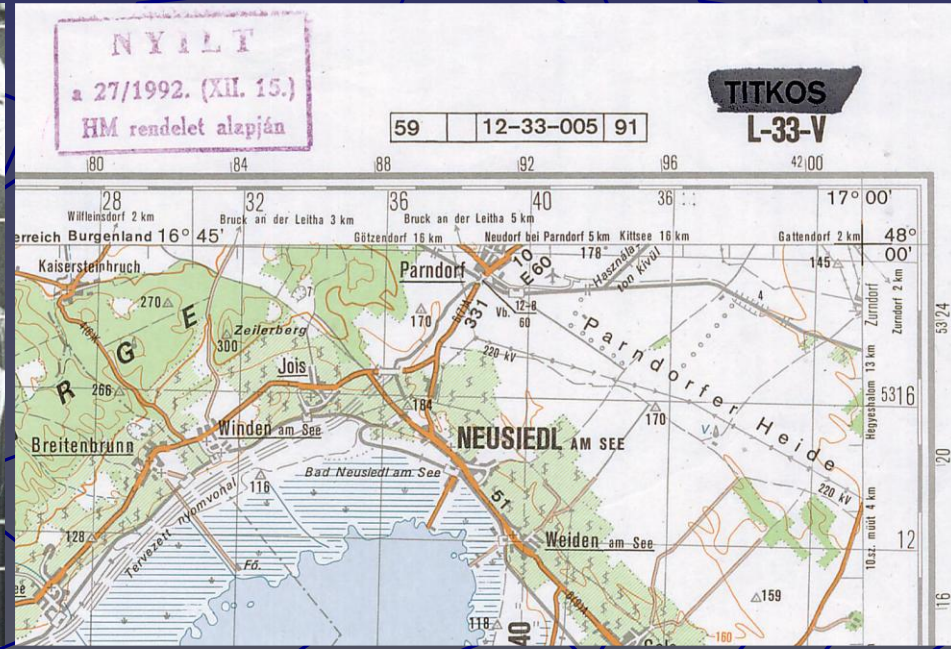
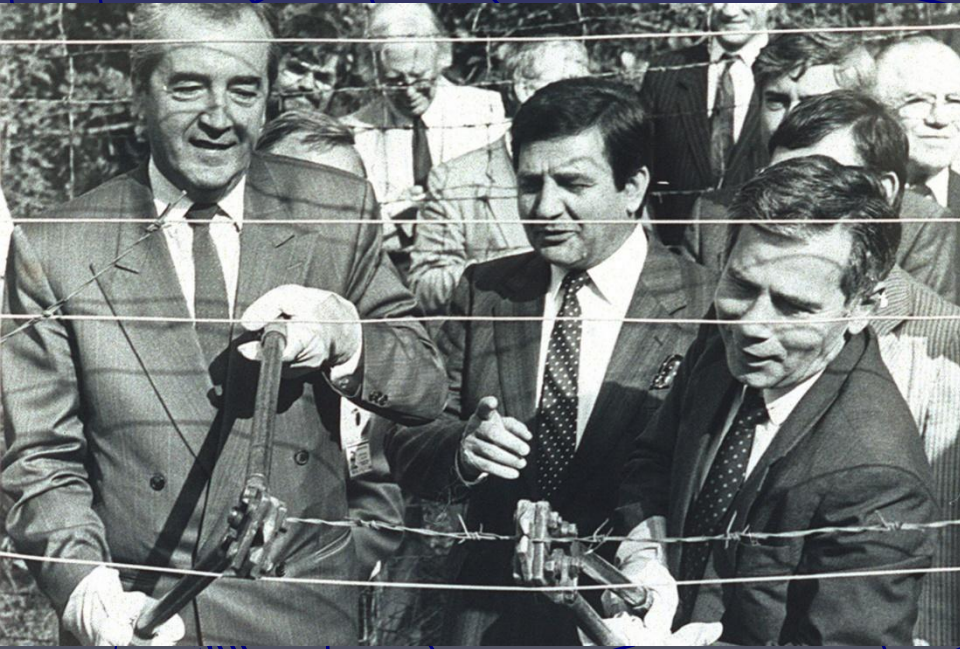




