

VI. International Rexroth Pneumobile Competition

10th-11th of May 2013 Eger

COMPETITION PROGRAM

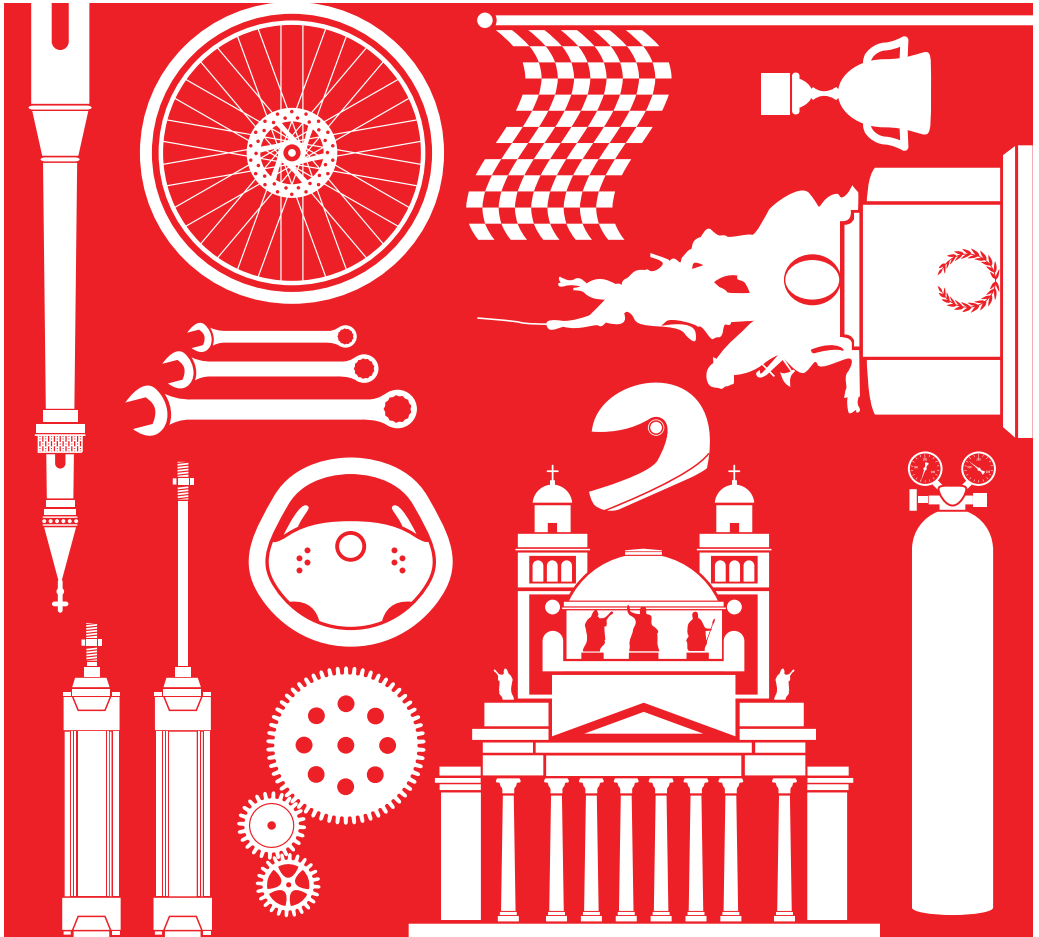


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Objectives of the competition

The competition of compressed air-driven vehicles will be held for the sixth times in Hungary, organised by the Bosch Rexroth Pneumatika Kft. (Eger) and the Bosch Rexroth Kft. (Budapest).

Objectives of the competition:

- Familiarization of the Rexroth's product-portfolio and it's possible consumption with the students of technical universities.
- Extension of innovative solutions for alternative energy sources, like compressed air.
- A program, which provides practical trainings for the technical higher education institutes.
- Further improvement of relations between higher education institutes and the hungarian Bosch companies, the better provide of supplying new technicians for the companies.



Bosch Rexroth Pneumatika Kft. – Eger

At the forefront of the driving-technology



Manufacturing of pneumatics in Eger has a more than 40 years old tradition. Production started with a license agreement in the Finomszerelvénygyár, then it continued with the foundation of a Swedish-Hungarian joint venture company, which led to the establishment of the present firm. Plenty of technical and business experience has accumulated to make the Eger factory becoming a successful and steadily growing member of the Bosch Group. The plant moved to a new building in 2004, since then numerous new production lines have been relocated from other European countries.

