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# **Towards the modernization of the Greek toll road network**

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# The Trans-European networks

TEN-T: EU has a transport infrastructure policy that connects the continent between East and West, North and South. This policy aims to close the gaps between Member States' transport networks, remove bottlenecks that still hamper the smooth functioning of the internal market and overcome technical barriers such as incompatible standards for railway traffic. It promotes and strengthens seamless transport chains for passenger and freight, while keeping up with future technological trends.

*Charging for the use of infrastructure, "user pays principle" and "polluter pays principle" is the basic priority in the EU multimodal transport framework.*

# The development of the Greek backbone toll road network



## 1<sup>ST</sup> GENERATION CONCESSIONS

- ATTIKI ODOS
- RION ANTIRION BRIDGE (GEFYRA)

## STATE FUNDED

- EGNATIA ODOS



## 2<sup>ND</sup> GENERATION CONCESSIONS

- MOREAS
- OLYMPIA ODOS
- NEA ODOS
- CENTRAL GREECE (E65)
- AEGEAN MOTORWAY

## STATE FUNDED

- EGNATIA ODOS

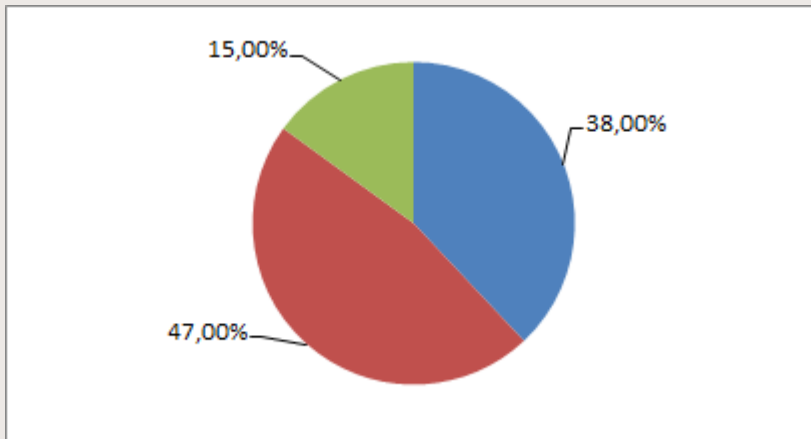
# The steps for the development of the Greek road network

- The 1<sup>st</sup> Generation of Concessions included the development of Attiki Odos and Rion-Antirion Bridge (cost 2,1 billion €).
- Egnatia Odos (cost 4,5 billion €) was constructed by sections with traditional public procurement methods.
- The completion the Greek Road Network seemed difficult, as the State does did not have the necessary funding available (8,5 billion €).
- In 2007 and 2009, the 2<sup>nd</sup> Generation of Road Concessions was launched and five new concessions started.
- Despite the recent economic crisis, the 2<sup>nd</sup> Generation Projects have survived and the implementation of the backbone of the Greek Road Network is feasible in the near future.

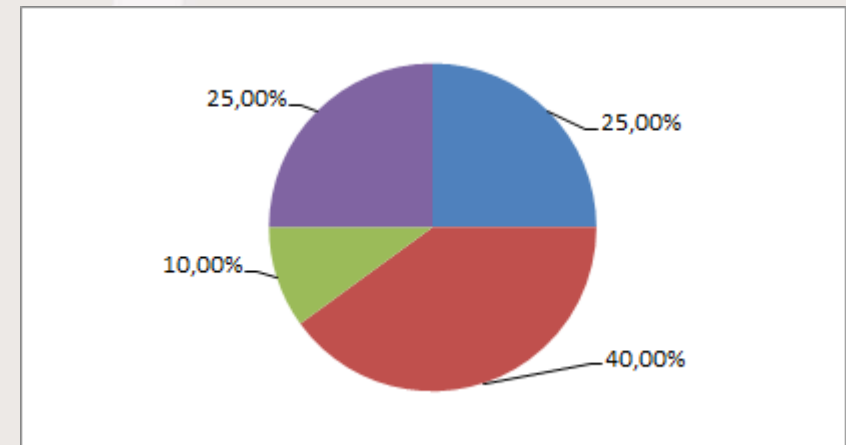
*Note. Expropriations and archaeological investigations are not included in the costs presented above.*

