



An Integrated Giga-Broadband at-Home Strategy

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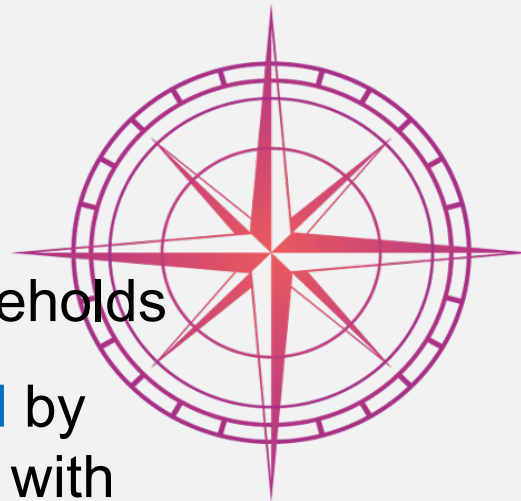
▶ Gigabit Society 2025 (Sep16)

- **100Mbps** at least **DL** speed for all EU Households, upgradable to 1Gbps
- 1Gbps for all institutional entities



▶ Digital Compass 2030 (Dec22)

- **1Gbps** speed for all EU Households
- **All populated areas covered** by wireless high-speed networks with performance at least equivalent to that of **5G**



VHCN

Criterion 1:

Any **Fixed-line** Network with a fibre roll out at least **up to the MDU**

Criterion 2:

Any **Wireless** Network with a fibre roll out **up to the base station**

Criterion 3:

Any **Fixed-line** Network with
DL \geq 1Gbps
UL \geq 200Mbps

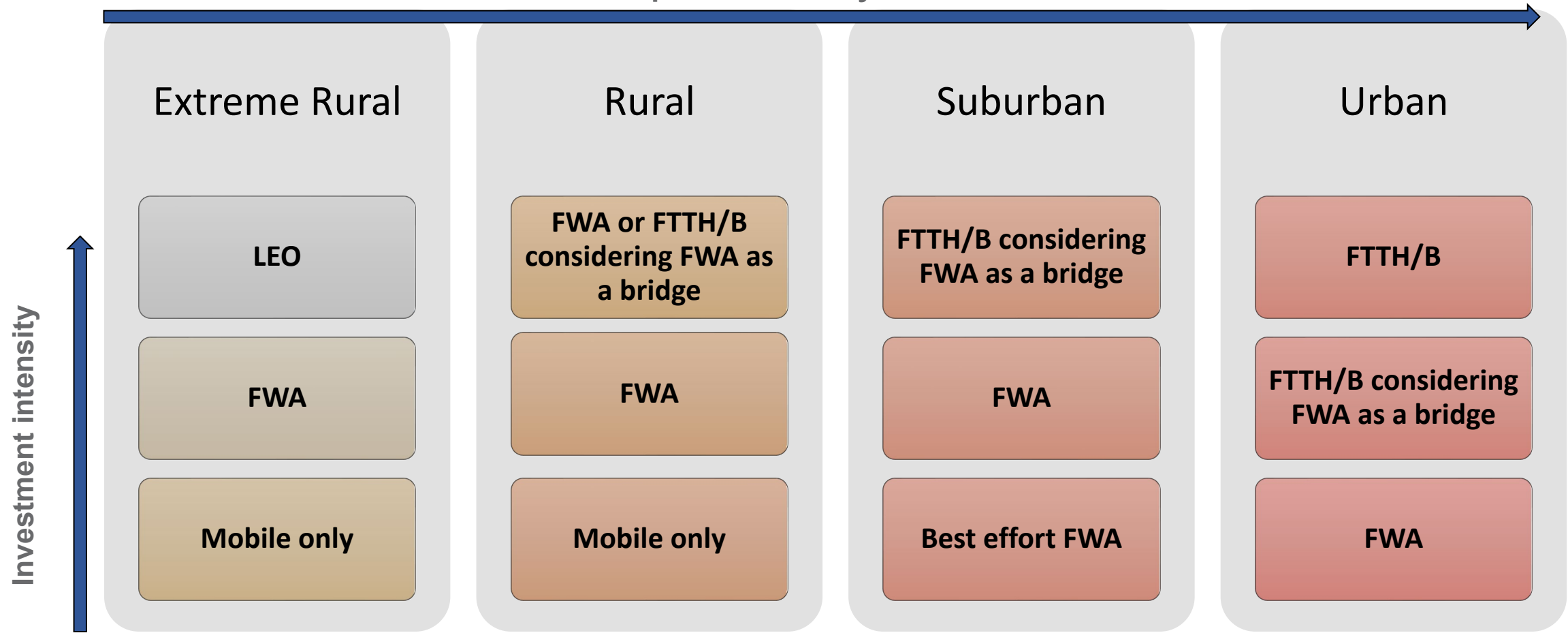
Criterion 4:

