



FÖLDGÁZSZÁLLÍTÓ

A MOL-CSOPORT TAGJA



Introduction of the Regional Booking Platform

Launch of RBP Pilot Project

Network User Info Day
Siófok, 28 October 2014
Medias, 30 October 2014

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Head of Business Development
FGSZ Ltd.

WWW.FGSZ.HU



Legjobb Munkahely
Világgazdaság – Aon Hewitt 2011

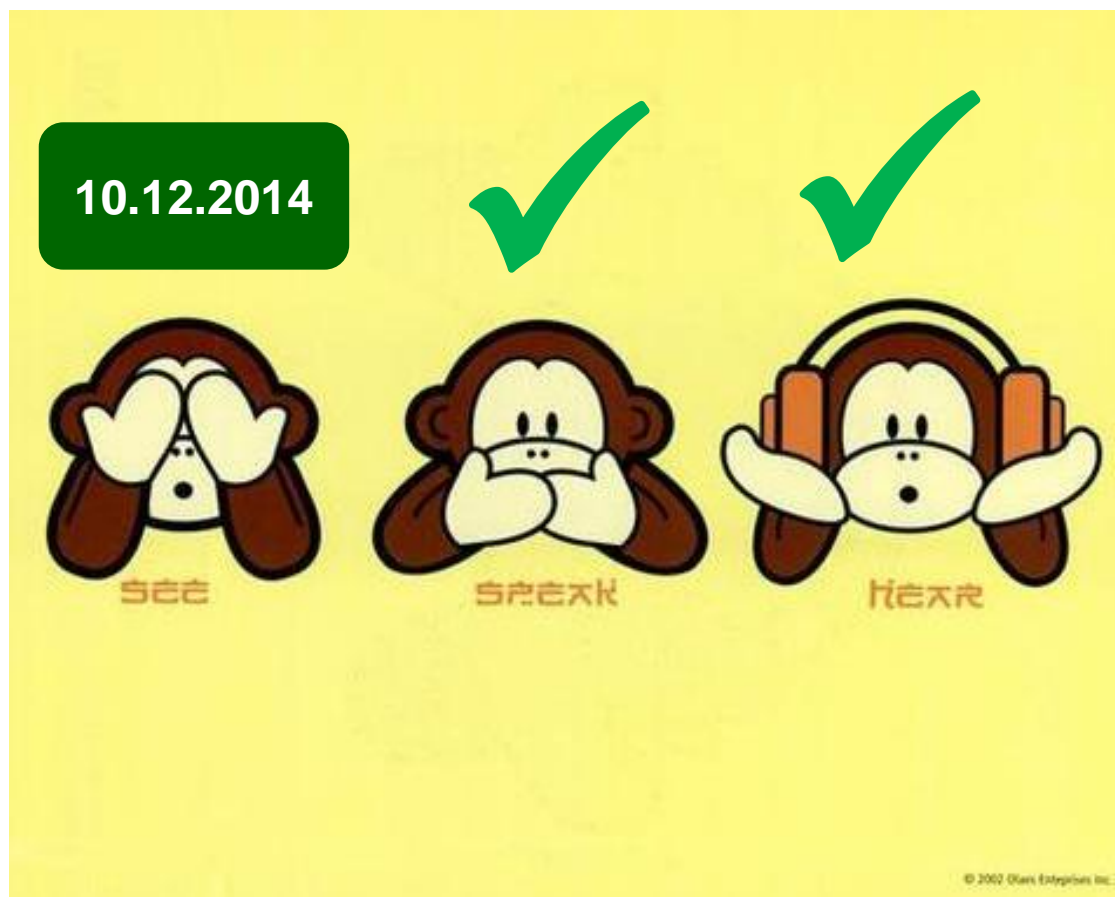


Legjobb Munkahely
Világgazdaság – Hewitt Felmérés 2010

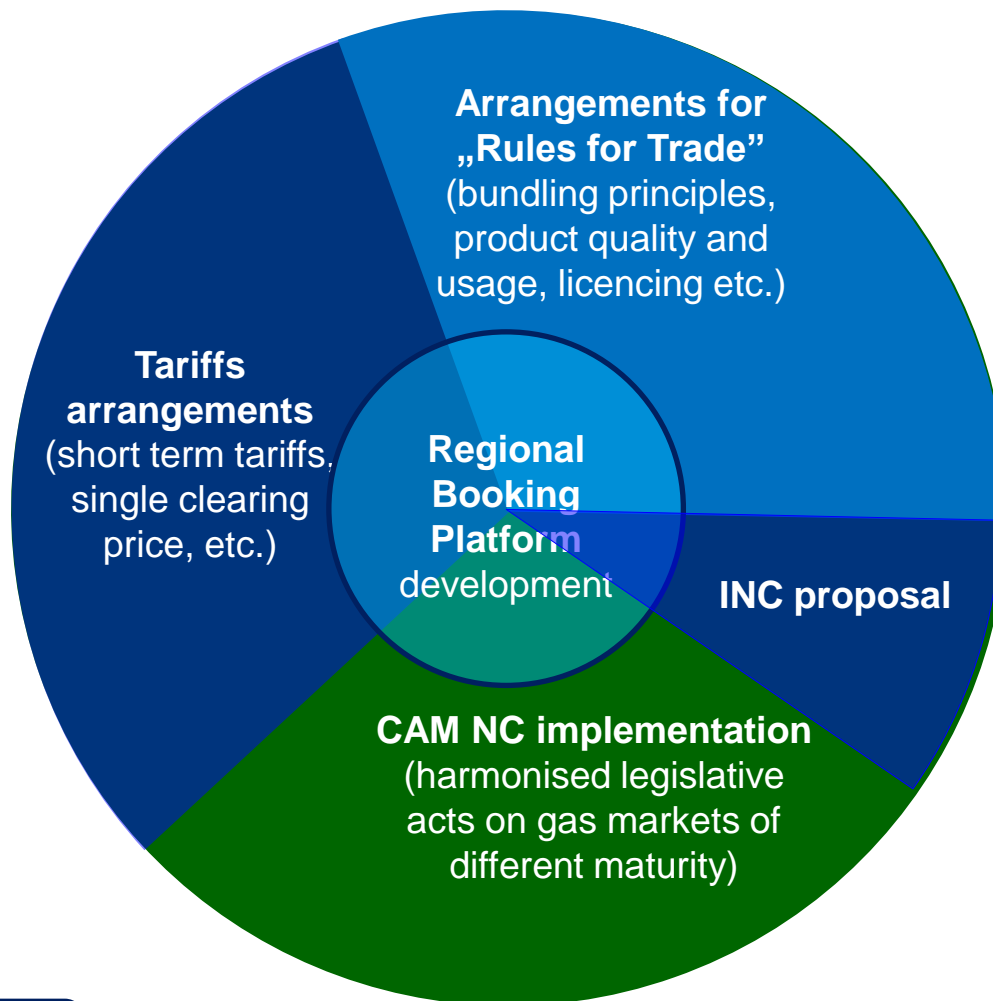


Best Employer
Central Eastern Europe 2010/2011

The 'Legend' of RBP



Scale of Challenges



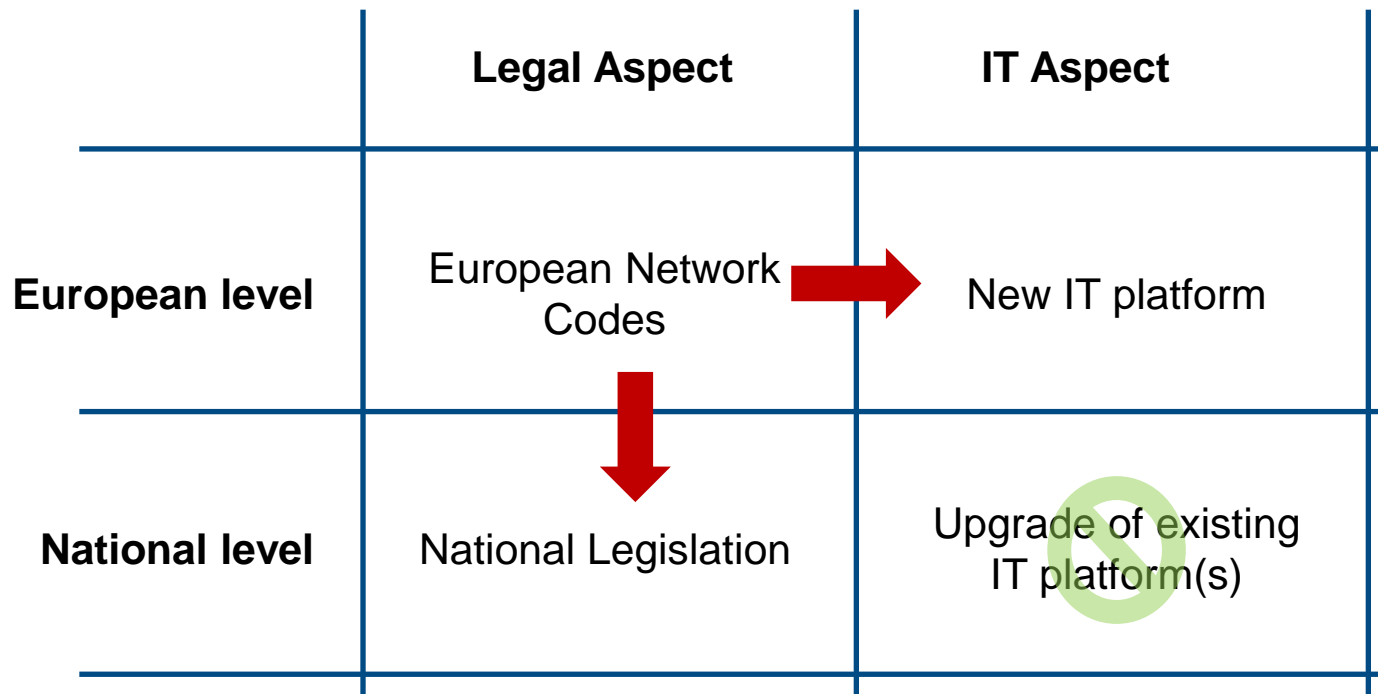
Two-tier concept

- 1) enabling CAM NC (and more NCs) in different national legislations
- 2) IT solution based on the above consideration

CAM NC Pilot

Way more is needed than providing a joint booking platform

Our Approach



A Summary of the Regional Booking Platform

- A capacity booking platform developed by FGSZ for the full compliance with CAM NC
- **Thin client solution** for both TSOs and network users (quick and easy access), which also radically limits TSO connection costs
- **IP-by-IP based** applicability (does not require exclusivity from TSOs)
- **User-friendly** interfaces
- **Robust** IT solution
 - Ability to service a high number of IPs (peak service load designed for 300 simultaneous capacity auctions)
 - 24/7 availability guaranteed by the RBP Operator (cf. within-day auctions)
- **Customisable** / on-demand functionality for TSOs and network users
- Flexible business model
- NRAs of the associated TSOs supervise platform operation

