

HUNGARIAN BRIDGE ALMANACH

15 (150...?) Years in Pictures

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Bridge over the... National Road Network

- 52 % reinforced concrete
- 33 % prestressed concrete
- 8 % structural steel
- 7 % other

Statistics of the Bridges

• Culverts	694 pcs;	10 %
• Slab bridges	2865 pcs;	44 %
• Rigid frames	217 pcs;	4 %
• Beam slab	174 pcs;	3 %
• Precast beam with insitu slab	2174 pcs;	33 %
• Precast segmental	5 pcs;	0 %
• Plate girder	255 pcs;	4 %
• Trusses	32 pcs;	1 %
• Arches	25 pcs;	1 %
• Other (floating bridges)	4 pcs;	0 %

Standards and Others

- EUROCODE
- National Standards
- Technical Specifications
 - Technical directives;
 - Technical prescriptions;
 - Helpness to the designer.

Asset Management

- NRI National Road Inventory
- PMS Pavement Management System
- BMS Bridge Management System

BMS – PONTIS

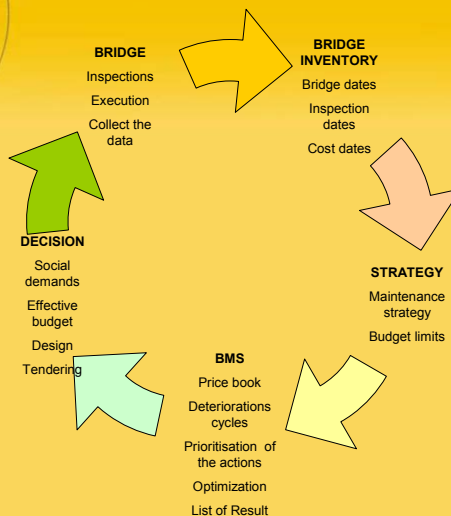
1988. Developed by the ASHTOO

1995. Implemented 46 States in USA

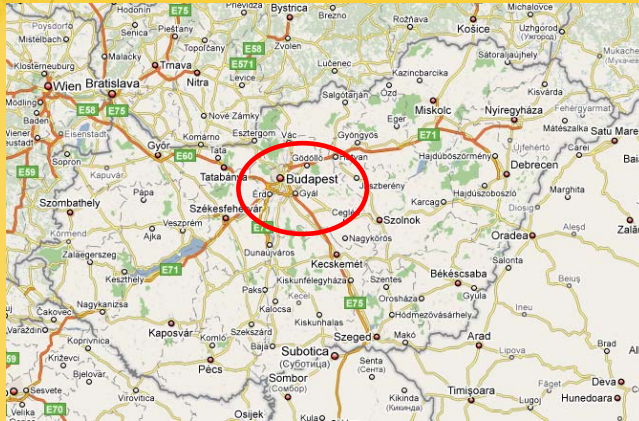
1998. Implemented the Hungarian version

2000. Used by the Bridge Department

BMS

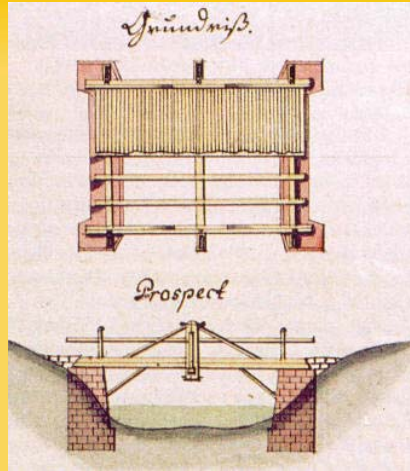
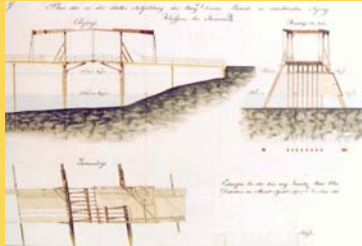
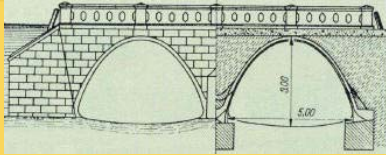


...And a few pictures...



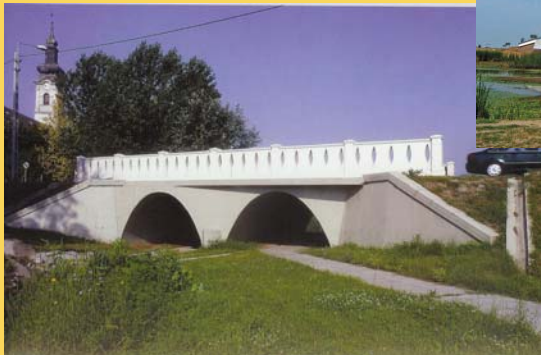
2000 years ago...







