



Position of Hungarian Bus Manufacturers and their possibilities in the local market



Vincze-Pap Sándor

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Association of Hungarian Bus Manufacturers

New Hungarian buses from the last 8 years



CITADELL 19 and CITADELL 12



Modulo 168D



S91



ECONELL



INOVELL



Modulo E68



OPTINELL



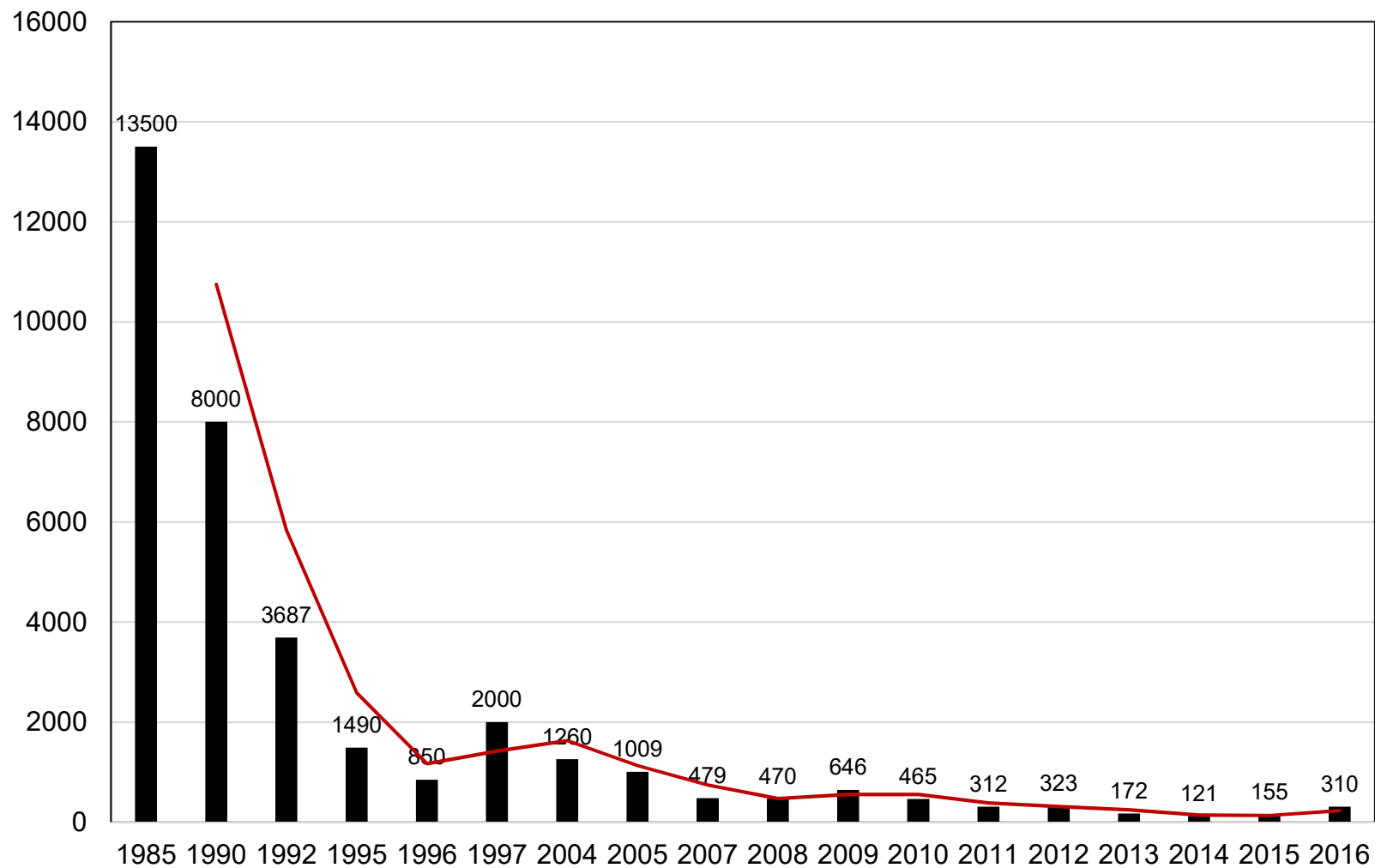
BN 18



SIRIUS

