The network as a commons

Stefano Quintarelli

COMMUNIA Workshop:

Technology and the Public Domain

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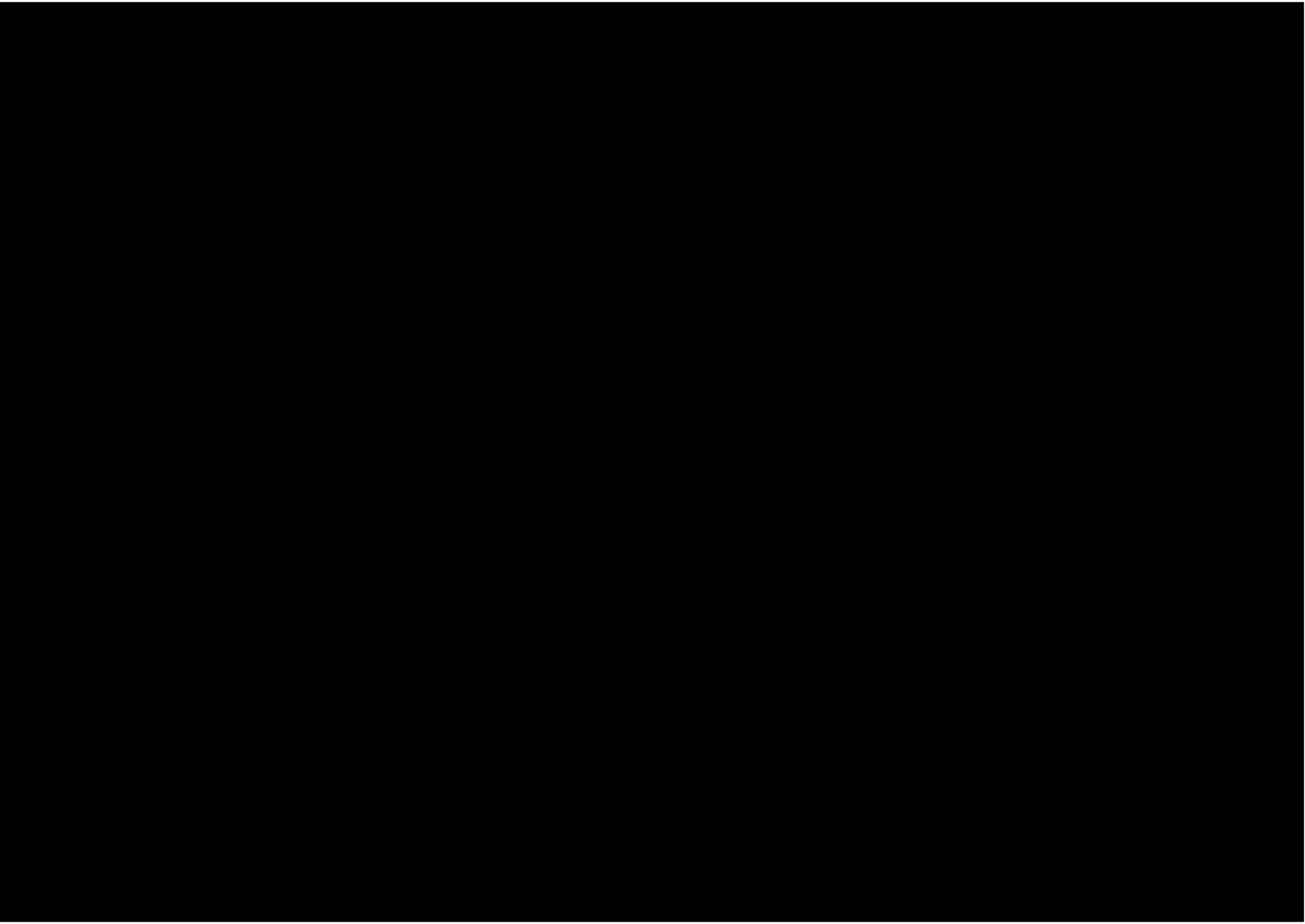
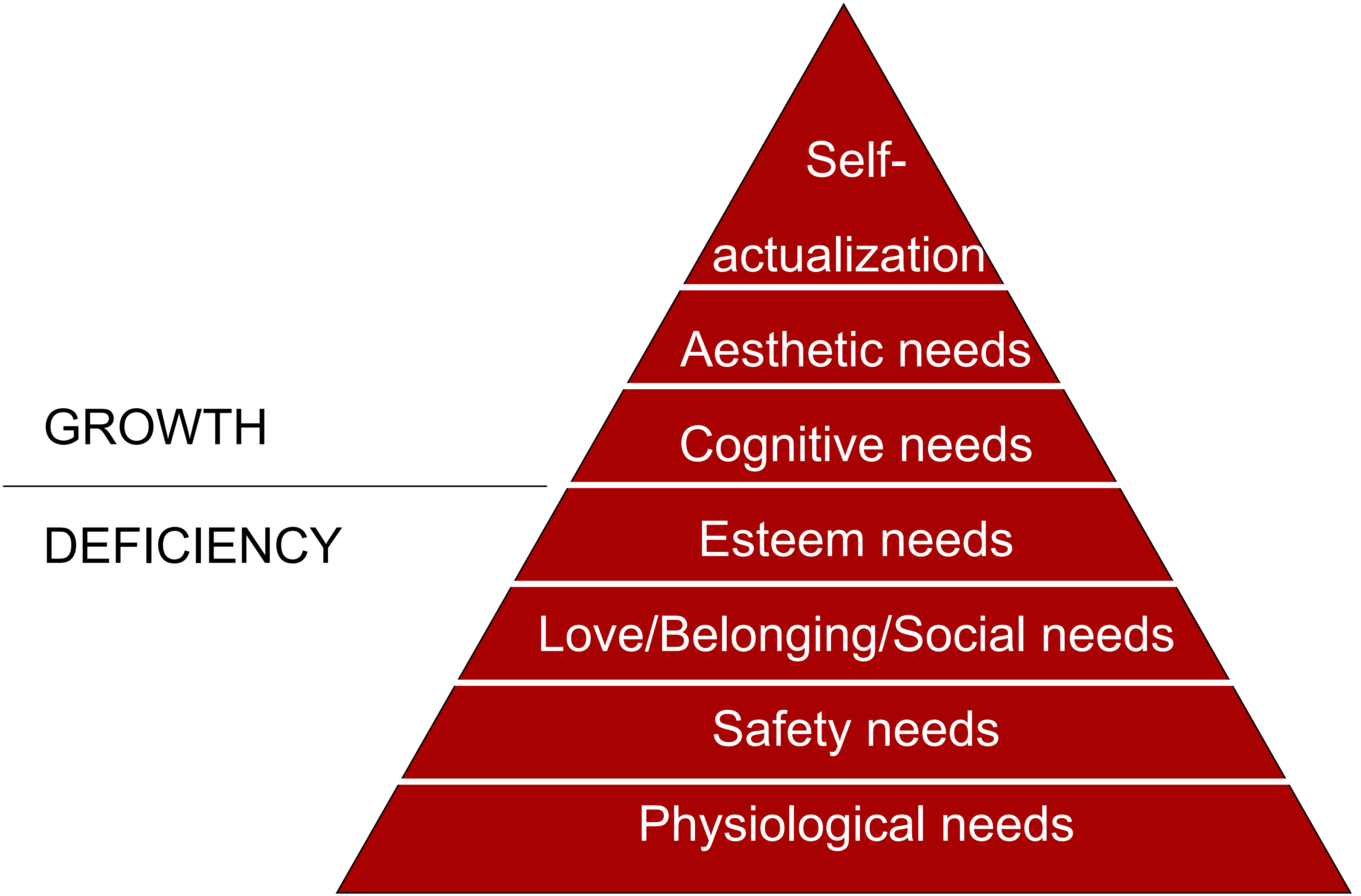
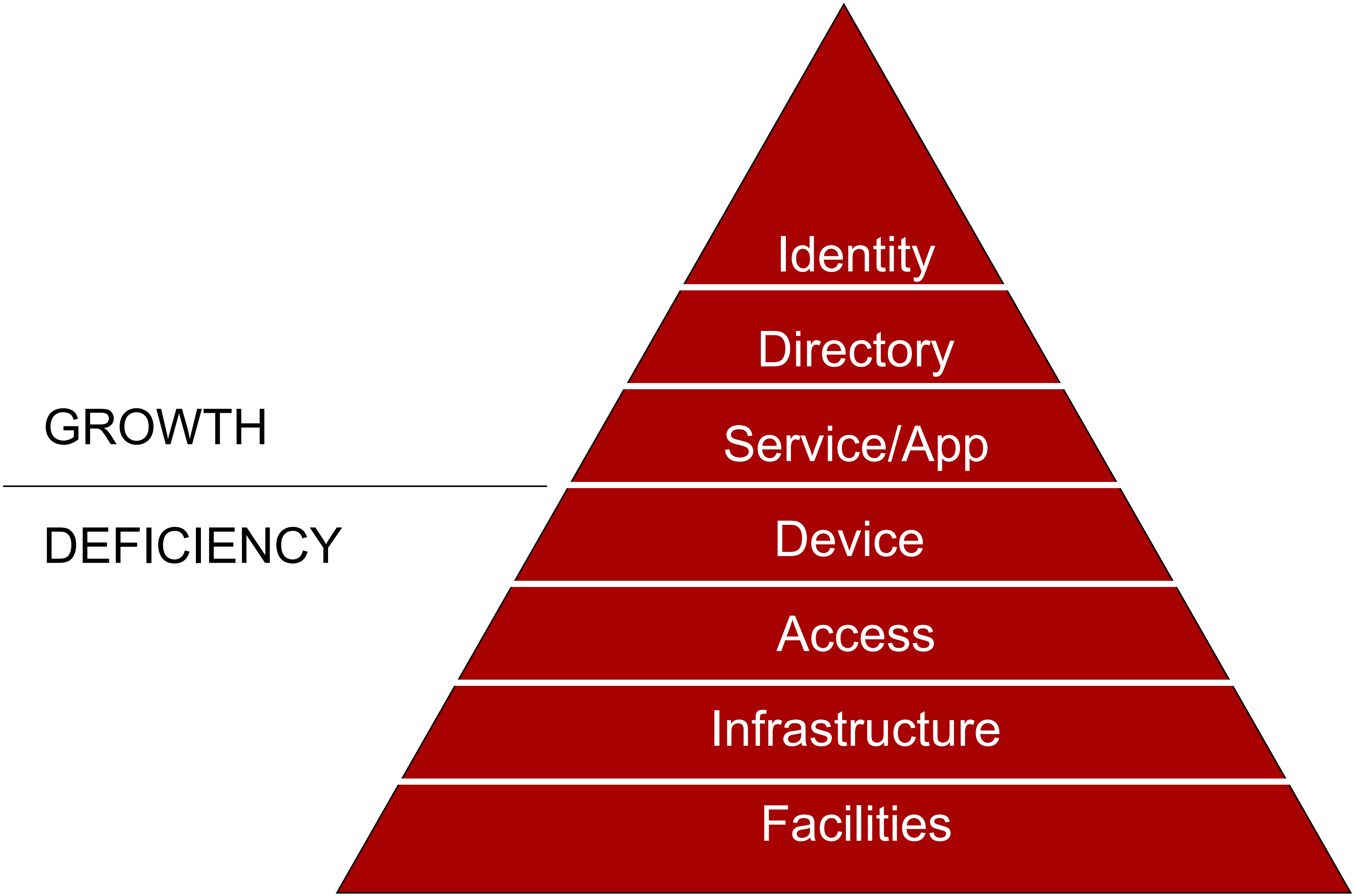



