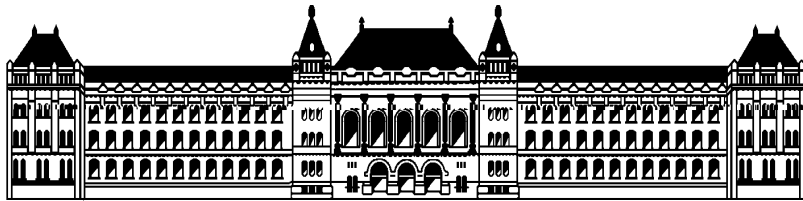


Zoltán Bokor, PhD - Zsolt Berki

Researchs on city-logistics in Hungary



**Budapest University of Technology and
Economics**

Department of Transport Economics

1111 Budapest Bertalan Lajos u. 2.

Tel.: +36-1-463-3265 Fax: +36-1-463-3267

E-mail: zbokor@kgazd.bme.hu

Internet: <http://www.kgazd.bme.hu>



**TRANSMAN
Consulting for
Transport System
Management Ltd.**

1051 Budapest

Hercegprimas u. 10.

Tel.: +36-1-353-1484

Fax: +36-1-311-0265

E-mail:

berki.zsolt@transman.hu

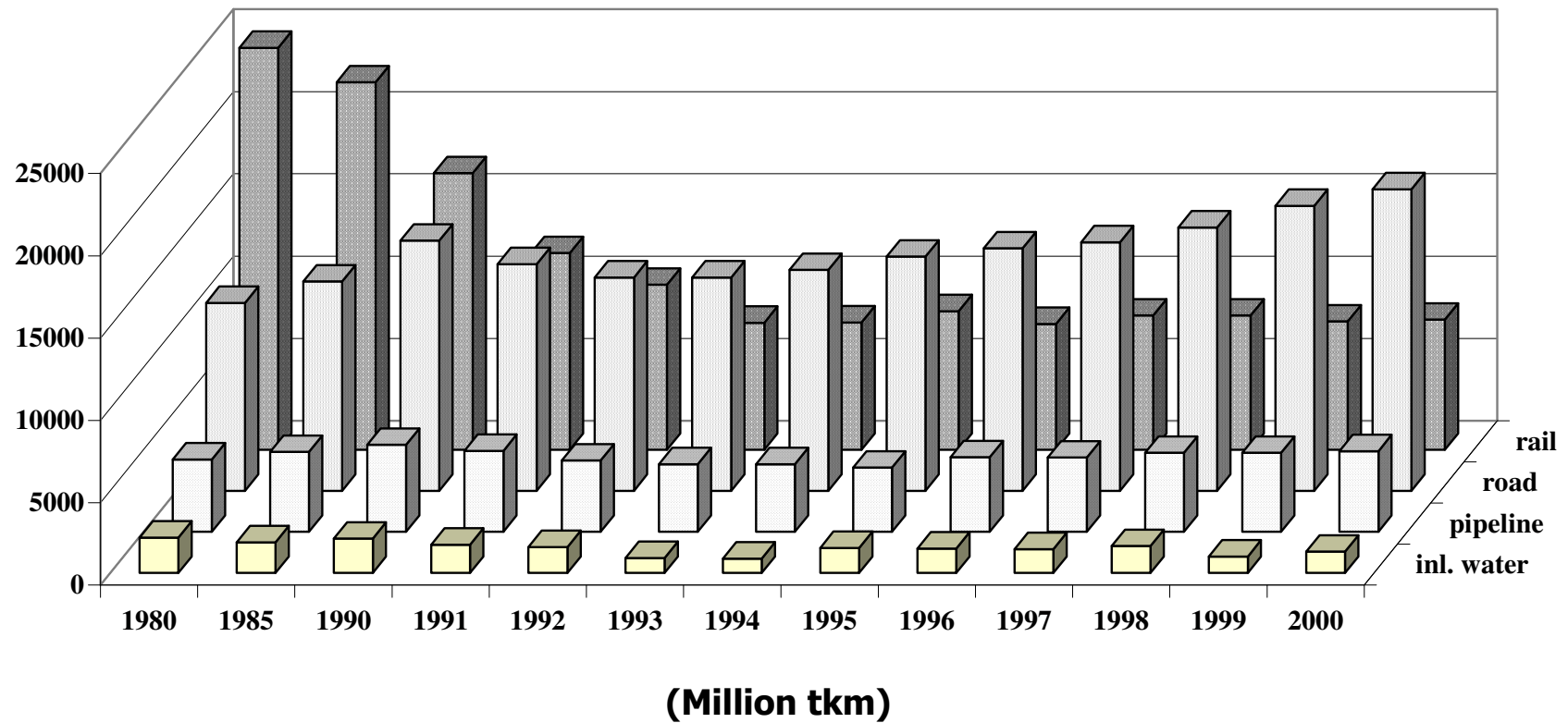
Internet:

<http://www.transman.hu>

Contents

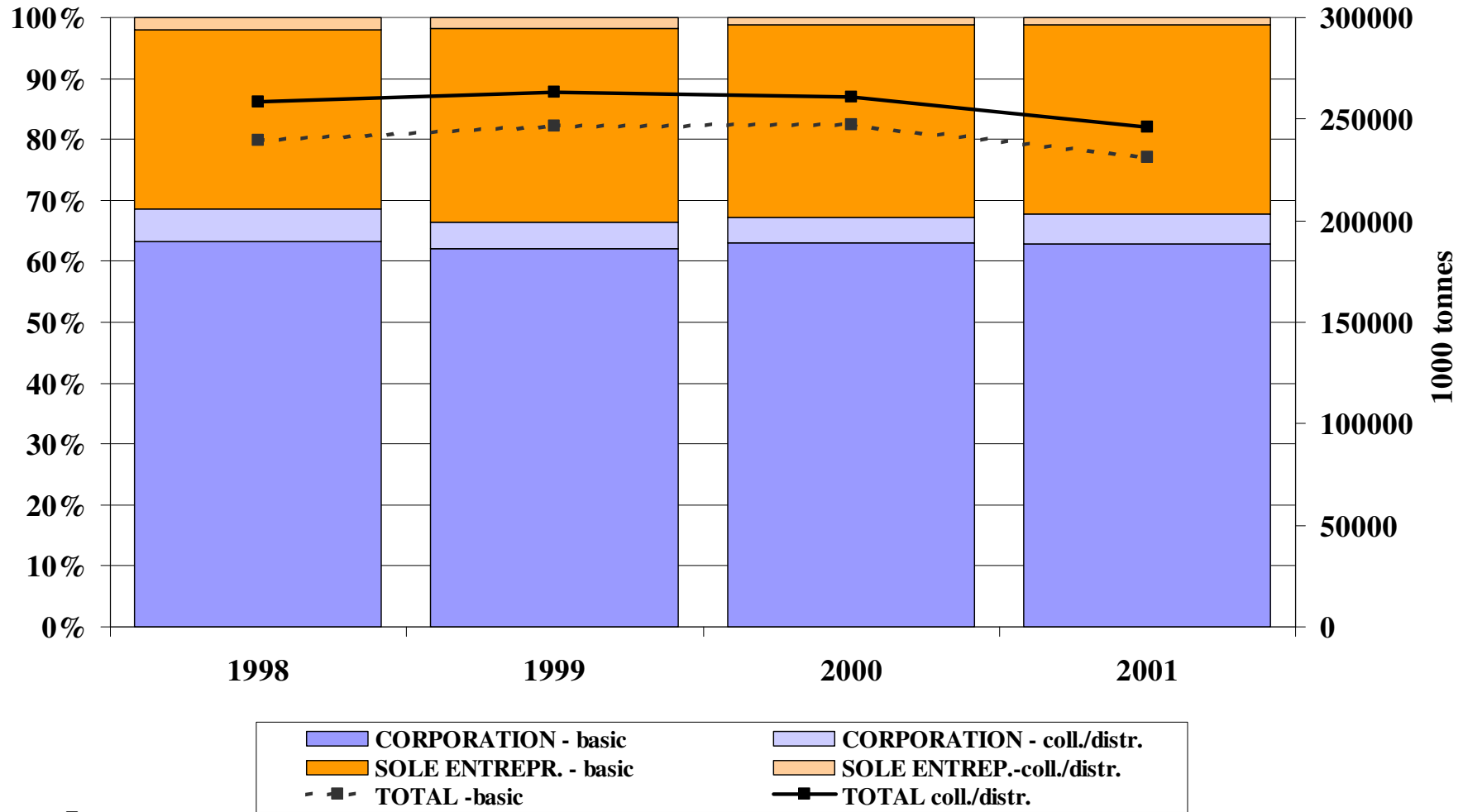
- 1) Development of freight transport in Hungary
- 2) Key findings about commercial urban transport in Hungary (based on BESTUFS results)
- 3) Special features in Budapest
- 4) Main programmes/projects and their outcomes
- 5) Ongoing research areas
- 6) Funding instruments
- 7) International activities

