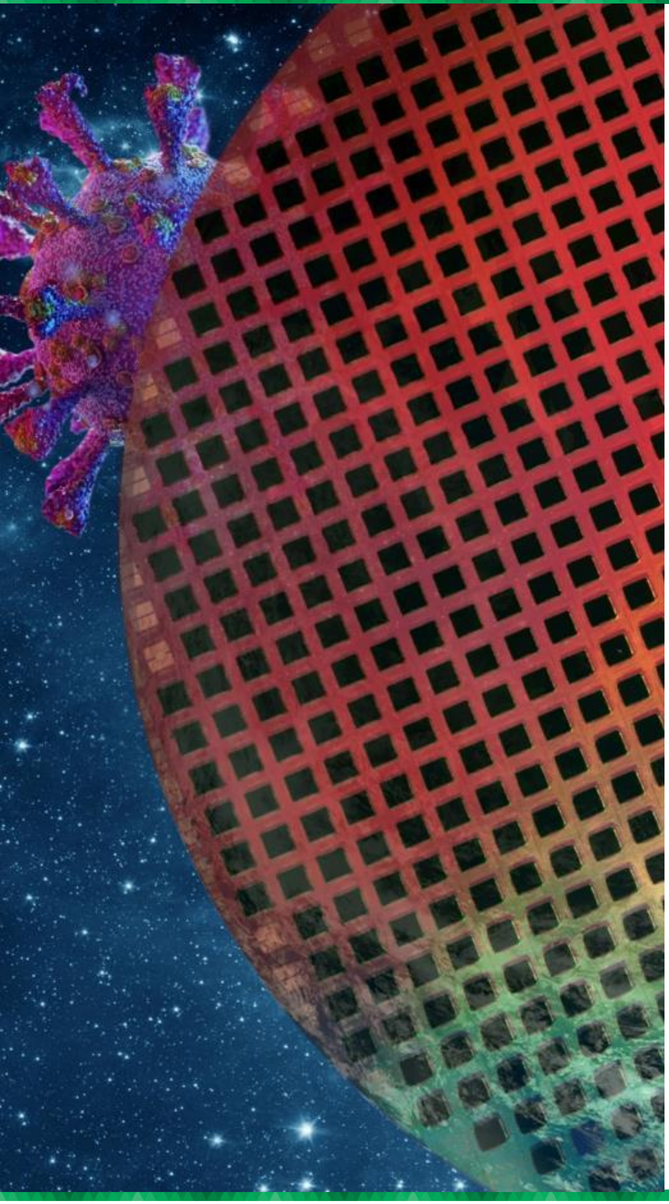


INVESTOR PRESENTATION
Q3-2022 RESULTS

October 20, 2022

Safe Harbor Statement

This presentation contains statements about management's future expectations, plans and prospects of our business that constitute forward-looking statements, which are found in various places throughout the presentation, including, but not limited to, statements relating to expectations of orders, net sales, product shipments, expenses, timing of purchases of assembly equipment by customers, gross margins, operating results and capital expenditures. The use of words such as “anticipate”, “estimate”, “expect”, “can”, “intend”, “believes”, “may”, “plan”, “predict”, “project”, “forecast”, “will”, “would”, and similar expressions are intended to identify forward looking statements, although not all forward looking statements contain these identifying words. The financial guidance set forth under the heading “Outlook” contains such forward looking statements. While these forward looking statements represent our judgments and expectations concerning the development of our business, a number of risks, uncertainties and other important factors could cause actual developments and results to differ materially from those contained in forward looking statements, including any inability to maintain continued demand for our products; failure of anticipated orders to materialize or postponement or cancellation of orders, generally without charges; the volatility in the demand for semiconductors and our products and services; the extent and duration of the COVID-19 pandemic and measures taken to contain the outbreak, and the associated adverse impacts on the global economy, financial markets, global supply chains and our operations as well as those of our customers and suppliers; failure to develop new and enhanced products and introduce them at competitive price levels; failure to adequately decrease costs and expenses as revenues decline; loss of significant customers, including through industry consolidation or the emergence of industry alliances; lengthening of the sales cycle; acts of terrorism and violence; disruption or failure of our information technology systems; consolidation activity and industry alliances in the semiconductor industry that may result in further increased customer concentration, inability to forecast demand and inventory levels for our products; the integrity of product pricing and protection of our intellectual property in foreign jurisdictions; risks, such as changes in trade regulations, conflict minerals regulations, currency fluctuations, political instability and war, associated with substantial foreign customers, suppliers and foreign manufacturing operations, particularly to the extent occurring in the Asia Pacific region where we have a substantial portion of our production facilities; our ability to mitigate the dislocations caused by the flood at one of our Malaysian production facilities, potential instability in foreign capital markets; the risk of failure to successfully manage our diverse operations; any inability to attract and retain skilled personnel, including as a result of restrictions on immigration, travel or the availability of visas for skilled technology workers as a result of the COVID-19 pandemic; those additional risk factors set forth in Besi's annual report for the year ended December 31, 2021 and other key factors that could adversely affect our businesses and financial performance contained in our filings and reports, including our statutory consolidated statements. We expressly disclaim any obligation to update or alter our forward-looking statements whether as a result of new information, future events or otherwise.

