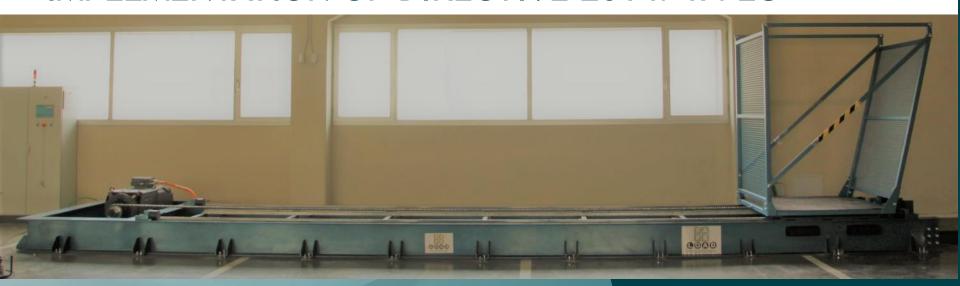




5th International EUMOS SYMPOSIUM 14-15 September 2017 Vienna

FROM LOCAL TO GLOBAL TRANSPORT REGULATION, IMPLEMENTATION OF DIRECTIVE 2014/47/EU



JOAN ALCARAZ LLORCA, MSc (OPEN)
Product and Packaging Testing Project Manager,
ITENE RESEARCH CENTRE, Spain

Confidential. Only for internal use of Company

ITENE SOLVES ALL CHALLENGES OF COMPANIES

ALONG THE SUPPLY CHAIN

We are the RESEARCH CENTRE specialized on Packaging, Transport, Logistics & Mobility INNOVATION

Our MISSION is to create NEW BUSINESS based on breakthrough technologies.



WE ARE TECHNOLOGICAL PARTNERS OF SOME OF THE MOST IMPORTANT ENTERPRISES WORLDWIDE

ITENE OFFERS HIGH ADDED VALUE SERVICES TO PREMIUM COMPANIES

INTERNATIONAL **CLIENTS**



ANNUAL TESTS PERFORMED



PROFESSIONAL TEAM



STATE OF THE ART **TECHNOLOGIES**















































1. CHALLENGES WITH THE IMPLEMENTATION OF DIRECTIVE 2014/47/EU

- > LOCAL Implementation: SPANISH Case
- > GLOBAL (General) Concerns

2. NECESSARY NEXT STEPS

- EUMOS detail
- LOBBY Actions
- > ITENE's Contribution





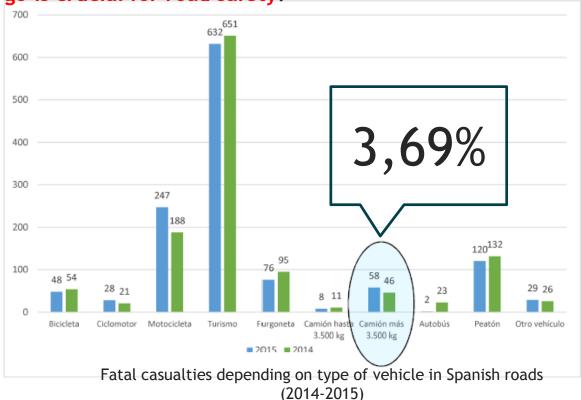
SPAIN'S INITIAL SITUATION

LOAD SAFETY IS HIGH PRIORITY IN EU LEGISLATION... ¿BUT ALSO FOR SPAIN?

DIRECTIVE 2014/47/EU OF THE EUROPEAN PARLIAMENT

(1)the Commission set out a 'zero-vision' objective whereby the Union should move close to zero fatalities in road transport by 2050

(16) Securing of cargo is crucial for road safety.



