Dynamic Spectrum Alliance Limited
http://www.dynamicspectrumalliance.org

August 21, 2026

Autoridade Nacional de Comunicações (ANACOM)
Rua Ramalho Ortigão, 51
1099-099 Lisbon

Re: Draft DSA Response to the Portugal "Plano Plurianual de Atividades 2027–2029: Consulta pública sobre as orientações estratégicas e objetivos"

Dear Sir/Madam

The Dynamic Spectrum Alliance (DSA)[1] welcomes the opportunity to respond to ANACOM's consultation on its proposed Multiannual Activities Plan 2027–2029. The DSA congratulates ANACOM on developing a comprehensive and forward-looking strategic plan that recognises the central role of communications networks, spectrum management, digital infrastructure and innovation in supporting Portugal's economic competitiveness and digital transformation.

The proposed Strategic Orientations provide a strong framework for the continued development of Portugal's communications sector. The DSA particularly welcomes ANACOM's commitment to:

- promoting competitive and resilient communications markets;
- ensuring efficient and sustainable spectrum management;
- supporting innovation and digital transformation;
- strengthening Portugal's contribution within European and international regulatory organisations; and
- maintaining evidence-based and proportionate regulation.

Spectrum has become a critical national resource underpinning mobile broadband, Wi-Fi, satellite connectivity, industrial digitalisation, public services and emerging technologies. As demand for wireless connectivity continues to grow, regulators increasingly need regulatory frameworks that maximise spectrum efficiency while maintaining appropriate protection of incumbent services.

The DSA believes this can best be achieved through technology-neutral regulation, evidence-based coexistence studies, spectrum sharing where technically justified, modern spectrum management tools and continued international harmonisation.

Portugal has consistently demonstrated leadership within CEPT and the wider European regulatory community. The DSA encourages ANACOM to continue this leadership throughout the implementation of the 2027–2029 Activities Plan.

Sincerely,

Dr. Martha Suárez
President
Dynamic Spectrum Alliance

[1] The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA's website at: https://www.dynamicspectrumalliance.org/members.

1. **Response to Question 1:** Which Strategic Orientations (OE) and Objectives should be considered the highest priorities?

The DSA considers that all six Strategic Orientations contribute to achieving ANACOM's overall vision and should be regarded as complementary. However, from the perspective of future wireless connectivity and spectrum management, particular priority should be given to those objectives that enable efficient access to spectrum, modern regulatory frameworks and continued innovation.

OE1 – Promoting Connectivity and Competitive Communications Markets
The DSA strongly supports ANACOM's commitment to promoting investment, competition and nationwide connectivity. Efficient and predictable access to spectrum is fundamental to delivering these objectives and remains one of the principal enablers of current and future wireless communications.

Within OE1, the DSA considers Objective 4 “Planear e disponibilizar espectro, incluindo para novas aplicações e serviços" is particularly important. Timely planning and availability of spectrum can provide long-term regulatory certainty, encourage investment, support innovation and enable the deployment of new wireless technologies and services.

Therefore, the DSA welcomes ANACOM's recognition of future spectrum planning, including preparations for WRC-27 and future spectrum awards. The DSA encourages ANACOM to maintain a forward-looking and flexible approach to spectrum planning that can accommodate evolving connectivity needs and emerging technologies.

OE4 – Modernising Spectrum Management
The DSA considers OE4 “Promover a inovação dos procedimentos associados à gestão dos bens públicos indispensáveis às comunicações" to be one of the most strategically important elements of the proposed Activities Plan.

Wireless technologies and patterns of spectrum use continue to evolve rapidly, creating increasing demand for flexible, efficient and digitally enabled spectrum management. Modern spectrum regulation increasingly relies upon advanced monitoring systems, digital licensing platforms, automation and data-driven regulatory decision making and where appropriate, new approaches to spectrum sharing and coordination.

The DSA therefore strongly supports Objectives 21 and 22, which seek to improve the timely and efficient availability of spectrum and modernise spectrum supervision and monitoring. Continued investment in modern spectrum management capabilities will improve regulatory efficiency while strengthen evidence-based spectrum management and support more effective protection of incumbent spectrum users.

Innovation as a Cross-Cutting Priority
Innovation should remain a cross-cutting objective throughout the Activities Plan.

Future wireless communications networks will increasingly comprise a combination of licensed mobile services, licence-exempt technologies, private wireless networks, satellite systems and other emerging digital applications. Regulatory frameworks should therefore remain sufficiently flexible and technology-neutral to support innovation across multiple technologies while ensuring efficient spectrum utilisation and appropriate protection of incumbent services.

International Engagement
The DSA welcomes ANACOM's continued commitment to active participation within CEPT, the European Union and ITU-R.

