

**DLA**  
**THESIS**

**LÓRÁNT FODOR**

# PLANNING METHODOLOGY

CLAIM

FUNCTION

PRODUCT INNOVATING PROCESS

NEW PRODUCT

NEW PRODUCT  
IN THE MARKET

NEW PRODUCT  
DESIGN AND  
PRODUCTION

ERGONOMY AND  
STANDARDIZATION

PRODUCT IDENTITY

ART  
CONCEPT

INDUSTRIAL  
DESIGN

SCIENCE  
TECHNICAL  
CONSTRUCTION

PROTOTYPE

# **INDUSTRIAL DESIGN**

- 1. PRODUCT INNOVATING PROCESS**
- 2. DESIGN RESEARCH**
- 3. RAISING THE IDEA**
- 4. CONCEPT**
- 5. NEW PRODUCT, DESIGN AND PRODUCTION**
- 6. USER AND ENVIRONMENT FRIENDLY**
- 7. BODY CONSTRUCTION**
- 8. TECHNICAL CONSTRUCTION**
- 9. ENGINEERING DRAWING**
- 10. SCALE MODELL**
- 11. CAD/CAM TECHNOLOGY**
- 12. QUALITY OF PRODUCTS**
- 13. RENTABILITY AND MARKET COMPETITIVENESS**
- 14. NEW PRODUCT IN THE MARKET**
- 15. RECYCLING**

**BUS AND COACH**  
**MAIN PRINCIPLES**  
**XXI CENTURY IN THE PUBLIC TRANSPORT**

- 1. HARMONY OF FORM AND FUNCTION**
- 2. DRIVER ACCOMMODATION**
- 3. PASSENGER ACCOMMODATION, COMFORTABLE INTERIOR**
- 4. PASSENGER FRIENDLY CITYBUS**
- 5. APPLICATION OF THE "MODEL RANGE" PRINCIPLE IN THE ELABORATION OF THE INDIVIDUAL MODELS ENABLING THE PRODUCTION OF EACH OTHER COMPLEMENTING GROUPS OF MODEL VARIATIONS, CLOSER THE PRODUCTION OF EXECUTIONS MEETING CUSTOMERS REQUIREMENTS:**
- 6. - LOW-FLOOR BUS**
- 7. - SUBURBAN BUS**
- 8. - INTRCITY BUS**
- 9. - TOURIST COACH "HIGH-DECKER" HD**
- 10. ADAPTATION OF NEW TECHNOLOGIES USING STAINLESS STEEL FOR THE BODY-FRAME, ABSOLUTE RESISTANCE TO CORROSION AND BROADER VARIATION OF PLASTIC COMPONENTS AS WELL AS APPLICATION OF THE CAN SYSTEM.**

## A Brief History of IKARUS

**1895** is the year when the history of IKARUS Body and Coach Building Works began. Imre Uhri, son of a common country blacksmith, set off for the Capital to try his fortune. He opened his blacksmith and cart manufacturing workshop in Budapest. Its production was soon boosted up by spread of the automobile and by the re-organization of the Capital's transport system.

**1927** Uhri's workshop was commissioned to build bodies for the buses intended for domestic inter-city services. By that time the factory's employees included 100 blue collar workers, 4 engineers, and 5 white collars. However prosperity did not last long. The factory was not saved by the Great Depression either.

In **1932**, because of financial difficulties, the creditors filed bankruptcy against Uhri's company. During the proceedings, Imre Uhri's sons jointly purchased the remaining production facilities to save the company. Their venture was successful.

In September, **1933** the Uhri Brothers Body and Vehicle Ltd. was established. The company specialized itself in manufacturing, repairing and buying and selling of car bodies, complete vehicles, machines, means of transport.

From among the company's numerous achievements between **1934 and 1938**, the development of a metal frame body and its application to buses is probably the most considerable.

Between **1939 and 1942**, the Uhri Brother's company experienced a prosperity even beyond the expectations of the owners themselves.

In **1946 and 1947**, as a result of the declining number of orders, inflation, and political skirmishing, bankruptcy was once again imminent, and the factory was therefore offered to the Heavy Industry Central.

In the beginning of **1949**, the two factories (Ikarus Machinery and Metalwork Corporation - Uhri Brother's Body and Vehicle Factory) were merged into Ikarus Body & Coach Building Works. In its first years, Ikarus produced special vehicles, buses, and coaches.

In **1952**, more than one thousand buses and coaches were produced. In June, 1952, Ikarus presented the first integral, rear-engined bus of Hungarian design. These vehicles and their later versions have been very popular types among our customers. **IK 55 - 66**

In **1962**, Ikarus takes over the Székesfehérvár General Mechanical Machines Factory, having similar products to those of Ikarus.

**1967**. The design of the so far most successful bus range was completed, and is still in production with continuous developments, taking into consideration the requirements of our customers. **IK 200**

**1984**. The 200,000th bus was completed. **IK 300**

**1991**. The Ikarus Vehicle Manufacturing Co. Ltd. was established.

**1992**. The world-wide economic recession, the downfall of the Comecon, and the stagnation of the Eastern European region were all unfavourable for the Company

**2000**. IkarusBus - Irisbus

**2004**. EAG (Special Coach Factory Ltd.) - Irisbus

The new types of EAG rival successfully its competitors now gaining strength.