1/2 Freight Transport Performances in Hungary (1980-2000)of Hungary



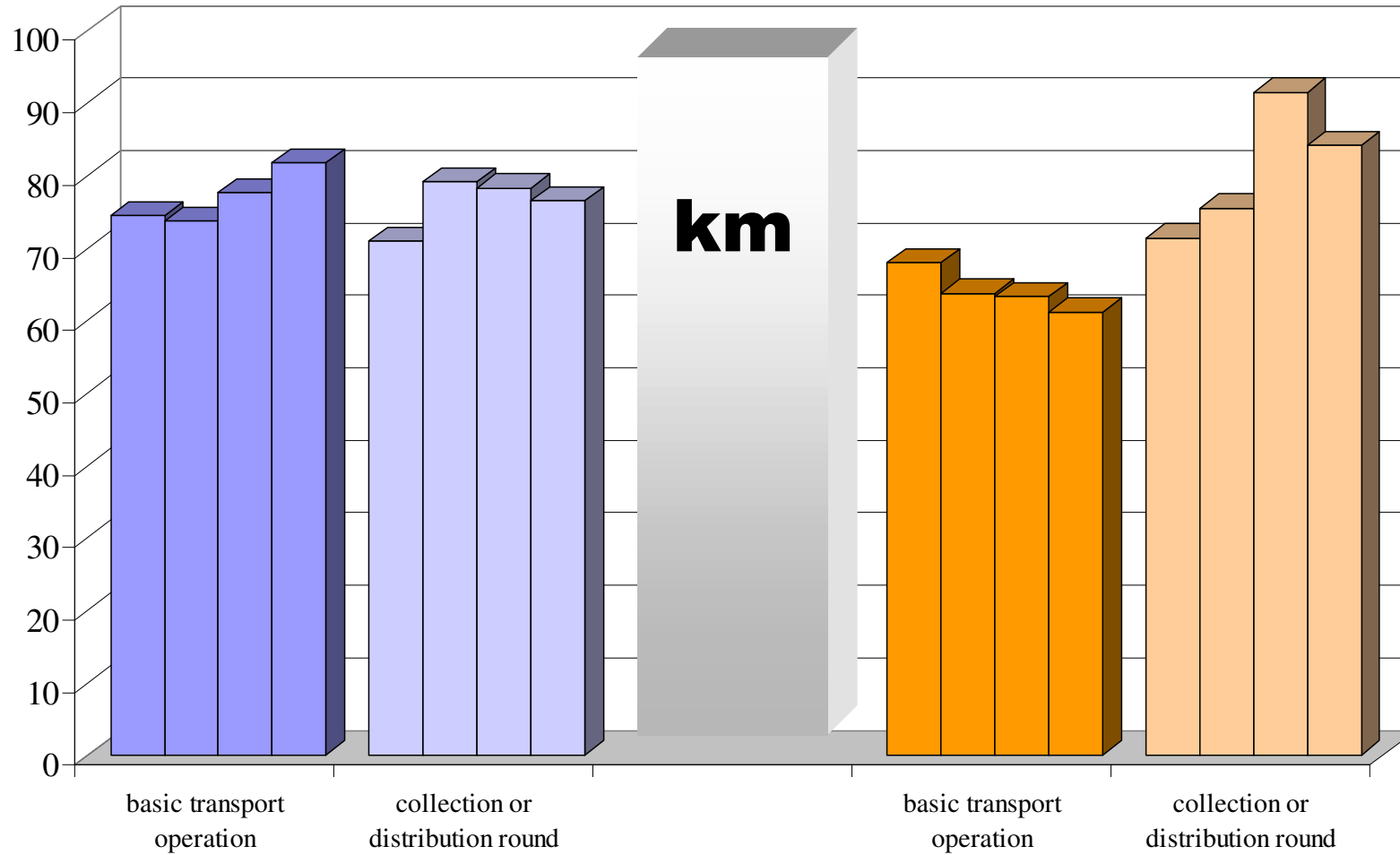
1/3 Quantity of Goods

Quantity of goods transported, by type of journey

