

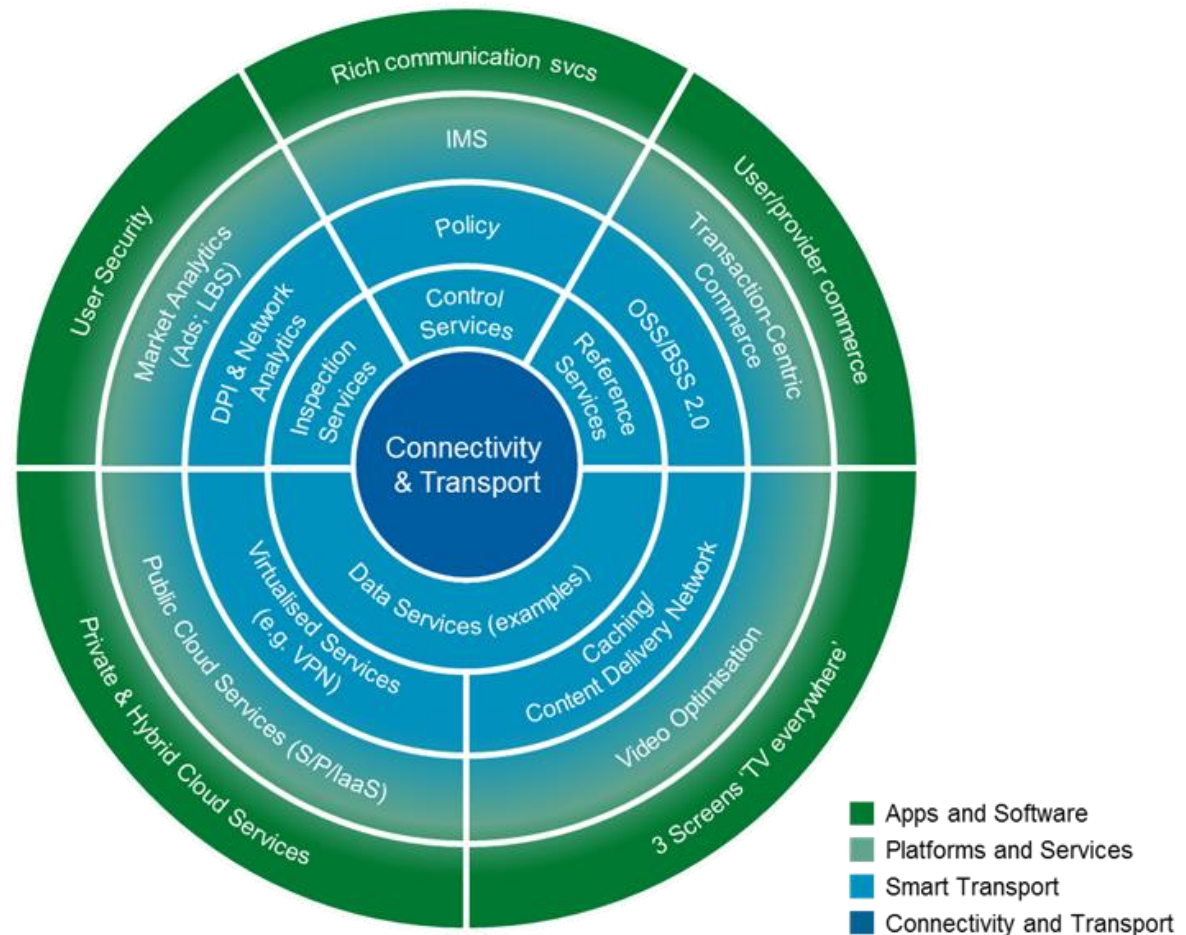
European views on **Net Neutrality** - Ljubljana, June 24th 2016



