



**COMVEX S.A.**

**BULK HANDLING COMPANY**  
INCINTA PORT – DANA 80-84  
900900 CONSTANTA – ROMANIA





# COMVEX TERMINAL 2019

## *TWO BUSINESS LINES: GRAINS AND MINERALS*

- ✓ COMVEX S.A. was established in 1991, being the largest bulk raw material handling terminal in the Black Sea area, covering a surface area over 700.000 sqm in the south of Constanta Port, Romania.
- ✓ Initially, Comvex was dedicated to handle *minerals*
- ✓ COMVEX terminal is the leading specialist on the market in handling, storing and transshipment of dry bulk minerals such as iron ore, coal, coke, bauxite, operating from a modern and fully equipped facility location in the Port of Constanta.
- ✓ Currently, COMVEX expanded its activity by developing a *Grain Terminal* in the area of berth 80 on a surface of approximately 60.000 sqm. Total annual capacity of the grain terminal is 5 million mt.



# 2019

## FIRST BUSINESS LINE: Minerals Terminal



COMVEX is the only terminal for the operation of solid bulk raw materials in the Black Sea area that is able to cater Cape size vessels of up to 220.000 tdw, having an unloading line at the maritime quay formed of 5 berths with a total length of 1.400 m and water depth comprised between 10.8 and 18.5 m.

Those materials are:

Iron ore, Coal, Coke, Bauxite, Clinker, Blast Furnace Slag.



# Equipments for discharging/loading vessels

- 3 gantry cranes - 45.000 mt/day
- 97.000 mt/first day/free digging rate

*The largest vessel unloaded in the terminal*

## ***SG ENTERPRISE***

Built: 1997

DWT : 211.385

LOA [m]: 312

BEAM [m]: 50

Quantiy[mt]: 192.554

Holds: 9



# Equipments for loading

***The quay for loading:*** 3 berths with a total length of 600 m and water depth between 6.6 – 7 m

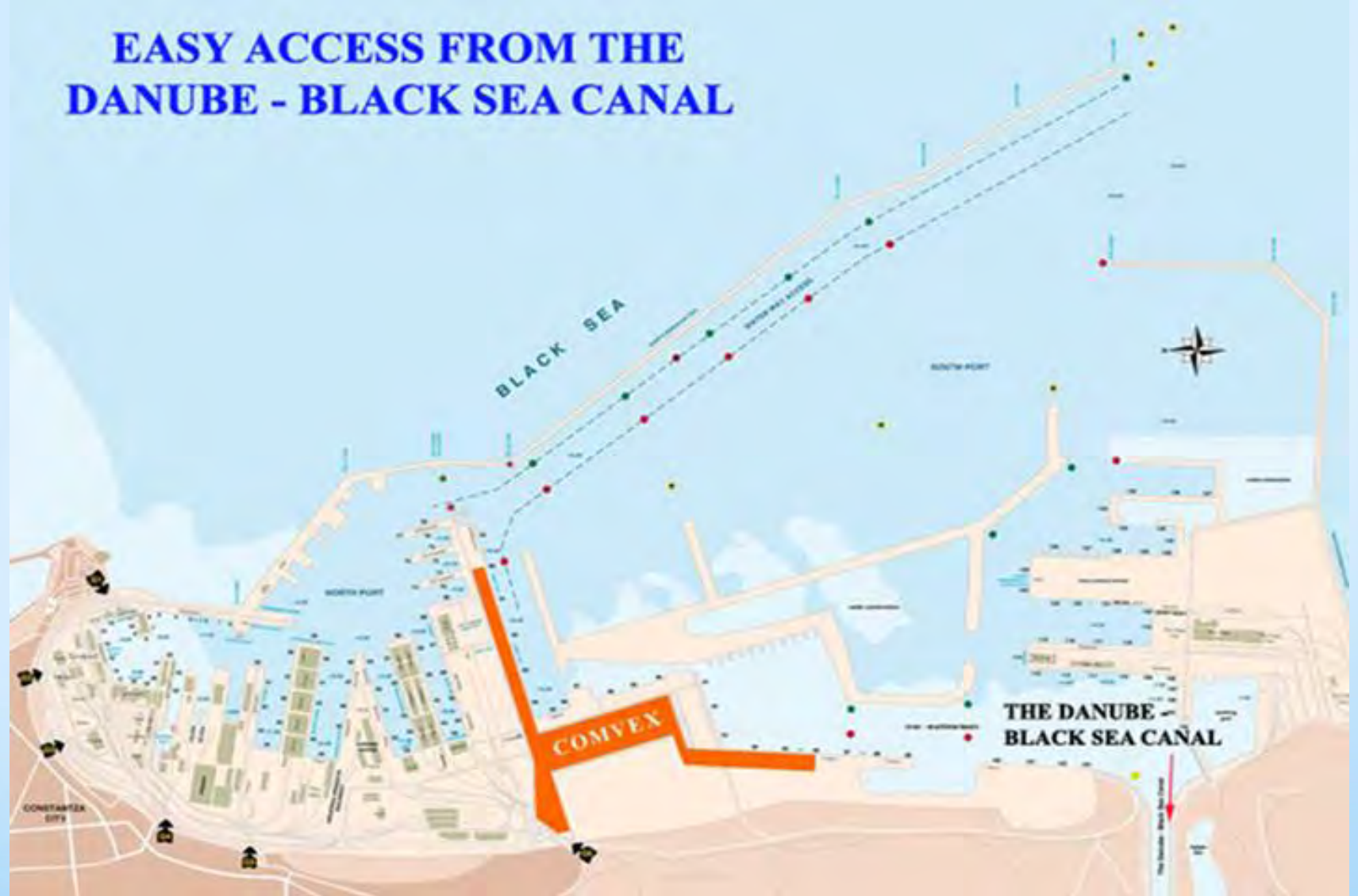
***The loading equipment:***

- 3 BARGE loaders - average load capacity of 2.000 to / hour
- Railway loading terminal - loading capacity of 20.000 mt/day
- Train Unloading Facility FALS type wagons :16,000 to/day





## EASY ACCESS FROM THE DANUBE - BLACK SEA CANAL



- COMVEX Terminal benefits geographically, having access to the river the waterway network which includes the Danube.
- Due to its location and excellent access potential to industrial plants in Europe, COMVEX is able to provide its customers, such as major companies from Australia, Brazil, India, Africa, Turkey, USA and Canada, the ability to make deliveries to industrial plants in Romania, Hungary, Austria, Ukraine, Bulgaria, and Serbia, on “just in time” basis.