Magyarországon 1985-2015 között gyártott autóbuszok darabszámai

Manufactured buses in Hungary

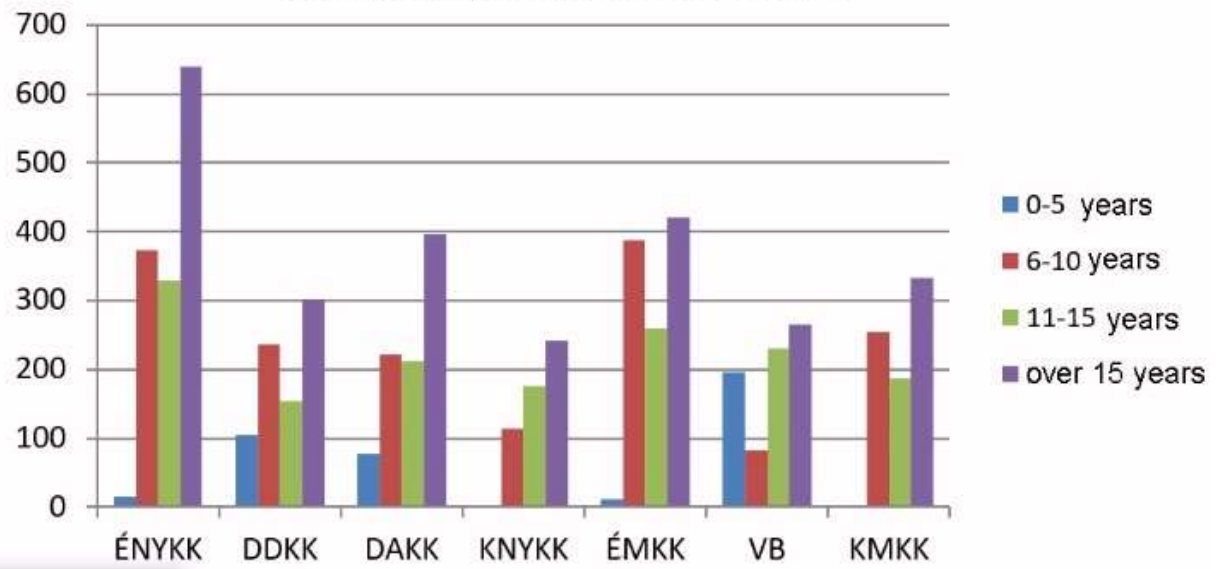


Bus Transport Companies (Regions) + Average age of buses regionally



Cca. 7600 buses in governmental and local-community property. Half of it are over 12 years age!

Local and interurban bus service



Milestones

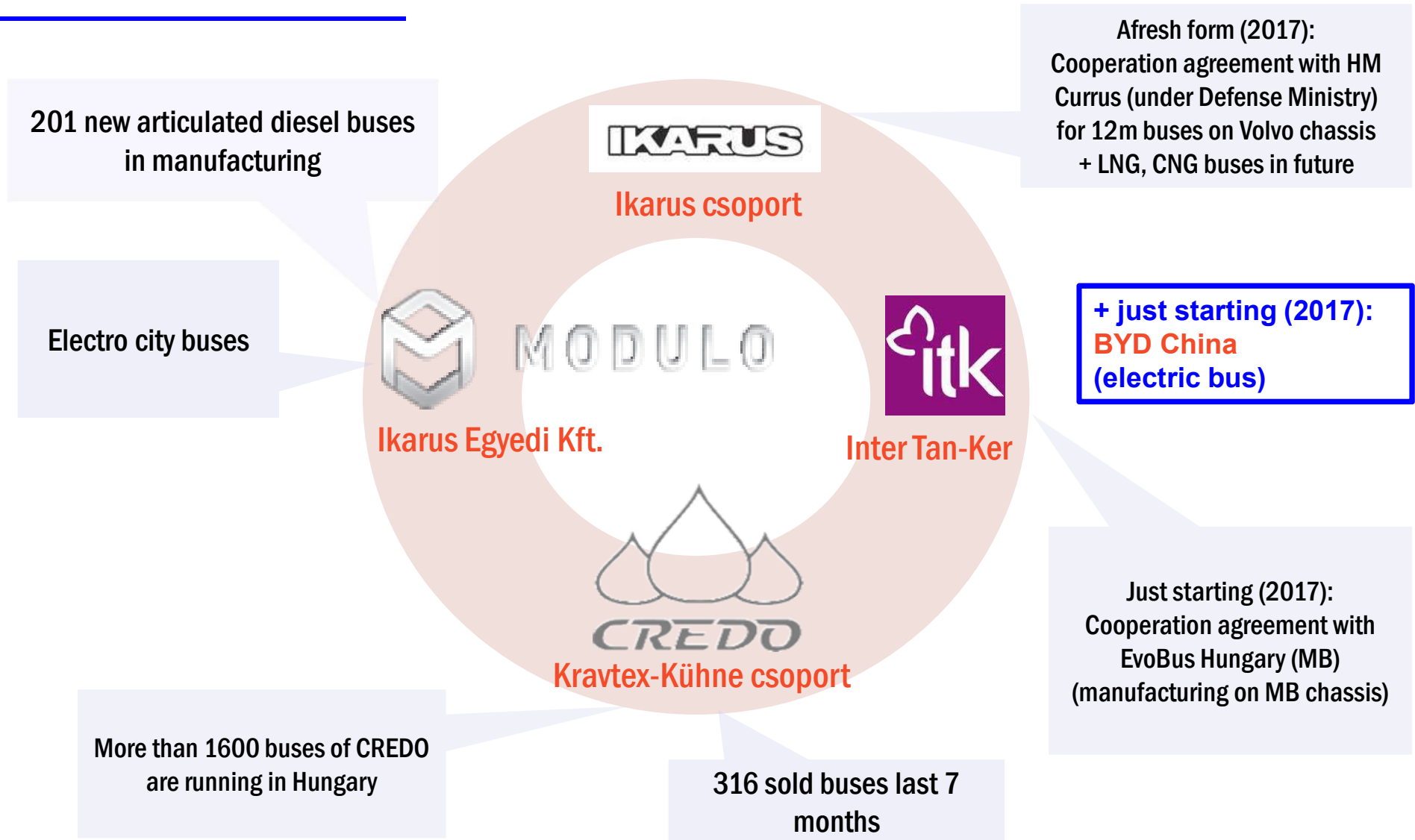
2009: Establishing of Association of Hungarian Bus Manufacturers