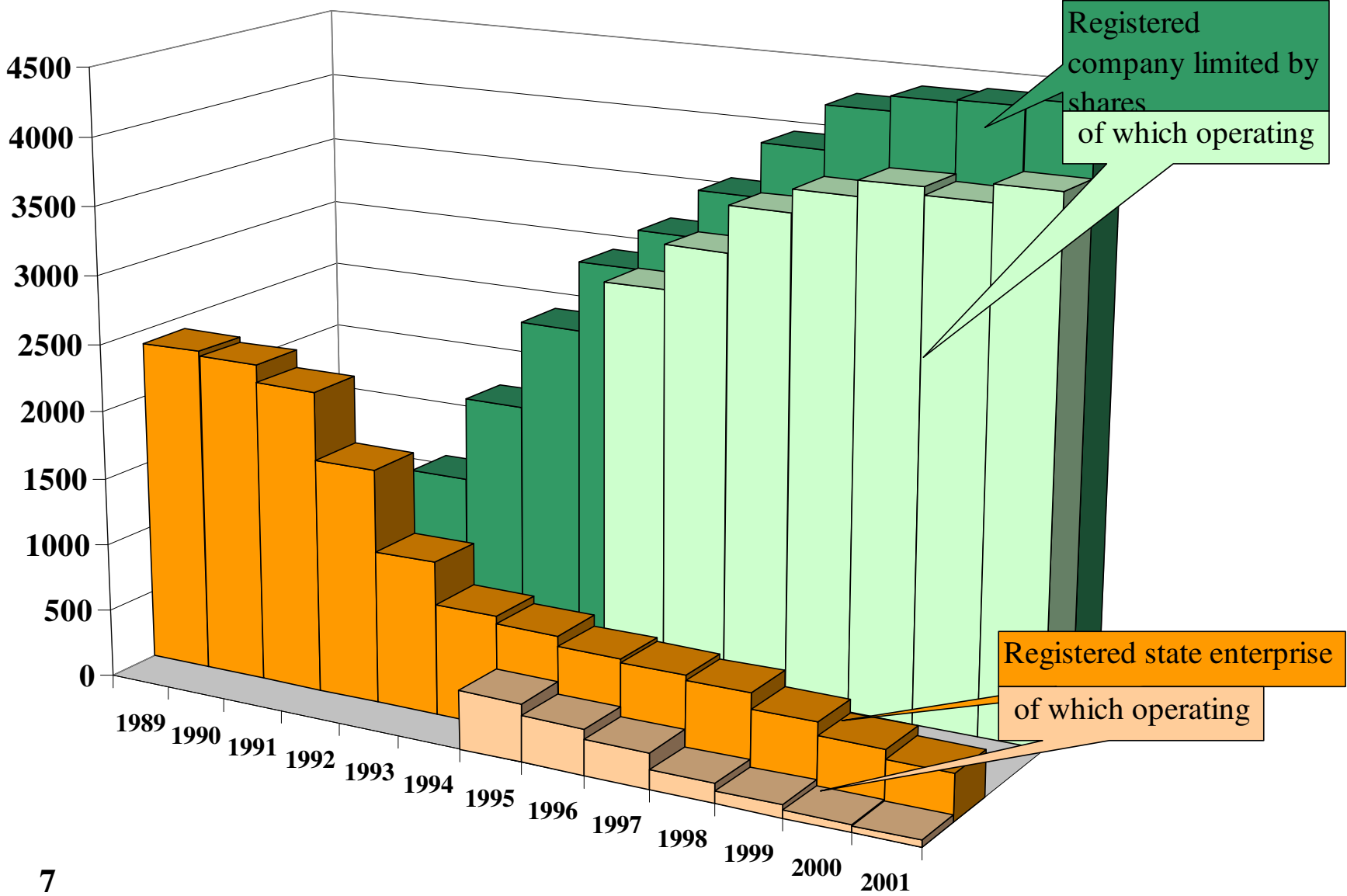


1/4 Transport Distance

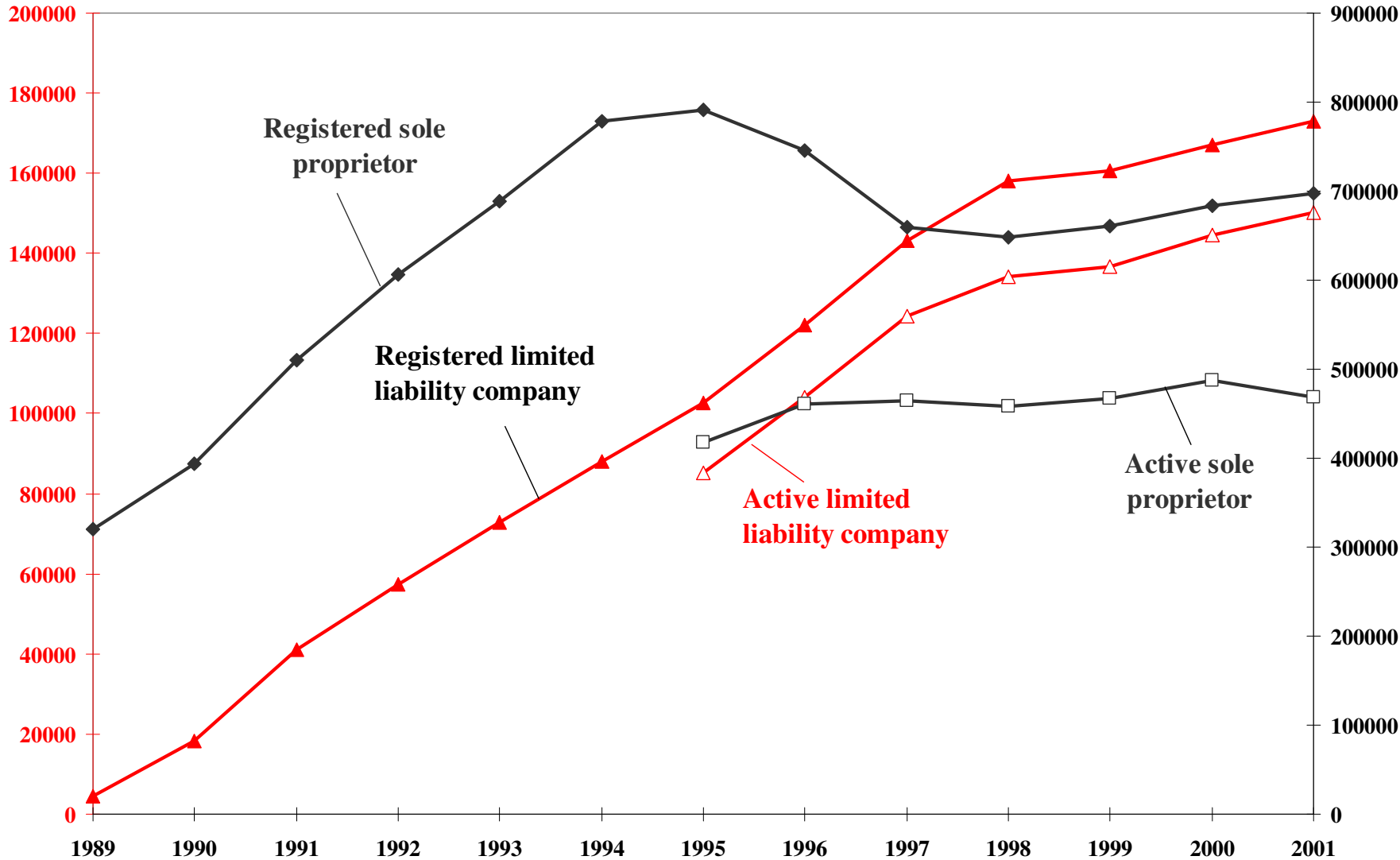
Average transport distance by type of journey
1998-2001



