DEUTSCHE TELEKOM
CAPITAL MARKETS DAY 2018
This presentation contains forward-looking statements that reflect the current views of Deutsche Telekom management with respect to future events. These forward-looking statements include statements with regard to the expected development of revenue, earnings, profits from operations, depreciation and amortization, cash flows and personnel-related measures. You should consider them with caution. Such statements are subject to risks and uncertainties, most of which are difficult to predict and are generally beyond Deutsche Telekom’s control. Among the factors that might influence our ability to achieve our objectives are the progress of our workforce reduction initiative and other cost-saving measures, and the impact of other significant strategic, labor or business initiatives, including acquisitions, dispositions and business combinations, and our network upgrade and expansion initiatives. In addition, stronger than expected competition, technological change, legal proceedings and regulatory developments, among other factors, may have a material adverse effect on our costs and revenue development. Further, the economic downturn in our markets, and changes in interest and currency exchange rates, may also have an impact on our business development and the availability of financing on favorable conditions. Changes to our expectations concerning future cash flows may lead to impairment write downs of assets carried at historical cost, which may materially affect our results at the group and operating segment levels. If these or other risks and uncertainties materialize, or if the assumptions underlying any of these statements prove incorrect, our actual performance may materially differ from the performance expressed or implied by forward-looking statements. We can offer no assurance that our estimates or expectations will be achieved. Without prejudice to existing obligations under capital market law, we do not assume any obligation to update forward-looking statements to take new information or future events into account or otherwise.

In addition to figures prepared in accordance with IFRS, Deutsche Telekom also presents non-GAAP financial performance measures, including, among others, EBITDA, EBITDA margin, adjusted EBITDA, adjusted EBITDA margin, adjusted EBIT, adjusted net income, free cash flow, gross debt and net debt. These non-GAAP measures should be considered in addition to, but not as a substitute for, the information prepared in accordance with IFRS. Non-GAAP financial performance measures are not subject to IFRS or any other generally accepted accounting principles. Other companies may define these terms in different ways.
# AGENDA CAPITAL MARKETS DAY
## THURSDAY, MAY 24TH

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Deutsche Telekom, Landgrabenweg 151, Bonn)</td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>Group Strategy (incl. Q&amp;A)</td>
<td>T. Höttges, CEO</td>
</tr>
<tr>
<td>15:15</td>
<td>Segment presentation: Germany (incl. Q&amp;A)</td>
<td>D. Wössner, Board Member for Germany</td>
</tr>
<tr>
<td>16:30</td>
<td><strong>COFFEE BREAK</strong></td>
<td></td>
</tr>
<tr>
<td>16:45</td>
<td>Segment presentation: Systems Solutions (incl. Q&amp;A)</td>
<td>A. Al-Saleh, Board Member for T-Systems</td>
</tr>
<tr>
<td>17:45</td>
<td>Technology &amp; Innovation (incl. Q&amp;A)</td>
<td>C. Nemat, Board Member for Technology &amp; Innovation</td>
</tr>
<tr>
<td>18:30</td>
<td>Demonstrator Sessions</td>
<td></td>
</tr>
<tr>
<td>19:15</td>
<td>Evening Event</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Event Description</td>
<td>Presenter(s)</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>09:00</td>
<td>Segment presentation: T-Mobile US (incl. Q&amp;A)</td>
<td>Team T-Mobile</td>
</tr>
<tr>
<td>10:15</td>
<td>Segment presentation: Europe (incl. Q&amp;A)</td>
<td>S. Gopalan, Board Member for Europe</td>
</tr>
<tr>
<td>11:15</td>
<td>COFFEE BREAK</td>
<td></td>
</tr>
<tr>
<td>11:30</td>
<td>Segment presentation: Group Development (incl. Q&amp;A)</td>
<td>T. Langheim, Executive Vice President</td>
</tr>
<tr>
<td>12:00</td>
<td>Finance</td>
<td>T. Dannenfeldt, CFO</td>
</tr>
<tr>
<td>13:00</td>
<td>Wrap-up (incl. Q&amp;A)</td>
<td>T. Höttges, CEO, T. Dannenfeldt, CFO, C. Illek, (CFO Jan 1st, 2019)</td>
</tr>
<tr>
<td>13:30</td>
<td>End of CMD</td>
<td></td>
</tr>
</tbody>
</table>
GROUP STRATEGY

TIMOTHEUS HÖTTGES
WHAT DRIVES US...

- DEDICATED NETWORK INVESTMENT
- FOCUSED PORTFOLIO APPROACH & CAPITAL ALLOCATION
- PASSION FOR CUSTOMER EXPERIENCE
- BEST-OF-BREED TEAM WITH ENTREPRENEURIAL SPIRIT
- LEADERSHIP & WINNING MENTALITY
- WALK THE TALK

...TURNED DT INTO A GROWTH COMPANY
GROWTH ABOVE COMMITMENTS

Revenue (organic)\(^1\)
€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (organic)</th>
<th>+4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>67.1</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>69.1</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>71.7</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>74.9</td>
<td></td>
</tr>
<tr>
<td>2018(^e)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adj. EBITDA (organic)\(^1\)
€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Adj. EBITDA (organic)</th>
<th>+5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>20.1</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>20.6</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>2018(^e)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FCF\(^2\)
€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>FCF</th>
<th>+11%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>2018(^e)</td>
<td>6.2</td>
<td></td>
</tr>
</tbody>
</table>

Dividend per share
€

<table>
<thead>
<tr>
<th>Year</th>
<th>Dividend per share</th>
<th>+9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>2018(^e)</td>
<td>0.70(^3)</td>
<td></td>
</tr>
</tbody>
</table>

CMD AMBITION 2014–2018:
- CAGR +1–2%  
- CAGR +2–4%  
- CAGR +10%  
- FOLLOW FCF

1 Based on constant exchange rates (Average exchange rate 2017 of €1 = US$1.13); revenue and adj. EBITDA corrected for handset lease
2 Before dividend payments & spectrum invest
3 Subject to necessary AGM approval and board resolution
GROWTH PROFILE ACROSS OUR FOOTPRINT…

Germany revenue
Excl. DFMG, € bn
-0.6% to +0.7%
2014 22.0
2016 21.8
2017 21.9

Europe revenue
Organic, € bn
-1.3% to +0.5%
2014 11.8
2016 11.5
2017 11.6

TMUS revenue
$ bn
+10.8%
2014 29.7
2016 37.3
2017 40.3
"SUPPORTED BY CONTRACT CUSTOMER GROWTH"

Germany
Mobile postpaid customers, mn

Europe
Mobile postpaid customers (excl TMNL), mn

TMUS
Mobile postpaid customers, mn

Customer growth in line w/fair share

Customer growth in line w/fair share since 2017

Customer growth well above fair share

Lebara
DT ex Lebara

CAGR

‘FRONT BOOK ≈ BACK BOOK’ REDUCING RISK
INVEST FOR SUSTAINED GROWTH MOMENTUM

We heavily invested in the past...

<table>
<thead>
<tr>
<th>Year</th>
<th>Group Cash Capex</th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>13.5</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>7.4</td>
<td></td>
</tr>
</tbody>
</table>

...while delivering strongly on FCF...

<table>
<thead>
<tr>
<th>Year</th>
<th>Group FCF</th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>4.9</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>5.5</td>
<td></td>
</tr>
</tbody>
</table>

...and creating the basis for future growth

**Germany**
- 94% LTE Pop coverage (2017)
- ≈ 80% HH vectoring coverage (2019e)

**Europe**
- 94% LTE Pop coverage (2017)
- 8/11 NatCos with “Best in Test” network

**TMUS**
- Leading low band spectrum position
- LTE rollout to > 320 mn Pop

**Others**
- Innovation (e.g. Edge Computing, 5G)
- TSI: IoT & Security scale-up

---

1. Based on constant exchange rates (Average exchange rate 2017 of €1 = US$1.13)
2. Before dividend payments & spectrum invest
3. Delayed due to long regulatory process

---

GROUP STRATEGY  GERMANY  SYSTEMS SOLUTIONS  TECHNOLOGY & INNOVATION  T-MOBILE US  EUROPE  GROUP DEVELOPMENT  FINANCE
WINNING MENTALITY: “BRING ME AWARDS”
PORTFOLIO: DISCIPLINED CAPITAL ALLOCATION

Invest in footprint
- T-Mobile
- €11 bn 2015–2017 cum. spectrum spend

Consolidate towards FMC
- Tele2

Invest in innovation
- T-Mobile Capital Partners
- INCE
- Relayr
- Motionlogic
- Aponize
- Roambee

Buy out minorities
- Slovak Telekom
- OTE
- SCOUT 24
- STRATO
- T-Mobile Online

Divest non-core activities
- T-Mobile
- T-Online

Risk situation stabilized
- T-Online
- Toll Collect

Portfolio:
- Disciplined capital allocation
- Consolidate towards FMC
- Invest in footprint
- Invest in innovation
- Buy out minorities
- Divest non-core activities
- Risk situation stabilized

Group: Germany
Systems Solutions
Technology & Innovation
T-Mobile US
Europe
Group Development
Finance
WE HAVE KEPT OUR PROMISES...

### KEY FINANCIALS

<table>
<thead>
<tr>
<th>Ambition level 2018</th>
<th>Achievements 2017</th>
<th>Delivered/on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Group ROCE &gt; WACC in 2018</td>
<td>- ROCE &gt; WACC in 2017</td>
<td></td>
</tr>
<tr>
<td>- Group Adj. OPEX decrease (2014–2018)</td>
<td>- €0.7 bn indirect cost decrease vs. 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>€0.65</strong></td>
<td></td>
</tr>
</tbody>
</table>

### SHAREHOLDER REMUNERATION (2015–2018)

- Following FCF growth; min. DPS of €0.50 p.a.

- Following FCF growth; min. DPS of €0.50 p.a.

- €0.65

---

1 Compared to target of €1.8 bn
...AND HAVE LEARNED ALONG THE JOURNEY

Key learnings

- Convergence works, our customers love it
- Dialogue marketing is a must
- Network leadership pays off
- M&A is a valid lever for growth
- The last 1% is the toughest (e.g. All-IP)
- People make the difference
STRATEGY 2018 – 2021
LEADING TELCO ON BOTH SIDES OF THE ATLANTIC...

Strong presence in US and Europe...

Market growth 2017 vs 2016

- TMUS & Sprint pro forma 2017, $ bn: 73³
- Revenue:
  - 127 mn mobile customers, +6.9 mn⁴
- Adj. EBITDA:
  - +2.0%¹

- DT ex US 2017, € bn: 39
- Revenue:
  - 96 mn mobile customers, 19 mn broadband lines, 7 mn TV customers
- Adj. EBITDA:
  - +1.8%²
  - +2.3 mn⁴
  - +0.5 mn

...with significant value creation

- Presence in two strongest economies in Western Hemisphere
- 90% of revenues in AAA economies
- Well-balanced growth & yield profile
- Local entrepreneurship & global scale
- High relevance for local economies

¹ Total mobile revenue
² Total integrated revenue
³ Pro forma revenue and adjusted EBITDA as of FY 2017; Calculated as the sum of T-Mobile US and Sprint revenue/adjusted EBITDA (as per respective company reporting)
⁴ FY 2017 total net adds (incl. wholesale); U.S. includes 5.7 mn and 1.2 mn net adds for T-Mobile US and Sprint, respectively; T-Mobile US net adds adjusted for wholesale customers restatement
…WITH AN EVEN STRONGER POSITION POST US DEAL

Attractive TMUS/Sprint deal terms

- Unique value creation opportunity for DT shareholders
- Attractive transaction terms
- Benefitting US consumers, investments & job creation
- Governance designed for efficient integration
- Robust capital structure

DT’s global position strengthened

Reported Revenue 2017¹, € bn

Source: Company information

1 $-denominated figures converted in € based on exchange rate as of April 20th, 2018 (€1 = US$1.22745)
2 Based on Sprint FY 2017 reported revenue, converted in €
3 LTM as of Sep. 2017 and excluding Netherlands operations in H2 FY 2016/17
4 Additional revenue from newly acquired Liberty assets in Germany, Czech Republic, Hungary & Romania
FUTURE GROWTH IS FUELED BY THREE MAIN PILLARS

LEAD IN CUSTOMER EXPERIENCE

LEAD IN TECHNOLOGY/NETWORKS

LEAD IN BUSINESS PRODUCTIVITY
WE LEAD IN CUSTOMER EXPERIENCE AND IMPROVE CONTINUOUSLY

Our proof points

- We provide one seamless T-connectivity: Connect App, European Aviation Network
- We offer the leading FMC proposition: +1.5 mn FMC customers in our integrated footprint (FY 2017)
- We are “The Un-Carrier” in the US: +11% post-paid customers in 2017
- We have made it to the living rooms with simple, modular products: TV, Smart Home, Smart Speaker
- Our customer service is continuously improving: Decreased no-shows in Germany by 33% (FY 2017)
MAGENTA 1: OUR UNIQUE CONVERGENCE OFFER

More than a tariff...

- Magenta ID
- Customer Touchpoints (Shop, Call Center, App etc.)

-Seamless products & services
  - Comprehensive portfolio positioned in the living room
  - Integration across devices

-Seamless connectivity
  - Access agnostic
  - Make, buy and partner

-Seamless customer experience
  - Magenta ID as single identifier
  - Omni-channel customer journey

...and resonating with customers

FMC HH penetration in Germany and Europe (blended) (FMC HHs/fixed broadband base)

- 2017: 21%
- 2021e: ≈ 40%

GROUP STRATEGY
GERMANY
SYSTEMS SOLUTIONS
TECHNOLOGY & INNOVATION
T-MOBILE US
EUROPE
GROUP DEVELOPMENT
FINANCE
We strive for perfect customer service

We treat service as a key differentiator...

- Dedicated organization with >30,000 employees for E2E responsibility of customer service
- One touch self service ability and personalized customer care with “Mein Magenta App”¹
- Predictive maintenance to fix problems before they arise

TEAM OF EXPERTS (TEX)

- Own P&L responsibility for dedicated teams
- Very high “Care NPS” (+9 pts. yoy 2017) at very low costs per account (-13% yoy 2017)
- Focus for 2018: global care to ensure 24/7 best customer experience

...reflected in our high ambitions

- Contact resolution within 24h: >80%
- Rate of complaints: ≈1%
- Net promoter score: 34 pts.
- Customer service satisfaction: 74%

¹ Formerly MagentaSERVICE App ² Q1 2018
WE ARE “DEDICATED NETWORK INVESTORS”

Our proof points

- We own extended fiber backbone in our European footprint: Key asset for integrated Gigabit networks

- We roll out broadband for the masses: ≈ 80% HH coverage with vectoring in 2019 (≈ 62% in 2018)\(^1\)

- We push the fiber rollout: Already more than 455,000 km fiber deployed in Germany, 240,000 km in our EU footprint

- We enable real-time networks: IP migration completed in 5 EU NatCos, 75 k BNG access nodes migrated in Germany in 2017

- We provide leading mobile network quality: Winner of all relevant network tests (e.g. Connect, P3, Opensignal)

- We drive network innovation with 5G and Edge Computing: 600 MHz rollout started in US, MobiledgeX launched

---

\(^1\) Bandwidth ≥ 50 Mbps, delayed due to regulatory decisions
MOBILE NETWORK LEADERSHIP EVERYWHERE

**Germany**
Macro cell sites, k

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>27</td>
</tr>
<tr>
<td>2021e</td>
<td>36</td>
</tr>
</tbody>
</table>

**Europe**
Macro cell sites, k

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>41</td>
</tr>
<tr>
<td>2021e</td>
<td>47</td>
</tr>
</tbody>
</table>

**TMUS**
Macro cell sites, k

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>61</td>
</tr>
<tr>
<td>2021e</td>
<td>+</td>
</tr>
</tbody>
</table>

**Strengthen leadership position (incl. 5G) & enable new use cases (e.g. IoT, FWA)**

**Build on strong fiber footprint to lead in 5G & maintain growth momentum**

**Extend network capacity & density to pave way for 5G**
In a very complex environment...

...we developed a sustainable & economically viable fiber rollout plan

High-speed networks (50–250 Mbps)

- Finalize and monetize (Super) vectoring rollout for max. high-speed coverage until end 2019e
  - 80% DT infrastructure
  - 95% incl. wholebuy

Gigabit networks (≥1 Gbps)

- Start FTTH rollout from 2018
  - New residential areas
  - Business parks
  - Telekom@School

- Ramp up to 2 mn HH p.a. by 2021e
  - White spots (subsidized)
  - B2C winback areas

...complemented by cooperation & co-invest models and supported by a sensible wholesale access model

Benefits for DT:
- Defend/grow market share
- Maintain high & stable investment budget
- Adhere to strict FTTH/B return criteria: 7.5% IRR
- Enable the Gigabit society
...AND INTEGRATING GIGABIT NETWORKS IN EUROPE

Uniquely positioned to drive FMC...

Converged Leaders

Converged Challengers

Tele2 merger

Fixed BB rollout planned

acquisition

...and further drive broadband rollout

FTTH/B household coverage\(^1\), % of HH in GR, HU, SK, HR

\(^1\) FTTH/B and Cable ED3.1, excluding Romania

- Triple organic FTTH/B investment (run-rate p.a.) within stable total capex envelope in EU NatCos until 2021e\(^1\)
- FMC proposition to drive penetration & mitigate back book risks (front book ≈ back book)
In a regulated environment...

DT Group revenue split

<table>
<thead>
<tr>
<th>Regulated</th>
<th>Non-Regulated (mainly US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 2015 – 2017</td>
<td>&gt; 50%</td>
</tr>
</tbody>
</table>

...German telecommunications policy sets the right tone

Recent developments

- **Fiber**: “We create incentives via change to ex-post Open Access regulation instead of detailed ex-ante Regulation like copper”
- **Subsidies**: “We want nationwide Gigabit networks until 2025, preferably with fiber into the building”
  “We expect €10-12 bn funding needs in this legislative period”
- **5G**: “We speed up densification of mobile networks and develop Germany to a leading market for 5G”

EU regulation

Consolidation

- Foster market environment for further infrastructure investment

DT position

- Create conditions for collaborations
- Provide fair framework for fiber investments
- Make sensible use of public funding
- Release spectrum for 5G, securing investment incentives
- Push approval of merger in NL and AT
WE INCREASE BUSINESS PRODUCTIVITY...

Our proof points

✅ We build horizontal platforms & vertical solutions for the Internet of Things: NB-IoT network in 8 EU markets & US, IoT unit established

✅ We enable E2E SMB digitalization with secure & reliable ICT solutions: Existing trusted customer relationships, 20% IT/Cloud revenue growth in SMB in 2017 in Germany

✅ We provide leading cyber security solutions: German market leader with >1,400 experts

✅ We enhance our global connectivity proposition: Germany-outbound focus, smart SD-WAN powered by ngena

✅ We provide platforms for secure data exchange and analytics: Telekom Data Intelligence Hub (DTH) launched
...WITH SECURE ICT SOLUTIONS FOR SMB DIGITALIZATION

We leverage our strengths...

- Trusted partner with strong B2B brand & customer base
- Large & efficient sales force
- Reputation as ICT provider (8x isg/Experton leader)
- Local partner network

...with a strong portfolio...

- Connectivity-Based Converged ICT Portfolio
  - Cloud
  - Software/Applications
  - IoT
  - Security
  - Fixed & Mobile Connectivity (incl. NB-IoT, M2M & Campus Networks)

...to grow in SMB digitalization

- B2B revenue Germany, € bn
  - 2017: 6.0
  - 2021e: 6.5
  - CAGR: +2%

- B2B revenue Europe, € bn
  - 2017: 3.2
  - 2021e: 3.6
  - CAGR: +3%
CLEAR TURNAROUND PLAN FOR T-SYSTEMS

Preserving optionality with portfolio-based steering...

- TC CORE
  - Fixed Line Services
  - Mobile Services

- GROWTH-PORTFOLIOS
  - Digital Solutions
  - SAP
  - IoT
  - Public Cloud/Managed Services
  - Road Charging
  - Classified ICT
  - Security

- CLASSIC IT
  - Dedicated SI Solutions
  - Managed Infrastructure Services & Private Cloud

...and turnaround initiatives

- Sales revitalization
- Portfolio focus
- Delivery integration
- Overhead reduction

Transform revenue mix towards growth portfolio
Increase profitability
(Cash contribution breaking even in 2020e)
Maintain strategic optionality

Revenues
2017
€2.2 bn
CAGR
2017–2021e
2017
€2.1 bn
2021e
€2.5 bn
GROWTH UNDERPINNED BY VALUE TRANSFORMATION

LEAD IN CUSTOMER EXPERIENCE + LEAD IN TECHNOLOGY/NETWORKS + LEAD IN BUSINESS PRODUCTIVITY

SAVE FOR GROWTH INVESTMENTS

SIMPLIFY, DIGITALIZE, ACCELERATE
EFFICIENCY TO FUND INVESTMENTS INTO GROWTH

Accelerated cost reduction...

Indirect Costs DT Group ex US, €bn

- 18.5
- 1.5
- 17.0

2017
2021e

- Address cost savings potential more effectively than in the past
- Focus on operational excellence and lean organizational structure (e.g. enabled by digitalization)

...across all segments

- DEUTSCHLAND: -€0.8 bn
- EUROPE: -€0.4 bn
- T-Mobile Systems: -€0.1 bn
- T-Mobile GHS (incl. GROUP DEVELOPMENT): -€0.2 bn
DIGITAL TRANSFORMATION TO ADDRESS UNTAPPED POTENTIAL

We have started our E2E digitalization...

