

Findings from the Projects "Pflege-Prävention 4.0" and "DigiKomp-Ambulant"
– how to improve employee satisfaction and health in a holistic approach

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Abstract

"Pflege-Prävention 4.0" and "DigiKomp-Ambulant" are participatory projects with the goal of increasing health prevention in geriatric care. "Pflege-Prävention 4.0" developed prevention and health measures with respect to different career phases and cultural diversity as well as methods of how to increase the use and acceptance of these measures. Solutions enhancing the workplace and employer branding were worked out, considering technical support and service diversification. A central element was the employee participation and a participatory corporate culture. Changes were elaborated together, not dictated by the management. Four guidelines were published upon the results of PP 4.0.

The "DigiKomp-Ambulant" project, which is currently in progress, focuses on the development of user-friendly care technologies and how to adjust them to institutions and employers. The development process will contain participatory elements so the care staff's expertise can be used appropriately. Issues of economics are taken into account, trainings and qualifications are evolved to increase the technologies' handling and acceptance, thereby bolstering their market opportunities.

Overall both projects show methods of how work-related behavior and experience patterns can be improved and give advice to institutions on how to achieve higher employee satisfaction.

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1. Introduction

The field of nursery and geriatric care is challenged a lot due to demographic changes. Not only are the numbers of people in need for care rising but there are also less people going for occupations in care and nursery.

As a result, nursery staff has to handle a vast number of tasks under a lot of pressure while being low on personnel. Various communicational and organizational skills are needed as well as great flexibility and reachability. High physical and psychological stress are common consequences, which lead to health issues and thereby lowering life and work satisfaction.

Preventive measures are needed to reduce the risk of physical and mental health issues in order to allow the nursery staff to stay able to provide high-quality care without endangering their own well-being. Additionally, preventive measures describe a step towards increasing the attractiveness of nursery work and thereby making it more interesting for young people to pursue an occupation in this field.

The following text presents the "Pflege-Prävention 4.0"-project, which developed measures to provide health prevention in the geriatric care sector. Its methods and procedures are explained, especially the AVEM-tool for accessing work-related behavior and experience patterns. Results and publications of the project are shown.

Following up, a second project, "DigiKomp-Ambulant", is presented. This project aims to develop and establish user-friendly care technologies to unburden work in the geriatric care sector.

Findings of the two projects are shown, focusing on methods of how to provide employee satisfaction.

2. Pflege-Prävention 4.0 – How to create and establish successful health prevention measures

The "Pflege-Prävention 4.0"-project (PP 4.0), lasting from January 2016 to April 2019, was dedicated to the question of how behavioral prevention, participatory work design, health-promoting career models and employee satisfaction can be enhanced for staff members in

geriatric care. It was a network project within the scope of the announcement by the German Federal Ministry of Research (BMBF) „preventive measures for the secure and healthy work of the future “.

PP 4.0 created new prevention models taking into consideration current trends as service-diversity, modern technologies and career orientation in terms of vast and manifold opportunities, diverse shaping of work and individualization during the entire career as varied and personalized careers were shown to improve life and work satisfaction.

The goals of PP 4.0 were to develop and test measures that would enable geriatric care professionals to access and survey their own health and ability to work throughout the different phases of their career. In addition, these measures should help the professionals to recognize prevention as an opportunity to improve their job satisfaction and life fulfillment, resulting in an increased practice of preventive health care.

At the same time, fundamental scientific research was conducted, measuring workplace-related behavior and experience in the geriatric care sector. Based on this research, group-specific interventions were developed, improving the ability to address the specific needs of care work and the individual institutions, also accounting for employees' different career phases, career biographies and cultural diversity. Scandinavian experiences of health promotion in job design were applied to the German geriatric care sector, following the research of Klatt et al. (2017).

The project aimed to enhance workplace quality and service diversification, making use of technological support. Furthermore, approaches to increase employer branding and the vocational appeal of the geriatric sector were worked out.

