SUSTAINABLE BEHAVIOUR AT WORK AND IN PRIVATE LIFE

Preconditions, measures and tools for promoting a spillover

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Abstract

Comprehensive research is carried out on consumers with respect to their sustainable behaviour in private life. Other research focuses on employees and their sustainable behaviour in business life. This divide also characterises companies' activities for promoting sustainable consumption and lifestyles. But how can both sides being brought together? Is it possible for companies to initiate a spillover in the sustainable routines of their employees from work to private life? In the transdisciplinary project 'Sustainable behaviour at work and in private life', empirical research was conducted on the interests and opportunities of Austrian companies for promoting a spillover in sustainable behaviour. The project is innovative in that it 'builds bridges' in two ways. First of all, it links social and ecological fields of action within companies (health promotion including sustainable nutrition, physical exercises and work-life balance, on one hand, and sustainable mobility, on the other). Secondly, the project 'bridges' the perspective of managerial staff and the everyday life perspective of employees. The paper presents first empirical results of this study. Insights concern the behavioural spillover, the success factors for companies' 'sustainability activities' and the perspectives of management and employees. Against this backdrop it is recommended to enrich workplace health approaches with environmental factors (and not conversely). Finally, a crucial insight into social learning in companies is presented, which could help to promote sustainable behaviour at work and in private life.

Keywords: *Sustainable behaviour, spillover, integration of social and environmental factors, toolkit, social learning in companies.*

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1   Introduction

Wide-ranging research has been conducted on consumers with respect to their sustainable behaviour. A successful approach for this has emerged from everyday life sociology (see below), but the insights gained from an everyday life perspective refer mostly to sustainable behaviour in the household and in private life – predominantly in specific fields of action such as energy reduction, mobility behaviour, food consumption etc. So far, no research has been carried out on how to promote sustainable routines and everyday life practices in work life and also in the private life (spillover). Furthermore, no research has been conducted up to now on how environmental and social fields of action, including health promotion and work-life balance, can be combined in the best possible way in order to bring about good spillover effects from work to private life.

However, research does not have to start from scratch. From the company's side, there are well known strategies and means to promote sustainable development. This research is mostly included under Corporate Social Responsibility (CSR). CSR is used to describe a company's voluntary contribution to sustainable development. This goes beyond product policy and affords an active consideration of the interests and expectations of stakeholders. In the understanding of the Austrian CSR-network *respACT*, the aim of CSR is (among others) to improve people's lives, and thus CSR extends the sphere under which the company operates. In respect of their employees, companies committed to CSR improve the quality of life by addressing work-life balance issues and being family friendly for instance (Mesicek 2010). Thus, flexible working time or an in-house kindergarten may contribute to gender equality, and canteen meals rich in vegetables may positively influence the wellbeing of the employees. Implemented on an occupational level, they may influence individual daily routines of individuals or whole groups of employees and therefore 'spill over' into private life. But, within CSR such a spillover effect and its potential to contribute to sustainability is widely disregarded (Clausen 2006).

To utilize this potential for affecting private consumption and behavioural patterns of employees, a profound analysis of this topic is necessary. This is by no means a trivial endeavour, since it has to be kept in mind that interventions from companies into the private lives of their employees are highly controversial in ethical terms. This is just one argument why the knowledge about the employees' needs, motives and acceptance of companies' sustainability activities is indispensable. Moreover, it is also important for companies to know about their employees' experiences and needs regarding activities that have already been introduced in order to gain a picture about the effects of these provisions as well as their spillover

potential. Tools and adequate guidance have to be provided to create and implement measures with potential for spillover.

For this reason, experts from transdisciplinary research, environmental science and education, CSR and occupational health have come together to form an interdisciplinary research team to investigate this topic within the project 'Sustainable Behaviour at Work and in Private Life'[i]. The project was launched in 2008 and will be finalised in 2011. It is funded by the Austrian research program *proVision*, Prevention for Nature and Society.

The project is innovative in that it 'builds bridges' in two ways. First of all, links between social and ecological fields of action have been researched by investigating the areas of occupational environmental protection and health promotion. The field of action of corporate occupational health prevention (nutrition, physical exercises and psychological health) and the environmental field of mobility are investigated, as are company measures promoting the reconciliation of work and private life.

Secondly, company perspectives and the everyday life perspectives of employees are connected to one another after having first been investigated separately. Thus, the project provides results in terms of helping companies to introduce and manage 'sustainability innovations' which promote sustainable behaviour of the employees in the company and at home. Furthermore, it provides new knowledge relevant to consumption and lifestyle research oriented towards sustainability.

The research team aimed to generate three different kinds of output: (1) scientific insights into the spillover effects of companies' sustainability activities and their preconditions and success factors for effective implementation, (2) a toolkit for companies which helps them to develop efficient activities and measures, and (3) guidance principles for effective use of this toolkit gained in a series of pilot workshops with Austrian companies. This paper focuses on the scientific output.

After this chapter, the transdisciplinary research approach and one salient result of transdisciplinary integration will be presented in chapter 2. In chapter 3 the overall scientific approach is explained, followed by a description of the main research questions, hypotheses and project steps in chapter 4. The empirically gained results are presented in chapter 5, and the insights gained concerning the spillover and the project's hypotheses are discussed in chapter 6. Finally, in chapter 7 a brief outline of the next steps of the project is given.

