

ASCENDI

2022



INDEX

/ 01 Ascendi overview

/ 02 Concessions

/ 03 Business areas

/ 04 Operation & Maintenance

/ 05 Toll systems

ASCENDI MOTORWAYS NETWORK

ROAD OPERATIONS

6 ROAD
CONCESSIONS
under operation

620 km +
(of motorways and roads)
OPERATED BY ASCENDI



ASCENDI MOTORWAYS NETWORK

TECHNICAL DATA

	 ascendi	 ascendi	 ascendi	 ascendi	 ascendi	 ascendi
	Norte	Costa de Prata	Beiras Litoral e Alta	Grande Porto	Grande Lisboa	Pinhal Interior
Full operation	2007	2009	2006	2007	2009	2014
Length	179km	105km	172km	55km	23km	93km
Interchanges	33	35	29	28	15	17
Over/Under-passes	256	162	180	134	53	156
Bridges	57 (≈ 17km)	17 (≈ 3km)	33 (≈ 7km)	11 (≈ 4km)	2 (≈ 0,5km)	24 (≈ 9km)

627 km
Extension

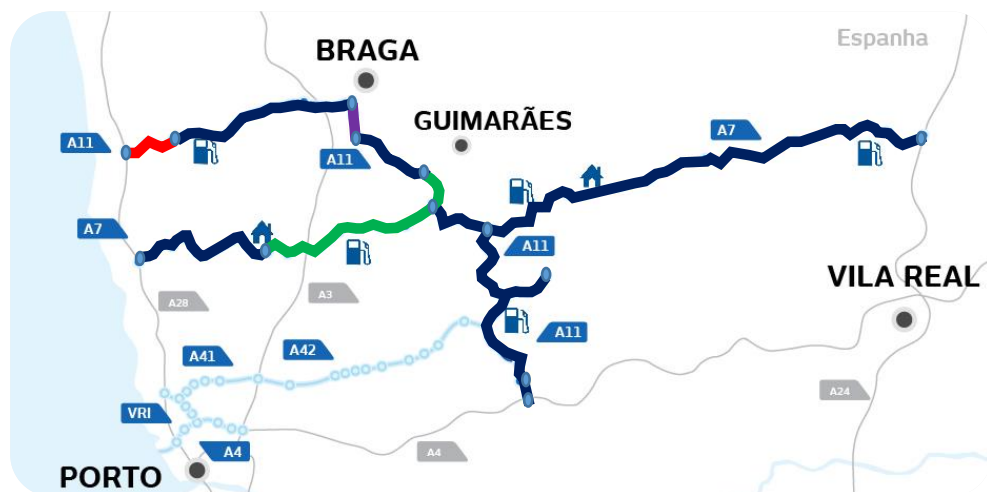
144
Bridges

157
Interchanges

941
Over/Under-passes

Norte

Technical Data






 Operational Centres  Service Areas

Award Date

- 1999

Opening Dates

- Prior to 1996 
- Prior to 1999 
- 2003 to 2007 

Technical Data:

Total Extension	179km		
Service Areas	5		
Interchanges	33		
Over/Underpasses	256		
Bridges	57 (≈ 17km)		
Tolling Plazas	21	Manual Lanes	94
		Electronic Lanes	72

Costa de Prata

Technical Data

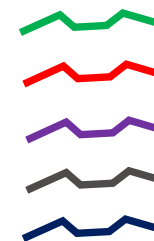


Award Date

- 2000

Opening Dates

- Prior to 1995
- 1996
- 2001
- 2004
- 2009



Technical Data:

Total Extension	105 km
Service Areas	4
Interchanges	35
Over/Underpasses	162
Bridges	17 (≈ 3km)
Tolling Points	20

Beiras Litoral e Alta



Technical Data



Award Date

- 2001

Opening Dates

- Prior to 1996 
- 2004 to 2006 

Technical Data:

Total Extension	172 km
Service Areas	2
Interchanges	29
Over/Underpasses	180
Bridges	33 (≈ 7km)
Tolling Points	24

Grande Porto

Technical Data



 Operational Centers  Service Areas

Award Date

- 2002

Opening Dates

- 2005 to 2007



Technical Data:

Total Extension	55 km
Service Areas	2
Interchanges	28
Over/Underpasses	134
Bridges	11 (≈ 4km)
Tolling Points	26