Table of Contents

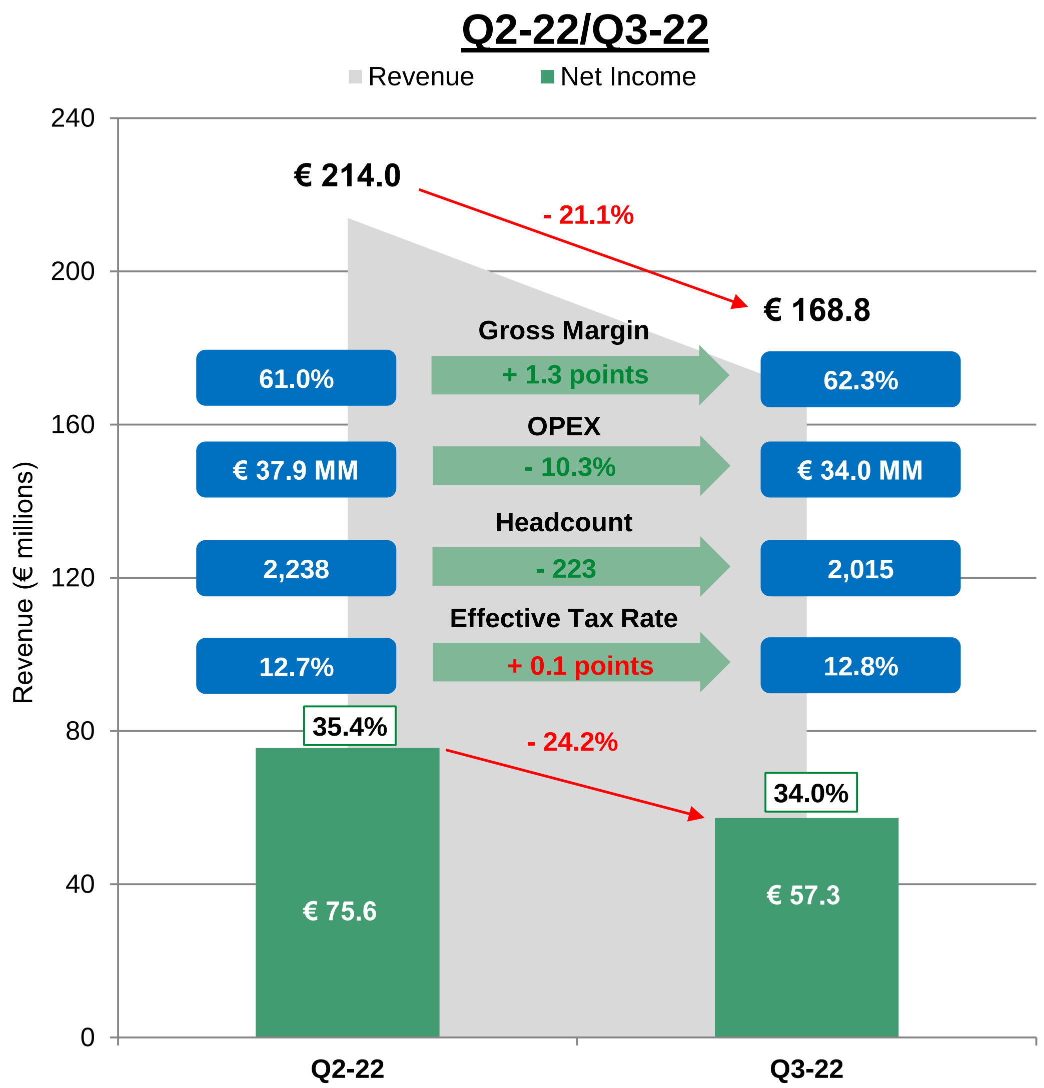
I. KEY HIGHLIGHTS

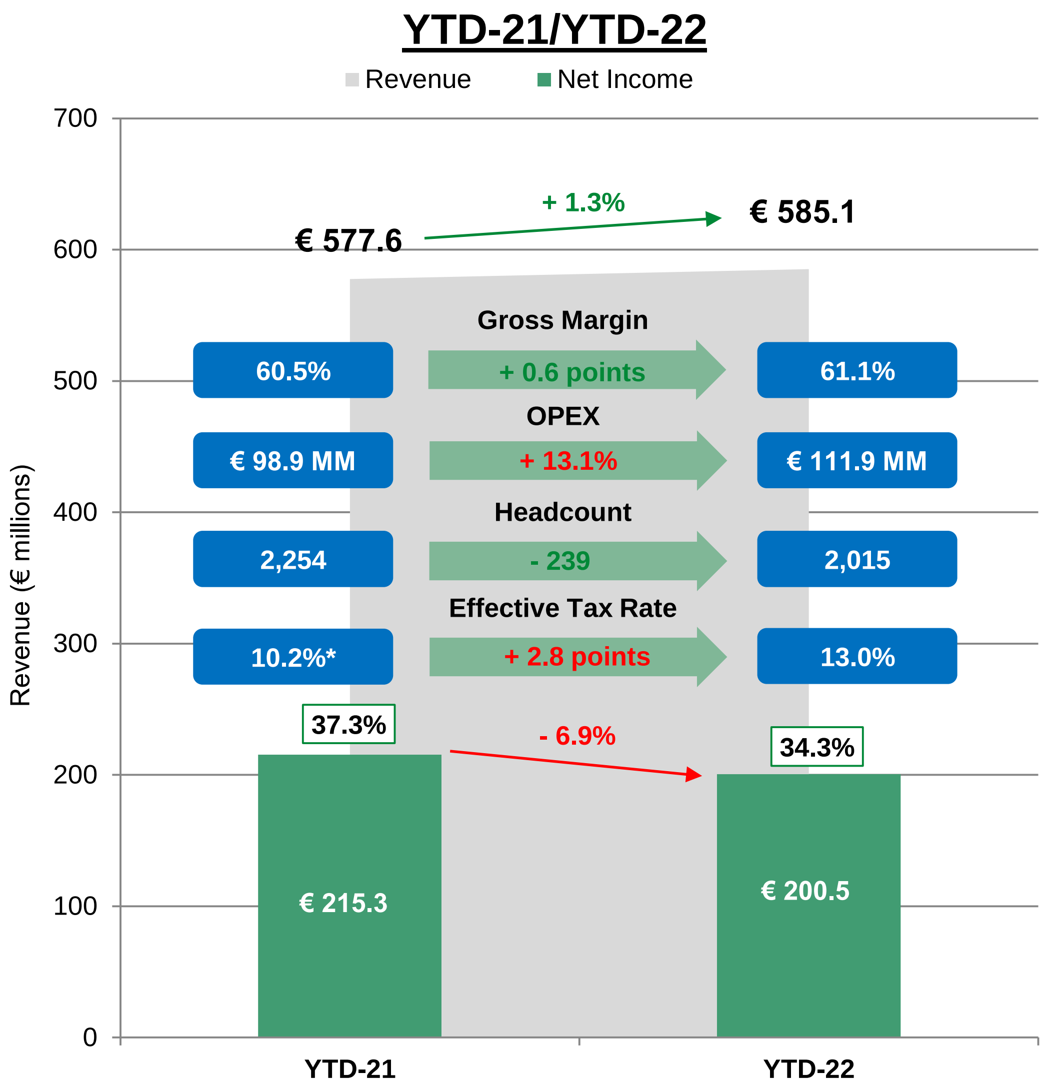
Q3-22 Results at Favorable End of Guidance Range

€ millions	Guidance Q3-22*	Q3-22	Δ Q2-22	Δ Q3-21
Revenue	Down 20% - 30%	**168.8**	-21.1%	-19.0%
Orders		**125.3**	-18.2%	-40.1%
Gross Margin	60-62%	**62.3%**	+1.3pts	+1.9pts
Opex	Down 10% - 15%	**34.0**	-10.3%	+11.8%
Operating Income	64.7**	**71.2**	-23.0%	-25.4%
Net Income		**57.3**	-24.2%	-31.9%
EPS Basic		**0.71**	-24.5%	-34.3%
Net Cash		**342.5**	+20.6%	+19.0%

* As compared to Q2-22
** At midpoint of guidance range

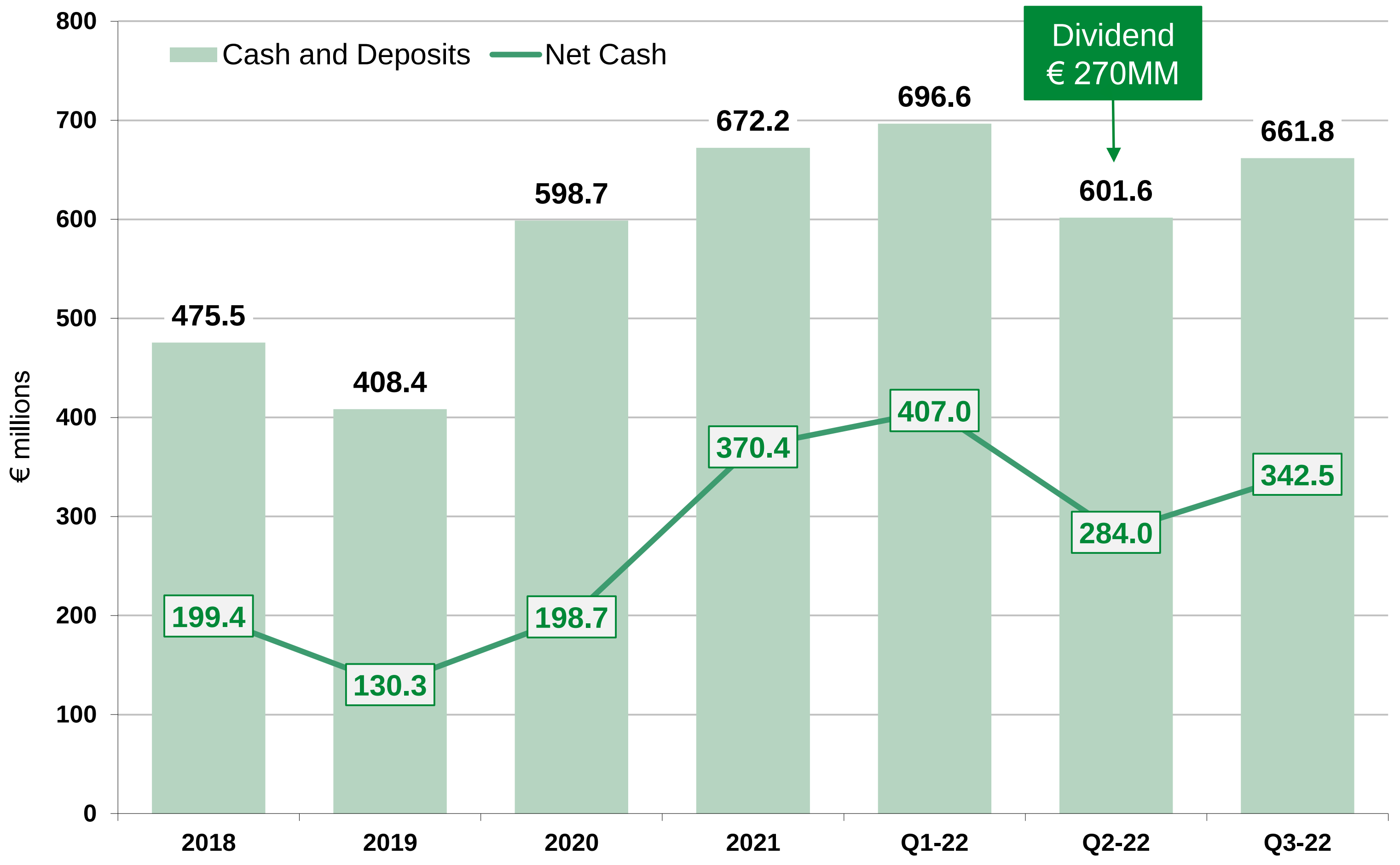
YTD Revenue Up 1.3%, Net Income Down 6.9%
Gross and Net Margins Remain Elevated Despite Downturn





* Effective tax rate reflects € 6.1 million of tax benefits recognized in YTD-21. Ex such benefits, the effective tax rate would have been 12.7%

Strong Cash Flow Generation Continues
Cash and Net Cash Up 12.1% and 19.0% vs. Q3-21



<u>Q3-22 vs. Q2-22</u>

- Cash and deposits € 661.8 million up € 60.2 million (+10.0%) due to:
  - + € 112.7 million cash flow from operations
  - - € 45.5 million share repurchases
  - - € 5.2 million capitalized R&D
  - - € 2.6 million capex
- Net cash up € 58.5 million (+20.6%) to reach € 342.5 million end of Q3

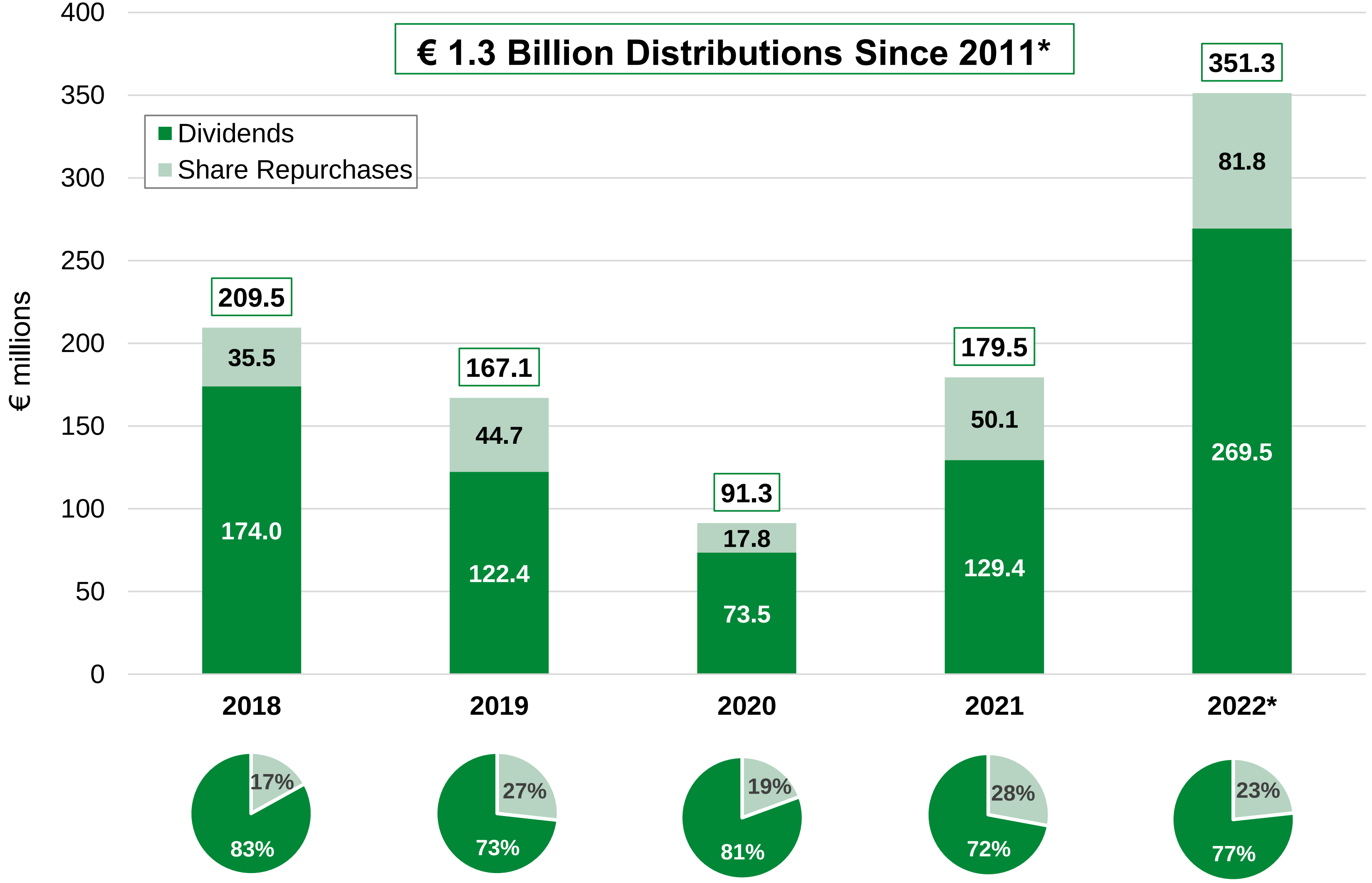
<u>Q3-22 vs. Q3-21</u>

- Cash and deposits up € 71.3 million (+12.1%)
- Net cash up € 54.7 million (+19.0%)