GROWTH
DEFICIENCY
Self-
actualization
Aesthetic needs
Cognitive needs
Esteem needs
Love/Belonging/Social needs
Safety needs
Physiological needs

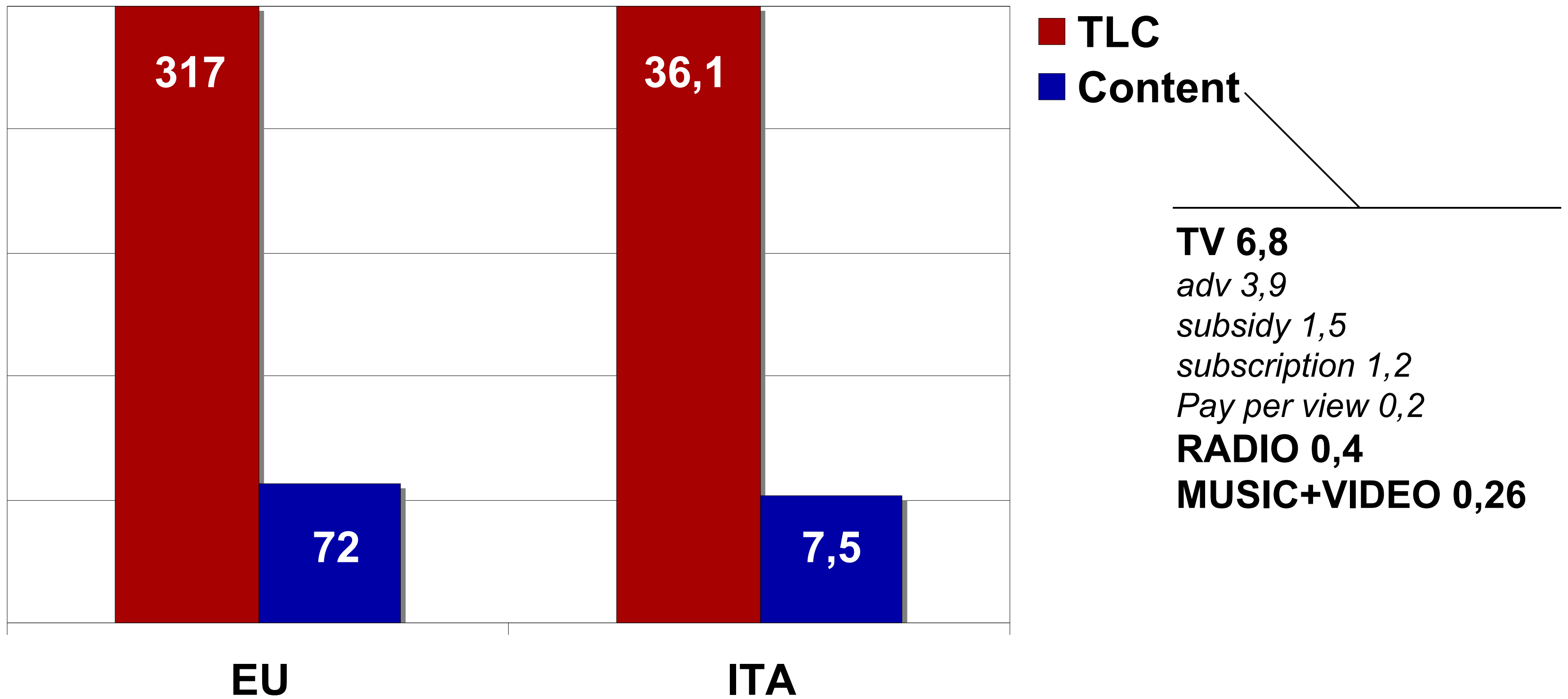

GROWTH
DEFICIENCY
Identity
Directory
Service/App
Device
Access
Infrastructure
Facilities

Sizing context

[redacted]

[redacted]

Size matters



- In EU part of Content is Infrastructure (Cable TV), not in Italy
- In Italy 55,8% of advertising goes to TV, UE Avg is 33,5%

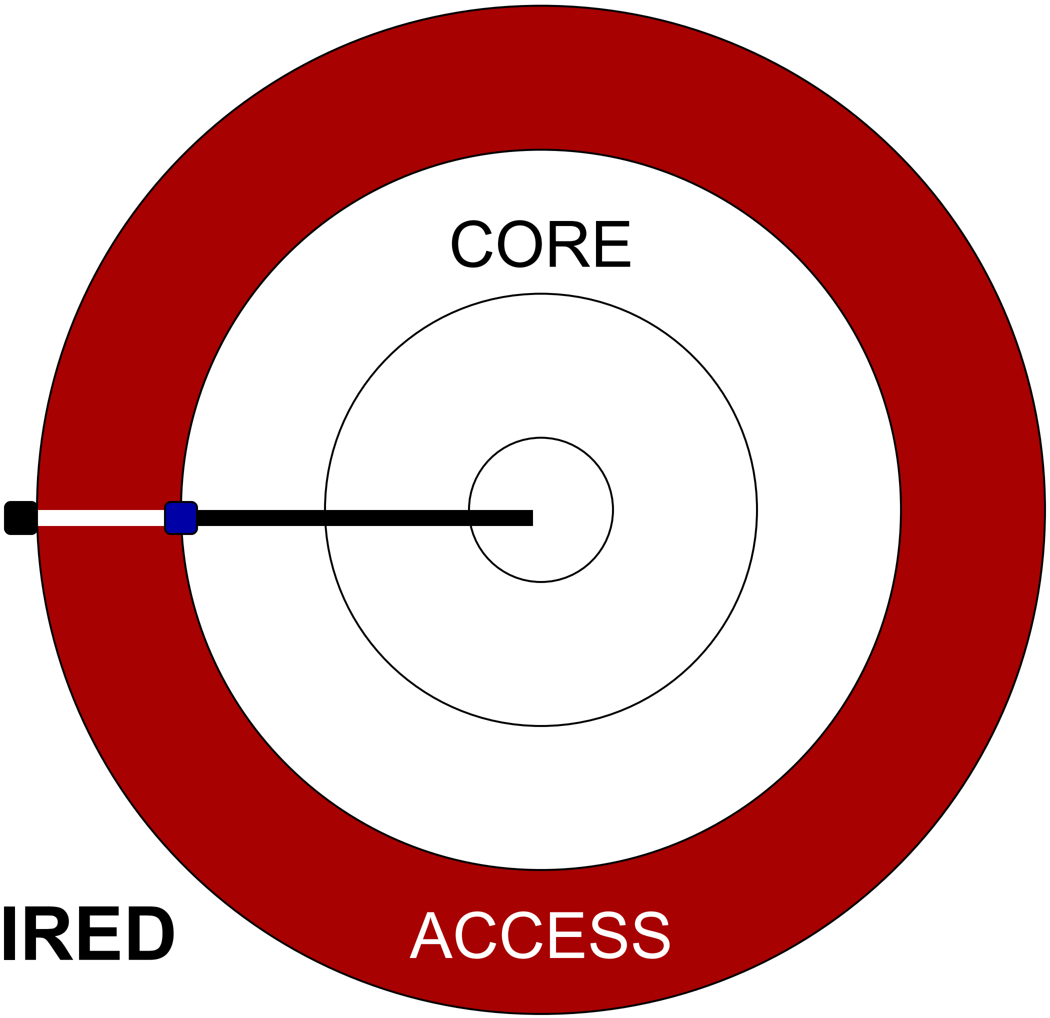
- One full year of addressable content market revenues are made by telco in ca. 8 weeks (50% mkt share in content = 8% TLC revenues)

(little bit of) Finance for non finance people

100%	**Revenues**	
44%	*Cost of goods sold*	Cash out
11%	*Personnel*	
4%	*Operating expenses*	
41%	**EBITDA**	
17%	*Depreciation & Amortization*	Assets replacement
24%	**EBIT**	
6%	*Interests*	Repay debts (bonds, loans)
18%	**EBT**	
8%	*Taxes*	Pay taxes
10%	**Net income**	
1%	*Reserves*	For investment/contingencies
9%	**Dividend**	Payback to shareholders