We digitalize our touchpoints:
“Mein Magenta App” in Germany¹, One App for EU

We simplify our products and services:
e.g. EU tariff reduction

We automate our core business processes:
1,500 bots handling 20 mn transactions in Germany

We exploit our data:
> 300 analytics use cases, > 50 ongoing AI projects,
> 100 experts working on AI

We transform our IT systems:
Portfolio approach in Germany, harmonized API Layer in EU

We digitalize our network for real-time operations:
IP/BNG migration, Access 4.0

...and aim for more

![Chart of Share of resolved requests in digital channels](image)

- **2017:** 38%
- **2021e:** 70%

![Chart of One App Penetration](image)

- **2017:** 20%
- **2021e:** > 50%

¹ Formerly MagentaSERVICE App ² E-Service Share Interaction, year end 2017
BOLD CULTURAL TRANSFORMATION...

Strengthened the team on all levels...

New board members ...

Adel Al-Saleh  
T-Systems  

Srini Gopalan  
Europe  

Dirk Wössner  
Germany  

...supported by a strong international management team

Omair Khan  
Data Governance  

Omar Tazi  
Product Innovation & Customer Experience  

Alex Choi  
Research & Technology Innovation  

Campbell McClean  
IT Architecture  

Surya Manepalli  
Operational Excellence TSI  

Eva Somorjai  
Human Resource Europe  

Debanjan Banerjee  
Investment Monetization Europe  

...to drive cultural transformation

- **Transform culture & organization** towards agile mindset (220 T³ transformation leaders participated in classes in 2017)
- **Support cross-functional collaboration** (90% of business leader placements in 2017 were cross-functional)
- **Establish new ways of working** (T&I established with new pool organization; > 10k employees enabled in “Design Thinking” in 2017)
- **Drive empowerment and entrepreneurship**
### INNOVATIVE BUSINESS & STEERING MODELS...

#### New asset management & investment models

- **New Segment Group Development**
  - T-Mobile
  - Deutsche Funkturm

- **Innovative Spin-Outs**
  - Comfort Charge
  - ngena
  - MOBILEEDGE X

- **Growth & Financial Investments**
  - T-CAPITAL PARTNERS
  - axonize

#### Innovative ways of working

- **Flexible Incentive Models**
  - Entrepreneurial headroom
  - Collective targets

- **Agile Development**
  - Iterative & incremental
  - Cross-functional teams

- **Pool Organizations**
  - Competence Chapters
  - Project-based staffing

---

**ENTREPRENEURIAL VALUE CREATION**

---

**AGILITY & ACCELERATION**

---

GROUP STRATEGY | GERMANY | SYSTEMS SOLUTIONS | TECHNOLOGY & INNOVATION | T-MOBILE US | EUROPE | GROUP DEVELOPMENT | FINANCE
---|---|---|---|---|---|---|---
35
...TAKING CORPORATE RESPONSIBILITY

“Lighthouse” examples...

Climate Change & Enabling Potential

Sustainable Supply Chain

Human Rights & Employee Relations

Social Engagement

Digital Ethics

...of contribution to the sustainable development goals

- **Climate**: 20% CO₂ footprint reduction by 2020e¹
- **Renewable energy share**: Group at 41% (2017), TMUS aims at 100% by 2021e
- **Impact**: Positive CO₂ effect enabled on customer side at 71% above DT emissions

- **ESG² risk assessment** integral part in purchasing process
- **81% of procurement volume reviewed** according to ESG² criteria (i.e. audits)
- **Joint audit** corporation and **supplier development program**

- **“Code of Human Rights & Social Principles” & “Employee Relations Policy”**
- **Continuous human rights due diligence** covering > 100 business units³

- **41% of social engagement activities** focus on media skills & digital literacy
- **Telekom Foundation** with focus on STEM⁴, digital teaching and learning
- **Integration into the German labor market**: DT employs ≈ 340 refugees

- **Ethics codex for responsible use of Artificial Intelligence implemented**
- **Codex defines how DT will use AI for product and service development**

¹ Compared to base year 2008, without T-Mobile US, in t CO₂
² ESG: Environmental, Social & Governance
³ Incl. assessments of basic minimum requirements
⁴ Science, technology, engineering and mathematics
OUR AMBITION: LEADING EUROPEAN TELCO

GROW

LEAD IN CUSTOMER EXPERIENCE
ONE CONNECTIVITY & PERFECT SERVICE

LEAD IN TECHNOLOGY
INTEGRATED GIGABIT NETWORKS

LEAD IN BUSINESS PRODUCTIVITY
SECURE ICT SOLUTIONS & BIG IOT

SAVE FOR GROWTH INVESTMENTS

SIMPLIFY, DIGITALIZE, ACCELERATE
MID TERM AMBITION LEVEL
## MID TERM AMBITION LEVEL

<table>
<thead>
<tr>
<th>Mid term ambition level¹</th>
<th>Year</th>
<th>Implications of US deal²</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR +1–2%</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>CAGR +2–4%</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>CAGR ≈ +10%</td>
<td>2017–2021e</td>
<td>Slightly dilutive in 2021e &amp; accretive in 2022e</td>
</tr>
<tr>
<td>≈ €1.20</td>
<td>2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>ROCE &gt; WACC</td>
<td>2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Ex US stable</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Ex US -€1.5 bn</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Dividend will reflect growth in adjusted EPS. Floor remains at €0.50 per share</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

¹ Based on constant exchange rates (Average exchange rate 2017 of € 1 = US$1.13) and no further changes in the scope of consolidation. ² Assumption: closure date Jan. 1st, 2019 ³ Subject to necessary AGM approval and board resolution. 2018 dividend target of €0.70 per share. Share buy backs to be considered, but not relevant for first 3 years in US deal scenario.
## WHY DT: BEST POSITIONED FOR FUTURE GROWTH

<table>
<thead>
<tr>
<th>Category</th>
<th>Key Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unique FOOTPRINT &amp; ASSET BASE</strong></td>
<td>Transatlantic presence in worlds' leading economies</td>
</tr>
<tr>
<td></td>
<td>Converged leader in Europe with superior network position</td>
</tr>
<tr>
<td><strong>GROWTH Profile</strong></td>
<td>95% of footprint growing with further FMC growth potential</td>
</tr>
<tr>
<td></td>
<td>Supercharging the Un-Carrier boosts DT’s financial profile (EPS accretive from year 3)</td>
</tr>
<tr>
<td><strong>Untapped VALUE POTENTIAL</strong></td>
<td>Still untapped potential from cost transformation</td>
</tr>
<tr>
<td></td>
<td>Accelerated digitalization to improve CX and reduce costs</td>
</tr>
<tr>
<td><strong>Clear STRATEGY</strong></td>
<td>Focus on connectivity core &amp; adjacent business</td>
</tr>
<tr>
<td></td>
<td>Focused portfolio approach &amp; capital allocation</td>
</tr>
<tr>
<td><strong>Best TEAM</strong></td>
<td>New international leaders with excellent track record</td>
</tr>
<tr>
<td></td>
<td>Walk the talk &amp; winning mentality</td>
</tr>
</tbody>
</table>
BOTTOM LINE: WE HAVE A PLAN

Accelerate FMC growth
- Foster fiber monetization
- Establish “Perfect Service” (Der Service)
- Close convergence gaps in non-integrated NatCos
- Intensify FMC & TV commercialization
- Supercharge the Un-Carrier
- Intensify team of experts (TEX) approach
- Fiber rollout: Ramp up to 2 mn HH p.a. by 2021e
- 99% LTE outdoor coverage in 2020e
- Fiber rollout: Ramp up to 0.75 mn HH p.a. by 2021e
- 99% LTE outdoor coverage in 2021e
- Close remaining coverage gap
- Accelerate rollout of low band spectrum
- 5G & IoT innovation leadership
- Complete IT transformation
- Expand IT/TC portfolio for SME via “Mittelstands-initiative 2.0” (€6.5 bn B2B revenue in 2021e)
- Accelerate B2B growth (€3.6 bn revenue in 2021e)
- Gain fair share in B2B
- Grow in IoT
- Expand security portfolio & commercialization
- Establish ngena as global SD-WAN solution

ONE CONNECTIVITY & PERFECT SERVICE

INTTEGRATED GIGABIT NETWORKS

SAVE FOR GROWTH INVESTMENTS

SIMPLIFY, DIGITALIZE, ACCELERATE

- Simplify offerings
- Cut off legacy systems
- Push online sales & service channels
- Drive E2E process automation
- Foster data-driven decision-making
- Drive cultural transformation
- Enable innovative business & steering models

US Deal Implications

Group Revenues: CAGR +1–2% (2017–2021e)
Group Adj. EBITDA: CAGR +2–4% (2017–2021e)
Group Ind. Opex: Ex US €1.5 bn (2017–2021e)
Group Cash Capex: Ex US stable (2017–2021e)
Group FCF: CAGR ≈ +10% (2017–2021e)
Group Adj. EPS: ≈ €1.20 (2021e)

GROWTH

3.1 FTTH/B and Cable ED3.1, excluding Romania
GERMANY

DR. DIRK WÖSSNER
**KEY MESSAGES**

**01** MARKET WITH STABLE GROWTH
The German telecommunications market has returned to stable growth and Telekom is uniquely positioned within this market.

**02** LEAD IN CUSTOMER EXPERIENCE
Our stable top-line growth focuses on four key drivers: Expanding our converged household penetration, continuing more for more and multi-brand approach in mobile, leveraging our improved broadband networks and TV proposition, and continued low churn through best-in-class service.

**03** LEAD IN BUSINESS PRODUCTIVITY
"Mittelstandsinitiative 2.0" will further contribute to our strong growth momentum in the B2B market with secure ICT solutions.

**04** LEAD IN TECHNOLOGY – FIXED
Finalizing our super-vectoring rollout and then reallocating our high budget towards fiber will yield strong broadband growth while addressing political concerns. Our proposed co-investment will ensure a fair risk reward.

**05** LEAD IN TECHNOLOGY – MOBILE
Leveraging our backhaul capacity and unprecedented site expansion while increasing speed and capacity with massive MIMO, SDRAN technology and enable innovative 5G services.

**06** VALUE TRANSFORMATION
Indirect cost reduction of €750 mn by 2021 through automation, operational excellence, and retirement. Improvements supported by consolidating management functions, flexible IT-architecture and investing into agile development skills.

**07** FINANCIAL OUTLOOK
Continue our growth path of > 1% in revenue, +2–2.5% in adj. EBITDA and +4–5% in cash contribution with stable Cash Capex and Special factors (Cash).
REVIEW 2014 – 2018
## SOLID DELIVERY ON KEY PROMISES

<table>
<thead>
<tr>
<th>Ambition level 2018</th>
<th>Achievements 2017</th>
<th>Delivered/on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>• #1 in FMC with <strong>MagentaEINS</strong>: 3 mn customers</td>
<td>• 3.6 mn customers</td>
<td>[Green] ✔</td>
</tr>
<tr>
<td>• #1 in Mobile service revenue: ≈ 1%(^1) CAGR &gt;36% market share</td>
<td>• #1 Mobile: +1.0%(^1) CAGR &gt; 36% market share</td>
<td>[Green] ✔</td>
</tr>
<tr>
<td>• #1 Broadband: ≈ +2% CAGR &gt; 40%(^2) market share</td>
<td>• #1 Broadband: +1.1%(^3) CAGR ≈ 40%(^2) market share</td>
<td>[Yellow] ✔</td>
</tr>
<tr>
<td>• Stable Wholesale revenue</td>
<td>• +1.2%(^4) CAGR 2014–2017</td>
<td>[Green] ✔</td>
</tr>
<tr>
<td>• <strong>Customer loyalty</strong> (TRI*M): ≈ 64 points</td>
<td>• 59 points</td>
<td>[Yellow] ✔</td>
</tr>
<tr>
<td>• Adj. <strong>EBITDA</strong> margin: ≈ 42% (Pro Forma: ≈ 40%)(^5)</td>
<td>• 38.4%</td>
<td>[Green] ✔</td>
</tr>
<tr>
<td>• Growing adj. <strong>EBITDA</strong>: +1–2% CAGR</td>
<td>• +0.8% CAGR 2014–2017</td>
<td>[Yellow] ✔</td>
</tr>
<tr>
<td>• Growing adj. <strong>Cash Contribution</strong>: ≈ +2% CAGR</td>
<td>• -2.7% CAGR 2014–2017</td>
<td>[Red] ❌</td>
</tr>
<tr>
<td>• <strong>Revenue stabilization</strong>: +0.3%(^1) CAGR</td>
<td>• +0.1%(^1) CAGR 2014–2017</td>
<td>[Yellow] ✔</td>
</tr>
</tbody>
</table>

1 Without EU roaming impact  
2 Access market share in 2018e  
3 FY 2014 restated (supplement accesses allocated to voice only revenues) during 2015  
4 FY 2014 restated (€70 mn shifted from “Wholesale” to “Others”) during 2015  
5 Excl. DFMG and VCS
Germany returned to growth in revenue & EBITDA

**Revenue**

<table>
<thead>
<tr>
<th></th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MOBILE SERVICE REVENUE</strong></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>6.7</td>
</tr>
<tr>
<td>2017</td>
<td>6.7</td>
</tr>
<tr>
<td>CAGR +1.0%</td>
<td></td>
</tr>
<tr>
<td><strong>BROADBAND REVENUE</strong></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>5.1</td>
</tr>
<tr>
<td>2017</td>
<td>5.3</td>
</tr>
<tr>
<td>CAGR +1.1%</td>
<td></td>
</tr>
<tr>
<td><strong>WHOLESALE PRODUCT REVENUE</strong></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>3.3</td>
</tr>
<tr>
<td>2017</td>
<td>3.5</td>
</tr>
<tr>
<td>CAGR +1.2%</td>
<td></td>
</tr>
</tbody>
</table>

**Adj. EBITDA**

<table>
<thead>
<tr>
<th></th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2014</strong></td>
<td>8.2</td>
</tr>
<tr>
<td><strong>2017</strong></td>
<td>8.4</td>
</tr>
<tr>
<td>CAGR +0.8%</td>
<td></td>
</tr>
</tbody>
</table>

---

1 Without EU roaming impact  
2 FY 2014 restated (supplement accesses allocated to voice only revenues) during 2015  
3 FY 2014 restated (€70 mn shifted from “Wholesale” to “Others”) during 2015  
4 Excl. DFMG and VCS
HEALTHY AND STABLE MARKET ENVIRONMENT ENABLES GROWTH

Market insights and trends

Stable economy with positive outlook
GDP +2.3% in 2018

Well segmented market. Willingness to pay for quality & service

Stable & long-term capacity models for fixed & mobile in place

Expected improving regulatory environment
Stable IP BSA pricing until 2022, MTR-glidepath defined until 2020

Mobile market back to growth...
Service revenue (market), growth rate yoy, %

-1 0 1 2 3 4
2015 2017 2021e

After 3 years of decline, positive development expected
- 3-player market with capacity models for MVNOs
- Catch up in mobile usage (still low average consumption in Germany)

Broadband- & high-speed penetration supporting growth
- High-speed demand increases by ≈ 40% yoy on telco infrastructure
- Broadband growth due to low penetration (78% HH-penetration)

...and still positive broadband momentum
Broadband revenue (market), growth rate yoy, %

+1.5–2%2 2018–2021e CAGR

+2.7%3 2017–2021e CAGR

Source: 1 BMWi estimate 2 AnalysysMason/IDC 3 AnalysysMason Telco Market Aug. 2017 4 Credit Suisse Research Mar. 2018
WE ARE UNIQUELY POSITIONED IN THE GERMAN TELCO MARKET

#1 TELEKOM
MARKET LEADER IN GERMANY

$40 BN
Most valuable telco brand in Germany

3.6 MN
Lead in converged customers

#1
B2B market leader in Germany

+20 %
IT/cloud growth leader in SMB

#1
Winner of most telco service tests

18 MN
Most customers on IP-platform

≈ 80 %
Most mobile sites connected via fiber

95 %
Outstanding winner of 95% of all network tests

UNLIMITED & STREAMON
#1 telco innovator in Germany

1 Growth 2016-2017
STRATEGY 2018 – 2021
GERMANY CONTRIBUTING TO GROUP STRATEGY

Our strategy

GROW

- LEAD IN CUSTOMER EXPERIENCE
- LEAD IN TECHNOLOGY
- LEAD IN BUSINESS PRODUCTIVITY

ONE CONNECTIVITY & PERFECT SERVICE
INTEGRATED GIGABIT NETWORKS
SECURE ICT SOLUTIONS & BIG IOT

SAVE FOR GROWTH INVESTMENTS

SIMPLIFY, DIGITALIZE, ACCELERATE

Ambition Germany

1. LEAD IN CUSTOMER EXPERIENCE
   Strengthen market leadership with stable top line growth in consumer market

2. LEAD IN BUSINESS PRODUCTIVITY
   Continue strong growth momentum in B2B with secure ICT solutions ("Mittelstandsinitiative 2.0")

3. LEAD IN TECHNOLOGY
   Maintain network leadership based on demand driven network rollout within stable Capex budget

4. VALUE TRANSFORMATION
   Clear commitment to efficiency improvements driven by digitalization
1 LEAD IN CUSTOMER EXPERIENCE

Key growth drivers

1. CONVERGENCE
   Expanding our converged household penetration with MagentaEINS

2. MOBILE
   Continuing our successful more for more multi-brand approach

3. BROADBAND/TV/WHOLESALE
   Leveraging our improved fiber network & TV proposition

4. SERVICE
   Continuing low churn through best-in-class service

1 FOR OUR CUSTOMERS

LEADING CUSTOMER EXPERIENCE
1 CONVERGENCE: CONTINUE MAGENTAEINS SUCCESS STORY

More for more strategy pays off

<table>
<thead>
<tr>
<th>HIGHER REVENUE PER HOUSEHOLD</th>
<th>+€9.00 Additional revenue per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHER CUSTOMER LOYALTY</td>
<td>-50% Churn rate (mobile/fixed)</td>
</tr>
<tr>
<td>HIGHER CUSTOMER SATISFACTION</td>
<td>+19pts Net Promoter Score vs. consumer base(^1)</td>
</tr>
</tbody>
</table>

Growing converged base with focus on value

<table>
<thead>
<tr>
<th>Cross-sell into base and add additional SIM cards/family offers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share MagentaEINS households/broadband households, %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secure high share of revenue in converged offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>MagentaEINS revenue share, %</td>
</tr>
</tbody>
</table>

\(^1\) Average of last four data points of Consumer segment NPS vs. MagentaEINS

<table>
<thead>
<tr>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>18%</td>
<td>30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>21%</td>
<td>35%</td>
</tr>
</tbody>
</table>

\(+14pp\)
Multi-brand strategy with clear focus on premium segment

- Focus on defending leading position with innovative services (e.g. StreamOn, Unlimited)
- Differentiate through handset portfolio and pricing
- Aim for fair-share through fast-follower strategy with flexible “build-yourself” tariffs
- Strong digital heritage & reactive pricing strategy
- Underindexed and focus on revenue stabilization
- Balanced channel presence through wholesale brands & retail partnerships

1 Rough estimation based on internal market survey
MOBILE: DIFFERENTIATION WITH INNOVATION & MORE FOR MORE

Innovative more for more strategy

INNOVATION STRATEGY

Consumer IoT solutions allow ARPU uplift vs. M2M

Mobile service revenues

€ bn

2014 2017 2021e

CAGR +1%1

CAGR ≈+2%²

+3.2% GROWTH YOY Q1/18

1 Without EU roaming impact
2 Average growth rate adjusted for IFRS 15 impact; 2021e visually adjusted for IFRS 15
1 BROADBAND: GROWTH WITH FTTX COVERAGE & SPEED

**Broadband revenue growth drivers**

**BANDWIDTH INCREASE**
Higher speeds yield low churn and good gross-add momentum

<table>
<thead>
<tr>
<th>Availability of ≥50 Mbit/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
</tr>
<tr>
<td>33%</td>
</tr>
</tbody>
</table>

**INCREASED CUSTOMER LOYALTY**
High-speed customers vs. ADSL broadband

<table>
<thead>
<tr>
<th>Broadband churn rate 2017, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mbit/s</td>
</tr>
<tr>
<td>18%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pay-TV share, %¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
</tr>
<tr>
<td>32%</td>
</tr>
</tbody>
</table>

**TV GROWTH**
Smart content investments & leading platform increase broadband attractiveness

<table>
<thead>
<tr>
<th>2014</th>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>€ bn</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Customers with at least one booked paid package
2 FY 2014 restated (supplement accesses allocated to voice only revenues) during 2015
3 Including business IP products (e.g. DLAN, Company Connect); average growth rate adjusted for IFRS 15 impact; growth 2017–2021e without definition change approx. 1 pp lower
1 **TV: CONTENT AGGREGATOR WITH SMART INVESTMENTS**

**TDG is the only growing TV operator**

- TV net adds FY 2017, k€
- TV market share, %

- 260
- 8% 2017
- 12% 2021e

**Our differentiators drive further growth**

**BEST CONTENT AGGREGATOR**
- Exclusive series: 3.7 mn views
- Smart content investments with high customer perception

**BEST USER INTERFACE**
- Award winning experience: Best image/audio quality
- Differentiating features: Voice control, 2nd screen, mobile app

**LEAD IN SPORTS CONTENT**
- Most popular sports content: Bundesliga Conference & 3. Liga
- Exclusive sports rights: BBL, Ice hockey

**NEW TARGET AUDIENCE**
- Focus on young audience
- New segments: Housing industry

---

1. TDG including Entertain IPTV and Sat, Vodafone Coax and IPTV lines, Telecolumbus incl. Primacom & Pepcom
2. Since start in Oct. 2017
Stable Wholesale access base & ARPA growth

SUBSCRIBER GROWTH
- “Kontingentmodell” as reliable long-term model to provide access to our fiber infrastructure
- Low churn due to attractive wholesale platform (bandwidth)

ARPA GROWTH
- ARPA increase driven by shift ULL/BSA
- Stable regulatory environment (fixed IP BSA pricing up to 2022)

Ambition

Wholesale revenues € bn

CAGR ≈ +2%³

Wholesale access base, mn

CAGR +1%

Access ARPA growth €/month

CAGR +2%

1 Carriers customers
2 FY 2014 restated (€70 mn shifted from "Wholesale" to "Others") during 2015
3 Average growth rate adjusted for IFRS 15 impact
1 SERVICE: TOWARDS A LEADING CUSTOMER EXPERIENCE

Leading customer experience in products and service

**PROACTIVE**
- **Big data analytics** for early fault detection
- **Proactive customer information** in case of critical incidents, contract changes, IP migration, etc.