<u>Convertible Notes</u>

- € 359.9 million outstanding at September 30, 2022
  - Average conversion price € 67.28
  - Blended rate 1.29%

Enhanced Capital Allocation in 2022. Share Buybacks Increasing

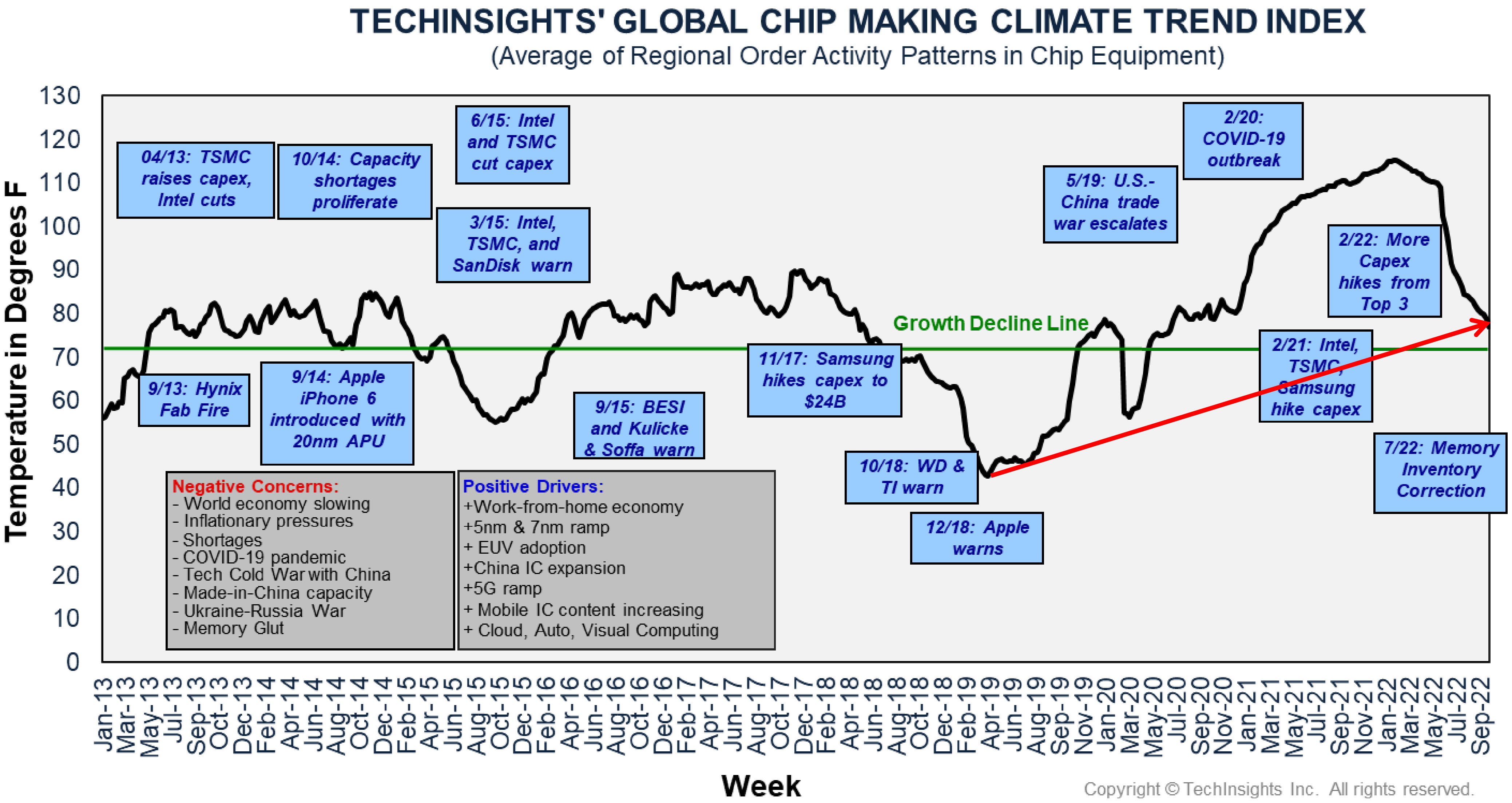


- **Record € 351.3 million distributed YTD-22**
- **€ 185 million share repurchase program completed:**
  - From July 2018-2022
  - 5.1MM shares
  - Average price € 36.10
- **New € 300 million program:**
  - Started August 1, 2022
  - Expected completion October 2023
  - Represents ~8% of shares outstanding

* Includes share repurchases up to September 30, 2022

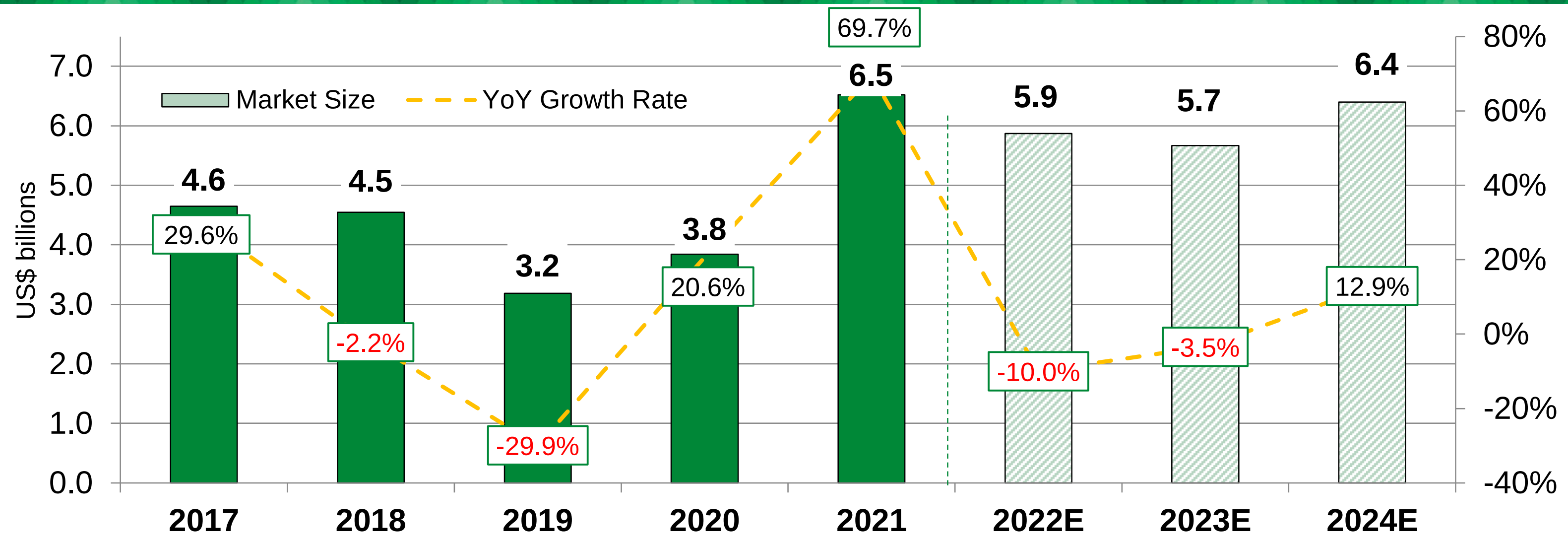
II. MARKET & STRATEGY

Market Conditions Have Weakened Significantly Since Q2

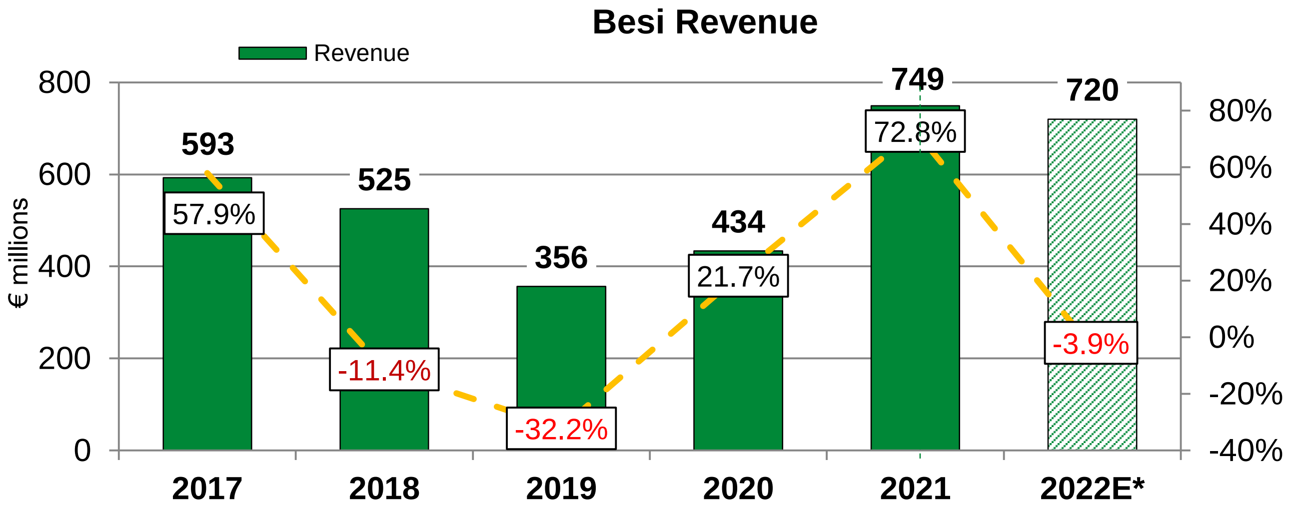


Source: TechInsights, October 2022

Assembly Forecast Also Revised Downwards for 2022 and 2023



Source: TechInsights, August 2022. Assembly equipment revenue excludes hybrid bonding contribution and service revenue.



