Integrating attention to the gender dimension into the research activities of Integrated Projects and Networks of Excellence financed by the first and second calls of Thematic Priority 5 “Food Quality and Safety” of the Sixth Framework Programme for Research & Development

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Attention to the gender dimension in research: Definition

Attention to the gender dimension in research requires a clear distinction between the concepts sex and gender. Sex refers to biological characteristics as chromosomes, physiology and anatomy that distinguish men and women. Gender refers to the array of socially constructed roles and relationships, personality traits, attitudes, behaviors and values that society ascribes to men and women on a differential basis.
To this background attention to the gender dimension in research in the life sciences and biomedicine, requires attention to both sex characteristics and gender characteristics (when relevant) and if possible also to the complex interactions between sex and gender. (Based on: Klinge and Bosch, Gender Impact Assessment Study of the Thematic Programme "*Quality of Life and Management of Living Resources*" of the Fifth Framework Programme [1])

Summary

This report presents the results of Work Package 2 of the EU funded Specific Support Action GenderBasic.

Background
In the Sixth Framework Programme for Research and Development (FP6) the European Commission has introduced new measures to promote attention to the gender dimension in the content of EU funded research. In the view of the European *Commission attention to the gender dimension in research requires a clear distinction between the concepts sex and gender. Sex refers to biological characteristics as chromosomes, physiology and anatomy that distinguish men and women. Gender refers to the array of socially constructed roles and relationships, personality traits, attitudes, behaviors and values that society ascribes to men and women on a differential basis*. To this background attention to the gender dimension in research in the life sciences and biomedicine, requires attention to both sex characteristics and gender characteristics (when relevant) and if possible also to the complex interactions between sex and gender.

Objective
The aim of this work package was to explore how participants of Integrated Projects (IP's) and Networks of Excellence (NoE's) financed by the first and second calls Thematic Priority Food Quality & Safety (TP5) of FP6 experience the process of integrating the gender dimension in their research activities.

Material and methods
We conducted semi-structured interviews with researchers from 9 IP's and 4 NoE's that were financed in response to the first or second call of TP5. Twelve of them were gender contact persons for their project and one was a project director. To guide the interviews, we used a topic list that focused on the following issues: Are sex- and/or gender-related factors taken into account in the project? How are those factors addressed in the different components of research projects (the research questions, the research design, the methods for data collection, the methods for data analysis and the reporting of the data)? What has been achieved? What has proved difficult? In case the gender dimension was not addressed, we asked more specific questions about the underlying reasons. We also asked questions regarding the organizational aspects of the project and how those aspects facilitate or hinder a focus on the gender dimension in research.
The data were analyzed by means of content analysis and grouped under two overarching themes:
1. How is attention to the gender dimension integrated in the content of the main research activities in the project?
2. Which activities have been undertaken in the project consortia to mobilize attention to the gender dimension in research among the scientists?

Results
The thirteen projects had up to 40 partners and included many different research work packages or sub-studies. Seven of the 13 projects included research on humans or human health. Six of the projects included only food-related research with no focus on human health. In all thirteen projects a Gender Action Plans were written as an attachment to the main project proposal. With few exceptions these Gender Action Plans were not very explicit on how the project would pay attention to the gender dimension in research work packages. Through the interviews we were able to identify three different ways by which the gender dimension was addressed in research activities of the projects in question. Firstly, in five of the six projects which included only food-related studies that did not focus on human health, there was no attention to the gender dimension in the main research activities. The informants of these projects explained this phenomenon mainly by the fact that the topics in this area of research do not lend themselves for attention to sex and/or gender factors. Secondly, in four of the seven health-related projects occasional attention was given to sex and/or gender differences in the main research activities, as is in accordance with the common research practices in this field. Neither from the interviews nor in the documentation on these projects, however, it became clear where sex and gender differences were expected in the studies or how these differences would be identified. Thirdly, in one food-related and three health-related projects, paying attention to the sex- and gender-related factors was seen as a cross-cutting issue with potential relevance for all researchers. In these projects awareness-raising activities were organized for all researchers. Some researchers in this group were developing new approaches for integrating the gender dimension in research and were therefore also most likely to be aware of the problems that might be associated with the integration of the gender dimension in basic research. However, the informants observed that also in the latter projects many scientists were not interested in integrating attention to the gender dimension in their work. Nonetheless, several of the main research studies in these projects were clearly designed to answer questions regarding potential effect of sex or gender factors. In addition, in four of the five projects in which there was no attention to the gender dimension in the main research activities, small sub-projects were included with a focus on sex- or gender-related topics.

In all 13 projects a gender contact person had been appointed who was in charge of the coordination and implementation of the GAP. This is probably an effect of the requirements of the EU gender equality policy. Most gender contact persons saw it as one of their main tasks to mobilize attention to a gender sensitive research approach among researchers in the project. But many of them were still grappling with the problem how this could be done. The data from the interviews suggested that, in order to facilitate this task, the following conditions are essential: a budget to implement the GAP, a central position of the gender contact person in the project organization, a gender contact person who is competent in gender studies, a gender contact person who is competent in communicating about gender issues with scientists. These conditions were only present in a small number of projects, particularly those that had adopted a cross-cutting or horizontal gender policy.

Conclusion

One aim of the Gender Equality Policy of the European Commission is to ensure that the consideration of the gender dimension becomes standard practice in research. To achieve this aim, this policy needs to be accepted in the research community. This study has provided examples of three ways in which researchers may react when they are asked to take the gender dimension into consideration into research in the field of food quality and safety:

Some may argue that a gender sensitive approach has *no relevance* for the subject matter of their research. Others may argue that such an approach is *already incorporated* in the existing models of science, and needs no further consideration. Finally, a third group may argue that the consideration of the gender dimension in *research requires adaptation of existing ways of collecting and ordering scientific facts*.

To gain acceptance for Gender Equality Policy with respect to research, each of these reactions need to be taken into account in discussions with the research community.

These findings will be taken into consideration in formulating the final recommendations of GenderBasic.

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1 Background

Since the adoption of the Women and Science Action Plan by the European Commission, in February 1999, a gender equality policy has become an important part of the European research policies. This was also supported by the European Parliament and by the national governments.[2,3] The gender equality policy has the aim to promote excellence in science by two combined objectives: ensuring appropriate attention to the gender dimension in the content of research and, secondly, promoting the participation of women scientists in European research activities at all levels. In EU publications, the gender equality policy is commonly represented by the following formula:
GE=GD + WP
GE: Gender Equality
GD: Gender Dimension of the Research Content
WP: Encouraging Women's Participation

For the European Commission, the Framework Programmes for Research and Developments are an important tool for supporting research and development in the EU. As a first step towards the integration of the gender equality policy into the Framework Programme for Research and Developments, the European Commission commissioned a series of Gender Impact Assessment Studies to evaluate the way in which gender equality was addressed in the sub-programmes of in the Fifth European Framework Programme for Research and Development (1998-2002). Published in 2001 [4], the results and recommendations of these studies have led to an adaptation of the rules for participation in the Sixth Framework Programme (2002-2007) (FP6). [5,6,7]

FP6 includes two Thematic Priorities (TP) that support research in the field of the life sciences: Thematic Priority 1 (TP1), *Life sciences, genomics and biotechnology for health* and Thematic Priority 5 (TP5), *Food Quality and Safety*. The development of the gender equality policy regarding these two Thematic Priorities is greatly influenced by the Gender Impact Assessment study of the Thematic Programme *Quality of Life and Management of Living Resources* of the Fifth Framework Programme (FP5) by Klinge and Bosch.[1] One important contribution of this study is that the authors have provided us with a clear description of what paying attention to the gender dimension means in the context of research in the life sciences and biomedicine. In the first place, they pointed out that there is a clear distinction between the concepts sex and gender. Sex refers to biological characteristics as chromosomes, physiology and anatomy that distinguish men and women. Gender refers to the array of socially constructed roles and relationship's, personality traits, attitudes, behaviors and values that society ascribes to men and women on a differential basis. Secondly, they pointed out that attention to the gender dimension in research in the life sciences and biomedicine, requires attention to both sex characteristics and gender characteristics (when relevant) and if possible also to the complex interactions between sex and gender. A growing body of literature by feminist scholars provides information on the theoretical underpinnings of the distinction between sex and gender and on research methods that may be used to take the gender dimension into account in biomedical research [8].