**FLEXIBLE & DIGITAL**
- **Self-service** via Mein Magenta App for reduction of service calls (e.g. contract status & changes, invoice, data usage)
- **Self-administration** for SMB (e.g. Cloud PBX)

**SIMPLE & SEAMLESS**
- **Simplification** of product portfolio
- **Seamless customer service** on all channels (e.g. web, hotline, shop)

**Ambition**
Customer loyalty (TRI*M), in points

- 2017: 59
- 2021e: 64

**Rate of complaints, %**
- 2016: 5%
- 2017: 4%
- 2021e: ≈1%

**Share of resolved requests in digital channels, %**
- 2017: 38%
- 2021e: 70%

**SMS/year for proactive customer interactions**
> 1.8 MN

1 E-Service Share Interaction, year end 2017
LEAD IN BUSINESS PRODUCTIVITY

B2B growth areas

CONNECTIVITY & INFRASTRUCTURE
Mobile, fixed network, cloud IaaS and M2M

AGILE WORKPLACE
Smartphone, tablet, notebook and office software

BUSINESS APPLICATIONS
Horizontal, vertical and cloud SaaS
## MITTELSTANDSINITIATIVE 2.0: SECURE ICT SOLUTIONS FOR SMB

### B2B market leadership driven by digitalization

**MITTELSTANDS-INITIATIVE 1.0**

<table>
<thead>
<tr>
<th><strong>2014–2017</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth in mobile &amp; broadband revenues</strong></td>
</tr>
<tr>
<td><strong>IT solutions:</strong> SAP &amp; cloud infrastructure for SMB with automatic provisioning</td>
</tr>
<tr>
<td><strong>Business connectivity solutions</strong></td>
</tr>
<tr>
<td><strong>Security:</strong> Mobile security &amp; firewall solutions</td>
</tr>
</tbody>
</table>

**MITTELSTANDS-INITIATIVE 2.0**

<table>
<thead>
<tr>
<th><strong>2018–2021</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Further growth in mobile &amp; broadband</strong></td>
</tr>
<tr>
<td><strong>Connectivity &amp; infrastructure:</strong> M2M/IoT</td>
</tr>
<tr>
<td><strong>Agile workplace:</strong> Cloud PBX &amp; office solutions</td>
</tr>
<tr>
<td><strong>ICT solutions &amp; business applications</strong></td>
</tr>
</tbody>
</table>

### Ambition

- **€ bn**
  - **2014:** 5.7
  - **2017:** 6.0
  - **2021e:** 6.5

- **+€300 MN since 2014**
- **+€500 MN 2017–2021**

- **CAGR 2014–2017**
  - **Growth in mobile & broadband revenues:** +1%
  - **IT solutions:** SAP & cloud infrastructure for SMB with automatic provisioning
  - **Business connectivity solutions:** +11%
  - **Security:** Mobile security & firewall solutions +17%

**Ambition**

- Growth in mobile & broadband revenues
- IT solutions: SAP & cloud infrastructure for SMB with automatic provisioning
- Business connectivity solutions
- Security: Mobile security & firewall solutions

**Further growth in mobile & broadband**
- Connectivity & infrastructure: M2M/IoT
- Agile workplace: Cloud PBX & office solutions
- ICT solutions & business applications

**2014–2021**

**B2B market leadership driven by digitalization**

**Ambition**

- **2014:** 5.7
- **2017:** 6.0
- **2021e:** 6.5

- **+€300 MN since 2014**
- **+€500 MN 2017–2021**

**Group Strategy**

**Germany**

**Systems Solutions**

**Technology & Innovation**

**T-Mobile US**

**Europe**

**Group Development**

**Finance**
3 LEAD IN TECHNOLOGY

Drivers for network leadership

FIBER ROLLOUT
FTTH/B rollout with intelligent area and technology mix within stable Capex envelope

COOPERATION & CO-INVEST MODELS
Increase of coverage with intelligent cooperation models

MOBILE
Extension of leading mobile network position in reach and quality

NETWORK INNOVATION
Innovation leader in 5G network technology and efficient rollout technology
FIBER ROLLOUT: NOT MANY WHITE SPOTS LEFT

TDG building the leading infrastructure in Germany

- Vectoring coverage

<table>
<thead>
<tr>
<th>Year</th>
<th>33%</th>
<th>62%</th>
<th>≈ 80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Wholebuy

Reaching ≈ 80% HH coverage with vectoring in 2019 (≈ 62% in 2018)¹
- ≥100 Mbit/s in 70% of HH (in 2019)
- Introduction of Super-Vectoring (up to 250 Mbit/s)
- Wholebuy potential 15% (in 2019)

Expected market broadband coverage end of 2019²

- Only 5% “white-spots” end of 2019
- 70% coverage with 1 Gbit/s by cable expected
- Further subsidies expected

1. Bandwidth ≥50 Mbit/s, delayed due to long regulatory process
2. Schematic illustration

15 MN homes connected with Super-Vectoring by end of 2018
3 FIBER ROLLOUT: SMART AREA AND TECHNOLOGY MIX

Expected German broadband coverage end of 2019¹

Bandwidth

Coverage

Cable area

Non-cable area

Cable & FTTC area

FTTC area

White spots

B2B areas

Connecting 80% of businesses in business parks with fiber (by early 2020s)

Rollout priorities

1 Cable area

Areas with strong competition and winback potential for customers lost to cable/other operators

2 FTTC area

Subsidized rollout of areas with very low bandwidth and high customer demand

3 White spots

Shared investment for efficient rollout & wholebuy

1 Schematic illustration

³ FIBER ROLLOUT: SMART AREA AND TECHNOLOGY MIX

Expected German broadband coverage end of 2019¹

Bandwidth

Coverage

Cable area

Non-cable area

Cable & FTTC area

FTTC area

White spots

B2B areas

Connecting 80% of businesses in business parks with fiber (by early 2020s)

Rollout priorities

1 Cable area

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3 White spots

Shared investment for efficient rollout & wholebuy

1 Schematic illustration
3 COOPERATIONS AND CO-INVEST MODELS

Cooperation models

**JOINT VENTURES**
- Joint rollout of fiber infrastructure with larger regional carriers (e.g. EWE)

**RENTING NETWORK ELEMENTS**
- Renting complementary infrastructure from regional players (e.g. municipal services)

**WHOLEBUY**
- Renting infrastructure & active equipment based on commercial wholesale models (market potential 15% in 2019)

Investment oriented & fair commercial models

**OPEN NETWORK, BASED ON FAIR RETURN, RISK SHARING, AND RECIPROCITY**

A Commitment Model with annual upfront payments for bitstream connection fee

B Investment oriented connection fee per line charged to retail service provider
### Fiber Rollout: Ramping Up to 2 Mn Homes Per Year

**Guardrails Fiber Rollout**

<table>
<thead>
<tr>
<th><strong>Smart Investing</strong></th>
<th><strong>Smart Area &amp; Technology Mix</strong></th>
<th><strong>Smart Cooperation &amp; Co-Invest</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving rollout efficiency with trenching, data driven rollout, and “FTTH factory”</td>
<td>Smart area mix between B2B areas, competitive areas, FTTC areas and white spots</td>
<td>Joint fiber rollout with regional players (e.g. EWE)</td>
</tr>
<tr>
<td>Status 2020: ≈ €1,000 per home passed</td>
<td>Efficient technology mix with FTTH, FTTB and WTTH (potential: 20–30% of homes where we have fiber available)</td>
<td>DT will sell and buy wholesale fiber access based on fair return, risk sharing and reciprocity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maintaining Stable Capex €4.2 BN P.A.</th>
<th>Minimum IRR 7.5%</th>
<th>Ramping Up to 2 Mn Households P.A. by 2021</th>
<th>Sharing Investment Risks with Partners</th>
</tr>
</thead>
</table>

1 Incl. area & technology mix  
2 Stable total Cash Capex vs. 2017  
3 Internal Rate of Return for FTTB/H
MOBILE: BEST NETWORK IN GERMANY

BEST MOBILE NETWORK

Reach of LTE network

LTE Pop coverage

- ≈ 80% mobile sites connected via fiber
- 27,000 mobile sites end of 2017
- Winner of all major mobile network tests

<table>
<thead>
<tr>
<th>Year</th>
<th>LTE Pop coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>94%</td>
</tr>
<tr>
<td>2018</td>
<td>95%</td>
</tr>
<tr>
<td>2019</td>
<td>98%</td>
</tr>
</tbody>
</table>
3 MOBILE: EXTENDING MOBILE LEADERSHIP POSITION

Key priorities

- **NETWORK EXPANSION**
  - Unprecedented site expansion
    (≈ 2,000 additional sites p.a.)
  - Differentiation with customer driven rollout

- **QUALITY IMPROVEMENT**
  - Improve coverage of highways & train tracks
  - Enhance indoor coverage & quality
  - Extend lead in fiber backhaul

- **NETWORK INNOVATION**
  - Top-speeds in city-centers of 1 Gbit/s
  - Increase of capacity with massive MIMO
  - Mobile Edge for low latency use cases

Ambition: Best customer experience

Source: Connect Mobile Network Test 2018
3 NETWORK INNOVATION: FORERunner IN 5G TECHNOLOGY

5G enabling new speed and efficiency levels

1,000x HIGHER NETWORK CAPACITY

10x LOWER LATENCY

10x HIGHER SPEED
>10 Gbit/s

4x INCREASED EFFICIENCY
€/Mbit/s as efficiency factor

Pilot use cases with strong partners

WTTH/FWA POTENTIAL

- Trials successfully completed
- Capex savings potential through synergetic rollout with FTTH

5G PILOT CASES WITH STRONG PARTNERS

- Pilot cases already initiated
- Innovative solutions leveraging 5G features (e.g. drones, Augmented Reality, remote maintenance)

1 Network capacity costs per incremental busy hour capacity
Key drivers for cost reduction

**AUTOMATION**
Data analytics and smart processes

**OPERATIONAL EXCELLENCE**
Predictive servicing and maintenance, less complaints and process optimization

**PLATFORM RETIREMENT**
Retirement of platforms, investment in state-of-the-art infrastructure

**LEAN & AGILE ORGANIZATION**
Lean commercial and sales units, agile central functions and reduction of executive functions

<table>
<thead>
<tr>
<th>Year</th>
<th>Indirect Costs (€ Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>9.9</td>
</tr>
<tr>
<td>2021</td>
<td>9.2</td>
</tr>
</tbody>
</table>

-750 MN INDIRECT COSTS

Net cost reduction

1 Net cost reduction

€300 MN
€250 MN
€200 MN
4 AUTOMATION: BOTS FOR CUSTOMER INTERACTIONS AND SIMPLIFYING PROCESSES

Key drivers for cost reduction

- Agile bot development to automate repetitive tasks
- Significant reduction of development time compared to traditional IT
- 1,500 bots implemented in 2017

Robot transactions, mn

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018e</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>

- Chat bots for improved experience & efficiency in customer interaction
- AI supported chat to improve service experience

Customer interactions with digital assistants, k

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018e</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

Example: Field Service App

- E2E field service process in a single app
- Optimized processes and handover in technology & service
- Dynamic workflow to avoid manual errors

AI/DIGITAL ASSISTANTS

PROCESS AUTO BOTS

MY Orders

Measurement

Robot transactions, mn

Customer interactions with digital assistants, k
**OPERATIONAL EXCELLENCE: IMPROVING SERVICE PROCESSES**

Reduction of complaints through efficiency measures and self-service

- **Mein Magenta App** as central contract management tool
- **Data analytics** to solve occurring issues in advance
- **Training of experts** to solve requests in first contact
- **Dedicated product teams** ensure end-to-end quality

**Self-Service**

- 4x Monthly App usage

**Reliability**

- ≈99% Adherence to appointment 2021¹

**Service Quality**

- >80% Contact resolution rate in 2021²

**Product Quality**

- 70 PTS. TRI*M Entertain TV

**Ambition**

Customer complaints per quarter

- 2016
- 2018e
- 2021e

-84%

1 2017: 92%  2 Q1 2018: 66%, survey based on customer SMS feedback within 24 hours
**Platform Retirement: Simplification and End of Life**

### Key Drivers for Cost Reduction

- **Standardized Production Model** for all access technologies
- **BNG Migration** and IP transformation for mass market will be finished in 2019
- **Retirement of Multiple Legacy Transport Platforms** and closing of locations

### IT Simplification

- **Micro-service architecture** and increased use of **open source** technologies
- **Decoupling of architecture** and retirement of older IT platforms
- **Agile Methodologies** to improve delivery time

### Example: BNG Transformation

**Legacy Architecture**

**Today’s Architecture**

*Example: BNG Transformation*
**LEAN AND AGILE ORGANIZATION: ACCELERATED DECISIONS AND IMPROVED COLLABORATION**

**Key areas of agile methods and organization**

- Consolidation of *management functions* and reduction of *hierarchy* to foster accountability
- Introduction of *product-tribes* and *skill-based chapters*

**Increased agility...**

<table>
<thead>
<tr>
<th>Share of projects with agile/flexible delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10%</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td>2021e</td>
</tr>
</tbody>
</table>

**... for faster time to market**

<table>
<thead>
<tr>
<th>Average delivery time of software projects, months</th>
</tr>
</thead>
<tbody>
<tr>
<td>12–18</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>2021e</td>
</tr>
</tbody>
</table>

- **LEAN ORGANIZATION**
  - Strong focus on *software and product development*
  - Improve time to market by *agile delivery processes*
  - Strong usage of *AI & big data analytics*

- **AGILE DEVELOPMENT**
  - **Reskilling** for future capabilities
  - **Agile methodology** like scrum or design thinking as standard of collaboration
  - **Agile Academy** launched in Jan 2018

- **RESKILLING**
FINANCIAL OUTLOOK

### Revenue growth
- **€ bn**
- **2017**: 21.9
- **2021e**: 3.9
- **CAGR >1%**

### Adj. EBITDA
- **€ bn**
- **2017**: 8.4
- **2021e**: 3.9
- **CAGR +2–2.5%**

### Cash Contribution
- **€ bn**
- **2017**: 3.9
- **2021e**: 4.2
- **CAGR +4–5%**

### Cash Capex
- **€ bn**
- **2017**: 4.2
- **2021e**: 4.2
- **Stable**

### Special factors (Cash)
- **€ bn**
- **2017**: 0.3
- **2021e**: 0.3
- **Stable**

1. Average growth rate not adjusted for IFRS 15 impact
2. Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
MID TERM AMBITION LEVEL
# Mid Term Ambition Level

**Lead in Customer Experience**
- #1 in Mobile service revenue: CAGR ≈ +2%\(^1\)
- #1 Broadband revenue: CAGR +3–4%\(^2\)
- MagentaEINS share of broadband households: ≈ 30%

**Lead in Business Productivity**
- Growing B2B revenues by +€500 mn

**Lead in Technology**
- Ramping up to 2 mn households p.a.
- Reduction of Indirect cost by €750 mn (net)

**Value Transformation**
- Growing Revenue: CAGR > 1%\(^3\)
- Growing adj. EBITDA: CAGR +2–2.5%\(^3\)
- Growing Cash Contribution\(^4\): CAGR +4–5%

<table>
<thead>
<tr>
<th>Mid term ambition level</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 in Mobile service revenue: CAGR ≈ +2%</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>#1 Broadband revenue: CAGR +3–4%</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>MagentaEINS share of broadband households: ≈ 30%</td>
<td>2021e</td>
</tr>
<tr>
<td>Growing B2B revenues by +€500 mn</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Ramping up to 2 mn households p.a.</td>
<td>by 2021e</td>
</tr>
<tr>
<td>Reduction of Indirect cost by €750 mn (net)</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Growing Revenue: CAGR &gt; 1%</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Growing adj. EBITDA: CAGR +2–2.5%</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Growing Cash Contribution(^4): CAGR +4–5%</td>
<td>2017–2021e</td>
</tr>
</tbody>
</table>

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\(^1\) Average growth rate adjusted for IFRS 15 impact  
\(^2\) Including business IP products (e.g. DLAN, Company Connect); average growth rate adjusted for IFRS 15 impact; growth 2017–2021e without definition change approx. 1pp lower  
\(^3\) Average growth rate not adjusted for IFRS 15 impact  
\(^4\) Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
KEY MESSAGES

01 TRANSFORMATION STILL UNDER WAY
T-Systems has struggled with growth and profitability, however, since the 2015 CMD has invested heavily in transforming its portfolio (growth topics and All-IP), and de-risking legacy contracts.

02 PORTFOLIO WITH STRENGTHS AND WEAKNESSES
T-Systems portfolio consists of telecommunications (TC), classic IT, and multiple growth offerings; in most, but not all, of its offerings T-Systems has a clear right to play and proven track-record.

03 STRATEGY: EVOLVE PORTFOLIO
T-Systems strategy focuses on successful transition of the business to digitalization and growth areas, while further strengthening our TC business and managing the decline in legacy segments.

04 ACCELERATE THE TRANSFORMATION
Four transformational streams launched to address business challenges, reinvigorate sales, and substantially improve profitability.

05 FINANCIAL OUTLOOK
We are confident to grow our EBITDA 2017–2021 and generate a positive cash contribution from 2020.
REVIEW 2014 – 2018
WHAT HAPPENED TO THE OLD PLAN?

What we delivered
- Stopped more than 20 bad contracts
- Addressed three major loss contracts
- Invested in growth areas

What went wrong
- Execution of transformation plan
- Compromise in cost reductions
- Weak portfolio management discipline
- Inefficient organization structure

- Grow: Invest in non-labor intensive, virtualized services, e.g. M2M, platform business, Dyn. Workplace, Cloud
- Transform: Massive reduction of production costs by increasing “Buy”-share, e.g. via partnering
- Stop: Discontinuation of unprofitable business with focus on countries, contracts and portfolio elements
## CHALLENGED PERFORMANCE IN A COMPETITIVE MARKET

### Ambition level 2018

- Revenue TSI > 1% CAGR (2014–2018e) expected [pro forma: CAGR > 2%]
- Adj. EBIT margin TSI around 6% (2018e) [pro forma: ≈ 7%]
- Adj. cash contribution TSI positive from 2017 [pro forma: ≈ €500 mn]

### Achievements 2017

- -1.5% CAGR (2014–2017)
- 1.7%
- €126 mn

### Delivered/on track

- ✔️
- ✔️
- ✔️

### Quality

- Maintain TRI*M index above peer average at current levels of 84 points

- ✔️

---

**FINANCIALS**

**QUALITY**
BUSINESS CHALLENGES & FOUNDATIONS TO BUILD ON

Business challenges

REVENUE
- Impacted by classical IT erosion, not compensated by new growth areas
- Sales set-up/structure/tools and processes, capability gaps, internally focused

LOSS MAKING CONTRACTS
- Three years of abnormal loss levels
- Risk management upgraded
- Improved focus on implementation and transition periods

COST STRUCTURE
- G&A too high relative to our size
- Cost of delivery a challenge

Strong foundations to build on

- MARQUE CLIENTS
- NETWORK AND TELECOMMUNICATION ASSETS/CAPABILITIES
- BREADTH OF PORTFOLIO
- SKILLS & EXPERTISE
- INVESTMENTS IN GROWTH AREAS
- COMMITTED EMPLOYEES
NEW PORTFOLIO STRATEGY DEFINED

TC CORE

- Enterprise networks, Inhouse Services, Communication Services
- Mobile Enterprise Services & Access, Embedded and Industrial Connectivity

GROWTH PORTFOLIOS

- Classified ICT-services for federal, regional and EU organizations
- Security at all levels, e.g. NT, App & Cloud Security, Compliance, Consulting & Implementation
- Digital Transformation and Co-Innovation, Consulting Services, Smart Digital Solutions & Services, DevOps engineering
- Connected Things Management, IoT Connectivity, Vertical Play
- Design, Build, Finance, Maintain and Operate national and international Road Charging systems
- Managed Cloud Services & E2E Cloud Orchestrator, Open Telekom Cloud as alternative to hyperscalers

CLASSIC IT

- Hosting, AO & DB, Mainframe, Private Cloud Solutions, Bespoke SI Services

Fixed Line Services

Mobile Services

Classified ICT

IoT

Security

Road Charging

Digital Solutions

Public Cloud Managed Services

SAP

Enhanced

Reshaped

Managed Infrastructure Services & Private Cloud

Dedicated SI Solutions

New

New

Reshaped

Reshaped

Reshaped
STRATEGY 2018 – 2021
FOUR TRANSFORMATIONAL INITIATIVES TO ADDRESS CHALLENGES

1. PORTFOLIO FOCUS
2. SALES REVITALIZATION
3. DELIVERY INTEGRATION
4. OVERHEAD REDUCTION
PORTFOLIO: SIGNIFICANT CHANGE BY PORTFOLIO MANAGEMENT

Portfolio focus

- PORTFOLIO-ORIENTED BUSINESS MANAGEMENT
  Creation of portfolio units with full accountability and P&L responsibility

