Passive Mobile-phone Technology For Audience Measurement

Prepared for PAMRO – 2019 Conference

Dynamic media environment in Kenya

Digital migration: significant increases in TV stations

- ❑ The number of TV stations increased significantly between 2014 and 2015. This is attributed to the digital migration.
- ❑ Increased audiences on TV was driven by availability of more stations and consumption from various platforms – from the set-top-box and online.
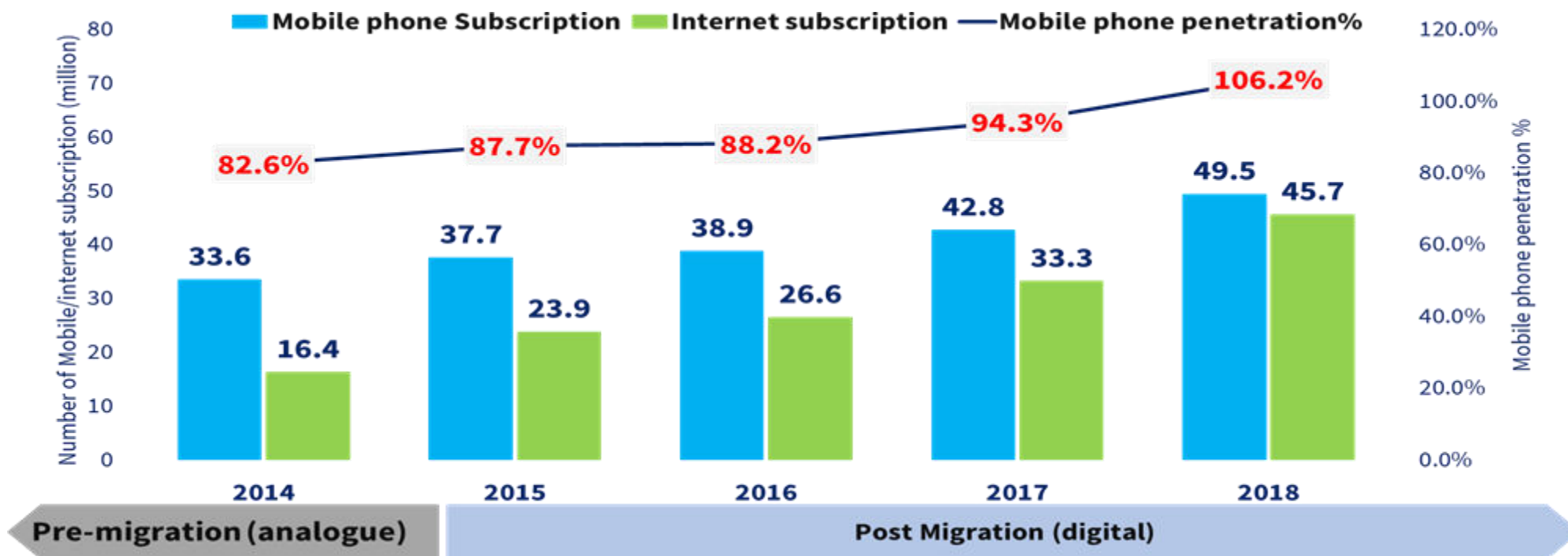
Media Brands in Kenya
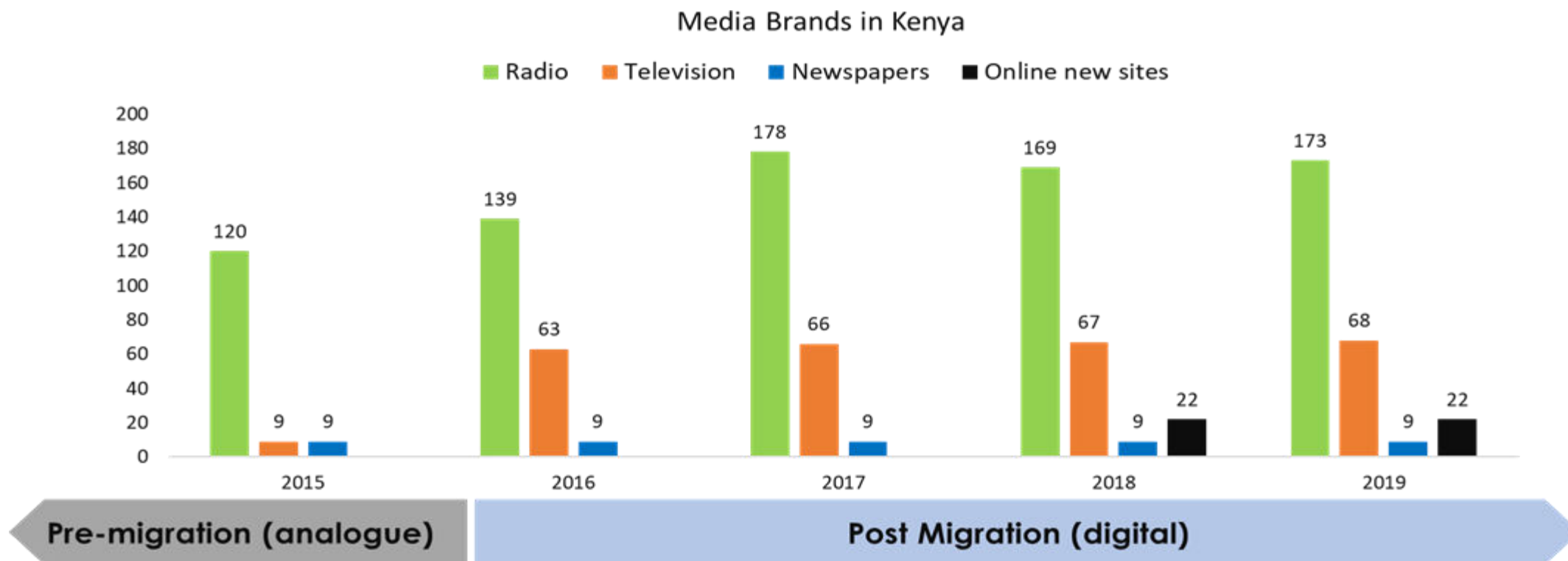
Source: Communications Authority (radio, tv and print data)

