

Creation of Human-centered Manufacturing IT Production Base

Overview

This project aims to create Sapporo's rebirth IT industry by prompting a shift in Sapporo-made products from invisible, intangible software to visible, tangible prototypes. To that end, it is necessary for Sapporo-produced IT device prototypes to be accepted in the world as products with high added value. In this project, we aim to create a "human-centered IT production base" through the establishment of new IT element technologies and industrial design methods.

Cluster Headquarters

- **President** Tetsuo Shimokawa (Professor, Director of Center for Business Creation, Otaru University of Commerce)
- **Project Director** Koichi Kito
- **Chief Scientist (CS)** Yoshinao Aoki (Professor, Graduate School of Information and Technology, Hokkaido University)
- **Deputy Chief Scientist (CS)** Tsuyoshi Yamamoto (Professor, Graduate School of Information and Technology, Hokkaido University)
- **Science and Technology Coordinators** Wataru Ozawa / Yasushi Oi

Core Organization

Northern Advancement Center for Science and Technology (NOASTEC)

Participating Research Organizations

(Bold: Core Research Organization)

Industry···B.U.G., Inc., C.Work Co.,Ltd., Micronet Co.,Ltd, SoftFront Inc.

Hitachi Ltd., Mechanical Engineering and Research Laboratory, Fujitsu Kyushu System Engineering Limited, and others

Academia···**Hokkaido University**, The University of Tokyo, Future University-Hakodate, Hokkaido Tokai University, Hokkaido Institute of Technology, Showa University, Sapporo Medical University, Hokkai-Gakuen University, Otaru University of Commerce, Sapporo School of the Arts, Dohto University, Asahikawa National College of Technology, and others

Government···Hokkaido Industrial Research Institute, National Institute for Multimedia Education



Project Director

Koichi Kito

Technology 2003" we exhibited and spoke. All together we proactively went out and publicized and exhibited the results of our research 9 times.

Hereafter, in order to realize Sapporo IT Carrozzeria "Embedded IT Workshops" and "Design Workshops" we plan to obtain supportive policy and cooperation from the local municipality (Hokkaido Government, Sapporo City) while solidifying our plans to create a Usability and Design Integration Center.

***Koichi Kito** served as Vice Chief of Construction Department of the Hokkaido Government, Deputy Mayor of Iwamizawa City, Chief of Office for the Local Community Planning Promotion of the Hokkaido Government, Head Chief of the Hokkaido Northern Regional Building Research Institute, Counselor of TECHNO LABO Co., Ltd., and now holds the present position.*

Aiming to Create a New Industry by Means of the New Cluster Form

I am often asked "What is Carrozzeria?" In Italy, Designers such as Bininfarina, Italdesign and many others run automobile Body Design workshops called carrozzeria, consequently body design has become an independent industry in Italy. The concept of the Sapporo IT Carrozzeria is to take a hint from these Italian Design Workshops and aims to realize "Manufacturing IT workshops" based on a system incorporating embedding skills, software expertise and usability-based designs, by advantage on the IT industry cluster Sapporo Valley.

We aim to create a Sapporo brand for the global marketplace utilizing the small to medium sized enterprises on intra-regional with a focus on creating high quality merchandise in short periods of time.

In 2003 our process technology development research bore fruit in terms of a working prototype with Intellectual property patents and designs created. This visualization of our technological strength or the fruits of our research was for the sake of PR, for example at Pacifico Yokohama's "Embedded

Outline of the Joint Research by Industry, Academia and Government

"Sapporo has know-how for creating high-quality IT device prototypes in no time." "Want to develop new products? Then, ask Sapporo." To make Sapporo such an attractive production base, we aims the development of the IT Rapid Prototyping System under a new cluster centering on Hokkaido University, excellent companies in Sapporo Valley and leading companies from and outside Hokkaido that possess relevant expertise. Also, by maximizing the utilization of Sapporo's accumulated technological strengths we create concrete experimental prototypes "ubiquitous," "sensor detection," "wearable (portable)," "barrier free," and so on as key words expressing of the next generation. We aims to create new business by being at the forefront of creating prototypes in design and usability.

- Development of integrated embedded system development environments in which we can manage various development environments on a unified operation model, when we engaged in developments of such IT equipments as electronic circuits design, circuit simulations, printed circuit board designs, and software, etc.
- Development of next-generation geometric modeling technique and computer-aided modeling software enabling rapid and high-quality industrial design for products having aesthetically attractive exteriors and easy-to-operate user interfaces
- Development of usability design techniques necessary for designing functional and charming IT machines
- Development of actual IT machinery by new technologies, where next-generation lifestyle is considered as keyword and the market needs are always kept in mind

The image of "IT Carrozzzeria"

