

# ELIMINATION OF INFRASTRUCTURE BOTTLENECKS IN UKRAINE PROJECT PIPELINE

Improvement of EU – Ukraine connectivity  
National Transport Strategy Priorities

# KEY CRITERIA FOR PROJECTS

1 Cross-Borders  
Connectivity

2 TEN-T Corridors

3 Regional  
Development

4 National  
Transport Strategy

5 Infrastructural  
Bottlenecks Elimination

6 Traffic  
Improvements

7 Road Safety

8 Environmental Policies

9 Project Maturity

# PROJECT EVALUATION CRITERIA

## 1 RELEVANCE TO NTS PRIORITIES

- efficiency in public governance in transport sector
- provide quality and efficient transport services
- financially sustainable transport
- improve transport safety and security
- improve urban mobility and regional integration

## 2 SHARE OF BROWNFIELD INVESTMENTS

- of total project costs to eliminate bottlenecks at access points
- of total project costs for upgrade
- of total project costs for ongoing and maintenance activities
- other considerations (namely, % of total project costs that could be relevant for brownfield investments)

## 3 RELEVANCE FOR TEN-T

- connect local/regional networks to TEN-T
- increase capacity of TEN-T
- eliminate bottlenecks in accessing TEN-T
- improving safety
- reducing environmental impact
- other considerations relevant for TEN-T

## 4 LAND USE AND OWNERSHIP

- project included in relevant zoning plan
- relevant territorial local/regional development plan (including land use plan)
- land is formally allocated for project needs

## 5 DEVELOPMENT PHASE (MATURITY)

- conceptual design / feasibility study
- design
- work plan/phasing
- tender documentation
- construction permit issued (if applicable)

## 6 SPECIFIC PROJECT STUDIES

- environmental impact assessment,
- hydrological studies,
- geological studies

## 7 ECONOMIC CONSIDERATIONS

- number of direct users actual and estimated
- economic, social and environmental impacts of the project
- estimated project NPV (positive)
- estimated project IRR

## 8 FINANCIAL CONSIDERATIONS

- estimated FIRR
- estimated payback period
- project leverage ratio
- project ADSCR
- project financing structure
- CAPEX/OPEX

## 9 KEY PROJECT FIGURES

- volume of freight transport served
- volume of passenger transport served
- project effect on improved level of service
- project effect on improved connectivity
- project effect with respect to eliminating bottlenecks
- possible project alternatives indicated
- implementation phases and project timeline
- key project activities to be carried out and results to be achieved
- project strategies to reach above indicated results

## 10 ORGANIZATIONAL STRUCTURE

- connect local/regional networks to TEN-T
- implementing agency indicated
- project operator indicated (if any applicable)

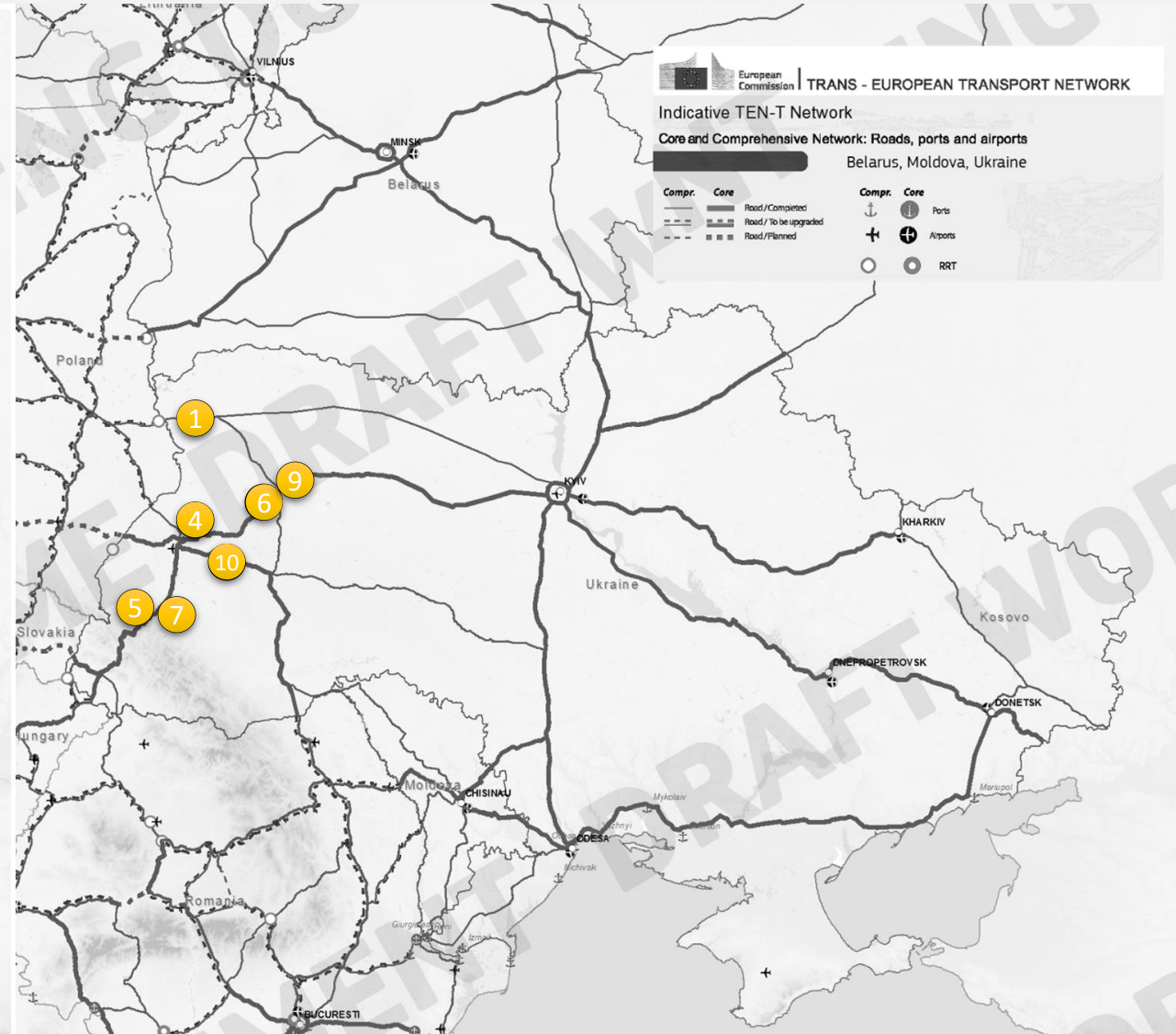
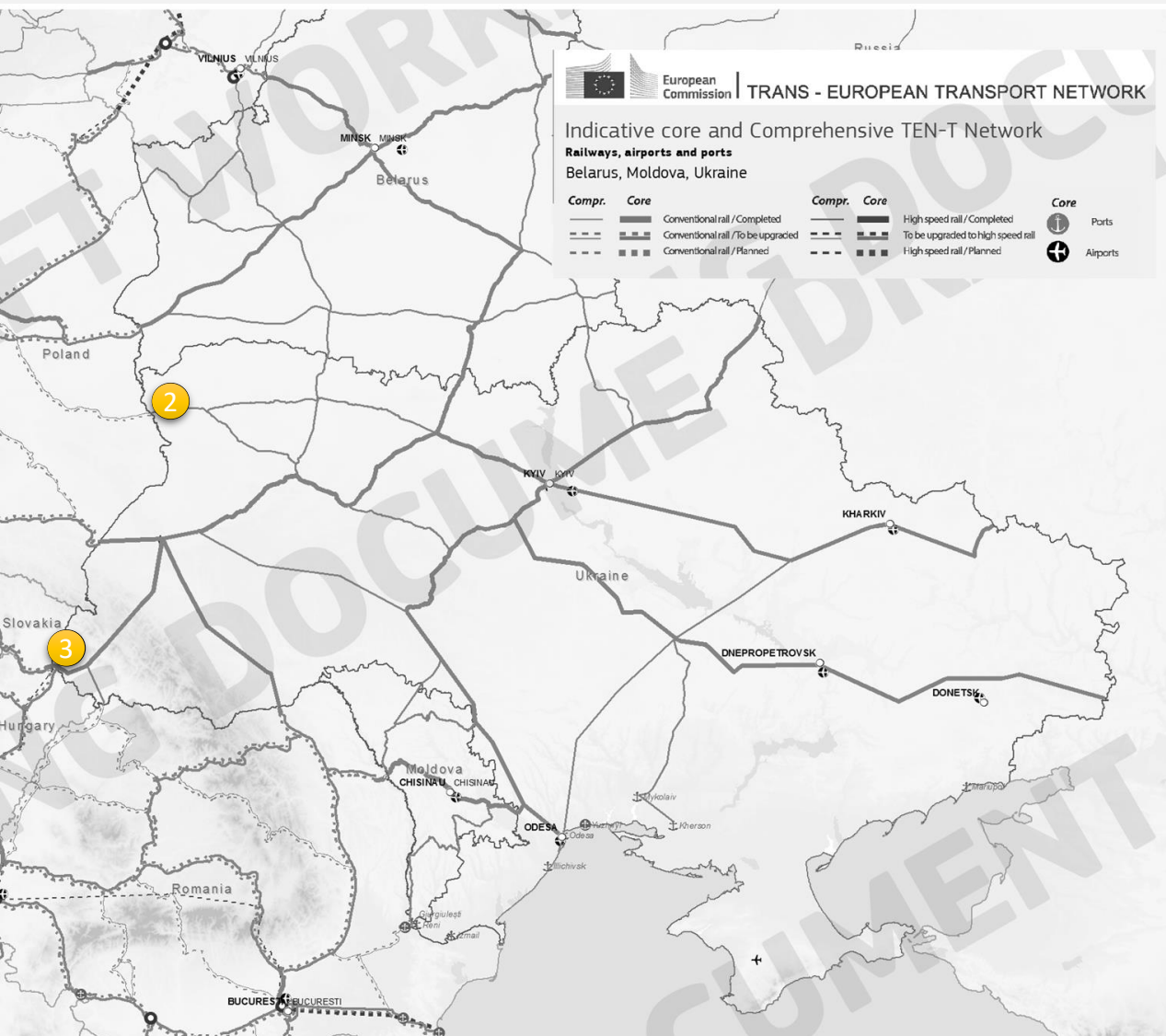
## 11 RISKS IDENTIFIED

