

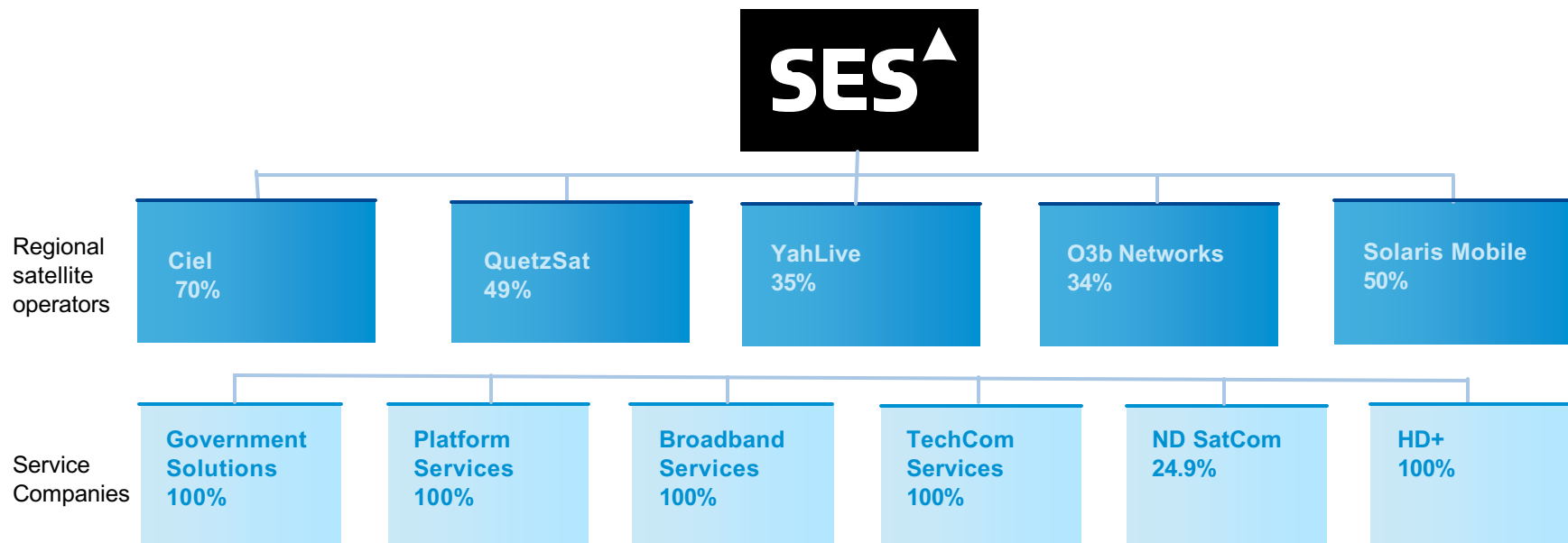
WBU-ISOG – Zagreb, Croatia

# Ka Strategy & Update

October 2011 - Richard Lamb

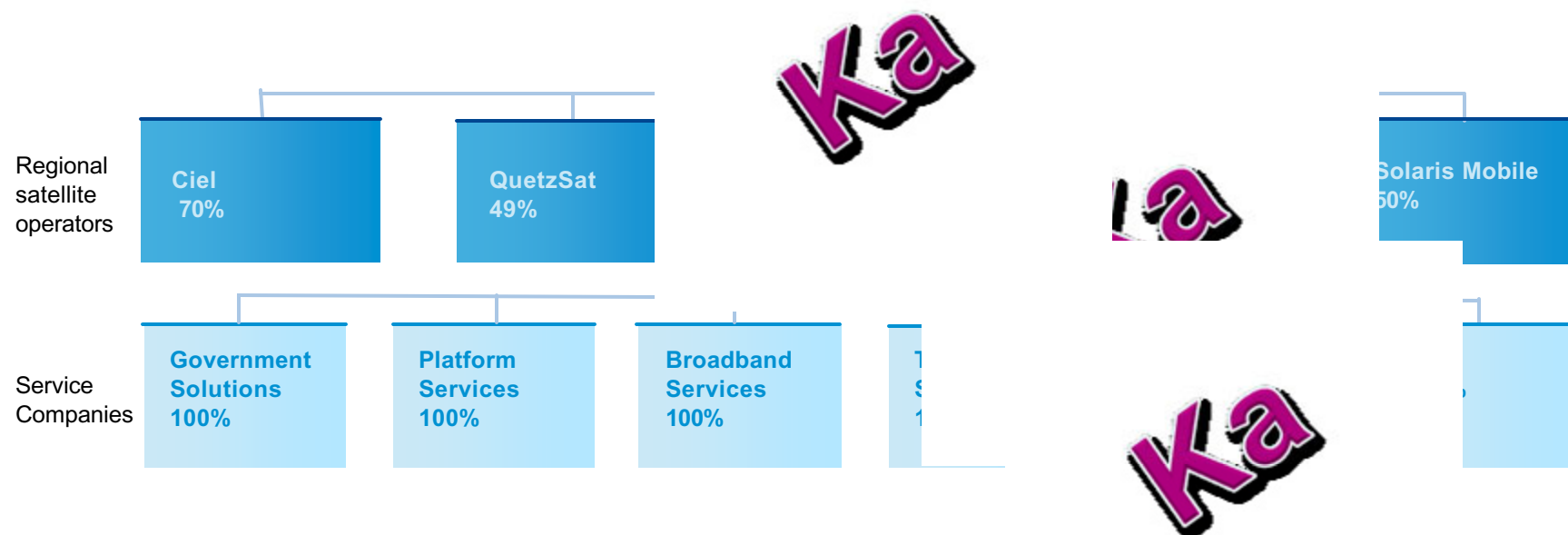
