

STRONGEST – Document

## **Deliverable D1.3**

### **Gender Equality Plan**

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## **Abstract**

After a short survey on European gender policy in research programmes, female participation in European projects, and beneficiaries' recruitment policy, this document illustrates the gender actions that have been planned by the STRONGEST project to ensure non-discriminatory behaviours and to increase opportunities for women inside the Project. This Plan, that has been approved by the General Assembly, starts from a diagnosis of gender status at the Project kick-off, and indicates objectives and specific actions to improve the female condition inside the Project. The plan also briefly describes other gender related activities like monitoring of gender actions, collection of statistical gender data and dissemination of gender actions.

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## 1 Introduction

In spite of the authoritative guidelines expressed by the European Commission and by the national governments in the last decades, the scientific and technical fields in Europe still suffer, like other areas, from an unbalance of professional opportunities that are offered to women; in some cases, truly discriminatory behaviours still survive inside the companies and public administrations. Many efforts have been specifically exerted by the EC to promote gender equality; this holds as well for EC funded research activities, that have been the object of detailed gender studies, recommendations and actions, particularly in FP5 and FP6.

The “Gender Equality Plan” has been identified in the past years by the EC as a key management tool, for Integrated Projects and Networks of Excellence, to increase gender awareness in project participants and to establish operational objectives aimed at improving the female participation and promoting gender issues in the content of research.

After some introductory reviews about gender issues in European research and about beneficiary companies recruitment policies, this documents describes the planned activities that STRONGEST will carry out to ensure non-discriminatory behaviours and to increase opportunities for women inside the Project.

This planning document can be considered as an integration, for the specific aspect of gender actions, of the Project Management Plan that has been issued as D1.2 [1].

## 2 Gender issues and European policy in research programmes

*“...The existing differences between women and men are of a biological and social nature. Sex refers to the biologically determined differences between women and men. Gender refers to the social differences. These are learned, are changeable over time and have wide variations both within and between cultures. Gender equality refers to a situation in which all human beings are free to develop their personal abilities and make choices without limitations set by strict gender roles. The different behaviour, aspirations and needs of women and men are equally valued and favoured ...” [2].*

In the following a brief history is sketched of the actions that have been carried out by Europe in the last decades to reduce the gender divide in science and technology; most of the information is taken from the [www.europa.eu](http://www.europa.eu) EC website, where an entire, well documented section is dedicated to “Women and Science” [2] .

The consciousness that women creativity had been suffocated for many centuries by economic constraints and cultural prejudices started spreading all over Europe at the beginning of the last century. In 1928, for instance, the writer and scholar Virginia Wolf clearly identified some historical causes of cultural sex-discrimination:

*“... for women, I thought, difficulties were infinitely more formidable. In the first place, to have a room of her own, let alone a quiet room or a sound-proof room, was out of the question, unless her parents were exceptionally rich or very noble, even up to the beginning of the nineteenth century...”; and again: “...if only Mrs Seton and her mother and her mother before her had learnt the great art of making money and had left their money, like their fathers and their grandfathers before them, to found fellowships and lectureships and prizes and scholarships appropriated to the use of their own sex, we might ... have been exploring or writing; mooning about the venerable places of the earth; sitting contemplative on the steps of the Parthenon, or going at ten to an office and coming home comfortably at half-past four to write a little poetry...”; and furthermore: “it is only for the last forty-eight years that Mrs Seton has had a penny of her own... for all the centuries before that it would have been her husband’s property—a thought which, perhaps, may have had its share in keeping Mrs Seton and her mothers off the Stock Exchange...” [3]*

In the following decades the European women condition in the fields of literature and arts was continuously and significantly improving. Yet, the scientific and technical communities, for both industries and public administrations, was moving at a slower pace, still maintaining barriers that prevented women from fully deploying their creativity and from developing their careers in those areas. This held as well for European scientific activities, and particularly for the ICT field; still today, although reduced, the gender gap is far from being filled [4].

As stated in [5], *“gender equality means putting men and women on an equal footing. In an ideal world, this would mean no specific allowances for women would need to be made in research agendas. However, given the substantial gender unbalance in the sciences – women make up half the student population, but hold only 15% of senior academic positions – clear allowances need to be made to promote a healthier gender equilibrium”.*

The European Commission has been facing with gender issues since the very beginning. A review of the many gender studies and actions carried out in the research arena by the EC through the years and a description of those still ongoing can be found in [2]. A Synthesis Report published in 2001 with the title "Gender in Research" [6] assessed the gender impact of the specific programmes of the Fifth Framework Programme (1998-2002). An excerpt from this study briefly reviews the development of a European equal-opportunities policy, particularly in the research field, from the early 1950s to about 2000:

*"When the European Community was established in the 1950s, interpretation of the concept of equal opportunities was limited to the principle of equal remuneration. Since 1996 – after the **United Nations' World Conference on Women in Beijing, 1995** – the launch of **gender mainstreaming** or integrating gender into all major European policy areas has formed the strategic approach to the question of equal opportunities between women and men for the European Commission."*

