



# FCF SmallCap / MidCap Research Series

FCF TMT Market Study

*TMT (Technology, Media & Telecommunications)*

Last Update: October 2023

**FCF FOX CORPORATE  
FINANCE**



FCF seeks to provide its clients with financing solutions

- (i) at the lowest cost,
- (ii) with the highest flexibility,
- (iii) in the shortest period of time,
- (iv) with the highest closing probability, and with
- (v) financing partners that integrate well into their strategy

## Who We Are

- Specialized Investment Bank and Financing Specialist
- Advising public and private small- / midcap companies
- Advisor for structuring and placement of financing transactions:
  - All instruments: Unbiased approach to all available corporate financing instruments (no product selling approach), allowing for customized financing structures
  - All investors: Close and trusted relationships with senior executives of virtually all relevant equity and debt investors
  - Fast process: Process management skills and direct / personal access to institutional debt and equity investors enable fast transactions
- More than 150 transactions with a total placement volume in excess of EUR 5.0 billion since foundation in 2005
- More than 15 professionals headquartered in Munich

## Capital Markets Capabilities and Services

Equity	Private / Pre-IPO	<ul style="list-style-type: none"> <li>■ Venture capital</li> <li>■ Growth capital</li> </ul>	<ul style="list-style-type: none"> <li>■ Private equity</li> </ul>
	Public	<ul style="list-style-type: none"> <li>■ Initial Public Offering (IPO) / Capital increase</li> <li>■ Dual-track (IPO and alternative transaction)</li> </ul>	<ul style="list-style-type: none"> <li>■ pursued in tandem</li> <li>■ Private investment in Public Equity (PIPE)</li> <li>■ Block trade</li> </ul>
Debt	Short-term Debt	<ul style="list-style-type: none"> <li>■ Receivables / Factoring / Asset-backed securities</li> <li>■ Borrowing base / Inventory</li> </ul>	<ul style="list-style-type: none"> <li>■ Working capital / Revolving credit facility</li> <li>■ Guarantees / Letter of credit</li> </ul>
	Long-term Debt	<ul style="list-style-type: none"> <li>■ Bank loan facility / Syndicated loans</li> <li>■ Sale-and-lease-back / Leasing</li> <li>■ Corporate bonds (public / private placement)</li> <li>■ High yield / PIK bond</li> </ul>	<ul style="list-style-type: none"> <li>■ Promissory note (<i>Schuldscheindarlehen</i>)</li> <li>■ Second lien / Subordinated loans</li> <li>■ Venture debt</li> <li>■ Unitranches</li> </ul>
	Hybrid	<ul style="list-style-type: none"> <li>■ Mezzanine capital</li> </ul>	<ul style="list-style-type: none"> <li>■ Convertible bonds</li> </ul>

## Selected Transactions

<p>European Investment Bank Debt Facility</p> <p>In Ovo B.V.</p> <p>EUR 40m</p> <p>August 2023</p>	<p>Debt Facility</p> <p>JORA Holding GmbH &amp; Co. KG</p> <p>~ EUR 30m</p> <p>June 2023</p>	<p>Acquisition Loan Facility</p> <p>KKA Management GmbH</p> <p>EUR 20m</p> <p>May 2023</p>	<p>Capital Increase</p> <p>aerofolls GmbH</p> <p>[confidential]</p> <p>March 2023</p>	<p>M&amp;A (Sell-Side)</p> <p>Energieinsel</p> <p>[confidential]</p> <p>March 2023</p>	<p>M&amp;A (Sell-Side)</p> <p>PMG Projekttraum Management GmbH</p> <p>[confidential]</p> <p>March 2023</p>	<p>M&amp;A (Sell-Side)</p> <p>SER / RUZ Group</p> <p>[confidential]</p> <p>February 2023</p>	<p>European Investment Bank Debt Facility</p> <p>German Bionic Systems GmbH</p> <p>EUR 15m</p> <p>December 2022</p>	<p>Financial Advisory</p> <p>Mitteldeutsche Flughafen AG</p> <p>[confidential]</p> <p>December 2022</p>	<p>Syndicated Loan</p> <p>ante Holding GmbH &amp; Co. KG</p> <p>[confidential]</p> <p>December 2022</p>	<p>Working Capital Facility</p> <p>CHO-Time Group</p> <p>EUR 7m</p> <p>November 2022</p>	<p>Software-Leasing Facility</p> <p>Leading Global Device-as-a-Service Company</p> <p>EUR 10m</p> <p>October 2022</p>
<p>Interest Rate Hedging</p> <p>Mitteldeutsche Flughafen AG</p> <p>EUR 150m</p> <p>October 2022</p>	<p>European Investment Bank Debt Facility</p> <p>Evum Motors GmbH</p> <p>&gt; EUR 12m</p> <p>September 2022</p>	<p>Factoring Facility</p> <p>JORA Holding GmbH &amp; Co. KG</p> <p>EUR 25m</p> <p>September 2022</p>	<p>Equity Transaction – Joint Venture with Family Office</p> <p>Doppstadt Group</p> <p>&gt; EUR 50m</p> <p>September 2022</p>	<p>Acquisition Loan and Working Capital Facility</p> <p>Bencis</p> <p>&gt; EUR 20m</p> <p>May 2022</p>	<p>Acquisition Loan Facility</p> <p>Lloyd Fonds AG</p> <p>[confidential]</p> <p>April 2022</p>	<p>European Investment Bank Debt Facility</p> <p>numares AG</p> <p>EUR 20m</p> <p>February 2022</p>	<p>Syndicated Loan</p> <p>Schnellecke Logistics SE</p> <p>EUR 70m</p> <p>December 2021</p>	<p>Syndicated Loan</p> <p>KWD Automotive AG &amp; Co. KG</p> <p>EUR 70m</p> <p>December 2021</p>	<p>Syndicated Loan</p> <p>[confidential]</p> <p>Top 25 Pharmaceutical Company</p> <p>EUR 80m</p> <p>November 2021</p>	<p>Syndicated Loan, Factoring, Real Estate Sale &amp; Lease-Back</p> <p>[confidential]</p> <p>Top 10 German Food Company</p> <p>EUR 85m</p> <p>October 2021</p>	<p>Syndicated Loan</p> <p>Ziegler Holzindustrie GmbH &amp; Co. KG</p> <p>EUR 230m</p> <p>August 2021</p>



**# 1**

financing advisor in Germany, purely focusing on corporate financing transactions



More than  
**15**

investment banking professionals



More than  
**100**

years of aggregated, investment banking / financing experience



More than  
**150**

completed transactions



More than  
**5 bn**

total volume of advised & closed transactions since 2005



**Network**

access to more than 4000 international financial institutions



**2000**

contacts to family offices and ultra-high-net-worth individuals worldwide



More than  
**25**

international conferences organized



More than  
**150**

articles and research papers published



**Leading**

advisor for financing transactions with EIB in the DACH region



**Kai Frömert**

*Managing Director*

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**Kai Frömert** is a Managing Director in FCF's Corporate Finance Team. He joined FCF with a focus on debt capital markets.

Kai studied business economics in Frankfurt (D) and San Diego (USA) and holds a Diplom-Betriebswirt (FH) degree from HfB-Hochschule für Bankwirtschaft / Frankfurt School of Finance & Management. Prior to joining FCF, Kai gained more than 10 years of debt capital markets experience while working for the Markets & Investment Banking division of UniCredit and HypoVereinsbank as well as a further two years within the investment banking arm of Bank Vontobel. During the last 10 years, Kai focused on capital markets based corporate finance and project finance transactions, especially in the infrastructure and energy sectors.



**Marcel Lange**

*Managing Director*

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**Marcel Lange** joined FCF in April 2016 and is responsible for the SmallCap & Growth division.

