

Why Business will consider dPMR radio

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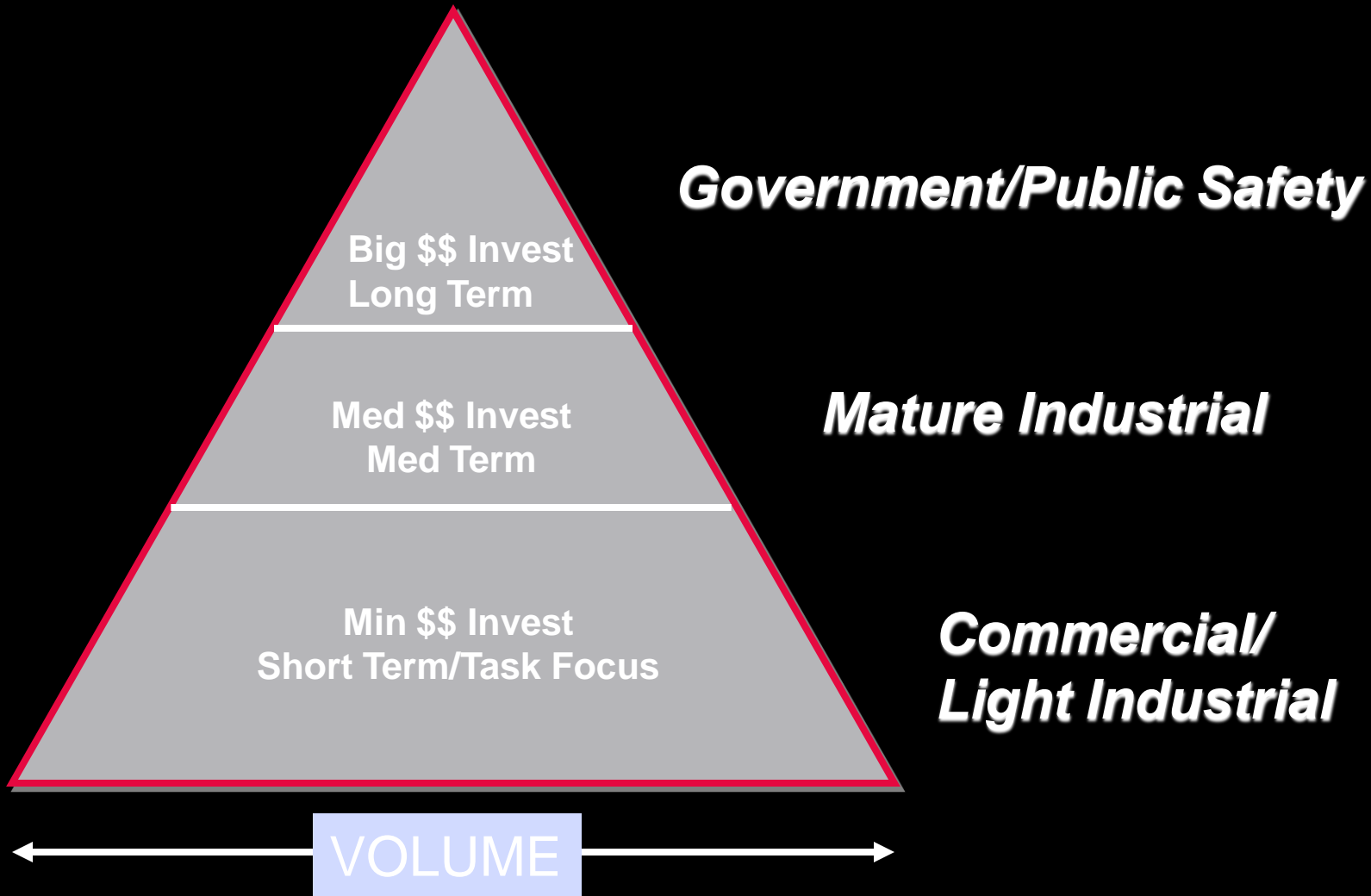
Cellular in Australia