*"This attitude has to be implemented in all institutions, policies, programmes and practices of the European Union. The approach towards gender mainstreaming was first set out in the Commission **Communication (1996) "Incorporating equal opportunities for women and men into all Community policies and activities"**, which aims at a far more efficient action on equal opportunities, together with simultaneously improving the quality and efficiency of European policies. Since then, further progress has been made but some shortcomings still act, such as lack of awareness of gender issues at decision-making levels, lack of human and budgetary resources allocated and lack of gender expertise."*

*"The European policy of equal opportunities between women and men has been enshrined as one of the European Union's objectives in the **Treaty of Amsterdam**, signed **in 1997**, and stating the Community commitment to gender mainstreaming. It establishes equality between women and men as a specific task of the Community, as well as a transversal objective affecting all Community programs. The Treaty seeks not only to eliminate inequalities, but also to promote equality. Furthermore, the Treaty reinforces principles of positive discrimination or affirmative actions requiring special measures to redress the disadvantages experienced by an under-represented sex. Positive discrimination programs have been proposed to improve women situation at a Member State level."*

*"The overall **Community Framework Strategy on Gender Equality (2001-2005)** embraced all Community policies and actions aimed at achieving gender equality, including gender mainstreaming policies and specific actions aimed at women. The **Gender Equality Programme** was one of the instruments needed for its implementation. The fields of intervention concerned economic life, equal participation and representation, social rights, civil life, gender roles and overcoming of traditional stereotypes. In addition, the gender dimension must be taken into account in the EU enlargement process, the Community's external relations and in development co-operation policies. This strategy and Action Programme are implemented in close co-operation with Member States."*

*"The **Communication "Women and Science: mobilising women to enrich European research"** was adopted by the Commission **in 1999**. It outlined guidelines to be undertaken by the Commission to bring the gender dimension into Gender in Research – Gender Impact Assessment of the specific programmes account within European research policy. The two main objectives were to stimulate discussion and sharing of experience concerning any under-representation of women in research among the Member States, to*

allow action to be taken as effectively as possible at all levels. Further to this, there was the need to develop a coherent approach towards the promotion of women in research funded by the European Union, using the Gender Watch System as a tool for ensuring that gender issues were taken into account wherever relevant. The first of these objectives has been tackled from a number of perspectives.”

“The **so-called Helsinki group of national civil servants** was set up **in 1998** to create a dialogue among the Member States, focusing on policy reviews and development of gender indicators in research. Simultaneously, links have been established between networks of female scientists in order to encourage discussions of their specific concerns. The Commission has also provided a forum in which ideas and experiences can be exchanged through a series of **Women and Science conferences organised since 1998**. In 1999, a group of women scientists was set up to identify the challenges to women’s participation in European science and technological development. Following this, the **report of the ETAN (European Technology Assessment Network) Expert Group on Women and Science, Science Policies in the European Union, “Promoting excellence through mainstreaming gender equality”**, was commissioned by DG Research and discussed **in Spring 2000**. In addressing the second objective, the Commission has recognised a threefold relationship between women and research, and has articulated its action around this:

Women’s participation in research must be encouraged – i.e. **research by women**.

Research must address women’s needs – i.e. **research for women**.

Research must be carried out on the gender question itself – i.e. **research about women**.”

“A dynamic and evolving system, known as the **Gender Watch System**, has developed as one of the Commission’s tools for improving the integration of the gender dimension within the FP5 and research policy in general. At the time of its introduction it consisted of aiming at 40% representation of women in panels and advisory groups, collecting sex-disaggregated data, conducting these gender impact assessment studies and encouraging gender research within the FP5.”

As a continuation of the FP5 exercise, summarized in the above quoted “Gender in Research” report, a number of further studies [7] have been carried out between 2004 and 2007, to monitor progress towards gender equality and gender relevance awareness during the Sixth Framework Programme for Research and Technological development (briefly FP6, ranging from 2002 to 2006). Each study focused on different aspects of the research thematic priorities in FP6, monitoring how gender issues were taken into account and actions implemented, and making recommendations for better integration in future. A synthesis of these studies can be found in the corresponding “Synthesis Report” [8].

A number of specific steps were taken to improve gender issues in FP6, following the FP5 gender impact assessment studies and the recommendations made thereof. These included **expanding the 40% target** to all groups, panels and committees associated with the Framework Programme; introducing **Gender Action Plans** [9] for the new instruments like the Integrated Projects (Ips) and Networks of Excellence (NoEs), and finally **collecting better sex-disaggregated data** in all areas of the FP.

Based on these previous studies and actions, the current Seventh Framework Programme (FP7), ranging from 2007 to 2013, is still deeply committed to achieving further significant steps towards a complete gender integration.

### 3 Female participation in European projects

The female participation in European projects was carefully monitored and studied, particularly through the FP6 programmes. Statistical data were collected and analyzed; as a result recommendations were devised, to improve gender equality [8]. The following sub-sections summarize statistical results and the subsequent recommendations.