- PORTFOLIO STRATEGY evaluated via four lenses

- CLEAR STRATEGY for each offering, including invest, divest, M&A

- MANAGEMENT SYSTEM and measurements in place
to support new model
1 PORTFOLIO: REVENUE EQUALLY SPLIT BETWEEN THREE CLUSTERS

<table>
<thead>
<tr>
<th>TC CORE</th>
<th>GROWTH PORTFOLIOS</th>
<th>CLASSIC IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Line</td>
<td>New</td>
<td>Reshaped</td>
</tr>
<tr>
<td>Services</td>
<td>Classified ICT</td>
<td>Managed</td>
</tr>
<tr>
<td>Mobile Services</td>
<td>IoT</td>
<td>Infra-structure Services &amp; Private Cloud</td>
</tr>
<tr>
<td></td>
<td>Security</td>
<td>Reshaped</td>
</tr>
<tr>
<td></td>
<td>Road Charging</td>
<td>Managed</td>
</tr>
<tr>
<td></td>
<td>Digital Solutions</td>
<td>SI Solutions</td>
</tr>
<tr>
<td></td>
<td>New</td>
<td>Reshaped</td>
</tr>
<tr>
<td></td>
<td>Enhanced</td>
<td>SAP</td>
</tr>
<tr>
<td></td>
<td>Reshaped</td>
<td></td>
</tr>
</tbody>
</table>

| Rev. 2017¹ € bn | 2.2               | 0.4        |
|                | 0.3²              | 0.3²       |
|                | 0.1               | 0.4        |
|                | 0.1               | 0.5        |
|                | 2.5               |            |

Growth portfolios 2017 €2.1 bn

|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |

| CAGR (2017–2021e) |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |
|                  |         |         |         |         |         |

¹ Revenue different from reported TSI segment view, due to further entities and intragroup charges
² DT-View
PORTFOLIO: INTERNET OF THINGS

Integrated platform built on our connectivity

- Emerging multi-billion market, growing at +20%
- DT revenue today at €0.3\textsuperscript{1} bn, growing > 20% p.a.
- Platform from connectivity to big data
- 5G/NB-IoT enabling technologies
- Strategic partnerships (Azure, SAP, Software AG, vertical solutions)

Client example

European market leader in property damage restoration
- E2E condition monitoring solution for digitalizing management
- Easy retrofit solution with tailored plug & play metering-box, managed connectivity, device management & service concept
- From idea to implementation in < 2 years

Further customers

\textsuperscript{1} DT-View
PORTFOLIO: SECURITY

Becoming leading European provider

- Dynamic-growth market with 8% growth
- Double-digit growth since launch, now revenue at €0.31 bn, growing > 10% p.a.
- > 1,400 security experts – German leader
- Largest security operations center

Client example

THE LINDE GROUP

World leading supplier of industrial, process and specialty gases
- Outsourcing of worldwide Security operation center
- Complete level 1 & 2 monitoring in the Security incident & event monitoring (SIEM) for all locations worldwide
- Operation & engineering of SIEM platform
- Customer is highly satisfied with Telekom Security performance and customer centricity

Selected Partners

1 DT-View
Support European enterprises on their digital journey

- **Multi-billion market** growing double digit
- **€0.4 bn revenue**, expected **growth of 10% p.a.**
- End-to-end digitalization from ideation and innovation to integration
- 4,800 digitalization experts

**Client example**

**Large international computer manufacturer**
- Order picking system based on **smart glasses**, providing warehouse pickers with all the information about the next component at the right time
- **From cloud** to data glasses to strive for **reduction of operating times**, human errors & facilitation of complex processes.

Further customers

- [Schmitz Cargobull Telematics](#)
- [Köln Bonn Airport](#)
- [ZEISS](#)
- [BARMER](#)
1 PORTFOLIO: DIGITAL SOLUTIONS

GROWTH & SUCCESS

4,000

Implemented Digital Projects 2017

EXPERTISE & COMPETENCE

4,800

Digitalization Experts

370

IoT Solution & Integration Experts

280

Data Analyst & Big Data Experts

230

Enabling Technologies Experts

620

Digital Platform & Architecture Experts

100

(Com-)Innovation & Digital Change Experts

470

Mobile and Network Solutions Experts

720

(General) Management Consultants and Digitalization Experts

830

Industry Digitalization Consultants & Experts

730

Cloud Transformation and Integration Experts

450

Agile/DevOps Experts
Capitalize on SAP’s market growth

- Recognized market leader in Germany
- €0.5 bn revenue, 1%–2% growth today, expected to grow > 5% p.a. going forward
- Lead SAP S/4 HANA transformation
- Lead SAP in public cloud
- SAP on open Telekom cloud certified

Client example

Europe’s largest bus manufacturer implements SAP S/4HANA

- Migration of SAP R/3 to SAP S/4HANA as part of the client's business process modernization program
- Transformation follows agile approach based on combination of SAP’s and T-Systems’ best practices
- Client’s benefits: increasing speed and innovation taking proactive actions throughout complete production process

Further customers

- MAGNA
- Volkswagen
- SHELL
- JENOPTIK
PORTFOLIO: SAP

EXPERTISE & COMPETENCE

4,000 SAP experts

6.7 MILLION SAP users

10,000 SAP instances

Biggest single SAP system with 850,000 SAPS

850,000 SAPS

Largest SAP hosting provider 600 TB HANA database

600 TB HANA database

15 Global competence centres

GROUP STRATEGY  GERMANY  SYSTEMS SOLUTIONS  TECHNOLOGY & INNOVATION  T-MOBILE US  EUROPE  GROUP DEVELOPMENT  FINANCE
Sales revitalization

- **Integrated sales** and **go-to-market organization** – Responsible for entire portfolio, supported by portfolio sales specialists.

- Return to significant signings per year > €6 bn.

- Drive **client centricity** ➔ Increase client facing time + 25%
  Structured/consistent sales management approach.

- Simplify and Improve **tools and processes**.
3 DELIVERY: HOW WE EXECUTE BETTER IN DELIVERY

Delivery integration

- Integrate delivery functions within the portfolio units, creating end to end cost transparency and clear ownership
- Cross delivery function driving standardization, automation and tooling ➔ saving > €100 mn
- Digitalizing client interfaces and workflows
- Cross delivery function to manage and drive right-shoring-strategy ➔ saving > €100 mn

Four strategic delivery-centers
OVERHEAD: LEAN OVERHEAD SUPPORTS OUR AMBITION

Overhead reduction

- Simplify central functions & general administration, processes and structure
- Reduction of management layers
- Create agile organization designs, fit for growth areas, and efficient structures for mature areas
- Cost saving > €100 mn
TRANSFORMATION SUPPORTED BY FIVE BUSINESS PRINCIPLES AND CHANGE MANAGEMENT PROGRAM

PORTFOLIO FOCUS

SALES REVITALIZATION

DELIVERY INTEGRATION

OVERHEAD REDUCTION

STRONG MANAGEMENT SYSTEM & CHANGE MANAGEMENT PROGRAM
# LESSONS LEARNED FROM THE PAST HELP IMPROVE EXECUTION

<table>
<thead>
<tr>
<th>From...</th>
<th>To...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue decline due to sales set-up and portfolio gaps</td>
<td>New sales organization set-up. Strong initiative with new spirit, client centricity and opportunity tracking</td>
</tr>
<tr>
<td>Loss making contracts burden our results</td>
<td>Clearly defined portfolio, focused on growth</td>
</tr>
<tr>
<td>Good conceptual work, however not bold enough approach or execution</td>
<td>Implemented improved risk-management</td>
</tr>
<tr>
<td>Too little automation, offshoring and digitalization/standardization – cost disadvantages</td>
<td>Rigorous execution with strong management team, new skills and capabilities</td>
</tr>
<tr>
<td>Cultural change not explicitly targeted</td>
<td>Structured cost reduction program and current sense of urgency supports change and workforce-program</td>
</tr>
<tr>
<td></td>
<td>Strong focus on mindset with new change management program</td>
</tr>
</tbody>
</table>
T-SYSTE MS LEVERAGING FULL POTENTIAL

Integrated client approach

Growth portfolio benefits strongly from DT network ownership and IT capabilities, e.g.
- Leverage IT delivery capability and expertise in complex projects
- Leverage of client base to up-sell new solutions
- Leverage of network (5G, NB) capabilities across all growth areas
- Partnerships across portfolios (Microsoft, SAP, Cisco, Huawei)

Complementary portfolio offerings enable cross-sell and upsell, e.g.
- Security as fundamental component to all offerings and contracts
- Digital solutions as tip of the arrow and integrator of TSI portfolio

Breadth of portfolio enables scale effects, e.g.
- offshore-center, marketing spend, sales force size & innovation labs
STRATEGY EXECUTION TO EVOLVE OUR REVENUE MIX

New revenue mix as result of our strategy – Leveraging our core and legacy to drive growth in new areas

- Revamp classic IT portfolio & productivity
- Drive growth in targeted areas
- Secure TC core, return to growth in 2021e
- > 7

1 Revenue different from reported TSI segment view, due to further entities and intragroup charges; Security and IoT DT-View
## Sound Profitability-Basis Through > €300 Mn Savings

<table>
<thead>
<tr>
<th>Measures</th>
<th>Gross-savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery right-shoring-strategy</td>
<td>&gt; €100 mn</td>
</tr>
<tr>
<td>Delivery standardization, automation and tooling</td>
<td>&gt; €100 mn</td>
</tr>
<tr>
<td>Overhead reduction</td>
<td>&gt; €100 mn</td>
</tr>
</tbody>
</table>

> €300 Mn
FINANCIAL OUTLOOK
FINANCIAL OUTLOOK

Revenue growth

€ bn
CAGR ≈ +1%
6.9
2017
2021e

Adj. EBITDA

€ bn
CAGR ≈ +5%
0.5
2017
2021e

Cash Contribution

€ bn
-0.1
2017
2021e

Cash Capex

€ bn
Stable
0.4
2017
2021e

Special factors (Cash)

€ bn
Stable
0.2
2017
2021e

1 Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
MID TERM AMBITION LEVEL
## MID TERM AMBITION LEVEL

### FINANCIALS

- Growing revenue: CAGR +1%
- Growing adj. EBITDA: CAGR ≈ +5%
- Adj. EBITDA margin: 8–10%
- Cash Contribution\(^1\) breaking even

<table>
<thead>
<tr>
<th>Year</th>
<th>2017–2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017–2021e</td>
<td>2021e</td>
</tr>
<tr>
<td>2020e</td>
<td>Above 80 points in 2021e</td>
</tr>
</tbody>
</table>

\(^1\) Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)

### QUALITY

- Maintain TRI*M index above peer average at current level

- Above 80 points in 2021e
TECHNOLOGY & INNOVATION

CLAUDIA NEMAT
KEY MESSAGES

01 SUPERIOR PRODUCTION MODEL
We are entering the final stages of our peer leading superior production model. While we have learned lessons on the way, we can broadly confirm financial and customer experience benefits.

02 LEAD IN 5G
We will leverage our superior fiber networks and modernized SRAN to lead in 5G. Within an overall stable CAPEX envelope, we will focus on:
1) smart capacity/speed upgrade
2) FWA
3) selected new products/solutions.

03 ACCELERATED DIGITALIZATION
Our agile approach to IT transformation will enable accelerated digitalization for better customer experience and lower cost in accordance with the superior production model.

04 LEAD IN CUSTOMER EXPERIENCE AND BUSINESS PRODUCTIVITY
To lead in customer experience and business productivity, we have market proven innovations and a compelling innovation pipeline going forward.
## REVIEW 2014–2018

### Ambition level 2018
- All integrated countries 100% IP-based
- Backend and frontend data centers set up
- Geo-redundant Network Operations Centers established
- Services fully migrated to Pan-Net
- LTE pop-coverage Germany & Europe: 75%–95%
- Germany: ≈ 80% Fixed high speed internet HH coverage ≥ 50 Mbps
- Europe: ≈ 50% Fixed high speed internet HH coverage ≥ 100 Mbps

### Achievements 2017
- Slovakia, Croatia and Hungary 100%, Greece 45% (100% in 2019\(^1\))
- Germany 67% (consumer 100% in 2019, business finished in 2020)
- Backend data centers in Hungary and Poland in 2017, Greece in 2018. Frontend according to roll-out plan
- Set up in Romania and Germany
- Selected services migrated
- Germany 94% and Europe 94%
- ≈ 80% HH vectoring coverage in 2019
- 32%

---

\(^1\) Intentional postponement by one year in Greece to refocus invest on access  
\(^2\) Depending on regulatory adjustments
Digital Transformation
- Our shift towards an agile approach to IT transformation with upside on customer experience and lower cost in accordance with promised savings

ALL IP Migration
- Peer leading IP migration
  - Scope: Simplification across all (!) layers
  - Achievements: Complete or close to completion in all major markets
- We see clear customer experience benefits and network cost savings

PAN-European Network
- Modified approach: Focus on value creation through virtualization and cloudification
- We centralize services only when it accelerates time to market

Integrated Network Leadership
- Clear differentiation by integrated networks: We create the basis for FMC commercialization
- Superior fiber backhauling: We have a competitive advantage for 5G experience
- Mobile technology leadership in Germany and in 9 out of 12 European countries: We create a better customer experience and can monetize it

We confirm CMD 15 gross cost savings of €1.2 bn for early 2020ies as well as customer experience benefits
CUSTOMER BENEFITS OF ALL IP MIGRATION ARE PROVEN

Customer benefits

Precondition for plug & play
- Auto-provisioning (without filling in credentials)
- Improved customer satisfaction regarding provisioning

Fewer incidents
- 38% fewer tickets in provisioning

Massive speed uplift
- Simplification of aggregation network layer (BNG) as basis for product innovation
- Example: 250 Mbps Super Vectoring product

BNG migration as basis for (Super) Vectoring

# of Super Vectoring homes passed/BNG migration quota

- 2017: 28 mn super Vectoring homes passed, BNG migration quota 77%
- 2018: 15 mn super Vectoring homes passed, BNG migration quota 95%
- 2019: 28 mn super Vectoring homes passed, BNG migration quota 100%

Precondition for plug & play:
- Auto-provisioning (without filling in credentials)
- Improved customer satisfaction regarding provisioning

Massive speed uplift:
- Simplification of aggregation network layer (BNG) as basis for product innovation
- Example: 250 Mbps Super Vectoring product

Super Vectoring homes passed

2017: 28 mn super Vectoring homes passed, BNG migration quota 77%
2018: 15 mn super Vectoring homes passed, BNG migration quota 95%
2019: 28 mn super Vectoring homes passed, BNG migration quota 100%

Example: 250 Mbps Super Vectoring product
INTEGRATED NETWORK LEADERSHIP IN GERMANY AND EUROPE

Mobile network leadership for best customer experience

Fiber advantages – status 2017

**GERMANY**
- 455,000 km fiber (+60,000 km in 2018)
- ≈ 80% fiber backhauling further increasing, becoming even more relevant with 5G

**EUROPE¹**
- 240,000 km fiber
- Exemplary fiber backhauling of 74% in Croatia, 51% in Romania and 47% in Slovakia and Hungary

¹ w/o TM NL

P3 Benchmark 2017: Mobile technology leadership in 9 of 12 countries

Connect Test 2017

OpenSignal Test 2017
STRATEGY 2018 – 2021
TECHNOLOGY & INNOVATION AMBITION

Our strategy

GROW

- LEAD IN CUSTOMER EXPERIENCE
  - ONE CONNECTIVITY & PERFECT SERVICE
- LEAD IN TECHNOLOGY
  - INTEGRATED GIGABIT NETWORKS
- LEAD IN BUSINESS PRODUCTIVITY
  - SECURE ICT SOLUTIONS & BIG IOT

SAVE FOR GROWTH INVESTMENTS

SIMPLIFY, DIGITALIZE, ACCELERATE

Our Technology & Innovation contribution

1. LEAD IN TECHNOLOGY
   - Integrated network leadership: Fiber build out and leadership in mobile experience
   - Smart 5G leadership

2. VALUE TRANSFORMATION
   - Broadband production innovation to drive Opex and Capex efficiencies, IP-migration completion
   - Agile approach towards IT transformation to accelerate digitalization

3. LEAD IN CUSTOMER EXPERIENCE AND BUSINESS PRODUCTIVITY
   - Market proven innovations in B2C and B2B with compelling innovation pipeline going forward

1 Covered in segment chapters
### WE WILL DEPLOY 5G SMARTLY

<table>
<thead>
<tr>
<th>CAPABILITY</th>
<th>APPLICATION AREA</th>
<th>ECONOMIC RATIONALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced mobile broadband</td>
<td>Starting with areas of interest (cities, campus networks; as overlay on 4G)</td>
<td>More efficient than 4G from 2021 onwards</td>
</tr>
<tr>
<td>Gigabit speed on higher frequencies/millimeter waves</td>
<td>Complement to FTTH/B in (sub-) urban areas</td>
<td>Depending on topology, more cost-efficient than FTTH/B, faster time to market</td>
</tr>
<tr>
<td>Massive IoT</td>
<td>Low latency, QoS</td>
<td>Enable new revenue streams</td>
</tr>
<tr>
<td>In selected areas of interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complement to FTTH/B in (sub-) urban areas</td>
<td></td>
</tr>
</tbody>
</table>
Enhanced Mobile Broadband

From today’s LTE networks...

- Current frequencies
  - 800 MHz/900 MHz/1800MHz/2.1 GHz/2.6 GHz

- MIMO (multiple input multiple output)
  - 2T2R, 4T4R or even 8T8R antenna architecture without usage of massive MIMO

- Radius of cell coverage
  - Radius of higher frequencies physically lower
  - In a standardized environment the radius of 1.8 GHz is two times bigger compared to 3.5 GHz

... towards a broader 5G ecosystem

- ... will be enlarged by use of additional spectrum bands
  - 700 MHz and especially 3.x GHz

- ... and the evolution towards massive MIMO
  - Massive MIMO architecture typically 64T64R on 3.5 GHz within a practical size/dimension of the whole antenna

- ... lower on 3.5 GHz but optimized by beamforming and smaller cells
  - Active antenna technology, massive MIMO and dynamic beamforming optimize coverage and minimize the impact of a reduced radius of cell coverage
1 GETTING READY FOR 5G TO LEVERAGE FUTURE EFFICIENCIES

5G readiness, e.g. cell densification until 2021

Germany
Cell sites, estimated, k

- ≈ 2k add. macro cells p.a.

Europe
Cell sites, estimated, k

- ≈ 1k add. macro cells p.a.

- Cell densification starts in areas of interest (cities, campus networks)
- Superior fiber backhauling and SRAN

<table>
<thead>
<tr>
<th>Year</th>
<th>Germany</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>27</td>
<td>41</td>
</tr>
<tr>
<td>2021</td>
<td>36</td>
<td>47</td>
</tr>
</tbody>
</table>

Cost per Mbit/s for 4G/LTE only vs. with 5G overlay

€ per Mbit/s as efficiency factor¹

- 5G + 3.xGHz Spectrum from 2022
- LTE only

- 2019: 1.7x
- 2020: 2.3x
- 2021: 2.8x
- 2022: 4.2x

- Network capacity costs per incremental busy hour capacity, assuming annually increasing traffic demand of 45%
WITH 5G FWA, WE CAN PROVIDE GIGABIT SPEED FAST

We trialed FWA in different topologies of Germany...

