VOTRE RÉSEAU SÉCURITÉ
COMMUNICATIE VOOR VEILIGHEID

Broadband Transition - The Belgian perspective

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PSCE Conference Madrid 28-29 November 2017
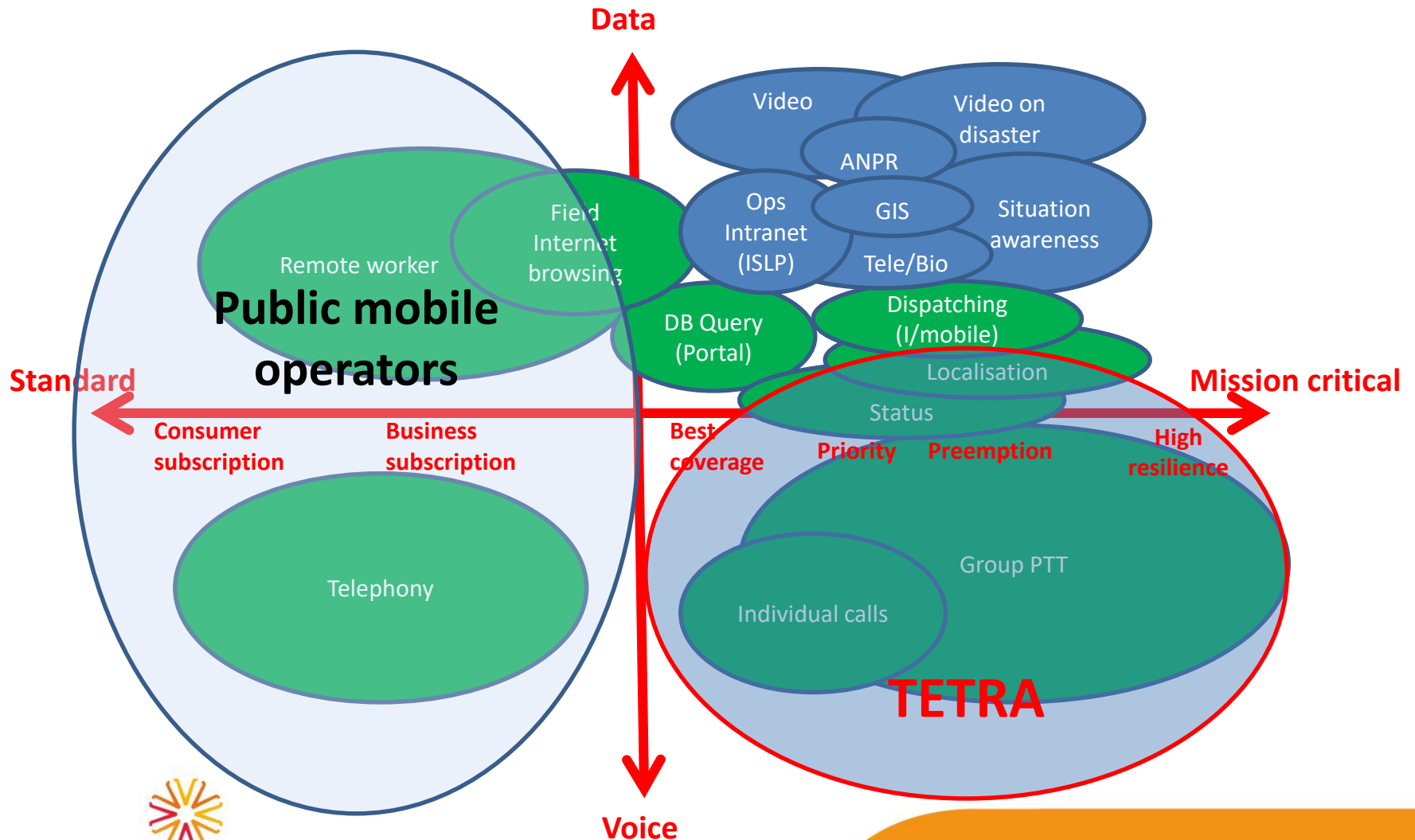
Broadband Transition - The ASTRID perspective Content

- What is ASTRID?