1/5 Structural change of economy - 1

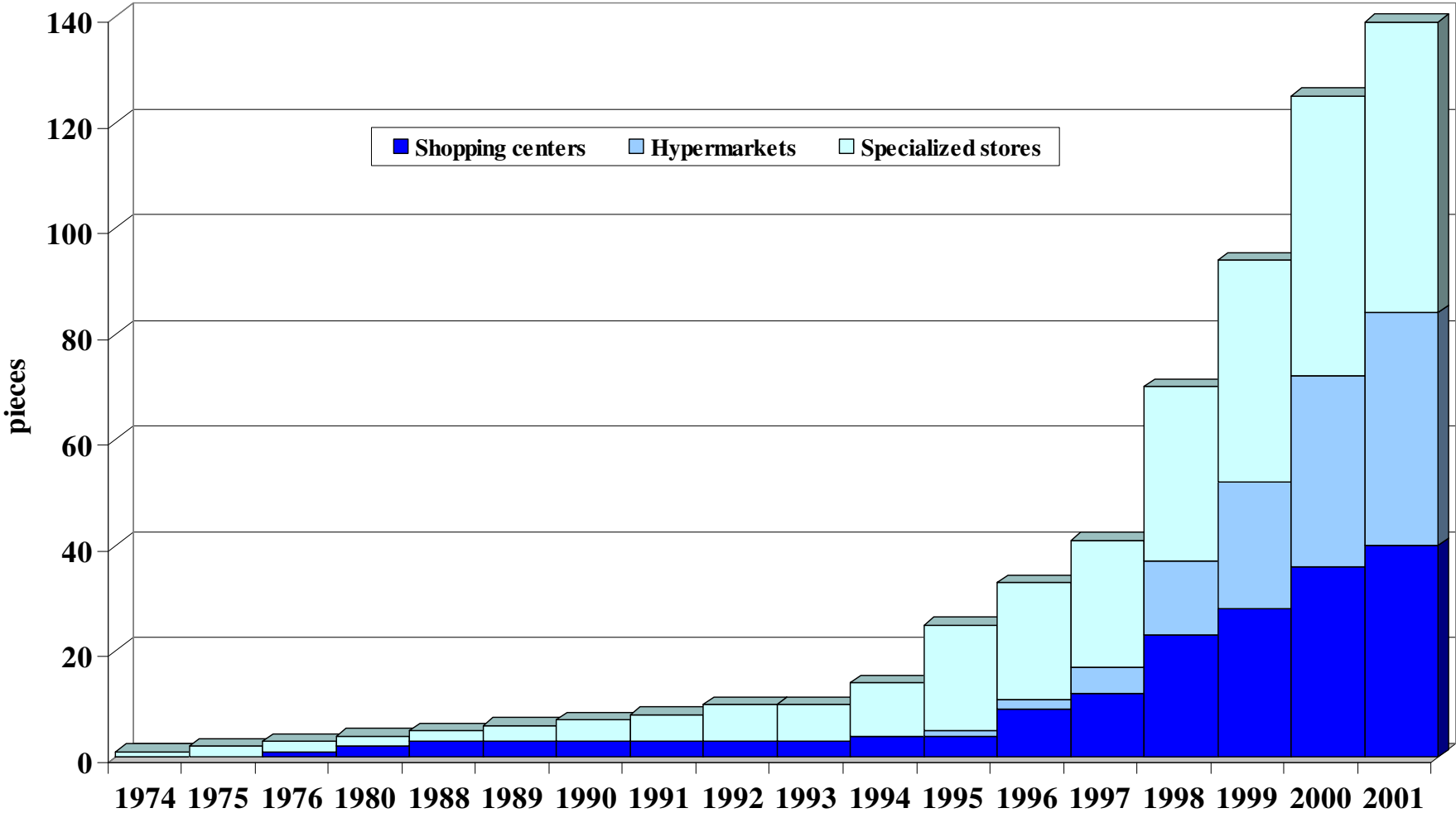


1/6 Structural change of economy - 2

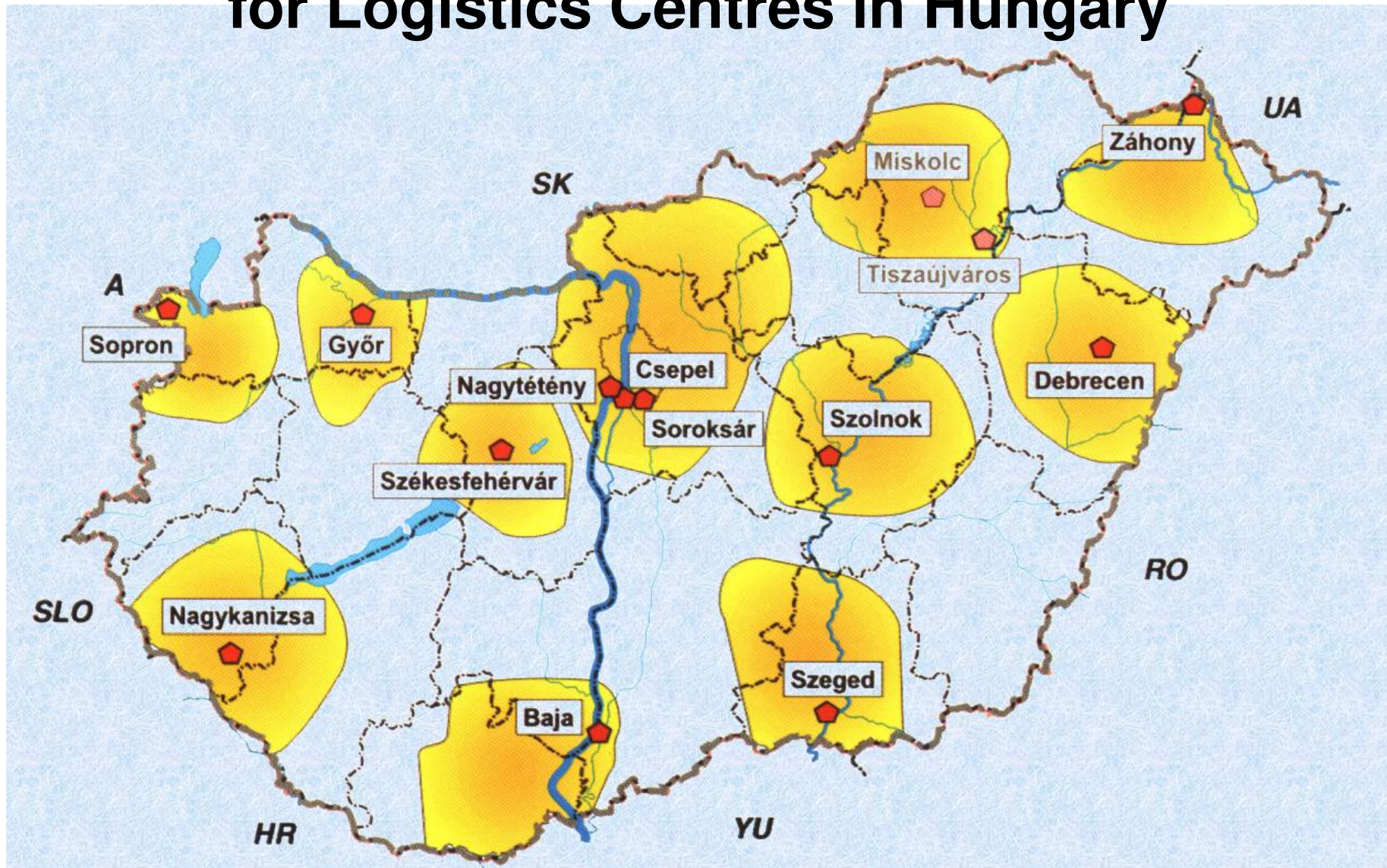


1/7 Structural change of economy - 3

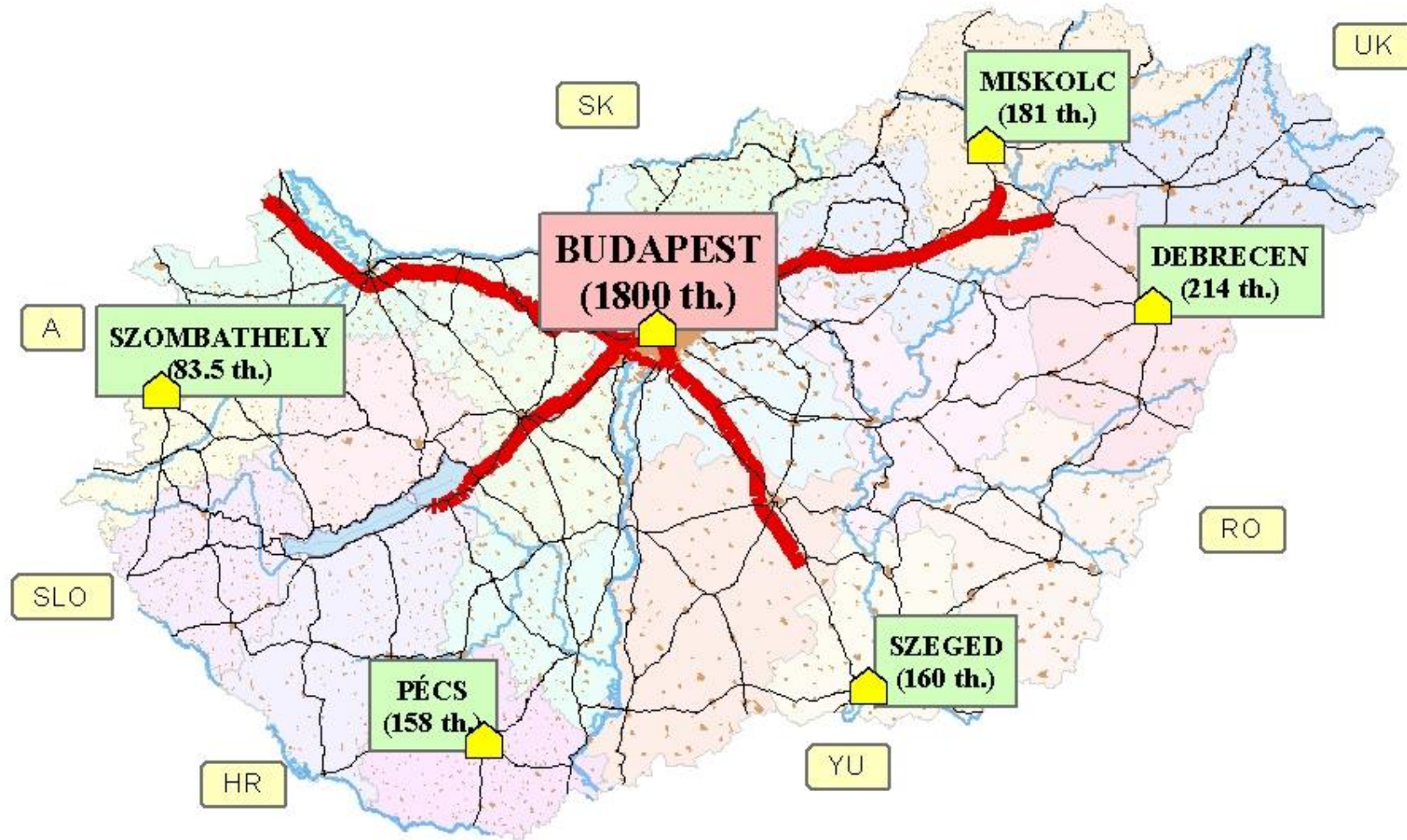
Number of shopping centers, hypermarkets, specialized stores



1/8 Proposed Areas for Logistics Centres in Hungary



2/1 Interviewed Cities (population)



2/2 Main sector of Economy within the Cities

Sector of Economy	Budapest	Szeged	Pécs	Szombathely	Miskolc	Debrecen	Points	Mean Value	Rank
Government, public administration, health services	0	0	1	1	0	0	2	0,3	1
Hotels and catering, tourism	0	1	1	0	2	1	5	0,8	2
Distribution, storage and communication	0	1	1	1	2	1	6	1,0	3
High-technology, media	0	2	1	1	2	0	6	1,0	3
Banking, finance, insurance	0	0	1	1	2	2	6	1,0	3
Manufacturing, industries, utilities	2	2	2	1	0	2	9	1,5	4
Construction and equipment	1	2	2	1	3	2	11	1,8	5

