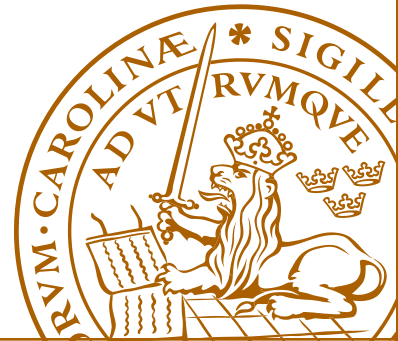


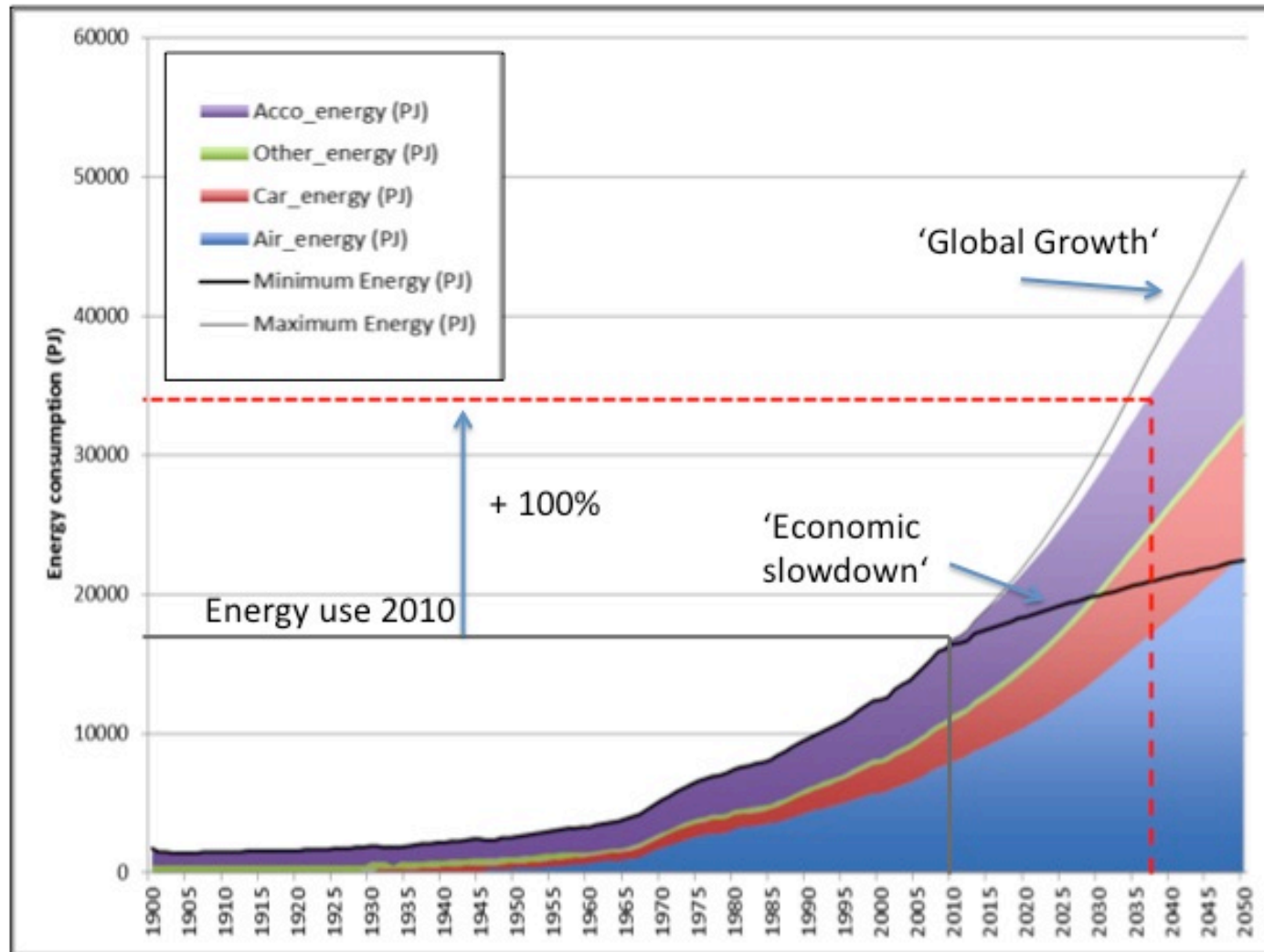
Carbon-labelling im Tourismus

Stefan Gössling

Dept. of Service Management and Service Studies, Lund University
School of Business and Economics, Linnaeus University