Prior to joining FCF, he worked as an Associate Leveraged Finance at HSH Nordbank (today Hamburg Commercial Bank) since 2013. Marcel Lange completed his Bachelor's degree in Business Administration at the HSBA Hamburg School of Business Administration. During his studies he completed a trainee program in HSH Nordbank's Corporate Clients division and successfully completed his apprenticeship as a banker at the Hamburg Chamber of Commerce.



**Tristan Blümli**

*Vice President*

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**Tristan Blümli** joined FCF in September 2016, supporting the team in equity and debt financing transactions.

Tristan received his Master of Arts in Economics and Finance from Heriot-Watt University and his Master of Science in Finance and Management from Cranfield School of Management. During his studies, he completed a series of internships, most recently with Morgan Stanley.



**Marco Buonafede**

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**Marco Buonafede-Bennardo** joined FCF as an analyst in January 2019 and supports the team in equity and debt advisory transactions.

Marco graduated with a bachelor's degree in business administration from the LMU in Munich. His major study focus was on accounting and finance. After his bachelor studies, he completed an internship at PwC AG in Munich in the audit service line. Marco gained also first working experience in corporate finance at ACXIT Capital Partners in Frankfurt am Main. Later, he received his master's degree in Finance & Management from the University of St. Andrews in Scotland.



**Yasmin Herrmann**  
*Vice President*

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**Yasmin Herrmann** joined FCF in January 2019 and is responsible for the execution of equity and debt financing transactions in FCF's SmallCap & Growth team.

Yasmin graduated from the ISM in Dortmund with a BA in Management. Thereupon, she pursued her Master's Degree of Finance (MSc), with a specialization in Corporate Finance, at the Frankfurt School of Finance and Management. During her studies, Yasmin gained her first working experience in Corporate Finance as a working student at BNP Paribas in Frankfurt am Main.



**Florian Hoch**  
*Analyst*

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**Florian Hoch** joined FCF in August 2021 and is part of the SmallCap & Growth team. He supports the team in equity and debt financing transactions and is responsible for the preparation of all relevant transaction documents as well as rating analyses and pitches.

Florian graduated from the University of Mannheim with a Bachelor of Science in Business Administration. During his studies, Florian gained first working experience in the Deal Advisory and Audit departments at KPMG.



**Philipp K the**  
*Analyst*

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**Philipp K the** joined FCF as an analyst in July 2023 and supports the team in equity and debt financings.

Before joining FCF, Philipp obtained a Bachelor's degree in Business Administration with a focus on Corporate Finance from the University of Cologne and studied for a Master's degree in Management at the University of Mannheim and ESSEC Business School. During his studies, he gained practical experience in M&A and Audit at PwC as well as in Restructuring Consulting at Deloitte.

# EXECUTIVE SUMMARY



### Growth Indicators

#### Revenue (Y-o-Y)

'21-'22 '22-'23e

17.1% ▼ 5.8%

#### EBITDA (Y-o-Y)

'21-'22 '22-'23e

6.9% ▲ 34.1%

#### EBIT (Y-o-Y)

'21-'22 '22-'23e

6.1% ▲ 24.8%

### Margins

#### EBITDA Margin

2021 2022 2023e

17.8% ▼ 16.2% ▲ 20.6%

#### EBIT Margin

2021 2022 2023e

11.6% ▼ 10.5% ▲ 12.4%

### Valuation

#### EV / EBITDA

2021 2022 LTM

18.1x ▼ 12.8x 12.2x

#### EV / EBIT

2021 2022 LTM

24.4x ▼ 16.0x 16.7x

#### Net Leverage

2021 2022 LTM

2.6x ▲ 2.5x 1.8x

#### Equity Ratio

2021 2022 LTM

50.6% ▼ 49.7% 48.7%

### Credit Statistics

#### Interest Cover Ratio

2021 2022 LTM

31.3x ▼ 28.7x 25.6x

#### Current Loan-to-Value

2021 2022 LTM

6.7% ▲ 7.1% 10.6%

#### Non-Current Loan-to-Value

2021 2022 LTM

37.9% ▲ 41.8% 53.4%

#### Rating\*

2021 2022 LTM

BXX ▼ BXX- BXX-

#### WACC

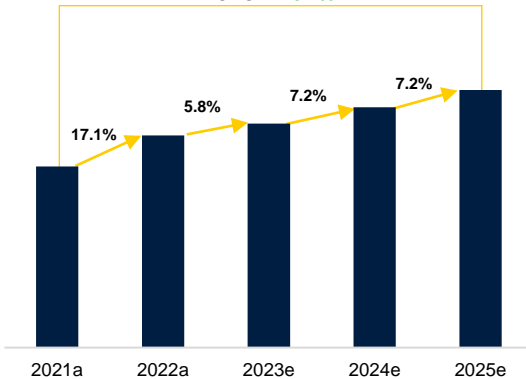
2021 2022 LTM

7.0% ▲ 6.3% 6.5%

### Long-Term Development

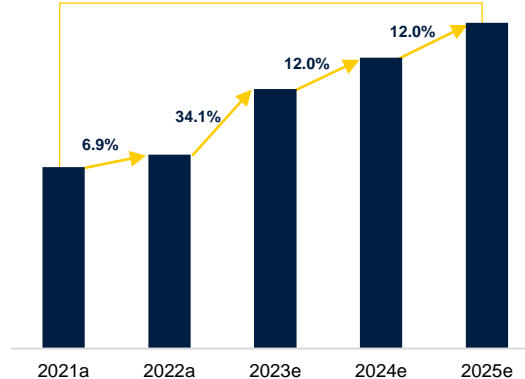
#### Revenue

CAGR: +9.2%



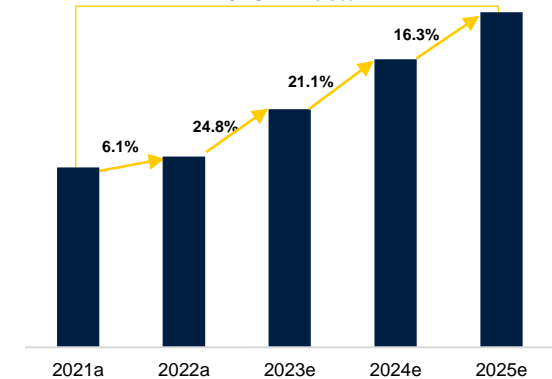
#### EBITDA

CAGR: +15.8%



#### EBIT

CAGR: +16.9%





*The FCF TMT Market Study is a standardized report / analysis of publicly listed European TMT companies and provides valuable industry and competitive intelligence*

*More advanced, detailed and / or customized reports are available upon request*

### FCF TMT Market Study

is a comprehensive publication of European publicly listed TMT companies. The analysis includes:

- **Market Fundamentals:** Development of key P&L metrics (revenue, EBITDA, EBIT) and profitability metrics (EBITDA-/ EBIT margin)
- **Market Valuation:** Development of valuation multiples (EV / EBITDA, EV / EBIT)
- **Credit Statistics:** Development of relevant credit metrics (net leverage ratio, equity ratio, EBITDA interest cover ratio and loan-to-value ratios), market rating and implied cost of capital (WACC)

### Selection of Companies

The selection of companies is primarily based on the following criteria:

- Industry classification: TMT
- Company status: Operating
- Ownership: Public, listed
- Geography (HQ / exchange country): Europe, excl. Russia
- Total revenues (last FY): EUR 50m - EUR 5,000m
- Total revenues (FY 2023e-2025e): Data available
- Market capitalization: >EUR 50m
- Free float: >25%

### Recipients

The FCF TMT Market Study targets a wide audience, which includes:

- Executives
- Key personnel in corporate development / financing unit
- Equity / debt investors
- Shareholders

and provides in-depth and complete financial insights that highlight key trends within the European publicly listed TMT market

### Data

All input data is provided by S&P Capital IQ and is not independently verified by FCF. Ratio and multiple calculations are driven based on the input data available. For additional information and disclaimer, please refer to the last page

### Availability

The FCF TMT Market Study is available on FCF's website at "www.fcf.de"

