



Toll roads in Iceland

1965 – 1972, 1998 -

Hreinn Haraldsson, vegamálastjóri



ICELAND

1

General remarks

28.01.2010



ICELAND

Area 103.000 km²
Population 319.000
(Capital area 197.000)

Vegakerfið

staða í ársbyrjun 2009



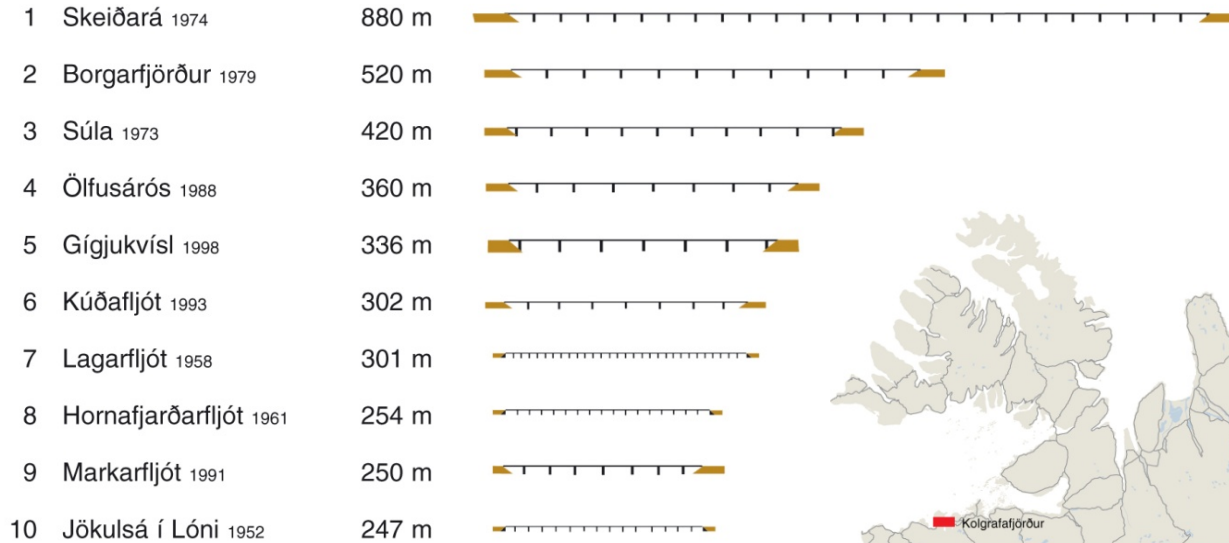




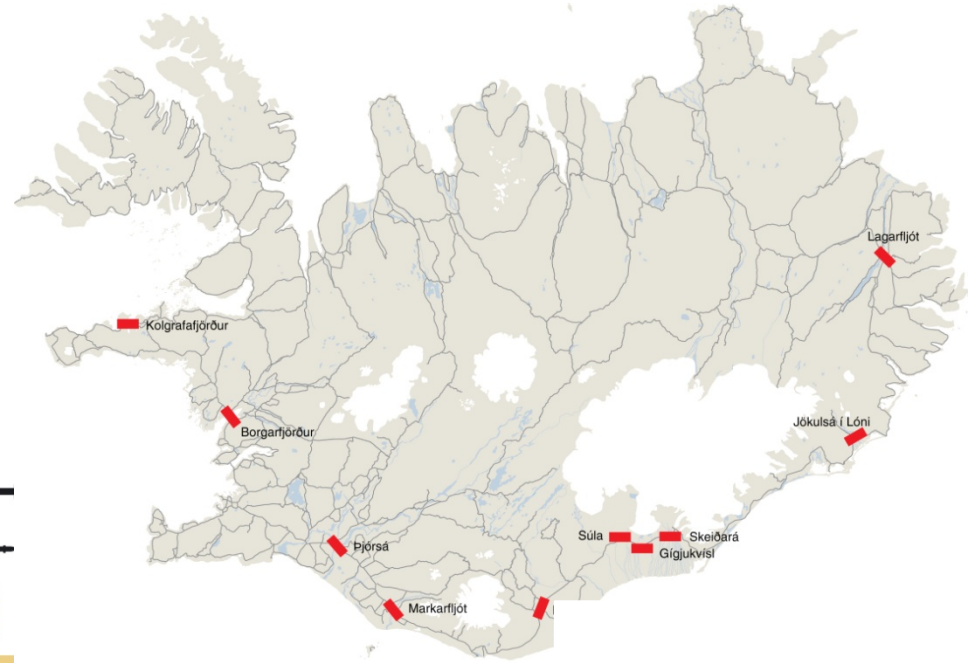
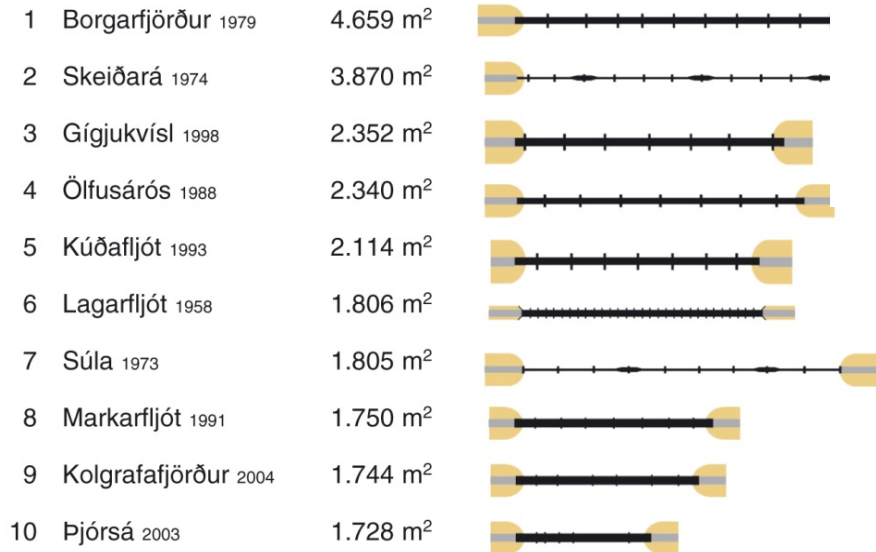




Lengstu brýr

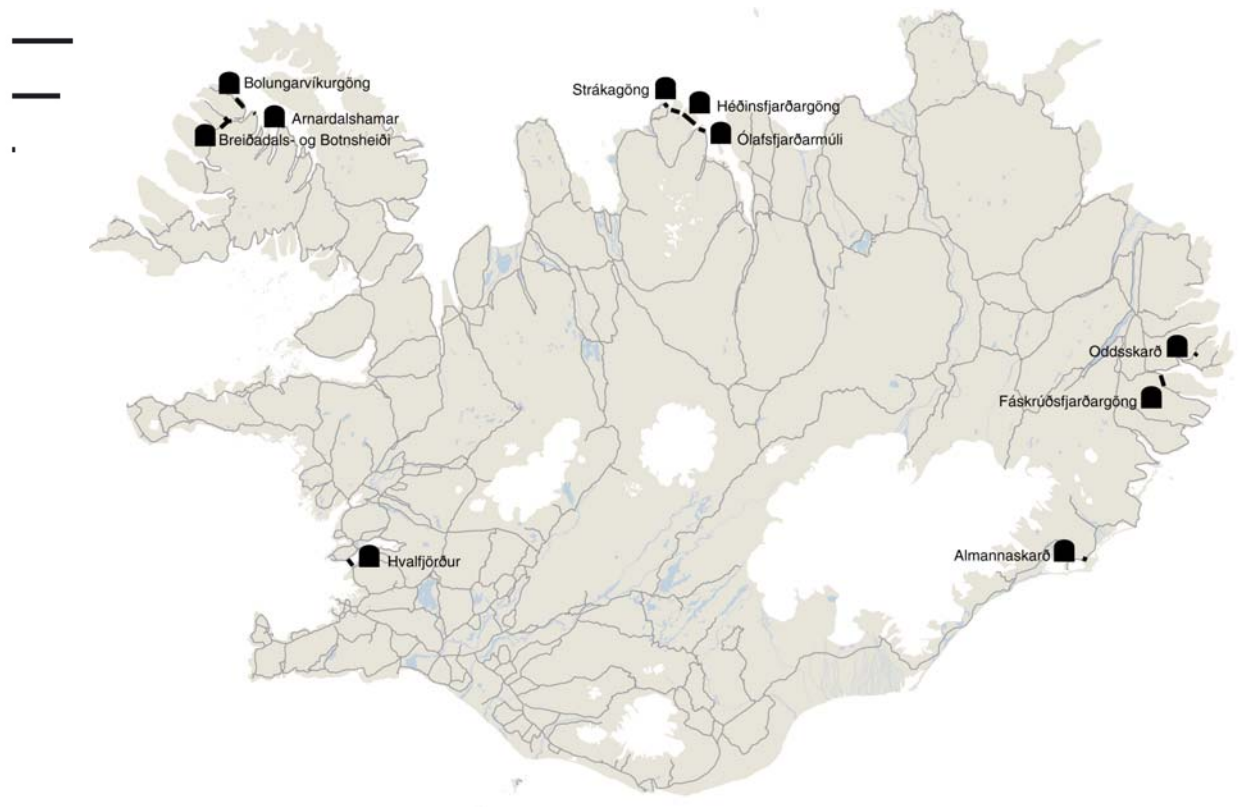
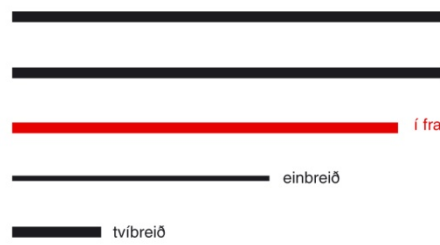
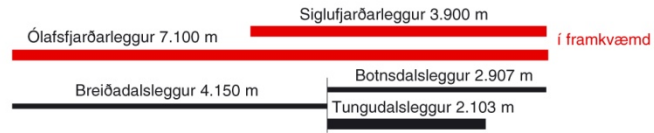


