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## Openforum Academy round table Regulating a Borderless Internet: EU vs US Perspectives on Net Neutrality

**Rewheel: The core issue in the net  
neutrality debate is the price of  
open internet access**

European Parliament  
Brussels 4<sup>th</sup> March 2015

**Competitively priced open  
mobile internet access**

VS

**telcos' vertically discriminated  
(zero-rated) video and cloud  
services**



Is open mobile  
internet access  
important for Europe?

# The 3 core elements for safeguarding open non-discriminatory internet access

## Internet-access

- 1 No application/service technical discrimination:** e.g. blocking, throttling, fast lanes or any other form of prioritization and any other technical restriction that has a similar effect
- 2 No application/service price discrimination:** e.g. zero-rating, sponsored data, differential pricing based on bundling or any other form of price discrimination that has a similar effect
- 3 Non discriminatory network management:** application/service agnostic, fully transparent

Ensure ISPs not gate keepers

## Specialised Services

E.g. IPTV, VoLTE, SMS, connected car, tele-medicine, m2m

Internet-access speed caps, volume caps, pricing do *not* apply

Fast lanes, paid priority, zero-rating: no net neutrality issue

telcos: gate keepers!

**+1: a crucial safeguard!**

**Ensure that telcos do not collectively starve mobile internet access capacity by allocating the lion share of licensed public radio spectrum capacities to Specialized Services**

# volume caps

# Finnish example: zero-rating could do no harm in markets where internet access volumes caps are practically unlimited

I use 40-50 gigabyte per month

Saunalahti

4G use

Traffic used this month

Tethering & portable hotspot

40.37GB

Browser

797MB

With my €25 truly unlimited smartphone plan

Monthly payments

A monthly subscription charge by 17% in 12 months

24,90 €

Subscription includes unlimited number of normal-priced domestic calls and messages, as well as the Internet, without the use of a roof.

elisa

SAUNALAHTI

DNA also offers truly unlimited for €25

4G

DNA RAJATON

SPECIAL OFFER

24.80 € / month

DNA Unlimited 4G

All-inclusive subscription that includes unlimited voice, messaging and high-speed data transfer.

24 months for 24.80 € month

Reg. 34.50 € / month

Check out

TeliaSonera offers 50 gigabytes for €30 and customers could buy more for €0.2 per gigabyte!