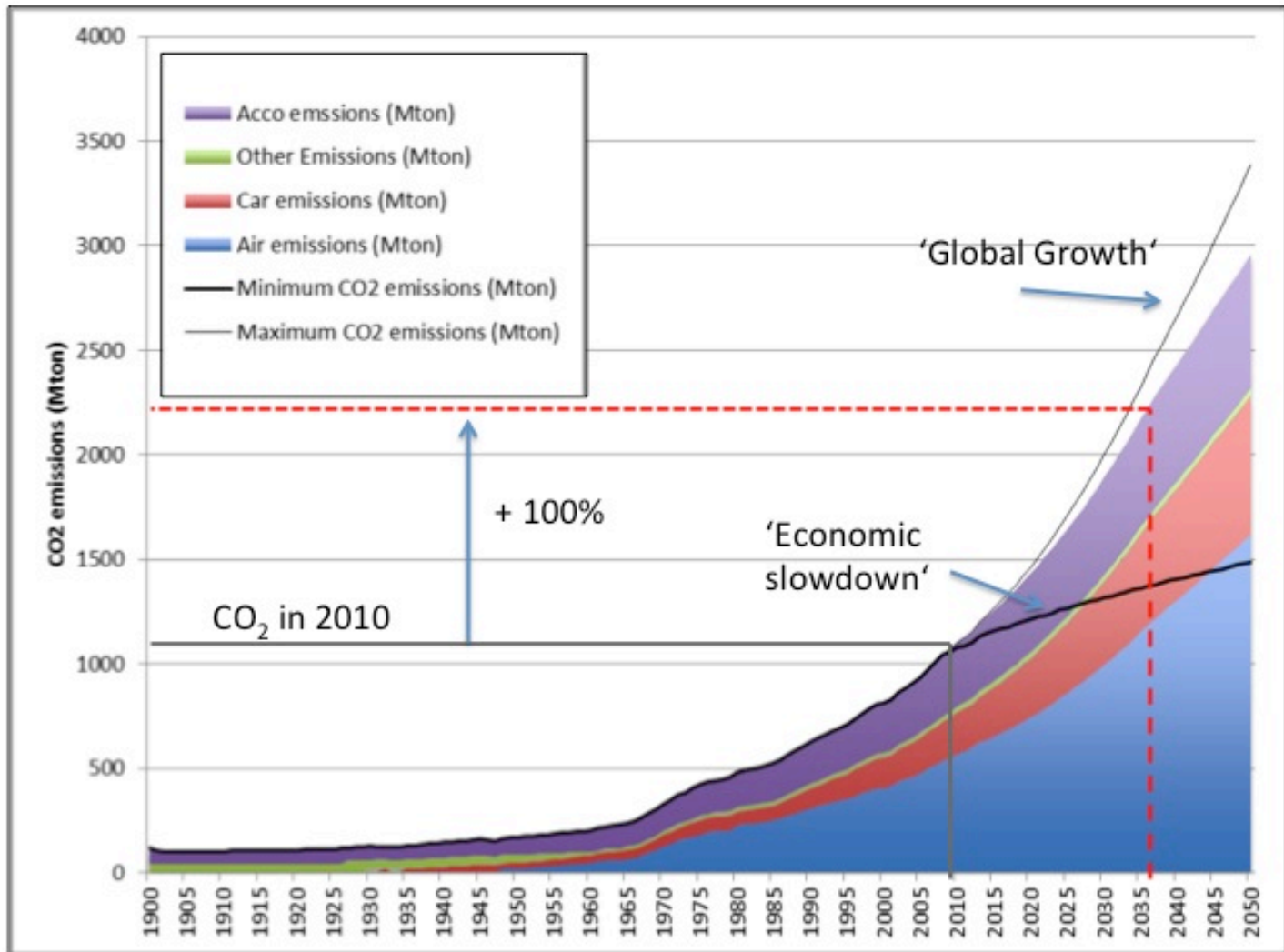
Energy use 1900-2050



Gössling, S. and Peeters, P. 2014. Tourism's global environmental impact 1900-2050. *Global Environmental Change*, submitted.