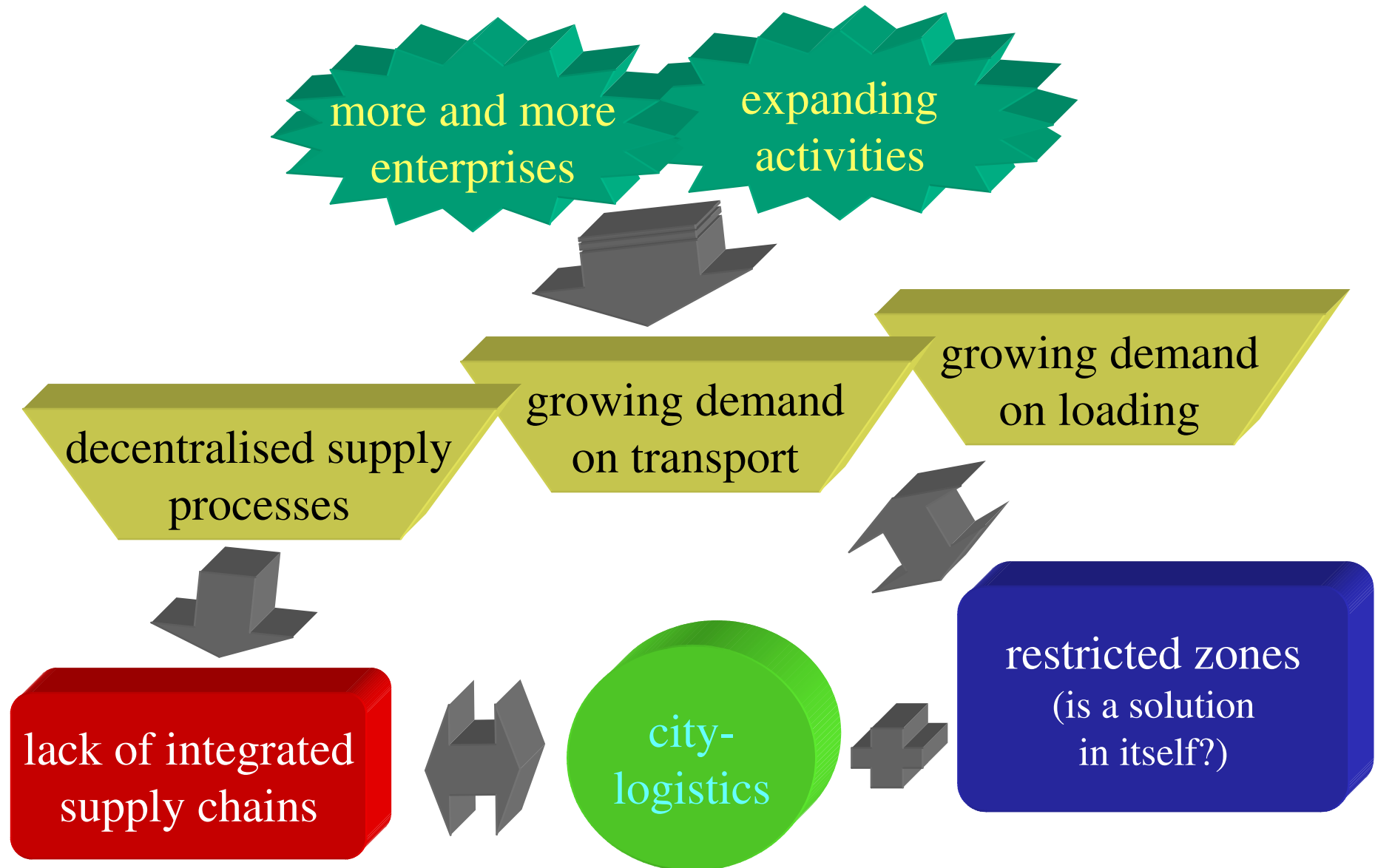
2/3 Problems within the Cities

Problems	Budapest	Szeged	Pécs	Szombathely	Miskolc	Debrecen	Points	Mean Value	Rank
Environmental pollution	0	0	0	0	0	1	1	0,17	1
Damage to road surface and infrastructure due to heavy goods vehicles	1	0	0	0	0	0	1	0,17	1
Too many heavy goods vehicles	1	0	0	0	0	0	1	0,17	1
Noise emissions	1	0	0	0	0	1	2	0,33	2
Enforcement of regulations (traffic, road use, parking, deliveries)	0	0	1	0	1	0	2	0,33	2
Lack of co-operation and co-ordination between transport companies (shippers, transporters, forwarders)	0	0	1	0	1	0	2	0,33	2
Traffic disruption on main roads to/from the city due to goods transport vehicles to/from the city	2	0	0	0	0	1	3	0,50	3
Traffic disruption in inner city and/or on main roads to/from the city due to goods transport vehicles in transit	2	0	0	0	0	1	3	0,50	3
Traffic disruption in inner city due to goods transport vehicles to/from the city	3	1	0	0	0	1	5	0,83	4
Lack of suitable infrastructure for deliveries (ramps, areas for loading/unloading, reserved parking spaces)	1	1	1	0	2	0	5	0,83	4
Inappropriate/insufficient legislation and regulations	2	1	1	0	1	0	5	0,83	4
Intimidation of road users (especially vulnerable users: cyclists, pedestrians) by large delivery vehicles	2	0	1	0	1	1	5	0,83	4
Conflicts with other road users during delivery operations (loading and unloading)	1	1	1	0	1	1	5	0,83	4
Location of business and producer/consumer activities (industrial zones, warehouses, shopping centres situated in the city periphery)	2	1	1	0	1	1	6	1,00	5
Migration of companies (lack of capacity on highway network)	3	0	1	0	2	0	6	1,00	5
Access of goods vehicles to pedestrian zones or historic centres	3	1	0	0	2	2	8	1,33	6
Too many small delivery vans	3	3	2	0	1	0	9	1,50	7

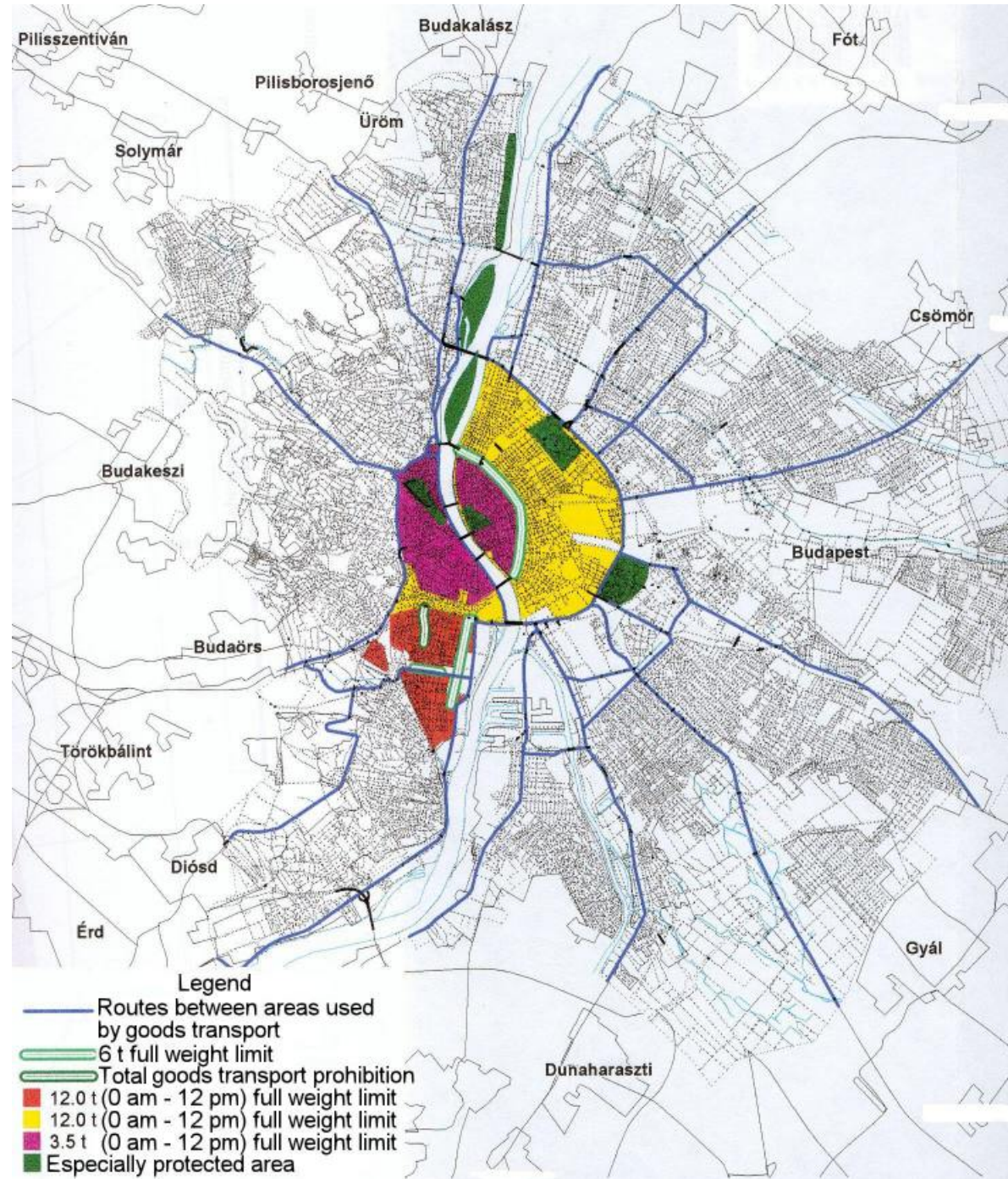
2/4 Issues concerning urban freight transport

Issues	Budapest	Szeged	Pécs	Szombathely	Miskolc	Debrecen	Points	Mean Value
Co-ordinated urban freight policy: better co-operation among various city departments and local organisations (police, development agencies, chambers of commerce, etc.) and better co-operation between cities within the metropolitan area	1	0	0	0	2	1	4	0,67
Adjust local traffic and parking/delivery regulations, delivery times and access/weight restrictions, according to economic activity and actual pickup/delivery patterns	1	0	1	0	2	1	5	0,83
Enforcement support (video control, automatic detection systems, complaints hotline)	0	1	1	0	3	0	5	0,83
Widened use of city distribution centres intermodal transfer facilities and integration with traffic management operation	0	0	1	0	4	0	5	0,83
Integration of urban freight in transport policy and mobility planning (mobility management)	1	0	0	0	4	0	5	0,83
Integration of urban freight in town planning and land-use/infrastructure planning (construction and development regulations, access to installations, etc.)	0	0	0	0	4	1	5	0,83
Statistical data, data acquisition and data analysis on urban freight transport	0	1	1	0	3	1	6	1,00
Co-operation among all local actors: public authorities/police, retailers and business sector associations, shippers, forwarders, transport companies, etc.; framework agreements	0	0	1	0	2	3	6	1,00
Improved management of urban road space and kerbside access, infrastructural solutions (loading/unloading bays)	2	1	0	0	3	0	6	1,00
Integration of urban freight in economic development strategies and business/shopping activities location policy and land-use/infrastructure planning	1	1	0	0	4	0	6	1,00