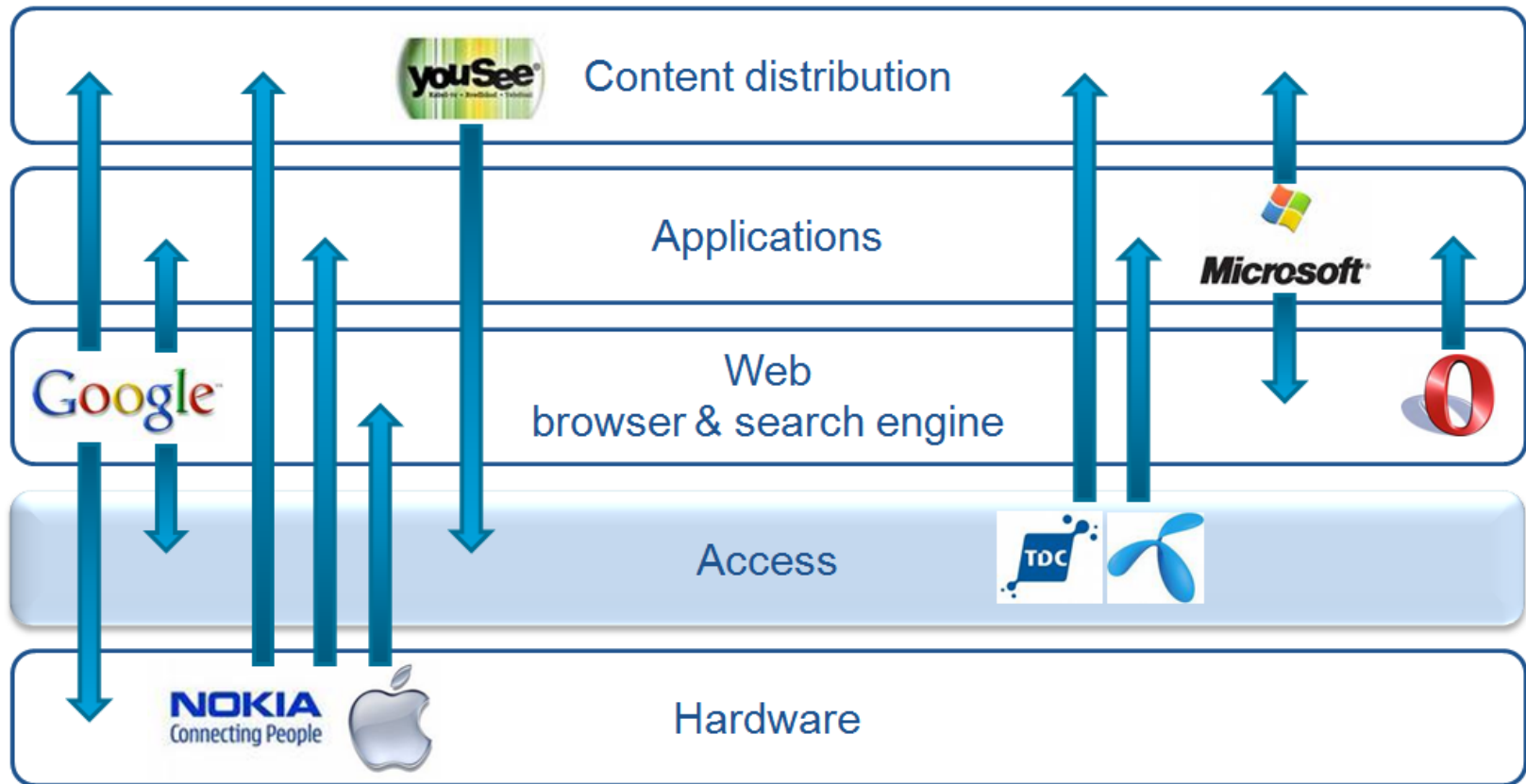
John Strand
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From Bit Pipe to **Intelligent** Pipe....



A new **value** chain..... ?



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SpS vs. IAS (traffic categories)

There are many who talk about SpS as if it is problematic, but they have made a list of the specific services and problems, other than vague categories (telemedicine, IPTV etc). In order to make serious telecommunications regulation, it must be based on transparency, predictability, and evidence. We live in a world where technological development is strong and where creative people and businesses create new and exciting products. I have yet to meet a regulator who can tell me when a service goes from being an ordinary service and to be categorized as a SpS. For example BEREC consider VoLTE as a SpS but what about Voip and what new types of rich communications services that are invented in the future. I hope to Akos people with their regulatory experience can make a list of services that can be categorized as SpS and services that cannot be categorized as SpS....

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Industry movers in convergence plays...

Welcoming Our Newest Partner, Deutsche Telekom



Time Warner Cable, like Verizon, pushes LTE as a replacement for fixed broadband

Today, we are very happy to announce that we have partnered with Deutsche Telekom, Germany's largest telco, to create the country's largest WiFi network! As of this summer, Deutsche Telekom's 12 million subscribers who choose to join Fon will be able to get free WiFi at Fon's more than 7 million hotspots around the world!