- TETRA MLU

- BLM (1-2)

- 3GPP MC Services

What is ASTRID?

https://www.youtube.com/watch?v=R9DvHzIMmpc

- Critical mobile communication services

- Command and control rooms for emergency calls and dispatching - 112

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Mobile Communications 2011

ASTRID 2011 analysis

- Voice
  - advanced MC Voice (PTT, …) services essential
  - TETRA the only solution for the next decade
  - ASTRID TETRA ageing
  - ⇨ TETRA Mid Life Upgrade

- Data
  - TETRA (1) not enough anymore
  - Commercial non MC data services threat for integrated multiuser communications and operations
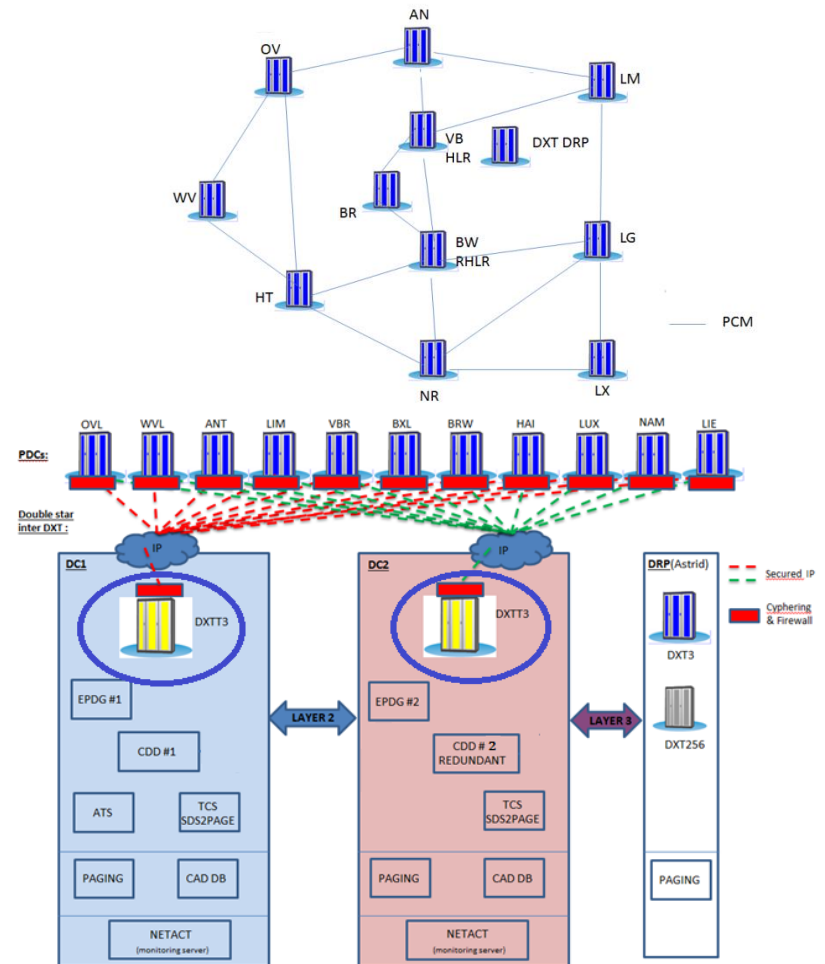 - ⇨ Search "MC" data solution

