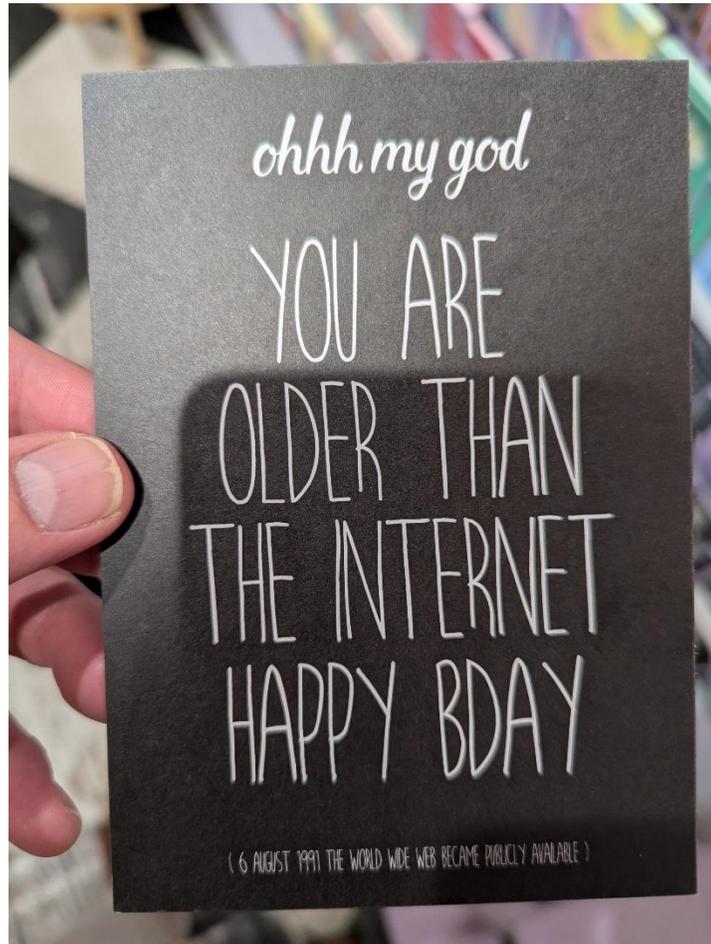


# The Digital Networks Act changes the DNA of the Internet

Laws made the Internet, but can break it too

13 March 2026, Rudolf van der Berg

## We all know who invented the Internet (or maybe not)



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## The Internet wasn't supposed to happen

- In the 1980s every telecom firm and telecom professor knew “intelligent networks” were the future.
  - There were also a bunch of hobbyists in electronics and physics departments in universities, who were cobbling up some networks, but even they agreed that it couldn't scale to telco level!
  - Those hobbyists didn't have quality of service or a reliable way to account and bill for resources used!
  - Intelligent networks were going to fix this, the question wasn't when, but who would win, the Germans, French, British, French, Japanese or Americans. → ISDN, ATM etc.
- Telephony was old. Data networks were the future:
  - to interconnect our mainframes, point of sales terminals, video calls and on-demand television
  - Mobile wasn't seen as important, only 10-20% of people (businessmen) would need that!
- Multinational firms needed to have global interoperable data networks, BUT
  - International telecom was expensive; firms paid more for telecom than for oil!
  - They had their own lobby to deal with telcos; INTUG
- Fortunately telecom firms all thought, that if they could sell in each other's markets, the pie would be so much bigger, that they all would get rich!
  - What you lose in margin, you make up in volume!

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## Enter the General Agreement on Trade in Services and Telecom Laws

