



**Acceleration of Grain Logistics of Sea Ports
and Grain Quality Control thanks to
INNOVINNPROM Solutions**

Logistics Production Solutions of INNOVINNPROM

Maximize efficiency with a comprehensive suite of automation solutions designed specifically for grain logistics processes at seaports

Logistic Software



Weight Systems



Railway Grain Sampling Complexes



Maintenance and Repair



Flow Samplers



Hopper Dedusting Systems



Track Sampling Systems



Warranty Services



Implementation experience in three seaports

INDUSTRY 4.0

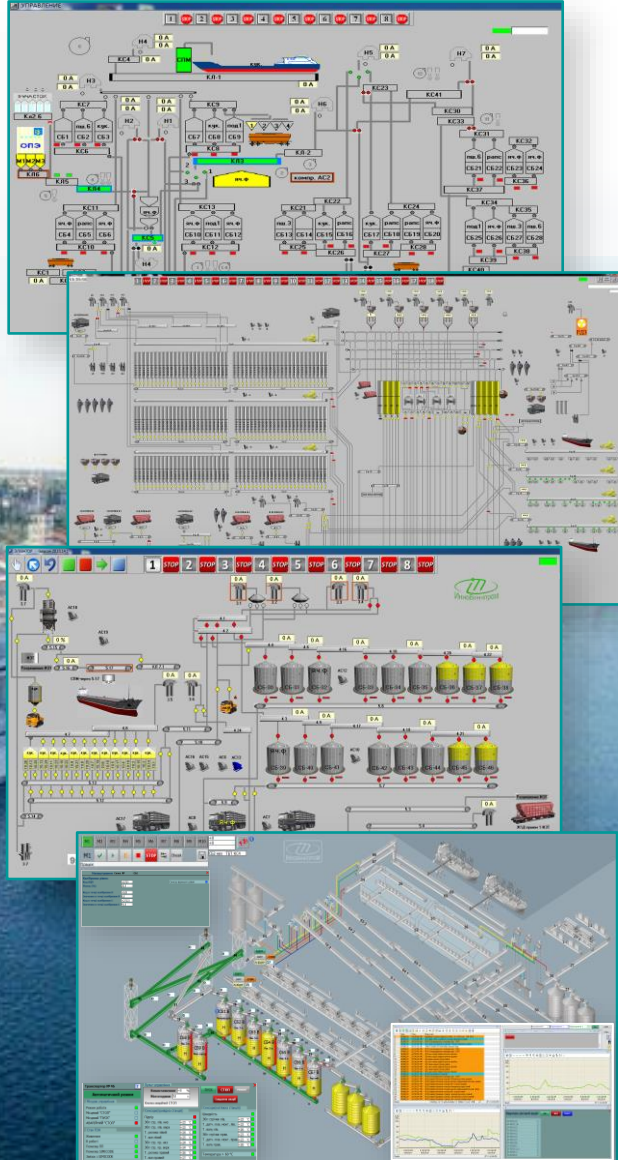
Grain Logistic Solutions of INNOVINNPROM

Map of implemented projects for the automation of grain elevators and port terminals, mills, sugar factories, feed mills, technological lines for the processing of agricultural raw materials and products