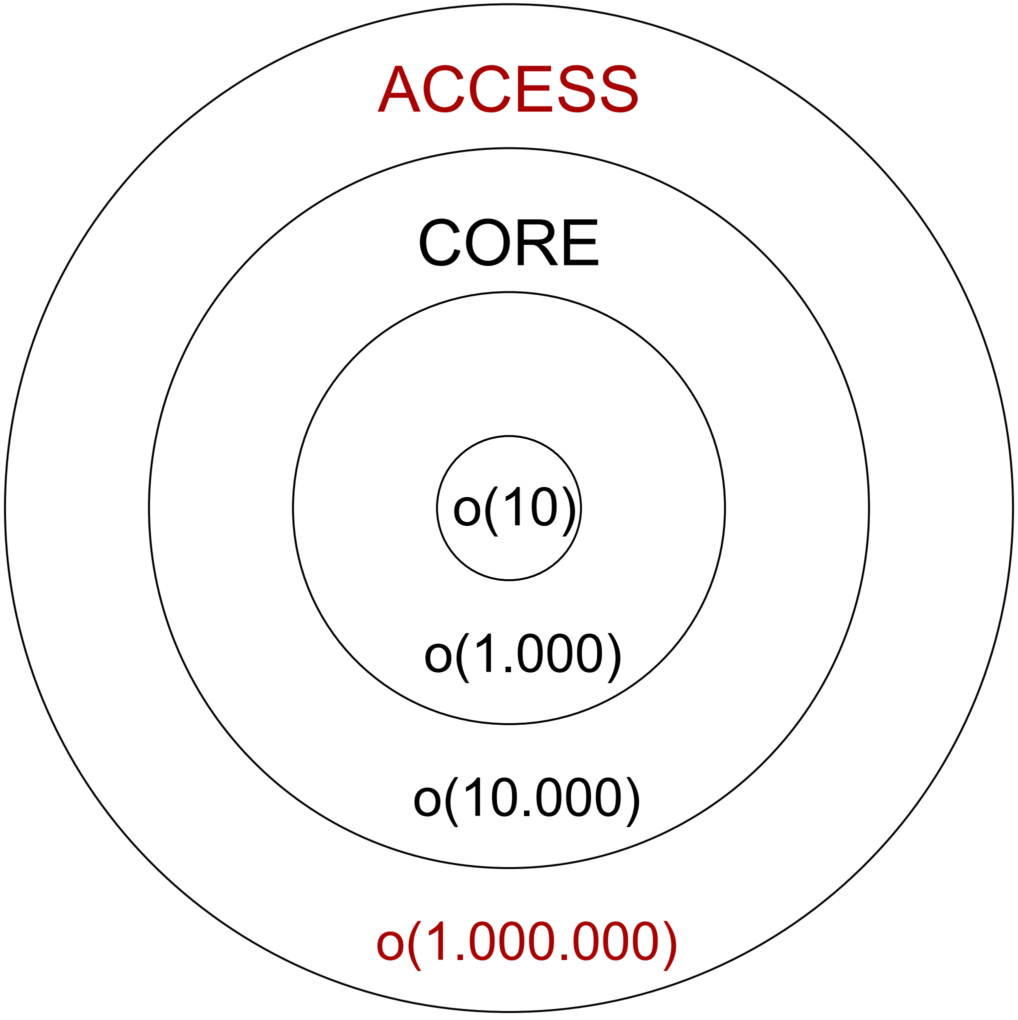
- Dividend is related to share appreciation by markets
- Hostile takeovers are related to share prices
- Capital increases are required for exceptional investmens or debt repaying
- Defaults are caused by inhability to repay debts
- More than 50% of EU corporate bonds are issued by Telcos