TSOs



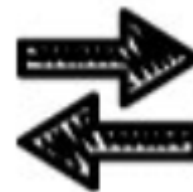
Network Users

Producers

Traders

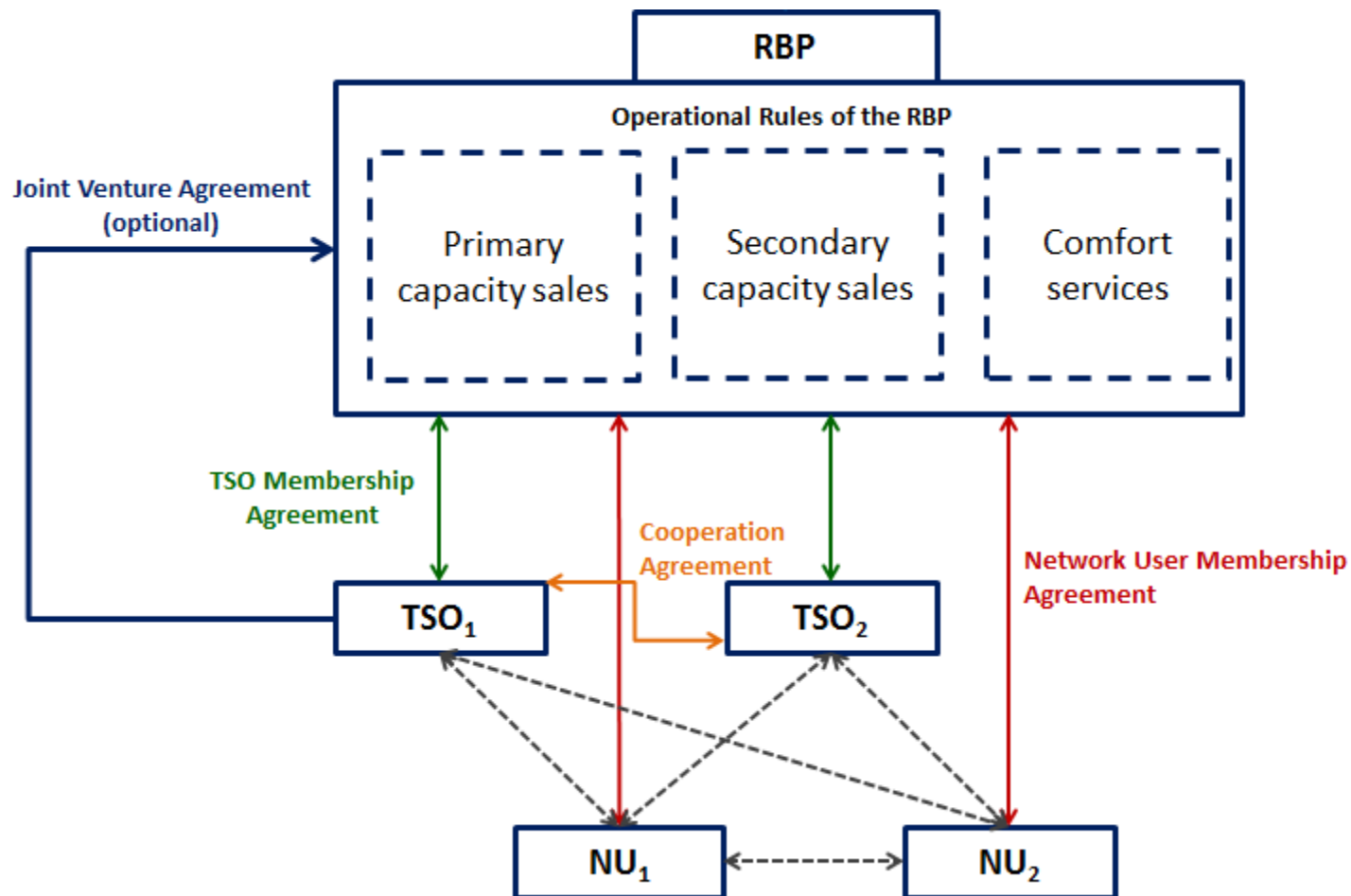
Shippers

**Large
consumers**

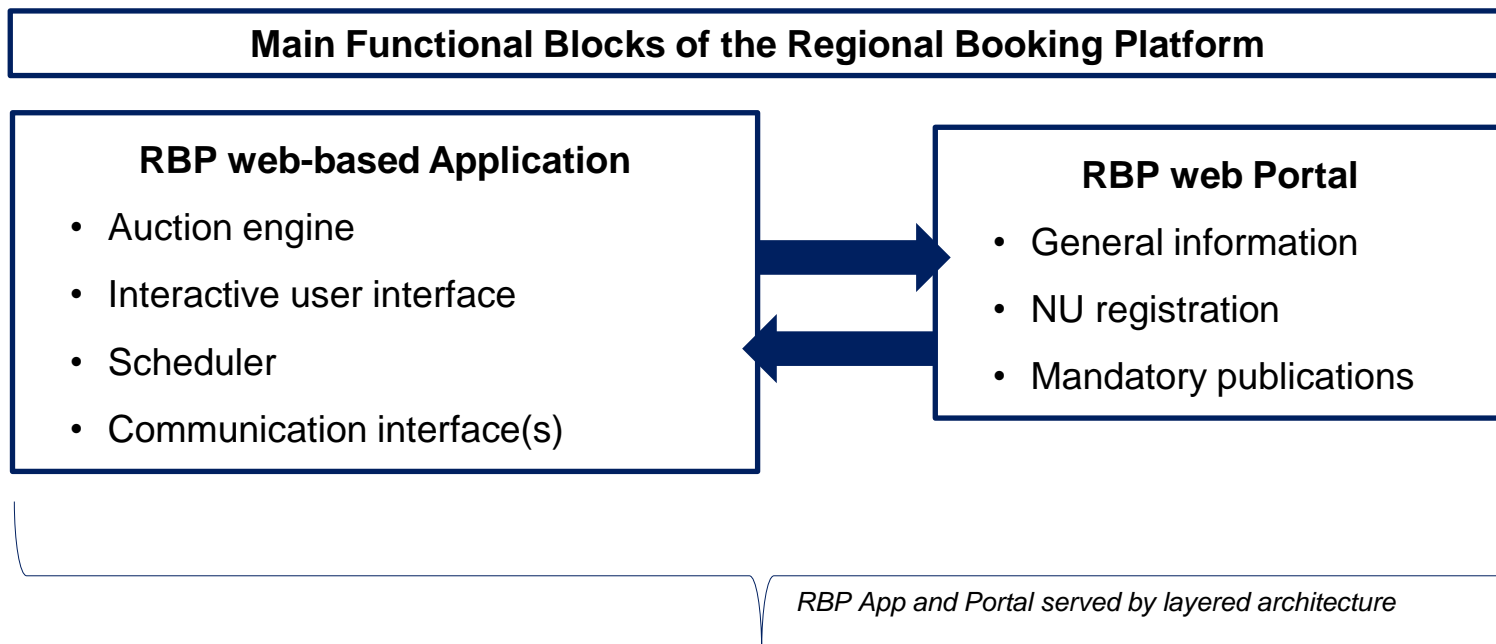


The Regional Booking Platform

Contractual Model of the RBP



A Functional Overview of RBP



LAYER 1: PROXY