*To recommend colleagues or fellow investors to be added to the mailing list, kindly send an email with the respective contact information*

*More advanced, detailed and / or customized reports can be ordered individually (e.g. for board reporting, strategy and competition analysis purposes)*

# MARKET FUNDAMENTALS

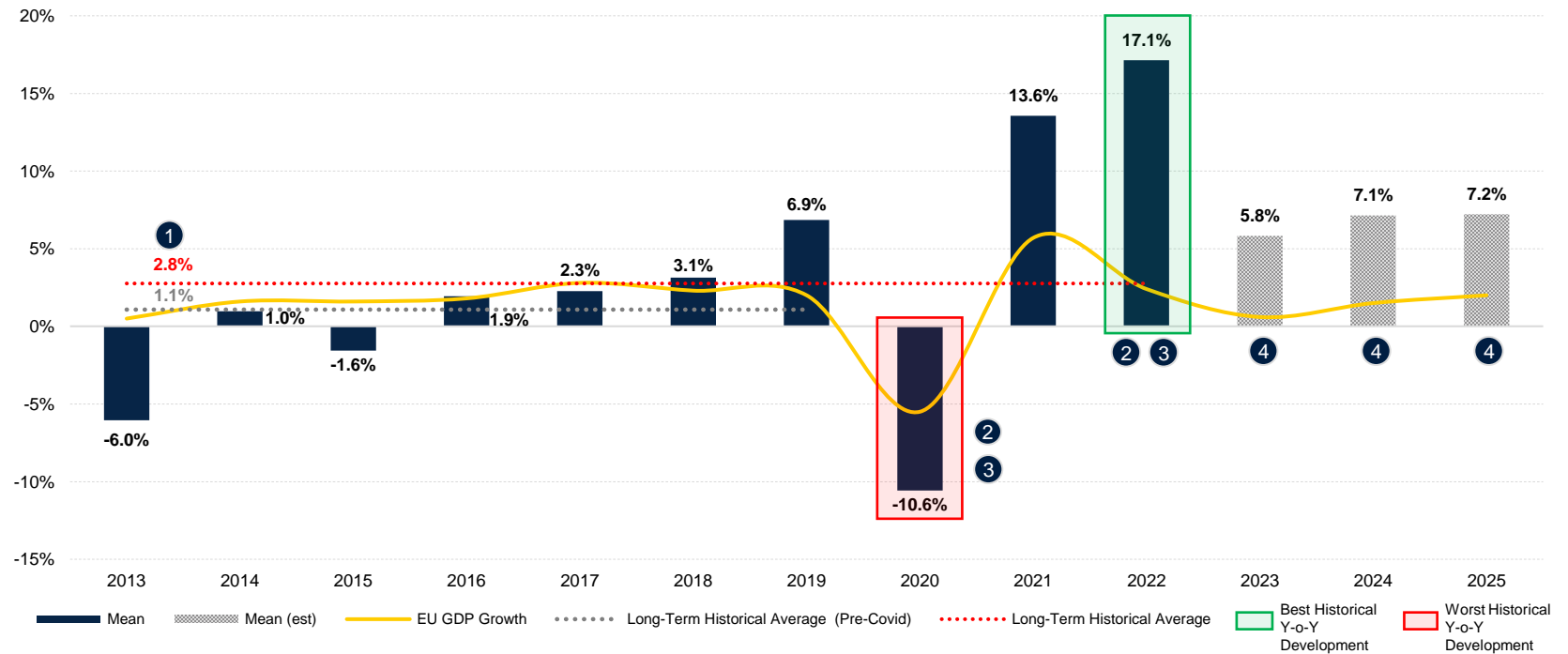


# Market Fundamentals

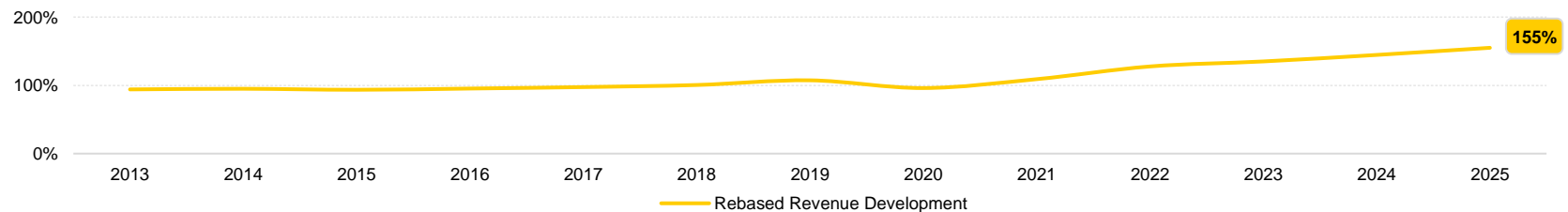
## Historical & Forecasted Revenue Development (Current Market Expectations)

- 1 The revenues of the publicly listed TMT companies overall show a positive historic development, growing at a 2.8% long-term average between '13 and '22
- 2 While the Y-o-Y revenue development shows moderate volatility in the past, volatility has increased significantly in the last three years with growth rates between -10.6% (COVID19 induced) in '20 and +17.1% in '22 ( $\Delta 27.7\%$ )
- 3 The revenue drop in '20 due to Covid-19 pandemic is followed by a strong rebound in the following years (+13.6% in '21 and +17.1% in '22)
- 4 Revenues are set to continue to grow in '23, '24 and '25