- *Customer drive outcomes*
- *Digital and Open Standards created Device Opportunities*
 - *'Left Field' New Players entered driving new functionality and fresh competition*
 - *Who ever thought Apple could dominate the space??*
- *Networks grew in areas they could win*
- *Network infrastructure manufacturers ARE NOT leaders in handsets*
- *Price BECAME a Factor*
- *New Devices, new features.... Consumer votes by wallet*
- *Devices replaced REGULARLY*

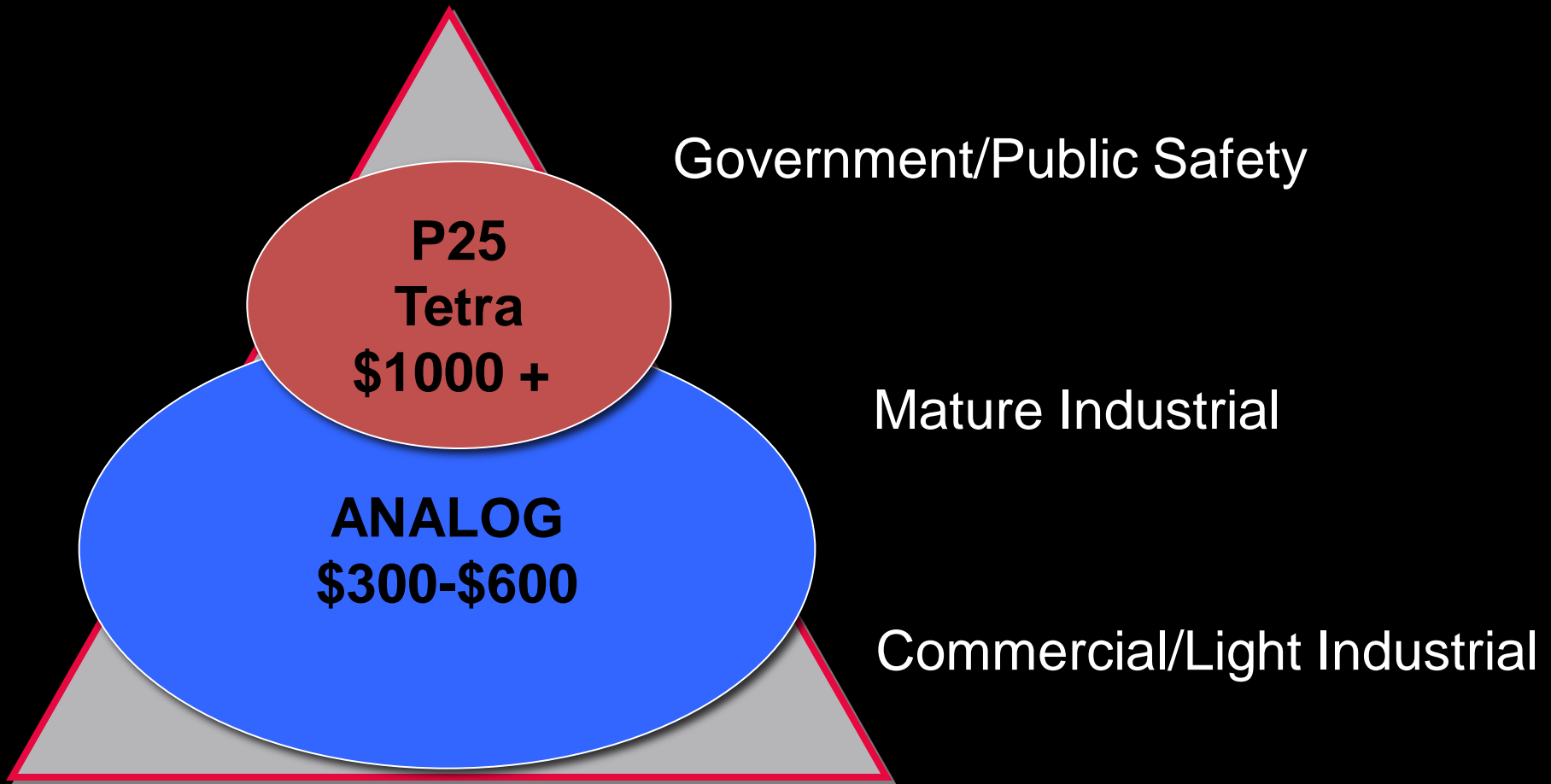
Radio Market in Australia

- ***Still strong despite Cellular growth***
- ***Standards adopted, but proprietary systems remain***
- ***Analog still widely used***
- ***Key manufacturers still dominant in both network and handset***
- ***Price points still at high end***
- ***Device retention high***

