

The “City Jumper” concept a “Last Mile Solution”

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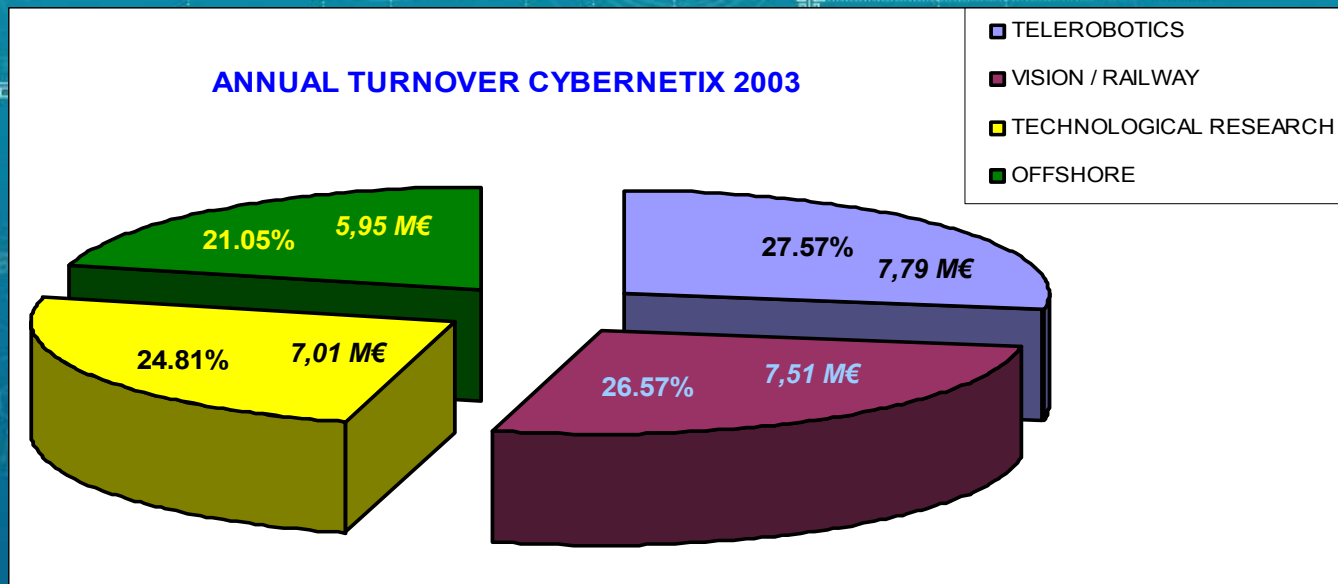
- ↪ **Cyx introduction**
- ↪ **Former developments**
- ↪ **City Jumper presentation**



Specialist in Robotics & Automation

Launched in 1985

- ↘ Industrial contract research (ANVAR agreement)
- ↘ Advanced engineering
- ↘ Manufacture of systems for production & service industries – marketed worldwide



200 people

2004 budgeted Turnover : 25 M€

↪ Technological Research



↪ Offshore



↪ Vision - Metrology



↪ Inspection & Measurement of railway infrastructures



↪ Telerobotics for Nuclear



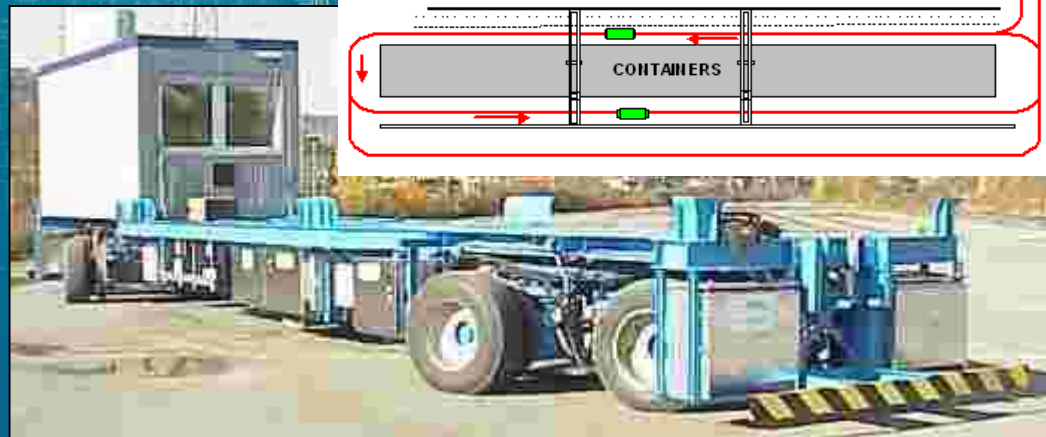
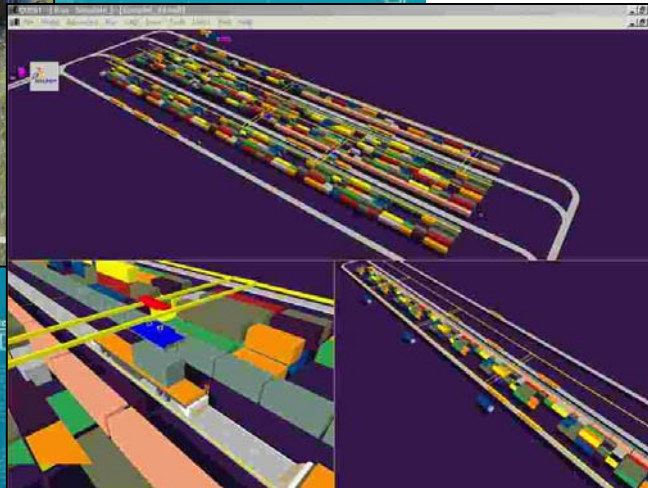
↪ Telerobotics for Defence / Civil Security



