

Keeping Ukrainian goods moving: Danube and the new logistics chains

COMVEX TERMINAL



**Minerals & Grains
Constanta Port, Romania**

Grain export routes from Ukraine

Regular export route:
BLACK SEA



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All of Ukrainian coastline blocked

Seaports and terminals cut off from global commerce



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New grain export routes

Key logistics components:

- Rail / road distance to ports
- Maritime distance to Suez
- Availability of waterways



Grain export routes from Ukraine

North route:

- Germany
- Poland
- Lithuania
- Latvia

Rail distance to north ports:
1,200 – 1,600 km

Maritime distance to Suez:
about 4,000 nm

Barges	Railcars	Trucks
Germany		
Rail distance from Ukraine: 1600 km		
No access by barges		
Distance to Suez: 3600 nm		
Rostock		595,000
Lübeck		120,000
Hamburg		825,000

Barges	Railcars	Trucks
Poland		
Rail distance from Ukraine: 1100 km		
No access by barges		
Distance to Suez: 4100 nm		
Szczecin		150,900
Świnoujście		140,000
Gdynia		92,000
Gdańsk		76,000

Barges	Railcars	Trucks
Lithuania		
Rail distance from Ukraine: 1300 km		
No access by barges		
Distance to Suez: 4200 nm		
Klaipėda		608,000

Barges	Railcars	Trucks
Latvia		
Rail distance from Ukraine: 1200 km		
No access by barges		
Distance to Suez: 4300 nm		
Liepāja		87,000
Ventspils		100,000
Riga		120,000



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South route:

- Romania
- Bulgaria

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Maritime distance to Suez:
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Waterways to south (to Romania)

BARGE ACCESS: COMPETITIVE ADVANTAGE OF ROMANIA



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about 1,000 km

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about 1,100 nm

Waterways to south (to Romania)

