

# TNO Bouw en Ondergrond

**Bouw**  
Churchillaan 11  
Utrecht

[www.tno.nl](http://www.tno.nl)

T +31 30 298 31 11  
F +31 30 298 31 31  
[info-BenO@tno.nl](mailto:info-BenO@tno.nl)

**TNO report**

Jury report

The Transformation of Health Care

International architectural ideas competition

May 26<sup>th</sup>, 2009





## Table of contents

<b>1</b>	<b>Introduction.....</b>	<b>4</b>
<b>2</b>	<b>Purpose of the competition .....</b>	<b>5</b>
<b>3</b>	<b>Assignment .....</b>	<b>6</b>
<b>4</b>	<b>The jury.....</b>	<b>7</b>
<b>5</b>	<b>Course of the adjudication.....</b>	<b>7</b>
	<b>Nominated entries .....</b>	<b>9</b>
	<b>Brave New World .....</b>	<b>9</b>
	<b>Vital Village.....</b>	<b>10</b>
	<b>Hospitotality .....</b>	<b>11</b>
	<b>Inside-Out .....</b>	<b>12</b>
	<b>MosaiCity .....</b>	<b>13</b>
<b>6</b>	<b>Conclusion .....</b>	<b>14</b>

# 1 Introduction

The newly founded Dutch Centre for Healthcare Assets has commissioned an architectural ideas competition in 2009, as its predecessor, the Bouwcollege, has done five times in the past decade. By commissioning these competitions, DuCHA invites architects and students to learn about the complex programmes and challenges of building for healthcare functions, to think freely and creatively and stimulate the development of a better quality in healthcare architecture. The 2008/9 competition focused on the theme of the transformation of healthcare in central and eastern Europe.

Nearly twenty years after the Berlin wall came down, the countries in central and eastern Europe have experienced change in many different ways. Healthcare is one of the systems that are behind in this development. In many ways, the planned economies still persist in the healthcare system. But this is changing. In a time when healthcare starts to disperse from the large monolithic hospital sites into the city neighborhoods and the country districts, new challenges come up: What can be done with the hospital sites that lose part of their function and need to adapt to different needs and expectations that the people have of healthcare in the future?

In a large region, from Estonia to Serbia and from the Czech Republic to Ukraine, there are health care sites which are transforming from the old massive hospital monoliths into more modern, patient-oriented facilities. There are many social and demographic changes occurring at the same time, and each may have a different impact on health care in different circumstances: Urbanization is accelerating, income differences are growing, local governments set different priorities from before, and from each other. Hospitals in rural areas are closing down, urban hospitals are specializing, some will no longer be necessary. And there is a move in many places towards a smaller-scale, community-integrated type of care facilities.

Many hospitals have a very distinct spatial characteristic: On a large plot, there is one main building that is the central hospital building, often expanded in time in a pavilion style. The hospital plot is often a green oasis in an urban or suburban setting. It is most often organized as a collection of small kingdoms, each specialist ruling his or her own pavilion and no efficient overall logistics plan. A lot needs to improve in a time when efficiency standards are inevitably going up, and looking at the high-potential sites that are available, there is a clear opportunity to do so.

This competition is designed in a way that addresses not just the circumstances of a specific site, but a generic hospital site that could be anywhere in this large region. Participants are encouraged to not only design an innovative hospital for the given site, but to think about strategies that could be applied in comparable but different circumstances throughout the region. In this way, the submitted designs could be part of an ongoing debate about possible strategies for health care organizations in Eastern Europe.

## 2 Purpose of the competition

The competition is meant to be a part of an ongoing debate on the theme of transformation of healthcare and hospital sites in central and eastern Europe. By generating ideas, strategies and attractive images of possible futures, the architects can inspire healthcare managers and local administrations to take a broader view on the options they have for redeveloping their healthcare systems and sites. This debate will be further facilitated by the book that will be published with the results of this competition and the exhibition of the designs in both the Netherlands and eastern Europe.

