

## **OUR COMPANY**



## **7LAYERS**

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- founded 1999 in Germany
- a Bureau Veritas Group company since 2013
- member of its Smartworld segment

# BUREAU VERITAS SMARTWORLD SEGMENT

largest group of IoT test & service centers with more than 50 Smartworld locations around the world including 7layers, Curtis-Straus, LCIE, Metracem, NCC, Siemic etc.



#### BUREAU VERITAS IN TOTAL

69,000 staff

testing for a smarter world

1400 offices and labs

4.55 billion € revenue

#### **7LAYERS ENGINEERING & TEST CENTERS**

- Ratingen, GermanyBeijing, P.R. China

Irvine, USA

- Shenzhen, P.R. China
- Sunnyvale, USA
- Yokohama, Japan

---vvan sales agencies in Spain, France, Taiwan

### **OUR TEST & SERVICE CENTERS**



# AS MEMBER OF THE BUREAU VERITAS' SMARTWORLD SEGMENT WORLD'S LARGEST AND MOST EXPERIENCED WIRELESS TEST HOUSE GROUP

Experienced, well-educated, multi-language test engineers and dedicated project managers

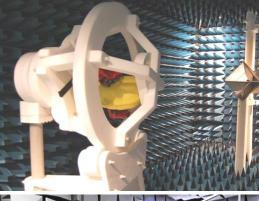
Range of test systems from various manufacturers, including Interlab® Test Solutions

Efficiency & accuracy based on Interlab EVO Test Management System and other tools

