# HELLASTRON NATIONAL REPORT TO BE PRESENTED DURING THE ASECAP STUDY AND INFORMATION DAYS PARIS, 29-31 MAY 2017

#### Network length

The total length for the entire toll infrastructure network in Greece is 1.842,8 kms. This length includes tunnels and bridges as well as open highway sections. In more detail there are 145,8 kms with 2 x 1 lane section, 1.427 kms with 2 x 2 lane sections, 267,5 kms with 2 x 3 lane sections and 2,3 kms with 2 x 4 lane sections. On this network there are 38 tunnels with a length above 500m (the threshold defined by the tunnel directive 2004/54/EC). The total length of these tunnels is 31,6 kms.

#### **Openings in 2017**

It is anticipated that 402 additional kms of toll road sections will become operational in 2017.

#### Investments

The financial crisis in Greece, which started in 2010, found all five (5) Interurban Motorway Projects under construction. Given that the rehabilitation, upgrading and construction were executed on the basis of Concession contracts, the Lending Institutions discontinued funding and construction slowed down and/or was suspended for about three (3) years. The reset of 4 out of 5 projects, which was initiated in late 2013, was impacted in early 2015 by the financial standoff with Greece's lenders and the banking controls enacted by the new Greek Government, actions that resulted in limiting funding again. It was only after the July 2015 Agreement which was reached between Greece and the Institutions that funding was reinstated and again new arrangements and new time schedules for completion of the Interurban Tollway projects (all 5 of them) were agreed in late 2015. This enabled one Project (Moreas Motorway) to be

completed in late 2016 with the remaining four (4) Projects scheduled to go to "operational" completion in March 2017 and to be scheduled for full completion within 2017.

### Financing

The table below presents globally the sources for the financing for the road concessions in Greece, the total cost of which is estimated at 8,5 billion Euro.

State	Toll	Concessionaire	Loans	Total
Contribution	revenue	Equity		
25%	25%	10%	40%	100%

# Traffic

The total kilometres travelled in 2016 along all Greek Tollways were 8.407 x 10<sup>6</sup>, compared to 7.836 x 10<sup>6</sup> in 2015. This is the second year in a row that shows an increase in traffic, after the significant and continuous drop during the period 2010-2015 due to the economic crisis that hit Greece.

## Tolling system and tolling technologies used

The tolling system that is currently operational in the Greek tollways, is an "open" toll system, comprising mainly of Mainline frontal toll stations, together with some ramp stations on the entrance and exit ramps from the Toll Roads. The charge per kilometre is ranging from  $0,04 \in / \text{Km}$  up to  $0,07 \in / \text{Km}$ . The toll stations provide the capability for manual toll payment, as well as electronic payment by means of ETC transponders and smart cards. Full interoperability on a "pier to pier" basis between five Concessionaires (Attiki Odos, Gefyra, Moreas, Olympia Odos and Aegean Motorway) called "GRITS" has been implemented. Two other Concessionaires (Nea Odos and Kentriki Odos) are both using the same tag, while Egnatia Odos which has a system "GRITS" ready has not distributed any tags, using smart cards only for subscribers.

#### Toll rates

The following tables show the current toll rates, compared with the respective toll rates for 2016 and 2015, for each toll plaza in each motorway. The change of toll rates in June 2016 came as a consequence of the VAT increase from 23% to 24%.

