of the project, is prevalent in Electronic@. The association of awareness campaign and reflection about useful tools for each actor seems to be a fruitful mix. Recommendations will conclude the project, some about the evolution and creation of jobs in this field, to improve equal access for women, and some more political, about initial and further training, to adapt it to professional world and include women.

6.2.6 IBM policy on equal opportunities in Belgium (Private sector)

6.2.6.1 Presentation

Since 1953, IBM has decided to lead an equal opportunity policy in its premises all over the world. The programme that IBM launched was called "Diversity" and concerned a large public: women, disabled, minorities. The aim was to give equal chances for everyone to work at IBM.

In 1990, seeing that the number of women in the IT industry remained disappointing, in several countries, women leaders established "Women Leadership Councils". These councils implement action plans adapted to the local situation and labour environment.

The European region has its, called "European Women Leadership Councils" (EWLC), consisting of 10 women working at a high level at IBM, working at attracting and promoting women in their firm. They organise activities and awareness campaigns in the firm, and try to influence the human resource management in a family friendly way. Yet, despite their efforts, they recently noticed that they still appeared to lose more women than they were hiring, especially at senior level and realised that retention was also a critical issue. Baring this in mind, and, since 1986, helped by the results of internal "work/life surveys", work organisation has also been reassessed and restructured to adapt to work life balance, for men and women.

Another axis is to work at the academy level to explain to students the jobs that they can have in the IT field, be they boys or girls.

6.2.6.2 Initiator

IBM at corporate level. Indeed each corporate executive officer signs a corporate policy statement on diversity.

6.2.6.3 Motivation

In 1990, IBM Belgium made a few statements that made them realise that they had to react if they wanted to stay successful and competitive on the IT market:

- The IT world suffers from a lack of computer specialists;
- There are only 25% of women in IBM, although the world talents include 50% of women;
- In these 25%, most of them work at the secretary or office level and not at the management level: only 15% of these 25% really have a computer related job;
- Many women create their own firm;
- IBM develops work relations mainly with commercial firms… where more women are working. Considering this, these women would certainly prefer to treat with another woman;
- Computer jobs are evolving toward a higher need of "feminine" abilities: IT jobs take place in global projects and services, business administration, where women have great potentials.

They decided to tackle the problem and created the European Women Leadership Council, whose aim was to attract more women, to keep them in the firm and to promote their career. Men and women have differences, and their respective qualities are needed in the IT industry, and complete each other. Mixed teams would be stronger, enriched by their different members. Doing this, IBM hopes to benefit from a more motivated, productive and relaxed workforce, greater ability to attract prospective employees and increased retention rate, pursuing the general aim of making IBM business grow. In the Belgian unit, the job of Academic Relations Manager includes the promotion of equal opportunities and the lobbying to attract more women.

6.2.6.4 Target groups

The first target group was global: women, disabled, minorities. Since the 90's, it has concentrated on women.

They decided to aim their action at diverse levels:

- In the firm, by information campaigns and others in the intranet, for every workers, men and women;

- Outside the firm: in University, career days or by sponsoring diverse events, aimed at students and general audience and trying to give a fun and cool image of computers.

6.2.6.5 Tools and means used

Diverse tools have been used, depending on the public or on the impact wanted:

For the awareness campaign in the firm, they firstly used conferences during a day called "*The Woman Day*", to launch the programme. It took place one and a half year ago and 350 women and 2 men participated. The feed back of this special day was that it was of utmost importance to include men in such practices if they wanted them to be successful. Work life balance is not only a question for women!

Awareness programmes, especially the "*Mind Set Programme*", were diffused through the intranet, and "work life balance" classes were given to the employees, with invited workers telling their own story. Today, the participation rate to these classes is gender equal.

The intranet shows role models and a tutorship is being set up, "*Call for a mentor*", to whom women would freely speak of their problems or their desire and get advice.

With the double aim to make more children acquainted with technology, and secondly, to show children where their parent work, they organised the "*Kids Day*" where parents can come with their children who are showed the place, the laboratories, … The results is that parents are proud to show their children to their colleagues, and children are proud to see where their parent work… and will better understand if they have to stay later at work, sometimes.

Participation to fairs and career days in high school and university is also part of the programme, as well as sponsoring of university events. In order to give a greater impact to their activities, they prepare press releases and articles.

In addition to these programmes, the work organisation was deeply renewed and the concept of "e-place", linked to the one of "mobile office" was brought to life: it means that workers can work where and when they wish. All of them have been offered a laptop and an Internet connexion that allows them to work where it suits them. Relationships are based on trust, respect and reciprocity and need self-discipline and the job is defined in terms of objectives.

Part time is favoured and can be chosen at each one's discretion: from 90 to 50 %

6.2.6.6 Duration of the project

This programme is intended to become corporate policy and to go on until equality is achieved.

6.2.6.7 Feedback

For Belgium alone, it is hard to give results of the politics that IBM is leading. Besides this, many objectives are overwhelming: on the one hand, to increase the presence of women, and on the other hand, the quality of life of all its workers.

They have planned to check the workforce gender every six months for 2 years but have not begun yet. It must also be bared in mind that the economic situation does not allow them to recruit… The action plan that has been settled forecasts a growth in the women employment to reach 32%. Despite the fact that they do not benefit from statistics yet, they see that their workforce appreciates the possibilities offered and seem less under pressure and more relaxed and happy, says the responsible of the Belgian program.

Anyway, each country has to hand a yearly report to the Europe Managing Director, which shows the importance of the matter for IBM. Since the EMEA (Europe-Middle East-Asia) Women Leadership Council was set up in 1997, the total number of female IBM employees increased from 18.5 % in 1997 to 26% in 2002, the number of female managers increased from 11% to 17% of all managers in the same time frame. At the same time, the company increased the percentage of female new hires from 24 to 32% of all hires. (Internal sources)

6.2.6.8 Other relevant aspects

It is a whole company culture that is being reshaped around the concept of work life balance. Embedding these practices in corporate culture is crucial to truly achieving this process. Senior management must therefore reflect changes in their own work life and lead by example. The word is spread that being always under pressure and having too much work is not compulsory, and that some women who have children want to have a career.

Yet, a young woman working in IBM did not know about the Diversity program and although she did not find that the firm created a bad atmosphere for women, she had not noticed anything particular in their favour either. On the opposite, she told us about 2 different women who left for their maternity leave and did not find their job back when they came back: they had been transferred.

6.2.7 Information administration Bachelor (Private sector)

6.2.7.1 Presentation

The “Katholieke Hogeschool Zuid-West-Vlaanderen”, a high school in the north of Belgium, has launched a new section in its computer department, for the academic year 2003-2004. Following the Bologna process, this degree will take 3 years and is aimed at leading students to a job. It includes many conferences given by people working in the ICT sphere and requires many inputs from the students; it ends with a traineeship in an ICT firm. This degree is geared at the application of modern possibilities of computing to enterprise management and to economy in general. The taught courses will be: e-marketing, e-commerce, enterprise management, logistic, social competences, communication, management, office automation, web related technologies, multimedia, computer architecture, database and coding.

6.2.7.2 Initiator

The initiator is a high school in the north of Belgium, The "Katholieke Hogeschool Zuid-West-Vlaanderen", located in Courtrai. It is thus a private initiative but is supported by the national ICT employers' federation.

6.2.7.3 Motivation

The aim is, on the one hand, to stick to industry's needs as far as workforce's competences and skills are needed. ICT industries' federation, reaffirming Career Space's point of view, had not missed to say that this sector needed technological knowledge but also management and communication skills. Therefore, adapting the training offer towards more "human" skills was needed.

On another point of view, the lack of women in these classes and professions had been pointed out enough. This new degree hopes to attract more of them, thanks to its human sciences side.

Let us not forget the Bologna process that requires that universities get closer to the labour market by including a professional finality after a three years degree.

6.2.7.4 Target groups

The target group is young men and women who have finished their superior secondary education; but they hope to attract more women than this branch usually does.

Prerequisites are soft and can be fulfilled by every students leaving general secondary education, and by the ones who have received a technical secondary degree in computing/library; computing administration, commerce, secretary and electro mechanics.

6.2.7.5 Tools and means used

General and usual advertisement, not especially aimed at girls.

6.2.7.6 Feedback

In September 2003, on 27 inscriptions, there were only 3 girls.

6.2.8 Quo Vadis (general good practices)

The project was launched by the Federal Ministry of Labour in the framework of the European Social Fund program, objectives III and IV, to train and give women a job in a non-traditional sector. (for more details : http://www.meta.fgov.be/pa/fra_index.htm) The aims of the project were to make job offer and job demand coincide on the labour market; to offer qualifying training to women, breaking traditional roles; to get rid of stereotypes in training and hiring of women by making employers and trainers aware and by proposing the project to sectoral training institutes and encouraging them to keep this aspect in mind in their trainings.

Funds were given by the European Social Fund to finance the professional trainings. It was led in 1998, when these sectors suffered from labour shortage, which made them more open to this kind of initiatives.

In practise, this experience consisted of a handbook distributed to sectoral training institutes that represented typical male sectors or hosted many male trades, in the aim to give women

easier access to non traditional trainings (less than 30% of women). 5000 handbooks were sent to these training centres in each language and folders were sent to trade unions, women associations, … to make them aware of this possibility to get trained and find a job in a non traditional field

Finally, in 2000, twelve official agreements were granted to seven sectoral organisations. Seven projects have been approved to train women as network administrator, back-office, help desk PC, polyvalent metallurgist, plastic specialist worker, bus driver and rug weaver

It has been hard to get feed-backs from the firms where these women made their traineeship: the letters send to them were not replied to; it seems that one gets better results by going to the firm and meeting the managers to discuss. Though, the lesson to be learned from this initiative is that the presence of the mediator in the firm was crucial to facilitate relationships between all the partners.

6.2.9 "Ne dites pas trop vite" (general good practices)

This is a book called "Don't say that there are not any women…". It consists of a list of 1.119 French-speaking resource women, with their functions and addresses. The list is divided in 14 categories and covers divers sectors like politics, social, science, culture, …. It was realised in 1998 by the Ministry of Labour and Equality of Chances and realised by Dominique Rodriguez (1998, 15 x 21 cm, 356 pages (D/1998/1205/32)).

It is supposed to be distributed to journalist to raise women's visibility at high hierarchical level. We have not found any feedback yet.

6.2.10 Bewise (general good practices)

BeWiSe is dedicated to achieving equal and full participation of women in all scientific disciplines and at all levels, because diversity will promote scientific excellence and progress further. It is open to all women working or having worked at all levels in the sciences in the public and private sector (technology & industry and research & education) and those women and men who promote equal participation of women in science.

Its main objectives are to support the position of women in science, both in public and private sectors, to make it more feasible for women and men to combine a scientific career with family life and to improve communication among women in the Belgian and European, scientific community. The tools set in place are the following:

- A network for support and exchange of information, experience and knowledge ;
- An electronic meeting place with easy access for everybody ;
- Meetings, seminars and workshops ;
- Contacts with similar European and international associations and
- Publication of a newsletter (in the future).

The main objectives are to support the position of women in science, both in public and private sectors, to make it more feasible for women and men to combine a scientific career

with family life and to improve communication among women in the Belgian and European, scientific community

6.2.11 Some training initiatives (general good practices)

- One advertisement realised, in the Flemish speaking part of Belgium, by a consortium of diverse industrial federations (metal, textile and chemistry) and high schools or universities, with the federation of ICT employers (Agoria), to make girls chose science and technology.