The main users of products made in Eger: pneumatical valves, cylinders, and the special automotive components are up and doing.

The main users of the products are up and doing in the fields of the machine industry, vehicle industry, food industry, printing and pack-

ing industry. Products, manufactured in Eger are incorporated into vehicles, complex production and assembly lines, where the quality, reliability, and service life expectations are really high. Products from the plant in Eger meet with every strict requirement of the Bosch Rexroth and the Costumers.

There are nearly five hundred people working in the company, and it also created further job opportunities through it's suppliers, and through those external enterprises, which provide various operating services.

The company runs several big programs to make the production and logistical process more profitable in order to preserve and improve competitiveness. It pays special attention to the improvement of work safety, the maintenance of healthy work environment, and to keep the environmental effects of its activity on a low level.

Bosch Rexroth Kft. – Budapest

Universal solutions that keep you going

Bosch Rexroth Kft. offers full-circle services for any method of driving, in the area of industrial production automatization as well as that of mobile applications.

The complete solution provided by one single party offers safety and warranty for the device to serve its users in the long run, in a reliable manner.

The company emerging through the fusion of Bosch Automatizálástechnika and Manesmann AG in 2001 is the expert of all the relevant technological areas of the driving technology market. In the spirit of the Drive & Control philosophy, the company produces, develops and sells elements and systems in over 80 countries all over the world, in the area of electric driving and controls, industrial hydraulics, mobile hydraulics, linear movement and assembly technology, as well as pneumatics.

Rexroth offers comprehensive solutions through which it produces added value for its Customers in the interest of a higher level of productivity, flexibility and optimised process safety.

Employing 76 colleagues, the Budapest affiliate offers the complete assortment of Rexroth products and services. Our base of operations located in Angol St. is at the same time the trade centre, which – through the experience and expertise of those working here – also operates as a competence centre in the area of education and servicing.

The close to 2,600 square metre hydraulics power-supply unit assembly plant was also placed in the same location. The Budapest-based sales system of Bosch Rexroth Kft. en-

compassing the territory of the whole country is always at your disposal. We maintain regional representative offices in several places of the country, in Győr, Szeged, Debrecen, and Pécs.

The company's solutions are present wherever you look in our everyday life. Jars are filled with jam and the latest news are printed in the daily press with the help of driving and control technology solutions, but it is also the automatization solutions of our company that move and control the stage technology of the best-known operas and theatres of the world.



The history of pneumobile competitions

The first Rexroth Pneumobile Competition, which was commonly organized by the Hungarian Rexroth companies, was held on the court of the Bosch Rexroth Pneumatics Kft., in May, 2008.

The founding fathers of the competition were Ferenc Bolyki, Richárd Fülep, Endre Tamás from Eger, and József Avar, László Szabó from Budapest, who are engineers working in our companies. They would have liked to initiate the young engineers in the mysteries of pneumatics, and show them the alternative use of products which are produced in Eger.

In 2008, 18 teams entered for the competition, and the engineers from the University of Debrecen won the First Prize, and got the Rexroth Pneumobile's Cup.

Teams from the College of Kecskemét, The Budapest University of Technology and Economics, the Miskolc University, the Szent István University, The Budapest College of Technology, and the University of West Hungary also reached awarded places on the competition.

In 2009, number of the racer teams almost doubled (32), and students came from beyond our borders as well. The place of the competition was the Érsekkert, where the teams raced in 3 categories: distance, speed and acceleration races. The winner was the team „Debreceni Széllovagok” from Debrecen again, headed by Zoltán Török. Teams, who were also awarded are the SAPIENTA-

Transilvanian-Hungarian University and Széchenyi István University's students.

In 2010, there were already 34 teams on the 3rd International Rexroth Pneumobile Competition, and the winner was the team from Debrecen again. Although the weather made a challenging situation, it didn't prevent the best teams from improving their efficiency and achieving higher speed.

The competition in 2011 provided a lot of curiosity. It was that year when the most team entered for the competition and almost all the records overthrow. One new event and numerous new team debuted. Nevertheless, the decisive contest was finally between the two big rivals, and in 2011 the „Gyalogkukuk” team proved to be better.