As a result of this Gender Impact Assessment study, in FP6 proposal forms for projects in Thematic Priority 1, *Life sciences, genomics and biotechnology for health*, were supplemented with a set of extra questions that asked proposers to specify how sex and gender issues would be addressed in the project. Those questions were not added to the proposal forms for projects in Thematic Priority 5, *Food Quality and Safety*. In both TP's, however, proposers of so called Networks of Excellence (NoE's) and Integrated Projects (IP's) were asked to attach a Gender Action Plan (GAP) to their proposal, indicating the type of actions that would be undertaken in the project for ensuring both a balanced participation of male and female researchers in the work force (60%-40%) and optimal attention to the gender dimension (sex and gender differences) in the content of research. Projects were also asked to provide progress reports of the GAP's to the Commission at regular intervals and a final implementation report. [9]

For many years, basic, pre-clinical and clinical research in the fields of health and nutrition was mainly conducted in male study populations. In the past decades, however, it has been increasingly recognized that paying attention to the sex and (if relevant) gender characteristics of the study population is relevant both for science and for clinical practice. In the first half of the 1990s, in the US and Canada public funding organizations for health research have issued guidelines that require the equitable inclusion of both sexes in clinical studies, and the analysis of data by sex. [10,11,12] From that time on, there has been a remarkable increase in published studies that address sex and/or gender differences both in the field of biomedicine and nutrition. [1,13,14,15] A beginning has been made to translate the results of these studies into clinical practice guidelines. For many scholars in these fields, however, addressing the gender dimension in the content of their research is still a new challenge, particularly for those conducting basic or preclinical research. The FP6 guidelines certainly help to focus the attention of European researchers in the life sciences to potentially relevant sex and gender differences. However, studies on the implementation of the US and the Canadian

guidelines suggest that such a process may also present obstacles.[17,18,19] Some of those obstacles are a lack of awareness among researchers that paying attention to potentially relevant sex or gender differences may be relevant to their field of research, a lack of familiarity with theories and literature concerning the impact of sex and gender in the life sciences and ethical, methodological or practical problems associated with the inclusion of both sexes in studies. This was confirmed by observations from Klinge in meetings of three FP6 projects in the field of Food Quality and Safety. [20]

The aim of the project GenderBasic is to support researchers, evaluators and EU services in the process of integrating attention to the gender dimension into the content of life sciences research. The project focuses specifically on basic and (pre)clinical research within these fields. GenderBasic acknowledges that, besides guidelines, a dialogue with the researchers in the field is needed to assess actual experiences with the implementation of the EU gender policy in practice. Such a dialogue can lead to more realistic and broadly supported recommendations for conducting gender sensitive research and tools that may facilitate this work. To start this dialogue, the objective of the second work package of GenderBasic (WP2) was to explore how researchers in EU funded Integrated Projects and Networks of Excellence in TP5 are trying to take the gender dimension into consideration in the content of their research, and what problems and challenges they are faced with as they are doing so. This report describes the results of this work package.

2 Material and Methods

To elicit the perspective of scientists on the integration of a gender perspective in the life sciences, we conducted a qualitative study using in-depth semi-structured interviews. We chose this method, as it offers respondents the opportunity to express their own ideas and address themes that the researcher had not anticipated.

Sample
Our original plan was to hold interviews with researchers of Integrated Projects and Networks of Excellence that were funded in response to the first and second calls of two Thematic Priorities of FP6: *Life Sciences, Genomics and Biotechnology for Health* (TP1) and *Food Quality and Safety* (TP5). At the start of this WP, however, we were informed by the Women and Science Unit of the Directorate-General for Research that the Commission was also planning separate gender monitoring studys of these TP's at a later stage. At the request of the Women and Science Unit, we therefore decided to focus this study only on researchers of projects that were funded in response to the first and second calls in the Thematic Priority *Food Quality and Safety* (TP5) and to avoid an evaluation of the implementation of the GAP's. All IP's and NoE's of TP5 have a gender contact person. We assumed that gender contact persons would be a good source of information about the gender-related activities in the projects. For that reason, to locate informants, we used the participant list of GENDFOODSAFE, a network in which gender contact persons of all NoE's and IP's from TP5 are represented. We invited gender contact persons from 22 projects for an interview by e-mail. [21] (see annex 1-2 for invitation letter and accompanying background information). After 2-3 reminders, representatives of 13 projects responded and agreed to participate in the study. Thus far, we have not been able to analyze reasons for non-response.

Interviews
To guide the interviews, we constructed a topic list to explore if and how attention was given to potentially relevant sex related or gender-related factors in the main research projects within their NoE's or IP's. In case the informants indicated any of these factors were being addressed, we asked more specific questions such as: Are sex- and/or gender-related factors taken into account in the project?; How are those factors addressed in the different components of research project (the research questions, the research design, the methods for data collection, the methods for data analysis and the reporting of the data)?; What has been achieved?; What has proved difficult? In case the gender dimension was not addressed we asked more specific questions about the underlying reasons. We also asked informants questions regarding the organizational aspects of the project and how those aspects facilitate or hinder a focus on the gender dimension in research. The topic list in Annex 3 was used as a loose guide to structure the interviews. In the course of the interviews additional topics that were suggested by the informants were added to the list.
We (JH) conducted nine interviews by telephone, three in person and one by mail. Seven personal interviews were recorded with the consent of the informant. All informants were ensured confidentiality and anonymity if they wished so.

Data analysis
Six recorded interviews were fully transcribed. Of the eight other interviews a comprehensive summary was written, using the own words of the informants as much as possible. We used a content analysis of the transcripts to find an answer to two over-arching questions:
1 How is attention to the gender dimension integrated in the content of the main research activities in the project?
2 Which activities have been undertaken in the project consortia to mobilize attention to the gender dimension in research among the scientists?
This approach -a focus on the content of research and on the social activities that make research possible- was inspired by a method for analyzing science which has been suggested by Latour in his book Science in Action. To increase the validity of our results we used a form of triangulation.[23,24] We returned the transcripts of the interviews to the informants to check for errors, asked them to add additional comments if they wished and checked the information from the interviews with the published Gender Action Plans and other available documents (e.g., interim reports of the Gender Action Plans [25] or websites of the projects).

3 Context: EU Guidelines regarding the integration of the gender dimension for proposers of Networks of Excellences and Integrated Projects in TP5

Thematic Priority 5 finances projects on the production of food and the effects of food on human health in the following areas: [26.]

- methods and procedures of producing safer, healthier, more nutritious and varied foods and feedstuffs, based on agricultural systems which use fewer inputs and favoring organic farming;
- the epidemiology of disorders linked to food and allergies, including the effects of diet on child health, and the analysis of food allergies;
- the effect on health of novel foods, organic produce, functional foods, products containing genetically modified organisms (GMOs) and products of biotechnology;
- procedures to ensure "traceability" throughout the production chain, in particular with regard to GMOs;
- methods of analysis, detection and control for existing or emerging contaminants, chemicals and pathogenic micro-organisms (viruses, bacteria, yeasts, fungi, etc.);
- the effect of animal diet on human health, including foods containing GMOs;
- health and environmental risks associated with the food chain, the cumulative effect of authorized substances and the effects of long-term exposure to low doses (toxicology).

This chapter summarizes which guidelines the European Commission provided to participants in TP5 for integrating attention to the gender dimension in their project proposals.

Integrating the gender dimension in FP6 projects

Almost all proposal forms in FP6 were accompanied by an annex 4 titled "*Integrating the gender dimension in FP6 projects*". In this annex the Commission explained the gender equality policy as follows.