Increased mobile & internet subscriptions

❑ The data market in the country grew by 173% between 2014 and 2018.

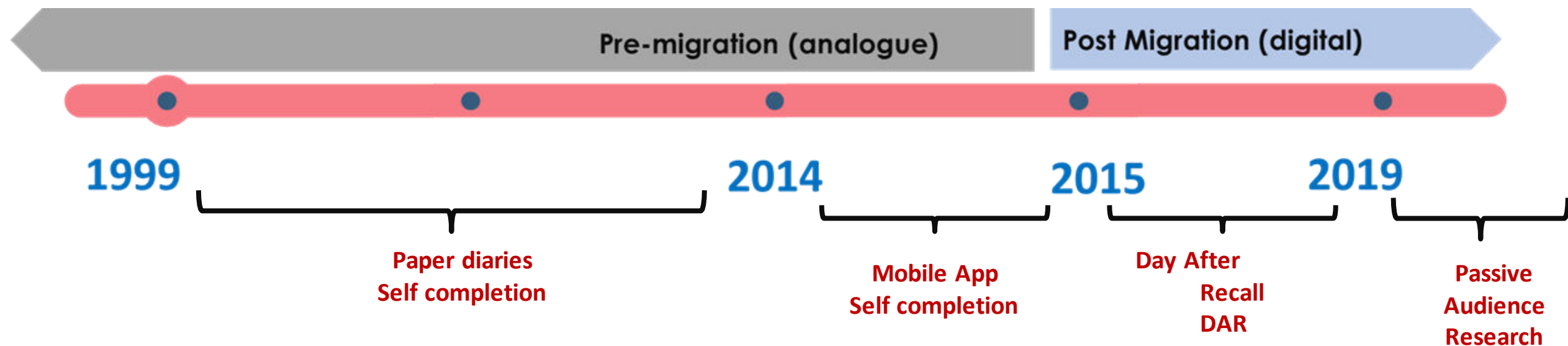❑ Mobile phone is the most available and preferred medium of accessing the internet with over 90% market share.

Source: Communications Authority

Historical perspective for audience research

Historical Perspective: Audience Research Methodology

❑ Audience research in Kenya has undergone a transformation from self-completion paper diaries to the day after recall.
❑ Future of audience research is the PASSIVE

