



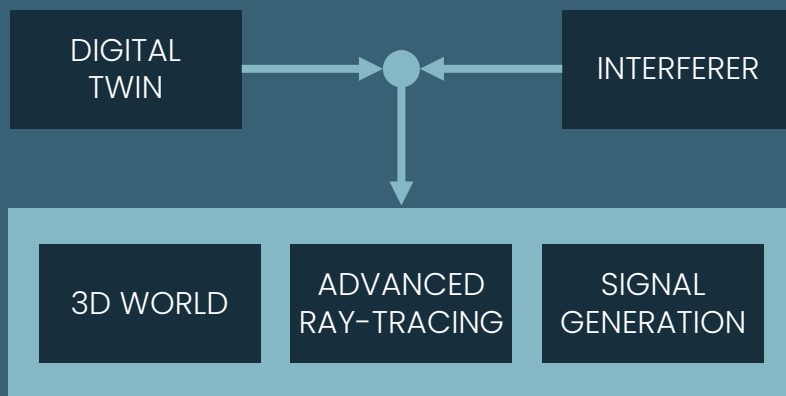
RADAR IN A
NEW DIMENSION





RADAR IN A NEW DIMENSION

fiveD RADAR SIMULATION SUITE UNIVERSAL TOOLBOX FOR RADAR R&D



fiveD BENEFITS

- ✓ **Co-development** of hard- and software
- ✓ Creation of realistic and large-scale **datasets**
- ✓ Cost-efficient iteration of **sensor specifications**
- ✓ Extensive pre-production **sensor tests**
- ✓ Unmatched training capabilities for radar **artificial intelligence**

fiveD MISSION – RADAR IN A NEW DIMENSION

Building upon over 20 years of successful cooperation, **fiveD** is a joint venture between Friedrich-Alexander-Universität Erlangen-Nürnberg and Rohde & Schwarz GmbH & Co. KG.

Leveraging decades of radar expertise, **fiveD** introduces a groundbreaking software solution enabling realistic radar simulations – from raw data to advanced sensor functionalities.

fiveD is pushing the boundaries of radar development, revolutionizing hardware design, redefining signal processing, and empowering real radar AI.

Join the **fiveD** mission and unlock a new dimension of radar through realistic simulation.



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Image: Rohde&Schwarz

fiveD PORTFOLIO

Software & Licensing of Radar Simulation Suite



- Simulation of complete chain for precise specification of sensor requirements
- Hard- & software development, edge-case simulation, interference analysis
- Virtual development of radar processing chain for chip and antenna specifications
- Realistic stimulation for functionality and hardware testing

Datasets for Radar AI



- Virtual verification and functionality tests for cost-efficient prototyping
- Fully labeled, diverse datasets for enhanced radar AI
- Realistic simulation of human movement for AI training and classification
- Precise datasets of real-world replicas for unprecedented virtual testing

Engineering Services



- Individual solutions for customer-specific questions along the full development chain
- Radar platform design and second surface simulation for sensor integration
- Scalability through recurring orders with drastically reduced expenditure



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fiveD RADAR SIMULATION SUITE APPLICATIONS



SENSOR SPECIFICATION AND SYSTEM DESIGN

Design antenna arrays, radar parameters, and end-to-end radar signal processing to specify the best sensor for your application.



REALISTIC SIMULATION OF HUMAN MOVEMENT

Use perfectly labeled and diverse datasets, including realistic micro-Doppler signatures, to advance automatic AI training.



RADAR DATASET GENERATION

Synthetically generate realistic, large-scale datasets that seamlessly integrate into real-world applications.



RADAR NETWORKS FOR SMART APPLICATIONS

Test the advantages of radar networks and optimize strategies for cooperative data processing and edge computing.



RADAR PLATFORM DESIGN AND SETUP

Optimize platform design with the best-suited sensor systems, reducing prototyping and increasing sustainability.



CLOSED-LOOP TESTS SCENARIOS

Build virtual scenarios to evaluate edge cases and failures digitally, minimizing real-world testing and optimizing time to market.



SECOND SURFACE SIMULATION

Analyze and reduce the influence of second surfaces on the radar performance across the complete process chain.



RADAR INTERFERENCE MITIGATION

Determine the impact of interference in complex, dynamic scenarios and implement efficient mitigation strategies.



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fiveD FOUNDING TEAM

Michael Stelzig | Christian Schüßler | Martin Vossiek | Lars Schwenger | Marcel Hoffmann

The founding team combines extensive radar expertise and profound IT knowledge with deep insights into the industry's critical challenges. By leveraging a strong industrial and scientific network, along with the operational capabilities of Rohde & Schwarz, one of the most relevant and established players in the radar industry, **fiveD** is all set to shape the future of radar – one dimension ahead.



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BRING YOUR RADAR IDEAS TO LIFE.
CONTACT US TODAY!

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