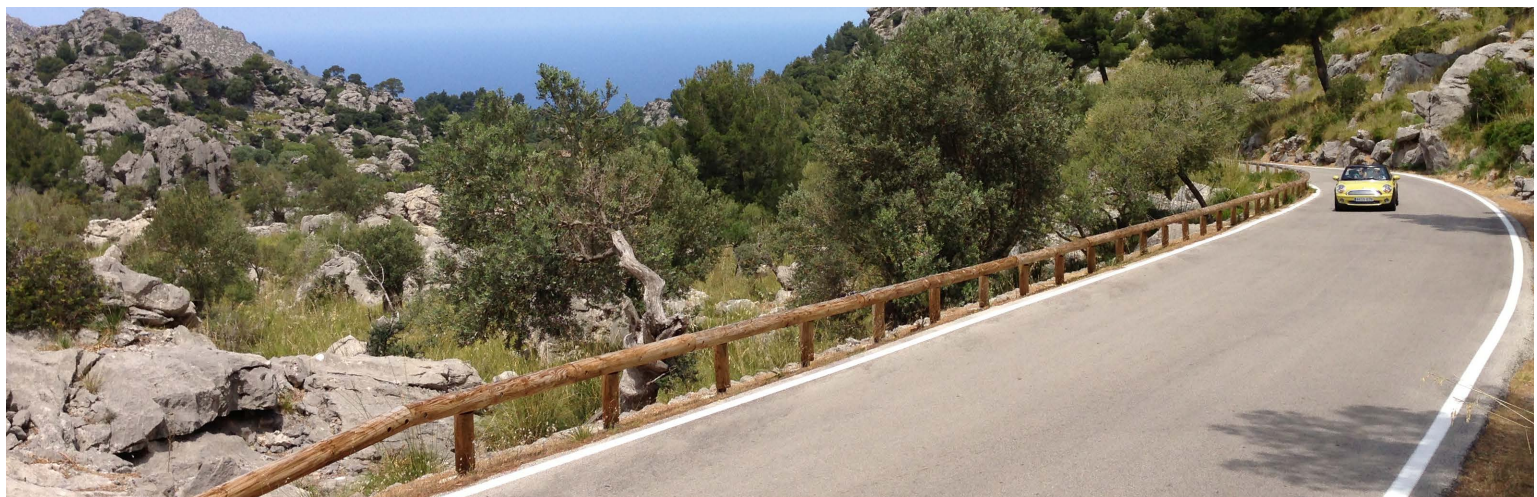




SAFETY BARRIERS

SAFETY BARRIERS - ACOUSTIC SCREENS - PARAPETS



Rondino Road[®]

THE WOOD SOLUTION FOR SAFETY EQUIPMENTS

THE PASSION OF WOOD

Rondino Road[®]

1877
Creation of
the company

1984
1st company to
create the wood/
steel guardrails
in Europe

Local wood, French manufacturing

Since 1877, wood is at the heart of our activity. Our safety barriers and equipment are all made in France. We use local wood from French forests close from our factories which give us a positive carbon footprint. Rondino-Road is part of the safety division of Rondino company.

Wood, a natural and renewable resource

During their growth, trees absorb CO₂ and generate oxygen in the atmosphere. Each cubic meter of wood absorbs one ton of CO₂ and generates more than 700kgs of O₂. The harvest of trees allows to insure the vitality and sustainable management of the forests. Our wood is from local forests and PEFC certified.

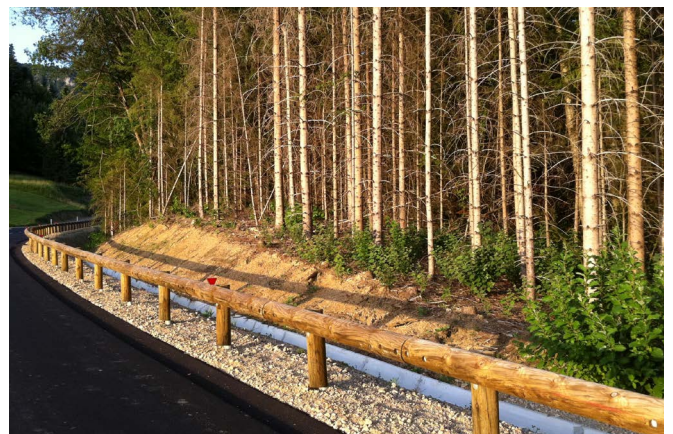
Rondino, a sustainable management

Respectful of nature, we get involved for a better environment. Our wood is 100% recyclable. Our waste is transformed into energy to supply heating for domestic and industrial use. The rainwater we collect is used in our manufacturing process. Solar panels are installed on our warehouses to produce energy.