- After World War II world trade needed a boost. Talks on General Agreement on Trade and Tarriffs
  - One telco per country with their own standards and manufacturers was an issue
  - Every national telco hated the dirty tricks of other telcos, multinationals hated the tricks of all telcos
  - So telco lawyers and multinationals lawyers came together to attack the dirty tricks of the others.
- The 1980s round culminated in a 1995 agreement; the General Agreement on Trade in Services, which had an Annex on Telecommunications saying that, every country:
  - would allow firms of any other country to buy and sell networks, services and leased lines
  - allow them to purchase, lease and attach terminals of their choosing
  - to interconnect private leased lines with public networks or private leased lines
  - to use operating protocols of the service supplier's choice in the supply of any service
  - to move information within and across borders
  - to work on standards in the ITU and ISO
- This became the basis of EU telecom rules of 1992 and 1998
  - Telecom law had to allow anyone to provide telecom networks and services in line with GATS
  - After 1992-1993, if you wanted to start an ISP, your national telco couldn't stop you
    - You could run any protocol you wanted!
  - Telcos laughed; the real money would be in multinationals, ecommerce (and naughty numbers)!
  - The ITU ignored the Internet Protocol, so we got IANA, ICANN, RIPE, ARIN etc.

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## The structure of EU law on public telecom networks and services. Internet services and private networks didn't fall under telecom law

### Ecommerce

- Anything that wasn't predominantly telecom → running over the Internet
- Not under telecom law, but under ecommerce directive
- Could use their own private networks, names, numbers
- Accessible through public telecom services
- Allowed to run their own network, equipment, but not to offer public telecom

### Public Telecom Service

- Made use of the public telecom network
- Sold to the general public
- Interoperable
- Basic Internet, broadband, telephony
- Not allowed to mess with services of the information society (net neutrality)

### Public Telecom Network

- Wires, frequencies, bits
- An offer to the public
- Obligations to interconnect
- Couldn't mess with telecom services

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## This wasn't supposed to happen

- Just look at mobile to see the massive difference.
  - You can't get an MNC (Mobile ASN), termination rates rule
  - Interconnection is hard, termination rates rule
  - All people use it for is IP
  - VoLTE isn't VoIP. It doesn't work and 112 is broken!
- Telcos were supposed to deliver services, not anyone with an ASN or a domain name using their networks for free!
- We should have had intelligent networks, not stupid networks
- We should have had termination rates, not peering
- We shouldn't have had private networks
- The lawyers messed up! In trying to open up digital markets for telcos, they put the door open too wide!
- Let us take a moment to thank the lawyers



*The WTO Director-General, Mr Renato Ruggiero, on 15 February, gets the news from Washington that the United States has decided to join the WTO basic telecoms agreement. (Photo by Mr P. Volery/Reuters)*

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## **This defined much of my career!**

- 2001 NDIX Internet Exchange, because telcos charged €5k for 2Mbps
- 2002 Trent Fiber with private fibers for hospitals, schools and municipality, because KPN charged €25K for a cross-connect → did you hear about Init7 vs Digital Realty?
- 2002 Responsible for lawful intercept at Ministry of economic affairs → Hosting isn't telecom, so no LI obligation for them → Ireland new LI law should look at NL
- 2006 first paper in NL on net neutrality → Telcos said it would never be a problem
- 2011 BEREC-OECD meetings on IP interconnection → Telcos wanted termination rates
- 2022 pointing out that VoLTE is broken and Emergency calls don't work well over 4G
- 2023 Fair-Share debate in run up to Digital Networks Act

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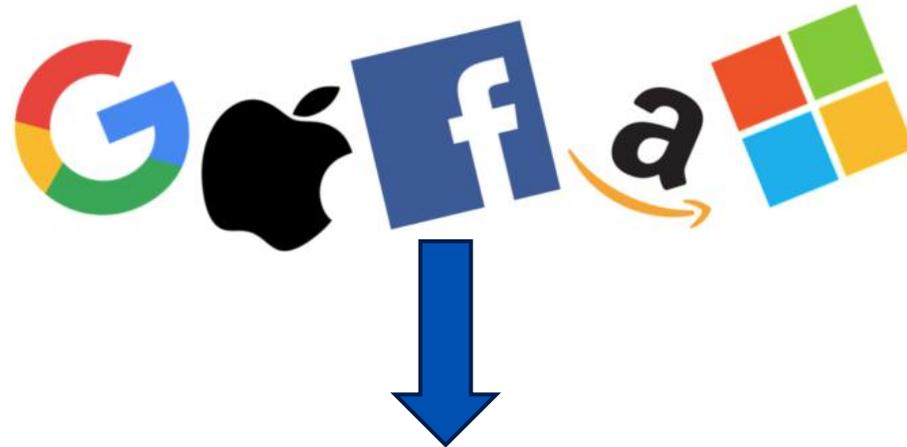
## So the DNA of EU Telecom law is still GATS style

