

NexTracker

Audio watermarking technology for
Audience measurement and beyond

TV Tomorrow

27th April 2016

Brussels

Powering
Informed
Decisions

Agenda

Audio watermarking technology for Audience measurement and beyond

- Introduction of the audio watermarking activities in Kantar Media
- Definition and description of the Kantar Media audio watermarking technologies and their benefits
- Audio watermarking offer by Kantar Media
- Applications enabled by Kantar Media audio watermarking technologies

Watermarking and Synchronized Experience Unit

Who are we and what do we do?



- We are a team of **27 persons** mainly based in Cesson Sévigné in France
- We were formerly part of Civolution bought by Kantar Media in December 2014
- We develop and sell **audio watermarking technologies** and products for **audience measurement** and **2nd screen synchronisation**, more broadly for **ACR** (Automatic Content Recognition).
- Our customers are:
 - ✓ The Broadcasters who buy watermarking equipment for Audience Measurement and Sync
 - ✓ The TAM Operators who buy the watermarking equipment and watermarking detection licenses
 - ✓ TV Content Producers who buy watermarking software and licenses for Sync

Watermarking and Synchronized Experience Unit

Our biggest successes

- TAM with **Marocmetrie** in Morocco since 2007

- ✓ 700 households and 15 TV channels measured (live, PVR)



- TAM with **Mediametrie** in France since 2008

- ✓ 6 000 households and 200+ of TV channels measured (live, PVR, Replay)

- ✓ RAM experimented since 2013 with Mediametrie with their portable meter (Rate On Air / ROA)



Mediametrie

- TAM with **Intomart GfK** in the Netherlands since 2012

- ✓ 2 000+ households and 30 TV channels measured (live, PVR)



- TAM with **BARC** in India since 2014

- ✓ #20 000+ households (to be extended to 50 000)

- ✓ 430+ TV channels to be measured in 2016 (to be extended to 800)



- TAM with **TNS Gallup** in Denmark in 2016

- ✓ #1 200 households and 60+ TV Channels

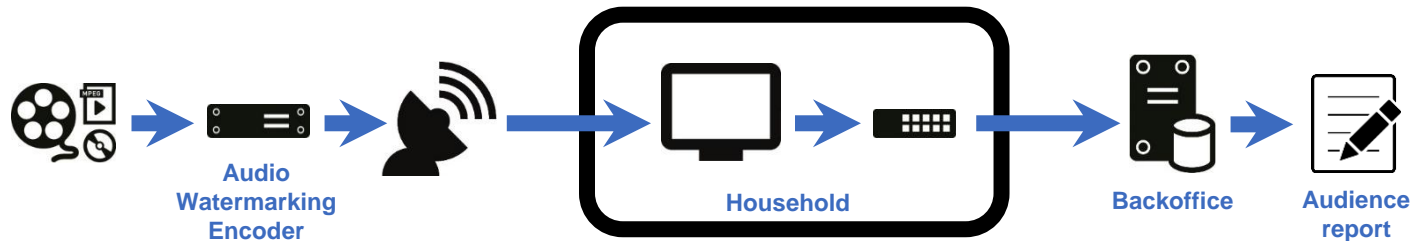


Audio watermarking technology

How does it work?

Audio Watermarking is a signal processing technology that hides information in the audio essence itself. The watermark is persistent, robust against audio processing, and inaudible.

1. The watermark is inserted in the head-end of the broadcasters by dedicated equipment
2. The watermark is detected by the meter installed in panelist households
3. The meter periodically uploads panelists' logs to a back-office system for consolidation.
4. The backoffice consolidates the data retrieved from all the panelists and generates the audience reports.



Audio watermarking technology

What are the benefits?

➤ **Applicable for simulcast**

- ❑ Watermarking allows a unique identification for each media

➤ **Applicable for multi-languages**

- ❑ Watermarking allows a unique identification of each audio tracks

➤ **Supports and enable the differentiation of all transport modes**

- ❑ DTT, DSL, Cable, Satellite ...

