

Broadband World Forum Americas  
São Paulo

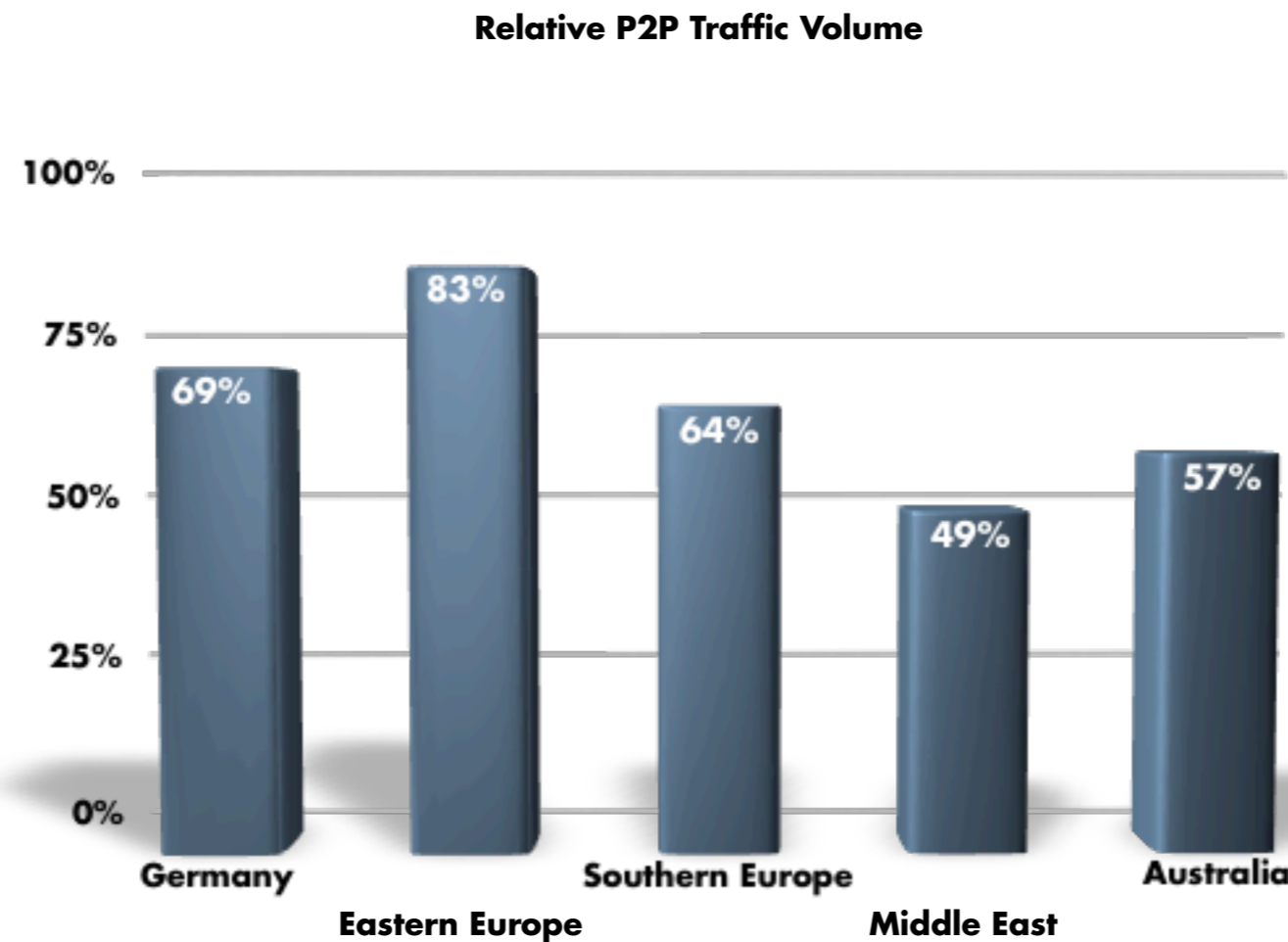
# **P2P - The Impact on the Internet**

Hendrik Schulze, CEO

ipoque

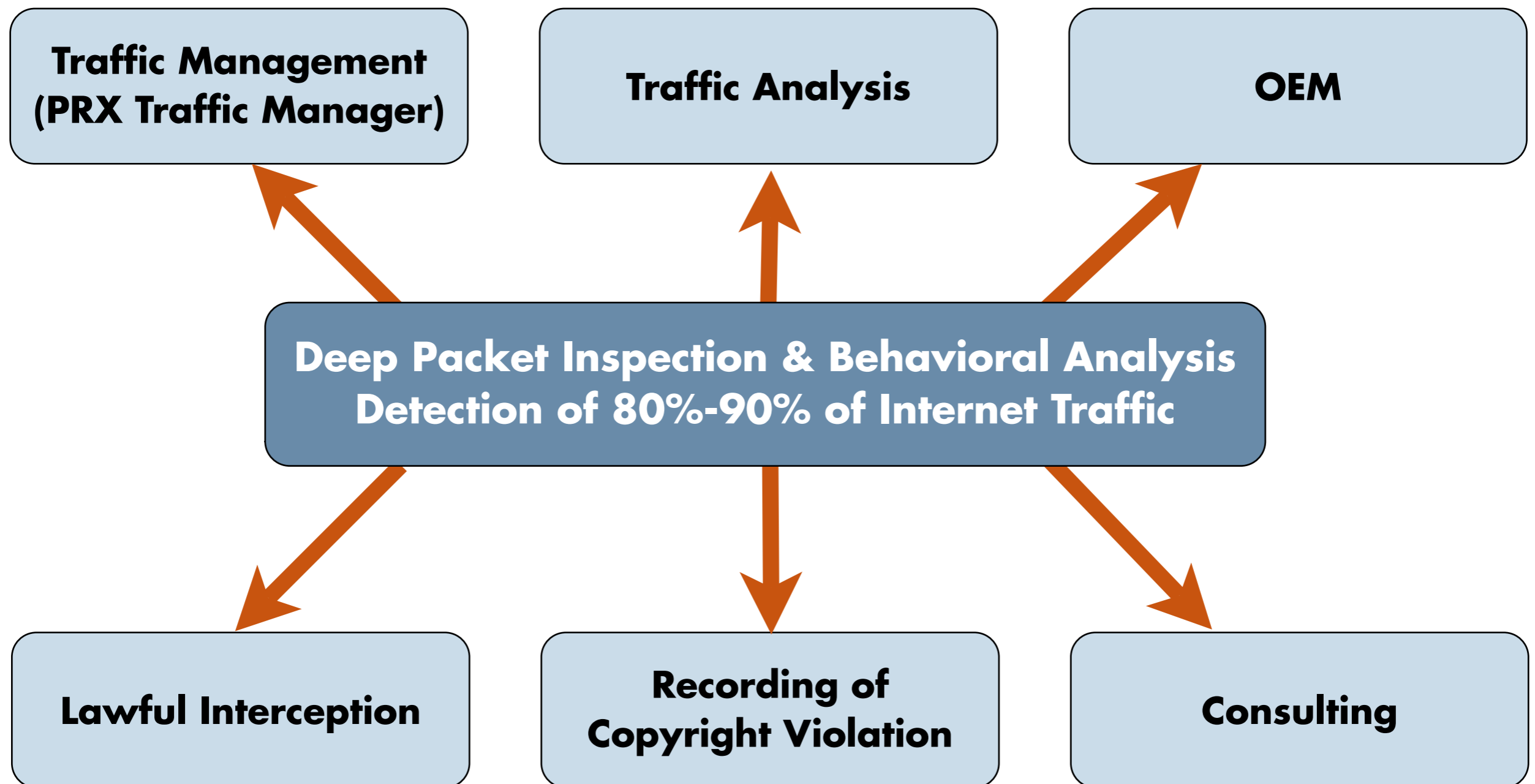
5. Dec. 2007

## More than 50% of the Internet traffic - worldwide



Source: ipoque Internet Study 2007

- About ipoque
- The impact of P2P has two dimensions
- The ipoque Internet Study 2007 (some highlights)
- Is P2P good or bad? (my opinion)
- The way out