TETRA Mid Life Upgrade
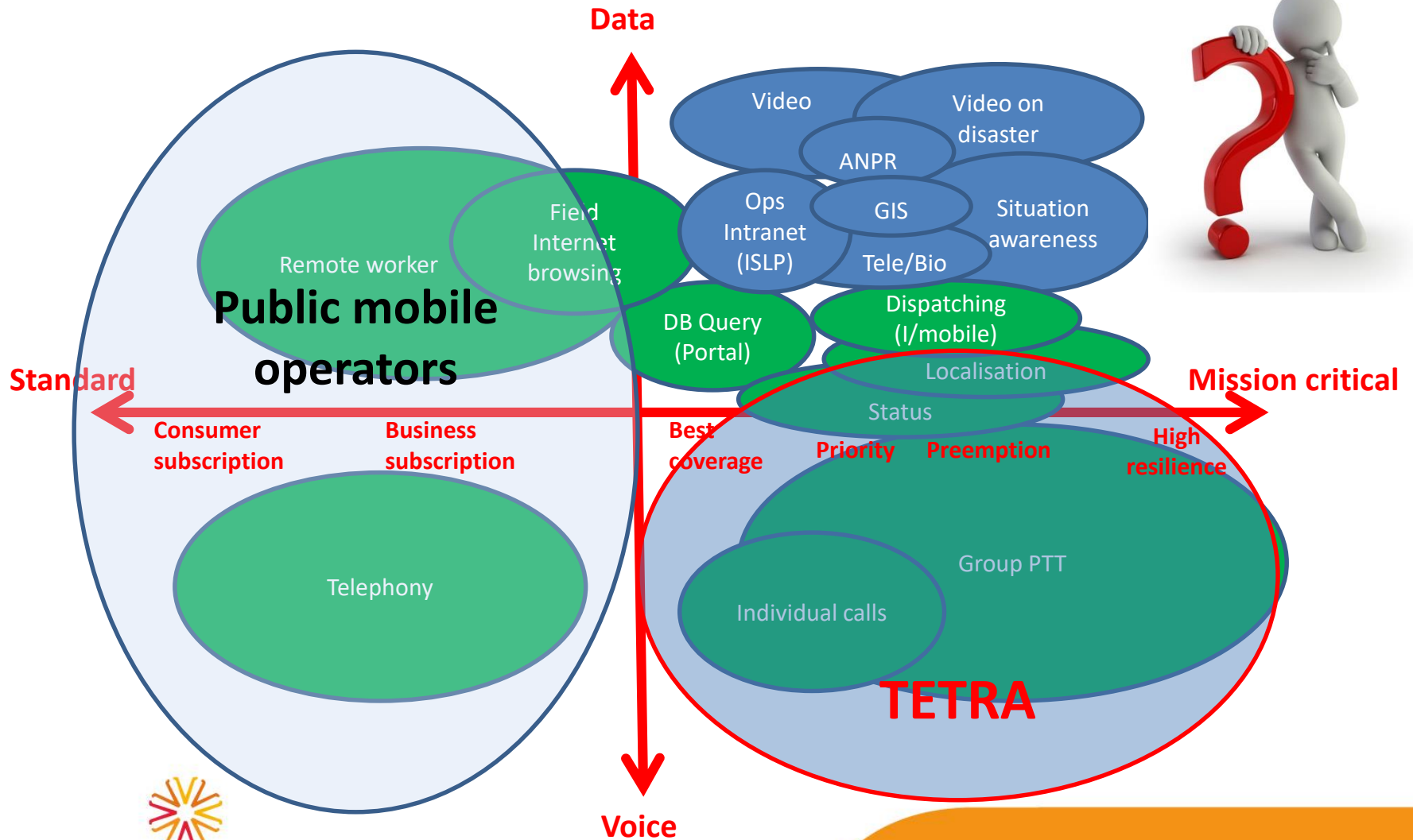
- What
  - Backbone TDM -> IP