**HIGH  
PERFORMANCE**  
**14.500.000**  
mt/year





# **UNIQUE IN ROMANIA**

## **MINERAL WASTE PROCESSING PLANT**

### **Process:**

- ✓ Extraction/collecting mineral waste
- ✓ Mechanical sorting
- ✓ Magnetic separation
- ✓ Separation by flotation
- ✓ Gravitational separation (hydrocyclonage, separation on spirals, jigging, thickening, filtration, mixing)

**Results: VALUABLE PRODUCTS FOR STEEL & CEMENT INDUSTRY**

**MINERAL WASTE** → **VALUABLE PRODUCT**





# BLENDING

- ✓ up to 4(four) cargo grades could be automatically blended, at the reclaiming stage
- ✓ automatic ratio control of each cargo grades, in accordance with customer requirements
- ✓ fully automatic loop controls, by sensitive touch monitor and connected PLC, the flow of materials
- ✓ a homogeneous blend of selected cargo grades & ratios is carried out at the final loading point
- ✓ final blended materials could be loaded onto vessels/barges/railcars at a loading rate of 1.500 mt/hour for coal and 2.000 mt/hour for ores





# SCREENING

4 mobile equipments with replaceable nets, with an input of 300 to/h and 3 outgoing layers per item





# Handling slabs

**3 Electro Permanent Magnets – lift capacity 40 tf each**

**Up to 60,000 to /day load rate**

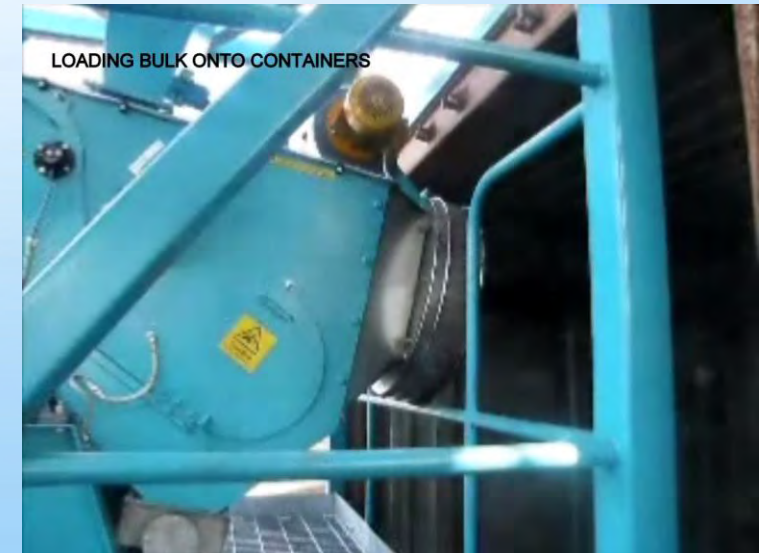




# OTHER OPERATIONS



- ✓ automatically spraying of anti-freezing component during handling (unloading and/or re-loading) of the cargoes by ratio control
- ✓ temperature monitoring and spraying substances to prevent coal self-ignition
- ✓ containers loading with bulk





# Consignment stock concept: Iron ore, Coal, Bauxite, Clinker, Slag

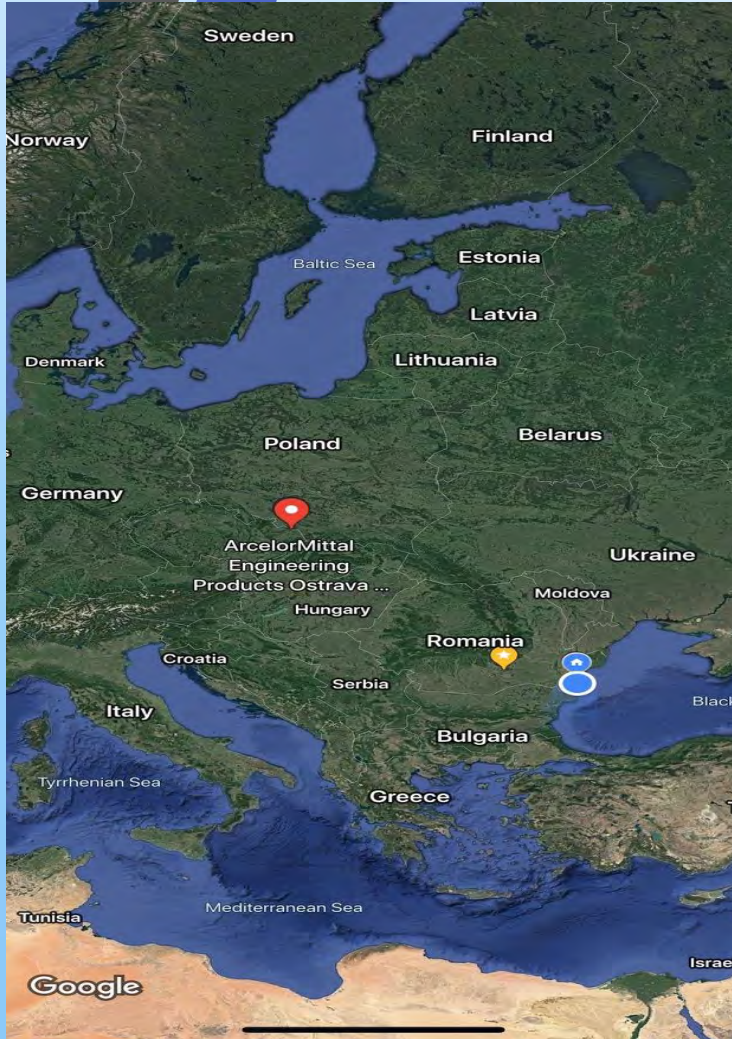


Cargoes are transported on large capsize vessels to utilize the price differential advantage of FREIGHT, then the cargoes are being kept in consignment stocks - no custom duties - being delivered on smaller parcels, according to the market demand to customers located in the hinterland ie: Serbia, Hungary, Czech at the market price. It is clearly stated that the cargo remains the property of the trader until fully delivered.