* 2022E assumes midpoint of guidance for Q4-22

Tech Insights forecasts $ 5.9 billion market in 2022 (-10.0%)

- Growth rates for 2022 and 2023 adjusted:
  - +8.2% → -10.0% for 2022
  - - 5.0% → - 3.5% for 2023
  - Excludes hybrid bonding and spares/service revenue
- New US/China regulations add new uncertainty

Strong secular fundamentals intact however:

- 5G, datacenter, AI and HPC primary drivers
- Investment in new process technologies: hybrid bonding/CSP
- New advanced packaging fabs being constructed globally

Strategy Update

Production

- Adjusting supply chain and HC to current order trends
  - 13% HC reduction vs. Q1
  - 65% reduction Asian temporary production staff

Development

- Increased R&D fixed headcount by 7.4% vs. year end
- R&D up 49% YTD 2022, gross R&D investment up 25%
- Supports HB and wafer level assembly portfolio development
  - TCB C2W product introduction on track
  - Evaluating impact, if any, of new US/China sales restrictions

Hybrid Bonding

- Active engagement with top logic and memory producers
- Post Q3, new orders received including for cluster tools
  - Additional orders anticipated in Q4
- AMD’s first hybrid bonded 3D chiplet-based processor (EPIC Ryzen) commercially available
- Memory engaged in proof of concept work

III. OUTLOOK

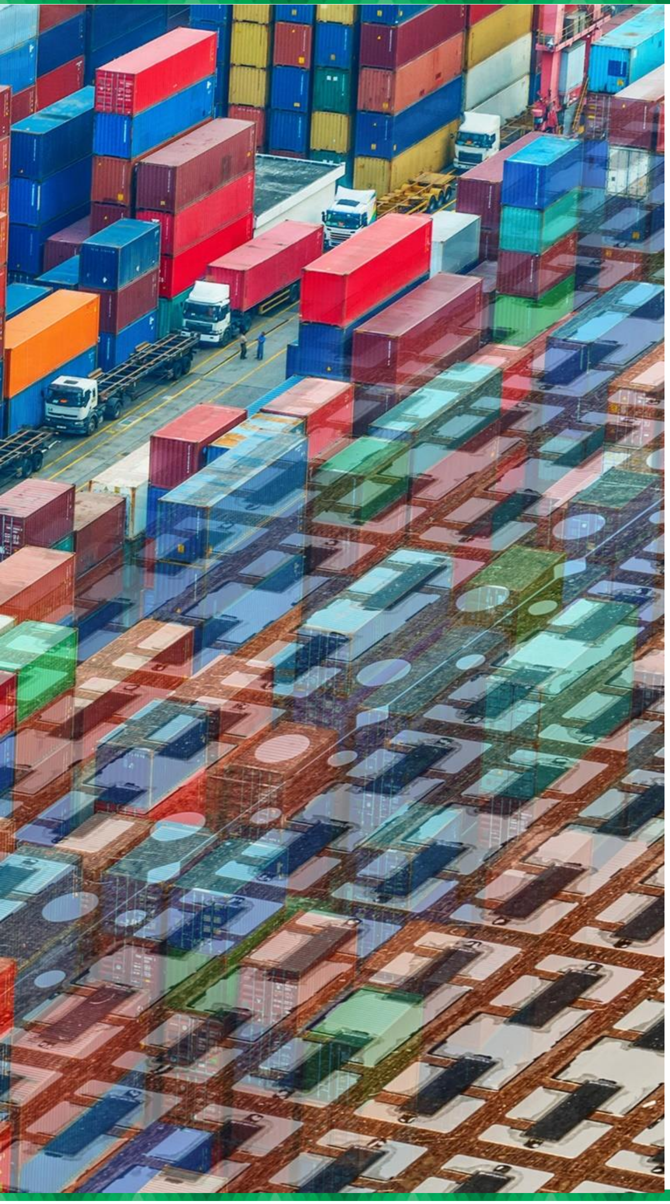
Guidance Q4-22 and FY 2022

€ in millions	Q3-22	Q4-22	FY 2021	FY 2022E*
Revenue	€ 168.8	-15% - -25%	€ 749.3	-4%
Gross Margin	62.3%	60% - 62%	59.6%	~61%
Operating Expenses	€ 34.0	~+5%	€ 129.2	+14%

* 2022E assumes midpoint of guidance for Q4-22

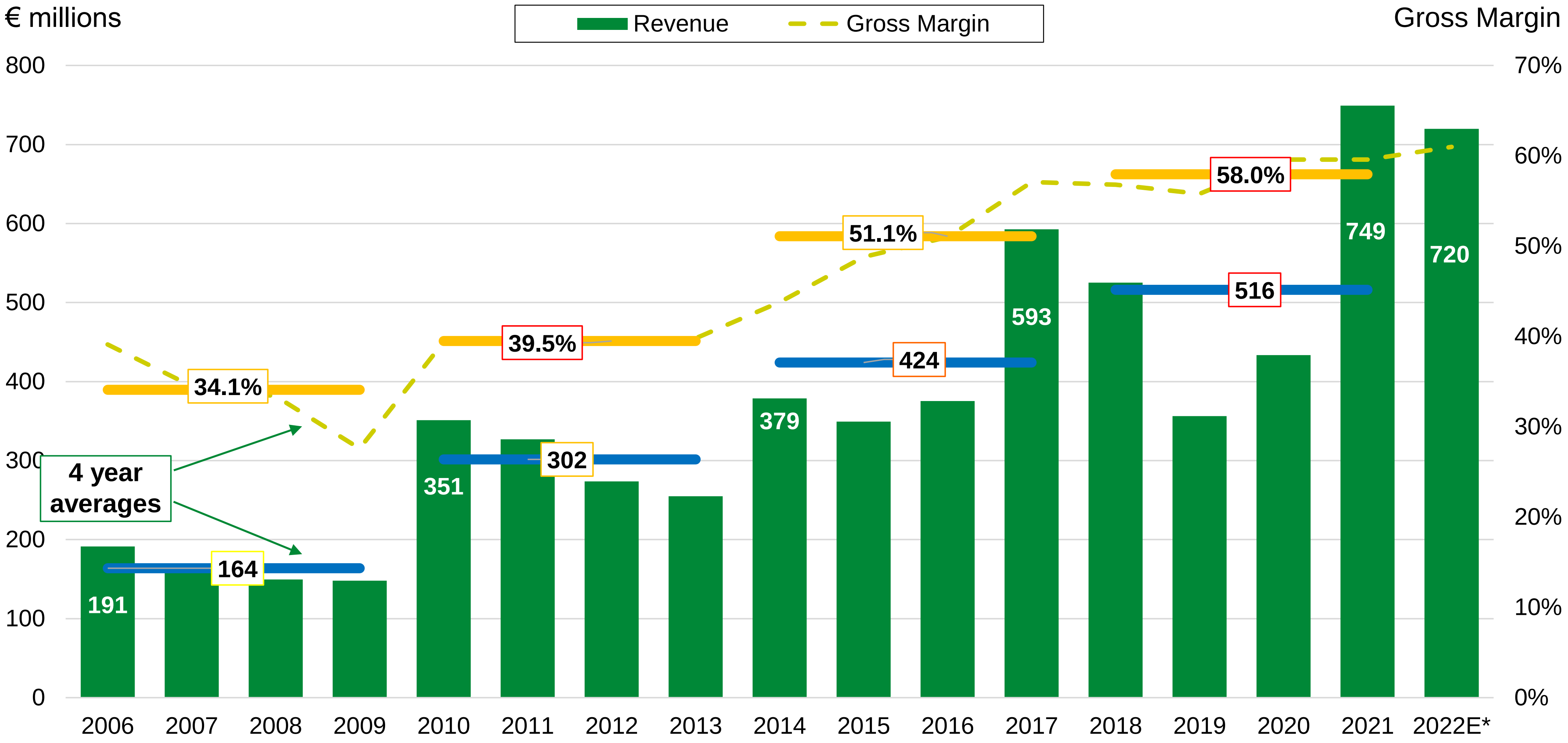
Financial Calendar

25-Oct-22	Roadshow London, organized by Deutsche Bank (virtual)
15-Nov-22	J.P. Morgan’s Global TMT Conference in Asia (virtual)
16/17-Nov-22	Morgan Stanley TMT Conference, Barcelona
23-Nov-22	Kempen London Conference
30-Nov-22	BofA Tech Hybrid Fieldtrip (virtual)
1-Dec-22	Roadshow Frankfurt, organized by ING
8-Dec-22	ING Benelux conference, New York
22-Feb-22	Besi’s 2022 fourth quarter and full year results
26-Apr-22	Besi’s 2023 first quarter results
26-Apr-22	Besi’s Annual General Meeting of Shareholders