2 Transdisciplinary Research and a First Insight Concerning the Different Understandings of the Term 'Sustainable'

Transdisciplinary research has four characteristics: (1) It translates societal problems (everyday problems) into scientific problems (scientific questions, hypotheses etc.); (2) it goes

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beyond disciplinary boundaries, (3) it combines different kinds of knowledge, including scientific knowledge and the knowledge of civil society actors, business actors and administrative/policy actors, and integrates these into a structured process of knowledge production; (4) in this way it produces two kinds of new knowledge: one which helps to 'solve' the societal problem addressed, and one which develops further new knowledge for scientific fields. Thus, transdisciplinary research produces knowledge for both: for society and for the different scientific disciplines involved (for more detailed discussion of transdisciplinarity see Bergmann & Schramm 2008).
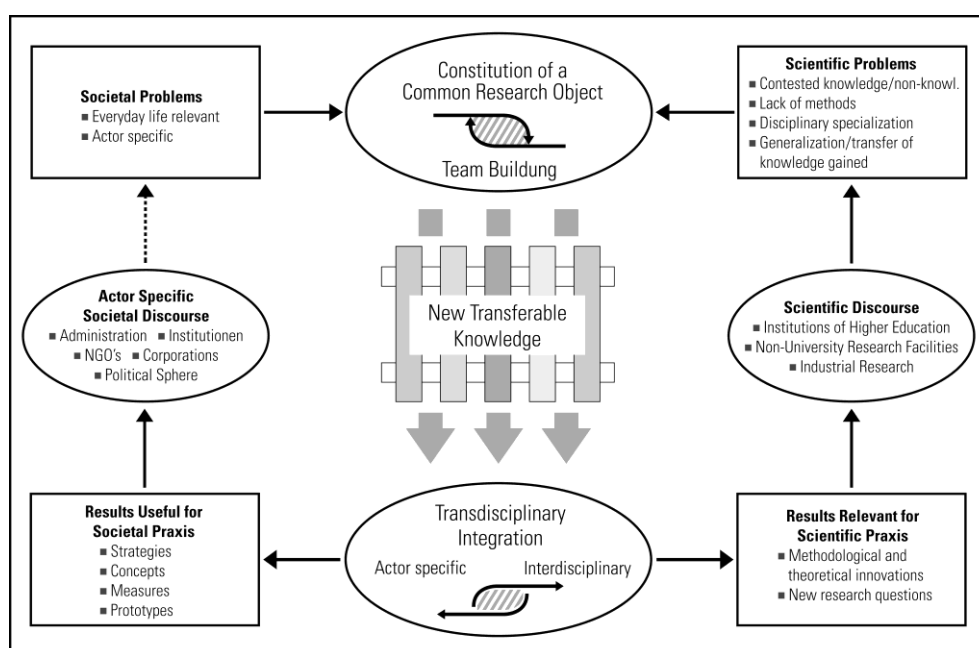

Figure 1: Model of the transdisciplinary research process (according to Jahn 2008: 31)

A prerequisite to creating transdisciplinary knowledge is a structured consolidation and integration of different elements of knowledge, on the one hand, and the different organisational cultures of the participating stakeholders, on the other hand. Therefore transdisciplinary research has to focus on methods of *integration*. Regarding the overall process, five levels of integration can be discerned: (1) Cognitive integration, (2) organisational, (3) technical, (4) communicative and (5) social integration. The latter four integration levels: organisational, technical, communicative and social integration, refer to principles of how to organise the research process with respect to the integration of the different organisational cultures of the participating actors and stakeholders. Of main concern is the mutual acknowledgement of and respect for different interests, experiences and institutional procedures of the different working and organisational structures, as well as a project coordination which considers the

requirements of a social integration of the different researchers and stakeholders involved throughout the whole project duration (Schultz 2009). This is why a problem and actors-oriented research design has been chosen for the project, which ensures an intensive involvement of relevant stakeholders during the different phases. Thus, the know-how of the stakeholders addressed in the study has been considered and utilised during screening and detailed analysis as well as during development and testing of the toolkit. Continual involvement allows a feedback between researchers and stakeholders, and strengthens the competence of the participating stakeholders already during the research process. Moreover, it constitutes a first step towards science communication in the respective field of practice.

The first integration level, *cognitive integration,* has been researched in the project by analysis and reflection of the basic terms used, above all the different meanings of the term 'sustainable'. This differs considerably between the sustainability research disciplines (mobility and environmental research) and in public health research. Those research partners who were trained in social and technical environmental research understood 'sustainable' in the sense of sustainable development, which, in the words of the Austrian Federal Economic Chamber, is defined as follows: *"The core of the concept of sustainability is the recognition that social responsibility, economical performance and the protection of the natural environment are inseparably linked."*[iii] In contrast, the partners who conduct research on workplace health promotion understood 'sustainable' in the sense of 'long-lasting' and 'effective'. Sustainable activities in this sense are activities which are causing lasting impacts and differ from limited action. However, the environmental impact is not included from this point of view. Thus, a major part of reaching a 'cognitive integration' consisted in developing shared definitions of the different fields of action in the companies and in society, viz. 'sustainable food and nutrition', 'sustainable mobility', 'health prevention including psychological health and work-life balance'. This focus on cognitive integration led to an awareness of the later empirically detected gap between the companies' environmental activities and those of public health and social activities neither of which included the social meanings or the environmental meanings of sustainability. For this reason, project members developed a proposal as to how to overcome this gap on a structural level and how to integrate these two business fields of activities (see paragraphs 5.3 and 5.4).