SPAIN'S INITIAL SITUATION





Reported infractions of vehicles involved in accidents

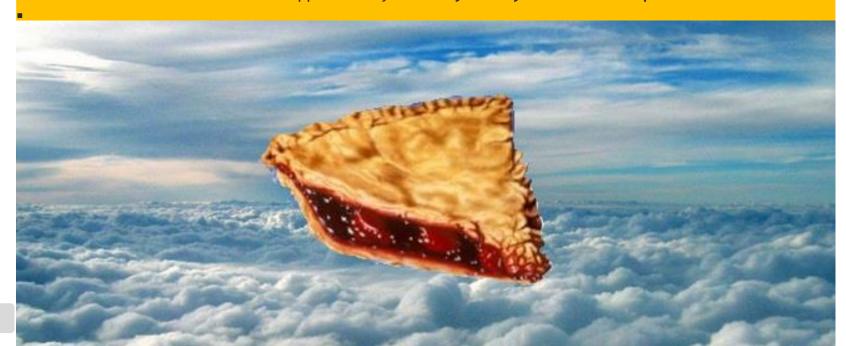
	INFRACCIONES DEL CONDUCTOR	2008	2009	2010	2011	2012	2013	2014	2015
	Infracción de velocidad	11.186	10.085	9.150	8.019	7.651	7.556	7.702	6.93
	Porcentaje	31%	31%	30%	28%	28%	26%	30%	26°
	Marcha lenta entorpeciendo la circulación	107	108	65	88	68	75	56	5
	Porcentaje	0%	0%	0%	0%	0%	0%	0%	0
	No respetar señal de STOP	1.785	1.556	1.359	1.203	1.216	1.231	1.252	1.26
	Porcentaje	5%	5%	4%	4%	4%	4%	5%	5
1	No respetar paso para peatones	77	55	72	48	70	65	166	13
1	Porcentaje	0%	0%	0%	0%	0%	0%	1%	1
	No respetar otra regulación de prioridad	1.629	1.454	1.445	1.446	1.356	1.528	2.287	2.25
	Porcentaje	5%	4%	5%	5%	5%	5%	9%	9
arpay	Circular en sentido contrario o por lugar prohibido	161	148	129	148	123	120	183	16
Yes inte	Porcentaje	0%	0%	0%	1%	0%	0%	1%	1
	Invadir parcialmente el sentido contrario	2.018	1.713	1.503	1.349	1.230	1.160	1.852	1.70
	Porcentaje	6%	5%	5%	5%	4%	4%	7%	6
	Adelantar antirreglamentariamente	962	840	701	571	561	540	574	53
	Porcentaje	3%	3%	2%	2%	2%	2%	2%	2
	No mantener el intervalo de seguridad	2.875	2.565	2.518	2.207	2.122	2.317	4.488	4.76
	Porcentaje	8%	8%	8%	8%	8%	8%	17%	18
	Apertura de puertas sin precaución	27	17	15	20	25	17	13	-
	Porcentaje	0%	0%	0%	0%	0%	0%	0%	0
	Incorrecta utilización del alumbrado	43	30	26	23	30	27	107	10
1_	Porcentaje	0%	0%	0%	0%	0%	0%	0%	U
xce	ess of cargo and wrong cargo	9	5	9	4	7	11	90	
securing		0%	0%	0%	0%	0%	0%	0%	0



Directive 2014/47/EU turns into Royal Decree 5(2/20

DEVIL IS IN THE DETAILS. THE "SHALL"-"MAY" TRICK

- The use of "shall" (obligation) and "may" (option) in the Directive will have different effects in the transposition of the directive.
- Everything related to cargo securing is related as "may". A real bet of the European Parliament for cargo securing would have been shown using the "shall" form.
- Those converting the "may" into obligation their country will be "tougher" in the implementation of the law
- Those keeping "may" as optional may have the temptation of never taking the option, becoming "softer" countries, and converting cargo securing as a simple "pie in the sky"
- This "shall"-"make" trick different approach may cause asymmetry within the European Union.





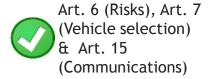
Directive 2014/47/EU turns into Royal Decree 563/2017

Technical Roadside Inspections of Commercial Vehicles - the main improvements

The current rules: Directive 2009/40/EC is complemented by Directive 2000/30/EC, which provides the requirement to control the technical state of commercial vehicles in between periodic inspections (with technical roadside inspections). These are additional on-the-spot roadside checks for commercial vehicles.

Under the new Directive 2014/47/EU:

The selection of vehicles will be based on the risk profile of the operators and target high risk undertakings to
reduce the burden on operators that maintain their vehicles in a proper way. Risk profiling will be based on the
results of previous roadworthiness tests and roadside inspections taking into account the number and severity of
defects detected as well as a time-factor providing higher importance to recent performed checks.