> The Commission recognizes a threefold relationship between women and research, and has articulated its action around the following:
> - Women's participation in research must be encouraged both as scientists/technologists and within the evaluation, consultation and implementation process
> - Research must address women's needs, as such as men's needs
> - Research must be carried out to contribute to an enhanced understanding of gender issues.
>
> Promoting women does not mean treating them in the same way as men. Men's characteristics, situations and needs are often taken as the norm, and –to have the same opportunities- women are expected to behave like them. Ensuring gender equality means giving equal consideration to the life patterns, needs and interests of both women and men. Gender mainstreaming thus includes also changing the working culture. We need to go a step further by engendering research. This means questioning systematically whether, and in what sense, sex and gender are relevant in the objectives and in the methodology of projects. Many science and research projects include humans as subjects. There is no such thing as a universally neutral person. Because gender differences are fundamental organising features of life and society, recognising these differences has important implications in scientific knowledge. The following list shows examples of gender relevant research topics:
> - Gender differences are relevant in health research for combating diseases, and in the fundamental research on genomics and its applications for health
> - In information technologies, gender disparities exist at user level and in the labour market. By assuming that information technology is neutral, biases can enter into technological research and development, which can have a negative impact on gender equality.
> - Gender-specific needs could be relevant to the development of materials for use in the biomedical sector.
> - Gender differences could exist in the impact on health of food products, such as those containing genetically modified organisms.
> - Gender may also be relevant in the epidemiology of food-related diseases and allergies.

Following the recommendations of the earlier mentioned study by Klinge and Bosch, proposers in TP 1 (life sciences, genomics and biotechnology for heath) were also explicitly requested to describe if and how the gender dimension was going to be addressed in the content of research. They had to answer the following questions on form B10.2 of in their research proposal:

> **B.10.2 Gender aspects in research. If there are gender issues associated with the subject of the proposal, show how they have been adequately taken into account. (Recommended length - one page)**

Answer to the following questions:

Yes No

- Does the project involve human subjects?
- Does the project use human cells / tissues / other specimens?
- If human subjects are not involved or human materials not used, does the research involve animal subjects or animal tissues / cells / other specimens (as models of human biology/physiology) in such a way that it is expected that may have implications for humans?
- Does the project use collection of data related to human subjects, human materials, animal subjects or animal materials

A positive answer to any of these questions implies that gender/sex aspect should be taken into consideration in the research proposal.

Yes No

Are gender/sex differences with respect to the research documented in the literature? If yes please give details.

A negative answer to this question may imply some innovation in the proposal towards this issue that will be taken into account in the evaluation process.

If there are gender/sex aspects in your project:

- Detail the questions addressed in their proposal related to gender/sex aspects in research.
- Comment on the expected outcome.
- Describe how the gender/sex aspects will be taken into account in the research, methodology and interpretation of their results.

If you do not consider gender/sex differences, provide justification.

- The evaluation panel will assess the relevance of the justifications provided.
- Neither additional costs, nor difficulties in obtaining female cells, female tissues, female specimens, or recruiting female subjects, would not normally be considered as a valid reason for excluding gender/sex aspects ("female" includes both animal and human subjects).

To illustrate the relevance of answering the above mentioned questions the guide for proposers of projects in TP1 provided also the following additional information in a Box which was attached to the proposal forms.

Box 2 – Specific gender approach for the LifeSciHealth Priority[27]

Rationale

Scientific evidence of sex and gender differences in the incidence, prevalence and severity of a broad range of diseases, disorders and conditions has shown that being male or female is an important basic variable that affects health and illness through the life span. Genomic research in particular holds the potential for uncovering the biological mechanisms of disease that underlie many of those disorders that affect women and men differently[1]. In such cases, diagnosis, prevention, treatment, and management need to be adapted according to gender. Consequences for not doing so impinge on the health of both women and men.

Therefore, scientific excellence in health research cannot ignore gender aspects.

Scope of gender aspects in research.

The possibility of gender/sex differences must be considered in all areas of health research:

- In the formulation of research hypotheses, in the development of research protocols, choice of research methodologies and in the analysis of results
- In biological, pre-clinical and epidemiological, behavioural research/studies on both human and animal subjects
- In the use of cells, tissues and other specimen, where appropriate
- In the choice for a particular study population that should be thoroughly justified and the sex of the participants described in full. Unless it can be demonstrated that gender/sex is inappropriate, with respect to the health of the subjects or the objective of the research. This may be established by reference to previous, not gender/sex biased research in published scientific communications subject to peer review, or during the evaluation by the evaluation panel on the basis of substantiated justification duly included in the application.

For proposers in TP5, answering these questions was *not obligatory*. In November 2001, however, an information flyer from the European Commission for future proposers in TP5 suggested that such questions might also relevant for projects in the area of Food Quality and Safety

Integrated Projects and Networks of Excellence

As mentioned earlier, FP6 introduced two new instruments to stimulate research in the EU: Integrated projects and Networks of Excellence.

The Integrated Project (IP) is an instrument to support objective driven research, where the primary deliverable is new knowledge. Each project should contain an integrated set of activities within a coherent management framework. The project should include a research component and, as appropriate, technological development

and/or demonstration components, as well as perhaps a training component. *The Network of Excellence* (NoE) is an instrument for strengthening excellence by tackling the fragmentation of European research, where the main deliverable should be a durable structuring and shaping of the way that research is carried out on the topic of the network. The integrating activities may include the sharing of research facilities/tools/platforms, training and disseminations.

Gender Action Plans
Proposers of all NoE's and IP's, also those in TP5, were required to add a Gender Action Plan (GAP) to their proposal, indicating the kinds of actions and activities that will be developed in the project to promote gender equality. The accompanying instructions recommended that a good GAP should be built around the two following steps:
1 A diagnosis on the current situation regarding gender within the proposal.
2 Practical proposed actions (no general statements) based on the above diagnosis, giving therefore real chances of §success.

Concretely, the Gender Action Plan had to consist of two parts. In part one the proposers are required to provide sex-disaggregated data on the gender balance in the workforce involved in the project, by answering the following questions:

> Gender balance in the work
> Number (and %) of women involved in the scientific management of the project;
> Number (and %) of women involved in the scientific partnership p as scientific team leaders of the project;
> Number (and %) of women early researchers;
> Number (and %) of women experienced researchers;
> Number (and %) of women responsible for work packages;
> Number (and %) of women members of the different kinds of boards (advisory board, scientific board, management board, ethical board, etc.)

In part two of the GAP proposers are requested to explain if there are gender issues associated with the subject of the project proposal and how gender issues will be taken into account in the research content. To proposers in TP5 it was suggested that the obligatory questions for proposers in TP1 could serve as a guideline for making Gender Action Plans for the content of their reserach (see page 11).
For NoE's attention to gender is also seen as an indicator of integration of the proposed activities.

> Indicators for integration in provisions for implementing Networks of Excellence (version 11/11/02)
> "The main factors that will need to be examined by those assessing the quality of the integration in a network will include the following:
> - a coherent management framework that encourages staff mobility, staff exchanges, the interoperability of data and other systems, common approaches to science and society issues and gender equality in research." [29]

The progress of these Gender Actions Plans is monitored regularly during the project and they can be elaborated if necessary. To this end project coordinators and contractors of IP's and NoE's have to fill out Gender Action Plan interim reports at regular intervals. At the end of the project a final GAP implementation report has to be delivered to the European Commission. Finally, the Commission explicitly requires a report on the execution of the GAP as part of the final report of the project.
"At the end of the contract, in addition to the activity report for the final period, a final report will be required, covering such issues as: an assessment of the network's actions to promote gender equality" [29].

Gendfoodsafe
As an extra activity to promote attention to the gender dimension in TP5, the European Commission has taken the initiative to establish a network on gender aspects in Food Quality & Safety research, *Gendfoodsafe*, which includes representatives from all NoE's and IP's financed by this TP as well as members of the advisory group. This network has the following objectives:

> - Exchange of information regarding women's participation in research and gender in research itself;
> - Development of "best practice" to be integrated in the individual project's gender action plan;
> - Development of joint activities e.g. workshops, conference, mentorship, etc;
> - Development of actions to promote gender in research in an enlarged EU;
> - Linking with/promoting local, regional, national and other international/global initiatives.

