

Document Control Sheet

1. ISBN or ISSN	2. type of document (e.g. report, publication) Final Consortium Report
3. title 5G-OPERA - Konsortialabschlussbericht – 5G-Opera – Final Consortium Report	
4. author(s) (family name, first name(s)) Thomas Höschele (TU Dresden) Joachim Heinrich (Fraunhofer IIS) Wilhelm Keusgen (TU Berlin) Alexander Lange (Xelera) Javier Velasquez Gemoz (NXP) Kenan Turbic (Fraunhofer HHI)	5. end of project 30.06.2025
	6. publication date Expected 01.12.2025
	7. form of publication Final Report
8. performing organization(s) (name, address) TU Dresden Deutsche Telekom Professur für Kommunikationsnetze Barkhausenbau 1.OG Georg-Schumann-Straße 11 01187 Dresden	9. originator's report no.
	10. reference no. 01MJ22008A
	11. no. of pages 26
12. sponsoring agency (name, address) Bundesministerium für Wirtschaft und Klimaschutz (BMWK) 53107 Bonn	13. no. of references 48
	14. no. of tables 0
	15. no. of figures 1
16. supplementary notes	
17. presented at (title, place, date) DLR Projektträger, Berlin, 30.09.2025	
18. abstract The binational research project 5G-OPERA aimed to comprehensively evaluate, improve, and verify the interoperability of existing and newly developed Open RAN solutions. Not only were the hardware and software modules of the participating project partners integrated, but components from various other European manufacturers were also tested for interoperability and functionality within an open RAN architecture. This approach made a decisive contribution to Europe's technological sovereignty in mobile communications – particularly for France and Germany and in the area of open RAN campus networks. Another key concern was to use Open RAN technology to reduce the costs of private 5G networks while increasing their adaptability to individual use cases. Under the joint leadership of TU Dresden (consortium leader Germany) and EURECOM (consortium leader France), a German-French ecosystem was established. This includes both open source 5G software stacks such as Open Air Interface and srsRAN, as well as commercial products made from open hardware and software components and standardized interfaces. 5G-OPERA helped to set up test fields for the technology and suitable demonstrators, and was also intended to support the demonstration projects funded at the same time with advice and an exchange of information on technology.	
19. keywords 5G-Opera, Open RAN, private 5G networks, Open Source, Testbeds	
20. publisher	21. price