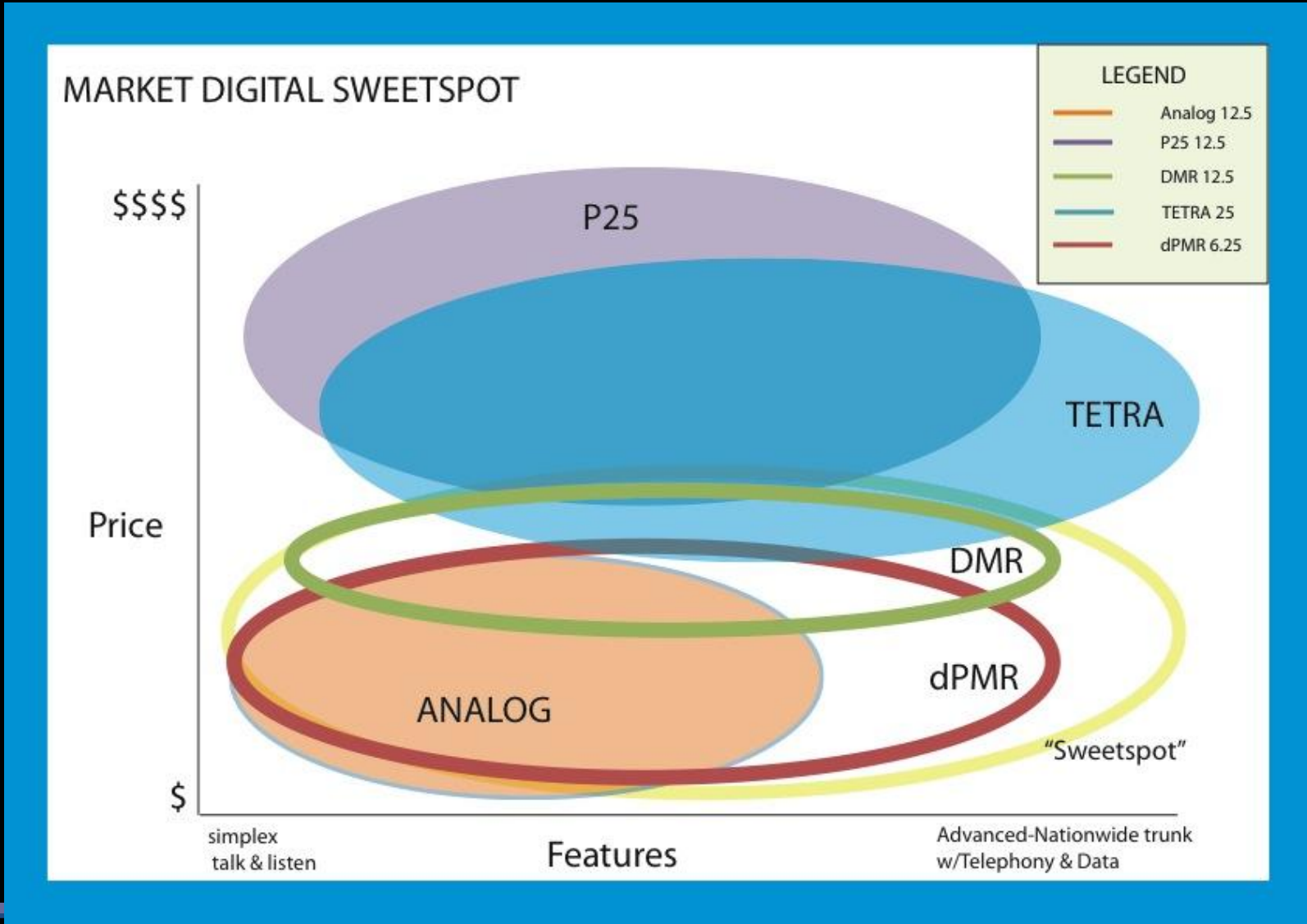
TOTAL AVAILABLE MARKET



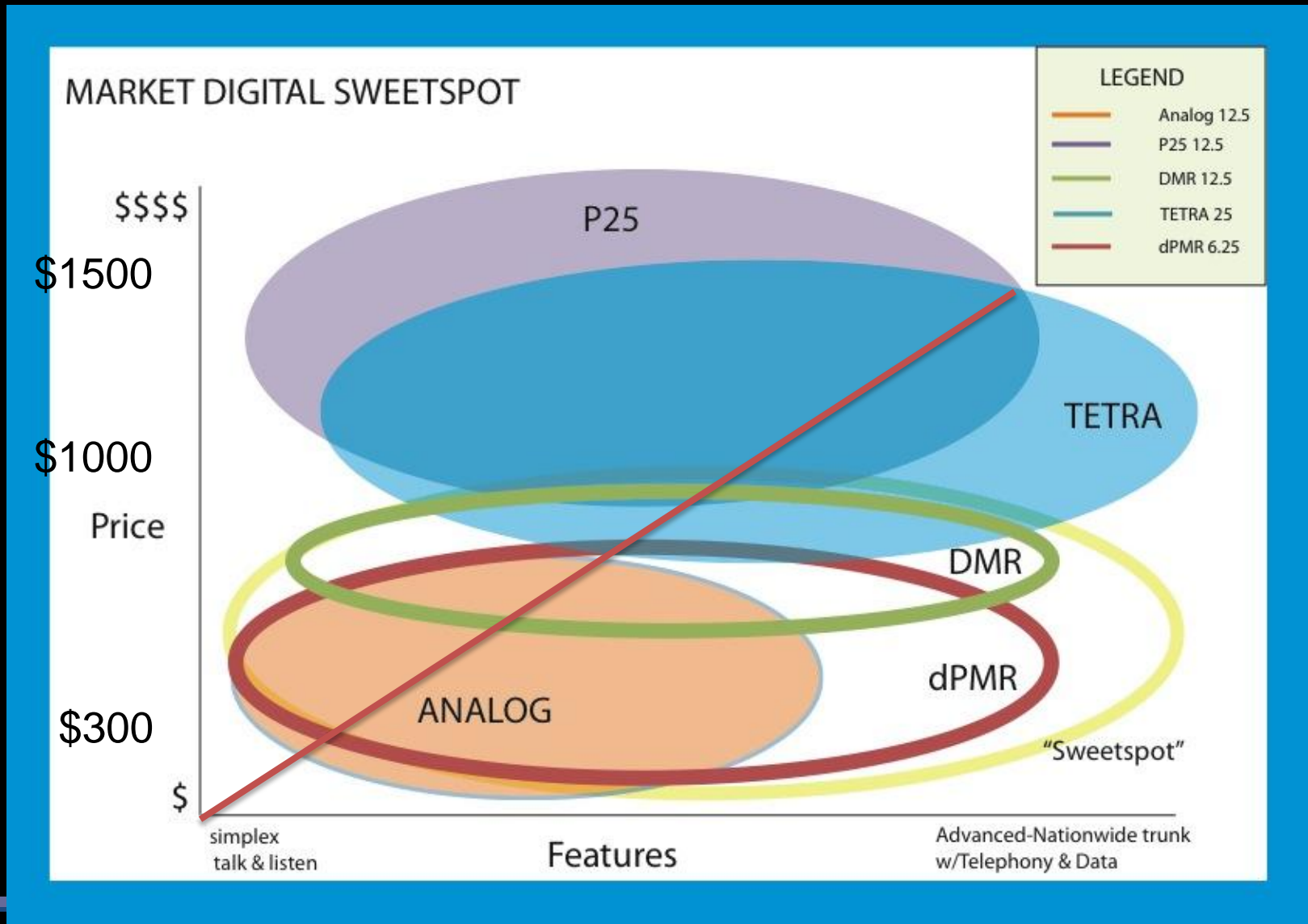