At the same time the competition seeks to involve architects and students in the sector of healthcare architecture. In the coming decades, there will be a growing need for high quality healthcare buildings of all sorts, in both east and west. These buildings will need to be more person-centered, community-connected and environmentally conscious. To achieve this, it is essential to have a multitude of designers involved in developing new concepts and architecture for care functions.

The International Architectural Ideas Competition was open not only to architects, but also to students who are undergoing higher education in building or architecture. Students and architects under 30 were specifically invited to compete, and did not have to pay the registration fee. Competitors were advised to form multidisciplinary teams, to be able to deal with the complex assignment. A total of 59 teams registered for the competition. On closure of the submission term, 24 entries were submitted.

The jury is slightly disappointed by the number of entries. It seems that the assignment may have been too complex, although earlier competitions with even more complex assignments have had more response. Another possibility is that the ideas competition for the architecture faculty in Delft, that ran shortly before this competition, was preferred by many architects, especially young ones, and that this has caused them not to compete in this competition. The jury is worried that the healthcare theme may not be attractive enough for large groups of students and architects, and argues that educational institutes must be persuaded to focus more on the architecture of healthcare buildings.

### 3 Assignment

The challenge to the competitors was to design a redevelopment of a given hospital site, that is exemplary for a dysfunctional hospital site in one of the eastern European countries. The site is a large hospital across the river near the centre of an imaginary city of 400.000 inhabitants in the eastern half of Europe. On the other side of the city, there is a university hospital, larger than this one, that has several specialized departments and serves a larger region. The city has a network of primary care and long-term care facilities that is partly in need of modernization, and there is a continually growing demand for these types of care due to urban population growth and rapid population ageing.



The existing structures could be either renovated or demolished. The redevelopment had to include an urban redesign of the plot, a distribution of functions, and an architectural design of the major buildings in general, and some parts in more detail. Both the urban scale and the scale of a single room should be presented. Themes that were specifically addressed in the assignment were urban integration, patient environment, logistics, flexibility, environment and economical feasibility. The result had to be a long term vision on the development of the site.



## 4 The jury

The final adjudication of all the entries took place in Utrecht on April 23<sup>rd</sup>, 2009. The jury was chaired by **Mrs. Liesbeth van der Pol**, Chief Government Architect of the Netherlands. The other members of the jury are:

- **Mrs. Marlies Rohmer**, Architect, Architectenbureau Marlies Rohmer, Amsterdam, The Netherlands
- **Mrs. Janny Rodermond**, Director of the Netherlands Architecture Fund
- **Mr. Igor Grozdanic**, Architect Studio Non Stop, Sarajevo, Bosnia Herzegovina
- **Mr. Gintaras Stauskis**, Associate Professor, Vilnius Gediminas Technical University, Vilnius, Lithuania
- **Mr. George Harmat**, Director Heimpalkorhaz, Budapest, Hungary
- **Mr. Paul de Ruiter**, Architect, Architectenbureau Paul de Ruiter, Amsterdam, The Netherlands



## 5 Course of the adjudication

Prior to the adjudication, the TNO technical assistance team summarized the entries in a form, that helped the jury in classifying the entry, finding the necessary information and deciding whether or not the entry had met the criteria for inclusion in the jury deliberation. Also, the form included a list of themes, on which the team had marked which themes were addressed by the entry and in what way.

From this process it appeared that 10 entries had not shown the single patient room, as was explicitly demanded in the program. Also, 2 entries had not

included the urban scale. The jury decided to take these entries into the deliberations anyway, because disregarding them would mean throwing away all ideas in these entries and thereby narrowing the results of the competition. In the second round, however, the entries that did not meet these criteria were discarded from the process. Moreover, it appeared that one entry had not complied with the maximum of 1000 words for the accompanying text. The booklet that had been included in the entry has been disregarded by the jury, but the entry as a whole was included in the deliberation.