  - Meshed -> Flat

  - SW maintenance improved

  - DRP improved

- Timing
  - 2014-2018
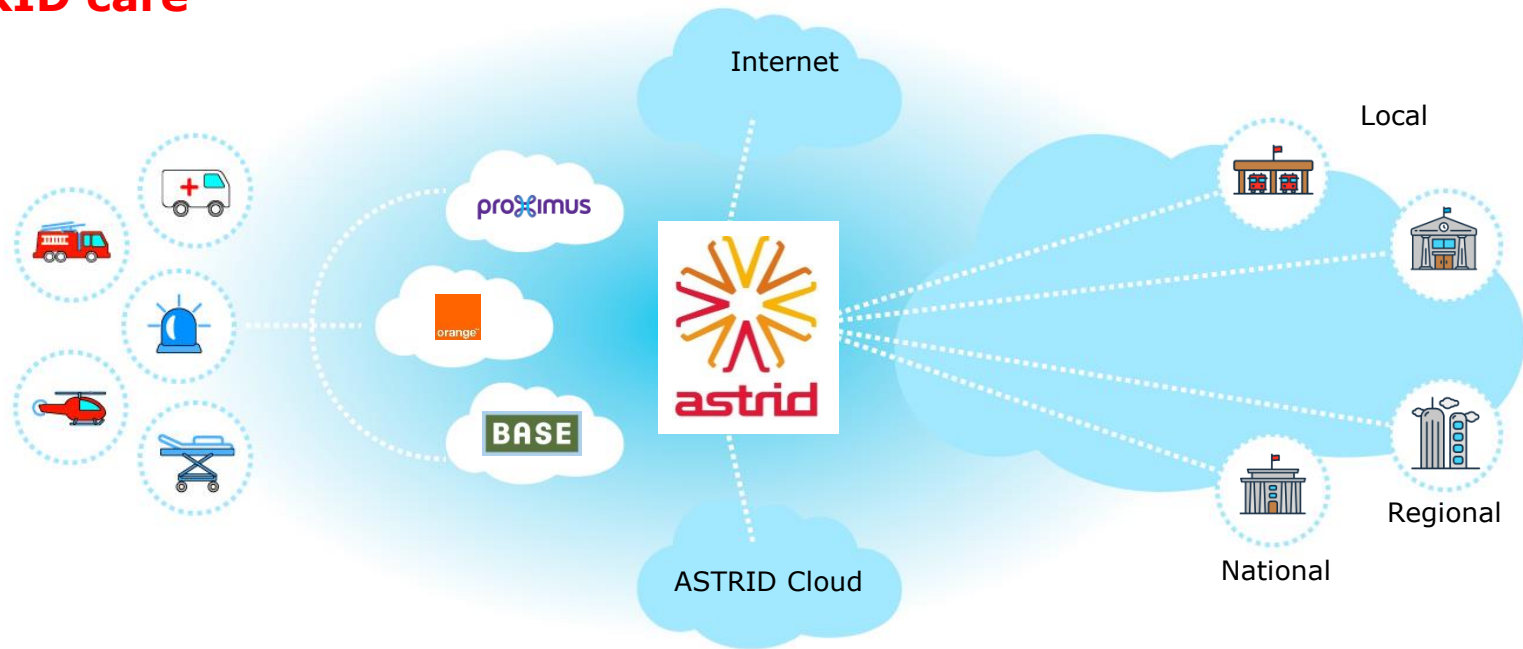   Upgrading life MC network

