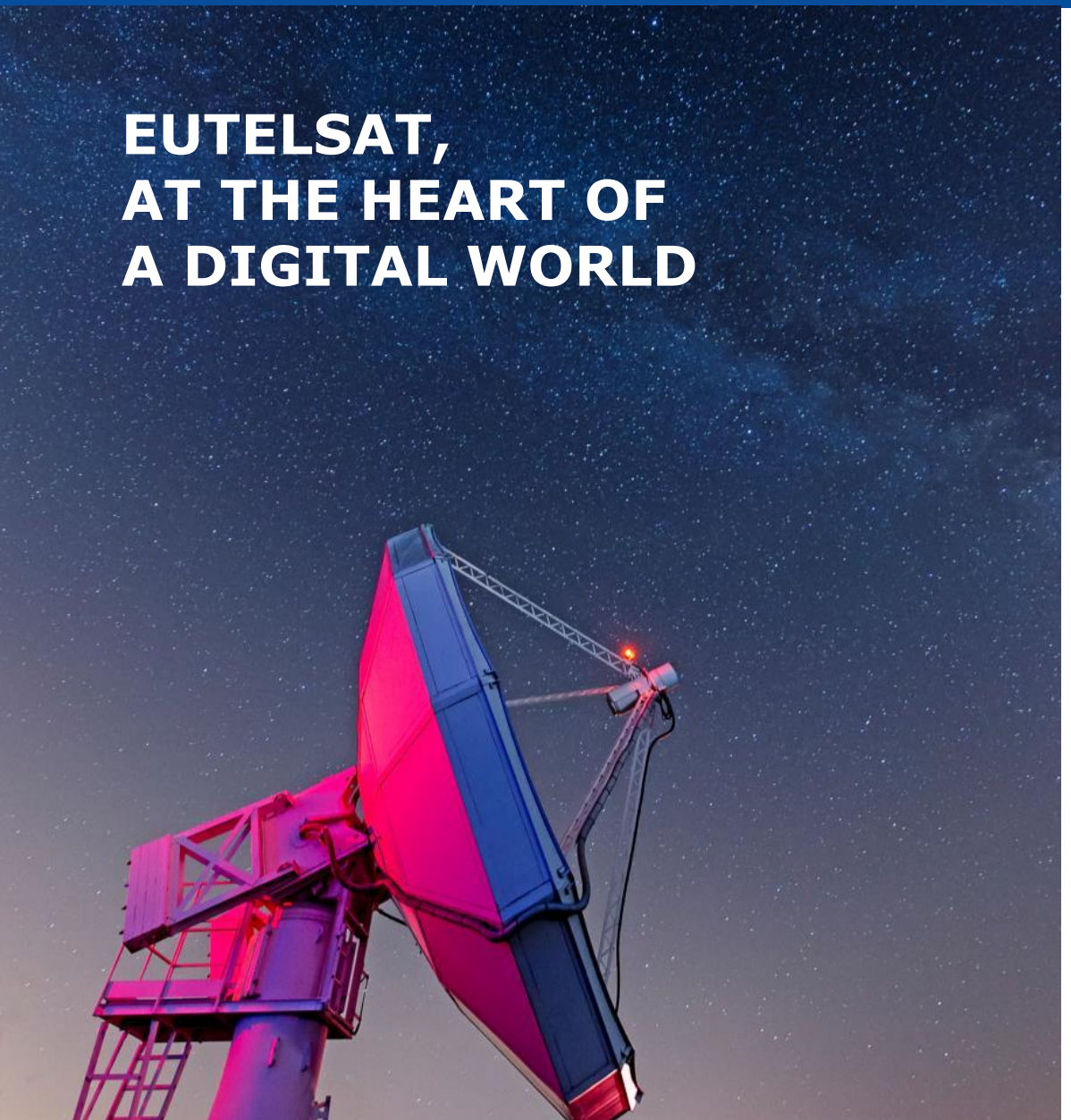
IMPACT OF NEW TECHNOGIES AND FUTURE TRENDS