Grande Lisboa

Technical Data



Operational Centres



Service Areas

Award Date

• 2007

Opening date

• 2009

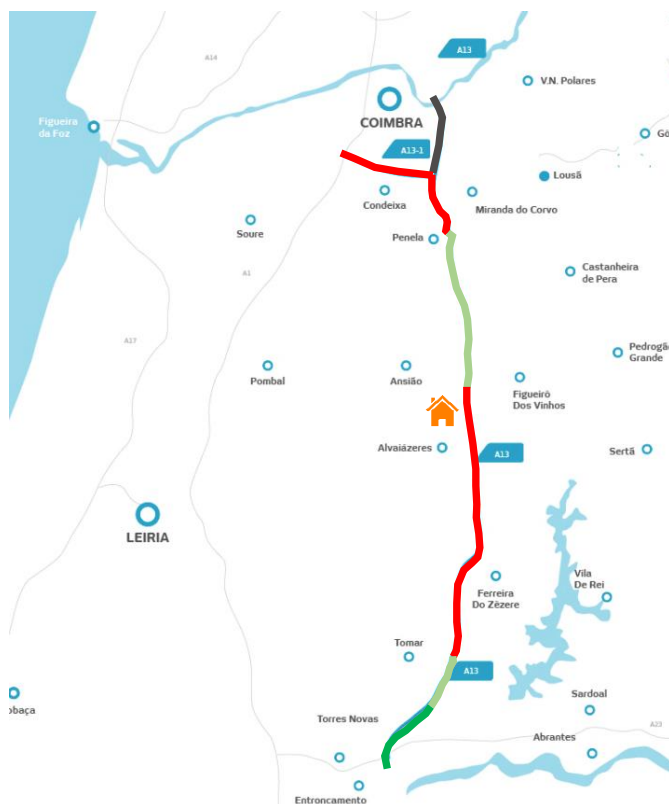


Technical Data:

Total Extension	23 km	
Service Areas	2	
Interchanges	15	
Over/Underpasses	53	
Bridges	2 (≈ 0,5km)	
Tolling Plazas	3	Manual Lanes 26
		Electronic Lanes 16

Pinhal Interior

Technical Data

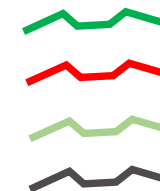


Award Date

- 2010

Opening Dates

- Prior to 2011
- 2012
- 2013
- 2014



Technical Data:

Total Extension	93 km
Interchanges	17
Over/Underpasses	156
Bridges	24 (≈ 9km)
Tolling Points	32

BUSINESS AREAS

Asset Management



/ Control of **6** Concessions

/ **\$3.6 Billion** Global investment in the 6 concessions CapEx

Operation & Maintenance



/ Road **Operation and Maintenance**

/ **Intelligent Transport Systems (ITS)**

/ **Maintenance Management**

Toll Collection



/ **2 traditional toll** operations

/ **7 electronic toll** operations

FULLY INTEGRATED SET OF SERVICES

ROAD O&M SERVICES

OPERATIONAL CENTRES



- / Assistance and Patrolling
- / General Routine Maintenance
- / Traffic Control Centres
- / Winter Maintenance

MAINTENANCE MANAGEMENT (TECHNICAL BACK OFFICE)



- / Major repairs (pavements)
- / Inspections and repairs
- / Management of QCP
- / Infrastructure monitoring
- / Accident audits
- / Accident statistical data
- / Design and construction
- / Heavy Maintenance (management)

ROAD SERVICES

OPERATIONAL CENTRES

Routine Maintenance



- / Preventive maintenance;
- / Routine maintenance;
- / Pavements;
- / Bridges and expansion joints;
- / Vegetation maintenance.

Winter Maintenance



- / Ice prevention;
- / Snow clearing.

Traffic Management and Safety



- / 24 hours, 365 days, user support and traffic management;
- / Triggering the emergency rescue;
- / Monitoring equipment;
- / Working site surveillance;
- / Connection to police, fire brigades and civil protection services.

User Assistance and Patrolling



- / First aid in case of accident – Traffic management;
- / Patrolling and inspection of the Concession's assets;
- / Breakdown service in case of car failure;
- / Observation of the safety conditions concerning the works performed on the lanes by the contractors and Service Providers;
- / Service Areas Daily Inspection.

ROAD SERVICES

MAINTENANCE MANAGEMENT (TECHNICAL BACK OFFICE)

Construction Support



- / Supervision of design, planning and construction of new roads*.
- *Ended in 2014

Road Safety



- / Accident Audits;
- / Accident Statistical Data.

Environmental Monitoring



- / Environmental impact monitoring (noise, air, water, fauna and flora);
- / Minimization measures.

Service Areas



- / Design and Construction;
- / Operation Stage.

Major repairs (management)



- / Planning, design, award and supervision of heavy maintenance works.

Infrastructure Monitoring



- / Pavement audits;
- / Real-time corrosion surveillance of major bridges;
- / Road signs and Road marks;
- / Structural inspections.