- Divert users into an ACTIVE set of servers, support test and replay functions (maintenance), and SILENT operation using mirrored and persisted commands

LAYER 2: APPLICATION

- Active/Passive environment (no shutdown needed for change)

LAYER 3: DATABASE

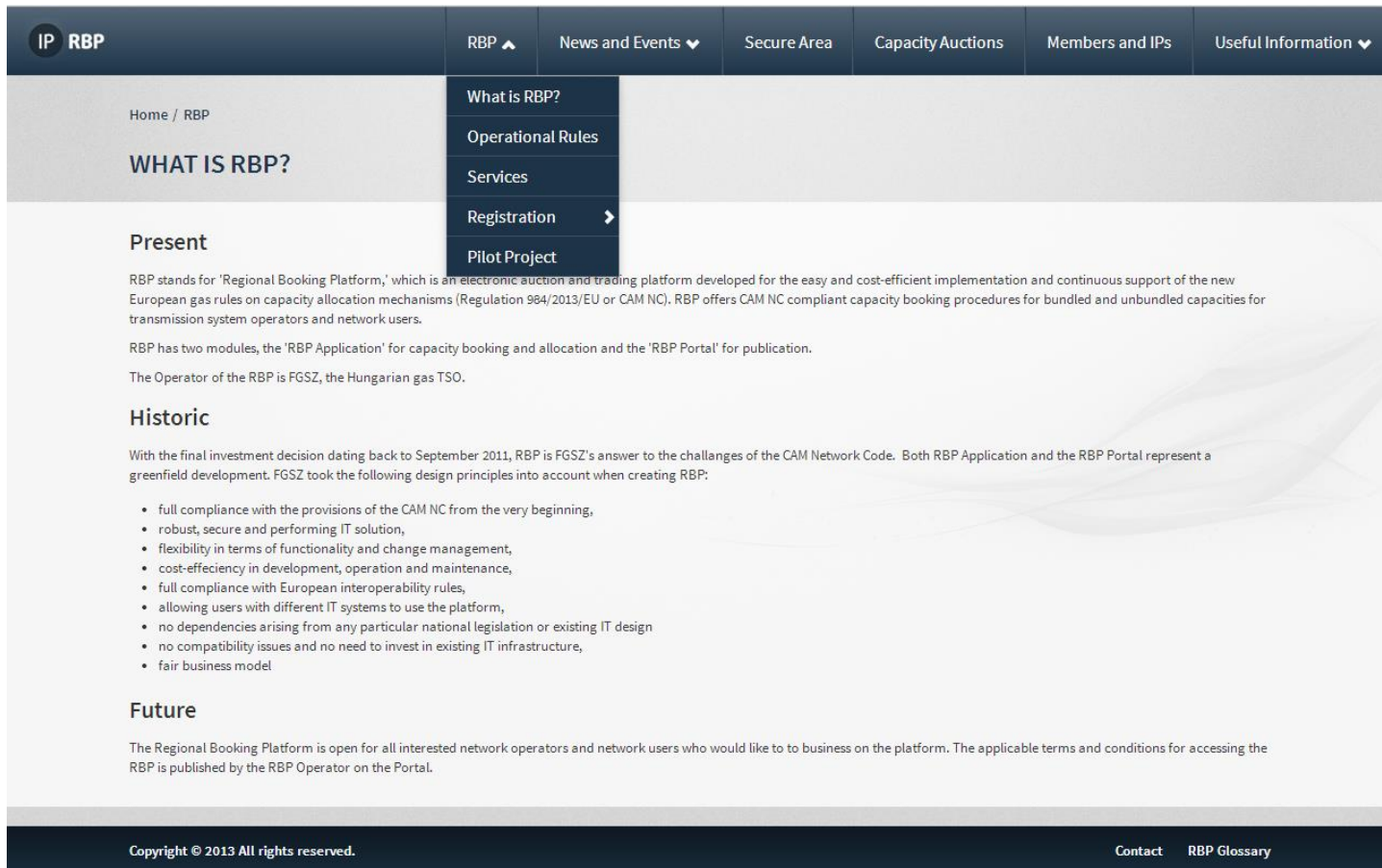
- Oracle DB
- Source of reports, data exchange