Pre-migration (analogue)   **Post Migration (digital)**

1999   **2014**   **2015**   **2019**

**Paper diaries
Self completion**

**Mobile App
Self completion**

**Day After
Recall
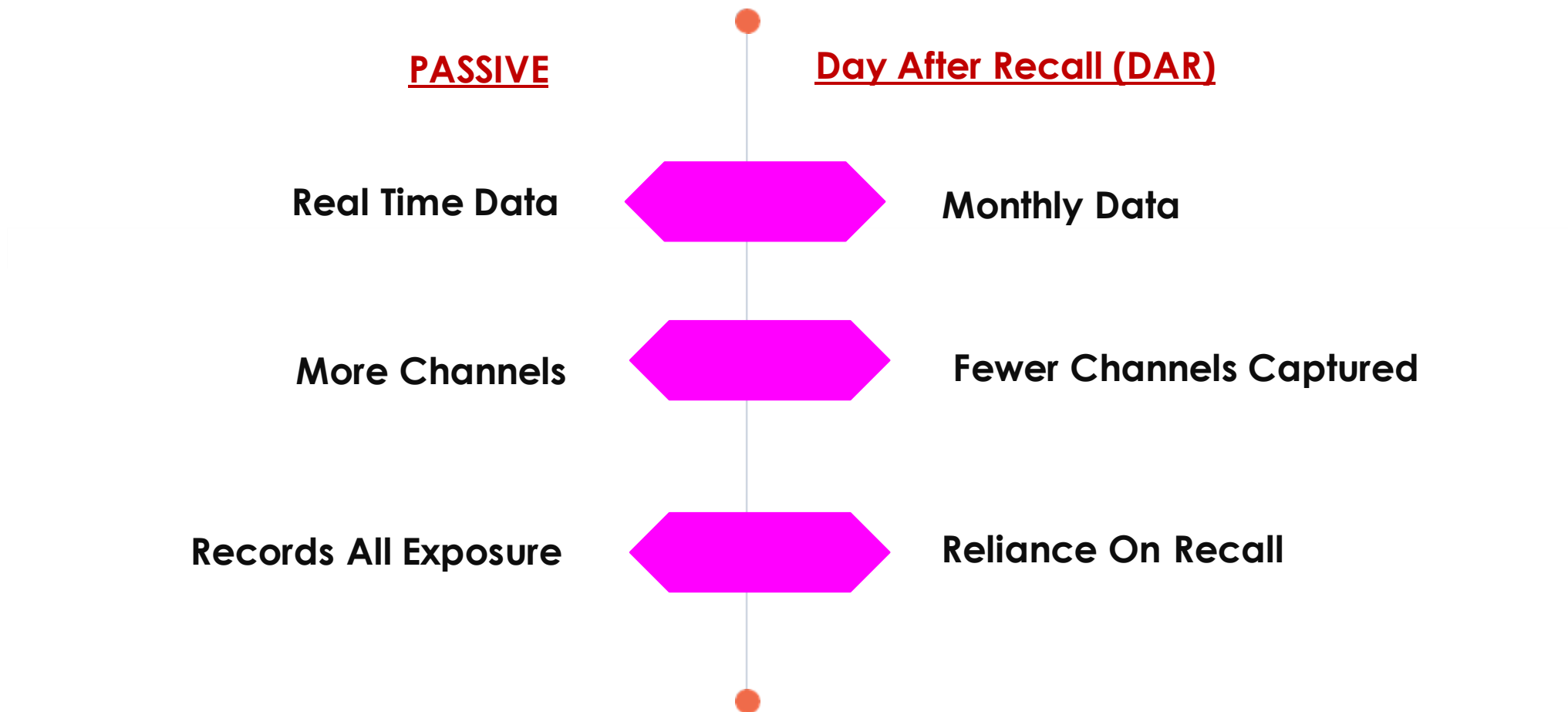DAR**

**Passive
Audience
Research**

The **dynamic media environment**, calls for modern and more **efficient approaches for data collection** – hence the push for a **passive audience** research methodology.

Passive Audience Methodology

- ❑ Passive is data collection methodology **without active involvement** of respondents.

- ❑ Passive collects respondents' media consumption behavior **using a smartphone**.
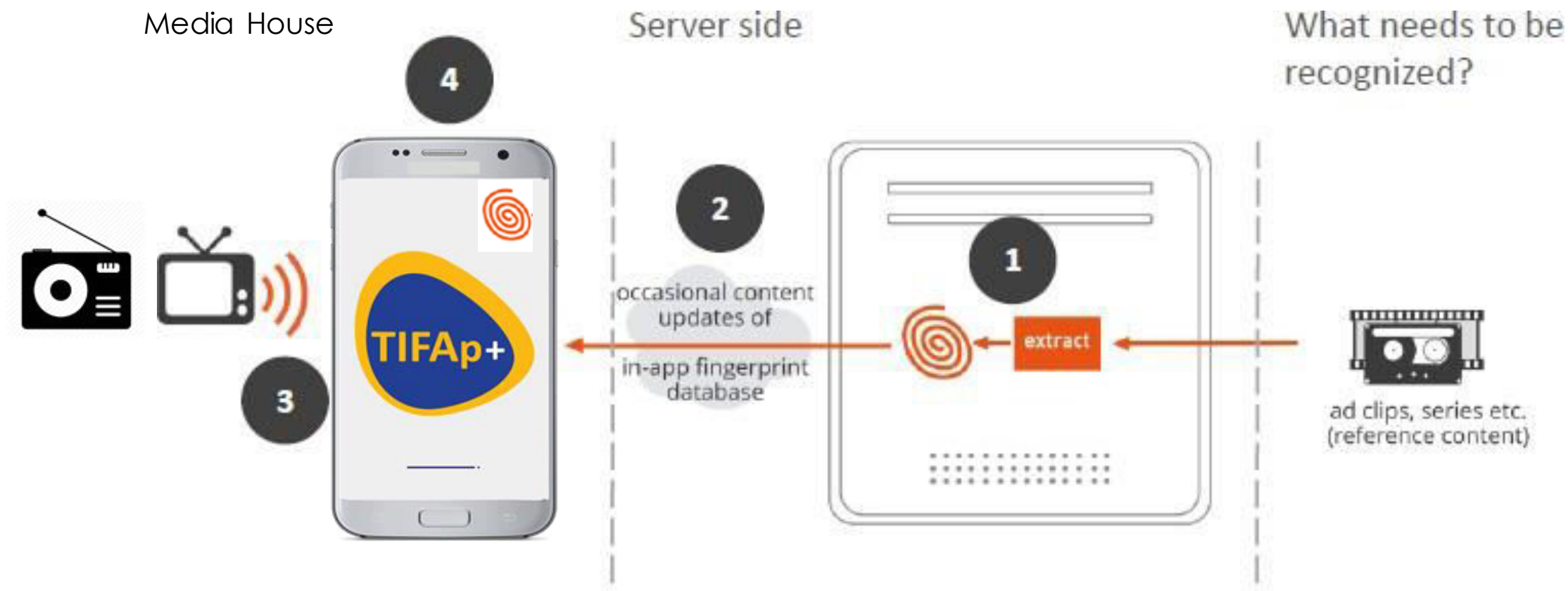
Comparison – Passive vs DAR