Mesta flatarmál akbrautar á brú

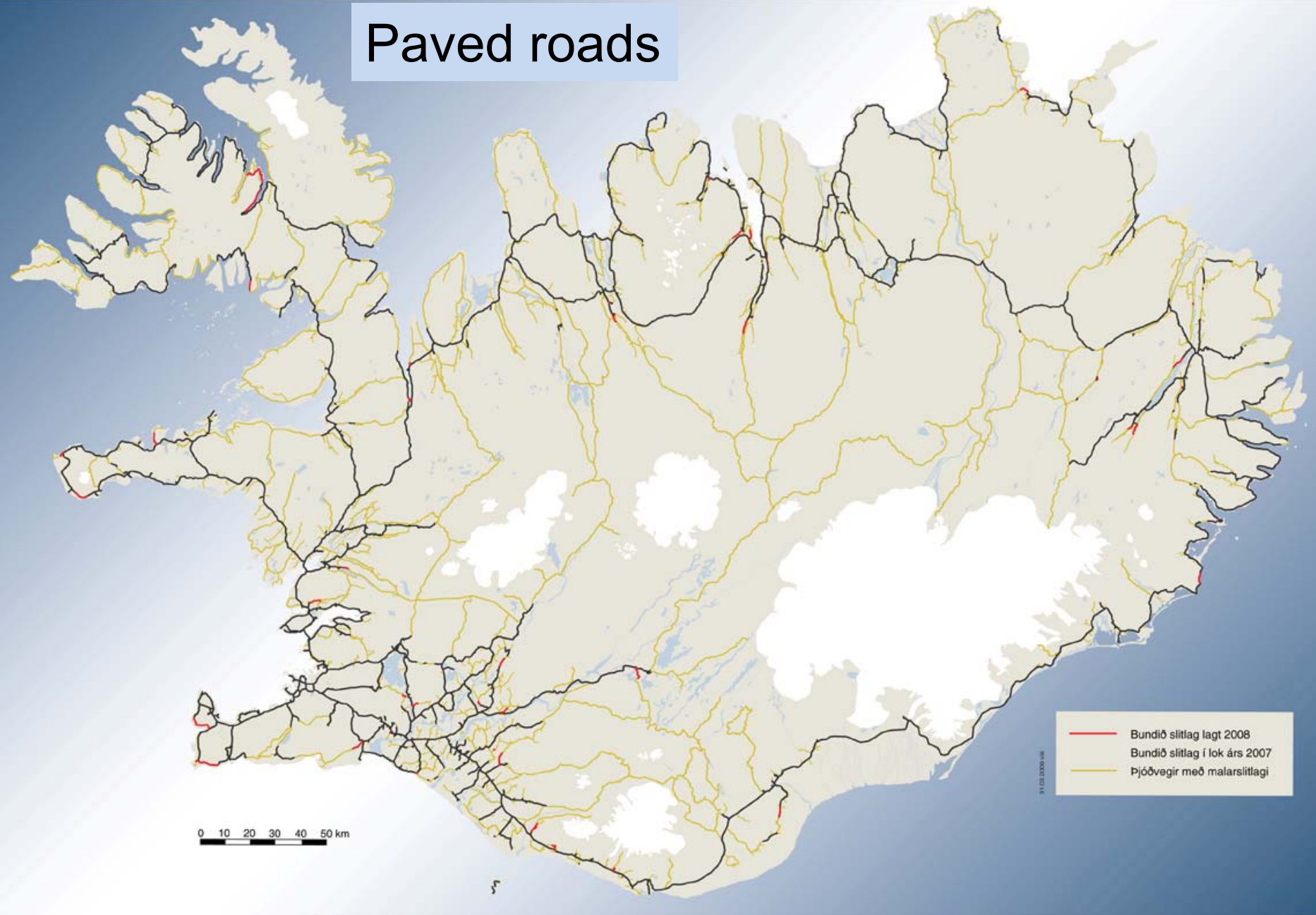


Veggöng

mælikvarði 1: 100.000

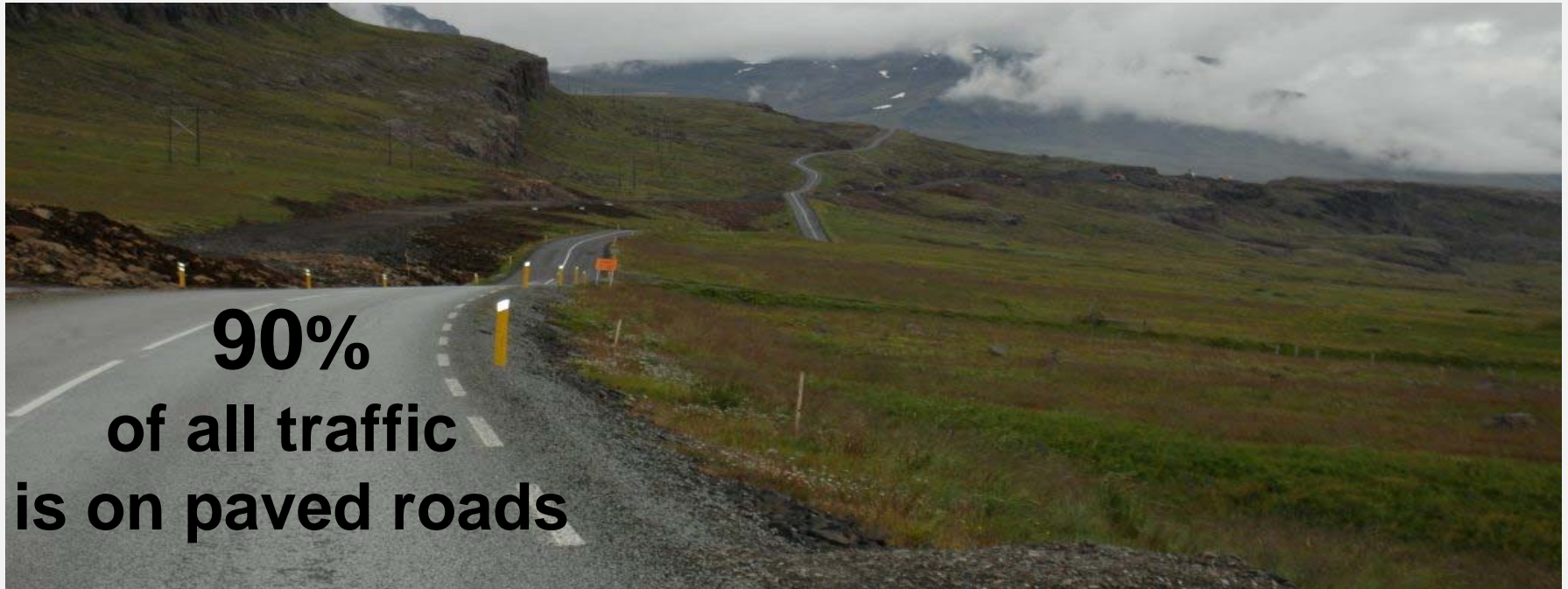


Paved roads



Paved roads in Iceland

end of year 2009



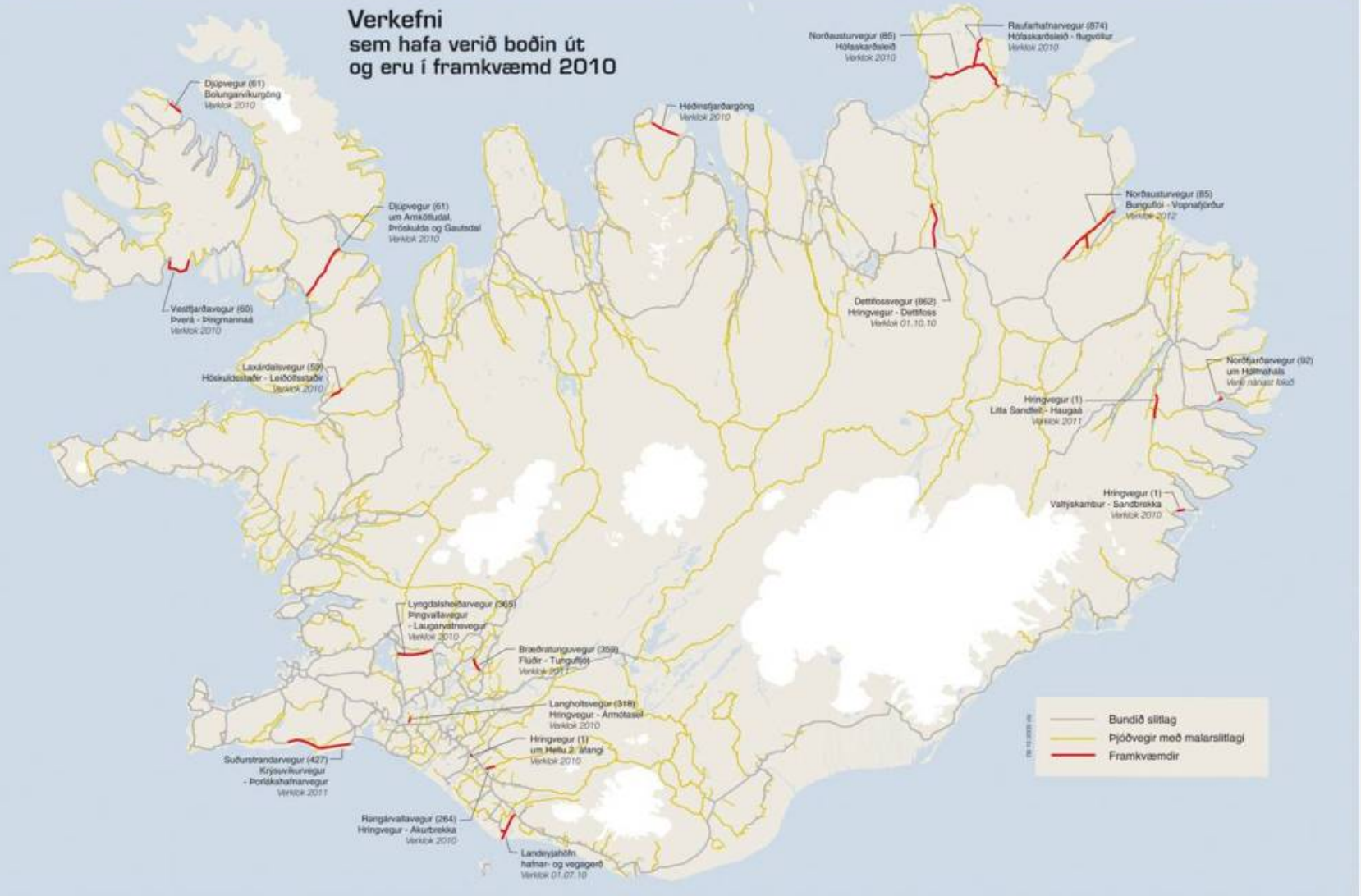
90%
of all traffic
is on paved roads

Primary roads			Secondary roads			Estate roads			"Tourist" roads			All		
All	Paved		All	Paved		All	Paved		All	Paved		All	Paved	
km	km	%	km	km	%	Km	Km	%	km	km	%	km	km	%
4.224	3.613	86	3.999	1.149	28	2.237	176	8	2.588	170	7	13.048	5.108	39