SERVED MARKET SEGMENTS



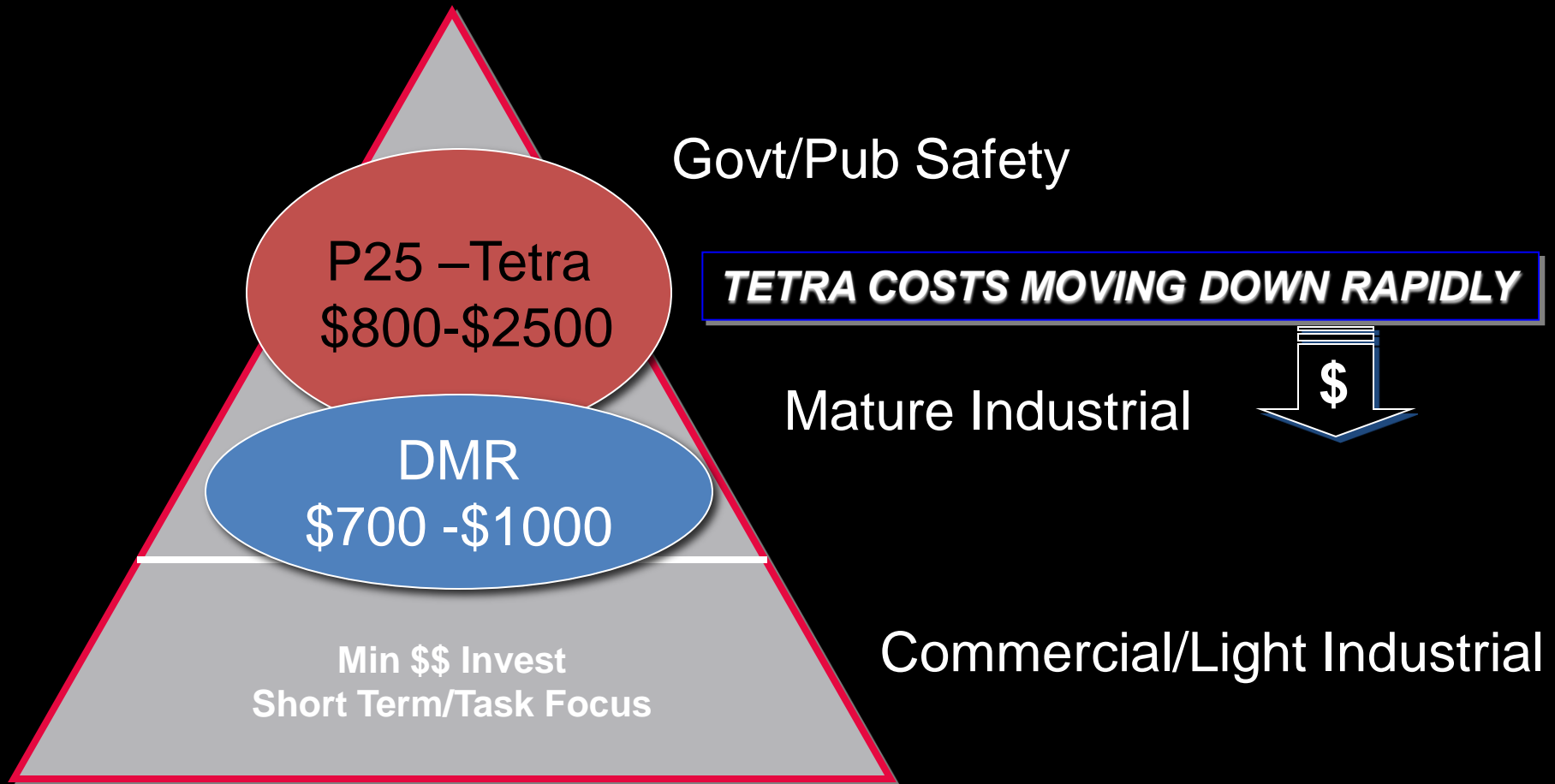
RADIO MARKET DIGITAL SWEETSPOT