# Our organisational structure

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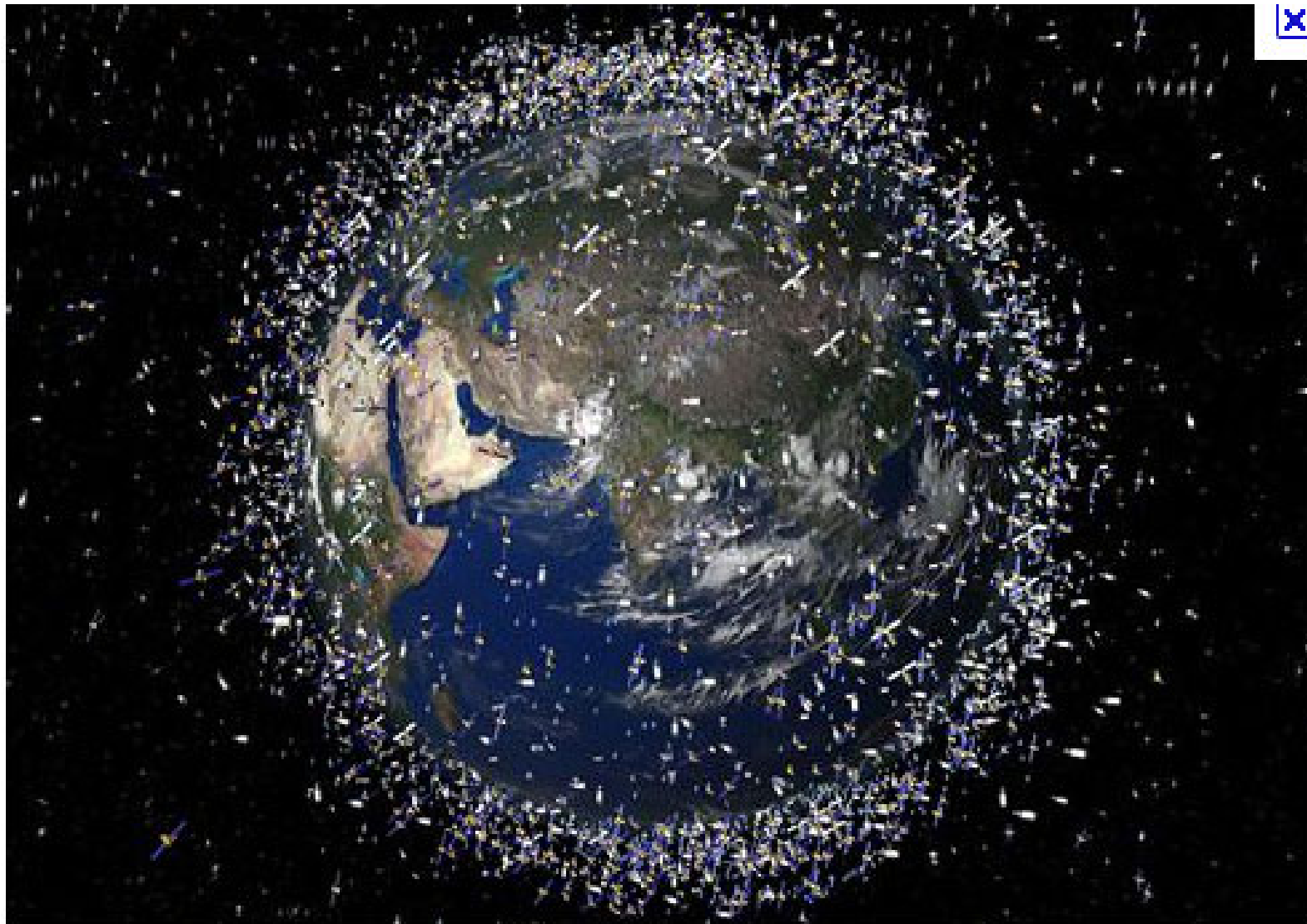


