

IXP Traffic in the Covid Era

Simone Morandini

Service Development Manager *MIX-IT*



Traffic Analysis through multiple PoV



FOREWORD

- Unfortunately Covid hasn't been a few weeks phenomenon so far
- So now we have a bunch of data to analyse
- From multiple perspectives covering the different phases of our recent life
- This presentation wants to compare MIX data with other exchanges
- We want to fix main trends, but also spot the differences
(focus on mediterranean countries – similar impact and reactions to the pandemic at the macro level)



THE TIMELINE ANALYSIS

from MIX and Other IXes

We have identified various phases

- The vertical wall: initial lockdown
- Summer brings normality back?
- Lockdown strikes back and beyond:
the eoy 2020 and today



OTHER TAKEAWAYS (AND OBSERVATIONS)

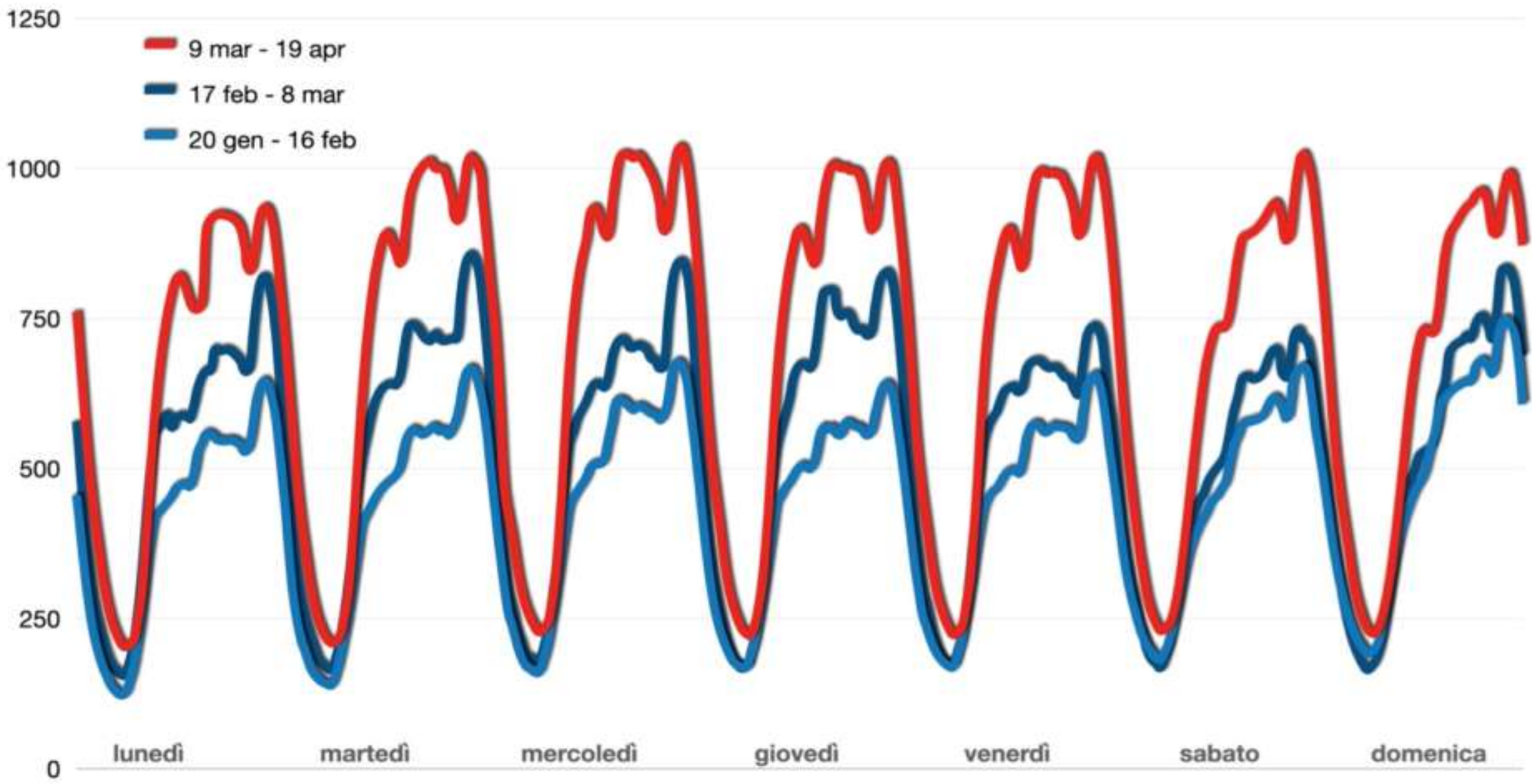
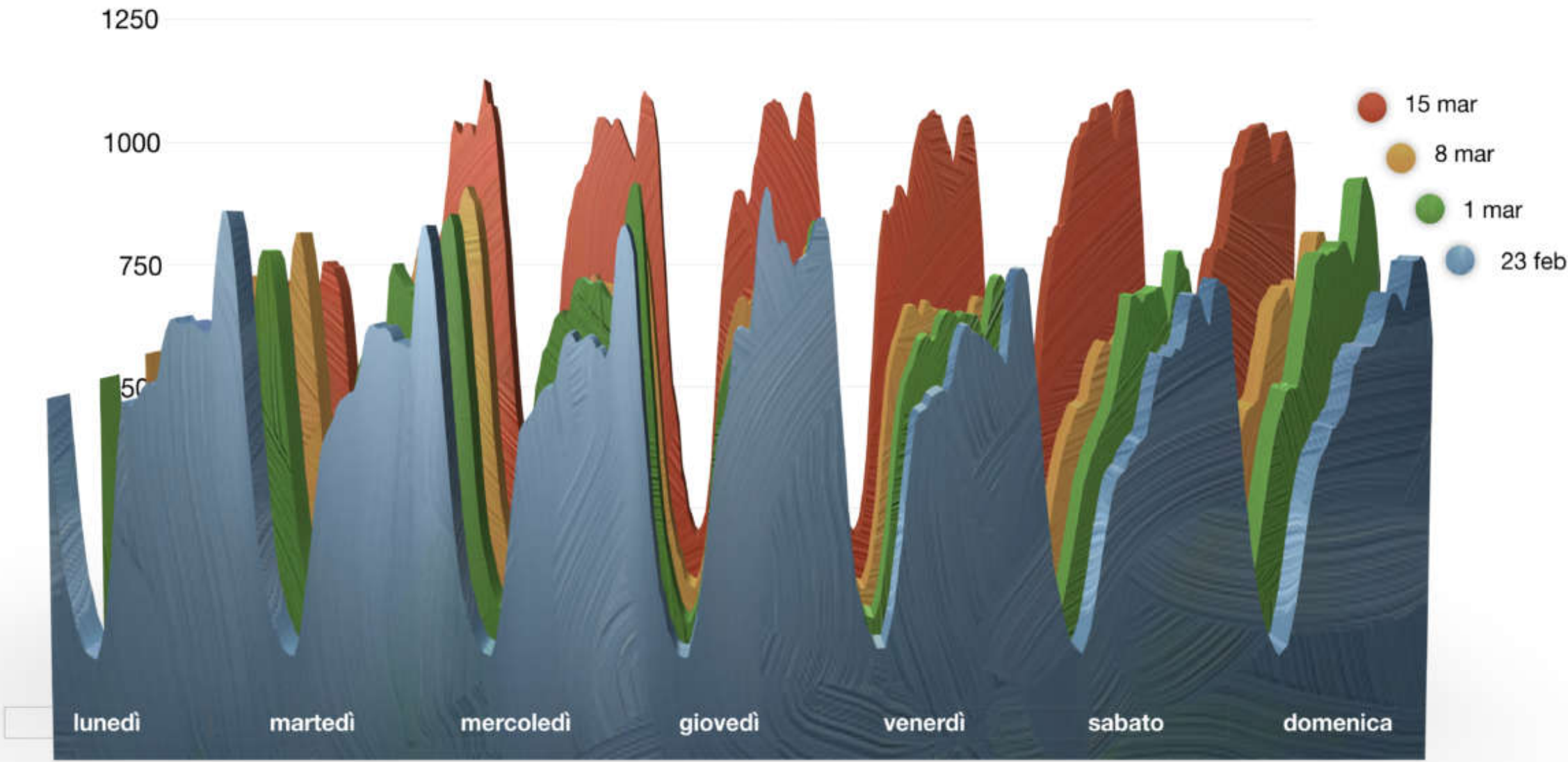
- Everyday traffic patterns analysis
- Content delivery strategies from the usual suspects: tip 'n tricks