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EN1317 STANDARD

Vehicle Restraint Systems (VRS) commonly named Safety Barriers, have to be CE certified according EN1317.

The CE marking warranty the conformity of the product according EN1317 regarding performance requirements and traceability. The CE marking doesn't provide warranty to the product in terms of quality and durability; Only the manufacturer can give its own warranty. Rondino provides the best durability on safety barriers. We only offer **Pinus Class 4**, the best durability for wood and hot dip galvanized for steel components.

Our safety barriers are all certified CE by ASCQUER.

Safety barriers are evaluated according to 3 main criteria

A) Containment level

LEVEL	TEST	SPEED (km/h)	WEIGHT (kg)	IMPACT ANGLE (°)
LOW CONTAINMENT	T1	TB21	80	1 300
	T2	TB22	80	1300
	T3	TB41+TB21	70 80	10 000 1 300
NORMAL CONTAINMENT	N1	TB31	80	1 500
	N2	TB32+TB11	110 100	1500 900
HIGH CONTAINMENT	H1	TB42+TB11	70 100	10 000 900
	L1	TB42+TB11+TB32		
	H2	TB51+TB11	70 100	13 000 900
	L2	TB51+TB11+TB32		
	H3	TB61+TB11	80 100	16 000 900
	L3	TB61+TB11+TB32		
VERY HIGH CONTAINMENT	H 4a	TB71+TB11	65 100	30 000 900
	L4a	TB71+TB11+TB32		
	H 4b	TB81+TB11	65 100	38000 900
	L4b	TB81+TB11+ TB32		

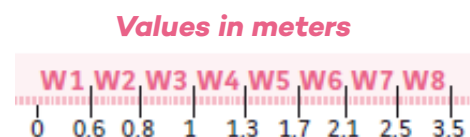
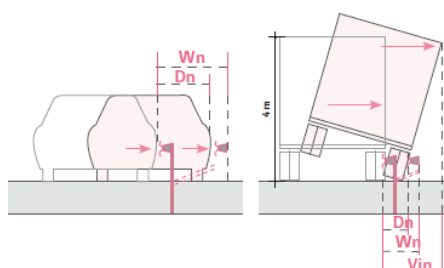
B) Index severity (ASI)

The ASI (acceleration severity index) is the risk for a vehicle occupant consequent to a vehicle impact, applicable to passenger cars only.

CLASS	ASI	INDEX VALUES
A	LOW	ASI ≤ 1,0
B	MEDIUM	1 < ASI ≤ 1,4
C	HIGH	1,4 < ASI ≤ 1,9

C) Deformation of the safety barriers

Working width (Wn), Dynamic deflexion (Dn), Vehicle intrusion (Vin)



1st Manufacturer in Europe to create the wood/steel safety barriers
1st Barriers intalled in 1984 in the French Alps
More than 5,000km installed in the world
A worldwide experience:

*France, Spain, Portugal, Italy, Belgium, Luxemburg,
 England, The Netherlands, Slovenia, Malta,
 Estonia, Morocco, Germany, Israel, New Zealand, Chile...*



Quality - Durability

To ensure the best durability for safety barriers regarding the risk of rotten wood and corrosion, Rondino has made the choice of high quality.

Wood in Pinus Class 4 according EN335 - CTB B+ Certification
Steel - hot dip galvanized - EN ISO 1461



**FABRIQUÉ
 EN FRANCE**



Fast & Easy installation

Most of our safety barriers are delivered pre-installed for a quick and easy installation. The conception of our barriers allow a large flexibility for installation.

High Performance

Since 1984, Rondino has constantly developed its range of safety barriers. From the new generation of G4M Model to the new high performance GRP range. The GRP safety barriers give a very high performance in terms of deformation (W), protection of obstacles, and the best index of severity impact (ASI=A).