Last year, altogether 41 teams, the highest number ever, entered the race. For the first time, Seniors could also enter the jubilee final, and we also awarded the team designing the most creative crash helmet. The wider public could vote for the most popular creation on the facebook page of the race; eventually, the highest number of votes was collected by the Science's Kitchen team of Óbudai Egyetem (Óbuda University).

In the 5th Pneumobile Competition, participating teams could match their knowledge and skills in five categories. This year, the title “The Best Pneumobile of Rexroth 2012” went to the Szeged team MK Laren.

Main data of competition in 2013

Entered for the sixth competition:

41 teams, from 11 hungarian and 9 international universities:

Hungary	26 teams
Romania	8 teams
Poland	5 teams
Czech Republic	1 teams
Germany	1 teams

Total of 162 university and college students and 38 supportive teachers.

Events and assessment aspects of the competition:

- Genuineness of the construction
 - Novelty and thrift of pneumatical connections
 - Novelty of the vehicle's construction
 - Quality of the vehicle's structural construction, design
- Distance race
- Arcade race
- Acceleration races
- Senior category
- Telemetry category

Remuneration of the 2013 competition:

The absolute winner of the competition keeps the „**Rexroth Best Pneumobile**” title and cup for one year.

The 1-3. rated of the races also receive valuable gift-prizes. The absolute winner and the winners of each standard categories, just as their teachers take part in a study-trip abroad.



Competition program

10th of May 2013 (Friday)

Eszterházy square and Érsekkert, Eger

08:00 – 13:00

- Welcome of teams, registration
Érsekkert – Stadium
- Vehicle check, placing the race-vehicles to the closed car-park

15:00 – 16:00

- Briefing, Information for the competitors
Érsekkert - Stadium
- Race program, fields, trainings, races, rules, assessment aspects

16:30 – 17:45

- Procession in the centre of Eger
- Greetings of the participants
- Vehicle presentation

18:00 – 19:30

- Qualifying race

20:00 – 22:00

- Closing dinner for the competitors and the teachers



Competition program

11th of May 2013 (Saturday)

Érsekkert, Eger

07:00 – 9:30

- Training and timekeeping races

10:00

- Opening ceremony

10:30 – 12:00

- Distance race

12:00 – 12:30

- Dance show: acrobatic rock 'n roll dancegroup
- Award ceremony of drawing competition

12:30 – 14:30

- Arcade race

14:30 – 15:00

- Show of EC Dance School
- Interview with Norbert Michelisz

15:00 – 15:30

- Acceleration races

Main time: Lunch 11:00 – 15:00

15:30 – 17:00

- Physical experiments of "Varázstorony"
- Technical show
- "Flúgos Futam"
- Interview with Norbert Michelisz

Mean time: valuation of the competition's jury

16:45 – 17:00

- Team photos








17:00 – 17:45

- Award ceremony

17:45

- Official closing of the competition





Presentation of the teams

Start num.	Team	N	S	T	Education institutes	Team members	Supporting teacher
1 	Műszakik Pneomobil Team Junior	●		●	Budapesti Műszaki és Gazdaságtudományi Egyetem Budapest	Kovács Imre Ádám Péntek Zsigmond Koletics Ádám Kardos Szilárd Szabados István	Farkas Zsolt
2 	Fair Play Racing	●			Nyugat-magyarországi Egyetem Faipari Mérnöki Kar Sopron	Németh Gábor Németh Adél Mosonyi Andor Gáspár Csaba Tóth Bálint	Tatai Sándor
3 	Air-óKAR	●			Nyugat-magyarországi Egyetem Faipari Mérnöki Kar Sopron	Novák Dániel Czuczor Gergő Török Székely Zsolt Hende Bálint	Dr. Markó Gábor
4 	Kakuktktojás	●			Budapesti Műszaki és Gazdaságtudományi Egyetem Budapest	Farkas Zsolt Hímes Ádám Komancsik Norbert	Dr. Szabó Tibor Czmerk András
5 	Dairp	●			Miskolci Egyetem Gépészmérnöki Kar Miskolc	Végh Tamás Szőnyi Szabolcs Jószai Zoltán Kavecz Máté	Kelemen László
6 	Pepp-Air Pneomobil Team	●			Szegedi Tudományegyetem Mérnöki Kar Szeged	Bene Sándor Ádám László Csamangó Dávid Dobos Péter Levente	Dr. Tóth István Tibor
7 	PUFFOGÓK			●	Miskolci Egyetem Gépészmérnöki Kar Miskolc	Figár Imre Bém István Kosztyi György Magyar Péter	Bihari János