#### 3.1 Statistical data

The above mentioned FP6 studies turned into interesting statistical results about women participation in European projects, with various types of disaggregation. These results, the conclusions that can be drawn and the subsequent recommendations can be considered as the basis for gender actions to be carried out in FP7 (the Seventh Framework Programme for research and technological development, the European Union's main instrument for funding research in Europe which applies to the years 2007-2013), as a whole and in any funded projects.

We report in the following three tables whose results are in some way representative of the status of gender integration in European research activities. Table 1 reports the gender statistical distribution for two key roles in FP6 projects: the *Scientific Coordinator* and the *Scientist in Charge for each partner institution*, for Funded Project, disaggregated by Programme. In most cases the percentage of women participation ranges between 10% and 30%, with the best practice up to 40% and the worst one down to 3%. It is worth noting that IST, the *Information Society Technologies* FP6 "priority" (corresponding in FP7 to ICT, the *Information and Communication Technologies* "element of the collaboration programme", in which STRONGEST participates), resulted in poor 13% and 11% women participation data.

From the specific monitoring study on the *Information Society Technologies* programme it turned out that *"male researchers had a cultural advantage as their career progression was facilitated not only by delivering work of recognised scientific excellence, but also through informal networks to which women did not have the same degree of access."*

The findings of Study IV on Research Infrastructures, New and Emerging Science and Technologies and SMEs *"confirmed that women scientists found it harder to become integrated into existing male informal networks and therefore missed out on the advantages that they offer. At the same time, the poor representation of women in scientific areas made it harder to establish comparable networks."*

The situation for women participation is similar when data are disaggregated by Funding Instruments (Table 2), showing low participation percentages, ranging between 8% and 26%. The "Integrated Project", i.e. the STRONGEST category, only reaches 10%.

Finally, it is interesting to look at Table 3, showing the evolution of female participation in FP6 bodies (i.e. the various panels, groups, boards and committees that were used by the Commission to manage the research programmes). In spite of a significant improvement achieved from 1998 to 2006, yet most participation data were still around 30% at the end of 2006.



Table 1 – Gender Distribution of *Scientific Coordinators* and *Scientists in Charge* for each *partner institution*, for Funded Projects in FP6 (ordered by Programme)

Programme	Scientific coordinator				Scientist in charge			
	F	M	Total	% Women	F	M	Total	% Women
Aeronautics and space	16	163	179	9%	196	2185	2381	8%
Citizens and governance in a knowledge-based society	56	131	187	30%	531	1309	1840	29%
Food quality and safety	48	192	240	20%	790	2134	2924	27%
Horizontal research activities involving SMEs	40	353	393	10%	343	2968	3311	10%
Human resources and mobility	812	3851	4663	17%	1154	5715	6869	17%
Information society technologies	155	1085	1240	13%	1232	9950	11182	11%
Life sciences, genomics and biotechnology for health	103	491	594	17%	1396	5182	6578	21%
Management of radioactive waste	5	33	38	13%	98	478	576	17%
Nanotechnologies and nanosciences, knowledge based multifunctional materials and new prod. Processes and devices	77	701	778	10%	1008	8167	9175	11%
Other activities in the field of nuclear technologies and safety	1	28	29	3%	35	282	317	11%
Policy-orientated research	136	558	694	20%	891	3802	4693	19%
Radiation protection	3	7	10	30%	44	145	189	23%
Research and Infrastructures	21	127	148	14%	184	1475	1659	11%
Research and Innovation	61	148	209	29%	372	1022	1394	27%
Research Framework Programme (EC)	0	1	1	0%				0%
Science and Society	61	87	148	41%	288	419	707	41%
Specific measures in support of international co-operation	74	253	327	23%	456	1704	2160	21%
Support for the coherent development of research and innovation policies	3	15	18	17%	31	119	150	21%
Support for the coordination of activities	24	75	99	24%	260	710	970	27%

Sustainable development, global change and ecosystems	92	645	737	12%	1384	8834	10218	14%
Unknown	8	14	22	36%	42	129	171	25%
<b>TOTAL</b>	<b>1797</b>	<b>8958</b>	<b>10755</b>	<b>17%</b>	<b>10735</b>	<b>56729</b>	<b>67464</b>	<b>16%</b>

Table 2 – Gender distribution of *Scientific Coordinators* and *Scientists in Charge* for each partner institution, for Funded Projects in FP6 (ordered by Funding instrument)

