



MAJOR RAILWAY PROJECTS FUNDED UNDER CEF 2014-2020

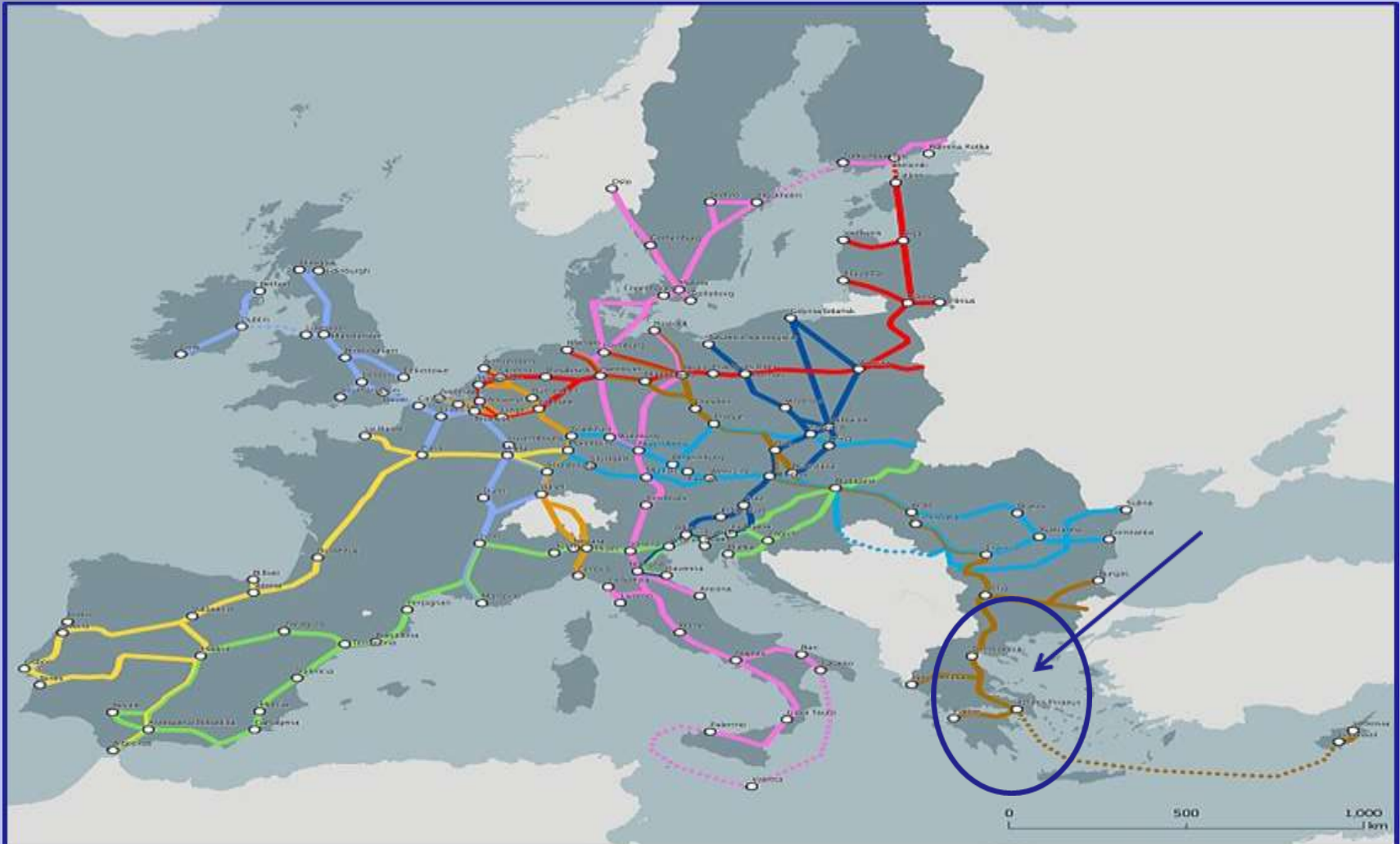
CEF CALLS 2016

INFO DAY

Athens, 2 December 2016



GREEK PART OF OEM CORRIDOR



Core Network Corridors

- | | | |
|------------------------|----------------------------------|-------------------------------|
| A (Baltic - Adriatic) | D (Orient/East-Med) | G (Atlantic) |
| B (North Sea - Baltic) | E (Scandinavian - Mediterranean) | H (North Sea - Mediterranean) |
| C (Mediterranean) | F (Rhine - Alpine) | I (Rhine - Danube) |

PLANNING TARGET FOR PATHE/P CORRIDOR

Create a high-speed rail corridor of Increased Capacity equipped with modern signalling, telecommanding, telecommunication and electrification systems fulfilling the interoperability requirements of the European railways.