Fixed Network Structure



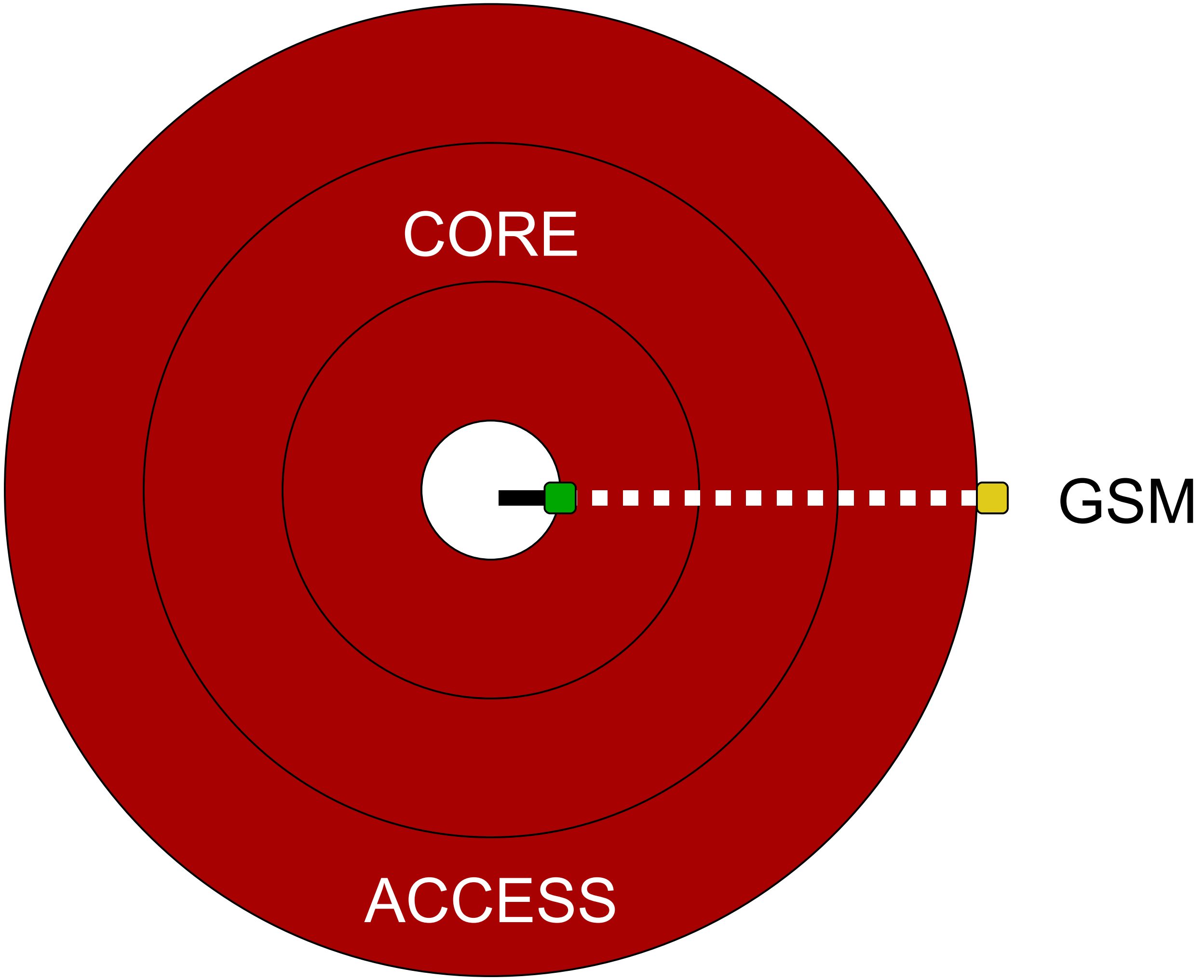
WIRED

Fixed Network Structure

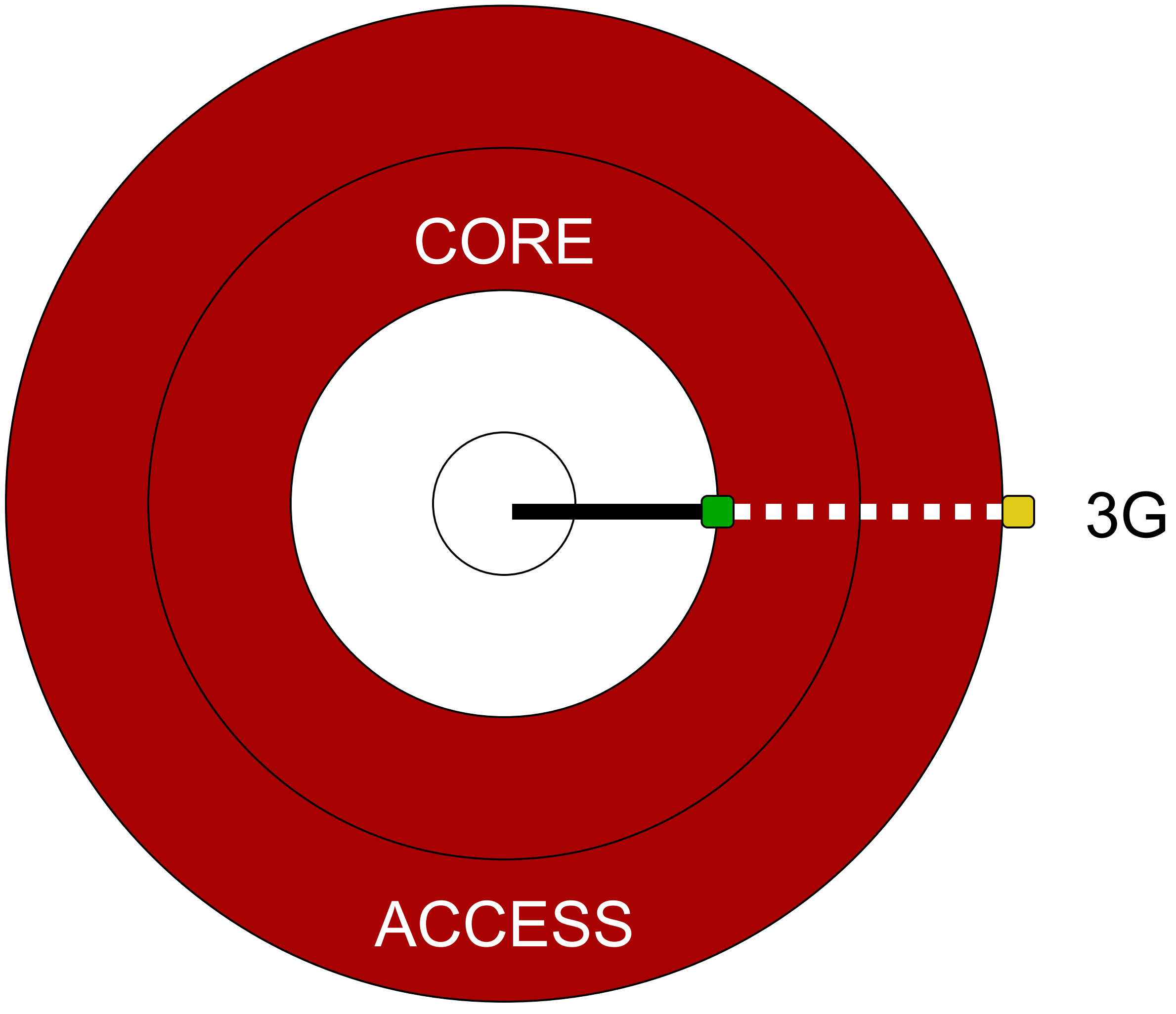