CO₂ emissions 1900-2050

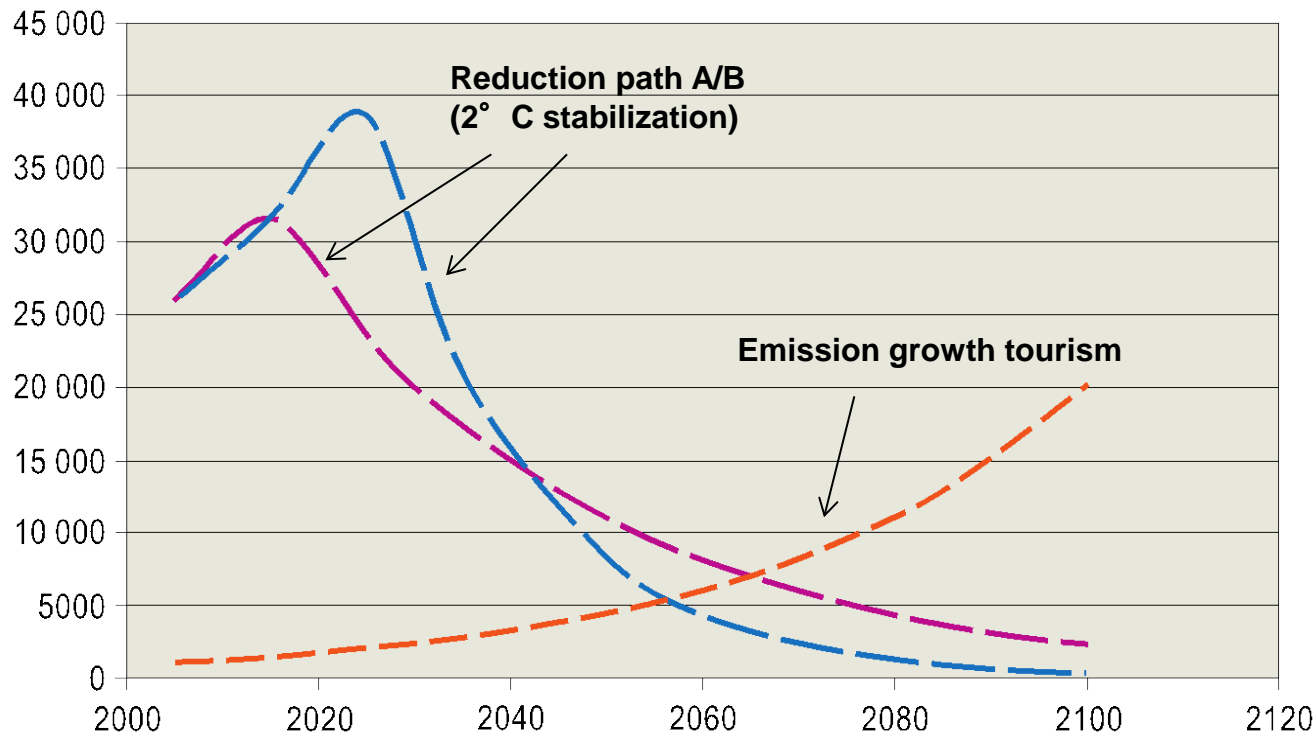


Gössling, S. and Peeters, P. 2014. Tourism's global environmental impact 1900-2050. *Global Environmental Change*, submitted.