Content is distributed more evenly to not overwhelm networks

- When to expect the peaks
- ~~Content~~ Football is king



INITIAL LOCKDOWN



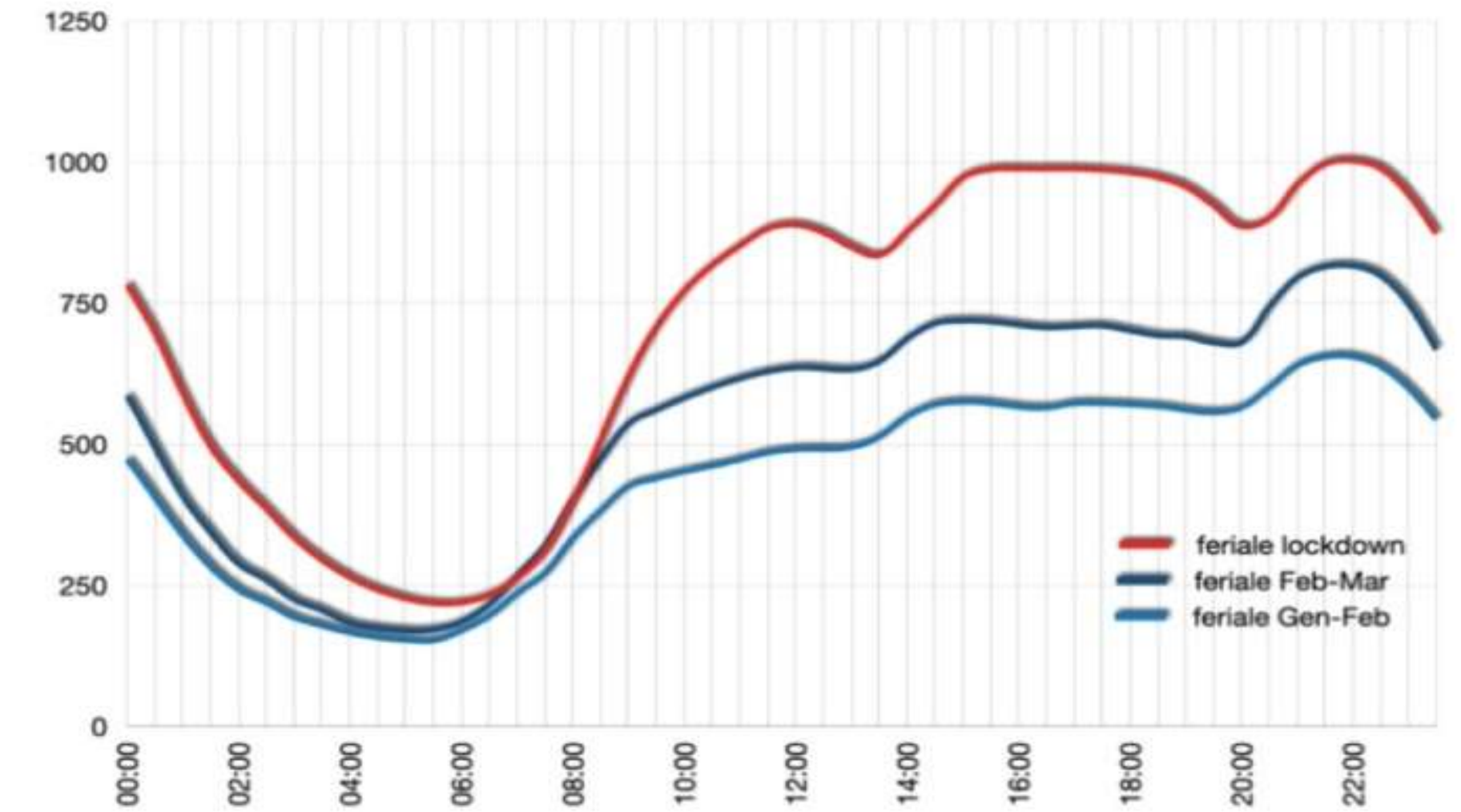
Average traffic during the 6 weeks of lockdown (red line) compared with previous weeks



