

A woman with long blonde hair is wearing a blue VR headset. The screen of the headset shows a green alien character with large eyes. She is looking to the right with a slight smile. The background is a bright, out-of-focus outdoor setting.

# 5G @DTAG

Presentation by Daniel Brower, 04.11.2020  
VP Technology Business Operations/Development



LIFE IS FOR SHARING.

# 5G technology status

DTAG was the frontrunner in NGMN 5G Whitepaper

5G Demos & trials paved the way towards a new evolution

5G NSA Architecture in place & under roll out

TDG is rolling out NR solutions and offers commercial services

CU/DU split architecture & first steps towards disaggregated networks in place



# Foundation built for successful roll-out in Germany



**2.100 MHz**  
considered as  
**ideal band**  
(deployed already  
for 3G)

Transmitting  
at same TTI  
both LTE and  
**5G NR**

Enhancing  
**5G NR coverage**  
+ **improving LTE**  
user performance  
by aggregating  
more spectrum

**Limited**  
**investment needed**  
due to modernized  
RAN network

**First**  
Multivendor  
FDD solution  
**globally**

# Dynamic spectrum sharing

From initial idea to roll-out  
boosting 5G coverage



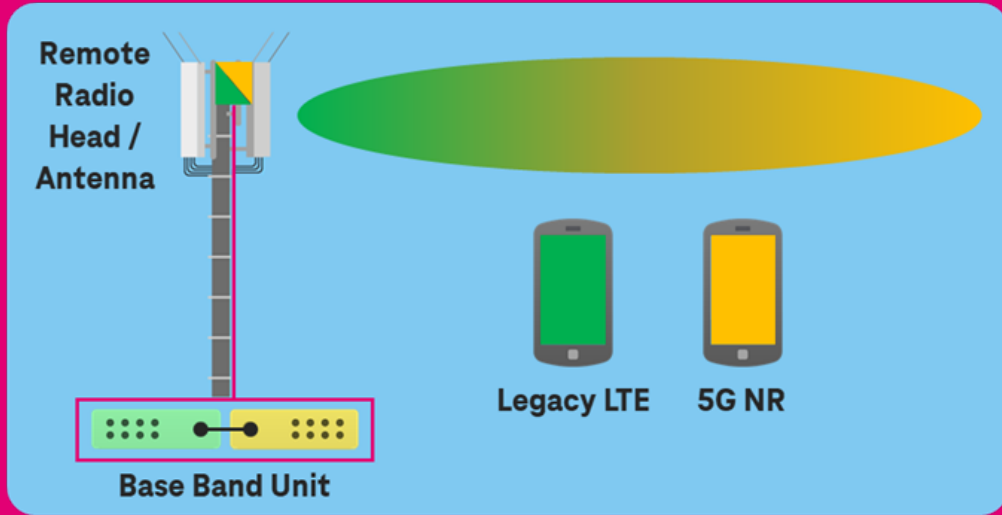
1<sup>st</sup> discussions on future  
spectrum use, incl.  
spectrum program board

Concept developed | Initial proposal for  
LTE / 5G NR in 2.100MHz for LTE / 5G  
NR | Vendor push

PoC & lab demo  
Continued push of supplier roadmaps  
Vendor push

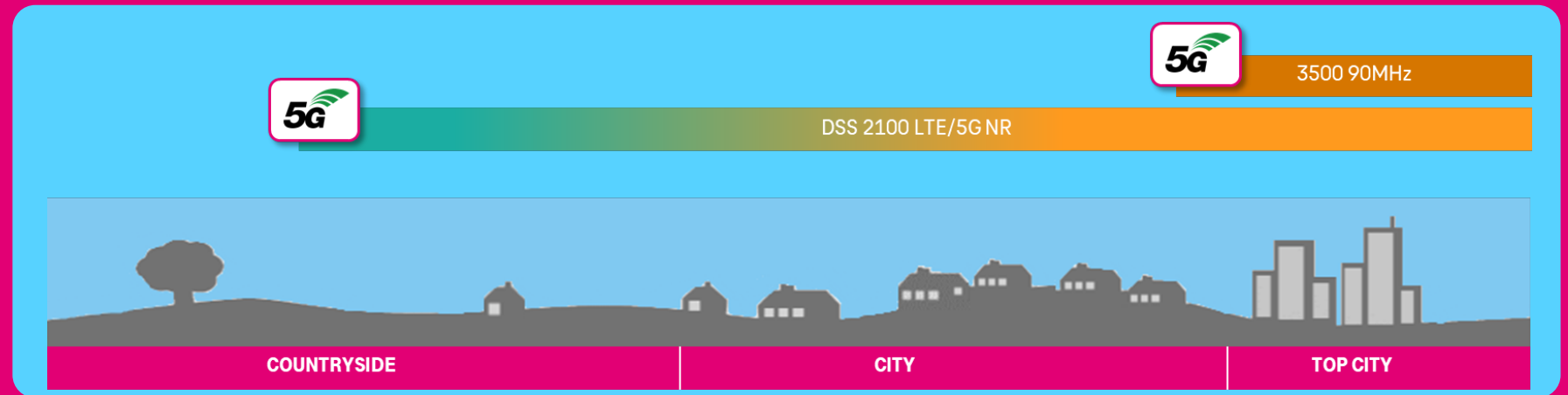
5G Roll-out in GER  
Q2/20, Population  
coverage >50% in  
07/20, additional  
introductions planned in  
AT, PL, GR, HU, HR