Funding Instrument	Scientific coordinator				Scientist in charge			
	F	M	Total	% Women	F	M	Total	% Women
Coordination Action	94	368	462	20%	1269	4741	6010	21%
Integrated Project	109	1037	1146	10%	2569	16587	19156	13%
Marie Curie Actions	775	3794	4569	17%	1066	5606	6672	16%
Network of Excellence	22	240	262	8%	777	4811	5588	16%
Other special actions	0	2	2	0%	0	0	0	0%
Specific actions to promote research infrastructures	16	107	123	13%	139	1266	1405	10%
Specific Support Action	334	943	1277	26%	1633	4713	6346	26%
Specific Targeted Project	408	2125	2533	16%	2954	16043	18997	16%
Special research projects for SMEs	39	342	381	10%	328	2962	3290	10%
<b>TOTAL</b>	<b>1797</b>	<b>8958</b>	<b>10755</b>	<b>17%</b>	<b>10735</b>	<b>56729</b>	<b>67464</b>	<b>16%</b>

Table 3 – Female Participation in Framework Programme Bodies – Analysis by Year1998

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Evaluation Panels	10%	23%	22%	27%	23%	26%	32%	30%	34%
Expert databases		15%	17%	17%	18%	25%	24%	25%	26%
Monitoring Panels	6%	23%	31%	35%	31%	43%	43%	50%	50%
Advisory Groups	4%	29%	27%	28%	28%	27%	27%	27%	27%
Programme Committees		21%	21%	22%	23%	25%	26%	29%	30%
Advisory Boards						33%	33%	33%	33%

## 3.2 Data analysis

From the whole statistical data, collected during the FP6 studies, and from the corresponding analyses the already mentioned Synthesis Report [8] carries out a

comprehensive diagnosis of the gender status in European research projects. We report in the following some of these conclusions.

The main observations on female participation state that more women carried out research and were represented in FP6 bodies, with a progress since FP5, but women tended to be better represented in less senior roles. On the other hand, perceptions about the restricted supply of female scientists did not reflect actual availability of female researchers in all areas of science. Also, workplace culture in science, shaped by masculine values, combined with the lack of practical arrangements to facilitate a work-life balance, acted as a barrier to greater female participation. Finally, women did not tend to have the same access to scientific networks as men did.

Other observations were developed on gender in the research content of FP6, concluding that gender issues were weakly integrated into research across almost all priorities and, furthermore, there was a general lack of understanding as to what was meant by 'integrating gender into the content of the research', which was often interpreted as 'participation' only; the complementary nature of scientific excellence and the integration of the gender dimension in research were not always appreciated. It was also noticed that biological differences between male and females were usually emphasized over sociocultural aspects of gender. Finally, gender considerations were rarely associated with impact analysis of the projects' results.

About Gender Action Plans, while confirming its importance as an awareness raising tool, it was yet observed that the quality of these documents was frequently low, with rare assignment of specific budget lines, mainly because projects often assigned little value to GAPs. They tended to be regarded as a bureaucratic requirement rather than something of importance for the project. This perception was heightened by the fact that GAPs were not scored during evaluation. Also, there was insufficient knowledge on practical actions to integrate gender in proposals, while support to projects on completing the GAPs was also weak.

In conclusion, in spite of the authoritative guidelines and endless efforts exerted by the European Commission during the last years, European Research (and in the ICT area particularly) still suffers from gender unbalance. Hence, a number of recommendations have been developed, directed to programme managers, project managers, or both; in the following subsections the recommendations with a likely higher impact on STRONGEST are reported.

### **3.3 Recommendations**

About **female participation** in EC funded research projects several recommendations have been expressed [8].

*The Commission should continue its efforts in increasing participation of women in Framework Programmes. More attention should be paid to combating vertical and horizontal segregation to ensure that female participation is equal across different priorities and levels of seniority. Greater emphasis needs to be given to areas where women are particularly poorly represented.*

*Collection of sex disaggregated data should be more rigorously enforced, and should include information on the types and seniority of women's roles in projects. The data should be collected centrally. The provision of data should be made compulsory as this would help monitor trends on the seniority of women's roles in projects. Monitoring the success rate of female project scientific*

*coordinators and encoding the sex of participants are examples of the sorts of steps that could be taken to enable improved understanding of female participation.*

*Efforts should also be made to counter preconceptions concerning the lack of availability of female scientists. Although there was a perception that there was a lack of availability of female scientists in certain areas, the studies found that this was not always the case.*

*Targeting female researchers through special schemes could be used to increase their participation. In the scientific areas where female researchers are particularly under-represented, special incentive schemes aimed at women could be introduced. This might involve the wider promotion of Framework Programme opportunities to women as well as active recruitment to identify female experts and targeting vacancy notices at women.*

*More family-friendly working practices in Framework Programme bodies and promoting adoption of these in the projects would help overcome some barriers to participation. Such practices include flexible working and teleworking.*

*Consider refining targets. Although the 40% target is well known and established, the Commission should consider refining the targets to suit the research area.*

EC recommendations also promote [8] the **integration of gender into the research content** (which is an often overlooked aspect, and a difficult task to be applied by highly technical projects like STRONGEST, definitely deserving careful consideration):

*Given the widespread lack of understanding to the meaning of the term ‘integration of the gender dimension into the research content’, a clearer explanation needs to be developed. It should be emphasized that ensuring the participation of women in projects does not automatically imply the integration of gender into the research content.*