MODEL	LEVEL	Wn	ASI
GRP	N1-N2-H1	W1 TO W5	A
G2M G4M	N2	W6-W7	A
G2M+ G4M+	N2	W5-W7	A
GH2	H2	W4	B

WOOD/STEEL BARRIER

GRP



HIGH PERFORMANCE

**N1-N2-H1 LEVELS
FROM W1 TO W5
ASI= A**

High quality/durability

Wood - Pinus Class 4 (EN 335)

Steel - hot dip galvanization (ISO 1461)

PEFC certification

Sustainable management of forests

**1st company in Europe to create
the wood steel guardrail in 1984.
More than 40 years of experience**

CE certified by ASCQUER according EN1317
N° 1826-CPR-09-02-04-DR6
N° 1826-CPR-09-02-04-DR7
N° 1826-CPR-09-02-04-DR8
N° 1826-CPR-09-02-04-DR9
N° 1826-CPR-09-02-04-DR10
N° 1826-CPR-04-DR11
N° 1826-CPR-04-DR12



*Excellent obstacle
protection*

ascquer
association pour la
certification et la qualification
des équipements de la route

CE



Rondino Road®

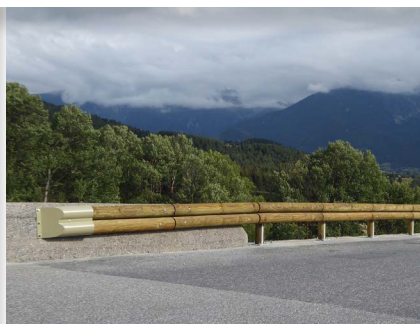
	POST SPACING	LEVEL	Wn	Dn	Vin	ASI	POST		LEVEL	Wn	Dn	ASI	POST
GRP-6M	6 M	N2	W5	1,20	-	A	Driven post		N1	W3	0,70	A	Driven post
GRP-4M	4 M	N2	W4	1,00	-	A	Driven post		N1	W2	0,60	A	Driven post
GRP-3M	3 M	N2	W3	0,90	-	A	Driven post						
GRP-2M	2 M	N2	W2	0,70	-	A	Driven post		N1	W1	0,30	A	Driven post
GRP-H1	15 M	H1	W3	0,80	VI4	A	Driven post						
GRP-4M	4 M	N2	W4	1,00	-	B	Surface mounted						
GRP-2M	2 M	N2	W2	0,60	-	B	Surface mounted						



TERMINALS P. 12



TRANSITIONS P.12



ACCESSORIES P.13



WOOD/STEEL BARRIER

G4M & G2M



FAST &
EASY INSTALLATION

CE certified by ASCQUER according EN1317
N° 1826-CPR-09-02-04-DR1
N° 1826-CPR-09-02-04-DR2

N2 LEVEL

4M & 2M POST SPACING

ASI= A

High quality/durability

Wood - Pinus Class 4 (EN 335)

Steel - hot dip galvanization (ISO 1461)

PEFC certification

Sustainable management of forests

**1st company in Europe to create
the wood steel guardrail in 1984.
More than 40 years of experience**



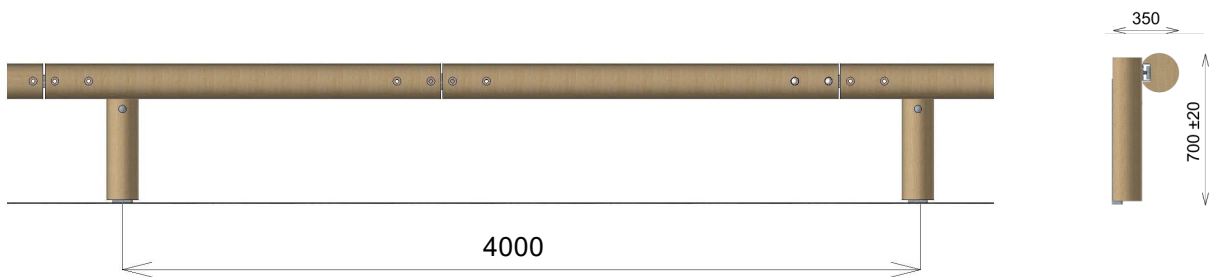
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CE



Rondino Road®

	POST SPACING	LEVEL	W _n	D _n	ASI	POST
G4M	4 M	N2	W7	2,10	A	Driven post
G2M.4	2 M	N2	W6	1,70	A	Driven post
G2M.2	2 M	N2	W6	1,70	A	Driven post