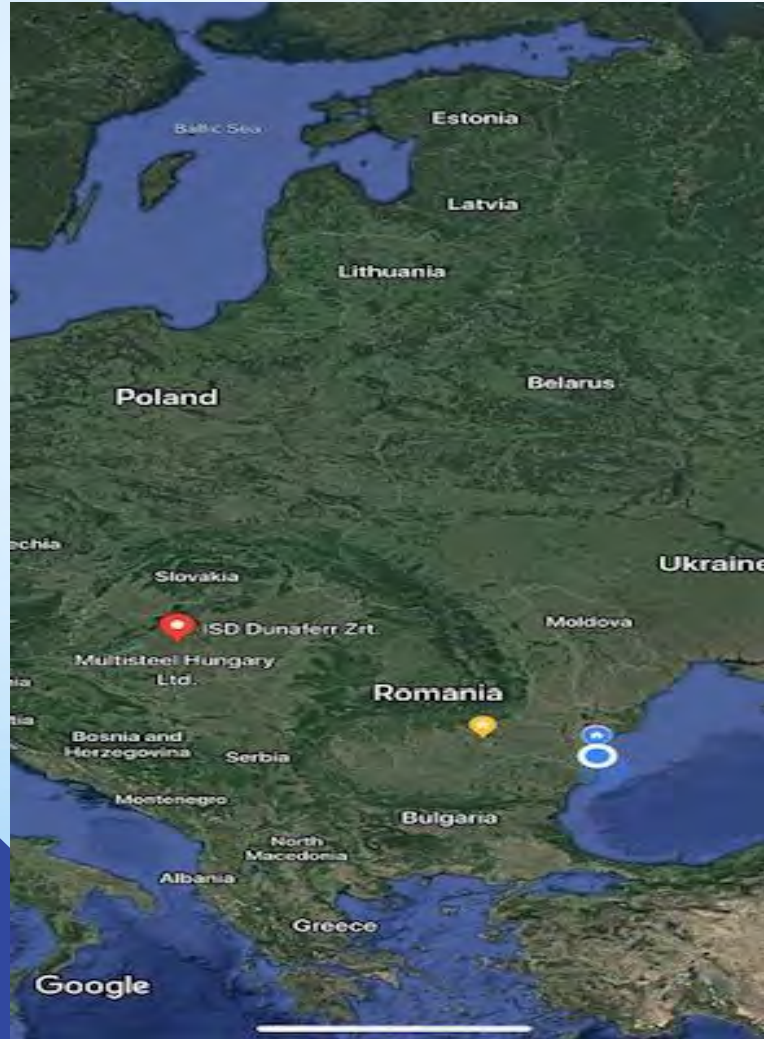
We are moving the mine closer to the client.



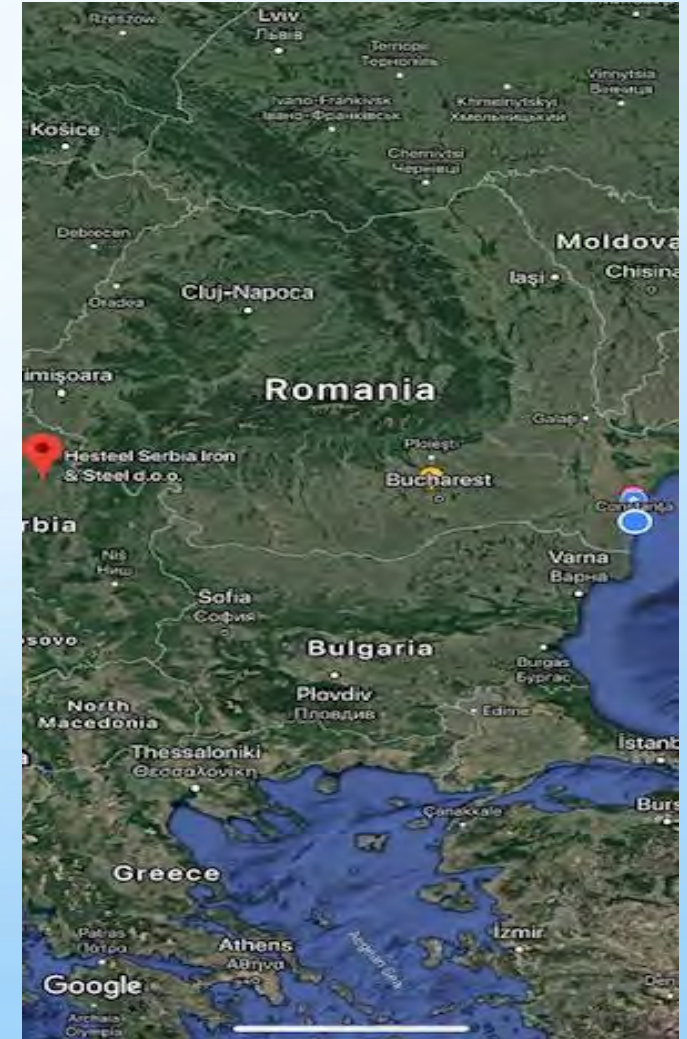
# OSTRAVA



# DUNAYVAROS



# SMEDEREVO





# 2019

## SECOND BUSINESS LINE: Grains Terminal

- Grain terminal in the area of the Berth 80 on a surface of approximately 60.000 sqm
- First smart grain terminal :Four fully automated laboratories. No human intervention.
- Fully automated control.Video analytics.
- 24/7 online analyzers
- Storage capacity - 200.000 mt
- Total annual capacity of the grain terminal: 5 million tons
- Deepest berth for grains in Black Sea @ -18 m