CO₂-emissions from tourism and sustainable planetary boundaries

CO₂-Emissions (Mt/yr)



Scott, D., Peeters, P., and Gössling, S. 2010. Can tourism deliver its 'aspirational' emission reduction targets? *Journal of Sustainable Tourism* 18(3), 393-408.



Why labels?

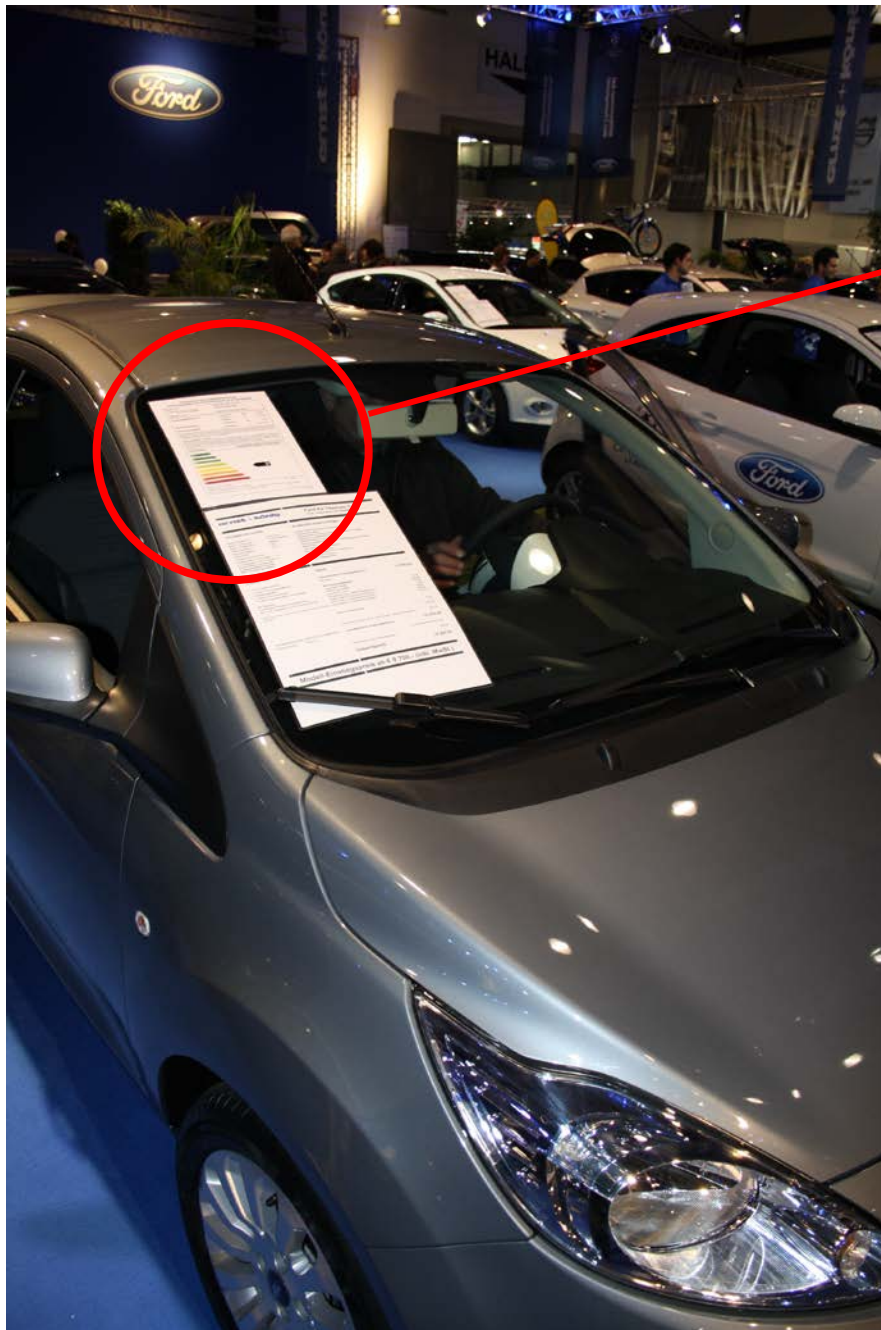
- **For consumers: make visible the more sustainable products**
- **For producers: potentially increase demand and credibility; increase willingness to pay premiums; gives access to new markets and business networks**
- **For society: create competition for more sustainable products; changes consumer norms; increase pressure on supply chains**
- **Now hundreds of ecolabels in the world (www.ecolabelindex.com)**