Example 60 GHz trial

Sub urban

Dense urban

... with promising results

Explanation
- Millimeter wave frequencies 26 (licensed) and 60 (unlicensed) GHz
- Enables Gigabit speeds
- Number of HH depends on topology (line of sight is mandatory)
- Designed to be at least competitive with cable

Benefits
- Initial Capex demand ~ 30–50% of FTTH/B. Only after 20 yrs. TCO of FTTH/B more favorable due to higher annual OPEX for FWA
- Faster time to market
- Less underground construction capacity needed
- Equipment reusable
- De-risking fiber roll-out

20–30% of HH where fiber is available in the streets
1 CAMPUS NETWORKS ARE FIRST SOLUTIONS WITH 5G/EDGE

Potential 5G application areas:

(Multi-) Local
- CAMPUS NETWORKS
- Information augmented visions
- Immersive media, event-driven
- (Decentral) energy management

... and beyond:
- Connected drones
- Emergency health care

Operator managed campus networks

“Dual Slice” Campus
- Connectivity infrastructure
- IoT device management
- Starting now with 4G

Private indoor & local cellular coverage

Public cellular coverage

Autonomous factory
- Tailored network configuration
- Edge cloud for low latency requirements (robot steering)
REAL TIME ECONOMY OPENS BOUNDLESS OPPORTUNITIES

Today...
- Humans experience the internet via app or browser on certain devices
- Computing power, storage and algorithmic intelligence hosted in central data centers or on the devices (PC, smartphone, car, etc.)
- Connectivity experience differentiates via speed and coverage

... and in the future
- ... also experience connectivity naturally according to human senses (via voice recognition, ear plugs, lenses, glasses, textiles, etc.)
- ... also in (edge) clouds deeply embedded into the networks
- ... also via low latency, precise positioning, security and massive IoT
# Broadband Production Innovation Drives Efficiency

<table>
<thead>
<tr>
<th>Examples</th>
<th>Description</th>
<th>Impact</th>
</tr>
</thead>
</table>
| **Automated Fiber Roll-Out Planning** | - 3D surface planning put into point cloud  
- Applying machine learning  
- Generating automated passive infrastructure planning  
- Pilot starts in Q3/2018 | Increase of planning **productivity by factor two** |

**“Access 4.0”**

- Ongoing R&D project to split software and hardware components in wireline like OLT\(^1\) + MSAN ("access virtualization")  
- Potential partnering discussions started  
- IT will **disrupt** current ecosystem of OEMs (massively lower procurement prices)

---

1. OLT = Optical line termination: the endpoint of our passive optical network, mostly located in street cabinets
IT TRANSFORMATION ENABLES ACCELERATED DIGITALIZATION

Paradigm shift in our approach towards it transformation

From
- Big bang for BSS
- Waterfall
- Traditional skills

To
- Portfolio approach
- Agile
- Comprehensive skill transformation

1 BSS: Business Support System/OSS: Operations Support System
NEW PORTFOLIO APPROACH REDUCES TRANSFORMATION COMPLEXITY

From
Attempt to replace legacy by big bang
- Design for single purpose
- High complexity

To
Portfolio approach with strong business-IT alignment
- Agile scrum teams for dedicated projects:
  - Fiber roll-out
  - Retail FMC
  - B2B FMC
- Esp. customer touch points from the business support system
- Modernization for bulk of systems by creation of reusable (Micro-)services

Impact
- ... reduced delivery time
- ... mitigated risk (compared to big bang)
- ... higher reusability to reduce IT cost midterm
2 CLEAR IMPACT EXPECTED ESPECIALLY ON TIME TO MARKET

Portfolio approach with payback of 2–3 years

Initial invest for portfolio approach

Spend per implementation

Time

Initial invest for portfolio approach

Reuse of service

2021

Impact of IT transformation

1 Average delivery time, month

2017 18 months

2021e 6 months

+ For agile projects (30%) a few weeks

2 Enabling process efficiencies in segments, % of delivery

Waterfall Flexible Agile

2017 40% 30% 30%

2021e

3 IT spend reduction, bn €

2017

2021e

- €0.2 bn

Degree of delivery modernization, % of delivery

2017 2021e
### LEAD IN CUSTOMER EXPERIENCE INNOVATION

#### Market proven
- **Entertain/TV**
  - 3.1 mn users in Germany, 4.2 mn in EU
  - €2 bn revenues in Germany and EU

- **Hybrid router**
  - 370,000 users

- **Smart Home**
  - Launched in 7 countries
  - 283,000 HH, 80% YoY growth in Q1 2018 in Germany

#### Recently launched
- **Connect App**
  - Launched in Germany, 1.4 mn users
  - 3.9 (Android) and 4.3 (iOS) rating in app store

- **Inflight connection**
  - Europe’s first and only solution combining LTE and satellite

#### To come in the future
- **Smart speaker**
  - Voice control of Telekom services
  - Integration of local partners

- **Entertain over the top**
  - TV for everybody

- **Smart Glasses**
  - JV with Zeiss
### Market proven

<table>
<thead>
<tr>
<th>NB IoT in 8 countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 200 projects with NB IoT applications, e.g., predictive maintenance solution for bridges, roads, buildings etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smart City projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>- In 10 countries</td>
</tr>
</tbody>
</table>

### Recently launched

<table>
<thead>
<tr>
<th>City pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>- White label solution for digital city services</td>
</tr>
<tr>
<td>- Blockchain based</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AR Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>- To enhance workforce capabilities esp. in field organizations</td>
</tr>
</tbody>
</table>

### Soon to come

<table>
<thead>
<tr>
<th>Campus networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Leveraging 5G capabilities and edge cloud locally</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connected drones</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Starting with drone detection on LTE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Energy Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Piloting 5G capabilities for low voltage network steering</td>
</tr>
</tbody>
</table>
FINALLY, WE DRIVE CULTURAL TRANSFORMATION

Global excellence in Technology & Innovation, e.g.

Claudia Nemat
Lead

Alex Jinsung Choi
Research & Technology Innovation

Peter Leukert
Telekom IT

Walter Goldenits
Technology Germany

Omar Tazi
Prod. Innovation & Customer Experience

Jean-Claude Geha
International Technology & Services

Comprehensive skill transformation

Illustrative org. unit

CAGR of -10% but shift to agile

2017

2021e

Project Manager

Software Engineer

Other skill cluster

Agile working mode

Illustrative changes

- Reduction of organizational hierarchy level in innovation functions by 44%
- 50% of all people in VTI central functions will work in tribes/squads instead of classical line organization
- Introduction of DevOps in Technology Germany

3
MID TERM AMBITION LEVEL
## Mid Term Ambition Level

### Technology Leadership

- Gigabit rollout in Germany
- Gigabit rollout in EU
- Mobile network leadership in Germany
- Mobile network leadership in EU
- 5G innovation leadership

### Value Transformation

- IP transformation completed
- IT transformation

### Commitment/Year

- Ramp up to 2 mn HH p.a. by 2021
- Ramp up to 0.75 mn HH p.a. by 2021
- Outdoor LTE coverage 99% in 2020 and leading in customer experience
- Outdoor LTE coverage 99% in 2021 and leading in customer experience
- Greece in 2019
- Germany B2C in 2019
- Germany B2B in 2020
- Delivery from 18 months today to 6 months on average in 2021
- IT spend reduction of €0.2 bn in 2021

---

1 FTTH/B and Cable ED3.1, excluding Romania
DEMONSTRATOR SESSION

3 Topics presented simultaneously in Circuit Training Mode. Your individual starting point is printed on the back of your badge.

1. AUTOMATION OF FIBER ROLLOUT PLANNING
   - Use of Digitalization and artificial intelligence for planning of fiber rollout
   - Benefit: Efficiency, speed, accuracy

   Presented by: Walter Goldenits, CTO Germany

2. 5G NEW RADIO + FIXED WIRELESS ACCESS
   - 5G New Radio: Massive MIMO and beam forming
   - Fixed Wireless Access Equipment
   - Benefit: capacity and flexibility

   Presented by: Antje Williams, Executive Program Manager for 5G

3. AUGMENTED REALITY + EDGE COMPUTING
   - Quality shift in rendering results with edge based vs. on-device rendering
   - B2B use cases
   - Benefit: Productivity, convenience

   Presented by: Alex Choi, SVP Research & Technology Innovation

4. TRENCHING + HORIZONTAL DIRECTIONAL DRILLING
   - Trenching Machine
   - Horizontal Directional Drilling Machine
   - Benefit for DT: Efficiency, speed

Pass by on the way to the Evening Event:

AUGMENTED REALITY + EDGE COMPUTING

AUGMENTED REALITY + EDGE COMPUTING

AUGMENTED REALITY + EDGE COMPUTING

AUGMENTED REALITY + EDGE COMPUTING

TRENCHING + HORIZONTAL DIRECTIONAL DRILLING
T-MOBILE US
LEGAL DISCLAIMER

Important Additional Information

In connection with the proposed transaction, T-Mobile US, Inc. ("T-Mobile") will file a registration statement on Form S-4, which will contain a joint consent solicitation statement of T-Mobile and Sprint Corporation ("Sprint"), that also constitutes a prospectus of T-Mobile (the "joint consent solicitation statement/prospectus"), and each party will file other documents regarding the proposed transaction with the U.S. Securities and Exchange Commission (the "SEC"). INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE JOINT CONSENT SOLICITATION STATEMENT/PROSPECTUS AND OTHER RELEVANT DOCUMENTS FILED WITH THE SEC WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION. When final, a definitive copy of the joint consent solicitation statement/prospectus will be sent to T-Mobile and Sprint stockholders. Investors and security holders will be able to obtain the registration statement and the joint consent solicitation statement/prospectus free of charge from the SEC’s website or from T-Mobile or Sprint. The documents filed by T-Mobile with the SEC may be obtained free of charge at T-Mobile’s website, www.t-mobile.com, or at the SEC’s website, www.sec.gov. These documents may also be obtained free of charge from Sprint by requesting them by mail at Sprint Corporation, Shareholder Relations, 6200 Sprint Parkway, Mailstop KOPHF0302-38767, Overland Park, Kansas 66225, or by telephone at 913-794-1091.

Participants in the Solicitation

T-Mobile and Sprint and their respective directors and executive officers may be participants in the solicitation of consents in respect of the proposed transaction. Information about T-Mobile’s directors and executive officers is available in T-Mobile’s proxy statement dated April 26, 2018, for its 2018 Annual Meeting of Stockholders. Information about Sprint’s directors and executive officers is available in Sprint’s proxy statement dated June 19, 2017, for its 2017 Annual Meeting of Stockholders, and in Sprint’s subsequent reports on Form 8-K filed with the SEC on January 4, 2018 and January 17, 2018. Other information regarding the participants in the consent solicitation and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the joint consent solicitation statement/prospectus and other relevant materials to be filed with the SEC regarding the acquisition when they become available. Investors should read the joint consent solicitation statement/prospectus carefully when it becomes available before making any voting or investment decisions. You may obtain free copies of these documents from T-Mobile or Sprint as indicated above.

No Offer or Solicitation

This communication shall not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the U.S. Securities Act of 1933, as amended.

Cautionary Statement Regarding Forward-Looking Statements

This communication contains certain forward-looking statements concerning T-Mobile, Sprint and the proposed transaction between T-Mobile and Sprint. All statements other than statements of fact, including information concerning future results, are forward-looking statements. These forward-looking statements are generally identified by the words "anticipate," "believe," "estimate," "expect," "intend," "may," "could" or similar expressions. Such forward-looking statements include, but are not limited to, statements about the benefits of the proposed transaction, including anticipated future financial and operating results, synergies, accretion and growth rates, T-Mobile’s, Sprint’s and the combined company’s plans, objectives, expectations and intentions, and the expected timing of completion of the proposed transaction. There are several factors which could cause actual plans and results to differ materially from those expressed or implied in forward-looking statements. Such factors include, but are not limited to, the failure to obtain or maintain required regulatory approvals, the risk that such approvals may result in the imposition of conditions that could adversely affect the combined company or the expected benefits of the proposed transaction, or the failure to satisfy any of the other conditions to the proposed transaction on a timely basis or at all; the occurrence of events that may give rise to a right of one or both of the parties to terminate the business combination agreement; adverse effects on the market price of T-Mobile’s or Sprint’s common stock and on T-Mobile’s or Sprint’s operating results because of a failure to complete the proposed transaction in the anticipated timeframe or at all; inability to obtain the financing contemplated to be obtained in connection with the proposed transaction on the expected terms or timing or at all; the ability of T-Mobile, Sprint and the combined company to make payments on debt or to repay existing or future indebtedness when due or to comply with the covenants contained therein; adverse changes in the ratings of T-Mobile’s or Sprint’s debt securities or adverse conditions in the credit markets; negative effects of the announcement, pendency or consummation of the transaction on the market price of T-Mobile’s or Sprint’s common stock and on T-Mobile’s or Sprint’s operating results, including as a result of changes in key customer, supplier, employee or other business relationships; significant transaction costs, including financing costs, and unidentified liabilities; failure to realize the expected benefits and synergies of the proposed transaction in the expected timeframes or at all; costs or difficulties related to the integration of Sprint’s network and operations into T-Mobile; the risk of litigation or regulatory actions; the inability of T-Mobile, Sprint or the combined company to retain and hire key personnel; the risk that certain contractual restrictions contained in the business combination agreement during the pendancy of the proposed transaction could adversely affect T-Mobile’s or Sprint’s ability to pursue business opportunities or strategic transactions; effects of changes in the regulatory environment in which T-Mobile and Sprint operate; changes in global, political, economic, business, competitive and market conditions; changes in tax and other laws and regulations; and other risks and uncertainties detailed in T-Mobile’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements," as well as in its subsequent reports on Form 8-K, all of which are filed with the SEC and available at www.sec.gov and www.t-mobile.com. Forward-looking statements are based on current expectations, assumptions and other factors which are subject to risks and uncertainties that may cause actual results to differ materially from those expressed or implied by such forward-looking statements. Given these risks and uncertainties, persons reading this communication are cautioned not to place undue reliance on such forward-looking statements. T-Mobile assumes no obligation to update or revise the information contained in this communication (whether as a result of new information, future events or otherwise), except as required by applicable law.

Non-GAAP

In addition to financial information prepared in accordance with U.S. GAAP, this presentation also contains adjusted financial measures that we believe provide investors and management with supplemental information relating to operating performance and trends that facilitate comparisons between periods and with respect to projected information. These adjusted financial measures are non-GAAP and should be considered in addition to, but not as a substitute for, the information prepared in accordance with U.S. GAAP. Further information relevant to the interpretation of adjusted financial measures, and reconciliations of these adjusted financial measures to the most comparable GAAP measures, may be found on T-Mobile’s website at http://investor.t-mobile.com in the "Quarterly Results" section.
5 YEARS OF UN-CARRIER
WE CHANGED WIRELESS FOREVER
2X CUSTOMER GROWTH

33M 2012
8.9M 2013
18.3M Q1 2018
74M Q1 2018
>90%

INDUSTRY POSTPAID PHONE GROWTH
LAST 5 YEARS

16.2M

T-Mobile

1.3M
80% INDUSTRY PREPAID GROWTH LAST 5 YEARS

6.5M

2.0M
CUT
CHURN IN HALF

Postpaid Phone Churn
INDUSTRY LEADING FINANCIAL GROWTH

**SERVICE REVENUES**

- **2012** $17.2B
- **2017** $30.2B (75% increase)

**TOTAL REVENUES**

- **2012** $19.7B
- **2017** $40.6B (106% increase)

**NET INCOME**

- **2012** -$7.3B
- **2017** $4.5B

**ADJUSTED EBITDA**

- **2012** $4.9B
- **2017** $11.2B (129% increase)

Financial results as reported.
322M COVERED

4G LTE coverage end of 2017
STANDALONE OUTLOOK Q1 2018

2018 GUIDANCE¹

BRANDED POSTPAID NET ADDS 2.6 – 3.3M

ADJUSTED EBITDA $11.4 – 11.8B

CAPEX (EXCL. CAP INTEREST) $4.9 – 5.3B

CF OPS CAGR FY2016 - FY2019² 7 – 12%

FREE CASH FLOW CAGR FY2016 - FY2019² 46 – 48%

FAVORABLE TAX IMPACT 2020 - 2027 $6.5 - 7.0B

BUYBACKS

INITIAL PROGRAM
(COMPLETED APRIL 2018) $1.5B

INCREASED PROGRAM
(CONTINGENT ON TERMINATION OF BCA WITH SPRINT) $7.5B

TOTAL BUYBACKS $9.0B

¹ We are not able to forecast net income on a forward looking basis without unreasonable efforts due to the high variability and difficulty in predicting certain items that affect GAAP net income including, but not limited to, income tax expense, stock based compensation expense and interest expense. Adjusted EBITDA should not be used to predict net income as the difference between the two measures is variable. In Q1 2018, we adopted the new revenue accounting standard. Including the estimated impact of such new revenue accounting standard, Adjusted EBITDA is expected to increase by an additional $0.2 – $0.5 billion for a total guidance range of $11.6 - $12.3 billion.

² In Q1 2018, the adoption of the new cash flow accounting standard resulted in a reclassification of cash flows related to the deferred purchase price from securitization transactions from operating activities to investing activities. In addition, cash flows related to debt prepayment and extinguishment costs were reclassified from operating activities to financing activities. In Q1 2018, we redefined Free Cash Flow to reflect the above changes in classification and present cash flows on a consistent basis for investor transparency. The effects of this change are applied retrospectively and are provided in the Reconciliation of Non-GAAP Financial Measures to GAAP Financial Measures table included in our Q1 2018 earnings release.
CUSTOMER EXPERIENCE OBSESSED
CUSTOMER EXPERIENCE OBSESSED

UN-CARRIER EVERYWHERE

BEYOND THE SMARTPHONE

SIMPLICITY & DIGITALIZATION

AMERICA’S BEST UNLIMITED NETWORK
UN-CARRIER EVERYWHERE: NEW GEOGRAPHIES & SEGMENTS

**DISTRIBUTION EXPANSION**
Enabled by Network Expansion

**PURSUING UNDERPENETRATED SEGMENTS**
(% market shares by segment)

<table>
<thead>
<tr>
<th>Segment</th>
<th>2013</th>
<th>2017</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Mobile Retail Distribution (in thousands)</td>
<td>3.1</td>
<td>5.3</td>
<td>2.2</td>
</tr>
<tr>
<td>MetroPCS Retail Distribution (in thousands)</td>
<td>4.5</td>
<td>11.1</td>
<td>6.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Segment</th>
<th>2013</th>
<th>2017</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Town/Rural</td>
<td>7%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>Military</td>
<td>8%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Over 55</td>
<td>8%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Business</td>
<td>9%</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>Suburban</td>
<td>14%</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>TMUS Share % of Total Customers</td>
<td>19%</td>
<td>19%</td>
<td>0%</td>
</tr>
<tr>
<td>Urban</td>
<td>22%</td>
<td>22%</td>
<td>0%</td>
</tr>
</tbody>
</table>
BEYOND THE SMARTPHONE
GROWTH OUTSIDE OF CORE WIRELESS

HOME & ENTERTAINMENT

- Music Freedom and BingeOn transformed mobile media consumption
- BingeOn Optimized video traffic, lowered network payload
- Exclusive partnership with Netflix launched September 2017
- Initial entry into rapidly converging media world led by seasoned team at Layer3 TV

5G & IoT

- 30 5G cities in 2018 using a combination of 600 MHz and mmWave
- 600 MHz being deployed with 5G-ready equipment
- IoT: launched nation’s first Narrowband IoT service plan
- 5G IoT to launch on 600 MHz enabling IoT devices with extended battery lives
- ~750K SyncUp devices sold to date

WHAT’S NEXT?

- Music Freedom and BingeOn transformed mobile media consumption
- BingeOn Optimized video traffic, lowered network payload
- Exclusive partnership with Netflix launched September 2017
- Initial entry into rapidly converging media world led by seasoned team at Layer3 TV
SIMPLICITY & DIGITALIZATION

DRIVE COST EFFICIENCIES

EASY TO JOIN

- SIDE-BY-SIDE SELLING MEANS LESS TRANSACTING, MORE SERVING CUSTOMERS
- SIMPLIFYING THE SWITCHING EXPERIENCE

DIGITALLY ACCELERATED RETAIL

EASY TO SERVE

- SELF-SERVICE FUNCTIONALITY ALLOWS CUSTOMERS TO SOLVE ISSUES ON THEIR OWN TERMS
- DRIVING RECORD LOW CALLS PER ACCOUNT

TEAM OF EXPERTS CARE

DRIVING SUPERIOR BILLING TRANSPARENCY, CLARITY AND CONSISTENCY

$1B PROJECTED GROSS COST SAVINGS OVER CURRENT RUN RATE \(^1\) OVER NEXT 3 YEARS

\(^1\) Run Rate defined as % of service revenue
CREATING ROBUST COMPETITION IN THE 5G ERA

UNPRECEDENTED NATIONWIDE 5G NETWORK

- UNPRECEDENTED CAPACITY, SPEED AND LATENCY TO DRIVE REVOLUTIONARY CONSUMER EXPERIENCE UNLOCKING SIGNIFICANT ECONOMIC VALUE
- ACCELERATE U.S. POSITION IN 5G AS THE ONLY COMPANY ABLE TO QUICKLY DEPLOY A BROAD AND DEEP NATIONWIDE 5G NETWORK
- USE EARLY LEADERSHIP IN 5G TO CAPTURE WAVE OF INNOVATION AND DISRUPTION, BENEFITING CUSTOMERS AND THE NATION’S ECONOMY

SUPERCHARGE UN-CARRIER STRATEGY AT PIVOTAL TIME

- NETWORK CAPABILITIES AND CAPACITY WILL LEAD TO BETTER SERVICE AND LOWER PRICES
- CONTINUATION OF PROVEN PRO-CONSUMER STRATEGY THAT IS FUNDAMENTALLY BUILT AROUND MORE VALUE AND HIGHER CONSUMER SATISFACTION
- PROACTIVELY CREATE NEW COMPETITION AND DISRUPTION IN ADJACENT MARKETS
- BRING REAL MOBILE BROADBAND COMPETITION TO RURAL AMERICANS FOR THE FIRST TIME AND NEW COMPETITION FOR BUSINESSES OF ALL SIZES

JOB CREATOR FROM DAY ONE UNLOCKING ECONOMIC VALUE

- CREATING NEW JOBS DAY ONE WITH INVESTMENT TO EXPAND CUSTOMER SERVICE, RETAIL FOOTPRINT AND 5G BUILDOUT
- DRIVING RAPID INVESTMENT NATIONWIDE IN 5G, ENSURING AMERICAN LEADERSHIP IN 5G ECOSYSTEM
- FORCING CONVERGED INDUSTRY LEADERS TO INVEST MORE AND FASTER
- ACCELERATING THE GROWTH OF MILLIONS¹ OF U.S. JOBS AND SUBSTANTIAL ECONOMIC VALUE

¹ Based on CTIA estimates from “The Global Race to 5G” April 2018.
### NEW T-MOBILE WILL DELIVER SIGNIFICANT SYNERGIES

<table>
<thead>
<tr>
<th>Category</th>
<th>Run-Rate Synergies ($BN, Pre-Tax)</th>
<th>Cost to Achieve ($BN)</th>
<th>NPV of Synergies ($BN)</th>
<th>Integration Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NETWORK</strong></td>
<td>~$4+</td>
<td>~$10</td>
<td>~$26</td>
<td>3</td>
</tr>
<tr>
<td>Site Decommissioning, Cost to Decommission, Network Integration Costs &amp; CAPEX Savings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SALES, SERVICE &amp; MARKETING</strong></td>
<td>~$1+</td>
<td>~$1</td>
<td>~$11</td>
<td>3-4</td>
</tr>
<tr>
<td>Store Consolidation, Increased Lease &amp; Labor Expense, Store Refresh Cost, Advertising, Customer Care, Equipment Revenue &amp; Logistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BACK OFFICE</strong></td>
<td>~$1+</td>
<td>~$4</td>
<td>~$6</td>
<td>3-4</td>
</tr>
<tr>
<td>IT &amp; Billing &amp; Fixed G&amp;A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>~$6+</td>
<td>~$15</td>
<td>~$43+</td>
<td></td>
</tr>
</tbody>
</table>

Note: All numbers are approximations and reflect management estimates as of date of presentation.