- Backbone of the Greek railway network
- Interconnects the big urban centres of the country and areas with significant growth in the primary and secondary sectors
- Links to the major freight centres, main ports and Trans-European corridors.
- Part of OEM corridor



EIDOMENI

PROMACHONAS

ALBANIA

THESSALONIKI

PATRAS

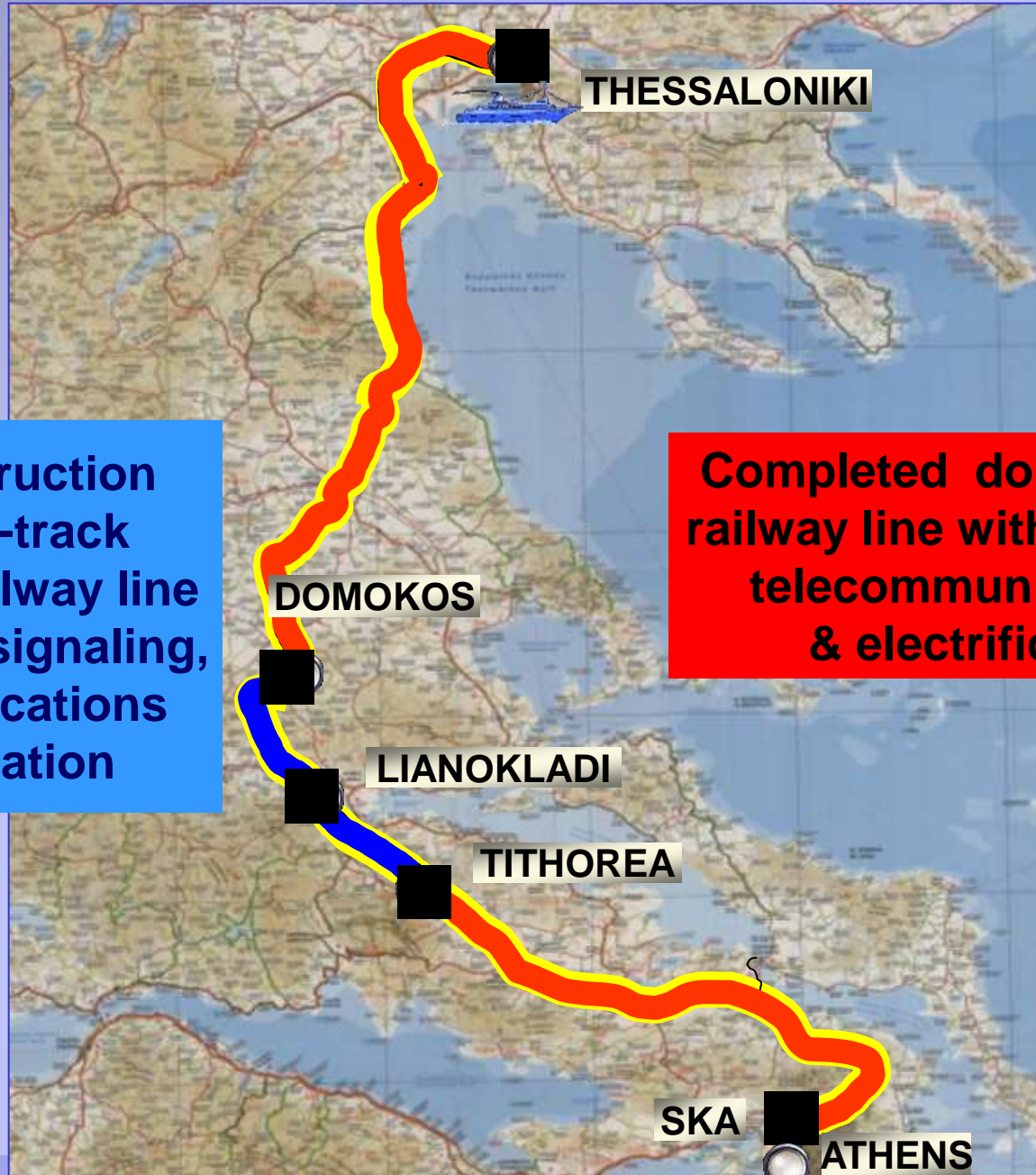
ATHENS

N.IKONIO PIRAEUS

ATHENS(SKA) - THES/NIKI

ATHENS(SKA) – PATRAS

ATHENS (SKA) – THESSALONIKI (500 km)