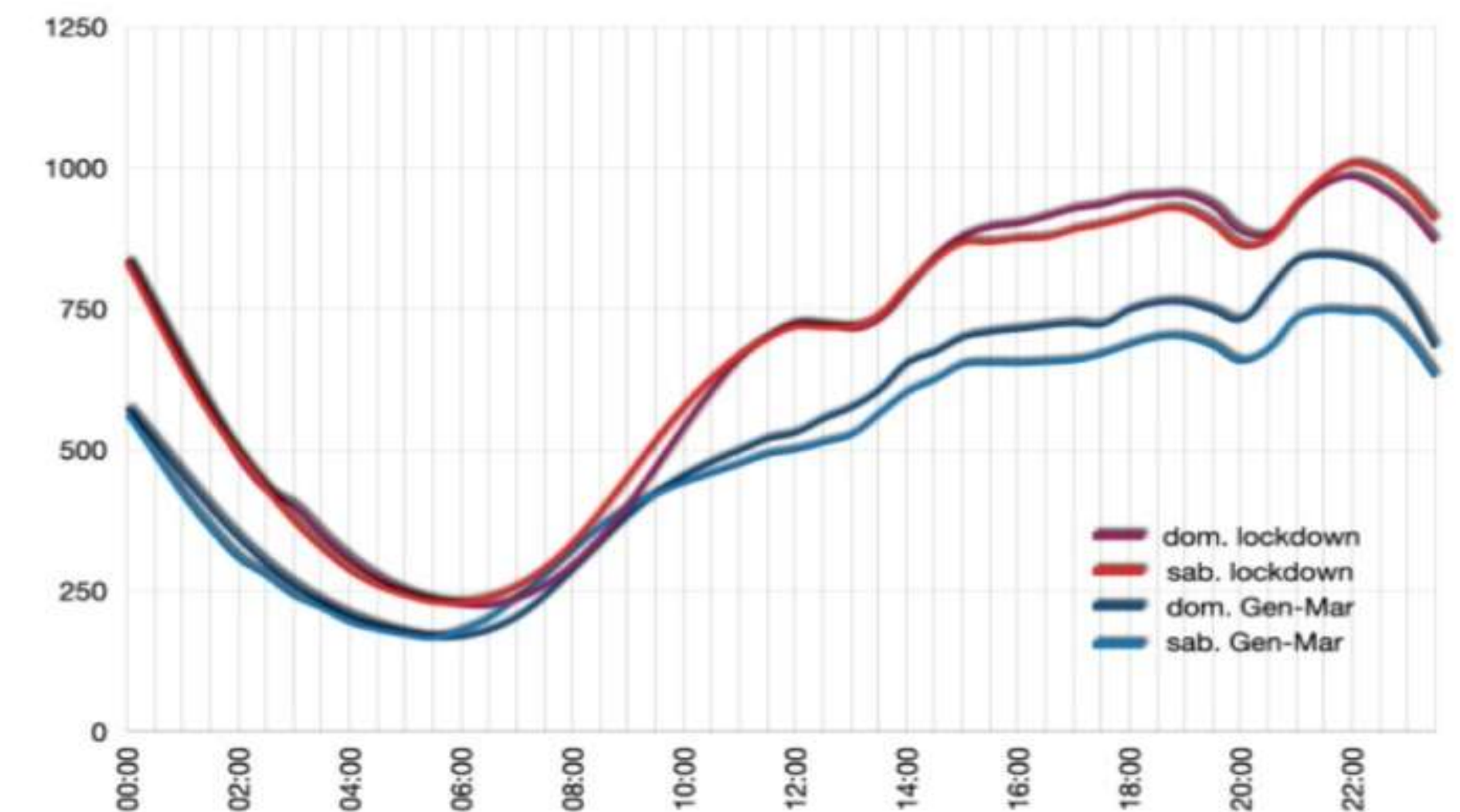
SUNDAY TRAFFIC SUNDAY

No day off
for streaming

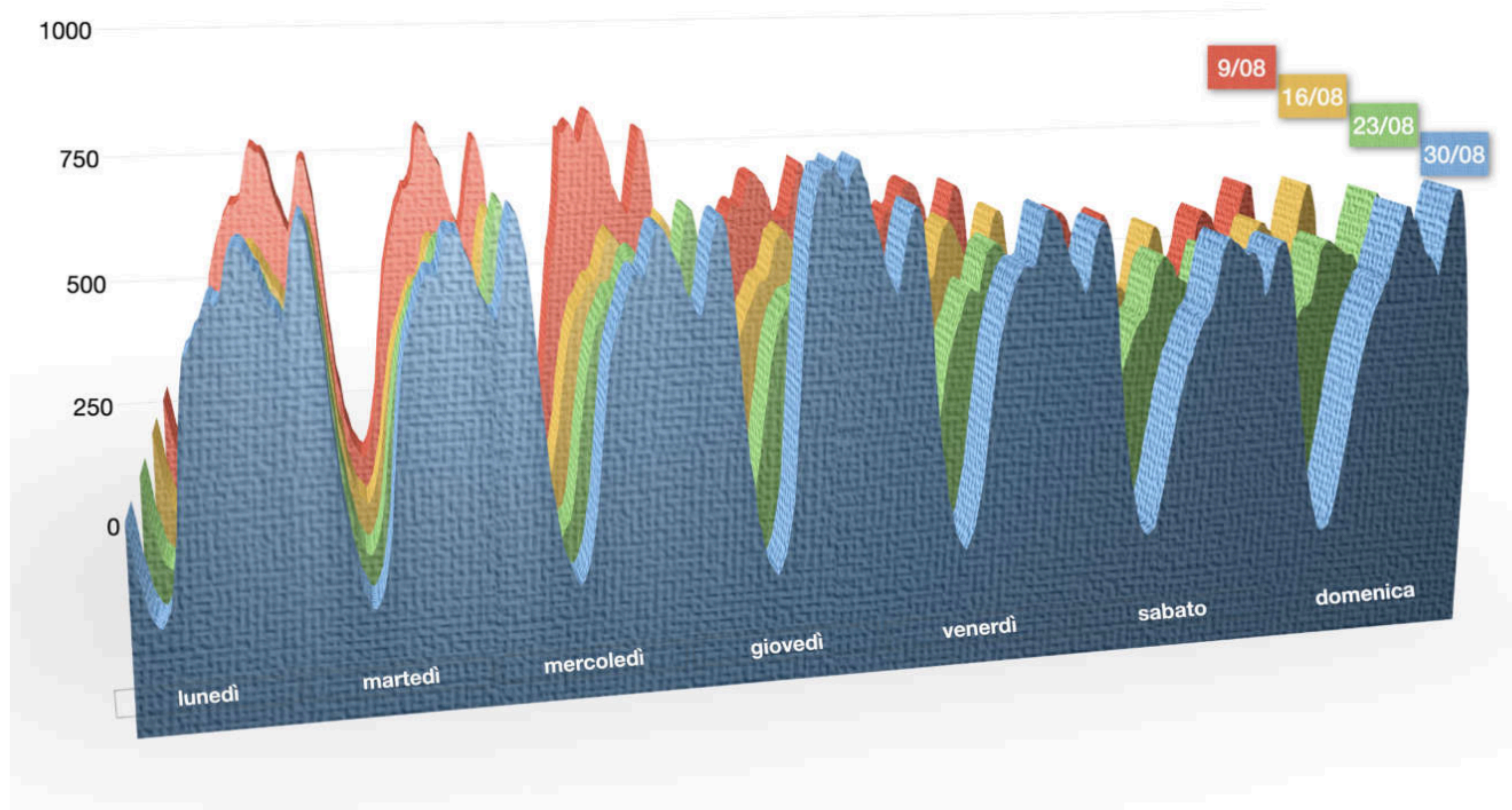
Andamento giornaliero
mediato per i giorni
feriali: settimane di
lockdown vs mesi
precedenti.