  The advertisement leaflet displays a kind o robot woman (Lara Croft style) on the first page and says "only science and technology can bring your ideas to life; Give reality to your future: become engineer or get a technical degree". The 8 pages leaflet shows pictures of workingwomen but does not focus on ICT and computing. It insists on the fact that, although the traditional image of the technological or engineer related jobs is a man's one, needed skills are not at all male skills and a technological career can also be grant for a woman.

- One training especially aimed at women, organised in partnership by a few further training associations in Wallonia (Liège and Gosselies), FormaTIC.

  For the same training, two leaflets have been realised, one aimed at men "PC and network administrator" and one for women "Computer Assistant - PC and network administrator". Two catch lines try to attract women "Computer world in not reserved to men" and " This industry also need women"

  Leaflets and newspapers announcements have been used, but we learned that only one woman applied for the training (12 placed where offered).

  Differences are striking in the two leaflets: for men, emphasis is put on "technical sensibility " and "a job where he will be evaluated", none of this for women where instead, accent is put on the help given to users, but she will only assist the PC and network administrator in his daily work.

  These leaflet were certainly created in the aim not to frighten women and to make them slowly come in this new world, but, despite its good will, it is striking that it perseveres in the old good stereotypes.

6.2.12 Equality Award (general good practices)

This award process was launched by the Direction for Equal Opportunities of the Federal Ministry of Labour in Belgium, in 1997, in the aim to recompense the most egalitarian firm. The participation to this competition is free and volunteer and the price is only honorific (no finance) and consists of advertisements in newspapers and magazines. Because of lack of budget, the last time it was organised was in 2000 and the winning firm was a big mobile phones company (Mobistar). Firms like HP and IBM have been nominated the previous years.

It is supposed to take place again in 2004 with the Belgian Centre for Equality of Chances and the Ministry of Labour (SFP Emploi). New tools have been created on the basis of a model of

total quality, integrating the notion of equality at each step of the procedure. These tools will be used by a panel of experts for their assessment.

Following this, the same Direction has built accompanying tools for firms who wish to set up equality actions in their premises, still on voluntary basis. It consists of few days of Equality consultancy. The trend that we see today is a shift from equality and equity to diversity, which, whereas including women, does not focus on them anymore.

6.3 Good Practices in Germany

6.3.1 Network of female IT trainers

6.3.1.1 Presentation

The project is a model project in Germany with the objective of bringing more women into IT professions. It is carried out by the INBAS GmbH, an institute for professional training, labour market and social policy ("Institut für berufliche Bildung, Arbeitsmarkt- und Sozialpolitik"), and supported by the ministry of education and research (BMBF „Bundesministerium für Bildung und Forschung"). The main focus is on courses for women IT professionals who were trained to become trainers. The idea is to have women trainers als role models to attract more women to enter IT professions. The courses have finished and a network of about 300 women IT trainers has been set up.

More information (in German): www.it-ausbilderinnen.de

6.3.1.2 *Motivation*

The project addresses two problems:

- the need for qualified specialists in IT and their training
- the low number of women in IT jobs

The aim of the project is to qualify women in IT professions to become trainers and thereby motivate and support other women to enter the profession.

6.3.1.3 *Target groups*

According to the aim of the project there are two target groups:

- The main target group are female IT professionals who were trained as trainers.
- Secondly there are those women who are being trained by them to be able to enter IT professions.

6.3.1.4 *Tools and means used*

Courses have been offered in four cities in Germany (Potsdam, Offenbach, Dresden, Saarbrücken). They have taken place between 2000 and 2002 and have been organised in cooperation with regional institutions of education and occupational associations. The curriculum included modules specifically designed to address the problems of women in IT jobs. In parallel public conferences were held to raise awareness for the female underrepresentation in these jobs.

Resulting from the courses a network of women IT professionals acting as trainers has been built up. There are centre points in five German cities (Potsdam, Offenbach, Saarbrücken, Köln, München) with one moderating woman in each of them. Moderated network meetings are taking place regularly and virtual networking is supported by the website with a forum for discussion and exchange for members only. Additionally information is offered on topics like

IT jobs, choice of profession and training, and there is a list of events and links to other relevant websites.

6.3.1.5 *Duration of the project*

The model project with the courses has finished with a final conference in February 2003. The networking is continued through the website and regular meetings.

6.3.2 Informatica Feminale

6.3.2.1 Presentation

The "Informatica Feminale" is a summer study programme for women. It takes place once a year in two locations in Germany. It was first initiated by the University of Bremen in the summer of 1998. They offer two weeks of courses. In the summer of 2001 the idea was taken over by the federal state Baden-Württemberg where one week of courses is offered by a different university each year. The female lecturers as well as participants come from Germany and other countries all over the world. The courses are part of the regular study for students from the University of Bremen. That implies that regular lectureships can be granted and students get certificates which they can use for their regular studies.

For further information (in German) see http://www.informatica-feminale.de

6.3.2.2 *Motivation*

The initiators of the Informatica Feminale started from the assumption that the culture and structure of universities as well as the contents of computer science studies are not suited for women. For example they don't offer female role models and it is often not possible for women to follow their specific interests.

Therefore the aim of the Informatica Feminale is to provide the possibility of exchange between women in the field of computer science. The focus of this exchange is on academic debate. The idea is to provide space for women to develop their own concepts but also to gain influence by supporting each other in building up contacts and networks.

6.3.2.3 *Target groups*

- female students of computer science
- any other women who are interested in informatics

6.3.2.4 *Tools and means used*

- The care of the Informatica Feminale is the summer study programme: Courses are offered for one or two weeks each summer at the University of Bremen and a university in Baden-Württemberg. A call for lectures is announced and all interested professional women from universities and business can apply. The spectrum of the courses offered covers all aspects of computer science: theoretical, practical, technical and applied computer science as well as sociological aspects and interdisciplinary subjects. Especially for students at the beginning of their studies the acquisition of basic knowledge is important. They join courses on programming or how to deal with computers (e.g. taking them apart). At the same time there are offers to strengthen the social competence of the students as well as discussions on women and gender studies.

- Curriculum workshops: Workshops are arranged as a forum for discussion on university reform. The aim is to develop proposals how to change the computer science curriculum from a female perspective. Three such workshops have taken place in 1997, 1998 and 2000.

- Further education for female computer scientists: Almost each year a conference is initiated as preparation for the lecturers of the Informatica Feminale. The conference is open for the public. It deals with didactic and methodological questions as well as with the evaluation of teaching.

- MUFFIN and MUFFIN21: A mentoring programme for future female scientists is set up in a cooperation between the Informatica Feminale and GMD-Forschungszentrum Infomationstechnik GmbH (a research center). Paricipants are selected from the students who take part in Informatica Feminale. They are offered individual support by established scientists.

- It is planned to offer information about studying computer science that is relevant for women on the website. This will include a list of special programmes for schoolgirls, a list of female professors of informatics on univeristies and colleges, statistical data on women in computer science and learning material for the courses offered by Informatica Feminale which are already available.

6.3.2.5 *Duration of the project*

The Informatica Feminale was established in 1998 by the University of Bremen. In 2001 it was joined by Baden-Württemberg, so that now it is taking place each summer in two locations in Germany.

6.3.3 International Women's Degree Programme in Computer Science

6.3.3.1 *Presentation*

The International Women's Degree Programme „Computer Science" started in October 2000. It was initiated by the Women Department of the Hochschule Bremen (University of Applied Sciences) and offers the possibility to study computer science in a single-gender environment. Students achieve a regular diploma in computer science ("Diplom-Informatikerin FH"). It is called "international" as students spend one semester abroad.

For further information see http://www.informatikerin.hs-bremen.de/english/index.html

6.3.3.2 *Motivation*

Target of the programme is to provide women with an excellent technical education. To reach this aim, it follows four principles:

- Single-gender education: The Division offers a single-gender education to increase the number of women in computer science and to promote careers of women in science in Germany.

- Applied curriculum: Rather than "learning by listening" students are encouraged to find their own solutions to problems.

- Study abroad
- Distance learning

6.3.3.3 *Target groups*

- Women students of computer science in Germany
- Some of the courses are offered in English so that also for those international students with little or no German knowledge a stay in Bremen is possible.

6.3.3.4 *Tools and means used*

The International Women's Degree Programme „Computer Science" is an eight semester (4 years) programme divided in a "Grundstudium" (basic studies) that takes 3 semesters and a "Hauptstudium" (main studies) that takes 5 semesters. During the first three semesters a wide range of subjects is offered in the sense of general education. The main study is designed for in-depth-study. To be able to maintain the practical focus of the education the number of students is kept small. Each year the Women Department of the Applied University of Bremen selects 30 students for admission.

According to the four main principles (see above) students the offer for students comprises:

- Single-gender education: All the main courses are offered for women only. Optional subjects are taught in mixed gender groups in cooperation with the department of computer science of the University of Applied Sciences, Bremen.
- Applied curriculum: From the very beginning of their studies students work on their own projects in teams. This leads to an education focused not only on technical and academic skills but also on the improvement of social competences such as the ability to solve problems in cooperation with others.
  During their study students also participate in an internship for one semester.
- Study abroad: The students will spend one semester abroad to improve their language skills and develop cultural competence. Besides the cooperation agreements of the university of applied sciences the degree programm holds some cooperation agreements on its own. So far there are European partners withing the frame of Erasmus/Sokrates.
- Distance learning: Some courses contain components of distance learning. Students become familiar with different modes of distant learning as well as with the technical aspects of distance learning.

6.3.3.5 *Duration of the project*

The programme was initiated in the winter term 2000 and is ongoing.

6.3.4 YOLANTE

6.3.4.1 *Presentation*

YOLANTE ("Young Ladies' Network of Technology") is a programme that is offered by Siemens in Germany. It was started for the first time in the winter term 2002. The aim is to

give support to female students of technology and natural sciences. Each year 100 young women have the possibility to join Yolante. They have to send an application that includes their certificates and a "statement of motivation" where they explain why they chose their subject of study and why they think they are qualified for that subject. Corresponding to their chosen subjects students are assigned to different business divisions each with dedicated contact persons.

For more information see http://w4.siemens.de/knowledge-zone/de/aktionen/yolante/start.htm

(The information offered by the website is in German only.)

6.3.4.2 *Motivation*

The objective of Yolante is to motivate young women to enter technical jobs and support them in their way into professional life. In joining Yolante the young women gain an insight into the working world of a technology producing company and they are able to build up a network of contacts while they are still at the university.

6.3.4.3 *Target group*

Young women who are about to study electrical engineering, mechanical engineering, computer science, mathematics, industrial engineering or physics at a German university

6.3.4.4 *Tools and means used*

- In a kickoff meeting senior employees report on their working experiences. Workshops are offered to discuss the expectations of the Yolante students and how they can realise their plans.
- Mentoring: Yolante students are individually supported by mentors from Siemens.
- Traineeships are offered to the young women or they are hired as working students.
- Networking: Through access to the "Yolante Online Network" contacts with other participants and the team of Yolante can be maintained.
- Participation in events that are organised by the respective business division like meetings of Yolante students or visiting companies.
- Those who are qualified/interested are given the chance to join the Siemens Student Programme (SSP) or the Siemens Graduate Programme (SGP).