ITU workshop on the efficient use of orbit/spectrum Resource

eutelsat

Legian, Bali, Indonesia, 6 September 2016

A KEY PLAYER IN THE SPACE BUSINESS



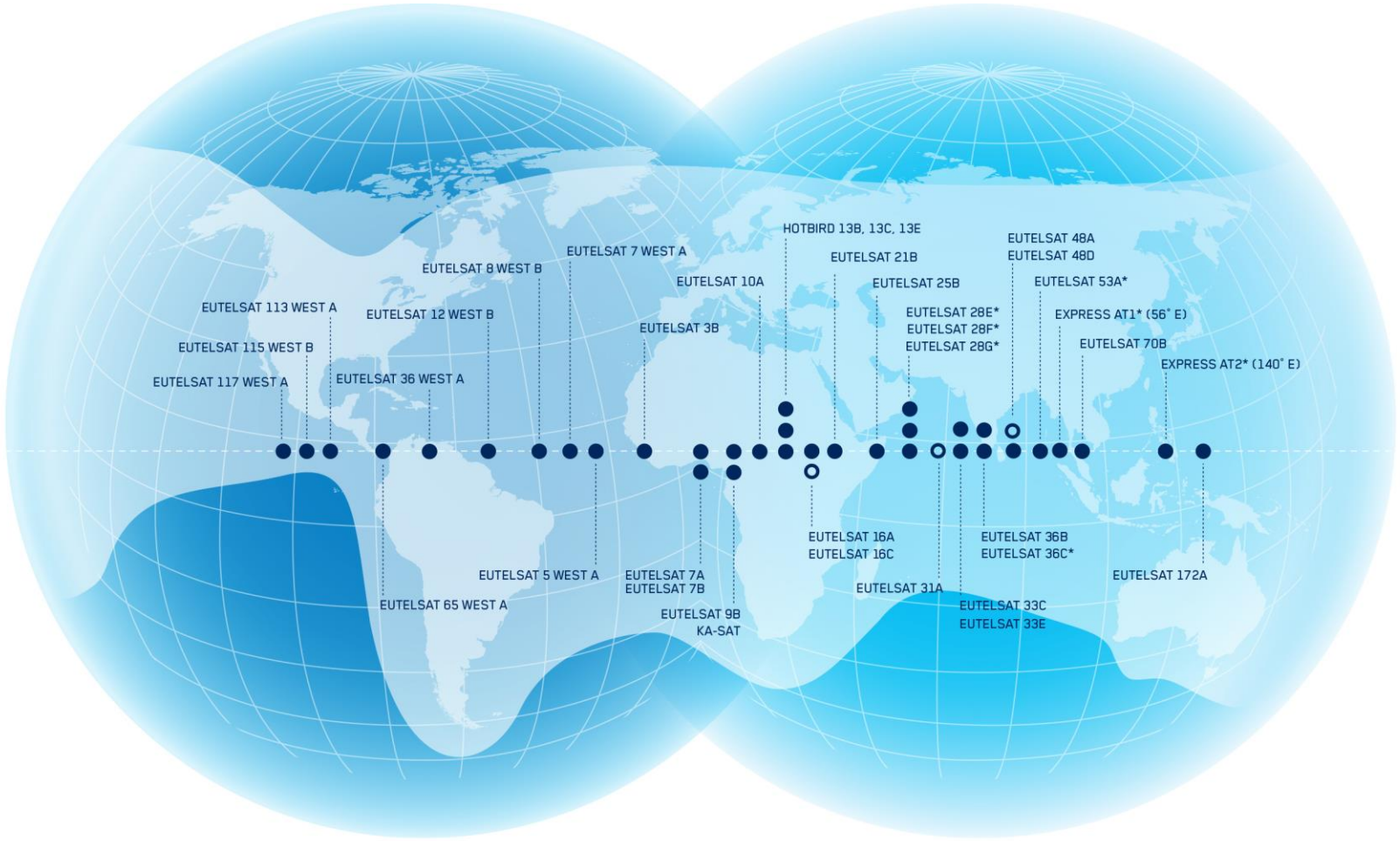
Pioneer in space
over **30** years of experience

39 **Satellites**
for global coverage

Solid investment programme
4 satellites to launch

A FLEXIBLE, WORLD-LEADING GLOBAL FLEET

Diversified resources
in C, Ku and Ka bands



EUTELSAT FLEET
JULY 2016

- stable orbit
- inclined orbit
- * capacity on third-party satellites

FUTURE SATELLITES:
- EUTELSAT 117 West B undergoing in-orbit raising
- EUTELSAT 172B
- Eutelsat Quantum
- EUTELSAT 7C
- African Broadband Satellite

- EUTELSAT 36A currently under redeployment
- EUTELSAT 33D currently under redeployment

eutelsat

STAYING CLOSE TO OUR CLIENTS

20 OFFICES

6 TELEPORTS
OVER **60**
PARTNER TELEPORTS

ONE
GROUP

Beijing
Cologne
Dubaï
Istanbul
Johannesburg
London
Madeira
Madrid
Mexico
Miami
Moscow
Panama
Paris, Group HQ
Rio de Janeiro
Rome
Singapore
Tampa
Turin
Warsaw
Washington D.C.