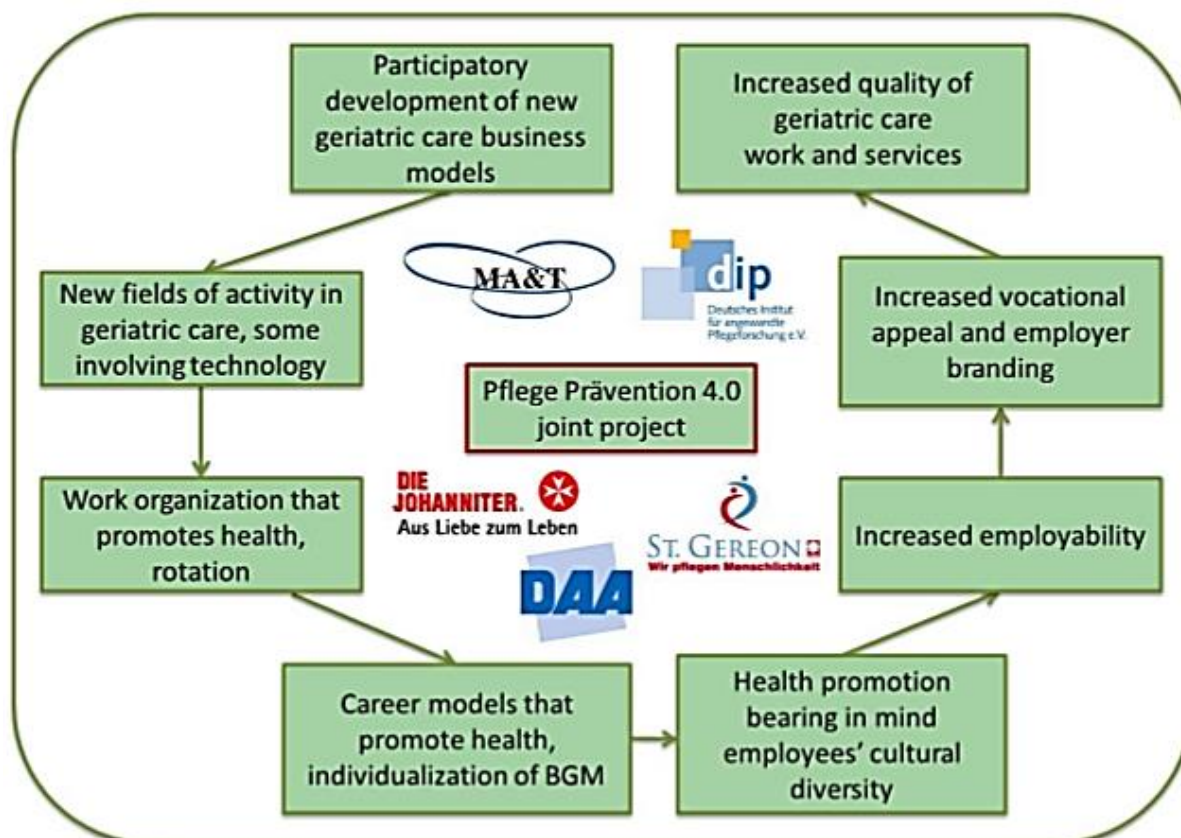


Fig. 1: Overview of the „Pflege Prävention 4.0“-project.

Within the scope of PP 4.0, specific projects were carried out in the tree care institutions involved. The progress followed the concept of team-based project management (Fuchs-Frohnhofen & Borutta, 2011). In a Kick-off-meeting, first steps are taken, introducing the idea behind the project and marking the start of the project-establishing-phase. This phase includes the formation of a steering committee for each institution and the outlining of basic conditions like financial and other resources. The project focus and its inherent targets are determined. Additionally, a consensus of the modus operandi has to be found to achieve unanimity towards the ways the goals will be reached (cf. Nick & Fuchs-Frohnhofen, 2013). At this point roles and role expectations should be addressed as well.

Following up, an analysis of the current situation is conducted. The PP 4.0 project made use of the AVEM-questionnaire (Schaarschmidt & Fischer, 2008), which is described in detail later.

This detailed analysis of the initial situation in the care institutions serves as an overview and as the basis for each of the following steps. Moreover, it provides the information needed to define and prioritize the targets in the institution. It is helpful to also define adequate

milestones and to focus the activity in the beginning, if, for example, there are fields with an outstanding need for action.