3   'Sustainable Behaviour at Work and in Private Life' as a Research Topic and Overall Research Design

The topic 'sustainable behaviour at work and in private life' is a new perspective in research on sustainable production and consumption patterns. With its emphasis on behavioural change it refers to a certain extent to consumer research. It is a subject of *consumer sci-*

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ences (between others) to analyse consumption behaviour. This kind of research is well developed, also with a focus on how to change behaviour for making it more sustainable (Reisch, Röpke 2004; Jackson 2005; SCORE 2006). Mostly, socio-economic approaches, psychological or sociological ones are taken. Within them the *sociology of everyday life* contributes to deeper insights on preconditions and innovations by focusing on everyday life practices and routines (Empacher, Stieß 2005; Schultz, Götz 2006; Shove et. al. 2007; Schultz, Stiess 2008). Thus, in the field of energy consumption it is well-known that technological innovation, as for example the innovation of the electric light and its penetration in homes (beginning of 20th of century), has led to changes in everyday life practices and in routines which are structuring these practices to a great extent (Gram-Hanssen 2008). Above all the *cultural sociological approach* (Shove 2004) in combination with an innovation approach focuses on the interrelations between everyday life behaviour and infrastructural supply systems which are named 'systems of *provision'* (Vliet et. al. 2005; Southerton, et. al. 2004).

Against this backdrop two interrelated leading questions have been formulated as to *how everyday life practices and routines can be promoted in order to make them more sustainable and how the institutional context can be changed to further this.* As this kind of research has been so far restricted to household practices embedded in systems of provision, the focus on the companies to organise a promotion of sustainable behaviour and the understanding of companies sustainability activities as 'systems of provisions' in the above characterized sense is innovative in consumption research.

But everyday life includes life at work and also life at home. When researching sustainable behaviour in the company with an everyday life perspective, the scope of research has to be extended from everyday life at work to everyday life in the private realm. Thus amplifying the subject of research makes even more sense in times of globalised and flexible working conditions, since the difficulty to reach a work-life balance is one of the salient characteristics and basic demands of everyday life in globalised times. Individualisation, the pluralisation of lifestyles and flexibilisation including intensifying of work are connected with growing requirements on everyday life practices, even more for women (Mischau, Oechsle 2005). The research question on how companies can promote such a spillover is thus a new one from an everyday life perspective.[iii]

In contrast to the sociological daily practice-approach, the *research on Workplace Health Promotion* focuses on behaviour in work and in private life. Furthermore, this approach adds profound and specified knowledge on how to change employees' behaviour and how to institutionalise it. Within the already specified tools of health education in the workplace it is the

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overall approach of developing simultaneously measures for behavioural changes and changes in institutional settings (Walter 20002), which was decisive to our understanding of companies as 'systems of provision'. As this approach also refers to an understanding of behaviour in the sense of individual and societal practices, both approaches could be linked.[iv]

4 Research Questions, Hypotheses and Research Steps

The starting point of the project is the divide between research on the behaviour of *consumers in private life,* on one hand, and the research on the behaviour of *employees in business life,* on the other hand. With our understanding of employees' everyday behaviour as embedded in the companies' systems of provisions we formulated the following research hypotheses:

Hypothesis 1: Companies can make an essential contribution to promoting sustainable practices and behavioural routines by offering 'sustainability activities' to their employees. This hypothesis implies that employees – and especially socially stressed groups like young mothers with the triple burden of work, housework and children's care – appreciate and use these sustainable provisions the more they contribute to 'unburdening' daily practices.

Hypothesis 2: Experiences and routines already gained in the work context have great potential to be practiced in the private sphere as well, and this 'spillover' can be proved.

Hypothesis 3: Systematically linking health promotion measures with those generating environmental benefits – as for example mobility management – would produce advantages for employees and also facilitate a more efficient implementation in a company.

Hypothesis 4: Isolated information (e.g. pamphlets, lectures) is not enough to promote sustainable practices and behavioural routines; what is rather needed is the strengthening of people's competencies in everyday life management with respect to health, nutrition and mobility.

These hypotheses have been examined with a specific focus on:

- Daily practices and routines at work which might be the setting of regular breaks and the use of relaxation techniques, regular physical exercises, practices of sustainable nutrition, the use of sustainable mobility supplies etc. *("learning by doing"),*
- The relevance of role models, especially of the leading managers and authorised representatives, for developing sustainable routines ("*learning through examples*"),
- The relevance of different means and measures, especially of support measures for unburdening from multiple everyday life demands (e.g. company-supported child care),

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- The relevance or incentives for acceptance and use of companies' sustainability activities (job tickets, subsidised organic meals in company cafeterias, low-cost company child care).

The examination has been performed with methods used in social environmental research including research on everyday life practices, in business research and in health preventive research. It can be assumed that strengthening sustainable lifestyles in work and private everyday life is based on the concurrence of different factors and limiting conditions. Thus, the chosen research approach adequately captures and illustrates the complexity of these factors and conditions, by applying different qualitative methods.[v]

The empirical work has been done in three steps:

1. Inventory of good practice
2. Interviews with management
3. In-depth analysis with employees.

In a first step an inventory of good practice gave an overview and selection criteria for Austrian companies. The aim was to identify suitable companies for an in-depth analysis and to identify examples of good practice (benchmarks). The results have been summarised in a report of good practice of German companies and initiatives from Europe (Schultz & Bernhard 2009). With the help of this selection scheme, Austrian companies were screened and selected. 40 organisations within Austria were sampled out. A broad range of activities has become visible and possible good practice examples have been identified for each of the investigated fields of activity (Seebacher 2009).