1 NPV of Synergies net of Costs to Achieve, calculated assuming a discount rate of 8.0% on unlevered free cash flow. Numbers may not add due to rounding. 2 Net of avoided Capital Expenditures.
### POISED FOR SIGNIFICANT MARGIN EXPANSION

<table>
<thead>
<tr>
<th></th>
<th>2018 PRO FORMA</th>
<th>2018 PRO FORMA MARGINS</th>
<th>3-4 YEAR TARGETS</th>
<th>LONGER-TERM TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL REVENUE</td>
<td>$75-76B</td>
<td>--</td>
<td>2-4% CAGR</td>
<td>3-5% CAGR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$81-86B</td>
<td>$95-100B</td>
</tr>
<tr>
<td>WIRELESS SERVICE REVENUE</td>
<td>$53-57B</td>
<td>--</td>
<td>2-4% CAGR</td>
<td>2-4% CAGR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$59-61B</td>
<td>$67-70B</td>
</tr>
<tr>
<td>ADJUSTED EBITDA¹,²</td>
<td>$22-23B</td>
<td>40-42%</td>
<td>45-47% MARGIN</td>
<td>54-57% MARGIN</td>
</tr>
<tr>
<td>CAPITAL EXPENDITURES³</td>
<td>$10-11B</td>
<td>18-19%</td>
<td>15-20% OF SVC REV</td>
<td>13-15% OF SVC REV</td>
</tr>
<tr>
<td>ADJUSTED EBITDA LESS</td>
<td>$11-12B</td>
<td>20-21%</td>
<td>26-30% MARGIN</td>
<td>42-45% MARGIN</td>
</tr>
<tr>
<td>CAPITAL EXPENDITURES¹,⁴</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Service Revenue and Adjusted EBITDA figures do not include the impacts of new revenue standard. All numbers are approximations and reflect management estimates of the date of presentation.

¹Adjusted EBITDA based on T-Mobile’s as-reported definition which is unburdened for stock-based compensation.

²Adjusted EBITDA margins calculated based on Service Revenue.

³Capital Expenditures margins calculated based on Service Revenue.

⁴Adjusted EBITDA less Capital Expenditures calculated based on Service Revenue.
NEW T-MOBILE IS THE ONLY COMPANY CAPABLE OF DELIVERING BROAD AND DEEP NATIONWIDE 5G IN CRITICAL EARLY STAGE OF INNOVATION

UNMATCHED COMBINATION OF SPECTRUM ASSETS TO CREATE A BROAD AND DEEP NETWORK

ENHANCED FINANCIAL POSITION ABOVE WHAT EITHER COMPANY COULD DO ALONE TO INVEST IN THE ROLLOUT OF 5G

PROVEN LEADERSHIP AND PLAN TO RAPIDLY ROLLOUT ADVANCEMENTS – T-MOBILE DEPLOYED NATIONWIDE LTE TWICE AS FAST AS VERIZON AND THREE TIMES AS FAST AS AT&T

THE NEW T-MOBILE HAS THE BREADTH & DEPTH TO CREATE THE FIRST NATIONWIDE 5G NETWORK
POWERFUL COMBINATION RESULTS IN REVOLUTIONARY CAPACITY & SPEED

7x
CAPACITY INCREASE (EXABYTES)

3
T-Mobile + Sprint
1Q18 OFFERED CAPACITY (IN EXABYTES PER MONTH)

22
NEW T-Mobile
PROJECTED-2024 OFFERED CAPACITY (IN EXABYTES PER MONTH)

15x
SPEED INCREASE (MBPS)

32.1
T-Mobile
1Q18 DOWNLOAD SPEED

23.8
Sprint
PROJECTED-2024 DOWNLOAD SPEED
LIMITLESS POTENTIAL

- Real Time Translation
- Immersive Media
- Drone Delivery
- Connected Highways
- Industrial Automation
- Sensors
- Self-Managing Agriculture
- Fixed Broadband
- Routers
- Mobile
- 5G
- IoT
- Smartphones
- Wearables
- Tablets
- Laptops
- Virtual Reality
- Augmented Reality

GROUP STRATEGY  GERMANY  SYSTEMS SOLUTIONS  TECHNOLOGY & INNOVATION  T-MOBILE US  EUROPE  GROUP DEVELOPMENT  FINANCE
ANCHOR ON T-MOBILE NETWORK

- Fast and low risk delivery of synergies while protecting customer experience
- Use T-Mobile as the anchor network and increase network density and coverage with selected Sprint “keep” sites
- Deploy 2.5 GHz spectrum on T-Mobile sites and full T-Mobile spectrum portfolio on Sprint “keep” sites
- New T-Mobile network of ~85k macro sites and 50k small cells

MIGRATE CUSTOMERS

- Migrate Sprint customers to T-Mobile network within 3 years without degrading experience on Sprint’s network
- On Day One, 20 million Sprint customers already have compatible handsets with T-Mobile’s network
- Aggressively migrate CDMA voice to VoLTE
- Billing and back office system migrations to occur over time minimizing disruption to distribution, care, and operations
NEW T-MOBILE WILL DELIVER UNPRECEDENTED NETWORK QUALITY AND CUSTOMER VALUE

- Rapid industry convergence and fast emerging 5G economy creates ideal timing for unique combination
- Creates only company with capacity to build the first broad and deep nationwide 5G network
- Competition will extend U.S. global internet leadership in the 5G era
- Supercharges pro-consumer Un-carrier strategy
- Expected to create jobs and unlock economic growth
- Compelling benefits support rationale for regulatory approval in the era of 5G
Exceeded or met aggressive goals set at Capital Markets Day 2012 & 2015
Industry leading momentum set to continue with strong organic plan
Incredible LTE Network transitioning to 5G using 600 MHz
Sprint transaction enables unprecedented network quality & customer value
New T-Mobile will create value for investors & consumers
KEY MESSAGES

01 STRONG ASSETS PORTFOLIO DT EU
Majority of assets already converged, with a powerful brand across footprint & relevance in economies

02 BEGINNING OF TURNAROUND TO GROWTH
Markets are growing again, DT EU net adds are at fair share, and EBITDA is now growing

03 ACCELERATE GROWTH IN CONVERGENCE
Drive volume & scale up fast to reach > 50% FMC HH penetration (by 2021) with strong Magenta1 portfolio and go-to-market based on advanced HH analytics

04 LEAD TRANSITION TOWARDS GIGABIT SOCIETIES
Develop assets portfolio to fully converged, triple fiber rollout run-rate until 2021

05 BEST CUSTOMER EXPERIENCE
Strong & convincing brand promise, digital customer interaction, automated technical service, and a customer centric culture

06 LEAD IN BUSINESS PRODUCTIVITY
Leverage leading ICT position in key verticals, push Cloud & DT’s Smart Cities/IoT portfolio, key partner for digitalization in VSE & SMB1 segments

07 VALUE TRANSFORMATION
Around 10% net indirect cost reduction until 2021, driven by operational efficiency measures, simplification, digitalization, and a future-proof-organization

08 FINANCIAL OUTLOOK
Clear strategic plan for sustainable growth with a revenue CAGR of > 1% and EBITDA CAGR of +1–2% (2017–2021)

1 VSE = very small enterprises, SMB = small and medium size businesses
REVIEW 2014 – 2018
<table>
<thead>
<tr>
<th>Ambition level 2018</th>
<th>Achievements 2017</th>
<th>Delivered/on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-IP transformation: All integrated NatCos 100% IP-based in 2018</td>
<td>Ca. 70% in 2017</td>
<td></td>
</tr>
<tr>
<td>Next generation accesses: 75–95% LTE pop coverage in 2018</td>
<td>94% in 2017</td>
<td></td>
</tr>
<tr>
<td>FTTx for ≈ 50% of households (in integrated footprint) with at least 100 Mbit/s in 2018</td>
<td>32% in 2017</td>
<td></td>
</tr>
<tr>
<td>Realization of customer experience initiative &quot;eTransformation&quot;: between 30% and 99% eService share in our NatCos in 2018</td>
<td>31%–95% in 2017</td>
<td></td>
</tr>
<tr>
<td>Implementation of innovative FMC &amp; TV experiences in 2018</td>
<td>Hybrid Proposition, new TV user interface rollout</td>
<td></td>
</tr>
<tr>
<td>€0.6 bn pay-TV revenues in 2018</td>
<td>€0.48 bn in 2017</td>
<td></td>
</tr>
<tr>
<td>Continuation of revenue transformation: 38% of revenues with pockets of growth in 2018</td>
<td>33% in 2017</td>
<td></td>
</tr>
<tr>
<td>Stable Adj. Cash Contribution ≈ +0.5% CAGR 2014–2018</td>
<td>CAGR 2014–2017 -6.7%</td>
<td></td>
</tr>
<tr>
<td>Reduction of indirect cost by €0.4 bn 2018 vs. 2014</td>
<td>€0.24 bn 2017 vs. 2014</td>
<td></td>
</tr>
</tbody>
</table>
DT EUROPE IS A STRUCTURALLY ATTRACTIVE CONVERGED ASSET

DT Europe

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>€11.6 bn</td>
</tr>
<tr>
<td>ADJ. EBITDA</td>
<td>€3.7 bn</td>
</tr>
<tr>
<td>CASH CAPEX</td>
<td>€1.8 bn</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>47,420 FTE</td>
</tr>
<tr>
<td>POPULATION</td>
<td>115 mn people</td>
</tr>
<tr>
<td>GDP CAGR(^1) 2017–2021</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

NatCo-by-NatCo

<table>
<thead>
<tr>
<th>Country</th>
<th>EBITDA adj. FY 2017, € bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>GR</td>
<td>1.14</td>
</tr>
<tr>
<td>HU</td>
<td>0.55</td>
</tr>
<tr>
<td>HR</td>
<td>0.39</td>
</tr>
<tr>
<td>SK</td>
<td>0.32</td>
</tr>
<tr>
<td>MK</td>
<td>0.07</td>
</tr>
<tr>
<td>ME</td>
<td>0.03</td>
</tr>
<tr>
<td>PL</td>
<td>0.42</td>
</tr>
<tr>
<td>CZ</td>
<td>0.41</td>
</tr>
<tr>
<td>AT</td>
<td>0.27 Proposed acquisition of UPC</td>
</tr>
<tr>
<td>RO</td>
<td>0.17</td>
</tr>
<tr>
<td>AL</td>
<td>0.01</td>
</tr>
</tbody>
</table>

\(^1\) GDP CAGR average weighted by NatCos’ 2017 revenue
DT IS THE LARGEST INTERNATIONAL PLAYER IN OUR FOOTPRINT WITH SIGNIFICANT GDP IMPACT

We have scale in our markets...

Integrated revenues DT EU footprint¹

... and we have economic impact

DT local revenues, as share of GDP

Greece 1.6%  
Croatia 2.0%

Enormous power of our brand across footprint

DT’s position in ICT

revenues with ICT, focused on digitalizing governments, societies & enterprises  
≈€1 bn

¹ Based on 2017 revenues
WE HAVE BEEN POORLY VALUED BECAUSE OF PAST PERFORMANCE

Reflecting historical declines...

DT EU revenue organic, € bn

CAGR -1.9%

2012 2013 2014 2015 2016 2017

DT EU EBITDA adj. organic, € bn

CAGR -3.0%

2012 2013 2014 2015 2016 2017

DT EU Cash Contribution organic, € bn

CAGR -7.2%

2012 2013 2014 2015 2016 2017

...DT Europe has been valued poorly

EBITDA multiple DT Europe

≈4.9x

EBITDA multiple western European incumbents

6.3x

Note: Organic development adjusted for regulation and currency effects, Cash Contribution in 2012 & 2013 only adjusted for T-Mobile Netherlands and Globul (Bulgaria). As of May 18th, 2018 based on a basket CAGR 2012–2017
2017 HAS SEEN THE BEGINNING OF THE TURNOVER

Back to growth again

Revenue growth, organic, € bn

EBITDA turnaround visible, adj. organic, € bn

Note: Organic development adjusted for regulation and currency effects.
Improving market environment leads to growth...

Mobile service revenue development¹, year-over-year, per half year

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DT Europe</td>
<td>-5%</td>
<td>-4%</td>
<td>-3%</td>
<td>-2%</td>
</tr>
<tr>
<td>Market</td>
<td>-1%</td>
<td>0%</td>
<td>+1%</td>
<td>+2%</td>
</tr>
</tbody>
</table>

...while DT has begun to leverage its quality leadership

Mobile contract net adds back on fair share level, Mob. contract net adds market share

Best mobile networks

8 countries “best in P3 test” (GR, HU, HR, SK, CZ, PL, MK, ME)

¹ Source: DT analysis
# Substantial Progress on Convergence and Troubled Assets

## Commercial Strength in FMC

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FMC HH</strong></td>
<td>+420 k</td>
<td>+60 k</td>
<td>-1,850 k</td>
</tr>
<tr>
<td><strong>FMC REVENUE</strong></td>
<td>+€300 mn</td>
<td>+€60 mn</td>
<td></td>
</tr>
</tbody>
</table>

## Assets Strengthened

- **T-Mobile Austria** developed towards convergence
  - Proposed acquisition of UPC

## Turnaround in Critical NatCos

- T-Mobile Poland partnering deal with Orange, FMS¹ launched, and port-in leadership
- Telekom Romania’s brand re-positioning

---

¹ Fixed-mobile-substitution
REACCELERATED COST SAVINGS AND MAJOR ORGANIZATIONAL CHANGES IN 2017

**Reduction in indirect costs**

Indirect cost, organic

- 2014: 0.8%
- 2015: -2.1%
- 2016: -30%
- 2017: -37%

**People & structural issues improved**

C-levels\(^1\) reviewed in NatCos

Changes in last 12 months  ≈50%

EU HQ made leaner & more agile

Smaller organization  -30%

International experts brought into HQ

New executive position holders  37%

Note: Organic development adjusted for regulation and currency effects.  ^1 Board of management
EUROPE IS POSITIONED TO CREATE VALUE BY LEADING IN CONVERGENCE, TECHNOLOGY, DIGITALIZATION, AND B2B

Our strategy

<table>
<thead>
<tr>
<th>GROW</th>
<th>SAVE FOR GROWTH INVESTMENTS</th>
<th>SIMPLIFY, DIGITALIZE, ACCELERATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD IN CUSTOMER EXPERIENCE</td>
<td>ONE CONNECTIVITY &amp; PERFECT SERVICE</td>
<td></td>
</tr>
<tr>
<td>LEAD IN TECHNOLOGY</td>
<td>INTEGRATED GIGABIT NETWORKS</td>
<td></td>
</tr>
<tr>
<td>LEAD IN BUSINESS PRODUCTIVITY</td>
<td>SECURE ICT SOLUTIONS &amp; BIG IOT</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ambition Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 LEAD IN CUSTOMER EXPERIENCE/LEAD IN TECHNOLOGY</td>
</tr>
<tr>
<td>▪ Magenta1: Drive convergence to enable value creating market structure</td>
</tr>
<tr>
<td>▪ Broadband/TV: Own the gigabit position through smartly funded fiber investments</td>
</tr>
<tr>
<td>▪ Mobile: Maintain best network and commercial momentum to exploit market growth</td>
</tr>
<tr>
<td>▪ Leading service: Differentiate with digital and seamless connectivity, enabled by agile &amp; simplified IT</td>
</tr>
<tr>
<td>2 LEAD IN BUSINESS PRODUCTIVITY</td>
</tr>
<tr>
<td>Leverage our unique B2B position to drive growth in cloud, IoT, and Smart Cities</td>
</tr>
<tr>
<td>3 VALUE TRANSFORMATION</td>
</tr>
<tr>
<td>Efficiency improvement through leveraging digital opportunities and our unique scale</td>
</tr>
</tbody>
</table>
CONVERGENCE: COMMERCIAL KPIs EVIDENCE BENEFITS

FMC reduces churn
Example Greece, Q4/17

FMC increases incremental ARPHH¹
December 2017

FMC improves TRI*M
Greece, Croatia, Hungary, Slovakia, Q4/17

-35%
-33%

Average
FMC

Mobile
Fixed

Croatia
Greece
Slovakia
Hungary

+€15
+€14
+€12
+€9

Non FMC
FMC

1 Delta revenue per HH created after migration to FMC
Focus on commercial execution in FMC: Drive volume and scale up fast - example Slovakia

FMC gross add share, % of total mobile B2C contract sales

- 2015: 16%
- 2017: 48%

FMC mobile contract share, % of total mobile B2C contract base

- 2015: 2%
- 2017: 21%

Less exposure to market volatility as we leverage Europe's largest fixed base

Build a more resilient portfolio with time
Focus on commercial execution in FMC: Drive volume and scale up fast

- Simple and flexible FMC offers for all HH, e.g.
  - Launch of new Magenta1 portfolio with strong more-for-more benefits (double data & full eligibility)

- Go-to-market using analytics/HH datamart, e.g.
  - Extended HH view leveraging big data and supported by “My Cosmote APP”
  - End-to-end below-the-line channel to be fully in operation from Q2/2018

Results:

- FMC household penetration
  - 19% in 2016
  - 26% in 2017
  - > 50% in 2021e

- FMC revenues, € bn
  - 0.4 in 2016
  - 0.7 in 2017
  - 1.7 in 2021e

CAGR:

- 81% from 2016 to 2021e
- 25% from 2017 to 2021e

Numbers reflect the following NatCos: GR, HU, HR, SK, RO, MK, ME, CZ = currently converged countries
NETWORKS: “CONVERGED LEADER” MARKETS WILL LEAD TRANSITION TOWARDS GIGABIT SOCIETIES

1. Compelling economics & track record
2. Societal benefits
3. Unique leverage

Reinforce leading fixed broadband position and/or address strong competition

1 Including cable ED3 coverage 2 Numbers include the following countries: GR/HU/SK/HR = Converged leaders
Compelling economics and track record

DT EU fiber economics
- < €300 per home passed for 25–50% of footprint
- FTTH ARPU ranges from €20 to €25\(^1\)
- 7–12 years payback even in case of copper overbuild

Fiber utilization on profitable level and improving, example Slovakia, k

1 Based on analysis from Croatia, Hungary, Slovakia
1 NETWORKS: PARTNERING WITH LOCAL GOVERNMENTS

2 Societal benefits

CONNECTING EUROPE BROADBAND FUND
EU has invested €2.5 bn for broadband rollout and connectivity through structural funds from 2007–2013, [...] and in 2014–2020 member states have approved €6 bn.
(Jan Dröge, The European Broadband Competence Offices)

SUPER FAST INTERNET PROGRAM
...worth HUF60–70 bn, e.g., to provide BB Internet access to all educational institutions (= HUF13 bn), funded with domestic budget and by EU.
(Tamas Deutsch, Digital Commissioner)

DT’S FIBER ROLLOUT COMMITMENT
This investment is a vote of confidence in the Greek economy and at the same time an important step for its digital transformation.
(Alexis Tsipras, Prime Minister)

3 Unique leverage

Strong synergies with mobile
- Improved economics with FMC: +€9–15 ARPHH increase until 2017
- Synergies in fiber backhaul

Experienced in fiber rollout & monetization
- 1.5 mn HHS passed with fiber in 2016 & 2017, and 0.33 mn HHS connected
- 0.42 mn fixed broadband net adds 2016 & 2017
# NETWORKS: TAILORED STRATEGIES FOR OUR “CONVERGED CHALLENGER” MARKETS

## Strategies for converged challengers

<table>
<thead>
<tr>
<th>Country</th>
<th>M&amp;A</th>
<th>WHOLEBUY</th>
<th>OWN BUILD</th>
<th>FWA/FMS¹ (FIXED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUSTRIA</td>
<td>Proposed UPC deal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CZECH</td>
<td>opportunistic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLAND</td>
<td>opportunistic</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1️⃣ Fixed wireless access/fixed mobile substitution
1 NETWORKS: SMART FUNDING TO TRIPLE FIBER RUN-RATE WITHIN STABLE CAPEX ENVELOPE

Fundable opportunities

Organic FTTH/B investments\(^1\) run-rate in € bn p.a.
Organic incremental households passed\(^1\) run-rate in mn p.a.

<table>
<thead>
<tr>
<th>Year</th>
<th>FTTH/B Investments</th>
<th>Incremental Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>0.1</td>
<td>0.25</td>
</tr>
<tr>
<td>2021e</td>
<td>0.3</td>
<td>0.75</td>
</tr>
</tbody>
</table>

- Reprioritization within fixed
- Mobile Capex optimization (e.g. advanced analytics)
- IT Capex optimization (e.g. agile approach)

\(^1\) FTTH/B and Cable ED3, organic build out in our currently converged countries, excluding Romania (GR, HU, HR, SK, MK, ME, CZ).