3/1 Drivers of city-logistics



3/2 Restricted zones in Budapest



3/3 Situation in Budapest

Important figures from data analysis:

- **30%** of loading processes are carried out in public roads
- **90%** of goods transport processes are carried out during working hours
- **60%** of transport tasks have higher frequency than once a week; **20%** of transport tasks are performed every day and **15%** 2-3 times a day
- the ratio of unloaded runs is **18%**, but of partly loaded runs is **59%**

4/1 Objectives of R&D projects

Making businesses understand the real (social) costs and effects of logistic and transport activities

Identifying innovative, applicable technologies

Identifying innovative, applicable operating models (best practices)

4/3 Findings of R&D projects (1)

Providing companies with information on:

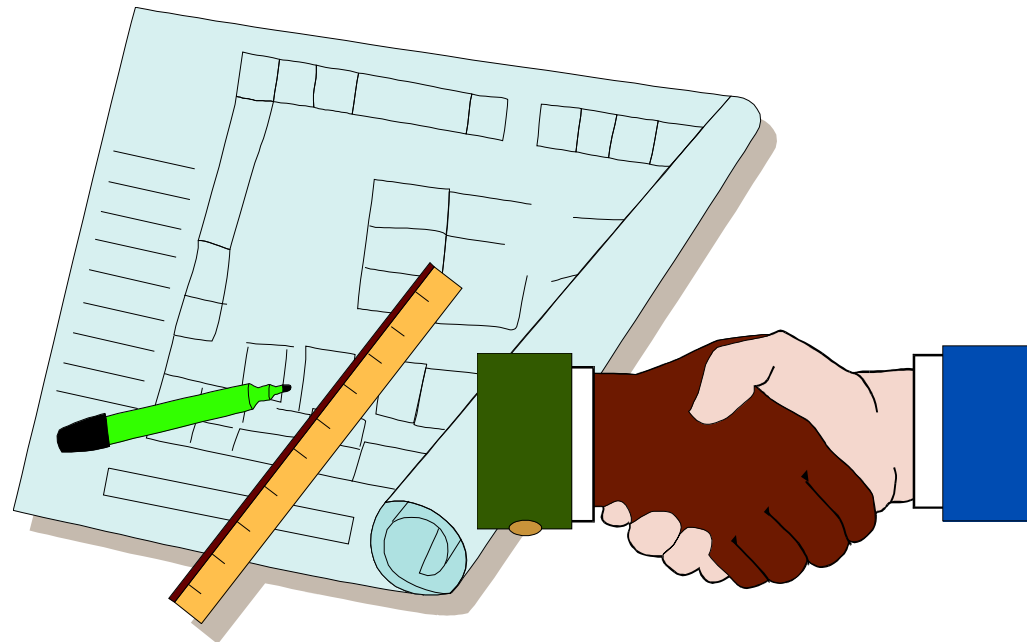
- real costs of logistic services/activities
- up-to-date logistic chains and solutions
- applicable logistic strategies/policies



4/4 Findings of R&D projects (2)

Co-operative planning of logistic processes:

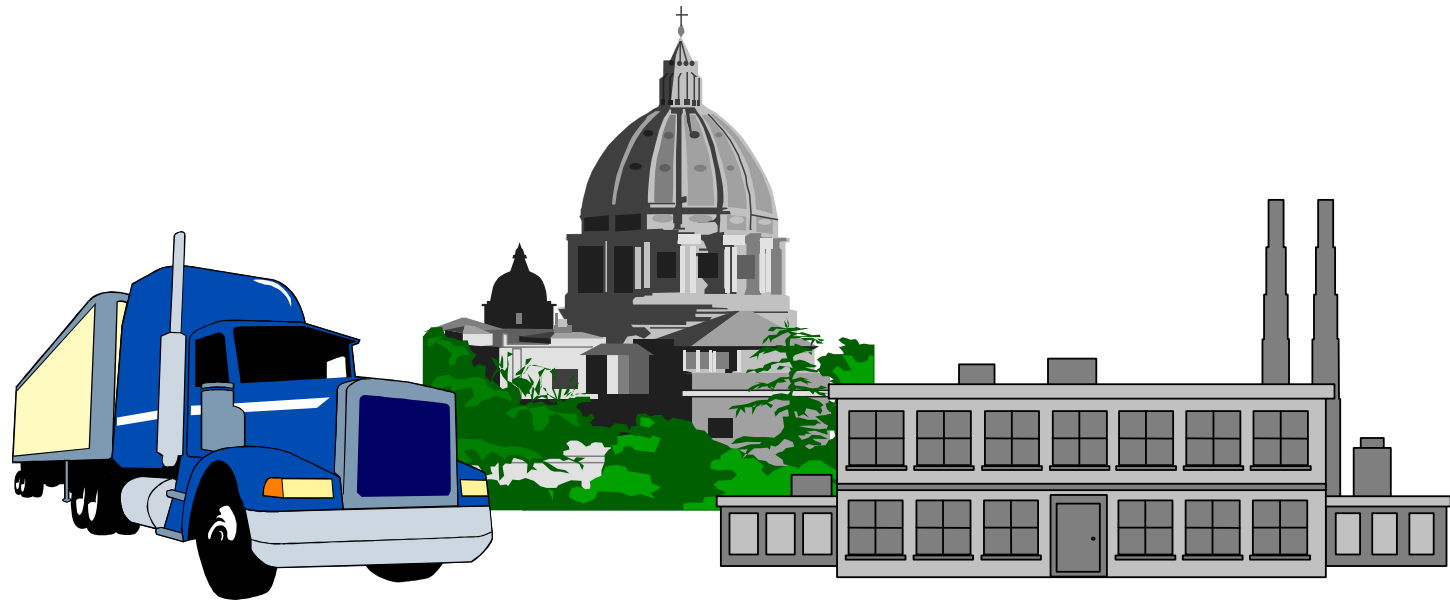
- performing detailed data surveys on logistic and transport demand to prepare adequate plans
- involving interested parties when planning and organising goods flows



4/5 Findings of R&D projects (3)

Transport alliances:

- established by logistic service providers (supply side), businesses (demand side) and local authorities
- based on co-operative agreements aiming to harmonise logistic processes
- the consensus of interested partners is inevitable



