

# Access provider – Fraunhofer IMS - Gerd vom Boegel-IMS Franhofer

## Select access type - Energy Harvesting / System Integration

### Energy Storage - Access description

RF harvesting design and test lab

Access to the environment for design, simulation, test-environment of RF-harvesters. Within the anechoic chamber and inHaus-Centre facilities the verification and validation can be performed.



### Technical offering

- Support of RF simulation environment incl. training
- With the antenna design library the setup of wireless power and data transmission can be fast achieved
- Antenna design tools are available for optimization of wireless power and data transmission lines
- Consultancy of applying norms and regulations for radio equipment

### Main equipment

- Anechoic chamber
- Generator for POW power optimized waveforms
- Rapid prototype circuit realization by milling plotter
- Test equipment for measurement in time and frequency domain
- Climatic camber

### Typical applications

The principle of transmitting power over the air is already used by RFID tags to power them. Basically, RF harvesters may receive different frequencies, rectify and pump them up to a usable voltage. Typical applications can be found in IoT devices for smart homes and industrial automation.

### Case study

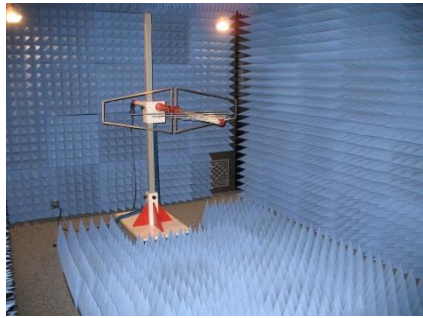


A development department is going to evaluate new concepts for maintenance free IOT devices by the use of wireless power but they need access to RF measurement equipment to test this.

EnABLES will provide access to the facilities required. A typical project will offer 10 days access to the Fraunhofer IMS researchers and equipment required.

**Responsible**

Dr. Gerd vom Bögel



		
<p><b>Anechoic chamber / Franconia</b></p>	<p><b>Signal Generator / Anritsu</b></p>	<p><b>Milling plotter / LPDF S63</b></p>
<p><b>Keys specifications</b></p>		
<ul style="list-style-type: none"> <li>• Wide frequency range from 10 MHz to 6 GHz</li> <li>• Rotary table for antenna diagrams</li> <li>• Testautomation equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Signal Generator frequencies up to 6 GHz</li> <li>• Wideband baseband and RF</li> </ul>	<ul style="list-style-type: none"> <li>• Fully automatic</li> <li>• High speed milling</li> <li>• High resolution</li> </ul>