- social, political, economic, external and other project risks indicated

# ESTIMATED SCORES FOR SELECTED PROJECTS

Project title	Transport mode/ other	Total score
1. Reconstruction and upgrading to highway Category-1 4 lane international road M-07 / E373 Kyiv - Kovel – Yagodyn the section Kovel - from Yagodyn to Kovel as part of the national transport corridor Baltic Sea - Black Sea, national border with Poland, Volyn region 1A. Reconstruction and upgrading km 447 - km 461 1B. Reconstruction and upgrading km 461 - km 474 1C. Reconstruction and upgrading km 474 - km 505	ROAD	230
2. Electrification of the Kovel - Izov national border railroad section on the Polish border, Volyn region	RAIL	110
3. Reconstruction of European 1435 mm rail track on Záhony, Hungary - Chop - Batiovo – Mukachevo section, national border with Hungary (Zakarpatsky region) and establishment of passenger facilities for European standard trains at Mukachevo	RAIL	110
4. Construction of an overpass at km 522 + 250 international road M-06 / E40 Kyiv – Chop, Lviv region	ROAD	90
5. Construction of overpasses across railway tracks at km 618 + 500 and 618 + 900 international highway M-06 / E50 Kyiv - Chop, Lviv region	ROAD	90
6. Construction of M06/M19 multi level road interchange, Rivne region	ROAD	90
7. Construction of M06/M12 road interchange overpass at km 609+700 at the intersection of international highways M-06 / E40 Kyiv – Chop and M-12 / E50 Stryi - Ternopil - Kirovograd - Znamenka, Lviv region	ROAD	50
8. Electric vehicles and its charging stations EU – Ukraine connectivity	ROAD	40
9. Construction of overpass across railway at km 213 + 950 international road M-19 / E85 Domanovo - Kovel - Chernivtsi - Terebleche in Dubno, Rivne region	ROAD	30
10. Construction of overpass across railway at km 64+339 road of national importance N-02 Lviv - Ternopil, Lviv region	ROAD	30
11. Intelligent transportation system of Ukraine - 1st component	DATABASE	20
12. Odesa logistic hub	LOGISTIC HUB	20

# PROJECT LOCATION ON TEN-T NETWORK



# PROJECT 1

## RECONSTRUCTION AND UPGRADING TO HIGHWAY CATEGORY-1 4 LANE INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL – YAGODYN

TOTAL COST EUR 63.06 mln

Estimated construction cost EUR 60 mln, 2 years

TA for FS (CBA), EIA, design EUR 3.01 mln, 6 months

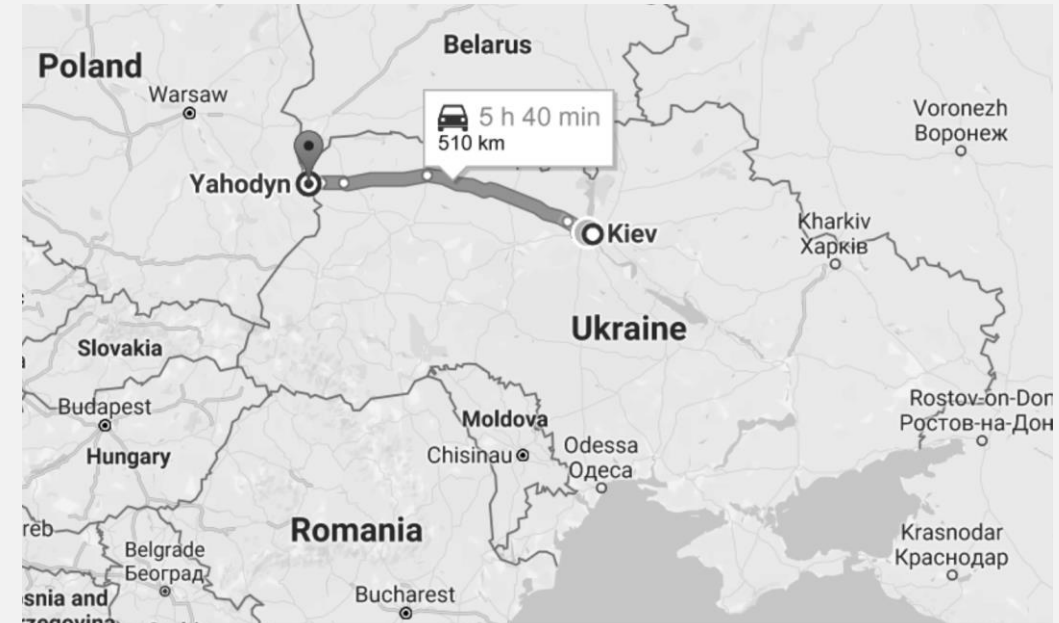
Cost of design works according to national standards EUR 0.05 mln

Increases AADT from 15 000 to 22 000

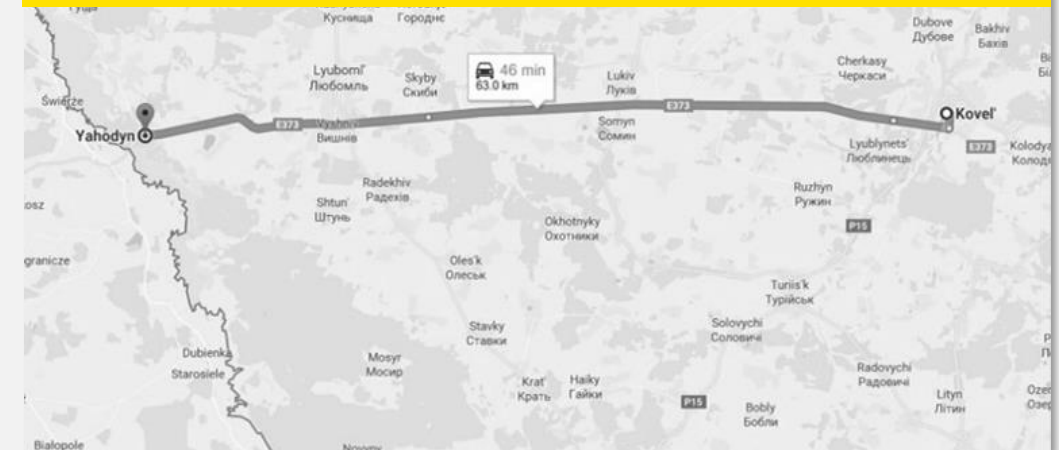
Eliminates bottlenecks

Improves transport conditions along the international transport corridor

Designed to rehabilitate 52.2 km (excluding the commissioned km 482 + 100 - km 487 + 500 section) of existing M07/E373 road section in order to bring it in line with 1st road category



**RECONSTRUCTION AND UPGRADING TO HIGHWAY CATEGORY-1 4 LANE INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL – YAGODYN THE SECTION KOVEL - FROM YAGODYN TO KOVEL AS PART OF THE NATIONAL TRANSPORT CORRIDOR BALTIC SEA - BLACK SEA NATIONAL BORDER WITH POLAND, VOLYN REGION**



# PROJECT 1A

## RECONSTRUCTION AND UPGRADING KM 447 - KM 461 INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN

TOTAL COST EUR 19.635 mln

Estimated construction cost EUR 18.7 mln, 2 years  
TA for FS (CBA), EIA, design EUR 0.935 mln, 6 months