TRANSITIONS P.12



ACCESSORIES P.13

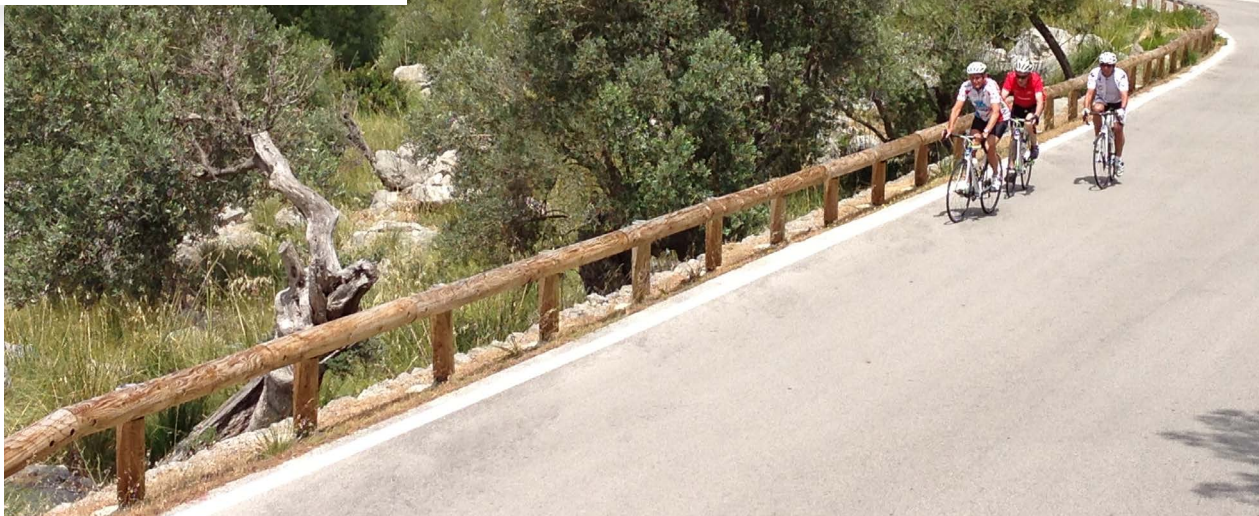


ACCESSORIES P.13



WOOD/STEEL BARRIER

G4M+ & G2M+



FAST &
EASY INSTALLATION

CE certified by ASCQUER according EN1317
N° 1826-CPR-09-02-04-DR4
N° 1826-CPR-09-02-04-DR5

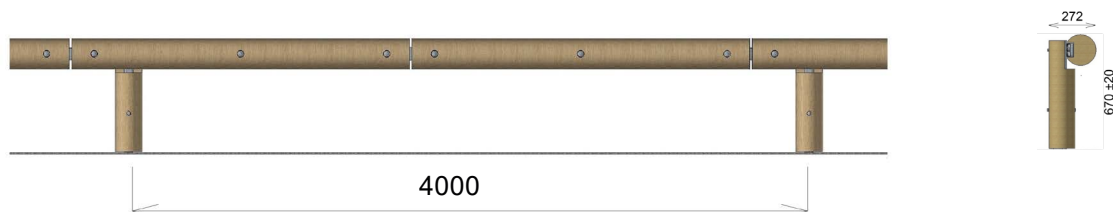
N2 LEVEL
4M & 2M POST SPACING
ASI= A

High quality/durability
Wood - Pinus Class 4 (EN 335)
Steel - hot dip galvanization (ISO 1461)

PEFC certification
Sustainable management of forests

**1st company in Europe to create
the wood steel guardrail in 1984.
More than 40 years of experience**

	POST SPACING	LEVEL	Wn	Dn	ASI	POST
G4M+	4 M	N2	W7	2,10	A	Driven post
G2M+.4	2 M	N2	W5	1,50	A	Driven post
G2M+.2	2 M	N2	W5	1,50	A	Driven post



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CE

WOOD/STEEL BARRIER

GH2



FAST &
EASY INSTALLATION

CE certified by ASCQUER according EN1317
N° 1826-CPR-09-02-04-DR3

H2 LEVEL
2M POST SPACING
ASI= B

High quality/durability

Wood - Pinus Class 4 (EN 335)

Steel - hot dip galvanization (ISO 1461)