# Why Ka ?

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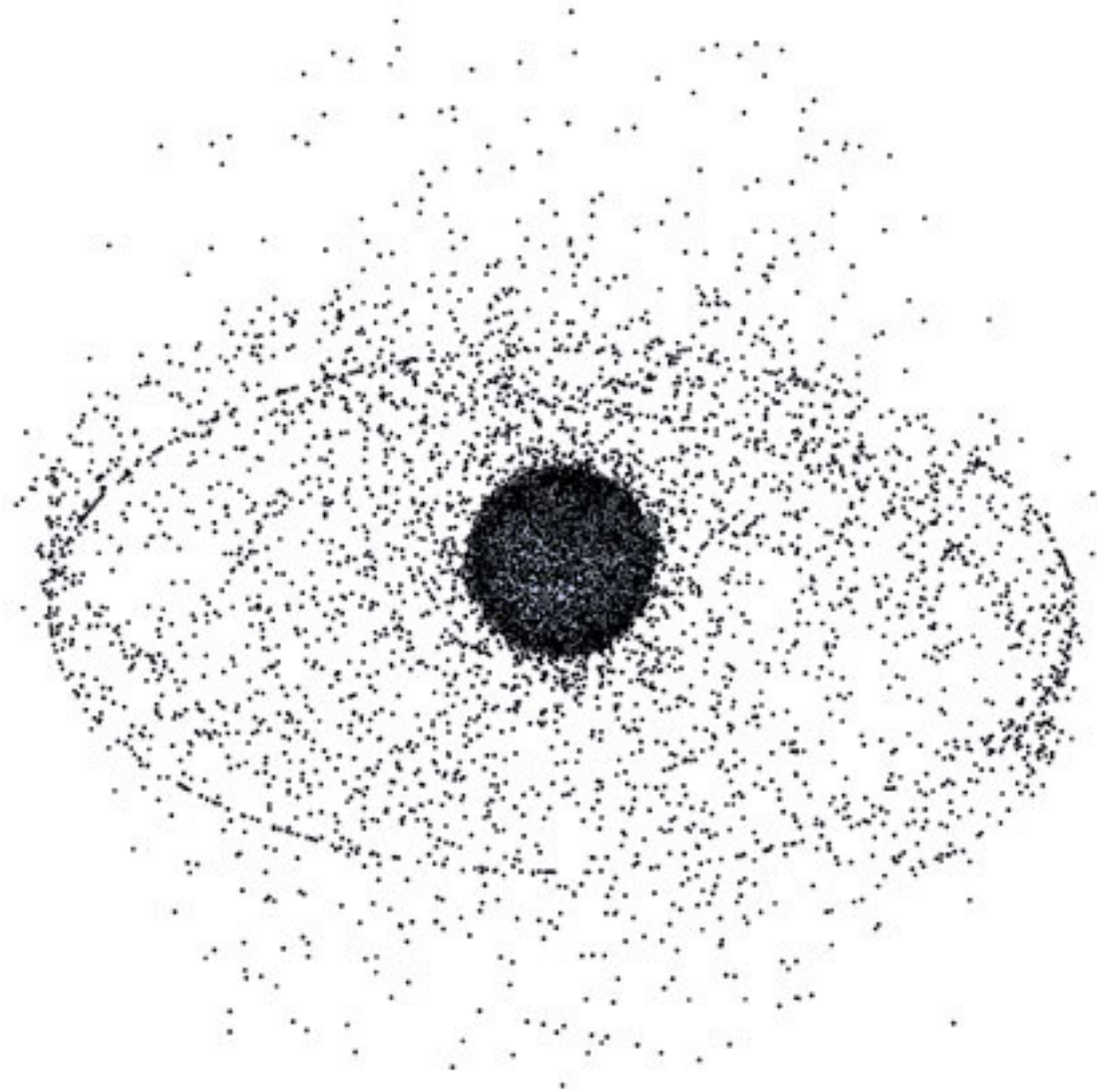
# Why Ka ?

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# Why Ka ?

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# Strategy

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Our strategy continues to work with existing Enterprise and Media customers of today

Bringing them the benefits of Ka without compromising their Quality Assurance and their existing service or product definition

The Ka is seen as opportunistic to the entire satellite mission. The satellites primary mission will remain Ku. These keeps the costs down for the Ka's typical 250MHz of spectrum

Efficiencies in a multi-spot design allows for regional distribution.