# The effect of the political transition of Hungary on map publishing



# Motivation

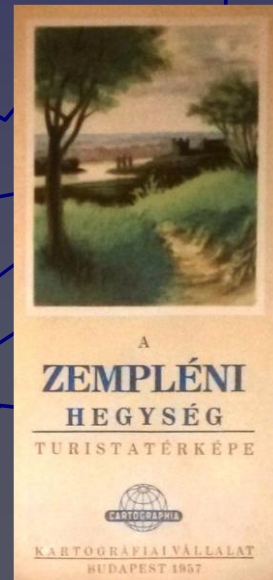


- ❑ This era is very interesting both from cartographic and social/historical point of view in this part of the World.
- ❑ After 25 years it is time to analyse this process (not too close and not too far in time).
- ❑ Maps of the early digital era can disappear easily.
- ❑ Production of such maps were regularly not well-documented. The experiences and traditions of the „private” cartography were lost during the communist era.
- ❑ This era is also part of our cartographic heritage. Save this information for the future generation.
- ❑ Where are all the cartographers?

# Cold War era (1946-1990)



- ❑ In the socialist countries, map production was a strictly controlled **state activity** in the Cold War years.
- ❑ The traditional cartographic production was a very **infrastructure-demanding process**, only large institutions were able to afford:
  - ❑ two governmental NMAs (civil and military)
  - ❑ Cartographia Company (Kartográfiai Vállalat), the only civil map production organization:
    - ❑ educational maps (school atlases, wall maps),
    - ❑ city maps,
    - ❑ tourist maps,
    - ❑ country maps and
    - ❑ globes for civil use.
  - ❑ the Geological Institute of Hungary,
  - ❑ Dept of Cartography at Eötvös Loránd University.





# The structure of civil mapping



- ❑ **The recent civil NMA** (Institute of Geodesy, Cartography and Remote Sensing = FÖMI) **was established in 1967** by re-organizing the old hierarchical structure, giving the supervision of civil cartography to the newly named Ministry of Agriculture and Food.
- ❑ Thanks to Alexander Radó's (who died in 1981) professional-political background, his connections and international reputations, **Cartographia Company** had very good international relationships also with Western countries.
- ❑ Hungary was treated as the happiest barrack of the socialist countries ("Goulash Communism"), but there was **no liberalization in map production before 1985**.

# Goulash Communism



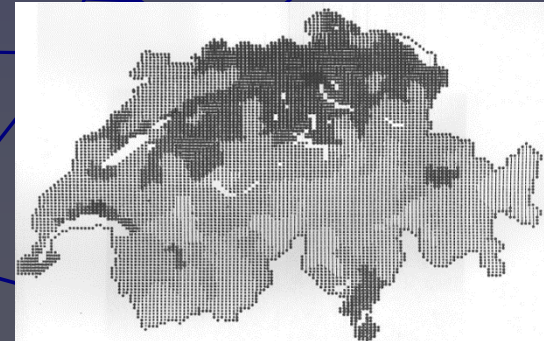
He who is not against us is with us (János Kádár)



