

A.A.M. van Vliet, T. Borghs. *Managing quality of design for an ageing-in-time project. Gerontechnology 2008; 7(2):234.* Ageing-in-place in non-residential housing offers an opportunity for ageing well without extreme rising costs for protracted assistive care and social security. Housing corporation Venlo-Blerick and a regional Assistive Care Corporation initiated a diligent building project 'Maaswaard' on the borders of river Meuse in 2005. Their building program combines ageing-in-time dwellings with a relocation of a residential housing project and a nursing hospital facility. An important problem in valuing a building project design is the overload of building-qualities that is required above building standards level (i.e. accessibility, Indoor Air Quality and Social security). Doctoral thesis 'Independent Living for Life Span'<sup>1</sup> provides a ranking system (Score P3Z) that is based on architectural analysis. The ambition of the initiators was to establish a housing project that is providing a best practice in housing for ageing-in-place. The Score-P3Z method was assumed to be an appropriate management tool for realizing this aim. This paper discusses the role of rating for promoting health-supportive design. **Methods** Used was a Architectural Analysis Method that is Weighting Suitability for Independent Living for Life Span. This values the presence of 9 determinants of physics of the built environment (PBE) on their implemented quality level. Its output is an average Score for Potential Prevention of Burden of disease (in DALY) for a housing Project (Score P3Z). A reference-score P3Z for dwellings and for Residential Housing, representing the ambitions of the initiators, was constructed. The design- and the selection process were steered by a management consultancy. Four Dutch architects-firms were invited to join a architects-plan contest. The 4 architects-teams were instructed on the evaluation criteria: formal brief program, the urban context, and the 9 determinants underlying the Score P3Z. The criteria for choosing the winning plan consisted in an architects plan presentation, financial quick scans and Scores P3Z. The chosen architect was given the opportunity to enlarge the score P3Z in two formal design cycles: tentative design and a final design (incl. constructions and installations). Both phases were evaluated with Score P3Z. **Results and discussion** Chosen was the design with the lowest (partial) score P3Z, the best presentation and it was produced by a well known Dutch architects firm, specialized in Governance offices. Indicated was the ability to substantially enlarge the score P3Z within the architectural concept of the plan towards the aimed reference score. The winning team consisted in architects, not trained in designing public housing. In the tentative design the management firm blocked direct input of score enlarging advice according to their ISO 9000 approach. In the final design phase directives for enlarging the score were given. Table 1 shows the partial P3Z scores for the dwellings, the 4 sub-determinants PBE related to the architectural plan, and the 7 sub-determinants PBE related to constructions and installations. It shows that the architects score hardly changed, but Installations and constructions improved their score. Design management by Score P3Z puts environmental engineering on the agenda of involved parties. Besides sustainability, healthy constructing and state of the art technology go hand in hand. Abbreviated is thorough information and individual motivation of the involved parties in the design, general management, design-team, decision makers.

## References

1. Vliet AAM van. [Independent Living for life span]. PhD-thesis, Eindhoven University of Technology; 2004 [in Dutch]

**Keywords:** dwelling design analysis, health-supportive

**Address:** AAM-Beeld Architectuur, the Netherlands; E: aam.vanvliet@planet.nl

Table 1 Scores during the project

| Item                    | 4PBE | 7BBE | dwellings | project |
|-------------------------|------|------|-----------|---------|
| Ambition –level         | 2    | 2    | 2         | 2-3     |
| Reference-score         | 47   | 66   | 113       | 154     |
| Architects-plan contest | 59   | x    |           | 59      |
| Foreseen improved level | 74   |      |           | 74      |
| Tentative design scores | 66   | 58   | 124       | 140     |
| Final design scores     | 65   | 87   | 152       | 172     |