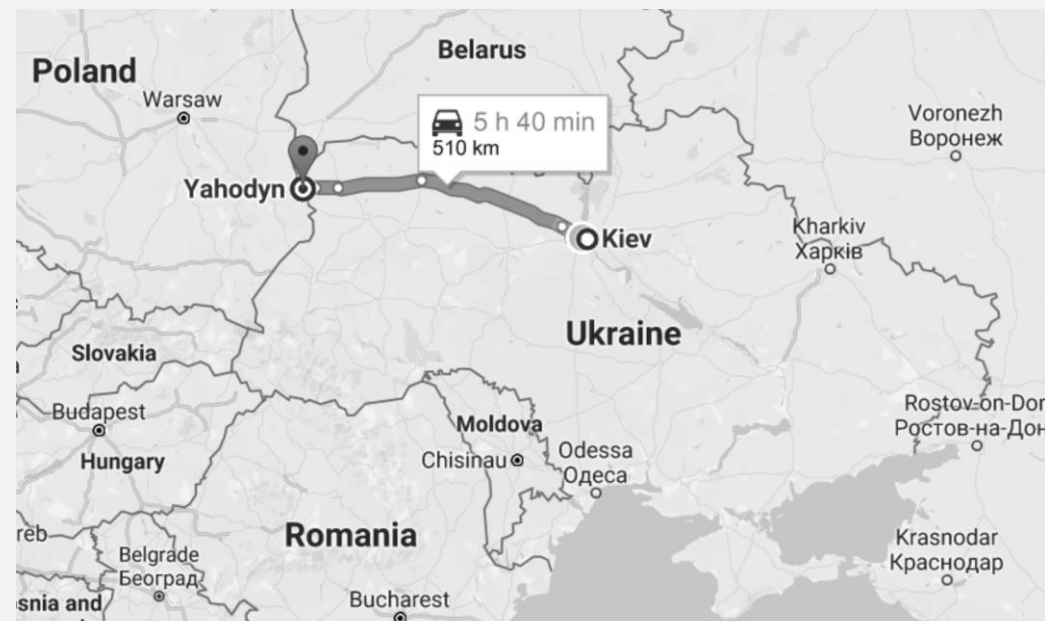
Eliminates bottlenecks

Improves TEN-T connectivity

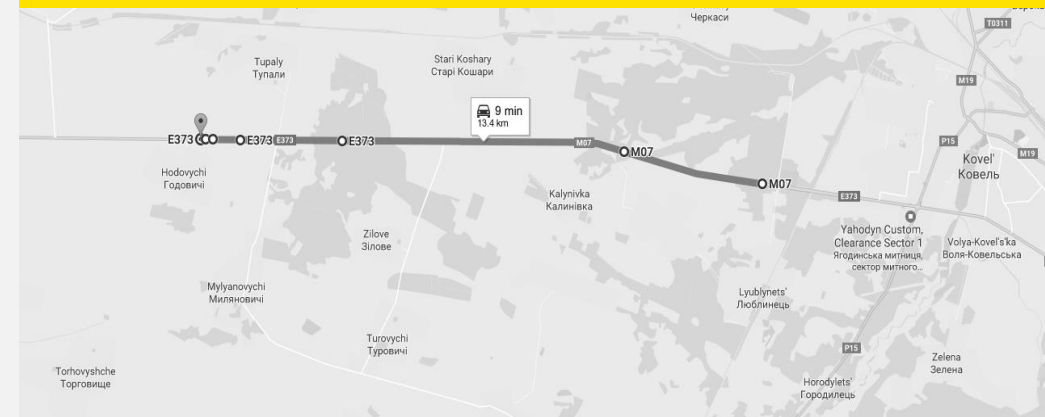
### PROJECT COMPONENTS

**Project 1 A Estimated construction cost is 18,7 mln EUR**

M07 road sections	Length, km	Estimated construction cost, mln EUR
km 447 + 638 - km 451 + 000	3.4	3.0
km 451 + 000 - km 454 + 000	3.0	4.6
km 454 + 000 - km 457 + 500	3.5	5.0
km 457 + 500 - km 461 + 000	3.5	6.1



**RECONSTRUCTION AND UPGRADING KM 447 - KM 461 UNDER TO THE 1ST HIGHWAY CATEGORY 4 LANES OF THE INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN THE SECTION KOVEL - FROM YAGODYN TO KOVEL AS PART OF THE NATIONAL TRANSPORT CORRIDOR BALTIC SEA - BLACK SEA STATE BORDER WITH POLAND, VOLYN REGION**



# PROJECT 1B

## RECONSTRUCTION AND UPGRADING KM 461 - KM 474 INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN

TOTAL COST EUR 21.945 mln

Estimated construction cost EUR 20.9 mln, 2 years

TA for FS (CBA), EIA, design EUR 1.045 mln , 6 months

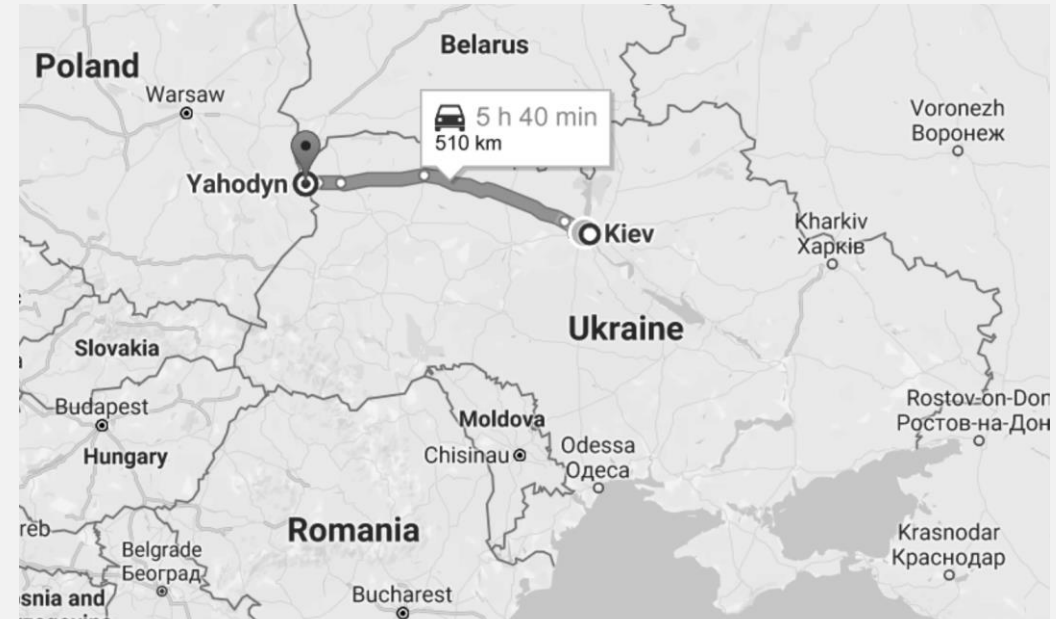
Eliminates bottlenecks

Improves TEN-T connectivity

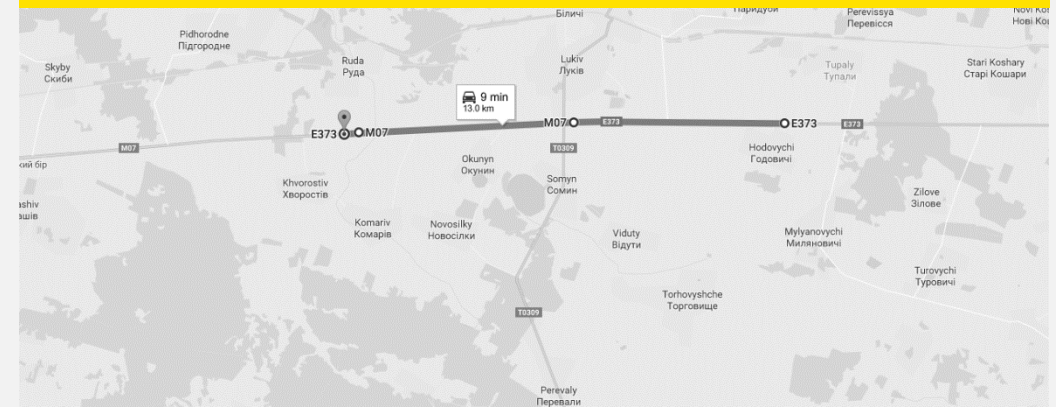
### PROJECT COMPONENTS

**Project 1 B Estimated construction cost is 20.9 mln EUR**

M07 road sections	Length, km	Estimated construction cost, mln EUR
km 461 + 000 - km 464 + 400	3.4	5.1
km 464 + 400 - km 468 + 000	3.6	5.5
km 468 + 000 - km 471 + 000	3.0	5.0
km 471 + 000 - km 474 + 000	3.0	5.3



**RECONSTRUCTION AND UPGRADING KM 461 - KM 474 UNDER TO THE 1ST HIGHWAY CATEGORY 4 LANES OF THE INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN THE SECTION KOVEL - FROM YAGODYN TO KOVEL AS PART OF THE NATIONAL TRANSPORT CORRIDOR BALTIC SEA - BLACK SEA STATE BORDER WITH POLAND, VOLYN REGION**