Search "MC" data solution

Search "MC" data solution

- Dedicated network solutions:
  TEDS – WIMAX - …
  - No frequencies available
  - No (huge) investment possible
  - Not enough data capacity
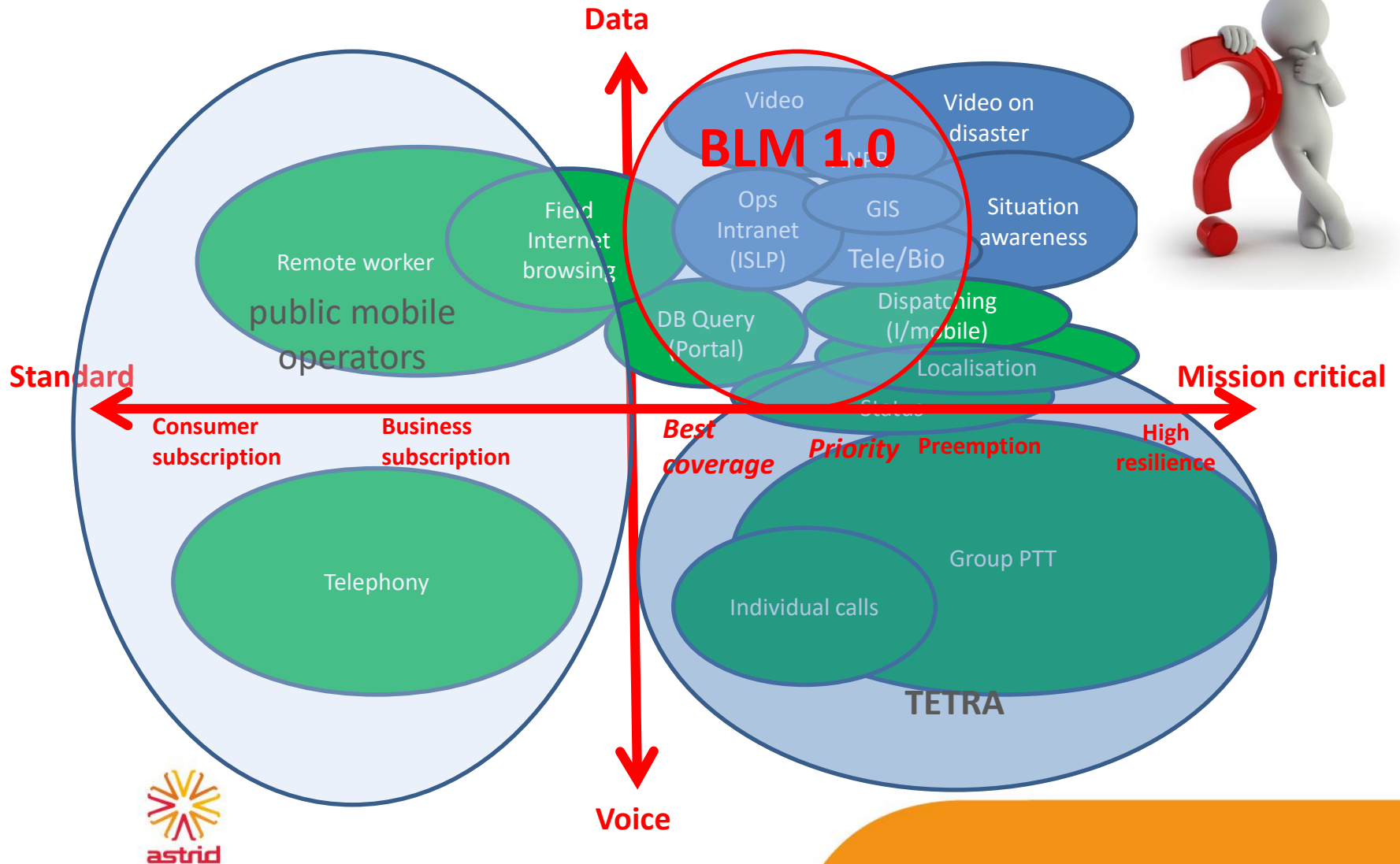 - Not futureproof

- Shared network solutions:
  MVNO model based on public mobile networks
  - No frequencies needed
  - No (huge) investment needed
  - High data capacity
  - State of the art
  - Differentiation with public (MVNO) offerings? "MC" aspect?

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Blue Light Mobile 1.0 - Model

- ✓ **Data only**
- ✓ **High availability**
- ✓ **Managed and secured**
- ✓ **End-to-end solution**
- ✓ **Multidisciplinary**
- ✓ **ASTRID care**

Blue Light Mobile 1.0 - Objective

Blue Light Mobile 1.0 - 2014

- High (and unique) values
  - National roaming
  - Priority on Data bandwidth allocation
  - Embedded security

- Data only

- But, very slow pick-up from the users….
  - Adoption mobile data apps very slow in (B) PPDR
  - No voice

    only for data terminals – no smartphones
  - Price to high – national roaming based on international roaming

    Added value "MC" in routine circumstances versus price

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March 2016 Terrorist attacks Brussels