Road projects in year 2010 already in progress

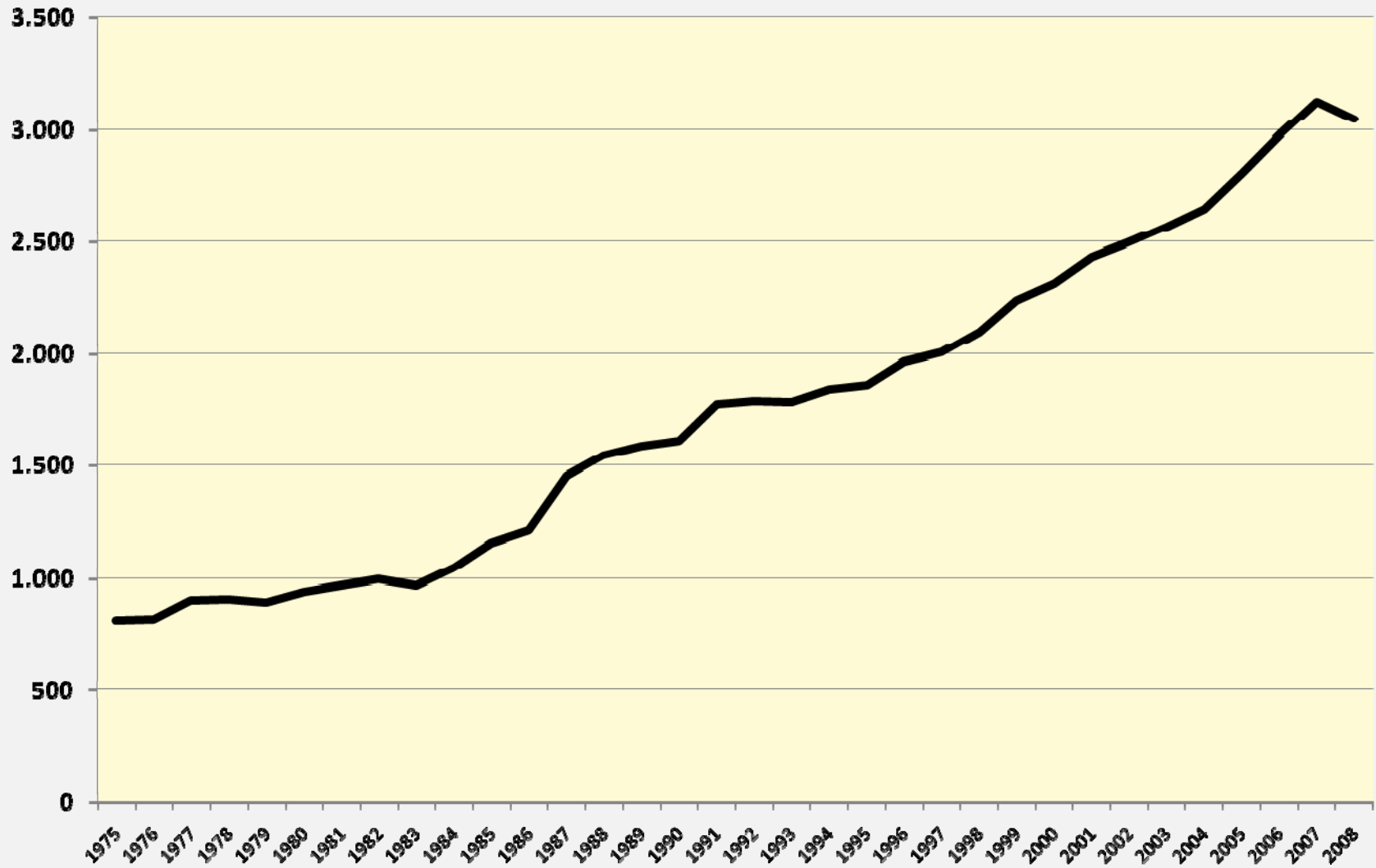


**Verkefni
sem hafa verið boðin út
og eru í framkvæmd 2010**

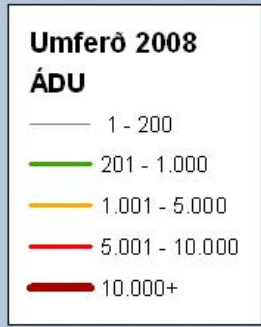
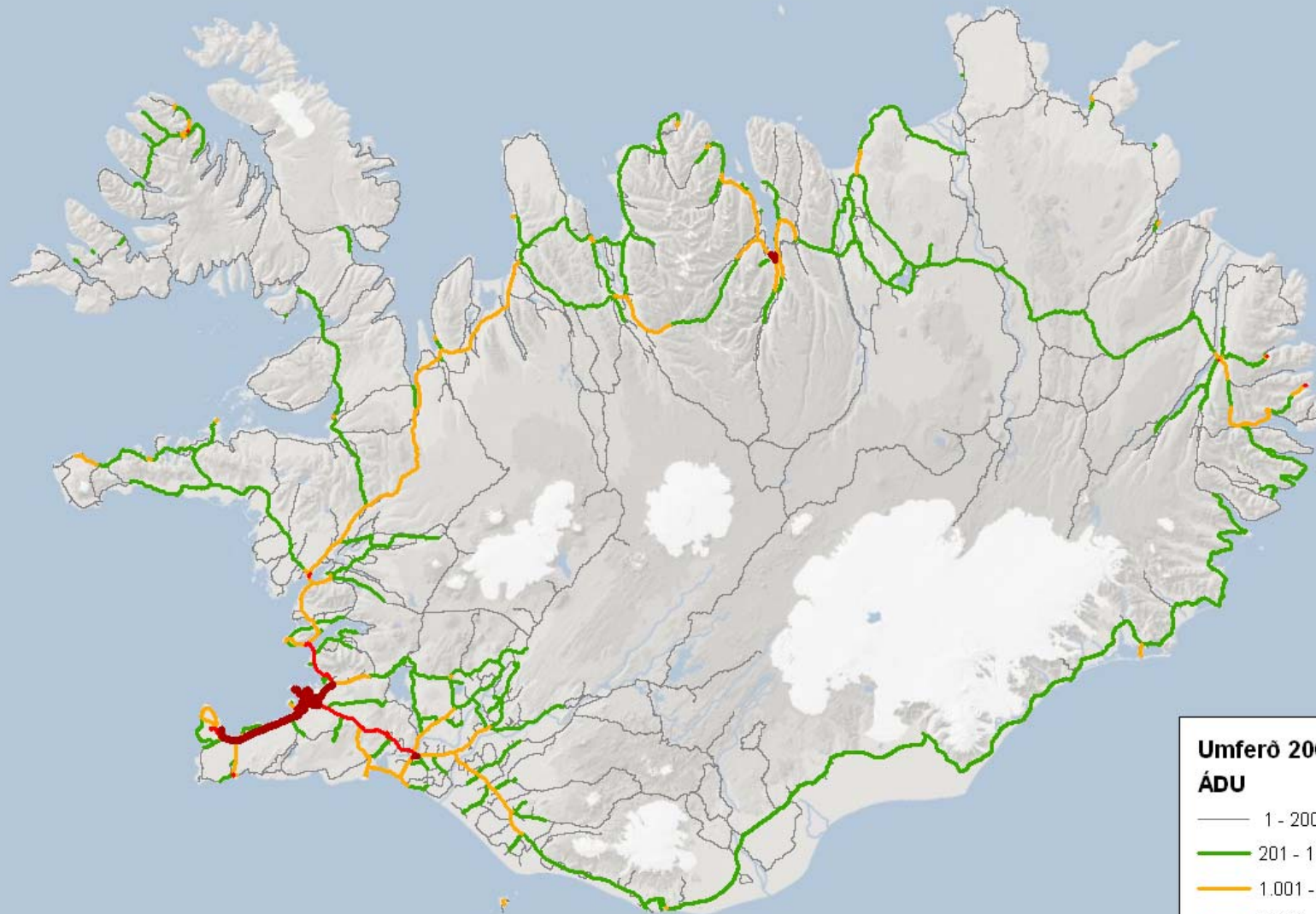