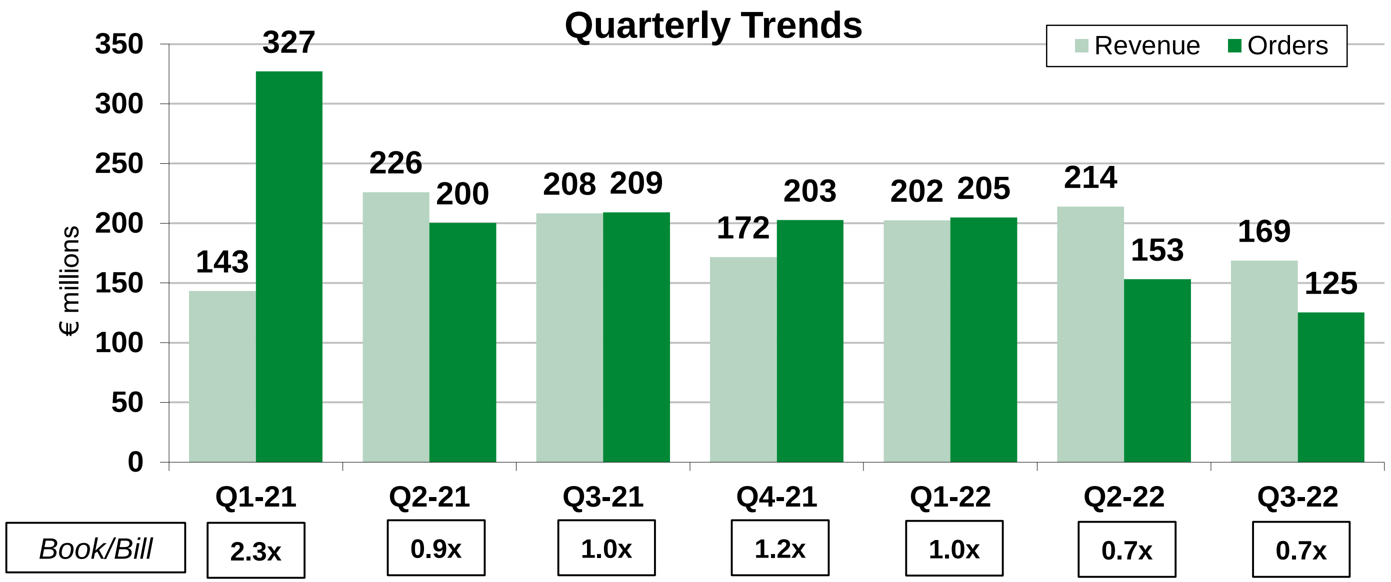
IV. FINANCIAL APPENDIX

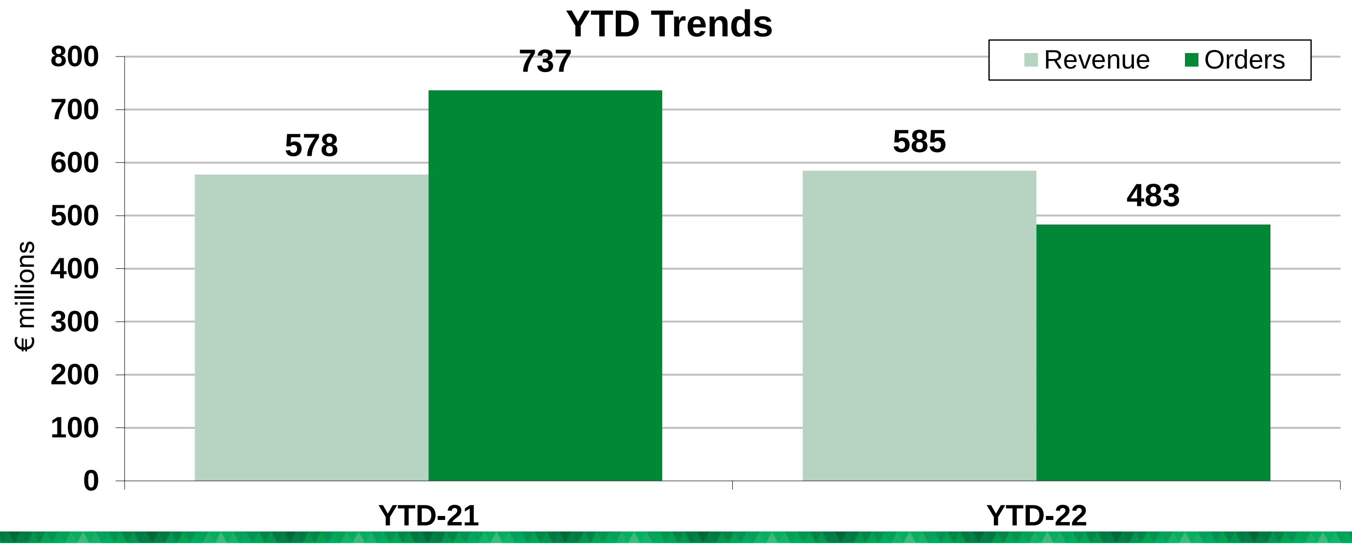
Through Cycle Revenue and Gross Margin Trends



* 2022 including midpoint of guidance for Q4-22.

Revenue/Order Trends





<u>Q3-22 vs. Q2-22</u>

- **Revenue: -€ 45.2 million (-21.1%)**
  - Favorable end of guidance
  - Lower high-end mobile and HPC
  - Offset by automotive, industrial and hybrid bonding
- **Orders: € 125.3 million (-18.2%)**
  - Lower HPC
  - Decreased demand from IDMs and Asian subcontractors

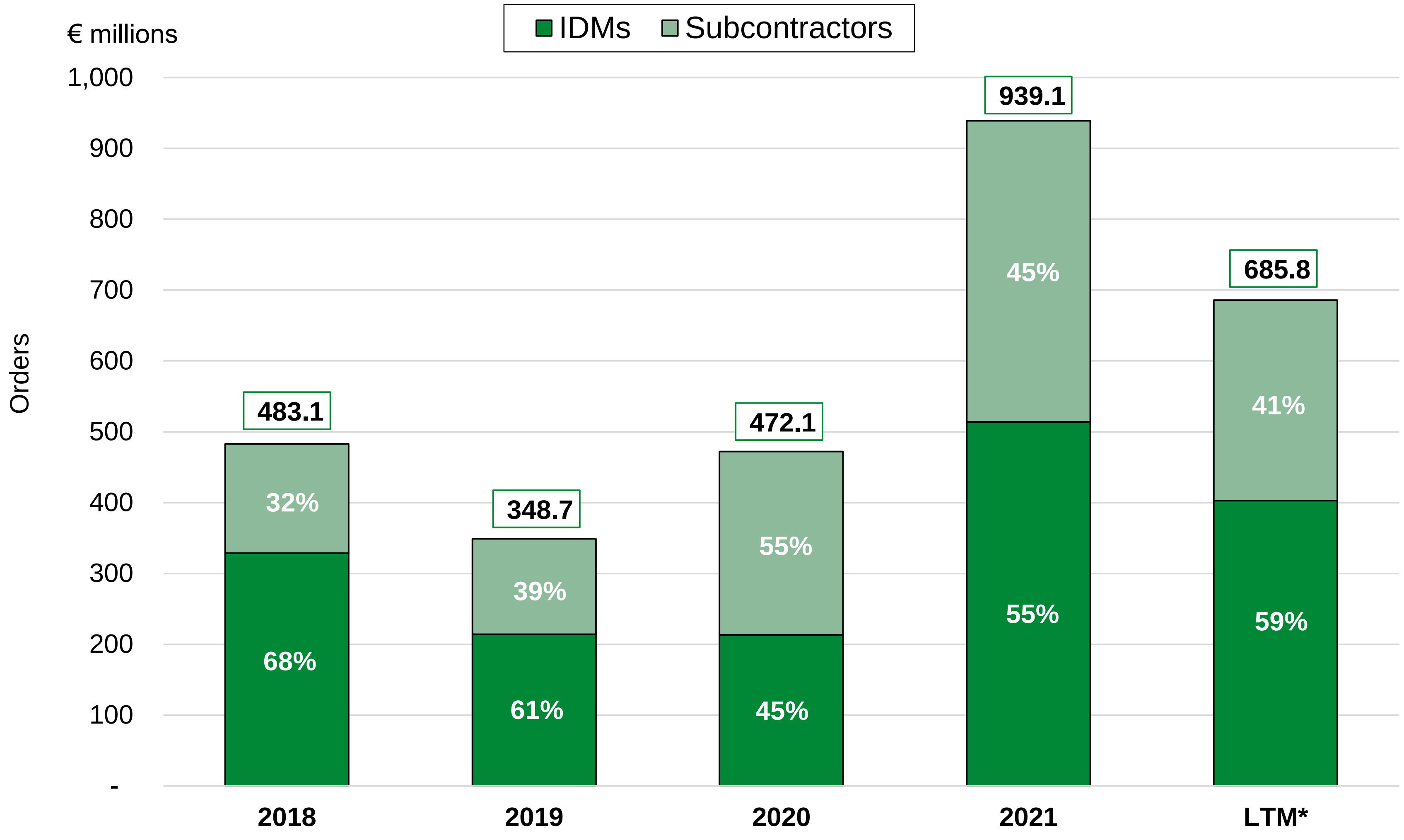
<u>Q3-22 vs. Q3-21</u>

- **Revenue: -€ 39.5 million (-19.0%)**
- **Orders: -€ 83.9 million (-40.1%)**

<u>YTD-22 vs. YTD-21</u>

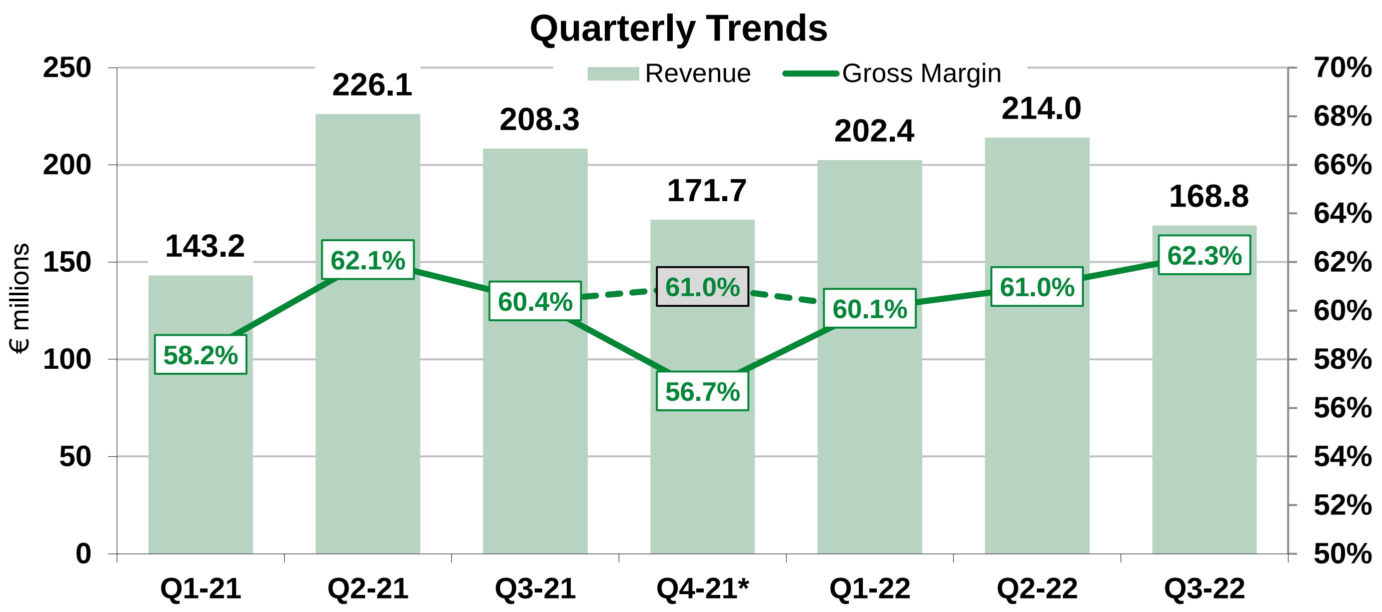
- **Revenue: +€ 7.5 million (+1.3%)**
  - Strong computing, hybrid bonding and automotive
  - Decreased high-end mobile
  - Decreased demand from Chinese subcontractors
- **Orders: -€ 253.2 million (-34.4%)**
  - Less favorable market conditions
  - Lower high-end smartphones and demand from Chinese subcontractors