- TETRA

- Public Mobile Networks

- "MC" became important (again):
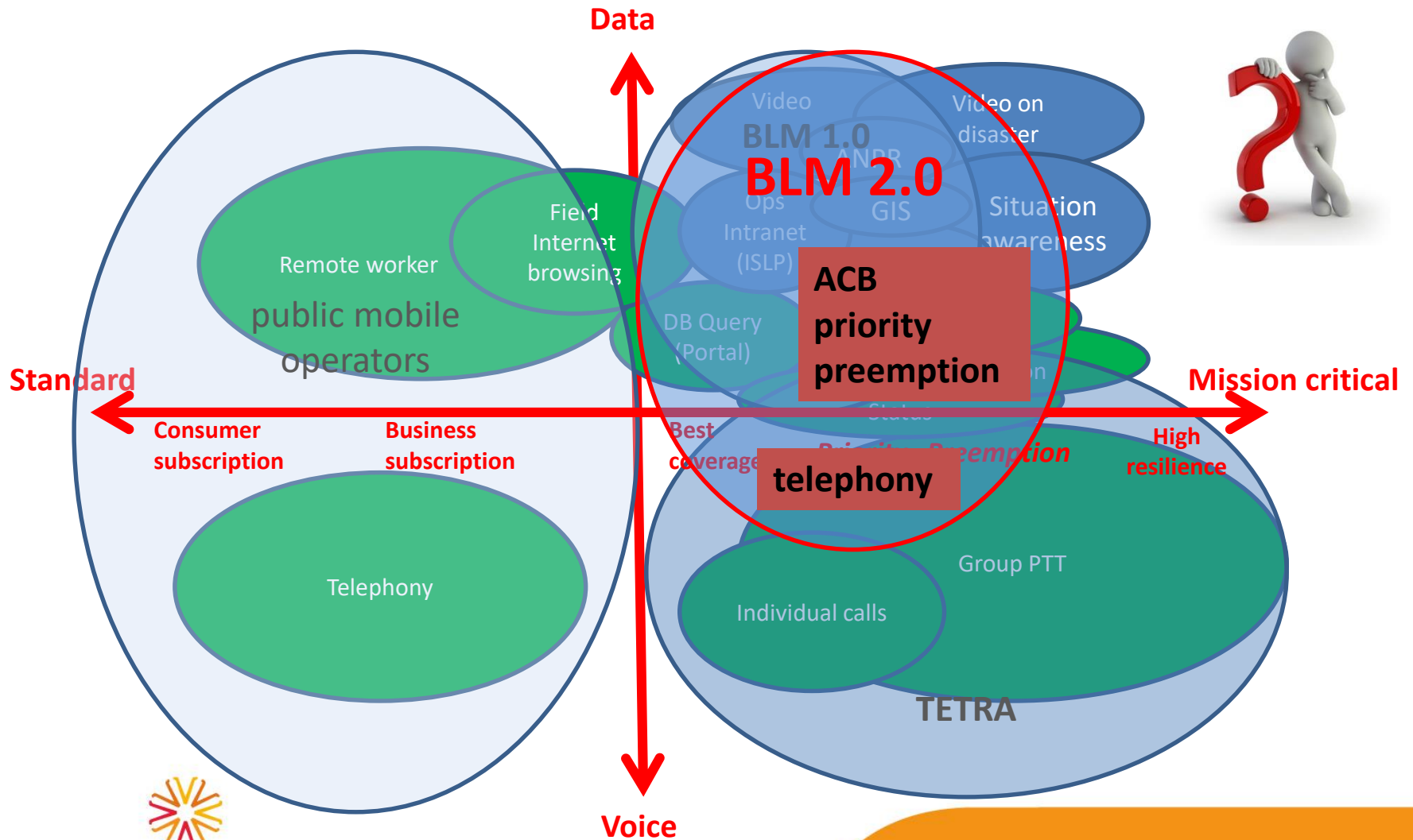 - VIPs
  - PPDR

⇨ Need for "MC" telephony (voice)

⇨ Improved access/priority/preemption for V+D

⇨ BLM 2.0

Blue Light Mobile 2.0

- Blue Light Mobile 1.0
  - National roaming
  - Priority for Data throughput
  - Security
  - ...