Joining the network is easy:

Deutsche Telekom's broadband subscribers just need to sign up to the Fon service and share the unused capacity of their internet connection with other users. By doing this, they get free access to millions of Fon hotspots all around the world. Sharing creates two networks - a private



Triiing



The pilot phase of the free app Triiing Telenet call with your smartphone via WiFi, at the rates of your landline. And this to all mobile and fixed numbers. Super Economical!

iOS: iPhone & iPad.

Android smartphone and tablet.



TelenetHotspot

Online when out and about, without cable and without worries.



Tanken bag YouSees nye forsøg er den samme som vist her på billedet: Når man kommer forbi med sin bærbare PC eller smartphonetelefon, vil man gratis kunne koble sig på nettet hos de huse, man passerer, som også er YouSee-kunder, uden at gæsterne tager kapacitet fra hjemmets net. Der er dog næppe mange YouSee-net i disse telte på Gals Klint Camping i Middelfart. Arkivfoto: Claus Fisker, Scanpix Foto: CLAUS FISKER

Halv mio. kunder skal give gratis trådløst net til andre kunder



Af Thomas Breinstrup
8. marts 2013, 08:00

TDCs kabel-TV-selskab vil gøre adgangen til næsten en halv million husstandes netværk gratis for andre TDC-kunder, der passerer forbi.

WiFree is a key driver for bridging our fixed and mobile value propositions, across residential and B2B segments

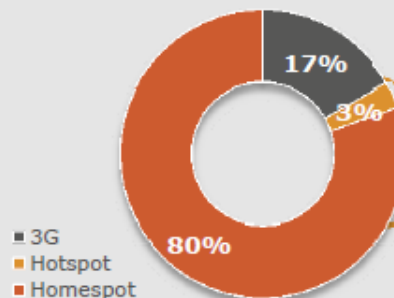
WiFi value drivers

- 1 Extending **fixed internet relevance** out-of home and providing a seamless internet experience
- 2 Providing **high capacity mobile offload** out of home (including real time services like "Rex" & "Rio", "Triing" and "Yelo TV")
- 3 Providing **value-added service for business** customers: hotspot offering as a revenue driver for potential clients

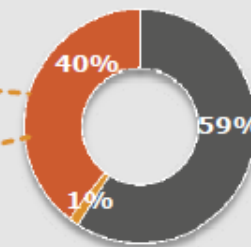


Strong potential for further WiFi offloading

Data usage out-of-home by all Telenet customers



Data usage out-of-home by Telenet mobile customers




15% ⁽¹⁾

⁽¹⁾ Mobile penetration in fixed base, Q3 2013

LTE in **unlicensed spectrum** vs. Wi-Fi...

- LTE Advanced in unlicensed spectrum is a competitor to Wi-Fi and its use-cases.
 - Superior ability to handle seamless and automatic hand-off to and from cellular connections
 - Better range than carrier Wi-Fi results in fewer access points for the same coverage or alternatively higher capacity with the same number of access points.
 - With LTE, just one network is constructed, with an anchor in the highly reliable licensed band.
- If we were given the choice to use Wi-Fi or LTE in unlicensed spectrum and we should make an objective technical assessment, LTE would win big over Wi-Fi.
 - Key issues to focus on: costs, overall QoS, throughput, latency, management.
- But for many players, such as Cable TV firms and MVNOs, small cells on LTE network with Wi-Fi interworking (dual air interfaces) can be attractive.
 - Use of ubiquitous Wi-Fi to support a quad play offering for wireline providers
 - Tier 1 carriers expect 75% of their small cells to include Wi-Fi by 2018 (WBA)

Tesla vs. Panasonic – Battery vs. Car...



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Tesla CEO Elon Musk vows end to 'range anxiety'

Chris Woodyard, USA TODAY 12:02 a.m. EDT March 16, 2015



In a planned update this week, Tesla Motors will announce what CEO Elon Musk called an end to "range anxiety" with the Model S electric car. Video provided by Newsy Newsy



(Photo: Dan MacMedan, USA TODAY)

Tesla Motors CEO Elon Musk said Sunday that the electric-car maker is going to announce a solution to one of the biggest drawbacks to plug-in cars — fear of running out of juice before getting to a destination.

In a tweet, the high-tech billionaire says a press conference is being scheduled for Thursday in which Tesla will talk "about the end of range anxiety." Owners won't have to take their cars in for service to take advantage of the new technology. All they need to do is wait for a software update beamed to their cars.