# Financing of Greek road concessions

## 1<sup>ST</sup> GENERATION ROAD CONCESSIONS



## 2<sup>ND</sup> GENERATION ROAD CONCESSIONS



- STATE CONTRIBUTION
- BANK LOANS
- CONCESSIONAIRE EQUITY
- TOLL REVENUE

# Configuration to a single operational platform for the Greek motorways

- The value added provided by the development of the Motorway Network includes socio-economic impacts on local and regional areas, such as the creation of new jobs, reduction of travel time, increased productivity and improvement on road safety.
- The value added by the road toll concessions includes the development of the network and the contribution to the development of operation and maintenance practices, with reduced state contribution.
- Despite the differences in the contractual arrangements of each Motorway, there is a requirement for a convergence of operational practices, in order to provide a uniform Level of Service to the User.
  - Users often wonder why they have to remember different emergency numbers (for example 1024, 1077, etc.) and which is the right number for the right place.
  - Why can't they use the same transponder in all Motorways?



# A new association is born



## HELLENIC ASSOCIATION TOLL ROAD NETWORK

The association of the Greek toll road infrastructure was created to promote:

- The application, to the extent possible, of similar procedures and their modernisation for the benefit of the users of the toll road infrastructure and the society.
- The improvement of the operation of toll road infrastructures and the interoperability of various Automatic Toll Collection Systems.

# Members

A civil not-for-profit Organization is incorporated between the participating entities, which are the following:

- ATTIKI ODOS
- RION ANTIRRION BRIDGE (GEFYRA)
- EGNATIA ODOS
- NEA ODOS
- MOREAS
- AEGEAN MOTORWAY
- OLYMPIA ODOS
- MOTORWAY OF CENTRAL GREECE





**ATTIKI ODOS**



**RION ANTIRRION BRIDGE**



**EGNATIA ODOS**



**NEA ODOS**



**MOREAS**



**AEGEAN MOTORWAY**



**OLYMPIA ODOS**



**MOTORWAY OF CENTRAL GREECE**



# Objects and goals of HELLASTRON

HELLASTRON is a professional, scientific, educational and research association and shall operate on a non for profit basis. Indicative the object is:

- In relation to the users: the continuous improvement of the services provided to the users of toll road infrastructures.
- In relation to the research and public benefit: the investigation, promotion and development of the scientific aspects related to road transportation, road pavement, construction and maintenance of roads and networks.
- In relation to the promotion of road transportation: the participation in similar associations, worldwide.
- In relation to the interests of the members of the Company: the protection and promotion of the interests of the toll road infrastructures sector.