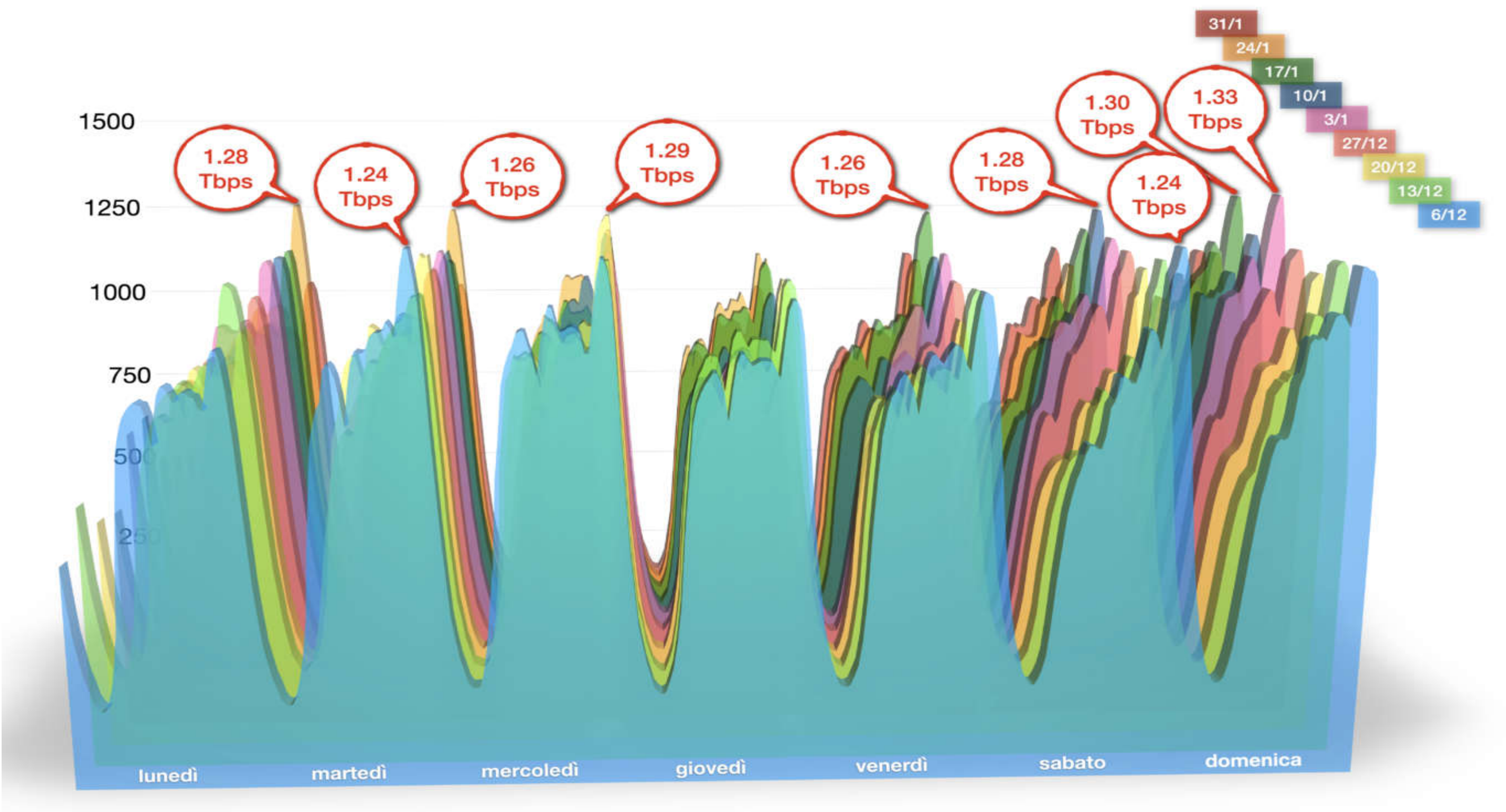
Andamento giornaliero
mediato per i giorni
festivi: settimane di
lockdown vs media
dell'intero periodo
precedente.



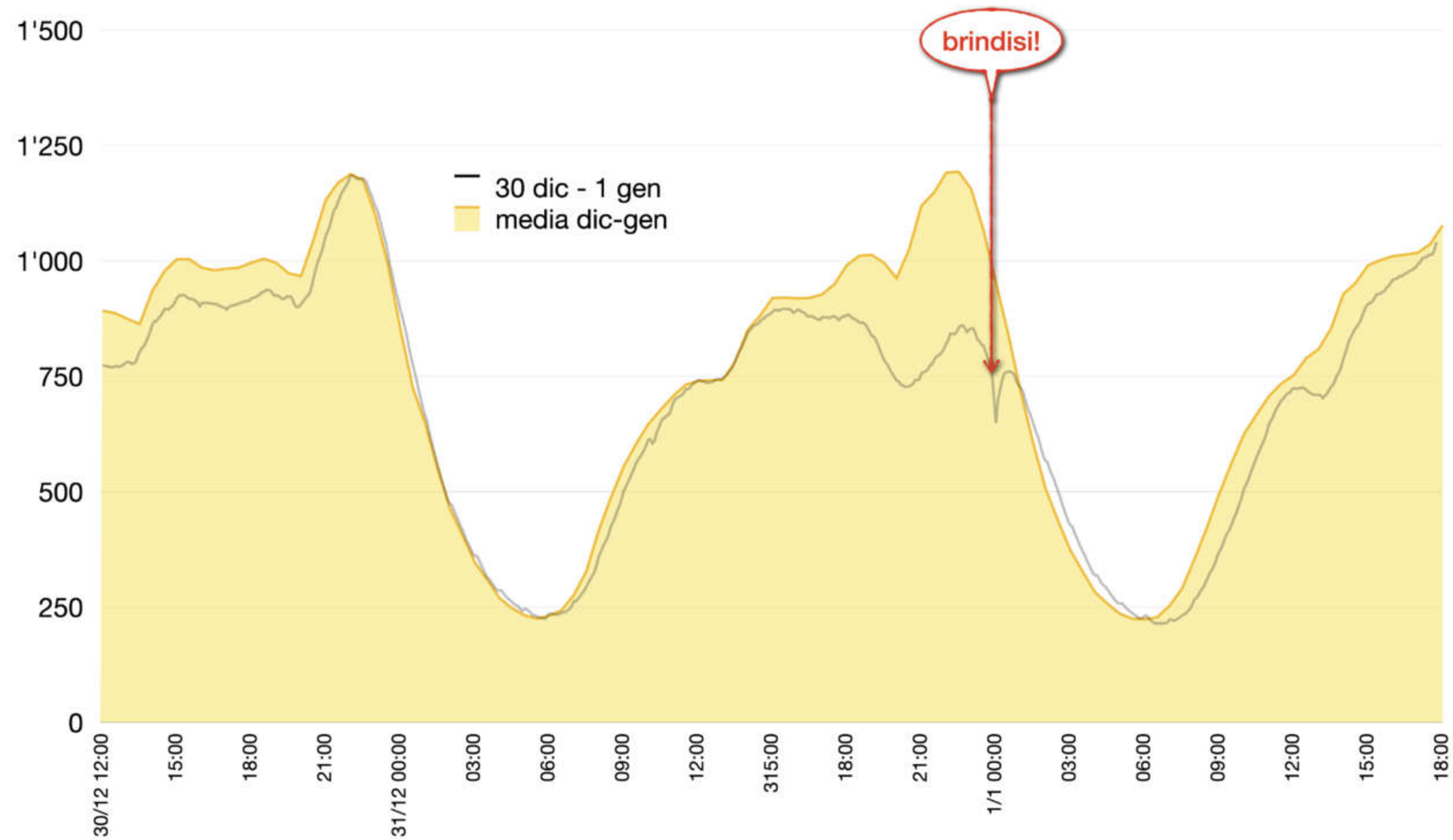
THE BEACH IS BACK



IT'S CHRISTMAS TIME



CHEERS! (HAPPY NEW YEAR, REALLY!?)