TOLL PLAZAS		20				20				ange of					2016			ige of Ju				20					2017 fe	
	Cat. 1			Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4
		Nea	Odos							_		_			_									-		-		
Afidnes	2,30	3,30	8,30	11,60	2,25	3,25	8,15	11,45	-2%	-2%	-2%	-1%	2,30	3,25	8,20	11,50	2%	0%	1%	0%	2,25	3,25	8,15	11,40	-2%	0%	-1%	-1%
Kapandriti (ramp)	1,40	2,00	5,00	7,05	1,35	1,95	4,95	6,90	-4%	-3%	-1%	-2%	1,40	2,00	5,00	7,00	4%	3%	1%	1%	1,35	1,95	4,95	6,90	-4%	-3%	-1%	-1%
Malakasa (ramp)	1,00	1,40	3,55	5,00	0,95	1,40	3,50	4,90	-5%	0%	-1%	-2%	0,95	1,40	3,55	4,95	0%	0%	1%	1%	0,95	1,40	3,50	4,90	0%	0%	-1%	-1%
Oinofyta (ramp)	0,45	0,65	1,70	2,35	0,45	0,65	1,65	2,35	0%	0%	-3%	0%	0,45	0,65	1,65	2,35	0%	0%	0%	0%	0,45	0,65	1,65	2,30	0%	0%	0%	-2%
Thiva (ramp)	1,05	1,50	3,85	5,40	1,05	1,50	3,75	5,30	0%	0%	-3%	-2%	1,05	1,50	3,80	5,35	0%	0%	1%	1%	1,05	1,50	3,75	5,30	0%	0%	-1%	-1%
Thiva	2,70	3,85	9,70	13,55	2,65	3,80	9,55	13,35	-2%	-1%	-2%	-1%	2,65	3,85	9,60	13,45	0%	1%	1%	1%	2,65	3,80	9,50	13,35	0%	-1%	-1%	-1%
Tragana	2,70	3,85	9,65	13,50	2,65	3,80	9,50	13,30	-2%	-1%	-2%	-1%	2,65	3,80	9,55	13,40	0%	0%	1%	1%	2,65	3,80	9,50	13,30	0%	0%	-1%	-1%
Tragana (ramp)	2,15	3,10	7,75	10,85	2,10	3,05	7,60	10,70	-2%	-2%	-2%	-1%	2,15	3,05	7,70	10,75	2%	0%	1%	0%	2,10	3,05	7,60	10,65	-2%	0%	-1%	-1%
		E	65							_		_																
Ag. Triada	1,15	1,65	4,15	5,80	1,10	1,60	4,05	5,70	-4%	-3%	-2%	-2%	1,15	1,60	4,10	5,75	5%	0%	1%	1%	1,20	1,75	4,40	6,15	4%	9%	7%	7%
Molos (ramp)	0,20	0,35	0,85	1,20	0,20	0,30	0,85	1,15	0%	-14%	0%	-4%	0,20	0,30	0,85	1,20	0%	0%	0%	4%	0,20	0,30	0,85	1,15	0%	0%	0%	-4%
Mpralos (ramp)	0,30	0,45	1,15	1,60	0,30	0,45	1,20	1,65	0%	0%	4%	3%	0,30	0,45	1,20	1,70	0%	0%	0%	3%	0,40	0,60	1,50	2,10	33%	33%	25%	24%
Mavromantila	1,25	1,75	4,45	6,25	1,20	1,75	4,40	6,15	-4%	0%	-1%	-2%	1,20	1,75	4,40	6,20	0%	0%	0%	1%	1,30	1,85	4,70	6,60	8%	6%	7%	6%
Ag. Marina (ramp)	0,85	1,20	3,05	4,25	0,80	1,20	3,00	4,20	-6%	0%	-2%	-1%	0,80	1,20	3,00	4,20	0%	0%	0%	0%	0,80	1,20	3,00	4,20	0%	0%	0%	0%
Stylida (ramp)	0,45	0,65	1,65	2,30	0,45	0,65	1,60	2,25	0%	0%	-3%	-2%	0,45	0,65	1,65	2,30	0%	0%	3%	2%	0,45	0,65	1,60	2,25	0%	0%	-3%	-2%