Any **Wireless** Network with
DL \geq 350Mbps
UL \geq 50Mbps

FWA Networks that meet **critterion 3**, may be considered **equivalent to fixed VHCN**

An Integrated Giga-Broadband Access Strategy

Population density in a micro area



1

Opportunistically exploit spare capacity

- Reuse mobile network
- Potential network overload
- Short- term approach
- Reputational risk

2

Replace Legacy Copper infrastructure

- Superior speed offering to FTTC
- more quickly compared to fiber rollout

3

Grab new Customers until fiber rollout

- grab market segment before competitions moves in
- gradually at a slow and economic pace transform these customers to fiber

4

Extend reach beyond fiber

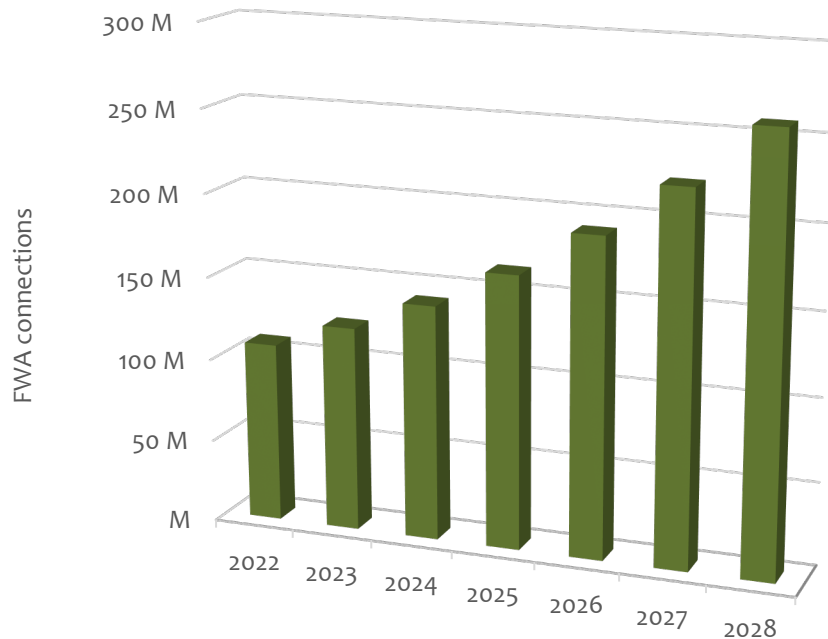
- Reach locations that it is impossible to deploy fiber
- Reach locations that it is not economically viable to connect with fiber

5

Target Price sensitive OR convenience seeking Customers

- Take advantage of low price highly competitive offerings
- exploit the convenience of simpler installation

- ▶ FWA connections are forecasted to reach more than 250mil by 2028.