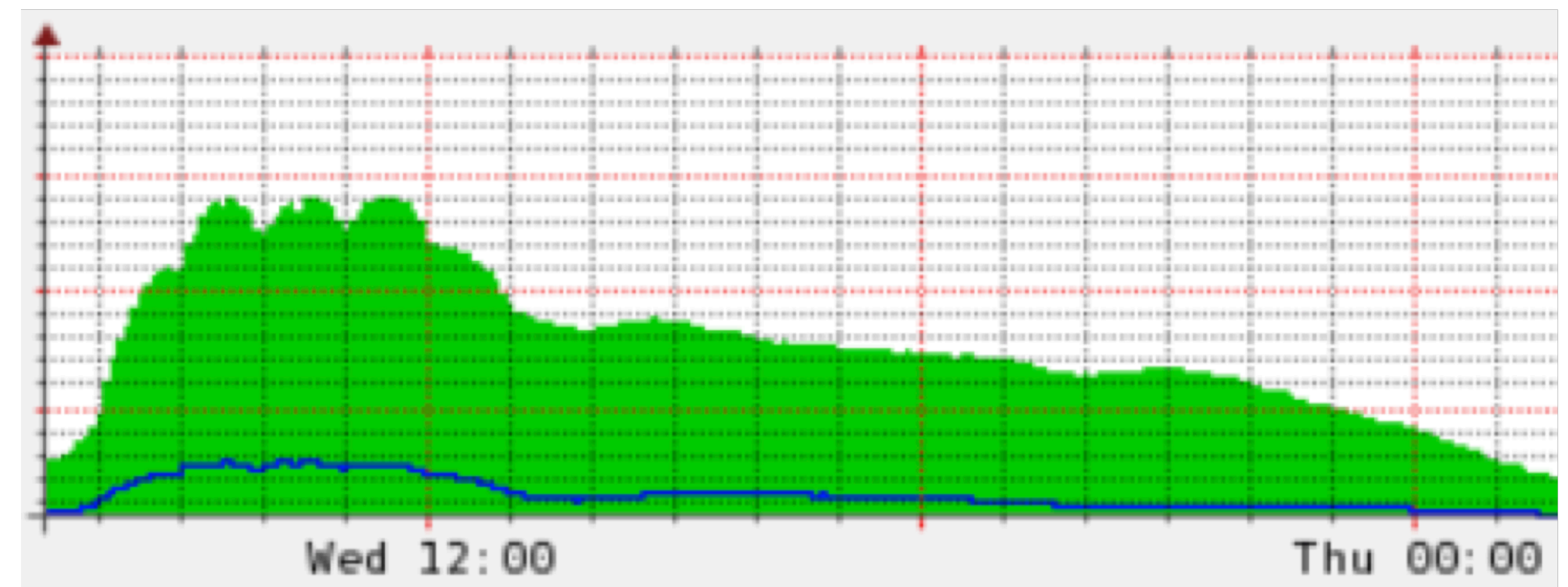
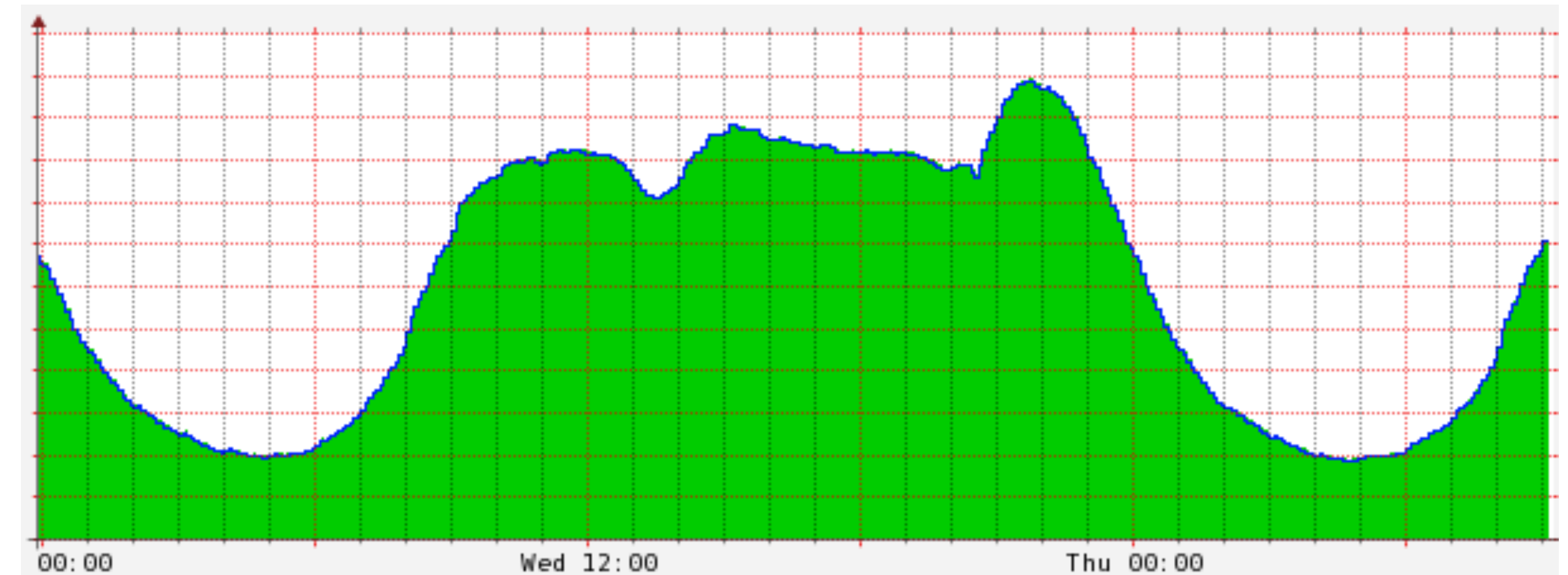


EVERYDAY TRAFFIC

- We start earlier, we finish later: at least we're sure the internet primetime is longer

