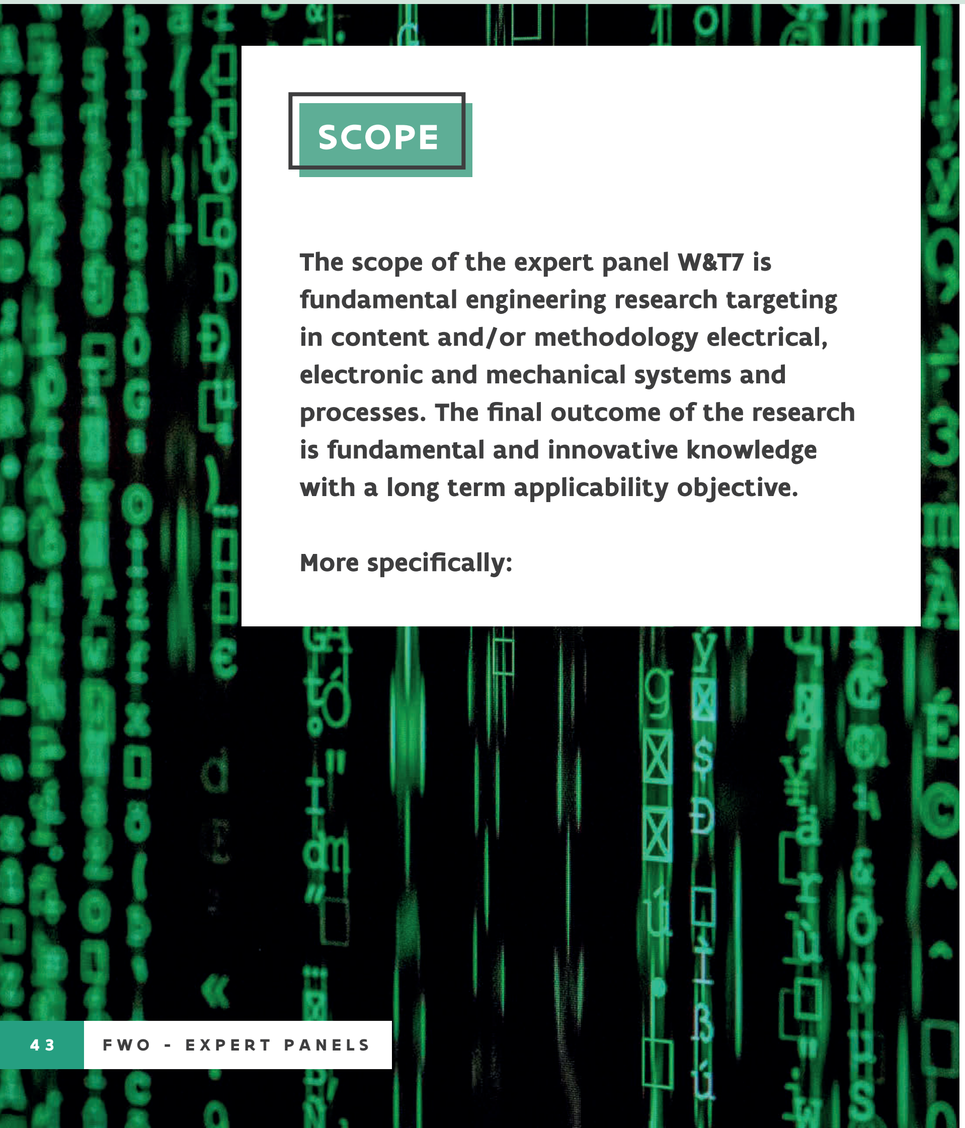
W&T7 Electronics, Energy, Electrical and Mechanical Engineering



SCOPE

The scope of the expert panel W&T7 is fundamental engineering research targeting in content and/or methodology electrical, electronic and mechanical systems and processes. The final outcome of the research is fundamental and innovative knowledge with a long term applicability objective.

More specifically:

TOPICS

- Micro-, nano-, quantum, printed electronics (incl. EMC and power management)
- Circuits and systems (incl. CAD): analog, digital, mixed signal electronics
- Electronics with advanced materials, reliability
- Photonics and opto-electronics components
- Communication systems, wireless and high frequency technology
- Computer hardware and reconfigurable architectures
- Bio-engineering: bio-electronics, bio-mechanics, bio-medical engineering, bio-sensors
- Signal processing (speech, image)
- System identification and control (incl. dynamics and modal analysis), engineering and automation
- Power engineering (incl. power electronics and nuclear technology)
- Renewable energy: generation and energy conversion systems
- Robotics, sensors and actuators
- Mechanical and mechatronic design, engineering and optimisation, life cycle analysis
- Embedded systems, IoT, sensor networks
- Electromagnetism and acoustics
- Engineering mechanics (structural dynamics, vibro-acoustics, multibody dynamics), reliability
- Micro engineering and precision engineering
- Manufacturing technology and engineering, (incl. computer integrated manufacturing)
- Tribology
- Combustion technology and fire dynamics
- Thermal and fluid engineering
- Technical thermodynamics