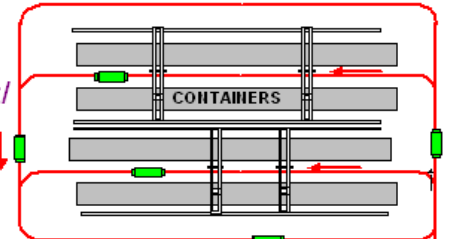
ASAPP ONE Concept Description and Results



*Innovative Technologies for
Inter-modal Transfer Points*



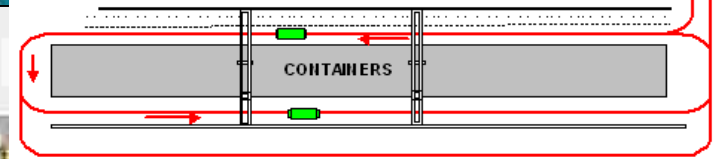
Port Front/
End Area



Swap
Area

Rail Area

Inland Front/
End Area

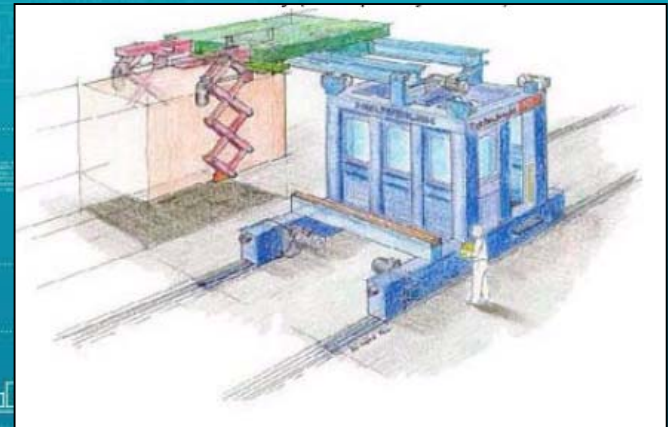
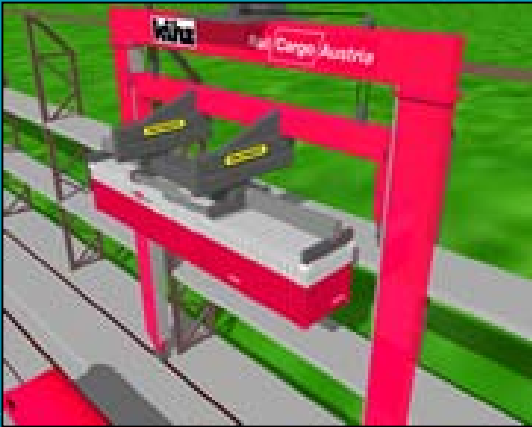




