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Safer Roads and The European Road Assessment Programme (EuroRAP)

Andrew Pledge
The Passive Revolution

International
Seminar

GAMBIT
2008

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1. Background
2. Driving Forces
3. Protocols
4. European Results
5. RAP Worldwide

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Protocols

**EuroRAP provides 3 protocols that
can be applied to any country**

Risk Rate Mapping

Colour-coded maps showing the risk of death and serious injury that road-users face on different roads, with extra mapping for road authorities

Performance Tracking

Identifying whether fewer people are being killed or seriously injured on a road over time and identifying countermeasures that are most effective

Star Rating

A Star Rating showing how well a road protects road-users if a crash occurs

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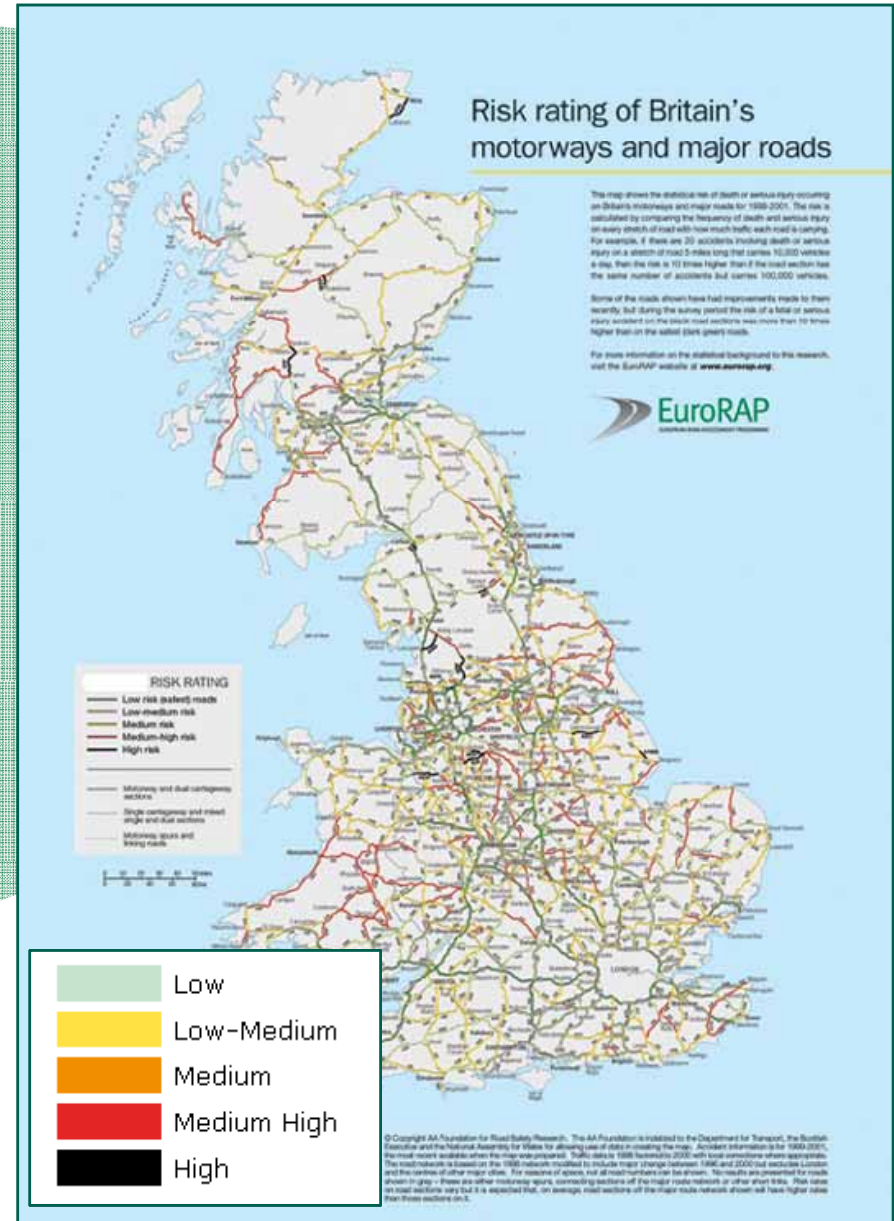
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Risk Mapping

- Based on real accident data and traffic flow data
- Data averaged over 3 years to give robust estimate
- Risk rates categorised into 5 coloured bandings
- Different maps can be produced to describe accident distribution
 - Individual Risk
 - Collective Risk