Carbon labels

- **Focus on energy consumption and/or a single or several greenhouse gases**
- **Indicate absolute/relative performance**





Vehicle Information		
CO ₂ emission figure (g/km)		
<div> <div>< 120 A</div> <div>120+ to 140 B</div> <div>140+ to 155 C</div> <div>155+ to 170 D</div> <div>170+ to 190 E</div> <div>190+ to 225 F</div> <div>225+ G</div> </div>		A 104 g/km
Fuel Use (estimated) for 10,000 kilometres A fuel use figure is included to the consumer as a guide for comparison purposes. This figure is calculated by using the combined drive cycle (urban and extra urban fuel consumption cycles).		774 litres
Motor Tax for 12 months Motor Tax varies according to the CO ₂ emissions of the vehicle.		€100
Vehicle Registration Tax (VRT) Rate Percentage rate of VRT payable of the value of the vehicle is dependent on the CO ₂ emissions.		14%
Environmental information A guide to fuel economy and CO ₂ emissions which contains data for all new passenger car models is available at any point of sale free of charge or directly from the Society of the Irish Motor Industry, 8 Upper Pembroke Street, Dublin 2; Tel: 01-4761666; web address: www.simi.ie . In addition to the fuel efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel consumption and CO ₂ emissions. CO ₂ is the main greenhouse gas responsible for global warming.		
Make:		
Model/Version:		
Carbon dioxide emissions (g/km): 104 g/km This figure may be obtained from the vehicle's Certificate of Conformity. Important note: Some specifications of this make/model may have lower CO ₂ emissions than this. Check with your dealer.		
Fuel Consumption:		
Drive cycle	Litres/100km	Fuel Type: Petrol
Urban	6.0	Engine Capacity (cc): 1487
Extra-urban	4.2	Transmission: Automatic
Combined	4.3	



Knowledge: Carbon (resource) literacy

Behavioural change demands factual, procedural and effectiveness knowledge.

Standard Kombis Luxus Cabrios/Coupés/4x4 Minibusse LKW/Transporter

Mini

SMART FORTWO COUPE oder ähnlich (MBAR)

A CO₂ CO2: 88 g/km

2 3 0 ✓ ✓

JETZT RESERVIEREN

Economy

VW POLO oder ähnlich (ECMR)

C CO₂ CO2: 128 g/km

5 4 2 ✓

JETZT RESERVIEREN

OPEL CORSA oder ähnlich (EBAR)

B CO₂ CO2: 119 g/km

Green Fleet

- CO₂ Schadstoff-arm
- Elektro
- Hybrid

CO2 Emissionen (g/km)

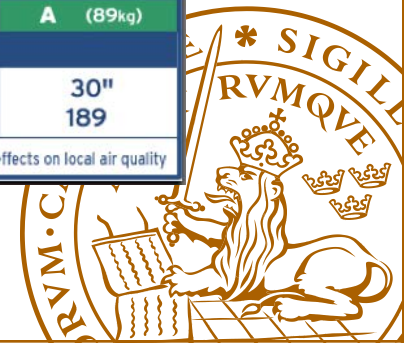
A	< 100
B	101-120
C	121-140
D	141-160
E	161-200
F	201-250
G	251 +