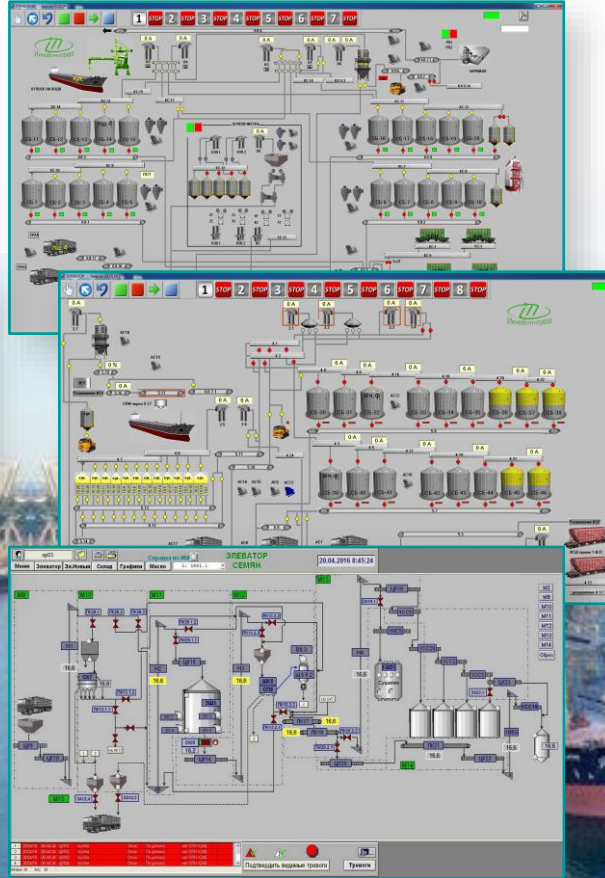


Implemented Grain Port Terminal Engineering Projects

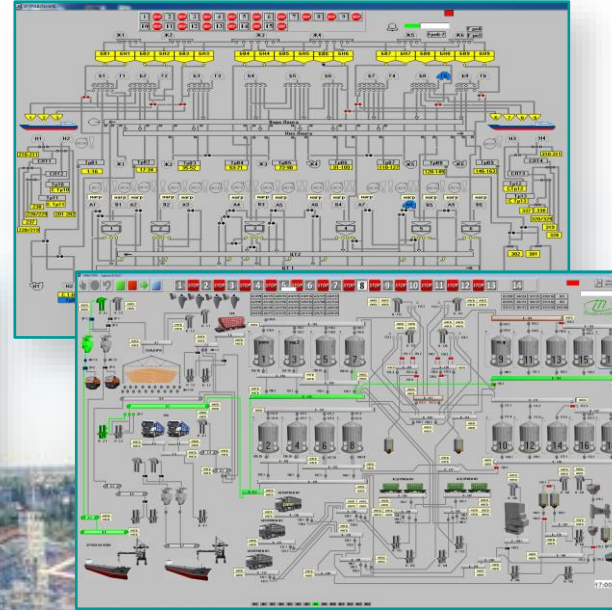
Odesa Seaport



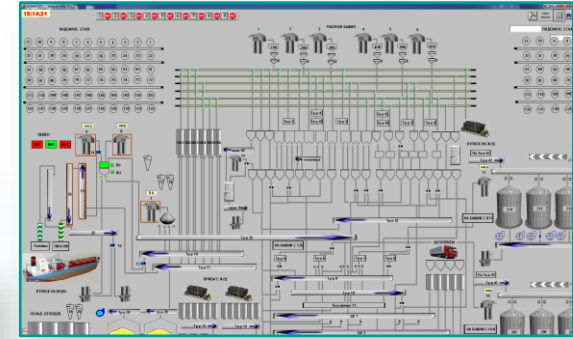
Chornomorsk Seaport



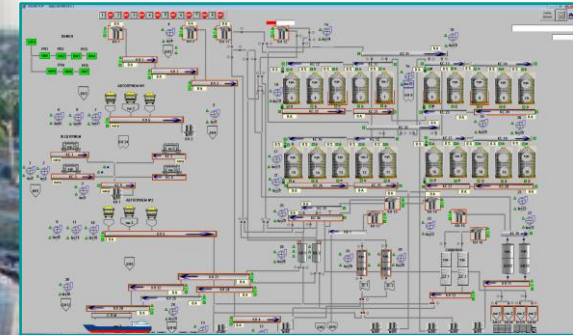
Mykolaiv Seaport



Kherson Seaport



Seaport "Southern"



High-speed Railway Sampling System



- ✓ All sampling processes are automated
- ✓ Automatic sending of a grain sample to the laboratory for quality analysis without human intervention
- ✓ A significant reduction in the cost of the train's stay in the seaport - the train is there in half the time



Chornomorsk Seaport

Solution features:

- ✓ one railway train;
- ✓ four selection modules on one moving frame;
- ✓ manual control mode

Sampling time from one hopper is **1 minute**.