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Star Rating (RPS)

- Design elements known to affect likelihood of an accident occurring
- Safety features known to mitigate injury severity
- Drive-through inspection or video capture (or both)
- Assesses 4 main impact types
- 1-4 stars awarded (combined and separate)
- Not a road safety audit: assesses general standard of the route, not individual sites of concern



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RPS Star Rating Scoring

Median Treatment

Speed in Km/h

	120	110	100	90	80	70	60	50
CEN Barrier	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Non CEN Barrier	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Median ≥ 10m	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Median 4 to 10m	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★
Median 0 to 4m	★	★	★★	★★	★★★★	★★★★★	★★★★★	★★★★★
≥ 1m Rumble strip	★	★	★	★★	★★★★	★★★★★	★★★★★	★★★★★
≥ 1m Hatching	★	★	★	★★	★★	★★★★★	★★★★★	★★★★★
Double centreline	★	★	★	★★	★★	★★★★★	★★★★★	★★★★★
Single centreline	★	★	★	★★	★★	★★★★★	★★★★★	★★★★★

Median treatment risk matrix and assignment of star rating

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Inspected Road Attributes

Unprotected
trees

Delineation:
limited
forward
visibility

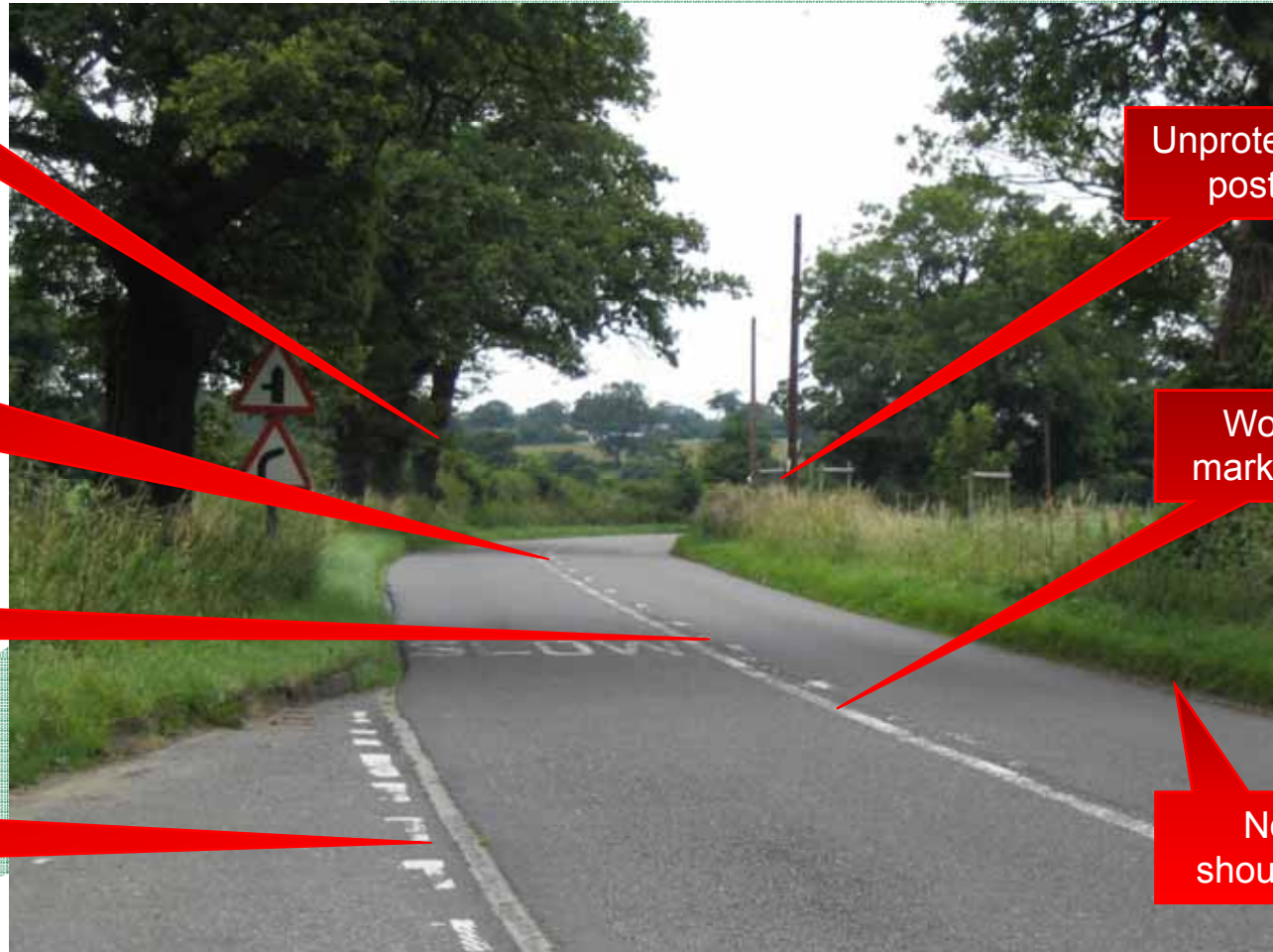
No median
separation

Junction off
crest of the
curve

Unprotected
posts

Worn
markings

No
shoulder



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Inspected Road Attributes

Protected posts & trees

Good lighting

Wide lanes

Good overtaking provision

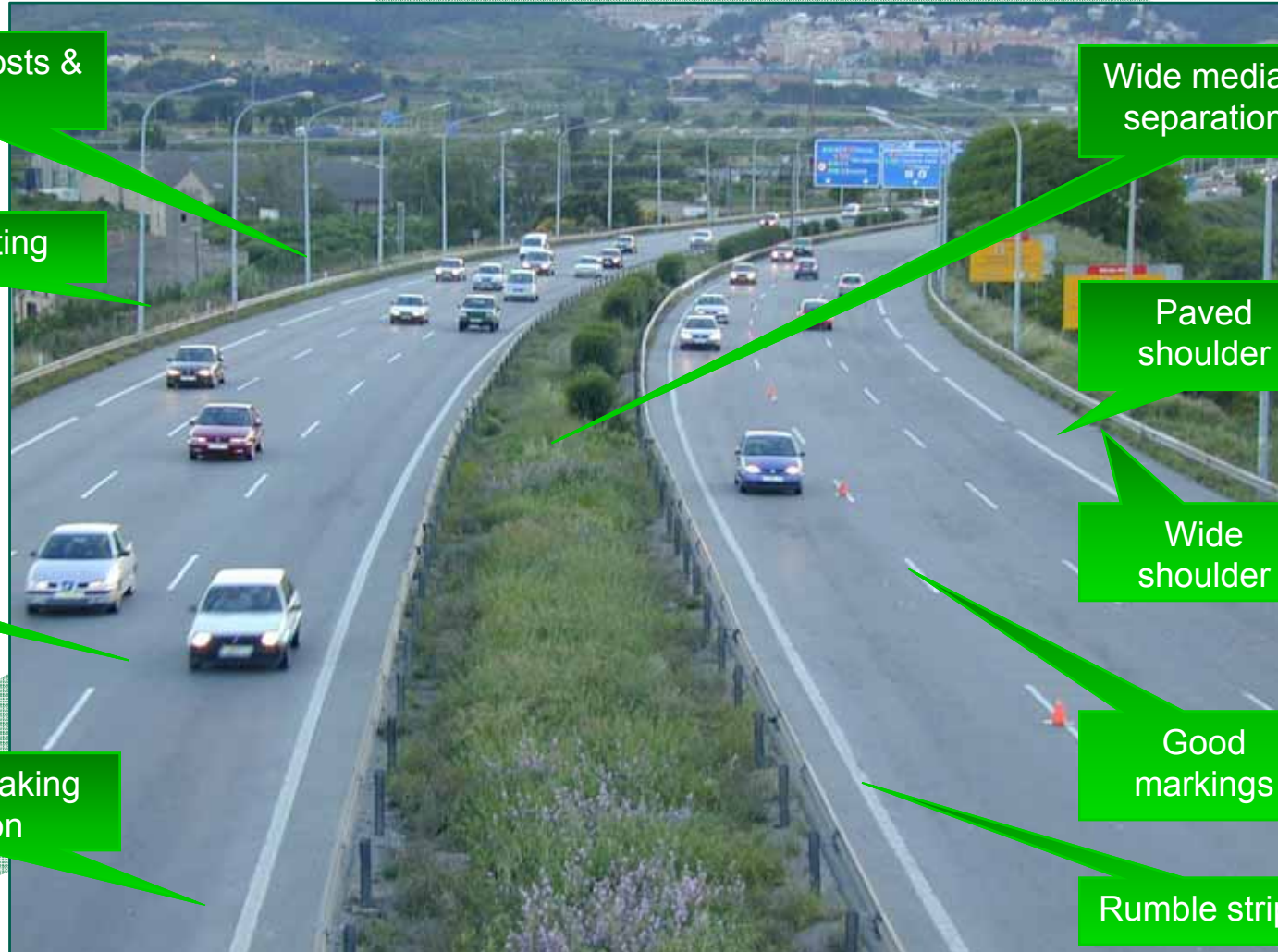
Wide median separation

Paved shoulder

Wide shoulder

Good markings

Rumble strips



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EuroRAP
EUROPEAN ROAD ASSESSMENT PROGRAMME

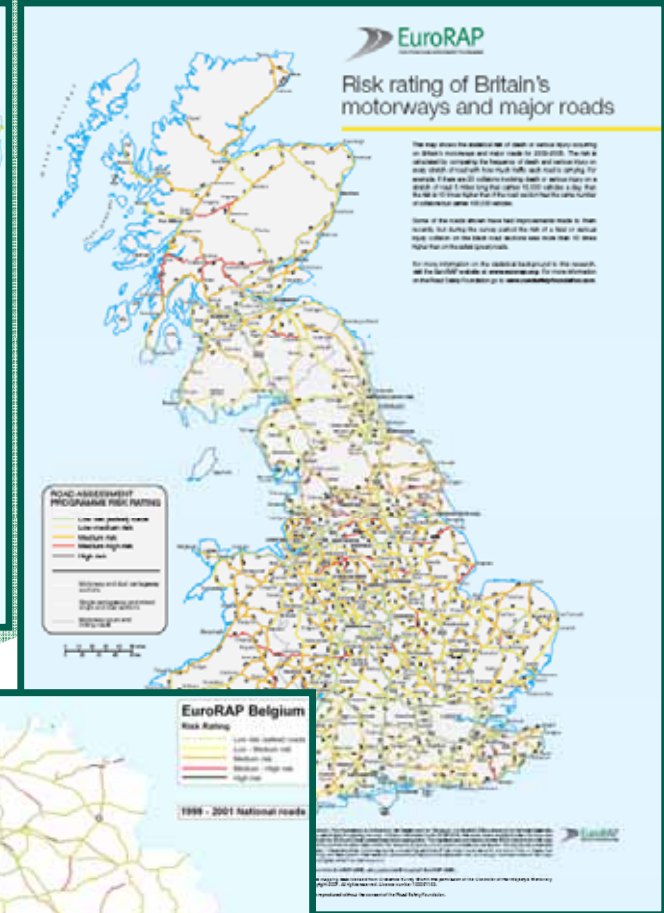


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European Results: Risk Mapping



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European Results: Performance Tracking

Comparison of fatal collision rates per billion vehicle km among EuroRAP partners

	Republic of Ireland	Northern Ireland	Great Britain	Netherlands	Sweden	Spain
Motorway	(2.3)	(1.9)	1.9	1.7	1.7	11.3
Dual carriageway	(4.7)	(7.3)	5.0	7.7	-	11.3
Single carriageway	11.5	12.4	12.4	-	7.7	23.2

Values in brackets indicate small samples, so these collision rates should be viewed only as indicative of the average for these types of roads.
Data for the Republic of Ireland and Northern Ireland are 1998-2002; time periods for other countries differ.

North-south
divide in
lethal roads

British roads lose poll position
in European safety league

Region shamed with four
in top 10 of danger roads

**4 SHORT MILES
OF DEATH AND
DESTRUCTION**

Britain's dangerous
roads highlighted

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European Results: Star Rating