SYNCHRONISING between layers

- Oracle Streams technology

Regional Booking Platform – Portal

- Publication portal for auction results and other information related to the RBP



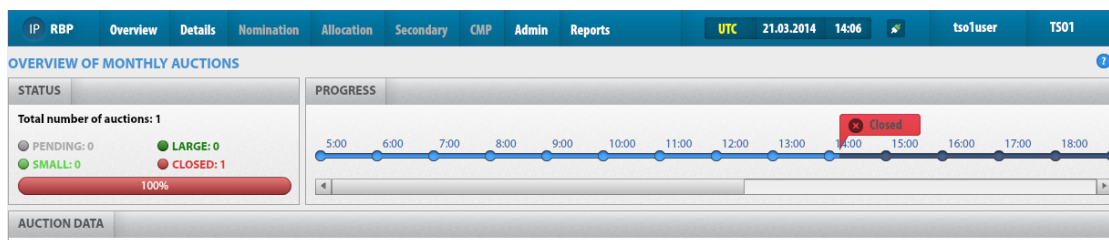
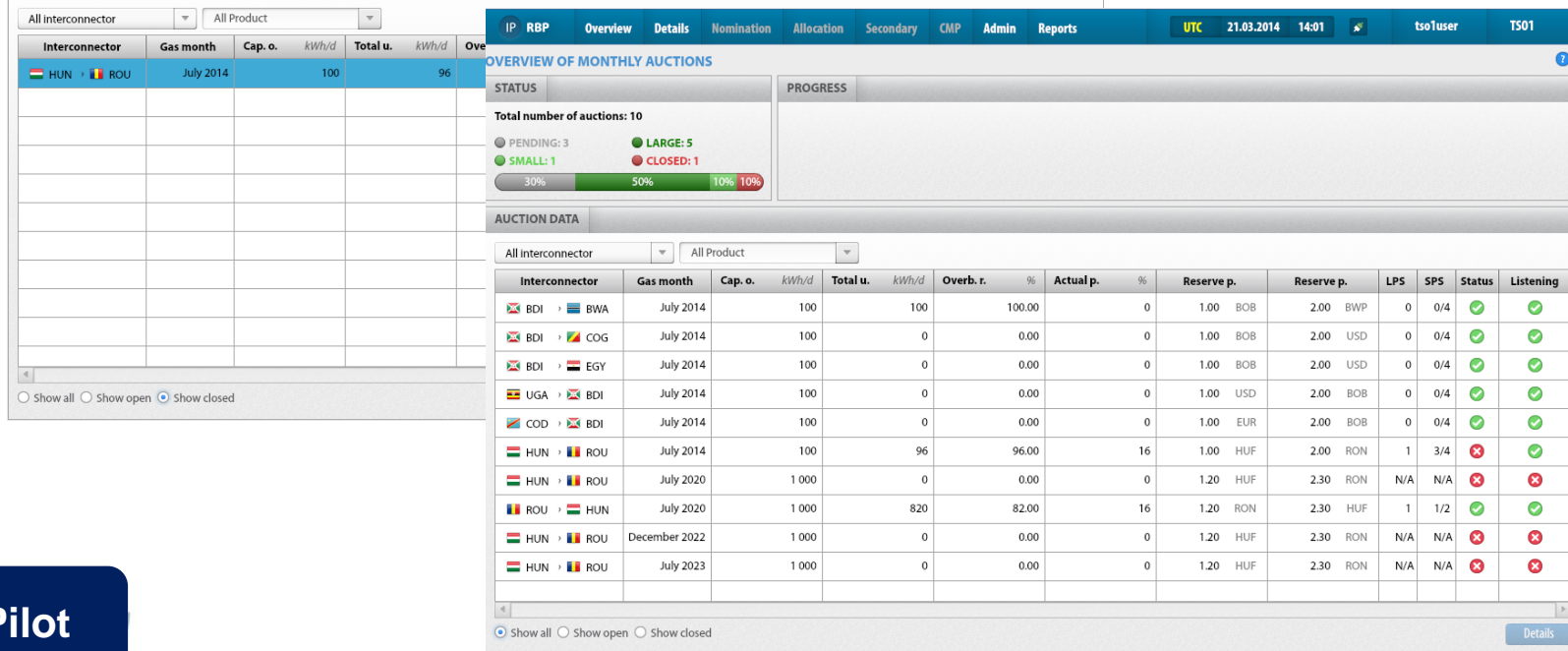
The screenshot shows the RBP Portal website. The top navigation bar includes links for IP RBP, RBP (with a dropdown menu), News and Events, Secure Area, Capacity Auctions, Members and IPs, and Useful Information. The dropdown menu for RBP contains links to What is RBP?, Operational Rules, Services, Registration (highlighted with a right arrow), and Pilot Project. The main content area is titled 'WHAT IS RBP?' and includes a breadcrumb 'Home / RBP'. Below this, there is a 'Present' section with text explaining that RBP stands for 'Regional Booking Platform,' which is an electronic auction and trading platform developed for the easy and cost-efficient implementation and continuous support of the new European gas rules on capacity allocation mechanisms (Regulation 984/2013/EU or CAM NC). RBP offers CAM NC compliant capacity booking procedures for bundled and unbundled capacities for transmission system operators and network users. It also mentions that RBP has two modules, the 'RBP Application' for capacity booking and allocation and the 'RBP Portal' for publication, and that the Operator of the RBP is FGSZ, the Hungarian gas TSO. A 'Historic' section follows, stating that with the final investment decision dating back to September 2011, RBP is FGSZ's answer to the challenges of the CAM Network Code. Both RBP Application and the RBP Portal represent a greenfield development. FGSZ took the following design principles into account when creating RBP:

- full compliance with the provisions of the CAM NC from the very beginning,
- robust, secure and performing IT solution,
- flexibility in terms of functionality and change management,
- cost-efficiency in development, operation and maintenance,
- full compliance with European interoperability rules,
- allowing users with different IT systems to use the platform,
- no dependencies arising from any particular national legislation or existing IT design
- no compatibility issues and no need to invest in existing IT infrastructure,
- fair business model

A 'Future' section is also present, stating that The Regional Booking Platform is open for all interested network operators and network users who would like to do business on the platform. The applicable terms and conditions for accessing the RBP is published by the RBP Operator on the Portal. The footer contains the copyright notice 'Copyright © 2013 All rights reserved.' and links for 'Contact' and 'RBP Glossary'.

Regional Booking Platform – Application

- TSOs set up auctions online on RBP, where all auction features are flexible parameters (auction calendar, network user access control, price steps, currency etc.)

OVERVIEW OF MONTHLY AUCTIONS

STATUS

Total number of auctions: 10

PENDING: 3 LARGE: 5
SMALL: 1 CLOSED: 1

30% 50% 10% 10%

AUCTION DATA

All Interconnector: HUN → ROU All Product: July 2014

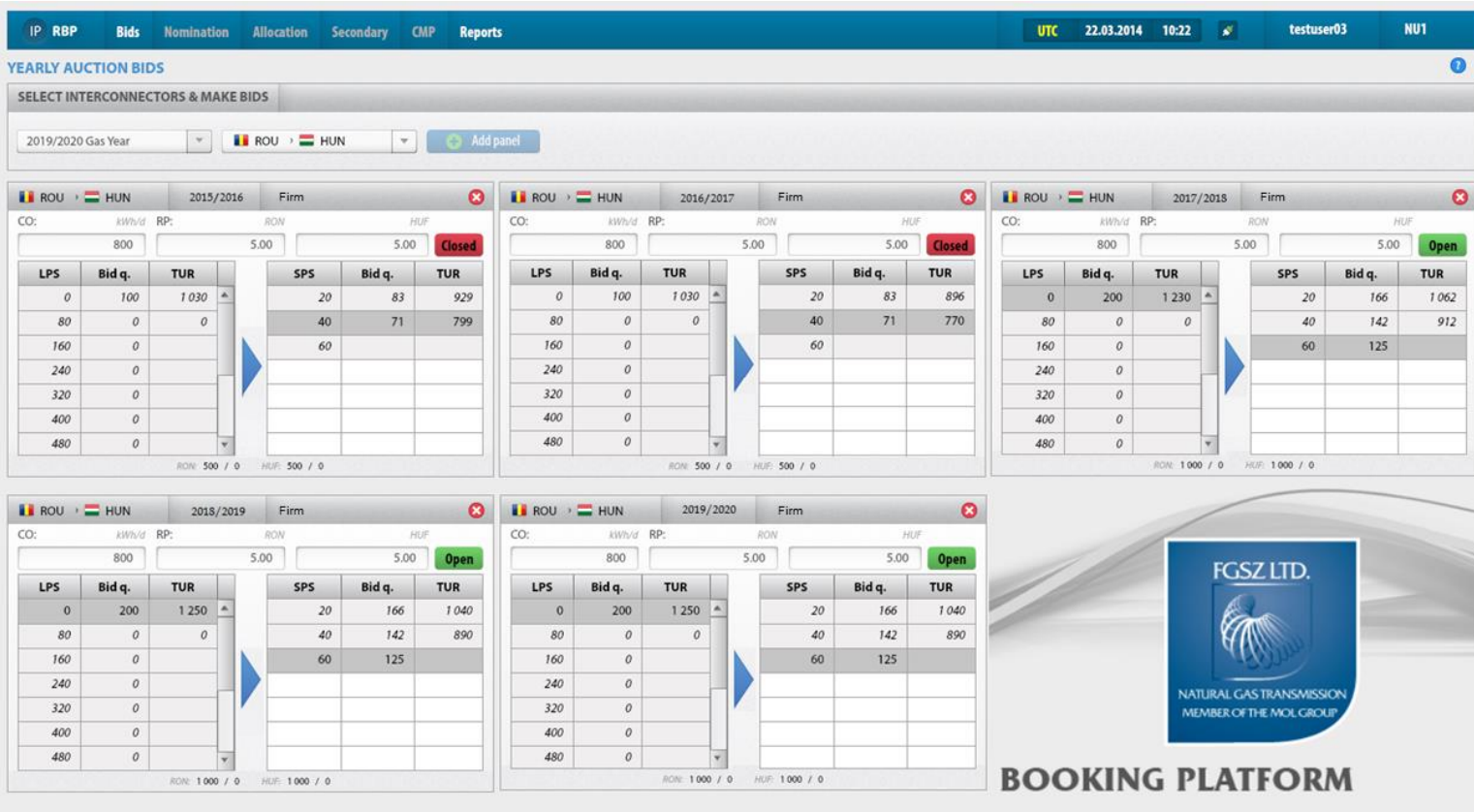
Interconnector	Gas month	Cap. o. kWh/d	Total u. kWh/d	Overb. r. %	Actual p. %	Reserve p.	Reserve p.	LPS	SPS	Status	Listening
BDI → BWA	July 2014	100	100	100.00	0	1.00 BOB	2.00 BWP	0	0/4	✓	✓
BDI → COG	July 2014	100	0	0.00	0	1.00 BOB	2.00 USD	0	0/4	✓	✓
BDI → EGY	July 2014	100	0	0.00	0	1.00 BOB	2.00 USD	0	0/4	✓	✓
UGA → BDI	July 2014	100	0	0.00	0	1.00 USD	2.00 BOB	0	0/4	✓	✓
COD → BDI	July 2014	100	0	0.00	0	1.00 EUR	2.00 BOB	0	0/4	✓	✓
HUN → ROU	July 2014	100	96	96.00	16	1.00 HUF	2.00 RON	1	3/4	✗	✓
HUN → ROU	July 2020	1 000	0	0.00	0	1.20 HUF	2.30 RON	N/A	N/A	✗	✗
ROU → HUN	July 2020	1 000	820	82.00	16	1.20 RON	2.30 HUF	1	1/2	✓	✓
HUN → ROU	December 2022	1 000	0	0.00	0	1.20 HUF	2.30 RON	N/A	N/A	✗	✗
HUN → ROU	July 2023	1 000	0	0.00	0	1.20 HUF	2.30 RON	N/A	N/A	✗	✗