# The beginning of digital cartography in Hungary



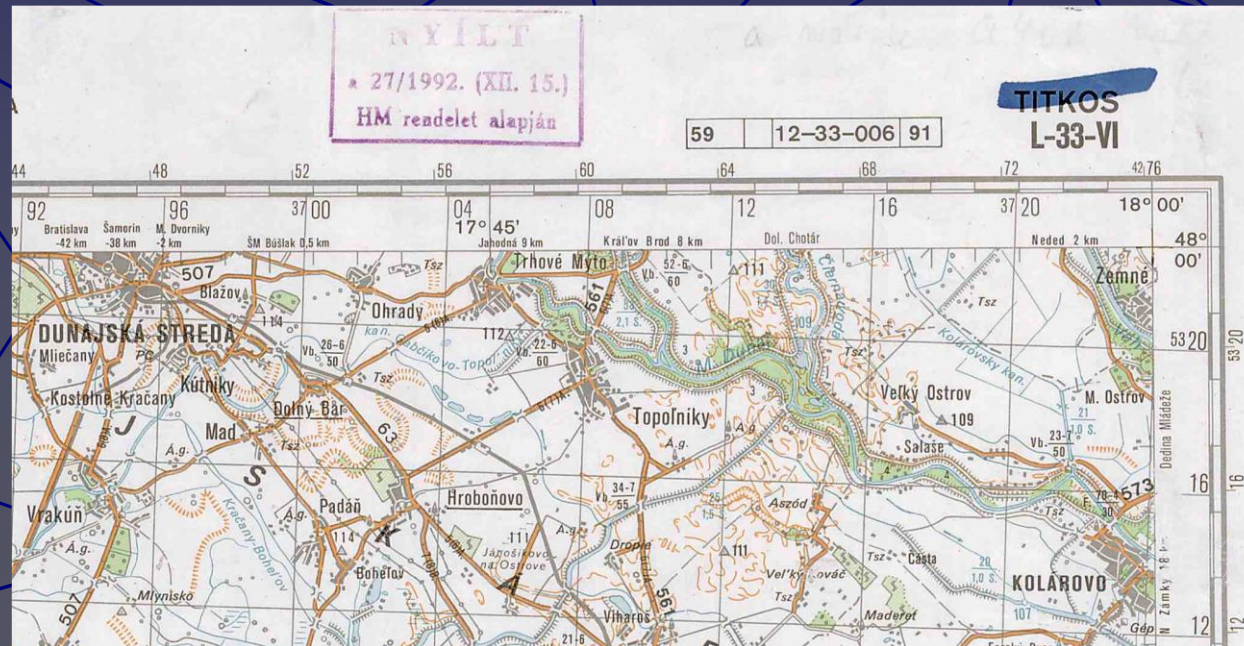
- ❑ One of the very first Hungarian cartographic/GIS software products was the so called COMAPO in 1972.
- ❑ The first GIS software applications became available in Hungary in the middle of the 1980's:
  - ❑ the CoCom (Coordinating Committee for Multilateral Export Controls): technologies embargo on Soviet bloc countries
- ❑ Cartographia started to use PCs in its map production process in this time (1985-), limited to:
  - ❑ phototypesetting,