PASSIVE   **Day After Recall (DAR)**

Real Time Data   **Monthly Data**

More Channels   **Fewer Channels Captured**

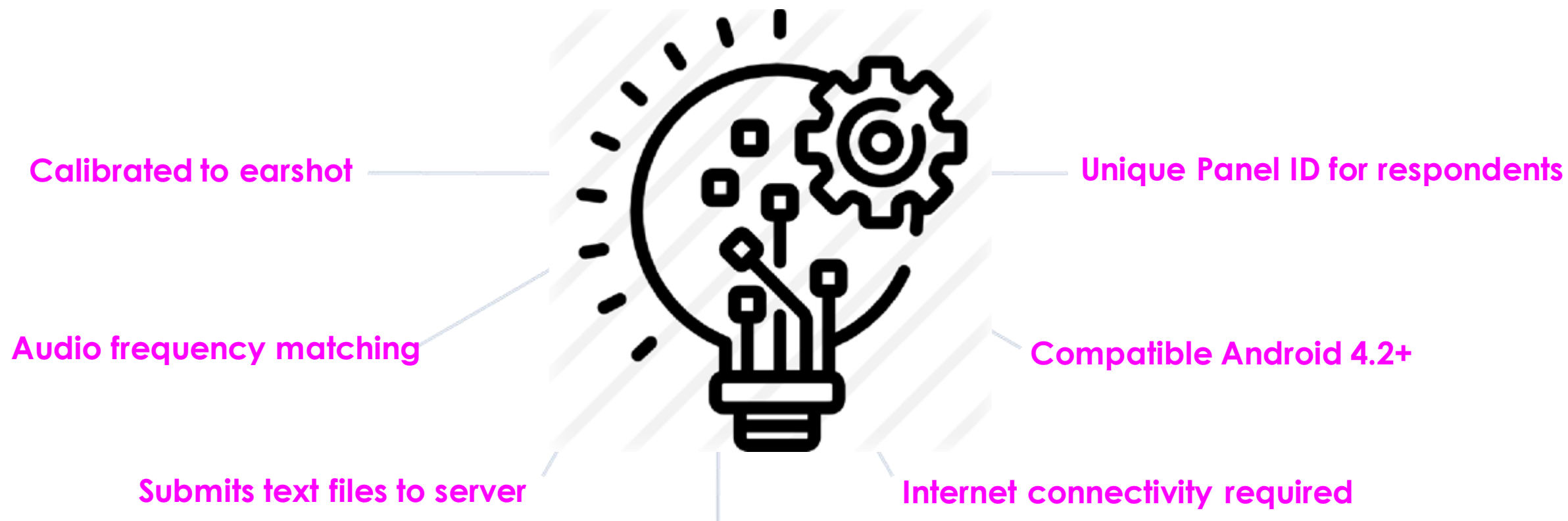**Records All Exposure**   **Reliance On Recall**

Graphics adopted from Adioma

Key features of passive audience technology

Passive Data Collection - How it works

Key features of passive audience technology

Calibrated to earshot

Unique Panel ID for respondents

Audio frequency matching

Compatible Android 4.2+

Submits text files to server

Internet connectivity required

Ethics and data privacy

Ethical issues

Informed consent

- ❑ Geo-location mapping
  - ❑ The degree to which researchers can track movement

- ❑ Motion sensors
  - ▪ Mobile phone is not in use or in use
  - ▪ In a vehicle and not in a vehicle

- ❑ Battery usage

Recruitment of panelists

Recruitment Process

Sample

❏ Based on establishment survey 2015

HH visits

❏ Screening

❏ Demographics

Screening

❏ Type of handset

❏ Duration in location

Consent

❏ Agree to terms in writing
❏ Provide unique ID

Install App

❏ Confirm if data received in server

Graphics adopted from Adioma

Fieldwork challenges & solutions

❑ Respondents' mobile phone version
- Recruitment of panelists with mobile phones
- Issuing mobile phones to panelists

❑ Loss of mobile phone phones
- Agency to have a pool of phones
- Oversampling to cater for technology "drop outs"

❑ Perceived cost of data bundles
- Agency to meet cost of bundles

❑ Access to internet not daily
- Panel managers to engage regularly with panelists

❑ Misconceptions – listening to conversation
- Panelist education

FAQs from Panelists

When I am offline, do you get data?

No, but will keep collecting media consumption until when you are next online.
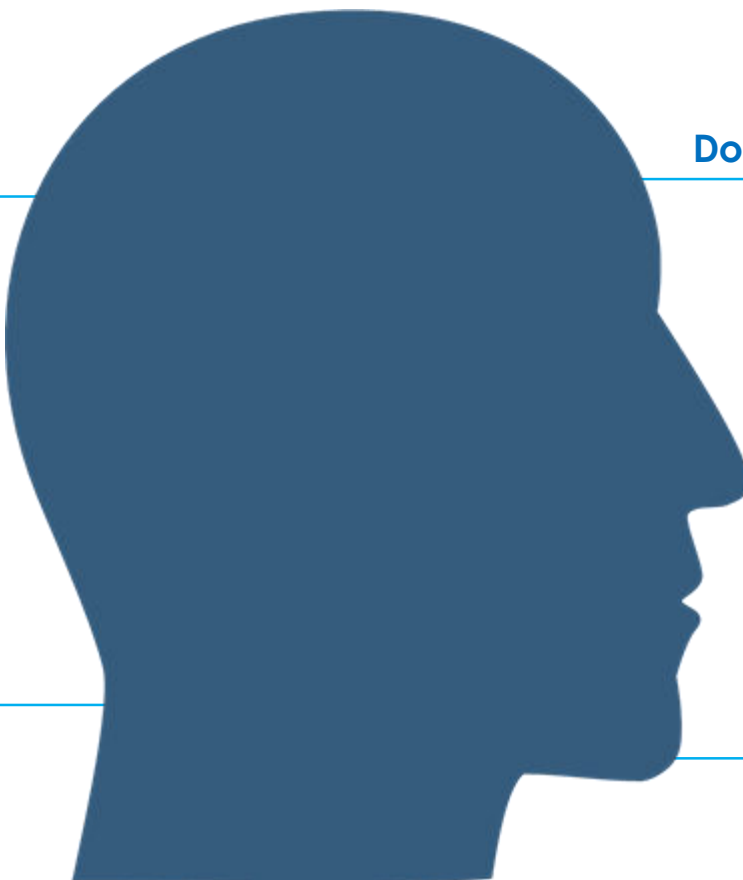
Do you listen to my conversation?