Transshipment Concepts

A-IUT _ NETHS _ RTS

Innovative Technologies for Inter-modal Transfer Points



↳ Motivation and background for the concept

80% of deliveries in urban areas

10% of vehicles, but 20% of traffic and 50% of environmental effects

Policy of local authorities based on restrictions, or access control

Extra costs and less efficiency

Propose innovative solutions to distribution logistics

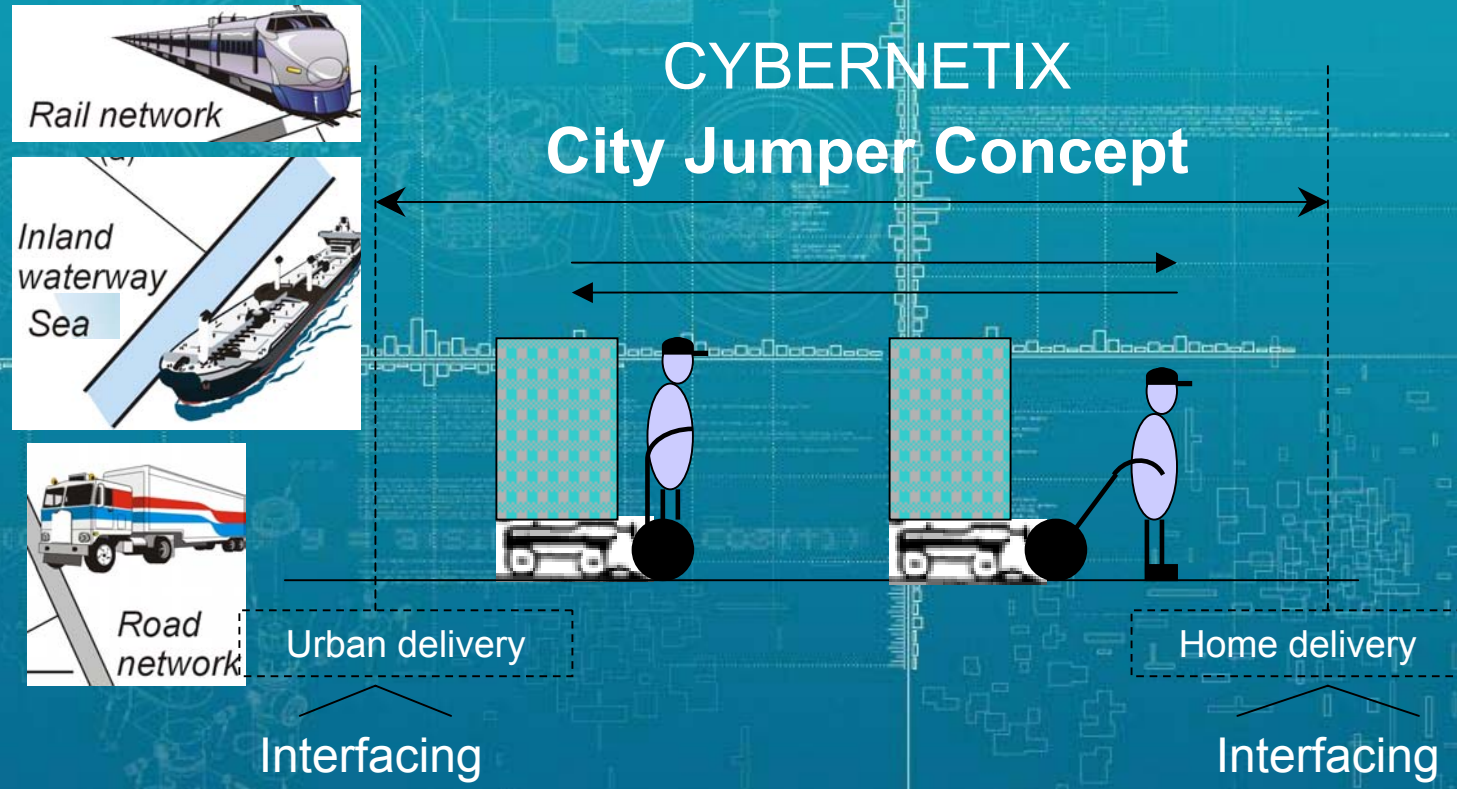
↳ Objectives

Support an innovative approach to the organisation of urban freight transport, in line with political strategies to safeguard the « liveability » of cities, while being compatible with efficient logistics.

- ↪ Innovative non polluting means of transport to achieve a more effective organisation of urban transport
- ↪ Main research topics:
 - Noise reduction**
 - Efficient loading/unloading operation**
 - New type of vehicles (very light)**
 - New logistics solution**

CITY JUMPER CONCEPT

City Logistics (including Socio-eco. aspects)