Membership in Yolante does not imply a contract with Siemens.

6.3.4.5 *Duration of the project*

The program was first started in November 2002 with a kickoff meeting in Erlangen. It is planned to start a new program with 100 participants all over Germany each year.

6.3.5 Girls' Day – Future Prospects for Girls

6.3.5.1 *Presentation*

Once a year technical enterprises, enterprises with technical departments and technical training facilities, universities and research centres are invited to organise an open day for girls. For one day they open their laboratories, offices, workshops and editorial rooms to offer girls the possibility to gain an insight into working life and get in touch with Human Resource Managers and personnel responsible for traineeships. In 2003 the Girls' Day has taken place for the third time. Experiences made so far have been used and a wide range of professions and activities have been pesented to girls at the age of 10 to 15 years. By actively taking part in the Girls' Day, girls shall be particularly motivated and encouraged to seize their career options and to decide in favour of a qualified vocational training or degree. Being a nationwide event that takes place at a uniform date, the Girls' Day combines regionally limited initiatives to achieve far-reaching effects.

For further information see http://www.girls-day.de (English information available)

6.3.5.2 *Initiators*

The campaign is organised in cooperation of a number of institutions. In 2003 the Federal Ministry for Education and Research (BMBF), the Federal Ministry for Family Affairs, the Elderly, Women and Youth (BMFSFJ), the Federation of German Trade Unions (DGB), the Confederation of German Employers' Associations (BDA), The Initiative D21, the Federal Employment Office (BA), the Association of German Chambers of Industry and Commerce (DIHK), the Federation of German Industries (BDI), the German Confederation of Skilled Crafts and Small Business (ZDH) have invited the public to participate in the Girls' Day.

6.3.5.3 *Motivation*

The objective of the Girls' Day is on the one hand to help girls to establish contacts and on the other hand to draw attention of industries and the public to girls' strengths. It is drawn upon the experiences of companies that have successfully organised specific Girls' Days and are reporting about an increasing number of young women in technical and technically oriented occupations.

6.3.5.4 *Target groups*

The girls who take part in the Girls' Day should be ideally supported by all instances playing an important role in their career choice. So for the Girls' Day the surroundings of the young women (families, school, media and employers) are encouraged to participate in the campaign.

- Girls at the age 10 to 15 years are the main target group.
- Companies, schools and media are invited to take part in the Girls' Day.

6.3.5.5 *Tools and means used*

The initiative started in 2001 with a number of 39 enterprises, authorities, universities and research centres that organised a career information day particular for girls. In 2002 more than 1000 events were organised mainly by companies and universities all over Germany. The activities should allow girls to get an idea of the technical operations in professional life.

Among the events organised are presentations, experiments and discussions and above all possibilities for girls to make hands-on experiences.

The Girls' Day has become a platform for the participating institutions. On the website all the information about events taking place all over Germany can be accessed. The Girls' Day also offers proposals for the teaching of the boys on Girls' Day. Material is provided for teachers to motivate discussions on gender specific choices of professions.

6.3.5.6 *Duration of the project*

The first Girls' Day was initiated in 2001. For the future it is planned to further increase the number of events. In particular the broadening of the regional working groups will be supported: Trade unions, chambers, employee associations, employment offices, women's representatives and schools working in close cooperation to ensure at long sigth that the campaign becomes a fixed element for girls and young women, while they are in search of career possibilities.

6.3.5.7 *Possible feedback*

The Girls' Day is evaluated by a questionnaire that is filled in by the participating girls and the mentors organising the events. The response on the first two Girls' Days in 2001 and 2002 was very positive on both sides.

6.3.6 "Miss Technik" (contest Miss Technology)

6.3.6.1 Presentation

The inititative in the federal state of Nordrhein-Westfalen in Germany is a contest where girls compete for the title of "Miss Technik". It has taken place from October 2001 until March 2003 in two rounds. Six winners have been honoured at the first three places.

For further information (in German) see http://www.miss-technik.de

6.3.6.2 Initiators

The contest was organised by the Technikzentrum Lübbecke (a technology association) that has been offering seminars and other events to motivate girls and women to enter technical professions since 1994. Another well known initiative of the association is the "Amazonen-Prüfung" (Amazons' exam) which is a course of technical tasks that have to be accomplished by the participating girls and for which they receive a certificate.

6.3.6.3 *Motivation*

The aims of the project are to further the interest of girls for technical professions, to prepare them for recruitment exams, to help them establish contacts with employers, to give them insights into technical professions and above all to show them that technology can be fun and encourage them to follow "alternative" ways.

6.3.6.4 *Target groups*

Schoolgirls before their choice of profession

6.3.6.5 *Tools and means used*

The contest is a professional contest that comprises three steps:

- Step 1: knowledge test: 50 questions from recruitment tests are to be answered
- Step 2: practical test: Tests are organised by companies offering them the possibility to get to know qualified young women.
- Step 3: team test: In an adventure camp tasks have to be accomplished in cooperation with partners from interested companies.

6.3.6.6 *Duration of the project*

The project started in October 2001 and terminated with a presentation ceremony in March 2003.

6.3.7 Campaign: Women into the Internet ”Frauen ans Netz”

6.3.7.1 *Presentation*

„Frauen and Netz“ is a campaign with the aim to motivate women in Germany to use the Internet.

For further information (in German) see http://frauen-ans-netz.de

6.3.7.2 *Initiators*

The project is organised in cooperation of the Federal Ministry of education and research, the Federal Employment Office, the German Telecommunications Association, the journal “Brigitte” and the association “Frauen geben Technik neue Impulse e.V.” (“Women give new inputs to technology”).

6.3.7.3 *Motivation*

The objective of the initiative is to raise the proportion of women in the Internet to 50%. For that aim women are to be given access to the Internet at a reasonable price. And they should be able to learn how to use the Internet in a relaxed atmosphere.

6.3.7.4 *Target group*

Women who don’t have access to the Internet

6.3.7.5 *Tools and means used*

- Courses are offered in cooperation with local educational institutions and sponsors. The institutions have to apply for participation and a minimum standard of quality is guaranteed. In the courses women can learn how to use the Internet from experienced female trainers. Course material is provided.

- A website gives information about upcoming events of the initiative. Moreover news and information on relevant topics are offered.

- Internet Café for women: In a pilot project access was given for restricted times to women only in public libraries in 7 German cities. It is planned to spread this offer to 100 libraries all over Germany.

- Workshops are offered for special groups like women from the countryside or elderly women.

6.3.7.6 *Duration of the project*

The campaign was initiated in 1998 and is ongoing.

6.3.7.7 *Possible feedback*

More than 120 000 women have taken the courses in more than 220 cities and communities. The website is accessed up to 1 million times a month. There is an online questionnaire with 30 000 responses evaluated so far.

6.3.8 ”Women in the Information Society and in Technology” Centre of Excellence

6.3.8.1 *Presentation*

The Centre of Excellence („Kompetenzz - Frauen in Informationsgesellschaft und Technologie”, Germany) ties together nation-wide equal opportunity measures in the fields of education, training, occupations, science and research. Its aim is to continually raise the percentage of women in IT occupations, engineering sciences and informatics through target group oriented project work, effective publicity and in cooperation with nationally and internationally active women expert groups.

For further information (in English) see
http://www.kompetenzz.de/article/articleview/168/1/64?NavItemID=132&NavCatID=29

6.3.8.2 *Initiators*

The “Women give new Inputs to Technology” association are responsible for carrying out the Centre of Excellence. The structural development of the Centre is financially supported by the German Federal Ministry of Education and Research, and by the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth until 2005 with 5 million Euro. The Centre is located at the University of Applied Sciences in Bielefeld.

6.3.8.3 *Motivation*

The objective is to raise the participation of women in technological professions and education at all levels and in all age-groups. For that aim a variety of projects is organised and a platform for involved institutions is provided.

6.3.8.4 *Target groups*

The target groups differ for the specific projects that are organised. Altogether women at all ages are addressed to be motivated or supported to enter technological professions.

6.3.8.5 *Tools and means used*

The work is arranged around six key areas (for each area guiding projects are listed):

- Availability and Opportunities of Access to Technology for Women:coordination of the campaign “Women to Web” (www.frauen-ans-netz.de) aimed at increasing the participation of women in the use of the internet

- School and Extracurricular Education:The project girls@D21 was carried out in 2001. For two weeks girls had the opportunity to get to know the daily working routine in an IT enterprise. For teachers a similar project was realised.

- Vocational Education / Further Education:coordination of the project “idee_it” (www.idee-it.de), a common initiative of the BMFSFJ (German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth) and the Initiative D21 aimed at increasing the number of girls in training for IT and media occupations

- Higher Education:coordination of the project “be.it | Be.ing” aimed at encouraging young women to study a technical, engineering or IT subject(http://www.werde-informatikerin.de/index.php3)

- Science and Research:An international conference was organised in February 2002 where best practice examples in the realm of schools and higher education were presented (www.impulse-nutzen.de).

- Careers and the World of Work:coordination of the Girls' Day (www.girls-day.de), a future day for girls aimed at giving girls a new look at technology

Besides the initiation, coordination and carrying out of guiding projects the realisation of strategic guidelines and structural measures is an important objective of the Centre of Excellence. This is done with the advice of education policy committees at state and federal levels, and through the active support of the women-technology-networks in universities, industry and unions/associations.

6.3.8.6 *Duration of the project*

The project of the development and organisation of the Competence Centre was started in April 2000 and will be finished in March 2005.

6.3.9 LizzyNet and LeaNet

6.3.9.1 *Presentation*

LizzyNet and LeaNet are both Internet platforms, one for girls and the other for female teachers. They were inititated by the association "Schulen ans Netz e.V." ("Schools into the Internet") in Germany. The projects are financed by the German Federal Ministry for Education and Research.

For further information (in German) see http://www.lizzynet.de and http://www.leanet.de

6.3.9.2 *Motivation*

The overall aim is to further the interest of women in the Internet. So the objectives are twofold: on the one hand to motivate girls to participate, and on the other hand to give female teachers adequate teaching material.

6.3.9.3 *Target groups*

For LizzyNet: Girls and young women

For LeaNet: Women in school and education (teachers, students, trainee teachers, and women in other educational institutions)

6.3.9.4 *Tools and means used*

LizzyNet is a community for girls and young women in the Internet. The website offers three areas: The Magazine is publicly accessible. It offers a list of events and news on different subjects. The Community and KnowHow are for members only (membership is free of charge). In those areas chats are offered and girls can create their own homepage. Online-courses and material on HTML, image processing and flash-animations, etc. are offered. Girls can join learning groups on different topics.

The contents offered are created in cooperation with pedagogical institutions. All interactive areas like the chatrooms are regularly controlled for contributions that are dangerous for young people (like pornographic, racist or sexist contents).

In LeaNet information about the Internet and other media is offered that is dedicated to women in educational professions. The aim is to give them material to be able to critically reflect on electronic media and enhance discussions with their students. Moreover women are offered support in learning how to use the Internet. In a forum for members only, a community of women in education is being built up. LeaNet is therefore a platform for discussion, learning and working around the subject Internet for women in education.

6.3.9.5 *Duration of the project*

The two projects were started in 2000 and are ongoing.