# ... and ensuring 5G Leadership



LTE & 5G  
NR

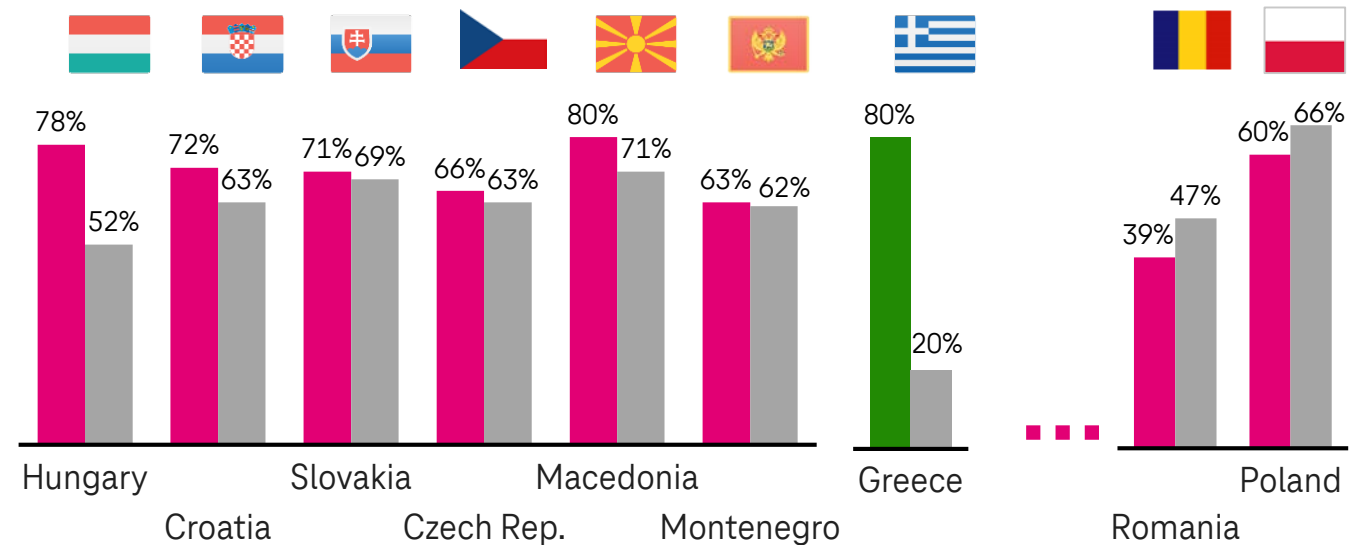
EXTENDED  
5G  
COVERAGE



# Our network leadership

Our biggest asset - In most of our markets we are perceived as the *strongest mobile network provider*

## Offers excellent coverage of its mobile network (Q1 2020) \*



\*NatCo brand tracking: Top 2 boxes on scale 1-5; GR different measurement – Residential network KPIs

# But it's critical to maintain this leadership ...

Giving free way to our competitors would jeopardize our network leadership keeping the *innovator status*



4G strengthened our network over the years –  
5G needs to be adopted as a further network enhancer

5G is all about perception even in countries where 5G has been launched - *high awareness*, but *low understanding* of the benefits