# PROJECT 1C

## RECONSTRUCTION AND UPGRADING KM 474 - KM 505 INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN

TOTAL COST EUR 21.9 mln

Estimated construction cost EUR 20.6 mln, 2 years

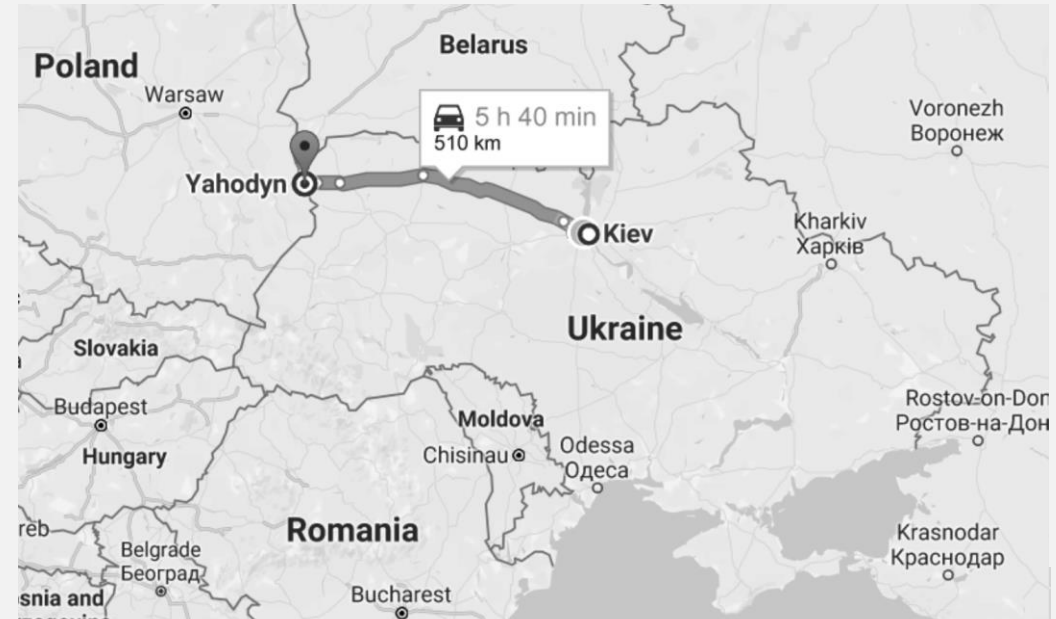
TA for FS (CBA), EIA, design EUR 1.03 mln, 6 months

Project shall allow eliminate bottlenecks and will improve TEN-T connectivity

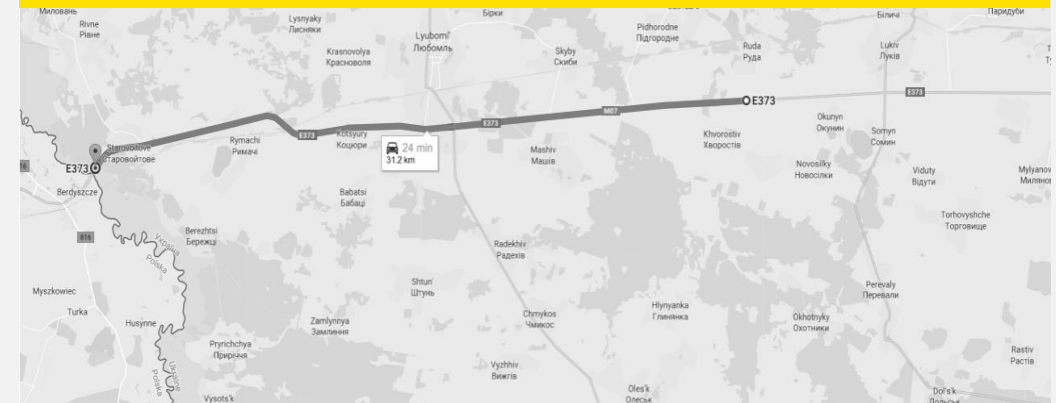
### PROJECT COMPONENTS

Project 1 C Estimated construction cost is 20.6 mln EUR

M07 road sections	Length, km	Estimated construction cost, mln EUR
km 474 + 000 - km 478 + 000	4.0	5.4
km 478 + 000 - km 482 + 100	4.0	2.4
km 482 + 100 - km 487 + 500	5.4	commissioned
km 487 + 100 - km 496 + 500	9.0	6.5
km 496 + 500 - km 505 + 286	8.8	6.3



**RECONSTRUCTION AND UPGRADING KM 474 - KM 505 UNDER TO THE 1ST HIGHWAY CATEGORY 4 LANES OF THE INTERNATIONAL ROAD M-07 / E373 KYIV - KOVEL - YAGODYN THE SECTION KOVEL - FROM YAGODYN TO KOVEL AS PART OF THE NATIONAL TRANSPORT CORRIDOR BALTIC SEA - BLACK SEA STATE BORDER WITH POLAND, VOLYN REGION**



# PROJECT 2

## ELECTRIFICATION OF THE KOVEL - IZOV RAILROAD SECTION TO THE POLISH BORDER, VOLYN REGION

TOTAL COST EUR 13.3 mln

Estimated construction cost EUR 12.7 mln, 2 years

TA for FS (CBA), EIA, design EUR 0.635 mln, 6 months

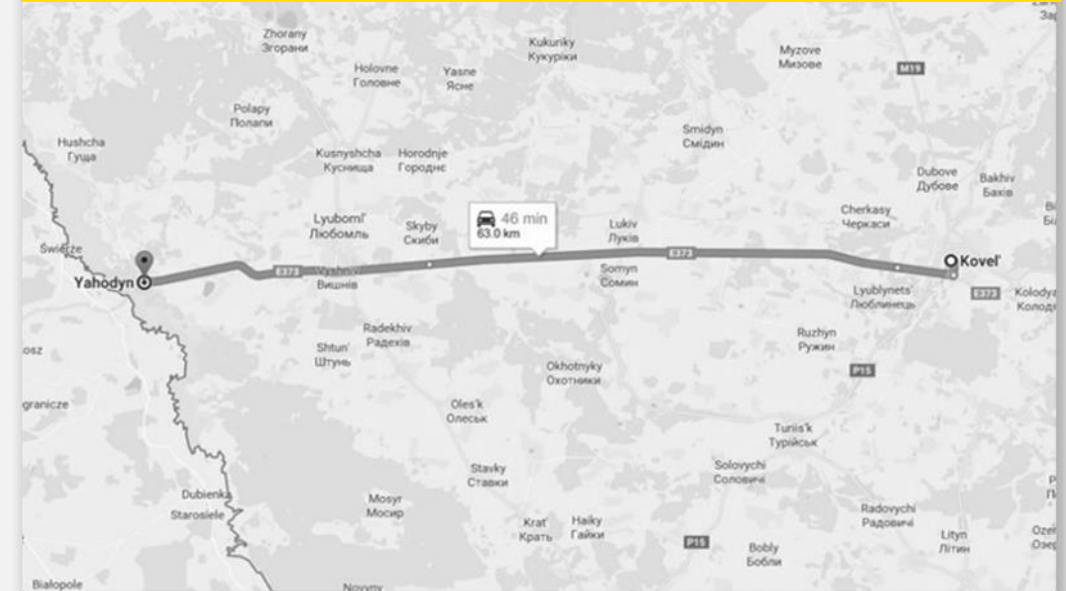
### COMPONENTS

- capital overhaul of 64.4 km of concrete - ties railway tracks
- replacement of 35 railway switchers

Increases commercial speed of trains up to 60 km/h



## ELECTRIFICATION OF THE KOVEL - IZOV BORDER RAILROAD SECTION ON THE POLISH BORDER, VOLYN REGION



# PROJECT 3

## RECONSTRUCTION OF EUROPEAN 1435 MM RAIL TRACK ON ZÁHONY, HUNGARY - CHOP - BATIOVO – MUKACHEVO SECTION AND ESTABLISHMENT OF PASSENGER TERMINAL

TOTAL COST EUR 8.15 mln

- Estimated construction cost EUR 7.8 mln, 2 years
  - EUR 4.8 mln for rail tracks
  - EUR 3 mln for passenger terminal
- TA for FS (CBA), EIA, design EUR 0.35 mln, 6 months

### COMPONENTS

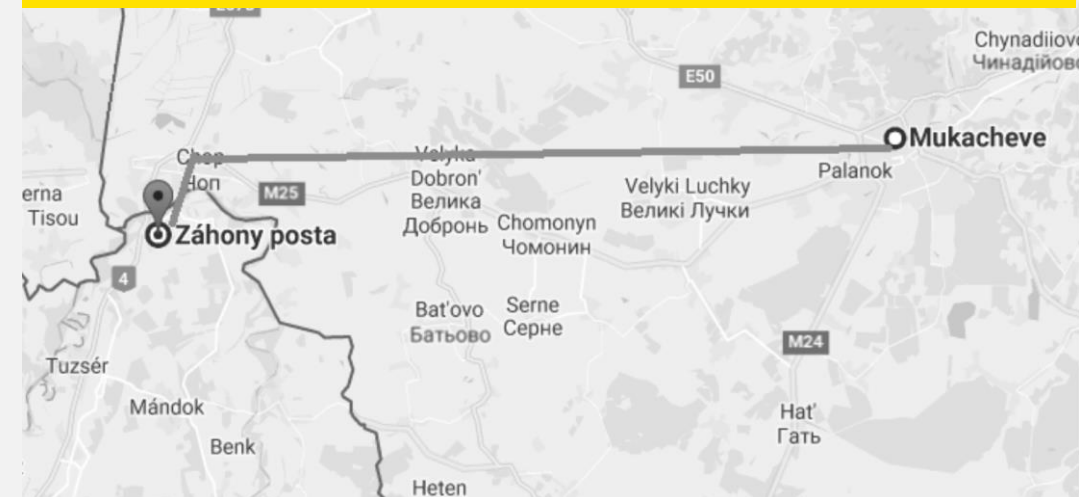
- Rehabilitation of rail tracks along a 40.8 km section
- Upgrade Mukachevo railway station to process passenger trains