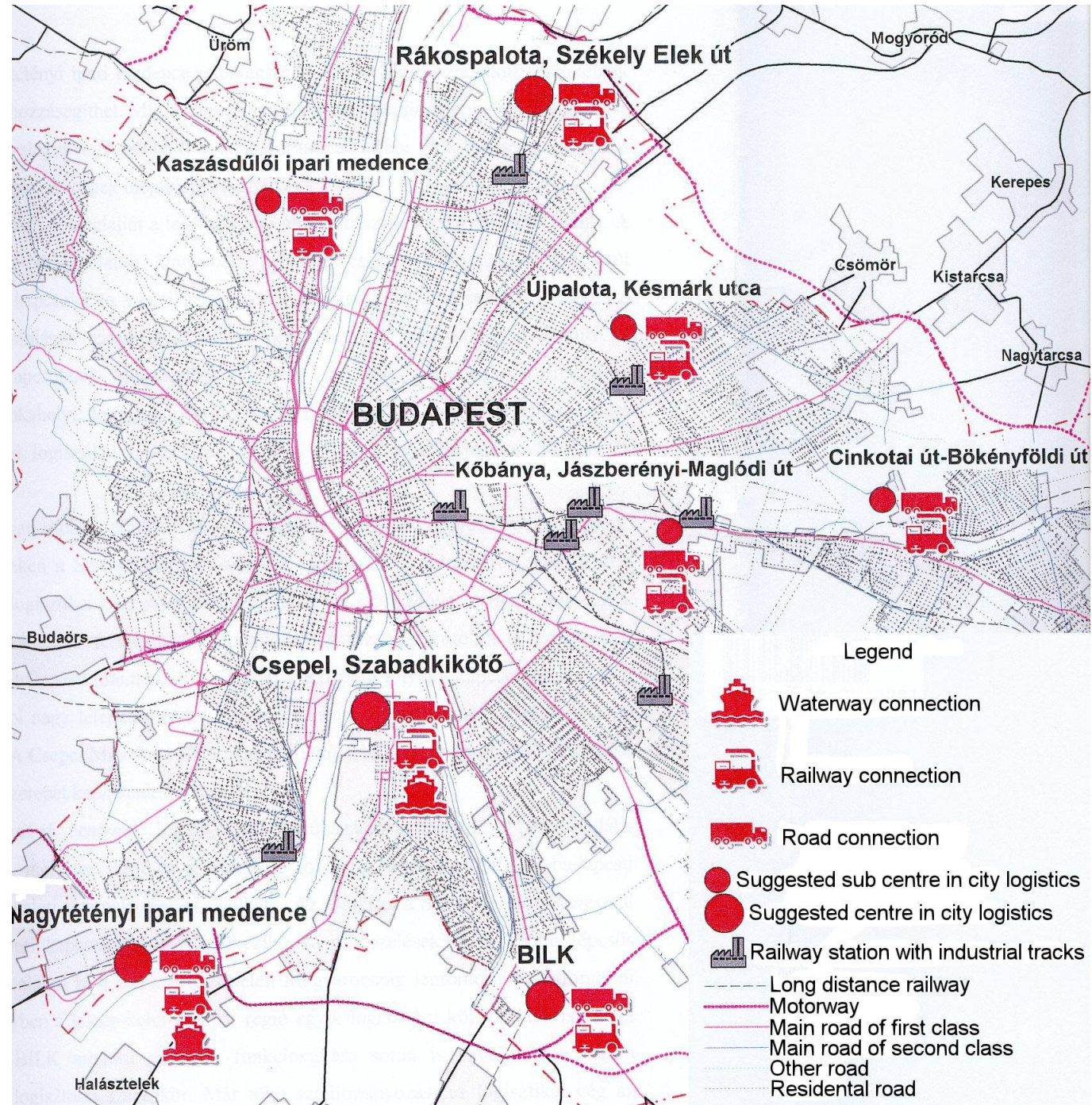
4/6 Findings of R&D projects (4)

Network of city-logistic centres:

- re-organising goods flows going to / coming from the city
- more efficient distribution of goods in the city



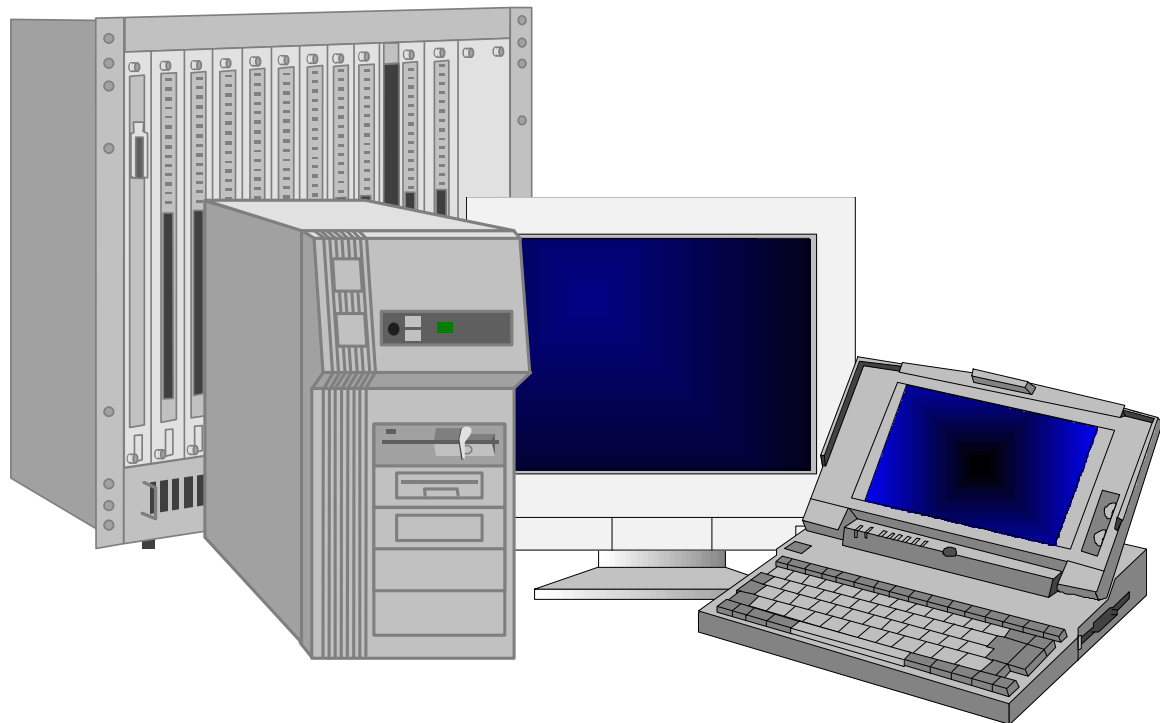
4/7 Planned city-logistic terminals in Budapest



4/8 Findings of R&D projects (5)

IT-solutions:

- applying geographical information systems (GIS) to optimise logistic processes
- Internet-based logistic portals to promote electronic business transactions in supply chains



5 Ongoing research areas

- forming new city-logistic conceptions in bigger cities based on the research results so far
- joining an EU R&D FP6 consortium/proposal aiming to improve mobility in historical cities
- governmental environment protection program: improving the noise and air pollution conditions of the densely populated Hungarian cities

6 Funding instruments

Public funds support R&D activities:

- funds of local authorities (public procurement)
- funds of national government (public procurement, proposals)
- EU R&D FP funds (proposals)

Private capital concentrates rather on services and infrastructures:

- Budapest Intermodal Logistic Centre (BILC)
- Harbour Park (Nagytétény)
- expanding logistic service providers in the agglomeration area

7 International activities

- joint R&D projects, research consortiums
- workshops, thematic networks for information exchange