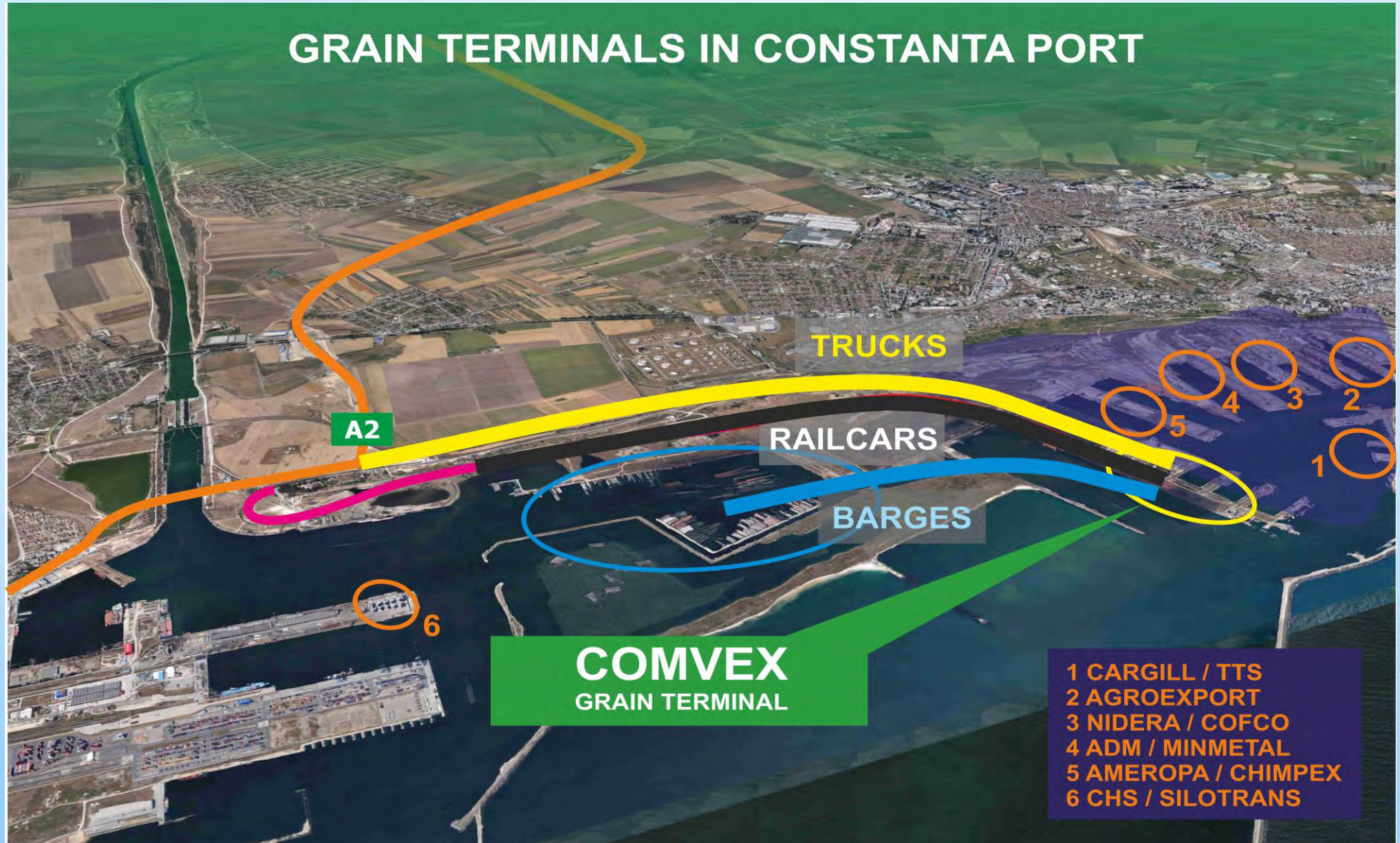
# GRAINS - EST EUROPE

STRATEGIC  
POSITION  
HINTERLAND





# GRAIN TERMINALS IN CONSTANTA PORT





**COMVEX**

**SILO**

**GRAINS**



**PARKING BUFFER DEDICATED-120 TRUCKS**





# PERFORMANCES

## ✓ 8 SIMULTANEOUSLY ACTIVITIES

• Unloading barges	800 mt/h
• Unloading railcars	600 mt/h
• Unloading trucks – Line 1	2 x 300 mt/h
• Unloading trucks – Line 2	2 x 300 mt/h
• Loading ship - Line 1	1500 mt/h
• Loading ship - Line 2	1500 mt/h
• Loading trucks	600 mt/h
• Internal grain transfer (recirculation)	600 mt/h