AN ESSENTIAL LINK IN THE CHAIN

TODAY

Feeding terrestrial headends (ADSL, cable, DTT), Direct-to-Home reception

Extending mobile networks

Broadband, accelerating quality access to the Internet

TOMORROW

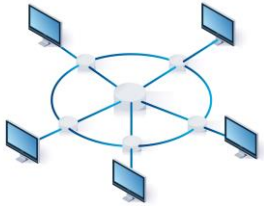
An accelerator of mobile coverage

Connected cars: a facilitator for content reception

A KEY CONNECTIVITY SOLUTION

High Throughput Satellites already offering ADSL-like connectivity

Tomorrow: fibre-like connectivity



High demand across mature and developing markets

New mobile services: maritime, in-flight

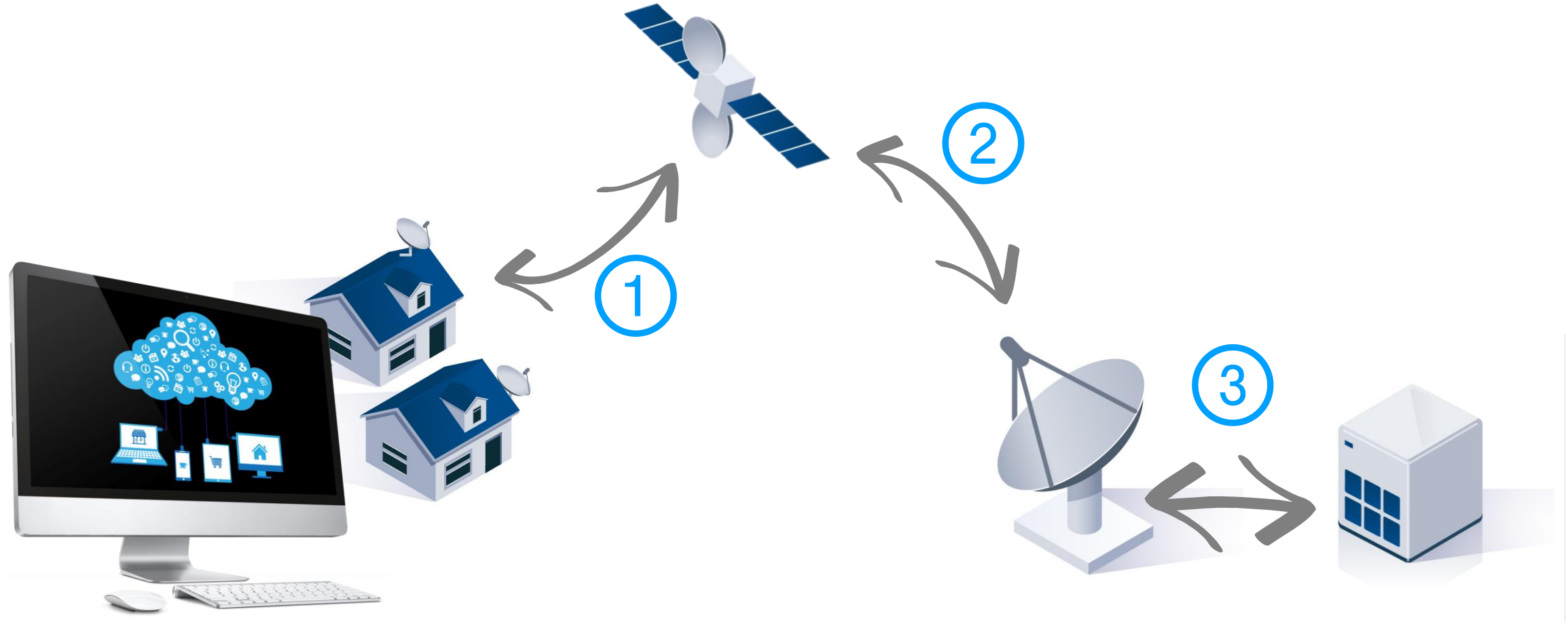
ViaSat

HUGHES An EchoStar Company

Gilat Gilat Satellite Networks

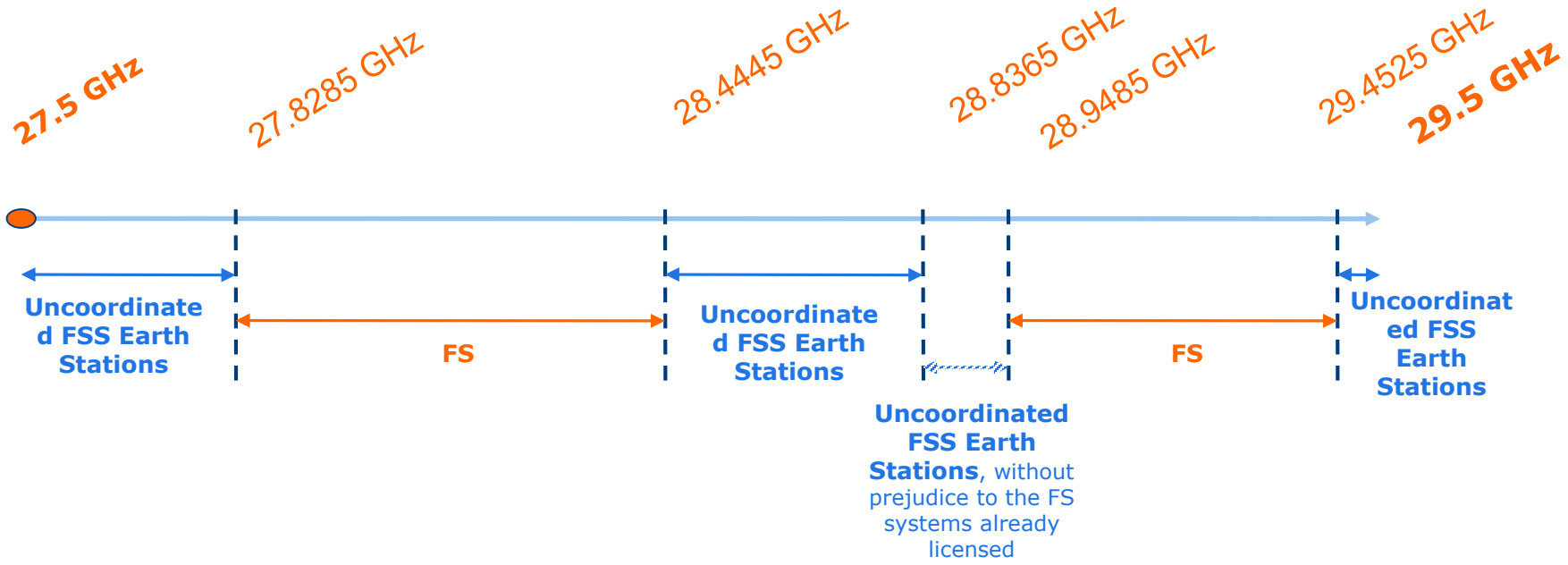
Panasonic

SATELLITE BROADBAND: HOW IT WORKS



EXAMPLE HTS BEAM LAYOUT (EUROPE)

USER TERMINALS IN THE NON-EXCLUSIVE BAND



- **As per CEPT Decision ECC/DEC/(05)01**
  - ➔ Implemented already today by 26 CEPT countries
  - ➔ Modified in 2013 to allow for individual license exemption in band 27.5 – 29.5 GHz

- **Also: ANATEL Public Consultation no. 13 -** proposal to limit the use of the bands 18.1-18.6/27.9-28.4 GHz to networks of the fixed-satellite service (FSS)

CONCLUSIONS

- Satellite will and must be a part of the telecommunications ecosystem including in the future high speed, 5G world.
- High Throughput Satellites (HTS) will be a key contributor to connecting the world's citizens.
- HTS satellites require user terminals operating in the Ka band, and gateway links operating in the Q/V bands.
- Satellite Ka band is relevant in tropical and sub-tropical regions, particularly for ubiquitous broadband connectivity.
- Supporting the ITU consensus of WRC on IMT frequency bands is key for the mutual development of terrestrial and satellite industries (more on this tomorrow!)