International harmonisation delivers substantial benefits through economies of scale, improved equipment availability, reduced implementation costs and greater regulatory certainty. Portugal has consistently made valuable technical contributions within international spectrum discussions, and the DSA encourages ANACOM to continue playing a leading role in shaping future European and global spectrum policy.

In particular, continued engagement in international spectrum planning and technical studies will be important to ensure that Portugal can benefit from harmonised approaches while retaining sufficient flexibility to respond to national connectivity needs and technological developments.

2. **Response to Question 2:** What additional Strategic Orientations (OE) and Objectives do you consider should be included in ANACOM's Activities Plan for the 2027–2029 period?

The DSA considers the proposed Strategic Orientations to be comprehensive and broadly aligned with the evolving needs of Portugal's communications sector. Nevertheless, several additional themes would strengthen the Activities Plan and ensure the ANACOM remains well positioned for better reflect the evolving nature of wireless communications, technological innovation and more efficient use of spectrum resources.

Spectrum Sharing

The DSA recommends that spectrum sharing should become an explicit strategic objective within ANACOM's future spectrum management activities.

Growing demand for wireless connectivity requires regulators to maximise the efficient use of available spectrum resources. Carefully designed spectrum sharing frameworks can enable additional users and services to access spectrum where coexistence is technically feasible, while maintaining appropriate protection for incumbent services. International experience demonstrates that spectrum sharing can complement traditional licensing approaches and improve overall spectrum efficiency.

The continued evolution of the 6 GHz band illustrates the importance of adopting flexible, evidence-based regulatory approaches that accommodate different spectrum access models where coexistence has been demonstrated. Experience acoss multiple jurisdictions demonstrates that modern spectrum management techniques can facilitate greater spectrum utilisation and innovation while ensuring appropriate protection of incumbent services.

The DSA encourages ANACOM to consider spectrum sharing as part of its longer-term spectrum management strategy and to identify opportunities where sharing could provide additional connectivity and innovation benefits.

Automated Frequency Coordination

The DSA recommends that ANACOM explicitly recognise database-assisted spectrum management, including Automated Frequency Coordination (AFC), as an important future regulatory capability.

Database-assisted approaches can enable more efficient use of spectrum by combining accurate technical information, propagation modelling and continuously maintained spectrum databases with automated coordination processes. These approaches can facilitate additional spectrum access while maintaining appropriate protection for incumbent operations.

AFC enables higher-performance wireless systems through automated coordination based on accurate propagation modelling and continuously maintained spectrum databases. Such approaches allow regulators to increase spectrum utilisation while safeguarding incumbent operations and represent an important evolution in modern spectrum management.

As regulatory frameworks for the 6 GHz band continue to evolve internationally, experience gained from database-assisted spectrum management can provide valuable insights into the practical implementation of dynamic spectrum access techniques.

The DSA therefore encourages ANACOM to continue developing the technical and regulatory capabilities required to support database-assisted spectrum management as part of its broader modernisation of spectrum management.

Technology-Neutral Regulation
Technology neutrality should continue to underpin spectrum policy.

Regulatory frameworks should establish technical requirements and policy outcomes rather than favouring individual wireless technologies. Technology-neutral regulation promotes innovation, encourages investment and ensures flexibility for regulatory frameworks to adapt as technologies and spectrum-use patterns to evolve.

The DSA therefore encourages ANACOM to ensure that future spectrum policies remain sufficiently flexible to accommodate new technologies and different spectrum access models, provided that appropriate technical and interference protection requirements are satisfied.

Licence-Exempt Connectivity
The DSA considers that licence-exempt technologies such as Wi-Fi have become essential components of national digital infrastructure.

Homes, businesses, schools, hospitals, public services and industrial facilities increasingly depend upon licence-exempt wireless connectivity to provide affordable and reliable access to digital services. Continued support for licence-exempt innovation should therefore remain an explicit strategic objective alongside licensed mobile services, recognising that both licensing models deliver complementary public benefits and and spectrum policy should recognise their respective contributions to connectivity, innovation and digital inclusion.

Evidence-Based Coexistence and Spectrum policy
The DSA recommends that uuture spectrum policy decisions should continue to be supported by transparent technical studies and realistic deployment assumptions and objective coexistence assessments.

Compatibility and coecistence analyses should reflect practical deployment assumptions and objective engineering evidence rather than theoretical or conservative assumptions. Maintaining an evidence-based regulatory approach promotes confidence amongst stakeholders while supporting efficient and sustainable spectrum management.

Innovation and Regulatory Experimentation
The DSA encourages ANACOM to continue supporting innovation through flexible trial licensing, collaborative research programmes and regulatory experimentation.

These activities enable emerging technologies to mature under realistic operating conditions while providing regulators with valuable practical evidence to inform future policy development.