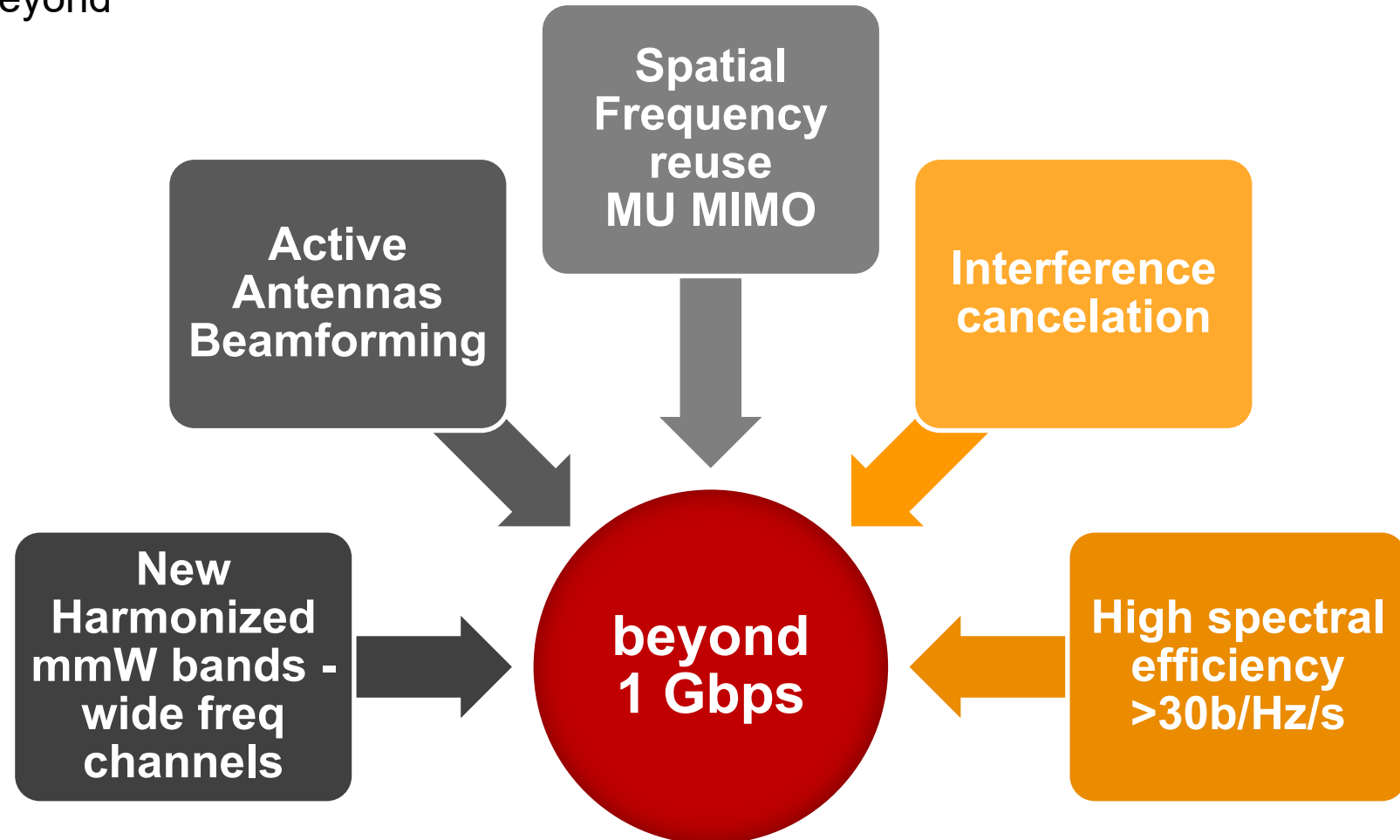
Source: Mobile Experts

N. America market

- ▶ **950,000** Added Broadband in 3Q 2023 / Fixed Wireless Services had More Net Adds Than in any Previous Quarter
- ▶ **840,000** Added Broadband connections in Q2 2023/ Fixed Wireless Services had Over 800,000 Net Adds for the Fifth Consecutive Quarter
- ▶ **960,000** Added Broadband connections in Q1 2023/ Fixed Wireless Services had About 915,000 Net Adds in the Quarter
- ▶ **3,500,000** Added Broadband connections From Top Providers in 2022
- ▶ Fixed Wireless Services Accounted for **90%** of the Broadband Net Adds in 2022

Source: Leichtman Research Group, Inc. (LRG)

... addressing the need for
1 Gbps Tier services and beyond





THE LARGEST MMWAVE FWA NETWORK WORLDWIDE

WiBAS *GS*



- ▶ Ultra Fast broadband, fibre-like services ,with QoS, at 28GHz
- ▶ Extended Coverage, addressing rural, semi-rural & sub-urban
- ▶ Dense network of several 100s of terminals per Base Station
- ▶ 2K Terminals installed per week
- ▶ Massive nationwide network rollout

outdoor mounting position
with LOS to ensure long
reach and high performance



Light weight: about 3 Kgr
Compact design: < 20lt
Tx power: 18dBm (63mW)

- ▶ permit-free works at the End Customer premises
 - ▶ **Italy**: par 4bis Art 35. ,DECRETO-LEGGE 6 luglio 2011, n. 98,
 - ▶ **Greece**: παρ. 9, άρθ 6 ΚΥΑ 57 «Καθορισμός της ειδικής διαδικασίας αδειοδότησης για την εγκατάσταση τυποποιημένων κατασκευών κεραιών»