8 	Prérifarkas	●		SAPIENTIA - Hungarian University of Transylvania Târgu Mureş Romania	László István Bokor László Csiki László Orbán Tibor	Dr. Kakucs András
9 	MechTech	●		SAPIENTIA - Hungarian University of Transylvania Târgu Mureş Romania	Madaras Barna László Zoltán Német Huba Simon Csaba-Levente	Dr. Tolvaly-Rosca Ferenc
10 	UPM	●		Universitatea "Petru Maior" Târgu Mureş Romania	Feigi András Lokodi Zsolt Nagy Előd Szabó Zsolt	Dr. Ing. Simon Mihai
11 	4GO TEAM	●	●	SAPIENTIA - Hungarian University of Transylvania Târgu Mureş Romania	Dienes Alpár Bárocz Álmos Csongor Székely Lehel László Sütő Szabolcs Farmos Rudolf László	Dr. Forgó Zoltán
12 	METÁLMOBIL	●		Universitatea "Petru Maior" Târgu Mureş Romania	Balázsi Arnold Kiss Ferenc Oltean Florin Gidofalvi Norbert	Dr. Ing. Simon Mihai
13 	AirGO Pneumobil Team	●		Széchenyi István Egyetem Győr	Rígó Attila Mándli Péter Bottlik István Dombi Dávid	Bendekovics Zoltán
14 	SZErlines		●	Széchenyi István Egyetem Győr	Ungár Tamás Kovář Annamária Szele Ádám Cser Norbert	Bendekovics Zoltán
15 	MonstAir Truck	●		Debreceni Egyetem Műszaki Kar Debrecen	Kocsi Balázs Szilágyi Mihály Leca Mihály Zákány József	Dr. Budai István
17 	Dragonfly	●		University of Technology Faculty of Mechanical Engineering Brno Czech Republic	Tomás Rozsypálek Martin Galda Hana Balounov Jindřich Ilčík	Ing. Daniel Koutny Ph.D.
18 	PneuBullet		●	SAPIENTIA - Hungarian University of Transylvania Târgu Mureş Romania	Hajdó Lehel Czekó Zsolt Füzi Csaba	Dr. Forgó Zoltán

20 	PRZ STUDENTS ●			Rzeszów University of Technology Rzeszów Poland	Adam Piekos Michał Batsch Piotr Belcarz Marcin Polak	Zygmunt Szczerba
21 	Pneudesign ●			Széchenyi István Egyetem Győr	Léber Szabolcs Mészáros Attila Fülöp András Szétag András	Bendekovics Zoltán
22 	MK Laren ●			Szegedi Tudományegyetem Mérnöki Kar Szeged	Hörömpő Miklós Temesvári Norbert	Péter Szabó István
23 	DIFF-AIR Szeged ●			Szegedi Tudományegyetem Mérnöki Kar Szeged	Varga Norbert Asztalos Tamás Soós Péter Főlföldi Jenő	Péter Szabó István
24 	NyF-2 ●			Nyíregyházi Főiskola Műszaki és Mezőgazdasági Főiskolai Kar Nyíregyháza	Strankula Kitti Kató Zoltán Bence Tóbiás József Veszprémi Tibor	Kósa Péter
25 	Flux-Gate ●		●	Óbudai Egyetem Bánki Donát Gépész és Biztonságtechnikai Mérnöki Kar Budapest	Balogh Dávid Nagy Péter Földi Csaba	Pintér Péter Mihály
26 	Lezs-Air ●			Óbudai Egyetem Bánki Donát Gépész és Biztonságtechnikai Mérnöki Kar Budapest	Kiss Dániel Kosovics Katalin Bianka Szöllősi Bence Dunavölgyi Dávid	Tolnai András
27 	Science's Kitchen ●			Óbudai Egyetem Bánki Donát Gépész és Biztonságtechnikai Mérnöki Kar Budapest	Piukovics Zsolt Knithoffer Zoltán Bányácsky Dániel Deák Dániel	Dr. Szakács Tamás
28 	Dóz-Air ●			Kecskeméti Főiskola GAMF Kar Kecskemét	Ábelovszki Márton Ábelovszki Ádám Gulyás Martin Kohári Roland	Kátai-Urbán Gábor
29 	Kuvasz ●			Kecskeméti Főiskola GAMF Kar Kecskemét	Varga János Varga Gábor Lőrinc Gábor Török Gábor	Dr. Csík Norbert