Giant

Unlimited

Unlimited

150 Mbit / s (4G)

50 GB / month

29.90 € / month

Demonstration

Details

Offer terms and conditions

Spotify offers

Carefree and high-speed

TeliaSonera

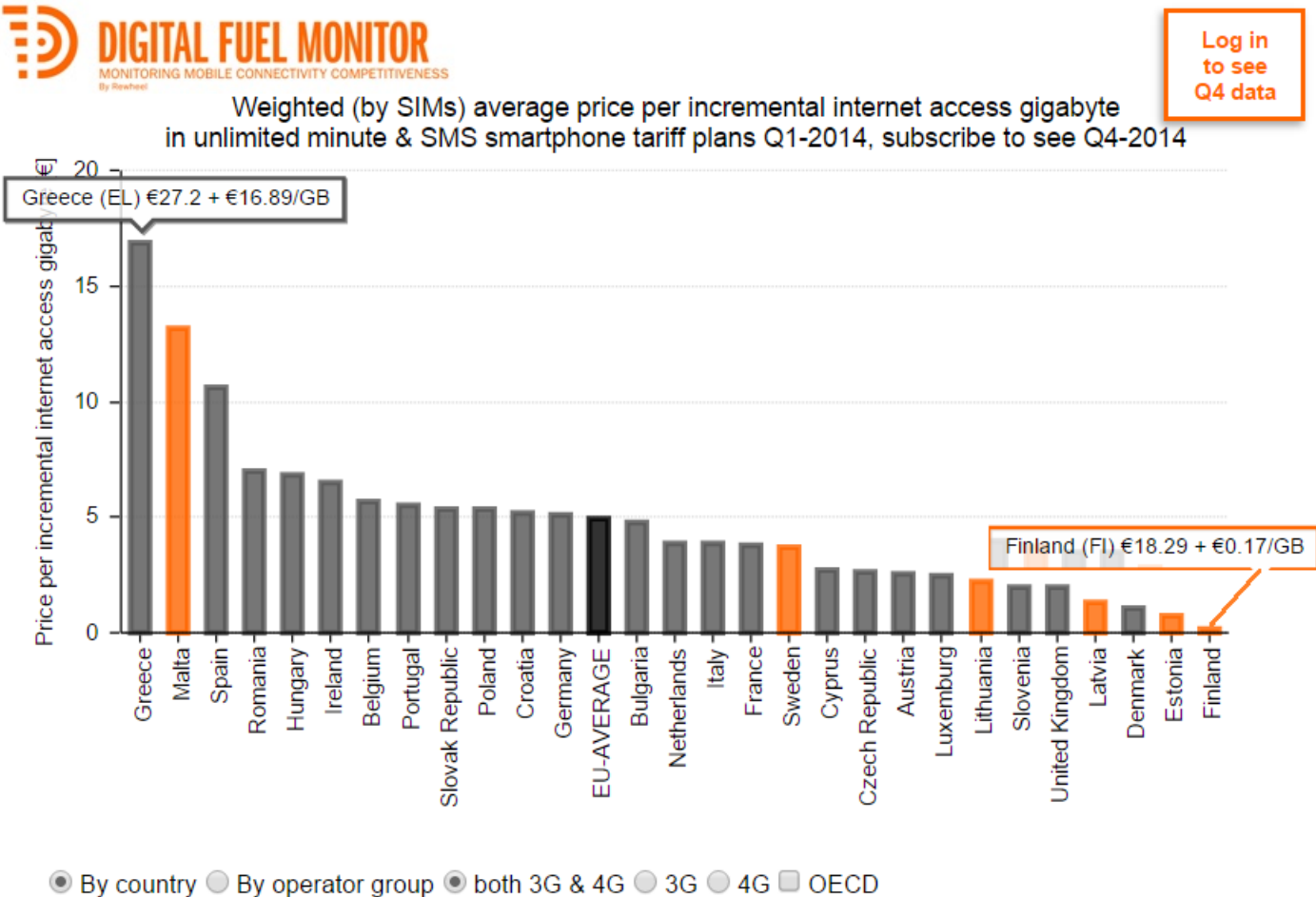
Suitable for family new package with unlimited talk and messages. In addition, there is a high speed 4G internet. Talking and texting along you can therefore safely surf the net, sriimata videos and play music online. Giant is the name of the subscription package. Koulutusnetti in the package you can use the full speed of 50 GB per month. If the volume is met, you can continue to use the basic network speed (128 kbit / s) or order a 10 GB additional package for 2 € / piece and continue at full speed. Sending a signal when the rate of use of 80% and 100%. The message contains instructions for new online package for ordering.

Finland is free of zero-rating, has the lowest mobile internet GB prices, the highest consumption per capita, the highest penetration and the second fastest speeds among EU28 & OECD markets while all three mobile operators are profitable

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# EU28 volume cap disparity: it costs 100 times more to buy additional mobile internet access volume (gigabytes) in Greece than in Finland!



And 4 to 3 mobile consolidation (Austria, Germany, Ireland) is making the matter worse! Mobile internet prices access prices go up while operators launch own zero-rated video and cloud services!