>90% of cost is Access

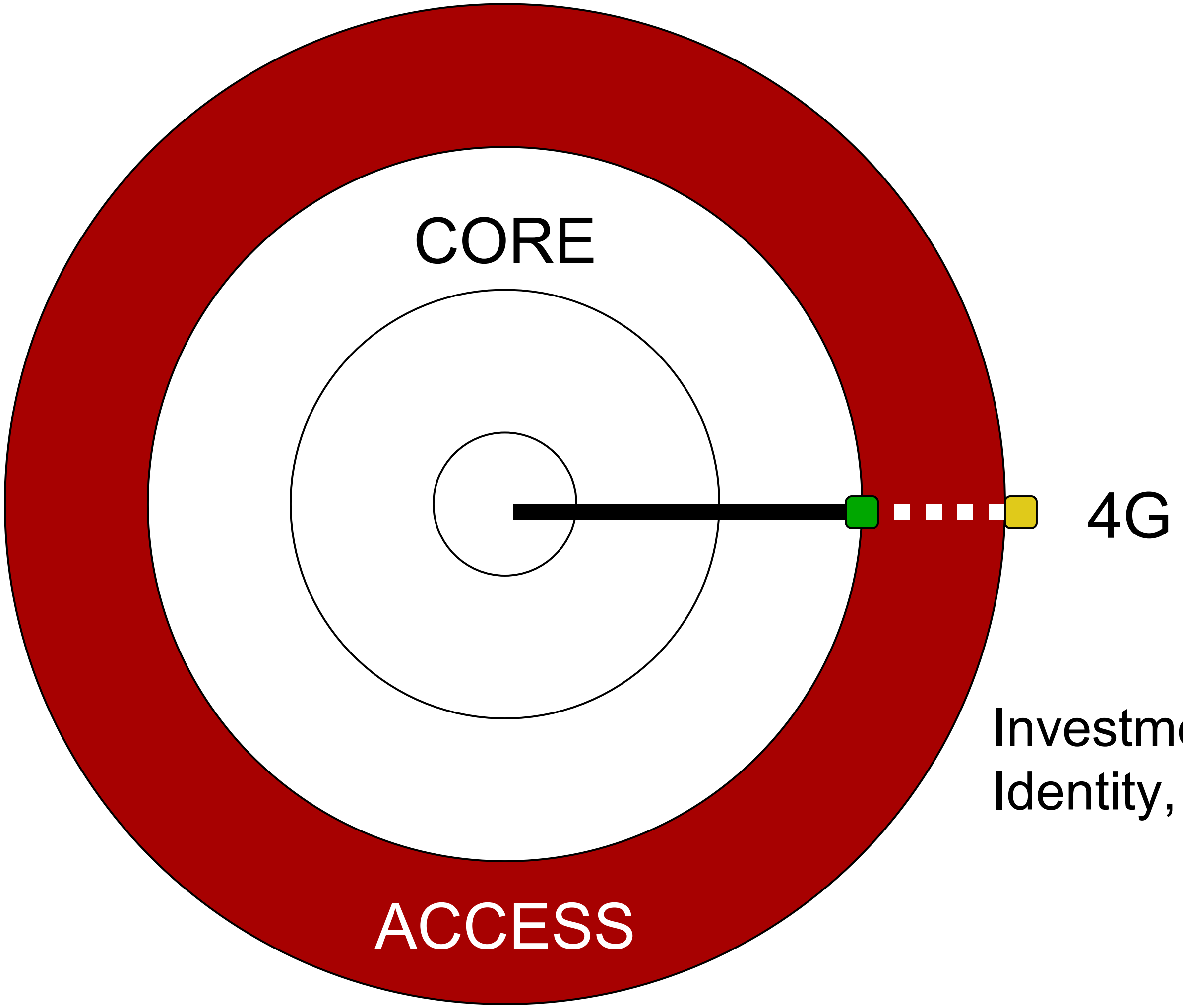
Mobile Network



Mobile Network

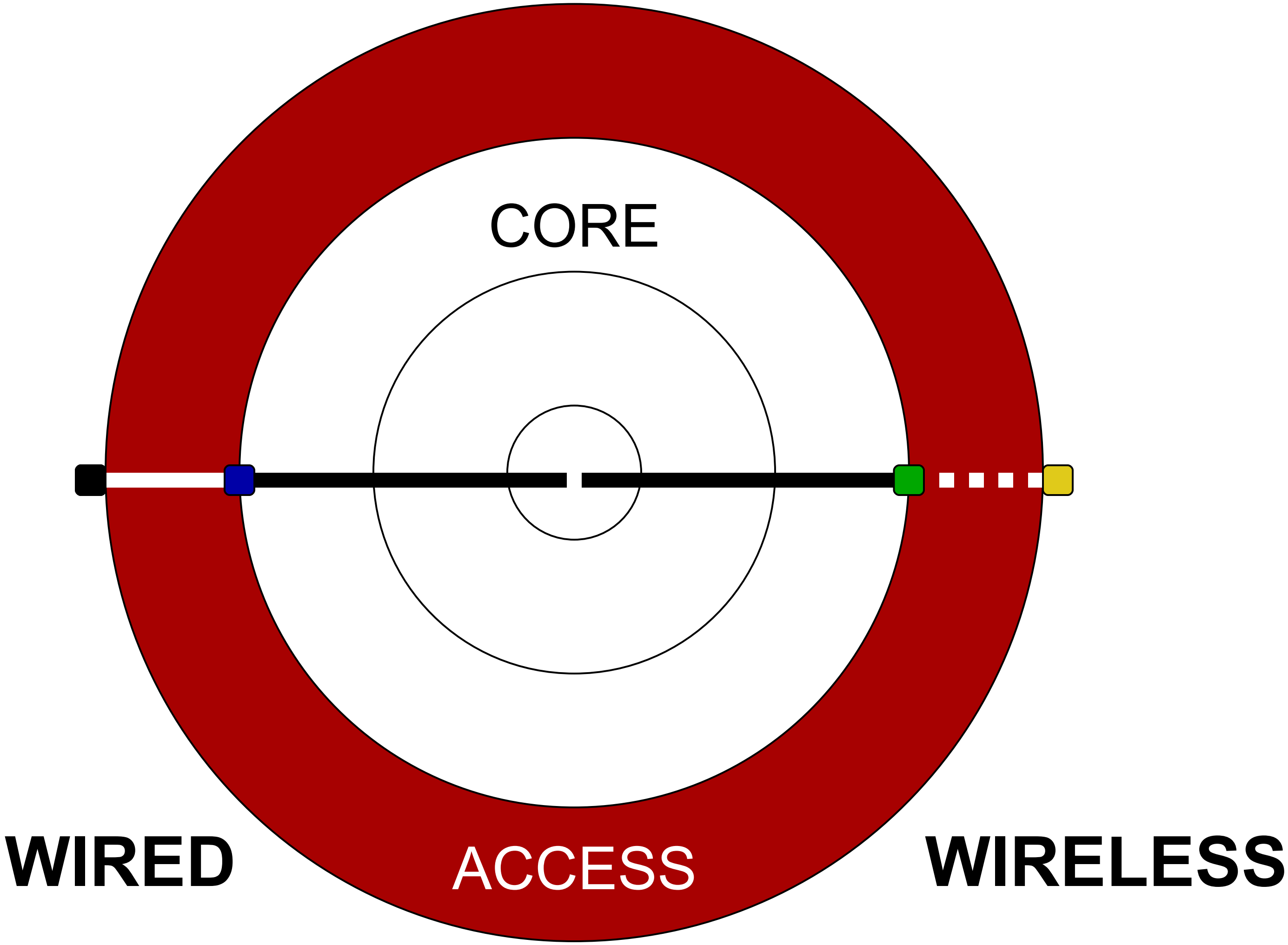