1435/1520 bogies need to be changed

Allows for 18 passenger trains per day



RECONSTRUCTION OF EUROPEAN 1435 MM RAIL TRACK ON ZÁHONY, HUNGARY - CHOP - BATIOVO – MUKACHEVO SECTION, STATE BORDER WITH HUNGARY (ZAKARPATSKYI REGION) AND ESTABLISHMENT OF PASSENGER FACILITIES FOR EUROPEAN STANDARD TRAINS AT MUKACHEVO



# PROJECT 4

## CONSTRUCTION OF AN OVERPASS AT KM 522 + 250 INTERNATIONAL ROAD M-06 / E40 KYIV – CHOP, LVIV REGION

TOTAL COST EUR 3.535 mln

Estimated construction cost EUR 3.3 mln, 2 years

TA for FS (CBA), EIA, design EUR 0.165 mln, 6 months

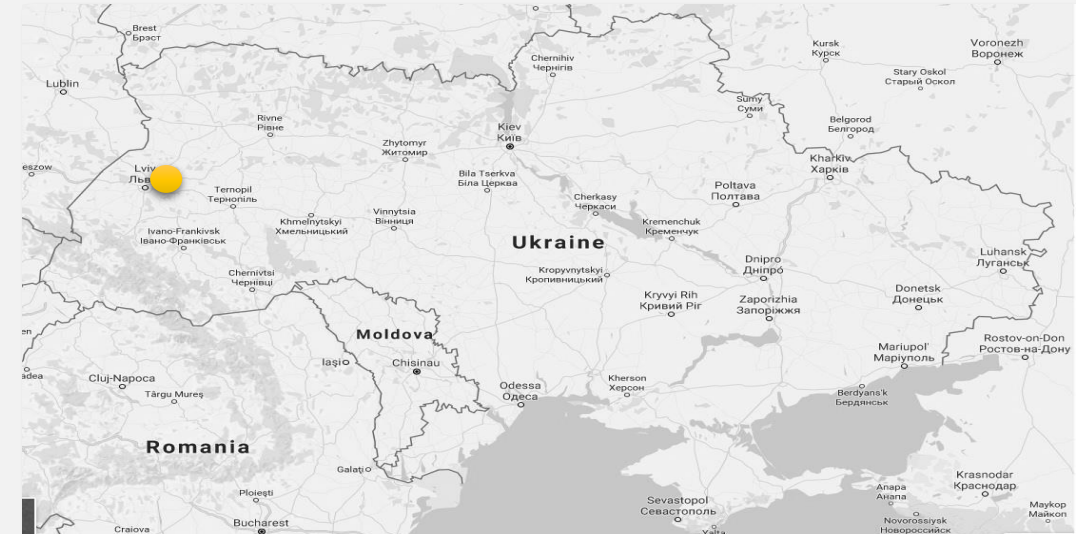
Cost of design work according to national standards EUR 0.07 mln.

### COMPONENTS

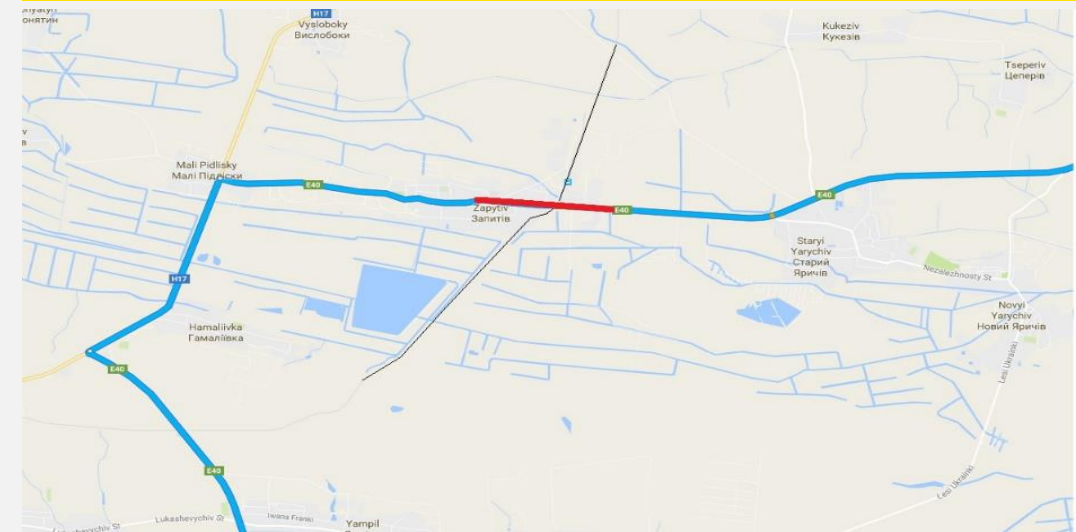
- construction of railway overpass next to Zapytiv village -length of railway overpass shall be 654-754 m, including two ramps
- re-alignment of two 110 kW transmission lines.

Increases the average commercial speed at Zapytiv-Dubliany railway section, eliminates road-railway grade crossings

Contributes to road safety - reduces the probability of collision of road and railway traffic



## CONSTRUCTION OF AN OVERPASS AT KM 522 + 250 INTERNATIONAL ROAD M-06 / E40 KYIV – CHOP, LVIV REGION



# PROJECT 5

## CONSTRUCTION OF OVERPASSES ACROSS RAILWAY TRACKS AT KM 618 + 500 AND 618 + 900 M-06 / E50 KYIV – CHOP

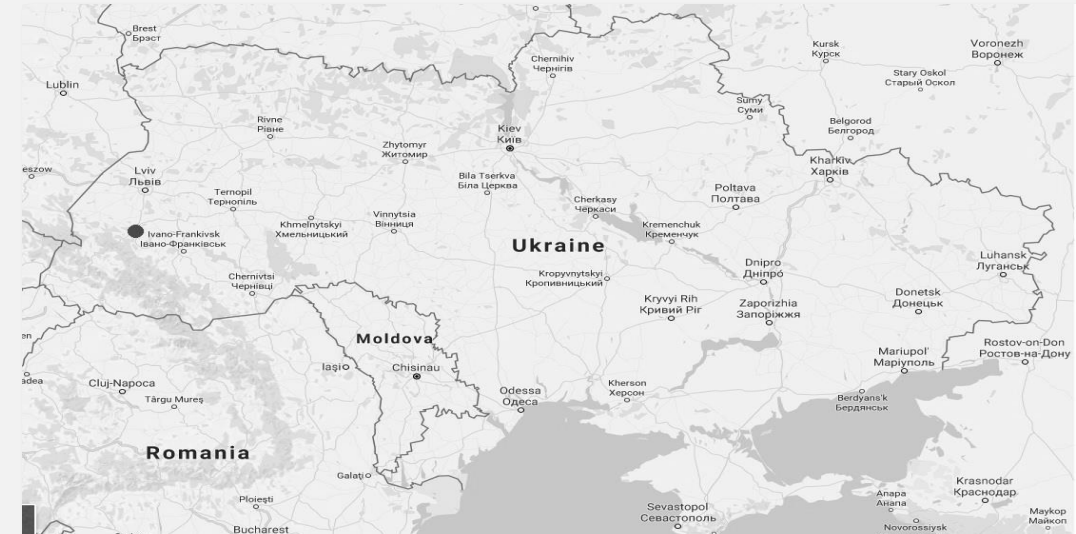
TOTAL COST EUR 5.77 mln

Estimated construction cost EUR 5.4 mln, 2 years

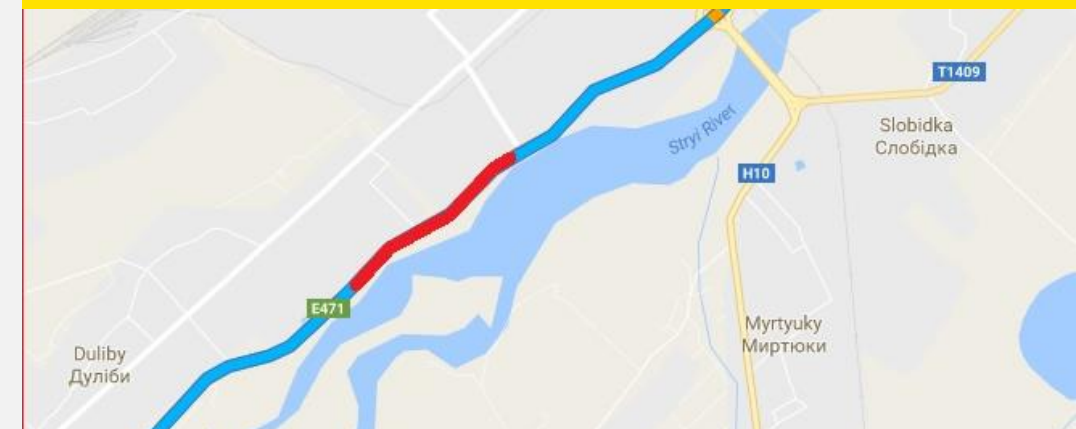
TA for FS (CBA), EIA, design EUR 0.27 mln, 6 months