**ANOTHER COMPETITIVE ADVANTAGE:
HIGH SHIP LOADING CAPACITY RATES**

Barges

Railcars

Trucks

Romania

Rail distance from Ukraine: 900 km

Barge distance from Ukraine: 250 km

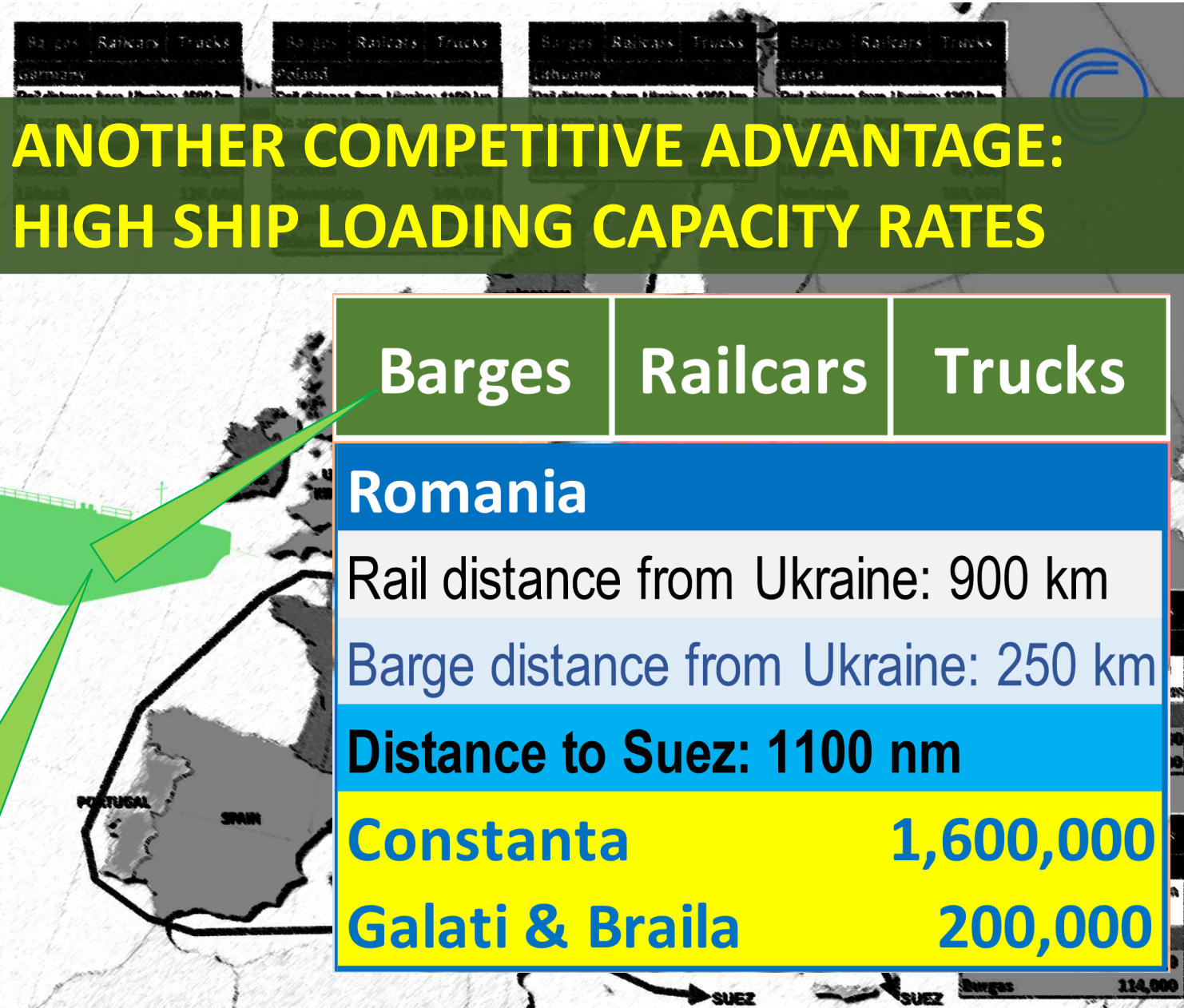
Distance to Suez: 1100 nm

Constanta

1,600,000

Galati & Braila

200,000



Grain export routes from Ukraine

South route:

- Romania
- Bulgaria

Railway entrance points:

1. Dornesti
2. Halmeu
3. Cristesti Jijia



Grain export routes from Ukraine

South route:

- Romania
- Bulgaria

RAILCARS

Issue: different gauges

- Ukraine: broad (1520 mm)
- Romania: standard (1435 mm)

Solutions:

- Replacement bogies
(*limited number*)
- Transshipment on border



Grain export routes from Ukraine

South route:

- Romania
- Bulgaria

WATERWAYS – Loading ports

Ukraine (Danube):

- Izmil
- Reni
- Killya

Moldova (Danube & Prut):

- Giurgiulesti

Loading barges from railcars and trucks



Grain export routes from Ukraine

South route:

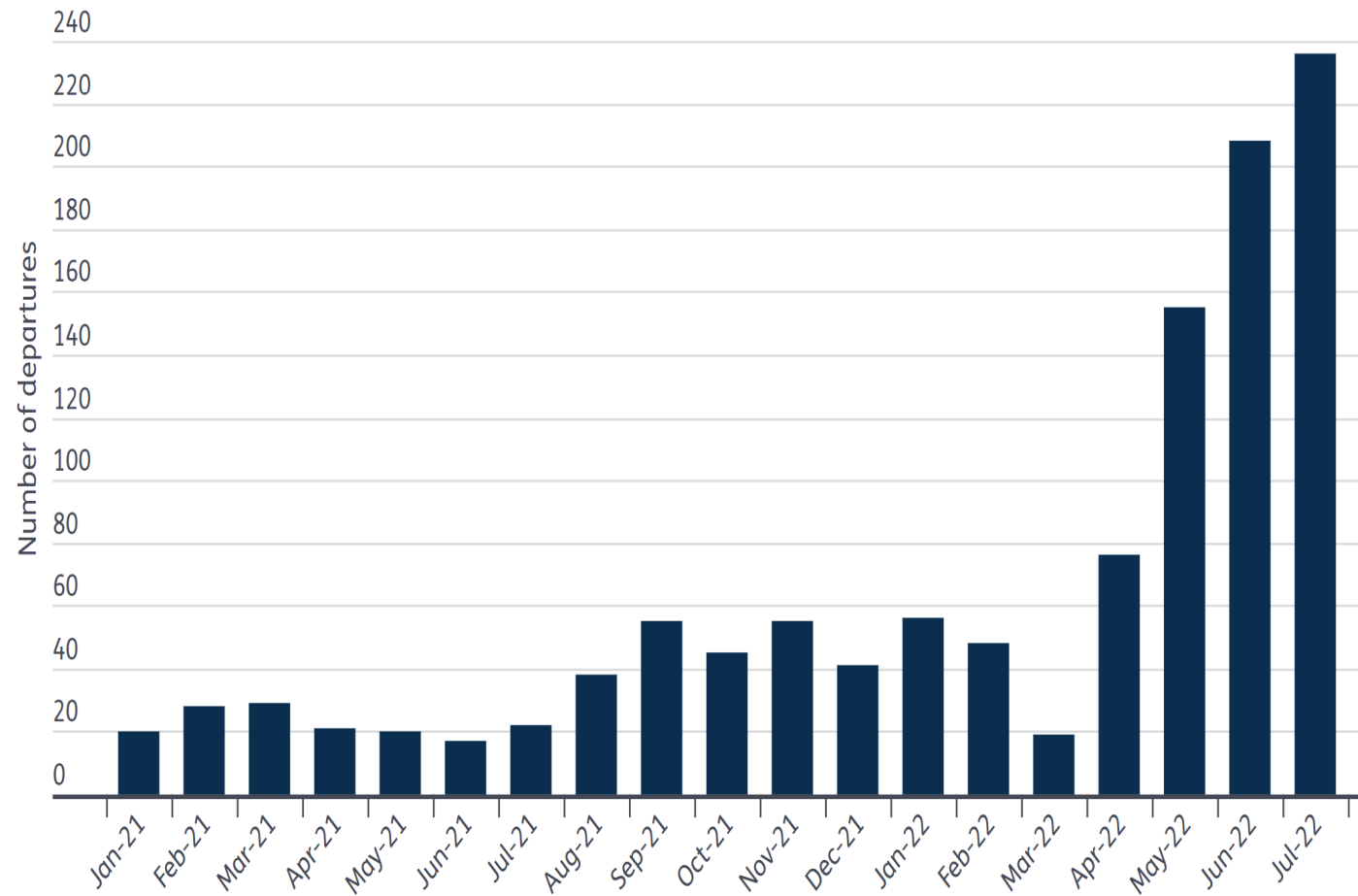
- Romania
- Bulgaria

Significantly increased number of outbound sailing to foreign ports in the second quarter of this year

A lot of barges with destination Constanta, Romania.

Ukraine's Danube ports: outbound sailings

Commercial vessels destined for foreign ports



Grain export routes from Ukraine

South route:

- Romania
- Bulgaria

Railway bridge over River Prut and broad gauge railway line to Galati Port



Bridge over River Prut

Railway line Reni – Galati

Connection Romania – Moldova –
Ukraine

Revamped in August 2022

Access to Galati Port for
transshipment railcars - barges



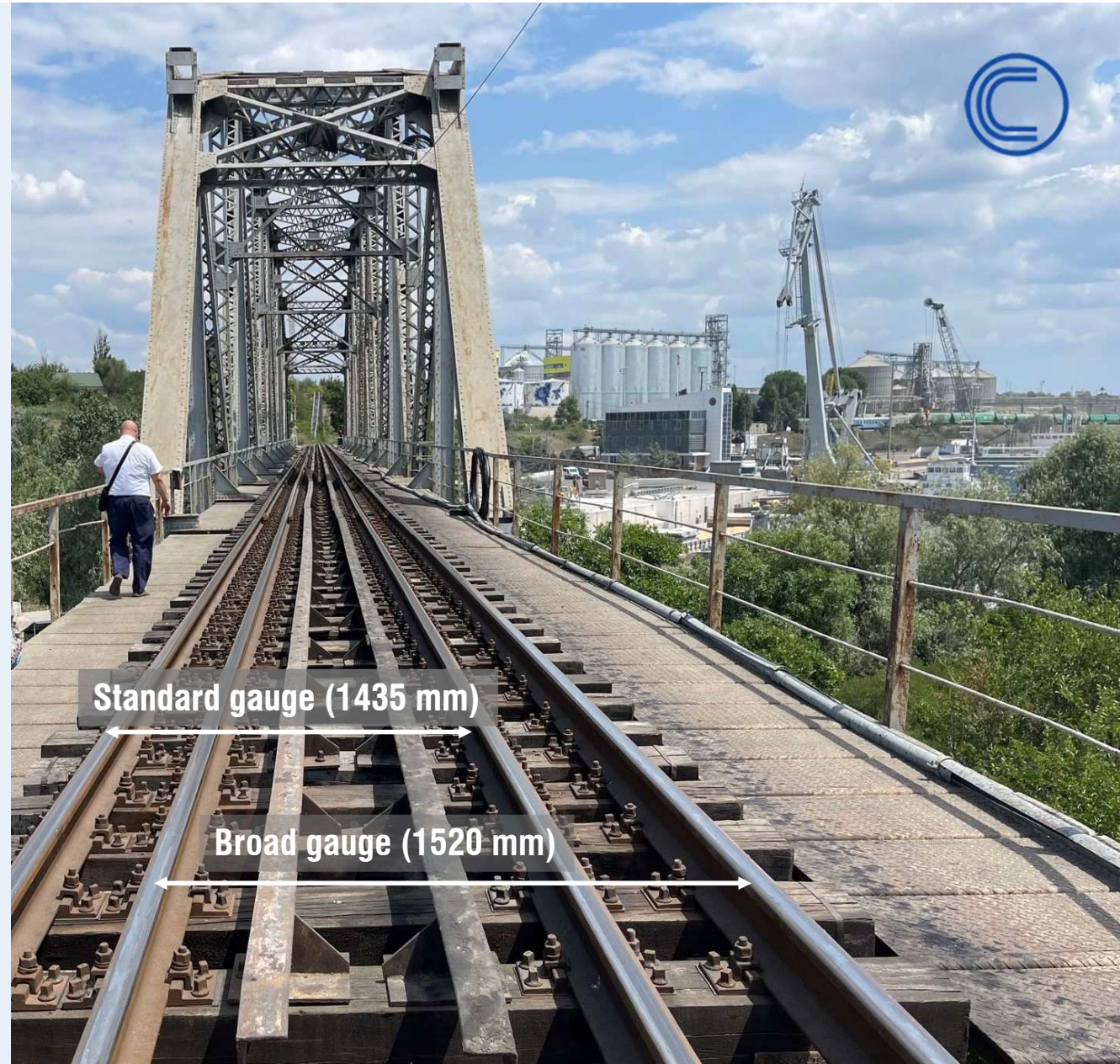
Bridge over River Prut

Double railway line:

- **Standard gauge (1435 mm)**
- **Broad gauge (1520 mm)**

Bringing Ukrainian railcars on broad gauge railway to Galati Port for transshipment onto barges for further transportation to Constanta

Switching from railway to waterway: releasing railways and using the most efficient and green transportation



Grain export routes from Ukraine

South route:

- Romania
- Bulgaria

Increasing barge loading rate

Ukrainian trains enter Romania by using revamped railway line Reni – Giurgiulesti – Galati (over River Prut)