➤ **Supports and enable the differentiation of any all distribution modes**

- ❑ Linear, Catch-up TV, VoD, PVR, TV on Mobile

➤ **High scalability**

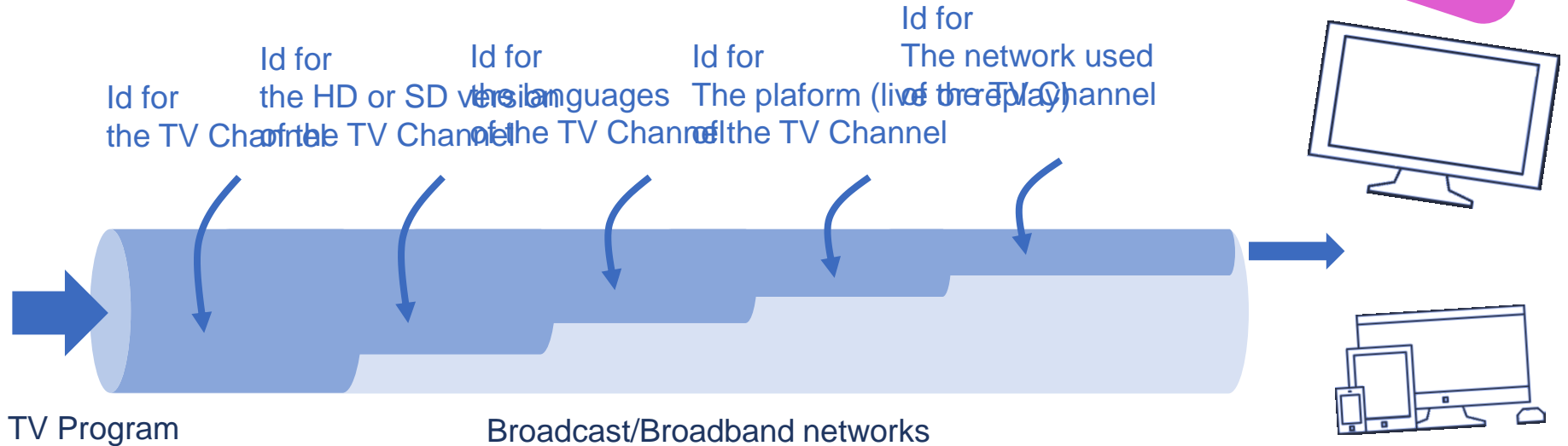
- ❑ One new watermarking embedder for one new TV channel to be measured

➤ **Evolutionary to Real Time rating**

Audio watermarking technology

The accuracy and the granularity that you expect

Ability to cascade the watermarks thanks to the « **Overmarks** » feature (detection, erase and new insertion)

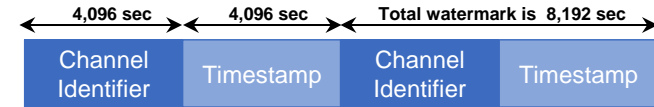


Audio watermarking technologies by Kantar Media

2 complementary audio watermarking technologies

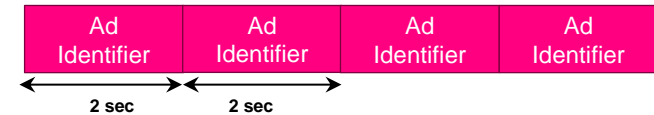
The **SNAP** watermarking for broadcasters for **Radio, TV, Video audience measurement, ...**

- A **Channel Identifier** (65535 codes) over #4 seconds
- A **Timestamp** (depth of 99 days) over #4 seconds
 - For linear programs, accurately identifies the airing time of the program
 - For non-linear programs, accurately identifies the program and the viewed portion



The **INK 4ADS** watermarking for commercials for **Ad Monitoring, Ad exposure data, ...**

- An Content **Identifier** (more than 4 billions of codes) over 2 seconds
- Timestamp is optional



SNAP and **INK** watermarks **coexist** and can be detected by the **same meters**.