Traffic in Iceland 1975 – 2008

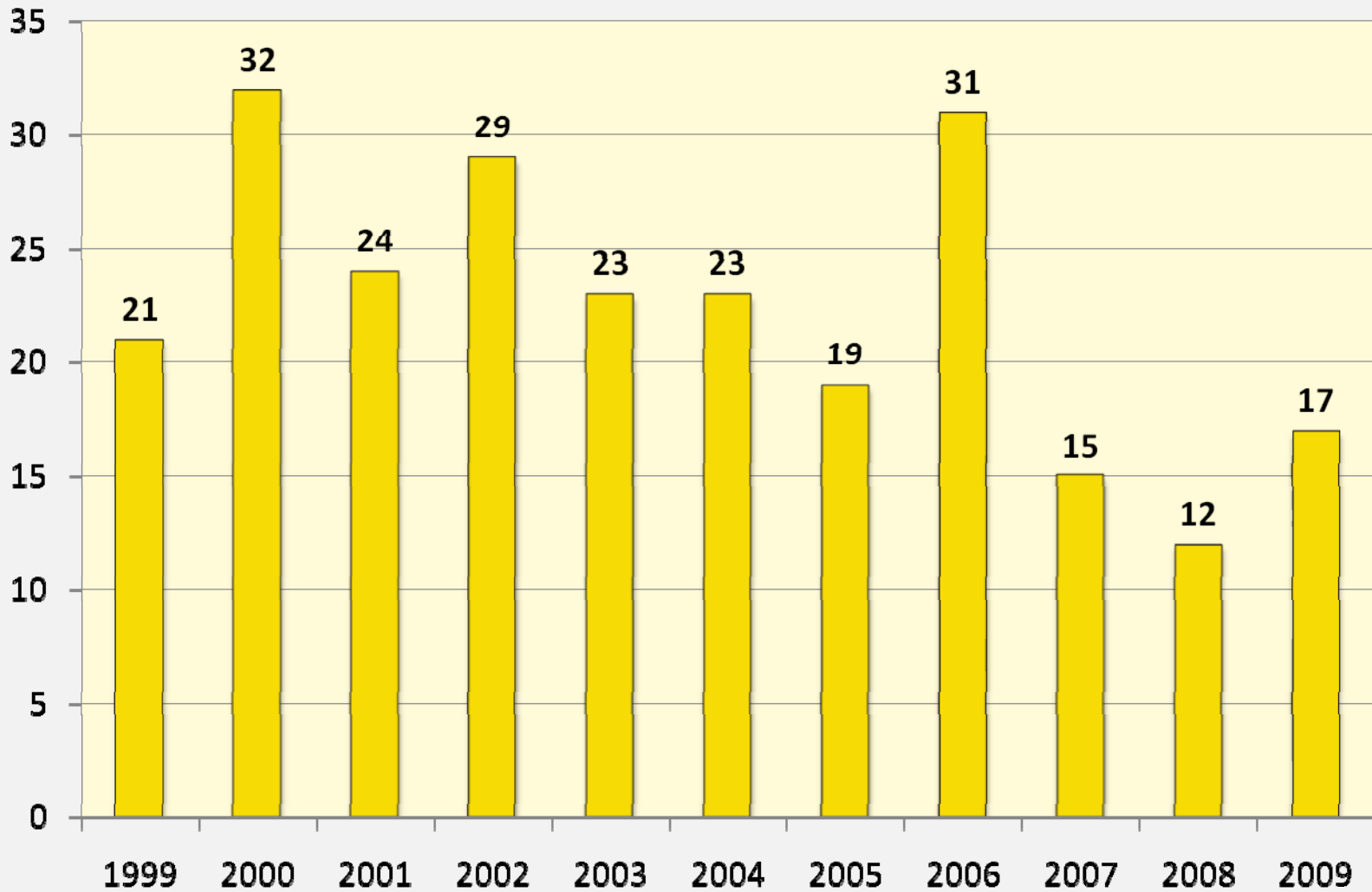
million driven km



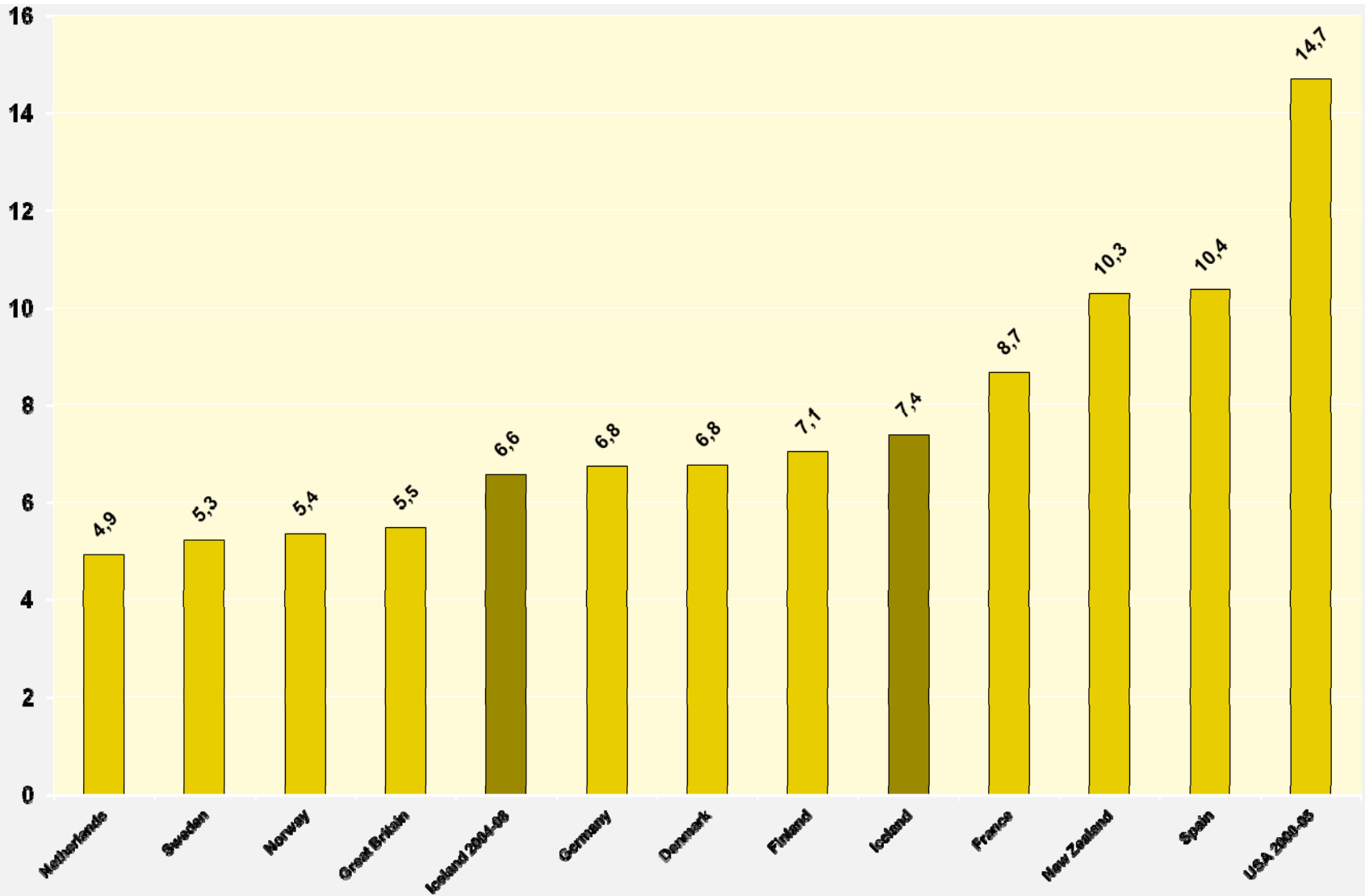
Average daily traffic 2008



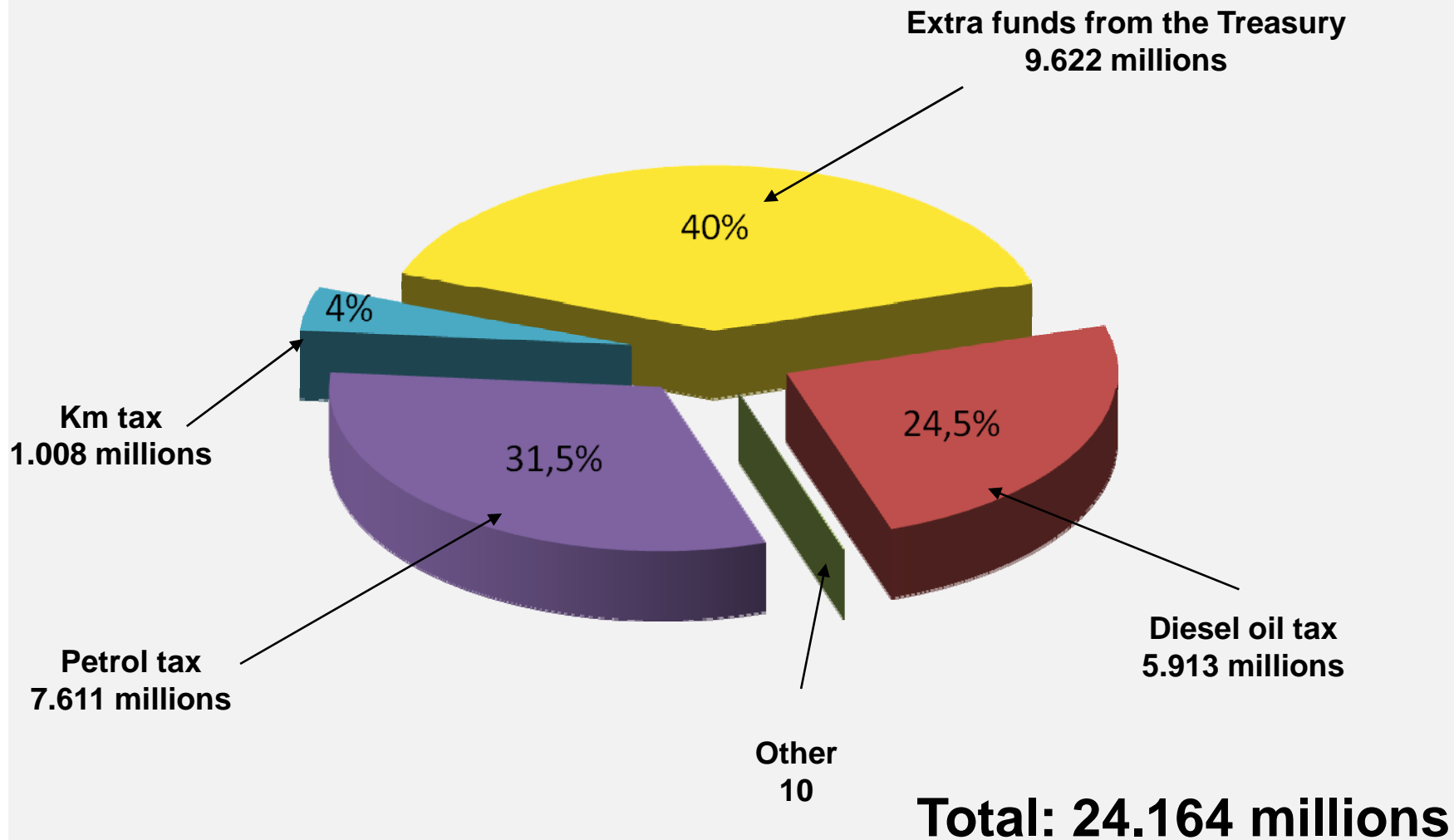