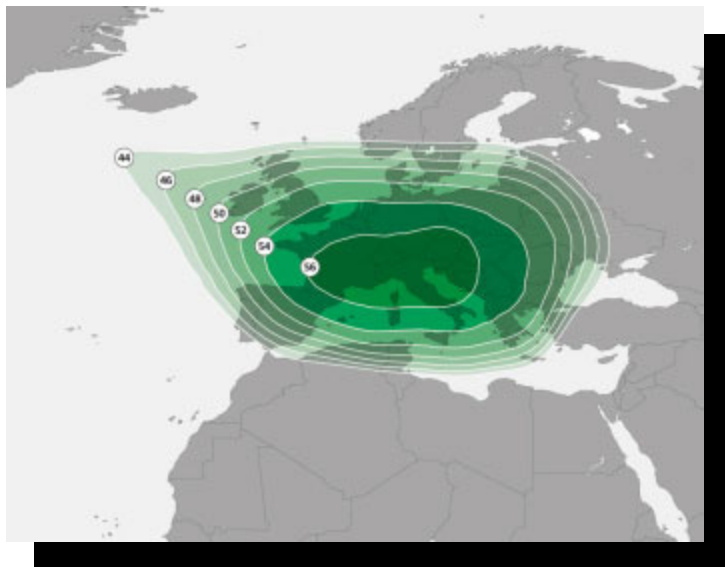
Steerable beams on 2F, 2E, 2G and 5B

# Three year trends SES

| Satellite      | Frequency Bands | Orbital Location | Polarity | Coverage                       | Launch Date | Design Life |
|----------------|-----------------|------------------|----------|--------------------------------|-------------|-------------|
| <b>CURRENT</b> |                 |                  |          |                                |             |             |
| Astra 4A       | Ku, Ka          | 5E               | Linear   | S.Africa,<br>Europe & Russia   | 2007        | 15 Years    |
| Astra 1L       | Ku, Ka          | 19.2E            | Circular | Europe                         | 2007        | 15 Years    |
| Astra 3B       | Ku, Ka          | 23.5E            | Linear   | N.Africa,<br>Europe & Russia   | 2010        | 15 Years    |
| <b>FUTURE</b>  |                 |                  |          |                                |             |             |
| Astra 5B       | Ku, Ka          | 31.5E            | Circular | Europe, Russia                 | 2013        | 15 Years    |
| Astra 2E       | Ku, Ka          | 28.2E            | Circular | N.Africa, S.Africa<br>& Europe | 2013        | 15 Years    |
| Astra 2F       | Ku, Ka          | 28.2E            | Circular | N.Africa, S.Africa<br>& Europe | 2012        | 15 Years    |
| Astra 2G       | Ku, Ka          | 28.2E            | Circular | N.Africa, S.Africa<br>& Europe | 2014        | 15 Years    |