The app does not listen or store any personal information.

Does app use my phone storage?

No, the data is saved in the form of text files.

Does the app use up my data bundles?

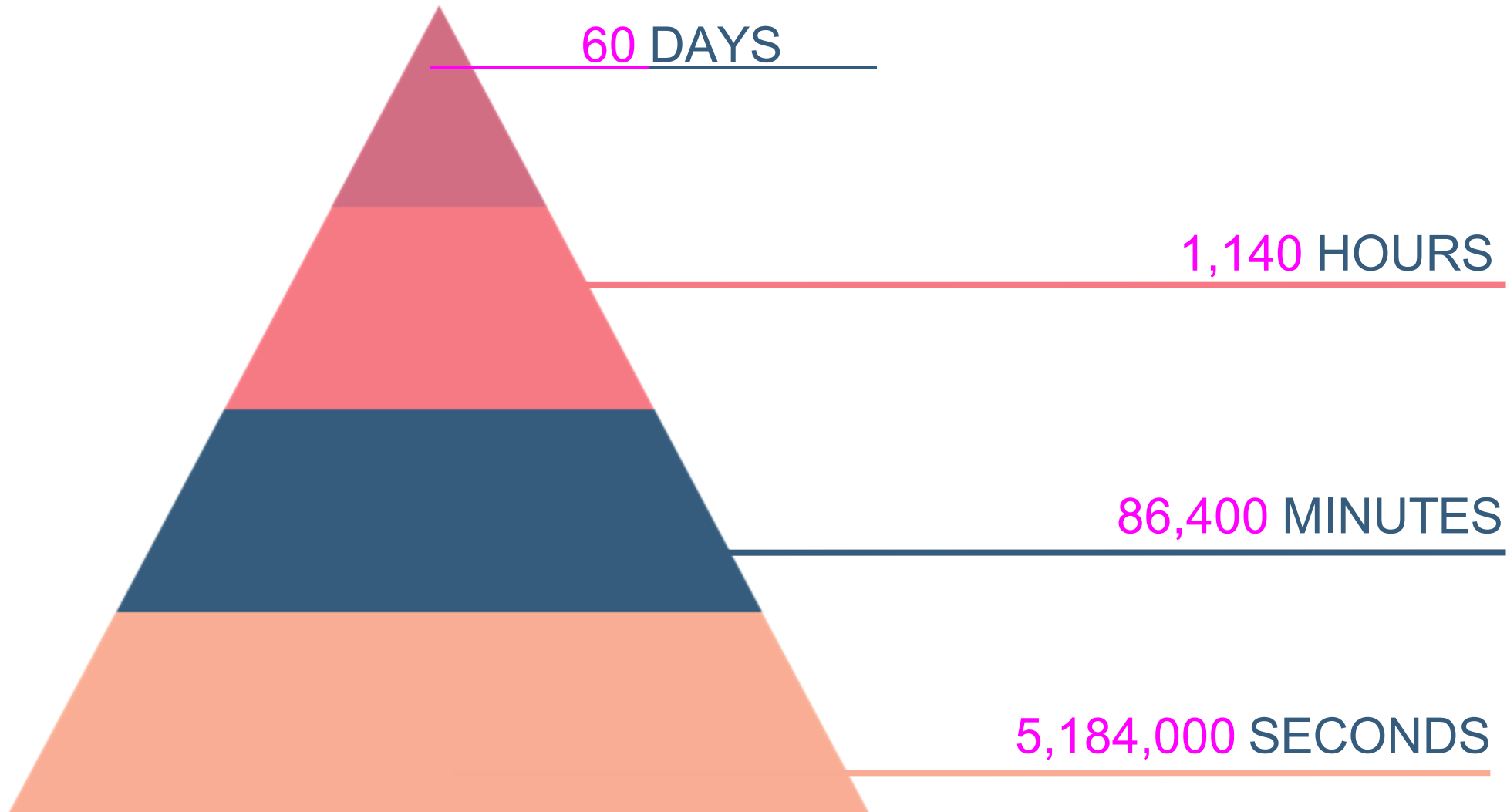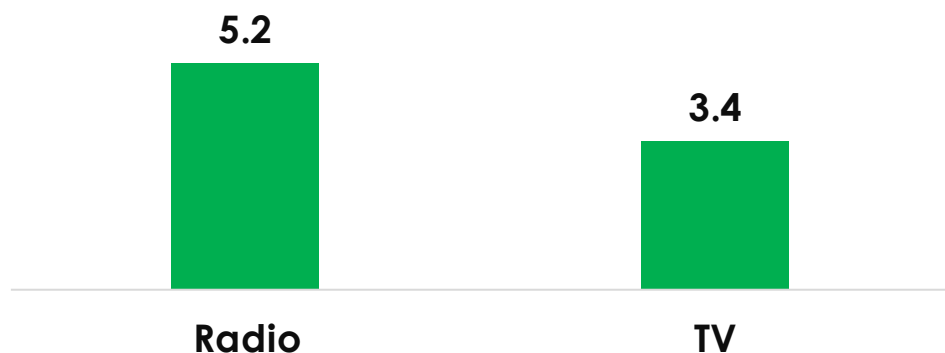The research company has already purchased bundles for the app for reach respondent.