Cost of design works according national standards is EUR 0.1 mln

- Increases the average commercial speed at Verchany-Nezhukhiv railway section
- Eliminates road-railway grade crossings
- Contributes to road safety
- Reduces the probability of collision of road and railway traffic



CONSTRUCTION OF OVERPASSES ACROSS RAILWAY TRACKS AT KM 618 + 500 AND 618 + 900 INTERNATIONAL HIGHWAY M-06 / E50 KYIV - CHOP, LVIV REGION



# PROJECT 6

## CONSTRUCTION OF M06/M19 ROAD MULTI-LEVEL ROAD INTERCHANGE, RIVNE REGION

TOTAL COST EUR 10.344 mln

Estimated construction cost EUR 9.68 mln, 2 years

TA for FS (CBA), EIA, design EUR 0.484 mln, 6 months

Cost of design works according to national standards EUR 0.18 mln

AADT M06 12 020 and M19 AADT 4 731 roads

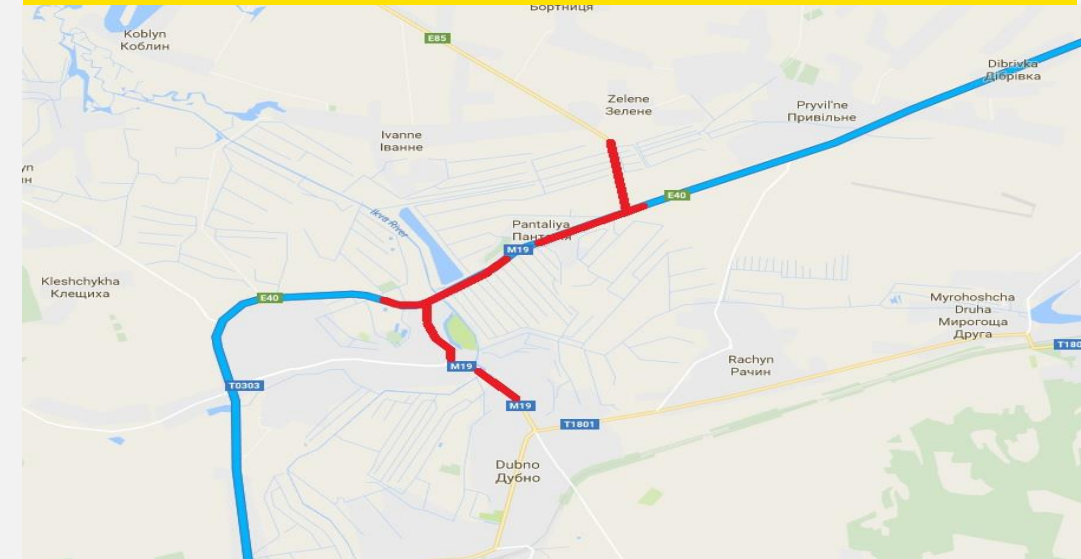
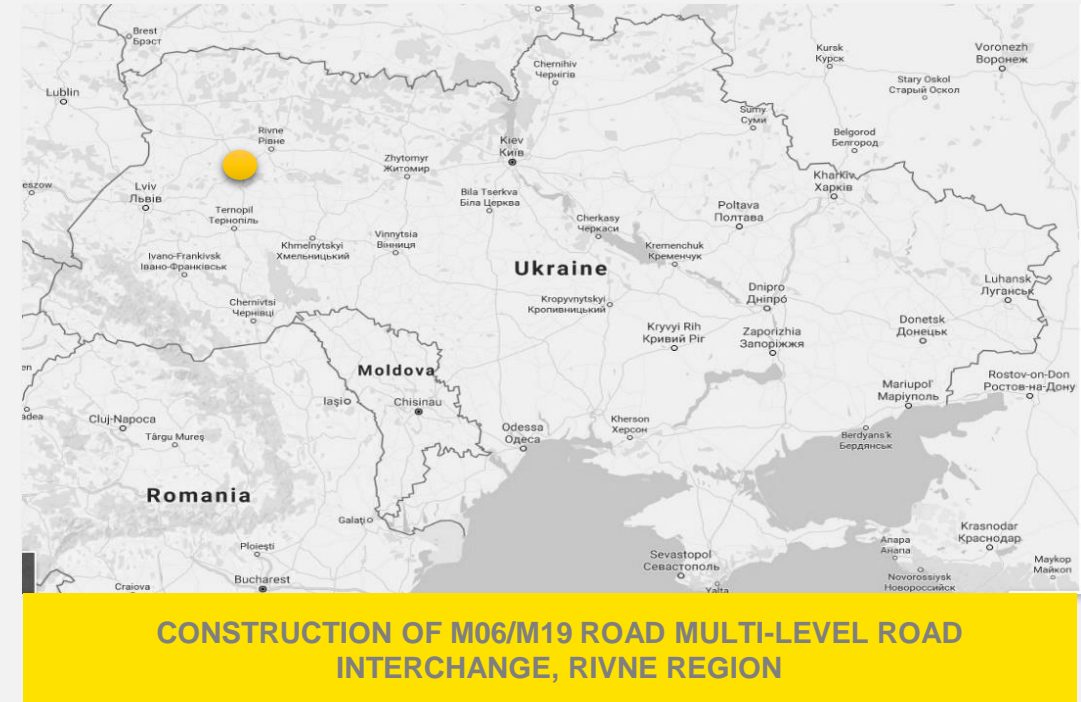
Be reclassified to highway Category-1

Will contain speed change lanes

The total length of interchange approaches shall constitute 4 km

The observed traffic intensity in the locality of Dubno city constitutes 19 000 vehicles per day

Eliminates existing road traffic congestions at M06/M19 crossing



# PROJECT 7

## CONSTRUCTION OF M06/M12 ROAD INTERCHANGE OVERPASS AT KM 609+700 AT THE INTERSECTION OF INTERNATIONAL HIGHWAYS M-06 / E40 KYIV – CHOP AND M-12 / E50 STRYI - TERNOPIЛ - KIROVOGRAD - ZNAMENKA, LVIV REGION

TOTAL COST EUR 9.475 mln

Estimated construction cost EUR 8.9 mln, 2 years

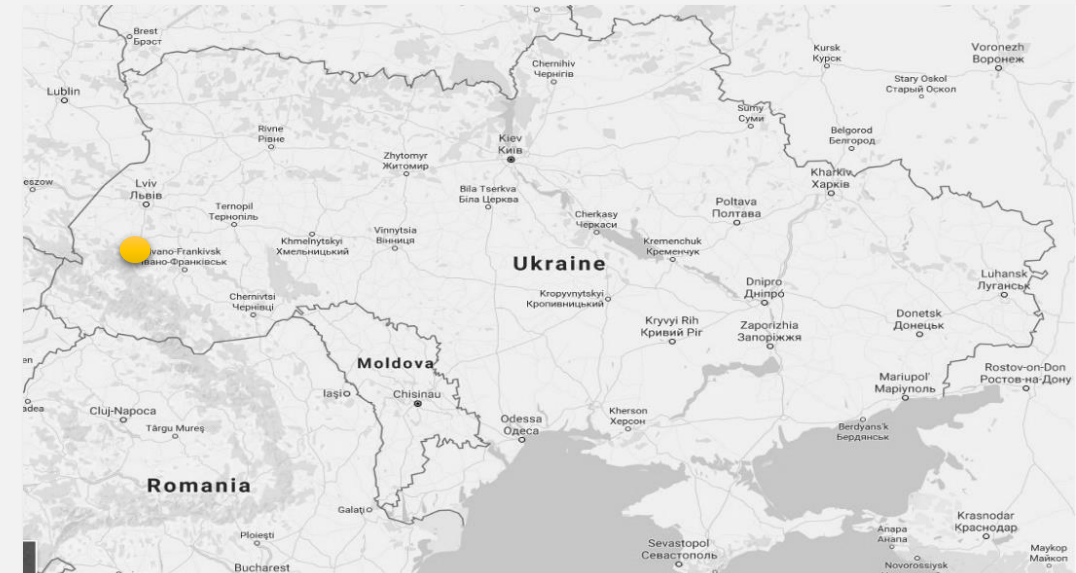
TA for FS (CBA), EIA, design EUR 0.445 mln, 6 months