Access to Galati Port for transshipment railcars - barges



Bridge over River Prut

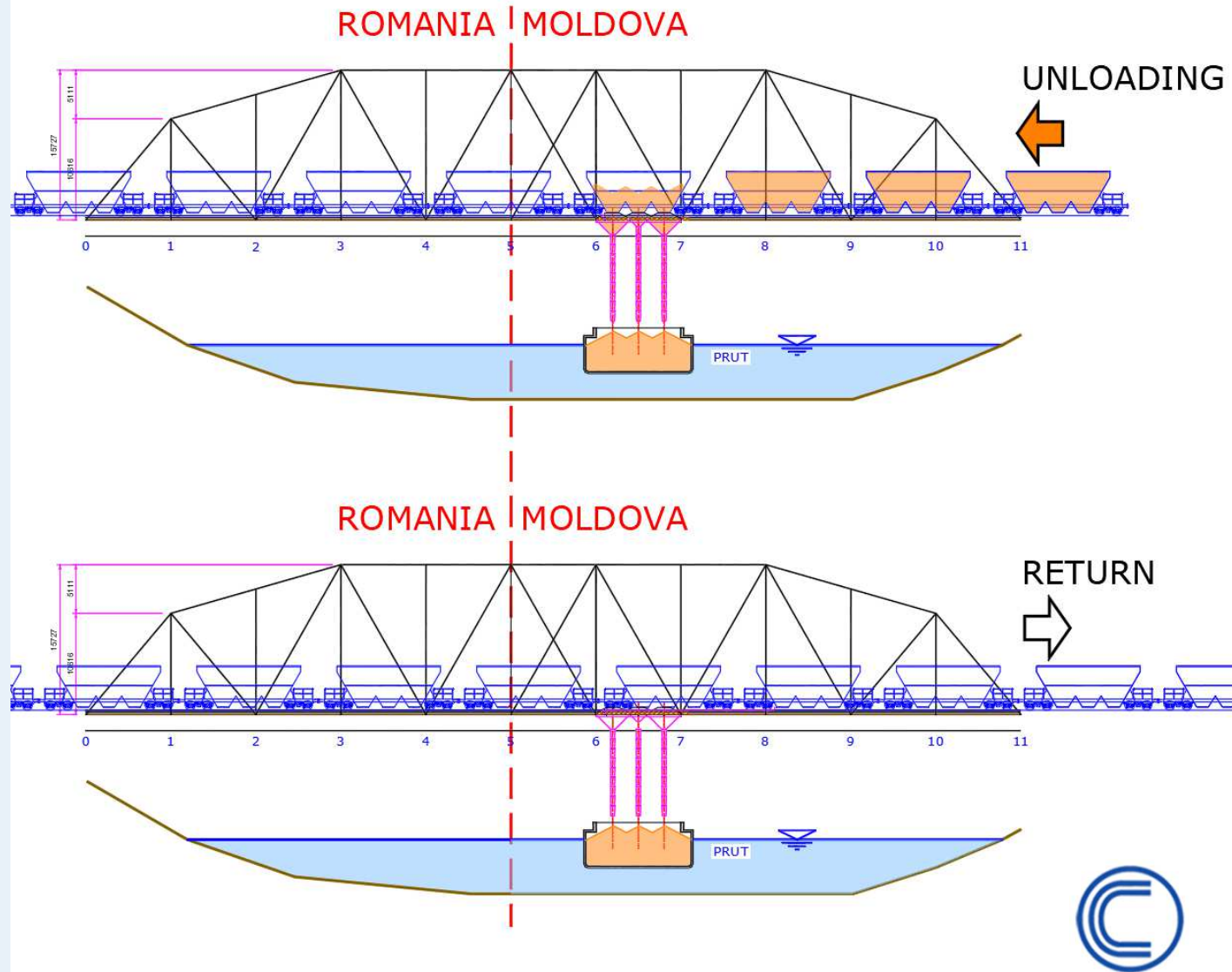
Shifting full railcars towards Romania

Using bridge idle periods

Direct transshipment railcar – barge on River Prut

10 railcars / hour \Rightarrow 500 mt/hour

Barge loading by gravity (no energy consumption)