*Greater efforts should be made to monitor the gender dimension at all stages of the project life-cycle.*

*Awareness raising measures should be introduced to promote positive links between a gender balanced approach and scientific excellence. Demonstrating that gender considerations are inseparable from achieving scientifically robust and valid results, and highlighting the pitfalls of failing to do so, is crucial. Linkages and learning between “good” projects and those exhibiting weaknesses in addressing gender should be encouraged.*

Finally, it was observed that the projects often did not comprehend the value of Gender Action Plans, but regarded them as an administrative requirement; there was also a lack of understanding of gender issues, with many plans confusing the two aspects of participation and gender in the content of the research. Subsequently the following recommendations have been devised [8]:

*With regard to **female participation**, Gender Action Plans should include aspects such as: attracting young female researchers; increasing the number of female researchers in project management; promoting the scientific careers of persons over the age of 40; improving the work/life balance of researchers of both sexes; shortening working days; developing mentoring programmes; enhancing contacts with gender-sensitive and scientific networks.*

*With regard to **gender issues in the content of research**, Gender Action Plans should also devote additional efforts to disseminate gender-sensitive results, whenever relevant.*

## 4 Survey on STRONGEST beneficiaries' recruitment policy

In order to assess that STRONGEST contractors encourage women to apply for research positions, especially in decision-making positions, and ensure that equal opportunities are promoted in recruitment at all levels, a survey on contractors' recruitment policy has been carried out. The results are shown below.

### **Telecom Italia**

Since 2003, the European Year of Equal Opportunities for All, Telecom Italia has redoubled its efforts by launching a project to build on past achievements and focus on remaining critical areas within the company. The goal is to eliminate the cultural stereotypes that have proven to be the true barrier to forward-thinking conduct.

Specifically "Progetto Donna" was launched to tackle perceived personal and social discrimination against women at work. The campaign quite rightly focused on the things that needed to be done, highlighting behaviour that absolutely had to stop for equal opportunities to be more than just an empty slogan, to become a true reality that we all pursue, share and develop." After developing services and tools that project is now focusing on conduct.

Increasingly, the concept of equal opportunities is shifting to focus on the idea of valuing diversity, supported – naturally – by appropriate policy. A targeted approach to human resource management is necessary to create a working environment in which the expression of individual potential becomes a strategic driver for achieving common goals and objectives.

Furthermore, the guidelines of the Telecom Italia policy on equal opportunities are depicted in the "Code of Ethics and behaviour of the Telecom Italia Group" (internal document of Telecom Italia).

In the "Human resources" section, the document reads: *The companies of the Telecom Italia Group recognize the dominant role of the human resources in the belief that the main factor of success of every enterprise is built around the professional contribution of the persons who work in the organizations, in a framework of loyalty and mutual confidence. The companies of the group take care of the safety and the health in the job environment and consider fundamental, in the accomplishment of the economic activity, the respect of the rights of the workers. The management of the job relationships is oriented to guarantee equal opportunity and to favour the professional development of everyone.*

### **Alcatel-Lucent**

Alcatel Lucent Deutschland (ALUD) has the policy of non discrimination between genders and promotes equal participation of male and female scientists in all research activities. More generally Global Human Right Policy of Alcatel-Lucent states "We prohibit discrimination against any employee or job applicant on the basis of age; disability; race; sex; colour; religion; creed; national origin; citizenship; sexual orientation; gender identity, characteristics or expression; marital status; covered veteran status; or any other protected class and will treat everyone with dignity and with full respect for their private lives".

### ***British Telecom***

BT is an equal opportunities employer. The aim of our equal opportunities and diversity policy is that everyone should have the same opportunities for employment and promotion based on their ability, qualifications and suitability for the work. We support an inclusive working environment in which our people can develop their careers regardless of their race, sex, religion/beliefs, disability, marital or civil partnership status, age, sexual orientation, gender identity, gender expression or caring responsibilities. Our policy is for people to be paid fairly, regardless of gender, ethnic origin or disability.

Inclusiveness in the working environment is supported by our flexible working arrangements which include homeworking, part time working, job sharing, alternative working patterns and term time working patterns. BT also operates a number of Employee Support Networks, including the BT Women's Network which aims to increase women's sense of involvement within BT and encourage them to develop career potential to the benefit of both the individual and the company.

As a result of this policy, in 2008/2009 business year (the latest year for which figures are currently available), 22% of our workforce was female, and women held 21% of our top 400 leadership roles.

### ***CTTC***

CTTC's recruitment policy is based on equality terms between women and men, that is, all applicants for a CTTC's position are evaluated according to his/her scientific curriculum ensuring the equal opportunities between women and men. Selection of project team and assignment of tasks within the project is gender-neutral.