Flybe Embraer 145		
Local Environment		
Noise Rating		
Less		
More		
		A
Take off & Landing CO ₂ Emissions		A (983kg)
Take off & Landing CO ₂ Emissions (per seat)		20.1kg
Take off & Landing Local air quality ¹		3kg
Journey Environment		
Total Aircraft Fuel Consumption By Journey Length	Domestic (500km)	A (834kg)
	Near EU (1000km)	A (1471kg)
	Short Haul (1500km)	A (2115kg)
CO ₂ Emissions Per Seat By Journey Length	Domestic (500km)	C (54kg)
	Near EU (1000km)	C (95kg)
	Short Haul (1500km)	C (136kg)
Passenger Environment		
	Minimum Leg Room	31"
	Number Of Seats	49
¹ Emissions of Nitrogen Oxides as an indicator of the effects on local air quality		

Boeing 737-800		
Local Environment		
Noise Rating		
Less		
More		
		D
Take off & Landing CO ₂ Emissions		C (2775kg)
Take off & Landing CO ₂ Emissions (per seat)		14.7kg
Take off & Landing Local air quality ¹		12kg
Journey Environment		
Total Aircraft Fuel Consumption By Journey Length	Domestic (500km)	B (2234kg)
	Near EU (1000km)	B (3769kg)
	Short Haul (1500km)	B (5314kg)
CO ₂ Emissions Per Seat By Journey Length	Domestic (500km)	B (37kg)
	Near EU (1000km)	A (63kg)
	Short Haul (1500km)	A (89kg)
Passenger Environment		
	Minimum Leg Room	30"
	Number Of Seats	189
¹ Emissions of Nitrogen Oxides as an indicator of the effects on local air quality		





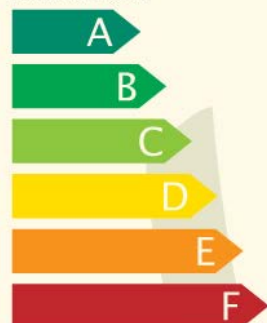
Hotel Mustermann 23456 Musterstadt

Mit dem Viabono CO₂-Hotel-Rechner wurde nach einer von CO₂OL entwickelten Methodik, die durch das DFGE-Institut bestätigt und validiert wurde, der CO₂-Fußabdruck des oben genannten Betriebes berechnet und wie folgt eingestuft:

Kategorie:

* bis ** Hotel

klimafreundlich



klimaschädlich

Bewertung

A 11,3 kg CO₂ / Übernachtung

Bereich:	CO ₂ :
Mobilität	3,29 t
Gebäude	53,21 t
Food & Beverage	37,35 t
Print	0,42 t
Reinigung/Wäsche	1,19 t
Sonstiges	8,7 t
Sicherheitszuschlag	20,83 t
Gesamt	125,00 t CO₂

gültig bis:



Rösrath, den 09.08.2010

zertifiziert durch:



Hotel Fuerte Marbella ****

Average amount per customer: **14.28** Kgr.CO₂

Hotel Fuerte Grazalema ****

Average amount per customer: **11.30** Kgr.CO₂

Hotel Fuerte El Rompido ****

Average amount per customer: **10.32** Kgr.CO₂

Hotel Fuerte Conil-Costa Luz ****

Average amount per customer: **9.53** Kgr.CO₂

Hotel Fuerte Miramar ****

Average amount per customer: **10.90** Kgr.CO₂

Hotel Fuerte Estepona ****

Average amount per customer: **15.24** Kgr.CO₂





Sie sind hier: Startseite

[weiter zu ausgewählten Reiseideen](#)



**CSR -
Wir übernehmen
Verantwortung**

Nachhaltigkeit ist messbar.
Lesen Sie mehr zum CSR-
Bewertungssystem und zur
CSR-Zertifizierung.