  - ❑ sorting of geographic names in alphabetic order (World Atlas),
  - ❑ produce a part of the printed map (title page).





# The role of secrecy

- Secrecy has not influenced negatively the civil map production process in Hungary in the mid or late 1980s. **Cartographia had limited access to classified topographic maps** to use it as base map.
- The topographic maps were classified, but soon after the political change both the civil and military maps became publicly available.



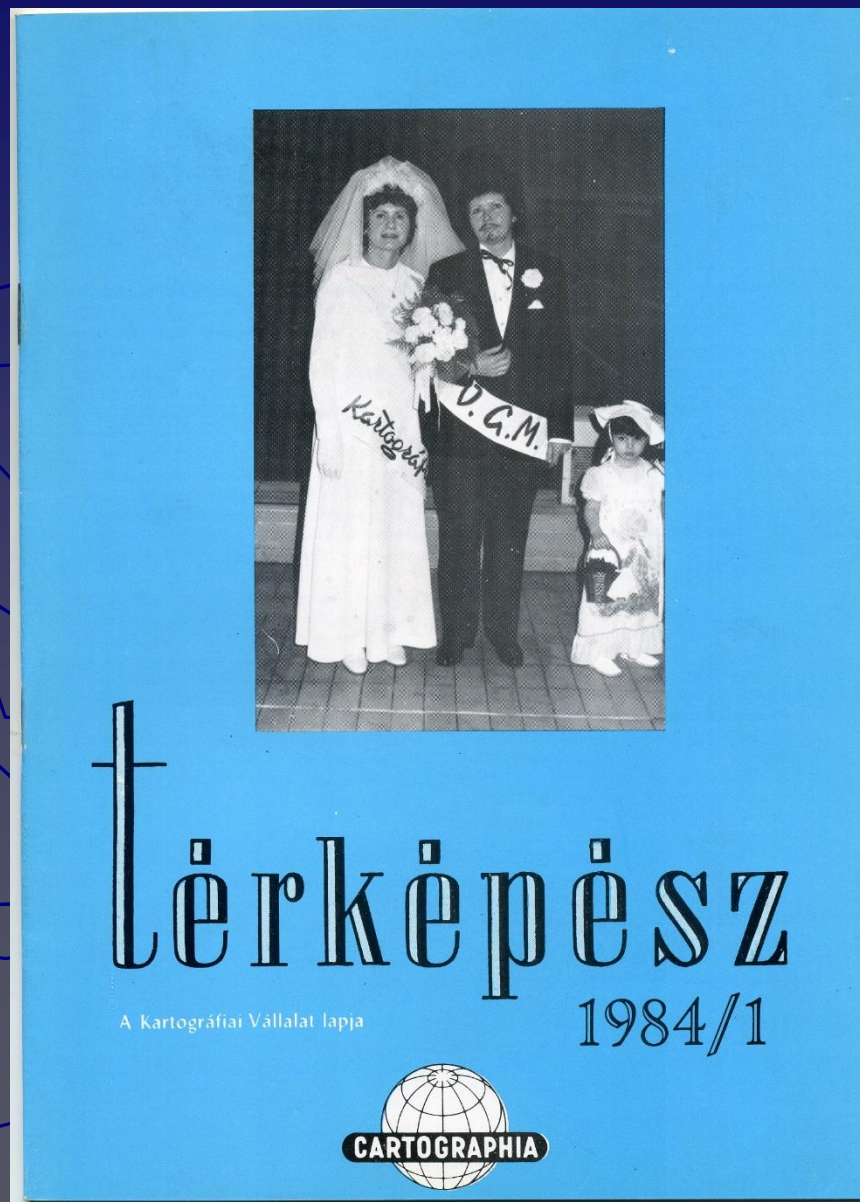
# Business in the last years of the Hungarian socialism