74 %\*

18 %\*



83 %\*

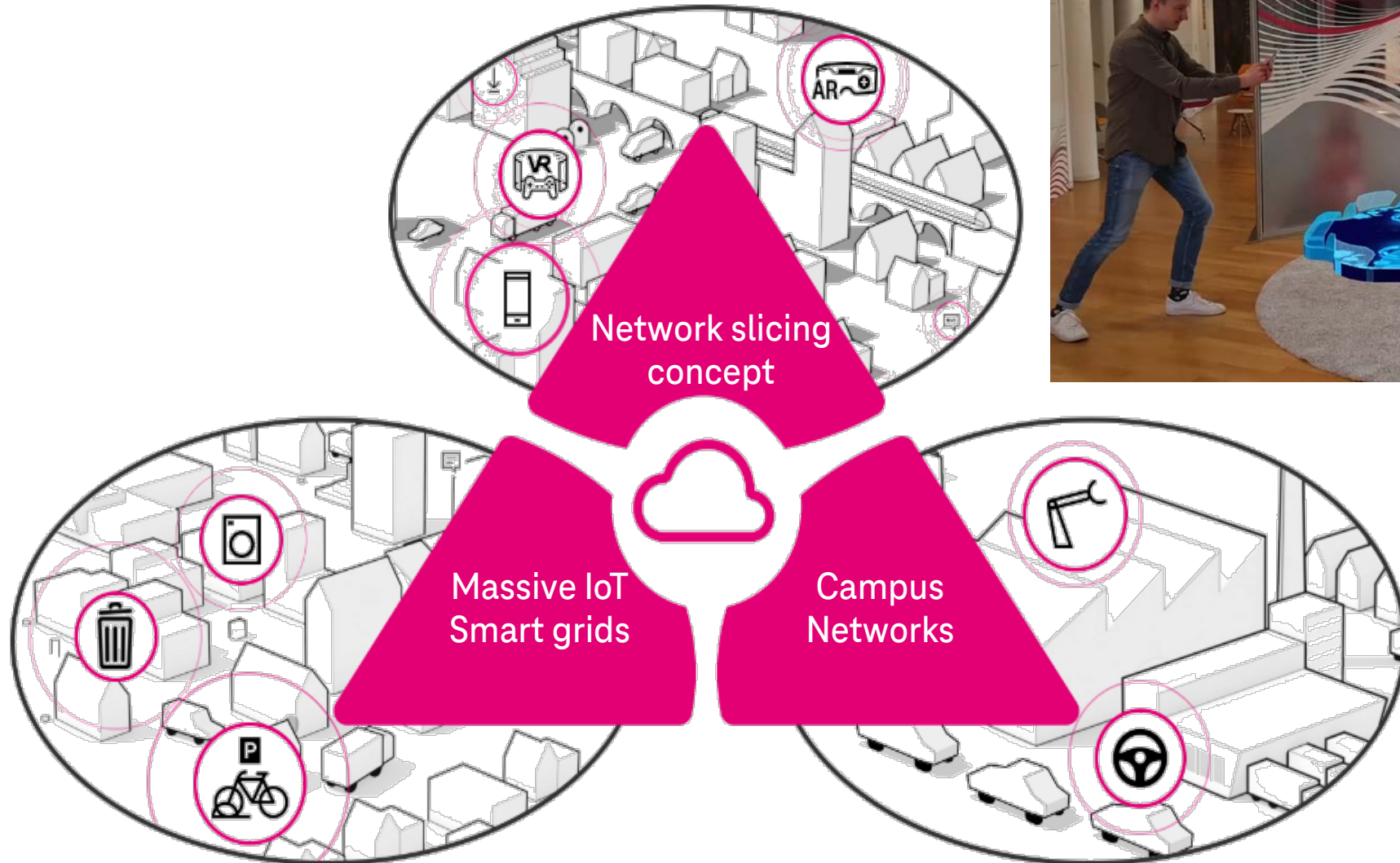
25 %\*

... % of mobile users have heard about 5G & know it's a telco technology

< ..% would actually find a personal advantage on it – no/little experience

\* UK & US survey, Gopal Web Index February 2020; Werbemonitor Deutschland

# 5G use cases

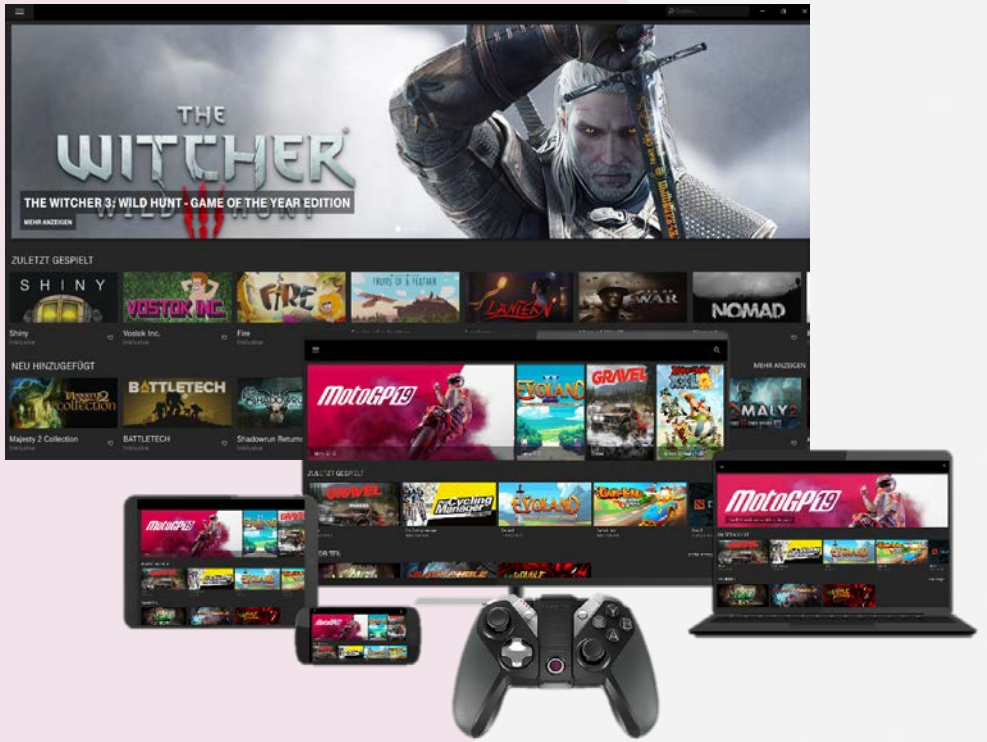




# CLOUD GAMING

## MAGENTA CLOUD GAMING PLATFORM...

**LAUNCHED**

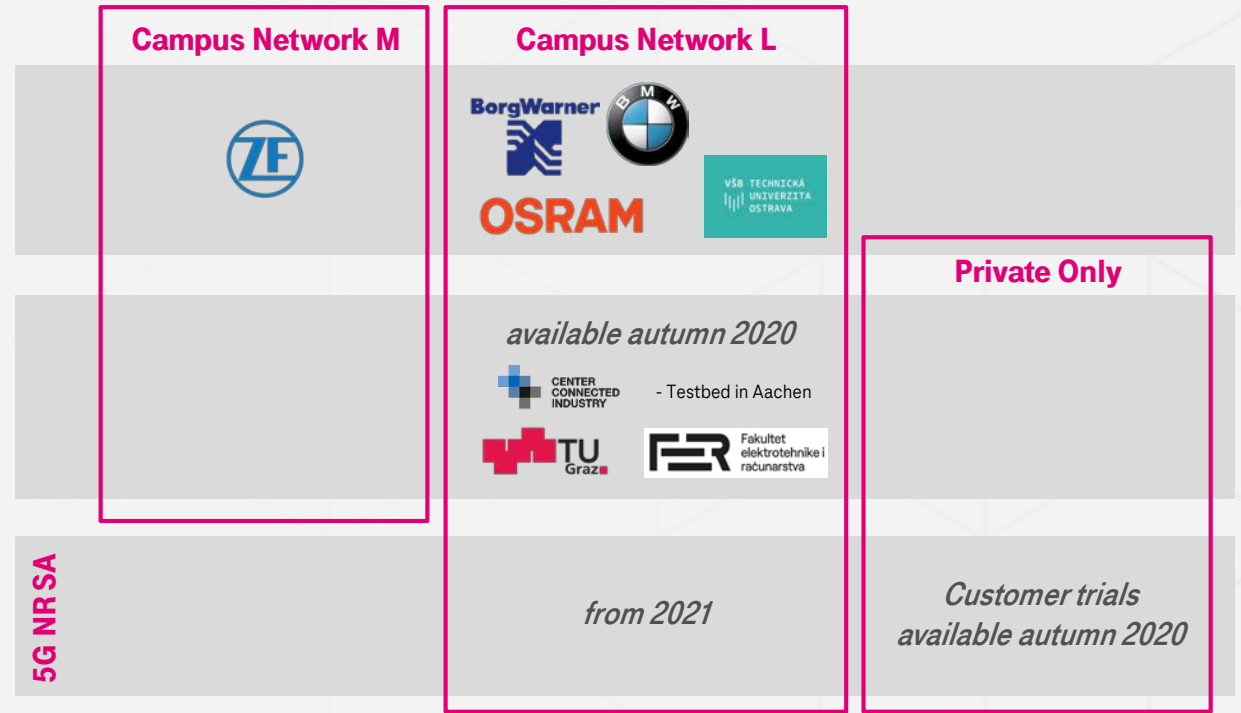


\*Current Beta illustrations

# 5G CAMPUS

## SEVERAL COOPERATION ALREADY ANNOUNCED, INCLUDING 4 INDUSTRY CUSTOMERS. MORE TO COME...

\*





# What comes next?

E2E SLICING

QOS ON 5G  
E2E

5G INDOOR  
ENHANCEMENT

5G SA INTRODUCTION

5G  
CONNECTIVITY  
FOR ALL

5G CAMPUS  
SOLUTIONS

# Open for questions

Contact  
[daniel.brower@telekom.de](mailto:daniel.brower@telekom.de)