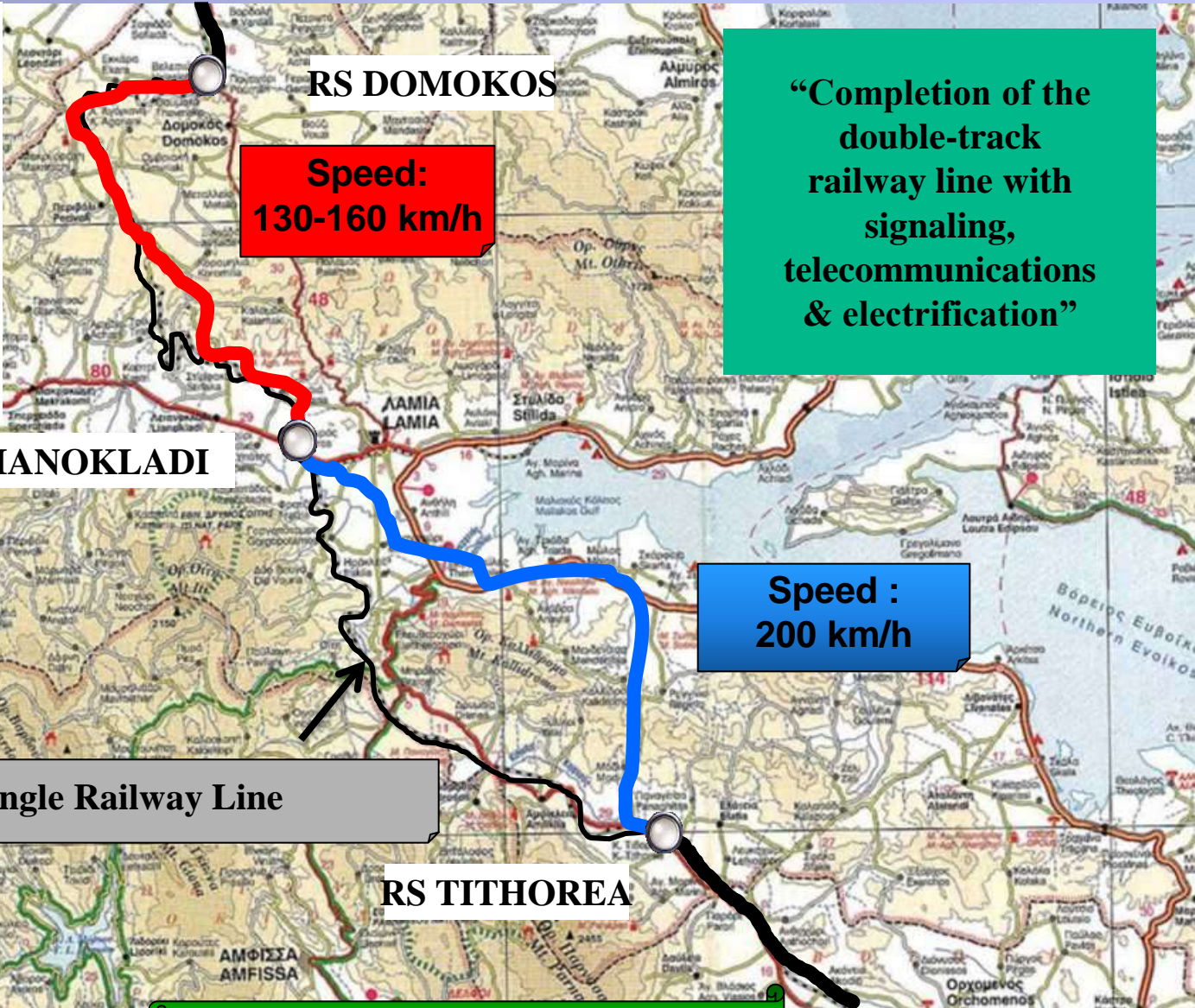


**Under construction
New double-track
high-speed railway line
equipped with signaling,
telecommunications
& electrification**