### Revenue Development Year-on-Year (Mean '13 – '25)



### Revenue Development (Rebased 2012 = 100%)

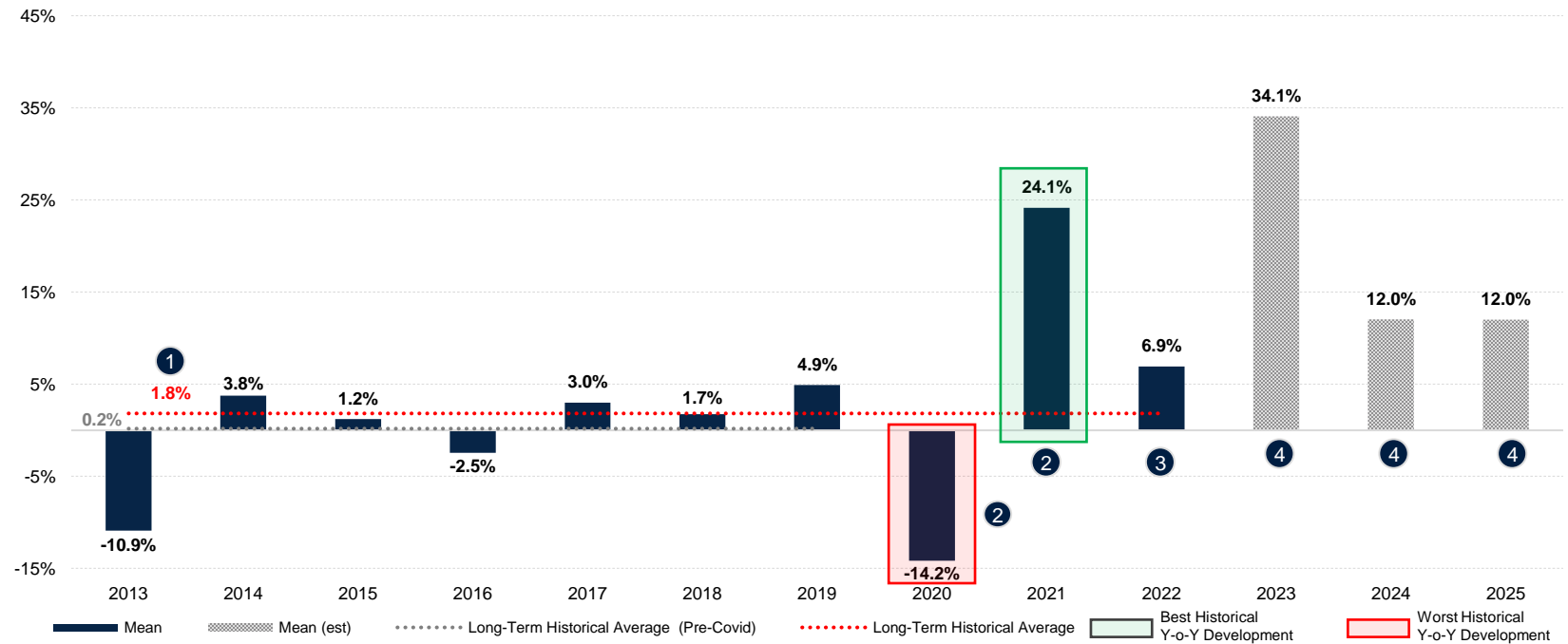


# Market Fundamentals

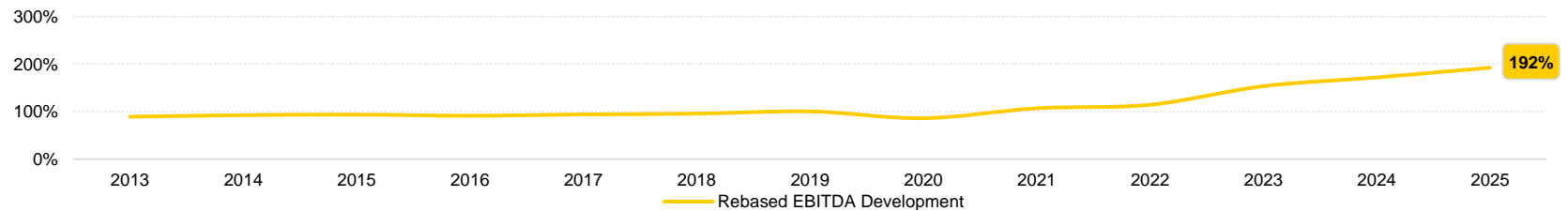
## Historical & Forecasted EBITDA Development (Current Market Expectations)

- 1 The EBITDAs of the publicly listed TMT companies overall show a positive historic development, growing at a 1.8% long-term average between '13 and '22
- 2 The EBITDA development shows a higher degree of volatility compared to revenue (growth rates between -14.2% and +24.1% ( $\Delta 38.3\%$ ))
- 3 EBITDA increased by 6.9% in '22, after already a strong rebound in '21
- 4 The expected EBITDA growth in '23, '24 and '25 suggests an ongoing positive development and pricing power

**EBITDA Development Year-on-Year (Mean '13 – '25)**



**EBITDA Development (Rebased 2012 = 100%)**

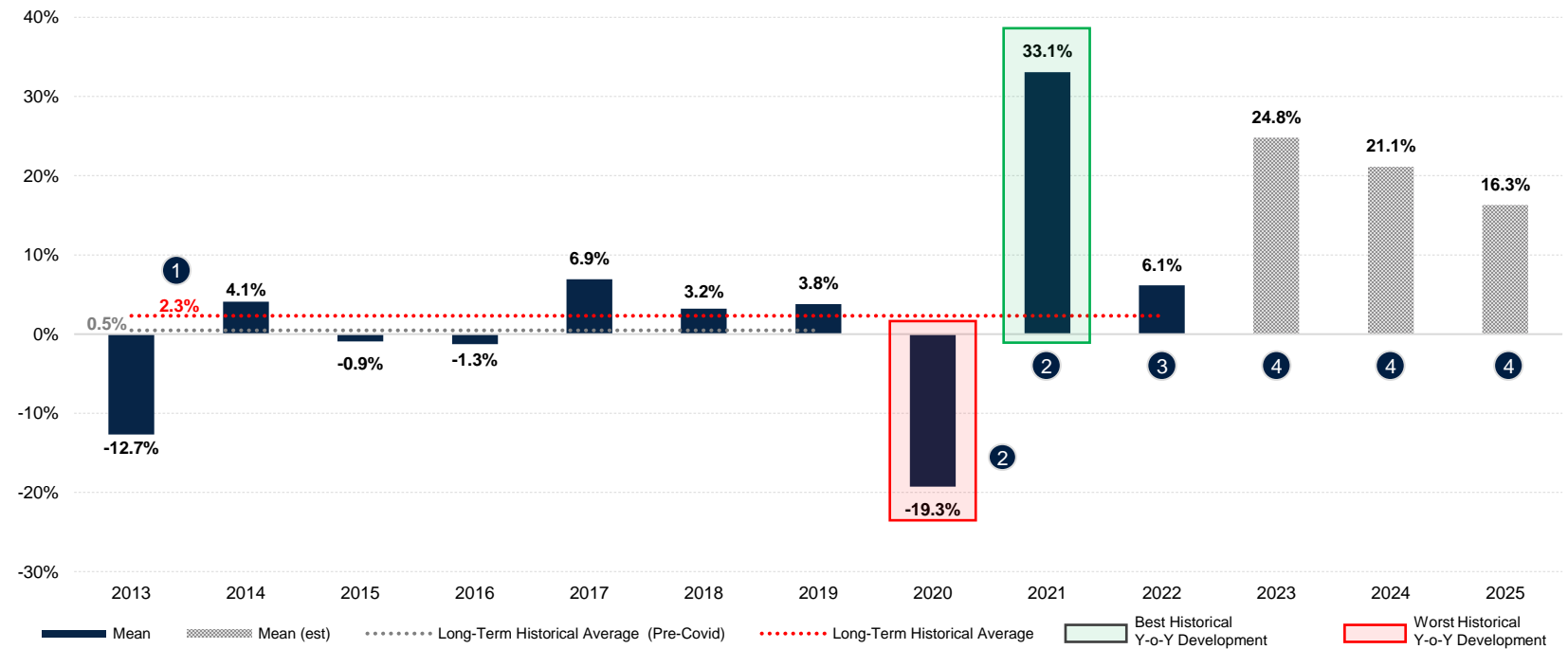


# Market Fundamentals

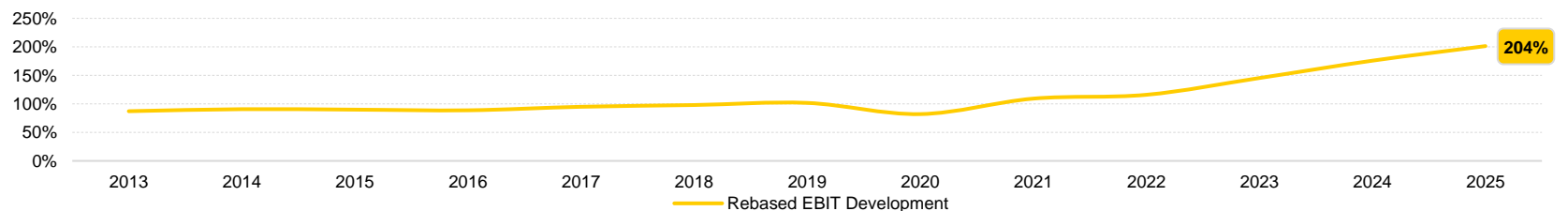
## Historical & Forecasted EBIT Development (Current Market Expectations)

- 1 The EBITs of the publicly listed TMT companies overall show a positive historic development, growing at a 2.3% long-term average between '13 and '22
- 2 The EBIT development shows a higher degree of volatility compared to revenue & EBITDA (growth rates between -19.3% and +33.1% ( $\Delta 52.4\%$ ))
- 3 EBIT increased by 6.1% in '22, after already a strong rebound in '21
- 4 The expected EBIT growth in '23, '24 and '25 suggests an ongoing positive development