## ✓ 2 HEAD HOUSES

## ✓ 3 LABORATORIES FULLY AUTOMATED

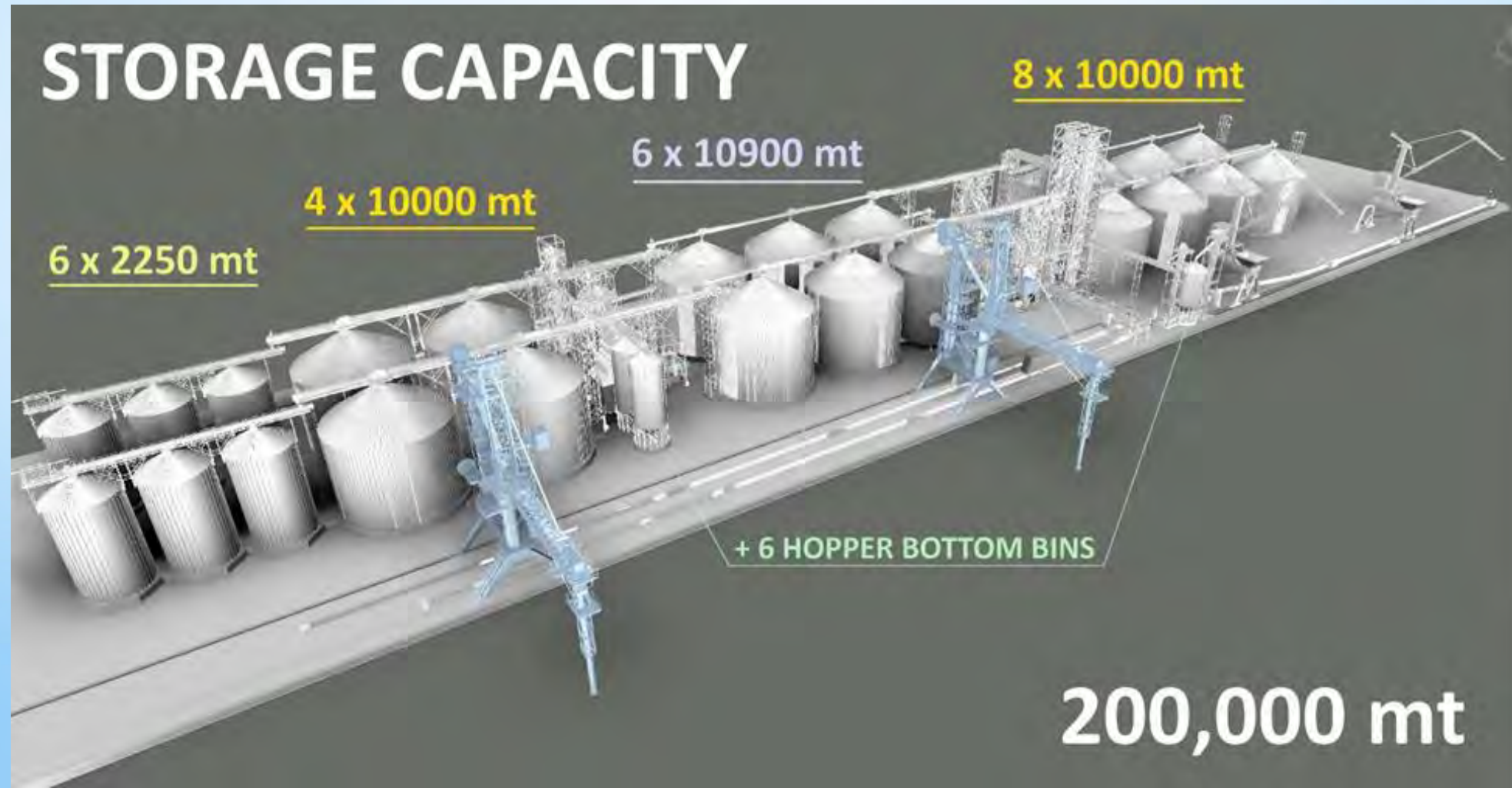
## ✓ DRYER AND CLEANER

## ✓ THE HIGHEST LOADING RATE ONTO VESSELS **3000 TO/H** IN THE BLACK SEA AREA



# STORAGE CAPACITY

- ✓ The storage capacity (based on wheat) - 200.000 mt
- ✓ Grain storage area: 18 large flat bottom bins (12 x 10.000 mt și 6 x 10.900 mt), 6 small flat bottom bins (each 2.250 mt).



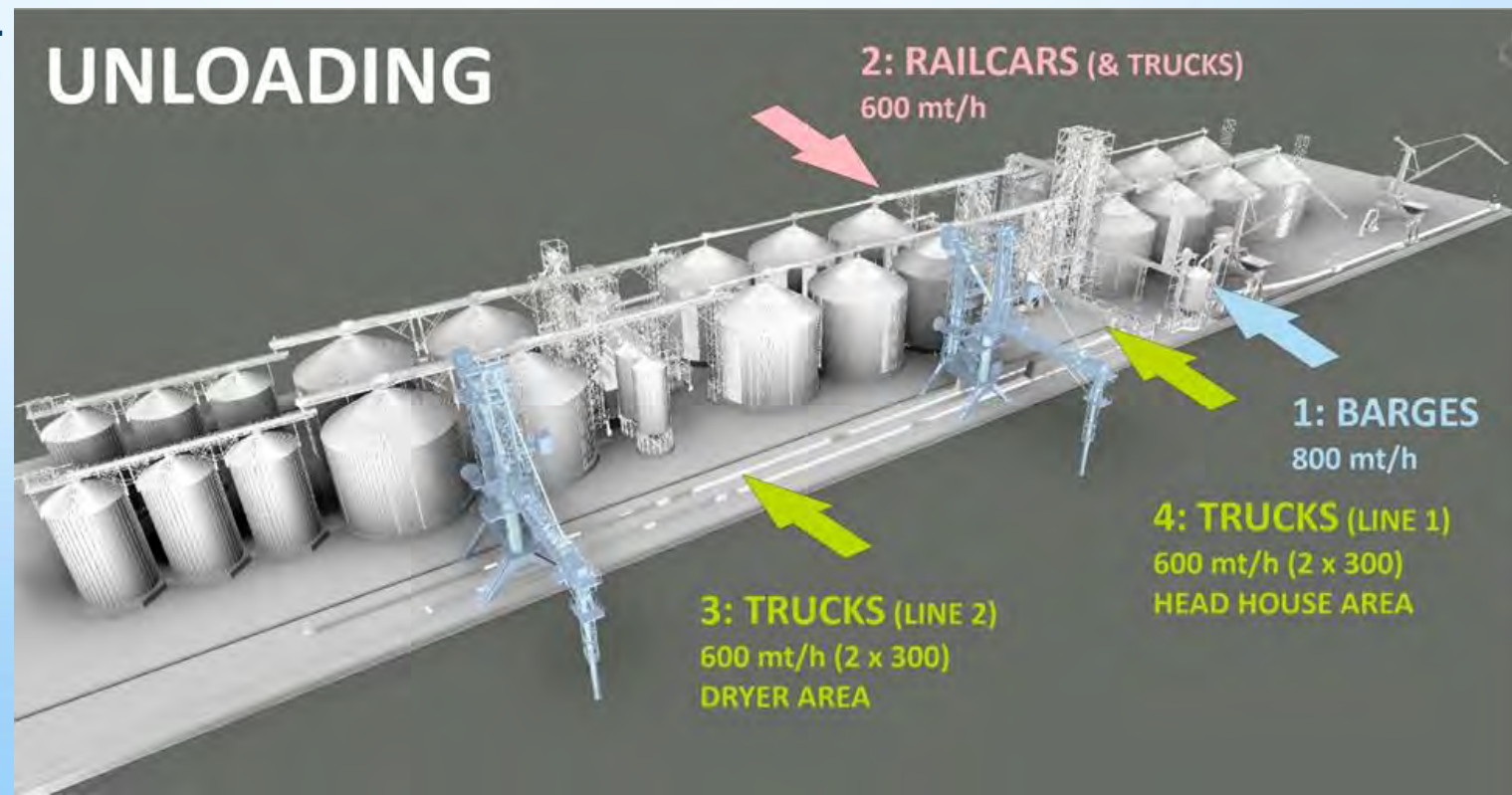


# GRAIN HANDLING

## UNLOADING/ RECEPTIONS

- ✓ Unloading barges: 800 mt/h by 2 shore cranes with grabs
  - ✓ Unloading railcars: 600 mt/h at 1 railcar receiving hopper
- The length of the hopper allows simultaneous unloading of 2 longest railcars.
- ✓ Unloading trucks at Line 1: unloading capacity rate- 600 mt/h
  - ✓ Unloading trucks at Line 2: unloading capacity rate- 600 mt/h

Each truck unloading line has 2 separate receiving hoppers, totaling 4 trucks receiving hoppers. Total trucks unloading capacity rate is 1.200 mt/h.