**Completed double-track
railway line with signaling,
telecommunications
& electrification**

SKA
ATHENS

TITHOREA – DOMOKOS (106 Km)



RS DOMOKOS

**Speed:
130-160 km/h**

“Completion of the double-track railway line with signaling, telecommunications & electrification”

RS LIANOKLADI

**Speed :
200 km/h**

Old Single Railway Line

RS TITHOREA

Total gain travel time: 55'

MAIN PHYSICAL OBJECT OF INFRASTRUCTURE WORKS

- **Kallidromo twin tunnel – each branch 9.0 km long**
- **Othris twin tunnel – each branch 6.4 km long**
- **12 smaller tunnels, total length 4.5 km**
- **24 Cut & Cover tunnels, total length 4.1 km**
- **49 railway bridges, total length 6 km**
- **32 grade-separated road crossings, total length 2.7 km**
- **Embankments & Cuts 76.0 km long**

PROJECT's PHASES

- **The majority of the infrastructure works was implemented through several contracts which are completed.**

Funding: Structural funds of previous P.P.

- **A contract currently in progress, signed in December 2013 (Budget 374.2 M€) completes the remaining infrastructure works, the superstructure, the signaling, telecommunications and electrification. Total budget including accompanying works 430,3 M€**

Funding: CEF 2014-2020

1ST PROJECT:

CONSTRUCTION OF THE NEW HIGH SPEED DOUBLE TRACK RAILWAY LINE TITHOREA – LIANOKLADI – DOMOKOS

ACTION No 2014-EL-TMC-0651-W

GRANT AGREEMENT No INEA /CEF /TRAN /M2014 /1028609

BUDGET: 430,3 M€

START OF THE ACTION: 1-1-2014

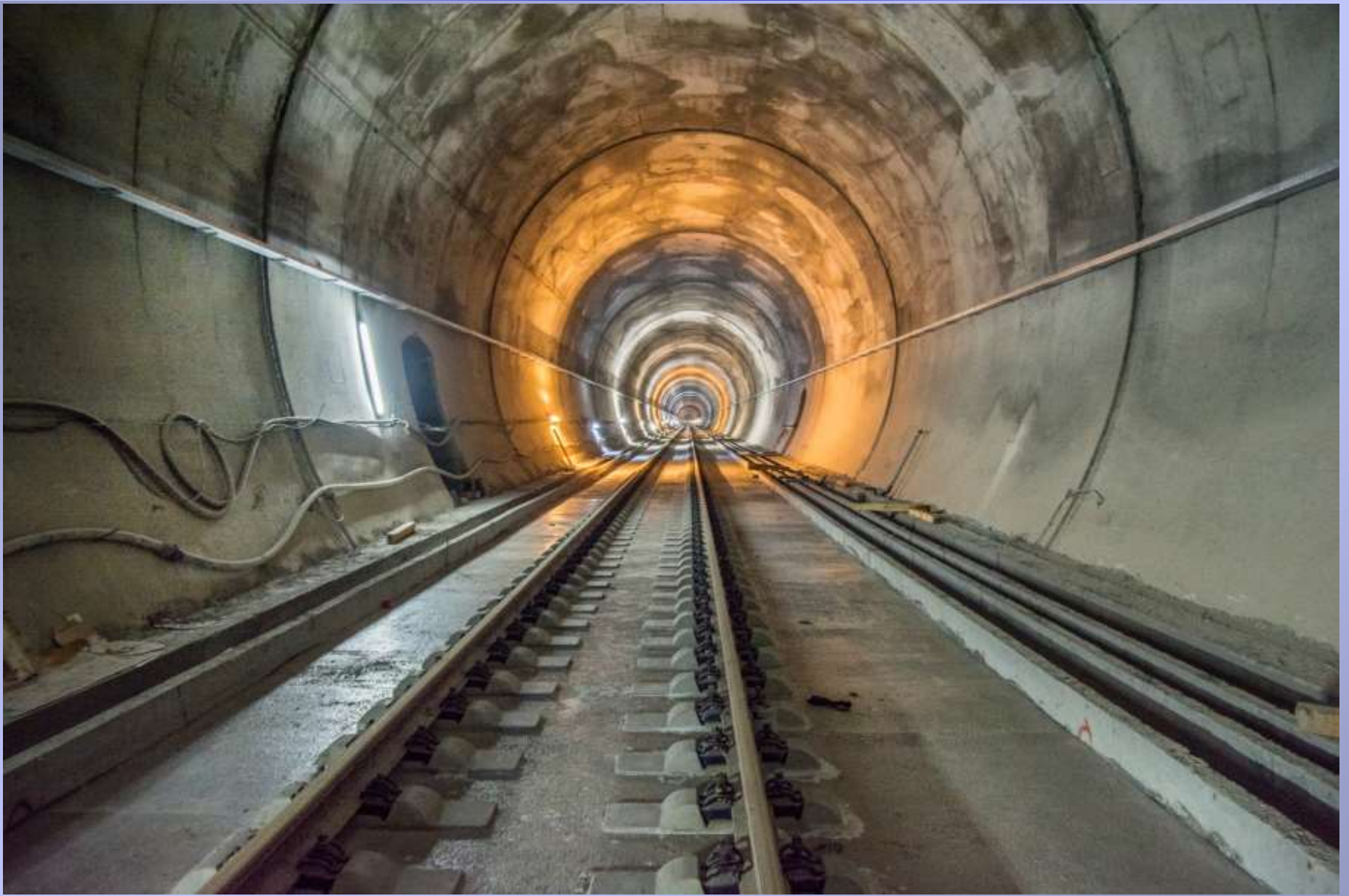
END OF THE ACTION: 30-6-2018

MAIN PHYSICAL OBJECT

- **completion of the remaining infrastructure works**
- **construction of superstructure works**
- **signalling-telecommanding, electrification and telecommunication works**
- **completion of the stations railway infrastructure at the Tithorea, Molos, Lianokladi and Domokos stations**