PEFC certification

Sustainable management of forests



	POST SPACING	LEVEL	Wn	Dn	Vin	ASI	POST
GH2	2 M	H2	W4	1,00	VI4	B	Driven post



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CE

Rondino Road®

TRANSITIONS

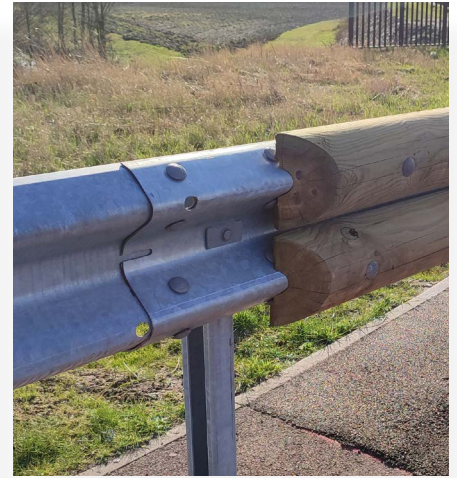
In absence of European standards for Transitions, Rondino has transitions certified according NF058 by ASCQUER.



GRP Transition on concrete wall
860 060



G/G+ Transition on concrete wall
800 460



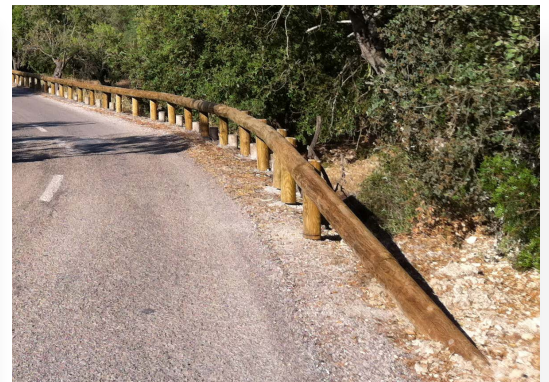
GRP Transition on steel beam
860 070

TERMINALS

Terminals can't be certified CE according EN1317.
Generally, terminals are installed on 4m length or 12m length.

Slope down terminals

No CE Certification



P2/P4 Terminals

Energy absorbing terminals according XP ENV 1317-4:2002 - No CE certification



ACCESSORIES



Wood back mask for beam

G4M & G2M | 800 403
G4M+ & G2M+ | 800 403-02
GRP | 860 030



Wood back mask for post

G4M & G2M | 800 029
G4M+ & G2M+ | 850 029



Reflector

800 254

HANDRAILS

No CE Certification



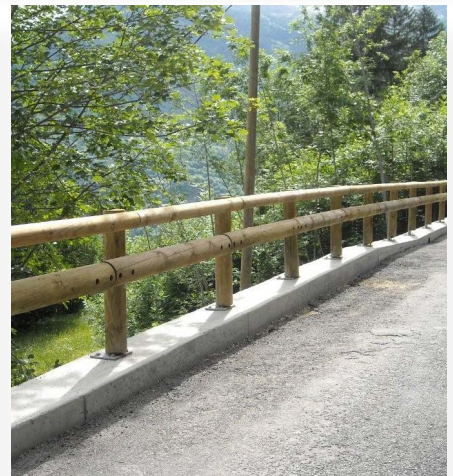
Handrail for GRP

860 731 (GRP-H1)
860 721



Handrail for G/G+

G2M 800 423 / G4M | 800 423-05
G2M+ 850 423 / G4M+ | 850 423-05



Handrail for G2M

800 401-01

MOTOCYCLIST PROTECTIONS

No CE Certification



For G4M/G4M+ | 800 404

For G2M/G2M+ | 800 405

For GRP | 860 705

Terminal | 800 454

ACOUSTIC SCREENS

Our acoustic screens are CE certified according to the European standards EN1793 - EN1794 - EN14388. Certification by French laboratory FCBA (Acoustic Laboratory Division).



Reflecting screen



Absorbing screen

PARAPETS

Wood/Steel parapet - 2m long elements - Fixation on anchor plate
Easy and fast installation. Certified according XP P 98-405



SB20 Parapet ht 1m | 800 680
SB22 Parapet ht 1.20m | 800 690



SB24 Parapet ht 1.40m | 800 700



LED OPTION

OTHER PRODUCTS

Check out our website rondino-road.com | rondino.fr

WORLDWIDE REFERENCES

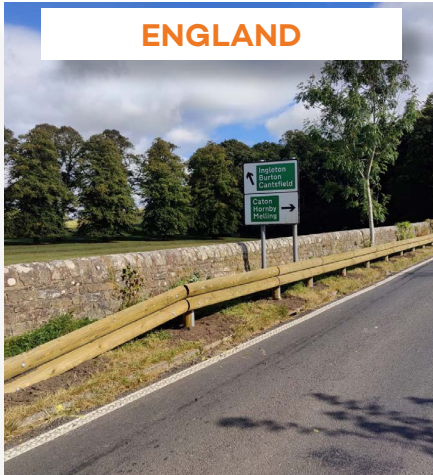
More than 5,000km installed in the world
A worldwide experience:

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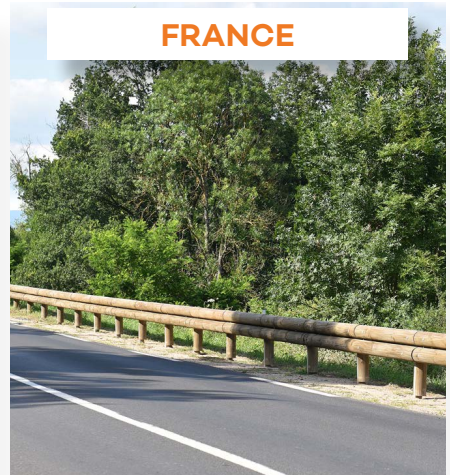
NEW ZEALAND



ENGLAND



FRANCE



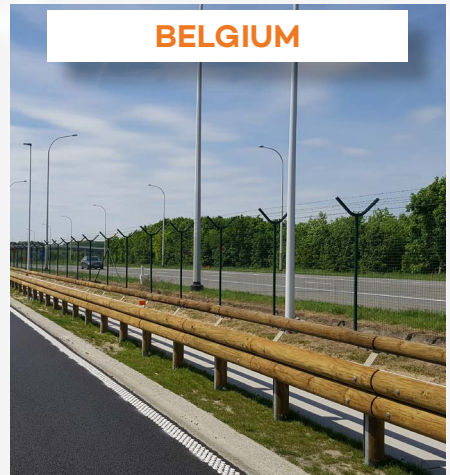
THE NETHERLANDS



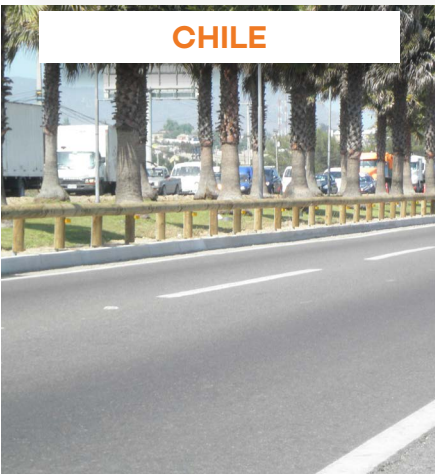
SLOVENIA



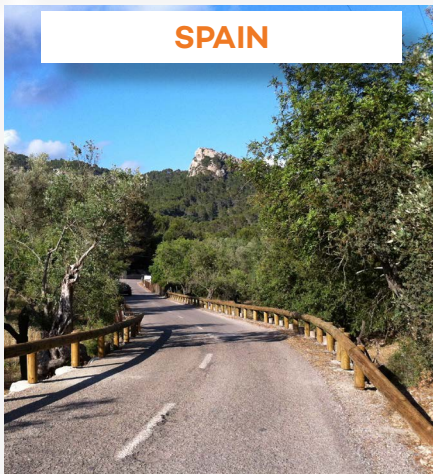
BELGIUM



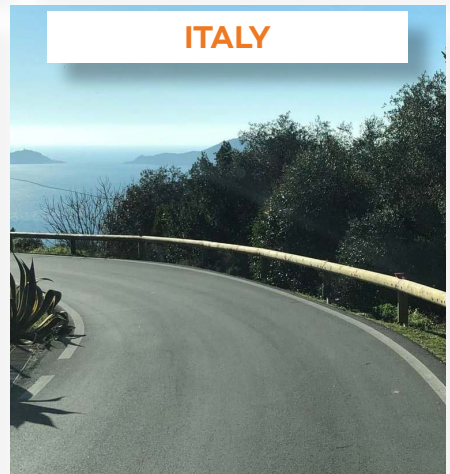
CHILE



SPAIN



ITALY



Do you have a project in mind - Contact us !
info@rondino-road.com

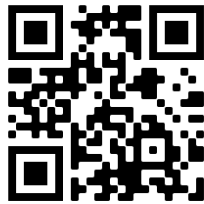
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EQUIPMENTS FOR ROADS & CYCLE PATHS



WOOD OR WOOD/STEEL FOOTBRIDGES



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