

## IAUD's research study activities

24, October, 2006

## **Universal Design (UD) research on bathing, based on international comparisons**

Nobuho Miyawaki, Manager of Living Space Project

### 1) Regular research meeting

The Living Space Project is conducting studies toward the creation of living spaces that will allow all of us to live richly satisfying lifestyles. These studies entail two separate approaches: the one used by the New Spaces Team, which focuses on the diversifying ways people live today, and the ergonomic approach taken by the Ergonomics Team.

### 2) Characteristics of Japanese bathing rooms and UD efforts

The bathing room in a Japanese home is the space where UD concepts are being most strikingly advanced. Specifically, due to Japan's unique bathing customs, the country's bathing rooms traditionally have been the spaces most removed from UD concepts. The largest barriers to mobility inside the home are steps. While building a single-story home or installing an elevator can eliminate these barriers, there is no way to apply UD. By discussing the history of Japan's bathing culture and comparing this culture with those of other countries, this presentation will describe the unique characteristics of Japanese bathing rooms, with their separate washing areas and bathtubs, and the barriers resulting from such a layout. It will also describe the situation regarding home accidents resulting from this typical layout.

As a means of overcoming these difficulties, the use of modular bath units has contributed greatly to the use of UD. The development of bath units overall has advanced due to the increasing prevalence of these washing areas. The presence in the home washing area of large volumes of water on the floor led to a need for watertight structures. This in turn required a wide range of construction tasks, such as laying tile, applying sealant, and installing specific equipment and plumbing. Industrial production of these new bath units made it possible to shorten construction periods, reduce costs, and ensure a watertight environment.

The use of modular bath units has also been supported by Japanese governmental policies. This has led to a greater number of safe and hygienic bathing rooms as well as to greater comfort, a more pleasant home environment, and new approaches to bathing.

### 3) Future activities

Our aim is to devise even more enjoyable UD concepts for everyday life. We will also offer proposals to broaden the range of application of these concepts, in response to a diverse range of personal needs that have yet to be fully met.

We will also proceed with our efforts to realize the "+UD" concept, which will provide people with exciting new lifestyle choices, made possible not simply by reducing inconveniences but by optimizing the advantages for customers.

# Achieving Seamless Mobility

Tetsuo Takei, Manager of Mobile Space Project

## Mobile Space Project

The Mobile Space project team is composed of members from 18 companies and 2 groups from a variety of industries. The activities of UD Human Transportation will be presented today.

### 1. Activity Focus

The vision of the team is to enable people to get where they want to go safely and comfortably. We conducted studies taking particular note of the viewpoints of both the general public and the individual user.

### 2. Activities

We began our activities by listing what aspects of transportation were “strange, complicated, difficult to understand, or enjoyable” from the viewpoint of the general public. To better understand the problems, we categorized these aspects to make what we call the “Shimijimi Map.” This helped us identify the problem of “transfer difficulties between different transportation services.”

To evaluate this problem, the team visited public transportation facilities, such as major train stations and an airport. Through these activities, we strongly recognized the importance of “Seamless Mobility”.

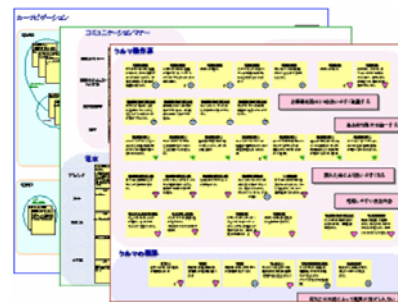
Today, we would like to introduce our preliminary ideas and concept image.

### 3. Future Action

To improve our ideas and plan, we will use the UD Assessment Matrix prepared by the Standardization Study WG team and would also like to work with public transportation organizations in the future to realize “eamless Mobility”.



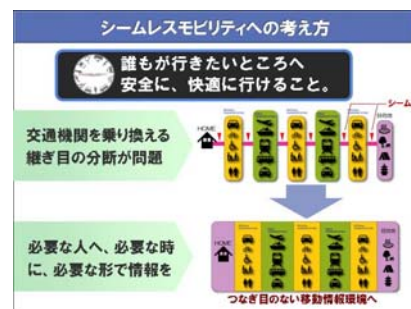
Heavy discussion at a meeting



Shimijimi Map



Study in Kyoto



Concept of Seamless Mobility

## Outline: Presentation of the Urban & Regional Planning Project Team

Saburo Sumi, Manager of UD PJ for City Environment

### 1. Brief Summary of the Activities

Urban and Regional Planning Project Team started its activities in 2006 with new members.

We aim at proposing vision and method of the new urban & regional planning based on universal design's viewpoint, which respects their diversities.



### 2. Outline of the Presentation

This time, we case-studied urban & regional planning throughout Japan; and summarized their distinctive characters together with the trends of their approach.

We think the main difference between products' approach and urban & regional planning's approach in terms of universal design as follows.



In products, there is a time when their process will reach completion.

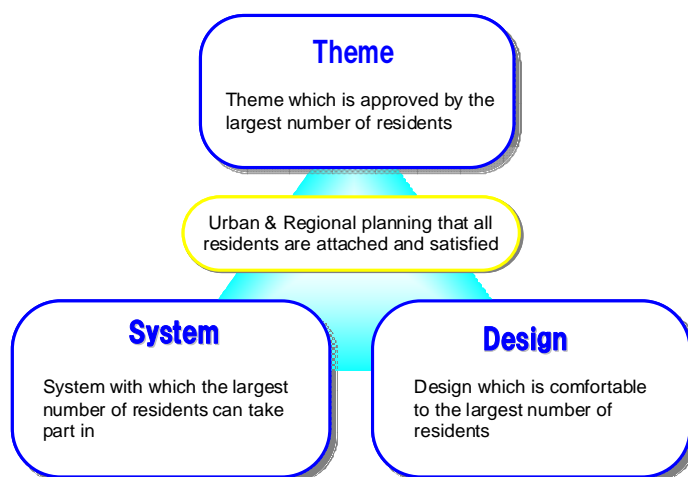
On the contrary, process of the urban & regional planning will never end.

Moreover, it needs to be maintained, continued, and developed.

So, we assumed that the process of the urban & regional planning needs to have the three conditions.

1. Theme, which is approved by all residents
2. System with which all residents can take part in
3. Design, which is comfortable and usable to all residents

Concept of the Universal Design's Urban & Regional planning



Accordingly, we selected five cases of the urban & regional planning throughout Japan; and visited each

site for research.

As the result, we found out that outstanding case has such a system of the partnership among residents, governments, and businesses sector.

### 3.Future Plan

First, we, as the project team of International Association of Universal Design, will propose the role of the businesses in the partnership.

Next, we will report the method of making theme, organizing system, and realizing design. Then we will take part in the actual urban & regional planning projects as business sector's role.