30 	Lököt-Tér-Fogat	●			Kecskeméti Főiskola GAMF Kar Kecskemét	Molnár Attila Szalay Balázs Csáki Péter Kovács Máté	Ivánovics Gergely
31 	Pollroth	●			Pécsi Tudományegyetem Pollack Mihály Műszaki Kar Pécs	Malkó Tibor Hegedűs Réka Zegnál Marianna Beatrix Nagy Bence	Megyeri Péter
32 	Hydro+	●			Wrocław University of Technology Wrocław Poland	Michał Łuc Bogdan Łukaszewicz Piotr Kruczek Tomasz Rogalski	Fiebig Wieslaw Prof. PWR
33 	Hydro+ P13	●			Wrocław University of Technology Wrocław Poland	Kamil Mastalerz Rafał Lewandowski Marcin Korzyb Miłosz Kowalik Rafał Janczewski	Fiebig Wieslaw Prof. PWR
34 	Szegedi Csillag	●			Szegedi Tudományegyetem Mérnöki Kar Szeged	Deák Péter Muládi Balázs Domján Sándor Bialkó Edina	Péter Szabó István
35 	Debreceni Széllovagok	●	●		Debreceni Egyetem Műszaki Kar Debrecen	Juhász Botond Kiss Tamás Steiger Balázs Bokor Róbert	Dr. Juhász György
37 	Veloziti Pneumobil Team	●			Dunaújvárosi Főiskola Dunaújváros	Aladics Dávid János Lőkös Balázs Princz László Tamás Ragacs Róbert	Dr. Kiss Endre
40 	SiMR Team			●	Warsaw University of Technology (SiMR) Warsaw Poland	Piotr Dolega Agnieszka Rusak Wojciech Paluchowski Andrzej Witczyński	dr inż. Tomasz Mirosław
41 	Pneugeot			●	Szegedi Tudományegyetem Mérnöki Kar Szeged	Szarka Richárd Rózsa Csaba Virág Árpád	Csikós Sándor
42 	Mekk MestAIR	●			Miskolci Egyetem Gépészmérnöki Kar Miskolc	Zám Csaba Szabó Gergő Kondrát Dániel Szőlősi Ákos	Bihari János

43		UT Racing Team	●	The Technical University of Cluj Napoca Cluj Napoca Romania	Deák Tamás Butyka István Sucala Cristian Palimariciuc Ovidiu	Dr. Mariasiu Florin
44		RANS	●	The Technical University of Cluj Napoca Cluj Napoca Romania	Pirii Lorand Attila Cata Iulia Nina Tudorean Razvan Stefan Somcutan Adrian Ioan	Dr. Eng. Fechete Tutunaru Lucian Viorel
47		KBM POLSKA	●	Military University of Technology Warsaw Poland	Łukasz Winiarczyk Arkadiusz Tarka Karol Kończalski Tomasz Fereniec	Paweł Marecki
48		Ulm	●	Hochschule Ulm Ulm - Germany Óbudai Egyetem Bánki Donát Gépész és Biztonságtechnikai Mérnöki Kar Budapest	Axel Holzwart Simó Fanni Felix Diesch Kiss Péter	Prof. Dr. Franz Böhm Dr. Szakács Tamás



Information

Accommodations:

Szilágyi Erzsébet High School and Student Hostel

3300 Eger, Mátyás Király St. 62.
(Entrance from the Vincellériskola str.)
Phone: +36 36 310-259
Web: www.eszeg.sulinet.hu/turizmus.html

Student Hostel of Commercial, Agricultural, Catering Vocational and Specialized School (KERI)