In the next step, management personal of ten companies were guideline-based interviewed (Seebacher 2009). The dialog partners were either the owners themselves or members of the upper or middle management. Based on the results of the survey and the sample of good practice examples, the project team selected the following four companies for the empirical in-depth analysis:

- GL, a SME wholesale with 40 employees (all of them women), having their own kindergarten and a focus on healthy nutrition;
- FG, a production company with 120 employees, with the innovative initiative "Moving for a good purpose" vi, having installed a health circle which develops a comprehensive health program;
- TG, a university with approx. 2,800 employees, a beginner in occupational health management but well experienced in mobility management and many activities with respect to health promotion;

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- RH, an international concern with approx. 7,000 employees, with an occupational health management and a specific program for apprentices; a production site in Austria was selected for detailed analysis.

Thus, to gather information on the project's research questions, to identify starting points and develop ideas for improvement within the partner companies and to test some modules of the toolkit, the following working steps were carried out between November 2009 and June 2010:

- Focus groups (within all 4 companies involving between 6 and 9 participants);
- Sustainability workshops (within all 4 organisations involving between 6 and 12 participants);
- Short questionnaires with a list of the existing activities (used at the beginning of the sustainability workshops);
- Fictitious examples of good-practice, integrating benefits with respect to health promotion, environmental and work-life balance (used at the end of the sustainability workshops, with the aim of being a module of the toolkit);
- Short questionnaires for apprentices and their trainers in order to survey their daily routines (analysed in preparation of the workshop with apprentices);
- Workshop with apprentices (in two companies: TG and RH);
- Questionnaire for monitoring effects (tested at FG, aimed to be a module of the toolkit).

Participants of the focus groups were selected heterogeneously with respect to age, gender, parenthood, job description in order to illustrate particular perspectives of the employees. The selection criteria excluded executives and members of the management board, but authorised representatives (e.g. members of health circle or workers' council) participated sometimes.

The focus group concept asked about experiences with activities and their effects on work and private life, and concluded with a look at the initiators, the history of activities and their communication within the company. Furthermore, employees were asked for input regarding future prospects, hopes and requests. Only a few of the focus group participants took part in the sustainability workshops as well. For this reason, the sustainability workshops (with 6 to 12 attendees) started with a short questionnaire listing the activities already in place and asked about their importance for the individual as well as for the company.

The following chapter brings together the results of the interviews, the focus groups and the sustainability workshops. It compares the perspectives of management and employees and

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examines the potential for integrating the ecological dimension into workplace health promotion.

5.   Main Results

5.1 Sustainability Activities and Measures of Companies: the Highlights within Different Fields of Activity

There are differences between the four companies participating in the in-depth analysis (see above). And there are differences between the companies' action fields, which might be interesting for all companies. Therefore, in the following section, specific characteristics found for the provision fields of nutrition, physical exercise and (mental) health, and mobility, are depicted.

5.1.1 Nutrition

Managers (at GL and FG) emphasize that eating in (their) canteen is subsidised by the company and the focus group participants also refer to the favourable prices of food and drink listed on the menu in the canteen. But financial benefit does not seem to be the dominating incentive. Employees expect that the quality of the food is of high standard, they would like to feel confident that ingredients are fresh and healthy, and they would like to know their origin.

The perception of the nutrition supply as beneficial is amplified by a successful interplay of behavioural and structural/organisational aspects. Activities supporting the trying out and training of (new) routines (such as eating fruits, healthy snacks, trying out new cooking recipes, getting information on nutrition-related health issues relevant to their own situation, cooking and eating together) have to be embedded in a suitable framing. Such a framing can include suitable rooms, catering of good quality, financial subsidies, organisational responsibilities to refill the fruit basket e.g., information and feed-back possibilities.

A low-cost activity with marginal organisational pre-requisites has proven to be the absolute highlight with respect to nutrition. In all four partner companies "fruit baskets" or "health corners" with fruits and snacks have been recommended and positive experiences have been reported with respect to changes in the personal nutrition routines and spill-over effects at the colleagues' side as well as at home and in the family.

5.1.2 Physical Exercise and (Mental) Health

Whereas the nutrition subject is of high priority for the employees in all four companies the request for physical exercise opportunities differs. The focus group at GL, consisting of women most of whom had young children, did not show any interest at doing sport at the workplace, though the sustainability workshops put these findings into perspective (since

participants found options attractive to them). At FG and TG the quality and diversity of the sport programs are highly appreciated. Noticeably, despite the fact that shift-work makes it difficult to organise group activities, RH found ways to support employees in their sport ambitions. As a consequence of the company's initiatives, RH staff nowadays also organises private training within smaller groups of two to three colleagues.

5.2.3 Mobility

Compared to nutrition, health promotion and work-life-balance, focus group participants talked about mobility less and less willingly - at the three companies which are located in the countryside the focus group discussion mainly circled around the barriers for environment-friendly mobility. Ride sharing was organized mostly as private initiatives. In contrast, employees of the urban TG related their good experiences with the mobility concept in place and they also talked about different spillover effects observed concerning moving without cars.