Cost of design works according to national standards EUR 0.13 mln

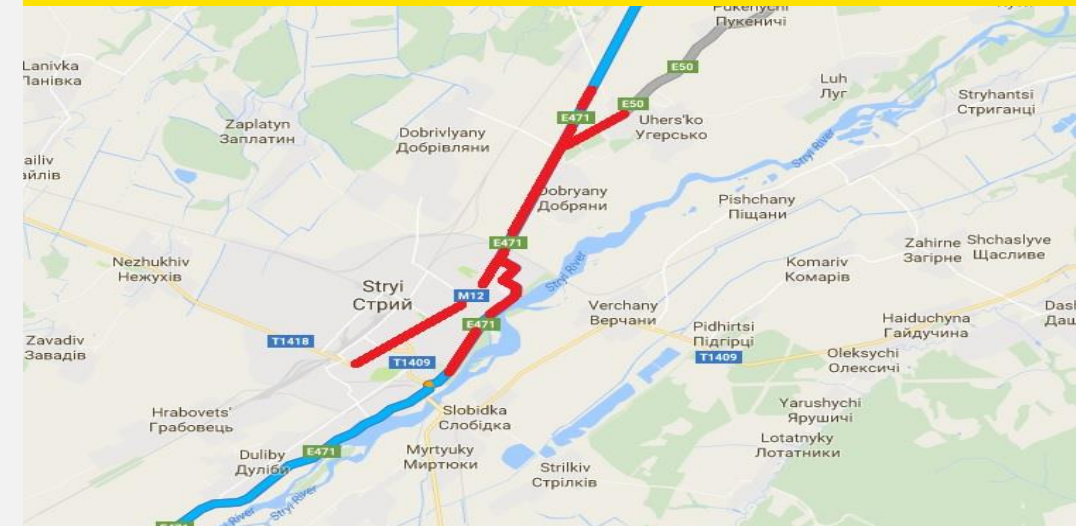
Observed traffic intensity in the locality of Stryi city constitutes 20 000 vehicles per day

Despite M06 widening at M06/M12 intersection there are frequent traffic jams

Eliminates existing road traffic congestions at M06/M12 crossing



CONSTRUCTION OF M06/M12 ROAD INTERCHANGE OVERPASS AT KM 609+700 AT THE INTERSECTION OF INTERNATIONAL HIGHWAYS M-06 / E40 KYIV – CHOP AND M-12 / E50 STRYI - TERNOPIЛ - KIROVOGRAD - ZNAMENKA, LVIV REGION



# PROJECT 8

## ELECTRIC VEHICLES AND ITS CHARGING STATIONS EU-UKRAINE CONNECTIVITY

TOTAL COST EUR 5 mln

Estimated construction cost EUR 4.76 mln, 2 years  
TA for FS (CBA), EIA, design EUR 0.24 mln, 6 months

Enabling supercharging infrastructure for EV along major trans-Ukrainian highways, connecting all parts of Ukraine to the EU for a seamless electric travel

### COMPONENTS

Phase 1 EUR 1.5 mln

Number of superchargers: 14-15

Route: Kharkiv - Poltava - Kyiv - Zhytomyr - Rivne - Dubno - Lviv - Korczowa (Poland, Krakow direction)

Phase 2 EUR 2.9 mln

Number of superchargers: 28-29



### Phase 2 Routes

A1: Dubno - Lutsk - Berdyszcze (Poland, Lublin direction)

A2: Dubno - Ternopil - Ivano-Frankivsk - Chernivtsi - Siret (Romania, Suceava direction)

A3: Ternopil - Khmel'nyts'kyi - Vinnytsia

B1: Kyiv - Odessa

B2: Odessa - Mykolaiv - Kherson

C1: Poltava (Kharkiv) - Dnipro

C2: Cherkasy - Kremenchuk - Kropyvnytskyi - Kryvyi Rih-Zaporizhia

D1: Kyiv - Chernihiv

D2: Kyiv - Sumy



# PROJECT 9

## CONSTRUCTION OF OVERPASS ACROSS RAILWAY AT KM 213 + 950 INTERNATIONAL ROAD M-19 / E85 DOMANOVO - KOVEL - CHERNIVTSI - TEREBLECHE IN DUBNO, RIVNE REGION

TOTAL COST EU 4.95 mln

Estimated construction cost EUR 4.6 mln, 2 years

TA for FS (CBA), EIA, design EUR 0.23 mln, 6 months

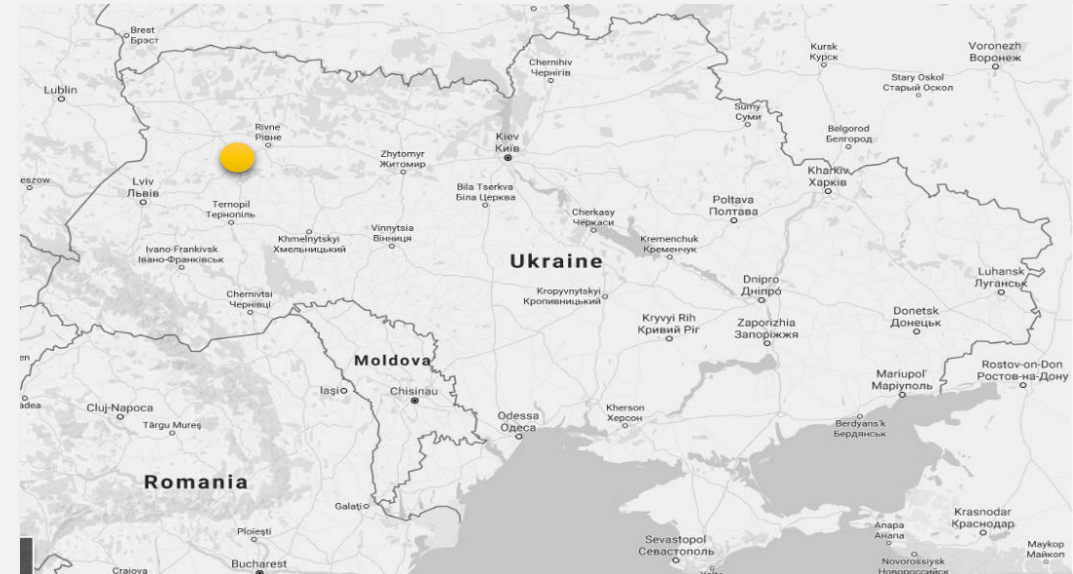
Cost of design works according to the national standards EUR 0.12 mln

Length of railway overpass - 55 m

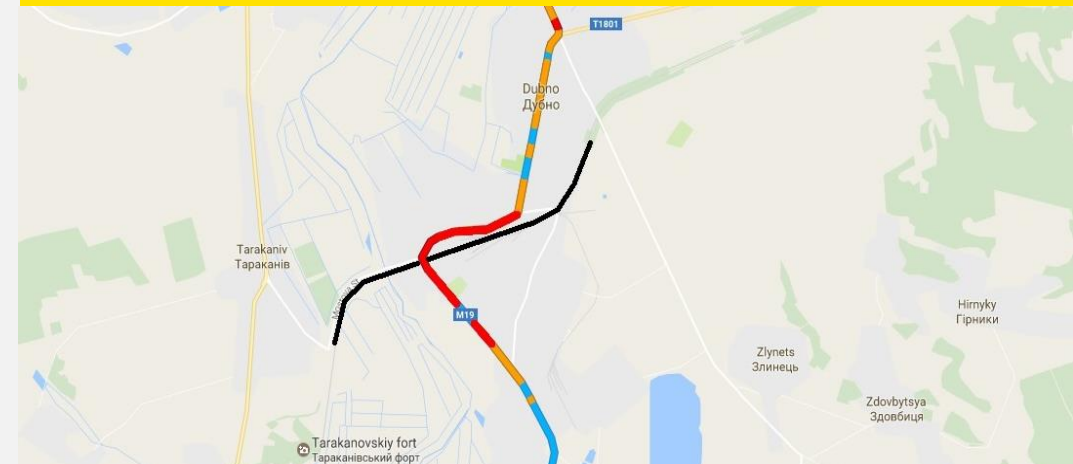
Length of railway ramps - 400 m

Project shall improve railway traffic by increasing average commercial speed at Dubno – Kamianytsi-Volynska railway section

Contributes to road safety - will reduce the probability of collision of road and railway traffic



CONSTRUCTION OF OVERPASS ACROSS RAILWAY AT KM 213 + 950  
INTERNATIONAL ROAD M-19 / E85 DOMANOVO - KOVEL - CHERNIVTSI -  
TEREBLECHE IN DUBNO, RIVNE REGION