Mobile Network



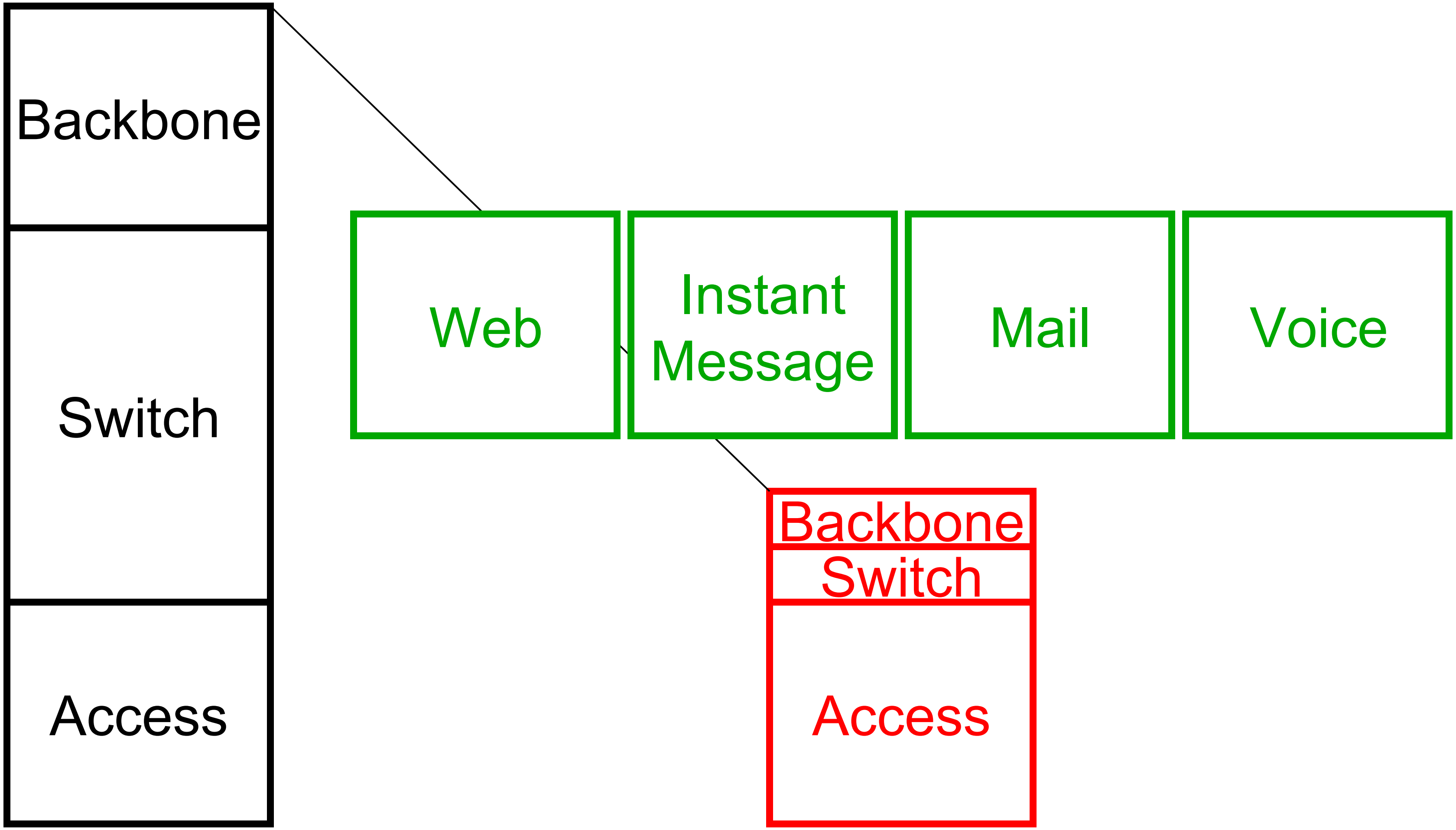
Investment pooling
Identity, mobility

There’s no such thing as a “Mobile Network”