- The DNA of the EU Telecom law still is a separation between public telecom network, public telecom service and information services over that network
- Telcos are effectively utilities under EU telecom law
- Anyone can build telecom networks, eg National Broadband Ireland
- Telcos can offer services everywhere, but have found that being multinational isn't that interesting
  - BT retreating from Ireland ;-)
- Competition between telcos has driven prices down and increased service
  - The ideal number is 4 mobile telco ;-)
  - When you go from 4 to 3 prices increase, but nothing gets really better
- The EU Commission can have ideas, but it is the regulators in the countries who look at the local situation

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# Something changed: The cool guys aren't so cool anymore

## Don't be evil, again?



Google	Apple	facebook	amazon	Microsoft
<b>FILTERS YOUR THOUGHTS</b>	<b>KNOWS WHERE YOUR MOM IS</b>	<b>CHOOSES WHAT YOU READ</b>	<b>KNOWS WHAT PRESENTS YOU ARE GETTING</b>	<b>FORMATS YOUR KIDS</b>
<small>Google filters your search results and includes recommendations to analyze your reactions and control access to their website.</small>	<small>If you have an iOS or Android smartphone, Apple and Google track, collect and analyze your location without letting you or giving you a choice.</small>	<small>Facebook infers the contents of your messages to analyze your reactions and confine you to its bubble.</small>	<small>Amazon uses an efficient scale, behaviors that might seem trivial can reveal a lot about your personality, your expectations and your goals.</small>	<small>Microsoft is spying in way into schools and universities by linking data to learn reactions and actions.</small>

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## **Telcos aren't less evil, just less evil relative to Big Tech**

### **Most of the internet industry isn't Big Tech or Telco**

- EU Telcos say everybody profits from their network, except them
  - EU telcos have less profits than telcos in countries with less competition
  - Want pan-European operators, which is already possible
- They want to get rid of net neutrality and privacy requirements
- Still want payment for traffic. Don't call it Fair Share anymore as in 2023
  - Vodafone still keeps it up. Says it can't handle 7Tbps of traffic in UK. BT does 30Tbps
  - They tried to use Digital Sustainability, because more data is more CO2 sounds so seductive.
- They now use Europe's fear of Big Tech, Digital Sovereignty, AI, data centers etc
- If Europe gives EU telcos free reign, then EU telcos will defeat Big Tech and create a sovereign European Tech environment

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# The EU says the Digital Networks Act will be marvelous

The Digital Networks Act will:



**Strengthen  
the Single Market  
for connectivity**



**Set conditions for  
European satellite  
connectivity**



**Stimulate investment  
in advanced networks**



**Boost innovation  
and the AI economy**



**Boost network  
resilience and security**

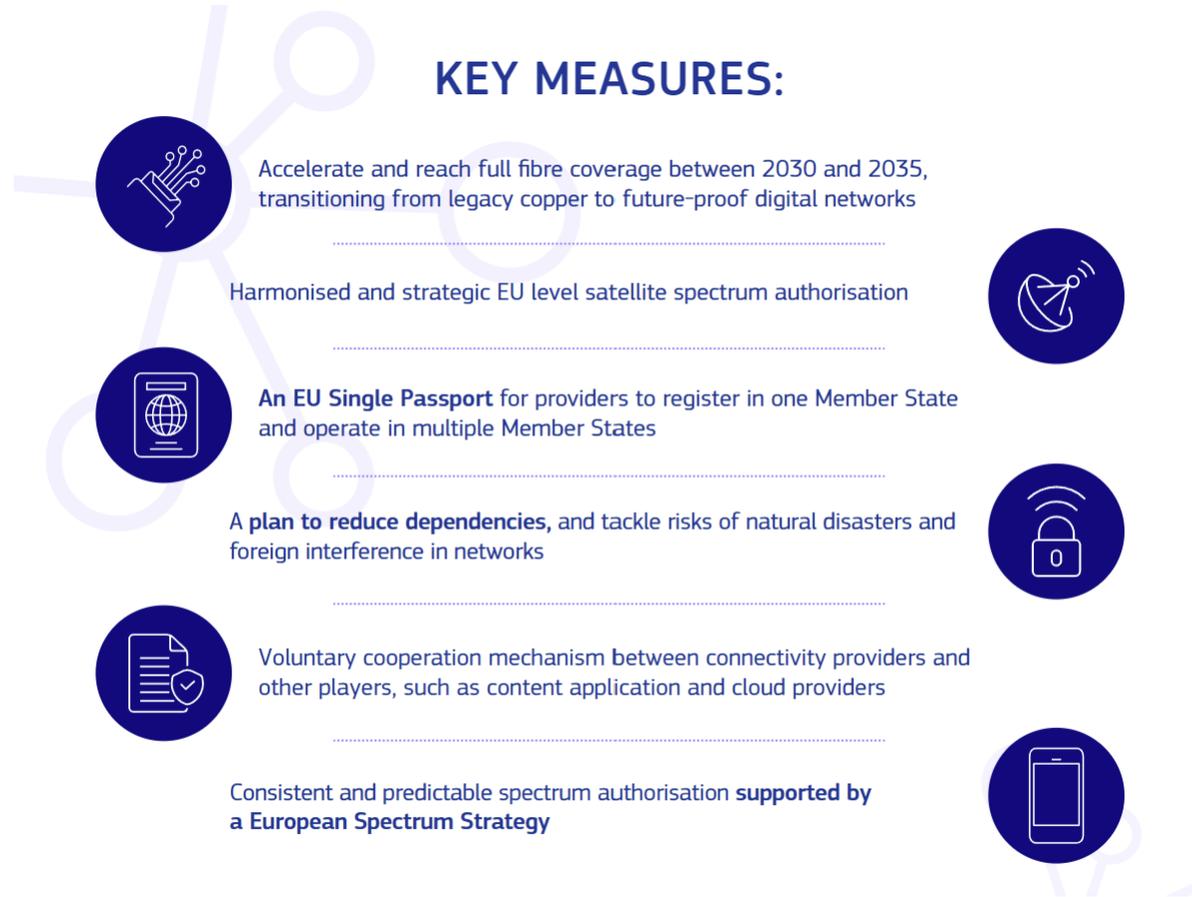


**Simplify rules  
and reporting  
obligations**

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## Measures that will be taken

### KEY MEASURES:



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## The EU proposal looks more subdued than what telcos asked for

### The devil is in the details

- Commission wants more control over spectrum policy and over regulators
  - Who controls the Commission?
- The split between telecom networks, telecom services and what runs over it becomes less clear
  - general authorisation regime for telecom operators to include digital and Internet infrastructure and service
- Open Internet (net neutrality) is not a guaranteed, but a parameter like QoS
- Reconciliation mechanisms for interconnection disputes
  - If you can't agree on interconnection, than you can ask Comreg to intervene
  - Also includes OTT players, which means everyone
  - Look at Italy who wants to regulate CDN players

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## What do I think

- Don't let the Commission make policy and enforce it. Keep those separate
- Keep the current split between telecom and over the top. Don't include digital and internet infrastructure in the general authorisation
  - Instead create a separate set of regulations, or fix through DMA and DSA
- Guarantee net neutrality
- Don't have reconciliation measures for IP interconnection. Guarantee that everyone has to have multiple transits and enough capacity to handle all traffic over them
  - ASNs don't have to peer
  - ASNs don't have to join and IXP
  - ASNs can be as dumb or as smart as they want to be

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## How to go forward

- Stay in contact with your ministry, who negotiates this in Brussels
  - Also with Comreg, but the minister is in charge
- See who you know/can support in Brussels, because EP is a powerful actor too
- Make clear that the Internet is more than Big Tech
- Show that a lack of competition between telcos is a bigger problem than some Telco CEO failing to get his bonus

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## Who am I

- Rudolf van der Berg, partner at Stratix
- Public Administration, Twente University, 2001
- Used to work at NDIX, Economic Affairs, OECD, Tele2
- Policy related to FTTH, 5G, net neutrality, data retention
- Stratix customers: telecom, ISPs, government, buyers of networks, courts, your employers ....
- On the GIA I represent the Dutch Association of Municipalities

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