Road fatalities 1999 – 2009



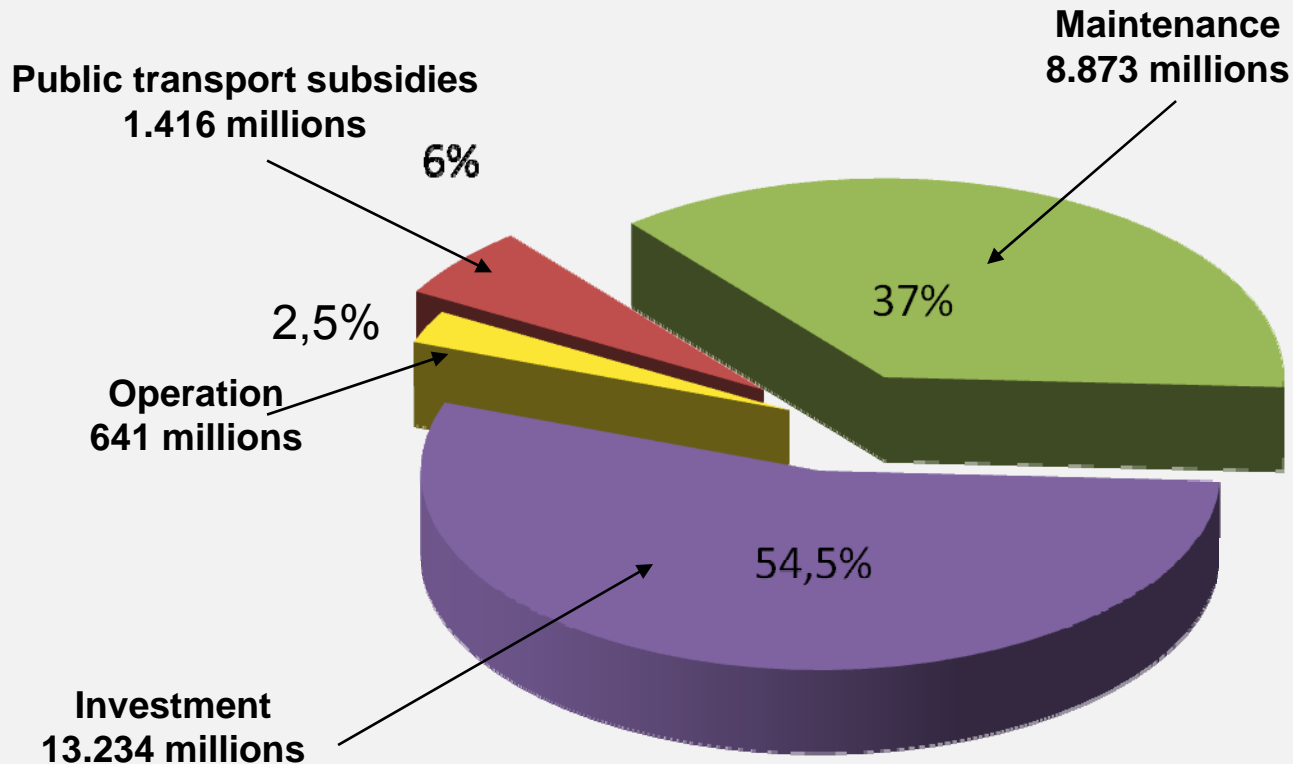
Number of killed per 100 thousand inhabitants (Average for the period 2003-2007 + Iceland 2004 – 2008).