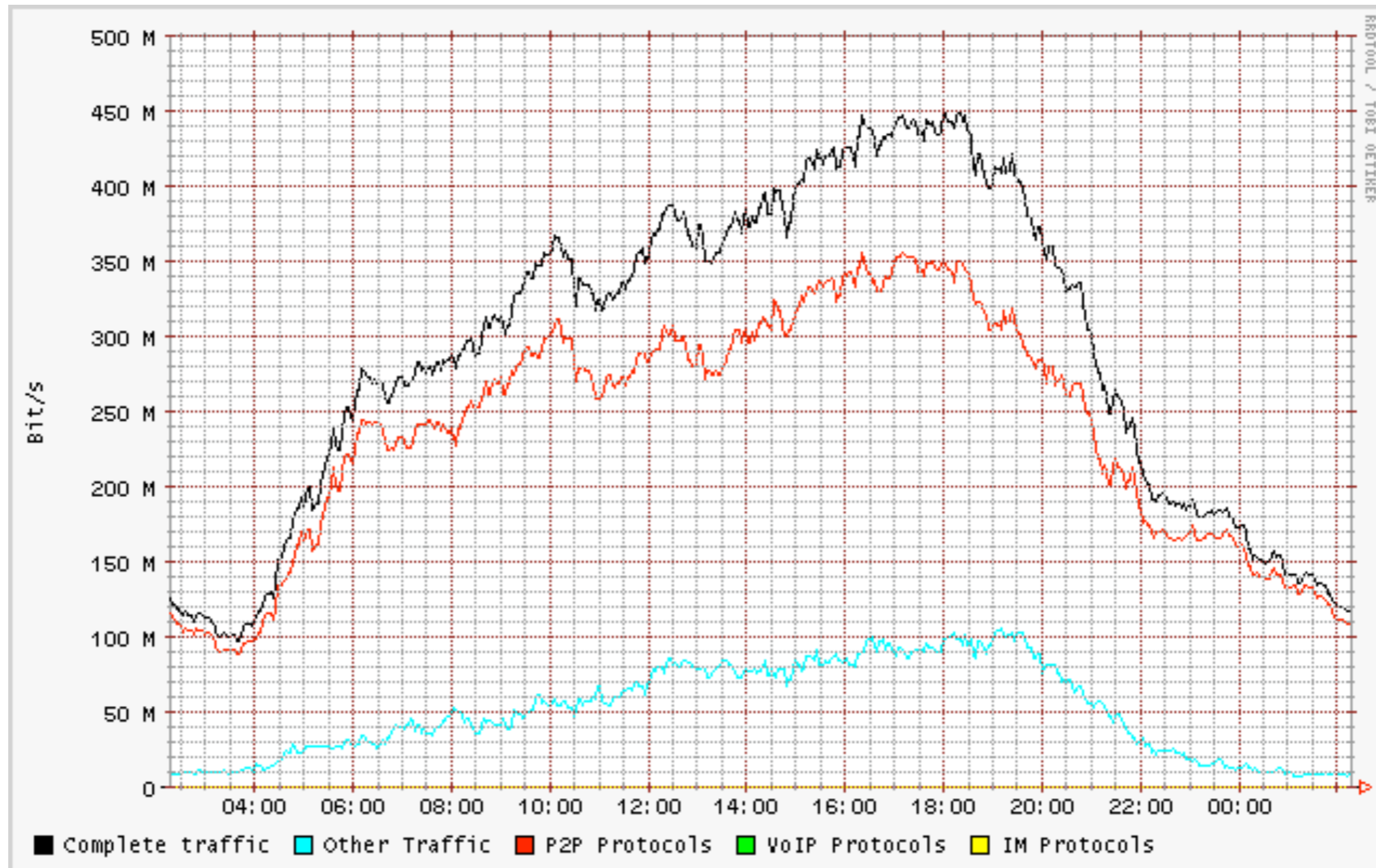


- From the technical point of view P2P is very cool
  - The fastest way to distribute any content over the Internet

**BUT**

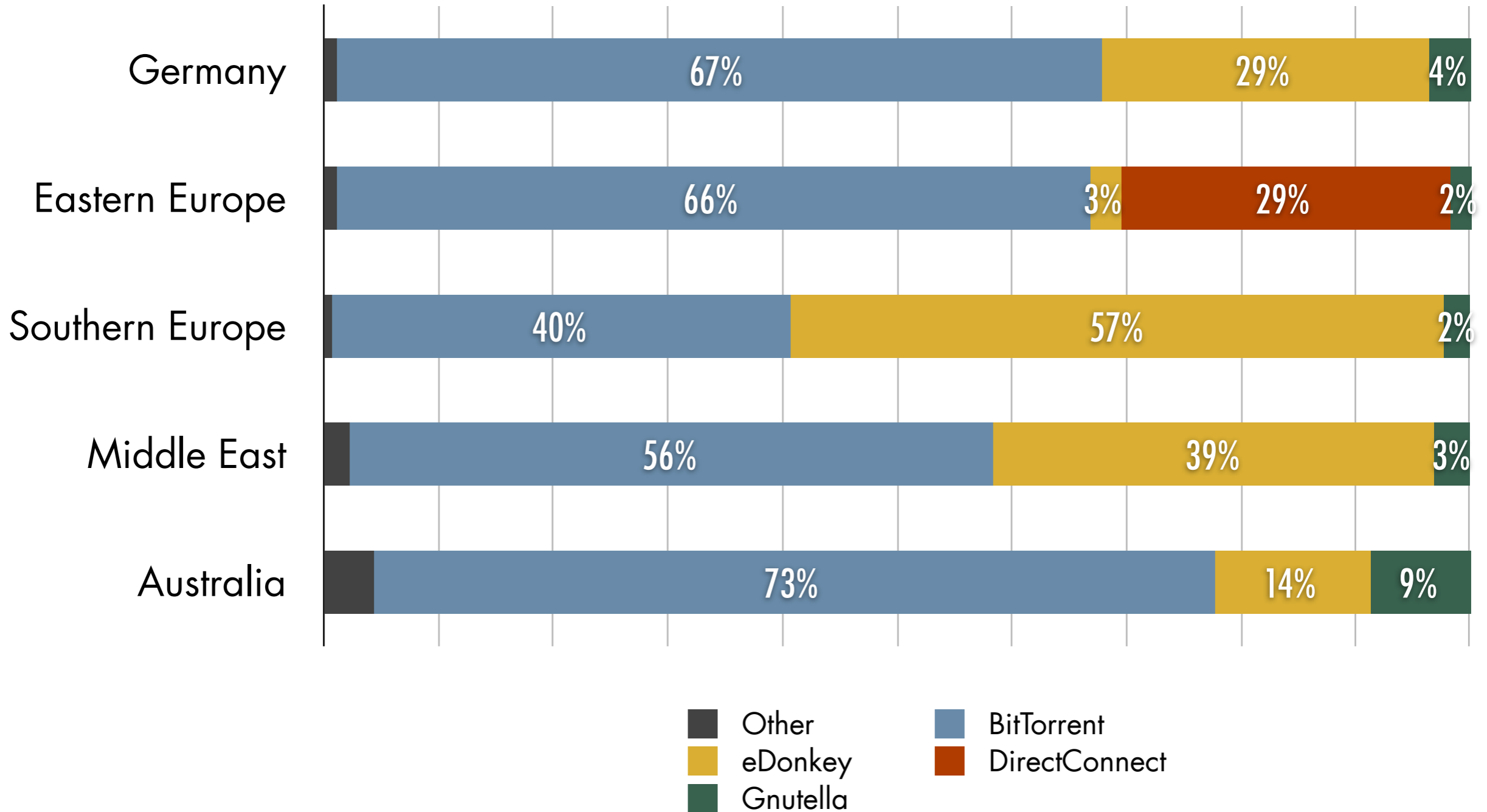
- P2P shifts the load from the servers to the backbone
- A significant part of shared content is copyright protected