6.4 Good Practices in Switzerland

6.4.1 Forum for Women in Computer Science at ETH Zürich

6.4.1.1 Presentation

The Forum for Women in Computer Science is an initiative of the Department of Computer Science at the Swiss Federal Institute of Technology Zurich (ETH "Eidgenössische Technische Hochschule" Zürich). Its aim is to increase the number of female computer science students at ETH Zürich. The activities offered have two main objectives: On the one hand female high school students get the possibility to learn about computer science through a "Schnupperstudium" (courses offered for schoolgirls at the university) or a visit to the department on the "Mittelschülerinnentage" (open days for schoolgirls). On the other hand female students and assistants in the department are supported.

For detailed information see http://www.frauen.inf.ethz.ch/einfuehrung/FF_Eval.pdf .

6.4.1.2 *Initiators*

The Forum for Women in Computer Science was called into existence in 1993 by two assistants of the department, and has since been maintained by a number of different (female as well as male) assistants, always two at a time. By now the activities in the Forum are being fully accredited by the department that offers administrative support to the Forum since October 2000. Day-to-day expenses are covered through external sponsors (usually large companies). The Forum receives support from other assistants and students of the department who act regularly as lecturers and teaching assistants in the courses of the "Schnupperstudium".

6.4.1.3 *Motivation*

The vision of the initiative is to increase the percentage of diplomas by female students to nearly 50%. As the number of female students has traditionally been very low at ETH Zurich, this is an ambitious goal. However, the courses offered in the "Schnupperstudium" that was introduced in the summer 1999 appear to have a positive effect on women enrollment: The percentage of first-year female students in the winter term 2000 increased to almost 15% from 9% in the two previous years, and between 0% and 7% in the past decade. In addition to recruiting more female students, measures are developed that aim at decreasing the proportionally high dropout rate among female students.

6.4.1.4 Target groups

There are two main target groups:

- Female high school students: The aim is to attract more women to computer science.
- Female students and assistants in the department: Offering support and setting up a network of women in the department.

6.4.1.5 Tools and means used

According to the target groups there are different activities to support the young women:

"Schnupperstudium Informatik": A one-week course (full-time) for female high school students who are at most two years away from their high school graduation ("Matura"). The course includes an introduction to programming, information about the computer science curriculum at ETH, intensive contact with students of the department, talks about different areas of computer science (by assistants), a meeting with a female computer scientist from industry, a social event, a campus tour, and sometimes a visit to a company. Course material is especially developed for this event. The course is free of charge. The first "Schnupperstudium" took place in the summer of 1999. It is offered two or three times per year.

"Mittelschülerinnentage": This one-day event was initiated at the Department for Computer Science in 1996. Its organization has since been transferred to the ETH Rektorat, and it now takes place once a year. It offers female high school students the possibility to visit ETH for one day, during which they get the opportunity to see two departments of their choice. The Department for Computer Science participates for two half days each year. A three-hour programme is offered to the high school students, during which they can find out about computer science in general, about computer science studies at ETH, as well as take part in a mini-programming course.

Activities for female students in the department: Female first-year students who have failed their exams, are offered the possibility to meet each other and exchange information with more advanced students. Hardware Crash Courses are offered for first-year students, one of which is a women-only course. There is a mentoring programme for female first-year students preparing them for their first exams with female students as mentors.

Activities for female assistants in the department: Female assistants' nights take place irregularly at one of the assistants' houses.

Networking: There are several activities of the Forum for Women in Computer Science aiming at establishing a network for female students and assistants. These include regular meetings, visits of companies, the setting up of an information board and a mailing list.

6.4.1.6 *Duration of the project*

The project is ongoing with expanding activities.

6.4.1.7 Other relevant aspects

The initiative originates from the personal engagement of the assistants of the department. It has become more and more institutionalised and is about to serve as a model for other departments.

6.4.2 "Zürcherinnen lernen Informatik" (Girls learn Informatics in Zurich)

6.4.2.1 *Presentation*

The project "Zürcherinnen lernen Informatik" is a research project. The objectives are twofold: On the one hand the aim is to answer the research question, that is to find out if it is possible to change girls' preferences of jobs through specific measures that are designed to further their interest in IT jobs, especially in an apprenticeship in IT. On the other hand, as a practical result of the project, it is hoped to have a higher number of women choosing an apprenticeship in IT and thereby creating role models for other girls. The project started in

2000 and is planned to last for three years. The first two years are finished and have been evaluated. The third year is nearly over.

For further information (including the reports on evaluation, all in German): see http://wwwneu.zli.ch/maedchen

6.4.2.2 *Initiators*

The project is carried out by the ZLI ("Zürcher Lehrmeistervereinigung", union of IT companies in the canton of Zurich) by means of the "Lehrstellenbeschluss II" (financed by the government of Switzerland and the canton of Zurich, extra expenditure for future oriented projects in the realm of apprenticeships).

6.4.2.3 *Motivation*

The aim of the project is to find out, how girls' choices of professions can be changed and how they can be motivated to enter the field of IT by choosing an apprenticeship in IT ("Informatikerin"). It is assumed that it is necessary to give information and support to the girls that take into account their specific situation, but also to include the surroundings of the girls by informing parents, teachers and careers advisers. Furthermore it is assumed that the goal cannot be reached by a single measure. So a variety of different activities and events is offered to the girls and persons involved in their career choice.

6.4.2.4 *Target group*

- Girls at the ages from about 13 to 16 ("Oberstufe", these are the years of school just before they are able to start an apprenticeship)

- Their parents, teachers, career advisers, masters

6.4.2.5 *Tools and means used*

10 classes are participating in the project. Another 13 classes act as control group (they are not participating but are being evaluated in comparison to the participating classes). The project started with a questionnaire at the beginning of the first year.

- First year: The objective of the first year was to further the interest of the girls for IT. They learned how to design a homepage (in groups of girls being taught by a woman). A hardware course was offered in gender-segregated groups. Information was offered to the girls and the boys about jobs in informatics whereby a woman apprentice was introduced to them. There have been discussions on gender roles. Teachers were offered information about female celebrities, and a contest was developed around that subject where also other classes (that were not in the project) could participate. A workshop for parents, teachers and career advisers dealing with questions of gender, particularly with regard to women in informatics, was organised. Parents were informed about apprenticeships in the realm of informatics.

- Second year: In the second year the activities were designed to sustain the interest of the girls and to strengten the solidarity between girls and boys. The classes were given tasks to further logical reasoning. The websites of the girls were presented. Boys and girls had the opportunity to visit a female computer professionalist at her working place. Selected girls were offered specific career advice. A forum for discussion among girls was set up in the Internet. Public relations and networking among women

IT professionals were also part of the activities. Tests and other facilities used by career advisers were being studied.

- Third year: In the third year girls who were interested in IT were supported in finding a place as apprentices. Public relations and information for teachers, parents, career advisers and masters were carried on.

For the teaching of website design the "flying classroom" was developed. It comprises learning material and eight notebooks in a network. It was so successful that it was offered to other classes in the third year of the project and will still be available after the end of the project. The ZLI also offers special events for mothers where they can learn more about computers. There is a website http://www.girlweb.ch designed for girls where among other things there are portraits of women IT professionals (with a new one of them being presented at the first page each month).

6.4.2.6 *Duration of the project*

The project is nearly finished. As one result a list of measures and recommendations will be available. ZLI will carry on to offer the "flying classroom", events for mothers and the website (see above).

6.4.2.7 *Evaluation*

There was a questionnaire at the beginning of the project and after each of the three years that was to be filled in by the girls and boys as well as by the teachers of the participating and the control classes.

The first year was very successful. In the participating classes more girls than in the control classes wanted to enter an IT job. After the second year this had changed. There were not more girls in the participating classes that were about to choose an apprenticeship in IT. Nevertheless the authors of the study conclude that the project lead to a greater sensibility for the problems of female participation in IT.

6.4.3 Donna Informatica

6.4.3.1 Presentation

"Donna Informatica" is a network of female IT professionals in Switzerland that is lead by a team of six women. The aim is networking for women in IT professions and all those women who are interested in IT.

Information (in German) about the network can be found via www.donnainformatica.ch .

6.4.3.2 *Motivation*

The focus of the initiative is the transfer of knowledge and experience, and to encourage women to try "something new". The objectives are exchange, contact and empowerment for women in IT and related jobs.

6.4.3.3 *Target groups*

- Female IT professionals in different branches, especially finance and insurance companies and the service sector
- Women in other professions that are affected by IT (jurists, teachers, management and personnel consultants, marketing managers, etc.)
- Self-employed women, businesswomen, female entrepreneurs and freelances
- Women who are active in their jobs, but also women after (maternity) leave, newcomers, women who have left the profession
- ... and all those women who are interested in IT

6.4.3.4 *Tools and means used*

There is a webspace for members only. A regular meeting is taking place each first Monday of a month. The meetings have special topics or are free for discussions. Experts are invited to give information. Among the topics recently covered are: mentoring, management diversity, e-legislation in Switzerland, training in key competencies, launching of start-ups.

6.4.3.5 *Duration of the project*

Ongoing activities of the network.

6.4.4 KIDS Info – Girls and Technology

6.4.4.1 Presentation

KIDS Info offers presentations at primary schools for children from 10 to 14 years. Female workers in different technical professions do the presentations and act as contact persons for the teachers.

For further information (in German) see http://www.kids-info.ch

6.4.4.2 *Initiators*

The project is initiated by the SVIN (Schweizerische Vereinigung der Ingenieurinnen "Swiss Association of Women Engineers") and is supported by other professional and educational associations. The project is cofinanced by the Swiss Office for Gender Equality and the Migros Kulturprozent (Migros spends up to one percent of turnover to support non-commercial projects with cultural and social concerns).

The SVIN is an association of women engineers with the aim to encourage more women to enter the profession and to further exchange between professional women engineers.

6.4.4.3 *Motivation*

The idea of the project is to give children at an early age female role models in technology. Not only the girls (and boys) are addressed but also their parents. Inputs are offered to them to be able to think about alternative opportunities for girls' jobs long before the choice of profession is to be made.

6.4.4.4 *Target groups*

School classes of primary schools (children – girls **and** boys – from 10 to 14 years)

- With the presentation especially girls shall be encouraged to enter technical professions.
- Especially boys are supposed to see that interest in technology has nothing to do with gender and they shall learn to accept girls as futures teammates.
- Teachers get support how to deal with technology and gender equality in their lessons.

6.4.4.5 *Tools and means used*

The presentations last one lesson They are based on pictures, games, interactive tasks and an intense dialogue with the children about professions and technology. Women workers in technology do the presentations and talk about their professional life. The aim is to show that technical professions are fascinating and interesting for men and women. The children get pictures and information that they will later on see again in physics and chemistry lessons. Those pictures shall help them to recognise relevant contents and connect them with the vocational profile of engineers.

6.4.4.6 *Duration of the project*

The project started in September 2001. Until July 2003 more than 60 presentations have taken place. The project is ongoing.

6.4.4.7 *Evaluation*

The teachers were asked to let the children draw pictures with the topic “women in technical professions” in a lesson after the presentation. Some of the pictures can be seen on the website. Questionnaires were given to the teachers, the responses were evaluated and are considered in the following presentations.

