

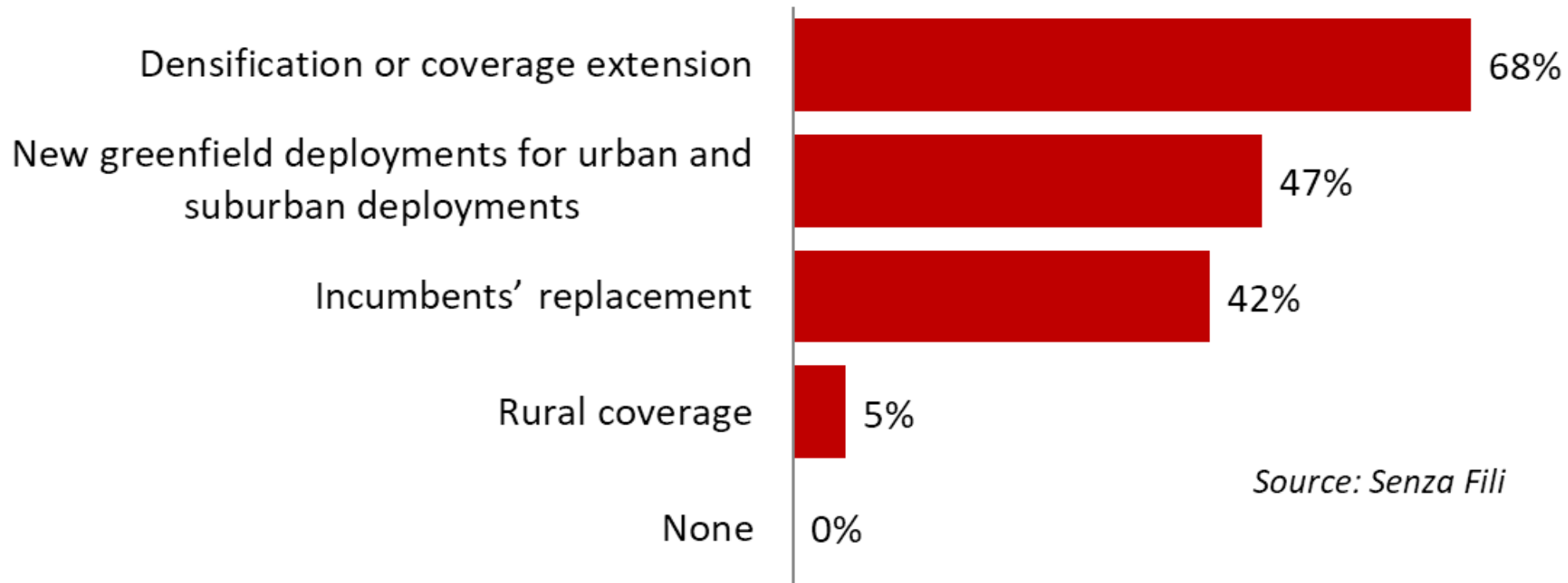
OpenRAN: the operators' perspective
A survey for Mavenir
Monica Paolini, Senza Fili



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OpenRAN deployment scenarios