5.2.4 The Multi-Motivational Approach

Looking at all activities investigated so far we identified two measures standing out as best practice: first, the kindergarten at GL, which also includes in its programme healthy nutrition for children as well as for all employees. And secondly, "Moving for a good purpose" at FG which integrates the aspects of health, environment protection and charitable purpose in a creative way so that a variety of employees take part in counting their "moving minutes" throughout the year. In both examples employees appreciate the integrative approach, which combines many profits in a single measure. The fact that something of interest is offered to everybody, either through the variety of food provided or the different sport activities, is a key success factor for the company. If companies, such as FG e.g., organise activities such that the social cohesion in the staff is enhanced or the private environment is included, employees praise the positive effects experienced.

5.2 Success Factors for Activities to Promote Sustainable Behaviour in Business and in Private Life

With respect to success factors of companies' sustainability activities and provisions, two classes can be distinguished: (1) *what* is offered to the employees and (2) *how* it is offered and implemented. Concerning the first class of success factors, *what* is offered, it seems to be most important that an individual benefit ("individual added value") with respect to everyday life is generated by that what is offered. Examples are: to get food available in an easier way, to get information relating to individual health and well-being, sport activities and meas-

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ures for physical health which are fun or result in incentives, child care facilities which are cheaper, nearer or the only accessible place for children in the respective region. Measures combined with a financial incentive are much welcomed and used, for instance, subsidised canteen meals, kindergarten partly paid by the company, tickets for public transport (in the city). The willingness to pay 'extra' for environmental or fair traded products was expressed very clearly ("Yes, I am also accustomed to give a tip"…"If one knows why it is more expensive, yes"). Also non-financial 'incentives', such as getting *new information* relating to ones' own health or to ones' own interests like cooking can be classified as success factors. The motivational background can be described with respect to ethical motives such as 'help' for the environment. But this ethical benefit should be 'in addition' to a practical benefit. Protocols of the sustainability workshops clearly depict, that an ecological aspect is more relevant if it is combined with practical needs and interests: Thus, provisions of *organic* food are interesting for many employees if supplied *adding* to the already existing provisions as for example meals in kindergarten, fruit basket etc.

The hypothesis, 'that employees (and especially social groups with a double and triple burden) accept and use these sustainability activities even more if they contribute to 'unburdening' their daily practices', was proved. Effects of provisions, such as kindergartens, which are '*making life easie*r', are perceived as a benefit. They count on the 'plus' side and a lot of quotations in the notes can be found in which employees describe in detail what kind of gains they have: "You don't have to bring a meal with you… if the cook is offering something that the children don't like, she (the cook) still has something in reserve that all children like'. You don't have to bring breakfast with you, no drinks … I have to cook only very rarely, it frees up time for me…"

Due to this pattern of gaining an individual benefit through the sustainability activity, it is not surprising that measures which create a 'win-win-win' (multi-motivation) effect score at the highest of all activities. The above quoted highlight of 'moving for a good purpose" involves a competing aspect and an aspect of promoting social life, which can be seen as a successful combination. For the participants in this activity three 'profits' come together: the profit that results of 'doing something for one's personal health', the profit of 'doing something for the environment' and the profit of 'doing charity for poor citizens' (as the 'points' which can be gained in this activity will be translated into money which will be donated to a social project in the region). Additionally, a further 'win-factor' became clear. That is the factor which can be named 'experience in togetherness'. When listening to the employees of FG, one gets the impression that the procedure of counting the gained 'points' within the firm all over the year

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and the yearly event at Christmas time of giving a prize to the winner creates a form of shared togetherness, a shared company's culture.

All measures which promote this social cohesion (sport events, excursions, subsided theatre events etc.) are attractive for employees who like to be socially together. On the other hand, a group of employees who refuse this kind of company social event can be clearly identified. This group wants to spend as much time as possible 'away' from the business, e.g. with their family or friends etc. Thus it makes sense, that the range of measures and activities offered by the company should be *diversified according to different needs*, so that different target groups in the company can select "their" activity. Here, very young employees (apprentices), elderly workers, shift workers and mothers and fathers with young children are to be considered especially. Free choice is one of the most important preconditions for all activities and provisions offered; participatory development of the provisions by the employees themselves augments the success in terms of acceptance and use.

Furthermore, the insights gained show that the development and actual design of measures and activities is carried out most suitably via participative processes, preferably in fixed teams and well-proven structures, such as health circles. Measures offered are more successful if shaped or re-shaped by the employees themselves. This leads to success factors which refer to *how* activities and measures are offered and implemented to be most successful. Notably, activities and measures which are long lasting, regular or only varied within a small range seem to be very successful. It is the case with the 'fruit basket' and the 'health corner', familiar to all employees (and offered in all companies). The employees mentioned that it war important for them that hey are placed visibly and in a strategic place where as many employees as possible have to pass by. This can also be considered for all kinds of public announcements in the company. Repetitive communication of the offered activities and measures, for instance in the intranet, is an indispensable prerequisite for performance.