With the targets clearly defined, measures and interventions are to be elaborated. Employees participate in workshops to find suitable solutions. Employees should be appreciated as valuable experts in their fields, especially regarding their own health and ability to work. In PP 4.0, employees could share their thoughts in private and group talks or make use of a letter box to stay anonymous. Small focus groups of certain topics proved particularly fruitful. The presence of the management in these working groups enables quick decision-making while keeping in mind the institutions' scope and finances but can also discourage employees from sharing their thoughts honestly. As a compromise, the management could be present temporarily or only at some of the meetings. To counteract operational blindness and benefit from a vast range of ideas it can be useful to consult similar institutions or other external parties.

In the following phase, suitable solutions are to be selected and implemented. It is absolutely vital to keep watch over the effects of the implementations. Continuously evaluating the measures enables correct adjustments to get the best possible outcome. Step by step evaluations are needed to achieve an ideal fit between the measures and the employees. In PP 4.0 mid-term evaluations were based upon focus group talks because in some cases this method has proved to grant a deeper and more personal insight than written surveys. To implement solutions, steering teams consisting of executives and employees of various fields can be especially helpful because of their ability to record the special needs of different employee groups (cf. Dietrich et al., 2015). These teams should not contain more than six people in order to stay capable of making decisions.

In a last interactive procedure, the measures take their final form and are integrated into everyday life in a way the employees accept it. A final evaluation should be made, reflecting about the whole procedure and results.

Furthermore, expert workshops, lectures and talks took place, in which the results of the single institutions were presented in a larger frame. New insights and feedback were transferred and incorporated.

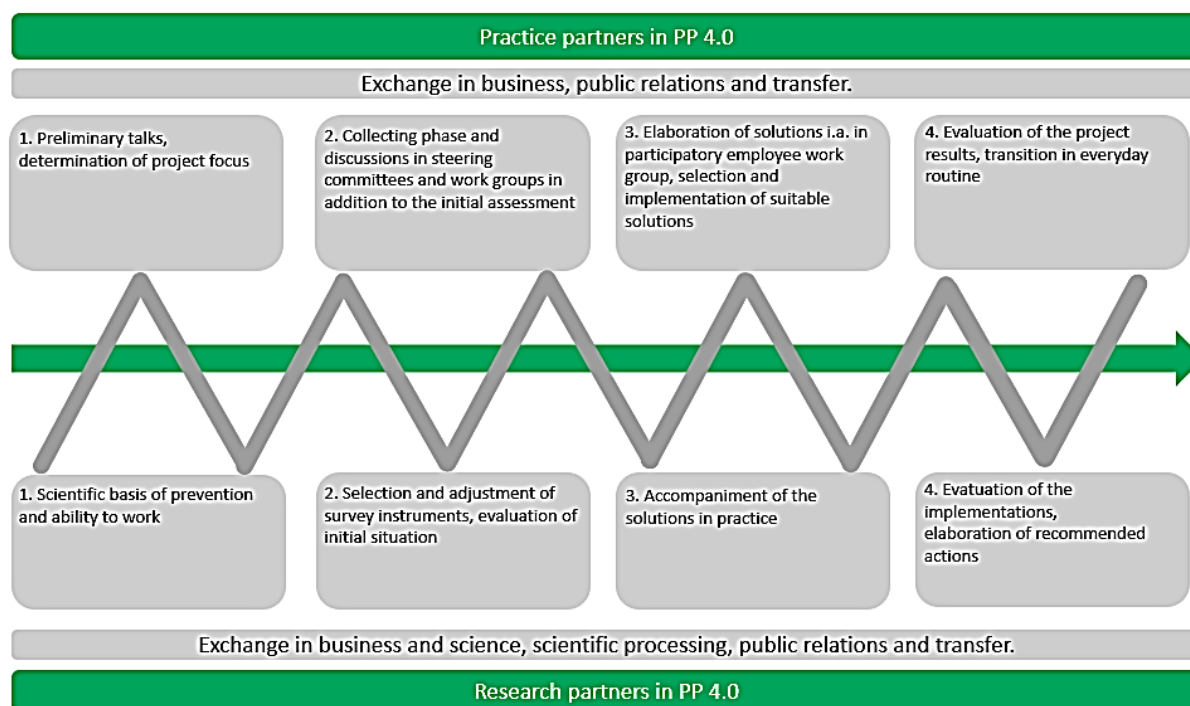


Fig. 2: Collaboration scheme of practice partners and research partners in PP 4.0.