	ł	Aegean I	Motorw	ay																								
Pelasgia	2,40	3,50	8,70	12,20	2,40	3,40	8,50	11,90	0%	-3%	-2%	-2%	2,40	3,40	8,50	11,90	0%	0%	0%	0%	2,40	3,40	8,50	11,90	0%	0%	0%	0%
Pelasgia (ramp)	1,80	2,50	6,40	8,90	1,80	2,50	6,30	8,80	0%	0%	-2%	-1%	1,80	2,50	6,30	8,80	0%	0%	0%	0%	1,70	2,50	6,20	8,70	-6%	0%	-2%	-1%
Moschohori	2,80	4,00	10,00	14,00	2,70	3,90	9,80	13,70	-4%	-3%	-2%	-2%	2,70	3,90	9,80	13,70	0%	0%	0%	0%	2,70	3,90	9,80	13,70	0%	0%	0%	0%
Gyrtoni (ramp)	0,50	0,70	1,80	2,50	0,50	0,70	1,80	2,50	0%	0%	0%	0%	0,50	0,70	1,80	2,50	0%	0%	0%	0%	0,50	0,70	1,80	2,50	0%	0%	0%	0%
Markyhori	1,00	1,40	3,50	4,90	1,00	1,40	3,40	4,80	0%	0%	-3%	-2%	1,00	1,40	3,40	4,80	0%	0%	0%	0%	1,00	1,40	3,40	4,80	0%	0%	0%	0%
Makryhori (ramp)	0,80	1,10	2,80	3,90	0,80	1,10	2,70	3,80	0%	0%	-4%	-3%	0,80	1,10	2,70	3,80	0%	0%	0%	0%	0,80	1,10	2,70	3,80	0%	0%	0%	0%
Pyrgetos	1,40	2,00	5,00	7,00	1,40	2,00	5,00	7,00	0%	0%	0%	0%	1,40	2,00	5,00	7,00	0%	0%	0%	0%	1,40	2,00	5,00	7,00	0%	0%	0%	0%
Leptokarya	1,40	2,00	4,90	6,80	1,30	1,90	4,80	6,70	-7%	-5%	-2%	-1%	1,30	1,90	4,80	6,70	0%	0%	0%	0%	1,30	1,90	4,80	6,70	0%	0%	0%	0%
leptokarya (ramp)	1,30	1,80	4,50	6,30	1,20	1,80	4,40	6,10	-8%	0%	-2%	-3%	1,20	1,80	4,40	6,10	0%	0%	0%	0%	1,20	1,80	4,40	6,10	0%	0%	0%	0%
Kleidi	1,50	2,20	5,50	7,70	1,50	2,20	5,40	7,60	0%	0%	-2%	-1%	1,50	2,20	5,40	7,60	0%	0%	0%	0%	1,50	2,20	5,40	7,60	0%	0%	0%	0%
Egnatia																												
Polymylos	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
lasmos	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
Malakasi	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
Analipsi	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
Tyria	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
Moystheni	1,70	2,40	6,00	8,40	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%	1,70	2,40	6,00	8,40	0%	0%	0%	0%
Malgara	0,80	1,20	3,00	4,20	0,80	1,20	3,00	4,20	0%	0%	0%	0%	0,80	1,20	3,00	4,20	0%	0%	0%	0%	0,80	1,20	3,00	4,20	0%	0%	0%	0%
Aktio	0,70	3,00	5,00	8,00	0,70	3,00	5,00	8,00	0%	0%	0%	0%	0,70	3,00	5,00	8,00	0%	0%	0%	0%	0,70	3,00	5,00	8,00	0%	0%	0%	0%