**EBIT Development Year-on-Year (Mean '13 – '25)**



**EBIT Development (Rebased 2012 = 100%)**

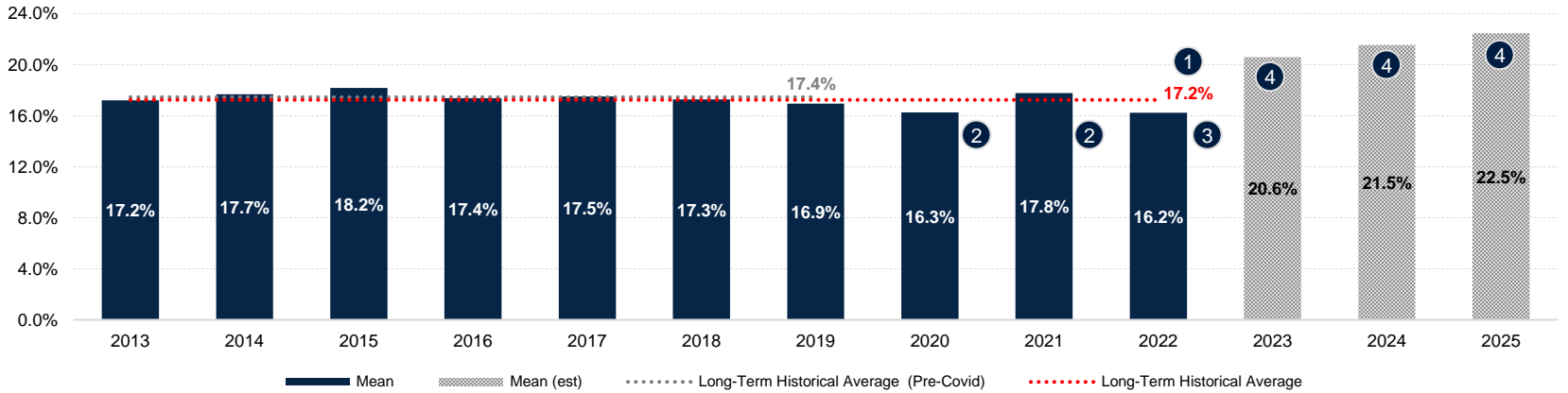


# Market Fundamentals

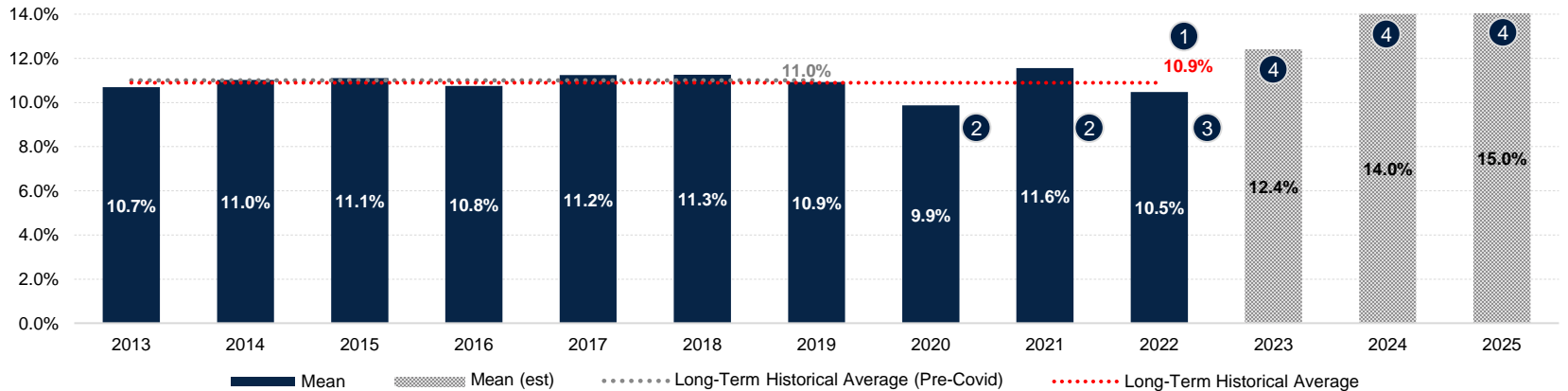
## Historical EBITDA / EBIT Margin Development

The TMT market is typically characterized by high EBITDA & EBIT margins due to economies of scale and high market barriers to entry

### EBITDA Margin (Mean '13 – '25)



### EBIT Margin (Mean '13 – '25)



1 The long-term ('13 – '22) average EBITDA / EBIT margin is 17.2% and 10.9%, respectively

2 The global Covid-19 pandemic led to a decline of margins in '20 and a rebound in '21

3 In '22, margins decreased again below the long-term average

4 EBITDA and EBIT margins are expected to increase significantly in the future to new record highs due to strong demand in the sector

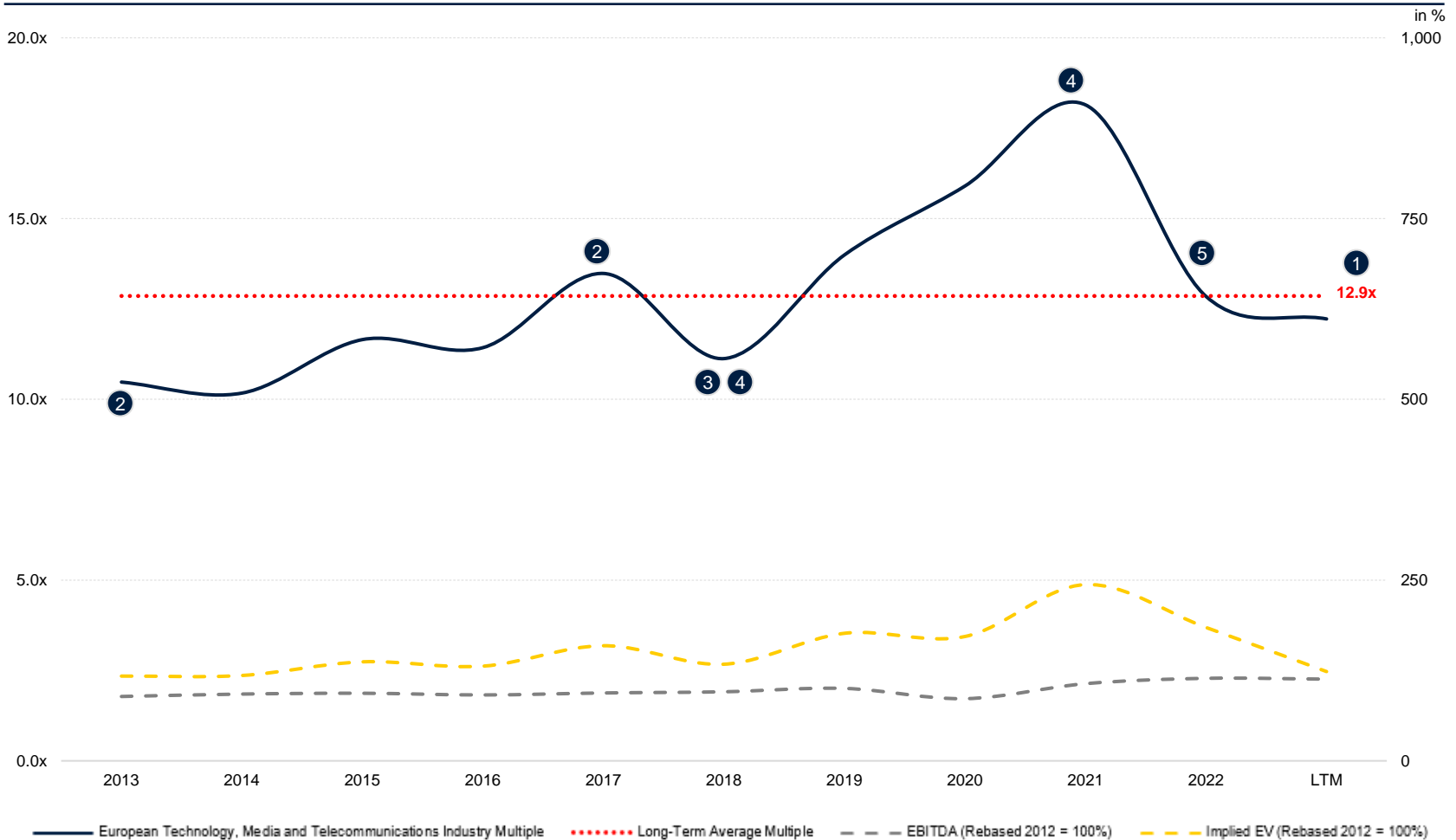


# Market Valuation

## Historical EV / EBITDA Development

- 1 The long-term ('13 to LTM) average EV / EBITDA multiple is 12.9x
- 2 The average EV / EBITDA multiple of publicly listed TMT companies has shown a strong upward development between '13 and '17
- 3 The temporary downward trend in the average EV / EBITDA multiple in '18 is largely driven by a shift in investor sentiment within the general economy
- 4 The increasing market capitalization form '18 on, combined with stable EBITDAs led to a strong uptick in the EV / EBITDA multiple to new record highs in '21
- 5 Since '21 the multiple decreased sharply due to a strong decline in market capitalization, while EBITDA increased in the same period