[Zum CSR-Prozess](#)



Reiseperven 2012

**Der Katalog für Nachhaltiges
Reisen**

52 Veranstalter - 153 Reisen

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for a living planet

**Reisen zu Projekten unseres
Kooperationspartners WWF**

[Zu den Reisen](#)

Schwierigkeitsgrad: mittel
Mindestteilnehmerzahl: 4 (max. 8 T.)
Reisetage: 15 Tage, 14 Nächte

Leistungen:

Flug Reykjavik – Kulusuk – Reykjavik;
flugbedingte Steuern / Gebühren; sämtl.
Transporte vor Ort, notwendige Boots-
transfers; sämtl. Camp- und Über-
nachtungsgebühren, Zelte und Kocher;
Verpflegung während des Trekkings in
Grönland; Wanderung in kleiner Gruppe
(max. 8 TN); Reiseprogramm lt. Aus-
schreibung; kompetente Reiseleitung; infor-
matives Vortreffen

Im Preis nicht enthaltene Leistungen:
Anreise nach Island; gern sind wir bei
der individuellen Flugbuchung behilflich.

Hinweise des Veranstalters:

Individuelle An- und Abreise nach
Reykjavik. Anschlussaufenthalte
auf Island oder eine Verlängerung in
Grönland sind möglich.



2.499,00 €

Termin und Preis pro Person:

GR060812
06.08.12 – 20.08.12 2.499,00 €

Freiwilliger atmosfair Beitrag (s.S. 162):
Klimarelevante Emissionen: ca. 1.660 kg
freiwilliger Beitrag 41,00 €

Anzahlung in % des Reisepreises: 15%, Fälligkeit
Restzahlung Reisepreis: 35 Tage, letzte Rücktritts-
möglichkeit des Veranstalters bei Nichterreichen
der Mindestteilnehmerzahl: 35 Tage

**Reise buchen beim
Veranstalter:**

Buchungscode: GR060812

Geographische ReiseGesellschaft
Sporksfeld 93
D - 48308 Senden
Tel.: 02536/34 35 692
info@geo-rg.de
www.geo-rg.de



► Der Link zu dieser Reise: www.reiseperven.de/groenland1





5 Star - Air Pollution and Greenhouse gas emission score of **16 or more**.

2013 Vehicle examples: Toyota Prius, Toyota Yaris



4.5 Star - Air Pollution and Greenhouse gas emission score of **between 15 and 16**.

2013 Vehicle examples: Toyota Corolla Ascent



4 Star - Air Pollution and Greenhouse gas emission score of **between 14 and 15**.

2013 Vehicle examples: Toyota Camry Altise, Mitsubishi Lancer, Toyota Aurion



3.5 Star - Air Pollution and Greenhouse gas emission score of **between 11.5 and 14**.

2013 Vehicle examples: Hyundai Getz, Holden Commodore, Toyota Tarago



3 Star - Air Pollution and Greenhouse gas emission score of **between 9.5 and 11.5**.

2013 Vehicle examples: Kia Carnival, Ford Falcon, Holden Calais



2.5 Star - Air Pollution and Greenhouse gas emission score of **between 8 and 9.5**.

2013 Vehicle examples: Ford Territory, Ford Falcon Ute



2 Star - Air Pollution and Greenhouse gas emission score of **between 6.5 and 8**.

2013 Vehicle examples: Nissan Pathfinder

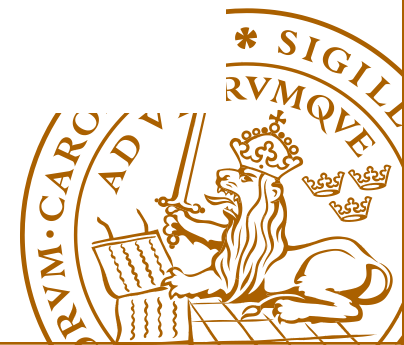


1.5 Star - Air Pollution and Greenhouse gas emission score of **between 5 and 6.5**.

2013 Vehicle examples: Nissan Patrol



1 Star - Air Pollution and Greenhouse gas emission score **less than 5**.





meer vertrektijden
tegen hogere tarieven

mail deze info







Volwassenen: €204,00 + €251,23 tax = **€455,23**

Nu een waardecheque ter waarde van 25 euro cadeau én 10% korting op alle autohuur! Betaal nu je online boeking met ideal en ontvang in je bevestiging een actiecode t.w.v. 25 euro voor een volgende reservering van een lijndienstvlucht. Verder ontvang je momenteel maar liefst 10% korting op het normale autohuurtarief als je boekt in combinatie met een lijndienstticket!