6.5 Good practices in Italy

6.5.1 "Disoccupazione intellettuale" ("Intellectual unemployment")

6.5.1.1 Presentation:

Progetto F.S.E. n. 1999. IT.16.1.PO.011/3.12/7.2.4/071) Asse 3 Misura 3.12

This is a project founded by the European Social Found targeting unemployed young women who reside in Sicily. It aims to: give them skills and competencies in ICT so as to make them confident with knowledge and tools which enable teleworking; involve them in a community focussing on long-life learning, exchange of information on training and then working experiences; enlarge the equal of opportunity culture.

The programme consists of a 280 hours base course, 684 hours of specialized training; 670 hours of stages. The training is provided by three organisations: Sphera Fresia, Server and Atenea, with the funding of Local councillorship for employment, professional training and immigration, ESF and the Ministry of Labour.

The course aims to prepare three profiles of ICT professionals: *Tutor online, Content Manager e WebMaster*.

The project includes the creation of a portal (laRetediPenelope.it) focusing on women and labour market, in particular concerning "working in ICT": The main purposes are: filling the lack of information about the issue "women, work and new technology"; providing a virtual place for discussion and exchange of experiences; offering services ad hoc addressing the courses participants.

6.5.1.2 *Type of initiator*

Private organisations (Sphera Fresia, Server and Atenea) with the funding of Local councillorship for employment, professional training and immigration, ESF and the Ministry of Labour.

6.5.1.3 *Motivation*

To develop skills and competencies in ICT so to enlarge women participation in the new information society and to promote and experiment new way of learning and exchanging information.

6.5.1.4 Target groups

Unemployed young women who reside in Sicily.

6.5.1.5 *Tools*

The portal "LaRetediPenelope" focusing on "women, work and new information and communication technology".

6.5.1.6 *Contacts*

www.atenea.it

www.serverstudio.it

www.laretedipenelope.it

6.5.2 Project "Methodology, Technology, @-quality"

6.5.2.1 *Presentation*

This is a project founded by the European Social Found aiming to develop a new educational model and to improve policies both oriented to the conjunction between middle-high (or advanced) technical skills and a gender approach to ICT. The objective is to promote female occupation together with quality of working life in ICT sector and professions. The project coordinator is Orientamento Lavoro (which joins the EWA European network), other partners are Gender; Poliedra-Politecnico di Milano, Forma Service srl.

The project tasks are to promote actions aiming to awaken women about opportunity offered by ICT professions and to struggle with horizontal segregation; moreover the project intends to enlarge the presence of women in ICT by implementing practices of work-life balance in the companies such as different way of organising working time and space (part-time, teleworking, job sharing etc.) and different way of organising the training (e-learning).

In order to reach the tasks, the projects includes some main actions:

- Analysing *old* and *new* economy organizations which include ICT professional profiles, in order to identify the needs for these kind of new skills and profiles (and their features); and to discover organisational solutions which can represent good opportunities or obstacles for women. At the same time, a qualitative research focusing on how do middle-high educated unemployed women perceive technical job and ICT sector, what are their educational needs and expectations and their worries and doubts on middle-high level technical professions.

- Training addressing trainers who operates either inside or outside companies and experts of gender issues. The action aims to understand and compare feminine and masculine behaviour in the training setting.

- Development of training paths dealing with ICT contents in a gender perspective

- Application of the resulting new training model in order to test its efficacy and impact on employed and unemployed women and men.

- Creation of a web site to give visibility to the project and to support and develop the debate on the project issues by means of ad hoc forum and chat.

- Mainstreaming.

6.5.2.2 *Type of initiator*

University, cooperative and a no-profit organisation with the funding of the European Social Found.

6.5.2.3 *Motivation*

To develop a new educational model and to improve policies both oriented to the conjunction between middle-high (or advanced) technical skills and a gender approach to ICT in order to promote female participation in ICT sector and professions.

6.5.2.4 *Target groups*

People involved in vocational training, either on technical matters or on gender issues, as trainer and designer of training paths.

6.5.2.5 *Tools*

Methods and tools to provide ICT skills and competencies, both basic and advanced, in a pedagogic frame which underline the gender perspective.

Creation of a web site as place where to meet people and exchange information.

6.5.2.6 *Contacts*

Orientamento Lavoro, Laura Mazzolari +39.02.311510

6.5.3 Progetto DOCTA-"Donne e ICT nelle PMI Piemontesi" ("Women and ICT in middle and small companies in Piemonte")

6.5.3.1 Presentation

The project aimed to create a data base on ICT labour market and women which could enable policy addressing equal opportunities throughout new technology.

The project consists of three main steps:

- definition of the methodology
- selection of a sample of companies
- empirical research: collection of data, using both telephone interviews and face to face interviews to women and men at middle and top position

6.5.3.2 Type of initiator

Local government, a research society.

6.5.3.3 *Motivation*

To contribute to the discussion on the Information society and the effects of ICT in a gender dimension; to analyse actual opportunities and problems connected to new technologies. The project intends to promote the equal opportunity culture also by contrasting the persistent prejudices on women and work; and on women and science and technology.

6.5.3.4 *Target groups*

Companies and local government; university and research teams.

6.5.3.5 *Tools*

Conceptual and methodological framework on ICT and gender and guidelines for the empirical research.

6.5.3.6 *Contacts*

www.docta.csp.it

www.csp.it

6.5.4 Progetto "Feasibility and testing of advanced flexibility in working time and work organisation"

6.5.4.1 *Presentation:*

The project founded by Ministry of Labour has been realised in Banksiel, the "Information Technology" business unit of Telecom group. The aim was to investigate the feasibility in order to realize teleworking measures

The investigation consists of:

- a questionnaire addressing white collars and middle managers
- a questionnaire addressing top managers
- interviews to directors of organisational units

The main result was the representation managers and collaborators have of measures of flexibility already in use and on other possible ones.

6.5.4.2 *Type of initiator*

Companies; women

6.5.4.3 *Motivation*

To assess the company's attitude towards flexibility in order to experiment telworking.

6.5.4.4 *Target groups*

Women back to work after maternity leave, who were responsible for teams or deal with customer care activities.

6.5.4.5 *Tools*

Methodology and tools for teleworking

6.5.4.6 *Contacts*

Franco Romagnoli, +39.02.86338354, f.romagnoli@banksiel.it

Cristina Portaluppi, +39.0286338382, c.portaluppi@banksiel.it

6.6 Good practices in France

6.6.1 SEFIA Project: making room for female IT technicians

6.6.1.1 Presentation

The SEFIA training organisation, based in the Greater Paris area, has set up a project offering training in computer maintenance jobs to young women. Through close cooperation with the Women's Rights delegation, the Bull company and the support of the FSE, this programme has enabled several women to take up targeted jobs. The company, customers and co-workers have all appreciated the positive impact of this integration. The Bull company has observed that the presence of women has brought changes in the work environment which is becoming less "macho", allows a more rapid development of techniques and enhances customer service.

The programme is defined in several stages:

- Motivation, self-confidence modules, assessment of prior skills and a directory of professional practices,
- An updating of mathematical, language and communication skills,
- Technical training in partnership with Bull technicians,
- One month's work experience.

The trainees completing the programme successfully are offered a one-year contract with Bull.

The SEFIA organisation has observed, during the project, that one of the major difficulties facing women came from careers guidance departments, some of which feel that that these jobs are not suitable for women as they require physical strength and working in a dirty environment. That is why SEFIA has assigned GEDISST, a research organisation specialising in discrimination issues, to investigate the impact and assessment of this project.

SEFIA will use these results to make careers guidance officers aware of the vast range of jobs in new information and communication technology, their conditions and the value these jobs can have for both men and women.

6.6.1.2 Initiator

This project is steered through on the initiative of SEFIA, an organisation specialised in software maintenance and new information and communication technology training. Local partners, besides the Women's Rights Delegation, the Bull company and the GEDISST research organisation, the Agence Nationale Pour l'Emploi (French National Employment Agency) and the Departmental Labour Service.

Two transnational partners have been brought in to work on the project on the question of women's access to information technology. The German partner offers know-how in terms of telework whereas the Spanish partner inputs its experience in the diversification of professional choices and the setting up of companies by women.

6.6.1.3 Motivation

SEFIA has successfully steered through other projects involving the sexual equality issue, namely in the creation of very small innovative companies. This organisation has observed that certain IT jobs convey a masculine image and, among young people with the same basic qualifications, women are often systematically guided towards office jobs and men towards maintenance jobs. Yet the development of jobs linked to software applications and those more directly linked to information and communication technology, offer opportunities to express qualities of mental versatility and permanent flexibility.

6.6.1.4 *Target groups*

- Female job seekers,
- Careers guidance professionals.

6.6.1.5 Feedback

We will provide more information on the follow-up of this project in our final report.

6.6.2 Regional Action Plan for equality between men and women in Rhône-Alpes

6.6.2.1 Presentation

This regional plan is the first action plan signed in a region in France by the State, two local education departments and a regional council whereby they join forces to promote equality between men and women through a programme of actions throughout the territory. Through this multi-annual agreement (2002-2006) the different signatories undertake to mobilise a large number of public policies in favour of sexual equality, which they steer through while developing a gender mainstreaming policy.

Three major areas of intervention are at the heart of this programme:

Orientation, professional and personal development of young boys and girls, men and women,

- Professional quality in companies, the reinforcement of the contribution of women to economic development,
- The balance between professional and personal life for men and women.

Within this framework, the precise plan of action specifies the actions that will be particularly encouraged and namely mentions:

- the integration of the sexual equality objective in information and communication technology in education
- the reinforcement of women's access to innovative sectors where they are under-represented such as information and communication technology as well as in new forms of activity and employment calling on information and communication technology, like telework for example,
- the setting up of an Observatory on businesses set up by women, where resources will be available to facilitate exchanges via the Internet between female business creators,

- the circulation of training modules via distance information technology to train the various social and economic players throughout the different territorial levels (training organisations, NGOs, professional branches, management and union…)

6.6.2.2 Initiators

This action plan is the result of the Trans-faire European project, initiated and steered through by the Rhône-Alpes Regional Women's Rights Delegation (1996-2000). This project of the 4th Community Action Programme in favour of sexual equality, supported by the Regional Prefect, has, for four years, experimented methods and tools adapted to the mainstreaming strategy, brought into play a network of 350 social and economic players. The Region, State Departments, Lyon and Grenoble Education Authorities wanted to develop this momentum by forging their commitments in an agreement stretching over several years.

6.6.2.3 *Motivation*

The Rhône-Alpes region is the second largest region in France. With a population of 6 million, 8 very different territorial departments (rural, urban, industrial undergoing reconversion or state-of-the-art activities in very innovative sectors), Rhône-Alpes would like to strengthen and develop its dynamism, competitiveness, while maintaining its quality of life. Several actions steered through in information and communication technology (to make it an e-region) and promoting sexual equality, should fulfil this objective.

6.6.2.4 *Target Groups*

NGOs, educational communities, young persons' and adult job seekers' reception and guidance networks, training organisations, professional branches in the relative sectors, managers of small and large companies, unions, chambers of commerce, district councils and territorial authorities.

6.6.2.5 *Tools and means used*

The methods and tools used in information and communication technology are those developed for the whole Action Plan:

- information, awareness, training tools for all players in order to acquire and reinforce a sexual equality culture,

- communication actions (creation of events, information on websites) and vigilance on all communication media to make them compatible with the principle of equality,

- sector-based and territorial gender diagnostics,

- help with the engineering and setting up of equality projects eligible for structural funds and European programmes,

- integration of equality criteria in scheduling procedures and the follow up of public policy,

- use of an evaluation methodology precisely developed in 2000-2001, with indicators and a "quotation sheet" circulated to all civil services and project promoters.