Range anxiety is a term for what has become one of the biggest deterrents of electric cars. Drivers need to find chargers if their batteries are about to run dry. The problem is exacerbated by the limited range of many electric cars. Many can't go much more than 100 miles per charge. Tesla stands out among the rank as having among the

USA NOW



Panasonic Agrees to Help Musk Build Tesla's 'Gigafactory'

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by
Alan Ohnman, Craig
Trudell and Grace
Huang

6:18 PM CEST
July 31, 2014

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July 31 (Bloomberg) — Panasonic Corp. agreed to help set up the battery factory that Tesla Motors Inc. Chairman Elon Musk needs to sell more electric cars, without settling its share of the investment costs.

Panasonic will build cylindrical lithium-ion cells and provide equipment, machinery and other tools for Musk's "Gigafactory," the Osaka, Japan-based company said today in a joint statement with Tesla. The companies said they were still discussing the details, including Panasonic's financial contribution to the facility, which Tesla has estimated could cost as much as \$5 billion by 2020.

"We will reach a plan that is profitable," Panasonic Chief Financial Officer Hideaki Kawai said at a news conference in Tokyo. "We will do step-by-step investment to meet the gradually growing needs."

Tesla has courted Panasonic to invest in the factory Musk is counting on to produce cheaper batteries and help transform the company from a seller of \$71,000 Model S sedans into more of a mass-market carmaker capable of producing 500,000 vehicles a year. Panasonic, which owns 1.1 percent of Tesla, signed a preliminary agreement to participate in the project in May after voicing hesitancy about the level of investment risk.

Separately, Panasonic reported profit of \$7.9 billion yen (\$68 million) for the three months ended June, missing analysts' estimates.

Its shares rose 0.6 percent to 1,257.50 yen in Tokyo today. Tesla slid 0.8 percent to \$227.15 at 10:57 a.m. in New York, and had surged 52 percent this year through yesterday.

'Significant Risk'

Panasonic is cementing its participation in the project after Tesla raised about \$2.3 billion in March to help fund it. Musk faces skeptics in his effort to build a factory with enough scale to cut battery costs by about 50 percent. Standard & Poor's slapped Tesla with a junk credit rating in May and cited "significant risk" in its Gigafactory plans.

"If Tesla's EVs do not sell in line with Tesla's expectations, Panasonic may not be able to recoup its investment," Masahiro Wakasugi, a Tokyo-based analyst at BNP Paribas, wrote in a July 10 report. "The negative impact, if the plan is not a success, would be considerable."