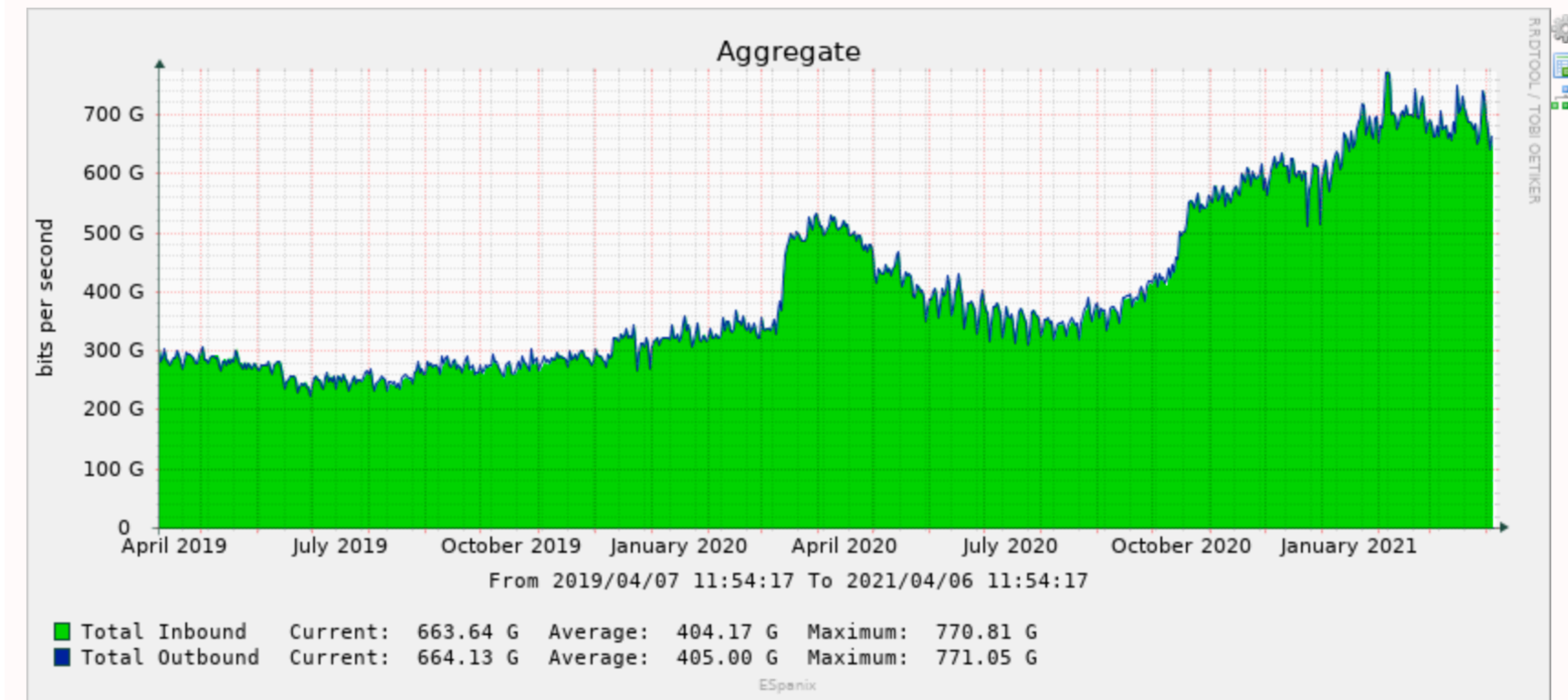
Pasta time not affected

- Streaming, Streaming...the daily peak is around 10pm, period.
- Distance Learning exposed



ITALY vs SPAIN

- Same spike at the initial lockdown – just one week after with respect to Italy
- Same slowdown in summer and same growth back in autumn



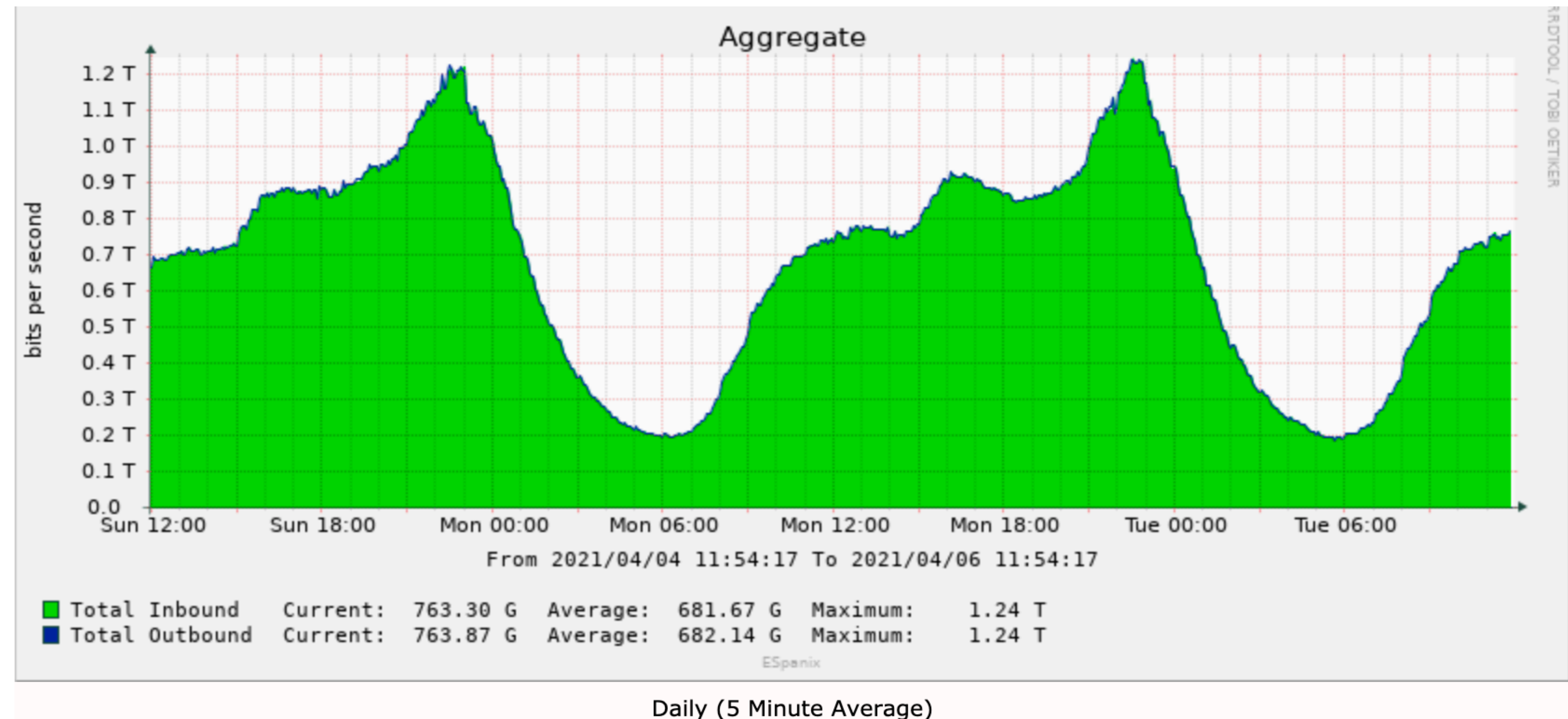
Yearly (1 Day Average)