- · High risk companies "may" be prioritised
- On a monthly basis a database will be updated nationally and shared with the member countries,

Directive 2014/47/EU turns into Royal Decree 563/2017

Technical Roadside Inspections of Commercial Vehicles - the main improvements

The current rules: Directive 2009/40/EC is complemented by Directive 2000/30/EC, which provides the requirement to control the technical state of commercial vehicles in between periodic inspections (with technical roadside inspections). These are additional on-the-spot roadside checks for commercial vehicles.

Under the new Directive 2014/47/EU:

2. Currently technical roadside inspections apply to commercial vehicles of more than 3.5 tonnes. The directive encourages Member States to include light commercial vehicles (under 3.5 tonnes) into their roadside inspections (RSI) as such vehicles are being used more frequently in road transport. These vehicles are not covered by certain requirements such as the requirement of training for professional drivers or the installation of speed limitation devices ending up in a relatively high number of road accidents involving such vehicles.



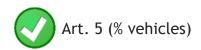
Directive 2014/47/EU turns into Royal Decree 563/2017

Technical Roadside Inspections of Commercial Vehicles - the main improvements

The current rules: Directive 2009/40/EC is complemented by Directive 2000/30/EC, which provides the requirement to control the technical state of commercial vehicles in between periodic inspections (with technical roadside inspections). These are additional on-the-spot roadside checks for commercial vehicles.

Under the new Directive 2014/47/EU:

3. The number of technical roadside inspections per year within the Union will be linked to the number of registered commercial vehicles. Member States shall endeavour to carry out an appropriate number of RSI proportionate to the total number of such vehicles registered in their territory to provide for a more equal distribution of the roadside checks among them.



- In Germany the Bundesamt für Güterverkehr (BAG)" claims to undertake 500,000 roadside inspections per year to trucks and buses,
- In 2015 in Spain 717 inspections to trucks and buses were undertaken, 144 vehicles (20%) were fined
- Considering about 2,500,000 registered vehicles over 3,5T it means about 125,000 roadside inspections.

Directive 2014/47/FU turns int

- It is expected 12,500 detailed inspections,
- There is a translation mistake in the Spanish version of the Directive 47/2014 in Article 10 that has been kept in the Royal Decree Article 8

Article 10

Contents and methods of technical roadside inspections

1. Member States shall ensure that vehicles selected in accordance with Article 9 are subject to an initial technical roadside inspection.

In each initial technical roadside inspection of a vehicle, the inspector:

- (a) shall check the latest roadworthiness certificate and technical roadside inspection report, where available, kept on board, or electronic evidence thereof in accordance with Article 7(1);
- (b) shall carry out a visual assessment of the technical condition of the vehicle;
- (c) may carry out a visual assessment of the securing of the vehicle's cargo in accordance with Article 13:
- (d) may carry out technical checks by any method deemed appropriate. Such technical checks may be carried out in order to substantiate a decision to submit the vehicle to a more detailed technical roadside inspection, or to request that the deficiencies be rectified without delay in accordance with Article 14(1).

The inspector shall verify whether any deficiencies indicated in the previous technical roadside inspection report have been rectified.

SHALL
SHALL
MAY
MAY

Artículo 10

Objeto de las inspecciones técnicas en carretera y métodos aplicados

 Los Estados miembros velarán por que los vehículos seleccionados conforme a lo in en el artículo 9 sean objeto de una inspección técnica en carretera inicial.

En la inspección técnica en carretera inicial de un vehículo, el inspector:

- a) comprobará el último certificado de inspección técnica y el informe de inspección té carretera, si están disponibles, o justificantes electrónicos de estos, que deben conserv bordo del vehículo de conformidad con el artículo 7, apartado 1;
- b) podrá realizar una inspección ocular del estado técnico del vehículo;
- c) podrá realizar una inspección ocular de la sujeción de la carga del vehículo de confo con el artículo 13;
- d) podrá efectuar controles técnicos por cualquier método que se estime apropiado. Ta controles técnicos podrán efectuarse para justificar una decisión de someter el vehículo inspección técnica en carretera más minuciosa o para solicitar que se subsanen sin der deficiencias, de conformidad con lo establecido en el artículo 14, apartado 1.