- Snapshot of the current state of the Internet
  - 18 monitoring sites at ISP (13) and Universities(5)
  - 5 regions
    - Southern Europe, Australia, Germany, Eastern Europe, Middle East
  - 3 Petabytes analyzed traffic
  - representing more than 1m people
  - data taken from the PRX Traffic Manager, installed at customers
  - not representative but a good estimation of “What happens in the Internet”
  - Not just P2P, also VoIP, Skype, IM, Video Streaming, DDL

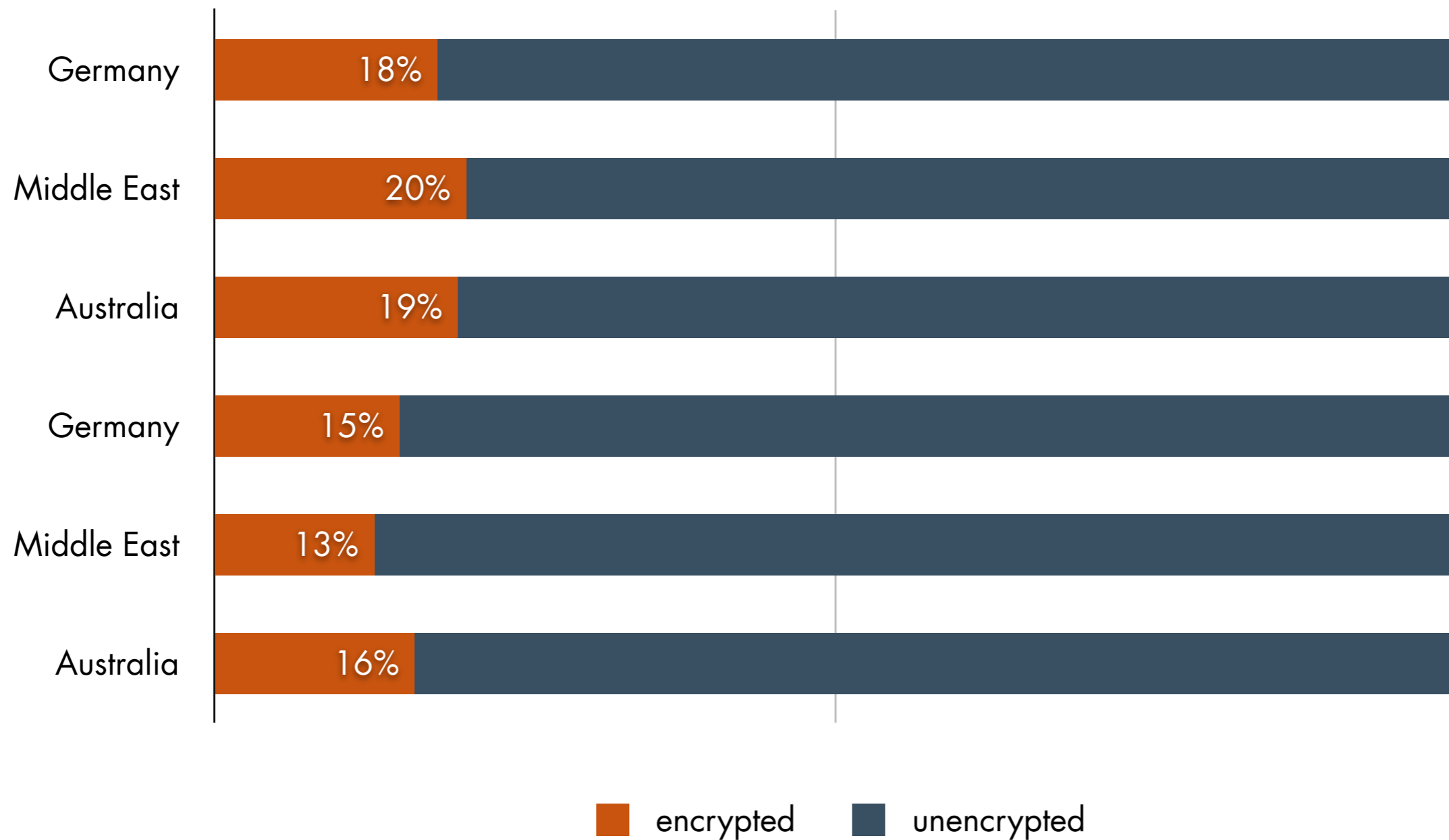


ISP: Nocturnal traffic: 95% P2P

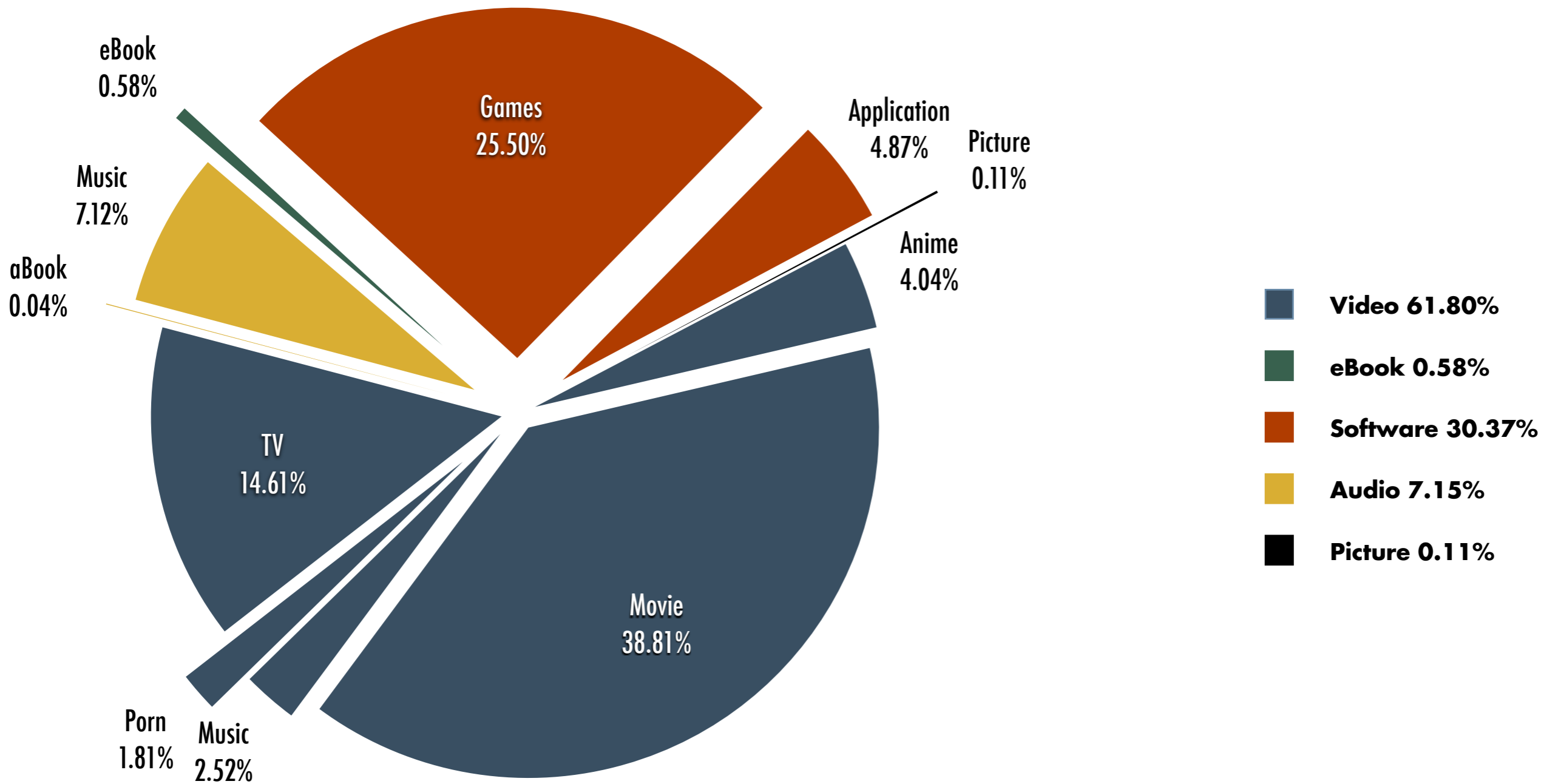
## P2P Protocol Distribution by Volume



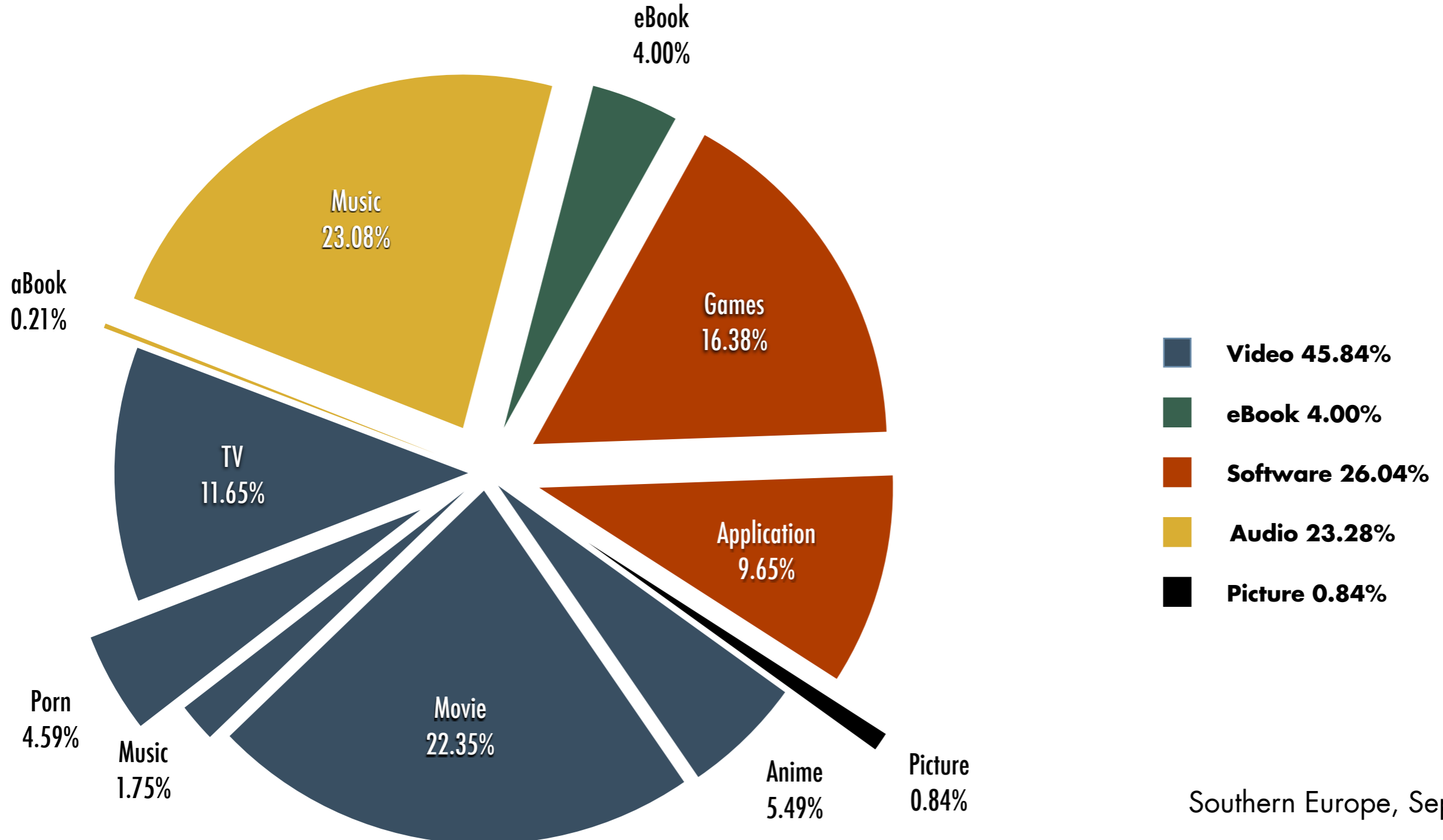
### Proportion of Encrypted P2P Traffic



## Traffic Volume per Content Type Southern Europe, BitTorrent

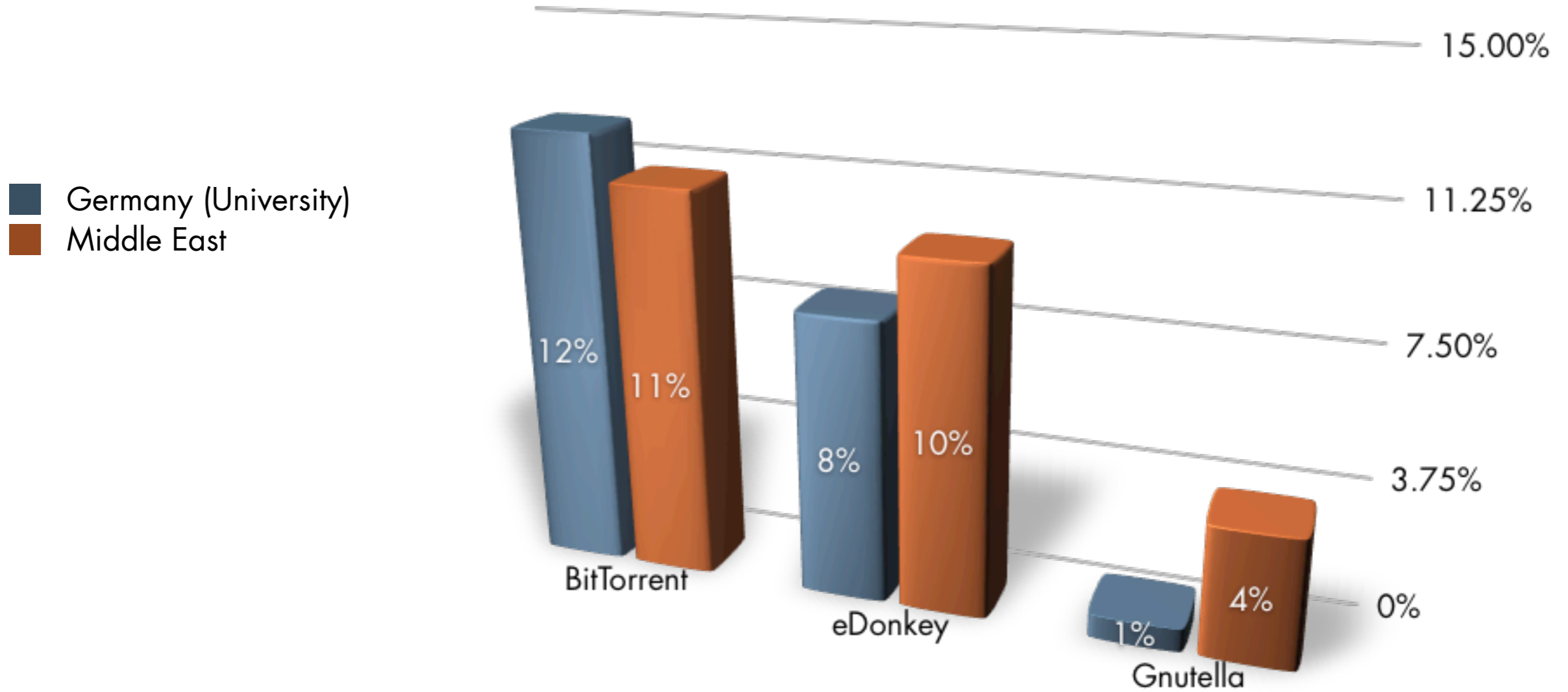


## Relative Number of Unique Files per Content Type Southern Europe, BitTorrent



Southern Europe, Sept. 2007

## Relative User Numbers per P2P Protocol



- It's both!
- P2P enables but also substitutes markets
- P2P exhausts a significant share of the Internet

- P2P users are interested in electronic content
  - easy access
  - great variety
  - neutral comments (not modified to force special content)