*(Excerpts from the Association's Bylaws)*

KPI or basic informative element	Unit	2014 Data								Total
		EGNATIA ODOS	ATTIKI ODOS	OLYMPIA ODOS	MOREAS	AEGEAN MOTORWAY	KENTRIKI ODOS	NEA ODOS	GEFYRA	
Total Network Length	km	657,7	70	202,3	205	256,2	25,8	220,3	3,5	1.640,80
Length in Construction	km		0	120	57	25,6	109,68	156,66	0	468,94
Length in Operation	km	657,7	70	202,3	148	230,6	25,8	220,3	0	1.554,70
Total Permanent Staff	no	550	950	2.645	354	1.500	669	2.327	98	9.093,00
Permanent Staff in Concession & Operation	no	400	950	445	286	500	95	299	98	3.073,00
Permanent Staff in Construction and IE	no	150	0	2.200	68	1.000	574	2.028	0	6.020,00
Total Annual Average Daily Traffic	no	9.300	46.381	20.180	9.596	9.273	12.856	17.609	8.650	133.845,00
Vehicle Kilometres travelled	no	2.231	1.185	1.488	518	591	121	1.416	11,1	7.561,50
Fatality rate (fatalities per billion km travelled)		7,62	4,22	8,74	3,86	1,69	0,00	5,65	0,00	31,78
Total number of Incidents	no	133	21.561	23.406	9.986	14.072	1.552	22.542	121	93.373,00
Total number of toll stations	no	8	39	9	9	13	5	13	1	97,00
Total number of toll lanes	no	60	195	78	58	68	22	67	12	560,00
Total Number of Transactions including Escapes & Suspensions	no		71.890.421,00	32.414.638,00	14.712.995,00	19.669.885,00	4.735.087,00	23.115.572,00	3.158.724,00	169.697.322,00
Annual Toll Revenues (excl. VAT)	million €	49,400	159,300	64,047	27,866	52,000	11,800	72,000	32,459	468,87

# Greek ETC Interoperability (2014)

Project	ETC Penetration	Tag and Invoice Issuer					
		e-PASS Attiki Odos	O-Pass Olympia Odos	e-Way Aegean	E-PASS Gefyra	Fast Pass Nea Odos	All tags
		Annual Transactions	Annual Transactions	Annual Transactions	Annual Transactions	Annual Transactions	Annual Transactions
Attiki Odos	50%	34.637.668	142.077	54.906	19.795	0	34.854.446
Moreas (*)	24%	3.149.219	175.980	83.735	6.582	0	3.415.516
Olympia Odos	24%	5.398.319	1.781.625	90.639	96.121	0	7.366.704
Aegean Motorway	14%	517.970	91.030	1.654.641	8.427	0	2.272.068
Gefyra	15%	96.412	10.812	2.516	297.399	0	407.139
Nea Odos	13%	0	0	0	0	3.007.780	3.007.780
Kentriki Odos (*)	7%	0	0	0	0	329.093	329.093
<b>All 7 Projects.</b>	<b>27%</b>	<b>43.799.588</b>	<b>2.201.524</b>	<b>1.886.437</b>	<b>428.324</b>	<b>3.336.873</b>	<b>51.652.746</b>
		<b>Annual Transactions</b>	<b>Annual Transactions</b>	<b>Annual Transactions</b>	<b>Annual Transactions</b>	<b>Annual Transactions</b>	<b>Annual Transactions</b>
In the Motorway operated by the same tag issuer		34.637.668	1.781.625	1.654.641	297.399	3.007.780	41.379.113
In other Motorways		9.161.920	419.899	231.796	130.925	329.093	10.273.633
<b>Total ETC</b>		<b>43.799.588</b>	<b>2.201.524</b>	<b>1.886.437</b>	<b>428.324</b>	<b>3.336.873</b>	<b>51.652.746</b>