On-top potential from public sources (subsidies, levy reduction)
**SERVICE: REINVENTING OPERATIONS WITH SIMPLIFIED & AGILE IT**

**Moving to harmonized API\(^1\) layer across NatCos**

<table>
<thead>
<tr>
<th>Applications</th>
<th>Platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMC</td>
<td>Payments</td>
</tr>
<tr>
<td>E-care</td>
<td>Loyalty</td>
</tr>
<tr>
<td>Automation call center</td>
<td>Analytics &amp; reports</td>
</tr>
<tr>
<td>E-commerce</td>
<td>Data lake</td>
</tr>
<tr>
<td>Retail stores</td>
<td>Product catalogue</td>
</tr>
<tr>
<td></td>
<td>Order manager</td>
</tr>
</tbody>
</table>

**New way of working**
- Growing off-shore development capability
- Agile, simplified, open source development reutilizing the harmonized API layer
- Scalable cloud based infrastructure
- Enabler for big data analytics to drive, e.g. customer led fiber rollout

**HARMONIZED API LAYER**

\(^1\) Application programming interface
**SERVICE: CONVERGENCE THROUGH SEAMLESS CONNECTIVITY**

### Digital at the center

**App as focal point for customer interaction**

![App image]

- One App penetration
  - 20% (2017 EU)
  - 40% (2017 example Greece)
  - > 50% (2021e EU)

### Connected everywhere

**Easy to use services, in lean & fast production**
- Seamless connectivity app:
  - > 20% of FMC customer base by 2021
- New homegateway with better Wifi and SmartHome support:
  - 60–80% of HHs swapped by 2021

**European Aviation Network completed!**
- World’s first integrated satellite and air-to-ground connectivity network
1 SERVICE: TARGETING NUMBER 1 OR 2 IN TRI*M IN ALL OUR MARKETS – GREECE IS LEADING THE WAY

Cosmote Greece succeeds in stable #1 position in customer satisfaction TRI*M index

Key customer satisfaction drivers being addressed

**Strong BRAND**
- “One world better for all” new brand promise

**Innovative CUSTOMER CARE**
- **UFixit app**: innovative digital care based on devices as interactive service tools with video communication

**Digital CHANNELS**
- App penetration already at 40%

**Excellent TECHNICAL SERVICE**
- Technical service transformation: > 60% of outages automatically detected & dispatched in 2018

**Customer centric CULTURE**
- Customer experience training: > 1,000 managers participating in “one day at first line”; 280 Customer Experience Ambassadors

“COSMOTE is an active part of Greek society and takes on a bigger role towards the country and the Greeks, by connecting our products and services with a bigger goal.”
B2B: CONVERGENCE AND CLOUD DRIVE GROWTH

Sales push in VSE and SMB

- Leverage cloud business
- Big Data campaigning & horizontal bundling to drive FMCC
- New go-to-market approach for SMBs
  SMB vertical clusters specific bundling, e.g. for retail, hotels, ferries, food service (hotel/restaurant/coffee shop)
  Radically simplified standard portfolio for VSE/SMB, e.g. 3 "un-carrier" rate plans each in mobile & fixed

FMCC penetration (as share of VSE & SMB accounts)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSE</td>
<td>27%</td>
<td>31%</td>
<td>&gt; 50%</td>
</tr>
<tr>
<td>SMB</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FMCC revenues, € bn

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSE</td>
<td>0.3</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>SMB</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: VSE = very small enterprises, SMB = small and medium size businesses.

1 FMCC: Fixed Mobile Cloud Convergence (B2B Convergence Product)
B2B: LEVERAGING ICT STRENGTH FOR SMART CITY / IOT

Leverage position in ICT & further grow cloud

- **Hybrid cloud**: Expansion of “IT as a Service” with Azure services
- **Win with strategic partners** across DT-EU footprint, e.g. Cisco ROSE, SAP, Microsoft (O365)
- **Focus on Verticals**
  - Country digitalization in CZ, HR, MK, ME
  - Finance & Insurance in HU, PL, GR

Push of Smart Cities/IoT portfolio

- **Focus on key city verticals** such as Smart Lighting, Smart Parking, Wifi for public services, Smart Waste Management, electronic vehicles chargers, e.g.:
  - World’s 1st NB-IoT connected street lights in Patras, GR
  - 1st Smart Street in Dubrovnik, HR

ICT revenues, € bn

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR</td>
<td>0.9</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>CAGR</td>
<td>+8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Smart Cities/M2M revenues
IoT access & solutions, € mn

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2021e</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR</td>
<td>55</td>
<td>65</td>
<td>150</td>
</tr>
<tr>
<td>CAGR</td>
<td>+15%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CAGR 2017–2021e:
- +7%
- +8%
- +15%
- +25%
3 VALUE TRANSFORMATION: €0.4 BN LOWER INDIRECT COSTS 2021

Short-term value transformation mainly from efficiency in current operating model, digitalization impact in 2019+

Operational efficiency, e.g.
- Consolidation and retirement NT & IT
- Back-office elimination

A Simplified operations
- Simplified products
- Simplified IT
- Simplified processes

B Digital customer interaction
- One App, centrally developed
- Radical shift to online sales
- Serving SMBs via FMCC portal

C Future-proof organization
- Leaner structure
- Culture, experts, skills

Indirect cost, organic

Note: Organic development adjusted for regulation and currency effects.
Radical simplification is a key enabler

- Address tariffs, security vulnerability assessment and business rules
- Delineate segment overlaps
- Remove high customer impact rules (e.g., closed-user-groups)

- Digital first
- Unify delivery model across channels and segments
- Review risk management

- De-customize applications
- Simplify user interface
- Simplify architecture
- Decommission applications

### Commercial propositions
- Address tariffs, security vulnerability assessment and business rules
- Delineate segment overlaps
- Remove high customer impact rules (e.g., closed-user-groups)

### Processes
- Digital first
- Unify delivery model across channels and segments
- Review risk management

### IT/platforms
- De-customize applications
- Simplify user interface
- Simplify architecture
- Decommission applications

#### # tariffs
- Today: > 60%
- 2021e: > 60%

#### # process variations
- Today: > 50%
- 2021e: > 50%

#### # lines of custom CRM code
- Today: > 60%
- 2021e: > 60%
SCALING UP CUSTOMER FACING DIGITAL TOUCHPOINTS

B2C: Digital customer self-service

Digitalization of customer interface
- Smartphone service app as direct link to customers
- Centrally developed, with standardized API

Upscaling of E-Commerce
- Customer contact digital end-to-end with zero-touch self-service
- Intuitive self-administration

One App penetration

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 (EU)</td>
<td>20%</td>
</tr>
<tr>
<td>Example Greece</td>
<td>40%</td>
</tr>
<tr>
<td>2021e (EU)</td>
<td>&gt; 50%</td>
</tr>
</tbody>
</table>

Pure online sales share

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>5%</td>
</tr>
<tr>
<td>2021e</td>
<td>30%</td>
</tr>
</tbody>
</table>

B2B: Digitalization partner for SMBs

One digital cockpit “FMCC* Portal”
- Easy-to-use customer touchpoint for all Telco and ICT services

Upscaling of cloud services
- Sales initiatives pushing XaaS, e.g. Office 365

FMCC portal share @ SMBs

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>&lt; 5%</td>
</tr>
<tr>
<td>2021e</td>
<td>20%</td>
</tr>
</tbody>
</table>

FMCC portal live in Croatia
OPPORTUNITY FOR CROSS BORDER SYNERGIES

Establish an organization with the right structure, people & skills

Future-proof organization

Target operating model and organization

Structure, people & skills

Right-sizing and cost position

Fit for the future capabilities

Learn from CZ and SK merger

Ind. cost savings 2021 vs. 2017 ≈ €50 mn

Technology transformation element is €30–35 mn

-55%

-45%

-60%

-45%

# Network elements

# Servers

# IT datacenter

# NT&IT systems
FINANCIAL OUTLOOK
FINANCIAL OUTLOOK

Revenue growth

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>11.6</td>
<td>+1%</td>
</tr>
<tr>
<td>2021e</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cash Contribution

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.8</td>
<td>+2-4%</td>
</tr>
<tr>
<td>2021e</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cash Capex

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.8</td>
<td>stable</td>
</tr>
<tr>
<td>2021e</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Special factors (Cash)

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>0.2</td>
</tr>
<tr>
<td>2021e</td>
<td></td>
</tr>
</tbody>
</table>

1 Without EU roaming impact  
2 Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
MID TERM AMBITION LEVEL
## MID TERM AMBITION LEVEL

<table>
<thead>
<tr>
<th>B2C GROWTH DRIVERS</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>+25% CAGR FMC revenue (€1.7 bn 2021)</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>&gt; 50% One-App-penetration, 30% pure online sales share</td>
<td>2021e</td>
</tr>
<tr>
<td>Lead in TRI*M: #1/#2 in all markets</td>
<td>2021e</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B2B GROWTH DRIVERS</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10% CAGR FMCC revenue (€0.5 bn 2021)</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>20% FMCC portal share</td>
<td>2021e</td>
</tr>
<tr>
<td>+7% CAGR B2B/ICT revenue (€1.3 bn 2021)</td>
<td>2017–2021e</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROFITABLE MID-TERM GROWTH</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue growth &gt; 1% CAGR</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>EBITDA growth +1–2% CAGR</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Indirect cost reduction by €0.4 bn</td>
<td>2017–2021e</td>
</tr>
<tr>
<td>Cash Contribution(^1) +2–4% CAGR</td>
<td>2017–2021e</td>
</tr>
</tbody>
</table>

\(^1\) Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
01 OVERVIEW
GD actively manages the DT asset portfolio. This includes Group M&A, portfolio management, investment controlling BT/TMUS and active management of selected assets, as well as our successful venture & special situation capital arm

02 OPTIMIZING PORTFOLIO AND CAPITAL ALLOCATION
We have increased the value of the portfolio in recent years, realizing latent value from non-core activities, while systematically strengthening our in-footprint assets, on both sides of the Atlantic

03 HUGE VALUE CREATION IN THE US
TMUS is a great example of active portfolio management through combining organic investments and M&A moves ...and we were right in waiting to agree the deal with Sprint

04 SUCCESSFUL TMNL TURNAROUND
We have stabilized TMNL and established it as challenger in a highly converged market. Our proposed Tele2 transaction will supercharge our competitive challenge

05 CREATING VALUE FROM TOWERS
Across Europe DT owns > 53 thousand towers. We have begun to carve out, professionalize and improve our German tower operations. These will see substantial asset and EBITDA growth going forward, as we prepare for 5G

06 UNIQUE APPROACH TO INNOVATION INVESTING
DT Capital Partners has > $1 bn under management and established a successful track record

07 FINANCIAL OUTLOOK
We expect our operating assets to deliver +3–4% annual growth in EBITDA and +3% in adjusted underlying1 Cash Contribution, from 2017–2021e. Above all, we strive to increase the value of our assets

1 Excl. DFMG roll-out Cash Contribution impact (Capex and EBITDA)
REVIEW AND STRATEGY
OUR MISSION: PROTECT AND GROW DT SHAREHOLDER VALUE

**GD KEY FINANCIALS**, € BN

<table>
<thead>
<tr>
<th>Reconciliation</th>
<th>Revenue</th>
<th>EBITDA Adj.</th>
<th>Adj. Cash Contribution</th>
<th>GD SOTP (excl. US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>€2.3 bn</td>
<td>€0.9 bn</td>
<td>€0.6 bn</td>
<td></td>
<td>€11 bn</td>
</tr>
</tbody>
</table>

**Investment management**
- Investment controlling of our **public** investments...
- ...Active management of **dedicated DT assets**

**M&A + Portfolio management**
- **Overarching capital allocation** strategy
- **Group-wide M&A** strategy
- **Portfolio reviews** and optimization

**DT Capital partners**
- **Venture Capital**, **Growth Equity** and **Special Situations investments**
- Generate **value** and give DT access to **innovation**
- **Unique governance & incentive schemes** as a harbour for selected assets

**Note:** all figures refer to 2017 Actual

1 TMUS Financials not reported under Group Development  
2 Assets under Management incl. Advisory  
3 EBITDA Adj – SF cash – Cash Capex  
4 SOTP based on broker consensus (Q4/17); BT market cap as of May 15th

**Terms & Acronyms**
- **Siemens**
- **Deutsche Funkturm**
- **T-Mobile US**
- **T-Mobile NL**
- **Sprint**
- **metroPCS**
- **T-Mobile LTE2 NL**
- **T-Mobile AT**
- **STRATO**
STRONG TRACK RECORD IN PORTFOLIO MANAGEMENT

**TMUS share price since Metro PCS merger**

- **May 2013**: $13 bn
- **Apr. 2018**: $51 bn
- **+281%**: TMUS Market Cap
- **+$38 bn**: Vote of confidence

**Value creation elsewhere**

**DONE**

- **Scout 24**:
  - DT value 2012: €1.2 bn
  - Proceeds: €2.6 bn
  - x2.2
- **Strato**:
  - DT value 2014: ≈ €0.3 bn
  - Proceeds: €0.7 bn
  - x2.5
- **DTCP (AuM)**:
  - 2015: DT share of 63% = $32 bn
  - Today: $51 bn

**WORK IN PROGRESS**

- **DFMG**:
  - Part of TDG
  - Stand-alone
  - €6.0 bn
- **TMNL**:
  - 2016: €2 bn+
  - Today: £4.0 bn
- **BT**:
  - 50% of EE
  - 12% of BT
  - £4.0 bn x0.6
  - £2.5 bn

1 DT share of 63% = $32 bn
TMUS: A STORY OF SIGNIFICANT VALUE CREATION

**PLAN A: SPRINT ACQUISITION**
Plan B: Attractive capital allocation policy: $9 bn SBB approved

**Sprint transaction meets our key objectives**
- Supercharge the Uncarrier & transform TMUS to a 5G leader
- Retain significant exposure to attractive US market
- Create value via tremendous synergy potential
- Effective governance
- “No cash leaving the system”
- Compelling capital allocation policy in place as Plan B
- Improved strategic position for future M&A (buyer or seller)

**SIGNIFICANT INVESTMENT PROGRAM**
- Uncarrier strategy
- $15 bn Spectrum acquisitions
- Network investments

**SELF-SUPPORTED SCALE**
- Break Fee ($3 bn cash; Spectrum)
- Tower Sale $2.5 bn
- MetroPCS reverse merger

**SHRINKING BUSINESS**
- Worst mobile network in US/loosing customers
- TMUS as biggest overhang on DT stock

2009–2010
- Shrinking business
  - Worst mobile network in US/loosing customers
  - TMUS as biggest overhang on DT stock

2013–2017
- Significant investment program
  - Uncarrier strategy
  - $15 bn Spectrum acquisitions
  - Network investments

2011–2013
- Self-supported scale
  - Break Fee ($3 bn cash; Spectrum)
  - Tower Sale $2.5 bn
  - MetroPCS reverse merger

TODAY
- Today
### Improved relative position

<table>
<thead>
<tr>
<th></th>
<th>Apr. 2014</th>
<th>Apr. 2018 (pre-leak)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Caps $1</td>
<td>$24 bn</td>
<td>$34 bn</td>
</tr>
<tr>
<td></td>
<td>$51 bn</td>
<td>$21 bn</td>
</tr>
</tbody>
</table>

### From sub-scale to long-term sustainable competitor

#### Spectrum position $^2$

- **Mhz**: 31% for TMUS and 69% for Sprint

#### Branded subscribers Q1/18

- 101 mn for TMUS, 93 mn for Sprint, and 116 mn for NewCo

#### Market capitalization

- **DT ownership NewCo**:
  - Apr. 2014: 72% DT, 28% Proxy
  - Apr. 2018 (pre-leak): 55% DT, 45% Proxy

- **Market Cap**:
  - Pre-leak: $72 bn for TMUS, $194 bn for NewCo, and $216 bn for NewCo

---

1. Sprint Market Cap based on share price of $5.14 and basic shares outstanding (BSO) of 4,004 mn; TMUS Market Cap based on share price of $63.09 and basic shares outstanding (BSO) of 849 mn
2. Microwave spectrum not included
TMNL: TURNAROUND IN MOTION BUT STILL LONG WAY TO GO

Key measures and initial results

- New management team, steering model and unique incentive scheme
- New market approach/“Unlimited”
- Aggressive cost cutting: -30% overhead FTE¹
- De-risked “Unlimited” via network capacity expansion
- Acquired fixed capabilities and initiated Towers carve-out
- Won “Best Network” 2017 & 2018
- Net Adds/Revenue improving/won last 6 quarters
- Attacking the Duopoly with Unlimited/Family plan

Stabilization despite regulatory headwinds

- Quarterly Net Adds
- Service Revenue YoY Change (%)
- EBITDA adj.

¹ Non-customer-facing staff
² Adjusted for MTR (Mobile Termination Rate) and roam-like-home impact
TMNL: DUTCH MARKET NEEDS LONG-TERM VIABLE MAVERICK

Unique characteristics of Dutch telco market

- Two players with >90% fixed BB coverage
- Low mobile-data consumption
- Toughest net neutrality rules in Europe
- High fixed wholesale-access pricing

Fixed + mobile EBITDA market shares¹

<table>
<thead>
<tr>
<th>Brand</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tele2</td>
<td>1%</td>
</tr>
<tr>
<td>T-Mobile</td>
<td>9%</td>
</tr>
<tr>
<td>KPN</td>
<td>52%</td>
</tr>
<tr>
<td>Vodafone</td>
<td>38%</td>
</tr>
</tbody>
</table>

¹ 2017 Actual

TMNL value creation plan

Continue turnaround execution

- “Unlimited” customer champion
- Mobile network leader
- Lowest structural cost in the market

Tele2 acquisition

- 2-to-3 FMC merger
- €1 bn synergies
- Cash “stays in the system”
- Towers stay with DT

Long-term sustainable “unlimited maverick”
DFMG: GREAT ASSET BASE TO START FROM

Key strengths of DMFG

1. #1 German tower operator
2. Structural growth opportunity in Germany
3. Best-in-class sites portfolio
4. Comprehensive & state-of-the-art IT
5. Significant optimization potential and growth upside

Key facts 2017A

- Revenues: €864 mn
- EBITDA adj.: €510 mn
- Margin: 59%
- No. of sites: 28 k
- Tenancy ratio: 1.5x
- FTEs: 670
- Masts & Towers: 2.3x

1 Including c. 3k resell sites; partially (but not solely) rented by TDG

EBITDA adj.

- No. of sites
- Tenancy ratio
- FTEs

€864 mn
$510 mn
60%
9
28 k
1.5x
2.3x
670

#1 German tower operator
Structural growth opportunity in Germany
Best-in-class sites portfolio
Comprehensive & state-of-the-art IT
Significant optimization potential and growth upside
**DFMG: OPERATES IN A VERY ATTRACTIVE MARKET**

**Structural value drivers**

- **5G Small cells**
- **No regulation**
- **Growth drivers**
  - Small Cells
  - 5G/IoT
  - White spots
  - Tenancy ratio

**Mobile Data traffic growth**

- **28k**
- **25k**
- **28k**
- **53k**

<table>
<thead>
<tr>
<th>Deutsche Funkturm</th>
<th>TELITUS</th>
<th>INWIT</th>
<th>ARQIVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sites</td>
<td>28k</td>
<td>27k</td>
<td>16k</td>
</tr>
</tbody>
</table>

**DT/DFMG with high growth and value upside**

- **EV/EBITDA FY**
  - **≈ 12x**
  - **18x**

- **2021e**
- **DFMG SOTP today**
  - **≈ €6 bn**
  - **€9 bn**

**European TowerCo industry still fragmented**

- **Number of sites**
- **28k**
- **27k**
- **16k**
- **11k**
- **11k**

**Compared to US market leader**

- **150**

Source: Company reports, CapitalIQ; ¹ Including c. 3k resell sites; partially (but not solely) rented by TDG ² 2017 Actuals owned sites only ³ Implied based on broker SOTP average ⁴ Based on average Cellnex + INWIT multiples
DFMG: EVOLUTION TOWARDS FULL-SERVICE TOWER CO

**DFMG 1.0**
- Workbench for TDG
- Cost center governance and culture

**DFMG 2.0**
- New management and organizational structure
- Arm’s-length MLA\(^1\) with TDG – Capex becomes Opex
- Independent mandate and mindset
- Focus on asset utilization – new MLA with VOD, TEF under negotiation
- DTCP Sunrise tower co-invest with Cellnex

**FULL-SERVICE TOWERCO**
- Expand product and service portfolio:
  - Macro cells (+9k)
  - Small cells
  - 5G/IoT
  - e-mobility infrastructure
  - Lean, highly digitized operating model
- Creating a European TowerCo by insourcing tower assets NL, AT, ...