Graphics adopted from Adioma

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Key Media Consumption Insights

Average number stations : Nairobi

Average number of stations per day

Average number of stations captured for all audiences

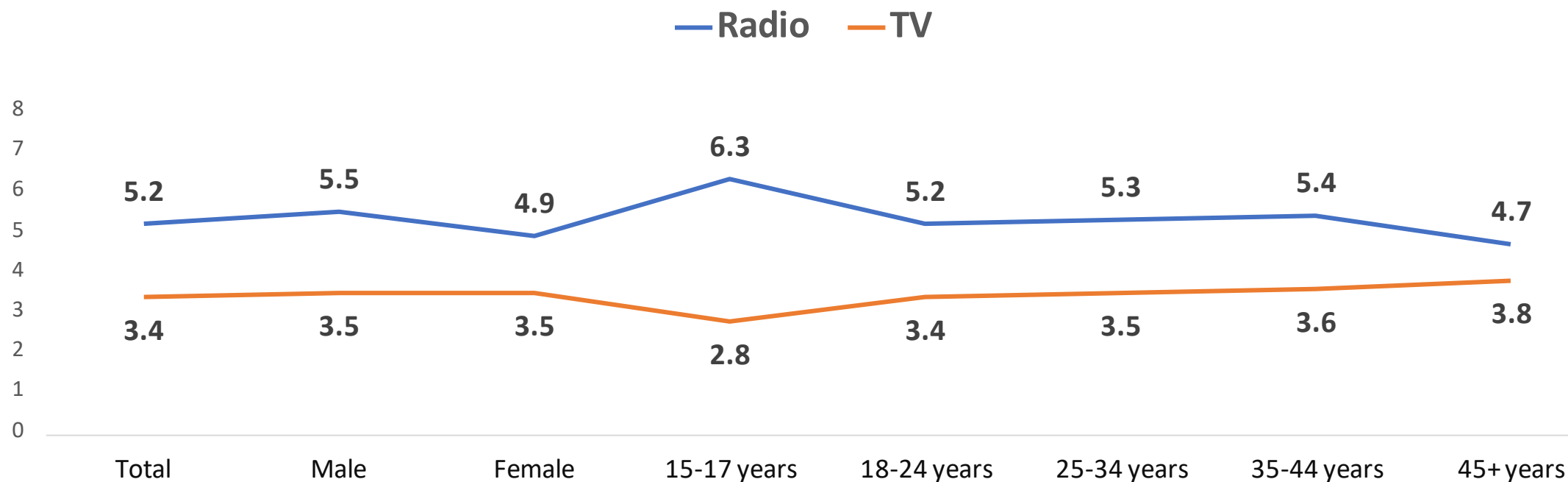|			
5.2	3.4	75	33
Radio	TV	Total Radio Stations Captured	Total TV Stations Captured
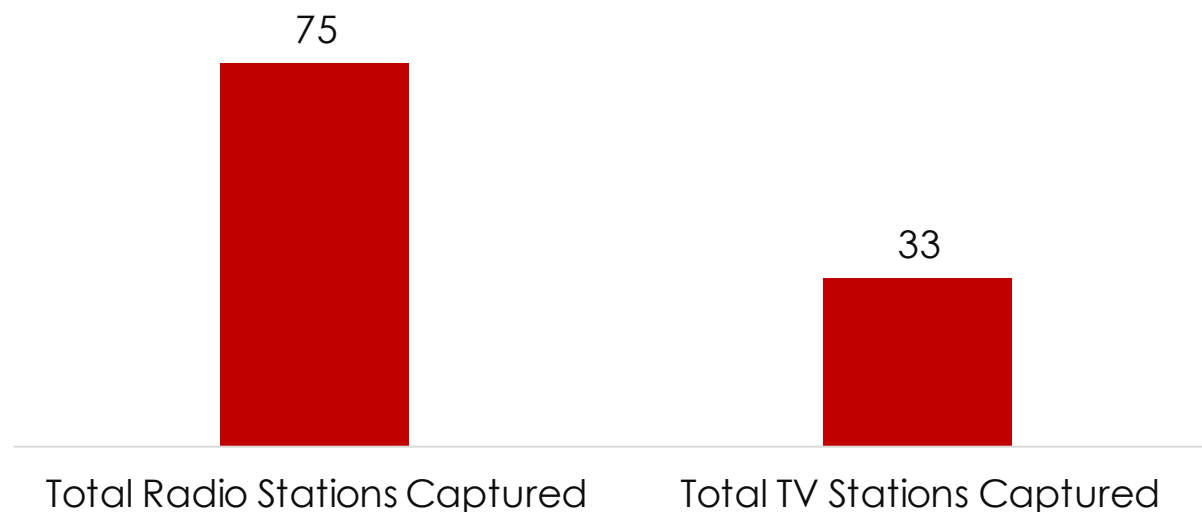
Number of stations captured or tuned into are double what is capture on DAR