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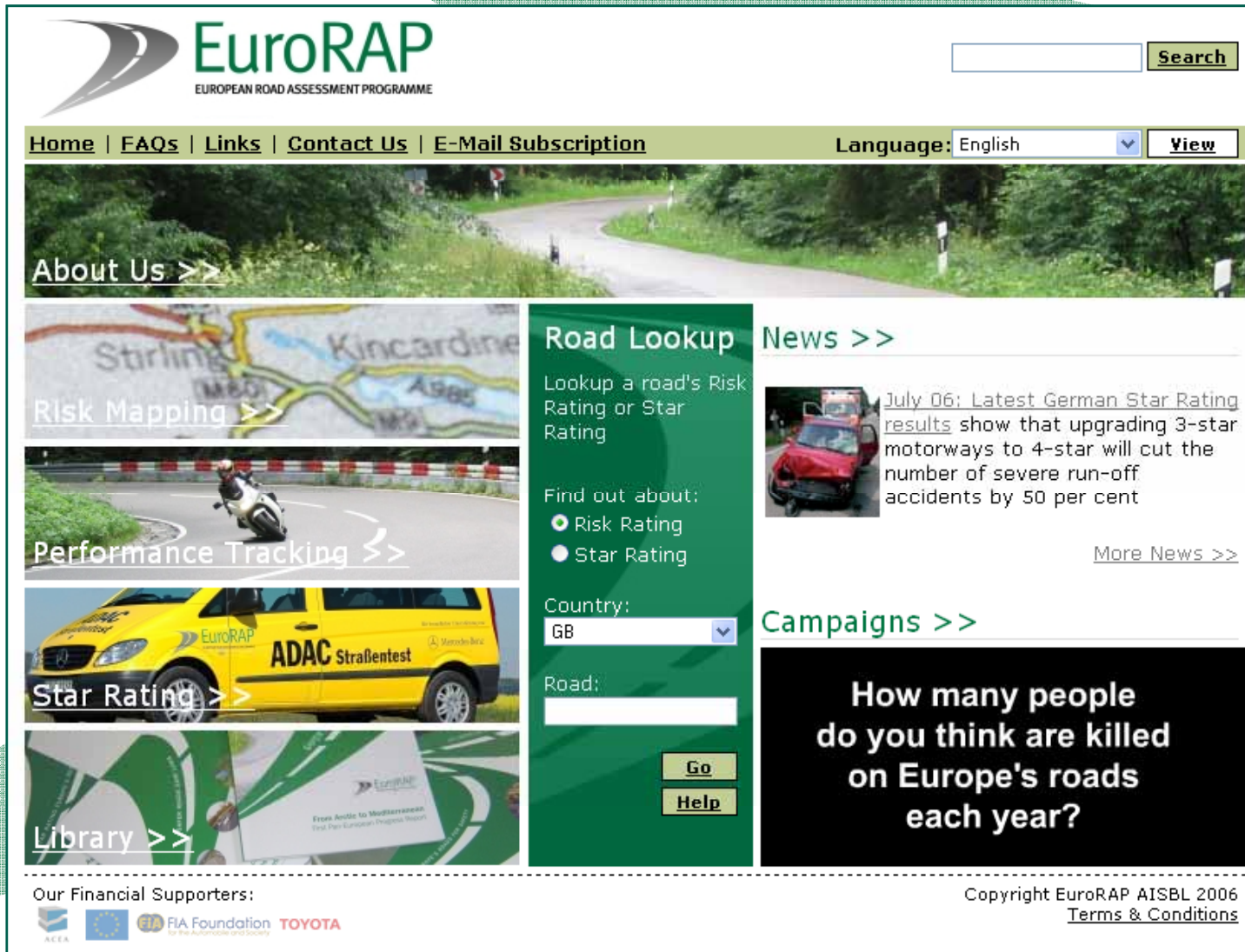


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Further information: www.eurorap.org



The screenshot shows the EuroRAP website homepage. At the top, there is a search bar and a navigation menu with links for Home, FAQs, Links, Contact Us, and E-Mail Subscription. A language dropdown menu is set to English. The main content area features several sections: 'About Us' with a background image of a winding road; 'Risk Mapping' with a map showing Stirling and Kincardine; 'Performance Tracking' with an image of a motorcycle on a road; 'Star Rating' with an image of a yellow ADAC Straßentest van; and 'Library' with an image of a report cover. A central 'Road Lookup' section allows users to search by country (set to GB) and road name, with 'Go' and 'Help' buttons. To the right, there is a 'News' section with a headline about German Star Rating results and a 'More News' link. Below that is a 'Campaigns' section with a large black box containing the text: 'How many people do you think are killed on Europe's roads each year?'. At the bottom, there is a section for 'Our Financial Supporters' listing ACCA, the European Union, FIA Foundation, and TOYOTA. Copyright information for EuroRAP AISBL 2006 and a link to Terms & Conditions are also present.

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Thank You

On behalf of Dr Joanne Hill
European Programme Manager, EuroRAP

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