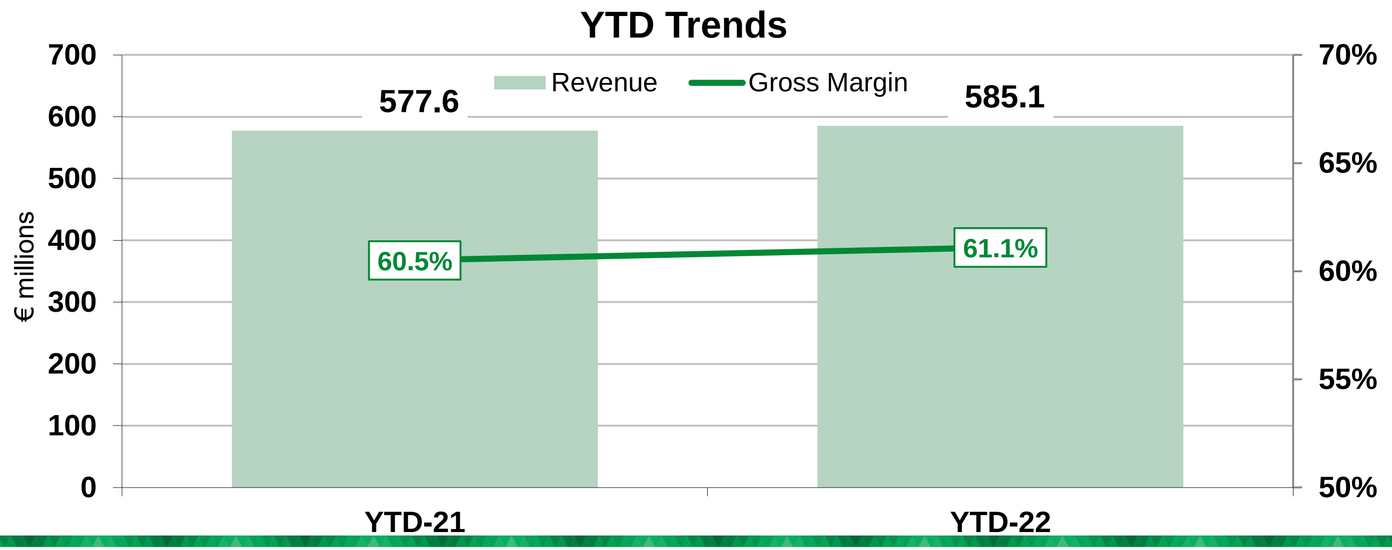
IDM/Subcontractor Order Trends



* Last twelve months ended September 30, 2022

Gross Margin Trends





Q3-22 vs. Q2-22

- **62.3% vs. 61.0% (+1.3 points)**
  - Above prior guidance
  - More favorable product mix
  - Net forex positive: Revenue +USD vs. EUR
    Costs +CNY/MYR/CHF vs. EUR

Q3-22 vs. Q3-21

- **62.3 vs. 60.4% (+1.9 points)**
  - More favorable product mix
  - Net forex positive: Revenue +USD vs. EUR
    Costs +CNY/MYR/CHF vs. EUR