- In EU incumbents own Core and Wired Access Network
- Regulated Wholesale offers to Altnets (Wired, Wireless); costs allocation

Network and services costs

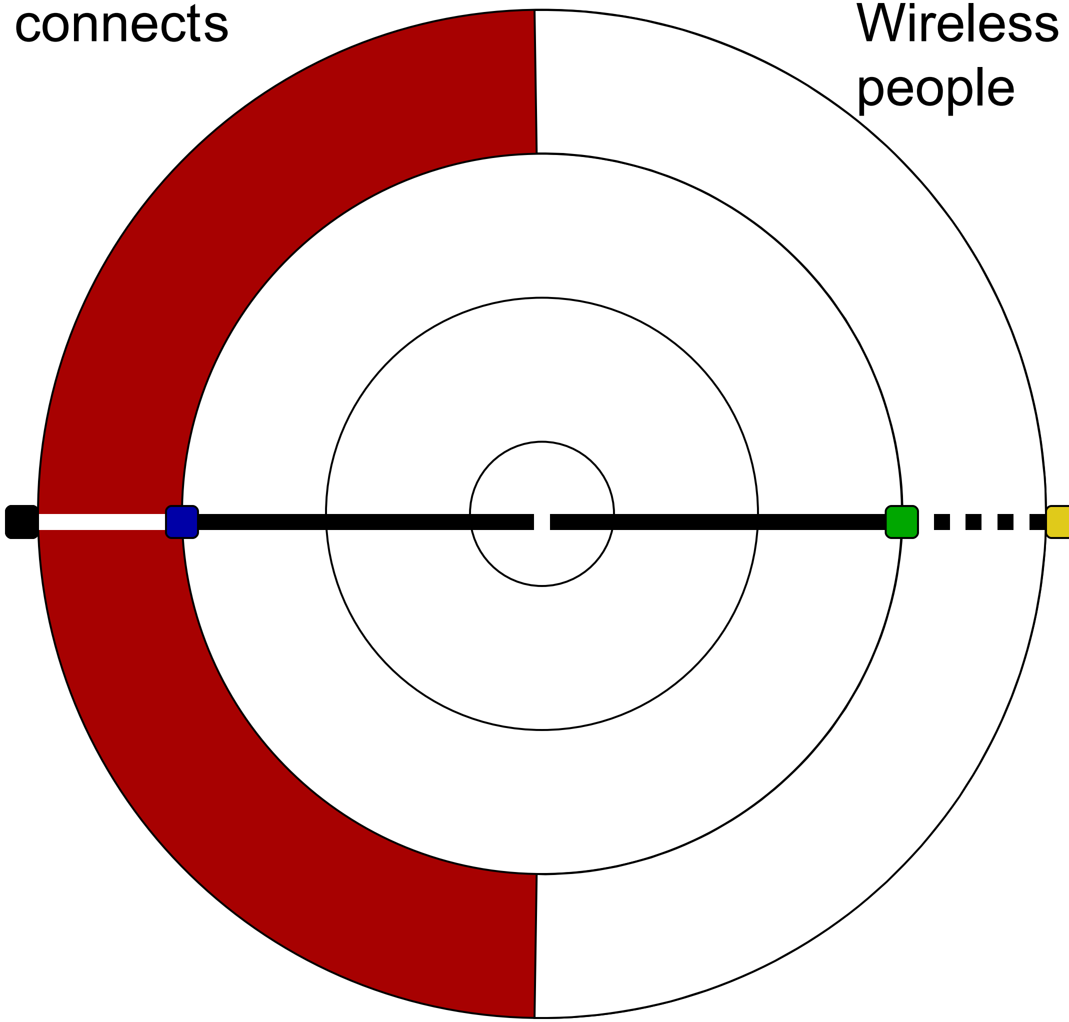


Service loss and costs saving

"Fixed-Mobile" Substitution (ie. Fixed/Wireless)

Fixed access connects places

Wireless access connects people



- After 8 years of DSL, only 22% of italian households has fixed broadband
- Uncompensated revenue loss

Fixed-Mobile Tragedy of the Commons

- Marginal benefit of “unplugging”: 1
- Marginal cost of “unplugging”: 1/N

- Based on current user demand, “Fixed-Mobile Substitution” erodes sustainability of the fixed network which “Mobile Operators” increasingly depend upon to offer their services.

Major pressure trends on fixed network

- Flat rate telephone service
- Flat rate Internet ARPU < Telephone ARPU
- Voice Over IP
- Fixed - Mobile Substitution
- Future technology developments / Regulation

- How to remunerate ?
- Employment
- Debt

- Can we take for granted the present
  flat rate, low cost, reliabel, broadband Internet - PC paradigm ?