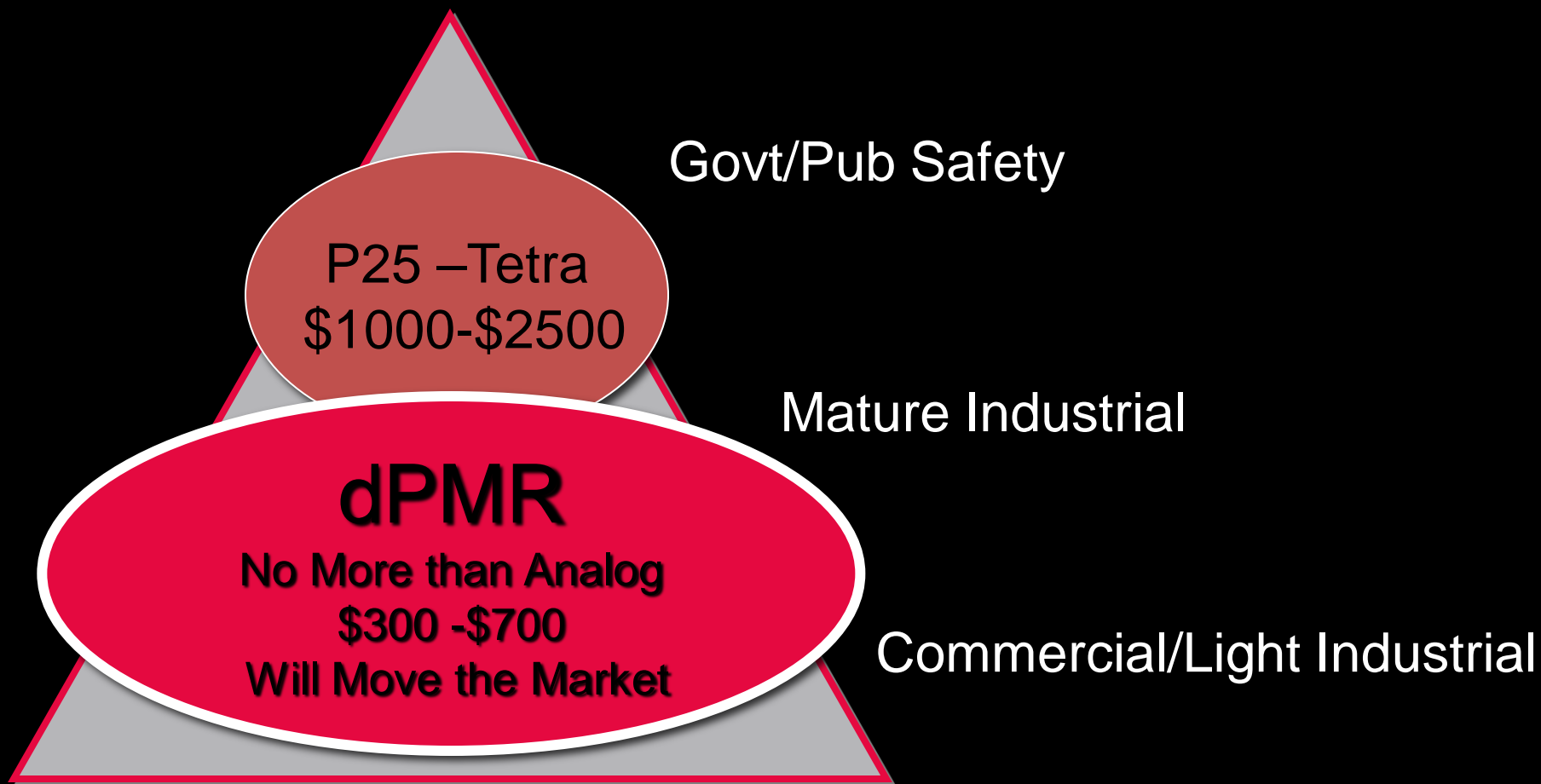
MARKET DIGITAL STREET PRICES



DMR's POTENTIAL MARKET PENETRATION



dPMR's MARKET IMPACT



dPMR SOLUTIONS FOR ALL SEGMENTS

dPMR (TSI TS102 490)