# So zero-rating is a game changer for online video in markets where volume caps are overly restricted!

				  	  
Operator group	EU market	Price & Gigabytes Smartphone plan with unlimited mins & SMS	Price additional Gigabyte	Telco zero-rated video (TV/films)	Open internet video (max allowed time to watch HD video in open internet plans)
 TeliaSonera	Finland	€30 (50 Gigabytes)	€0.2	No	Practically unlimited ✓
 Hutchison 3	Austria	€36 (14 Gigabytes)	---	Yes (Unlimited 24/7)	5 hours per month Not allowed to buy more! 
 Orange	Spain	€40 (5 Gigabytes)	€10	Yes (Unlimited 24/7)	2 hours per month (€30 per additional hour) 
 Deutsche Telekom	Hungary	€45 (5 Gigabytes)	---	Yes (Unlimited 24/7)	2 hours per month Not allowed to buy more! 
TELEKOM AUSTRIA 	Bulgaria	€55 (10 Gigabytes)	---	Yes (Unlimited 24/7)	3 hours per month Not allowed to buy more! 
 Vodafone	Romania	€59 (6 Gigabytes)	€10	Yes (Unlimited 24/7)	2 hours per month (€30 per additional hour) 
 TELECOM ITALIA	Italy	€86 (13 Gigabytes)	---	Yes (Unlimited 24/7)	5 hours per month Not allowed to buy more! 
 Deutsche Telekom	Germany	€100 (10 Gigabytes)	---	Yes (Unlimited 24/7)	3 hours per month Not allowed to buy more! 



# In 2014 the Digital Fuel Monitor tracked and reported 92 zero-rated mobile services in OECD

## 92 vertically discriminated zero-rated mobile services in OECD, November 2014

Net neutrality violations: Potentially anti-competitive zero-rated telco own or third party (telco partner) internet services

Collection date	Country	Operator	Brand	Brand type	Zero-rating	Cloud storage	Video streaming	Music streaming	Messaging/Social networks	Info-content
02/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video	ZeroRated:SpotifyPremium	Spotify	
14/11/2014	Country	Operator	Operator brand	Type	Yes	Bundled:Telco Cloud	ZeroRated:YouTube	Bundled:3rd party app		
13/11/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:VodafoneLiveTV		Promo:Telco app	
02/11/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:VodafoneLiveTV		ZeroRated:Facebook	facebook
03/11/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
19/09/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:Telco Cloud	ZeroRated:Telco Video	ZeroRated:DeezerPremium	DEEZER	
19/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
02/11/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app	ZeroRated:3rd party app	
10/10/2014	Country	Operator	Operator brand	Type	Yes	Bundled:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app	ZeroRated:3rd party app	
10/10/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
28/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video	Bundled:3rd party app		
28/09/2014	Country	Operator	Operator brand	Type	Yes	Bundled:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app		
01/11/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:Telco Video	Bundled:3rd party app		
10/10/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video		ZeroRated:3rd party app	
10/10/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
07/10/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:OrangeCloud	ZeroRated:OrangeMobileTV	ZeroRated:3rd party app		
22/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
01/11/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:Telco Video	ZeroRated:3rd party app		
28/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video	ZeroRated:3rd party app		
22/09/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:T-Mobile	ZeroRated:Telco Video	ZeroRated:3rd party app		
22/09/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:Telco Cl	ZeroRated:Telco Video	ZeroRated:Telco app		
22/09/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app		
05/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video	Bundled:3rd party app		
03/11/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
18/11/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:T-Mobile TV/Video	ZeroRated:3rd party app	ZeroRated:Joyn	Promo:3rd party content
12/09/2013	Country	Operator	Operator brand	Type	Yes	ZeroRated:VodafoneC	ZeroRated:Telco Video	Bundled:3rd party app		
04/11/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
28/09/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app		
22/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
19/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:HBO			
22/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
02/10/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video	Promo:3rd party app		
25/10/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
28/10/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:Telco Video	ZeroRated:Telco app		
05/09/2014	Country	Operator	Operator brand	Type	Yes	Bundled:Telco Cloud	ZeroRated:Telco Video			
05/09/2014	Country	Operator	Operator brand	Type	Yes		ZeroRated:Telco Video			
05/09/2014	Country	Operator	Operator brand	Type	Yes	Promo:Telco Cloud	ZeroRated:Telco Video	ZeroRated:3rd party app		
19/09/2014	Country	Operator	Operator brand	Type	No		Promo:Telco video			
18/11/2014	Country	Operator	Operator brand	Type	Yes		Promo:Telco video		ZeroRated:WhatsApp	WhatsApp
28/09/2014	Country	Operator	Operator brand	Type	No	Bundled:Telco Cloud	Promo:Telco video	Promo:Telco app		
03/10/2014	Country	Operator	Operator brand	Type	No	Promo:Telco Cloud	Bundled:Netflix	Bundled:3rd party app	Promo:Telco app	
18/11/2014	Country	Operator	Operator brand	Type	No	Bundled:Telco Cloud	Promo:Telco video	Bundled:3rd party app	Promo:Telco app	
28/10/2014	Country	Operator	Operator brand	Type	Yes	ZeroRated:3rd party Cloud		ZeroRated:Telco app		
05/11/2014	Country	Operator	Operator brand	Type	No		Promo:Telco video	Promo:3rd party app		