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### Description:

Acaba de amanecer en Signal (Wyoming); Ennis Del Mar y Jack Twist se conocen mientras hacen cola para pedir trabajo a Joe Aguirre, el rancharo del pueblo. El mundo de Ennis y de Jack está cambiando con rapidez, sin embargo, parece no evolucionar. Ambos jóvenes tienen muy claro el futuro que desean: conseguir un trabajo fijo, casarse y tener hijos. Sin embargo, algo en su interior les hace buscar algo más. Joe Aguirre les manda de pastores a la majestuosa Brokeback Mountain y, poco a poco, lo que empieza como amistad se convierte en algo más profundo. A finales de verano, no queda más remedio que bajar de la montaña y separarse. Ennis se queda en Wyoming y se casa con Alma, su novia de siempre, con la que tendrá dos hijas mientras se gana la vida a duras penas. Jack ha vuelto a Tejas y enamora a Lureen Newsome, la reina del rodeo. Se casan, tienen un hijo y Jack trabaja en los negocios del padre de su mujer. Transcurren cuatro años. Un buen día, Ennis recibe una postal de Jack que viene a Wyoming. Ennis le espera impaciente y, cuando por fin llega, les basta un segundo para darse cuenta de que el cariño que sienten el uno por el otro ha aumentado con el tiempo. En los años siguientes, Ennis y Jack luchan por su unión secreta. Se ven varias veces al año, pero cuando no están juntos, se enfrentan a la eterna cuestión de la fidelidad, de la entrega y de la confianza. La única constante en su vida es una fuerza de la naturaleza, el amor.

## Double tracked strategy

- Easy access to content
- No DRM-restrictions
- Fair prices

## ipoques P2P-Forensic System



- Legal actions against infringers (not pirates)
- High probability to get caught
- No criminalization
  - (like speeding ticket)
- Moderate costs

## Video

1. Movie Next 2007
2. Movie The Simpsons Movie(Spanish)
3. Movie Shooter
4. Movie Evan Almighty
5. Movie Premonition

## Music

1. Music Bob Dylan-Blues-2006-MTD
2. Music Da Weasel 2007 Amor Escarnio e ....
3. Music Celine Dion 2007 D'elles
4. Music Bob Dylan - Live at the Gaslight 1962 [2005]
5. Music Maroon 5 -It Won't be soon bevor long

## Software

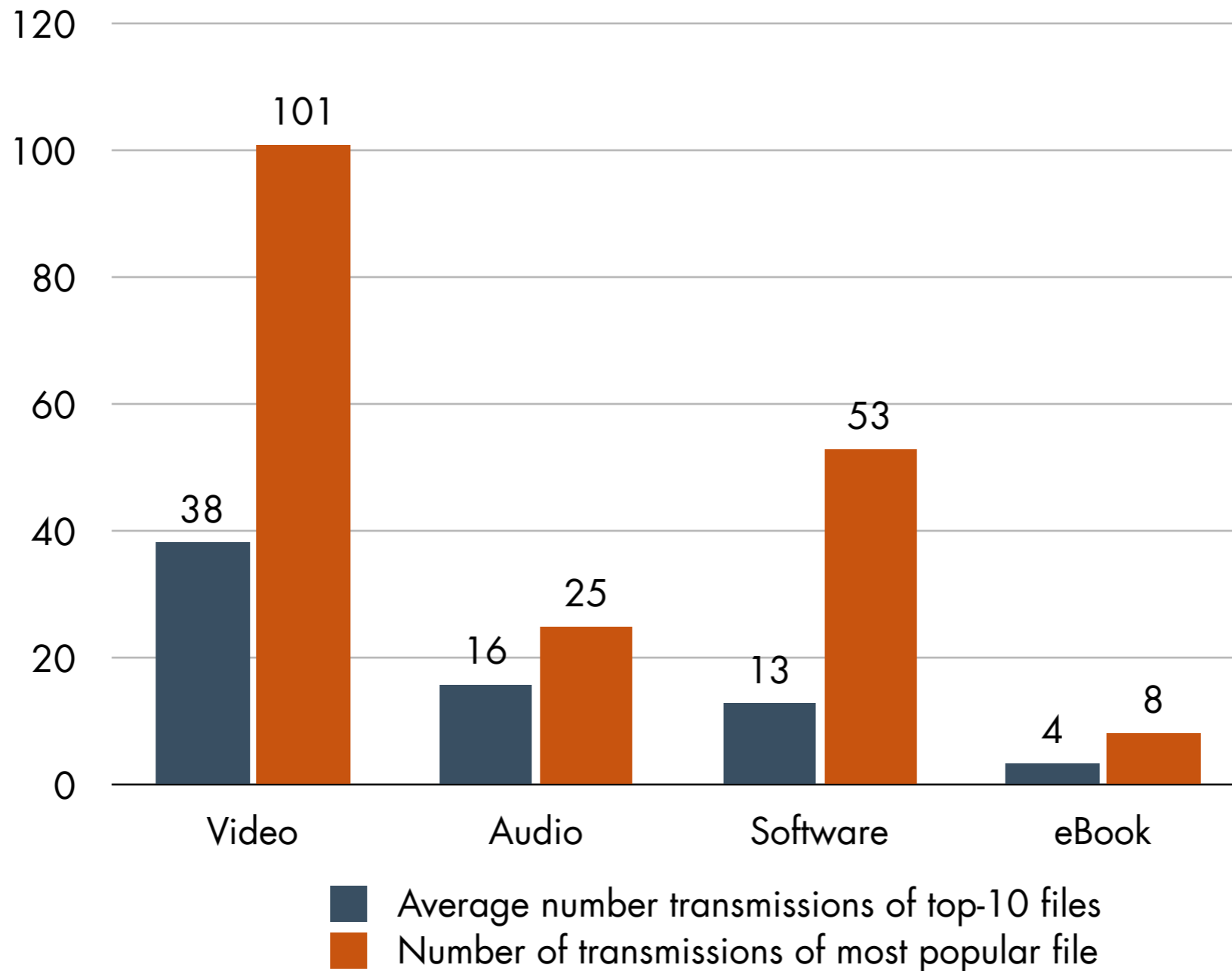
1. Application K-Lite Mega Codec Pack 3.3.5
2. Games Football Manager 2007
3. Application Nero 7 Ultra Edition
4. Application Adobe Photoshop CS3
5. Games SilkRoad v1.110 Europe Legend 1