- **construction of 2 traction substations at Anthili and Perivoli and 3 electromechanical (E/M) buildings**
- **E/M works for 5 Railway Stations (Tithorea RS, Molos RS, Lianokladi RS, Agios Stefanos RS, Domokos RS and 2 Railway Stops Aggies and Thavmakos Railway Stops**
- **accompanying works for the completion of the project (land acquisition, planting works, bridges monitoring, etc)**

ECONOMIC PROGRESS OF WORKS

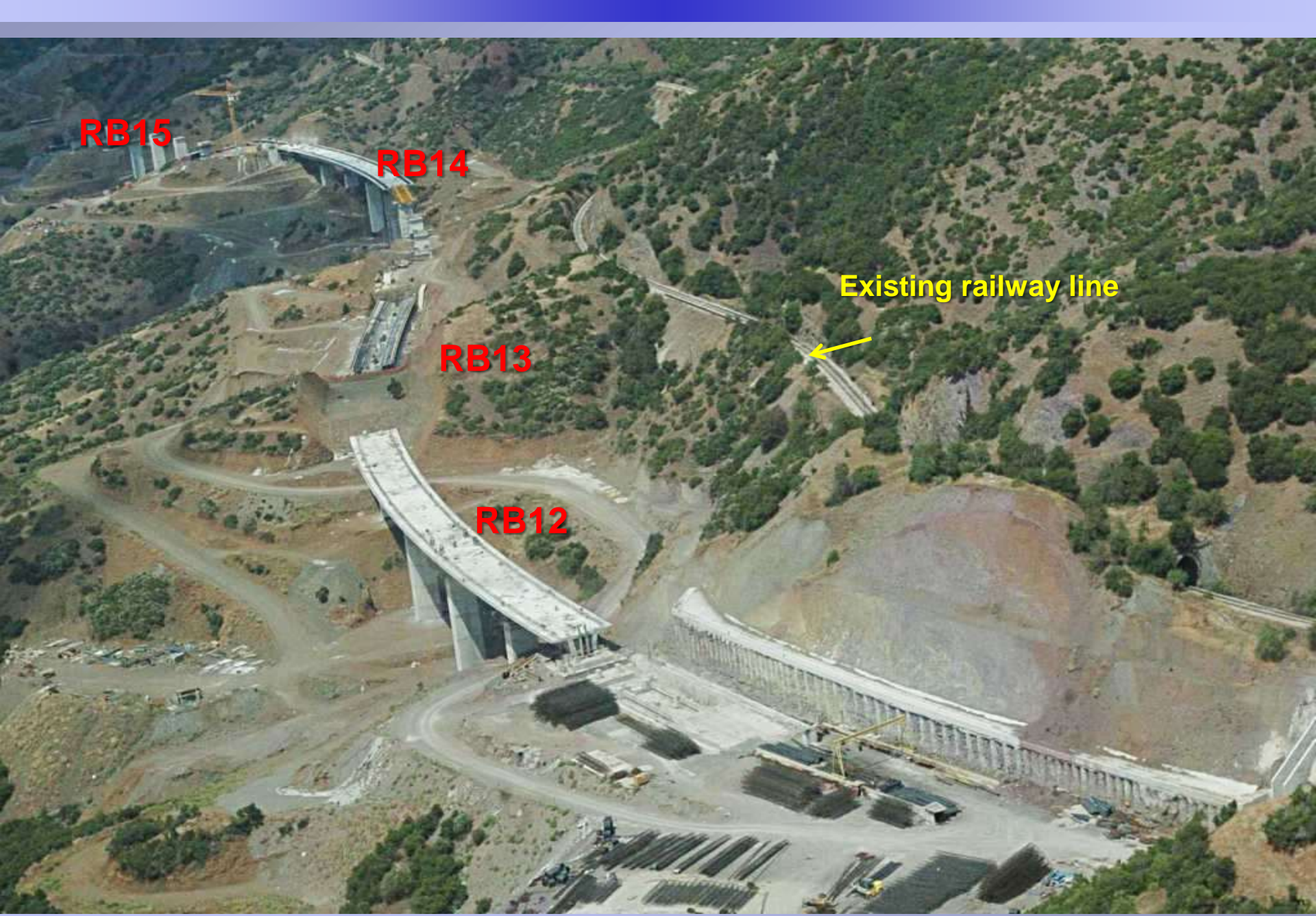
- **Total payments (up to 31-10-2016) are 171,8 M€**
- **while the percentage rises to 40% of the total budget**