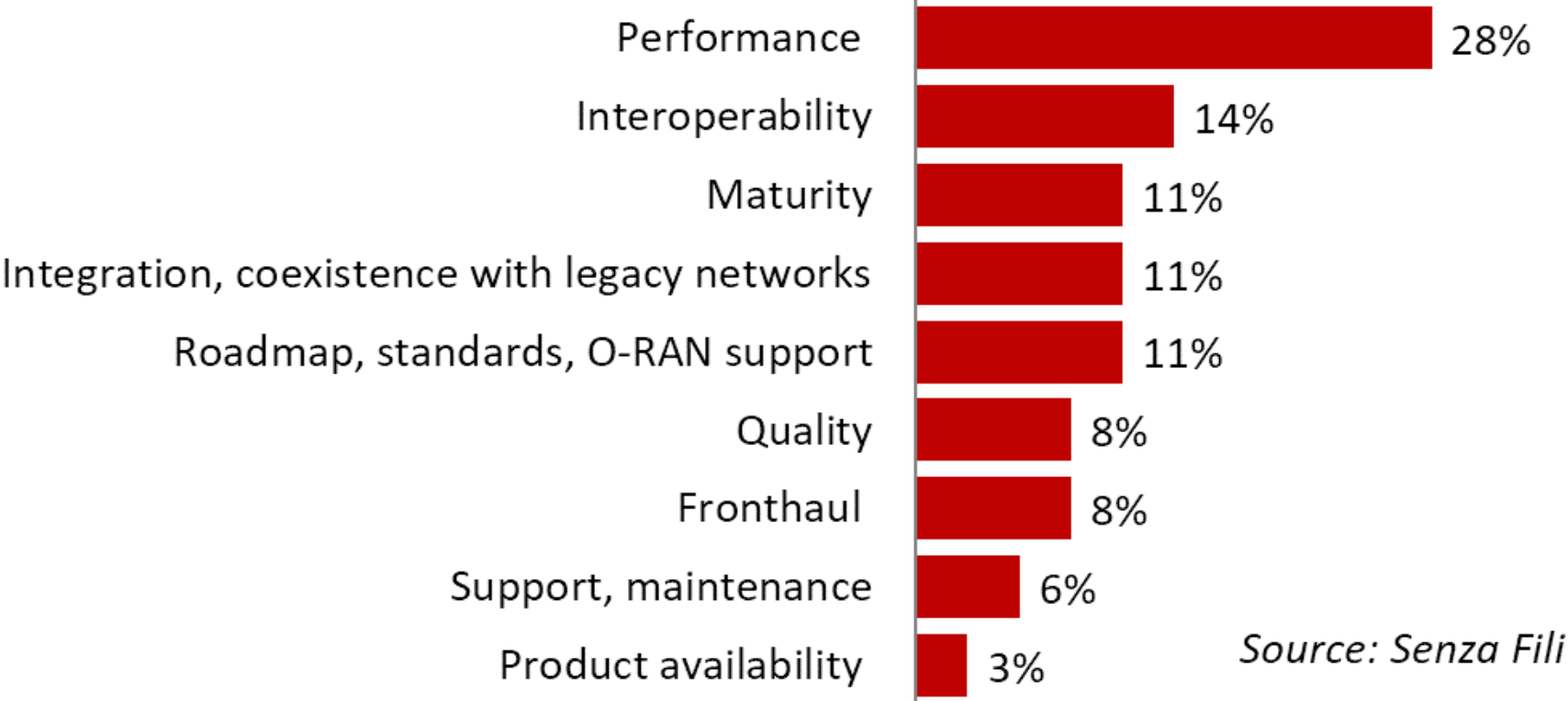
For which of the following scenarios, will you consider deploying OpenRAN 4G/5G macro network with non-incumbent RAN vendors?