\(^1\) Master Lease Agreement

**Timeline**
- Until 2016
- 2017–2018
- 2021
DTCP: MORE THAN DT’S VENTURE CAPITAL ARM

ESTABLISHED SUCCESSFUL TRACK RECORD TO ATTRACT EXTERNAL CAPITAL
- Set up of new fund platform open for external investors to build scale

STRONG COLLABORATION WITH DT TO COMBINE BEST OF BOTH WORLDS
- Investment focus in areas that are or might become relevant for DTAG
- Investments can benefit from strong access to DTAG either as a customer or as a channel partner to generate synergy

AUTONOMOUS GROUP WITH MARKET STANDARD VC/PE INCENTIVE SCHEME
- “Share the gain/share the pain”

INVESTMENT MANAGEMENT GROUP OF DEUTSCHE TELEKOM
- €250 mn Venture Capital
- €200 mn Special Situations
- Active asset management & Advisory
- 35 Deals/5 exits @ 2.4 times money
- Cellnex co-invest into Sunrise towers
- TIP

- DtcP: more than Dt’s venture capital arm
- Established successful track record to attract external capital
- Set up of new fund platform open for external investors to build scale
- Strong collaboration with DT to combine best of both worlds
- “Share the gain/share the pain”
- Autonomous group with market standard VC/PE incentive scheme
- Investment focus in areas that are or might become relevant for DTAG
- Investments can benefit from strong access to DTAG either as a customer or as a channel partner to generate synergy
- Investment management group of Deutsche Telekom
- €250 mn Venture Capital
- €200 mn Special Situations
- Active asset management & Advisory
- 35 Deals/5 exits @ 2.4 times money
- Cellnex co-invest into Sunrise towers
- TIP
FINANCIAL OUTLOOK
FINANCIAL OUTLOOK GROUP DEVELOPMENT

Revenues

- **€ bn**

  - CAGR +3%
  - 2017: 2.3
  - 2021e: 2.3

Cash Contribution

- **€ bn**

  - CAGR +3%
  - 2017: 0.9
  - 2021e: 0.6

- CAGR -4%
- 2017: 0.9
- 2021e: 0.6

Cash Capex

- **€ bn**

  - Flat
  - 2017: 0.3
  - 2021e: 0.3

Special factors (Cash)

- **€ bn**

  - 2017: 0.1
  - 2021e: 0.1

**Notes:**

1. Cash Contribution = Adj. EBITDA – Cash Capex – Special factors (Cash)
2. Excl. Cash Contribution impact of DFMG roll-out plan
3. Excl. = €0.5–0.6 bn cumulative roll-out Capex 2018-2021e

**CAGR:**

- +3% (Excl. DFMG site-rollback)
- +3% (Excl. DFMG site-rollback)
- -4%
MIDTERM AMBITION LEVEL
WE DRIVE ASSET VALUES

- Secure deal approval to tap US$43+ bn synergy upside
- Attractive stand-alone prospects and capital allocation policy as plan B

Secure deal approval to tap US$43+ bn synergy upside
FMC market leader in second largest EU economy
Trades at significant discount to market

FMC market leader in second largest EU economy
Trades at significant discount to market

Continued turnaround & transformation to lowest structural costs
Secure T2 deal approval to establish long term viable maverick

Continued turnaround & transformation to lowest structural costs
Secure T2 deal approval to establish long term viable maverick

Crystallize intrinsic value
Capture secular growth opportunity
Build leading EU TowerCo

Crystallize intrinsic value
Capture secular growth opportunity
Build leading EU TowerCo

Grow assets under management
Raise external capital to build scale

Grow assets under management
Raise external capital to build scale

$32 bn

£2.5 bn

€2 bn+

≈ €6 bn

€1 bn

1 DT share in TMUS market cap (May, 15th)

KEY MESSAGES

01 LEADING GROWTH IN KEY FINANCIAL METRICS
We expect growth for all our businesses driven by both better revenue momentum, and increased cost reductions. Ex US EBITDA growth to average 2–3% through 2021

02 DELIVER COST TARGETS
Our cost targets are based on All-IP, automation, and greater agility. Headcount reductions in the German footprint are largely secured through active measures and demographics

03 STABLE HIGH EX US INVEST
We invest to make our growth sustainable in the longer term. Ex US capex to peak in 2018

04 DEBT POLICY UNCHANGED
We maintain undisputed access to credit markets

05 SHAREHOLDERS RETURNS
For 2018 we propose a dividend of €0.70. From 2018 the dividend will reflect growth in adjusted EPS. We will consider buybacks of DT and TMUS stock if excess cash is available

06 EXECUTE US TRANSACTION
Huge value creation opportunity. We supercharge DT’s growth profile. Expected accretive after 3 years
REVIEW 2014 – 2018
FINANCE STRATEGY ACHIEVEMENTS 2014–2018

**Equity**

- Reliable shareholder remuneration policy
  - DIVIDEND\(^1\)
    - Following FCF growth
    - Floor at €0.50 per share
    - Attractive option: Dividend in kind

**Strategy leading European telco**

- INTEGRATED IP NETWORKS
- BEST CUSTOMER EXPERIENCE
- WIN WITH PARTNERS
- LEAD IN BUSINESS

**ROCE > WACC**

1. **INFRASTRUCTURE TRANSFORMATION**
   - Support fast IP migration and transform network infrastructure

2. **COST TRANSFORMATION**
   - Reduce indirect cost\(^1\)

3. **PORTFOLIO MANAGEMENT**
   - Deliver on preferred business model (integrated + B2C/B2B) and value generation

4. **RISK MANAGEMENT**
   - Maintain low risk country portfolio

**Debt**

- Undisputed access to debt capital markets
  - RATING A-/BBB
  - NET DEBT/ADJ. EBITDA 2–2.5x
  - EQUITY RATIO 25–35%
  - LIQUIDITY RESERVE covers maturities of coming 24 months

---

\(^1\) Subject to necessary AGM approval and board resolution
DELIVERING VALUE...

Revenue

€ bn

2014 2017 2018e

67.1 74.9

+4% +1–2% CAGR 2014–2018

Adj. EBITDA

€ bn

2014 2017 2018e

18.9 22.2 23.3

+6% +2–4% CAGR 2014–2018

ROCE > WACC

5.5% 5.8%

4.0%1 5.3%2

WACC

2014 2017 2018e

Cash Capex

€ bn

2014 2017 2018e

10.1 12.1 12.5

+6% +1–2% CAGR 2014–2018

Special factors (EBITDA)

€ bn

20141 20173 2018e

1.8 0.9 €1.3 bn in 2018

1 Excl. effects from 70% Scout disposal and Verizon 4.0 spectrum
2 Excl. effects from reversal of US spectrum impairment, Strato disposal, 9% Scout disposal, BT compensation payment, Impairment T-Systems and Impairment Poland/Romania
3 Excl. effects from reversal of US spectrum impairment, Strato disposal, 9% Scout disposal and BT compensation payment.

All figures based on a constant exchange rate of €1 = US$1.13 (except ROCE); Revenue and EBITDA adj. figures are corrected for handset lease.

GROUP STRATEGY  GERMANY  SYSTEMS SOLUTIONS  TECHNOLOGY & INNOVATION  T-MOBILE US  EUROPE  GROUP DEVELOPMENT  FINANCE
...WHILE INVESTING INTO FUTURE GROWTH

**Cash Capex**

<table>
<thead>
<tr>
<th></th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>10.1</td>
</tr>
<tr>
<td>Ex US</td>
<td>6.3</td>
</tr>
<tr>
<td>2014(^1)</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>7.9</td>
</tr>
<tr>
<td>2018e</td>
<td>4.6</td>
</tr>
</tbody>
</table>

- **US & Europe**: Investments in mobile network leadership
- **Ex US**: Investments in fiber deployments and IP migration

**Spectrum**

<table>
<thead>
<tr>
<th></th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>11.1</td>
</tr>
<tr>
<td>Ex US</td>
<td>2.7</td>
</tr>
<tr>
<td>2015–2017 cumulative spend, € bn</td>
<td></td>
</tr>
</tbody>
</table>

- **TMUS now has 40 MHz low-band**
- **US spectrum is a lifetime asset**

**Further investments...**

- **...in customer growth**
  - Growth leader in US mobile and ex US mobile
  - Low-band roll-out of \(\approx 0.3\) bn in 2018

- **...in transformation**
  - \(\approx 0.4\) bn IP migration opex in 2018

- **...in innovation, e.g.**
  - IoT €0.1 bn
  - Layer 3 TV €0.1 bn

1 Based on a constant exchange rate of €1 = US$1.13
DELIVERING FREE CASH FLOW AND DIVIDEND GROWTH

Free Cash Flow DT group\(^1\)

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018e(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>4.1</td>
<td>4.5</td>
<td>4.9</td>
<td>5.5</td>
<td>6.2</td>
</tr>
</tbody>
</table>

+11% CAGR

Dividends following FCF growth

€

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018e(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.50</td>
<td>0.55</td>
<td>0.60</td>
<td>0.65</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Minimum €0.50

Relative TSR since last CMD

%\(^1\)

Telco Sector

<table>
<thead>
<tr>
<th>Year</th>
<th>Feb '15</th>
<th>May '18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>+14%</td>
</tr>
</tbody>
</table>

1 Before spectrum investment  
2 Based on a constant exchange rate of €1 = US$1.13  
3 Subject to necessary AGM approval and board resolution
### CMD 2015 COMMITMENTS: WELL ACHIEVED

<table>
<thead>
<tr>
<th>Ambition level 2018</th>
<th>Achievements 2017</th>
<th>Delivered/on track</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Group Revenue CAGR +1–2% (2014–2018)</td>
<td>- +4% CAGR (2014–2017)</td>
<td>1</td>
</tr>
<tr>
<td>- Group ROCE &gt; WACC in 2018</td>
<td>- ROCE &gt; WACC in 2017</td>
<td></td>
</tr>
<tr>
<td>- Group Adj. OPEX decrease (2014–2018)</td>
<td>- €0.7 bn indirect cost decrease vs. 2014</td>
<td></td>
</tr>
<tr>
<td>- Following FCF growth; min. DPS of €0.50 p.a.</td>
<td>- €0.65</td>
<td></td>
</tr>
</tbody>
</table>

1 Compared to target of €1.8 bn

### SHAREHOLDER REMUNERATION (2015–2018)

- Following FCF growth; min. DPS of €0.50 p.a.
10% FCF growth to continue, driven by both US and ex US

DT FCF in non US deal scenario

€ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>Ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>5.5</td>
<td>3.3</td>
</tr>
<tr>
<td>2018e</td>
<td>6.2</td>
<td>≈ 3.0</td>
</tr>
<tr>
<td>2021e</td>
<td>&gt;8.0</td>
<td>≈ 4.0</td>
</tr>
</tbody>
</table>

+10% CAGR

- Adj. EBITDA growth
- Improving balance sheet
- Ongoing tax benefits
- Adj. EBITDA growth
- Stable Cash Capex (2021 vs. 2017)
- Declining Special factors

2014–2021 FCF CAGR of 10%
EX US EBITDA HAS TURNED AROUND AND IS GROWING

### Guidance

<table>
<thead>
<tr>
<th>Region</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>2–2.5%</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Europe</td>
<td>1–2%</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>GD</td>
<td>≈ 3–4%</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>TSI</td>
<td>≈ 5%</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>DT ex US</td>
<td>≈ 2–3%</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

- ✔ EBITDA growth

### Ex US EBITDA²

<table>
<thead>
<tr>
<th>Year</th>
<th>Service revenues</th>
<th>€ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
<td>13.2</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>12.8</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>12.9</td>
</tr>
<tr>
<td>2018e</td>
<td></td>
<td>13.2</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- -1.3% CAGR
- 2–3% CAGR

---

¹ Pre-accounting effects  
² Pro forma figures, adjusted for M&A
OUR EX US CAPEX PEAKS IN 2018

**Cash Capex ex US**

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Capex (€ bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>6.3</td>
</tr>
<tr>
<td>2017</td>
<td>7.5</td>
</tr>
<tr>
<td>2018e</td>
<td>7.9</td>
</tr>
<tr>
<td>2021e</td>
<td>Stable outlook ≈ 7.6</td>
</tr>
</tbody>
</table>

**Drivers**

- Invest in fiber/IP migration
- TSI with ca. 0.2 bn one-off spends in 2018
- 2018 vs. 2017 increase also reflects greater tower spend (€0.1 bn)
TARGETING €1.5 BN OF NET INDIRECT COST REDuctions EX US

Net indirect cost reduction & composition of savings

€ bn (ex US)

<table>
<thead>
<tr>
<th>2017</th>
<th>2021 e</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.5</td>
<td>17.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>2017</th>
<th>2021 e</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Workforce Costs</td>
<td>0.5</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>External Workforce Costs</td>
<td>0.3</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-Headcount OPEX, e.g.1</td>
<td>0.7</td>
<td>0.7</td>
<td>0.0</td>
</tr>
</tbody>
</table>

1 Gross savings

Across all segments

- DEUTSCHLAND: -€0.8 bn
- EUROPE: -€0.4 bn
- SYSTEMS SOLUTIONS: -€0.1 bn
- GHS: -€0.2 bn

(Gross savings

17.0 = €1.5 bn
18.5 - 17.0 = €1.5 bn

- Internal Workforce Costs: by automation & operational excellence: gross reduction of ≈ 13 k FTEs already secured by YE 2018
- External Workforce Costs: by automation & operational excellence: high flexibility due to total base of 10k FTEs German labour force
- Non-Headcount OPEX, e.g.1:
  - ≈ €0.2–0.3 bn real estate
  - ≈ €0.3 bn platform retirements
  - ≈ €0.1–0.2 bn shared services savings
  - ≈ €0.2 bn procurement improvements
GHS TO SUPPORT SEGMENT COST SAVINGS

**Lower real estate cost**

- € bn: 0.2–0.3
- Savings 2017–2021e
- Savings enabled by desk sharing, standardization & modularization:
  - Reduce vacancies by 50%
  - 20% less office & technical space
  - Reduced facility management costs

**Efficient shared services**

- € bn: 0.1–0.2
- Savings 2017–2021e
- €0.1 bn savings already delivered since CMD 2015, further measures planned, e.g.:
  - Near Shoring and reducing locations (95 to 5)
  - Further reduce demand & OPEX by > €0.1 bn through simplification & automation
  - Standardization level of one.ERP > 85%

**Reducing purchasing costs**

- € bn: 0.2
- Savings 2017–2021e
- Innovative sourcing approaches will reduce external spend supported by BuyIn:
  - Optimize technology maintenance costs by 10% through stronger harmonization
  - Apply new commercial model to reduce media spend by > 10%
  - Up to 20% reduction of rates for Data Center facilities

---

1 Gross savings
CENTRAL PROGRAM (FIT4FUTURE) IMPROVES CUSTOMER EXPERIENCE AND SUPPORTS COST SAVINGS

Approach

Group-wide program
- Driven by all Board members personally
- Leveraging cross-segment experience and capacity
- Focus on implementation

Goals & benefits

PUSH CUSTOMER EXPERIENCE

REDUCE INDIRECT COSTS BY €1.5 BN

Key levers supporting segment initiatives

SIMPLIFY

OPERATIONAL EXCELLENCE
Smart & lean processes accelerated with robotic process automation

PRODUCT SIMPLIFICATION
Simple products, smart customer processes & next generation IT

AGILE & FUTURE-PROOF ORGANIZATION
Simplified & reduced overhead structure

DIGITAL CUSTOMER TOUCHPOINTS
One user-friendly app & web interface centrally developed for all customer interactions

ZERO DEFECT SERVICE
Predictive servicing and maintenance

DATA-DRIVEN NETWORK ROLLOUT
Return maximizing network rollout based on big data & artificial intelligence

ADVANCED ANALYTICS & DATA GOVERNANCE
Next level analytics skills, data architecture & governance to leverage scalability
Demographics to Increasingly Support Cost Savings

### Personnel Special Factors (Cash) ex US

<table>
<thead>
<tr>
<th>Year</th>
<th>Personnel Special Factors (Cash) ex US</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.0 € bn</td>
</tr>
<tr>
<td>2018e</td>
<td>1.1–1.2 € bn</td>
</tr>
<tr>
<td>2021e</td>
<td>0.8–0.9 € bn</td>
</tr>
<tr>
<td>2025e</td>
<td>≈ 0.5 € bn</td>
</tr>
</tbody>
</table>

- ≈ 10 k FTEs off payroll 2020–2025 already secured
- Natural attrition region Germany from 1% in early 2020s up to 4% Eo2020s

### Pension cash-outs ex US decreasing

<table>
<thead>
<tr>
<th>Year</th>
<th>Pension cash-outs ex US decreasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0.9 € bn</td>
</tr>
<tr>
<td>2017</td>
<td>0.8 € bn</td>
</tr>
<tr>
<td>2019e</td>
<td>0.6 € bn</td>
</tr>
<tr>
<td>2021e</td>
<td>0.5 € bn</td>
</tr>
<tr>
<td>2025e</td>
<td>0.5 € bn</td>
</tr>
</tbody>
</table>

- Payments for the civil servant pensions to decrease over time
- No volatility expected as number of civil servants is decreasing (no new hires) and contribution is fixed
STABLE INTEREST COSTS AND REDUCED TAX RATE PAY INTO 20% ADJ. EPS GROWTH

**Interest costs**

<table>
<thead>
<tr>
<th>Year</th>
<th>Interest Costs (€ bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2.5</td>
</tr>
<tr>
<td>2018e</td>
<td>2.0</td>
</tr>
<tr>
<td>2021e</td>
<td>2.0</td>
</tr>
</tbody>
</table>

- €15 bn refinanced since September 2016

**Group tax rate**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tax Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>34</td>
</tr>
<tr>
<td>2018e</td>
<td>27</td>
</tr>
<tr>
<td>2021e</td>
<td>27</td>
</tr>
</tbody>
</table>

- US tax rate down from 39% to 26%

**Adjusted EPS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Adjusted EPS (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017²</td>
<td>0.9</td>
</tr>
<tr>
<td>2018e</td>
<td>1.0</td>
</tr>
<tr>
<td>2021e</td>
<td>1.2</td>
</tr>
</tbody>
</table>

- Unadjusted EPS to exceed €1 by 2021
- Lower growth vs. FCF reflects (US) minorities
- Share purchases potentially accretive

---

1. Cash
2. Reported: €1.28 due to US tax gain
DEBT – DT REMAINS ANCHOR OF STABILITY

EBITDA generated in countries rated:

- 85% of EBITDA: AAA/AA+
- 5% of EBITDA: AA up to BBB-
- 10% of EBITDA: BB+ or below

Stable rating

BBB+  Baa1  BBB+
2009 → 2017

Solid country profile

Low CDS (5Y)

Balanced maturity profile

Undisputed access to debt capital markets
Rating: A-/BBB  Net debt/adj. EBITDA: 2.0–2.5x
Equity ratio: 25–35%  Liquidity reserve: covers maturities of next 24 months

Debt policy remains unchanged
OVERVIEW FINANCIAL STRATEGY

**Equity**
- **Dividend**: €0.70 in 2018 (paid in 2019)
- Thereafter, dividend will reflect growth in adjusted EPS
- Floor remains at €0.50 per share
- **Buy backs**: To be considered
- DTAG shares or TMUS stake increase

**Leading European Telco – ROCE > WACC**
- **Grow**
  - Lead in Customer Experience
  - Lead in Technology
  - Lead in Business Productivity
- **Save for Growth Investments**
- **Simplify, Digitalize, Accelerate**

**Debt**
- Undisputed access to debt capital markets
  - **Rating**: A-/BBB
  - **Net Debt/Adj. EBITDA**: 2~2.5x
  - **Equity Ratio**: 25~35%
  - **Liquidity Reserve**: covers maturities of coming 24 months

1 Subject to necessary AGM approval and board resolution
2 Not relevant for first 3 years in US deal scenario
3 Only a short departure from comfort zone in US deal scenario
4 Adj. EPS 2018 as starting point
BOOSTING DEUTSCHE TELEKOM’S FINANCIAL PROFILE...

Supercharging the Un-Carrier

Acceleration:

- T-Mobile US Free Cash Flow growth
  - $bn
  - 1-2
  - 10-11
  - 16-18
  - 2019e, 3-4 years, Longer term

EPS accretive from year 3 for Deutsche Telekom

5G LEADERSHIP

Boosting Deutsche Telekom’s financial profile

Deutsche Telekom ex-U.S. investment and growth unaffected

1 Defined as Cash Flow from Operations less Capital Expenditures
2 Assumption: closure date Jan. 1st, 2019
Only a short departure from our “Comfort zone”

Deutsche Telekom Group Net Debt/Adj. EBITDA

<table>
<thead>
<tr>
<th>Year</th>
<th>Rating</th>
<th>Expected Debt/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>BBB/ Stable S&amp;P</td>
<td>2.3x</td>
</tr>
<tr>
<td>2018e</td>
<td>Baa1/ Negative Moody’s</td>
<td>2.5x</td>
</tr>
<tr>
<td>2019e</td>
<td></td>
<td>≤ 2.5x</td>
</tr>
<tr>
<td>2020e</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021e</td>
<td>BBB+/ Stable Fitch</td>
<td></td>
</tr>
</tbody>
</table>

Phasing out parental funding

Deutsche Telekom Parental Funding to T-Mobile US, $ bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Funding</th>
<th>Expected Debt/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Parental Funding</td>
<td>14.6</td>
</tr>
<tr>
<td>2021e</td>
<td>New T-Mobile US</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Expected Not to be renewed @ maturities

T-MOBILE US STRICTLY STANDALONE FUNDING GOING FORWARD
FINANCIAL OUTLOOK
FINANCIAL OUTLOOK

Revenue growth

€ bn

CAGR +1–2%

74.9

2017

2021e

Adj. EBITDA

€ bn

CAGR +2–4%

22.2

2017

2021e

Free Cash Flow\(^1\)

€ bn

CAGR ≈ +10%

5.5

2017

2021e

Cash Capex\(^2\)

€ bn

12.1

2017

2021e

Special factors (Cash)

€ bn

1.5

2017

≈ 1.0

2021e

\(^1\) Free Cash Flow before dividend payments and spectrum payments

\(^2\) Cash Capex ex US expected to be stable
MID TERM AMBITION LEVEL
### MID TERM AMBITION LEVEL

<table>
<thead>
<tr>
<th>GROUP REVENUES</th>
<th>Year</th>
<th>Implications of US deal²</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR +1–2%</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>CAGR +2–4%</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUP ADJ. EBITDA</th>
<th>Year</th>
<th>Implications of US deal²</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR ≈ +10%</td>
<td>2017–2021e</td>
<td>Slightly dilutive in 2021e &amp; accretive in 2022e</td>
</tr>
<tr>
<td>≈ €1.20</td>
<td>2021e</td>
<td>Slightly dilutive in 2021e &amp; accretive in 2022e</td>
</tr>
<tr>
<td>ROCE &gt; WACC</td>
<td>2021e</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUP CASH CAPEX</th>
<th>Year</th>
<th>Implications of US deal²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex US stable</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Ex US -€1.5 bn</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GROUP INDIRECT OPEX</th>
<th>Year</th>
<th>Implications of US deal²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividend will reflect growth in adjusted EPS. Floor remains at €0.50 per share</td>
<td>2017–2021e</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

---

¹ Based on constant exchange rates (Average exchange rate 2017 of € 1 = US$1.13) and no further changes in the scope of consolidation. ² Assumption: closure date Jan. 1st, 2019. ³ Subject to necessary AGM approval and board resolution. 2018 dividend target of €0.70 per share. Share buy backs to be considered, but not relevant for first 3 years in US deal scenario.