Average No. of Stations Per day in Nairobi

Media planning – spends across more stations

TV Reach: Nairobi Only
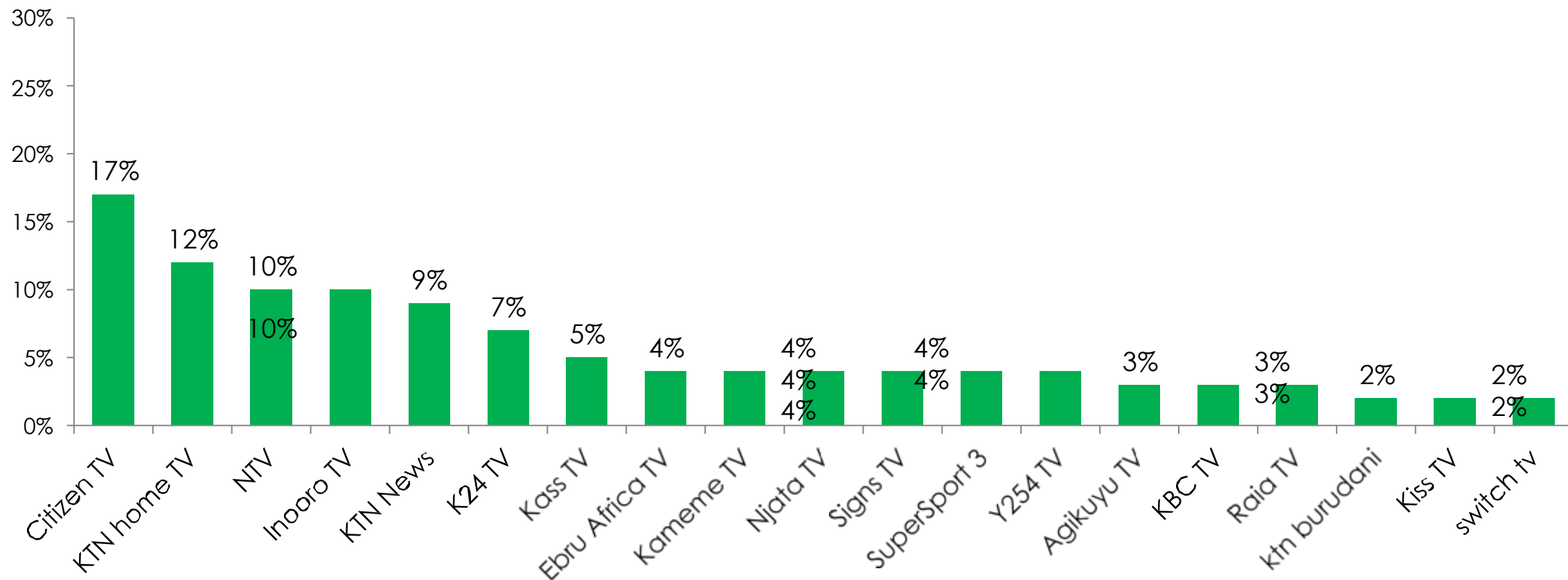
Base: 2.09M (Past 7 days media consumers)