Si en el informe de la inspección técnica en carretera anterior se hubieran consignado deficiencias, el inspector verificará si han sido subsanadas.



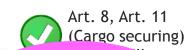
Directive 2014/47/EU turns into Royal Decree 563/2017

Technical Roadside Inspections of Commercial Vehicles - the main improvements

The current rules: Directive 2009/40/EC is complemented by Directive 2000/30/EC, which provides the requirement to control the technical state of commercial vehicles in between periodic inspections (with technical roadside inspections). These are additional on-the-spot roadside checks for commercial vehicles.

Under the new Directive 2014/47/EU:

5. The securing of cargo will be included in the roadside checks. Inadequate cargo securing is considered as factor related to up to 25% of accidents involving trucks. The directive establishes the principles for cargo securing, provides for a list of applicable standards and for harmonised criteria for the assessment of the cargo.



- In the Spanish transposition "may" remains "may"
- The Guardia Civil has not received any training on this yet, and there is no prospect at the moment.
- The mood is that, except in very evident situations, no cargo securing review will be undertaken.
- Although in the harmonised Roadside Inspection Report there is
 a "check list" in which it has to be stated if Cargo Securing is
 inspected or not

Directive 2014/47/EU turns into Royal Decree 563/2017

10	Checklist				10.	10. Elementos controlados						
			Failed ^(e)				Controlado(d)	Rechazado ^(e)				
		1.5 1/6 1/6				0)	Identificación ^(f)					
	(0)	dentification ^(f)				1)	Dispositivos de frenado ^(f)					
	(1)	Braking equipment ^(f)			2) Dirección ^(f)	Dirección ^(f)						
	(2)	Steering ⁽¹⁾				3) Visibilidad ^(f)						
	(3)	Visibility ^(f)			4) Equipo de alu		Equipo de alumbrado y componentes del sistema eléctrico ^(f)					
Г	(4)	Lighting equipment and electrical system(f)					E.es, ruedas, neumáticos, suspensión ^(f)	_	_			
	(5)	Axles, wheels, tyres, suspension ^(f)				6)	Chasis y elementos acoplados al chasis ⁽⁵⁾	_	_			
	(6)	assis and chassis attachments ^(f)				7)	Equipos diversos, incluidos el tacógrafo y el dispositivo de limitación de velocidad ^(f)	П				
	(7)	Other equipment incl. tachograph and speed limitation device ^(f)				′)		П				
	(8)	Nuisance incl. emissions and spillage of fuel and/or $\text{oli}^{(f)}$				Emisiones contaminantes, incluidas las em o aceite ^(f)	Emisiones contaminantes, incluidas las emisiones y el derrame de combustible o aceite ⁽⁶⁾					
	(9)	Supplementary tests for category M ₂ and M ₃ vehicles ^(f)				9)	Inspecciones adicionales para los vehículos de las categorías M ₂ y M ₃ ^(f)					
	(10)	Cargo securing ^(f)				10)	Sujeción de la carga ^(*)					
11.	Result of	ction:			los de la inspección:		_					
	Passed				Aprobad	n		П				
	Failed	gied							_			
			s \square			Rechaza						
		n or restriction on using the vehicle, which has dangerous deficiencies				Prohibici	ón o restricción de la utilización del vehículo, que presenta deficiencias peligrosas	š				
	Miscellaneous/remarks:											
13.	13. Authority/officer or inspector having carried out the inspection			13.	13. Autoridad/funcionario o inspector que ha efectuado la inspección							
Sign	Signature of:				Firm	Firma:						
	Competent authority/officer or inspector Driver					Autoridad competente/funcionario o inspector Conductor						
(a) (b) (c)	b) Number of seats including the driver's seat (item S.1 of registration certificate).			a) b) o)	b) Número de asientos, incluido el cel conductor (punto S.1 del certificado de matrícula).							
(e)	minor or no deficiencies have been found.			1d ~ (2014/47/UE, de este grupo y no se ha encontrado ninguna deficiencia o sólo alguna leve. e) Los elementos rechazados que presentan deficiencias graves o peligrosas se ndican en el reverso.							

Métodos para inspeccionar y evaluar las deficiencias con arreglo a los anexos II o III de la Directiva 2014/47/UE.

