

5G workshop
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Spectrum for 5G – European approach

Eric Fournier
Chairman, Electronic Communications Committee

5G spectrum requirement

- 3GPP is still working on **usercase/requirement**.
 - enhanced mobile broadband (xMBB)
 - Machine-type communications (mMTC, uMTC)
- Spectrum requirement not only for higher spectrum - **1200 MHz of spectrum below 4 GHz harmonised by ECC for MBB**
- WRC-15 will **launch studies for identification of 5G spectrum in higher bands** ... preferable to focus studies on certain frequency bands
- Two question marks :
 - **Backhauling/Access convergence**
 - **Sharing capabilities**

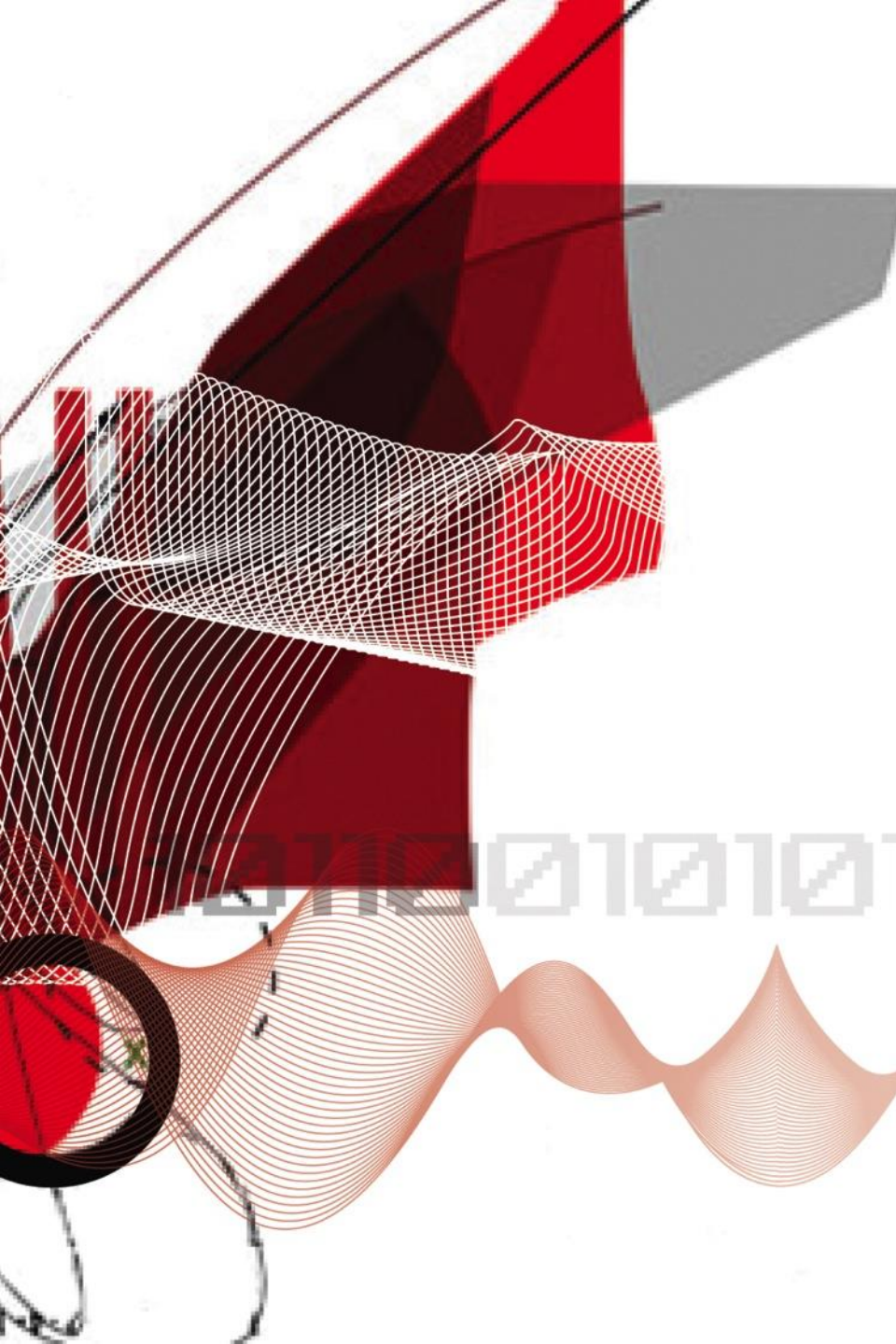
European proposals : bands to be studied

| | Bandwidth | Remarks – compatibility challenges |
|----------------------|-----------|---|
| 24.5-27.5 GHz | 3 GHz | Data relay satellite (Copernicus), satellite uplink and fixed links |
| 31.8-33.4 GHz | 1.6 GHz | “HDFS” band in RR 5.547 - Radionavigation |
| 40.5-43.5 GHz | 3 GHz | Satellite, Radioastronomy |
| 45.5-48.9 GHz | 3.4 GHz | Satellite |
| 66-71 GHz | 5 GHz | Satellite |
| 71-76 GHz | 5 GHz | Fixed service, satellite |
| 81-86 GHz | 5 GHz | Fixed service, satellite, radioastronomy |

*... and oppose studies in **27.5-29.5 GHz** because of satellite broadband communications*

Roadmap

- **WRC-15** decision on **WRC-19 agenda item** – bands to be studied
- **Sharing studies in CEPT and ITU-R** : 2016-2018
- Possible evolution of harmonised technical regulation in **existing bands** (2016 onwards)
- **WRC-19 decision to identify new bands for IMT-2020/5G**
- **> 2019 (or before ?)**: European harmonisation of new bands



CEPT **ECC**
Electronic Communications Committee

Thanks ...

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