SLAB TRACK IN KALLIDROMO TUNNEL – each tube 9 km long



OTHRYS TUNNEL – each tube 6,4 km long



RAILWAY BRIDGES OF LIANOKLADI-DOMOKOS SECTION

**OLD
PHOTO**



RAILWAY BRIDGE OVER NATIONAL HIGHWAY (500m LONG)



RAILWAY BRIDGE 16 (657m LONG)



RAILWAY BRIDGE 26 (409 m LONG)



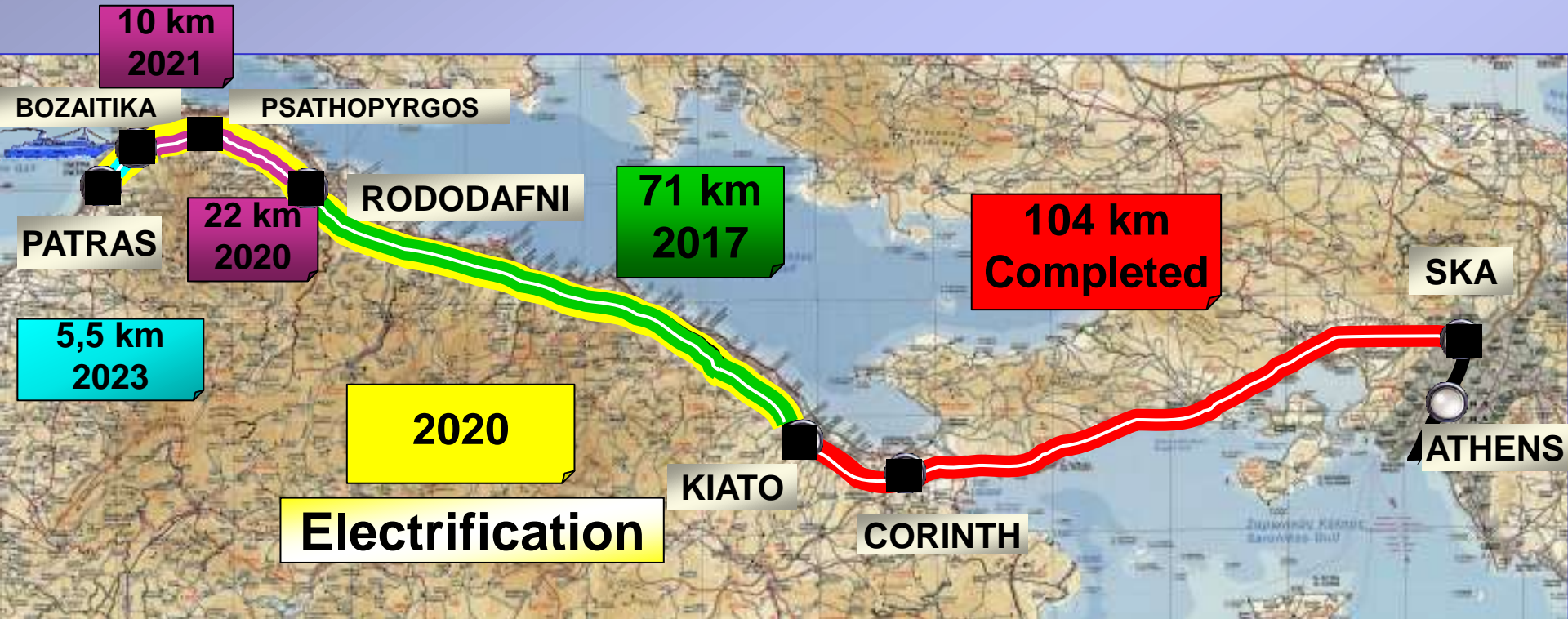
PIRAEUS -ATHENS-THES/NIKI

ATHENS(SKA) - PATRAS



ATHENS (SKA) – PATRAS (216 km)

New high-speed railway line equipped with signaling, telecommunications & electrification



Reduction of travel time to 2h from 3h 25' (before the works)

2nd PROJECT

**CONSTRUCTION OF RAILWAY INFRASTRUCTURE IN SECTION RODODAFNI (KM 91,5) -
PSATHOPYRGOS (KM 113) OF THE NEW RAILWAY LINE ATHENS - PATRAS,
PART OF ORIENT/EAST MED CORRIDOR**

ACTION No 2014-EL-TMC-0268-W

GRANT AGREEMENT No INEA /CEF /TRAN /M2014 /1028679

BUDGET: 290,6 M€

START OF THE ACTION: 1/1/2014

END OF THE ACTION: 30/9/2018

MAIN PHYSICAL OBJECT

The Action comprises the construction of the infrastructure for the new double-track railway line in the section from Rododafni (km 91+500) to Psathopirgos (km 113+000).

This includes:

- **Twin-tube Panagopoula tunnel (4.3 km long), including cut & covers at the entrance and the exit of the tunnel**
- **Earthworks (embankments and excavations) at the open sections of the railway line**
- **Engineering structures (railway/road bridges, railway/road overpasses & underpasses)**
- **Hydraulic works required for the protection of the line**
- **Restoration of the local side road network**
- **Necessary expropriations; relocations of public utility networks and archaeological works**



PANAGOPOULA TUNNEL - 4,5 km each tube



PANAGOPOULA TUNNEL

ECONOMIC PROGRESS OF WORKS

- **Total payments (up to 31-10-2016) are 135,2 M€**
- **while the percentage rises to 46% of the total budget**

3nd PROJECT

CONSTRUCTION OF RAILWAY INFRASTRUCTURE IN SECTION PSATHOPYRGOS -PATRAS (BOZAITIKA) OF AXIS ATHENS - PATRAS PART OF ORIENT/EAST MED CORRIDOR

ACTION No 2015-EL-TM-0253-W

GRANT AGREEMENT No INEA /CEF /TRAN /M2015 /1129876

BUDGET: 112,0 M€

START OF THE ACTION: 16/2/2016

END OF THE ACTION: 31/12/2020

MAIN PHYSICAL OBJECT

The Action comprises the construction of the infrastructure for the new double-track railway line from Psathopyrgos (km 113+000) to Patras Bozaitika (km 123+500).

This includes:

- **Construction of Cover & Cuts in Agios Vasilios and Rio**
- **Earthworks (embankments and excavations) at the open sections of the railway line**
- **Engineering structures (railway/road bridges, railway/road overpasses & underpasses and retaining walls)**
- **Hydraulic works required for the protection of the line**
- **Restoration of the local road network directly related to the construction of the railway line**
- **Necessary expropriations; relocations of public utility networks and archaeological works**

Thank you for your attention