Automatic polarization scan



Manual simple alignment



Automatic User authentication and
service profile provisioning

30 mins in total

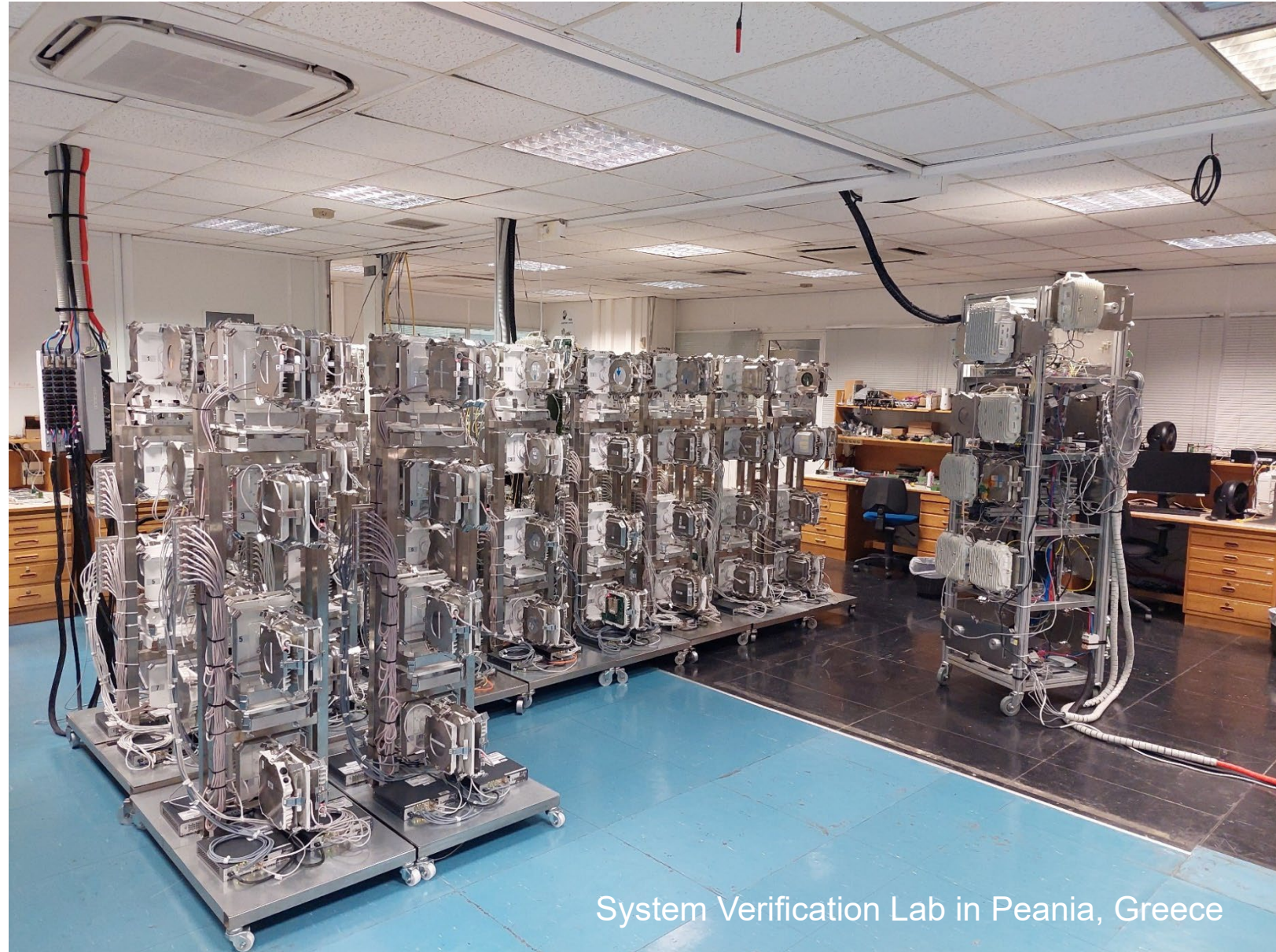
WiBAS^{G5} connect+ for Ultra Fast Broadband in Rural areas



WiBAS G5 connect+ for Ultra Fast Broadband in Suburban areas



- ▶ Vertical organization from idea-to-market capability
- ▶ Research labs with state-of-the-art infrastructure, for design, rapid prototyping and validation of advanced telecom products:
 - Microelectronics
 - DSP & System Modeling
 - Microwave & mmWave design
 - Embedded Software & NMS development
 - Sophisticated mechanical design
- ▶ Continuous R&D presence in EU research frameworks with strong participation in EU's 5G and beyond (6G) research initiatives



System Verification Lab in Peania, Greece

WiBAS^{G5} Reliable solution proven worldwide

>50 networks worldwide

Base Station Hubs

18,000

FWA Terminals

500,000

Accumulated expertise & know how for 20 years

thank
you



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