Odesa Seaport

Solution features:

- ✓ two railway trains with one car each;
- ✓ two moving sampling modules;
- ✓ coaxial probes;
- ✓ automatic mode of operation:
 - automatic hatch search;
 - automatic sampling;
 - automatic sample transportation to the laboratory.

Sampling time from one hopper is **3 minutes**.



Mykolaiv Seaport

Solution features:

- ✓ two railway trains with 7 cars each;
- ✓ two moving sampling modules;
- ✓ telescopic probes;
- ✓ automatic mode of operation:
 - automatic hatch search;
 - automatic sampling;
 - automatic sample transportation to the lab.

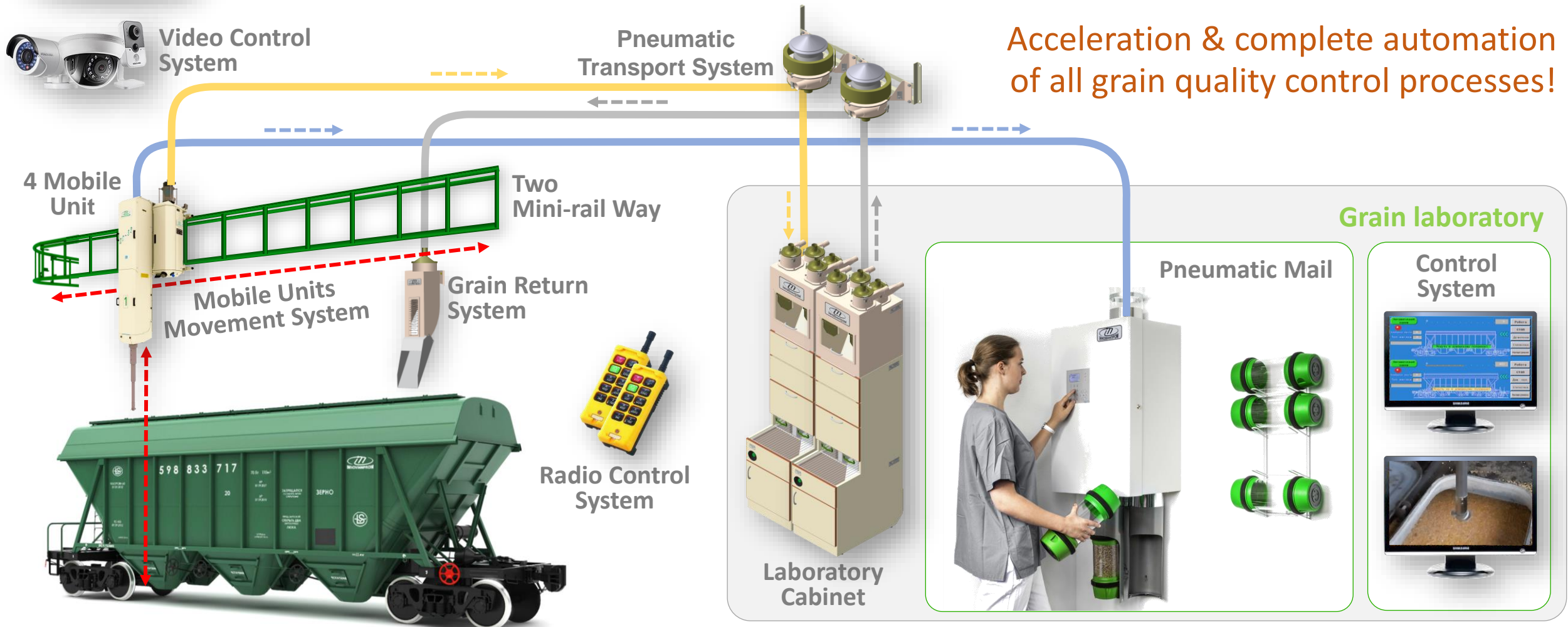
Sampling time from one hopper is **3 minutes**.



INNOVATION Railway Sampling System Project

We are looking for partners and investors to implement a new innovative project to speed up grain logistics in the Mykolaiv seaport.

The project aims to control the grain quality of two railway trains of 27 hopper cars each and increase the throughput capacity of the seaport to 3,000 tons of grain per hour.





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Industry 4.0