Methods for testing and assessment of defects in accordance with Annex II or III to Directive 2014/47/EU.

Directive 2014/47/EU turns into Arrêté du 8 Juin 2017



RAPPORT DE CONTRÔLE TECHNIQUE ROUTIER APPROFONDI

	OHOUNIS					A CONTRACTOR OF THE CONTRACTOR	Vérifié			
			Checked ^(d)	Checked ^(d) Failed ^(e))éfaut	VETHIC			
	(0)	Identification ^(f)		- -		0) Identification				
	(1)	Braking equipment(f)		- -		1) Equipement de freinage				
	(2)	Steering ^(*)				2) Direction				
	(3)	Visibility ^(f)				3) Visibilité				
	(4)	Lighting equipment and electrical system ^(f)		- -		4) Equipement d'éclairage et système électrique				
	(5)	Axles, wheels, tyres, suspension ^(f)		5) Essieux, roues, pneumatiques, suspension 6) Châssis et accessoires du châssis		5) Essieux, roues, pneumatiques, suspension				
	(6)	Chassis and chassis attachments ^(f)				6) Châssis et accessoires du châssis				
	(7)	Other equipment incl. tachograph and speed limitation $device^{(\!f\!)}$		- -		7) Autre équipement, y compris tachygraphe et dispositif de limitation de vitesse				
	(8)	Nuisance incl. emissions and spillage of fuel and/or $\text{oli}^{(i)}$		- -		8) Nuisance, y compris les émissions et fuite de carburant et/ou d'huile				
	(9)	Supplementary tests for category $\mathrm{M_2}$ and $\mathrm{M_3}$ vehicles ^(f)		_		9) Contrôles supplémentaires pour les véhicules des catégories M2 et M3				
	(10)	Cargo securing ^(f)			ightharpoonup					
11.	Result of inspection:				1	1. Résultats du contrôle :				
	Passed				C	Conforme		П		
	Failed				Défectueux					
	Prohibition or restriction on using the vehicle, which has dangerous deficiencies				In	Interdiction d'utiliser le véhicule, qui présente des défaillances critiques, ou restriction à son utilisation				
12.	12. Miscellaneous/remarks:					2. Observations		_		
13.	13. Authority/officer or inspector having carried out the inspection					ADDRESS AND THE STATE OF THE ST				
Sigr	Signature of:				99		-041015 100000 110	222 222 222		
Competent authority/officer or inspector Driver					**					
					1	3. Signatures :				
Note (a) (b) (c) (d)	(b) Number of sea's including the driver's seat (item S.1 of registration certificate). (c) If available. (d) 'checked' means that at least one or more of the inspection items of this group, as listed in Annex II or III to Directive 2014/47/EU, have been checked and					· L'agent changé du contrôle Le conducte				
(e)	·· · · · · · · · · · · · · · · · · · ·				•	Control of the Contro				
(f) Methods for testing and assessment of defects in accordance with Annex II or III to Directive 2014/47/EU.						(1) Sur la base du rapport complet de contrôle technique routier approfondi établi par le contrôleur du centre de contrôle				

10. Liste de contrôles (1)



RESPONSIBILITY

WHO TO BLAME IN CASE OF ACCIDENT BY INAPPROPRIATE CARGO SECURING

DIRECTIVE 2014/47/EU OF THE EUROPEAN PARLIAMENT AND OF THE inspection of the roadworthiness of continuous cont

April 20

nical roadside

Whereas:

(17) **A'** have Off the record: In Spain transport companies and/or drivers will be responsible if anything happens related to cargo securing and road safety.



• ¿And in the rest of the EU? - Legal uncertainty.

roadworthin and a certified or original printout on and a certificate, a certified on original printout on and a certified on original printout on and a certified on original printout on the vehicle when they are available. Member States a certificate, a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a certified on original printout on the vehicle when they are available. Member States a constant of the vehicle when information in that regard is accessible

- Member States shall require undertakings and drivers of a vehicle subject to a technical roadside inspection to cooperate
 with the inspectors and to provide access to the vehicle, its parts and all relevant documentation for the purposes of the
 inspection
- 3. Member States shall **ensure that the responsibilities of undertakings for keeping their vehicles in a safe and roadworthy condition are defined**, without prejudice to the responsibilities of the drivers of those vehicles

RELATED TO VEHICLE CONDITION

EUMOS 40509 Unit load rigidity

Uncertainties about the use of EUMOS 40509 as a means of showing compliance

Is there any report format that can be used as international certificate?