- ❑ The economic difficulties, the slow growth of the economy, the decreasing level of the state investments forced the Hungarian governmental and political leadership to **experiment with market reforms** around 1980-1982.
- ❑ They suggested **changes on the property ownership**, allowing **private and partly private ownership** for small firms.
- ❑ One of these forms was the so-called '**enterprise work team**', which was in fact a private firm **using the infrastructure and personnel of the company** outside regular working hours. Cartographia Company also allowed such internal firms (after 1984), first of all with the purpose of giving their employees the opportunity to earn extra money and meet the large number of orders.



# Enterprise work team (VGM)





# Enterprise work team (VGM)



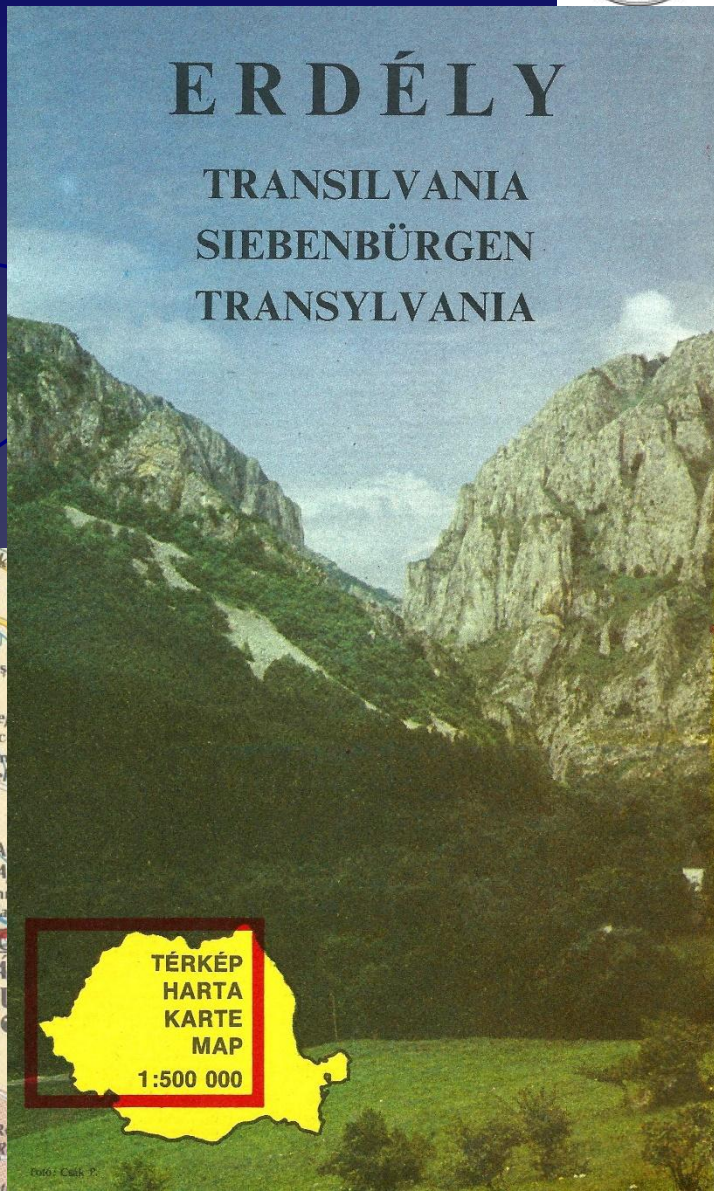
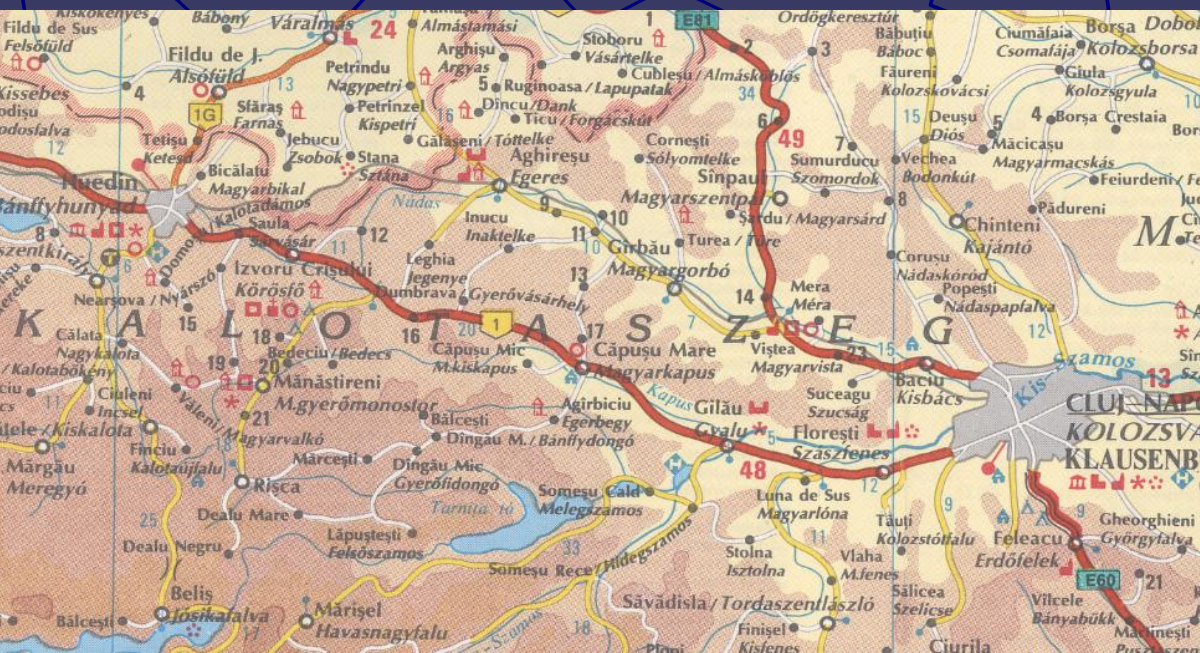
- ❑ Multilingual map of Transylvania was allowed to publish only in 1991 (without the name of Cartographia).