When our interviews took place, between December 2005 and March 2006, the network had organized three meetings. The GENDFOODSAFE network also has a specific domain on the CIRCA website, where GAP's and

interim reports can be published, information on relevant gender issues is provided and where discussions may be held between the members.
In addition, in 2004 the Research Directorate-General also published a “compendium of good practices” to guide participants of NoE’s and IP’s in elaborating their Gender Action Plans[25]. Several Gender Action Plans of NoE’s and IP’s from the first call of TP5 as well as those from other TP’s are published in this Compendium as examples of good practice.

The above mentioned guidelines and initiatives constitute the context that has been provided by the European Commission for stimulating attention to the gender dimension in NoE’s and IP’s in TP5.
Our interviews were not meant as an instrument for monitoring successes and failures in the implementation of these guidelines and measures. Instead, what our informants told in the interviews should be seen as a reflection on the vicissitudes of integrating attention to the gender dimension in research practices.

4 Results

4.1 Characteristics of informants and the projects

Informants
Of the thirteen informants, twelve were female and one was male. Most of them (12 of 13) were experienced researchers in the field of nutrition, health, biology or genomics. Twelve informants were gender contact persons for their projects. One informant was a project director.

Projects
Nine informants were a member of Integrated Projects and four were a member of Networks of Excellence. (Table 1) All of these projects were organized as a consortium, which included 10-40 partners from a variety of institutions such as private research companies, small and medium sized companies, governmental institutions or universities. Each project had a general project management team, and sometimes separate taskforces or working groups for coordinating specific project activities.

Table 1. Overview of informants, by type of project

Type of project	**Acronyms projects**	**Number of interviews, by type of projects**
Network of Excellence	NUGO, CASCADE, ECNIS, EUROFIR	4
Integrated Project	LIPGENE, SAFEFOODS, WELFARE QUALITY, BIOEXPLOIT, PATHOGEN COMBAT, DIOGENES, IMAQUANIM, EARNEST, EUROPREVALL	9
Total		**13**

Research in IP's and NoE's
The role of research in IP's and NoE's clearly differs. While the production of knowledge through a research program is the main focus of IP's, NoE's are more focused on facilitating future research in the European Region. One of our informants from a Network of Excellence explained the role of research in his project as follows:

> NUGO is not a research project or program but it is a network. It is meant to bring groups of researchers in Europe into contact with each other so that, at some point in the future, it might be possible to conduct research together. Furthermore, NUGO has a part which is called facilitation: In this part, on different levels of research, techniques are being facilitated. And there is also a little bit of research with the aim to search for best practice methods and techniques. And those best practices are disseminated among the partners. So NUGO only deals with: How can I do what I want to do, which facilities are available to this end in Europe, which partners can I possibly find in Europe to develop future research? (R8)

However, also in NoE's some research was done. In NoE's and in IP's, research activities are typically incorporated in different work packages or sub-projects, each with their specific research question and research plan and their own research group. In general, in each IP or NoE several successive sub-studies are carried out at the same time. In the projects that were the focus of this study a variety of research methods was used, depending on the topic of study. Those methods included among others literature reviews, basic animal studies, epidemiological studies, clinical trials, cohort studies and surveys among consumers and patients and developmental studies to improve methods for the management of large databases or laboratory techniques for nutrigenomics.

Gender Action Plans
All projects had written a GAP at the outset of the project and three projects had delivered a first interim implementation report of their GAP. In most projects the responsibility for overseeing the implementation of the GAP was assigned to a separate work package, or to a separate part of a work package dealing also with other issues. In some cases these work packages also included other activities such as communication or research ethics. Twelve of the 13 informants were leader of the work package that was responsible for the implementation of the GAP's.

4.2 Ensuring gender balance in the work force
In all projects ensuring a gender balance in the work force was clearly seen as an important task of the gender work package. According to the informants of most projects, special instruments had been created to promote the participation of women in research such as mentorship's, scholarship's, training facilities, meetings. Furthermore, attempts were made to adapt the work schedules of researchers with children so that they can meet the needs of their family. An investigation of the results of these endeavors will be the topic of investigation of the gender monitoring study of TP5 that will start in May 2006 . Our questions were related to how attention was given to the gender dimension in the content of studies.

4.3 Attention to the gender dimension in the research content
Upon analysis of the answers to our question how attention was given to the gender dimension in the main research activities of their IP or NoE, we have come to the conclusion that those answers can be distinguished into three types:

Attention to the gender dimension in the main research activities: three types

- Type 1: No attention to the gender dimension. This category refers to those NoE's or IP's in which there is not any attention to sex or gender factors in the projects' main research activities.
- Type 2: Occasional attention to sex and/or gender differences. This refers to those NoE's or IP's in which there occasional attention to sex and /or gender differences in accordance with the usual research practices and procedures in the field of study.
- Type 3: Attention to the gender dimension as a cross cutting issue. This refers to IP's and NoE's in which provisions are made to ensure that all researchers in the project consider the potential relevance of sex and/or gender-related factors for their research activities, so that they may pay attention to those factors when this is appropriate to the research topic.

In addition, next to the main research activities, in some projects specific small sub projects had been designed which focused on sex and/or gender issues. Usually those sub projects stood apart from the main concerns of the project and they were generally included with the aim to meet the gender requirements for proposals in FP6.

Table 2 (next page) summarizes the way in which attention was given to the gender dimension in the research activities of the thirteen projects, using the above mentioned categories. The first column describes the research topic of the project. The second column indicates if the research includes questions related to humans or human health or not. The third column indicates the type of attention that was given to the gender dimension in the main research activities of the project: no attention, occasional attention, or attention to the gender dimension as a cross cutting issue. In following paragraphs we discuss how our informants accounted for the approach to the gender dimension that was taken in their project.

4.3.1 No attention to the gender dimension in the main research activities
According to informants of 5 of the 13 projects, there was no attention to the gender dimension in the main research activities of their project.

Not relevant
The most common explanation was that attention to the gender dimension was not relevant for the research topic in question, as it focused on the improvement of foods and not on humans or human health. This is exemplified by the following statements:

> Attention to the gender dimension is not relevant to studies on topics that are not focused on humans or human health. The research in this project is mainly on pathogens in food and not on people. There is no medical part in this project. Therefore there is no focus on gender (R5)

> This project does not focus on humans at all. There will be no extrapolation of research data to humans and humans will not be addressed in any other way, for instance as consumers. This project focuses on immunity responses to pathogens in aqua animals (fish). This is a understudied topic. The project focuses among many other things: environmental factors such as temperature, pollution which may affect immune responses in aqua animals. No differentiation is made between male and female fish..(R2)

> The research topic itself has to do with food quality estimation. It is a very broad project and wide ranging. Our topic at the moment is which data have to go into the database and this is quite removed from other issues. I can see why the commission wanted a work package on gender, but I think in our case it is quite separated from the main work programme. (R3)

Table 2. Attention to the gender dimension in the main research activities and in specific work packages of 13 IP's or NoE's financed by TP5 of FP6

Acronym and focus of project	Do the main research questions relate to humans or human health?	Type of attention given to the gender dimension in the main research activities of the project
1. Welfare quality (IP): Animal welfare from farm to fork	No	Type 1
2. Imaquanim (IP): To improve basic knowledge of how fish and shellfish acquire immunity to diseases. To provide a technological basis for strategies to counteract rapidly known or new diseases in aquacultured fish and shellfish	No	Type 1
3. EUROFIR (NoE): Constructing databank providing information about food composition in EU	No	Type 1
4. BIOEXPLOIT (IP): Breeding strategies to improve disease resistance in plants	No	Type 1
5. Pathogen Combat (IP): Control and prevention of emerging and future pathogens throughout the food chain and dissemination of this information to SME's, the food industry in general, research institutes and in the end also to consumers	No	Type 1
6.SAFEFOODS (IP): Research on safety of food and food risk management in Europe	No	Type 3
7. LIPGEN (IP): The interaction between dietary fat composition, genotype and the metabolic syndrome	Yes	Type 2
8. NUGO (NoE): Nutrition research to support genomics research that develops curative methods	Yes	Type 3
9. CASCADE (NoE): Bringing together research on effects of chemicals on cellular structures which are linked to diseases	Yes	Type 3
10. DIOGENES (IP): Finding foods and dietary regimes that are effective in weight reduction	Yes	Type 2
11. EARNEST (IP): The impact of nutrition in the womb and early infancy on health throughout life.	Yes	Type 2
12. EUROPREVALL (IP): Prevalence, costs and basis of food allergy	Yes	Type 3
13. ECNIS: (NoE) Carcinogenesis research to reduce cancer burden	Yes	Type 2

Relevant later
On further reflection, some of the informants provided also some other explanations for the lack of attention to the gender dimension in the main research activities in their project. Some added that the gender dimension might have some relevance to the topic of the study but that it is not yet clear how.