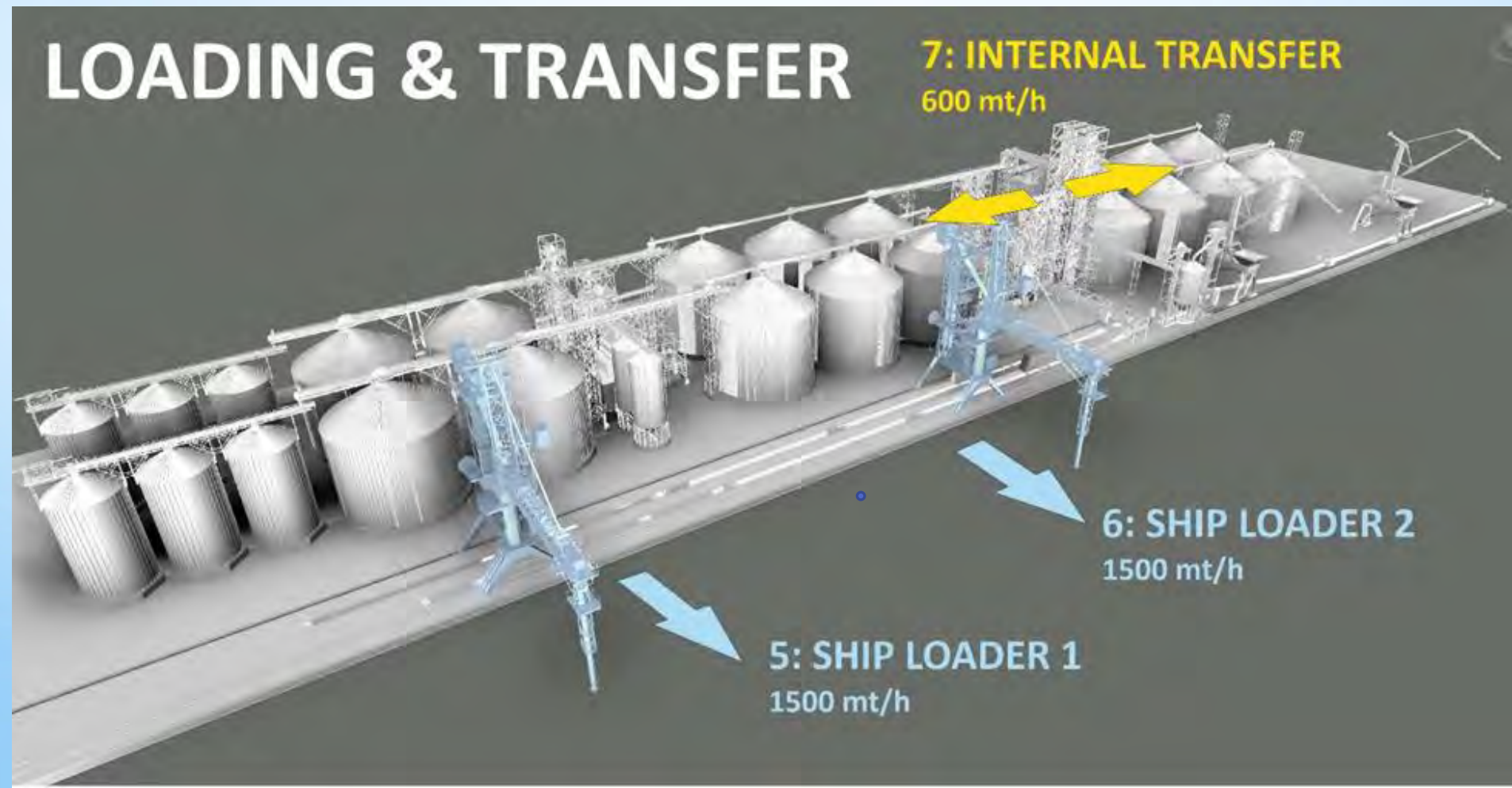
# GRAIN HANDLING

## LOADING / SHIPMENT (2 activities)

- ✓ Loading ship - Line 1: 1.500 mt/h
  - ✓ Loading ship - Line 2: 1.500 mt/h
- Total ship loading capacity rate - 3.000 mt/h

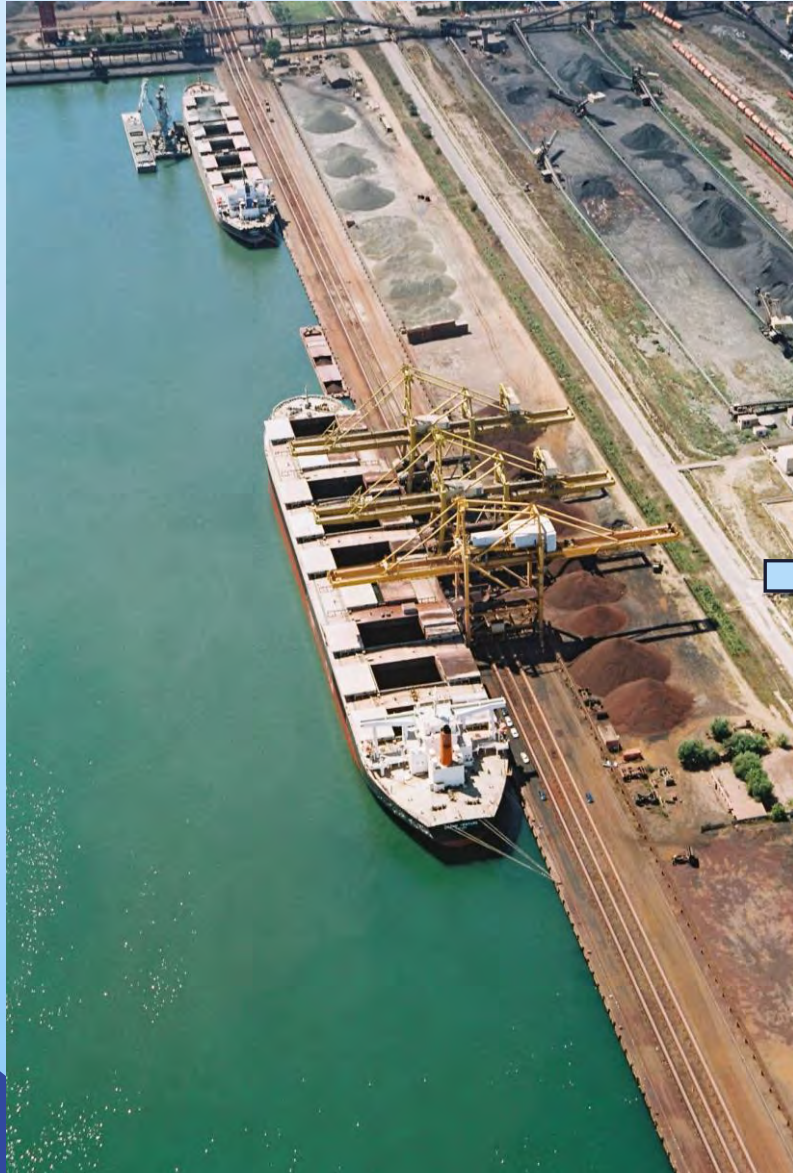
## INTERNAL TRANSFER

Internal grain transfer (recirculation): 600 mt/h





## MINERALS



## GRAINS





# New concept of the public terminal



The new terminal intends to work in concert with traders and existing terminals as it has the capacity to provide loading rates in excess of 45,000T/day and to receive grains in excess of 3000 T/hour. Thus, the terminal shall generate higher load rates, faster turn of barges, trains and vessels therefore, More Cargo ,More Customers, More Business , More Profits.