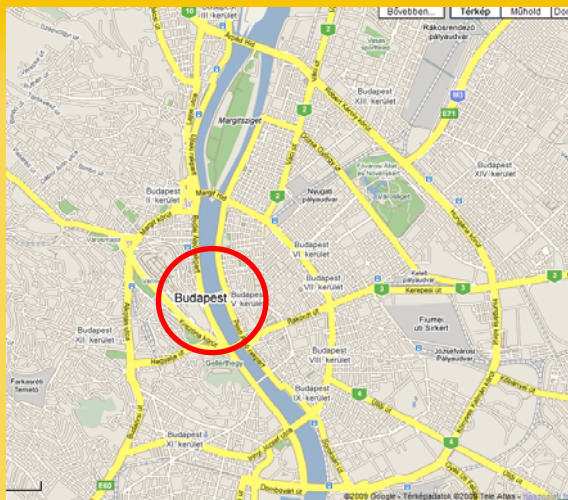
Solt 1890.



Hortobágy 1827.



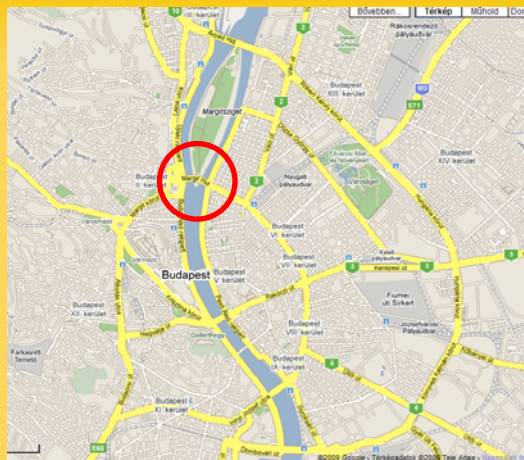
Széchenyi
Lánchíd
1840-49.





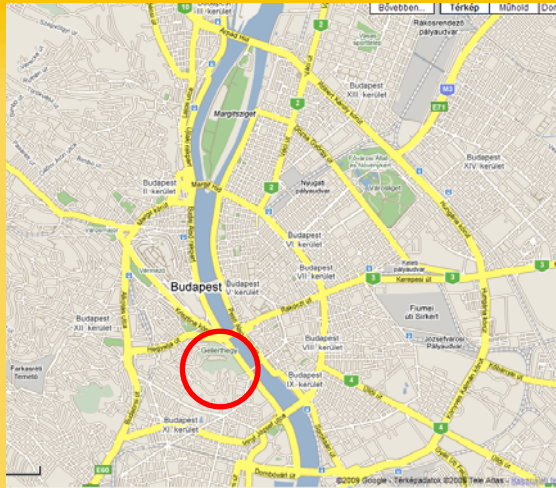


Margit-híd
1873-1876.





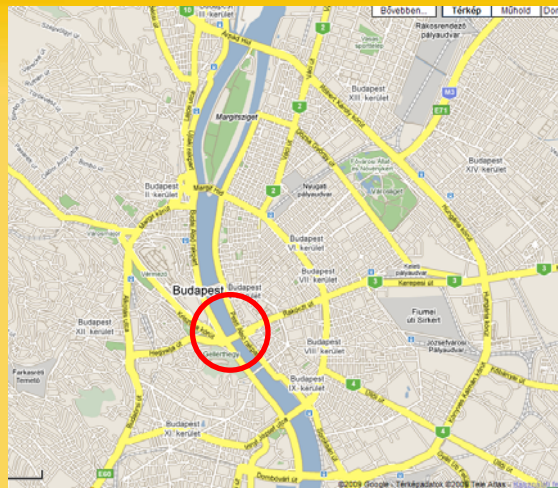
Szabadság-híd 1894-1896.







Erzsébet-híd
1897-1900.









- Bridge rebuilding program 1945-64.
- Precast bridge girder program 1966-80.
- Rehabilitation, maintenance
- New (golden) age of the bridgebuilding 2000-2007.