> It is not clear yet how the gender dimension will be considered.
> It is not very clear at this moment how gender could be concerned. We have only just started, and we are looking at data on information about food. (R3)

> I can see how gender may be relevant further down the line, but at the moment it is not an issue. (R4)

Overlooked in study design
Some informants also suggested that the lack of attention to the gender dimension may not only be related to their topic of research but also to the fact that the scientists who designed the original research plans may have overlooked sex and/or gender factors in designing the study:

> Sex and/or gender-related factors overlooked by scientists who wrote the research proposals
> Quite often researchers are into their own thing and they only really care about what their research is and if it is not on their agenda of what they should be looking at they find it quite hard to add other things. And I think it this (strict focus on one's own task) makes attention to gender difficult. (R3)

> After this interview I wonder if the sex of fish matters for our research results. We may have overlooked this and I will take it up with other researchers in the project. (R2)

Lack of expertise
Some informants also put forward that the lack of attention to the gender dimension might be due to a lack of expertise in gender issues among researchers in the life sciences.

> Lack of expertise on gender issues among researchers in the life sciences
> It is not easy for us to pay attention to the gender dimension in research. I am an engineer and not a social scientist. This means that I know very little about these gender issues. (R5)

4.3.2 Occasional attention to the gender dimension in the main research activities
In 4 of the 13 projects in question, there was occasional attention to sex and/or gender issues. In contrast to the projects in which there was no attention to the gender dimension in the main research activities, all of these projects contained questions concerning human health.

Taking sex and gender differences into account is common practice in biomedical research if this is relevant
Informants of most of these projects stated, that the address of sex and/or gender-related factors did not require any specific consideration in their projects because attention to these issues is already common practice in the research methods that are applied in this field. From the examples below it will become apparent that in most of these research methods attention to the gender dimension is restricted to the sex characteristics of the research population and much less to the gender characteristics.

> But the sex of respondents is always taken into account in our type of research. If relevant sex and gender issues are found they are likely to be reported by the project teams. For instance, in my project efforts will be undertaken to ensure a sex balance in the selection of cases and controls for an intervention study and for a demonstration study, and male/female differences will be dealt with if they appear to be relevant.(R10)

> I have the impression that there is already a general gender awareness among scientists in my field, and now gender is always taken into account in most studies. (R7)

No a priori plans on how to address sex and/or gender factors in the main research activities
None of the informants of these projects, however, were able to provide specific information on or clear examples of how sex and gender differences would be addressed in the specific stages of research projects and this information was also lacking in the research proposals and GAP's of these projects. The informants explained the absence of such detailed information by the fact that gender was not the main focus of the study.

> I; How is attention to sex and gender differences integrated in the research your project?
> R; Our project has 7 different subprojects. The gender action plan does not contain information or a formal plan on how sex and gender issues will be addressed in the content of these projects. It is acknowledged

> that sex and gender issues may play a role in issues regarding obesity and weight reduction. However, the main objective of the study is to find foods and dietary regimes that are effective in weight reduction. This is not a gender study. (R10)

Sex specific factors are automatically taken into account in research on conditions that are specific to one sex
Other informants added that large parts of their projects focus on conditions that are specific to women, so that sex specific factors are automatically taken into account.

> A large part of our research focuses on nutrition in pregnancy and therefore mainly on women. (R11)

> One part of our research concerns breast cancer and therefore focuses on women. (R13)

The EU gender policy confirms common research practice
According to one of the informants of the projects of this type, the EU gender policy did not add anything new to the common research practices in their field.

> All it (the policy) requires is good science (R10)

4.3.3 Attention to the gender dimension a cross-cutting issue in the main research activities
Informants of two IP's and in two NoE's recounted that their project had adopted a clear policy to make sure that attention to the gender dimension would be regarded as structural or cross cutting matter of concern in all the project's activities. (Table 2) Three of these projects included studies related to human health and one of them included only studies on food-related issues. All four projects included some basic research.
A common characteristic of these projects is that a variety of gender awareness raising activities was organized for all scientists so that they were given an opportunity to reflect on how sex or gender factors may be taken into account into their work if this is relevant.

Gender awareness raising activities
In the IP SAFEFOODS a detailed GAP was being carried out to ensure that attention to both sex and gender differences is getting attention in the research activities if this is relevant. At regular intervals information is provided to project members, presentations are held at plenary meetings, a gender audit has been carried out in all work packages, a site to discuss gender issues is available on the project site and the gender expert can be consulted by project members. In the IP EUROPREVALL the gender audit has the status of a work package and several initiatives have been taken to call attention to the gender dimension among researchers in the project. In the NoE NUGO a gender expert has been hired to review, audit and monitor the gender dimension of the project and seminars, conferences and workshops are organized to raise awareness about the need to pay attention to the gender dimension in research. In the NoE CASCADE a specific task force "gender and development" has been established that covers, among other issues, equal opportunity issues and questions related to the gender dimension in research. This taskforce makes sure that the gender dimension is adequately addressed in training sessions on research ethics and research methods for junior and experienced researchers, and that the topic gets due attention during management and project meetings.

The consideration of sex differences is essential in basic research
In contrast to the accounts of informants who participated in projects in which there was no or occasional attention to the gender dimension in research, the accounts of these informants clearly reflected an awareness of the importance of paying attention to the gender dimension, particularly for basic research, as is exemplified by the following statements:

> R; There are of course important differences between the sexes. How for instance the genes operate are partly the same, but it is also likely that there are differences. If you want to study the system well it is not justified to deny potential differences. This would be a medieval way of gathering knowledge. Moreover, what we discover in basic genetic research has also implications for applied medicine: for in stance for medications. Because if you compare male/female differences with differences among ethnic groups, I think that the first are more essential than the second. In contrast to ethnic groups, for men and women there are fundamental biological differences. (R8)

> We analyze the content and levels of chemicals in different type of samples. And sometimes we have human samples for instance on breast milk. But basically we use animal models for our basic research. If you study chemicals it might have a different effect on men and women and for instance if you study hormone receptors it is important to know whether these hormones are male or female. However, now we know that this is a simplified picture. But it is completely clear in the research that this could be different for women and men or for male and female animals. So this is taken into account when planning experiments in the research questions: So if we do a study on chemicals and if we want to know what effect this chemical has on the animal model, then we should decide in the beginning if this something we

> should study on the male or the female mice and what kind of organ we should look at. Should we look at the ovaries or the testes. This is very much integrated in the research questions, this sex difference. But we also do studies at different levels; We do studies on cell lines as well. And then we don't care about the sex of the cell. Of course cells do have a sex as well. But when we study animal models in most cases sex is taken into account. Not always, because some studies look at more general things that are common in both sexes. And in those cases it is most common to choose male mice or male rats, because it is much easier to do experiments on them because you get more stable results, and less variation according to hormone levels as you have in female animals. So if things are not expected to be sex specific male mice are used. (R9)

In contrast to informants from the other two groups, the informants in this group were also most aware of methodological obstacles one may be faced with in integrating the gender dimension in basic research.