ICERA sources of income 2009



ICERA expenditures 2009

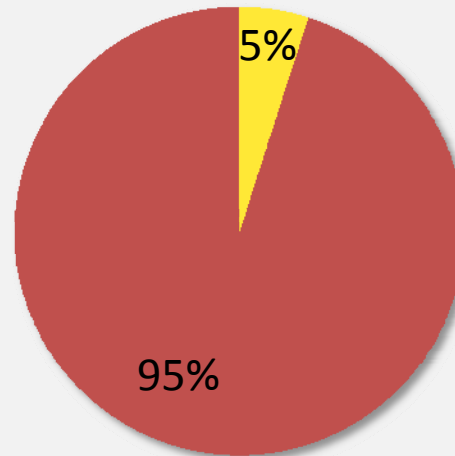


Total: 24.164 millions

Outsourced/contracts vs. Vegagerðin estimates

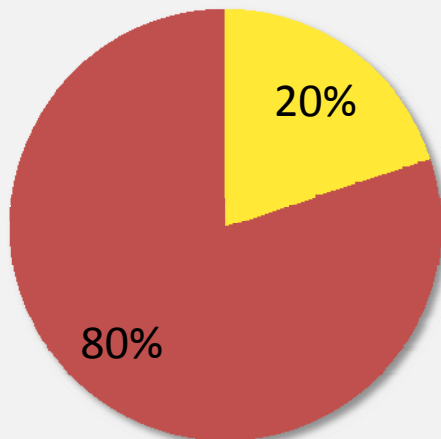


Investment

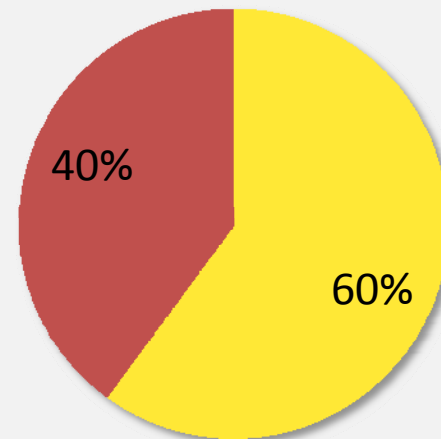


■ Vegagerðin
■ Outsourced/contracts

Maintenance

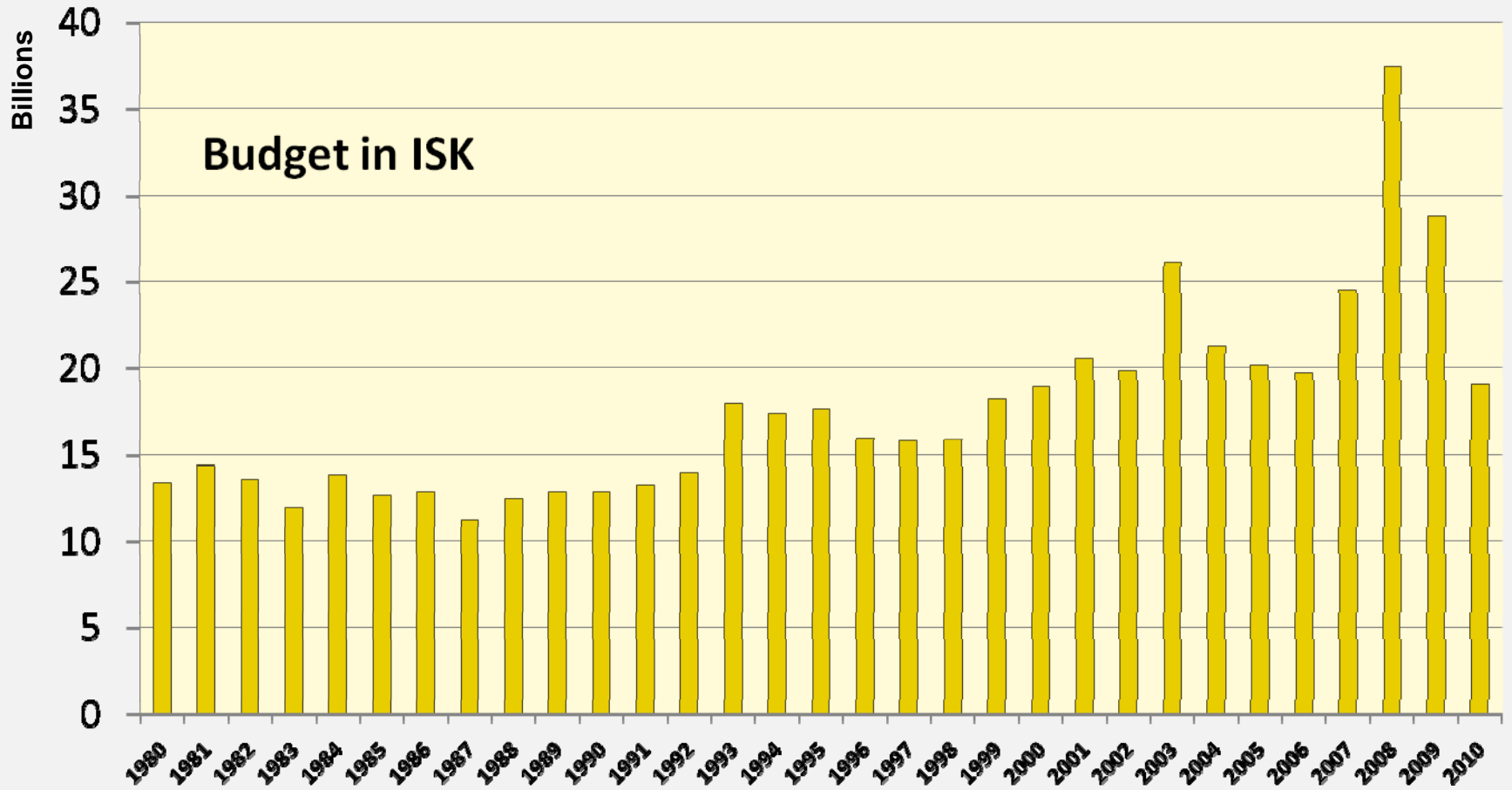


Service



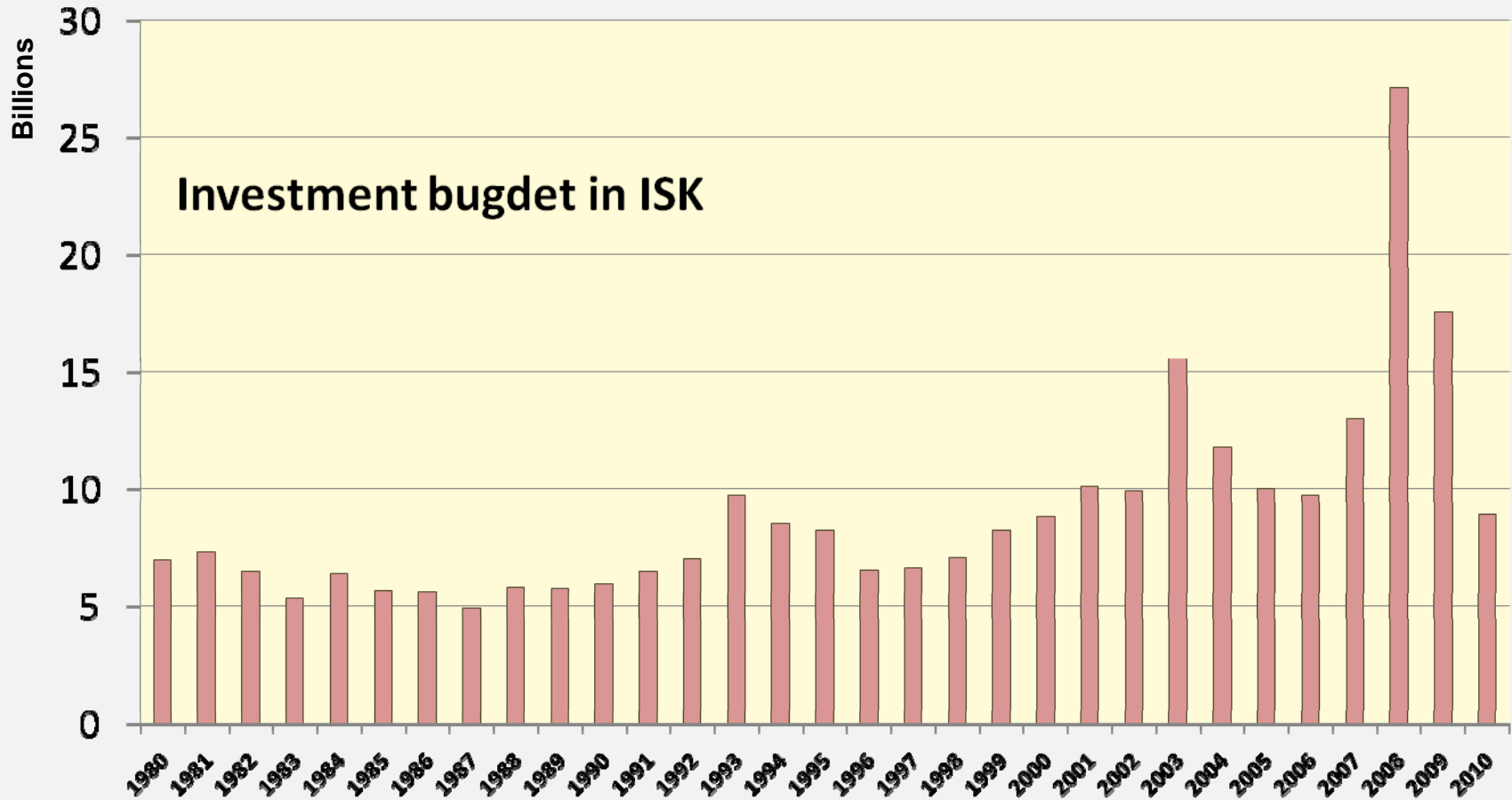
ICERA budget (total)

November 2009 prices



ICERA investment budget

November 2009 prices



Political priorities, new constructions 2007 - 2018



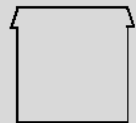
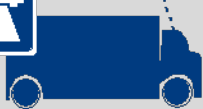
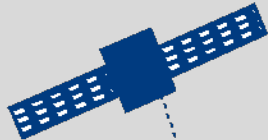
- **The Capital area**
 - New traffic routes
 - Interchanges on heavily trafficated intersections
 - Noise

- **Roads out of the Capital area**
 - Increase the capacity
 - Increase the safety

- **Tunnels**
 - Replace surface mountain roads
 - Decrease travel time within service and school areas
 - Traffic safety