PMR446 – family radio, CB style recreation radio

dPMR (TSI TS102 658)

Tier I - Simplex communications

\$\$ Driven Buyers

dPMR (TSI TS102 658)

Tier II – Conventional Repeaters

Task Driven/Needs

dPMR (TSI TS102 658)

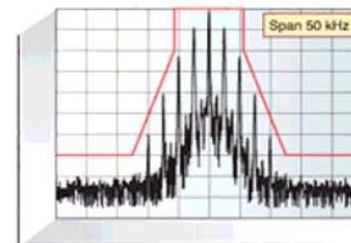
Tier III – Single site - nationwide trunking

***Specific User Needs
& Network Operators***

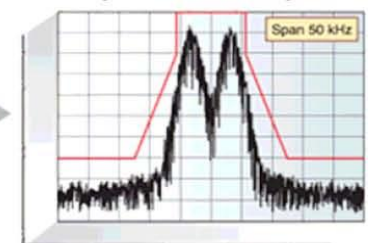
- 2 x 6.25kHz channels in a standard 12.5kHz channel
- Opens up possibilities of channel splitting and trading
- Optimum channel efficiency in all modes:
 - Peer-to-Peer
 - Repeater
 - Trunking
- Low power consumption
long battery life

Note: dPMR and NXDN are related 6.25kHz FDMA technologies. NXDN uses an alternate form of CAI.

Existing Analog FM
(12.5kHz)



6.25 kHz Digital
(6.25kHz x 2)