1 60 x 9 27 in



# Zero-rating: bottom line

- a** Zero-rating is anti-competitive. It causes consumer harm (restricting choice) and competitor harm (places competing services at a disadvantage)
- b** The flip-side of zero-rating is that due to the restricted volume caps it severely restricts the usability of all non zero-rated services which get throttled as soon as end-users deplete their artificially low volume caps
- c** Mobile operators have a fundamental conflict of interest in selling both open internet access and as well their own or their selected partners' online video and cloud services
- d** If zero-rating is not banned, mobile operators are incentivized to set low volume caps (high gigabyte prices) in order to enhance the appeal of their own zero-rated services
- e** Banning zero-rating leads to lower mobile internet access prices, evidence shows
- f** Net neutrality rules that do not ban price discrimination such as zero-rating will prove toothless

# US vs EU perspectives on zero-rating rules

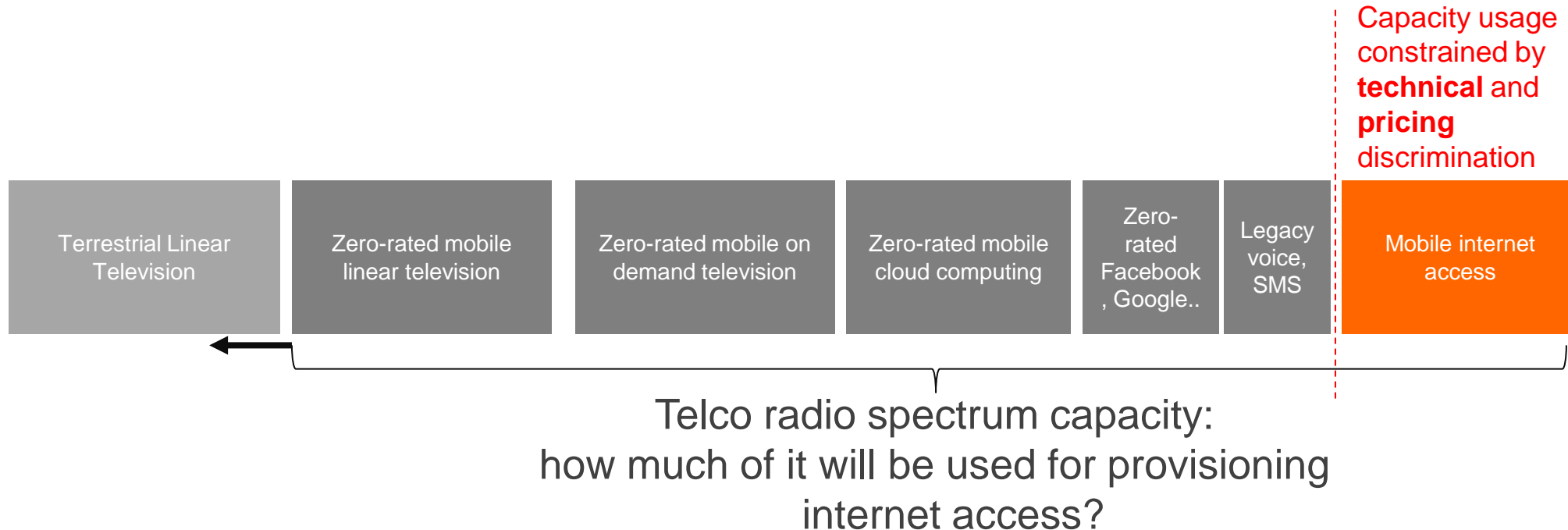
- a The FCC 26<sup>th</sup> February 2015 adopted rules will not ban outright zero-rating and other forms of price discrimination
- b Zero-rating is not included in FCC's three Bright Line Rules (No blocking, no throttling and no paid-prioritization i.e. favour 3<sup>rd</sup> party internet traffic for a fee or prioritizing own content and services)
- c The FCC plans to deal with zero-rating under the general Open Internet conduct standard (ISPs cannot harm consumers or edge providers) if and when complaints are filled.
- d FCC's senior officials, quoted by Bloomberg, stated that:
  - a) zero-rating own or affiliate content is probably **NOT OK**
  - b) zero-rating 3<sup>rd</sup> party apps for a fee is probably **NOT OK**
  - c) zero-rating 3<sup>rd</sup> party applications or application classes (e.g. T-Mobile US music streaming service) without a fee could be found acceptable
- e In Europe, ten small member states put forward a net neutrality proposal that, if adopted, would ban harmful price discrimination practices such as zero-rating. The proposal is fiercely opposed by big EU member states and their dominant telecom groups