Source: Senza Fili

Obstacles to OpenRAN deployment

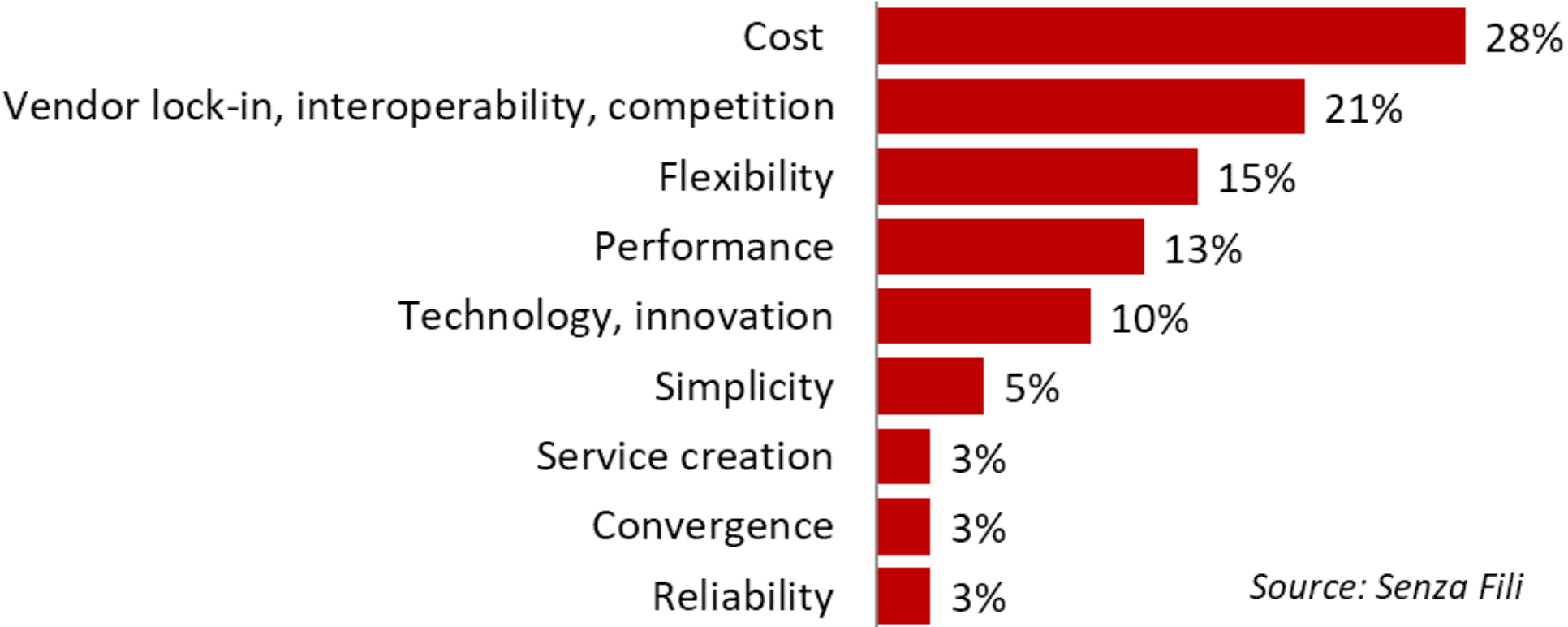
Other than cost, what are the main obstacles in OpenRAN adoption in your network?



Note: Multiple answers allowed

Drivers to OpenRAN adoption

What is the main driver to OpenRAN adoption in your network?



Source: Senza Fili

Note: Multiple answers allowed

Affordability and cost reduction was the condition most frequently mentioned (24% of respondents)

Other top conditions were:

- Better performance than legacy
- Competitive pressure from incumbent or other players
- Trial success

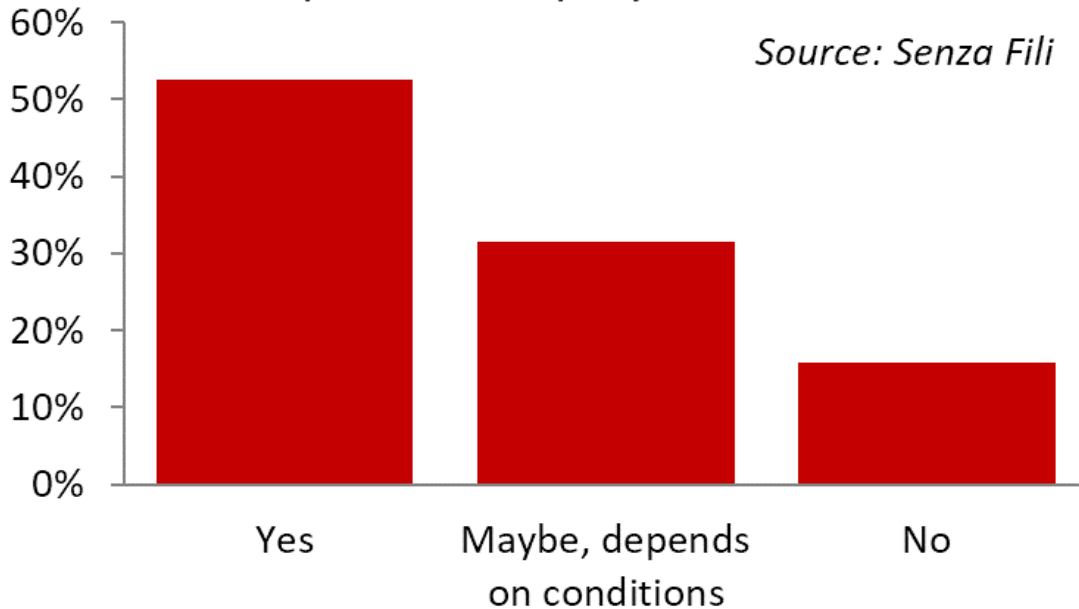
Other conditions mentioned:

- Cloud connectivity
- Compatibility with network virtualization
- Demand from enterprise and industrial IoT
- Efficiency improvements
- Higher reliability than legacy
- Interoperability
- Coexistence with legacy network supported
- New services
- Robust security
- Rural and low-density area coverage requirements
- Satisfactory support
- Solution of outstanding operational issues
- Rolling it out already

Operators consider multiple vendors for OpenRAN deployments

Cost savings were mentioned by 25% of respondents as a reason to consider multiple vendors

Would you consider deploying RRUs and BBUs from different vendors in OpenRAN deployments?



Other factors that motivate operators to deploy RRUs and BBUs from different vendors

- New service requirements
- Interoperability
- Integration
- Architecture
- Performance
- Support for O-RAN fronthaul specifications
- Trial success
- Tight coordination
- Unified management solution

What could speed up deployments or improve the business case for OpenRAN?

Top factors

Faster integration with existing network

Lower costs

Engagement for implementation from mainstream suppliers

A viable eco-system that challenges incumbent RAN providers

Other factors mentioned

- Mature APIs
- Better real-world economic models
- Competitive hardware and software vendors which can support operators as they swap from major vendors
- Evolution to 5G
- Fewer options, wider field trials
- High-availability deployments
- New vendors with lower cost equipment
- Open standards
- Optimization
- Scalability
- Smaller and lighter equipment for easy deployment.
- Software development for the support of of 3GPP R14 and R15
- Better support of 7-2 fronthaul split, to avoid dark-fiber fronthaul
- Support of dynamic spectrum sharing in 5G
- Testing with the incumbents, Ericsson, Nokia and Huawei
- Wider choice of RRU market options

Cost plays a crucial role in driving OpenRAN deployments

69% of operators believe that the lack of a low-cost RRU is a major obstacle or slowing down OpenRAN deployments

The median price of a cost-effective RRU suggested by operators is \$2,000

28% of operators indicate cost savings as the main driver to adoption of OpenRAN

84% operators will consider deploying RRUs and BBUs from different vendors in OpenRAN deployments. 53% believe that they will work with different RRUs and BBUs vendors

About Senza Fili



Senza Fili provides advisory support on wireless technologies and services. At Senza Fili we have in-depth expertise in financial modeling, market forecasts and research, white paper and report preparation, business plan support, strategic advice, and due diligence. Our client base is international and spans the entire value chain. We work with vendors, mobile operators and other service providers, enterprises, system integrators, investors, public agencies, and industry associations. We provide a bridge between technologies and services, helping our clients assess established and emerging technologies, leverage these technologies to support new or existing services, and build profitable business models. Independent advice, a strong quantitative orientation, and an international perspective are the hallmarks of our work. You can reach us at info@senzafili.com

About Monica Paolini



Monica Paolini, PhD, is the founder and president of Senza Fili. She is an expert in wireless technologies and has helped clients worldwide to understand new technologies and customer requirements, create and assess financial TCO and ROI models, evaluate business plan opportunities, market their services and products, and estimate the market size and revenue opportunity of new and established wireless technologies. She frequently gives presentations at conferences, and writes reports, blog entries and articles on wireless technologies and services, covering end-to-end mobile networks, the operator, enterprise and IoT markets. She has a PhD in cognitive science from the University of California, San Diego (US), an MBA from the University of Oxford (UK), and a BA/MA in philosophy from the University of Bologna (Italy).