ERDÉLY

TRANSILVANIA

SIEBENBÜRGEN

TRANSYLVANIA



TÉRKÉP  
HARTA  
KARTE  
MAP

1:500 000

# Private firms in map publishing

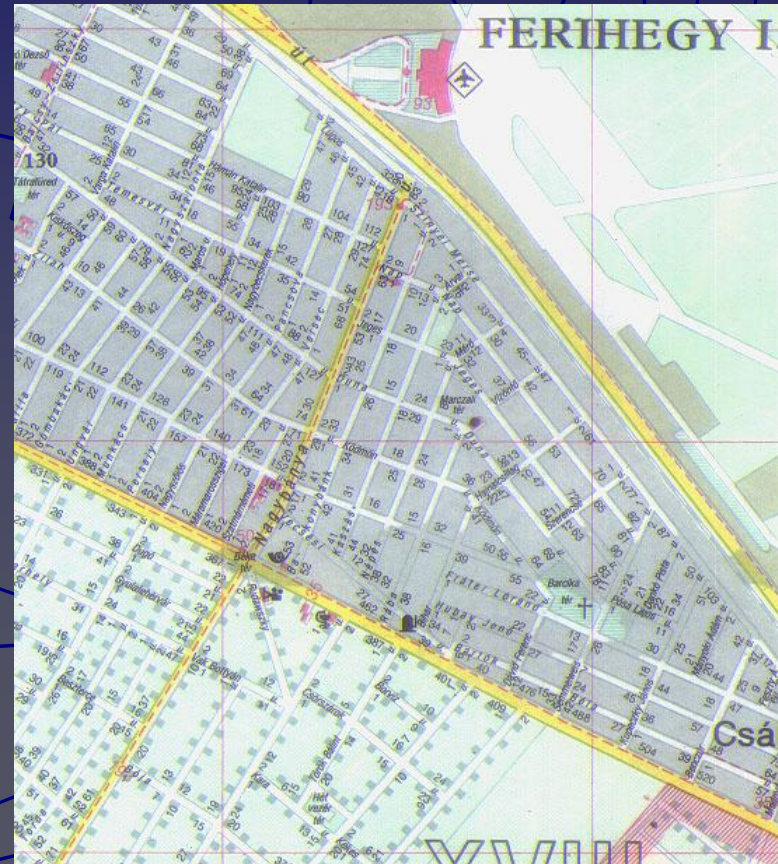


- ❑ The political transition process in Hungary in 1989 and the technological transition process from the traditional to the digital map production luckily **coincided** with each other.
- ❑ In a relatively short time (2-3 years), cartographers formed **small firms** (mostly based on digital technologies only) or started a 'one-man firm' (sole proprietorship).
- ❑ The digital technologies, however, were not yet suitable to manage the whole map production procedure of **larger projects**, like road maps or tourist maps (at least not at that time for individuals).
- ❑ With a very limited IT experience and skills as well as with less powerful computers it was possible to produce only graphically very **simple maps** (city maps).



# Private firms in map publishing

- breaking the monopolies of Cartographia,
- a 1:20 000 scale atlas of Budapest (1990),
- produced by traditional techniques.



# Private firms in map publishing



- ❑ As Hungarians were not accustomed to having the opportunity of buying maps from various companies, it can be stated that **the map production market was not prepared for the liberalization.**
- ❑ However, these small or one-man firms were **very flexible** to start publishing maps if their income did not depend on selling maps only. The most typical products of this time (1990-1995) were **city maps**, where the production cost was covered by the **income of advertising.**

# Legal issues



- ❑ Various forms of enterprises were made available at that time, and all cartographic firms had to select one of these businesses (these forms were changed in 1997):
  - ❑ Sole proprietorship (self-employment): this form of entrepreneurship was really suitable for individuals to test their skills.
  - ❑ Limited partnership firm: these firms were mostly family based small companies. If the entrepreneurs had very limited financial resources, they regularly choose this form.
  - ❑ Limited liability company: established with a predetermined amount of initial capital provided by its founders. Due to the very limited capital, only few companies (mostly owned by foreigners) were formed in cartography.



# Legal issues



- ❑ An interesting, though embarrassing part of the measures was the **policy of using state cartographic data**.
- ❑ **All firms had to pay a fee** after publishing maps based on state topographic and cadaster data, and a similar fee was to be paid where such data were used in GIS environment.
- ❑ The private firms had to prove that they **had not used state cartographic or GIS data** when they published their maps.
- ❑ The national mapping agencies were allowed to pay a discounted fee when they used state cartographic data (which was nevertheless created by them); this meant that one of the basic principles of the new political and economic system, the **competitive neutrality, was damaged**.