# The Council's approach in safeguarding sufficient network capacity for internet access is worthless and unenforceable!

- The latest agreed text of the European Council states;
  - Article 3: ...Providers of electronic communications to the public, including providers of internet access services, shall ensure provided that sufficient network capacity is available so that the availability and quality of internet access services for other end-users are not impaired in a material manner.
  - Article 4(1): National regulatory authorities shall closely monitor and ensure compliance with Article 3, and shall promote the continued availability of internet access services at levels of quality that reflects advances in technology. For those purposes national regulatory authorities may impose technical characteristics and minimum quality of service requirements. National regulatory authorities shall publish reports on an annual basis regarding their monitoring and findings, and provide those reports to the Commission and BEREC.
- So lets presume that NRAs set minimum levels for internet access availability and quality (e.g. minimum speeds)
- Minimum speeds could provide limited protection in markets where **today** internet access is not volume capped i.e. fixed internet access offers. However, minimum speeds do not guarantee price affordability! So in oligopolies, telcos could still **overprice minimum internet access speeds in order to force customers to their vertically integrated services!**

**However, in most EU markets where mobile internet access is volume capped, irrespective of the minimum speeds, telcos are diverting licensed spectrum capacity to their own vertically integrated zero-rated services by collectively setting low volume caps (excessive gigabyte prices)**

# How to ensure enough capacity is reserved for internet access without the need to resort to price regulations



- Erect a 'Chinese Spectrum Wall' to separate the provision of non-discriminatory neutral mobile internet access from the discriminatory vertically integrated telco specialized services.
- New telco specialized services should be provisioned over new dedicated frequency bands
- Legacy telco specialized services (e.g. mobile voice & SMS) should be provisioned, under strict conditions, over dedicated blocks of the currently assigned mobile licensed bands
- Alternatively, if specialized services are provisioned together with internet services in the same frequency bands their share of total traffic should not exceed 10% (i.e. don't starve internet access services from the required capacity)
- And let's not forget that operators could already offer today differentiated or guaranteed quality of service for specialized services in an application agnostic way and without violating net neutrality

# Price discrimination (zero-rating), if allowed, will erect a new insurmountable barrier to EU's Digital Single Market



The suggestion by the Presidency of the EU Council to omit from the scope of net neutrality regulation the potentially anti-competitive practice of price discrimination (e.g. zero-rating) and allow instead Member State legislative discretion will balkanise internet access and prevent the creation of a European Digital Single Market by creating new service specific terminating monopolies.