### ***Nokia Siemens Networks (Germany and Israel)***

Nokia Siemens Networks ensures through various actions and policies that nobody is discriminated and that women are advocated not only in the research areas:

NSN has a code of conduct describing the commitment to high ethical standards: "Nokia Siemens Networks will respect human dignity and promote human rights. Nokia Siemens Networks recognizes, with the international community, that certain human rights should be considered fundamental and universal, based on accepted international conventions and practices, such as those of the United Nations' Universal Declaration of Human Rights.

Among those rights that Nokia Siemens Networks views as fundamental and universal are: freedom from discrimination on any grounds; freedom from arbitrary detention, execution or torture; freedom of peaceful assembly and association; freedom of thought, conscience and religion; and freedom of opinion and expression."

NSN has a mandatory ethical business training module. All employees must complete the training annually to ensure they are familiar with the code of conduct of NSN. This training gives employees an opportunity to practice ethical decision-making and to apply the Code of Conduct to various real-life scenarios. The training also informs employees where to find other useful materials, who to ask for support, and how to report concerns.

In autumn 2009, NSN Germany started an initiative for “Ladies Leading in Germany” which put forth the self-organized mentee community “Women across NSN”. This initiative comprises mentoring, project work on cross-functional topics and social networking. Highly qualified women joined from all functional directions, including business administration, marketing, engineering and research.

Another activity to actively promote women’s participation in research is the NSN participation at the German wide Girls’ day. The Girls’ Day is an initiative of the German government aimed at encouraging girls to pursue technical and scientific vocations. This year it was held on April 22, 2010, and six NSN sites took part in it for the third successive time. NSN staged a program that allowed the more than 200 female students from fifth grade upward to take a look behind the scenes of a communications technology company.

The NSN research division encourages women to join the industrial research activities. The multi-layer networking research team which partly participates in STRONGEST is currently consisting of five female and seven male engineers.

### **Telefonica I+D**

All Telefonica I+D recruitment and human resources policies promote equal opportunities regardless of the employees’ gender so as to increase the value of all professionals in the company.

In 2010 the male/female ratio was 74/26, over the ratio in Spanish universities for the related technical subjects (74/26 in Telecom Engineering, 82/18 in Computer Science Engineering), and also higher than the average of the Spanish telecommunication industry. Note that a similar ratio was obtained in the same year for the career advancements and salary increases. This confirms the stated intention of Telefonica I+D to apply no sex discrimination.

Telefónica I+D actively pursues to promote gender equality among their employees, and it was awarded in 2002 with the “Empresa Sensible a la igualdad de oportunidades entre hombres y mujeres” in 2002 by the Valladolid local government as a recognition of Telefonica I+D active policies for women and men equality through recruitment, promotion and establishment of measures that facilitate compatibility and conciliation between work and family life.

Fundación Telefónica launched in 2007 a blog named “Woman and Science”, in which people from Telefónica and Telefónica I+D are willing to participate. Included into the Science and Technology course from the Universidad Complutense in Madrid, it aims to motivate and impel the collaboration of women in the Sciences, broadcasting their achievements and emphasizing the increasing importance of their role in the world. From this blog, Fundación Telefónica wants to open the possibility to find some answers to the question “Why aren’t more women in Science?”, and also wants to provide a means for women already working in Sciences to share with others their experiences and works.

More recently, in 2009 Telefónica I+D has participated in “Programa Óptima”, an initiative which aims to promote positive action for gender equality in the world of business, advising companies to implement actions to encourage the incorporation and promotion of women in the labour market. This program also promotes awareness of the company to prevent discrimination. Participation in the program results in the establishment and

monitoring of a series of actions to promote equality in the company and the establishment of mechanisms to ensure its continuity.

Another measure in favour of gender equality is the work and family life reconciliation program. Reconciling work and family life is part of a series of measures in which Telefónica I+D is committed to support the quality of life of its employees, making it compatible with the efficient and responsible exercise of their work. For years, Telefónica I+D has offered its employees various measures to facilitate the reconciliation including:

- Assistance for the care of children/parents (possibility of reduced working day  $\frac{1}{4}$  or  $\frac{1}{8}$ , added to legally established reduced working days modalities)
- Enjoyment of holidays at the end of the period of maternity and accumulation of nursing hours on additional consecutive days of maternity leave.
- Flexible working days for personal reasons A measure with great reception among employees is telecommuting, where Telefónica I + D is a pioneer company. Initially there are two types of telecommuting: 3 Days/week telecommuting and 1 day/week telecommuting (only for certain posts). However, in 2008 those modalities have been revised, expanding the form 1 day for all employees with special personal circumstances (care of children, family dependants, disease), regardless of the position they occupy. A new modality of 2 hours daily, morning or afternoon, for those people also with certain personal circumstances. As of December 2008, there were a total of 163 telecommuters, an increase of almost 65% compared to 2007. Of these, 108 people telecommuted in the form of 3 days, 25 people in the form of 1 day and 30 people in the form of 2 hours.

Finally, it is also important to mention Telefonica Group Business Principles, which inspire and define the way Telefónica's activities are carried out. Those include the commitment to foster equal opportunity and to treat everyone fairly, impartially and without prejudice, regardless of race, colour, nationality, ethnic or national origins, religion or religious affiliation, gender, gender status, sexual orientation, marital status, age, disability or caring responsibilities.