## eBooks

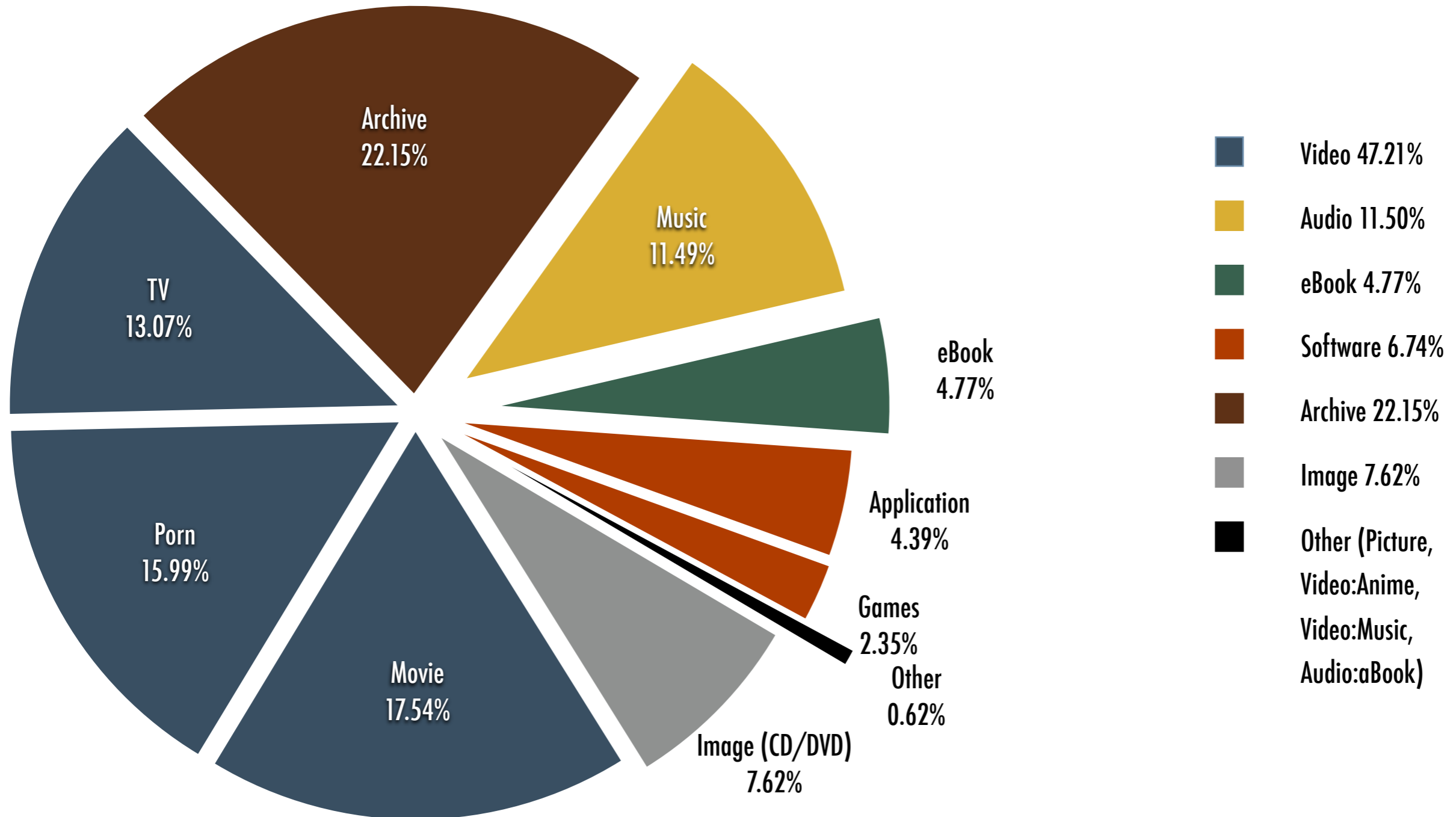
1. eBook Muscle & Fitness 101 Workouts
3. eBook Muay Thai - The Art of Fighting
4. eBook All Social Interactions Books
5. eBook Get the Dream Job- Cover letter Secrets ...
6. eBook tomtom map 6 75 ES and PT

## Popularity: Transmissions per Title (BitTorrent)

Three German Universities in one Week



## Traffic Volume per Content Type Southern Europe, eDonkey



## Relative Number of Unique Files per Content Type Southern Europe, eDonkey