Who can produce a valid report/certificate?

Can I produce it myself if I have the equipment?

What if I have a "national" certificate"? Is it valid for the rest of the EU?

Does the way of achieving the speed when braking, or stopping when accelerating, influence the certificate?

Do I need a certificate for each SKU?

What if I produce the same SKU using different packaging providers/qualities?

If I get K=0,5g in any direction, can I assume that adding the resistance of a "normal" (not XL) truck front wall it'll be OK?

Is the certificate valid until I change the SKU?

Does climatic conditions influence the certificate?

Spanish summer differs from German winter.



ASYMMETRY WITHIN THE EUROPEAN UNION

Dinamaro

Oldenburg

Malta

Uncertainties about the implementation of the

França

Andorra

Barcelona

مدينة الجزائر

Glasgow

Regne Unit

Espanya

Granada

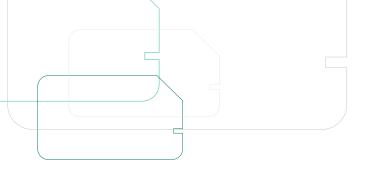
Sevilla

Manchester o o



Does really a roadside inspection from last 3 months give a "fast pass" when stopped again (the cargo can be different in each trip)





2.1 NECESSARY NEXT STEPS

EUMOS Detail



Changes using the EUMOS platform

Change from the inside

DIRECTIVE 2014/47/EU

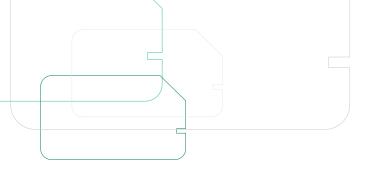
Article 13 Inspection of cargo securing

2. ...cargo securing and inspection of the

approni



- It should define who can perform the test (minimum aptitudes):
 - Independent laboratories
 - ✓ EN ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories
 - Self-certification
 - ✓ EN 180 9001 Quality management systems, Requirements,
 - ✓ Define random audits from independent labs.



2.2 NECESSARY NEXT STEPS

Lobby actions



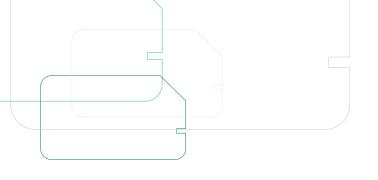
European Law changes

Any change needs lobby pressure from now on



DIRECTIVE 2014/47/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union and repealing Directive 2000/30/EC Article 24 Reporting

- 1. By 20 May 2020, the Commission shall submit a report to the European Parliament and the Council on the implementation and effects of this Directive. The report shall analyse, in particular, its effect in terms of improvement of road safety as well as the costs and benefits of the possible inclusion of N1 and O2 category vehicles within the scope of this Directive.
- It is important to claim for an unambiguous clarification of:
 - The responsibilities of the parties in cargo securing
 - The need to make a cargo review in each roadside inspection
 - The formats of the documents needed to show compliance
 - The rights of transporters when crossing borders



2.3 NECESSARY NEXT STEPS

ITENE's contributions



ITENE'S Contribution

SPECIALIZED TRANSPORT LABORATORY PARTNER



- Top-class technical consultancy to improve unit load rigidity
 - In-house simulation tests to comply with EUMOS 40509
 - · Certification from ITENE
- Collaborating internationally to improve cargo securing

ITENE'S Contribution

266 TESTS RELATED TO PACKAGING & TRANSPORT

LABORATORY WITH THE MOST NUMBER OF PACKAGING CERTIFIED TESTS (102)



ISO 17025 guarantees the quality of the results





Packaging tests officially certified by ENAC ILAC-MRA







ISTA protocols for packaging simulation tests



Compostability testing on packaging materials









ITENE'S Contribution

SPECIALIZED TRANSPORT LABORATORY PARTNER







Thanks!

ITENE

Parque tecnológico - C/ Albert Einstein 1 46980 Paterna (Valencia) SPAIN

T. (+34) 961 820 000

e-mail: info@itene.com