3300 Eger, Pozsonyi St. 4-6.
Phone: +36 36 424-202
Web: www.kerieger.hu/hotl.html

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MAIN PATRON

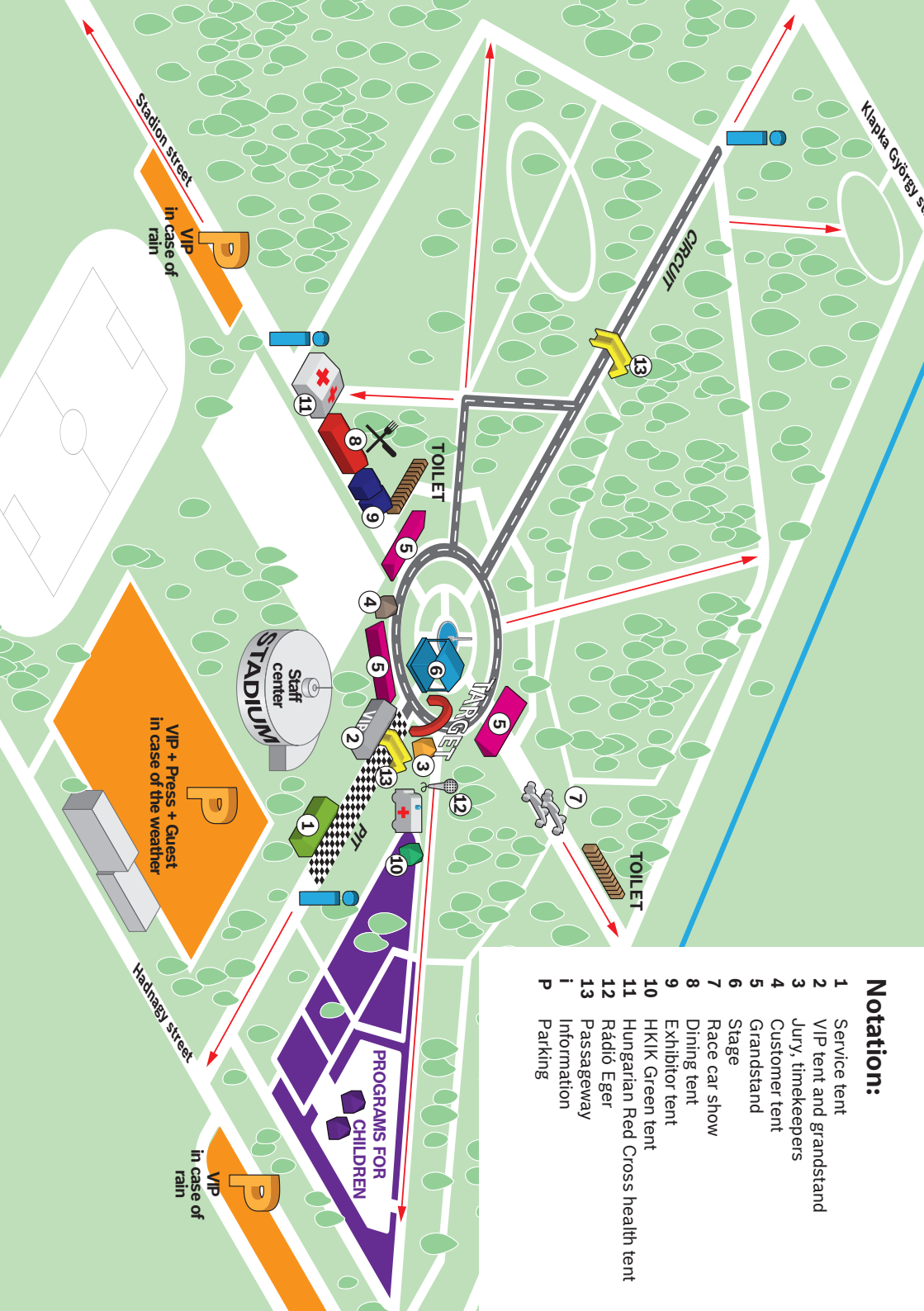


PATRON



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Notation:

- 1 Service tent
- 2 VIP tent and grandstand
- 3 Jury, timekeepers
- 4 Customer tent
- 5 Grandstand
- 6 Stage
- 7 Race car show
- 8 Dining tent
- 9 Exhibitor tent
- 10 HKIK Green tent
- 11 Hungarian Red Cross health tent
- 12 Rádó Eger
- 13 Passageway
- i Information
- P Parking