Comprehensive prevention programs should focus upon two main dimensions of prevention: behavioral prevention, focusing on the prevention of harmful behavior or behavior patterns and structural prevention, focusing on the prevention of harmful working conditions and situations (Ulrich, 2001). PP 4.0 included interventions of both dimensions with the positive effect of involving both the employees (behavioral prevention) and management (structural prevention). This way the PP 4.0 project connected the whole institution under the common goal of improving the employees' health and work satisfaction.

3. The AVEM-tool: Measuring work-related behavior and experience patterns

For evaluating the progress, the AVEM-tool was used in the beginning and end of the project (Schaarschmidt & Fischer, 2008). The AVEM (Work-related behavior and experience patterns), consists of eleven dimensions and analyses health providing and risking behavior and experience patterns. It explicitly refers to the individual's active role towards its work and work attitude. The correct interaction and balance between all of the eleven dimensions are essential for health and health preservation.



Fig. 3: Dimensions of the AVEM-tool.

Depending on the results of these dimensions the AVEM distinguishes four work-related behavior and experience patterns, namely the:

- Health pattern G: High, but not excessive engagement; resistance; subjective well-being
- Protective pattern S: Restrained engagement; resistance; (relative) well-being
- Risk pattern A – Effort: Excessive engagement; restrained resistance; limited attitude towards life
- Risk pattern B – "Burnout": Resignation and significantly reduced resilience; restrained engagement; restricted well-being

In addition, the AVEM provides specific health and prevention measures for each different pattern, alongside an instruction of how to evaluate the success of these measures.

In the "St. Gereon Seniorendienste" geriatric care as an example, the AVEM showed a particular need for action in the Housekeeping staff group (as indicated through a high percentage of employees within the Risk pattern B. Following the specific health and prevention measures

as provided by the AVEM-manual, these employees were coached towards bolstering their self-awareness and self-assertion. Furthermore, organizational development was targeted by applying workshops concerning the situation in housekeeping and the improvement of work processes and techniques. After these interventions a decrease in the "Risk pattern B"-percentage could be seen.