- **Paving of roads**

Gervihnöttur sendir gögn um staðsetningu, GPS

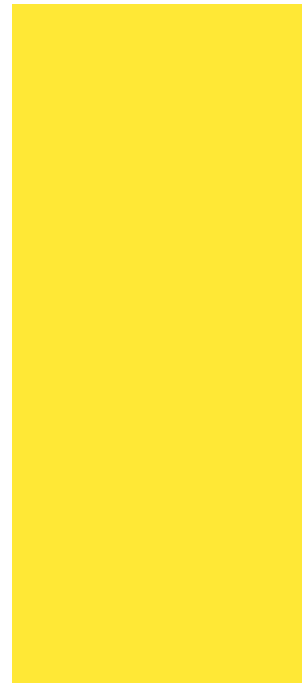


Bíltækið (OBU) uppgötvar tollskyldan vegarkafila og reiknar vegtoll

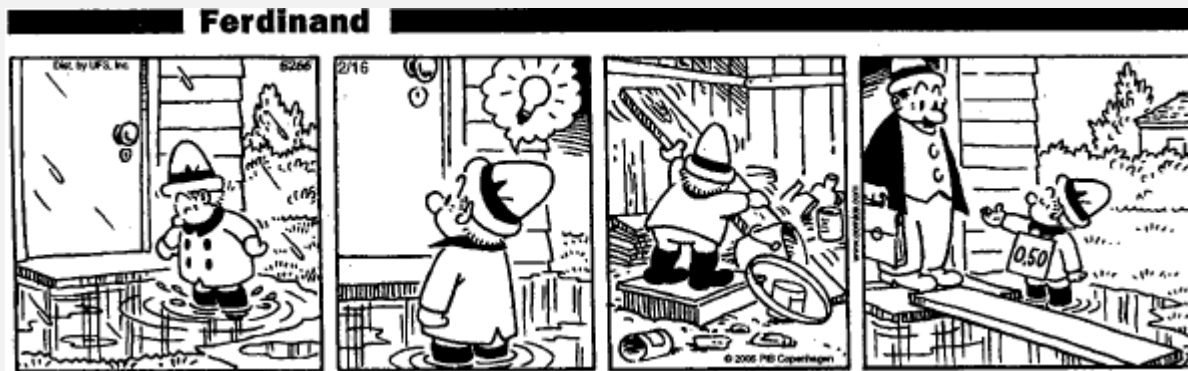
Upphæðin er send með GSM til tollheimtu

Innheimta vegtolla í hnotskurn

2



Toll roads – no new idea

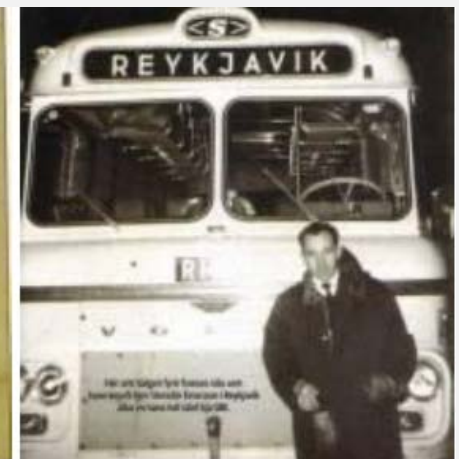


Everybody wants to be on the bandwagon.....

Toll roads in Iceland



- The first toll road in Iceland was Reykjanesbraut from Hafnarfjörður – Keflavík
- The collected fee financed the first real highway with concrete pavement
- Toll collection 1965 – 1972 Terminated because of public opposition of fee collection, mainly in the Reykjanes peninsula



Toll roads in Iceland



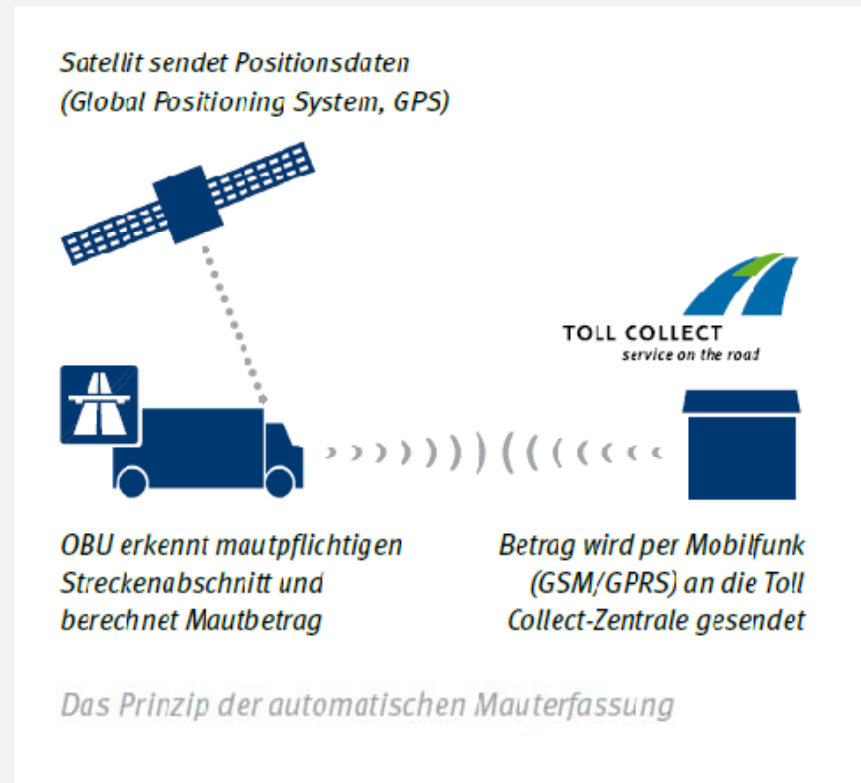
- Fee collection in Hvalfjörður
 - Manual
 - Automatic in a cross-section with AutoPass chip in the front shield of vehicles
 - Video with automatic licence plate recognition



Toll roads in Iceland



- 2005 Report on change of taxation of vehicles
 - 2011 every vehicle with GSM/GPS On Board Units (OBU)
 - Pay as you drive, depending on distance, location and time
 - Petrol and diesel taxes abandoned



Toll roads in Iceland



- GPS satellites not northerly enough for Iceland
- Galileo in use 2014. A better reception of satellite signal in Iceland
- This technology is in use on German Autobahnen for trucks ≥ 12 tn, in Slovakia on 2.400 km major roads for vans, trucks and buses $\geq 3,5$ tn and for all vehicles in the Netherlands 2017
- Investment cost is high
 - OBU 120 €/piece (1 million pieces in Slovakia)
 - OBU 300 – 500\$ each piece USA
 - Plus other infrastructure

Toll roads in Iceland



○ Next steps in Iceland

- The Icelandic state cannot borrow money for road construction in the near future
- Necessary to step up investment inter alia in road construction in order to come out of the crisis
- The Icelandic pension funds are willing to finance road construction projects
 - Sudurlandsvegur (1)
 - Vesturlandsvegur (1)
 - Sundabraut
 - Hvalfjörður subsea tunnel (1), additional tunnel, 2 lanes
 - Vadlaheidi tunnel (1)

Toll roads in Iceland



- The projects must be sustainable
 - The collected toll fee must pay back the loans to the Pension funds
 - The Icelandic state cannot guarantee the repayments
 - The pension funds must have reasonable return of their investment
- Some political doubts of the rightness of toll fee
- The amount of the toll fee surprised some people
- Discussion on toll roads will continue

Methods of toll fee collection



Examples of Road User Charging Applications

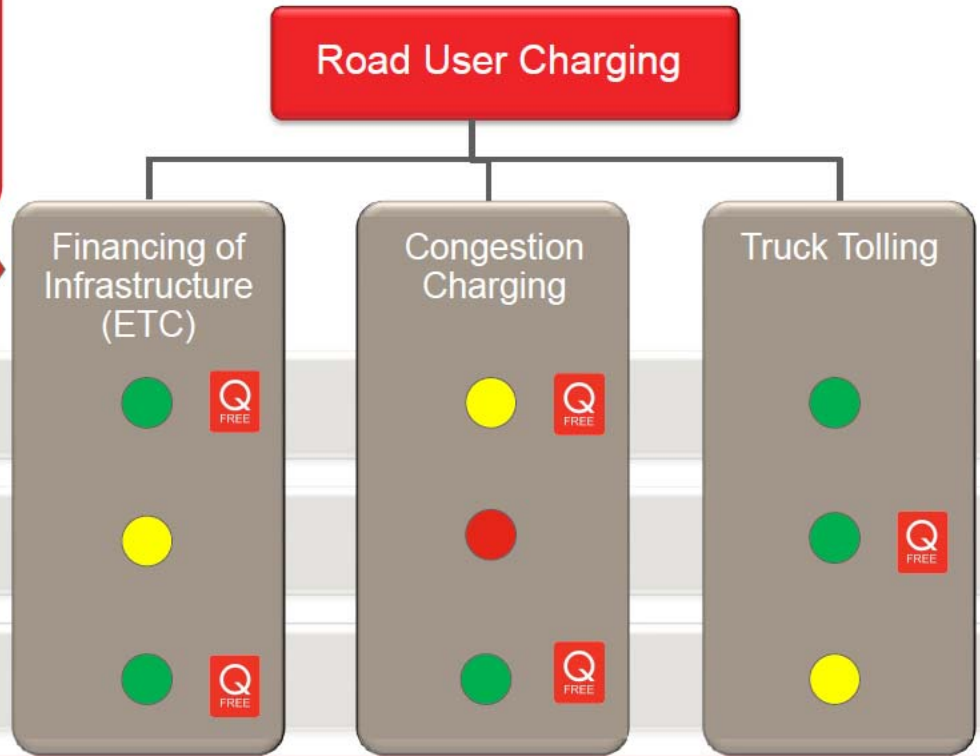
- Common technology Choice for the Application
- A possible technology but not many similar projects
- This technology is not recommended for the application
- Shows the areas where Q-Free has delivered projects

Technology Application

DSRC (Dedicated Short-Range Communication)

GNSS (Global Navigation Satellite System)

Video with ALPR (Automatic License Plate Recognition)



Thank you!

28.01.2010