Beside the many success factors, we identified one obstacle which is really difficult to handle for the companies. This concerns the question whether activities should be offered during working time or outside of working time. Our expectation that all activities which can be used during working time are automatically preferred has not been confirmed. On one hand, several employees mentioned in the focus groups, that spending private time after work for sustainability activities is a hindrance for the use of the offered activities (sports, social events etc.). On the other hand, the opposite (that employees more readily participate if the activity is offered within working time) is not quite clear. Some employees stated that the lost working time when participating in a sustainability activity, even if it is offered within the paid time

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frame, is perceived as a hindrance because "the amount of work has to be done, anyway." "I wouldn't participate because I am sure, the next day I shall have even more work. Because there is nobody else who would do it. I have to think of it like this." Thus, companies have to explore and include even more thoroughly the (time) needs of the different employee groups in their company before starting with new sustainability activities.

Before presenting our conclusions concerning the way how to integrate environmental, health and work-life-balance issues in companies' sustainability activities (section 5.4), the next section presents briefly main outcomes of the interviews (management perspective) in the four companies participating in the in-depth-analysis and contrasts it with those of the focus groups (employees' perspective).

5.3 Comparing Management and Employees Perspective

The companies' management – in some cases identical with the owner – and the employees may have different notions, expectations and perceptions about the benefit of provisions and activities. Our findings on this are partly to be expected, partly surprising. There are many differences between the four companies of the case studies – with respect to the initial initiative, the relevance of the offered activities in the selected fields and long-term implementation of structures and activities:

In GL, a small company, the initiative mainly comes from the female business manager because of her personal experiences with the dual burden as a mother of two young children. She initiated a company-owned kindergarten (which is an outstanding example for a company of this size). The so-called next logical step was to provide healthy nutrition – for children as well as for employees. Health promotion and sports activities were subsequently offered to employees. The business manager is the driving force for development, but the consistency between the interests of the management and the employees is high. Environmental activities have not been a topic so far.

At FG, a medium sized company, the first initiative also came from the business manager and his private interest in prevention and health promotion themes. Thus, the important commitment and the support of the management were given. Development and implementation of the (half-year) health programmes is carried out by a health team, consisting of members of different departments, positions and age. The promotion of bicycling is seen as an environmental measure too, but health promoting arguments and activities are predominant. Manager and employees share the same arguments and viewpoints with respect to existing activities.

At RH, a medium-sized production site of an international large-scale company, personnel-related measures are part of the integrated management scheme. The company has long-

lasting experiences with occupational health promotion projects. At the location which served as partner for the empirical analysis, the health circle (in existence since 2005) gets positive feedback because of the fact that employees' concerns are heard and improvement measures are taken. The environmental aspects of personnel-related measures have not been touched on so far. Whether management and employees share the same interests remained unclear, since we interviewed a headquarter manager, but focus groups and workshops participants were workers at a specific production site.

TG, a university with 2,800 employees, is a beginner with respect to occupational health promotion. There are a coordinator and a steering team in place, but infrastructures and long-term programmes have not been installed yet. Environmental aspects are touched on by the mobility concept in place and employees show a high awareness of ecological aspects of the activities.

Noticeably, at GL and FG the arguments of management and employees are very congruent and this can be taken as an indicator for a successful communication in the company. Such a communication may be easier in SMEs and/or companies having the characteristics of family-owned enterprises.

The motivation of the management to implement activities is not necessarily the same as that of employees when making use of the offered activities. Table 1 contrasts the motives and benefits managerial staff of the four partner companies reported in the interviews with the benefits found out at the employees' side (as narrated in the focus groups).

Table 1: Benefits: the management and the employees' perspective

Benefits reported by management	Benefits reported by employees
To reduce dual burden of women in order to hold employees in the company (GL)	To reduce dual burden because of household duties in order to have a good work-life-balance (GL)
To care for employees and their children (GL)	To realize more quality of life due to changed mobility patterns (TG)
Fewer numbers of staff away sick (FG, RH)	Wish, to take personal responsibility (FG)
Committed employees due to long-lasting effects of activities, and good image as a company (FG, RH)	To avoid work accidents and ill health (FG, TG)
To gain personal energy for the working day (GL, TG)	To gain personal energy for the working day (GL, TG)
Healthy employees (FG)	To lose weight, to look good (GL)
Donate to charity (FG)	Donate to charity (FG)
Lower fee for parking area to be paid (TG)	To get financial support (TG)

The interviews with the management in ten companies show that the motivation of the management to foster sustainable behaviour is based on a multitude of reasons, such as entrepreneurship, individual ethic beliefs and image building. The entrepreneurship side appreciates the fact that investing in people leads to reduced numbers of staff away sick, a lower fluctuation of employees and a good working atmosphere. Further motives of the managerial staff are taking corporate social responsibility as well as pragmatic reasons, such as a reduction of parking place area. Individual ethical beliefs and personal experiences of top management (e.g. as a working mother with young children) seem to be important drivers, especially in the start-up phase. Though the application for external awards is not mentioned as the main motivation, companies do look at the competitors and benchmarking is very important for the company's image as a good corporate partner and being a great place to work.

The insights gained through the interviews with managers in ten companies and the statements of employees in four companies clearly show that management, on the one hand, emphasizes the effects of employees' behaviour and they are ready to promote their healthy, socially and ecologically sound behaviour using concrete activities. Employees, on the other hand, seem to be open to adapt more sustainable patterns, but they stress the importance of supporting framework conditions. For them it seems to be a precondition for the adoption of

new (and more sustainable) daily routines that suitable structures and processes are installed.

5.4 Integration of Environmental Aspects into the Concept of Workplace Health Promotion

A reflection on the preconditions and the structural dimension of personnel-related 'sustainability activities' in companies indicated that the existing concept of *workplace health promotion (WHP)* already provides suitable structures and instruments to integrate the environmental aspect into the personnel-related activities of companies.