**EV / EBITDA Multiple (Median '13 – LTM)**



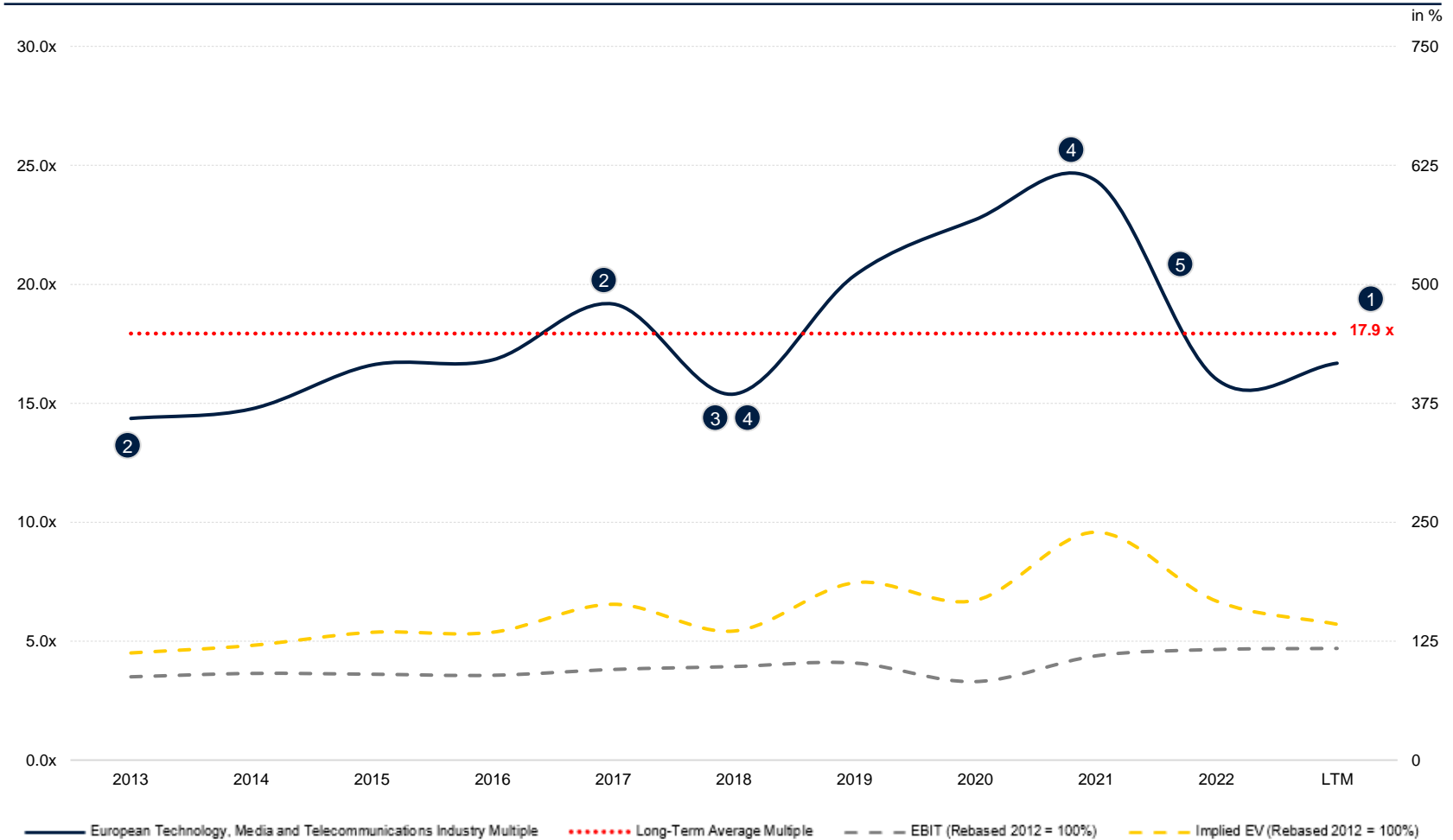


# Market Valuation

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**EV / EBIT Multiple (Median '13 – LTM)**



# CREDIT STATISTICS

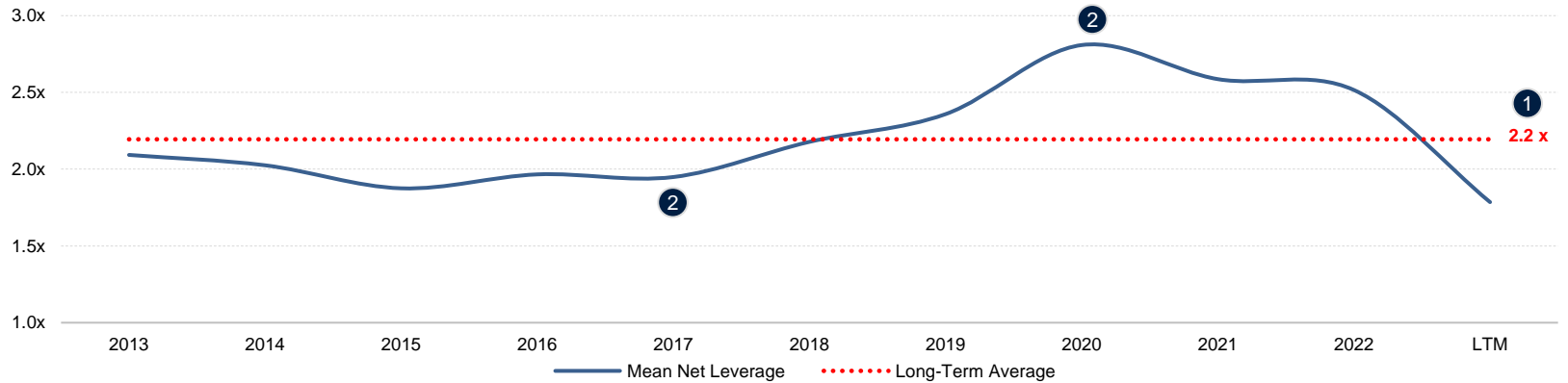


# Credit Statistics

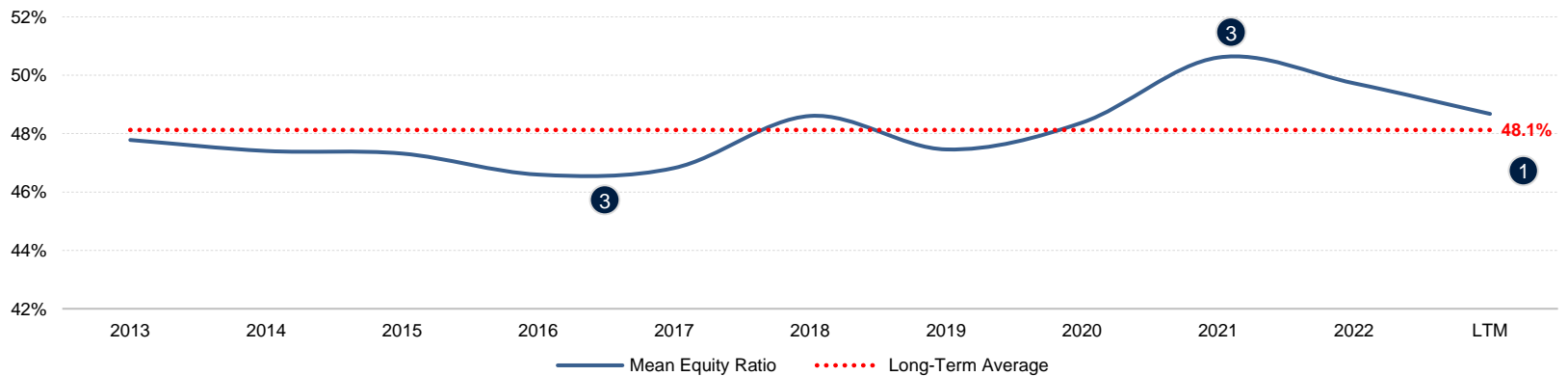
## Historical Net Leverage / Equity Ratio Development