After looking at the entries individually, the jury had a lively debate on the themes that were addressed and the quality of the entries as a whole. The jury found that few entries had succeeded in addressing the full specter of themes, both on the design side and the healthcare side. Two categories of proposals were recognised: Those that designed a building, and those that designed a city centre. Innovation of healthcare processes was rarely found, and the person-centred attitude that the jury had hoped for was also uncommon in the entries. Many proposals were not specifically suited to the eastern European situation, which could imply that competitors were of the opinion that this does not make a real difference for the design. The unknown location of the site probably made adaptation to the regional circumstances more difficult. The level of architectural design was very diverse, with some proving their design skills in beautiful presentations of intricate designs, and others not reaching beyond schemes and strategies.

The jury judged the entries along the following criteria, in descending order of importance:

- 1 originality and daring of vision;
- 2 design quality ,attractively manifesting this vision;
- 3 attention to the demands and needs of those needing care, and their social environment;
- 4 positive economical, social and environmental impact.

In the first general adjudication round, the jury selected nine entries that were to be further discussed in the second round. These were the most complete, innovative and beautiful, but especially the most visionary of the entries. Among these nine entries, there were three which had a considerable part of the program underground, which sparked a discussion on whether this could be a reasonable option for healthcare buildings, specifically when a large site is available as it is in this assignment. The jury concluded that the personnel of a hospital deserves a healthy working environment with daylight and views, and so the major part of the hospital needs to be above the ground. For this reason, two entries were rejected. Out of the remaining seven, two had not sufficiently addressed the single patient room scale, and were rejected for not meeting the inclusion criteria. Five entries were nominated for the last round of judgment, in which the honorable mentions and prizes were awarded.



## Nominated entries

### HONORABLE MENTIONS

#### Brave New World



The proposed hospital zone is a multifunctional complex. Its public function and central location will attract people. The lower new building is a mixed use area of shopping and hospital facilities. The entrance, framed by a health club and gym convey a healthy and positive profile towards the street façade. The patient rooms are arranged along the façade of the high rise tower so natural light will bathe each space whilst offering a view to the surrounding landscape that encompass the building. The intention is to encourage people to participate in developing and defining a new concept of healthcare. It employs simple techniques to insert healthcare as a daily ingredient to people's life.

#### **Jury remarks:**

This entry met some resistance concerning the use of a high rise building, which is a strong architectural and urbanistic statement that might not be appropriate at such a large site or go well with the population. However, the jury likes the iconic value of this strategy, and even more the very clear and clever scheme of the proposal. The urban integration in a city that focuses on healthy living, and the inviting park that makes the hospital approachable for the people from surrounding neighborhoods are appreciated, as is the possibility of future extensions.

**The jury awards Brave New World an honorable mention.**

## Vital Village



The basic idea of "Vital Village" is to create a new type of hospital milieu with pleasant and comprehensible scale, easy orientation and flexible space-structure in the long run. The existing structures are re-used and the best qualities of the site are maintained and emphasized. The proposal for the site is based on European urban tradition, where built layers cover and replace each other. This means diverse, organic and flexible redevelopment within the strong guidelines given by the site: appreciation of the green, respect of the urban hierarchy and spreading every-day urbanism in to the old hospital milieu. Two rows of linked small scale multistory urban villas frame chains of low pavilions which are suitable for various assisted housing purposes e.g. nursing homes for demented people.

### **Jury remarks:**

The jury appreciates the modesty and effectiveness of this entry. Especially the way in which Vital Village is connected to the urban environment is applauded, and the human scale that is achieved throughout the site, even in the transformation of the large slab building. Where many entries see the monument unfit for patient rooms, in this scheme it is used for outpatient care, which seems plausible and friendly. Programmatically, the entry is not as well worked through as some others, and there is not as much innovation as the jury hoped for. Also, the architecture and urban planning are suburban, while the site would seem to ask for a more urban approach.

**The jury awards Vital Village an honorable mention.**

## THIRD PRIZE

### Hospitality



The plan consists of five 'ingredients' containing varying aspects of care: Long care, Short care, Care core, Do care and Don't care. While ambitious, we should also be realistic about the economic situation in the region and not demolish anything that can be reused. Most of the hospital beds are located in the 1970 building with specialized treatments being performed in the various clinics and the core structure. Short care multifunctional clinics surround the core. 'Do care' implies that people actively contribute to their health. Patients and guests relax, rest and recuperate here. There is a strong focus on prevention which will benefit from the immediate access to the hospital. At 'Don't care', there are shops, offices, luxury apartments and even a night club on the top floor.