According to the European Network for workplace health promotion (ENWHP), 'WHP involves

- Having an organisational commitment to improving the health of the workforce
- Providing employees with appropriate information and establishing comprehensive communication strategies
- Involving employees in decision-making processes
- Developing a working culture that is based on partnership
- Organising work tasks and processes so that they contribute to, rather than damage, health
- Implementing policies and practices which enhance employee health by making the healthy choices the easy choices
- Recognising that organisations have an impact on people and that this is not always conducive to their health and well-being.

The areas of activity for WHP include life-styles, ageing, corporate culture including staff leadership, staff development, work-life balance, mental health and stress, wellness, Corporate Social Responsibility (CSR), nutrition and health.'
(http://www.enwhp.org/workplace-health-promotion.html, 04.08.2010)

Against this background the sustainability workshops were designed to explore whether an integrated approach, comprising health and environmental issues, will comply with the demands and expectations of the employees and whether the adding of environmental aspects to workplace health promotion will be accepted. The workshop stimulated creativity by means of the following two settings: first a retrospective from the future led the participants to "look back" from the year 2012, presuming that the company had won many prizes for their innovative and intense engagement. When looking at the results of the brainstorming, two basic ambitions can be distinguished:

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1. Firstly, to consequently develop successful activities and complement them with aspects missing so far. Examples are: to extend the provisions of snacks to the afternoon, cooking events with managers, yearly organised charity triathlons or lectures on topics relevant at work and in private life (energy saving in the household, low energy building construction, recycling and environmental protection).
2. Secondly, to create new ideas – mainly with respect to organically grown food and mobility. Innovative approaches comprised: company's own fruit plantations, garden patches cultivated by the children of the kindergarten, offering food of employees' own production at the workplace, car-pooling and bicycling initiatives.

After a pause (and back in the present time) workshop attendees got nine fictitious examples of best practice models which, based on real examples of the interviewed companies, were refined in order to integrate ecological benefits. The following table lists the four examples selected most often.

Table 2: Fictitious models of good practices (selection)

Activity	*Short description*
Kindergarten with healthy and ecologically sound food.	The company-owned Kindergarten offers healthy and environment-friendly meals and snacks for children and employees. Information on healthy and ecologically sound child nutrition is given for interested employees, with a focus on male parents.
Eco button for coming to work on foot, by bike or via car-pooling.	Employees who come to work on foot, by bike, or via car-pooling push the eco button at the time clock and they get one euro/day as eco bonus. They type in the number of kilometers per foot or bike, which adds to a "movement bonus" and is also financially rewarded.
Integrated consultancy on physical exercise and mobility.	Based on the individual physical and health status and the mobility profile, environmental and health experts help to define a personal training and mobility plan with concrete milestones.
Integrated Health & Environment Circle.	The health circle of the company builds working groups to integrate ecological aspects into the workplace promotion programme.

Workshop participants agreed to look at the ecological impacts of activities and readily integrated environment-friendly aspects into most of the described examples. Whereas in the focus groups the attitude towards environment-friendly mobility has predominantly been a fending one, arguing with the manifold-barriers in their everyday life against greener options,

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participants of all sustainability workshops found acceptable and practicable solutions to partly overcome the barriers. Most surprisingly the fictitious models of good practice were not only accepted by the participants, but employees found them attractive and easy to adapt to the company's and employees' needs. The fact that the *integrated health & environment circle* was a frequently selected measure supports the assumption that the existing structures of work place health promotion are well-suited to integrate the ecological dimension into personnel-related activities. (This assumption will be proven further with respect to structural preconditions in the 'toolkit').

6   Insights Concerning the Spillover

Two of the project's hypotheses are related to the spillover:

- *Companies can make an essential contribution to promote sustainable practices and behavioural routines via offering 'sustainability activities' to their employees (hypothesis 1).*
- *Experiences and routines which have been gained in work life have great potential to also be pursued in private life (hypothesis 2).*

To obtain more insights into the mechanisms of routine-building, both hypotheses have been specified. It was assumed, that *"Sustainability activities and measures are successful if they foster a change in routines (in the case of existing non-sustainable, bad habit.)"* This assumption has been verified, mostly concerning the aspect of nutrition (e.g. eating more fruit), but participants also reported that their awareness with respect to sport in everyday life has been raised. Furthermore it has to be added on basis of the gained insights in sport activities, that sustainability activities *intensify* already existing sustainable behaviour patterns (which might be developed and practised at home firstly). The spillover also happens from private life to work life.

The second assumption was, that "*Measures may function as a 'first impulse' and initialise the formation of sustainable routines or a change of existing routines.*" Hereby it was assumed that the use of a company's provision leads to a first impulse for changing old habits (routine break). The employees' statements show that this happens, but not at once and not at a whole. They are very selective. They choose those kinds of measures which they are interested in and they are trying out those new practices which they consider to be practical (e.g. they try out only one new recipe of healthy food which they learnt in the company's 'cooking-together' events etc.) Thus, the assumption has to be completed by the statement that a change in routine demands 'a lot of impulse-giving'. This leads to the next assumption, *"Sustainable routines are formed by "learning by doing", which means by repetition and training the practice."* This assumption has been confirmed yet again, especially concerning

changes in eating habits ("Fruit basket: It becomes a habit - you also eat more fruit at home."). To obtain good spillover effects, measures should include repetition and training of the employees. The fruit corner and fruit baskets are highlighted because they have been meanwhile offered for years. They are even more successful if the location is very visible, since this has a 'built-in' reminder effect.