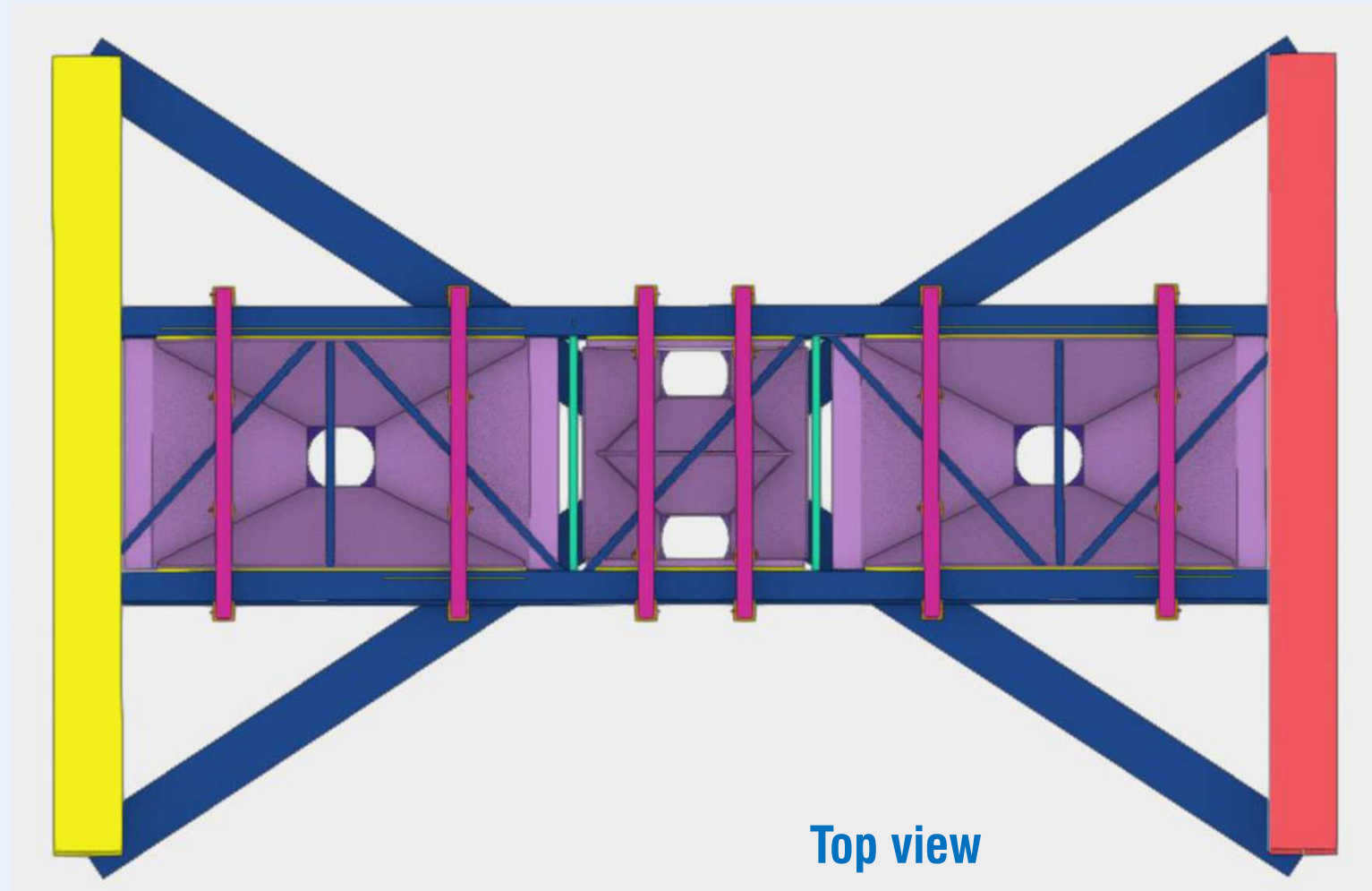
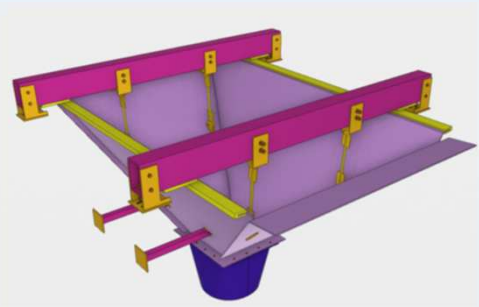
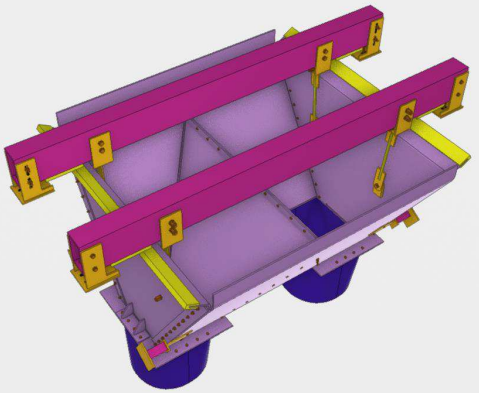