6.6.3 "Tutoring for new female technical or scientific Baccalaureate holders": University of Reims:

6.6.3.1 Presentation

This tutoring scheme, which began at the start of the 2002 academic year, proposes a three-year programme of study assistance for girls who have recently been awarded the scientific or technical Baccalaureate. It aims to encourage girls holding the scientific Baccalaureate to undertake long-term scientific studies in domains that are not traditionally female. This initiative aims to enhance their knowledge of the university system, to make it easier for them to be integrated into this system, to help them study and organise their work so that they can achieve better exam results, and to set up a worthwhile professional career plan.

This scheme involves various measures:

- individual monitoring of students by teacher and student referral agents
- a grant of 500 euros, at the end of the first year of the two-year university diploma (DEUG), awarded to the students who most successfully achieved the above goals.

The scheme works on an opt-in basis for female DEUG students, while the teachers and 3rd year /Masters students acting as referral agents do so on a volunteer basis.

6.6.3.2 Initiator and funding

The University of Rheims and, in particular, the Scientific Training and Research Centre (for the promotion of Science): Budget assigned by the University's managing board within the framework of the Equal Opportunities policy.

6.6.3.3 *Motivation*

This initiative falls within the context of the "Women and Science Network" and an inter-ministerial agreement to boost awareness of gender equality in all areas of the academic world. The main aim is to influence the representative bodies in the world of science, and engineering science in particular, that prepare students for careers in IT and ICT.

6.6.3.4 *Target groups*

Staff and students at the Scientific Training and Research Centre (for the promotion of science) and Law (to raise awareness of equal opportunities between men and women in all areas of the university), the University Cultural Action Department and the University Sporting Action Department

This first year concerned the two-year "DEUG" diploma: Maths, Computer Science and Scientific Applications (MIAS), and Science and Technical studies for Engineers (STPI).

6.6.3.5 *Tools and means*

Creation of a network of equality referral agents:

- so that the integration of women in technical sectors becomes a reality, thanks to new information and communication technologies

- in order to put an end to the stereotyping of women
- so that the integration of women is accompanied by dynamic social systems that provide the proper flexibility required in new working structures (e.g. childcare)

The task of the referral agents is to take stock of the situation in their organisational structures as regards equality between men and women, and to develop a maximum number of initiatives so that gender equality becomes a reality. This involves:

- identifying the organisations and structures in which this referral mission should be set up
- convincing decision-makers that they should commit to this policy, given its impact on economic and social life, in order to gain their backing for the referral initiative
- defining, in cooperation with decision-makers, the fields in which referral agents will act, in order to make it easier to select those that will carry out this task
- putting together a training and information programme for these people
- coordinating this network of referral agents and helping them to create, within their organisational structures, the conditions for developing a maximum number of initiatives so that gender equality becomes a reality
- creating and coordinating a Web site open to decision-makers, referral agents and the general public

6.6.3.6 *Feedback*

The project encountered two obstacles in this, its first year: the difficulty of spreading the word within secondary schools, and the difficulty of starting up, at DEUG level, a new initiative which is not part of any compulsory teaching course.

People did not always understand or accept that the initiative is aimed at girls in particular.

However, DEUG students and the five 3rd year/ Masters student referral agents (three men and two women) showed a real interest: the exchanges organised between teaching staff, 1st / 2nd year students and 3rd year/Masters students seem to interest all partners.

6.6.4 AFPA "Multiannual national plan to promote equal access for women and men to training courses for qualifications"

6.6.4.1 Presentation

The AFPA (Association Française pour la Formation des Adultes – French association for adult training), is an organisation with a nationwide public service mission. It was appointed by the French Ministry of Employment and Social Affairs to implement a mid-term plan (2000-2006) aiming to reduce the gap in access to qualification training courses between women and men.
Four types of strategy were launched simultaneously:

- Actions to raise awareness and inform AFPA employees involved in career guidance and training (600 occupational psychologists and 2000 trainers) in order to assess changes in employment and the necessity of supporting women in the diversification of their career choices
- Improved access for women to the support service for devising training projects, on a regional basis and backed by the national employment agency (ANPE). Quantified objectives for increasing women's access to this service have been defined
- Broadening the scope of AFPA qualification training courses on offer to female job-seekers. Six sectors have been targeted, including data processing (17 jobs affected) with an objective of increasing the women employed in this area by 12% per year
- Making women's access to the qualification training system a core structuring element in the development of the AFPA's training programme.

6.6.4.2 Initiators

This national plan is a public commission from the Ministry of Employment and the Minister delegated to women's rights and equality. It receives co-financing from the European Social Fund within the framework of objective 3.

6.6.4.3 ***Motivation***

The AFPA hopes to stop reproducing structural inequalities, inequalities between men and women to which it contributes unless it adopts a proactive policy. Indeed, the AFPA support service for devising training projects has been shown to discriminate against women and the rate of access by women to its qualification training courses remains low, having increased by only 3 points in 30 years (from 25 to 28%). On the other hand, past experiments in diversifying programmes which were run locally were of limited impact and had no knock-on effect on the system as a whole. Lastly, because of the recruitment difficulties encountered in the target sectors the AFPA must develop its training programme.

6.6.4.4 ***Target groups***

Occupational psychologists (600)

Trainers in the sectors affected (2000)
More broadly speaking, all AFPA staff (an internal equality plan was signed recently in June 2003)

Women seeking jobs and professional training

6.6.4.5 ***Tools and means***

- Training and awareness-raising modules for those working in career guidance, in order to integrate the social mechanisms when working on the male-female employment division and the transformation of jobs

- Training modules for trainers in order to clarify their portrayal of so-called masculine or feminine careers and the question of the "masculine" technical culture.

- Setting up of prior qualification schemes for women who require them

- Monitoring, on a regional basis, of the increase in number of women in the six sectors specified using calculated and qualitative indicators

- Enhancement of work premises including accommodation facilities

6.6.4.6 ***Feed Back***

The annual progress reports submitted for this ambitious plan have proved very positive.

6.7 Good practices in the UK

6.7.1 DTI Work-Life Balance Challenge Fund (National Government Initiative)

6.7.1.1 Presentation

The Work-Life Balance Challenge Fund is a fund established by the UK Government's Department of Trade and Industry (DTI) to assist companies in developing more family-friendly policies. It forms part of the Work-Life Balance Campaign was which launched in March 2000 for five years.

The underlying rationale for this initiative was the view that work-life balance can go hand in hand with improved business performance, and there is particular emphasis on innovative working practices in IT organisations. They need help in reorganising their working hours in order to allow them to draw more effectively on the pool of female labour in the UK which is under-represented in the sector, including those who are returning to work. The campaign focuses on three areas:

- Tackling the long hours culture
- Targeting sectors with acute work-life balance problems (such as the IT sector)
- Providing support and guidance on improving work-life balance.

In early 2002, companies were invited bid for up £55,000 (€83,000) each in consultancy fees to help them develop more family-friendly working arrangements to attract, retain and develop women in their workplaces. The Fund met the cost of the consultancy advice, with money allocated depending on how many days are required. So far, £11.3m (€17m) has been paid out to organisations under the Fund over three years. In the most recent round of bids, 233 companies employing 830,000 people were successful in their bids, and almost £5m was allocated to them. Of these 233 companies, 21 represented IT companies. Private, public and voluntary sector organisations bid and were successful

6.7.1.2 Type of initiator

National Government: Department of Trade and Industry

6.7.1.3 Motivation

To promote innovative working practices which are also good for organisations' competitiveness. A further objective is to improve IT companies' ability to recruit, retain and develop women.

6.7.1.4 Target groups

Organisations in private, public and voluntary sectors. IT companies, particularly small businesses, are encouraged to apply for funds.

6.7.1.5 Tools

Funding for consultancy.

6.7.1.6 Duration of the project

Three years, as part of the Government's Work-Life Balance Campaign which was launched in March 2000 for five years.

6.7.2 Web Wise Women programme (National Government Initiative)

6.7.2.1 Presentation

This is a scheme funded by the Training and Employment Agency of Northern Ireland, which is part of the NI Department of Higher and Further Education. It specifically targets women who have taken time out of their careers to have a family. It was launched in 2001, and it aims to give unemployed women and women returning to work the skills and confidence they need to find a job in the technology industry.

The programme consists of a 26-week course, which is made up of 10 weeks of computer and marketing training which may be taken at home and 16 weeks of placement with an employer. The training is provided by an organisation called Parity, free computers plus internet access are provided by BT, and government funding is available to cover the cost of childcare.

The course leads to the qualification, the European Computer Driving Licence. This is designed to cover the key concepts of computing, its practical applications and their use in the workplace and society in general. It is taken as seven modules, which may be taken in any order and at any time. It also offers women a confidence-building workshop and a 16-week placement with a company.

6.7.2.2 Type of initiator

Regional Government: Training and Employment Agency of Northern Ireland

6.7.2.3 Motivation

To provide unemployed women and women returners with the skills necessary to enter technological work.

6.7.2.4 Target groups

Unemployed women and women returners.

6.7.2.5 Tools

- A training course leading to the European Computer Driving Licence
- Confidence-building workshops.
- 16-week placement with employers.

6.7.2.6 Duration of the project

Temporary, now complete.

6.7.2.7 Feedback

Women who have taken the course hope to go on to permanent employment in the sector. Many are employed by their placement companies.

6.7.3 Promoting Science, Engineering and Technology (SET) for Women (National Government Initiative)

6.7.3.1 Presentation

Web address: www.set4women.gov.uk

Promoting SET for Women is a campaign being conducted under the auspices of the Office of Science and Technology, within the Department of Trade and Industry.

The objective is to raise the profile and effectiveness of efforts to get more women scientists and engineers to develop their careers, and to increase recognition of women in these professions. The campaign is promoted by the Secretary of State for Trade and Industry, currently a woman, Patricia Hewitt.

There are a number of different activities taking place under the umbrella of this campaign, including:

- An annual competition to raise the profile of women in science, with an award and prize money presented to a researcher for scientific innovation.
- A mentoring scheme run by the Women's Engineering Society and the Association of Women in Science and Engineering, with financial support from the DTI, and from several private companies for practising women scientists and those on career breaks.
- The preparation of a High Level Strategic Report on Women in Science and Engineering, *Set Fair*, which was published in November 2002 and advises on actions needed to improve the recruitment and retention of women in SET, to increase the number of women in policy making, and to recognise women's achievement in SET. The report identifies priorities for action. Three working groups were established to consider the three key stages of a career in science and technology: early stage, mid-career and management.
- Conferences and networking events.
- Activities for women returners.
- Poster campaigns aimed at school students.
- Free supply of IT software to schools running computer clubs for girls.
- Science and engineering ambassadors sent into schools to encourage more young people, particularly girls, to choose science and engineering careers.
- Newsletter and website.

6.7.3.2 Type of initiator

National government department, in partnership with professional associations and SET employers.

6.7.3.3 Motivation

To tackle women's under-representation in the science, engineering and technology (SET) community. The aim is to improve the recruitment, retention and progression of women throughout SET education and employment and to increase their involvement in shaping SET policy.