Members: 2 bus manufacturers (Kravtex, Evopro)
 6 component manufacturers
 4 private persons

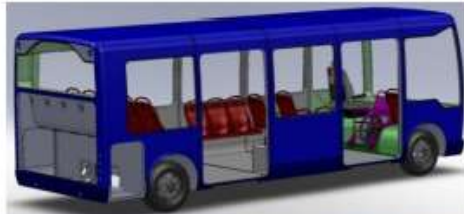
2016: Establishing of Hungarian Bus Procurement Committee

Task: Gathering and unifying the necessities of regional
 bus transport companies and calling for tender by
 integrated conception

Hungarian Bus Manufacturers



Ikarus Egyedi Ltd. - (EVOPRO)



Típus	Modul szám	Utas (fő) Ülő/Álló	GVW (kg)	Ajtó szám	Hossz (m)
EP062	2	18/27	7900	1x2	6,2
EP077	5	20/45	9000	2x2	7,7
EP092	6	26/54	10400	2x2	9,2
EP107	7	28/71	12000	3x2	10,7
EP170	10	41/106	18000	4x2	17

Modul rendszer

Kompozit karosszéria

Hibrid és elektromos hajtás

Ikarus Egyedi Ltd. - (EVOPRO)



Modulo 168D

Tender winning for 230 new buses!

Kravtex – Credo bus family

Attributes			
4 Type families	12 Special utility vehicle annual prize	100% Hungarian property	25 Consignation stosks countryside
36 Brand service	500 employees	1600 Running buses	500 Bus manufacturing Capacity per shift

Kravtex – Credo bus family



Innovell (interurban)



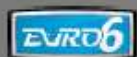
Optinell (tourist)



Citadell
(articulated city)

Kravtex – Credo bus family

ECONELL CSALÁD MÉRETBŐVÍTÉSE (2016)



ECONELL 10



ECONELL 13

ECONELL 13 CITY

FÉRŐHELY (ÜLŐHELY)	$(33 + 1) + 37 = 70 + 1$	$(43 + 1) + 47 = 90 + 1$	$(35 + 1) + 64 = 99 + 1$	$(49 + 1) + 46 = 95 + 1^*$	$(37 + 1) + 77 = 114 + 1^*$
ALKALMAZÁS	ELŐVÁROSI-HELYKÖZI	ELŐVÁROSI-HELYKÖZI	VÁROSI	ELŐVÁROSI-HELYKÖZI	VÁROSI
HOSSZ	9 810 MM	11 990 MM	11 990 MM	12 760 MM	12 760 M
ÁJTÓKÉPLET	2-2-0	2-2-0	2-2-2	2-2-0	2-2-2
PADLÓSZINT	ALACSONY BELÉPÉSŰ, AKADÁLYMENTES	ALACSONY BELÉPÉSŰ, AKADÁLYMENTES		ALACSONY BELÉPÉSŰ, AKADÁLYMENTES	ALACSONY BELÉPÉSŰ, AKADÁLYMENTES

*A jármű végleges kialakítására tekintettel a hatósági engedélyezés során minimálisan változhat.

Supplier

Examples:

- Rába (axles)
- Csaba Metál (complete frames, welded, cast parts, suspension frames for axles, air-tanks, ...)
- Glass (Hirshler, Orosglass, König,...)
- Gearbox (ZF Eger, Allison Szentgothárd)
- Metal parts (Ikarus fémtechnika, Metal99, TT Rozsdamentes Ltd.,...)
- Plastic parts (Jászplasztik, Omikron, Plastinform, Pemü, Plastform, Carbon compozite Ltd...)
- Plastic floor (Graboplast)
- Electronics, dashboard (Silex, Kábel2007,...)
- Steering (Draspo, ...)
- Tyres (Hankook, Continental, Briston, Michelin...)
- Wheel-disc (Ples)

Except engines each part of buses can be manufactured in Hungary



WVTA (Whole Vehicle Type Approval)

European Type Approval

is issued by Transport Authority

(Department of National development Ministry)

Designated laboratories for WVTA testing

- TÜV Rheinland Hungary (majority German property)
- JÁFI-AUTÓKUT (Hungarian private company)

Test and approval issue periods:

- WVTA test duration by laboratories: 4-5 weeks (max.)
- Authority administration approval issue: 1-1,5 month



Thank you!



Association of Hungarian Bus Manufacturers