Bridge over River Prut



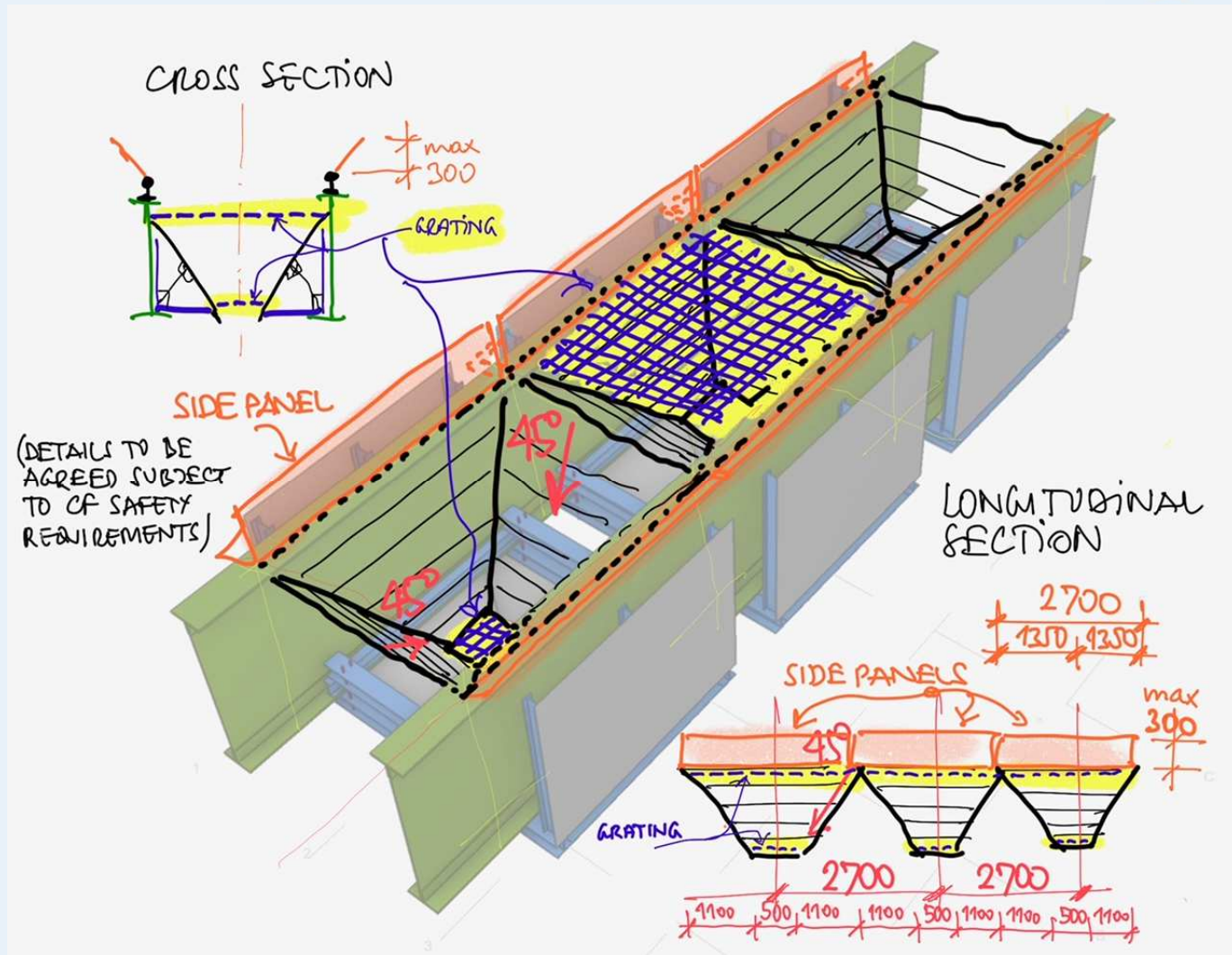
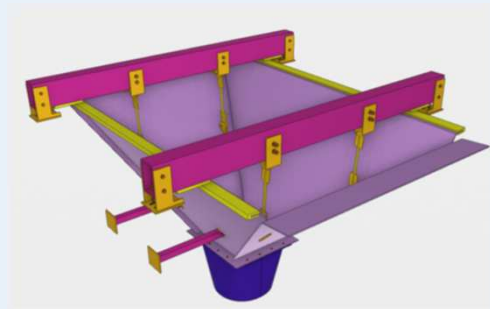
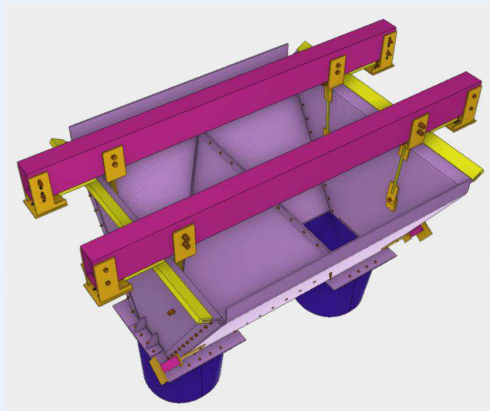
Solution confirmed by
structural expert for
railway bridges

Detailed design completed



Bridge over River Prut

Receiving hoppers hanging
on bridge structure
(no any welding / drilling)



COMVEX Grain Terminal



Storage: 200,000 mt

Receiving (mt/hour):

- Trucks: 2 x 600
- Railcars: 1 x 600
- Barges: 2 x 600

Delivery:

- Ships: 2 x 1500

Water depth: 19 m

8 simultaneous operations

Electronic scales of high accuracy



COMVEX Grain Terminal



**New barge unloading
system**

**Construction
completed in July '22**





Thank you!

COMVEX TERMINAL



Minerals & Grains
Constanta Port, Romania