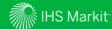


TV Sets Outlook

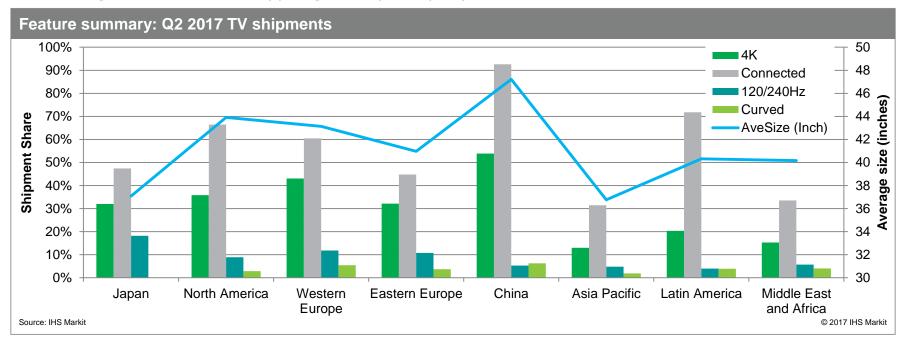
Paul Gray, Research Director

17 October 2017



Global TV featuring: Q2 2017

- China leads on all new features: earliest-adopting consumers, buying the largest TVs in the world.
- In all regions, screen size shipped grows by $\sim 1''$ per year

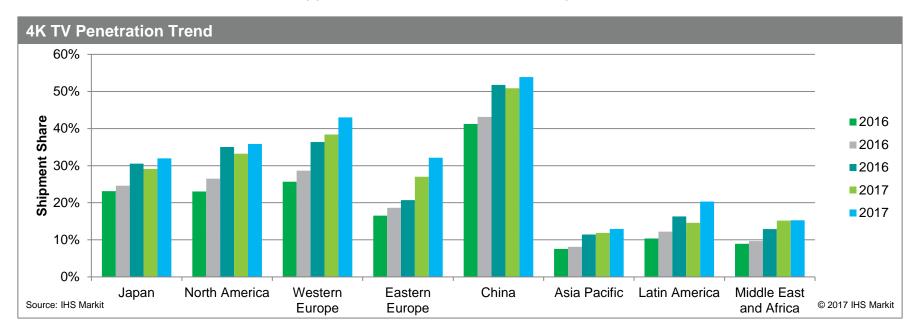


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4K TV shipment share by region, Q2 2017

- · China leads by far, other regions increasing penetration steadily.
- In 40"+ sizes, 4K is 50%+ of shipped in North America and Europe, and over 66% in China.



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UHD Content reinforces new consumption patterns

Why was Reed Hastings at MWC?

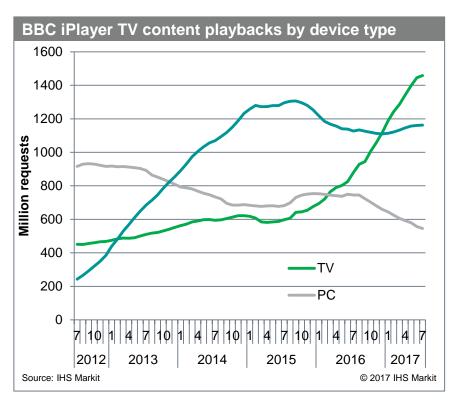
- Streaming services first to launch UHD content
 - > Marketing strategy to support premium content positioning.
- Equally encouraging mobile usage.
- UHD featuring like Dolby Vision now on phones: LG G6 (pictured)
- Blurring boundaries between TV and mobile viewing: it's all long-form video!



Source: LGE

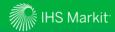


Smart TV usage: BBC iPlayer consumption trend

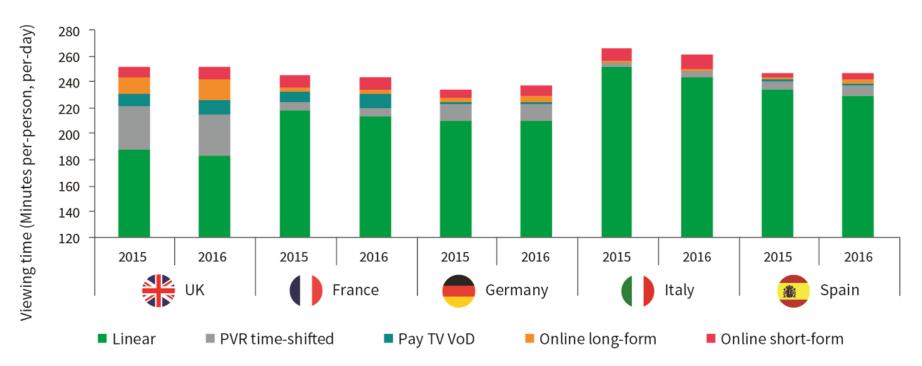


- PC and mobile viewing are gateways to increased TV screen* on-demand viewing.
- Consumers use mobile devices to try new services, transferring viewing to the TV screen for intensive consumption.
 - > Out-of-home usage does not compete with TV, but a new audience opportunity.