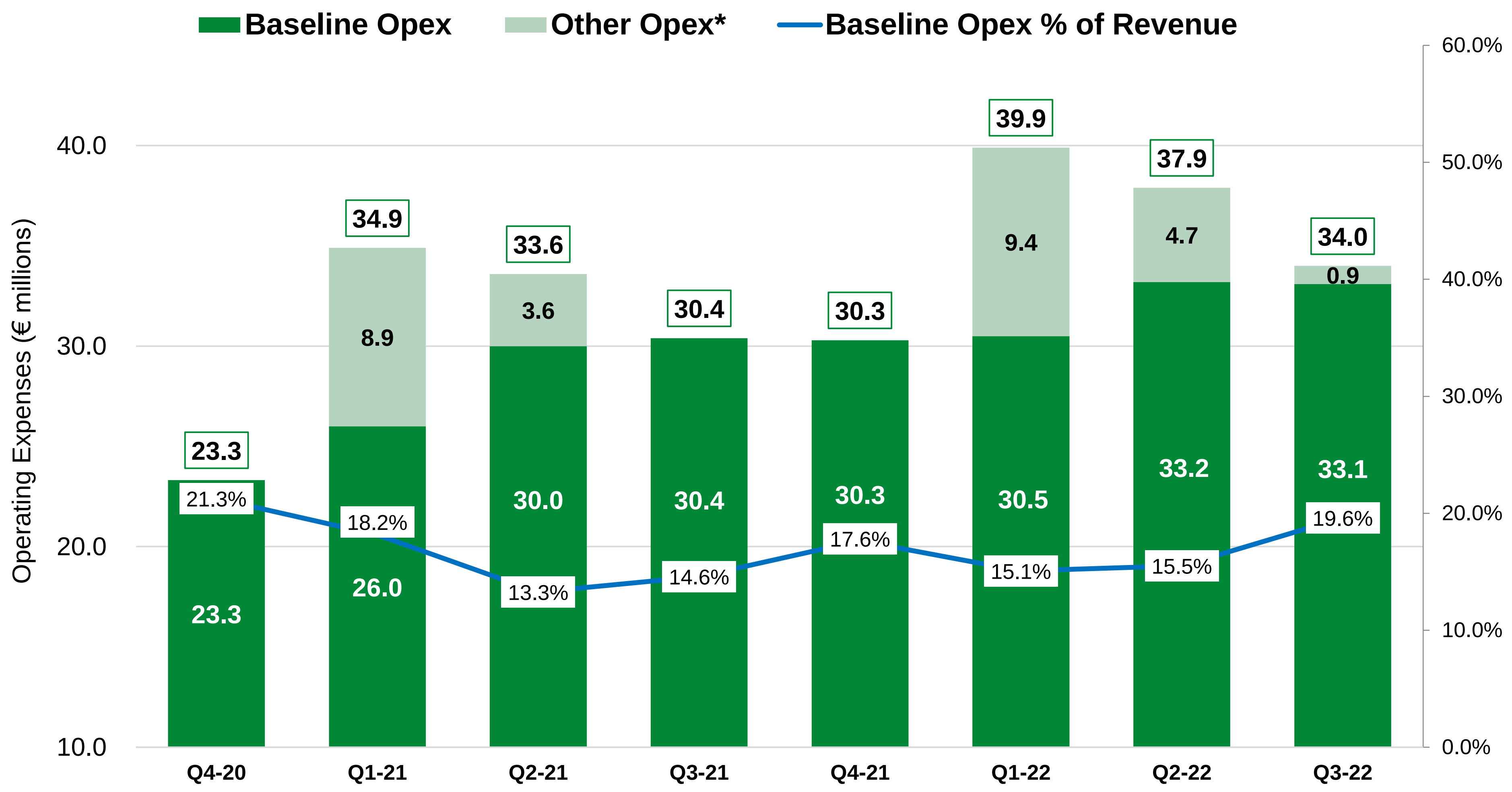
YTD-22 vs. YTD-21

- **61.1% vs. 60.5%**

* Includes € 7.4 million (4.3 point) inventory charge in Q4-21

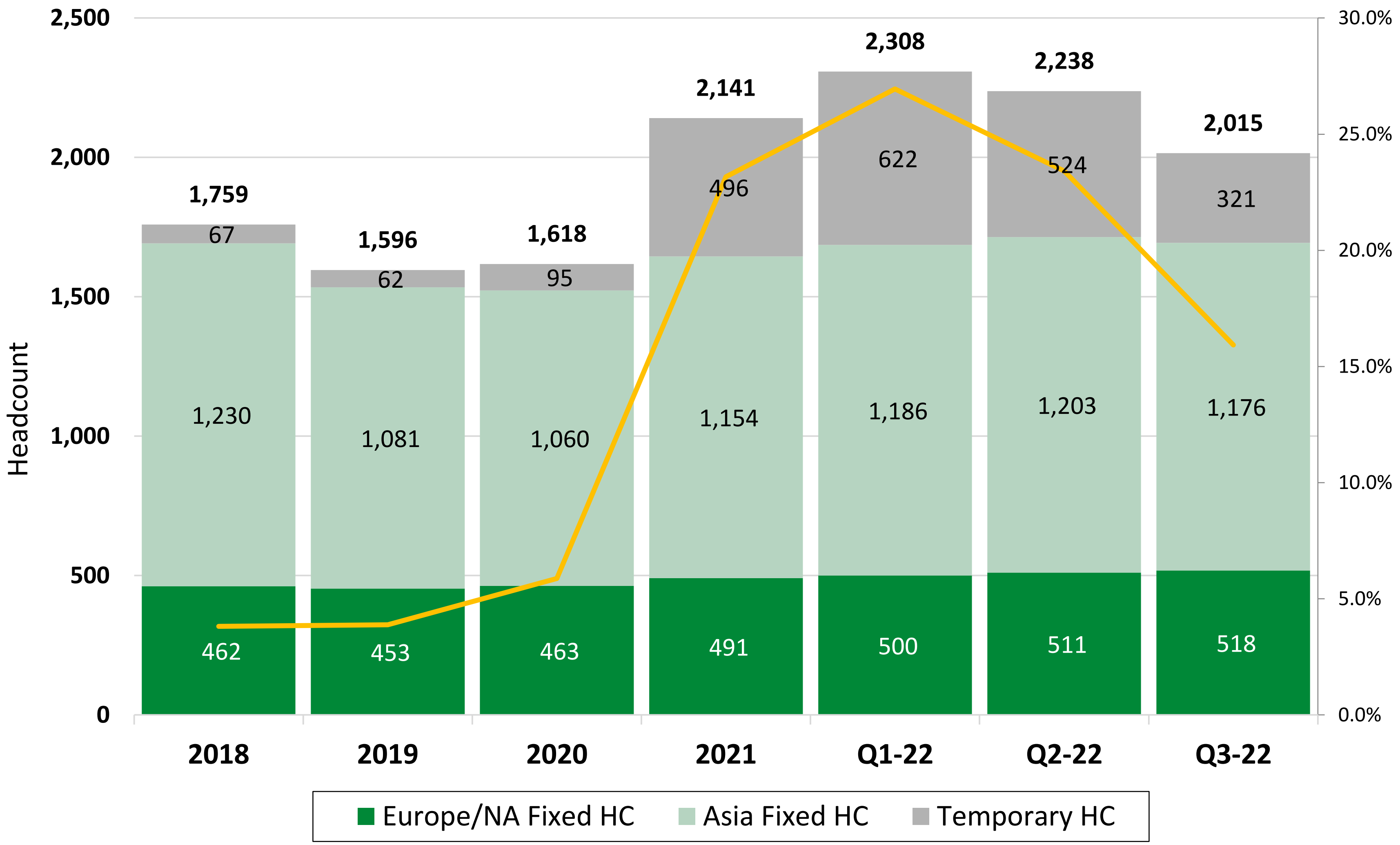
* Favorable impact
Unfavorable impact

Baseline Operating Expense Trends



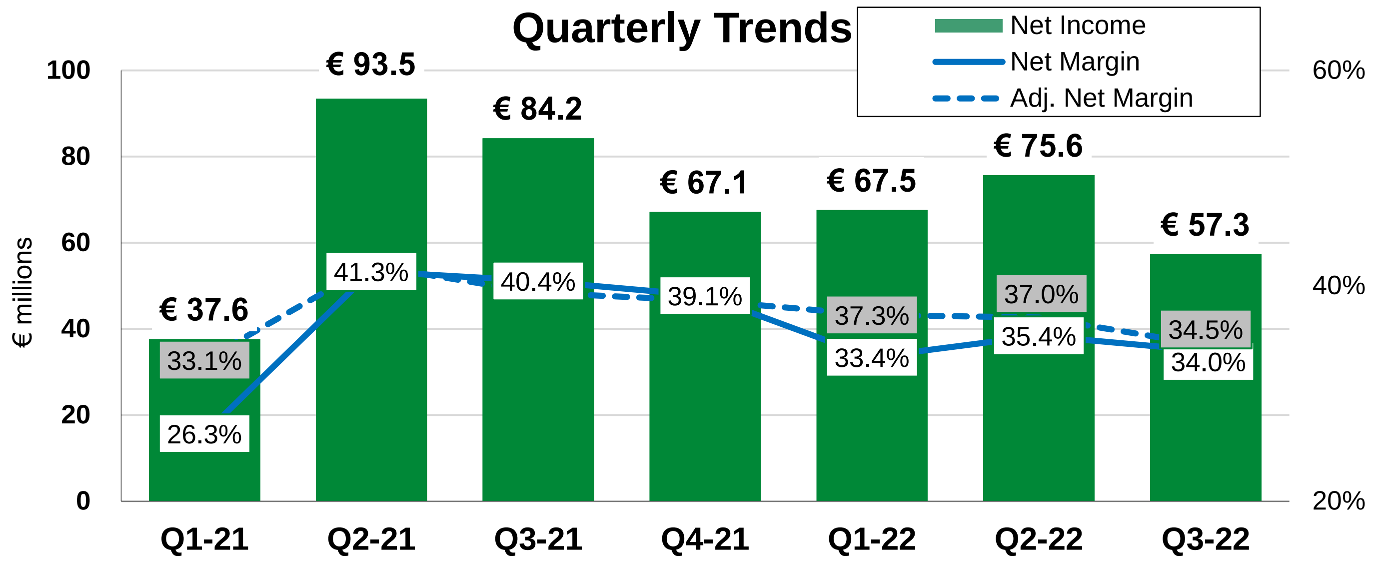
* Other Opex includes both short-term and long-term incentive compensation, seasonal effects, restructuring costs, net R&D capitalization/amortization and certain one-time items.

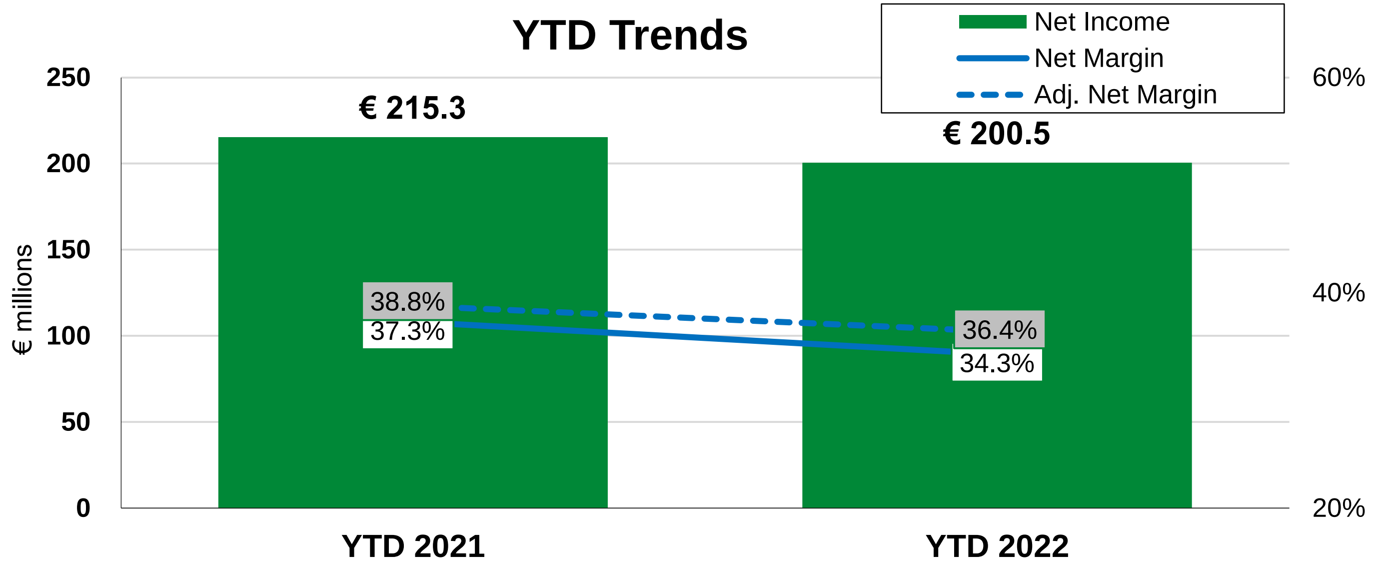
Headcount Trends



- Reducing temporary Asian production HC to align with market conditions
- Increasing European fixed headcount to support R&D and service/support for wafer level assembly expansion

Net Income Trends





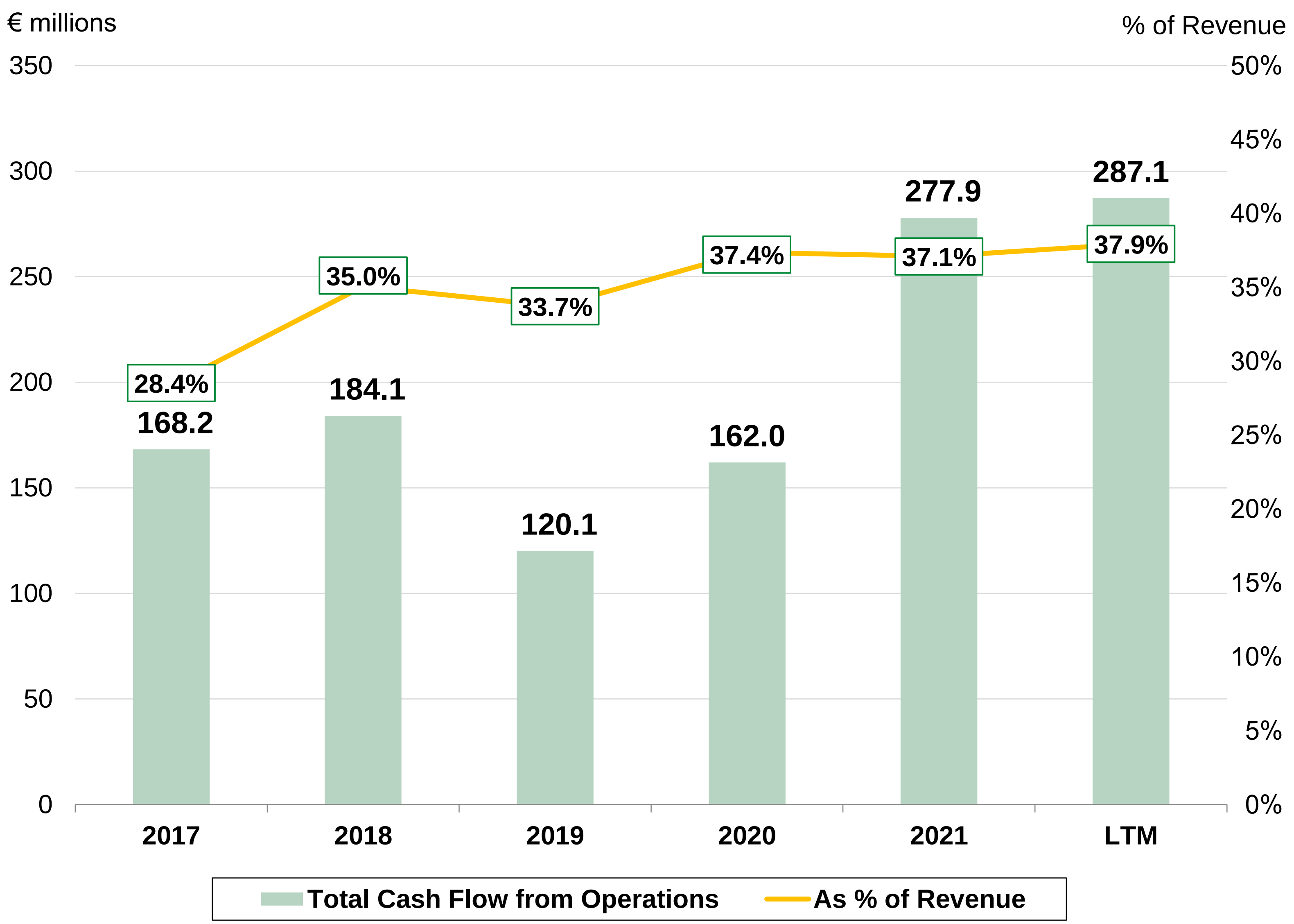
Q3-22 vs. Q2-22
- **€ 57.3 million (-€ 18.3 million)**
  - -21.1% revenue
  - +1.3 points gross margin
  - - € 2.7 million share-based compensation
  - Lower sales related expenses
- Adjusted net margin 34.5% vs. 37.0%