TOLL PLAZAS		20	15			20	16		Ch	ange of	f 2016 fe	es		June	2016		Chan	ge of Ju	ine 2016	) fees		20	17		Ch	ange of	2017 fe	es
TULL PLAZAS	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 1	Cat. 2	Cat. 3	Cat. 4
	Olympia Odos																											
Elefsina	1,50	2,10	5,40	7,50	1,40	2,10	5,30	7,40	-7%	0%	-2%	-1%	1,40	2,10	5,30	7,50	0%	0%	0%	1%	1,40	2,10	5,30	7,40	0%	0%	0%	-1%
Isthmos	1,20	1,80	4,60	6,40	1,20	1,80	4,50	6,30	0%	0%	-2%	-2%	1,20	1,80	4,50	6,40	0%	0%	0%	2%	1,20	1,80	4,50	6,30	0%	0%	0%	-2%
Nea Peramos (ramp)	1,00	1,40	3,60	5,00	1,00	1,40	3,50	5,00	0%	0%	-3%	0%	1,00	1,40	3,60	5,00	0%	0%	3%	0%	1,00	1,40	3,50	5,00	0%	0%	-3%	0%
Ag. Theodoroi (ramp)	0,30	0,50	1,40	1,90	0,30	0,50	1,30	1,90	0%	0%	-7%	0%	0,30	0,50	1,30	1,90	0%	0%	0%	0%	0,30	0,50	1,30	1,90	0%	0%	0%	0%
Pahi (ramp)	0,60	0,90	2,30	3,20	0,60	0,90	2,30	3,20	0%	0%	0%	0%	0,60	0,90	2,30	3,20	0%	0%	0%	0%	0,60	0,90	2,30	3,20	0%	0%	0%	0%
Zevgolatio	1,70	2,50	6,30	8,80	1,70	2,40	6,20	8,70	0%	-4%	-2%	-1%	1,70	2,50	6,20	8,70	0%	4%	0%	0%	1,70	2,40	6,20	8,60	0%	-4%	0%	-1%
Rio	1,70	2,50	6,30	8,80	1,70	2,40	6,20	8,70	0%	-4%	-2%	-1%	1,70	2,50	6,20	8,70	0%	4%	0%	0%	1,70	2,40	6,20	8,60	0%	-4%	0%	-1%
		Мо	reas																									
Spathovouni	1,70	2,50	6,30	8,90	1,70	2,50	6,25	8,75	0%	0%	-1%	-2%	1,70	2,50	6,30	8,80	0%	0%	1%	1%	1,70	2,45	6,20	8,70	0%	-2%	-2%	-1%
Nestani	1,60	2,40	6,00	8,40	1,70	2,35	5,90	8,30	6%	-2%	-2%	-1%	1,60	2,35	5,95	8,35	-6%	0%	1%	1%	1,60	2,35	5,90	8,25	0%	0%	-1%	-1%
Gefyra Manari	1,30	1,90	4,80	6,80	1,30	1,90	4,80	6,70	0%	0%	0%	-1%	1,30	1,90	4,85	6,75	0%	0%	1%	1%	1,30	1,90	4,80	6,70	0%	0%	-1%	-1%
Veligosti	0,80	1,20	3,00	4,20	0,80	1,20	3,00	4,20	0%	0%	0%	0%	0,80	1,20	3,00	4,25	0%	0%	0%	1%	0,80	1,20	3,10	4,35	0%	0%	3%	2%
Paradeisia (ramp)	0,50	0,70	1,80	2,50	0,50	0,70	1,75	2,50	0%	0%	-3%	0%	0,50	0,70	1,80	2,50	0%	0%	3%	0%	0,50	0,70	1,90	2,65	0%	0%	6%	6%
Kalamata	0,90	1,40	3,50	4,90	0,90	1,35	3,45	4,85	0%	-4%	-1%	-1%	0,90	1,40	3,50	4,90	0%	4%	1%	1%	1,30	1,85	4,70	6,60	44%	32%	34%	35%
Arfaroi (ramp)	0,50	0,70	1,80	2,50	0,50	0,70	1,85	2,60	0%	0%	3%	4%	0,50	0,75	1,90	2,65	0%	7%	3%	2%	0,50	0,75	1,85	2,60	0%	0%	-3%	-2%
Petrina													2,00	2,90	7,25	10,15					2,00	2,85	7,20	10,05	0%	-2%	-1%	-1%
Thouria																					0,30	0,45	1,20	1,65				
		Attiki	Odos																									
All plazas	1,40	2,80	7,00	11,20	1,40	2,80	7,00	11,20	0%	0%	0%	0%	1,40	2,80	7,00	11,20	0%	0%	0%	0%	1,40	2,80	7,00	11,20	0%	0%	0%	0%
			Gefyra																									
	Cat. 1	Cat. 2	Cat. 3	Cat. 4	Cat. 5	Cat. 6	Cat. 7	Cat. 8	Cat. 9																			
Toll	1,90	13,30	20,00	32,50	41,50	41,50	30,00	42,00	65,00																			