In the publicly listed TMT market, the main credit KPIs, i.e. Net Leverage and Equity Ratio, are currently within investment grade levels

### Net Leverage (Mean '13 – LTM)



### Equity Ratio (Mean '13 – LTM)



1 Net Leverage and Equity Ratio have been fairly stable between '13 and LTM with long-term Ratio averages of around 2.2x EBITDA and 48.1% - both lying solidly at investment grade levels

2 Net Leverage has started to increase in '17 and has crossed the long-term average in '18, climbing towards the cross-over rating category. In '20, Net Leverage reached a COVID-19 induced peak

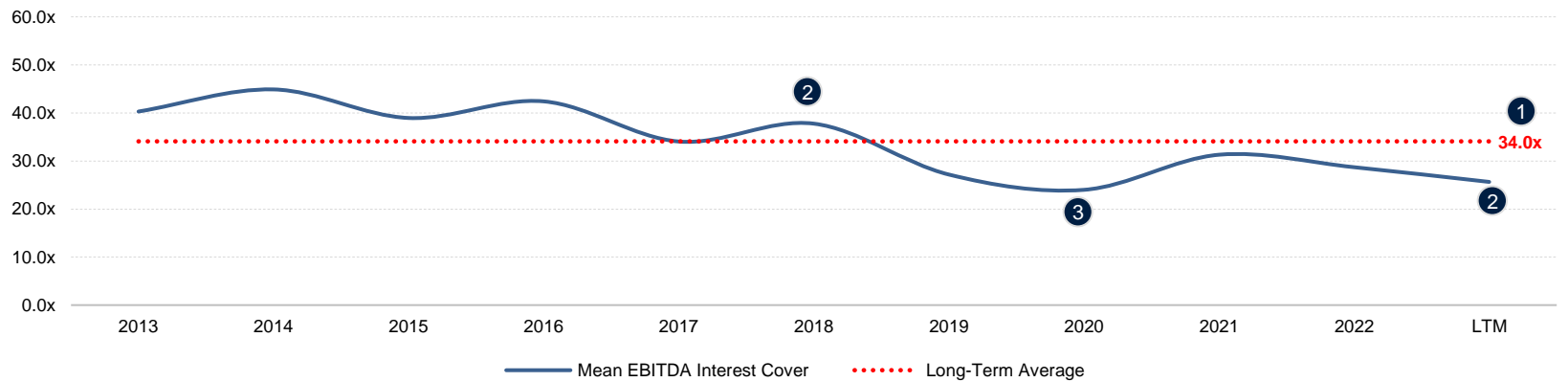
3 The Equity Ratio has been rather stable over the past 10 years, fluctuating around the long-term average

# Credit Statistics

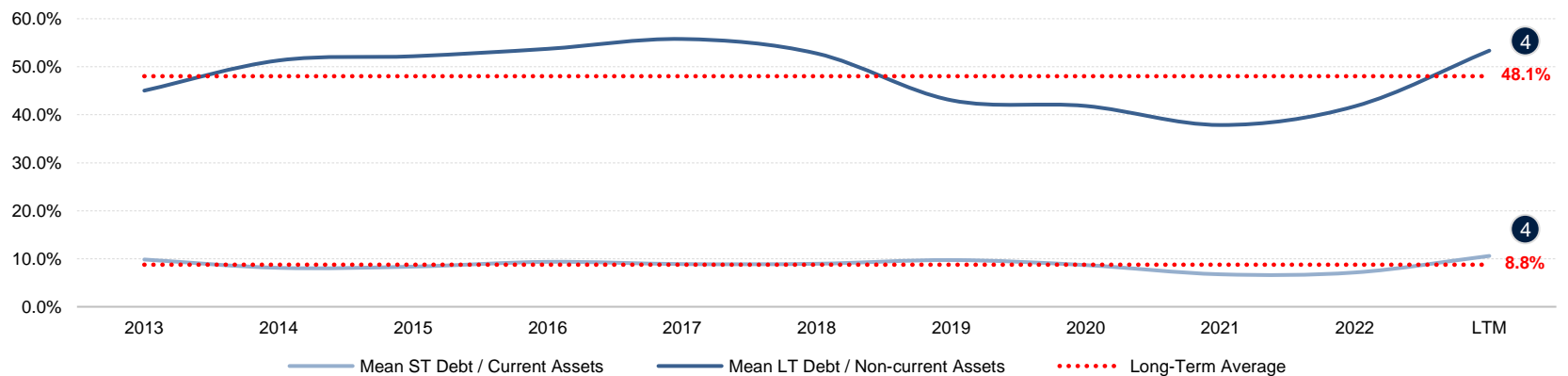
## Historical EBITDA interest Cover Ratio / Loan-to-Value Ratios Development

- 1 The "EBITDA Interest Cover Ratio" lied from '13 to '18 above the long-term average of 34.0x
- 2 In '19, the ratio declined due to higher overall debt in the industry and has since then been below the long-term average, while still lying solidly at investment grade level
- 3 During the COVID-19 pandemic, the ratio decreased further to a long-term low in '20, followed by a rebound in '21
- 4 Loan-to-value ratios have been stable at conservative levels, implying solid collateralization for lenders and creditors