Show all Show open Show closed

Details

Regional Booking Platform – Application

- RBP allows bidding for 6 auctions per tab
- The number of tabs are not limited



The screenshot displays the RBP application interface with the following components:

- Top Navigation Bar:** Includes tabs for IP, RBP, Bids, Nomination, Allocation, Secondary, CMP, and Reports. The current date is 22.03.2014, and the user is logged in as testuser03.
- YEARLY AUCTION BIDS:** A section for selecting interconnectors and making bids, showing the 2019/2020 Gas Year and a selection for ROU to HUN.
- Auction Tabs:** Four tabs are visible, each representing a different year:
 - 2015/2016:** Status: Closed. CO: 800, RP: 5.00, HUF: 5.00. Bidding parameters: LPS (0 to 480), Bid q. (100 to 0), TUR (1030 to 0). SPS (20 to 60), Bid q. (83 to 0), TUR (929 to 799).
 - 2016/2017:** Status: Closed. CO: 800, RP: 5.00, HUF: 5.00. Bidding parameters: LPS (0 to 480), Bid q. (100 to 0), TUR (1030 to 0). SPS (20 to 60), Bid q. (83 to 0), TUR (896 to 770).
 - 2017/2018:** Status: Open. CO: 800, RP: 5.00, HUF: 5.00. Bidding parameters: LPS (0 to 480), Bid q. (200 to 0), TUR (1230 to 0). SPS (20 to 60), Bid q. (166 to 0), TUR (1062 to 912).
 - 2018/2019:** Status: Open. CO: 800, RP: 5.00, HUF: 5.00. Bidding parameters: LPS (0 to 480), Bid q. (200 to 0), TUR (1250 to 0). SPS (20 to 60), Bid q. (166 to 0), TUR (1040 to 890).
 - 2019/2020:** Status: Open. CO: 800, RP: 5.00, HUF: 5.00. Bidding parameters: LPS (0 to 480), Bid q. (200 to 0), TUR (1250 to 0). SPS (20 to 60), Bid q. (166 to 0), TUR (1040 to 890).

FGSZ LTD.
NATURAL GAS TRANSMISSION
MEMBER OF THE MOL GROUP

BOOKING PLATFORM

Plans for the Near Future

HU-RO Pilot

- Potentially more than just monthly bundled capacities

Mass Auctions

- 400+ Hungarian network points allocated via simultaneous auctions from March 2015 (bundled and unbundled)

Extension of Bundling

- Talks to extend bundling to domestic storages (transmission+storage capacities)

Thank you for your kind attention!