	Moreas, Olympia Odos, Nea Odos, Kentriki Odos, Aegean Motorway (former TEO Network) & Egnatia Odos								
Category 1	Motorcycles								
Category 2	Vehicles with or without a trailer, up to 2.20* metres high								
Category 3	Vehicles of 2-3 axles, with or without a trailer, over 2.20* metres high								
Category 4	Vehicles with or without a trailer, of 4 or more axles, over 2.20* metres high								
	*: for Egnatia: 2.70 metres high								

	Attiki Odos - Categories								
Category 1	Motorbikes and two-wheel motorcycles, one wheel per axle.								
Category 2	Private use passenger cars, including passenger cars with a small trailer and roof rack, h < 1.30 m over the first two-wheel axle or h < 1.30 m. over the third axle.								
Category 3	Light Commercial Vehicles up to 1.30m high over the first axle and a total height of less than 2.70m								
Category 4	Cars with trailers up to h < 1.30m high over the first axle and h > 1.30m over 3 axles, as well as small mini-vans (less than 15 seats).								
Category 5	Small and Medium HGVs, trucks, total height h > 2.70m., with 2 or 3 axles and large buses (over 15 seats).								
Category 6	Large HGVs, total height h> 2.70m with 4 or more axles								

	Gefyra - Categories								
Category 1	Motorcycles								
Category 2	Cars								
Category 3	Trucks – 2 Axles								
Category 4	Trucks – 3 Axles								
Category 5	Trucks – 4+ Axles								
Category 6	Trucks – 5+ Axles								
Category 7	Coaches Up to 20 seats								
Category 8	Coaches 20-40 seats								
Category 9	Coaches more than 40 seats								

#### Revenues

The annual toll revenues for year 2016 were 504 million Euros (excluding of VAT) compared to 495 million Euro in 2015. This is an increase of 1.8% that comes as a consequence of the increase in toll transactions from 202.2 million in 2015 to 212.9 million in 2016 (5.3% increase).

# Safety

The following table shows the main road safety rates for 2016 and the comparison with 2015

	Definition and method of calculation	In number for 1billion kilometres travelled in 2016	Variation in % in 2015/2016
Personal injury rate	The number of injured people for every 1 billion kilometers travelled along the motorway.	65,13	+12,6%
Fatal accident rate	The number of fatal accidents for every 1 billion kilometers travelled along the motorway.	4,72	-7,8%
Rate of dead	The number of fatalities for every 1 billion kilometers travelled along the motorway.	5,47	-12,5%

The figures show a decrease in fatality rates compared to 2015 but an increase of equal amount in the injury rates. It has to be noted however, that total number of accidents nationwide (injuries & fatal) was increased from 367 in 2015 to 404 in 2016 (10% increase).

# Long-term forecasts and tendencies

It is anticipated that with completion of all mainland Greece projects in 2017, an adequate Motorway Network operating under tolling will be in existence. The prospects of developing the Northern Motorway Axis in the island of Crete will be increased, once completion of the mainland network is achieved. At this point, no decisions are made concerning the tolling regime (if any) of the Cretan Motorway.

# Significant actions already started (and/or to be achieved in 2016) and foreseen for 2017.

Due to the financial crisis, there have not been many changes and new systems that relate to the concessions in Greece. The only project that is planned for 2017 is the wide implementation of APM (automatic payment via coin machines) in toll stations of interurban motorways. The implementation of a "hybrid" toll regime, i.e. a combination of "open" toll regime coupled with a "distance" base system for ETC users is under examination for development in some projects.

## MAIN ASECAP KEY FIGURES

Country: GREECE	Indicate below how you calculate each figure provided in the "2016" column	2016 Figure
Network length (Km) 2 x 1 lanes (Km) 2 x 2 lanes (Km) 2 x 3 lanes (Km) 2 x 4 lanes (Km)	Main Line axis only - under operation today	1.842,8 145,8 1.427 267,5 2,3
Number of km in construction		508,1
Forecasts of opening motorways section	To operate in 2017	402
Annual toll revenues* (in millions of Euros)		504
VAT % (Indicate the VAT % percentage to the toll revenues)		23% (up to 31/5) & 24% (from 1/6)
Permanent staff	Including staff both for operation and construction	8.181
Average daily traffic (light vehicles)	Weighted (by section length) average of all sections light vehicles AADT. AADT in each section is either measured (toll stations or traffic count stations) or estimated by traffic model.	11.528

Average daily traffic (heavy vehicles)	Weighted (by section length) average of all sections light vehicles AADT. AADT in each section is either measured (toll stations or traffic count stations) or estimated by traffic model.	1.708
Average daily traffic (total = light + heavy vehicles)	Sum of the above	13.236
Total number of accidents	Injury & Fatal	404
Number of personal injury accidents		364
Number of dead		46
Fatality rate		5,5
Kilometres travelled (10 <sup>6</sup> x km)		8.407
Number of toll transactions (Total) Number of toll transactions (light vehicles): Number of toll transactions (heavy vehicles):		212.909.512 190.373.951 22.535.561
Number of toll stations		106
Number of toll lanes	Physical Lanes	600
Number of ETC lanes	Max Number Operational Lanes	310
Number of ETC subscribers (Total): Number of ETC subscribers (light vehicles): Number of ETC subscribers (heavy vehicles): Number of service areas (equipped with petrol stations)	ETC Transponders	697.534 658.486 39.048 40
rumber of service areas (equipped with perior stations)	10	то

Number of rest areas	132
Number of restaurants	39
Number of hotels	1

\*please provide the figure <u>VAT and other taxes excluded</u>.