The concept redefines the grains trade increasing the commercial distances the grains could reach. All major farmers would like to enter into a direct contract for handling at COMVEX



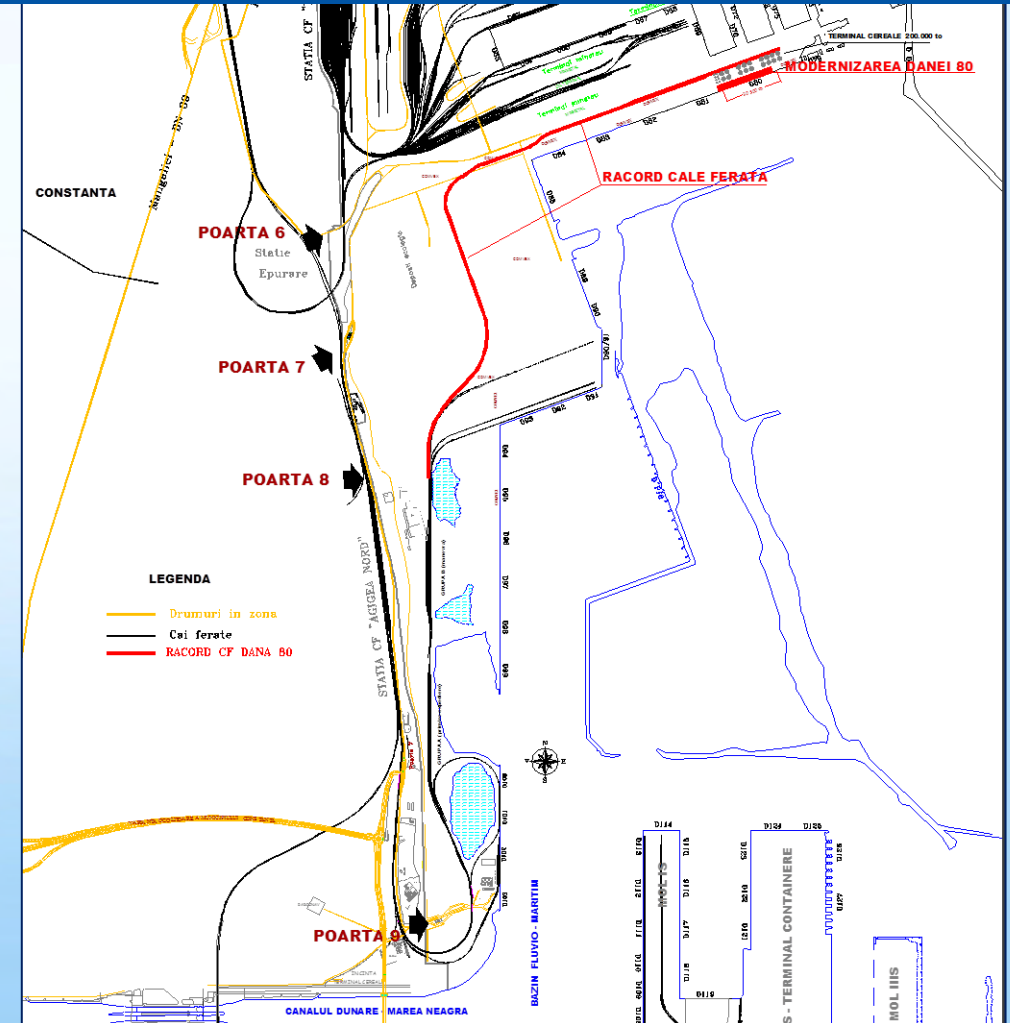
# FIRST VESSEL AT COMVEX GRAIN

## OCTOBER 2019





A COMVEX dedicated train FULLY electrified network and station fully automated readily accessible from the national rail network.