Q3-22 vs. Q3-21
- **-€ 26.9 million**
  - -19.0% lower revenue
  - +1.9 points gross margin
  - Increased R&D spending
  - Higher effective tax rate

YTD-22 vs. YTD-21
- **€ 200.5 million (-€14.8 million)**
  - +1.3% revenue increase
  - +0.6 points gross margin
  - Increased R&D spending for wafer lever assembly
  - Increased hedging costs and effective tax rate
  - Adjusted net margin 36.4% vs. 38.8%

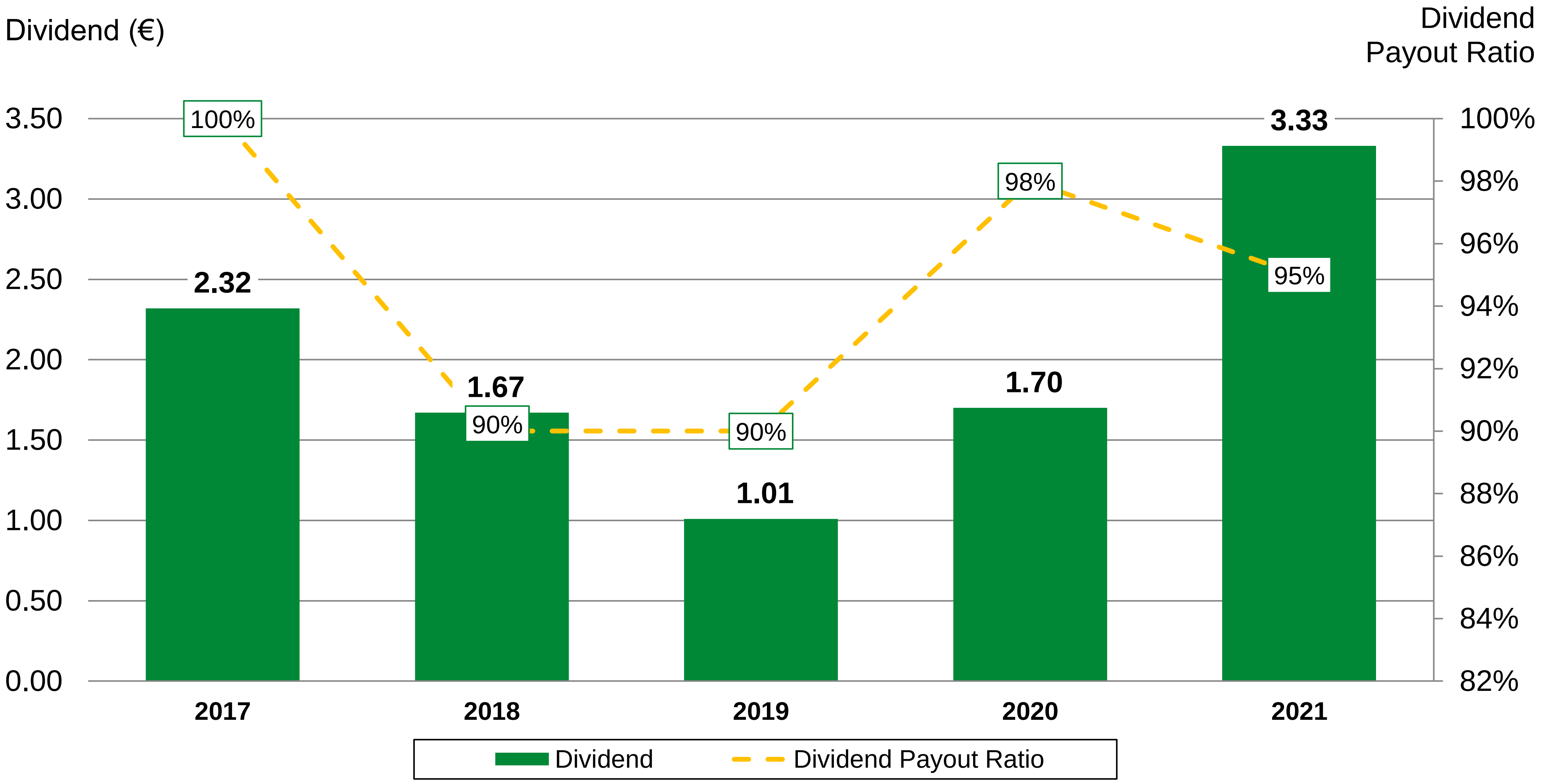
* Adjusted Net Margin excludes one-time flood related inventory impairment charge in Q4-21, tax benefits realized and share-based compensation expense in each of the respective periods.

Cash Flow Efficiency Trends

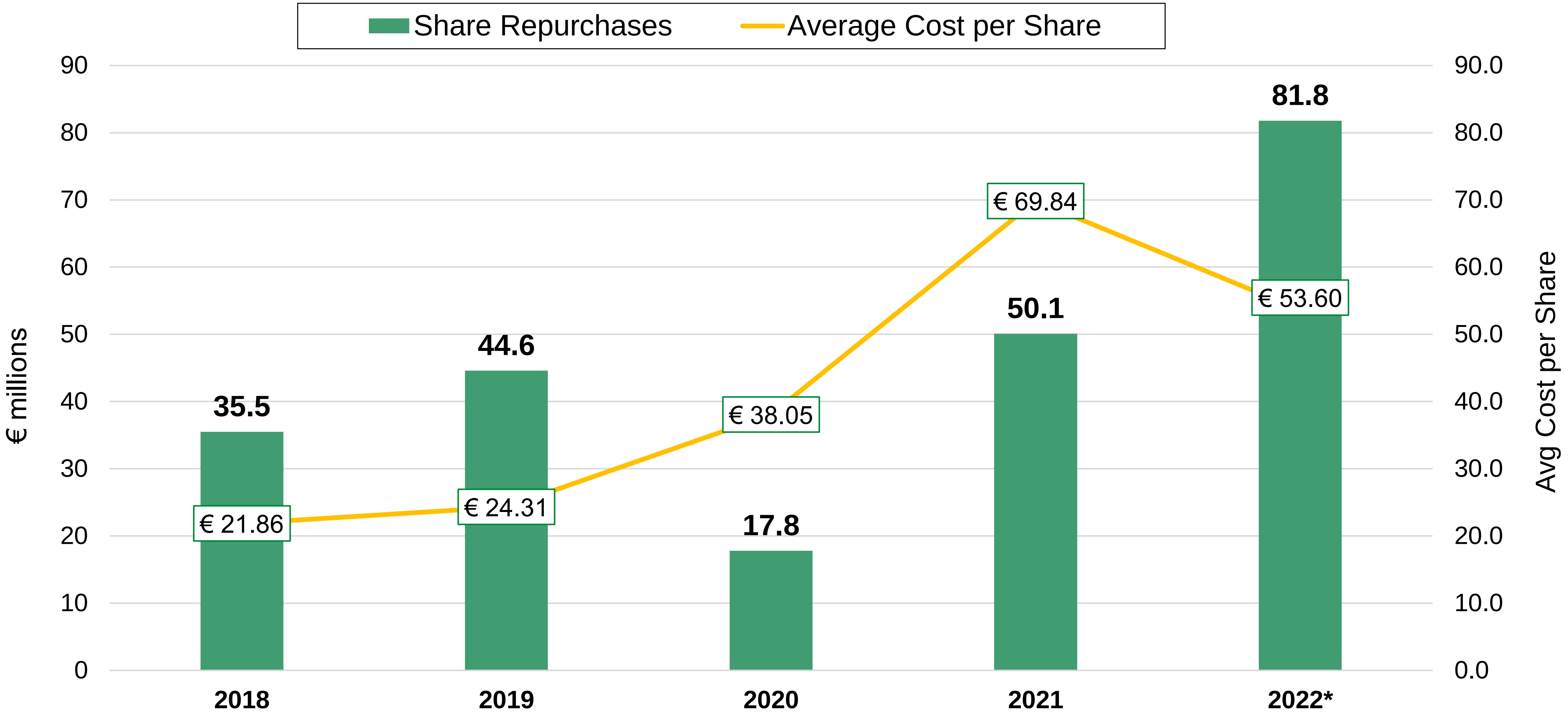


Dividend Trends

Cumulative dividends of € 975.1 million since 2011, or € 12.78 per share



Share Repurchase Activity



- Approximately 1.5 million treasury shares at September 30, 2022, representing 1.8% of shares outstanding
- 79.7 million shares outstanding at September 30, 2022, net of treasury

* Share repurchases included up to September 30, 2022.

Investment Considerations

Besi

- Assembly market ever more critical in semiconductor value chain
- Disciplined strategic focus has created an industry leader
- Long term secular trends drive advanced packaging growth
- Wafer level assembly new growth opportunity
- Market presence has grown via key IDMs, supply chains and partners
- Tech leadership and scalability result in superior financial returns
- Commitment to sustainable growth and fighting climate change
- Attractive capital allocation policy