



INDEPENDENT COMMUNICATIONS
AUTHORITY OF SOUTH AFRICA

6G / IMT 2023
Independent Communications Authority of South Africa

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6G / IMT 2030

Preparing for 6G and ensuring the spectrum framework can accommodate future IMT while protecting existing services.

Africa's Voice in 6G

- Moving from Standards taker to Standards shaper
- Using the NRFP, IMT Roadmap, Research Partnerships and international participation to translate African priorities into the global IMT – 2030 conversation

CONNECT THE UNCONNECTED

6G must improve coverage economics and reach rural and underserved communities.

AFFORDABILITY

Performance alone is not success if devices, spectrum and networks remain unaffordable.

TERRESTRIAL + SATELLITE

Ubiquitous connectivity should integrate mobile, fibre and non-terrestrial networks.

RESILIENCE & ENERGY

Networks must work through power constraints, disasters and infrastructure failures.

AFRICAN USE CASES

Agriculture • mining • transport • health • education • IoT • public safety.

SPECTRUM VOICE

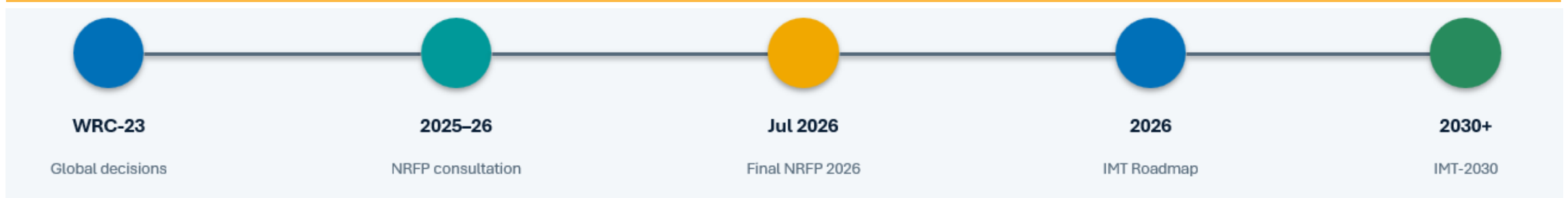
African administrations must participate in ITU/WRC, regional harmonisation and IMT-2030 evaluation.



IMT 2030: African Expectations

- **6G is an evolution of IMT but with broader usage scenarios and deeper integration of intelligence, sensing and connectivity.**
- Immersive Communication: Highly interactive digital experiences that make users feel virtually present using technologies such as extended reality (XR), virtual reality (VR), holographic communication.
- AI & Communication: AI is expected to be built into the network itself, helping networks learn, predict and automatically optimise performance.
- Integrated Sensing & Communication: Networks that can connect users while also sensing and understanding the surroundings..
- Ubiquitous Connectivity: Providing seamless connectivity wherever users or devices are located, including areas beyond traditional terrestrial network coverage.
- Massive Communication: Networks supporting huge numbers of connected devices and sensors simultaneously and transmitting small amounts of data.
- Hyper-reliable & Low-latency: Fast and highly reliable connectivity for critical and time-sensitive applications.

NRFP 2026: Preparing for IMT 2030



WHY IT MATTERS FOR 6G:

- The NRFP identifies and preserves pathways for globally harmonized low, mid- and high-frequency spectrum that can support future IMT-2030 developments.

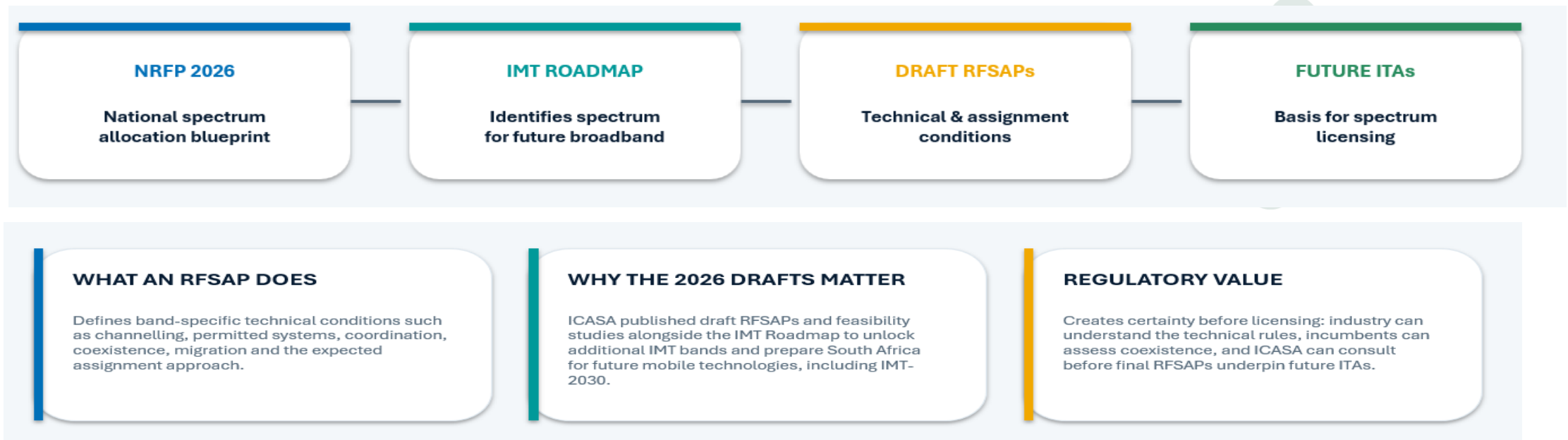
WHAT CHANGED:

- Updated after WRC-23
- Aligned to ITU Radio Regulations 2024
- Incorporates AfriSAP and SADC FAP. Extends national allocation information up to 3000 GHz

RFSAPs: Turning the IMT Roadmap into Deployable Spectrum

The NRFP tells us what services may use a band.

The RFSAP defines how that band can be assigned and used in practice.



6G readiness is therefore a chain: global IMT developments → NRFP allocation → IMT Roadmap → RFSAP technical rules → spectrum assignment → deployment.

Electronic Frequency Information System

ICASA Electronic Frequency Information System

Search frequency / service / allocation ...

Frequency range	National allocation	Application / service
e.g. Mid-band	Mobile / relevant services	IMT planning context
e.g. Higher bands	Allocated services	Future technology studies

- **Transparency** : Industry, researchers and citizens can interrogate national spectrum allocations more easily.
- **Faster planning**: Operators and innovators can identify the regulatory context of a band earlier in technology planning.
- **Better coordination**: A common, accessible source supports more informed engagement between regulator and spectrum users.
- **6G readiness**: As IMT-2030 develops, digital spectrum information makes it easier to track how global decisions translate into South Africa.

END