### ***University of Peloponnese***

#### Optical Networking Group

University of Peloponnese is a newly founded University with 10 new Departments. Within the University it is recognized that female researchers and academics are well represented in the arts, humanities, languages and the more applied areas of health related sciences. At the same time women are still generally under-represented in more "male" dominated areas such as ICT technology and engineering. The case of the Department of Telecommunications Science and Technology is illustrating this discrepancy although approximately 20% of the academic staff is female.

Regarding the work environment within the University, and the resulting scientific, educational and professional opportunities for the individuals involved, the Department is strongly committed to the policy of equal opportunities for a variety of reasons. All different sections of our business benefit from a culture of inclusion that supports diversity of thought and allows the generation of new and innovative ideas. Gender is one aspect of the diversity and inclusion agenda and our organization aims at maintaining work



environments where men and women can be equally effective and productive. It is the Departmental general assembly that ensures that there is a commitment in the principles of equal opportunity in employment in terms of gender not only by following the terms of the University statutes but also through:

- the inclusion of women in the selection and decision making boards, as well as committees. The percentages vary according to applied case.
- implementing transparency of information on the institute's personnel structure in terms of gender
- establishment of an equal opportunity complaints procedure against any kind of discrimination

In the meantime the research that is carried out by the ONG in the Department addresses the needs of network systems designers, where an engineering background is mandatory and user education and attitude towards technology can be assumed to be unaffected by the cultural differences between men and women. Nevertheless within the ONG every effort is made for the promotion of gender equality while focusing mainly on promoting the participation and the integration of female researchers and creating awareness in gender related issues. In the past ONG has participated in the Gender Panel of the Network of Excellence ICT BONE that aims at promoting the participation of young female researchers in the field of optical networking and monitoring the equal opportunities procedures in different organizations.

### ***University of Stuttgart***

In November 2009 the academic senate of the University of Stuttgart formally decided on the Gender plan of the university, which is mandatory for all faculties and departments. This Gender plan contains a detailed state description on gender issues in the university including the numerous (internal and external funded) programs to promote equal opportunities. Furthermore this plan contains mandatory objectives on the fraction of female staff on all levels and for our students. The university checks once every year on the progress made in implementing this plan.

### ***VECOMM***

VECOMM is, for the time being, an individual company, which makes its position quite peculiar with respect to gender issues. Yet, VECOMM firmly recognizes, in any business relationships with employees of other companies, that the only merit of any person is his/her professional value, independent of race, religion and gender.

If, in the future, recruitment of new resources will be necessary, VECOMM will ensure non-discriminatory behaviours and will guarantee equal opportunities to women.

## 5 STRONGEST's gender action plan

The Gender Action Plan indicates all kinds of actions and activities that will be developed by the beneficiaries to promote gender equality within STRONGEST; it also includes sex – disaggregated data on the involved workforce at the beginning of the activity, to be periodically updated during the Project lifetime. According to the EC recommendations, the Gender Action Plan is built around the two following steps:

- A diagnosis on the initial situation regarding gender (women's participation and gender aspects in research) within the Project.
- Practical proposed actions based on the above diagnosis, giving therefore real chances of success.

It is worth noting therefore that the starting point does not really matter, but rather the progress intended to be made along with the Project evolution.

According to these guidelines the following subsections describe the gender baseline at the beginning of the Project and the actions planned by STRONGEST to ensure that equal opportunity policies are firmly applied inside the project and that the gender status is properly monitored along the Project lifetime.

### 5.1 Diagnosis of gender status at the Project kick-off

The initial baseline for women's participation in the Project activity, expressed in person-months, is reported in the following table where data are disaggregated by type of position in the beneficiary organizations. This provides a clear characterization (based on position/rank) of the female workforce that the partners have decided to assign to STRONGEST at its beginning.

**Table 4 – Gender participation in STRONGEST, ordered by type of position**

Type of Position (in the beneficiary Organization)	Women PMs	Men PMs	Total	% Women	% Men
Manager or Professor	16	138	154	10,4%	89,6%
Scientific team leader	4	148	152	2,6%	97,4%
Senior researcher (> 5 years)	43	496	539	8,0%	92,0%
Junior researcher (<= 5 years)	27	161	188	14,4%	85,6%
PhD student or Stage	4	31	35	11,4%	88,6%
Technical staff	0	14	14	0,0%	100,0%
Total	94	988	1082	8,7%	91,3%

(This table will be also periodically updated, as described in section 5.4, to highlight the impact of the exerted gender actions on the Project.)

From a simple analysis of these kick-off data it is clear that room exists for improving women participation in STRONGEST; project responsibility roles (1 WP leader out of 5 is assigned to women, i.e. 20%) exceeds the total women participation percentage (8,7%), but do not reach the desirable 40% objective.