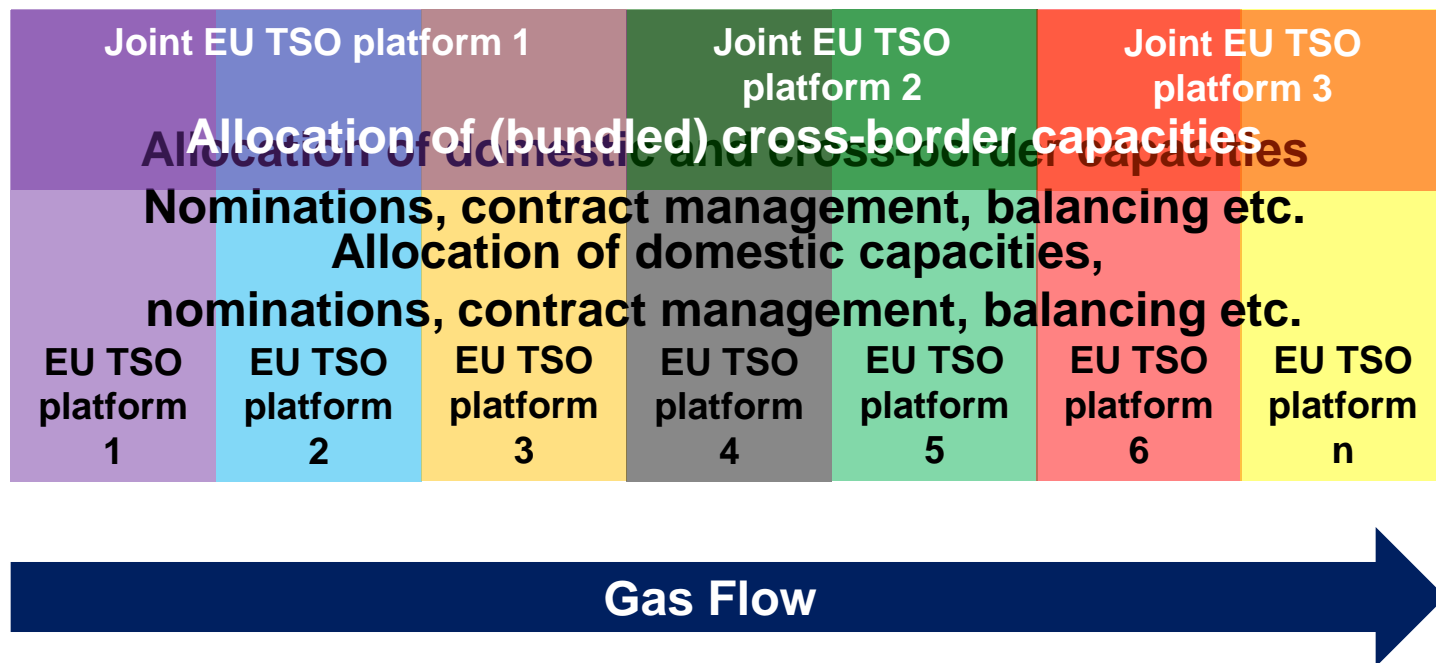
Contact: rbp@fgsz.hu or pilot_rbp@transgaz.ro



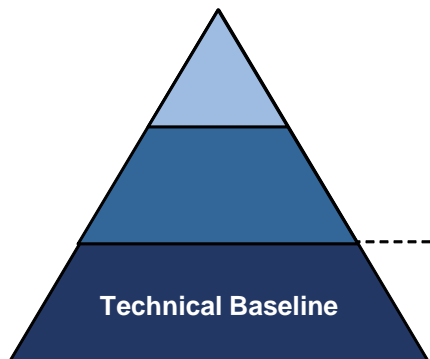
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Backup slides

Joint Capacity Booking Platforms in the EU

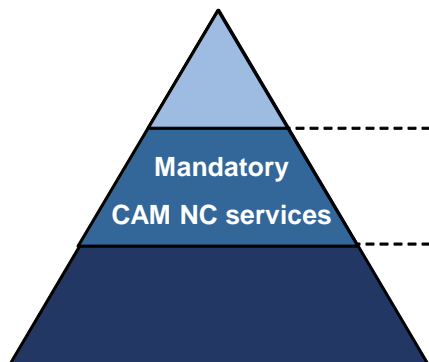


Technical Background of the Regional Booking Platform



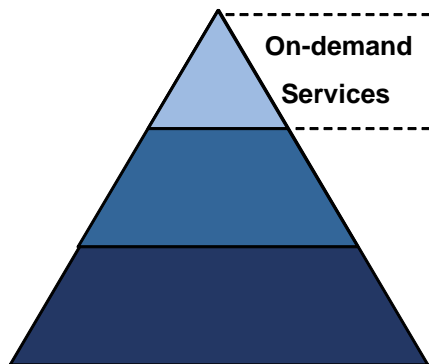
- Layered IT architecture
 - Proxy
 - Application
 - Database
- IT solutions and licences used mainly by HP (hardware), Red Hat and Oracle (software)
- Continuous hot backup provided and disaster-proof secondary site arranged
- Test environment permanently available for network users and TSOs
- 24/7 technical helpdesk
- Secured areas are accessed via digital certificates

CAM NC Services of the Regional Booking Platform



- Product bundling or joint unbundled allocation
- Ascending clock algorithm
- Uniform price algorithm
- Bundled capacity allocation, using the above algorithms
- Unbundled capacity allocation, using the above algorithms
- Yearly, quarterly, monthly, daily and within-day auctions
- Electronic contracting
- Multi-currency handling
- Credit limit management
- Regulatory license management
- OTC secondary market for bundled and unbundled capacities

On-Demand Services of the Regional Booking Platform



- Flexible auctions (non-standard capacity products, auction calendar and auction scheduling)
- Single-sided nominations and allocation (although a CAM NC requirement, this is not specified for the booking platform)
- Route bundling
- Parallel bidding ladders (incremental capacity auctions)
- CMP for bundled capacities
- Multi-language interfaces
- SOAP interfaces
- Non-mandatory publication services
- Exchange-like (cleared, anonymous) secondary capacity market

Cost Allocation Model of RBP