# Further reading

- The core issue in the net neutrality debate is the price of open internet access <http://webfoundation.org/2015/02/guest-blog-the-real-threat-to-the-open-internet-is-zero-rated-content-continued/>
- The real threat to the open Internet is zero-rated content <http://webfoundation.org/2015/02/guest-blog-the-real-threat-to-the-open-internet-is-zero-rated-content/>
- In the Netherlands, where zero-rating is banned, KPN just doubled (free of charge) the mobile internet volume caps to encourage a carefree usage of its online videos [http://www.dfmonitor.eu/insights/2015\\_feb\\_kpn\\_volume\\_caps/](http://www.dfmonitor.eu/insights/2015_feb_kpn_volume_caps/)
- Telenor launched a vertically price discriminated internet video service in a European market [http://www.dfmonitor.eu/insights/2015\\_feb\\_premium\\_telenor/](http://www.dfmonitor.eu/insights/2015_feb_premium_telenor/)
- The Dutch regulator has fined Vodafone for violating national net neutrality law by zero-rating HBO mobile video streaming [http://www.dfmonitor.eu/insights/2015\\_jan\\_netherlands/](http://www.dfmonitor.eu/insights/2015_jan_netherlands/)
- Price discrimination (zero-rating), if allowed, will erect a new insurmountable barrier to EU's Digital Single Market [http://www.dfmonitor.eu/insights/2015\\_jan\\_premium\\_EU\\_single\\_market\\_zero\\_rating/](http://www.dfmonitor.eu/insights/2015_jan_premium_EU_single_market_zero_rating/)
- The net neutrality study prepared by J. Scott Marcus for the European Parliament conveniently missed the elephant in the room – Price discrimination (zero-rating) [http://www.dfmonitor.eu/insights/2015\\_jan\\_scott\\_marcus\\_study/](http://www.dfmonitor.eu/insights/2015_jan_scott_marcus_study/)
- The splinternet: Net neutrality and why it matters (or not) for the digital economy <http://gelookahead.economist.com/net-neutrality-splinternet/#sthash.zKiYFb2y.dpuf>
- Net neutrality is about the price of open internet access, more and more EU governments realize [http://www.dfmonitor.eu/insights/2014\\_dec\\_premium\\_EU\\_price\\_discrimination/](http://www.dfmonitor.eu/insights/2014_dec_premium_EU_price_discrimination/)
- Google, telcos and the push for a vertically integrated non-neutral internet – Friends, not foes [http://www.dfmonitor.eu/insights/2014\\_nov\\_premium\\_google/](http://www.dfmonitor.eu/insights/2014_nov_premium_google/)
- Flash note: Norwegian telecom regulator unambiguously states that zero-rating violates net neutrality [http://www.dfmonitor.eu/insights/2014\\_nov\\_net\\_neutrality\\_tide/](http://www.dfmonitor.eu/insights/2014_nov_net_neutrality_tide/)
- EU28 & OECD mobile internet access competitiveness report Q4 2014 [http://www.dfmonitor.eu/insights/2014\\_nov\\_premium\\_q4\\_update/](http://www.dfmonitor.eu/insights/2014_nov_premium_q4_update/)
- Neelie Kroes's Specialized Services are a giant Net Neutrality loophole [http://www.dfmonitor.eu/insights/2014\\_oct\\_premium\\_EU\\_specialised\\_services/](http://www.dfmonitor.eu/insights/2014_oct_premium_EU_specialised_services/)
- List of 75 zero-rated, potentially anti-competitive mobile applications/services, violating net neutrality, in EU28 [http://www.dfmonitor.eu/insights/2014\\_oct\\_zerorate/](http://www.dfmonitor.eu/insights/2014_oct_zerorate/)
- Deutsche Telekom's T-Mobile launches an 'a la carte' mobile internet model in Hungary [http://www.dfmonitor.eu/insights/2014\\_oct\\_deutsche\\_telekom/](http://www.dfmonitor.eu/insights/2014_oct_deutsche_telekom/)
- Forget fast lanes. The real threat for net-neutrality is zero-rated content <https://gigaom.com/2014/04/26/forget-fast-lanes-the-real-threat-for-net-neutrality-is-zero-rated-mobile-traffic/>

# Coming up:

New Digital Fuel Monitor research note (to be released in March):

## Solutions for differentiated QoS, fast lanes, paid prioritisation, sponsored data, zero-rating under net neutrality rules

Banning application based discrimination does not undermine connected cars, telemedicine and other innovative services and business models that require differentiated quality of service. Net neutrality bans only *discriminatory* fast-lanes, paid prioritisation, sponsored data, zero-rating.

What would a non-discriminatory *internet.org* and “*music freedom*” platform look like?