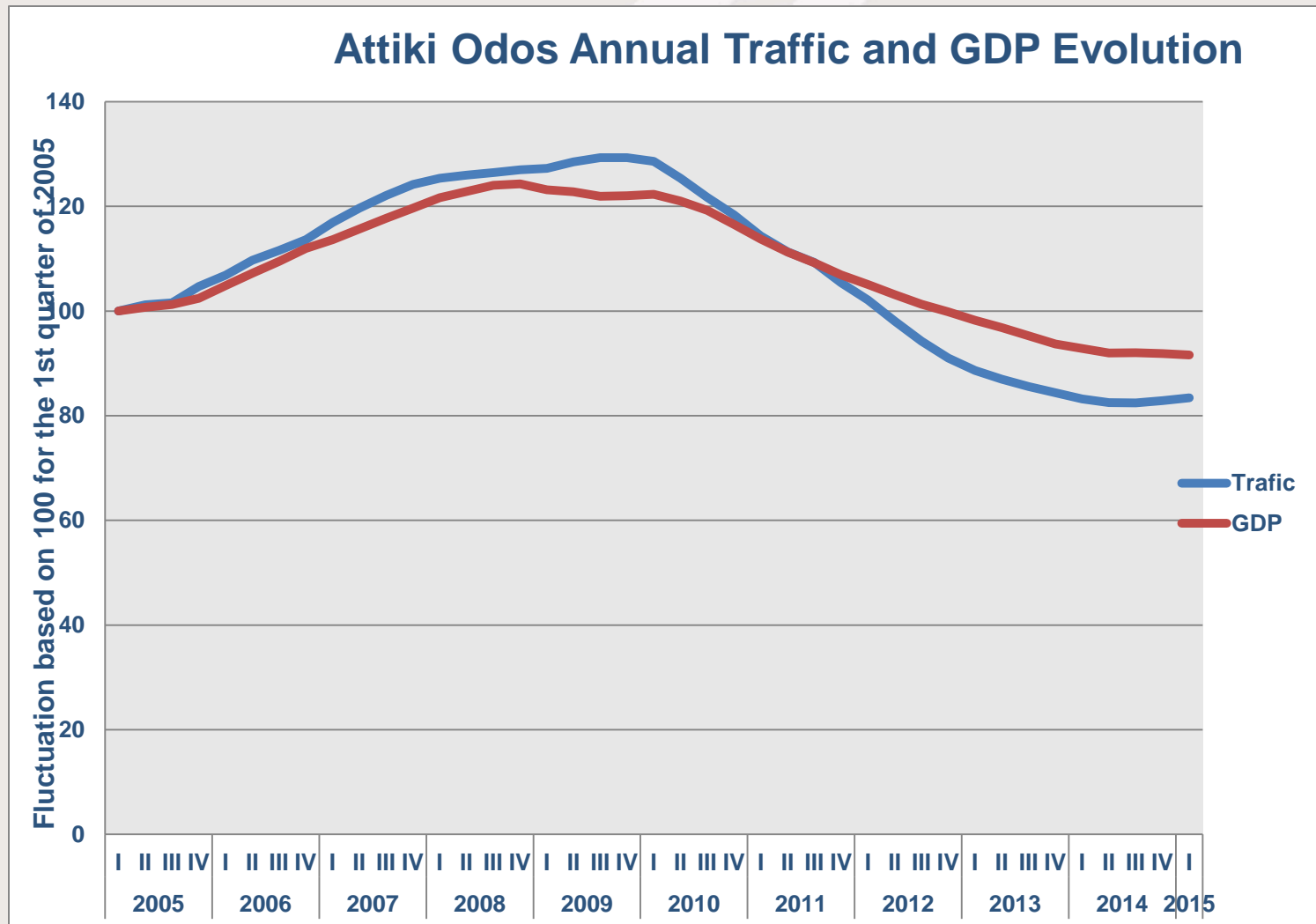
(\*) Moreas and Kentriki Odos have chosen not to be tag and invoice issuers. Egnatia Odos operates MTC only, while is in the process of installing ETC.

# The impact of the recession in Greece

- The recession in Greece became evident in 2010 and since then it has affected heavily traffic and revenue of all Concessions.
- For the completed projects of the 1st Generation Concessions, the revenue reduction has not affected the viability of the projects although the Concessionaire returns have been reduced.
- For the projects of the 2nd Generation, which were under development, a reset was necessary, in order to restart construction that was stopped for 3 years due to doubts on their economic viability.

# Development of Greece depends on mobility

## Tolling is a good funding option





# Investing in the future mobility

- It is important to learn from the “financial turmoil” experience and investigate new ways and sources of funding in order to develop a sustainable roadway network, such as:
  - Project Bonds with State or EU Guarantees.
  - EU funds per the Juncker Investment Plan.
  - Trans-European networks investments.
  - Infrastructure Development Bank.

*Thank you!*

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