### EBITDA Interest Cover Ratio (Mean '13 – LTM)



### Loan-to-Value Ratios (LTV) (Mean '13 – LTM)

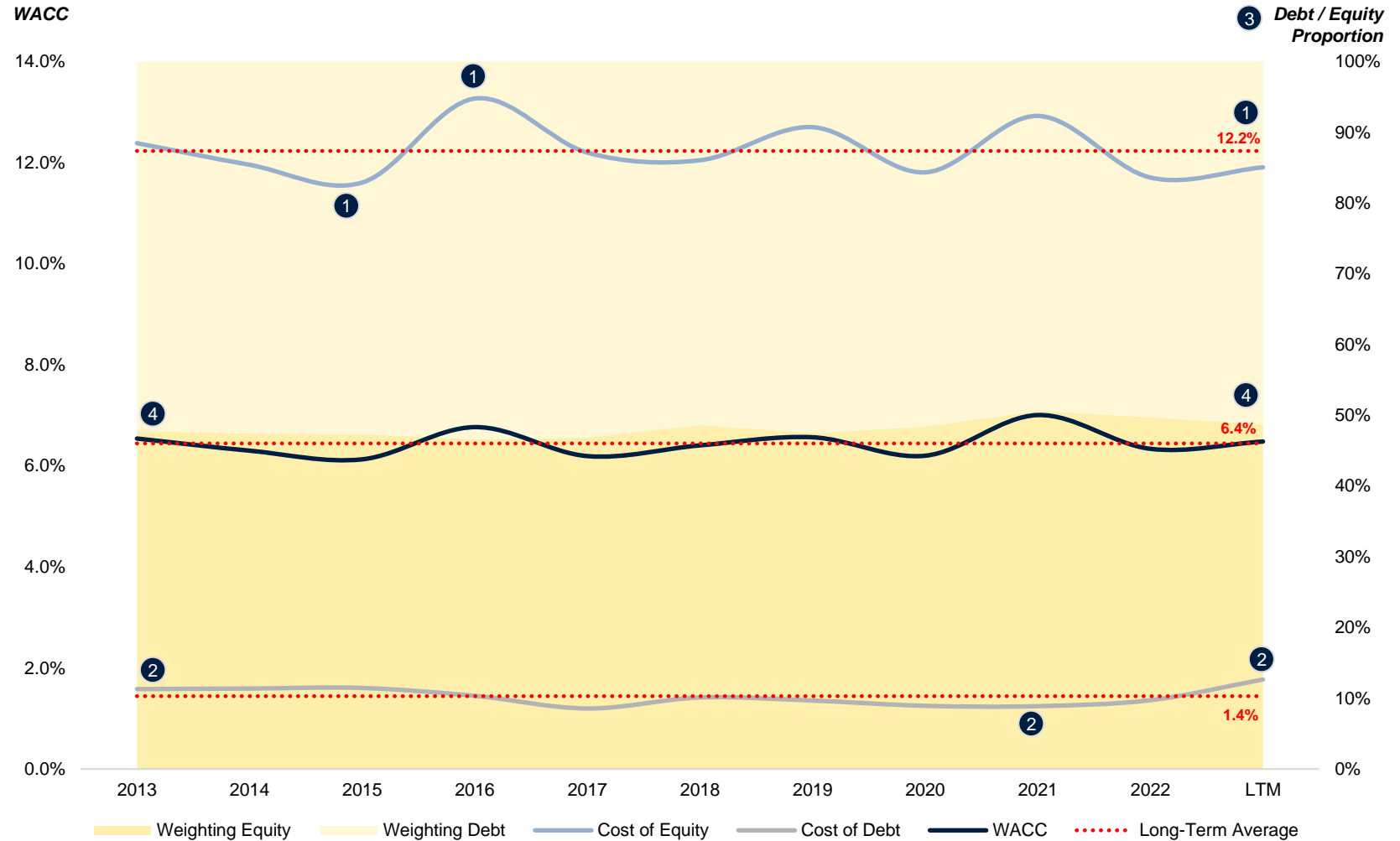


Loan-to-Value: Short- / Long-term debt as a percent of Current / Non-current Assets (explains how well Short- / Long-term debt is covered or can be repaid by Current / Non-current Assets)

# Credit Statistics

## Historical Implied Cost of Capital / WACC Analysis

- 1 The implied cost of equity (ROE) remained fairly stable over the last 10 years, varying between 11.6% in '15 and 13.3% in '16. Today, the value is slightly below the long-term average of 12.2%
- 2 The implied cost of debt decreased from 1.6% in '13 to 1.2% in '21, following the decreasing ECB's base rate. Recently, the implied cost of debt increased again to 1.8%, driven by the ECB's interest rate hikes in '22 & '23
- 3 The debt / equity ratio has been fairly stable ('13 – LTM) around 50% equity, implying a solid, investment grade capital structure
- 4 The weighted average cost of capital (WACC) is correlated with the implied ROE and is currently slightly above its long-term average of 6.4%

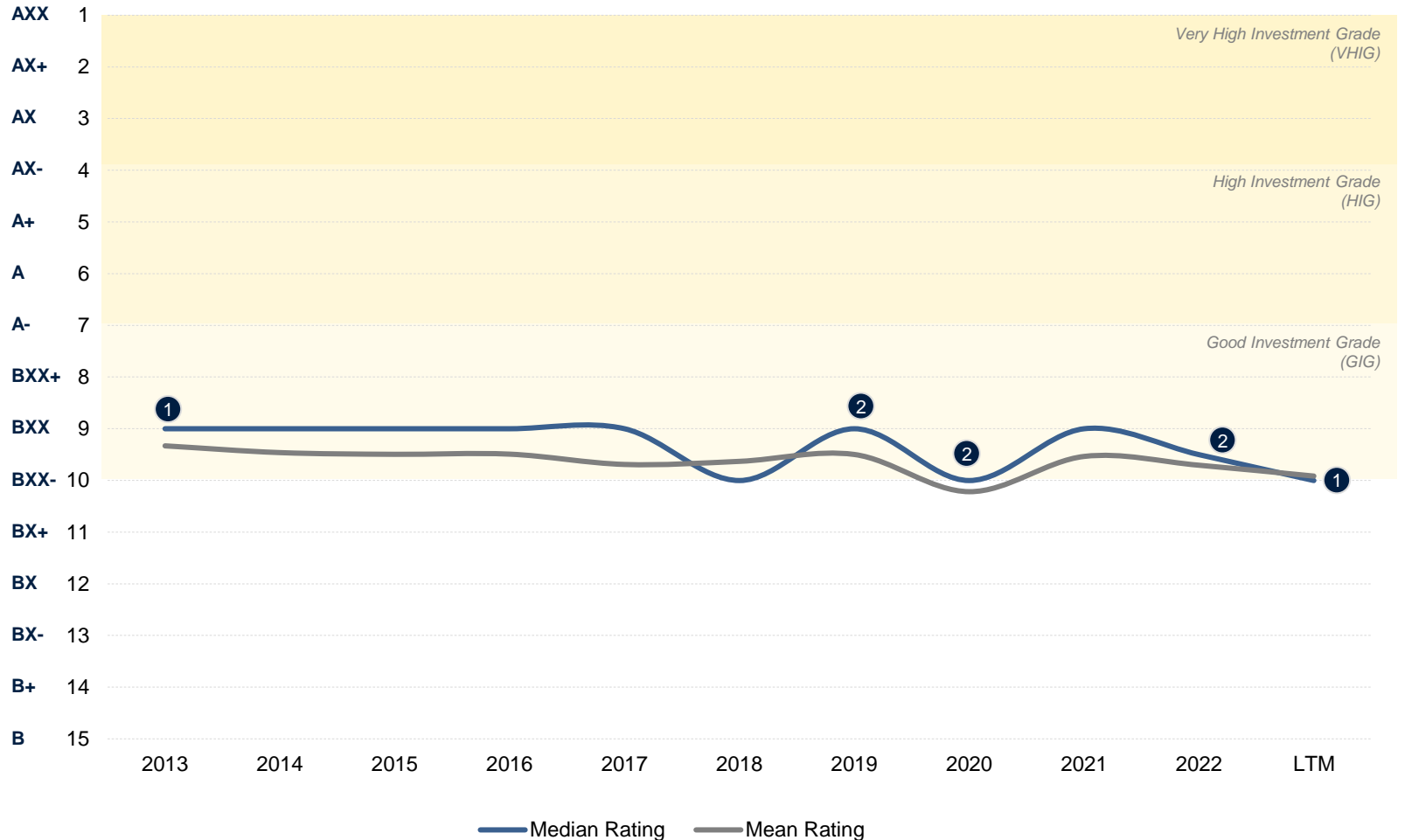


Source: S&P Capital IQ as of 04/10/2023

Note: Implied cost of equity based on annual return on equity values (the actual cost of equity to the firm); implied cost of debt based on annual interest expenses as reported (including financial lease expenses and other components of interest expenses) as a proportion of total liabilities (implied interest rate)

Historically, the publicly listed TMT companies (rated by large rating agencies, e.g. Fitch, Moody's, S&P), overall are rated as good investment grade

- 1 The median rating of the TMT companies has been stable (between '13 and LTM), lying in the FCF rating corridor of BXX to BXX- (corresponding to S&P's rating scale of BBB to BBB-)
- 2 The median rating decreased slightly in '20 to BXX- (FCF rating corresponding to S&P's rating of BBB-), increased to BXX (BBB) in 21' and fell back again to BXX- recently



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