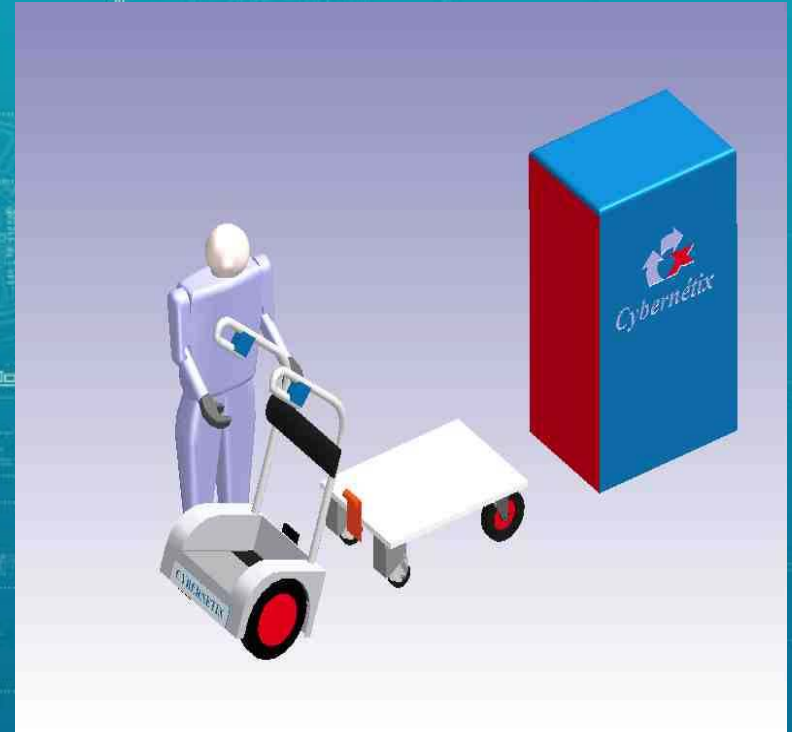
CITIES

Legal aspects, Land use, Environmental constraints (quality of life)

- ↪ Analyse in detail the essential performance indicators (economic assessment, global delivery chain, risk analysis, alternative transport modes, social environment,...),
- ↪ Propose new logistic organisation by
 - Using multi-modal container transport unit,,**
 - Using adapted transport vector,**
 - Using flexible and interoperable transshipment technologies,**
- ↪ Take into account the existing situation and promote a proximity service close to the customers
- ↪ Develop and pay attention to the transition period (impact)



CITY JUMPER Principle scheme



Main advantages of proposed solution (1/3)

We will draw attention in particular to the points listed below.

- ↪ The assembly is very stable, because regardless of the mode of use (manual or motorised) it always has four wheels on the ground.
- ↪ It is highly manoeuvrable, with forward and reverse operation (pulled/pushed) and rotation around the motor unit.
- ↪ Optimisation of the occupied area/loading area and total weight/load weight ratios.
- ↪ ***It is possible to optimise the composition of the stock of equipment by defining as accurately as possible the number of tractors, the number of containers and the number of container support chassis according to needs.***

Main advantages of proposed solution (2/3)

- ↘ Versatility and adaptability of the system which makes it possible to envisage functioning with different types of container, without having to change the type of tractor.
- ↘ Facilitation of connection/disconnection of the containers and tractors, and therefore reduction in time required to perform these tasks.
- ↘ Appropriateness of the proposed solution for the three main phases of use: use in the warehouse; transport to the distribution point; deliveries/collections in urban centres.
- ↘ Inherent security of the vehicle, which thanks to its minimal man-machine interface (or none if the solution using only the delivery man's data-processing terminal is adopted) makes it difficult or even impossible for unauthorised personnel to use.

Main advantages of proposed solution (3/3)

- ↘ Its size and the configuration of the tractor and chassis/container couple make it as suitable as possible for use in pedestrian areas.
- ↘ Deployment of a means of last mile delivery that respects the natural environment and the community's life environment (virtual elimination of chemical and noise pollution).
- ↘ ***Improvement of the delivery man's image, working conditions and general consideration of the profession, with all the associated social and relational benefits.***
- ↘ ***Consolidation of the image of the operators as they implement new methods and technologies to improve goods transport in urban environments.***

- ↪ A « CLEAN » logistic system aiming to:
- ❑ **Implement an urban handling standard (delivery/collection),**
 - ❑ **Provide a better level of control of urban logistics systems,**
 - ❑ **Limit costs of transport and distribution,**
 - ❑ **Enhance the quality of service,**
 - ❑ **Free up the urban delivery circuits (limit level of congestion),**
 - ❑ **Best use of existing infrastructures (limit space occupation),**
 - ❑ **Develop accessibility and use of the urban intermodal network,**
 - ❑ **Optimise the use of different existing urban transport mode,**
 - ❑ **Limit nuisance caused to the community environment,**
 - ❑ **Allow the city to be reclaimed by pedestrians...**

Thank you for your attention....



Your questions ?