6.7.3.4 Target groups

Women scientists and engineers, both in the labour force and on career breaks.

School students.

6.7.3.5 Tools

- High level studies
- Awards
- Conferences and events
- Newsletters and website
- Promotional campaigns for school students

6.7.3.6 Duration of the project

Indefinite

6.7.3.7 Feedback

Feedback is invited on the contents of the campaign website, but is not published there.

6.7.4 Equalitec (National Government Initiative)

6.7.4.1 Presentation

Web address: www.equalitec.org.uk/forwomen

Equalitec is an online service which was launched in August 2002 to encourage the recruitment and career progression of women in IT in the UK.

The site, which is still under development, contains global best practice examples of the recruitment, retention and progression of women in IT, electronics and communications careers and degree courses. It publishes case studies, books, articles and reports. It has an online mentoring centre, and offers information and advice to companies on setting up in-house schemes. It provides an online database of female undergraduates requiring placements and companies offering placements across Europe. There are also online debates.

The site is supported and partly funded by the Department of Trade and Industry, and by the British Computer Society. It has support from other UK organisations including E-Skills UK, BT (formerly British Telecom), Logica, Newell and Budge, the Institute for the Management of Information Systems, and the Institution of Electrical Engineers.

6.7.4.2 Type of initiator

Partnership of national government department, professional organisations, training organisations, and private companies.

6.7.4.3 Motivation

The overall aim of Equalitec is to “address the gender imbalance in the workforce”, since in the UK less than 20% of IT staff are women.

6.7.4.4 Target groups

Individual women already in the labour force, those seeking to enter the IT labour force, employers and higher education establishments.

6.7.4.5 Tools

Website containing:

- global best practice examples of women's entry into and progression in IT work, reporting case studies and articles;
- an online mentoring resource centre, offering information and advice
- an online database of female undergraduates requiring placements and companies offering placements across Europe
- online debates on topical themes

6.7.4.6 Duration of the project:

Indefinite

6.7.5 Daughters at Work Day – Leeds City Council IT Department (Local Government Initiative)

6.7.5.1 Presentation

As part of the national annual "Take your Daughters to Work Day" scheme, the IT Department of Leeds City Council runs annual 'daughters at work' days for girls aged 11-16. The days are designed to encourage girls to consider IT careers and to help increase the participation of women in the sector.

The initiative has arisen because staff realise that girls have prejudices about IT work. Many girls think that IT work is 'just about being a glorified typist', often because their schooling gives them no serious introduction to computing, such as elementary programming. Rather their schooling covers basic office software and the internet. The department wants to dispel them and convince girls that IT is alive and dynamic.

Each year, girls aged 11-16 are invited to spend a day in the department, sampling part of the work, and participating in a particular process, such as entering a record or creating a form. The department also offers guidelines to other organisations in both the public and private sectors on to run such events.

6.7.5.2 Type of initiator

Local government IT department

6.7.5.3 Motivation

To dispel some myths commonly held by girls about IT work and to encourage them to consider a career in IT.

6.7.5.4 Target groups

Schoolgirls aged 11-16.

6.7.5.5 Tools

Annual open day, involving practical activities for visitors.

6.7.5.6 Duration of the project

Indefinite, annual single day events.

6.7.5.7 Possible feedback

Feedback comes direct to the department through participants. Some have commented that they had not realised that IT work is so varied and interesting, and as a result of their visit have talked of pursuing options which will gain them entry to IT.

6.7.6 21st Century Women

6.7.6.1 Presentation

This is a practical project which aims to improve the numbers of female graduates entering the IT industry. The project is conducted by the e-skills NTO and supported by the UK Higher Education Funding Council for England.

In order to understand why female IT graduates do not enter the IT sector, three online questionnaires have been developed. They are aimed at undergraduates, graduates and employers.

The undergraduate questionnaire aims to collect experiences of working in an IT environment during a degree course. The graduate questionnaire focuses on graduates' experiences of seeking work in IT after completing their degrees. The employers' questionnaire explores the employment of women within the company.

At present, no information on this project is available.

6.7.7 Women in Science, Engineering and Technology (WITEC) UK

6.7.7.1 Presentation

WiTEC is the European Association for Women in Science, Engineering and Technology, of which there are branches throughout Europe, including in the UK. It is also represented in Denmark, Estonia, Finland, Germany, Greece, Hungary, Italy, The Netherlands, Spain, Sweden, and Switzerland.

It is funded from European Union and national funding sources, and its aims are:

- To increase the number of girls and women studying SET subjects and to help them progress to related careers.
- To develop women's technical and entrepreneurial skills through training initiatives and projects.
- To create information exchanges and networking opportunities for women in SET.
- To promote and support research into areas relating to women in non-traditional fields.

WITEC UK was formerly based in a university, but is currently run by a consultancy based in the north of England which has expertise in conducting European and national projects concerned with gender equality, work-life balance and women in technology.

6.7.7.2 Type of initiator

University academic staff.

6.7.7.3 Motivation

To undertake projects which aim to redress the balance of women studying and working in science, engineering and technology.

6.7.7.4 Target groups

Girls and women studying or working in SET, or those seeking to enter SET careers.

6.7.7.5 Tools

Research projects.

6.7.7.6 Duration of the project

Indefinite

6.7.8 All Girl Computer Clubs in Schools

6.7.8.1 Presentation

The UK E-Skills National Training Organisation (NTO), an IT training body, has encouraged several schools in the UK to establish all girls computer clubs. The purpose of these is to persuade more young women to consider taking up careers in IT. The thinking behind them is that clubs can help to convince girls that IT is exciting and fun, rather than an activity for boys who are nerdy.

Learning materials have been developed by E-Skills NTO in collaboration with pupils at Grey Coat Hospital, an all girls school in London, where they have also been tested. The materials offered in the clubs allow school girls the chance to use specialised software packages to work on projects in fashion, music, sports and films. In some cases, they make have their work displayed on well-known commercial websites.

6.7.8.2 Type of initiator

Training body for IT, with UK government support.

6.7.8.3 Motivation

To demonstrate to schoolgirls that IT-related activities are interesting and fun, and not the sole province of boys who are ‘nerds’, and so encourage them to consider taking up careers in IT.

6.7.8.4 Target groups

Schoolgirls aged 11+.

6.7.8.5 Tools

Learning materials for use by members of clubs.

6.7.8.6 Duration of the project

Indefinite

6.7.9 Opportunity Now (Initiative by Employing Organisation)

6.7.9.1 Presentation

Web address: www2.bitc.org.uk/programmes/programme_directory/opportunity_now

Opportunity Now is the initiative of 350 employing organisations who are members of Business in the Community. It is a business-led campaign that works with employers to realise the potential that women in all sectors and at all levels contribute to the workforce. It aims to persuade employers to challenge complacency and tackle barriers to women's progress. It is not restricted to the IT or science and technology sector, but seeks to encourage the women's career progression particularly in sectors where they are under-represented, such as IT.

Since the launch of Opportunity Now in 1991 the number of participating employers has risen from 61 to 350 members among organisations in the public, private and education sectors.

Activities are targeted at changing organisational culture and practices to make them more women-friendly, for example, through making boardrooms more women-friendly, through good practices in recruitment and progression, and though work-life balance programmes. The organisation publishes a newsletter and regular publications and reports, runs an annual award scheme, and conduct a periodic survey and benchmarking exercise that enables employers to:

- Assess progress towards gender equality/diversity, year-on-year
- Compare progress with that of other organisations , year-on-year
- Share good practice with and learn from other organisations
- Establish gender equality/diversity goals and an agenda for the future.

It then assists organisations which want to implement a 'Diversity Change' model developed for Opportunity Now.

6.7.9.2 Type of initiator

Partnership of employing organisations.

6.7.9.3 Motivation

To encourage employers to make best use of the resources of their female workforces.

6.7.9.4 Target groups

Employing organisations in all sectors.

6.7.9.5 Tools

Newsletter, publications and reports, survey and benchmarking, annual awards for improvements in diversity management, development and implement of 'Diversity Change' model, and regional events such as conferences and seminars.

6.7.9.6 Duration of the project

Indefinite.

6.7.9.7 Possible feedback

Feedback on the effectiveness of the organisation's work is provided by companies who contribute to the survey and benchmarking exercise, and by those who have over the past eight years entered for the annual awards. These awards are designed to recognise exceptional progress in organisations working towards gender equality and outstanding initiatives in the development of women at work.

6.7.10 Women in IT Champions Group (Initiative by Employing Organisation)

6.7.10.1 Presentation

This is a group of senior individuals representing companies who employ IT professionals and are committed to increasing the number of women in IT. The group's objectives are to inspire, lead and influence action by those companies and others to increase the number of women in IT.

The group represents private sector employers and their views. It collects information and provides overviews to government on women's participation in IT work. It advises government ministers on suitable policy programmes and their likely impact, and it seeks to ensure that government actions do not duplicate those already taking place in the private sector. It aims to ensure that public policy meets the needs of the private sector.

The group is particularly concerned with the wastage of resources and the potential of women IT workers. The exit of women from the sector is seen as commercially damaging, and the group believes that improving retention is central to preserving economic competitiveness.

The group conducts research, and publishes reports and intelligence, including examples of best practice from across all sectors and recommendations for change which can be implemented by IT companies.

The group is chaired by Rebecca George, a longtime champion of women in IT work. Other companies represented in the group include: Accenture, Dell, EDS, e-skills UK, Ford, KPMG, Smart 421 and Sharon Studer, an independent consultant.

6.7.10.2 Type of initiator

Individual representatives of companies employing IT professionals

6.7.10.3 Motivation

To address the problems of the recruitment and retention of women in IT, in order to avoid loss of competitiveness by UK companies.

6.7.10.4 Target groups

Government, and government departments, to ensure that initiatives are well-focussed and do not duplicate private sector initiatives.

Companies, through practical recommendations and best practice examples.

6.7.10.5 Tools

Research intelligence.

Published reports.

Regular meetings of the group.

Meetings with government ministers.

6.7.10.6 Duration of the project

Established in 2002, for the foreseeable future.

6.7.10.7 Possible feedback

6.7.10.8 Through effectiveness of lobbying, implementation of government initiatives which closely match the needs of business and succeed in improving the retention of women in IT.

6.7.11 BT (Initiative by Employing Organisation)

6.7.11.1 Presentation

BT is the former British Telecommunications, which until the mid 1980s was a state-owned PTT. Historically, it has been a male-dominated engineering organisation, employing women predominantly in clerical and administrative positions. 15 years ago, 75% of its employees were male (and white and able-bodied).

Today the organisation is privately-owned and no longer has a monopoly of the UK telecommunications market. It has implemented a series of development programmes for minority groups in the organisation, including women.

To address equality issues, the company began by undertaking a series of investigations and interviews with women about the barriers to recruitment and progression, and whether or not these were systematic. It then reviewed its own policies and practices and found that:

- The IT industry generally is not attractive to women
- The company was not attracting female graduates in sufficient numbers
- Part-time workers (predominantly women) had difficulty in gaining access to training.

The company established an equality and diversity forum at senior level. This includes a gender champion. The forum reviews policies, looks at legislation and examines trends and employee feedback. It also reviews BT's strategy. Within the different business areas of the company there is also an equality forum which examines issues specific to the business area.