Popular revenue-increasing myths

- eCommerce
- Wifi
- Security
- Unified messaging
- NGN
- FMC
- IPTV
- …

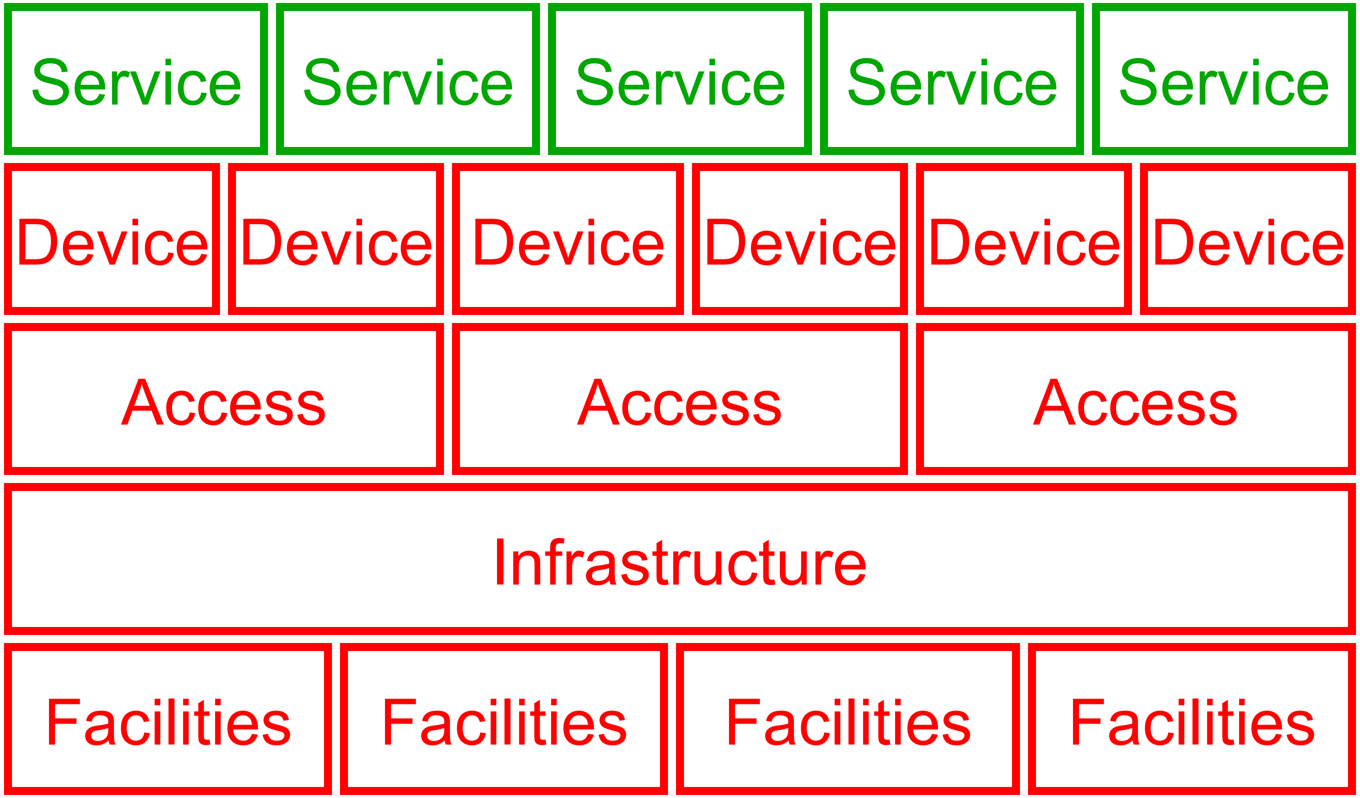
NEUTRALITY RELATED ISSUES

- Discriminatory pricing (usage/geo) / Digital inclusion
- Walled gardens / Antitrust
- QoS / Wholesale Access
- Filtering / Civil rights
- Closed devices / Consumer Electronics

Infrastructure-based competition amongst vertically integrated operators leads to The Tragedy of The Fixed Network Common

What fixed network for tomorrow ?
How to remunerate it ?

Network Infrastructure: a Natural Monopoly



- Infrastructure development guidelines are a matter of public interest, part of economic development policies
- Infrastructure contribution on a per-access basis

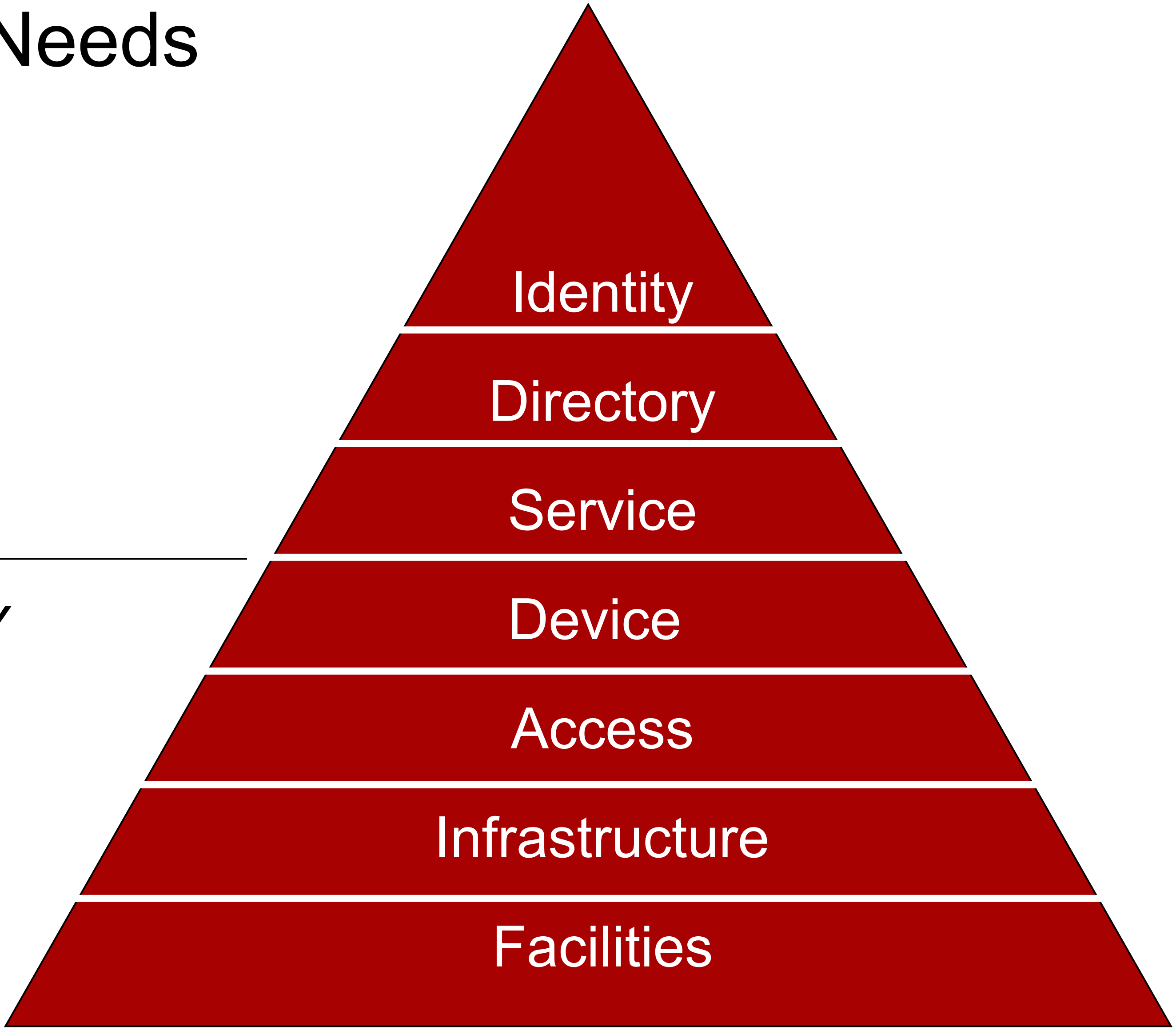
Let’s not forget the Deficiency Needs

14,3%

GROWTH

DEFICIENCY

85,7%



stefano@quintarelli.it
blog.quintarelli.it

There are arguments that a net neutral communication infrastructure should be viable. But to get there would require a major restructuring of the industry. The prospects of that are tied up not just with politics, but also with some of the great paradoxes of the current financial markets.

Andrew Odlyzko