SNAP and **INK** watermarks are **inaudible**

SNAP and **INK** watermarks are **robust** to the broadcast chain, to transcoding, to the acoustic path.

Audio watermarking for Broadcasters

SNAP watermarking – Offering

Live Watermarking Encoding

TV Channel

Decoded by the fix meter next to the TV set

Radio Station

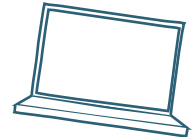
Decoded by the portable meter carried by the panelist

File Watermarking Encoding

Catchup TV

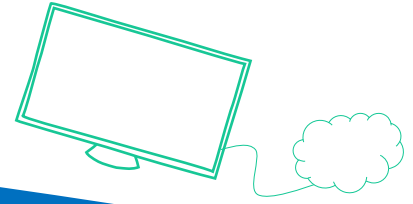
Decoded by the virtual meter installed on PC, on tablets, on smartphones

Podcast

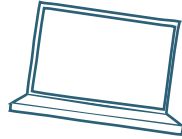


Audio watermarking for Broadcasters

SNAP watermarking - Applications



Cross media audience measurement



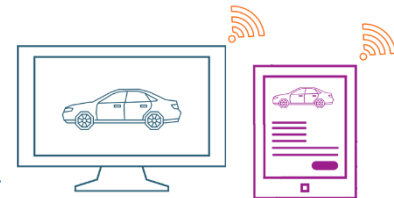
Cross platform audience measurement



Synchronisation and interactivity



TV Out of home and Radio audience measurement



TV audience measurement (Legacy)



Audio watermarking for Ad agencies

INK 4ADS watermarking - Offering

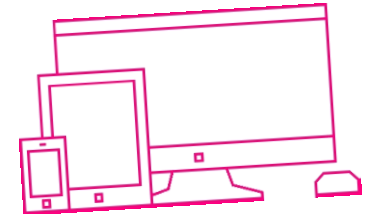
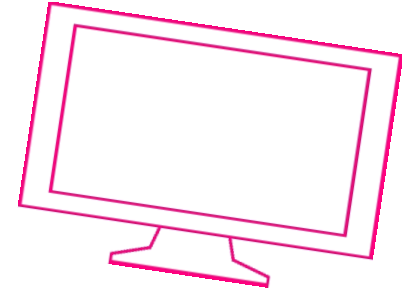
Watermarking of AD files by Agencies
or by the Ad clearance body

Broadcast World

TV Channels
Targeted Advertising
Catchup TV platforms

Facebook, YouTube, ...
Web sites,
Programmatic

Digital World



Audio watermarking Ad agencies

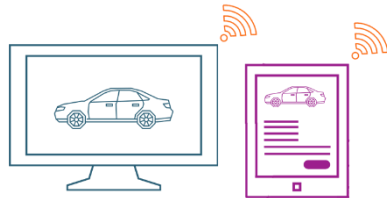
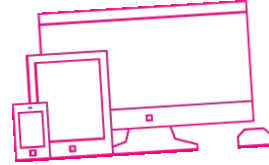
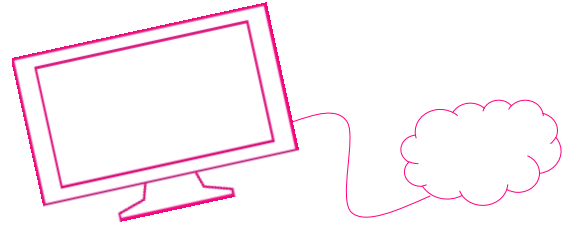
INK 4ADS watermarking applications

Precisely measure audience during Ad breaks

Automatically measure exposure to video Ads (consumer surveys)

Supports Targeted Advertising

Synchronisation and interactivity



Thank you

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