The company has also implemented a programme to address the specific issues raised by the review. Changes have been made to job advertising to present the industry attractively to women (for example by advertising in women's magazines), recruitment procedures are now geared to increasing the number of women graduates who apply for jobs, and a review of training arrangements has been undertaken to overcome the access problems faced by part-timers. In addition, the company tries to improve the image of the telecommunications industry among schoolchildren, and it works with careers services to do so. It also works with Women in Engineering, and Women in Engineering and Science to encourage girls into engineering work. It runs an Oxford Access summer science school to try and interest girls in BT's work areas. It participates in the annual 'Take your daughter to work' day.

Other activities include:

- The formation of a women's network
- The establishment of a women-only development course
- The introduction of career planning
- The introduction of competency-based performance management
- The provision of crèches at training centres

6.7.11.2 Analytical Sheet: BT

6.7.11.3 Type of initiator

Private company

6.7.11.4 Motivation

To improve the recruitment, progression and retention of women in non-clerical areas of the company.

6.7.11.5 Target groups

Women employees and potential recruits.

6.7.11.6 Tools

- Equality forums at global and business area level
- Job advertisements which promote the industry to women
- Recruitment systems which target women graduate applicants
- A women's network
- A women-only development course
- Career planning
- Competency-based performance management
- Crèches at training centres

6.7.11.7 Duration of the project

Indefinite.

6.7.11.8 Possible feedback

The board of directors monitors the strategy for advancing women.

6.7.12 The FI Group (now Xansa) (Initiative by Employing Organisation)

6.7.12.1 Presentation

The FI Group was a company of analysts and programmers founded by Dame Stephanie Shirley in 1962. It was started when she grew frustrated by the glass ceiling operating in the large technology companies she worked for, and in particular by the macho image, poor female representation and an inflexible working culture.

She established the FI Group – or Freelance Programmers, as it was originally known – in order to utilise programmers working from home developing software, which at the time was considered relatively unimportant and given away free with hardware. She also changed her name to Steve to overcome the gender prejudices and explicit sexism of prospective clients.

At the time, there was a huge pool of untapped human resources in the form of women with IT skills who had left their jobs to raise children. The company practised positive discrimination for 13 years, and only with the introduction of the UK's sex discrimination legislation in 1975 did the FI Group take on its first male employee. Effectively this meant that the company was recruiting from a pool which was simply ignored by other employers.

The company developed a flexible working policy, which consisted of allowing its staff to work as flexibly as they needed to fit in with their domestic commitments. Flexible working was initially introduced in the form of a job-share between a husband and wife, and the aim was to move away from a culture of presenteeism towards an emphasis on work done rather than time spent. Many of its programmers worked from home as freelancers.

As a result of its early preference for women programmers, coupled with its flexible working policies, the company has a large proportion of female managers. Even today, with a mixed workforce, 50% of managers are women.

The FI Group became known as Xansa in April 2001. The company is now 40% employee-owned, and although it no longer has a strong emphasis on creating the conditions to draw women into IT, it remains a beacon of best practice in the industry and one that is repeatedly held up for emulation.

6.7.12.2 Type of initiator

Software company.

6.7.12.3 Motivation

To utilise the pool of untapped resources in women programmers who could be employed to work from home.

6.7.12.4 Target groups

Originally, the target group was women with IT skills who needed to work from home or in an 'atypical' way. Today, the company does not explicitly target women in its recruitment

practices as this has been ruled out by the UK Sex Discrimination Act. However, it continues to pursue a culture of flexibility and trust.

6.7.12.5 Tools

Flexible working time arrangements, employee share ownership.

6.7.12.6 Duration of the project:

Indefinite.

6.7.12.7 Possible feedback

50% of company managers are women. The company has been financially extremely successful. It is famous world-wide for its recruitment practices, flexible working arrangements and culture.

6.7.13 Happy Computers (Initiative by Employing Organisation)

6.7.13.1 Presentation

Happy Computers is a small IT training company. It employs around 40 people, of whom 75% are female and 25% are male.

The company is not specifically concerned with improving gender equality, but its initiatives are women-friendly and have this effect. It has adopted a flexible working and work-life balance agenda. It also operates functional flexibility arrangements so that staff can cover for one another.

Specific arrangements include:

- 3- and 4-day week working according to individual situation
- Term-time working
- Maternity leave + five years additional unpaid leave for mothers and four months for fathers
- Skills updating for staff on maternity leave
- Open book salaries
- One day a month spent on voluntary/community work
- Job descriptions developed by staff themselves
- Recruitment based on attitudes not skills, which are trained for within Happy Computers.

6.7.13.2 Type of initiator

Small IT training company.

6.7.13.3 Motivation

To reduce turnover and recruitment costs, and to improve the experience of work and so performance.

6.7.13.4 Target groups

Existing employees.

6.7.13.5 Tools

Flexible working time arrangements, teamworking, open book salaries, flat organisation geared to corporate social responsibility.

6.7.13.6 Duration of the project

Indefinite.

6.7.13.7 Possible feedback

The company has reduced staff turnover and saved £40,000 on recruitment costs in 2000-2001.

6.7.14 British Computer Society Women Specialist Group (Initiative by Professional Association)

6.7.14.1 Presentation

Web address: www.bcs.org/bcswomen

The British Computer Society (BCS) Women Specialist Group was launched in the spring of 2002, with the aim of supporting women in the profession or those about to enter it and providing them with an opportunity for networking. It is a sub-group of the British Computer Society, which is the UK professional association for IT professionals.

It arises because women are so thin on the ground in IT work, and can miss contact with and support from one another. Despite this, the Society argues that women who work in IT find it stimulating and dynamic, and are highly motivated.

The group held its inaugural meeting in an online chatroom and now holds monthly chatroom events, plus one physical meeting per year. There are also informal discussions on the internet. The group is run by a senior lecturer in Computing Studies at South Bank University in London.

The objectives of the group are to:

- Provide an opportunity for networking;
- Provide support for women working in IT/IS;
- Support and encourage women and girls entering IT/IS careers;
- Provide a central contact for media channels requiring comment of issues relating to women in IT/IS;
- Assist women in IS/IT to find, and become mentors for other women.

The website is devoted principally to the provision of advice to women on getting work in the sector, including advice and feedback on CV composition, applying for positions and presenting themselves to prospective employers.

6.7.14.2 Type of initiator

Professional association.

6.7.14.3 Motivation

To provide an arena for support and networking for women in the IT professions, or hoping to enter them.

6.7.14.4 Target groups

6.7.14.5 Women planning to enter or already working in any area of IT.

6.7.14.6 Tools

Web pages, internet chat-room, annual meetings in real space.

6.7.14.7 Duration of the project

Indefinite.

6.7.14.8 Possible feedback

There is no formal feedback mechanism, but the convenor of the Group reports that she has received positive comments from members about the usefulness of the Group. She also has anecdotal evidence of individuals being successful in getting jobs as a result of the advice offered on the website, and that the CV Clinic (web-based advice on CV construction) is particularly helpful.

6.7.15 Association of Women in Science and Engineering (AWISE) (Initiative by Professional Association)

6.7.15.1 Presentation

AWiSE is the Association of Women in Science and Engineering working with a range of women's organisations, and increasingly with government, politicians, and the media.

Its aim is to advance the participation of girls and women in all the sciences, and at all levels.

In the regions, the association is developing networks of women at all levels and in all career paths, in education, in industry, in research institutes, on career breaks, or looking for a job. There are also branch programmes of scientific and social activities. The Association publishes a national journal, *Forum*, which contains a variety of materials to inform women and girls on the world of SET and on women's issues.

The Association’s activities include:

- meetings, workshops, Open Forums, visits, newsletter
- encouraging girls into SET programmes
- activities to promote the understanding of science among girls and women
- education/industry/women's group liaisons
- career advice, mentoring, support for women embarking on or returning to science and engineering

- collecting and providing information on women in science and engineering
- networking with equivalent organisations in the UK and abroad

6.7.15.2 Type of initiator

Professional association.

6.7.15.3 Motivation

To encourage girls and women to take up science and engineering courses and jobs, and to support those already working in such jobs.

6.7.15.4 Target groups

Women and girls in SET education or jobs.

6.7.15.5 Tools

- newsletter
- education/industry/women's group liaisons
- career advice, support for women
- mentoring projects with companies
- provision of information on women in science and engineering
- networking

6.7.15.6 Duration of the project

Indefinite

6.7.15.7 Possible feedback

Might come via members

6.7.16 Women into Computing (WiC) (Initiative by Professional Association)

6.7.16.1 Presentation

Web address: www.wic.org.uk

WiC is a network of people committed to raising the profile of women in the computing and IT fields. Membership, though largely based in the UK education sector, includes people from many different areas of computing and a number of countries overseas. The main focus of activities is in higher education.

The catalyst for WiC was the falling numbers of female students enrolling on computing courses in UK universities in the early nineteen eighties. While the percentages of women studying subjects such as mathematics, physics, chemistry and engineering were increasing, the proportions on computing courses continued to decline. An electronic mailing list was set up by computing academics interested in exploring the reasons for this and in exchanging suggestions for reversing the trend. Following this, a meeting of subscribers was held and the

network was established on a permanent basis. WiC is affiliated to the British Computer Society.

WiC has been involved in a variety of initiatives designed to increase the representation and impact of women in all areas of computing and to support those already there. Activities have included:

- Organising events aimed at attracting more women to study computing at further and higher education level
- Holding national conferences at UK Universities to raise the profile of the campaign and provide a forum for members and others to discuss their research and activities in the field of women and computing with other interested academics and groups.
- Organising one-day conferences and seminars on particular topics
- Producing a Newsletter, which is distributed free to all members and university computing departments
- Building links and co-operating with other groups and campaigns with similar aims
- Gathering information on the numbers and situation of women students and academics in UK universities
- Providing a point of contact and source of support for members

6.7.16.2 Type of initiator

Computing academics.

6.7.16.3 Motivation

To examine the reasons for the decline in women entering computing studies and to try to reverse the trend.

6.7.16.4 Target groups

Women entering computing studies and computing jobs, and those already there.

6.7.16.5 Tools

Conferences and networking events

Newsletter

Website

Academic studies

6.7.16.6 Duration of the project

Indefinite

6.7.17 Computing Technology Industry Association Courses (Initiative by Professional Association)

6.7.17.1 Presentation

T he Computer Technology Industry Association has joined with the UK Government's challenge to organisations to launch initiatives to encourage girls and women into technology careers, by offering course places for women to learn basic computer skills. This is a response to the under-representation of women in the IT industry in the UK.

In January 2003, the Association offered 15 places to women from different regions of the UK to take a self-study course in the basics of computing. The scheme is aimed at women from underprivileged backgrounds, women wishing to change careers, or women returning to work after raising children. It provides a basic level of understanding of how PCs work and how to fix them, for those wanting to become IT managers, programmers or web designers.

6.7.17.2 Type of initiator

Professional association.

6.7.17.3 Motivation

To provide basic IT skills for women to improve their readiness to enter IT careers.

6.7.17.4 Target groups

Underprivileged women, women wishing to change careers, and women returning to work.

6.7.17.5 Tools

Hands-on self-study course

6.7.17.6 Duration of the project

This is a one-off initiative.

6.7.17.7 Possible feedback

Potential feedback might be success of course participants in finding IT jobs, but it is not clear if this is assessed.