# Large number of firms



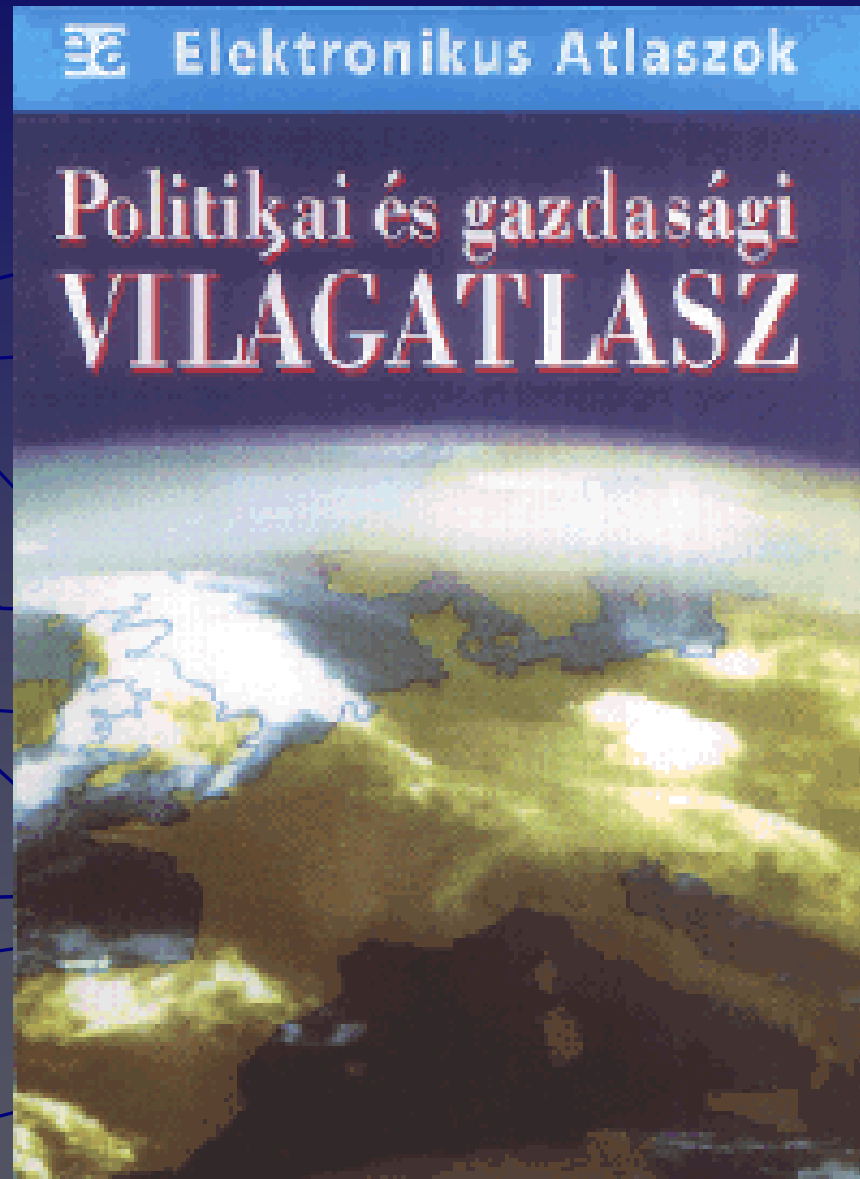
- ❑ The most prominent observation on the Hungarian cartographic firms in these years is the **large number of firms**.
- ❑ A lot of employees (mostly graduated cartographers, editors) felt that they had their **own ideas** which were worth dealing with in an independent company (a specific segment of map production).
- ❑ Very few of these early firms existed for more than five years.
- ❑ **The number of published maps increased dramatically. Lots of city maps, recreation (biking, water sport) maps of smaller areas were published.**
- ❑ The firms soon realized and understood that **the market is limited**: no matter how many firms would publish new maps or atlases, the number of sold copies would be about the same.
- ❑ Another experience that they had to learn was that the **selling of maps** was a business different from map making.

# The first digital maps

- ❑ The **first digital map** where the complete technological process was already digital was an orienteering map (Lajosforrás, 1990), though it had only minor effect on other map publishers.
- ❑ The **first digital city map** was produced by a German-owned company (Katicom Ltd.) in 1991. The company was not really present on the Hungarian market: they produced only German city maps. Probably, this was the first company in Hungary which used general graphic software for map production.
- ❑ The **first Hungarian cartographic CD-ROM**, which was a vector-based World Atlas created by a GIS firm, Rudas&Karig Ltd., and the Department of Cartography, Eötvös Loránd University in 1994. This product preceded its age.



# The first digital maps



# Conclusions

- ❑ Strange coincidence: the political transition process and the process of changing the analogue map production technique into digital happened **at the same time**, around 1985-1992.
- ❑ The political transition process made the establishing of private companies available, but without the technical opportunities of **desktop map production** even the most experienced individuals would have not been able to manage the whole process.
- ❑ One of the most important reasons of writing this paper is to have a **written documentation of this era** from the eyewitnesses and encourage other countries to document their similar period.

# Thank you for your attention



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Thank you for our Austrian  
colleagues at TU Wien to  
organise us this conference.

Let's continue