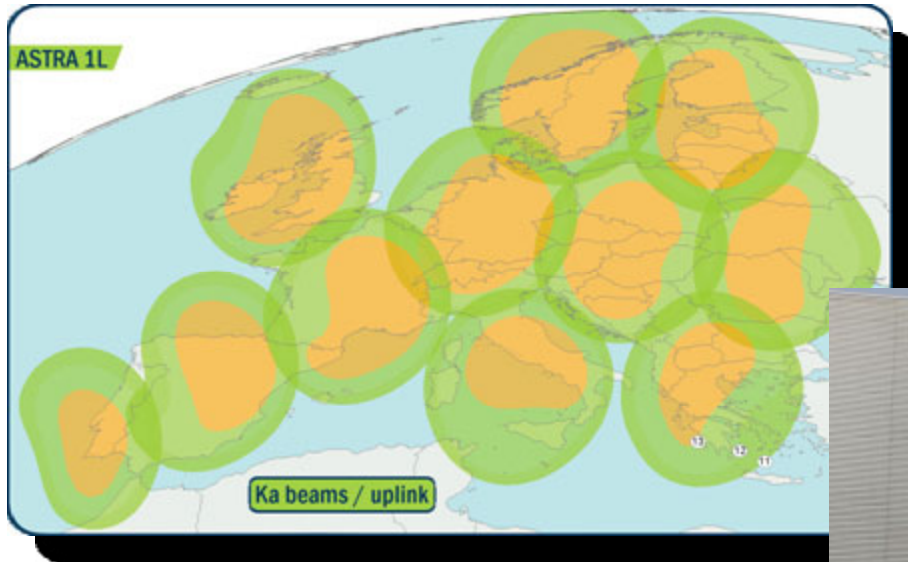
# Ka SNG



ASTRA 3b Ka



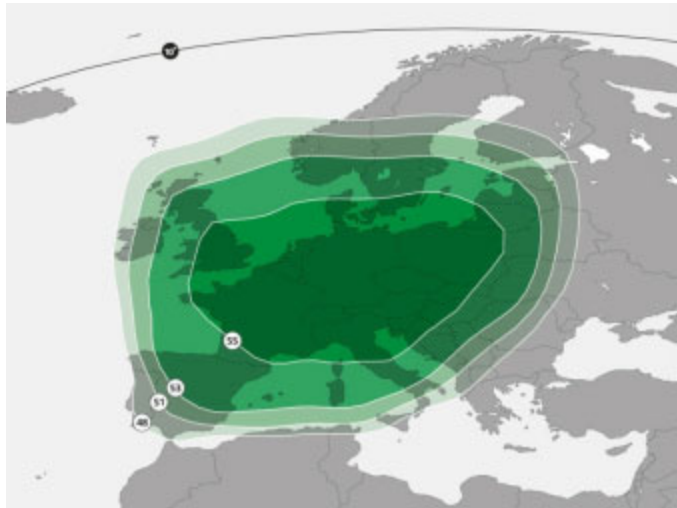
# Ka SNG



ASTRA 1L Uplink beams



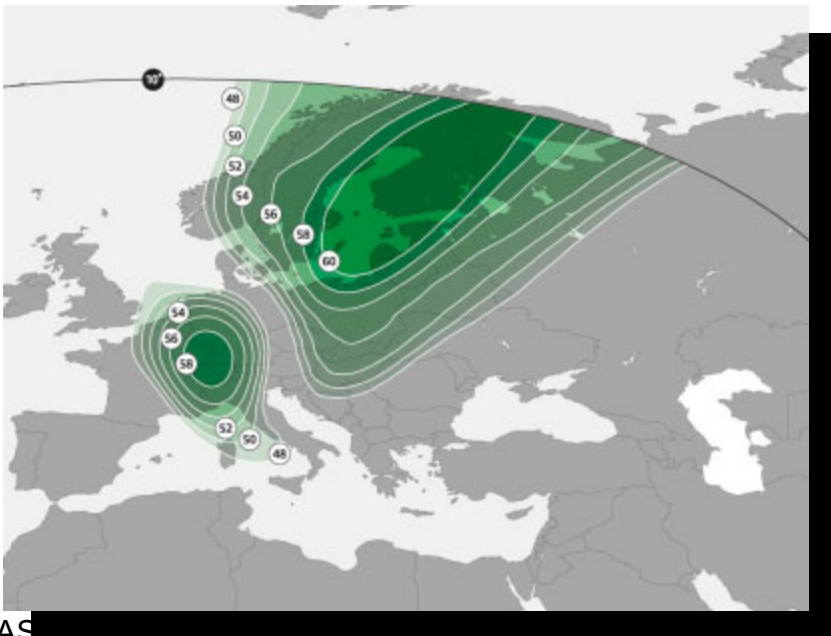
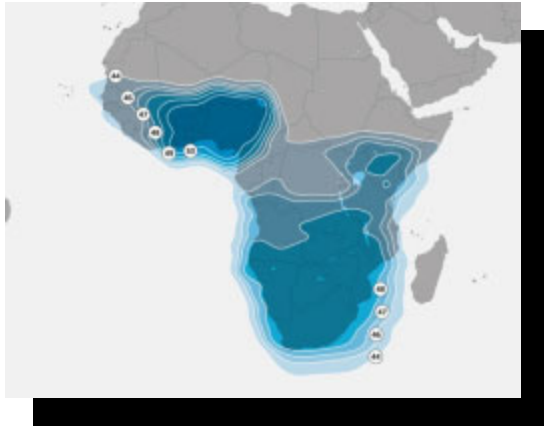
# Ka SNG



ASTRA 1L Europe Ka-band beam



# ASTRA 4A for Occasional Use / Africa → Europe



ASTRA 4A Europe interactive Ka-band beam

- 4 FSS transponders in the Africa (Ku) → Europe (Ka) configuration available for occasional use.
- 36 MHz channels divisible in slots of 4.5, 6, 9, 18, 27 and 36 MHz.
- The transponders are operated in back-off mode in order to provide linear characteristics for multi-carrier operation.
- The ASTRA Access Center provides a 24 hours monitor and control network reporting point for service quality monitoring and problem resolution for satellites.





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A large, abstract graphic on the left side of the slide, composed of overlapping geometric shapes in shades of blue, purple, and magenta.

# Thank you!

A simple black curved line that arches over the text below it.

Supporting & promoting the common industry Carrier ID initiative