As to the inclusion of gender aspects in research contents, it is worth noting that this objective is particularly hard to be reached in a “vertical” (i.e. highly specialized in a specific technical field) project like STRONGEST. Yet, given the importance of this issue, it will be given careful consideration during the Project evolution.

## 5.2 Proposed gender actions inside the Project

All STRONGEST beneficiaries are encouraged to undertake actions to sustain gender equal opportunities inside the Project, both by fully supporting their own Company-specific Gender Actions, and by integrating them with special actions aimed at correcting particular situations inside the Project itself. The identified gender objectives and related actions are summarized in the first two columns of the following table.

**Table 5 – Gender Actions**

<b>Objective</b>	<b>Actions</b>	<b>Description</b>	<b>Results achieved</b>	<b>Success rate (score 1: poor – 5: good)</b>	<b>Comment</b>
<b>Gender balance within Project workforce</b>	<ul style="list-style-type: none"> <li>• Involvement of women as researchers in STRONGEST</li> <li>• Supporting activities to raise interest in technical jobs and careers</li> </ul>				
<b>Raising gender awareness</b>	<ul style="list-style-type: none"> <li>• Participating and contributing to events supporting the professional as well as the individual advancement of women</li> </ul>				
<b>Promotion of Women in Science</b>	<ul style="list-style-type: none"> <li>• Participating and contributing to events creating awareness about women in science</li> <li>• Participating and contributing to events inspiring young girls for technical professions and attracting</li> </ul>				

	female students for technical apprenticeships				
<b>Promotion of women in leadership</b>	<ul style="list-style-type: none"> <li>Participation in a network for women in leadership (e.g.: European Women's Management Development International Network – EWMD – <a href="http://www.ewmd.org/">http://www.ewmd.org/</a>)</li> </ul>				
<b>Monitoring and certifying Gender Action implementation</b>	<ul style="list-style-type: none"> <li>Contributing to companies certifications as “family friendly company” (where existing)</li> </ul>				
<b>Other actions (Please specify)</b>	<ul style="list-style-type: none"> <li></li> </ul>				

### 5.3 Monitoring of gender actions carried-out inside the Project

The most important actions carried out by each beneficiary to improve non-discriminatory behaviours and equal opportunity policies inside STRONGEST shall be described and reported, by the beneficiary itself, using columns 3-6 of the above mentioned table, possibly including additional objectives and activities that will turn-out in the meanwhile. At the end of the Project the resulting set of tables, properly summarized, will constitute the statement of all gender actions undertaken by the Project beneficiaries and will be included in the final Gender Action Report.

### 5.4 Gender data and statistics for the Project

The following table template reports, for each beneficiary, details of sex-disaggregated data for the workforce involved in STRONGEST. These tables shall be completed by each beneficiary at the end of each year, and their synthesis at Project level will be included in the Periodic (=annual) Report to reflect the evolution from the kick-off status as described in section 5.1. The summary of these data, representing the evolution of sex-disaggregated workforce during the Project lifetime, will be included in the final Gender Action Report.

**Table 6 – Beneficiary XY**

Type of Position (in the beneficiary Organization)	Women PMs	Men PMs	Total	% Women	% Men
Manager or Professor					
Scientific team leader					
Senior researcher (> 5 years)					
Junior researcher (<= 5 years)					
PhD students or Stages					
Technical staff					

## 5.5 Dissemination of gender actions

Proper and timely dissemination will be made of gender actions, and related results, that will be carried out in STRONGEST. All the dissemination tools considered for technical results will be useful for gender issues as well. In particular the newsletter and the website will host specific spaces dedicated to considerations and reports about gender equality activities.

## 5.6 Steering by the Project General Assembly

The execution of the Gender Action Plan will be carefully monitored and, when necessary, corrected by the General Assembly. At each General Assembly meeting the Agenda shall always include a "Gender Action" item.

Any additional gender-related issue noticed by anybody during the Project activity shall be reported to the Project Coordinator that will inform and involve the General Assembly, whenever necessary.

## **6 List of acronyms**

EC	European Commission
ETAN	European Technology Assessment Network
EWMD	European Women's Management Development International Network
FP5	Fifth Framework Programme for research and technological development
FP6	Sixth Framework Programme for research and technological development
FP7	Seventh Framework Programme for research and technological development
GAP	Gender Action Plan
ICT	Information and Communication Technologies
IP	Integrated Project
IST	Information Society Technologies
NoE	Network of Excellence
PM	Person Month
STRONGEST	Scalable, Tunable and Resilient Optical Networks Guaranteeing Extremely-high Speed Transport

## 7 References

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## 8 Document History

Version	Date	Authors	Comment
0.0	28/05/2010	A. Di Giglio, E. Vezzoni	Definition of ToC and general structure
0.1	28/05/2010	A. Di Giglio, E. Vezzoni	First draft
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1.0	23/06/2010	A. Di Giglio	Final version for General Assembly review/approval
1.1	30/06/2010	General Assembly	Approved final version