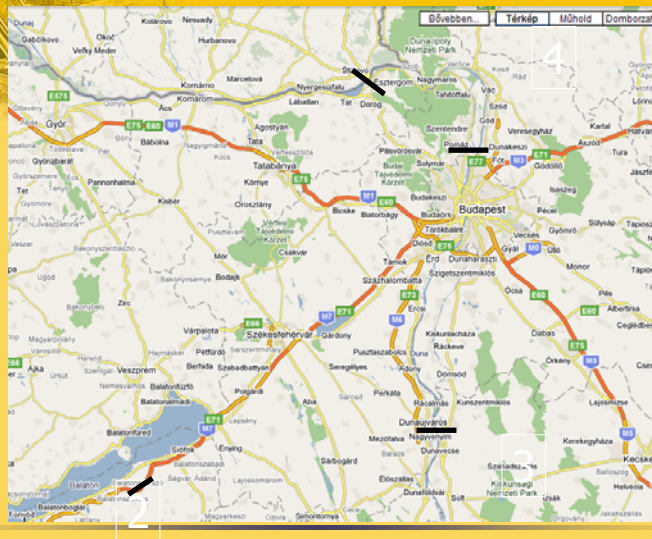




Tunels...



1. Esztergom-Stúrovó;
2. M7 Motorway Kőröshegy;
3. M8 Motorway Dunaújváros Danube Bridge;
4. M0 Motorway Budapest Danube Bridge;



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Esztergom-Štúrovó Danube Bridge

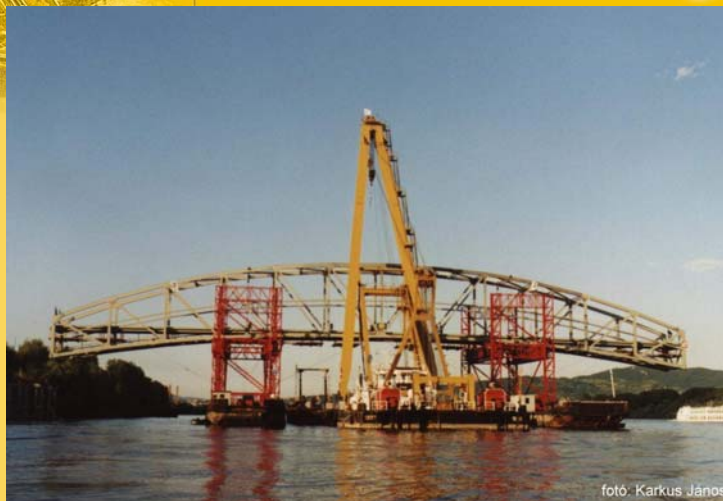
- Steel truss Bridge;
- 2x1 traffic lane,
- 516 m long;
- 120 m main span;
- 3.000 t steel;
- 5.000 m³ reinforced concrete;
- 1895-1919; 1926-1944; 2001-....

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fotó: Karkus János

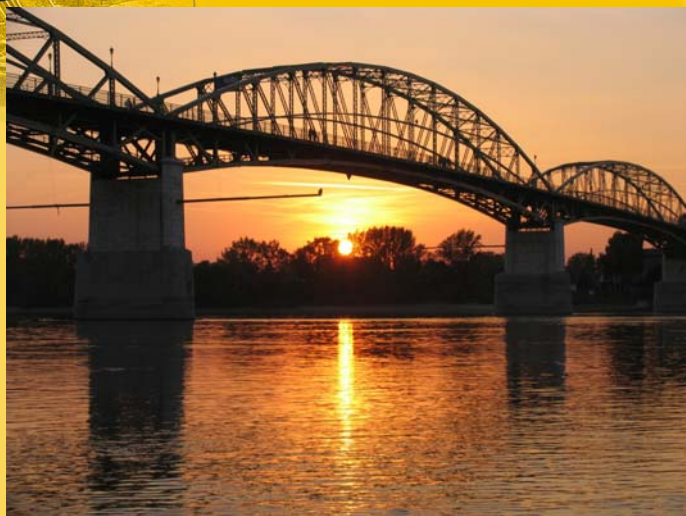


fotó: Karkus János

YEAR	ADT	YEAR	ADT
1996	44 056	2001	154 230
1997	41 979	2002	614 108
1998	47 000	2003	760 895
1999	42 000	2004	1 015 712
2000	43 000	2005	1 692 120



Fotó: Karkus János



M7 Motorway Kőröshegy

- Prestressed concrete;
- 2x2 traffic lane;
- 1872 m long;
- 87 m high;
- 120.000 m³ concrete;
- 2004-2007.