> R; But this (sex differences in animal research) is often forgotten. For example, take research in mice. You can use of course as many mice as you wish. I don't know that much about the selection of mice, but I understand that most research is conducted on male mice. And I am trying to think why this is? Yes, the female cycle is of course a reason. For instance I am now involved in a very short study of one month. In such a period the female cycle can have a major influence, and I think we have therefore chosen to only conduct the study on male mice. Indeed maybe it is a matter of efficiency and having to deliver results in a short period. (R8)

> I; Are there any specific problems in including female mice/rats in studies?
> R; Yes, the problem is that one has to take into account the cycling, and one has to determine at which point of the cycle one wants to do the study. In some cases that is relevant and that makes it of course more complicated and you have to take more mice. But in other cases we ovariectomize female mice and then of course you don't have the cycling. That is of course artificial. But especially if you study how different kinds of chemicals affect normal function or hormones you don't want to have the background of estrogens in female mice. That is why it is more complicated to do studies on female mice (the background level of hormones). (R9)

Not every scientist is interested

However, it should also be noted that not all scientists in projects that have a policy to consider attention to gender as a cross cutting issue had as much interest in the potential impact of sex differences as our informants did. For two of the projects (SAFEFOODS and NUGO), there was an interim report of the GAP available from 2005. The report observed that often researchers simply seem to forget to pay attention to the gender dimension. This was attributed both to a lack of awareness of the potential relevance of sex and gender factors for their topic of research and to a lack of understanding on how a gender sensitive approach could be applied into their existing work. The informant from NUGO added that scientists are typically hard to convince to do extra work:

> It is the gender person in the project who clearly has to stimulate attention to gender issues. And the scientist? Well, the scientist is busy with his own plans and his science and finds other things often not important. (R8)

Examples

Despite the fact that our informants felt that also in these project attention to the gender dimension in research still needs improvement, in all four projects sex and/or gender issues were taken into account in some of the main research activities. For example: In the IP SAFEFOODS it was acknowledged that sex and gender issues are to be taken into account in the studies on consumer behavior, exposure to food-related risks and perception to these risks. This has led to a systematic attention to sex and or gender differences in research work packages on the following three topics: 1. The quantitative risk assessment of combined exposure to food contaminants and natural toxins sub-studies. 2. Consumer confidence in risk analysis practices regarding novel and conventional foods. 3. Investigation of the institutional challenges and solutions to systematic risk management. In the NoE NUGO the consortium had committed itself to integrate the gender dimension in research using cells and animal models, the selection of human volunteers, research on the provision of information on nutrient effects and research and information on nutrient-gene interactions. However, during the time of the interview the project was still ongoing and it was too early to asses to what extent this commitment had been actually implemented. In EUROPREVALL a state of the art paper was written concerning sex and gender issues in food allergy research, a gender sensitive health quality of life instrument was being constructed and the study on consumer attitudes and shopping will take gender considerations into account. In CASCADE an important part of the research focuses on pregnancy and the study design allows for attention to the sex of the study populations in animals an humans.

4.3.4 Specific projects
In four of the five food-related projects in which there was no attention to the gender dimension in the main research activities there was at least one sub-project in which there was some attention to specific gender research related work package. (Table 2: project 1,3,4,5) These work packages typically concerned sociological questions regarding the impact of gender differences on consumer behavior or on the dissemination of information of the final research results. In one of the health-related projects in which there was occasional attention to sex differences (Table 2: project 13) there is an intention to address sex and gender differences in as part of the work package on research ethics, and this sub-project was quite removed from the ongoing research in the project.

4.3.5 In sum
In sum, the degree of attention to the gender dimension in the 13 projects in question varied. In five of the six food-related projects that were not related to human health there was no attention to the gender dimension in the main research activities. The informants of these projects argued that the research topics in this area do not lend themselves for attention to sex and gender factors. In four of the seven health-related projects occasional attention was given to sex and gender differences in the main research activities, in accordance with common research practices in this field. However, this was not detailed in the available research designs or gender action plans. In one food-related and three health-related projects paying attention to the gender dimension was seen as a cross cutting issue with potential relevance for all researchers. In these projects awareness-raising activities were organized for all researchers. Consequently, our informants of these projects were also most aware of the methodological problems one may be faced with while integrating attention to the gender dimension in (basic) research. However, it was observed that also in these projects many scientists were not interested in integrating attention to the gender dimension in their work. Nonetheless, in these projects several of the main research work packages clearly included research questions and methods that allowed for attention to sex or gender issues.

4.4 Mobilizing attention for the integration of the gender dimension in research in the project consortia
The proposers of TP5 projects were not required to indicate explicitly in their research proposals how they were planning to pay attention to the gender dimension in the research work packages. They were only advised to address this matter in the GAP they had to attach to their proposal. In the GAPs of the 13 projects concerned, measures for promoting a gender balance in the work force were quite clearly described, but those for promoting attention to the gender dimension in the content of research were often less clear. Officially, the project coordinator is responsible for the implementation of the GAP. However, most of our informants reported that in their project consortium this task was delegated to the gender contact person, who was usually also responsible for the gender work packages.

All those interviewed maintained that mobilizing attention to the gender dimension among researchers in project consortia is an essential task for the gender contact persons in the project. At the same time however, many gender contact persons did not have a very clear idea what they should do to accomplish this task. Together the interviews suggest a number of conditions that are needed to facilitate this work.

Budget
In several cases there was only very little budget for the implementation of the GAP. This was regarded as a major obstacle for raising awareness about gender issues among other members of the consortia:

> R; We don't have any special budget for gender issues. Our negotiation with the Commission took one year. And nobody looked at our project saying you must have a responsible person/partner concerning gender issues or at least a small budget. So when we started our project, we realized we should somehow pay attention to gender issues, but we didn't have any budget. So I decided to use my private budget for this. But in my work here I have many other things to do. So I try to do something on gender issues but it is very difficult to find the time and the money. (R5)

Making sure that there is a budget for gender-related activities is, of course, a very first condition for mobilizing attention to the gender dimension in research.

The position of the gender contact person in the project consortia
IP's and NoE's typically include up to 40 members from different countries and they often have a complicated organizational structure. In some projects gender contact persons were a member of the project management team or scientific management board (CASCADE, EUROPREVALL, BIOEXPLOIT, SAFEFOODS) or they received clear support from the project management teams (NUGO) for carrying out their activities. In other projects gender contact persons had a more peripheral position in the organization of the project. By comparing the accounts of those respondents it is clear that a more central position of the gender contact person in the organization of the project is another important facilitating condition for implementing gender action plans, and specifically for calling attention to the potential relevance of the gender dimension

for research. Such a central position not only reflects a commitment of the project management to the implementation of the GAP, but it also supports gender contact persons in getting familiar with the work of other members in the consortia and in contacting them if this is relevant.

Gender competence
In 6 of the 13 projects gender contact persons were clearly selected for this task on the basis of their previous knowledge about gender issues in (biomedical) research (Pathogen Combat, SAFEFOODS, NUGO, DIOGENES, EUROPREVALL and ECNIS). However, the other informants said they had little previous experience in gender studies. While gender competence may not be absolutely necessary for stimulating the participation of female researchers in a project, it is essential for mobilizing attention for gender dimension among researchers, as is reflected by the following account:

> R; I have not any experience in gender myself. I am a nutritionist. And I think it is really difficult to motivate people and to get them to see the relevance of some of these things. I find it (gender issues) very interesting but I think people don't see it as an important issue. (R3)

Strategies for communicating about gender and research
Most of the 13 gender contact persons were still grappling with the question how they might address other researchers in their project about gender issues in research, as is reflected in the following statements:

> R; I do get the feeling that people need to be more motivated in the work packages and that there needs to be more control on a day to day basis. This is the impression I got from the people I am working with in the course of this year. Gender is really mentioned in a very limited way in the other work packages and we would have really achieved our aim, I guess they would be mentioned or at least be considered. (R7)

> R; So far, in DIOGENES no specific meetings or training sessions are planned with respect to how to address gender issues in the content of the project. However, it might be good to remind researchers now and then of the relevance of paying attention to sex and gender differences in their project. (R10)