ITALY vs SPAIN



“Domingo, lo mismo”:
no more difference
between workdays
and weekends



ITALY vs FRANCE



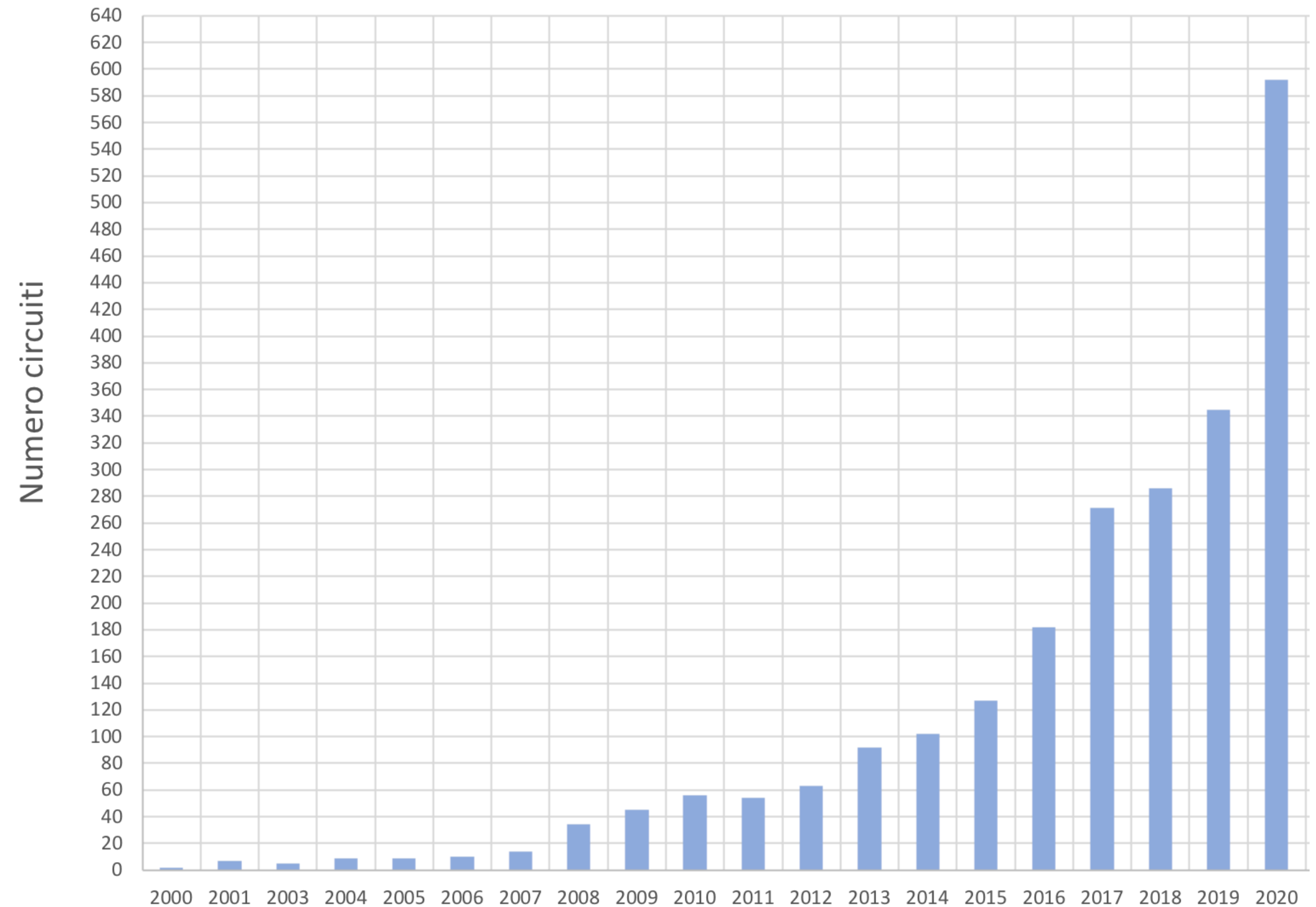
Same global traffic increase overall - +40% in 2020, but with some differences with the neighbors:

- Being more a 'B-to-B' connecting Exchange rather than a 'Content-to-E eyeballs', France IX had a more 'organic' growth due to the increase of use of remote working and enterprise digitisation
- No big peaks due to sports events, but rather from new software release distribution
- No big spikes coming from lockdowns, but rather a more distributed growth across the board



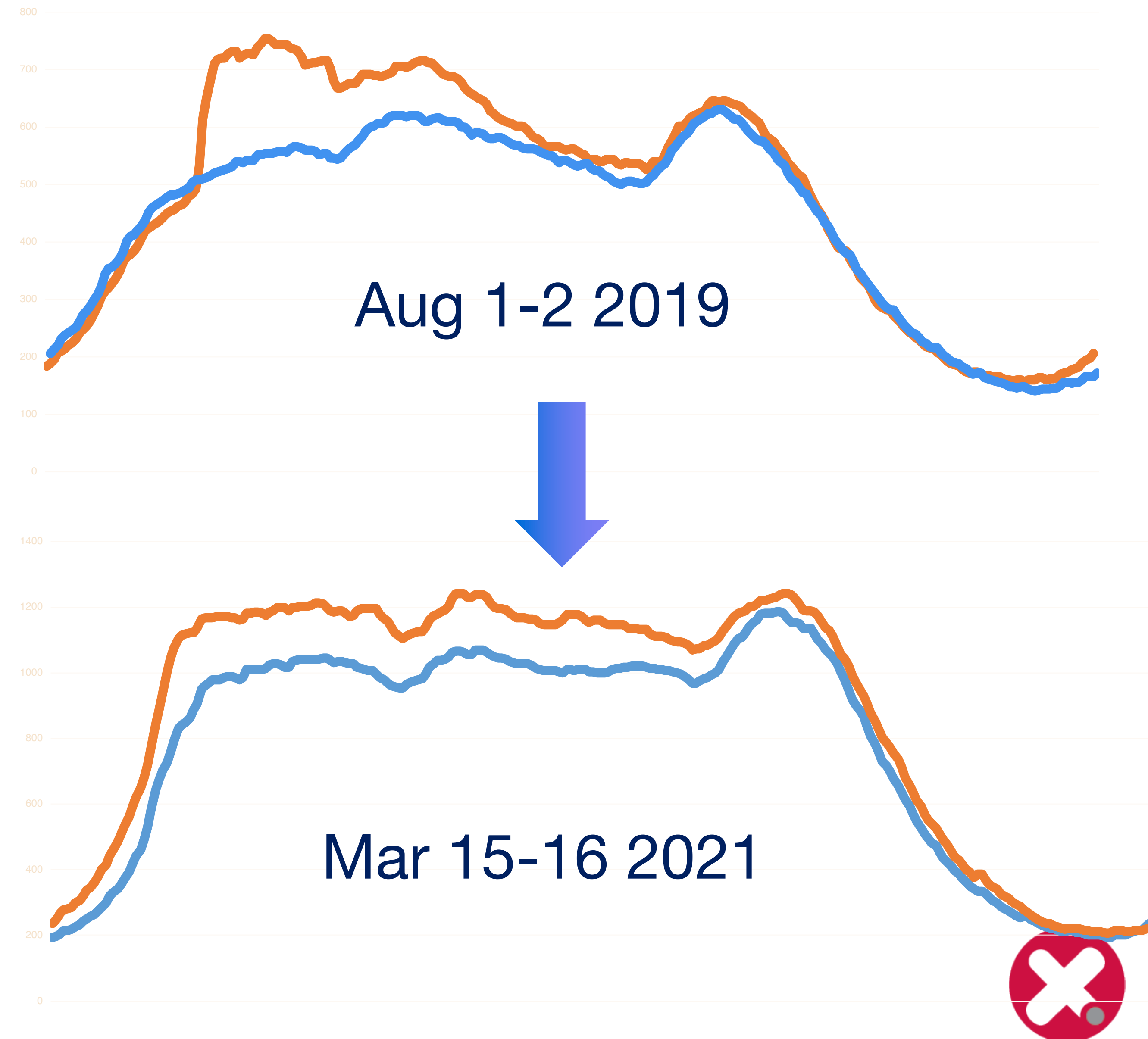
NOT JUST PEERING - CROSSCONNECTS...