TV Share : Nairobi Only

Pie chart — TV Share: Nairobi Only

- Citizen TV, 25%
- KTN home TV, 11%
- NTV, 9%
- Inooro TV, 9%
- KTN News, 7%
- SuperSport 3, 4%
- K24 TV, 4%
- Agikuyu TV, 3%
- Kameme TV, 3%
- Kass TV, 3%
- Signs TV, 2%
- y254 TV, 2%
- Raia TV, 2%
- Njata TV, 2%
- switch tv, 2%
- Ebru Africa TV, 2%
- KBC TV, 2%
- Kiss TV, 2%
- Others, 5%
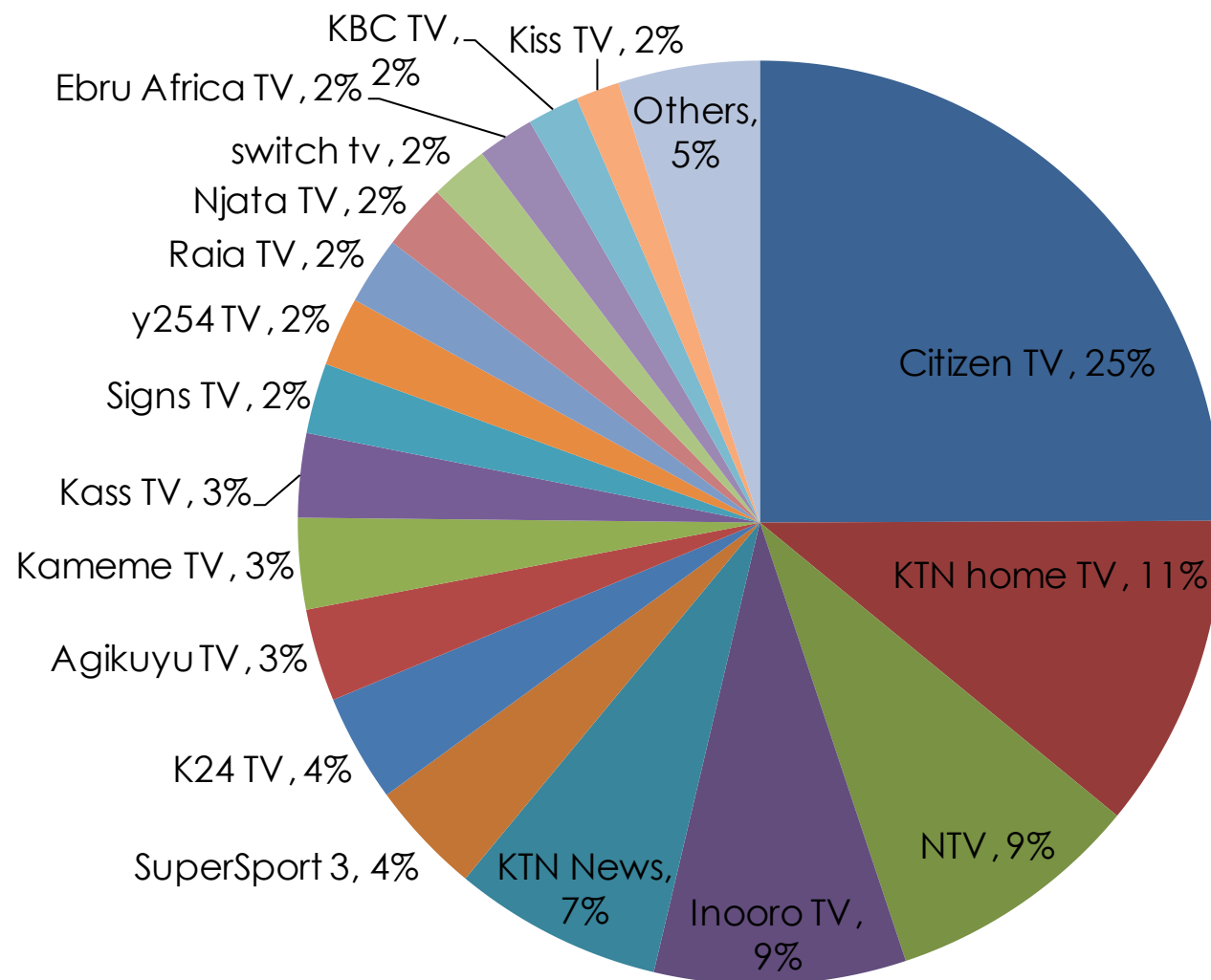
Base: 2.09M (Past 7 days media consumers)

TV Trends – Week Average : Nairobi Only

Legend:
- Citizen TV
- KTN home TV
- NTV
- Inooro TV
- KTN News
- K24 TV
- Kass TV
- Kameme TV
- Njata TV
- SuperSport 3
- Ebru Africa TV
- y254 TV
- Signs TV
- Agikuyu TV
- Raia TV
- KBC TV
- Kiss TV
- ktn burudani
- switch tv

Y-axis: 0.00%, 1.00%, 2.00%, 3.00%, 4.00%, 5.00%, 6.00%, 7.00%

X-axis: 00:00:00 - 00:59:59, 01:00:00 - 01:59:59, 02:00:00 - 02:59:59, 03:00:00 - 03:59:59, 04:00:00 - 04:59:59, 05:00:00 - 05:59:59, 06:00:00 - 06:59:59, 07:00:00 - 07:59:59, 08:00:00 - 08:59:59, 09:00:00 - 09:59:59, 10:00:00 - 10:59:59, 11:00:00 - 11:59:59, 12:00:00 - 12:59:59, 13:00:00 - 13:59:59, 14:00:00 - 14:59:59, 15:00:00 - 15:59:59, 16:00:00 - 16:59:59, 17:00:00 - 17:59:59, 18:00:00 - 18:59:59, 19:00:00 - 19:59:59, 20:00:00 - 20:59:59, 21:00:00 - 21:59:59, 22:00:00 - 22:59:59, 23:00:00 - 23:59:59

Methodological Considerations

Methodological considerations

● **Duration for analysis**
  ❏ Seconds by second? 15-minutes slot? 5-minute slot?
  ❏ Consider delayed transmissions across the country.

● **Time shifting media consumption**
  ❏ Capturing media consumption past the airing date.
  ❏ Integration of these into audience ratings

Methodological considerations

Geo-location analysis

❑ What happens to a respondent who migrates from one region to another?
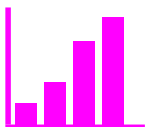
❑ Under which region should he/she be analyzed from?

Key success factors for passive technology roll out

Update LSMs

Current LSM's are outdated. An urgent need to update the
LSM evaluation criteria

Establishment Survey

Establishment survey is outdated and needs to be refreshed

Costs

Respondents access to mobile phones
Power banks /solar chargers to charge phones

Graphics adopted from Adioma

Thank You!

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