Recommended



Oil Prices May Have Further to Fall



Germany Threat of Greek Demands Want Country to Exit Euro



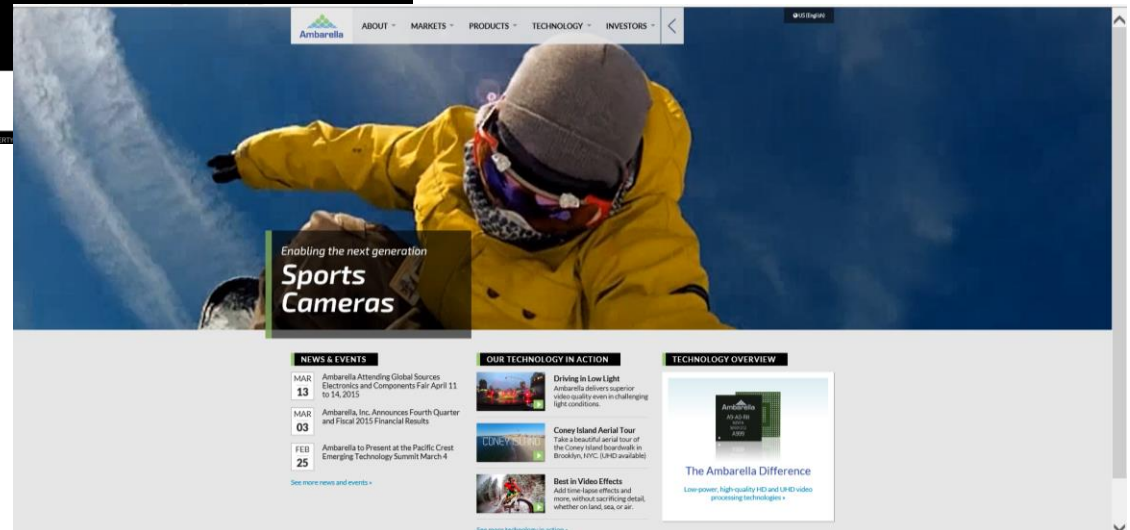
These Tiny Bubbles May Save the Planet



Gold-Bug Narrative Has Just Not Worked: Barry Ritholtz

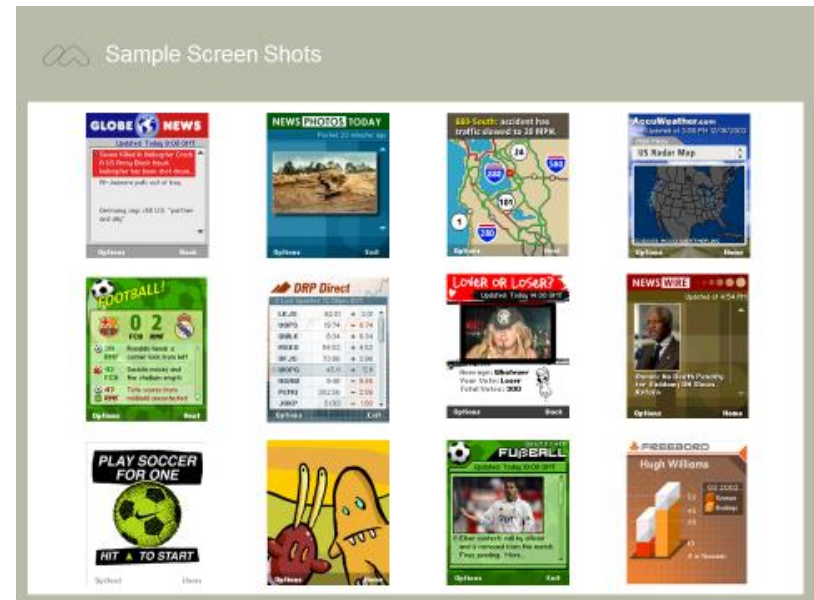
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GoPro vs. Ambarella – Camera vs. Chip...



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Apple vs. Flash light – 2007 vs. 2003....



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Case **India**: Vandalism and Internet activism....

- SavetheInternet.in
- App store vandalism, intimidate Indian companies
- Elite US activists say the poor are better off with no Internet rather than free Internet
- Succeeded to ban Facebook and all price differentiation
- Ban imposed without collecting evidence or assessing consumer harm
- Soon after Google launched a Android \$4 smartphone
- Activists don't want poor to see Facebook, but have no problem if they see Google ads
- India now belongs to Google and Android

Micah White: “The Internet is a double-edged sword - The protest look better on Facebook than it did in the streets....”

“In the early stages, the Internet is very important for social movements. However, over time, the Internet becomes harmful because things start to look better online than in real life. This happened with Occupy. The protest looked better on Facebook than it did in the streets. This is negative because people start to prefer the online experience to the real world”

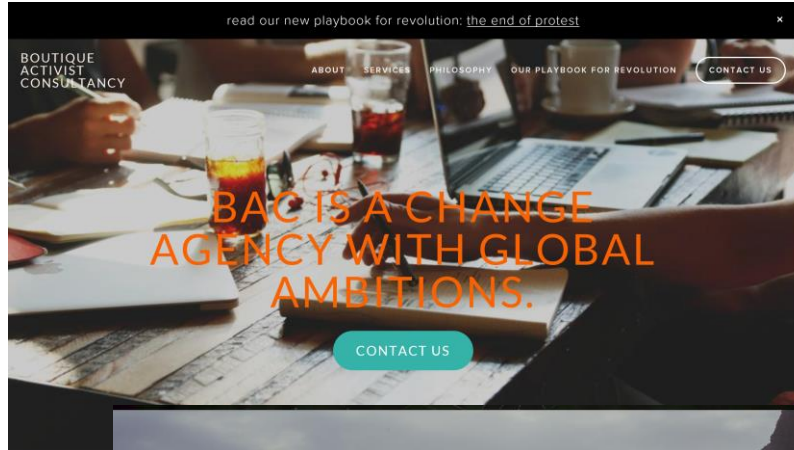
Micah White



<http://www.apa-fotoservice.at/galerie/786>

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Micah White and Chiara Ricciardone **founders** of Boutique Activist Consultancy....