Selecteer een heenvlucht

van	naar	vluchtnummer	vertrek	aankomst	
<input checked="" type="radio"/>  Frankfurt	New York,JF Kennedy Intl ny	AF 3660	22/10 11:20	14:20	 eco value <div><div>A</div><div></div><div></div><div></div><div></div></div>

Selecteer een terugvlucht

van	naar	vluchtnummer	vertrek	aankomst	
<input checked="" type="radio"/>  New York,JF Kennedy Intl ny	Detroit,Metropolitan Wayne County mi	KL 6649	29/10 12:30	14:35	 eco value <div><div></div><div></div><div></div><div></div><div>E</div></div>
<input checked="" type="radio"/>  Detroit,Metropolitan Wayne County mi	Frankfurt	KL 6250	29/10 17:10	06:20 (30/10)	
<input type="radio"/>  New York,JF Kennedy Intl ny	Detroit,Metropolitan Wayne County mi	NW 649	29/10 12:30	14:35	 eco value <div><div></div><div></div><div></div><div></div><div>E</div></div>
<input type="radio"/>  Detroit,Metropolitan Wayne County mi	Frankfurt	NW 250	29/10 17:10	06:20 (30/10)	

Annulerings kosten: Na boeking / Voor vertrek: Op aanvraag
Niet aanwezig bij vertrek: Op aanvraag
Wijzigingskosten: Op aanvraag

reserveren

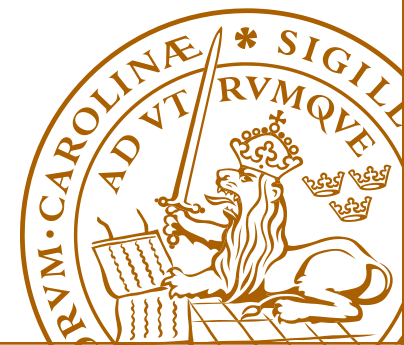


Comprehensibility and knowledge domains for leading carbon labels in tourism.

Tourism subsector	Information	Degree of carbon literacy required ^a	Knowledge domain covered ^b
1. Aviation – Flybe ecolabel	kg CO ₂ per flight, per seat Colour scheme	High	F
2. Aviation – Atmosfair Airline Index	Ranking based on efficiency	Low	F, P
3. EU – carbon label for cars (version used in Brazil)	kg CO ₂ per km, fuel use Colour scheme	Low	F, P
4. Car rental – Europcar	kg CO ₂ per km Colour scheme	Low	F, P
5. Car rental – Drive now	Star-based ranking	Low	P
6. Tour operator – Forum anders reisen	kg CO ₂ per journey	Medium	F
7. Online distribution – Direct Flights	Colour scheme Numeric ranking	Low	P
8. Hotel – Viabono	kg CO ₂ per guest night Colour scheme	Low	F, P
9. Hotel – Fuerte Hoteles	kg CO ₂ per guest night	Medium	F, P
10. Restaurants – Max Hamburgers	kg CO ₂ –equivalent per meal	Medium-High	F, P

^a Referring to the understandability of the carbon label; to understand the method used for calculation would in virtually all cases require high degree of carbon literacy.

^b Factual (F), procedural (P) and effectiveness (E) knowledge.



The future

- **There is a growing role for carbon labels, also because energy use and emissions are relatively easy to measure and compare**
- **Carbon labels can help to addressing factual, procedural and effectiveness knowledge (carbon literacy)**
- **Carbon labelling should be actively encouraged, on the basis of EU white label certification; current communication often not persuasive and unclear**
- **Should be marketed as quality labels**
- **Are no substitute for climate policy**