3. **Response to Question 3:** Which initiatives (and implementation timescales) should be associated with each objective to ensure its successful delivery?

The DSA recommends a phased approach to implementation that allows ANACOM to strengthen the foundations of modern spectrum management, develop and test new regulatory approaches, and subsequently evaluate their effectiveness and identify opportunities for further development.

Phase 1 (2027): Establishing the Foundations
The initial phase should focus on strengthening the foundations required for modern, flexible and evidence-based spectrum management through:

- continued digitalisation and simplification of spectrum licensing and authorisation processes;
- enhanced spectrum monitoring and data collection capabilities;
- development of the technical and analytical capabilities needed to support evidence-based spectrum policy and coexistence assessments;
- expanded engagement with industry, academia, standards organisations and other relevant stakeholders;

- support for innovation through appropriate trial licences and regulatory experimentation;
- continued participation in European and international regulatory activities, including CEPT, the European Commission and ITU-R.

These activities would provide the regulatory, technical and stakeholder foundations necessary for the subsequent introduction of more advanced spectrum management approaches.

Phase 2 (2028): Developing and Implementing Advanced Spectrum Management Approaches
The second phase should focus on implementing more advanced regulatory capabilities, including:

- development of practical spectrum sharing frameworks where coexistence can be demonstrated through objective technical analysis;
- further comparability and coexistence studies supporting efficient and flexible of future regulatory decisions;
- development of database-assisted spectrum management capabilities, including AFC where appropriate;
- consideration of opportunities for technology-neutral and licence-exempt access models that can complement traditional licensed spectrum use;
- continued collaboration with industry, academia and standards organisations and other relevant stakeholders to refine emerging regulatory approaches.

Phase 3 (2029): Evaluation, Consolidation and Future Development
The final phase should consolidate experience gained during implementation and prepare the next generation of spectrum policy by:

- reviewing the effectiveness of implemented spectrum management initiatives identifying lessons learned;
- evaluating the practical outcomes of spectrum-sharing, database-assisted coordination and other modern spectrum management approaches;
- identifying opportunities for further regulatory modernisation;
- strengthening Portugal's international leadership within CEPT, the European Commission and ITU-R;
- continuing technical studies and stakeholder engagement to support future spectrum policy and emerging wireless technologies.

This phased approach would allow ANACOM to combine regulatory certainty with flexibility, enabling new spectrum management approaches to be developed on the basis of practical experience and objective evidence.

4. General Observations

The DSA welcomes ANACOM's recognition that communications regulation is entering a period of significant technological and regulatory change.

Increasing spectrum demand, new wireless technologies and growing expectations for ubiquitous connectivity require spectrum management approaches that are increasingly flexible, data-driven and evidence-based.

Spectrum policy should continue to encourage innovation and investment while maximising the efficient utilisation of spectrum resources, ensuring effective protection of incumbent services and providing long-term regulatory certainty. Where technically feasible, flexible access and spectrum-sharing approaches can complement traditional licensing models and help respond to changing patterns of spectrum demand.

In this context, the DSA encourages ANACOM to continue modernising its spectrum management

capabilities, including through digitalisation, enhanced monitoring, database-assisted spectrum management and appropriate forms of automated coordination. These capabilities can support more efficient and flexible spectrum use while maintaining appropriate protection for incumbent users.

The principles of technology neutrality, proportionality, transparency, evidence-based decision-making and international harmonisation have consistently supported successful spectrum management across Europe and should remain central to ANACOM's regulatory approach.

The DSA believes that maintaining these principles will enable Portugal to support continued innovation, strengthen connectivity, maximise the value of its spectrum resources and remain at the forefront of modern spectrum management in Europe.

5. Conclusion

The DSA welcomes ANACOM's Plano Plurianual de Atividades 2027–2029 and considers it to provide a strong strategic framework for the continued development of Portugal's communications sector.

The proposed Strategic Orientations appropriately recognise the importance of connectivity, innovation, competitive markets, digital transformation and efficient spectrum management in supporting Portugal's long-term economic and societal objectives.

Building upon these strong foundations, the DSA encourages ANACOM to continue promoting evidence-based spectrum policy, technology-neutral regulation, modern spectrum management, spectrum sharing where technically justified and continued international harmonisation.

These principles will maximise the efficient use of spectrum resources, encourage investment, accelerate innovation and strengthen Portugal's position as a leader in modern communications regulation.

The DSA believes that a flexible, transparent and forward-looking approach to spectrum management will enable Portugal to respond effectively to evolving wireless technologies, while maintaining regulatory certainty and supporting its continued leadership within European and international spectrum policy.

The DSA appreciates the opportunity to contribute to this consultation and looks forward to continuing its constructive engagement with ANACOM during implementation of the Multiannual Activities Plan 2027–2029.