# PROJECT 10

## CONSTRUCTION OF OVERPASS ACROSS RAILWAY KM 64+339 ROAD OF NATIONAL IMPORTANCE N-02 LVIV - TERNOPIЛ , LVIV REGION

TOTAL COST is EUR 4.95 mln

Estimated construction cost EUR 4.6 mln, 2 years

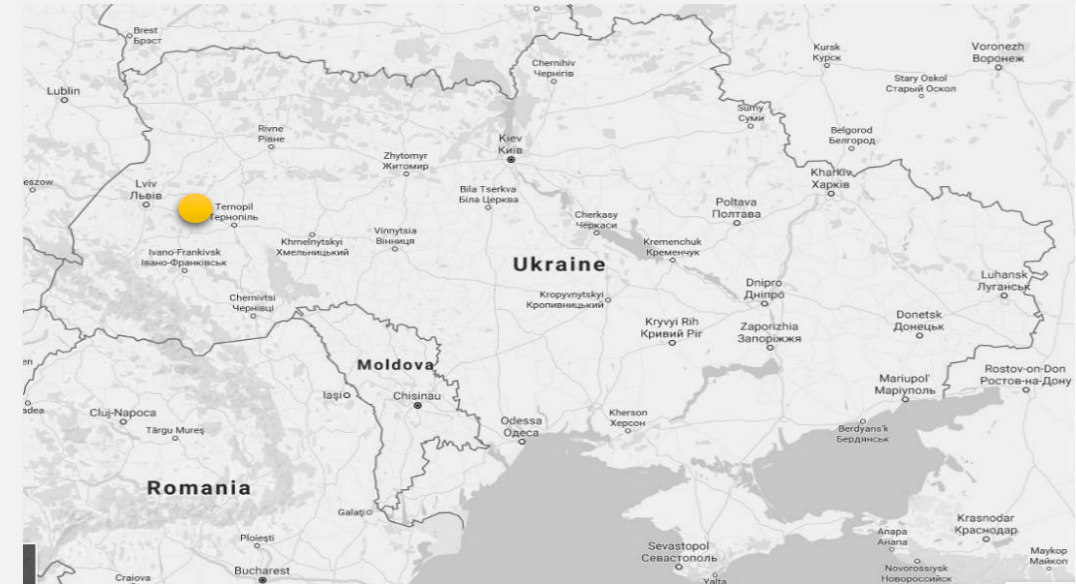
TA for FS (CBA), EIA, design EUR 0.23 mln, 6 months

Cost of design works according to the national standards EUR 0.12 mln

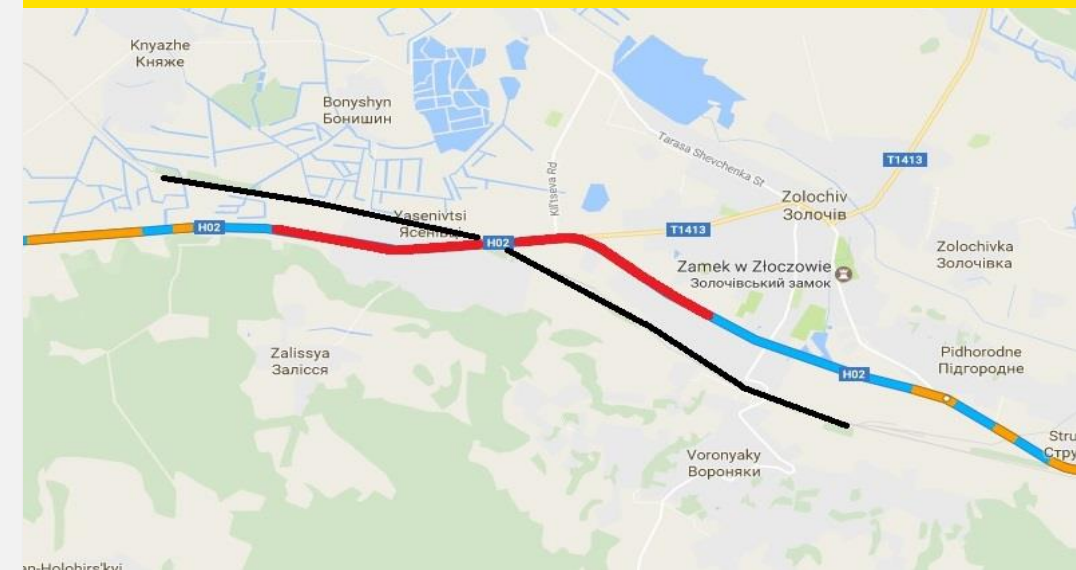
Increases AADT from 7 000 to 8 000

Increases average commercial speed at Yasenivtsi-Zolochiv railway section

Contributes to road safety - reduces the probability of collision of road and railway traffic



## CONSTRUCTION OVERPASS ACROSS RAILWAY KM 64 + 339 ROAD OF NATIONAL IMPORTANCE N-02 LVIV - TERNOPIЛ , LVIV REGION



# PROJECT 11

## INTELLIGENCE TRANSPORTATION SYSTEM OF UKRAINE - 1ST COMPONENT

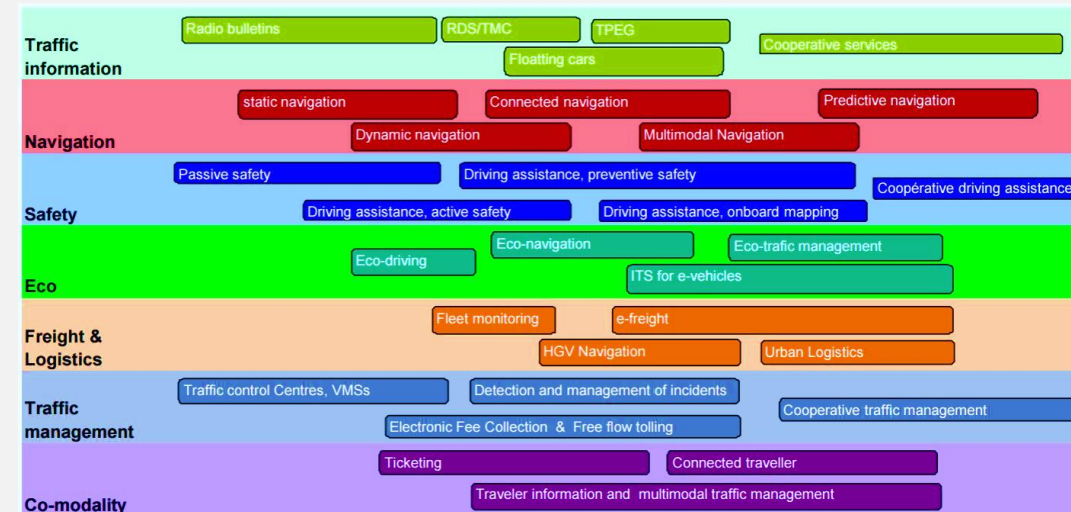
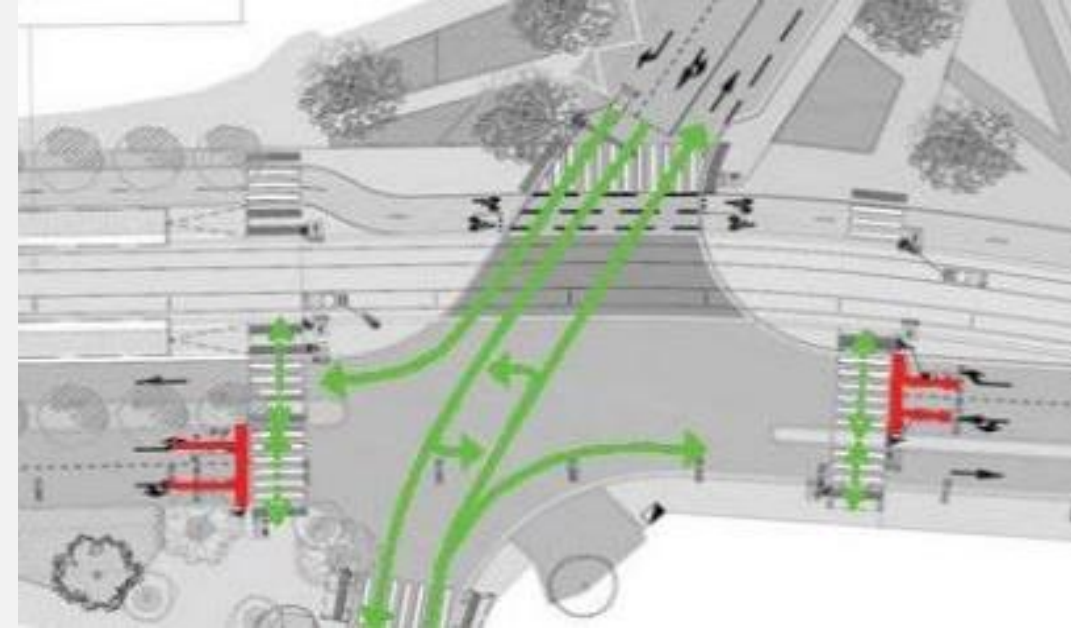
TOTAL COST EUR 20 mln

Estimated construction cost EUR 19 mln, 2 years  
TA for FS (CBA), EIA, design EUR 1 mln, 6 months

### COMPONENTS

- Transport Planning
- Actual road conditions,
- Financial modeling,
- Safety management,
- Traffic control centers

Influences potential sustainability



# PROJECT 12

## ODESA LOGISTIC HUB

✓ **TOTAL COST is EUR 5 mln**

### Components:

TA for construction of logistic hub next to Odesa airport EUR 4.8 mln, 12 months  
(TA for FS, CBA, EIA, design)

TA for reconstruction of Odesa runway is EUR 0.2 mln, 6 months  
(TA for FS, CBA, EIA, design)

Seaports' cargo flow of Odesa region is 80 mln tons

Export-import flow of Odesa region EUR 2.8 mln

Odesa region produces goods for EUR 2 mln

- ✓ Connects Odesa seaports' cargo flow with EU
- ✓ Improves EU-Ukraine connectivity
- ✓ Improves intermodal connectivity
- ✓ Provides cost cut of EU-China cargo flow transit
- ✓ Eliminates infrastructure bottlenecks
- ✓ Improves safety, regional development, TEN-T corridors



**THANK YOU  
FOR YOUR  
ATTENTION**