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M8 Motorway Dunaújváros Danube Bridge

- Compression arch suspended-deck
- 2x2 traffic lane;
- 1645 m long;
- 307,8 m main span;
- 24.000 t steel;
- 85.000 m³ concrete;









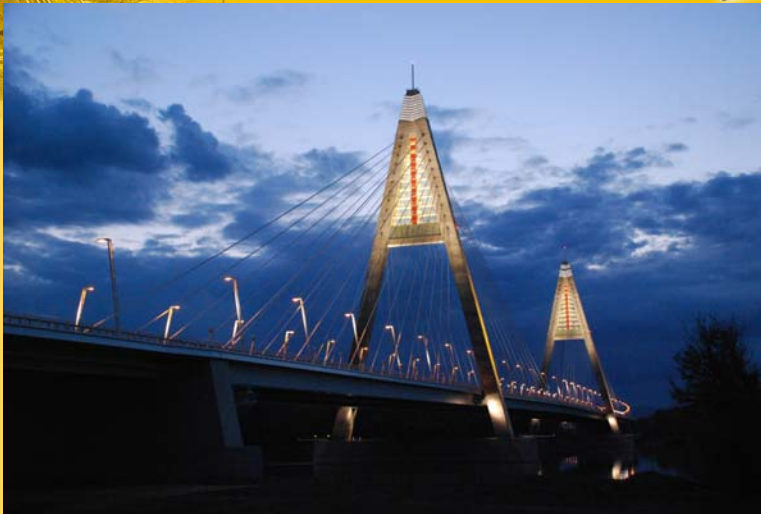
M0 Motorway Budapest Danube Bridge

- Cable-stayed Bridge;
- 2x2 traffic lane, (future: 2x3);
- 1847 m long;
- 300 m main span;
- 14.000 t steel;
- 65.000 m³ reinforced concrete;
- 2006-2007;





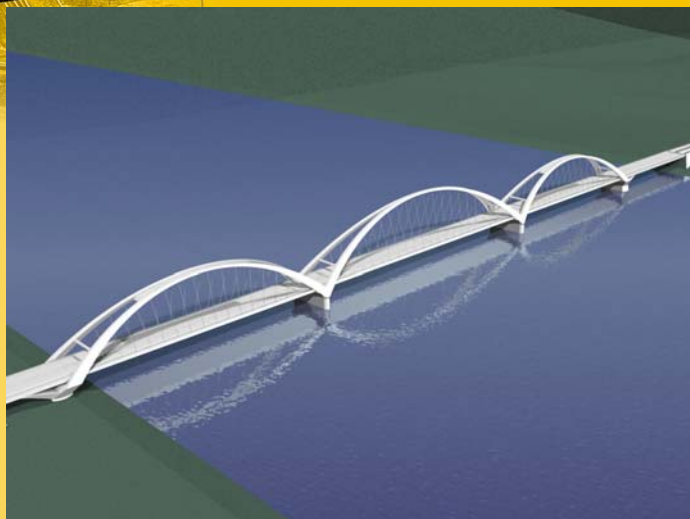


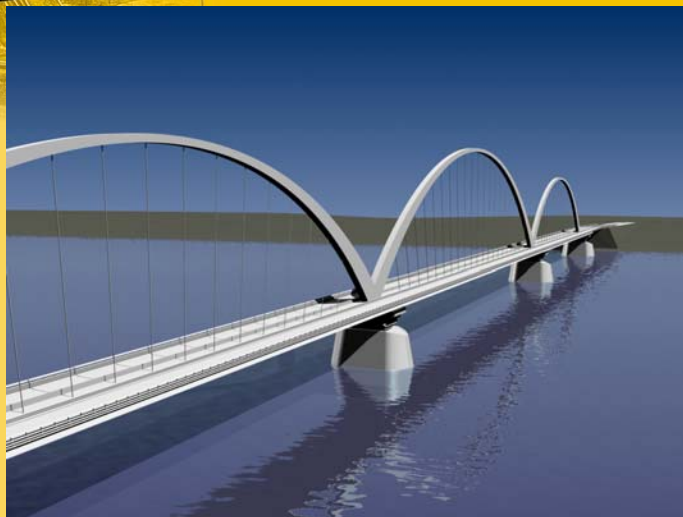


FUTURE...

- New motorways;
 - New bridges over the big rivers;
 - New types and forms of the bridges;
 - New materials;
 - New knowledges;
 - New chalenges...
- stability
 - rationality
 - aesthetics
 - long lifetime













Boldog
születésnapot!



Thank you for your kind attention!

The End...