Two offset 6.25kHz channels are available

**Australia is ready with
6.25Khz Allocations**




12.5kHz traffic image



6.25kHz digital image,
2x the traffic of 12.5kHz

Benefits to Business/Industry Users

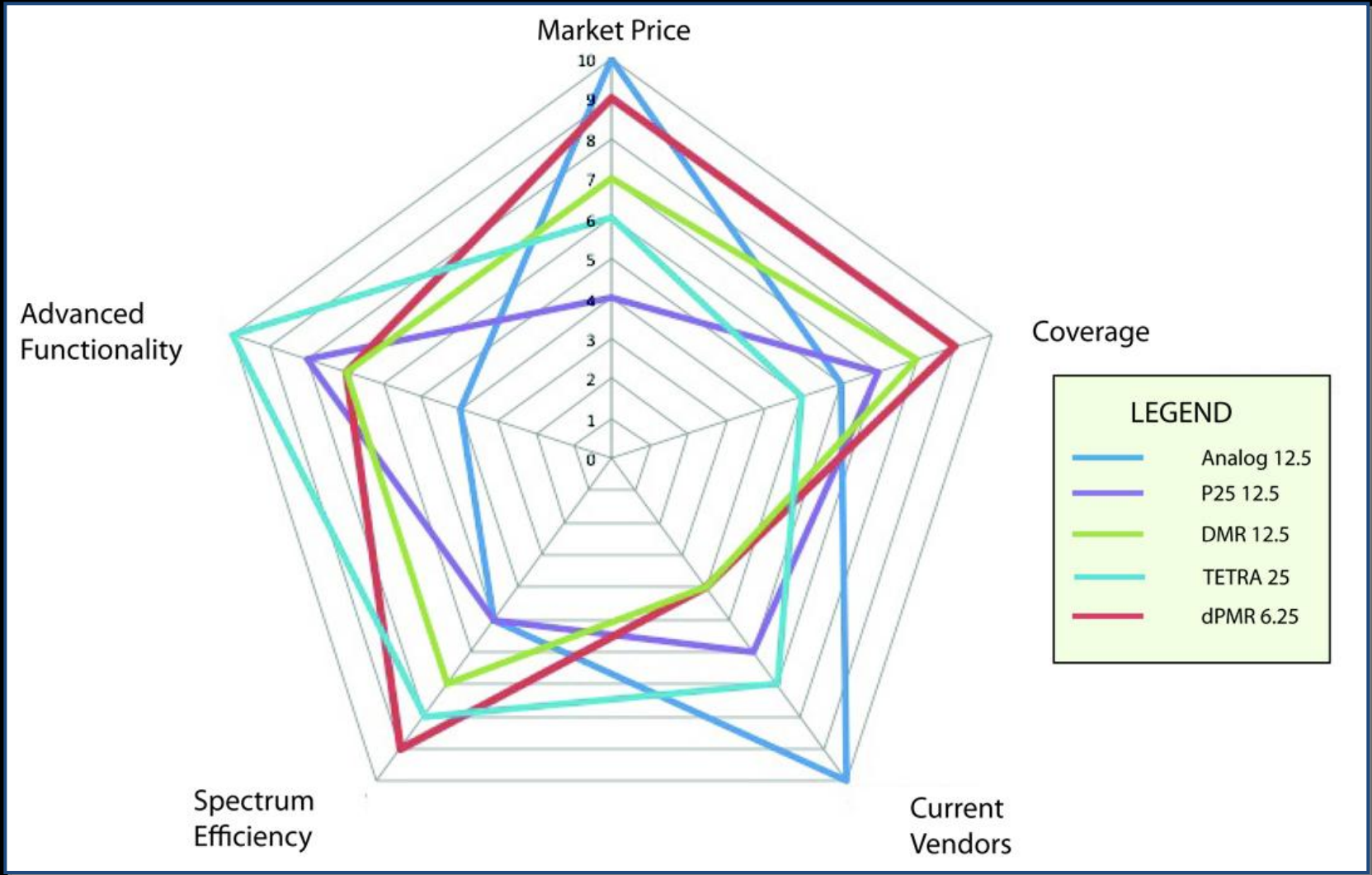
- Clear communication at the fringes reception
- Voice and voice + data capability
- Voice and data security
- Easy integration of into existing analogue based systems
- Radios that can easily switch between analogue and digital modes
- Wide area systems can migrate to digital at their own pace
-  open standard promoting competition, quality and choice
- Seamless hardware integration into IP networks

What does this all mean?

Low digital migration costs

Better positioned to move the large analog market

Radio Technology Comparisons



dPMR Advantage

- ***dPMR not bound up by IP and royalty fees***
 - ***DMR is almost totally owned by one vendor***
- ***dPMR specifically designed to avoid such significant product cost imposts.***
- ***6.25kHz FDMA means can be easily added to existing analog products with minimal re-design and manufacturing costs.***
- ***Equivalent features, functionality and audio quality***
- ***Significant cost advantage on market entry***

Radio Manufacturers

In the coming year radio markets worldwide will see increasing dPMR terminal products coming from:

- *Entel*
- *Hytera*
- *Icom*
- *Kenwood*
- *Midland CTE*
- *Shanghai Motorola*
- *Wireless Pacific*
- *Plus 20 or more Asian OEM Manufacturers*

Choice, Competition, Value, Price for the market.

*Can you spot the Cellular Trend
here??*

Summary



- Clear communication at the fringes of reception
- Voice and voice + data capability
- Secure voice and data
- Maximum spectral efficiency in all operating modes
- Seamless migration to digital (at your own pace)
- Wide range of manufacturers offering 6.25kHz FDMA equipment
- Operating modes that cover direct mode, repeaters to wider area network based systems
- Lowest possible cost base for digital PMR



So will dPMR be the Australian technology of choice?

- *For the top end i.e. public safety? - probably not*
- *For commercial network operators ?*
- *For contract based project contractors?*
- *For stripline/rail/road systems?*
- *For the analog legacy market- a real likelihood*

This may not be as sure a thing as Black Caviar over 1200m but definitely something to keep your eyes on

Further Info

- www.dpmmr-mou.org
- dPMR White Paper
- ETSI dPMR Document

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