*TV screen viewing by Smart TV, streaming box or games console.



2016: Cross-platform viewing time by platform

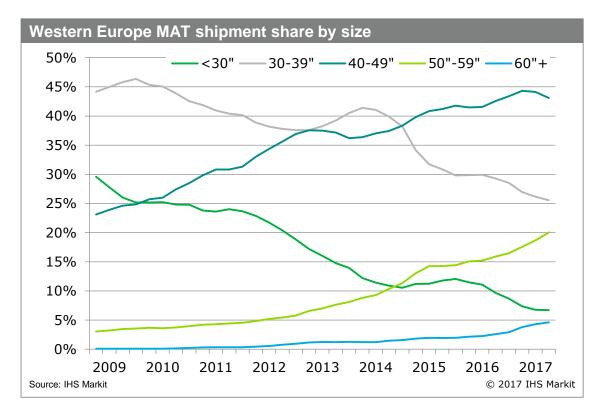


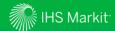
Notes: Figure base set to 120 minutes for illustration Source: IHS Markit. Reference: BARB, Médiamétrie, AGF, Kantar, Auditel © 2017 IHS Markit



TV replacement: towards one big screen...

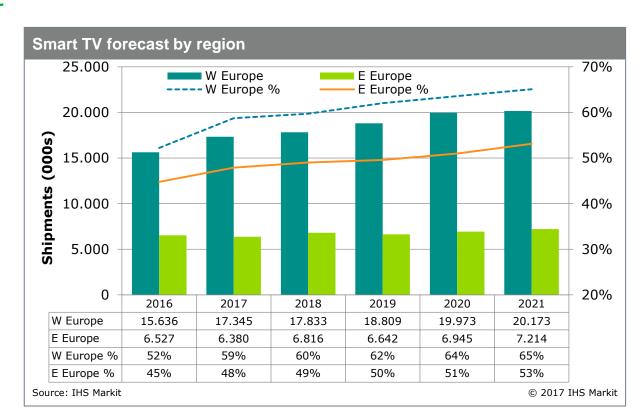
- Secondary TVs not being replaced
 - > Tablets, smartphones for personalised viewing
- Fewer TVs in the home
- TV remains dominant for highvalue viewing
- Towards a single, big TV in the living room





Smart TV forecast

- Market largely saturated; smart TV penetration strongly linked to services and TV viewing habits.
 - > Smart featuring will almost always exist in 4K products.
- 4K featuring is driving HEVC decoders: opportunity for Hbb.TV to fill the content gap
- By 2018 all 50"+ will be 4K and 50% of TV shipments 4K in Western Europe





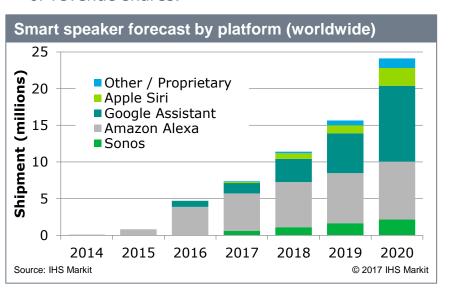
Interactivity: away from screens towards natural language

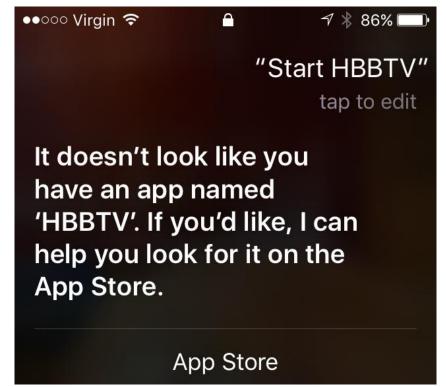




Voice assistants: new gateways... and gatekeepers

- Voice assistants (Google assistant, Amazon Alexa, Siri) bring new gatekeepers.
- CE brands have no control over search outcomes or revenue shares.





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Summary

- Consumers bringing streaming habits back to the TV.
- 4K TV supply push is a big opportunity for Hbb 2.0 services.
- New gatekeepers to control the TV screen emerging.