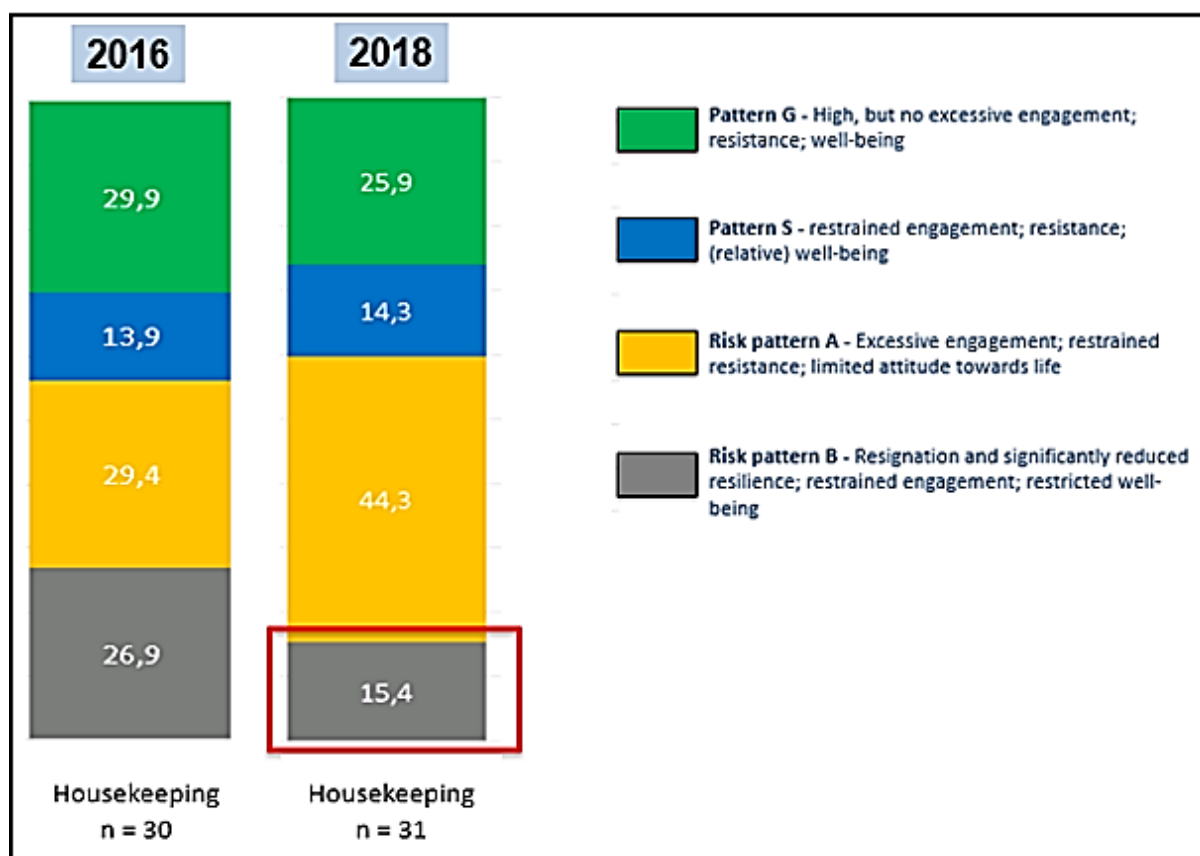


Fig. 4: AVEM-results of the housekeeping group in the St. Gereon Seniorendienste geriatric care.

PP 4.0 published four sets of guidelines, using projects results to help managers and employees in the geriatric care sector to take advantage of preventive health measures. These guidelines both increase the health and satisfaction of employees and managers and positively impact care facilities and patients / residents. The guidelines focus upon the following topics:

- Working healthily in the geriatric care for the entire career - how to mobilize one's own resources and reduce stress
- Healthy working conditions in residential care – how employers can contribute to healthy job design through modern organization methods

- Modern geriatric care services – how to develop innovative services that contribute to preventative measures
- Geriatric care as an attractive vocation – instruments that rebrand the employer

4. DigiKomp-Ambulant – Developing and Establishing user-friendly care technologies

Modern-day ambulant elderly care and nursing staff is challenged with providing high-quality nursing despite being low at personnel and standing under huge physical and psychic stress. Sensor technologies can help the personnel by collecting and providing care-relevant data (such as vital data) so the personnel is able to get prepared even when not on site. Currently technical providers are showing interest in this field but cannot reach the market due to low sales figures. On the other hand, nursing staff expresses a lack of usability considering some new technologies. For a greater view of possible care technologies see Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (2015), Fuchs-Frohnhofen, Bogert, Palm & Kerger (2017) or Fuchs-Frohnhofen et al. (2018).

"DigiKomp-Ambulant" (Innovative work design of ambulant care due to digitalization and competence development) is a network project set to develop a user-friendly sensor-kit for the outpatient care. In addition, project partners develop a new higher-level networking software, with the option of a smartphone app for the nursing staff so relevant data could get automatically into a nursing documentation software. A study by Isfort et al. (2018) points out that the application of modern technologies in geriatric care can be improved.

Suitable trainings and qualification measures for nursing staff are evolved as are new business models for medium-sized providers and users of care technology, ensuring an optimal fit between the personnel, the business and the technologies.

The purpose of the project is to gain scientific knowledge about procedures for user participation in technology development and improvement of job satisfaction and acceptance. With this knowledge it will be possible to apply user-friendly supporting technologies in the field of geriatric care and nursery.

Furthermore, the technologies are to be designed in an economic way, making them more affordable. Past technologies often failed because of insufficient market opportunities. If

these technologies can be bought by a vast range of small and medium-sized institutions, their chances to become an established product increase strongly.

"DigiKomp-Ambulant" started in July 2019 and is planned to run until June 2022.

5. What the projects taught us about achieving employee satisfaction

The results of PP 4.0 and first findings of DigiKomp imply that participatory shaping of working conditions and behavioral prevention provide employee satisfaction. Satisfied employees are motivated, healthy and qualified workers who like their working conditions and appreciate the working culture to which they contribute. They give and get appreciation at work, feel challenged and motivated and have a feeling of doing something meaningful. They get along well with their coworkers, superiors and customers and have found a healthy life-domain-balance.

In order to satisfy their employees, institutions need to provide motivation, qualification, good work and health, which can be achieved as explained by the following exemplary approaches. It is to be noted that these factors are able to influence each other, as for example good working conditions positively impact motivation. The list below further explains the named factors.

