

Case Design Sheet

1. CASE DESCRIPTION

TITLE: Green and Friendly Nursing Home – EHPAD vert et accueillant (EVA)

	ACTORS	LOCATION
LEADER(S)	MSE	SAINT-ETIENNE
PARTNER 1	AESIO SANTE	SAINT-ETIENNE
PARTNER 2 (Please add as partners as necessary)		

TIME PERIOD OF THE PROJECT: March to August 2024

SHORT DESCRIPTION OF THE CASE:

Society 5.0 aims to bring comfort to all aspects of daily and professional life, whether related to energy, transportation, healthcare, education, work, or leisure. It is a society that strives to be sustainable and inclusive, considering the well-being of employees. What changes is the engagement of citizens in this process and the creation of a collaborative and cooperative relationship with technological tools. It also aims to provide solutions to the social and environmental problems caused by the technological advancements of Industry 4.0 (Deguchi et al., 2020). This concept highlights the idea that technological and industrial transformation should lead to happiness in society. The 5.0 concept encompasses three dimensions: human-centricity, resilience, and sustainability. Human-centricity implies that workers are considered assets rather than just resources, in order to improve work capabilities and ensure their well-being in the workplace (Breque et al., 2021). Citizens should also be integrated into the planning of cities or new policies. Resilience refers to the fact that an organization must be able to adapt to changes, whether geopolitical or natural emergencies (ibid.). Finally, sustainability refers to the implementation of circular processes to better manage resources (ibid.) and encourage citizens to adopt eco-responsible practices.

To meet these challenges, it is essential for the government, businesses, and universities to collaborate to find innovative solutions and develop value-creation ecosystems (Fukuyama, M., 2018). Universities are at the heart of these new transformations, which will be made possible through these new forms of collaboration (Hamaguchi, 2020). This is the context in which the European research project CODEMO (Co-Creative Decision-Makers for 5.0 Organizations) takes place. It aims to deploy this collaborative intelligence approach to support the transformation of organizations towards 5.0. This involves implementing a 5.0 innovation approach that will transform organizations, services, or products that encompass the three dimensions of 5.0. We intend to address this issue within the framework of a case study of this project, which aims to evaluate an innovative concept of nursing homes with the goal of improving and imagining the nursing home 5.0.

2. 5.0 ORGANISATIONAL CHANGES OF HEALTHCARE PROCESSES

2.1. Short description of initial context and needs of organisational changes

Due to media controversies, the general public in France has a negative opinion of nursing homes. There is a desire to revitalize these nursing homes. Making nursing homes third-place is one method to address this demand. In between public and private areas, third place is a location where people want to go out and meet casually, away from the house (first place) and the workplace (second place). At the moment, the idea of third place is still relatively young. Third places are one example of social and solidarity-based arrangements intended to handle the multifaceted crises of today and the transitional problems they bring up.

Third-place development is closely related to the 4.0 industrial revolution, which is mostly due to technical advancements and digital changes.

Changes in job and lifestyle are the result of this. As a result, there is “organizational innovation” in these collaborative, sociable workplaces. By enlisting the cooperation and participation of the relevant parties, this social innovation of the nursing home facilitates the development of innovative solutions to social problems that are either inadequately or completely unmet.

With the opening of a nursing home called "La Cité des aînés," which provides a variety of "open" areas to promote well-being for both residents and employees, Aésio Santé hopes to contribute to this dynamic. In order to provide a customized variety of treatment and services, AÉSIO Santé, a non-profit mutual healthcare group, is divided into several business lines: healthcare, medico-social, goods and services, and innovation. On a single site, this nursing Home provides around a hundred accommodation places, with structures adapted to the resident's level of autonomy, including a retirement home, high-dependency units, protected living units and an independent living residence.

It was conceived as a space open to the outside, offering a shopping street with various living spaces: a cultural space, a brasserie, a shared garden, a coworking space, a wellness area and a concierge service. Its architecture and design were conceived to make people feel at home. The Caisse Nationale de Solidarité pour l'Autonomie issued a request for projects for "third places in my nursing home," and the Cité des Aînés replied. The aim of this call for projects is to formalize the concept and assess whether the establishment can obtain third-party certification. Another goal is to be able to assess how these various locations are used and experienced in order to envision the nursing home of the future, or nursing home 5.0.

This new configuration of a nursing home, such as the “Cité des Aînés”, brings with it a new work organization that needs to be understood. This will enable us to identify what works well and what needs to be improved, or even prospected for nursing home 5.0.