- **+ voice services (telephone calls & SMS)**

- **+ ACB - priority - preemption**

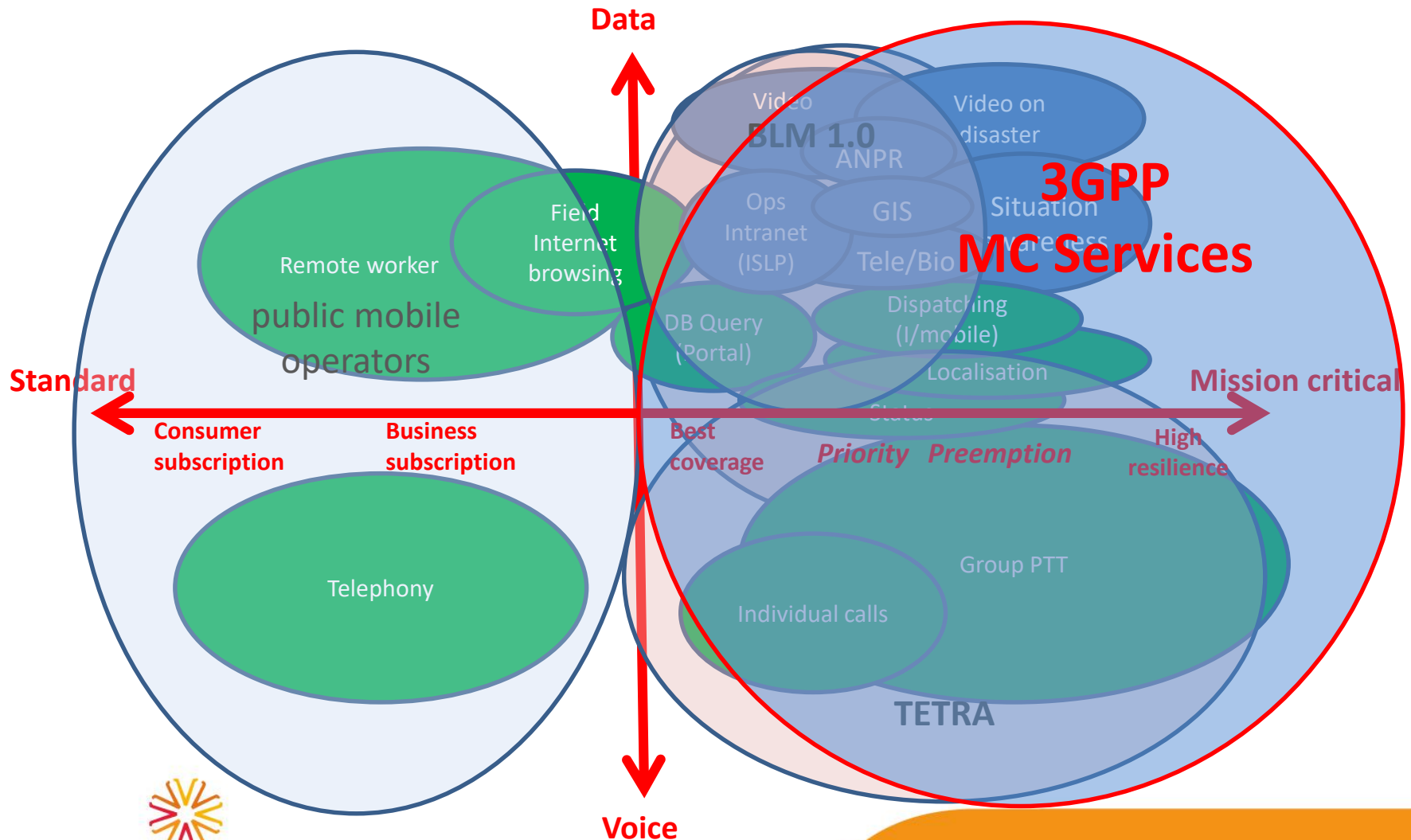astrid

Blue Light Mobile 2.0 - Objective

3GPP MC Services

- Full "MC" broadband services:
  - Standardisation in 3GPP
  - International evolutions
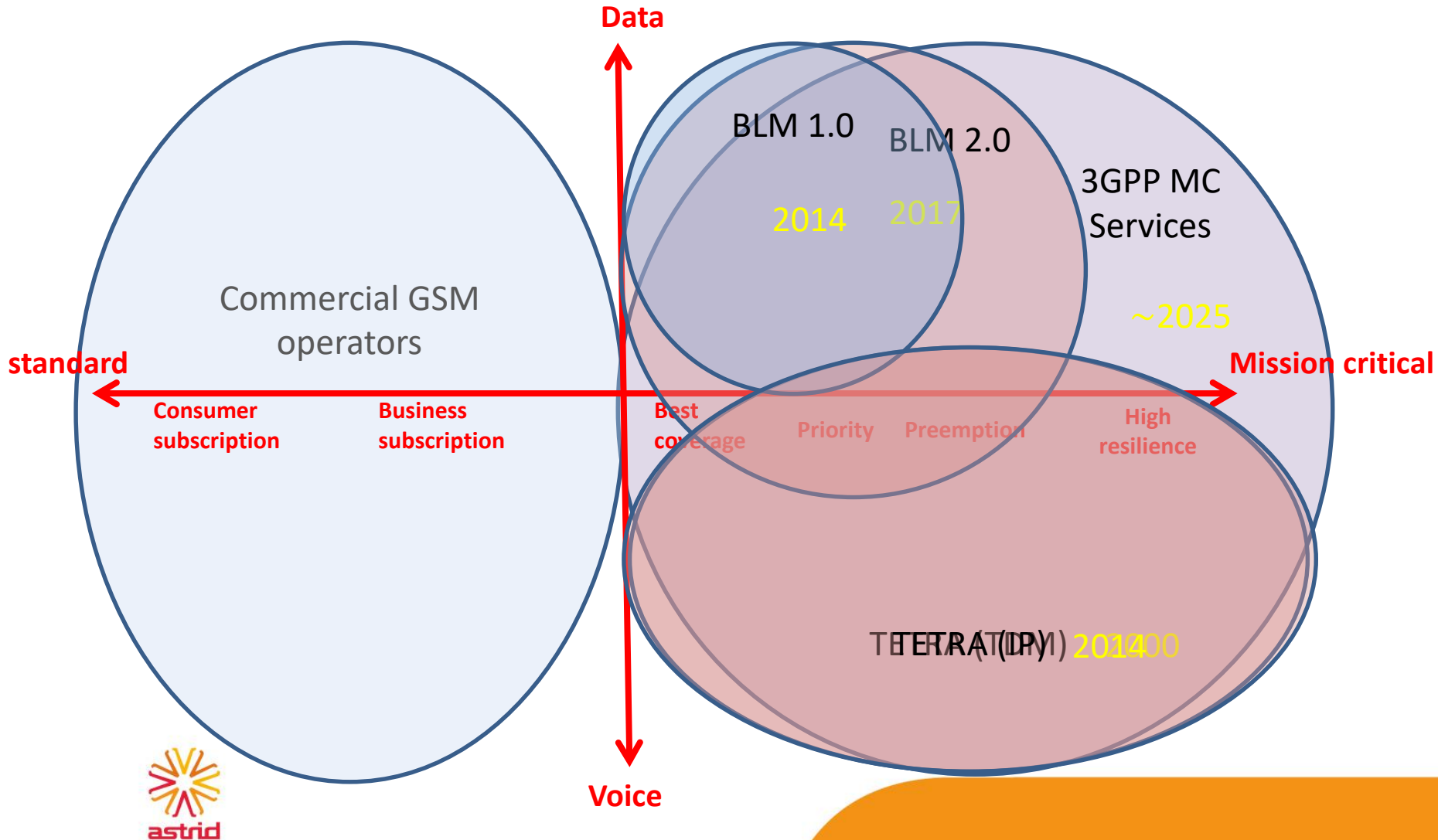   - Early adopters UK- US – South Korea
    - F, …

- Belgium
  - No hurry – teething troubles
    - Full functionality (MCPTT versus TETRA PTT)
    - Reliability
    - …

  - But it's the future of PPDR communications
    - ASTRID follows and participates in the developments
    - ASTRID prepares the implementation

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3GPP MC Services - Objective

Broadband Transition Roadmap

Questions?