MAINTENANCE MANAGEMENT



/ Innovative solution, developed jointly with 2 Portuguese Universities and supported by an EU funding program

/ Enables integrated management of maintenance programs:

/ Pavements, / Slopes,
/ Bridges, / ITS equipment.

/ *New modules under development: road signs/road marks and culverts*

/ **2017 Best worldwide project** under the “Asset Preservation & Maintenance Management” category (Global Road Achievement Awards of IRF). The project was recognized for its “**excellence, innovation and societal impacts**” characteristics.

/ The management platform includes algorithms enabling to **forecast and to optimize** preventive or curative maintenance measures.

/ Supported on a GIS platform.

ASCENDI TOLL SYSTEMS

TOLLING OPERATIONS

2 x
TRADITIONAL
TOLLING

/ NT - Norte
/ GL - Grande Lisboa

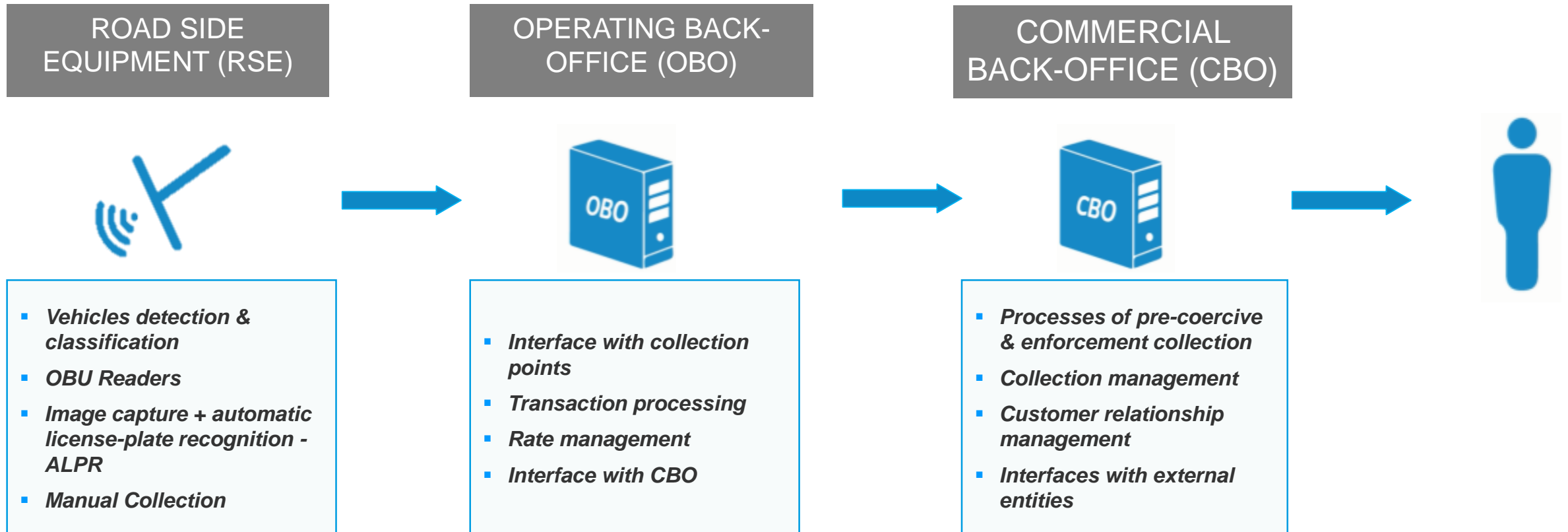
7 x
All Electronic
Tolling (MLFF)

/ CP - Costa de Prata
/ GP - Grande Porto
/ BLA - Beiras Litoral e Alta
/ IN - Interior Norte
/ PI - Pinhal Interior
/ TM - Túnel do Marão
/ IP – A23 – Torres Novas (A1)/Abrantes



TOLL COLLECTION SYSTEMS

MACRO ARCHITECTURE



TOLL COLLECTION SERVICES

Customer Service



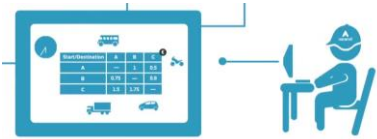
Transaction Trip identification



Traditional Toll Operation



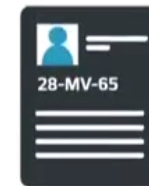
Manual Image Validation



Document Management



Issuance of Notifications



Issuance of Offense Documentation (TA)



Mobile Enforcement



System Supervision 24h/7



Facts and Figures

3.4_M

Customer accounts

172_M

Transactions

2.4_M

Billing Documents

278_{M€}

Collected Revenue

DEVELOPMENT OF AN
INDUSTRY SOLUTION
SUPPORTING THE CORE
PROCESSES OF TOLL
COLLECTION

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