- Motivation: Experience of success, appreciation, compatibility of job and private life, participation, meaningful tasks, opportunity to differentiate, spaces for reflection, etc.
- Health: Health promotion, back training, movement, nutrition, relaxation, psychological relief, etc.
- Good work: Design tasks that people are able to handle, stimulating and not harmful for health
- Qualification: Learning what is needed for the job, plus always a little beyond everyday life, development perspective, etc.

In addition, a supportive corporate culture, sprouting out common values, guiding principles and long-term corporate goals, is needed to achieve employee satisfaction. It is to be created

together with the employees and should be reflected and reminded repeatedly, especially in relation to the interaction with one another.

Corporate Culture serves to promote coordination, motivation, innovation and a sense of unity as well as identification and integration.

Besides the promotion of motivation, health, good work, qualification and good corporate culture in a participatory manner there is a need for a common connective idea that involves everyone and especially those who embody this idea.

Exemplary common connective ideas are "Improving the world", "Caring for others" or "Developing future technologies", statements emphasizing meaningfulness and desirable goals, which inspire and everyone can relate to.

Such ideas can be incorporated by managers as well as by work council members, experienced employees or apprentices, since embodying ideas is not a matter of rank.

In conclusion, participation alone is not sufficient to provide employee satisfaction. It also takes motivation, good work, health and qualification, which is supported by a good corporate culture. Additionally, common connective ideas and personalities who embody these ideas are needed. Those principles form a coherent system meaning that they are able to influence each other.

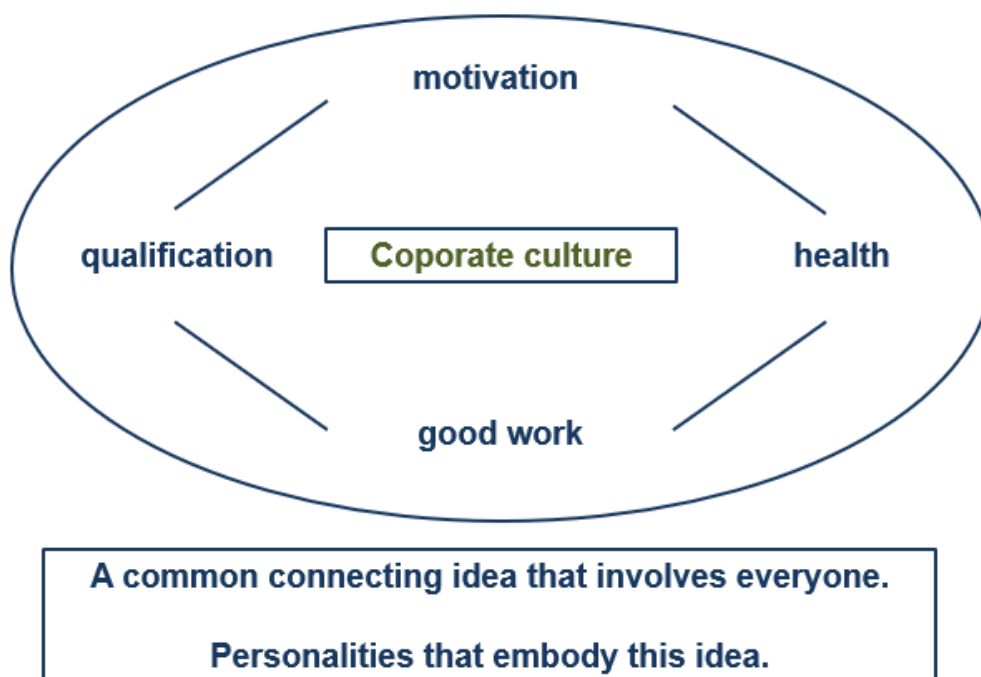


Fig. 5: Relevant factors for providing employee satisfaction.

6. Conclusion

PP 4.0 showed methods for increasing behavioral and structural health prevention in participatory ways and regarding different career biographies and career phases. This knowledge is important to counteract crises caused by demographic change and to increase the vocational appeal of the geriatric care sector.

With "DigiKomp-Ambulant" important steps are taken towards a future version of geriatric care which makes optimal use of modern technologies. User-friendly technologies with actual market opportunities are developed as are qualification measures and trainings for staff members.

The projects highlighted that employee satisfaction can be achieved by taking several highly interactive factors into account, including motivation, health, qualification, good work and corporate culture. Connective ideas, embodied by inspiring personalities, do their part to remind of these factors in everyday routine.

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