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WHAT WE DO:

- Protest Innovation, Activism & Movement Strategy Workshops
- Campaign Direction
- Movement Storyline
- Research & Insights
- Invent Novel Protest Methods
- Full-Service Social Movement Creation

HOW WE DO IT:

Boutique Activist Consultancy brings passion, intelligence, integrity, and a love of the art of activism to every project we work on.

WHO WE WORK WITH:

Past partners have included political celebrities, traditional campaigns, and emergent people's parties. We work across the political spectrum with anyone who shares our goals and excites our interests. And we love an impossible challenge.

Role of Telecom Regulator.....

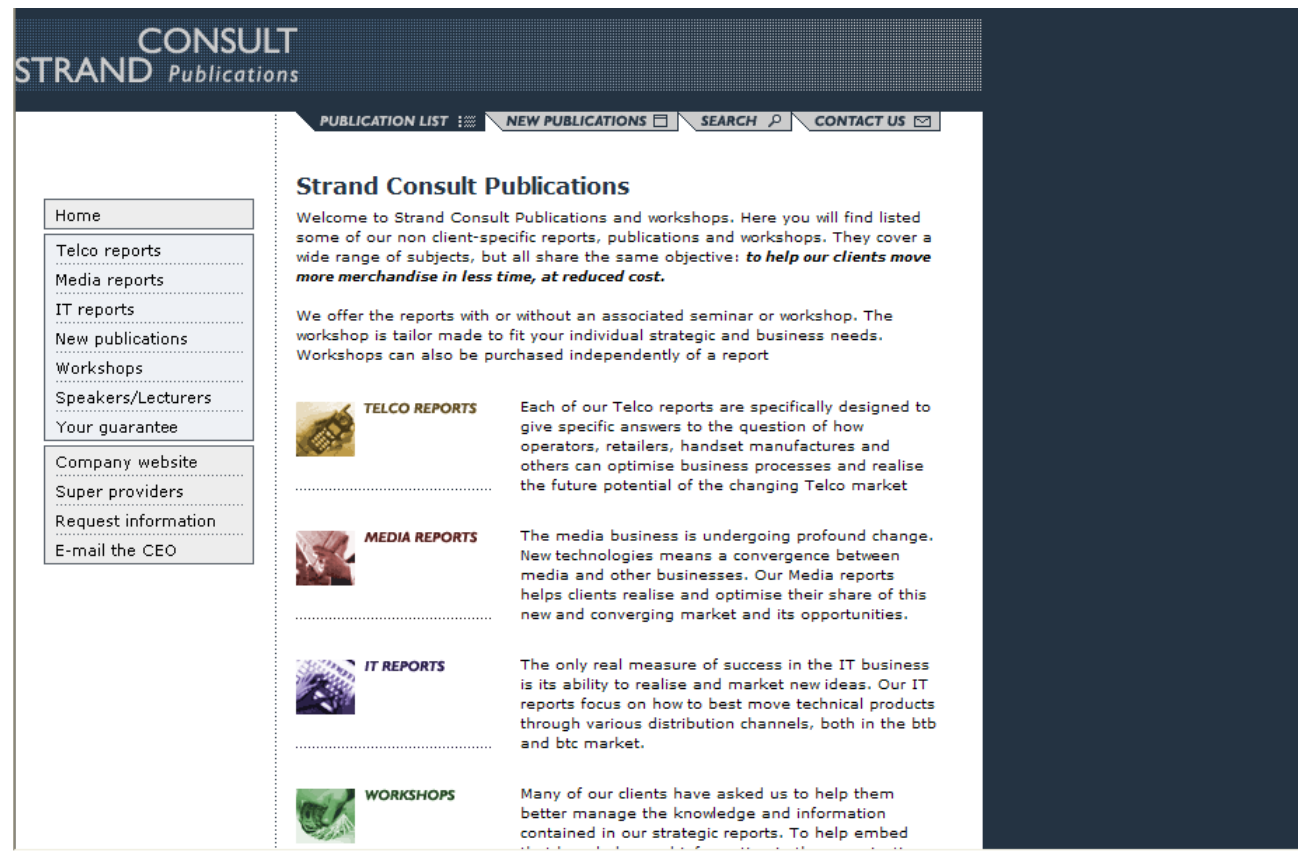
- Structural Independence to reduce political or industrial capture
- Functional Competence in that the agency delivers consistent, timely and accountable regulations as well as procedures that ensure transparency of the regulatory process.
- If regulatory outcomes are driven by clicktivism, then regulator loses credibility and independence

It's about 44 things....

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