#### Jury remarks:

Hospitality is a collection of ideas and strategies more than it is a comprehensive design. The jury appreciates the down-to-earth attitude and the researching style of the presentation. It seems both flexible and realistic. The urban plan integrates the existing buildings in a smart way and anchors on a medium high rise building in the centre that keeps the plan together. The diversity and human scale of the care buildings make it a pleasant environment. The architecture is not worked through very well, and the connections to the surrounding urban system could have been more pronounced.

**The jury awards Hospitality a third prize, to the amount of €5.000,--.**

## SECOND PRIZE

### Inside-Out



With the fall of the Berlin Wall, new opportunities arose for Eastern Europeans. Perhaps even more so than in other societies there is a strong need for community. The old part of the hospital and the park-like site can fulfill these needs. All of the patients will have a room with their own front door located on the terraced garden floors of the hospital. The classical experience of a hospital visit with its long and anonymous corridors that make one experience these buildings a massive monolith will be replaced by a walk through a park-like environment to your relative's private room. The beating heart of the interior is the complex of operating rooms. An independent section that can be easily adjusted when needs shift. These facilities are connected to the classical old building, which the local community will use as a community centre to house its own activities, for instance, a day nursery.

#### **Jury remarks:**

Inside-Out is the most patient-centered of all entries. The statement of giving each patient a private outside space and access to an outdoor walking circuit is daring, innovative and well appreciated by the jury. Individuality and privacy are at the starting point of the design. Also, this entry has a high architectural value. There is a lot of attention to the interior, both to the central hallways and the individual patient rooms, and despite the large size of the building, the outside appearance is modest. The jury wonders if the building is flexible enough – it has to be built all at once and the functional zoning seems very strict – but the architectural challenge that it poses seems solvable in a credible way.

**The jury awards Inside-Out a second prize, to the amount of €8.000,--.**

## FIRST PRIZE

### MosaiCity



MosaiCity proposes an explosion of the hospital into smaller entities to generate the human scale of a village based on life rhythms and urban dynamism. It aims to create dense and diverse spaces, that don't fit neatly together, but encourage unexpected encounters, discovery and innovations that create vibrant street life and allow growth. The scheme introduces a local community program including some dwellings, housing-workshop space, retail and facilities like a crèche and inside sport pitch. It also proposes non-healthcare program to attract people from a larger region. The program is not static and can be easily exchanged and transformed by the flexibility of the structural frame

#### **Jury remarks:**

MosaiCity is seen by the jury as one of the most innovative schemes among the entries. It is designed very attractively and has a smart, sustainable and very flexible strategy, that could be applied to very different sites as well. In this way it is the most complete and comprehensible answer to the question that the competition programme has posed. The central innovative principle is the elevation of the hospital to the third and higher floors of a building structure that resembles a medieval city. Although there could be organizational difficulties, the jury is impressed by the clarity of the scheme and the friendly combination of public spaces and hospital functions. The human scale is maintained throughout, and every single user of the building will know his or her small part of the hospital, since every room is unique. The scheme integrates into the urban grid in a very natural way through a landscaping strategy that leaves much room for future development. Gardens and vegetable patches, small streets and a well-designed park offer a diversity of public spaces.

**The jury awards MosaiCity the first prize, to the amount of €12.000,--.**

## 6 Conclusion

The jury concludes that while the overall level of quality of the entries was slightly disappointing, there was a group of entries that succeeded in sparking energetic debates among jury members and will be able to do the same among parties in healthcare building. The winners have shown remarkable ideas and design qualities. The competition has therefore reached its aim as energizer of a debate on healthcare architecture. Involving architects and students has been difficult, looking at the surprisingly low number of entries. It will be necessary to involve educational institutes and use effective communication around this competition and future ones, to improve the outreach. This could also benefit the quality of the outcome.