Access to extensive network of Bureau Veritas labs and other partner labs for

- test service extension
- in-country testing



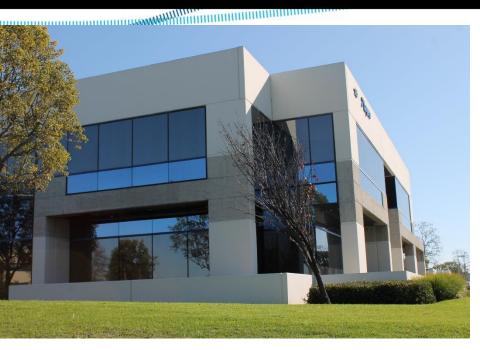






# **7LAYERS IRVINE**



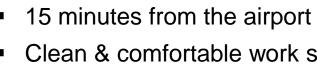




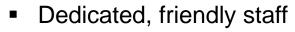














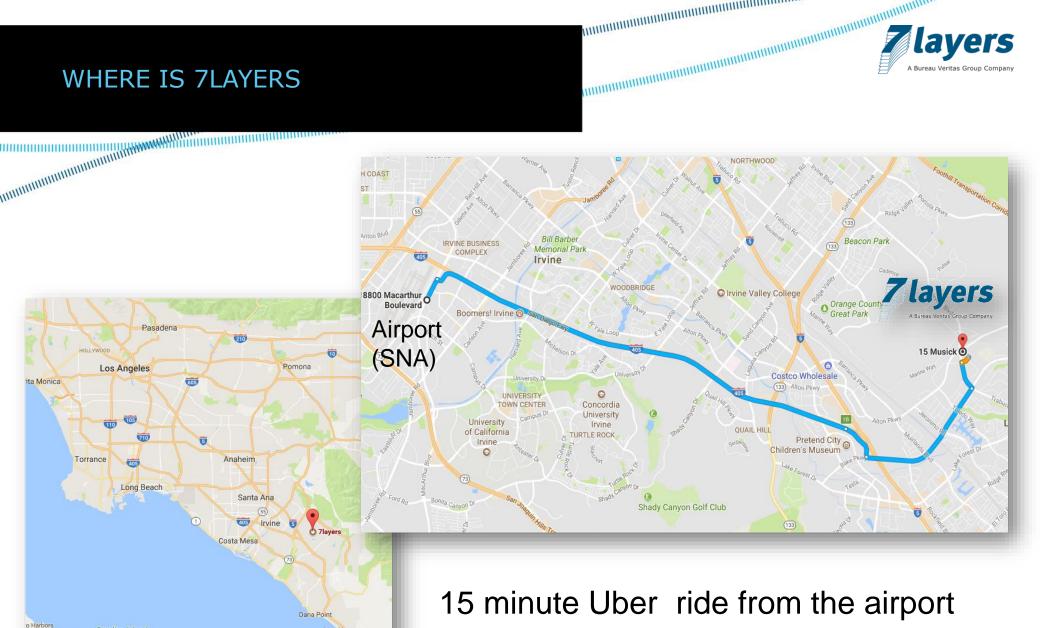




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# WHERE IS 7LAYERS





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Essential

San Clemente

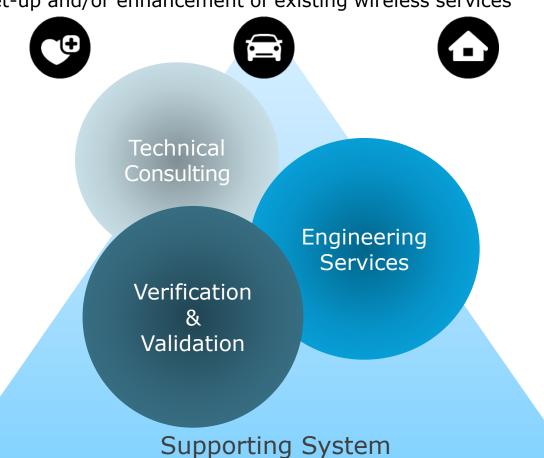




# 7LAYERS EXPERT SUPPORT FOR WIRELESS TECHNOGIES & SERVICES

supporting the initial set-up and/or enhancement of existing wireless services





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### **CERTIFICATIONS**



# MARKET ACCESS CONCEPTS FOR END-PRODUCTS

Regulatory requirements







Innovation, Science and Economic Development Canada









Industry interest group requirements



















Suppliers to market















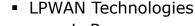


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## **TECHNOLOGIES**

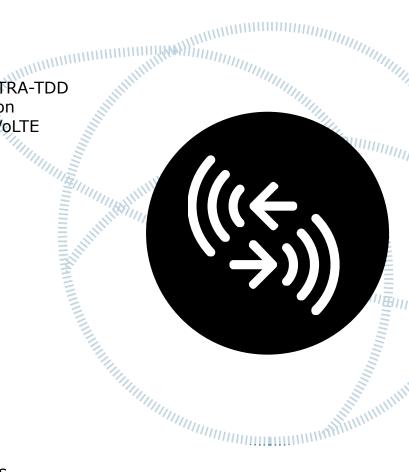


- LTE
  - EUTRA-FDD & EUTRA-TDD
  - Carrier Aggregation
  - Voice over LTE / VolTE
  - **UTRAN** 
    - UTRA-FDD
    - HSDPA
    - HSUPA
    - HSPA+
    - W-AMR
  - **GERAN** 
    - GSM
    - GPRS
    - EDGE
    - DARP
    - AMR
  - **CDMA Technologies** such as CDMA2000, TD-SCDMA and others
  - **TETRA**



- LoRa
- Sigfox
- LTE Cat.M
- NB-IoT
- Bluetooth®
- GPS and A-GPS
- 802.11x Wireless LAN
- DSRC
- ZigBee
- Thread
- Wireless Power Charging
- NFC technologies (RFID etc.)
- Broadcast Receiver technologies FM / AM/ DAB / DVB-T
- Radar technologies
- other short range technologies
- Application Enabler **Technologies** 

  - Device Management etc.



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#### WHO IS TESTING



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# 7layers is 1<sup>st</sup> OmniAir authorized test laboratory for Connected Vehicle

# Connected Vehicle Irvine, California, 7th September 2017

7layers has been authorized by the OmniAir Consortium to become the first OmniAir Authorized Test Laboratory (OATL) for Dedicated Short-Range Communications (DSRC) based Vehicle-to-Everything (V2X) technology.

OmniAir's commercial Connected Vehicle certification program will be launched in **October 2017**.





Source: https://www.7layers.com/blog-news/first-omniair-authorized-test-lab-for-v2x