- Peering grows but the Internet supertanker runs fast on fiber pairs too.
- Crossconnects had a tremendous growth in 2020
- The new-released MIX MMR infrastructure was put into its paces from the very beginning

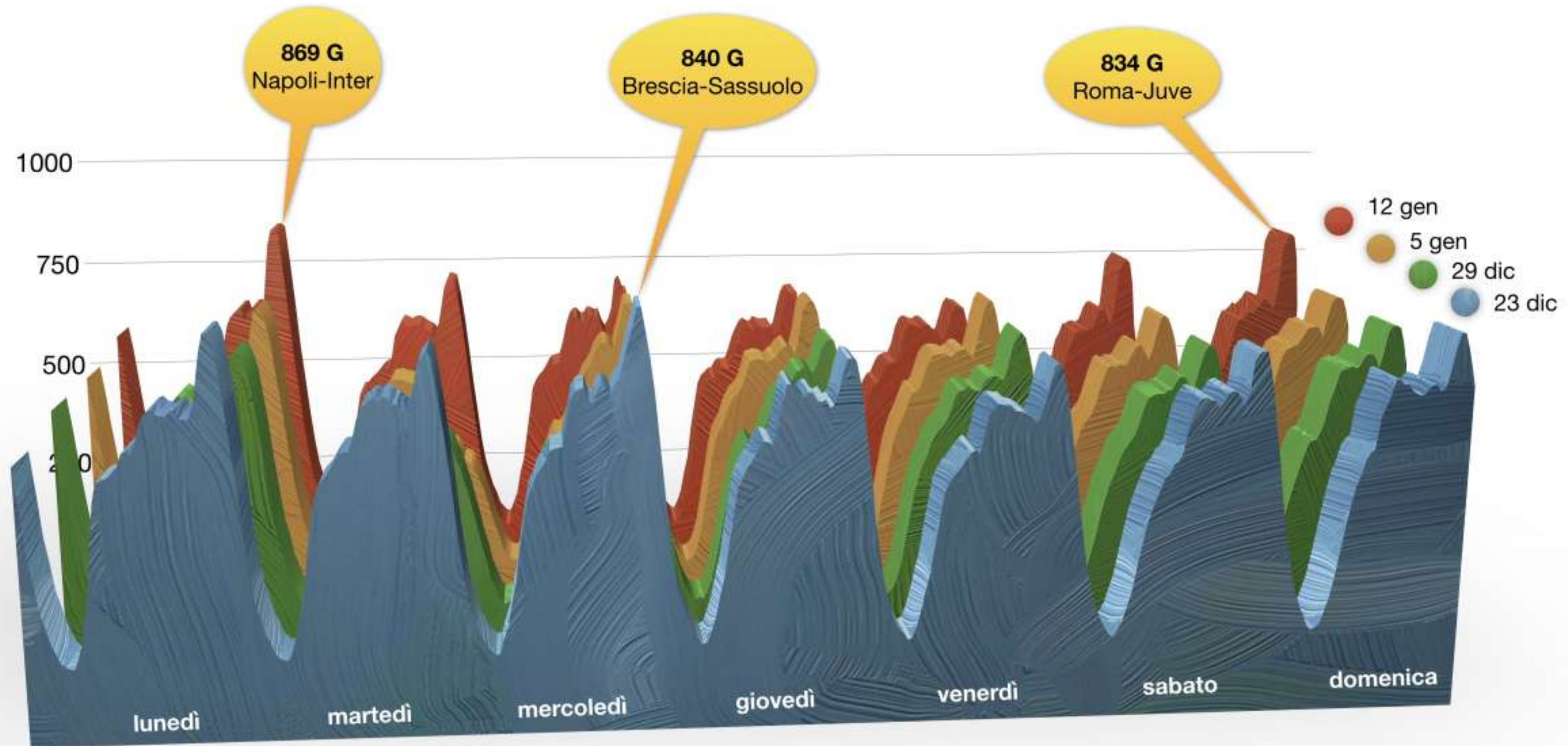


CONTENT DELIVERY IN THE COVID ERA

- Big events (Gaming, sw upgrades, live events) are multi-CDN based these days. It's not a one-man-show anymore.
- Games and sw distributions are carefully throttled over an extended period of time with respect to the past. (March 16, 2021 traffic)
- Internet Busy days start early and finish late just like human ones now



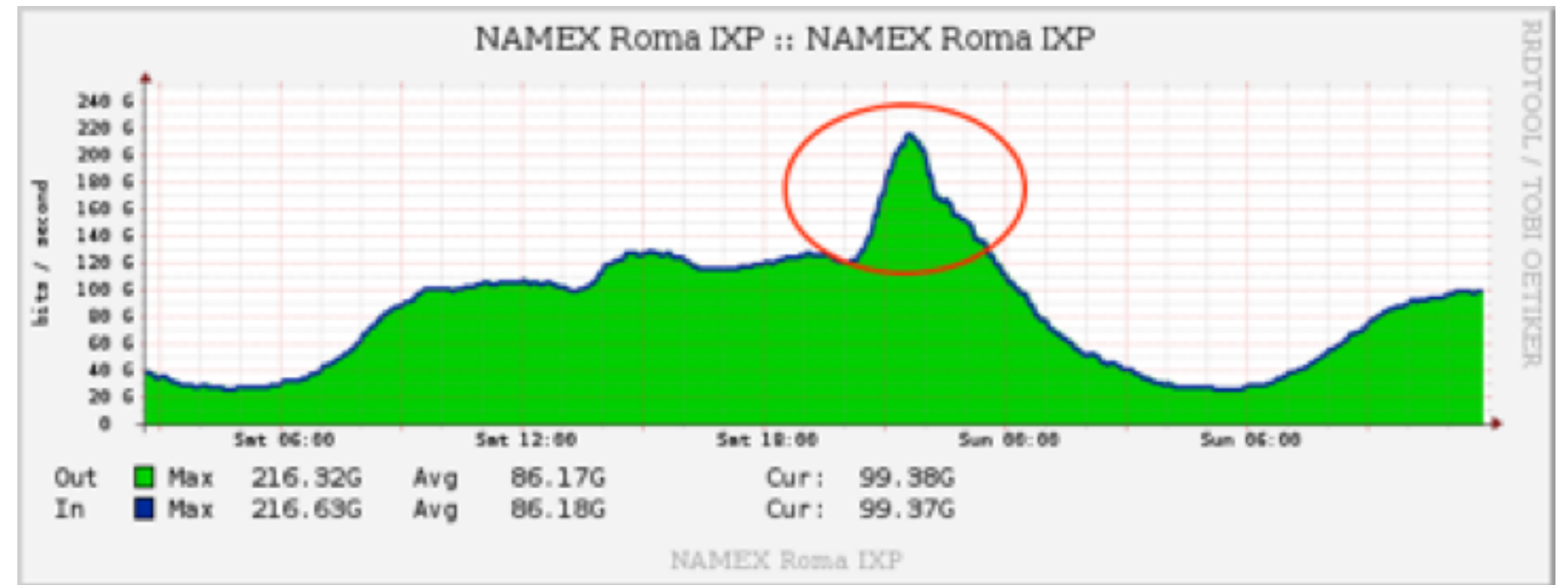
CONTENT FOOTBALL IS KING



CONTENT FOOTBALL IS KING (2)

(feat. MIX, Namex and Topix)

- The Juve-Lazio day
- All-time traffic peak at Namex during Lazio football match
- Prime time, local team (Lazio), opposite team with a large supporter base (Juventus) and the CDN peering at the local IX.



<https://www.internetsociety.org/blog/2021/04/finally-local-traffic-remained-local/>





Thank you!

MIX-IT.NET INFO@MIX-IT.NET