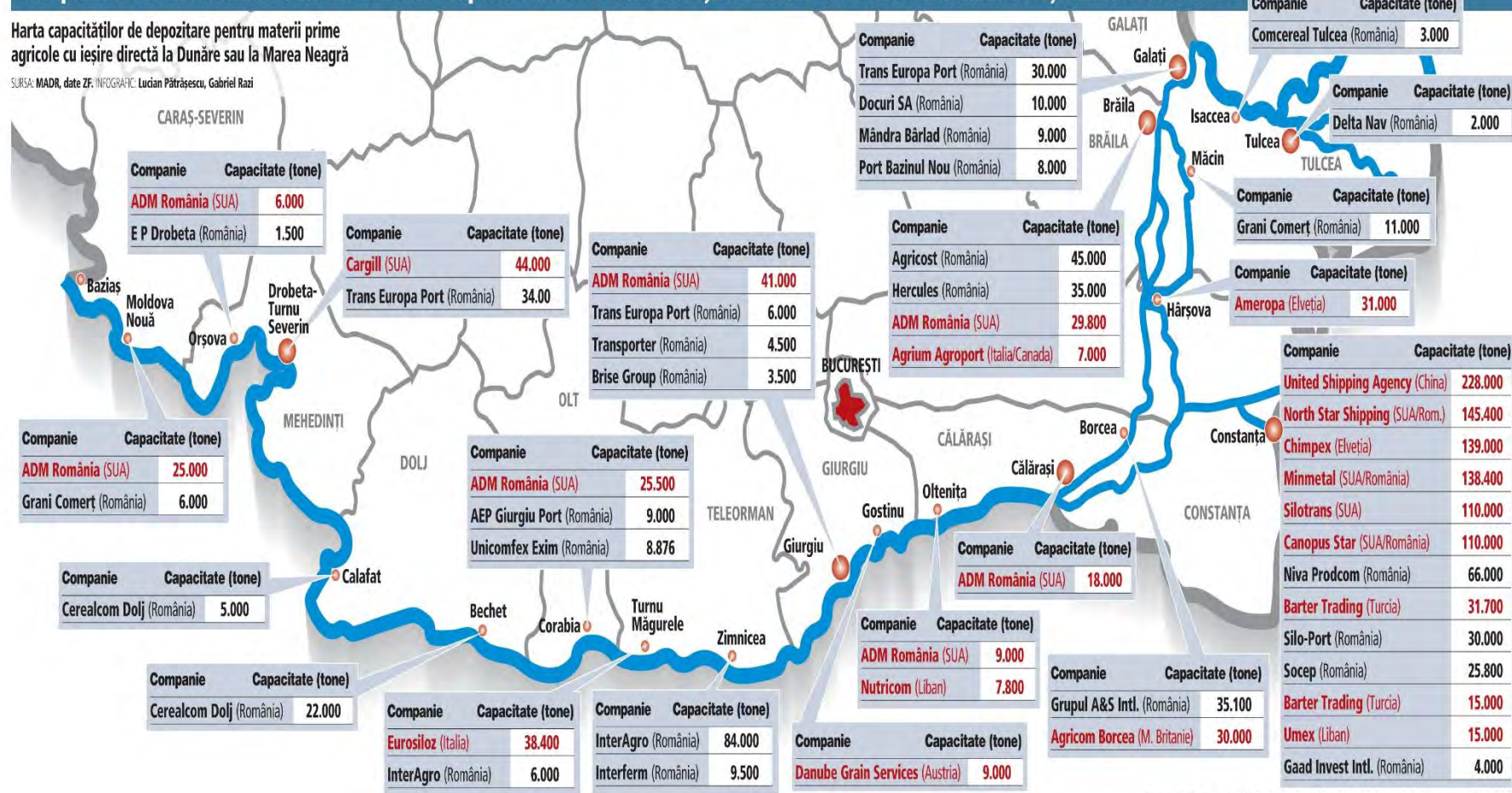


# COMVEX COULD GATHER CARGOES FROM ALONG RIVER DANUBE

Companiile străine controlează silozuri cu o capacitate de stocare de 1,25 milioane de tone din totalul de 1,7 milioane de tone

Harta capacităților de depozitare pentru materii prime agricole cu ieșire directă la Dunăre sau la Marea Neagră

SURSA: MADR, date ZF, INFOGRAFIC: Lucian Pătrășescu, Gabriel Razi



NOTĂ: capacitățile de stocare ale Barter Trading și Gaard Invest Intl. sunt în Agiege, respectiv, Medgidia

GABRIEL RAZI



# Potential development of new silos in the area



**COMVEX is having the function to gather cargos from Serbia, Bulgaria which shall benefit out of the complementarity of the Fastest and Deepest grain terminal in the area.**



# 2020 THIRD BUSINESS LINE: FERTILISERS

DEVELOPPING A NEW TERMINAL  
FOR FERTILISERS





# LAND

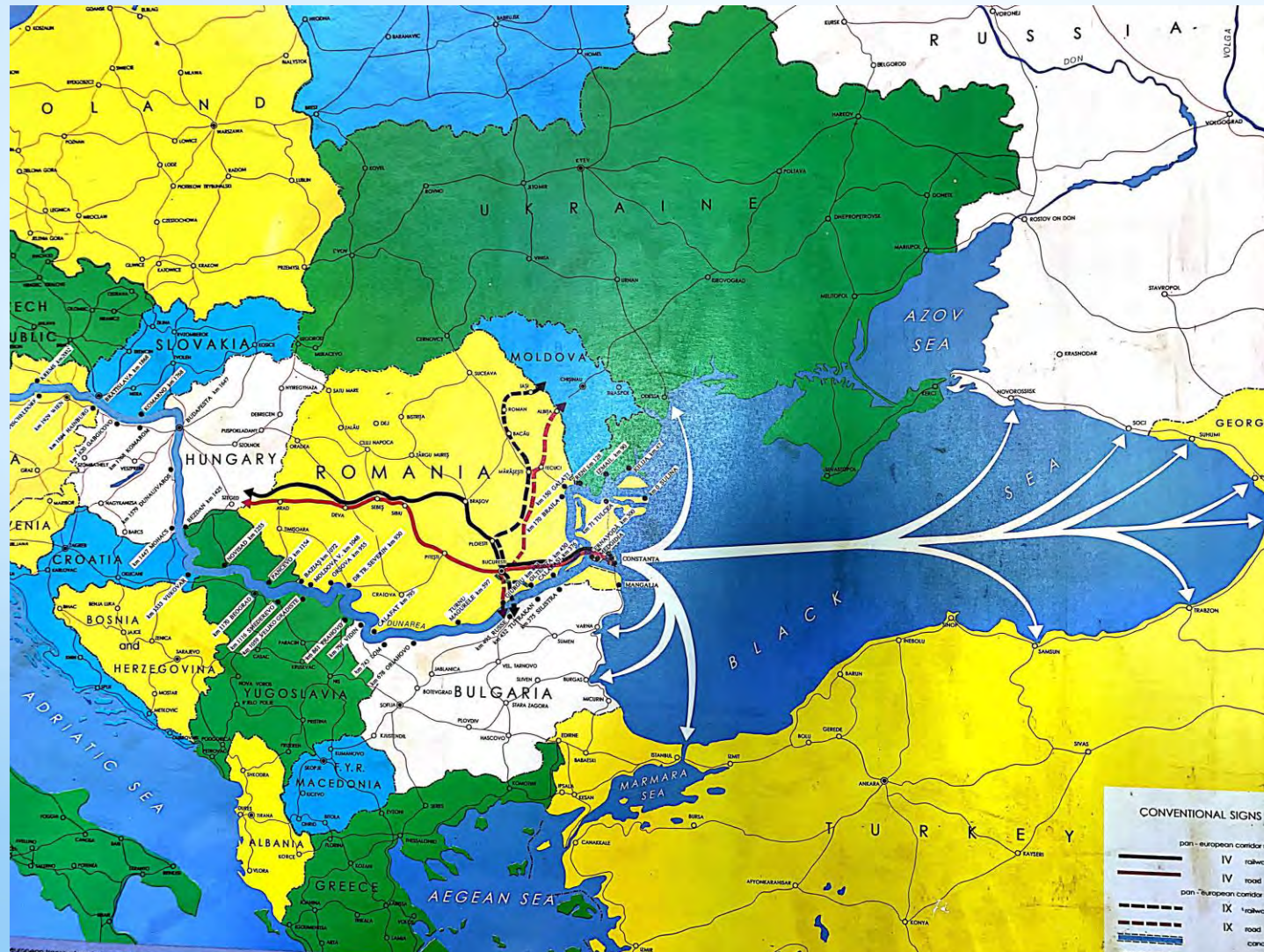
**COMVEX covers 740,000 SQM in Constanta port.**

**Comvex has a rental contract with NPAC(National Port Administration Company)until 2049**

**COMVEX has the prerogative,by the contract, to extend the rental contract beyond 2049, without limitation.**



**Strategically positioned :A bridge towards Asia between the European hinterland and the world at large .**



**CROSSING THE  
BLACK SEA**