> R; I don't know exactly how I can organize an exchange about gender in this project. I have to be very careful. It might irritate the scientists. I have the impression that my best chances of raising awareness for gender issues are within a more general discussion on research ethics, and the equitable inclusion of men, women and children. (R13)

Indeed, finding a good entrance for starting a debate about sex and gender issues in research was a major challenge for most gender contact persons. Also those with more experience in communicating about gender and research with other members in the project consortia were not always sure about the effectiveness of their approach. For instance an impression of the gender contact person of SAFEFOODS and NUGO is:

People listen to presentations or read the GAP's, but I am not certain if they take the next step: action. The research work packages focus on their main targets and goals. Attention to gender issues is never a primary goal and thus easy to forget or to omit. (R6)

Among all respondents there was clearly a need for good examples of how they might call attention to the integration of the gender dimension in research among the scientists in their project. The GENDFOODSAFE network that was established by the European Commission to bring gender contact persons of different projects in TP5 together was experienced as a support by all of them, particularly by those who feel isolated in their own projects. However, some said they needed more specific support tailored to the specific difficulties and challenges they encountered in their own project:

Should attention to the gender dimension be a matter of choice?
Some respondents also suggested that the fact that paying attention to the gender dimension is not obligatory in TP5 presented an obstacle for stimulating attention to the gender dimension in research:

> This year (2005) participants in NUGO can follow an elective course on sex and gender issues in research. This is not required. So only those who are really interested participate. But in future projects in FP 7 perhaps such a course should be required for all researchers. (R8)

In sum
In TP5 projects, mobilizing attention to the gender dimension is an important task for the gender contact persons in the project. In order to facilitate this task the following conditions are thought to be essential: a budget to implement the GAP, a central position of the gender contact person in the project organization, a gender contact person who is competent in gender studies, support to gender contact persons in strategies that might be relevant for communicating about the gender dimension in research with the scientists in the consortium. Some respondents added that structural attention to the gender dimension in research should not be a matter of choice for researchers, but a requirement.

5 Conclusion

In this study we explored experiences with the integration of the gender dimension in research activities of 13 NoE's and IP's in the TP5 Food Quality & Safety of FP6. In contrast to TP 1, the researchers who designed those projects were not required to indicate explicitly on form B.10 of their research proposals how they were planning to pay attention to the gender dimension in the research work packages. They were only advised to address this matter in a broader sense in a Gender Action Plan they had to attach to their proposal. All projects were still ongoing when the interviews took place. Our study was not designed to assess to what extent the project had been able to implement the Gender Action Plan correctly. Rather it was meant to obtain a more general impression of the vicissitudes of integrating attention to sex and gender factors in EU funded research on food quality and safety, thereby mainly focusing on the research content. These considerations should be taken into account in interpreting these data.

Traditionally in research on food quality and safety there was little attention to sex and/or gender issues. To date there is no published research on the ramifications of integrating attention to sex and gender factors in research in this field.
In this study we were able to identify three patterns by which the gender dimension was addressed in the main research activities of TP5 projects:
Firstly, in five of the six projects that related to food research but not to human health there was no attention to the gender dimension in the main research activities. The informants of these projects explained this phenomenon by the fact that the topics in this area of research do not lend themselves for attention to sex and gender factors.
Secondly, in four of the seven projects that dealt with health-related topics, occasional attention was given to sex and gender differences in the main research activities, in accordance with common research practices in this field. However, none of the informants were able to detail how this was being implemented nor was this information available in the project proposals or Gender Action Plans.
Thirdly, in one food-related and three health-related projects, paying attention to the gender dimension was seen as a cross-cutting issue with potential relevance for all researchers. In these projects awareness-raising activities were organized for all researchers. In contrast to the accounts of the informants in the first two groups, the accounts of the informants in this group also reflected the greatest awareness of the problems one may encounter when integrating the gender dimension in (basic) biomedical research. It was observed that, also in these projects, many of the scientists were not interested in integrating attention to the gender dimension in their work. Nonetheless, several of the main research work packages clearly included research questions and methods that allowed for attention to sex or gender issues.
In addition, four of the five projects in which there was no attention to the gender dimension in the main research activities small sub projects were included with a focus on a sex or gender-related topic.
Thus in twelve of the thirteen projects we investigated, at least one sub-project was included that intended to pay attention to sex and/or gender characteristics of the study population.

In all projects a gender contact person had been appointed who was in charge of the coordination and implementation of the GAP. This is doubtlessly an effect of the requirements of the EU gender equality policy. Most gender contact persons saw it as one of their main tasks to mobilize attention to a gender sensitive research approach among researchers in the project. The data from the interviews suggested that, in order to facilitate this task, the following conditions are essential: a budget to implement the GAP, a central position of the gender contact person in the project organization, a gender contact person who is competent in gender studies, a gender contact person who is competent in communicating about gender-related issues with the scientists in the consortium. Optimal conditions were only present in a small number of projects, particularly those that had adopted a gender policy. Almost all gender contact persons indicated they needed better training and support to be more effective in their gender awareness raising activities in the research consortia. They were also interested in experiences and good practice examples in this area. The European Commission has taken the initiative to bring gender contact persons of the TP5 projects together in the GENDFOODSAFE network, to discuss aspects of the implementation of gender action plans in their projects. The gender contact persons experienced this as relevant support to their work, but many of them felt they might also benefit from advice that addresses the specific challenges they meet in their own project.

One aim of the Gender Equality Policy of the European Commission is to ensure that the consideration of the gender dimension becomes standard practice in research. In 2005, an evaluation of the implementation of Gender Action Plans of FP6 projects under German coordination was published. A main conclusion of this study was that the introduction of GAP's has started an unprecedented process of creating awareness for gender equality in research projects. Also in this study we found, that there was at least some consideration of sex and/or gender factors the TP5 projects we studied. It is quite likely that the requirement to write a Gender Action Plan has played a role in this. In contrast to the previous study our study provided more detailed examples of how researchers in the life sciences may react when they are asked to take the gender

dimension into consideration into their research. Some may argue that a gender sensitive approach has no relevance for the subject matter of their research. Others may argue that such an approach is already incorporated in the existing models of science, and needs no further consideration. Finally, a third group may argue that the consideration of the gender dimension in research requires adaptation of existing ways of collecting and ordering scientific facts.

An important prerequisite for the implementation of the Gender Equality Policy of the European Commission is that it must require acceptance of the researchers themselves. To gain such acceptance each of the three reactions we have identified in this study need to be taken into account in future discussions with the research community.

The aim of the project GenderBasic is to support researchers, evaluators and EU services in the process of integrating attention to the gender dimension in the content of research in the life sciences.
In this work package we began our work by exploring how scientists who are no expert in the field of gender view the integration of the gender dimension in research on Food Quality & Safety. In the next work packages we will continue our work by investigating how the gender dimension may be integrated in basic and (pre)clinical biomedical research according to gender experts in these fields. The final recommendations of the project will be made with reference to the results of all these work packages. For that reason we have refrained from formulating specific recommendations on the basis of this work package alone.

6 Annexes

Annex 1.

Invitation letter for participation in interviews WP2 GenderBasic
Subject: Request for participation in GenderBasic
Dear project participants TP5,
In October 2005 we have started an EU funded specific support action which has the aim to promote the integration of the gender dimension in basic/preclinical and clinical research in the life sciences. The title of this project is GenderBasic. It will be carried out by the Centre for Gender and Diversity and the Care and Public Health Research Institute (CAPHRI) of the University of Maastricht (UM) in the Netherlands, in collaboration with a number of advisors.

In the first stage of this project we intend to interview scientists who are involved in life sciences research funded by EU FP6 on issues related to the integration of possible (potentially relevant) sex differences and/or gender effects in their work. Because you belong to this group, we would like to invite you to participate in this part of the study.
The interview will be carried out by telephone and will take about 30 minutes. If needed, the interview can also be done by e-mail, but this may take more of your time. The interviews will take place between November 20th and December 13th 2005 and between January 8th and January 28th 2006. Attached you find more specific information about the project and the interview.