2.2. Challenges on Resilience of Healthcare processes:

Through this case study, we aim to identify the indicators that make a third-party nursing home work organization resilient. And how to improve this organization to make it resilient in the long term.

This presupposes a collaborative and participative organization to use the spaces, for which it is necessary to assess how the spaces are used (type of activities, frequency of use, user profiles) and through which tools (digital or hardware).

Is the working environment satisfactory in terms of the perception of the employees? This can be evaluated by asking them questions, considering how they feel, and tracking team turnover. Regarding the residents, this can be accomplished by questioning them and evaluating their involvement in the selection of activities as well as their participation in the many activities available.

2.3. Challenges on sustainability of Healthcare processes:

AESIO Santé integrates sustainable practices by optimizing resource use, reducing environmental impact, and adopting eco-friendly approaches. Measures are taken to improve the environmental impact of Aésio Santé's nursing homes. These include the selection of environmentally-friendly equipment, management of energy consumption, sustainable mobility and the use of renewable energies.

2.4. Human-Centred Approach for the Healthcare processes:

Our aim is to propose a participative and inclusive co-design approach that promotes the design of shared spaces in the Cité des Aînés, taking into account 5.0 dimensions. Additionally, we aim to support the design of the 5.0 nursing home of the future, including the room of the future, which is intended to be a real living place for inhabitants. To this end, we are specifically developing a 5.0 organizational innovation approach. Specifically, through this approach, we are seeking to answer 3 questions:

1. What innovative approach to supporting the transformation to nursing home 5.0 is relevant?
2. How can we bring out the needs and expectations of the players involved, and in particular the residents of the Cité des Aînés?
3. Which design method is best suited to the Cité des Aînés third-places?

Our aim is to understand how these different spaces are appropriated, and how they are used. We also want to understand how the different stakeholders appropriate these spaces, and how these spaces can influence their activities. The aim of these spaces is to create links between healthcare professionals, residents and the general public. In this way, the nursing home's vocation is to be open to the outside world for intergenerational activities. This new organization presupposes shared governance between all users to promote quality of life. But it also raises questions in terms

of organization, management, maintenance and task allocation. Our aim is to diagnose the use made of these different spaces and measure their impact from an organizational and human point of view.

Our approach is intended to be participative and inclusive, with all users of these spaces included as full stakeholders. Our approach relies on inclusive tools and methods to prospect the acceptance and implementation of a nursing home 5.0.

Through this innovative approach, we are pursuing several objectives:

1. Evaluate and understand the uses of the different areas of the nursing home.
2. Establish a diagnosis of the organization and participative dimension of the various people who live and work within this new, innovative nursing home concept.
3. Imagine the nursing home 5.0 in a collaborative and socially constructed way with all the players involved.

3. METHOD AND SOLUTIONS

3.1. Method

We have developed a participative and inclusive approach based on the use of intermediate design objects with three phases. A comprehensive empirical phase, a translational phase using intermediate design objects to identify problematic situations to be transformed, and a transformative approach to support the transformation to 5.0.

This innovative approach is made possible by the expertise of MedTechlab, a healthcare Living Lab co-founded with Aésio Santé and the Saint Etienne Ecole des Mines. It has also been recognized as a Third-Party Experimentation Place since January 2024. This Living Lab offers a participative and inclusive approach. The principle of a Living Lab is based on five dimensions: 1) the active involvement of users, 2) the real-life context, 3) the participation of multiple stakeholders, 4) an approach combining multiple methods, and 5) co-creation. In this way, the Living Lab is rooted in the field of user-centered research, making it possible to grasp the real needs and contexts of use in order to co-design innovations and promote their acceptability. Originally focused on users of market services, LLs are gradually opening up to citizens, and thus to social innovation. It is now possible to conduct research in a living environment such as a nursing home.

This makes it possible to take into consideration situations of complex use, and to co-construct solutions, whether organizational or technological. The LL concept is an open innovation that includes several stakeholders.

We therefore carried out an ethnographic study to understand the context and day-to-day activities, through interviews and observations with users (residents, healthcare professionals, family, management). The interview grids were created with reference to the 3 dimensions of 5.0.

For the translational approach, we created intermediate design objects accessible to all, representing both the problem situations and the different spaces in the form of mock-ups. The mock-ups make it possible to play out problem situations and imagine solutions together. They encourage discussion and creativity. They were used in focus groups and creativity sessions. We organized a focus group with residents to share their experiences and wishes. And we also held two creativity sessions with a mix of profiles (residents, families, healthcare professionals, management) to imagine solutions for “Cité des Aînés”, co-design the room of the future and co-design nursing home 5.0. The transformative approach used scenarios to share experiences and imagine a new 5.0-oriented organization.