"Spill over can also be initiated by "learning through examples". It hence works as emulation and imitation." It was assumed that role models, especially leading managers as role models, are of importance for developing sustainable routines. This assumption is proved only partly. The results of the interviews with the employee-focus groups indicate that changing of routines most of the time happens in the course of emulating and imitating the behaviour of colleagues. Employees are hence inspired by fellow employees. ("It is like a chain reaction: I go and get an apple, the other one does the same.")

Though owners and managers are quite important for initiating a new sustainability activity in the company, the employees internalise routine break and new more sustainable routines more by learning from the examples of their colleagues. This needs an atmosphere which promotes a good understanding and collective interactions between the colleagues. Thus, measures enabling communication and common activities among colleagues strengthen the social cohesion and good working atmosphere. Whilst this insight changed the picture concerning the learning through role models, the expectation that "measures which unburden from multiple everyday life demands (e.g. company supported child care etc.), are willingly accepted" is completely confirmed. Not only young mothers with little children were the main target group which expressed this clearly, but also shift workers put in words a heavy demand for unburdening and better being able to organise their daily life.

On the basis of these very briefly presented insights concerning the spillover the two above cited project's overall hypotheses "*Companies can make an essential contribution to promote sustainable practices and behavioural routines via offering 'sustainability activities' to their employees" (hypothesis 1)* and "*Experiences and routines which have been gained in work life have great potential to also be pursued in private life (hypothesis 2)* can be seen as verified. But in order to deepen the gained insights more research on this subject and especially the mechanisms of routine change concerning spillover effects is needed.

7   Conclusions and Outlook

The empirical results show three overall findings: firstly, that a spillover in sustainable behaviour from work life to private life can be proved. Management as well as employees cited examples about spillover effects in nutrition, in (physical and mental) health and private means of transport and they are ready to use the "setting" of the company to make new experiences

also at home. But this aspect, the spillover of sustainable behaviour, has to be integrated already in the planning of sustainability provisions. It makes a difference for the understanding and shaping of a company's activity whether its effects are seen only for the work life or also for the private life of the employees. Success factors as identified above should be considered.

Secondly, as a consequence of the insights gained into companies' practices, the hypothesis concerning the combination of social (health) measures and environmental measures was re-directed. As already stated above, the quite advanced structures of workplace health promotion with its 'health circles' present a link well suited to integrating environmental aspects. Our empirical research showed that the provisions of 'healthy food' in companies mostly have not included environmental aspects so far.[vii] But health information and environmental information/education/training activities could be combined easily. The project's hypothesis was thus proven: 'Systematically linking company health promotion measures with those aimed at environmental protection, would produce advantages for employees and also facilitates a more efficient implementation in a company.'

Thirdly, when posing the hypotheses, the project mainly looked at the managers' importance of acting as role models. Peer-to-peer interaction only came into sight when listening to the experiences as related in the focus groups. Thus, one of the main lessons learnt is that organisations that wish to promote sustainability at work and in private life should take advantage of peer-to-peer learning.

At the end of this presentation of scientific results of the project we want just mention how these insights gained will be made available '*for society*'. How will the *transdisciplinary* research process continue?

A toolkit is under way which provides companies with instruments to support sustainable routines at work and in private life. Target groups for the toolkit are companies which have already implemented workplace health promotion or CSR activities. Their understanding of 'sustainability' as 'looking at the time-perspective and implementing permanent structures and processes' will be supplemented with the ecological and social dimension of sustainability. The toolkit will provide management and health officers with fact sheets and integrated good practice examples. Special attention will be given to a step-by-step tutorial and to initiate processes which enhance the development towards a 'learning organisation'. Feed-back will be given by the partner companies and the project advisory board (whose members are representatives of the Austrian business council for sustainable development, the vocational school sector, and experts for mobility management, public health, and social and environmental sciences). The toolkit and its contents will be disseminated via a workshop series for

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interested companies and a scientific conference concluding the project will facilitate professional interdisciplinary exchange and discussion on further need for research and development.

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Endnotes

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[ii] http://portal.wko.at/wk/format_detail.wk?AngID=1&StID=468385&DstID=834

[iii] Ulf Schrader and Viola Muster (Schrader, Muster 2009) discuss this topic with respect to new perspectives of sustainable companies and confirm that the subject is quite un-researched so far. They indicate in their article that Thörgersen 1999 discussed the spillover of sustainable consumption behaviour (waste behaviour) from a psychological perspective.

[iv] This is the case also with the educational approach of environmental education, which is based on an understanding of everyday life practices.

[v] The concept of the project also included a quantitative poll with employees, but the participating big scale companies didn't agree. One SME company agreed to pass on a questionnaire to their employees. This poll is to date not finished.

[vi] This is a measure initiated by the business manager of the company FG. Employees keep a record of the amount of time they spend doing sports or being physically active in their free time. At the end of the year, not only those employees who spent the most time being physically active are rewarded at the Christmas Party, but the company also donates a certain amount of money to charity. The amount of money being donated is linked to the amount of time employees have spent doing sports.

[vii] This was the case not only for the four selected in-depth-case studies, but for all ten companies from which the management was interviewed at first.