You are kindly requested to inform us as soon as possible by e-mail if you are able to accept this invitation. You can use the e-mail address indicated below. In case you agree to participate, we would appreciate it if you could also indicate your telephone number and the dates and time you may be available for the interview. If you think, someone else in your project may be better suited to participate in this interview, could please you send us his/her name and address?

Kind Regards,
Dr Ineke Klinge, project coordinator
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Annex 2:
Background information accompanying invitation letter for participation in interviews WP2 GenderBasic

Background information GenderBasic
The European Commission has the aim to promote gender equality in research. To achieve this, the Commission has developed a specific “gender” policy for the funding of research. The policy has two major objectives: to ensure equitable participation of male and female researchers in EU funded research in the life sciences and to ensure sufficient attention to potentially relevant sex- and gender-related differences in the content of this research.
This policy is of recent date and was first introduced in the 6th Framework Programme FP6. In FP6 the programs for life sciences research are: Thematic Priority 1, Life sciences, genomics and biotechnology for health (TP1) and Thematic Priority 5, Food Quality & Safety (TP5).
To implement the policy objectives, the Commission has taken the following measures:
The inclusion of a new set of specific questions in the guidelines for proposers in TP1 and TP 5. These questions focus on the participation of male and female professionals in the proposed projects and on the incorporation of attention to potentially relevant sex- and gender differences in the content of the proposed studies. They are meant to support research teams in the design of a “Gender Action Plan” for their study.
The monitoring of the implementation of the proposed Gender Action Plans in the projects at two occasions: one year after the start and at completion.

In addition, a number of projects which were funded through the first and second calls of TP1 and TP5 are receiving additional support from gender experts with the aim to facilitate the implementation of Gender Action Plans into their work: NuGO, SAFE-FOODS and Europrevall.
This innovation in the EU research policy presents the research community with new challenges. In contrast to North America and Australia, in Europe most public funding organizations for research in the life sciences do not have a policy which requires researchers to pay attention to gender equality issues in the organization and content of their studies. Such requirements are especially new for scientists working in the fields of preclinical and basic/preclinical and clinical research. The project GenderBasic acknowledges this. It departs from the idea that innovation of research practices cannot be initiated through top down policy measures alone, but requires active consultation and involvement of the research community.

For that reason, the aim of GenderBasic is to start a dialogue with researchers in the life sciences to assess how they view the above mentioned policy measures.
GenderBasic starts with a series of interviews with project leaders and other relevant stakeholders who are presently conducting basic/preclinical or clinical research funded through the first and second call of TP5. These interviews are meant to address a number of problems that might be related to the new policy such as the usefulness and relevance of attention to sex and gender-related issues for one's specific research area, the workability of the above mentioned measures in practice, the experienced obstacles for implementation and the actions that may be needed to facilitate implementation. The interviews will primarily focus on the integration of attention to sex and gender issues in the content of the research (e.g., review of prior research, research questions, selection of study populations, methods for data collection, analysis and reporting)

As a next step in the project, the problems identified through the interviews will be presented to a number of experts in the field, who will be asked to write papers on possible solutions to those problems, on the basis of evidence or examples from good practices.

Subsequently, the results of these endeavors will be discussed in a joint meeting with researchers and experts. This meeting will take place in September 2006 in Maastricht. The aim of this meeting is to contribute to the development of realistic and broadly supported recommendations and practical tools for improving the integration of attention to the sex and gender issues in basic/preclinical and clinical life sciences research.

Finally, these recommendations and tools will be published, with the aim to advise the European Commission on how to better implement the EU gender and research policy in the new European Research ERA/ FP7. More importantly, however, the recommendations and tools are meant to support researchers and evaluators of EU funded life sciences research with the translation of this gender policy into research practice.

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Annex 3.

Checklist for interviews on experiences with the implementation of the EU gender and research policy in basic/preclinical and clinical life sciences research

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Introduction
Men and women differ in terms of sex and gender. Sex refers to biological and physical characteristics that define men and women. Gender refers to the socially constructed roles, behaviours and attributes a given society considers appropriate for men and women.
In FP 6 the EU has taken up a policy to promote attention to sex and gender differences, also in basic/ (pre)clinical research in the life sciences. Proposers were asked to attach a "Gender Action Plan" to their project proposals, which focused both on equal participation of male and female researcher in the study as well as on the attention which is given to sex and gender issues in the content of the research. In a addition to this the implementation of the gender plan will be monitored at two occasions. This interview is meant to discuss your experiences with this policy thus far: The questions are particularly focussed on the content of your study. In the first place we would like to get an idea of the obstacles you have experienced in implementing the gender policy, how you have solved them or not, and of course also how you think it may effect the quality of your work.

1 General information (to be filled out by interviewer)

Name of project
Date

What is the general objective of the project? (problems it wants to address)
Which types of research designs, are used in your current EU project. (check)

Prior research

2 *Has it been possible for your research group to asses, on the basis of prior research, if there were any important sex/gender differences to be expected in your area of research.*

If yes, please explain?

If no, what may be the reasons?

Research questions

3 *Are the scientific questions your research addresses applicable to (or relevant for) both men and women? Please explain*

4 *If yes, do you have any information in what way sex differences may play a role in the scientific questions you address?*

5 *Is the condition you study more severe or prevalent in one of the groups?*

6 *Is there any other sex or gender-related aspect that may be relevant to your research question?*

7 *Has it been possible to design the research appropriate to the severity or prevalence distribution, or any other relevant sex/or gender-related aspects?*

8 *Are you aware of any gaps in knowledge concerning the condition in one or more populations?*

9 *If YES, has it been possible to design your research in such a way to fill (some of) these gaps?*

Study design

10 *Is your study a trial?*
IF YES, proceed to next question

If NO, has it been possible to address sex or gender differences in any other way in your prject?

11 If your study is a trial, were there any important sex or gender differences to be expected in the intervention effect?

12 If YES, has it been possible to take this into account in the selection of the study population for your trial.

13 Has your trial enough power, to make valid statistical analyses of the intervention effect for both sexes (and their relevant subpopulations)

13b If NO, what have been problems in composing a study population that allows for valid statistical analyses of the intervention effect for both sexes?

Recruitment

14 Was it possible for your research group to design a recruitment plan for the inclusion of participants in the study by sex, for each relevant study site?

15 If no please explain

16 Have there been any problems with the recruitment (finding) of sufficient numbers of men and women for the study, by study site?

17 If yes, please explain?

18 Have there been any problems in retaining sufficient numbers of men and women in the study, by study site?

19 If yes, please explain.

Data collection

20 If you conduct research on humans

21 Have you taken potentially relevant sex/gender differences into account in instructing your study populations about the implications of participating in the study?

22 Have the research instruments that are used in your study been validated for both men and women? (cut off points, validity?)

If not, what will be undertaken in your study to account for this?

Data analysis

23 Has it been possible for you to design a plan for analyzing the data by sex/?

24 Has it been possible for you to design a plan for analyzing the data on possible gender effects, (taking confounders into account)?

25 If yes, what is this plan?

26 If no what were the obstacles?

27 Do you expect or have there been any problems in analyzing the data for men and women (and relevant subgroups)

28 Do you expect or have there been any problems in drawing meaningful conclusions from the results of m/f analyses of the data

Reporting

29 Has it been possible for you to draw up a plan for reporting data regarding potential sex differences?

30 Have there been any/ or do you expect any problems in reporting or publishing about sex and gender-related aspects of the findings of your study?

Infrastructure/process

31 At which level is the Gender Action Plan implemented in your study?

32 Who are the key actors implementing the Gender Action Plan?

33 Is there a committee of focal point present in your project with responsibility for implementing the Gender Action Plan?

28 Does the research funding/infrastructure provide sufficient possibilities to allow for attention to sex and gender aspects in your study?

31 Are the research plans regarding to sex and gender issues regularly discussed/evaluated/monitored by the research group?

* This list has been adapted several times, so that it corresponded better to the type of research that was conducted in the project in question.

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