Our approach is innovative in terms of the tools it mobilizes, and also in the fact that all the stakeholders who make up the eco-system participate actively in each phase.

3.2. Concrete organisational solution implemented

Description of the proposed solution.

We put forward recommendations for improving the current organization of the Cité des Aînés and recommendations for imagining nursing home 5.0, as Aésio Santé plans to build new nursing homes in the near future.

Recommendations for the Cité des Aînés :

- Define the use of different spaces (roles, rules and planning)
- Design spaces to take account of residents' vulnerabilities (furniture, technical equipment).
- Move residents (coordinate and mobilize healthcare professionals or volunteers to move them to activities)
- Reinforce resident involvement in choosing activities
- Offer more inclusive and intergenerational activities
- Promote activities to outsiders (posters)
- Technological equipment (microphone, headset, telepresence robot, digital space management application)

Recommendations for nursing homes 5.0:

- The nursing home should be located in an area close to public transport and shops (to promote sustainable mobility and enable residents to engage in daily outdoor activities)
- Plan for larger elevators and consider the architecture of the spaces upstream, co-designing the various areas with varying user profiles.
- The different spaces required (a brasserie, a garden - with walking and cycling paths, an area with animals, a vegetable garden -, a sports and relaxation room, a library, a room dedicated to healthcare professionals (break room, meals, work meetings), an entertainment room, a concierge service, a reception room (organization of snacks, family visits, organization of culinary activities), a wellness room, etc.).
- Visible and clear signage
- Ensure accessibility for people moving around (avoid slopes or install ramps).

- Define furniture and equipment: carry out simulations of use (have chairs, armchairs and equipment tested to ensure they are adapted to residents' frailties (call in an occupational therapist, for example).
- In areas dedicated to residents, provide washable furniture adapted to their mobility, and non-slip, easy-to-clean floor coverings.
- Set up a mixed and inclusive decision-making committee for each area (define roles, tasks, planning meetings, etc.).
- Opening up to the outside world (posters, developing partnerships with training institutions, organizing open days, proposing senior walking routes around the residence according to residents' abilities and interests).

3.3. Key Skills And Competences Necessary

- Training modules on the dimensions of 5.0
- Training modules on the use of digital tools
- Integration of employees in innovation projects

3.4. Result and Feedback

A number of changes will be implemented in the near future in the seniors' home, for example:

- A garden shed with gutters to collect rainwater and store tools
- A break room for employees
- A zootherapy area with rabbits
- Interactive terminals to interact with the TV channel and access information.

A research project will be launched next year. The aim is to set up senior walking paths within the nursing home, so that residents can go outside the residence on safe paths suited to their abilities. These walking paths will be co-designed by the residents, the doctor, a sports educator and the management. These routes will enable residents to improve their self-esteem by being able to move autonomously around the residence, and to promote their physical fitness and well-being through links with shopkeepers.

We have identified several benefits to our approach that we have yet to consolidate:

- Collaborating with the living lab made it possible to access the EHPAD study site, which is usually difficult to access.
- The immersion phase was essential to build trust with the residents.
- Conduct an assessment of the organization of the nursing home in relation to 5.0 dimensions.
- Engage all parties involved in assessing how shared areas are being used.
- Co-design the nursing home 5.0 with all stakeholders.
- Holding design thinking and activity simulation sessions in real-life situations allows residents to participate without having to move.

- Using tangible models helps residents recall anecdotes or issues, making it easier for them to verbalize. They serve as a mediator for exchanges between all stakeholders.
- Conducting sessions with mixed profiles of actors allows for finding solutions together.
- This strategy has improved the relationship between the participants
- Raised the caliber of healthcare workers' job, and included them in innovative initiatives.

Additionally, we want to use the OMILAB tool to automatically analyze design thinking creative sessions. To get there, we plan a cooperative project.

4. CONCLUSION AND RECOMMENDATIONS

It is crucial to consider all of the organization's users as full actors, each with their own unique needs and areas of expertise. Combining the profiles during creative sessions enables people to exchange ideas, reach agreements, and comprehend each other's needs. These creative sessions have also made it possible to strengthen the relationship between residents and health professionals and to freely express their feelings.

The animator plays a crucial role in these sessions; he must maintain objectivity while fostering lively creativity and a pleasant atmosphere.

5. REFERENCES

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6. APPENDIX

All charts, financials, visuals and other related items can be placed here and referenced in the report.